

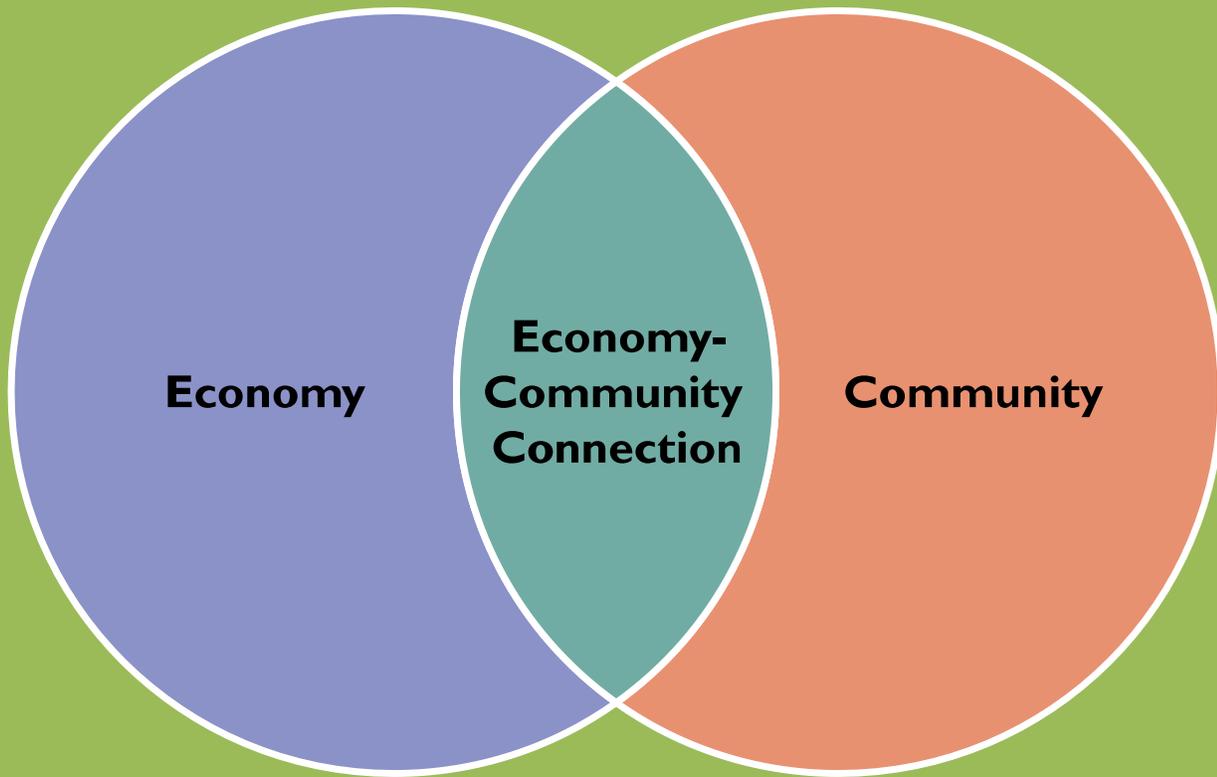


## **Solano County 2015**

# **Index of Economic and Community Progress**

**County of Solano and Solano Economic Development Corporation**

March 2016



## **Solano County 2015**

### **Index of Economic and Community Progress**

The *Solano County Index of Economic and Community Progress* is a project that was launched in 2007 after a series of economic summits identified a need for more fact-based information to guide efforts by public and private sector leaders to expand Solano County's economy and support its long-term viability.

Three comprehensive editions were produced for 2008, 2009 and 2010 by the consultant Collaborative Economics for the County of Solano and the Solano Economic Development Corporation. These insightful documents provided an objective analysis of key indicators shaping the local economy.

In 2011, the Index became a project for County staff, in cooperation with the Solano EDC, to maintain and update throughout the year. The Index was expanded to include comparisons in many instances to the Sacramento Area, Bay Area, California and the United States. The 2012 to 2015 editions include the objective analysis of Dr. Robert Eyler from Economic Forensics and Analytics ([www.econforensics.com](http://www.econforensics.com)).

All of the annual index reports, as well as several in-depth analyses of local industry clusters, can be found at [www.solanocounty.com/economicindex](http://www.solanocounty.com/economicindex).

**It is our pleasure to present the eighth annual Solano County Index of Economic and Community Progress (Index). This annual report provides an in-depth look at the various indicators initially established in 2007 and captures trends shaping our local economy. The 2015 Index highlights Solano County's continued economic recovery since 2011 and an expanding economic base!**

Local industry employment, the “gross county product”, the housing market, and government revenues made positive gains compared to 2014. The 2015 index shows that personal income and gross domestic product (GDP) per capita continued an upward trend while median household income decreased slightly. Taken as a whole, indications point to a year of increased standards of living.

Our primary goal has been to gather data that provides a long-term perspective and gives considerations on economic development. This approach provides a context in which to view today's circumstances and thoughtfully plan strategic actions to continue to build our local economy. The 2015 Index continues this tradition, and the analysis is primarily focused on answering the question:

### **How are jobs growing?**

Strong, robust economies are driven by well-paying jobs, a well-educated and flexible workforce with desirable communities consisting of attractive housing choices and excellent educational options all of which are key takeaways of this year's Index. The 2015 Index explores business and housing affordability measures to help define our quality of life and competitiveness to attract and retain businesses.

This insightful document brings to the forefront areas where collaborative efforts are needed to sustain a thriving economy and ensure our shared economic prosperity. The data also reflects changes happening all around us. Some of these changes will have the ability to influence and grow our prosperity further; there are others changes we cannot as easily control. The empirical data helps us identify opportunities to make a difference. Our collaborative history affirms that we can make things happen once we know what needs to be done.

Thankfully our economy is once again growing! We challenge you to review this document with an eye to identifying multiple ways in which you can commit to building upon our strengths and to address our challenges so that we can reach our positive vision of the future.

Sincerely,



Erin Hannigan  
Chairwoman  
Solano County Board of Supervisors



Sandy Person  
President  
Solano Economic Development Corporation

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## Solano County Key Facts



### Area

Rural land area	675 square miles
Urban land area	150 square miles
Water area	84 square miles

<b>2015 Population (July 1, 2015)</b>	429,552
Benicia	27,689
Dixon	19,158
Fairfield	111,891
Rio Vista	8,193
Suisun City	28,888
Vacaville	94,702
Vallejo	119,683
Unincorporated	19,348

<b>2015 Population Change</b>	+4,383
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<b>Solano County 2045 Population</b>	567,615
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### Top 5 Employment Sectors (As of Dec 2015)

All Government (incl. US Military)	24,800
Education & Health Services	24,400
Retail Trade	19,600
Leisure & Hospitality	16,300
Professional & Business Services	9,200

<b>Total Industry Jobs (Dec 2015)</b>	137,300
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<b>Jobs-Housing Ratio (2015)</b>	0.83
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### Educational Attainment (2010-14 avg.)

Less than high school	12.4%
High school graduate	24.1%
Some college, no degree	29.5%
Associates degree	9.7%
Bachelor's degree	17.0%
Graduate or Professional degree	7.3%

### Age Distribution (2010-14 avg.)

Under 5 years old	6.2%
5 to 19	20.0%
20 to 44	33.6%
45 to 64	27.8%
65 and older	12.4%

### Ethnic Composition (2010-14 avg.)

White, non-Hispanic	40.1%
Hispanic	24.9%
Asian, non-Hispanic	14.6%
Black, non-Hispanic	13.7%
Other (incl. mixed race/Pac Islander)	6.7%

<b>Building Permits Annual Growth, Housing (2014-15)</b>	142%
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### Sources:

1. Population data come from the California Department of Finance ([www.dof.ca.gov](http://www.dof.ca.gov)), as of Dec 2014 availability.
2. Employment data come from the California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov)), Dec 2014.
3. Demographic data from the Census' Bureau's American Community Survey (factfinder.census.gov), Jan 2015.

## Key Highlights from the 2015 Index

### *Our Changing Economy*

- Solano County expanded with 4,300 new jobs in 2015, growth of 3.0 percent.
- There are 137,300 people working at Solano County businesses, governmental jobs and nonprofits as of January 1, 2016.
- Solano County's seasonally-adjusted unemployment rate is at 5.6 percent as 2016 begins.
- Gross County Product grew by 2.0 percent in 2014 based on most recent available data, slowing a bit from 2012 and 2013.
- Personal income per person was rising in the 2014 based on most recent available data while other standard of living measures were flat in 2014, suggesting the cost of living is starting to catch up to recent income growth.
- Base employment increased in 2015, led by non-durable manufacturing and wholesale jobs.
- Wages in Solano County remain competitive versus counties in the core Bay Area where wages are rising quickly due to minimum wage ordinances and market forces.
- The jobs-housing ratio in Solano County was 0.83 in 2015, a sign that Solano County provides housing for workers that commute out of Solano County.
- Continued growth of private-sector jobs in 2015 continues Solano County's economic expansion.

### *Our Changing Community*

- Population growth in Solano County was 4,383 people in 2015, growth of 1.0 percent, due to a combination of births and domestic migration to Solano County net of deaths and former residents leaving Solano County.
- While the median age in Solano County continues to rise, counties such as Marin, Napa and Sonoma are aging more quickly, though Solano County is aging faster than California on average.
- Solano and Sacramento counties are forecasted to be fast-growing counties from 2015 to 2045.
- Solano County had its graduation rate rise and dropout rates fall at levels that outpace the state of California on average in 2013-14, the first time in this Index's history such a result took place.
- More county students were UC and CSU ready in latest data available than any school year in this Index's history.
- Housing prices increased at a pace of 8.5 percent in 2015, but housing affordability continues to slowly fall, a sign of economic and population expansion.
- Building Permits activity was 122 percent larger in 2015 than permits in 2014.
- Government revenue from property and sales taxes continues to rise in 2015.

### **Considerations for the Future**

Solano County continues to generate jobs, new residents and rising incomes. There are fewer people out of work, and wages continue to grow albeit more slowly than other parts of the Bay Area. Solano County's economy remains a place where the combination of competitive home prices, an educated population and regional connections create economic development opportunities. Workforce and economic development should focus on jobs and businesses that seek markets outside Solano County as a way to diversify and balance against the natural tendencies of an expanding economy to attract and retain businesses that serve residents. Assuming Solano County follows the state economy's lead, the years 2016 to 2020 are forecasted for Solano County's economy continuing to expand at a slow pace.

## Index Overview

### **Solano County had its strongest jobs growth in 2015 since the start of the Great Recession (2007 - 10).**

This index looks at many aspects of the Solano County economy and communities. Non-farm employment, workers other than in agricultural jobs, grew at 3.0 percent. There are 137,300 people employed at businesses in Solano County, and 195,800 residents of Solano County working as of December 2015.

The 2015 version of this Index compares data from 2015 to three major years in the recent past: 2007 (start of Great Recession); 2010 (bottom of Great Recession); and 2014 (prior year). The 2015 data is not available in some cases; data are updated from the 2014 Index where possible. When 2015 data do not exist, 2014 or 2013 data are the latest information available. Connecting 2010 to 2014 and 2015 shows Solano County's continued growth and expansion.

The national and California state economies continue to reduce unemployment, generate jobs and income growth, and experience shifts toward more private-sector rather than public-sector employment. Forecasts for the state economy are provided by the California Department of Finance ([www.dof.ca.gov](http://www.dof.ca.gov)) through 2019. The forecast is for one percent growth of jobs annually and for California's unemployment rate to reach a steady level of approximately 5.5 percent through 2019. Because Solano County's economy follows the state economy closely overall, the current state forecast is a good indicator of how Solano County is likely to evolve.

In December 2015, the Federal Reserve increased interest rates between banks from an emergency level of zero to a very low level of 0.25 percent. The American economy has recovered in part because of low interest rates, allowing for inexpensive debt refinancing for homeowners and governments, as well as low-cost business loans. Slow and steady job creation has driven housing price growth since 2012. Commodity prices, which drive prices in grocery stores through various supply chains, have seen volatility with a downward trend in 2015. Oil and gas prices have a confounding set of effects on California's county economies. While commuting workers get something close to a tax break, counties face more damage to roads (as people drive more often) at the same time that gas-tax, related revenue meant to fund road repairs is falling with gas prices.

These types of changes help offset inflation pressure from job growth and signal that any interest rate increases will be slow and steady through 2016. Questions about the global economy, including concerns with the Chinese economy and uncertainty in worldwide equity markets regarding global growth, may confound some business and consumer decisions that support regional and local jobs and incomes.

Housing markets continue to show signs of vitality for Solano County, as housing throughout California continues to climb up in value. 2015 was yet another year of median home price growth, though slowing down from 2013 and 2014. Building permits increased in 2015 by 122 percent, driven by permits issued in March and April 2015. As interest rates increased slightly in late 2015 and are expected to rise in 2016 due to Federal Reserve actions, fundamental support for housing demand is likely to be tested.

This year's Index includes some discussion of commuting. The connection between housing, labor and traffic "markets" has a nexus in commuting. Over 50 percent of people working at Solano County employers come from homes outside of Solano County. Over 65 percent of residents that live in Solano County and are employed, work somewhere outside of Solano County and bring their incomes back home to spend locally. Such commute patterns lead to workforce development challenges, but also a great set of opportunities.

Solano County has a rich agricultural history. A focus on agriculture is added to this year's Index for two reasons: continuing drought concerns and industry cluster strategies. The declaration of food systems as an industry cluster for Solano County connects primary agriculture (farming and ranching) to food manufacturing and distribution. While local agriculture is not necessary for a vibrant food chain industry, it does help reduce transactions and transportation costs, supplies local grocers with local products, and supports a tradition of family farming and land use for agriculture in Solano County. Major crops include walnuts, alfalfa and hay, cattle, and nursery products. Wine grapes are becoming increasingly important, as are connected businesses in wine production, storage and distribution. Tomato processing was 2015's largest agricultural value "product", though it combines both local and regional produce with a manufacturing process located in Solano County. Drought conditions may have reduced overall output by 2.5 percent (based on a recent study by UC Davis on California's economic impacts from drought as a state economy), but revenues have grown annually since 2010. Connections to commercial real estate, logistics and food systems lead to another addition to this year's Index.

Commercial real estate, its occupancy and mix, is a critical element for any community in terms of economic development. Moving Solano Forward Phase I concluded with many recommendations about commercial real estate sites that support Solano County's business attraction and expansion strategies. Some businesses require specific types of spaces; other spaces can flex and serve multiple industries. Commercial real estate vacancy and pricing were adversely impacted by the Great Recession. The vacancy rates for class A and B office space in Solano County were as high as 29 and 27 percent respectively during the Great Recession (2010). As of the third quarter of 2015, those figures were 16 and 14 percent respectively. Industrial space, including manufacturing space and warehousing, was at 6 percent vacancy in 2015 Q3. Prices were rising for Class B and falling for Class A in 2015, a sign that demand is shifting toward Class B spaces. These data are regionally determined and indicative of Solano County's attractiveness to both current and new businesses to either come here or grow.

## **Almost All Industry Sectors Experienced Job Growth in 2015**

Job creation increased quickly in 2015. All major sectors of Solano County's economy experienced job growth. Solano County employers hired 4,300 more workers bringing the total employment level of 137,300. This level of employment is the highest year-end since the year 2000. Farm employment grew by 200 jobs to a total of 1,975 jobs.

Solano County's goods-producing industries grew as a percentage of overall jobs in 2015 versus services. This is a sign of continued diversification for Solano County businesses with more emphasis on export-focused industries (businesses that have customers outside of Solano County primarily); the percentage of government jobs fell versus state and national averages. Hiring in health care, retail, bars, restaurants,

and the hotel sector grew. Solano County’s growth of jobs that are goods-producing was 7.6 percent in 2015; and services jobs grew 2.8 percent in the private sector. Since December 2010, Solano County employers have hired 15,400 workers, reflecting an increase of 12.7 percent. The State of California experienced jobs growth of 14.2 percent since December 2010.

### Gains and (Losses) of Jobs from Dec 2007, 2010 and 2014 compared to Dec 2015 Solano County Employment

<i>Industry</i>	<i>2007</i>	<i>% Chg</i>	<i>2010</i>	<i>% Chg</i>	<i>2014</i>	<i>% Chg</i>
Manufacturing	875	8.30%	1,775	18.30%	675	6.30%
Construction	-1,692	-15.80%	1,808	25.10%	608	7.20%
Retail Trade	-325	-1.80%	1,575	9.60%	475	2.70%
Bars and Restaurants	1,033	10.10%	1,133	11.20%	333	3.10%
Health Care	3,200	23.70%	1,900	12.80%	300	1.80%
Local Government Education	-1,517	-13.90%	683	7.90%	183	2.00%
Federal Government (incl. Travis AFB)	-208	-5.20%	-808	-17.60%	92	2.50%
Other Services	75	1.90%	475	13.20%	75	1.90%
Agriculture	375	23.40%	575	41.10%	75	3.90%
Wholesale Trade	367	8.90%	267	6.30%	67	1.50%
Food & Beverage Stores	250	7.80%	550	19.00%	50	1.50%
Financial Activities	-692	-12.40%	-292	-5.60%	8	0.20%
Information (Software and Publishing)	-500	-31.30%	-200	-15.40%	0	0.00%
State Government Excl. Education	275	6.30%	-25	-0.50%	-25	-0.50%
All Other Industries	1,100	3.5%	3,900	12.5%	1,400	4.5%
<b>Total, All Industries</b>	<b>2,600</b>	<b>2.0%</b>	<b>13,300</b>	<b>11.0%</b>	<b>4,300</b>	<b>3.3%</b>

Source: EDD (<http://www.labormarketinfo.edd.ca.gov/>), Labor Market Information, Dec 2014 to Dec 2015

Financial Activities employment, industries that include employers ranging from banks to insurance to real estate, was flat in 2015 for job growth. Solano County manufacturing continued to grow in 2015 with 6.3 percent growth of jobs. Optimistic state and national forecasts for jobs growth suggest that Solano County jobs are likely to continue positive growth through 2017 and perhaps to 2020.

### Employment and the Labor Force: Solano County growth continues

Population growth and residential employment are tied through the labor force. Growth of “non-employer” businesses in Solano County, or businesses that are usually self-owned and operated or provide contract services (1099 contract workers), are important to watch.

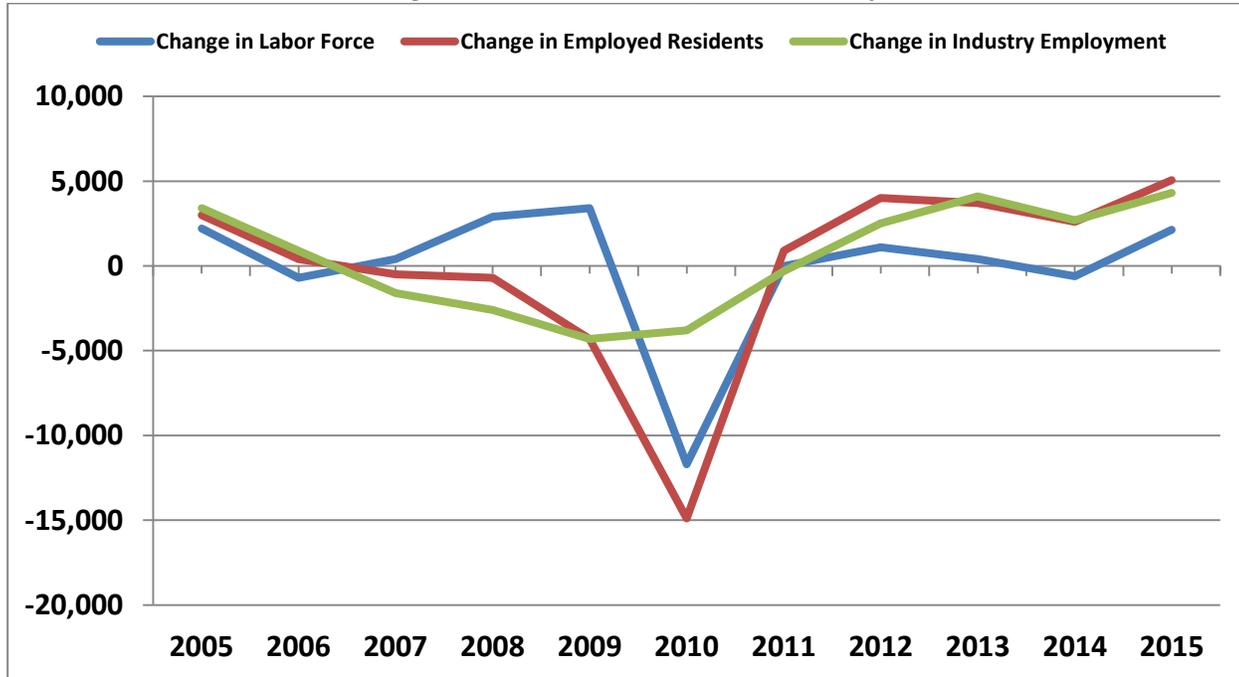
### Comparison of Labor Force Components, 2005 to 2015, Solano County Number of Workers and Percentage Change in Each Component, Annual Averages

	<i>Labor Force Components</i>					<i>Percentage Change versus 2015</i>			
	<i>2005</i>	<i>2007</i>	<i>2010</i>	<i>2014</i>	<i>2015</i>	<i>2005</i>	<i>2007</i>	<i>2010</i>	<i>2014</i>
Labor Force	208,500	208,200	202,800	203,700	205,800	-1.3%	-1.2%	1.5%	1.0%
Employed Residents	197,300	197,700	177,300	188,500	193,600	-1.9%	-2.1%	9.2%	2.7%
Unemployment Residents	11,100	11,000	25,400	15,200	12,250	10.4%	11.4%	-51.8%	-19.4%
Industry Employment	132,300	131,600	120,900	129,900	134,200	1.4%	2.0%	11.0%	3.3%

Source: EDD (<http://www.labormarketinfo.edd.ca.gov/>), Labor Market Information, a new benchmark of 2014 was set with some revisions

In 2015, the California Employment Development Department (EDD )reports that there were 10,013 Solano County payroll businesses, employing over 107,000 people in the private sector; the most recent data on non-employer businesses estimate 35,110 workers in such businesses in 2014.

**Annual Changes in Labor Force Data, Solano County, 2005-2015**



Source: EDD (<http://www.labormarketinfo.edd.ca.gov/>), Labor Market Information

## Solano County and its Cities continue growth since 2010 in terms of Gross Product

The Bureau of Economic Analysis (BEA) publishes “gross county product” (GCP) data for Solano County annually (2014 is currently the latest year available). This is the sum value of all final goods and services produced within Solano County’s borders in one year when there are annual data stated. Economists use inflation-adjusted data to measure purchasing power from such income. Government (the public sector) was approximately 22.5 percent of the 2015 county economy in 2009 dollars. In 2007, private sector services accounted for 48.0 percent of Solano County’s economy; this proportion increased to 50.4 percent in 2014. Goods-producing businesses make up the remainder of Solano County’s economy.

**Sector Shares of Gross Product in each of the Selected Areas  
2005 to 2015 comparisons, Percent of Total Level of Gross Product, 2009 Dollars**

Year	Goods-Producing			Services-Producing			Public Sector		
	CA	Solano	US	CA	Solano	US	CA	Solano	US
2007	18.0%	<b>29.2%</b>	20.2%	68.8%	<b>48.0%</b>	66.7%	13.2%	<b>22.9%</b>	13.0%
2010	16.8%	<b>27.4%</b>	19.1%	69.8%	<b>49.6%</b>	67.3%	13.5%	<b>23.1%</b>	13.6%
2013	16.3%	<b>25.4%</b>	19.3%	70.9%	<b>51.1%</b>	67.8%	12.9%	<b>23.7%</b>	12.9%
2014	16.2%	<b>27.1%</b>	19.6%	71.3%	<b>50.4%</b>	67.8%	12.5%	<b>22.5%</b>	12.6%

Source: Bureau of Economic Analysis (<http://www.bea.gov/regional/index.htm>)

## Standards of Living: Three Measures

Standard of living is typically measured as real (inflation-adjusted) income per capita (per person), and higher values are considered better. Personal income per person is another way to look at household income before personal taxes are paid. Median household income based on a household of four people.

**Standard of Living Measures, Selected Areas  
2010, 2013 and 2014 Compared to 2015 (the latest data available), 2009 Dollars**

Place	Gross Product/Capita			Personal Income/Person			Median Household Income		
	2010	2013	2014	2010	2013	2014	2010	2013	2014
California	\$51,821	\$53,505	\$54,196	\$42,411	\$48,125	\$49,985	\$56,766	\$55,992	\$56,117
<b>Solano County</b>	<b>\$35,520</b>	<b>\$36,732</b>	<b>\$36,942</b>	<b>\$36,437</b>	<b>\$40,168</b>	<b>\$42,073</b>	<b>\$61,968</b>	<b>\$61,567</b>	<b>\$61,457</b>
United States	\$47,287	\$48,397	\$49,110	\$40,277	\$44,438	\$46,049	\$49,032	\$48,348	\$48,325

Sources: Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)) and Census Bureau ([factfinder2.census.gov](http://factfinder2.census.gov))

While median household income dipped a bit in 2013 and 2014, which is a five-year average and encompasses the impact of the Great Recession, the county economy surpassed the Great Recession’s lowest point in gross product per capita; and personal income per capita continues to rise since 2010. Personal income per person has growth from both financial and labor markets. We expect the 2015 data to indicate a year of increased standards of living due to subdued inflation and slow but positive income growth.

## Community Indicators: Continued Gains and Reduced Challenges

Solano County’s communities continue to improve per this Index’s community measures. Solano County’s communities gain support from both the public *and* private sectors in terms of assistance programs and jobs. Tradeoffs exist; housing prices and affordability are moving in upward directions that may exclude some Solano County residents from purchasing a home and putting upward pressure on the local cost of living, including rental prices as greater Bay Area pressures in these areas are likely to continue to increase. Gas prices falling have positive private-sector benefits, but are a dual problem for both public revenues (falling) and expenses (rising). These issues are by-products of a growing economy, including population growth, and global economic forces.

### Solano County’s population grew approximately 1.0 percent in 2015

The California Department of Finance (DOF) reports that Solano County’s population rose in 2015 by 4,383 people to an estimated level of 427,743. DOF projects Solano’s population to be approximately 526,200 by 2035 and 572,623 by 2045. Solano County remains projected to grow faster on average than both California and the Bay Area.

Solano County’s population has grown since 2010 due mainly to foreign immigrants versus new residents from other parts of the United States. However, in 2015 population growth was more balanced between foreign and domestic immigration to Solano County. Overall population growth was 1.0 percent in 2015.

After 2025, Solano County needs balanced growth among the ages of 18 through 64 to continue having growth in the number of working-age residents. The median age in Solano County is rising more slowly

than its North Bay county neighbors, but more quickly than the Bay Area counties as a whole. While these data change slowly, monitoring changes in working-age residents is critical to a local workforce remaining local and vibrant.

## **Education data shows Solano County schools are performing better than the state on average**

Solano County education data show continued progress for all ethnicities, in terms of dropout rates and college eligibility. The dropout rate fell to 2.7 percent in the 2013-14 academic year (the latest data available), as reported by the California Department of Education, which is now lower than the state average for the first time in at least 10 years. **The high-school graduation rate is now over 84 percent, better than the state average.**

## **Housing Markets see continued growth in 2014**

Housing markets continue to build and recover wealth for Solano County homeowners, though at a slower pace than in 2013 and 2014, which were major recovery years for residential real estate markets. The growth of median home prices was slightly under 10 percent for 2015, due to rising demand and tight inventory levels. Building permits increased by 142 percent in fiscal year 2014-15 for residential units from the previous year, suggesting inventory is going to rise in 2016 and 2017 and test current market conditions and demand. Commercial square footage permitted for new construction increased by 42 percent comparing fiscal years 2013-14 to 2014-15. Housing prices increased 8.5 percent in Solano County from December 2014 to December 2015; the state of California experienced on 5.7 percent growth over the same time. Prices are up 98.5 percent since the bottom was reached in 2011 in Solano County according to the California Association of Realtors.

## **Commuting and Connecting Residents and Regional Labor Markets**

Traffic has become a larger part of Solano County's daily (including weekends) flow of people among the surrounding counties and also Solano County's cities and unincorporated areas. The implications of net outflows of residents, which have ranged between 30,000 people and almost 60,000 people as an annual average since 2002, is increased traffic loads on Interstate 80 and Highway 12. Yolo County, in contrast, attracts more workers coming to Yolo County than residents leaving for work, as does Sacramento County. These data are also used as ways to consider commuting patterns versus workforce; a low ratio suggests a heavy outbound commute, and a high ratio suggests heavy inbound commute patterns.

The commute patterns data do not reflect how people do business in other areas well. For example, construction employment has steadily grown in Solano County since 2012, and the pattern is balanced between those leaving Solano County and coming to Solano County for construction work. However, a locally-based construction business may derive revenue from other areas and thus be like a commuting worker as a business at times. The latest data available is 2013 as of February 2016.

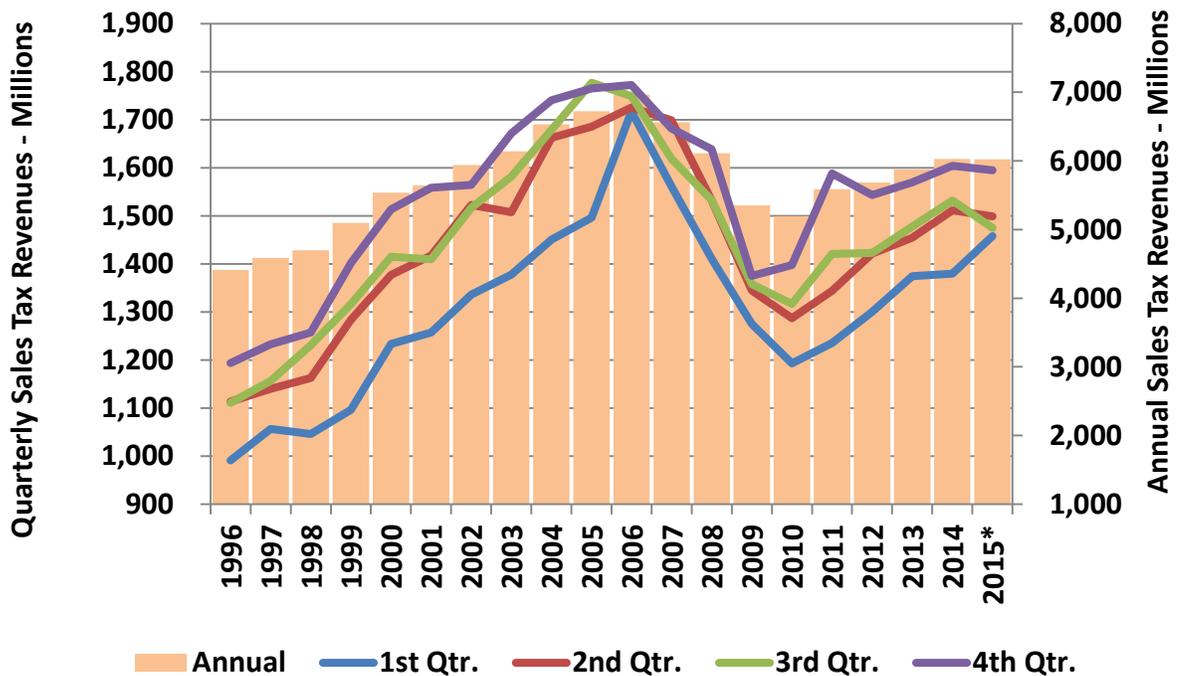
More drivers on the road can negatively affect businesses and generate environmental and social concerns, even though the economics may be net positive. The 2015 Index looks at data on commute patterns to show connections among the region and the number of Solano County residents that leave

Solano County every day for work. Assuming higher wages elsewhere are incentives to commute (Solano County’s personal income levels per capita suggest this is happening), Solano County loses workers each day but gains income and consumer spending.

### Government Revenue continues to rise

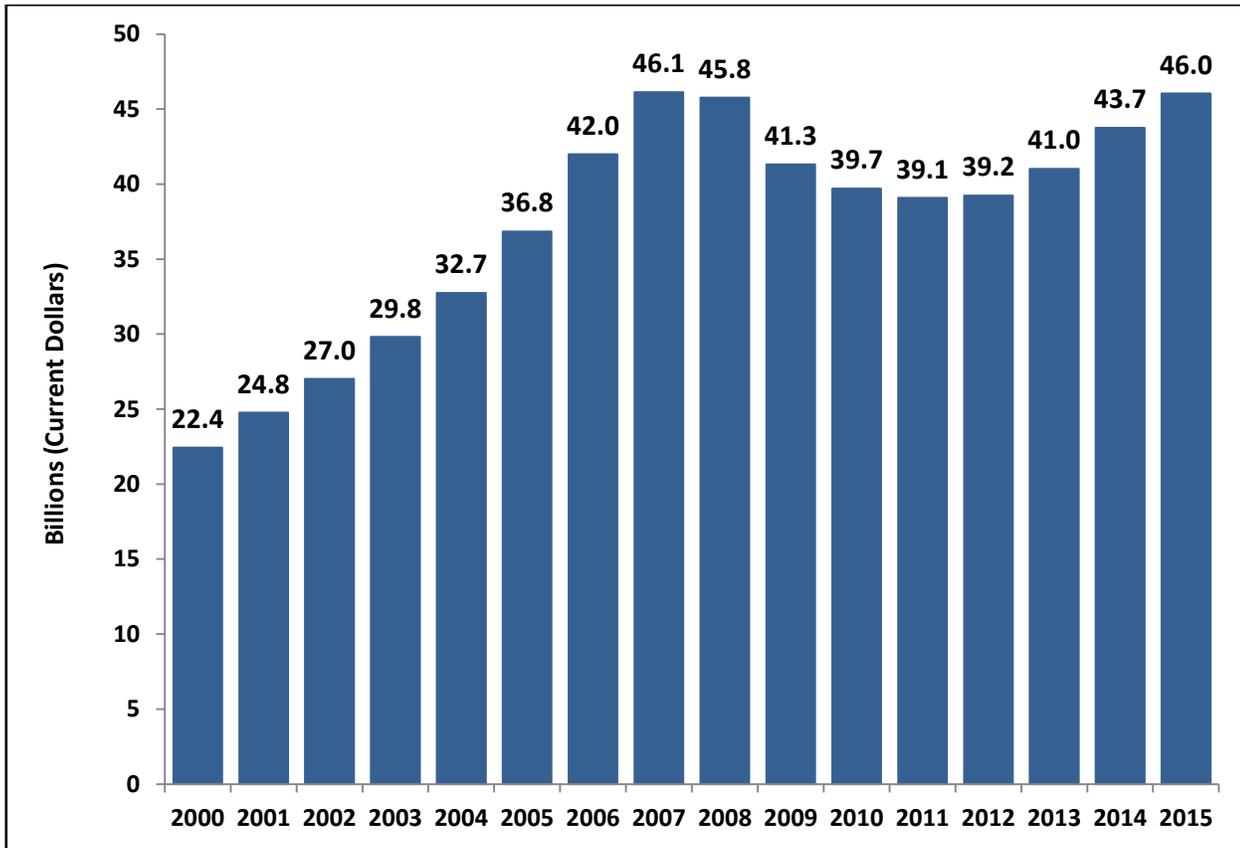
The combination of rising home prices and taxable sales suggests that there will be continued increases on the revenue side for Solano County’s government. Taxable sales grew less quickly in 2015 after inflation adjustments; real taxable sales have grown by 16 percent since 2010 when taxable sales hit bottom during the Great Recession. The assessed value of properties in Solano County continues to grow in both inflation-adjusted (2009 dollars) and current values; current values are used to set the annual tax roll by the Solano County Assessor’s Office. Property tax revenue for the County of Solano continues to rise as 2016 unfolds; in 2015, the current, assessed value of property was \$46.048 billion.

**Taxable Sales Data, 1996 to 2015 (estimated to year end), 2009 Dollars, Solano County**



Sources: County of Solano and Calif Board of Equalization (<http://www.boe.ca.gov/news/tsalescont.htm>);  
 \* 2015's annual and Q4 data are estimates.

Assessed Values for Property Tax Purposes, Solano County, 2000 to 2015, Current Dollars



Source: Solano County Assessor's Office (current assessed value) and California Department of Finance (CPI forecast)

## Geographic Comparisons

Unless stated otherwise, the 2015 Index uses the following areas in California for comparison regularly, which can be seen as defining a “super region” which includes Solano County.

- Bay Area other: San Francisco, Santa Clara, Alameda, San Mateo, Contra Costa, and Marin counties;
- North Bay: Sonoma and Napa counties;
- Sacramento Metropolitan Statistical Area (MSA): Sacramento, Placer, El Dorado, and Yolo counties.

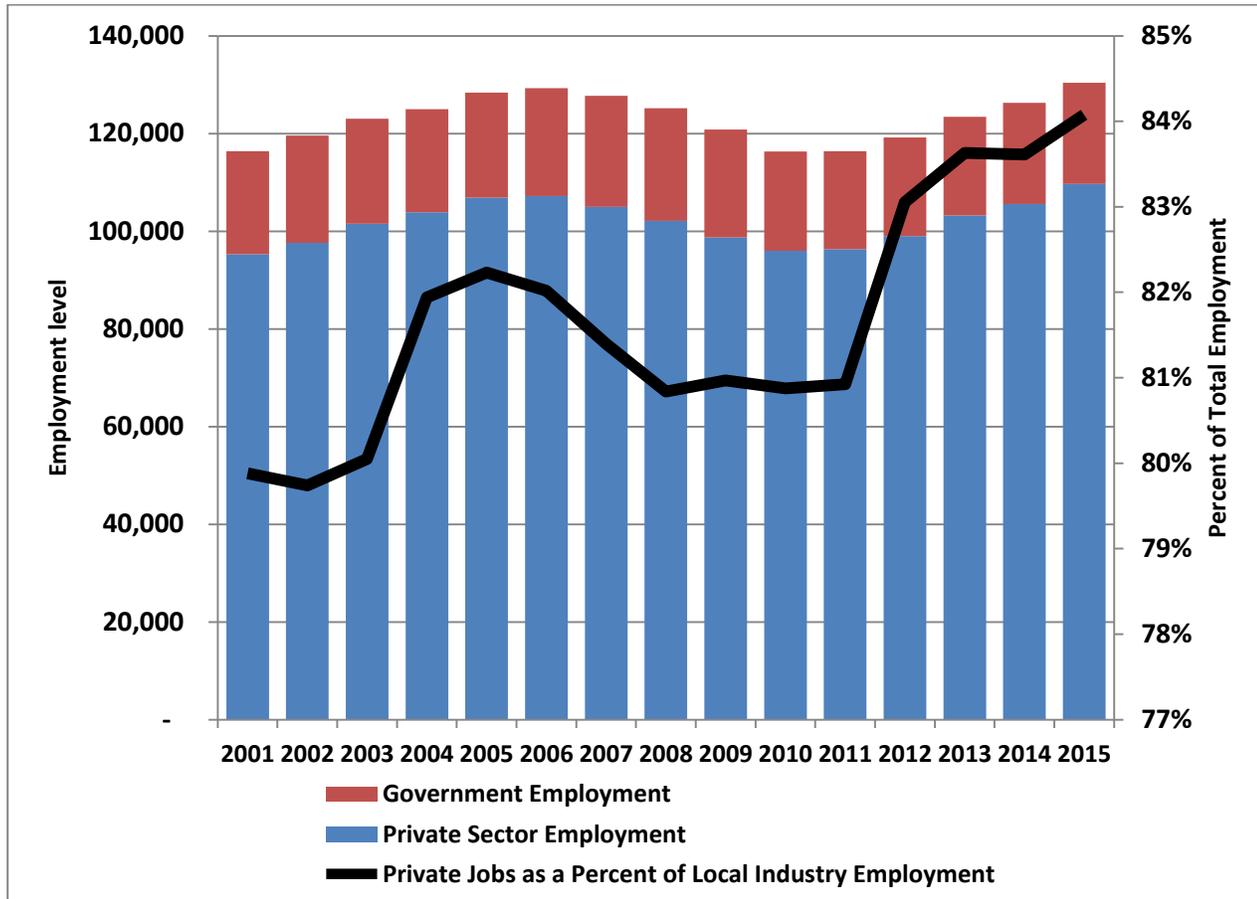
## Takeaways and What Is Important

Each subsection of this report also provides a brief “TAKEAWAY” and “WHAT IS IMPORTANT” for the reader as a way to summarize what the data say and a consideration about how that specific data affects the current or future Solano County economy. Let’s look at Solano County’s changing economy.



## Annual Local Industry Employment (2000 – 2015), Sector Breakdown

Employment in Solano County grew in 2015 by 4,300 jobs or 3.3 percent growth. This is a faster rate of growth than 2014, when Solano County experienced 1.8 percent jobs growth. The private sector gained 4,000 jobs and the public sector gained 300 new jobs across all areas of government in net. Solano County lagged California overall in terms of emergence from the Great Recession. Data here are based on December 2015 labor market estimates as compared to previous years.



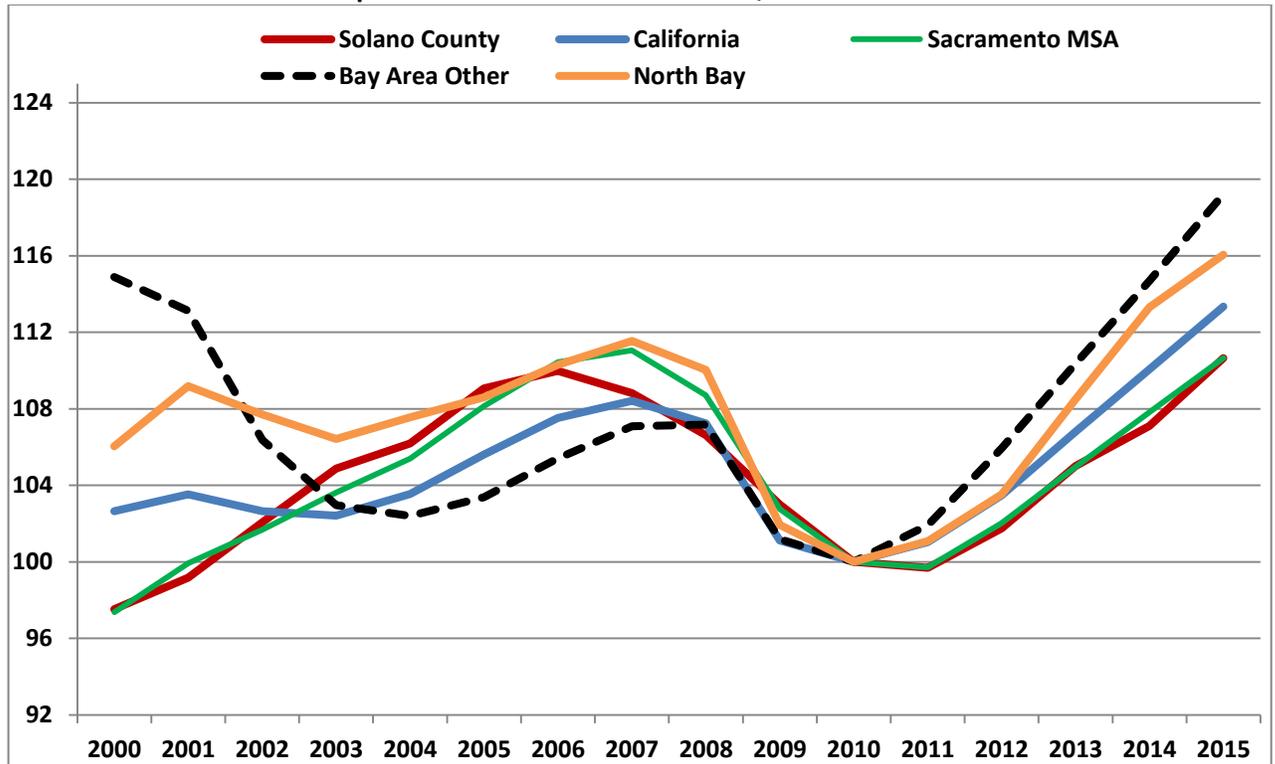
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov)), \*2015 is an average of Jan 2015 to Dec 2015

In 2015, local government is 64.4 percent of overall public-sector workers; both state and federal government employment (in Solano County) grew slightly. The December 2015 number of workers in the public sector (24,800) is estimated to be just below the number of public-sector workers in Dec 2000 (25,000). The US Military employment level is estimated as 2,925 full-time equivalents across an array of jobs at Travis Air Force Base.

**TAKEAWAY:** Solano County private and public sector employers hired over 4,300 new workers in 2015, accelerating job growth momentum building since 2011.

**WHAT IS IMPORTANT:** Solano County is likely to experience continued jobs growth in 2016, but perhaps at a slower rate than 2015. Jobs growth has been rising since 2011.

**Gain or Loss in Industry Employment (Non-Farm), 2000-2015**  
**Comparisons between Selected Areas, Index 2010 = 100**



Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

**Change in Total Industry Employment**  
**(Gain or Loss in Percentage Terms of Total Jobs for Solano County Employers)**

Place	2005-15	2010-15	2014-15
Solano County	1.7%	10.7%	3.3%
California	4.5%	13.3%	3.0%
Sacramento MSA	-0.4%	10.7%	2.6%
Bay Area Other	11.3%	19.2%	3.9%
North Bay	4.1%	16.1%	2.4%

Source: [www.edd.ca.gov](http://www.edd.ca.gov)

Looking across the region, Solano County had 3.3 percent growth in 2015, which is greater growth than all but the Bay Area other, which continues its jobs growth at 3.9 percent in 2015. The North Bay counties of Sonoma and Napa showed slower growth and less than the state average.

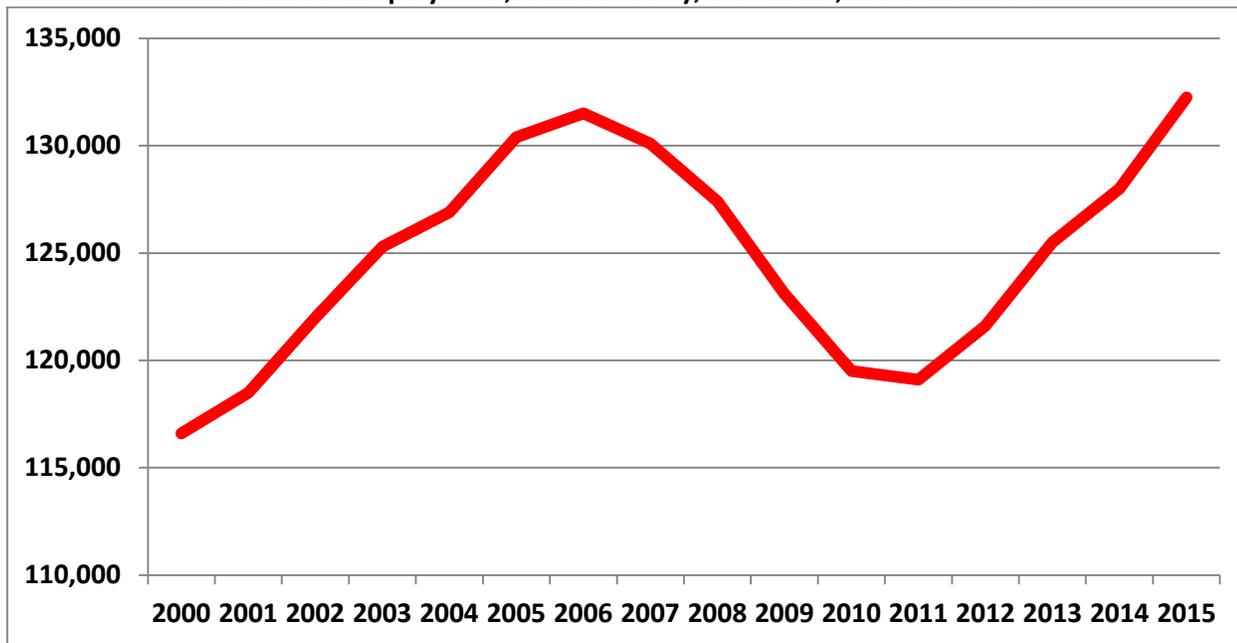
**TAKEAWAY:** Solano County’s labor markets grew quickly in 2015 and have positive momentum into 2016. Only the Bay Area other saw a faster growth rate of employment than Solano County in 2015 for the comparable regions.

**WHAT IS IMPORTANT:** Solano County lags the Bay Area other in terms of labor market recovery, is on a similar trajectory of jobs growth as the Sacramento MSA counties, but Solano County’s jobs growth in 2015 exceeded the state on average.

## Total Non-Farm Employment

Non-farm jobs were at their low point in 2011 after the Great Recession. Solano County has generated over 13,100 jobs since this low point. Other areas compared in the Index for 2015 found their lows in labor markets between 2009 and 2010. For the Bay Area other, the economic recovery has brought back over 240,000 jobs or 28.6 percent growth in employment since those counties hit bottom in 2009. Napa and Sonoma combined generated over 37,000 jobs since 2010, or over 16 percent growth. California, as mentioned above, grew about 13 percent since 2010, which represents about just below 1.9 million workers. Sacramento grew about 11 percent or 90,400 jobs since 2010.

**Non-Farm Employment, Solano County, 2000-2015, December Data**



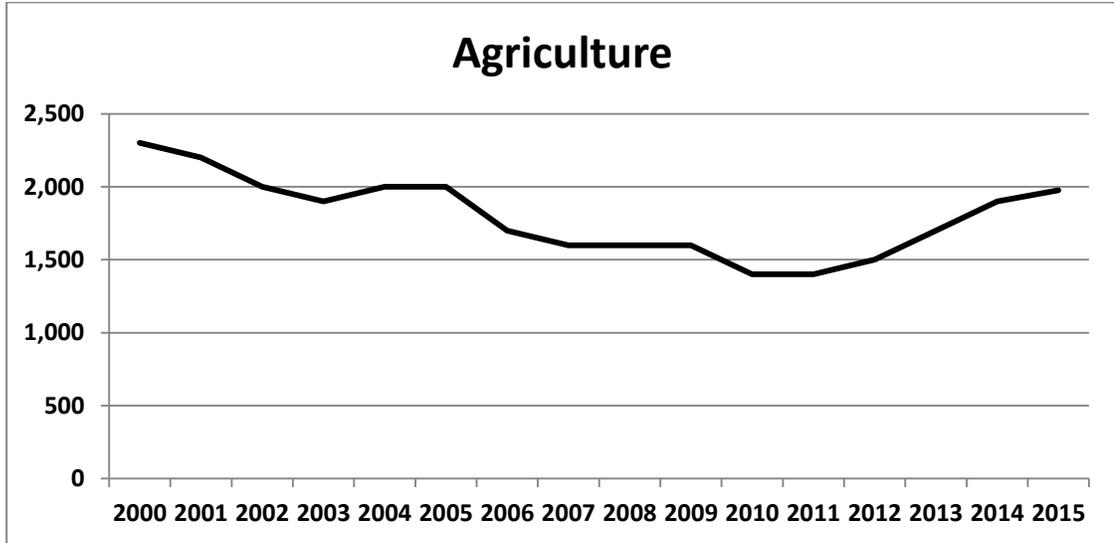
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

The jobs growth for 2015 spread across most industries except for the Information, Finance and Other Services sectors. The next set of figures explores employment data at the industry level, including local, state and federal government jobs. In most industries, net new jobs since 2007 are positive, suggesting there has been an expansion of those industries. While jobs growth accelerated in 2015, global economic conditions and uncertainty leads to some confounding effects on jobs growth forecasts in 2016; current forecasts suggest Solano County is going to experience continued jobs growth in 2016.

**TAKEAWAY:** Non-farm job growth in Solano County continues to be driven by services employment, though construction and non-durable manufacturing saw good growth in 2015. Services jobs and employers continue to be of major importance to Solano County’s economy and jobs landscape.

**WHAT IS IMPORTANT:** In construction, retail, financial activities, information, and local and federal government, job growth remains under 2007 levels. While the non-farm employment level as of December 2015 is the highest levels on record, some industries are still filling the hole left by the Great Recession.

### Solano County Jobs by Industry, Percentage Change and Share of Total Jobs



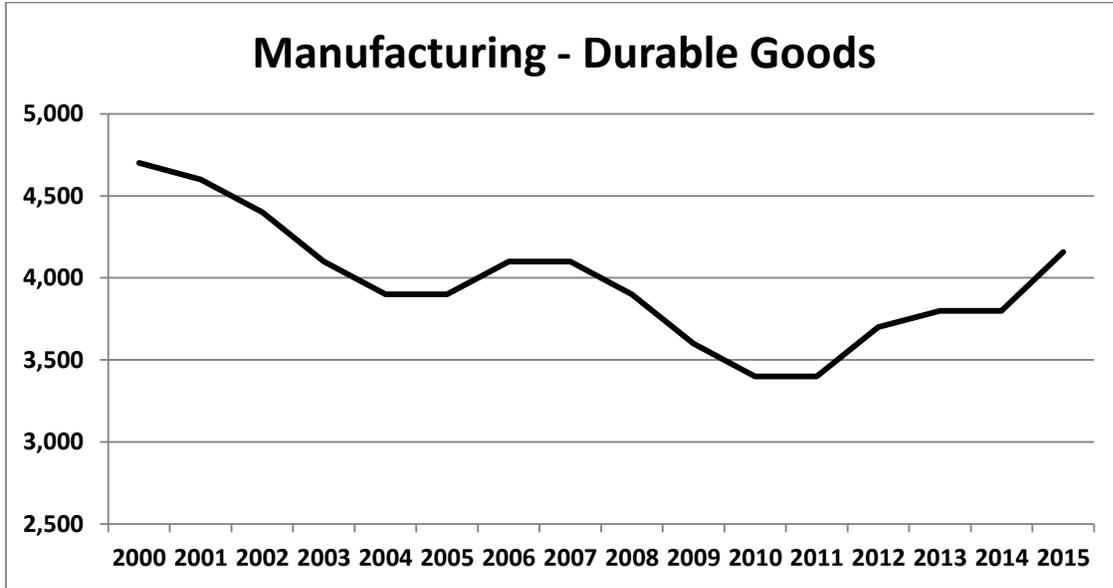
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b>Agriculture</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	375	575	75
Percent Change	23.4%	41.1%	3.9%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	1.2%	1.2%	1.5%



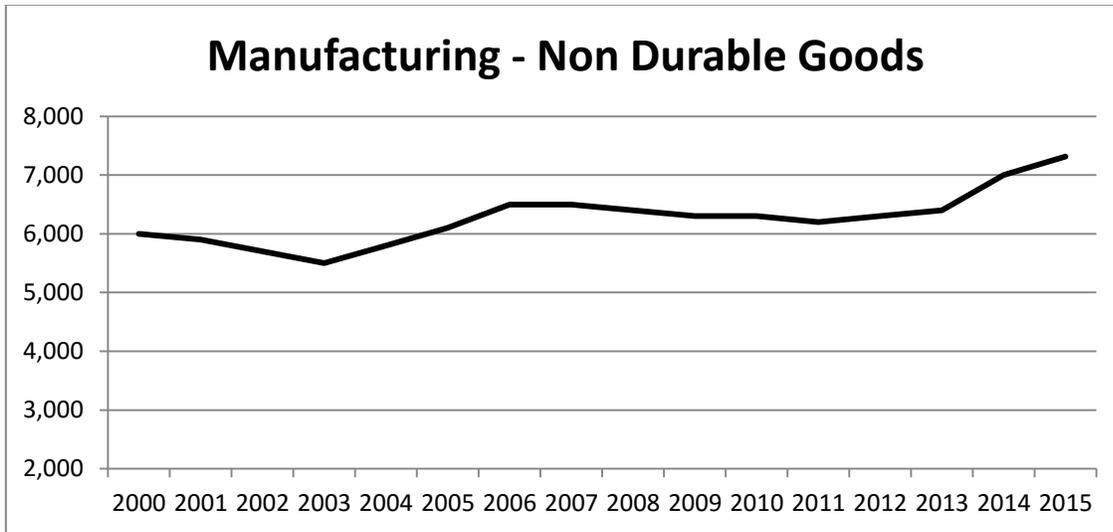
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b>Construction</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(1,690)	1,800	600
Percent Change	(15.8%)	25.1%	7.2%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	8.1%	6.0%	6.7%



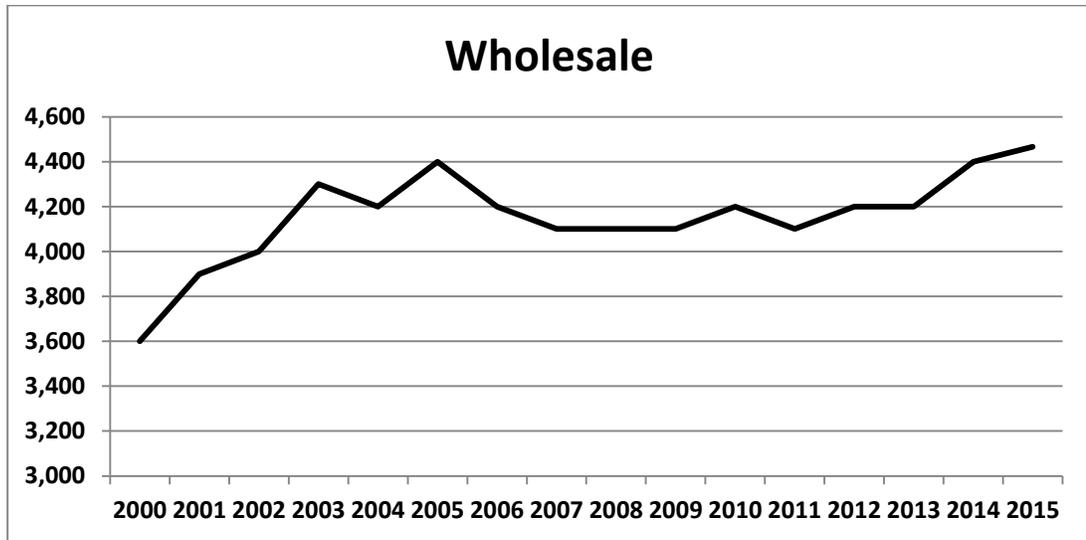
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<i>Durable Goods</i>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	60	760	360
Percent Change	1.4%	22.3%	9.4%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	3.1%	2.8%	3.1%



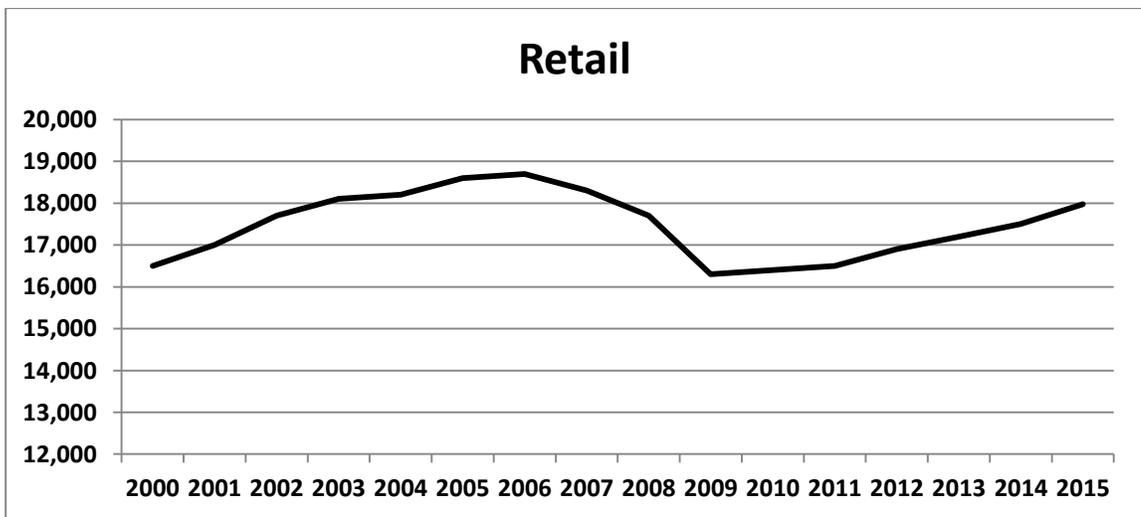
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<i>Non-Durable</i>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	820	1,020	320
Percent Change	12.6%	16.1%	4.5%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	4.9%	5.2%	5.5%



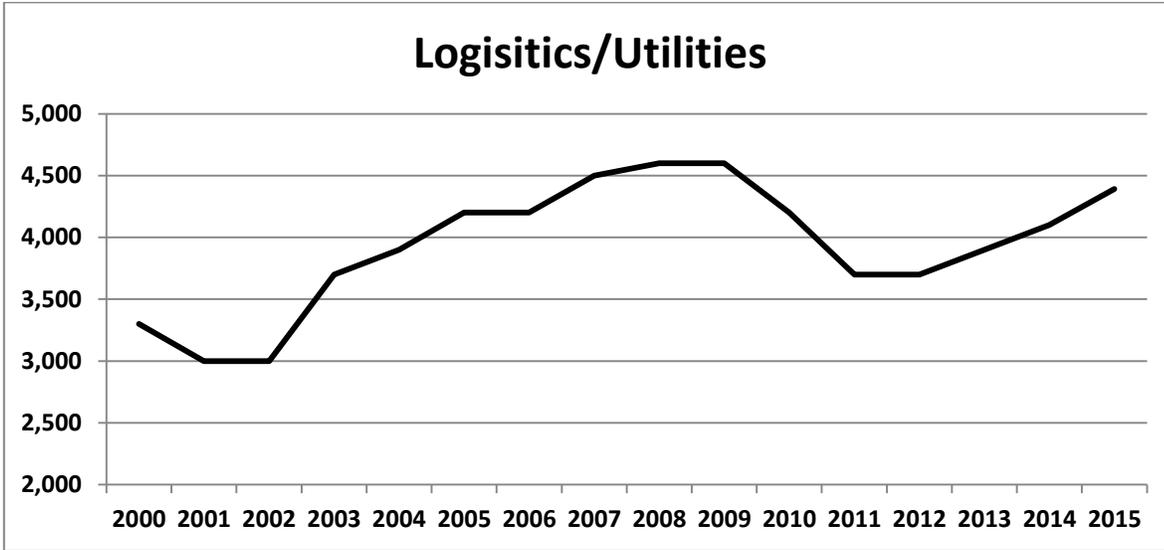
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b>Wholesale</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	370	270	70
Percent Change	8.9%	6.3%	1.5%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	3.1%	3.5%	3.3%



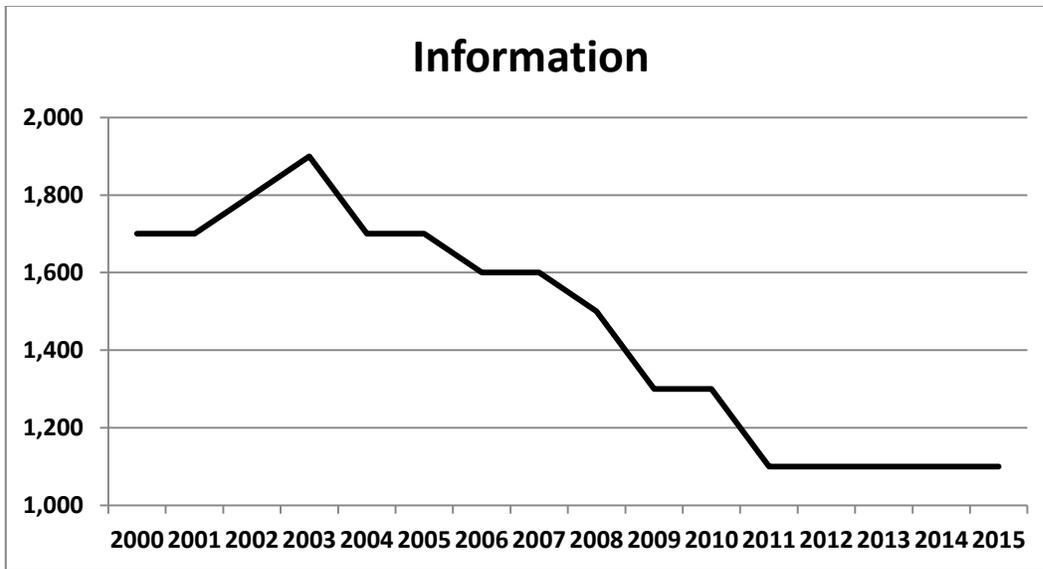
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b>Retail</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(325)	1,580	475
Percent Change	(1.8%)	9.6%	2.7%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	13.9%	13.6%	13.4%



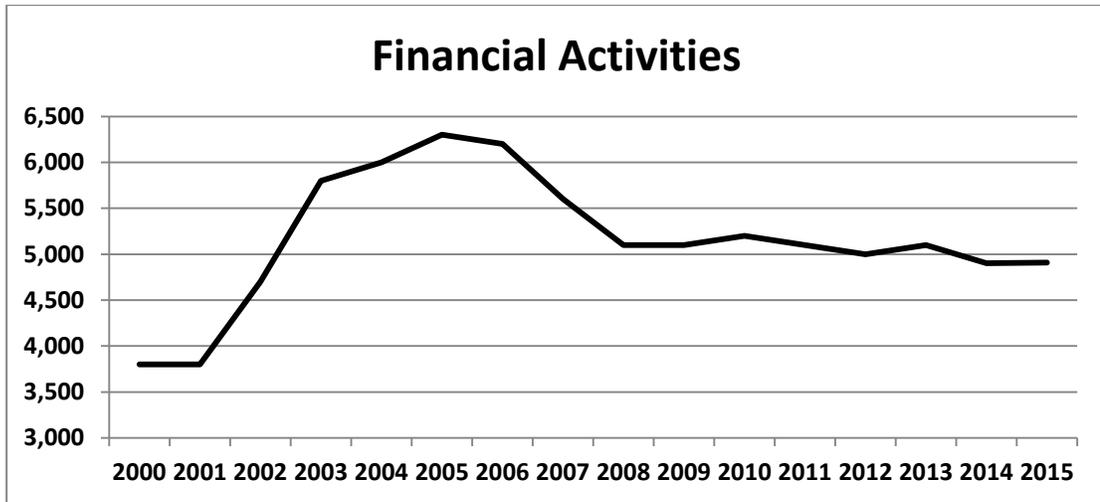
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b>Logistics/Utilities</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(110)	190	290
Percent Change	(2.4%)	4.6%	7.1%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	3.4%	3.5%	3.3%



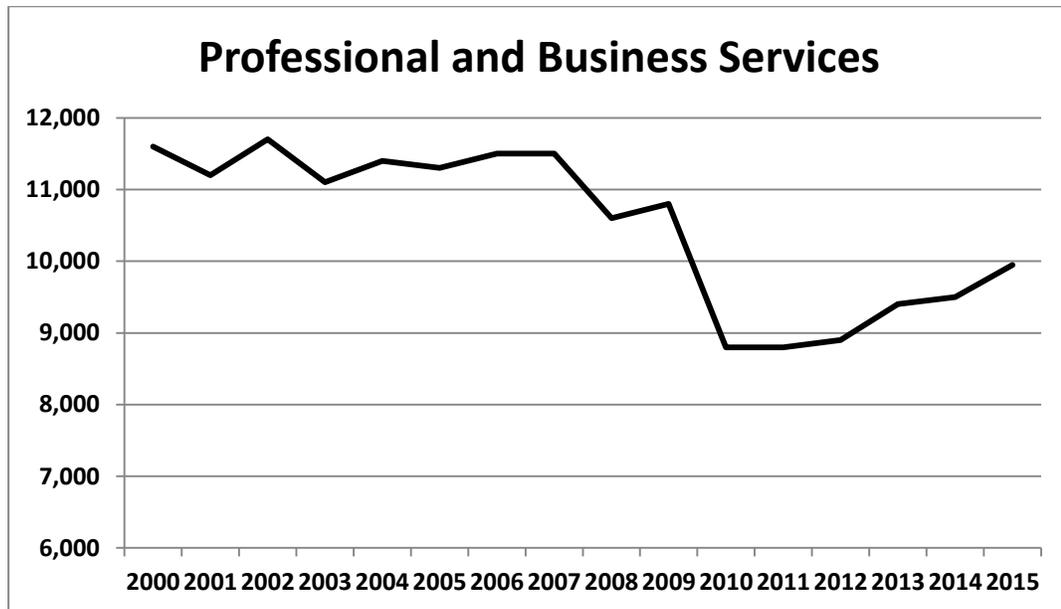
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b>Information</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(500)	(200)	0
Percent Change	(31.3%)	(15.4%)	0%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	1.2%	1.1%	0.8%



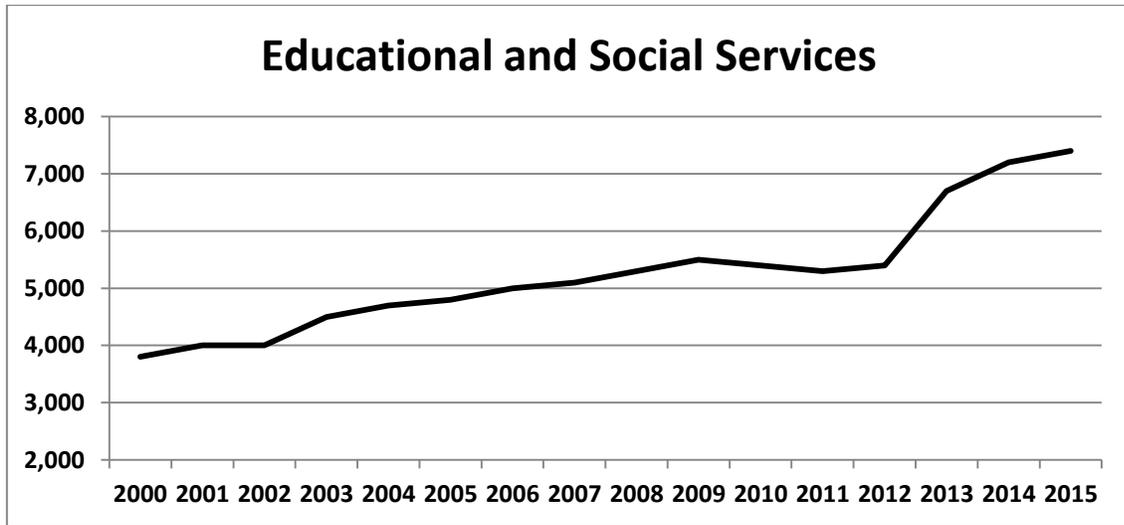
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<i>Financial</i>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(690)	(300)	10
Percent Change	(12.4%)	(5.6%)	0.2%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	4.3%	4.3%	3.7%



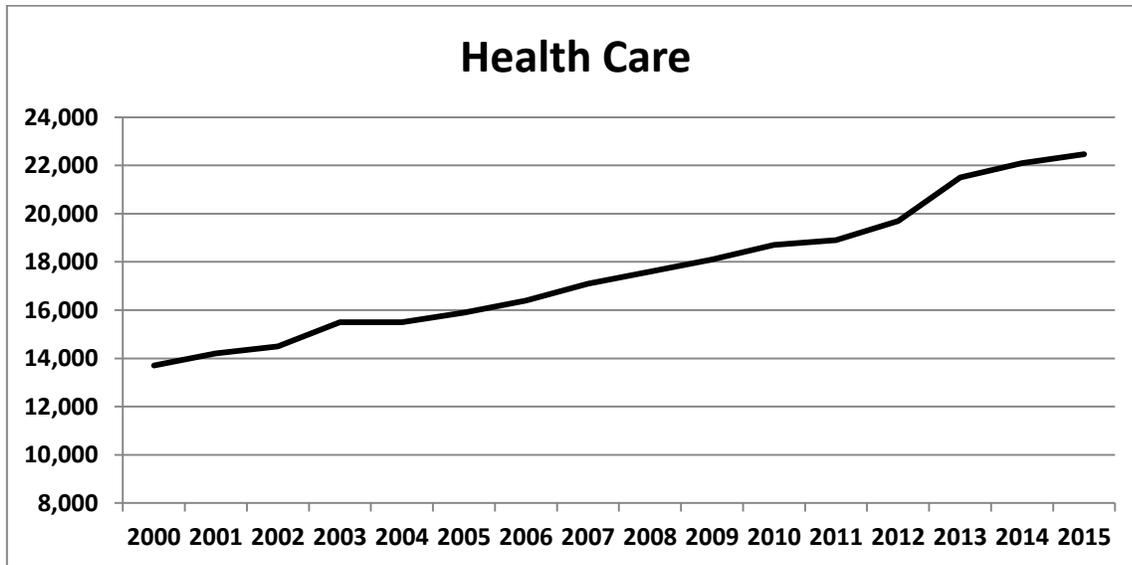
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<i>Professional/ Business Services</i>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(1,550)	1,150	450
Percent Change	(13.5%)	13.1%	4.7%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	8.7%	7.3%	7.4%



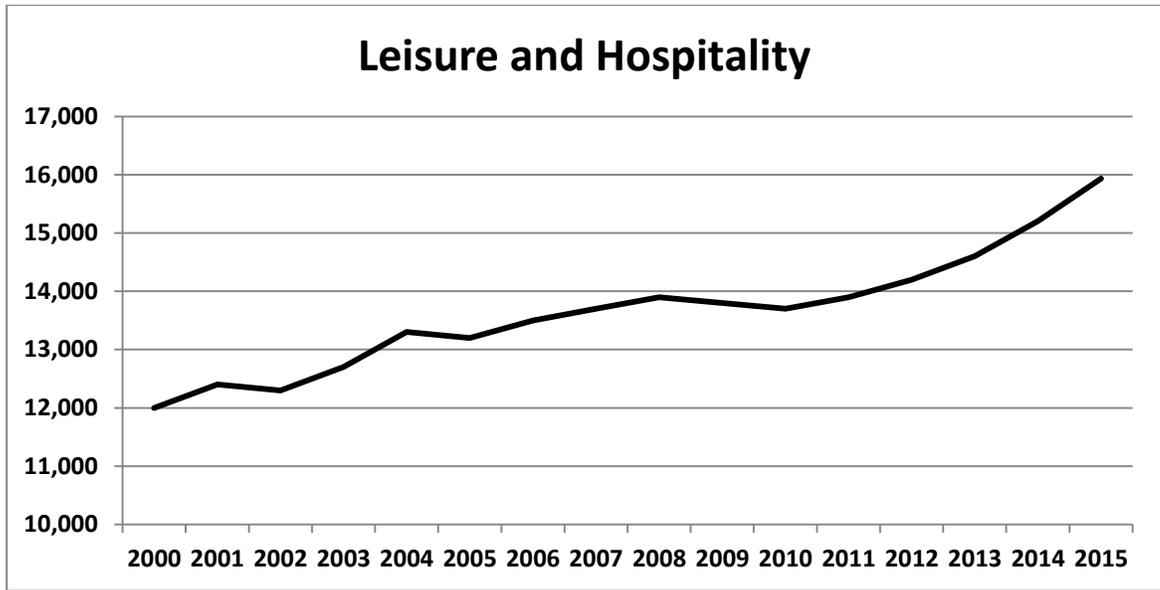
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b><i>Educational and Social Services</i></b>	<b><i>2007-15</i></b>	<b><i>2010-15</i></b>	<b><i>2014-15</i></b>
Change in Jobs	2,300	2,000	200
Percent Change	45.1%	37.0%	2.8%
	<b><i>2007</i></b>	<b><i>2010</i></b>	<b><i>2015</i></b>
Share of Total	3.9%	4.5%	5.5%



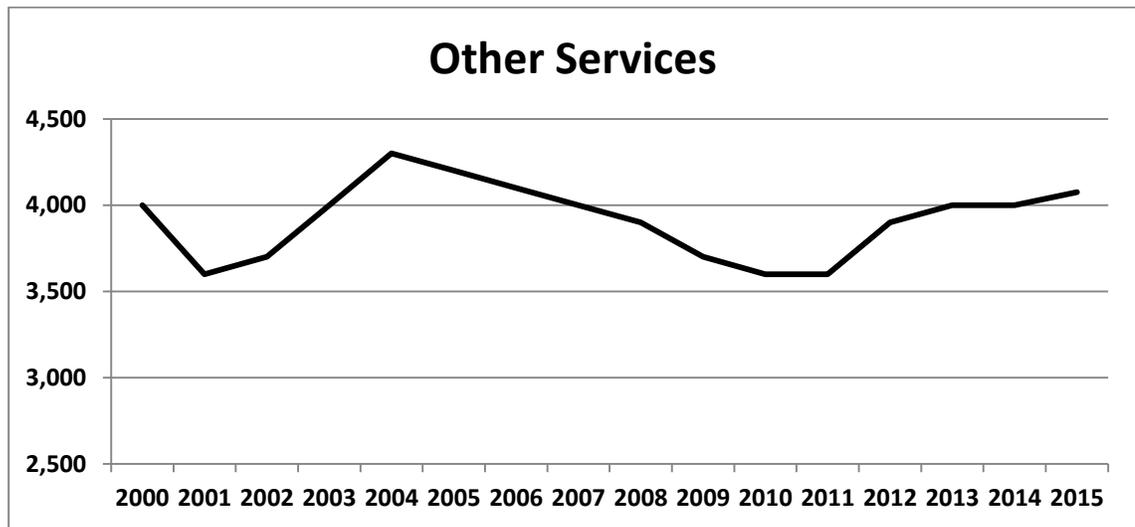
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b><i>Health Care</i></b>	<b><i>2007-15</i></b>	<b><i>2010-15</i></b>	<b><i>2014-15</i></b>
Change in Jobs	3,200	1,900	300
Percent Change	23.7%	12.8%	1.8%
	<b><i>2007</i></b>	<b><i>2010</i></b>	<b><i>2015</i></b>
Share of Total	10.3%	12.2%	12.4%



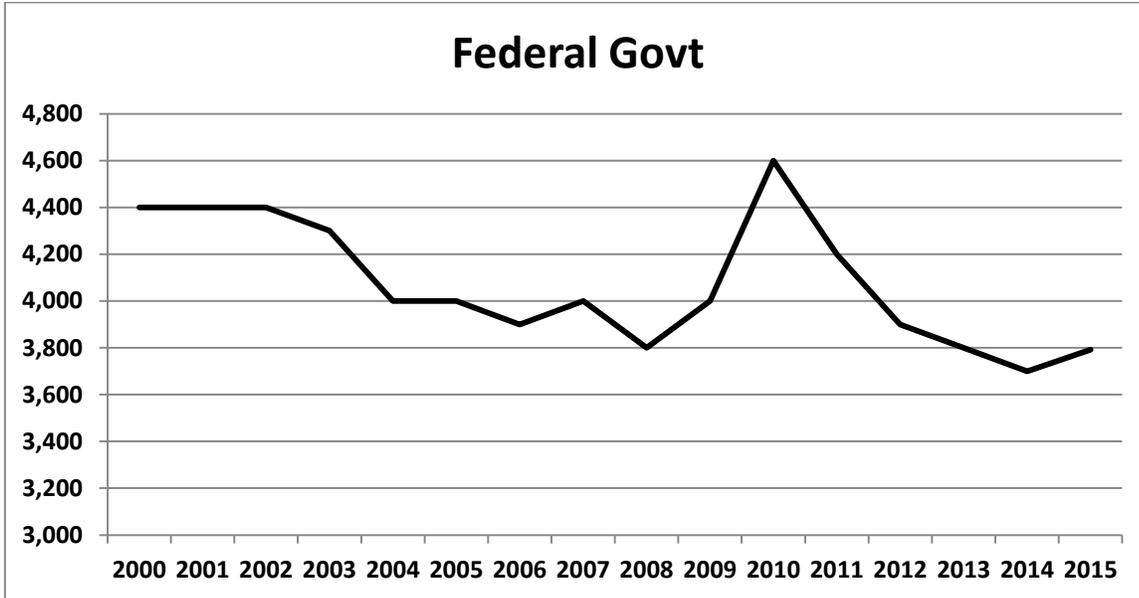
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<i>Leisure and Hospitality</i>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	2,230	2,230	730
Percent Change	16.3%	16.3%	4.8%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	10.4%	11.3%	11.9%



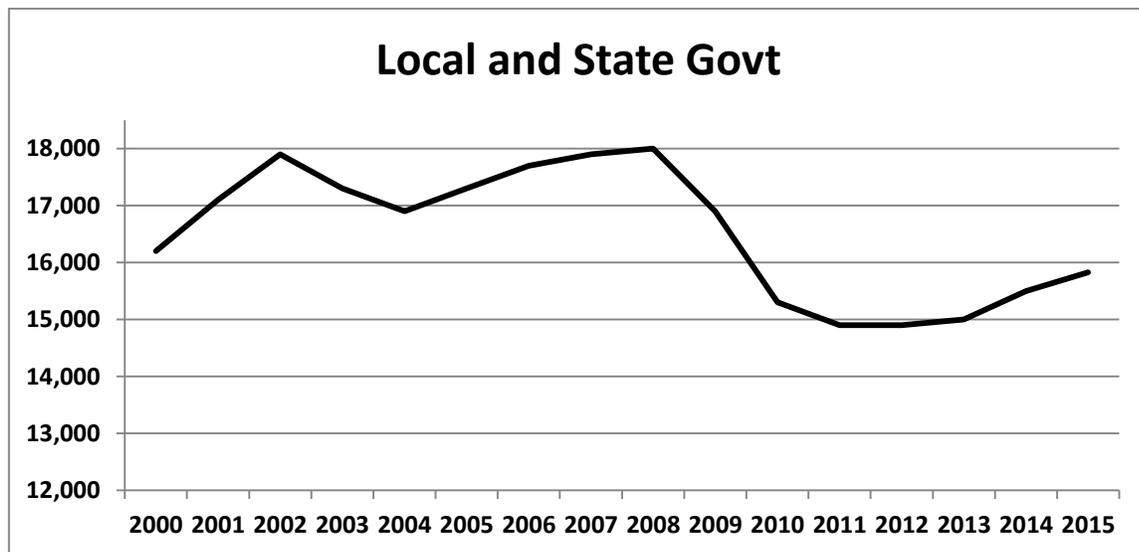
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<i>Other Services</i>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	75	480	75
Percent Change	1.9%	13.2%	1.9%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	3.0%	3.0%	3.0%



Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

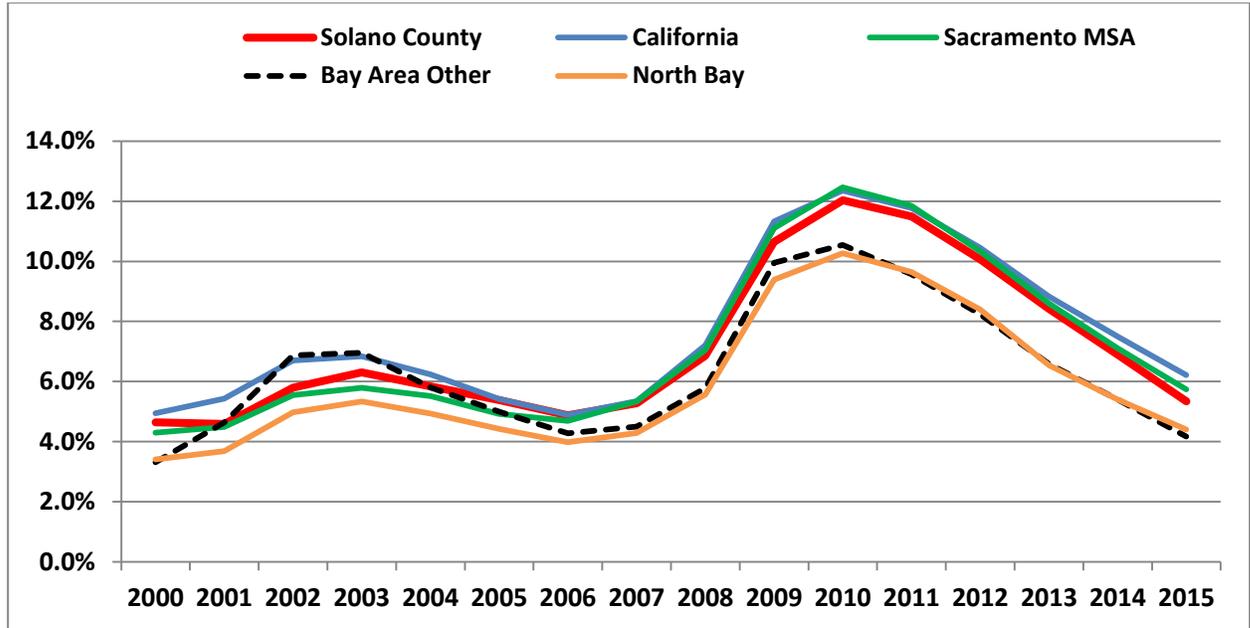
<b>Federal Government</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(210)	(810)	90
Percent Change	(5.2%)	(17.6%)	2.5%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	3.0%	3.8%	2.8%



Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

<b>Local/ State Government</b>	<b>2007-15</b>	<b>2010-15</b>	<b>2014-15</b>
Change in Jobs	(1,933)	470	70
Percent Change	(8.5%)	2.3%	0.3%
	<b>2007</b>	<b>2010</b>	<b>2015</b>
Share of Total	17.2%	16.8%	15.5%

## Unemployment Rates: California, Solano County, Selected Areas, % of Labor Force



Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

Solano County’s unemployment rate was 5.6 percent as of December 2015, compared to 6.9 percent for December 2014. The current unemployment rate reflects continued job growth regionally and measuring residential unemployment in Solano County. Residents may be employed but work outside Solano County. Solano’s cities have seen unemployment fall across all areas, as shown later in this section. Notice that Rio Vista has 11.9 percent unemployment and Benicia has 3.7 percent.

### Quick City-Level Data View, Unemployment Rates (%), December of Each Year

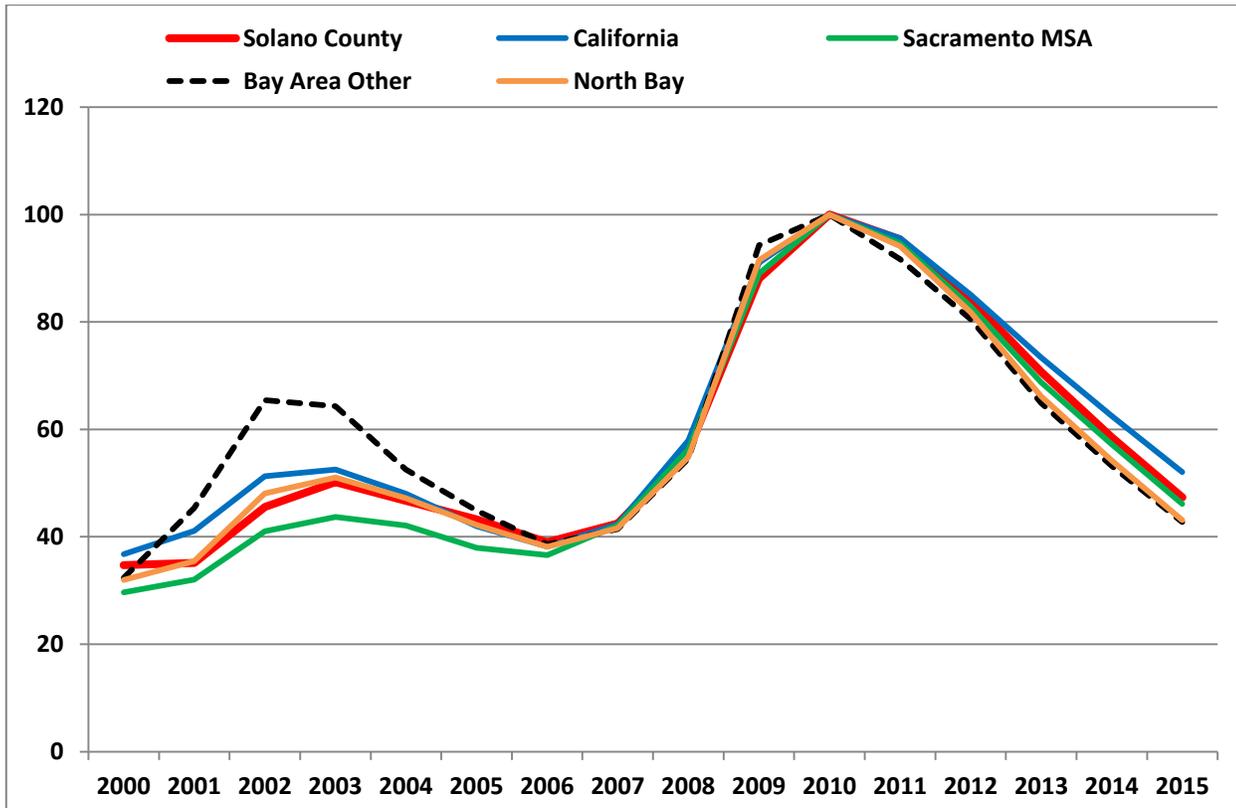
Place	2010	2013	2014	2015
Benicia	7.6	5.2	4.4	3.5
Dixon	9.7	6.7	5.7	4.8
Fairfield	13.2	9.2	7.8	5.1
Rio Vista	9.0	6.2	5.3	11.2
Suisun City	12.4	8.7	7.4	4.9
Vacaville	9.0	6.2	5.3	4.5
Vallejo	14.7	10.4	8.8	7.7
<b>Solano County</b>	<b>12.5</b>	<b>9.0</b>	<b>6.9</b>	<b>5.6</b>

Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

**TAKEAWAY:** Solano County’s reduced unemployment rate suggests personal income and gross county product growth, a reflection of how county residents are working, but not indicating how local employers are hiring.

**WHAT IS IMPORTANT:** The continued employment of local residents drives retail sales, personal services demand, and other support for local businesses across Solano County’s cities.

## Total Unemployed Residents, Index 2010 = 100, Selected Areas



Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

### Percent Change in Unemployed Residents, 2015 Compared to Year in Table

<i>Unemployed Residents</i>	<i>2007</i>	<i>2010</i>	<i>2014</i>
Solano County	11.4%	-52.7%	-19.2%
California	22.9%	-48.0%	-16.7%
Sacramento MSA	9.5%	-53.9%	-19.4%
Bay Area Other	3.2%	-57.3%	-19.6%
North Bay (Napa/Sonoma counties)	3.5%	-56.9%	-20.5%

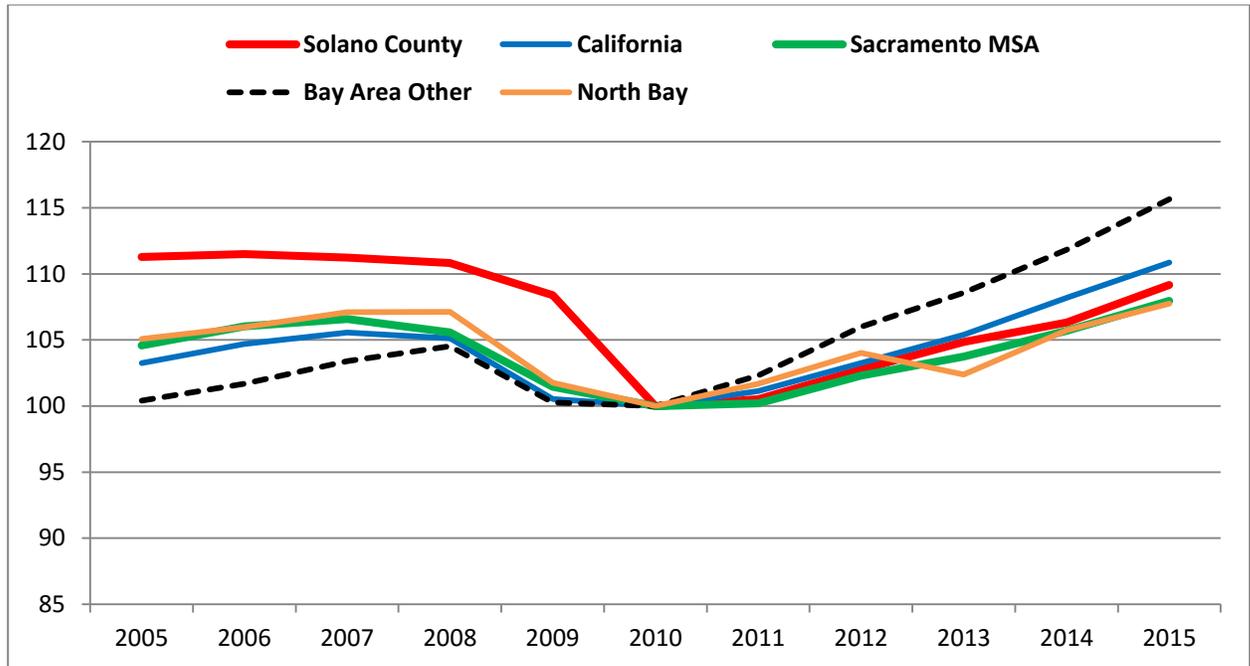
Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

As compared to 2015, the number of unemployed residents is 52.7 percent lower than in 2010 for Solano County, 57.3 percent lower for the Bay Area other areas, 56.9 percent lower for Sonoma and Napa counties combined and 53.9 percent in Sacramento’s metro area. These numbers continue to fall as more local residents become employed and as economic growth continues.

**TAKEAWAY:** Solano County residents continue to be employed across the region. Lower numbers of unemployed residents generates more economic activity locally, regardless of where residents are employed.

**WHAT IS IMPORTANT:** The continued growth of the regional economy, including all comparison areas, drives demand for Solano County residents as employees.

## Total Employed Residents, Index 2010 = 100



Source: California Employment Development Department ([www.edd.ca.gov](http://www.edd.ca.gov))

Solano County residents experienced greater success finding jobs in 2015 at 2.7 percent growth. The North Bay counties of Sonoma and Napa saw 1.9 percent growth in 2015. California overall grew its employed residents by 2.5 percent in 2015. Since 2010, an additional 9.2 percent of Solano County residents are working, where California overall is 10.2 percent and Sacramento’s MSA is 8.0 percent. The Bay Area Other had 15.6 percent more residents working in 2015, Sonoma and Napa counties have 7.8 percent more residents working since 2010. In terms of people, 4,600 more Solano County residents found work in 2015 than were working in 2014.

### Percent Change in Employed Residents, 2015 Compared to the Year shown in the Table

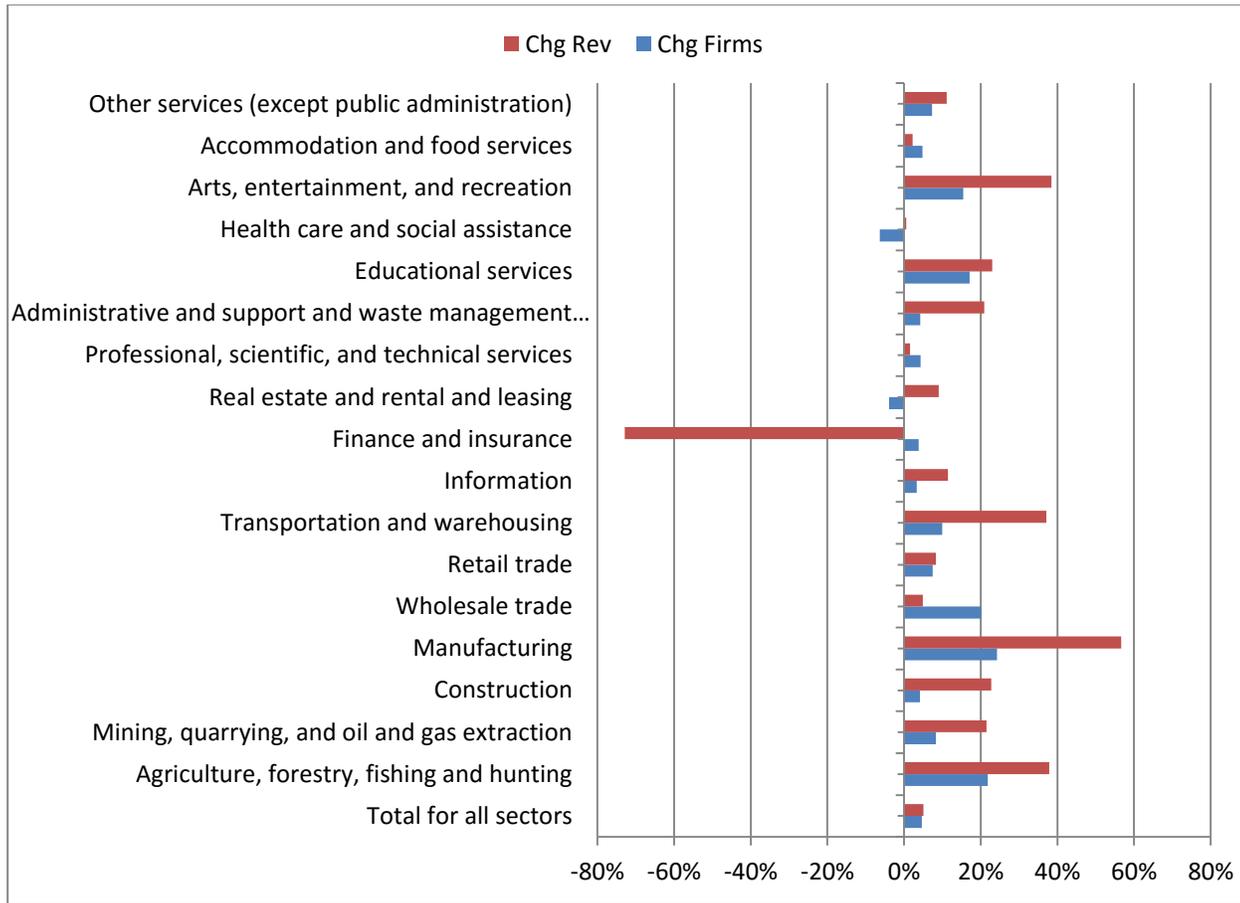
<i>Employed Residents</i>	<i>2007</i>	<i>2010</i>	<i>2014</i>
<b>Solano County</b>	-1.8%	9.2%	2.7%
California	5.0%	10.8%	2.5%
Sacramento MSA	1.3%	8.0%	2.2%
Bay Area Other	11.8%	15.6%	3.4%
North Bay (Napa/Sonoma counties)	0.6%	7.8%	1.9%

Source: California EDD ([www.edd.ca.gov](http://www.edd.ca.gov))

**TAKEAWAY:** Approximately 4,600 more Solano County residents found jobs in 2015, for a 2.7percent growth rate in employed residents.

**WHAT IS IMPORTANT:** Regional growth continues to fuel opportunities for Solano County residents, as well as employers hiring within Solano County. The county’s residents are enjoying continued growth of jobs and commuting across the region for work.

## Non-employers, 2010 to 2013



Source: Census Bureau: [www.census.gov](http://www.census.gov)

Non-employer businesses employ few workers, are mainly self-employment businesses, but have economic impacts that generate even more jobs and business revenues. The Census Bureau tracks these non-payroll businesses to estimate the number of business entities for a local area. The latest data for Solano County is 2013; the charts here compare 2013 to 2010 to see the growth of revenues and non-employer businesses since the Great Recession. The comparisons here show that only the finance and insurance category has negative revenue growth since 2010. Firms are up across the board. This is likely a result of business loss and consolidation in finance; revenues have fallen because financial firms were tied to housing, but recent growth of firms is encouraging. The mix of businesses, even with some sector losses, remains stable since 2007. This is also true for non-employers in at the state level and nationally.

**TAKEAWAY:** For the latest data available, the non-employer business growth of firms and revenues across all major industry groups corroborates Solano County’s continued economic emergence.

**WHAT IS IMPORTANT:** The growth of firms and revenues together is encouraging in that new businesses are coming to Solano County, or have been reborn, since 2010.

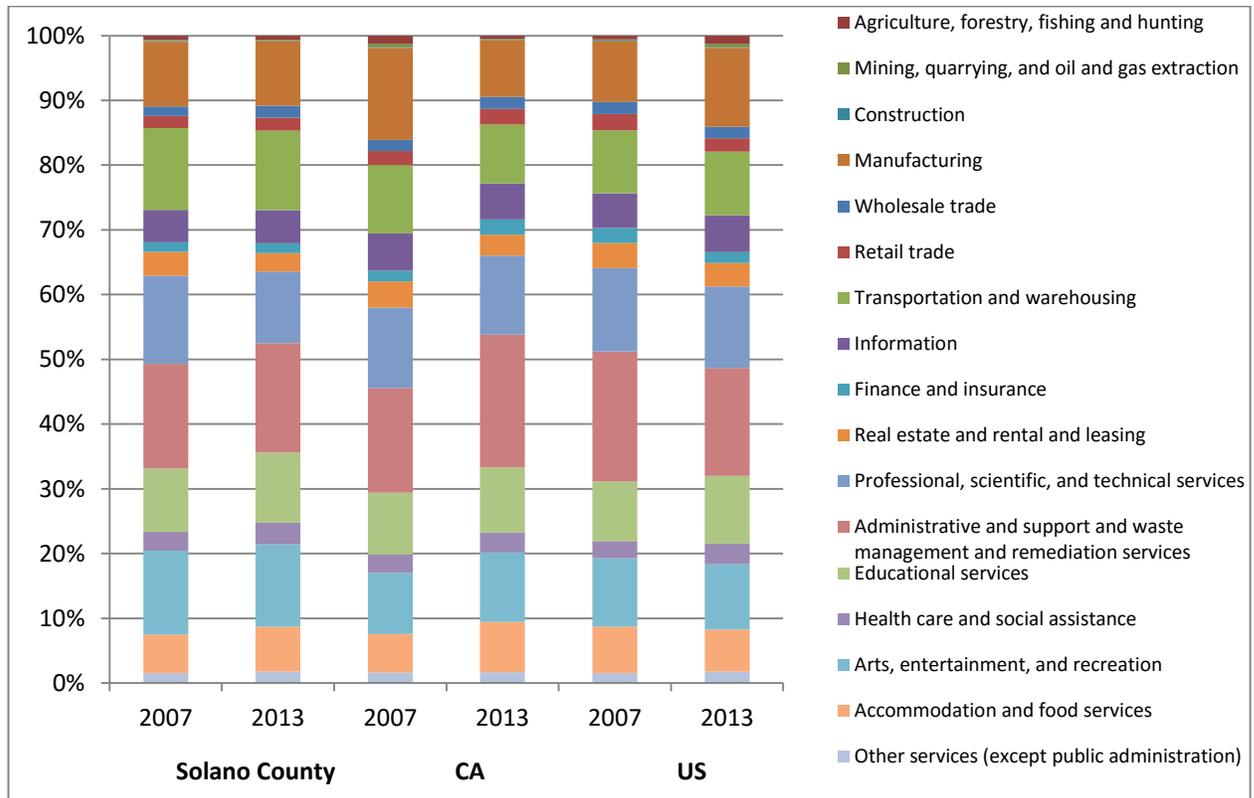
## Non-employers (cont.)

**Change in Number of Non-employers and Their Revenue  
2010 to 2013, % Change**

<i>Industry</i>	<i>% Chg Firms</i>	<i>% Chg Rev</i>
Total for all sectors	5%	5%
Agriculture, forestry, fishing and hunting	22%	38%
Mining, quarrying, and oil and gas extraction	8%	22%
Construction	4%	23%
Manufacturing	24%	57%
Wholesale trade	20%	5%
Retail trade	7%	8%
Transportation and warehousing	10%	37%
Information	3%	11%
Finance and insurance	4%	-73%
Real estate and rental and leasing	-4%	9%
Professional, scientific, and technical services	4%	2%
Administrative and support and waste management and remediation services	4%	21%
Educational services	17%	23%
Health care and social assistance	-6%	1%
Arts, entertainment, and recreation	15%	38%
Accommodation and food services	5%	2%
Other services (except public administration)	7%	11%

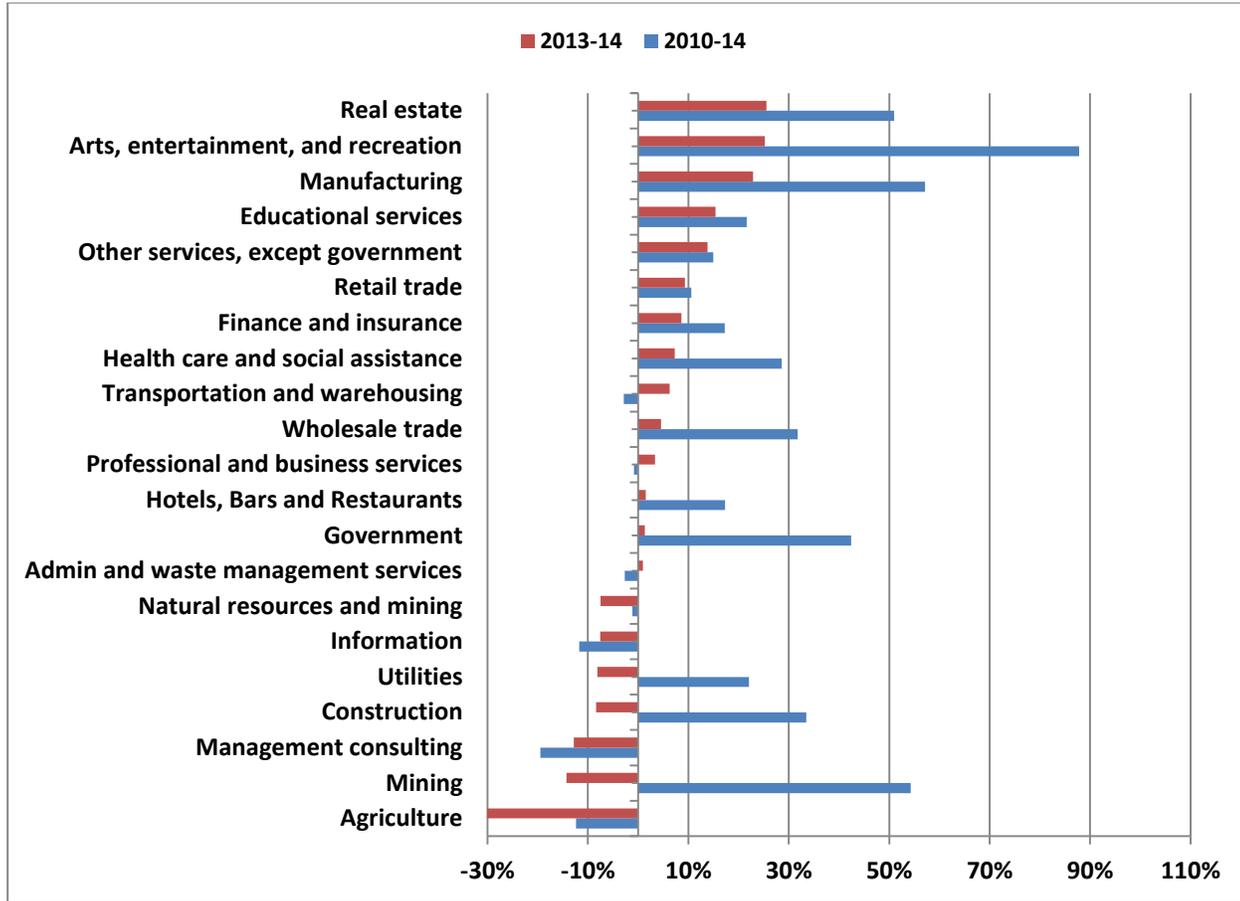
Source: Census Bureau: www.census.gov

**Percentage of Non-Employers (Solano County, California and United States), 2007 and 2013**



Source: Census Bureau: www.census.gov

## Gross Product % change by sector, Solano County: 2010 and 2013 versus 2014, 2009 Dollars



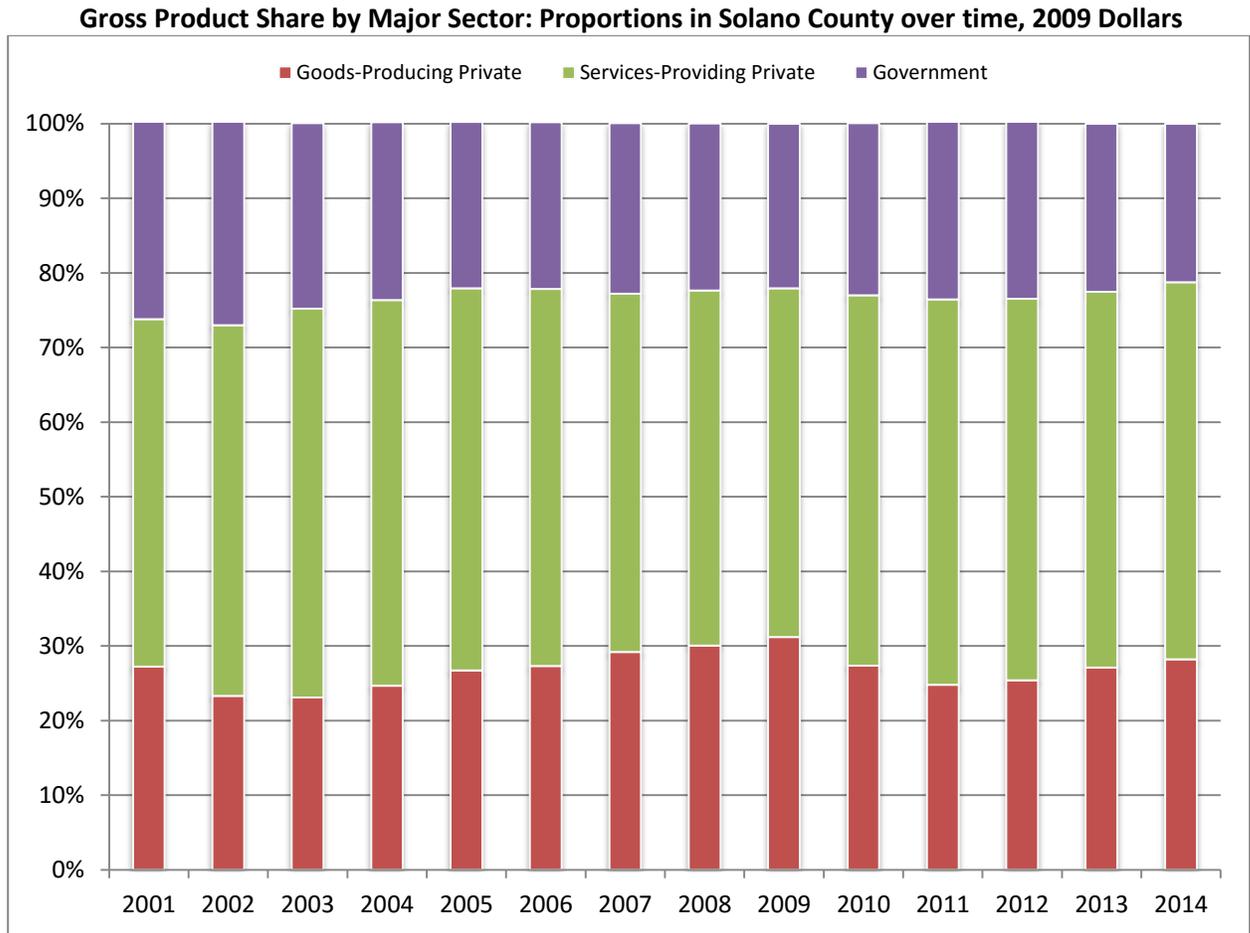
Source: Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov))

Using 2010 and 2013 as comparison dates, Gross County Product (GCP) data show that Solano County is growing across its industry sectors. The current data is from 2014. Some sectors have not fully recovered since 2010, such as construction and primary product industries (agriculture, mining, utilities). The Great Recession lingers in some parts of the county economy. These data are estimated from payroll data on wages and employment. Finance and insurance businesses continue to grow, in contrast to non-payroll businesses. Health care and social assistance slowed down in 2014, are still growing; manufacturing, tourism and real estate GCP growth provide further evidence that the economic expansion is balanced between locally-serving and “export” focused industries.

**TAKEAWAY:** Gross product levels continue to rise for most industries, though some industries are still climbing out of recession.

**WHAT IS IMPORTANT:** The sectors that are growing show a broadening industry base where agriculture and construction are still struggling to regain losses sustained in the Great Recession. Solano County’s economy continues its emergence.

## Gross Product by Sector (cont.)



Source: Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov))

The shares of gross product in Solano County changed little since 2010. The balance between goods-producing and service-producing industries versus government growth is encouraging. The shift away from government toward private industries suggests that the private sector is growing and there is less importance in terms of income when governments provide services. Further, this shifting of balance in a local economy away from serving the local population toward generating revenues from sales and services provide outside the county borders feed both retail sales locally and employment. The state and federal levels of government provide an infusion of resources, where Travis Air Force Base is an example.

## Shares of Gross Product, Solano County, 2007, 2010, 2013, 2014 (2009 Dollars)

<i>Industry</i>	<i>2007</i>	<i>2010</i>	<i>2013</i>	<i>2014</i>
Agriculture	0.9%	0.9%	1.2%	0.8%
Non-Farm Private	77.2%	76.9%	77.5%	78.9%
Utilities	1.3%	1.9%	2.0%	1.7%
Construction	6.9%	5.3%	6.1%	5.1%
Durable goods manufacturing	3.1%	2.7%	3.3%	2.7%
Nondurable goods manufacturing	17.9%	18.3%	16.3%	19.1%
Wholesale trade	4.2%	4.4%	4.6%	4.5%
Retail trade	7.7%	7.1%	7.1%	7.1%
Transportation and warehousing	2.1%	2.1%	1.7%	1.7%
Information	1.3%	1.5%	1.5%	1.2%
Finance and insurance	2.6%	2.9%	3.3%	3.2%
Real estate and rental and leasing	8.2%	7.8%	8.2%	9.4%
Professional services	6.0%	6.2%	5.4%	5.1%
Management consulting	0.9%	1.0%	0.7%	0.6%
Admin and waste manage services	2.8%	2.6%	2.2%	2.1%
Educational services	0.6%	0.6%	0.5%	0.6%
Health care and social assistance	8.3%	10.0%	11.0%	10.8%
Arts, entertainment, and recreation	0.7%	0.6%	0.8%	1.0%
Hotels/Bars/Restaurants	2.4%	2.2%	2.3%	2.1%
Other Services	2.7%	2.2%	2.1%	2.2%
Government	22.9%	23.1%	22.5%	20.9%

Non-durable manufacturing (mainly food and beverage) productivity continues to stand out among the industries in Solano County in terms of creating income. Health care and social assistance, as in other communities, remains an economic lynchpin for jobs and income. Real estate and leasing saw strong growth in 2014 from 2013 in terms of its continued climb out of the recession. Construction fell back a bit in 2014 from 2013 in terms of countywide importance.

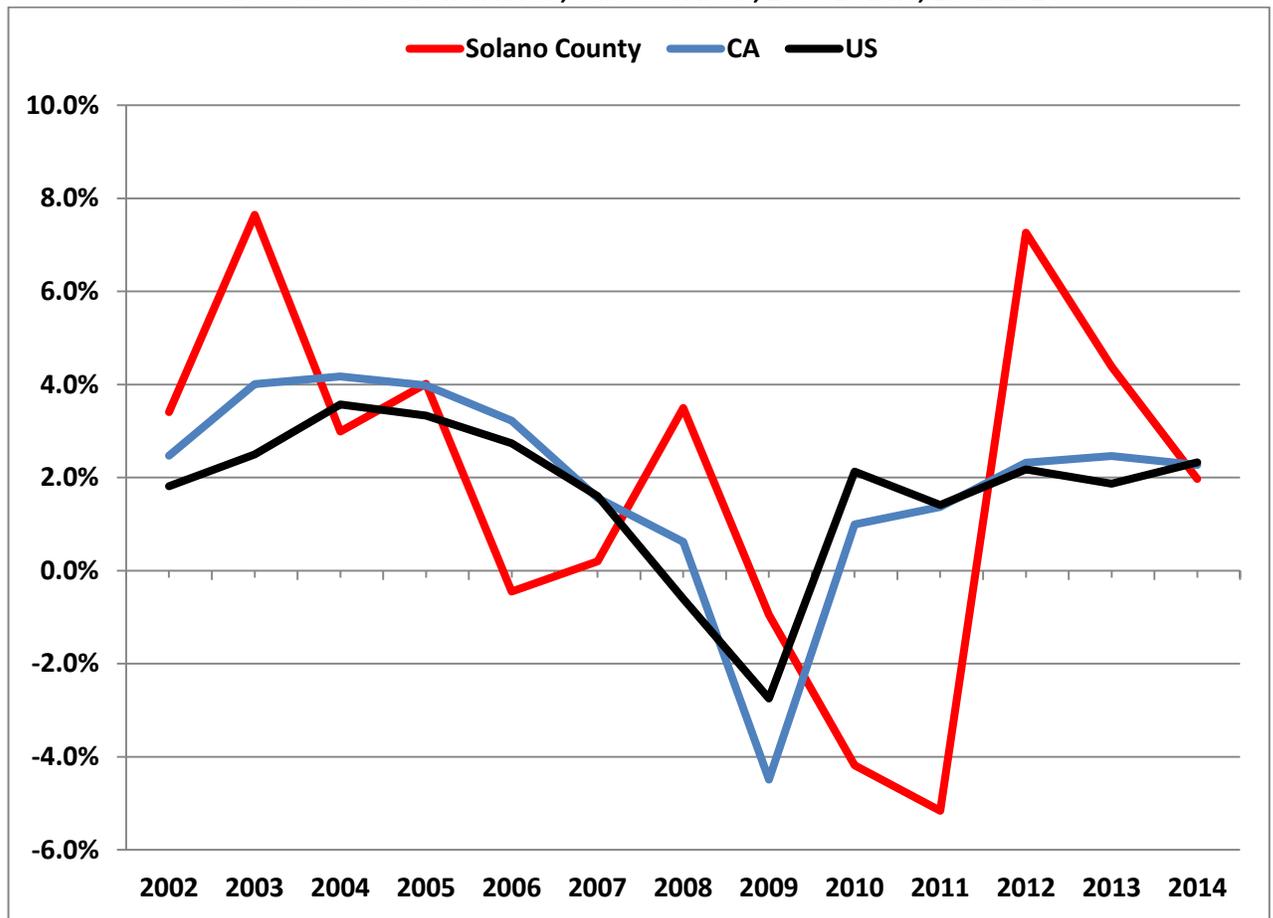
**TAKEAWAY:** Health care and non-durable manufacturing are helping to drive Solano County's economy, and also help economic diversity between serving the local population and connecting Solano County to markets outside its borders.

**WHAT IS IMPORTANT:** Growth is accelerated by traded sectors, businesses that focus on external markets, but there must also be balance and growth with businesses and jobs that locally serve Solano County's communities. Such economic diversity serves Solano County to prepare for another economic downturn and also builds a broad base of job possibilities for many different occupations and education levels.

## Gross Product Growth, 2002-2014, Solano County, California and the United States overall

Solano County’s gross county product had a good year of growth in 2014 (the latest data available) at 2.0 percent growth, but this growth was slower than both 2012 and 2013. Real estate gains and construction’s emergence fueled growth in 2012 and 2013. Growth in Solano County was basically the same pace as the state and nation overall. In inflation-adjusted dollars, the years between 2009 and 2011 were very difficult for the county economy. Based on US growth rates and the state of California growing slightly faster than the nation, 2015 should be another year of slow but positive growth for Solano County.

Gross Product Growth Rates, Selected Areas, 2009 Dollars, 2002-2014



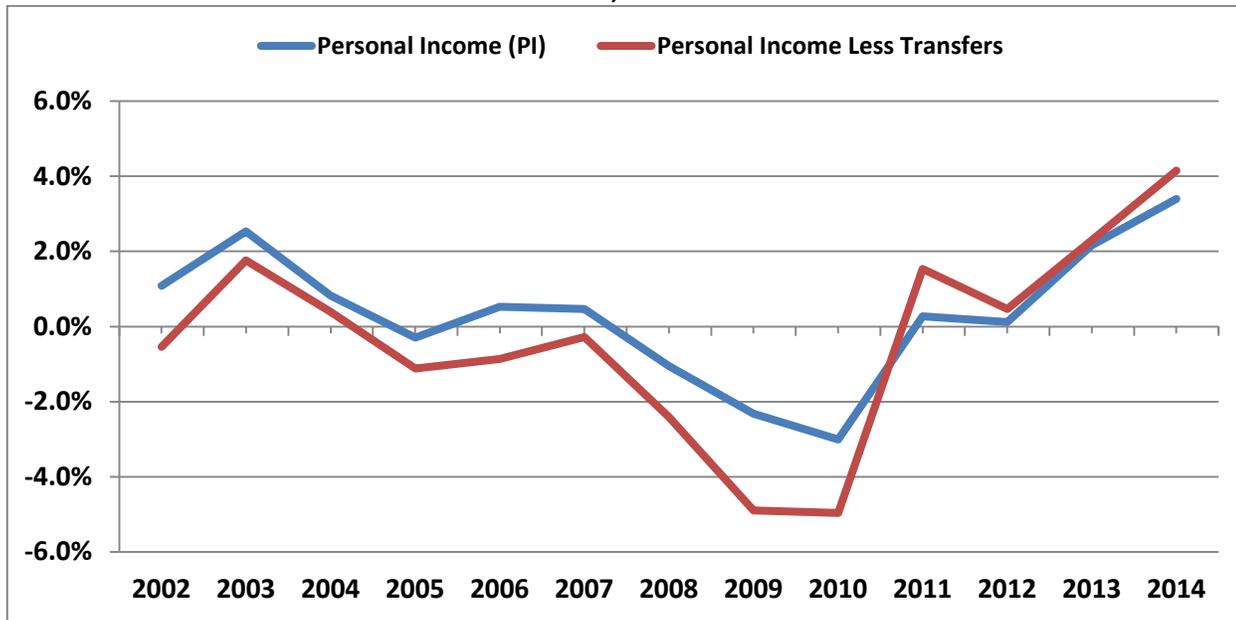
Source: Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov))

**TAKEAWAY:** Solano County continued to see gross product growth in 2014 (2.0 percent), albeit slower than 2012 and 2013, growing at about the same rate as the state and national economies (2.3 percent each).

**WHAT IS IMPORTANT:** Slowing income growth happens as an economic expansion matures; given the employment figures above, 2016 should be another year of income growth for Solano County.

## Personal Income

**Per Capita Personal Income Changes: Solano County  
2002-2014, 2009 Dollars**



Source: Bureau of Economic Analysis (www.bea.gov)

**Percent Change in Personal Income Per Capita to 2014, 2009 Dollars  
Solano County, California, and United States**

Comp to 2014	Solano County	CA	US
2007	-8.0%	-3.8%	-4.9%
2010	4.3%	8.1%	4.4%
2012	2.3%	-0.7%	-1.5%
2013	4.2%	3.1%	2.3%

Source: Bureau of Economic Analysis (www.bea.gov)

As part of gross product, personal income is what households use for paying taxes, buying goods and services, and also saving. Personal income is made up of wages and salaries, transfer payments from all levels of government, investment income (dividends, interest, and rents), business income from owning a business (proprietor’s income), and other income sources. Notice that personal income and the amount available after government transfers both increased in 2014 (the latest data available). The continued reduction in transfer payments, as a percentage of total, shows personal income is growing from earned and investment incomes. These data are good signs of continued growth in Solano County, which then becomes enhanced retail sales, housing demand, and demand for other services.

**TAKEAWAY:** Personal income less transfer payments grew faster in 2014 than in 2012 and 2013, a sign of continued growth and positive economic outcomes for county residents.

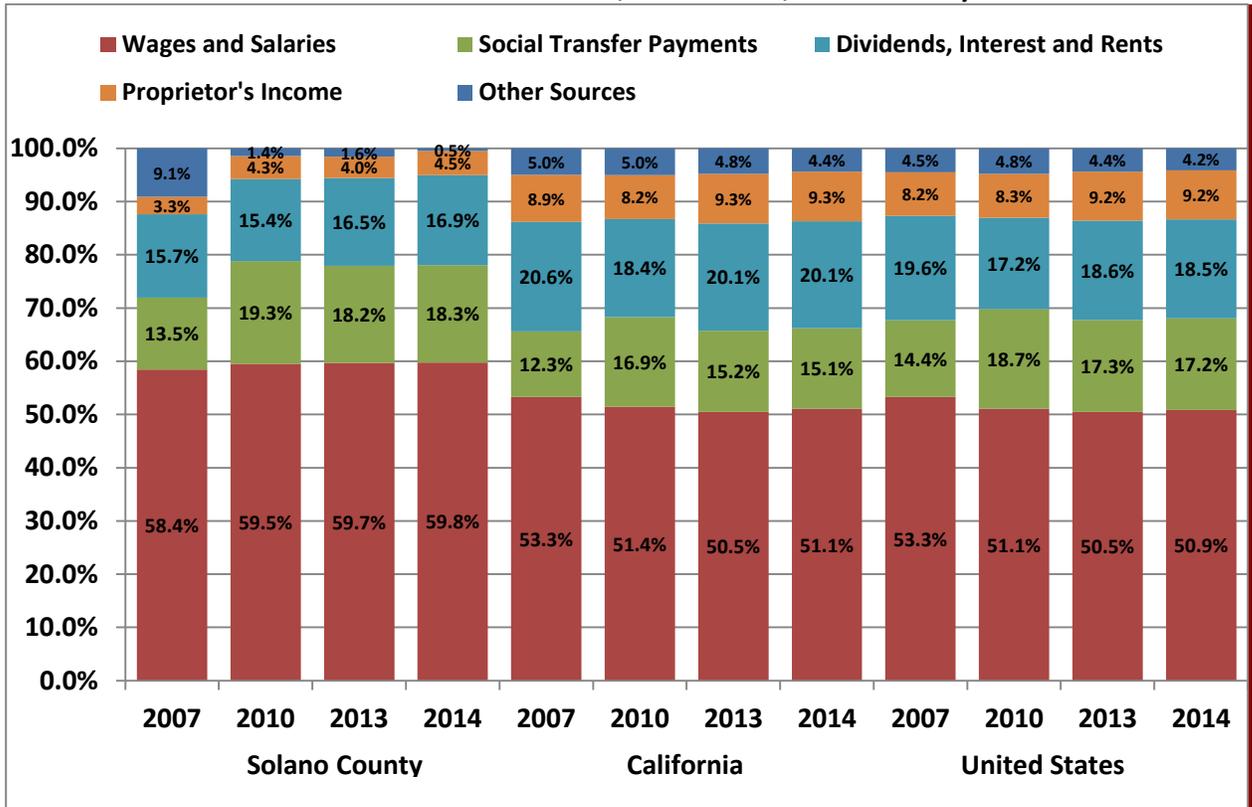
**WHAT IS IMPORTANT:** The growth of inflation-adjusted, personal income per capita shows the regional and national economies are generating jobs and investment gains that are increasing purchasing power for all of Solano County.

**Comparison of Percentage Change in Sources of Personal Income compared to 2014**  
**2009 Dollars, Selected Areas**

Percentage Change to 2014	Solano County			California			United States		
	2007	2010	2014	2007	2010	2014	2007	2010	2014
Personal Income	0.6%	6.3%	2.6%	9.7%	13.6%	4.4%	7.0%	8.7%	3.5%
Wages and Salaries	-7.8%	6.0%	3.9%	-4.1%	-0.6%	1.2%	2.1%	8.2%	4.2%
Social Transfer Payments	33.0%	-0.9%	3.2%	28.2%	-9.6%	-1.9%	27.9%	0.3%	3.3%
Dividends, Interest and Rents	4.9%	11.4%	2.3%	-20.6%	21.1%	0.3%	1.2%	17.4%	3.1%
Proprietor's Income	-16.0%	10.6%	1.5%	7.8%	3.6%	0.4%	20.1%	21.0%	3.3%
Other Sources	22.4%	13.3%	-9.2%	-15.8%	-22.6%	-8.7%	-1.2%	-5.8%	-1.9%

Source: Bureau of Economic Analysis (www.bea.gov)

**Sources of Personal Income, 2009 Dollars, Solano County**



Source: Bureau of Economic Analysis (www.bea.gov)

Households generate personal income from earnings at work primarily. Investment income from Dividend, Interest and Rents increased slightly in Solano County, as did government transfers. Continued equity market growth in 2014 helped support earned income and overall personal income growth to outpace the very small growth in government transfer payments.

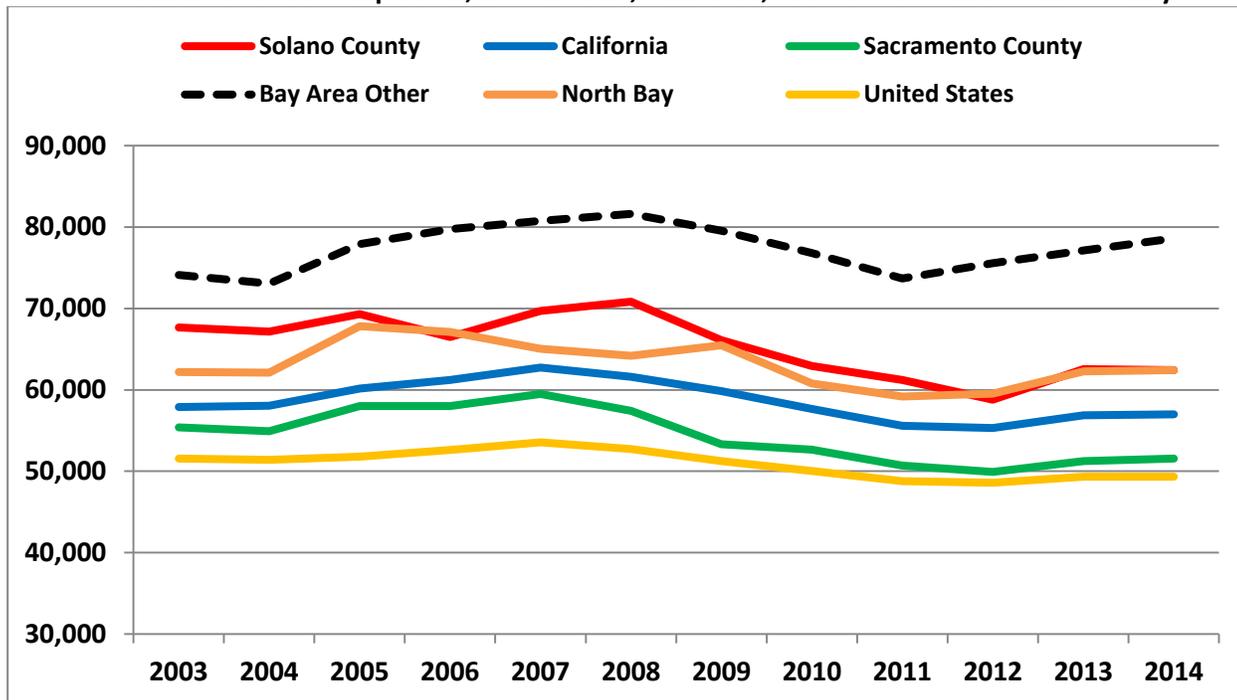
**TAKEAWAY:** The data from 2014 shows Solano County residents gained from investment and wage and salary income as drivers of personal income growth.

**WHAT IS IMPORTANT:** The data on jobs growth for 2015, mixed with American equity-market problems, leaves the growth of personal income in 2015 likely slower than 2012-14 on average; slower government transfer income suggests Solano County households are more stable financially.

## Median Household Income

Median household income is another measure, along with personal income per capita, of how well typical households generate income to consume and save. Median income measures are used in a variety of ways to consider social benefits. For Solano County, inflation-adjusted, median household income decreased a bit in 2014 and followed most selected areas short of the Bay Area Other counties. California’s median income grew at a slightly faster pace. The Bay Area Other counties, mainly San Francisco and San Mateo counties, continue to see income growth. As personal income has grown more quickly, median household income is now also rising. In real terms, Solano County median household income in 2009 dollars is \$62,449 in 2014 from \$62,541 in 2013.

**Median Household Comparison, 2009 Dollars, California, United States and Solano County**



Sources: Census Bureau (Median Household Income), California Department of Finance (CPI data)

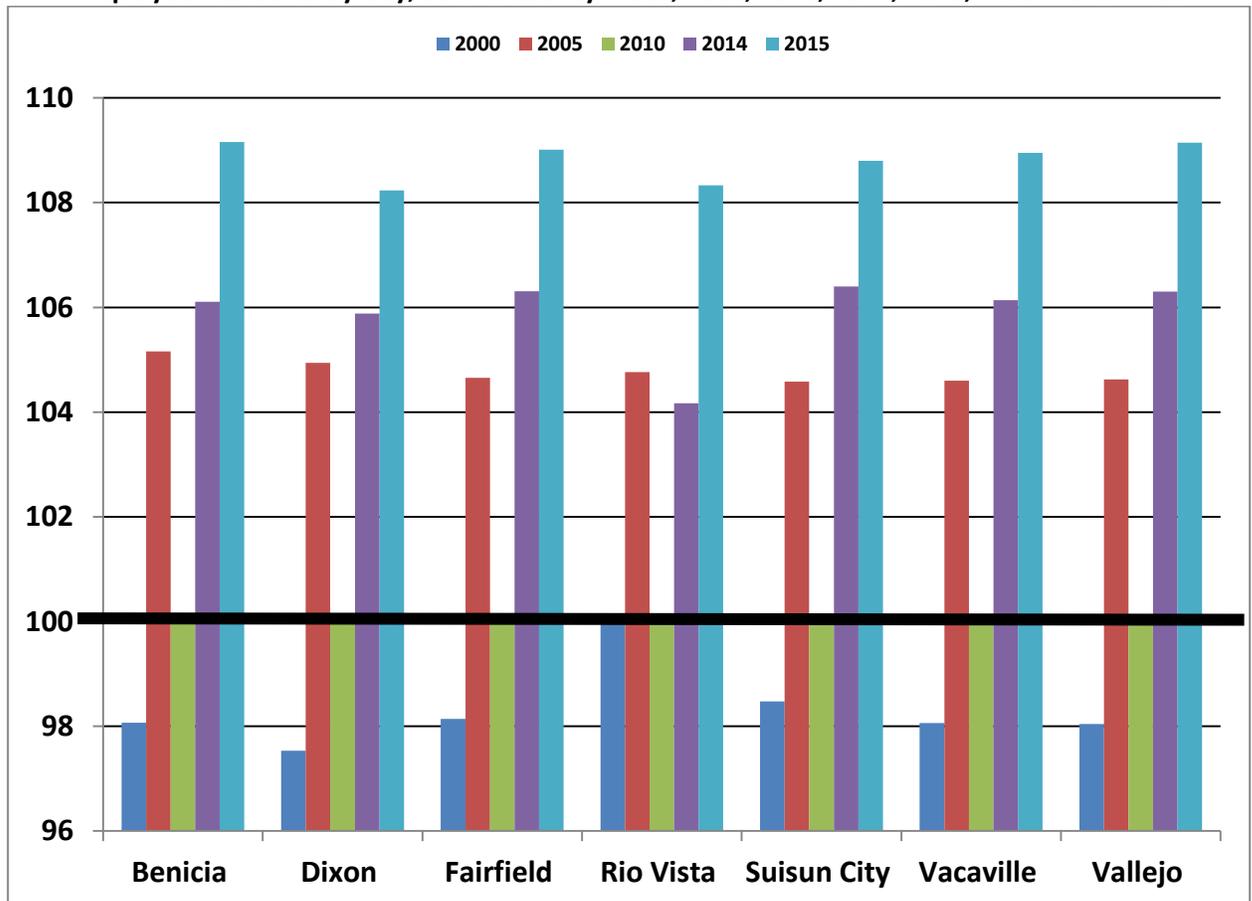
**TAKEAWAY:** Solano County median household income after inflation fell slightly in 2014 similar to the California average likely due to earned income slowing down while prices began to rise more quickly.

**WHAT IS IMPORTANT:** Solano County’s median household income remains relatively high among the compared counties and areas excluding the Bay Area Other, and the slight fall is more about prices versus Solano County, not continuing to improve economically.

## Cities Overview

Labor data for Solano County’s incorporated cities come from California’s Employment Development Department (EDD) and looks at how local residents are employed. Notice that each city has shown employment growth in 2015 from 2014, continuing a trend. Using Bureau of Economic Analysis (BEA) data and EDD data combined, “gross city product” or gross product is shown for the incorporated cities. In the “Our Changing Community” section, city-level demographic data are also provided for more comparisons.

**Employed Residents by City, Solano County: 2000, 2005, 2010, 2014, 2015, Index 2010 = 100**



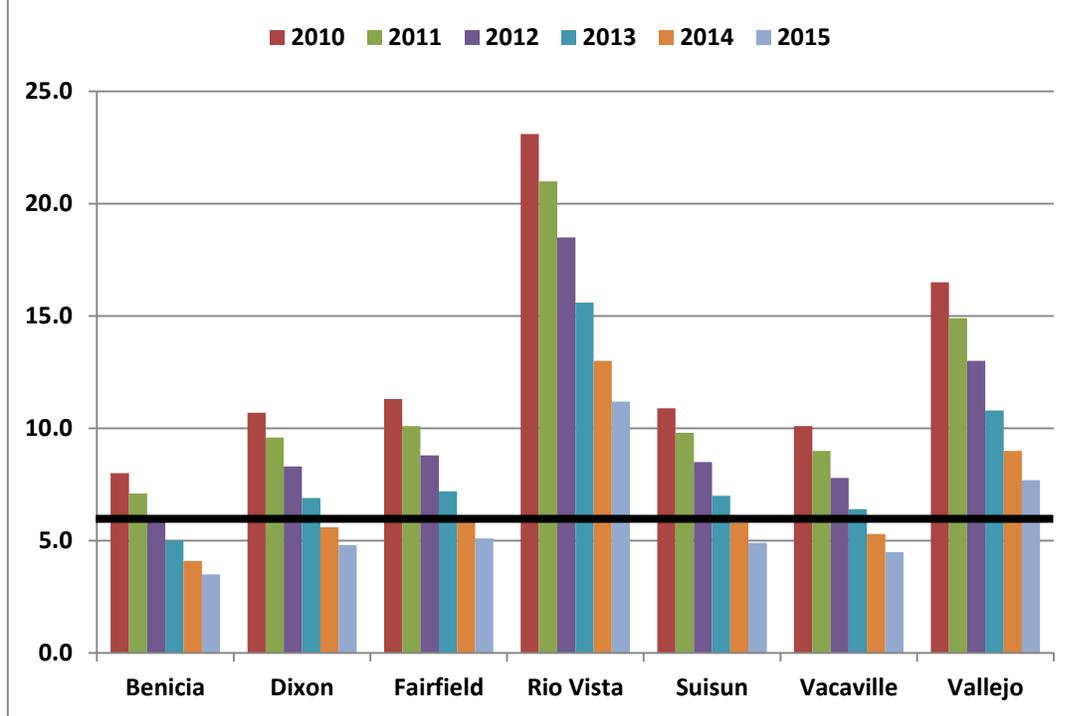
Source: California EDD ([www.edd.ca.gov](http://www.edd.ca.gov))

**TAKEAWAY:** All cities showed employment growth in 2015, providing further proof of Solano County’s continued emergence from recession and now touching all parts of the county economy.

**WHAT IS IMPORTANT:** The growth of employment in Solano County’s larger cities in 2015 is encouraging for income growth and retail sales in 2016.

## Cities Overview (cont.)

City Unemployment Rate Comparisons to Solano County December 2015 (5.6% at solid line)



Sources: California EDD ([www.edd.ca.gov](http://www.edd.ca.gov))

Notice in the unemployment rate comparison chart for Solano County’s cities that Vallejo, Fairfield and Suisun City have unemployment rates that are historically higher than the other cities and also higher than the December 2015 unemployment rate for Solano County overall.

**TAKEAWAY:** Solano County’s cities have seen their residents employed more and more since 2010, though Rio Vista still has a large proportion of unemployed residents in 2015. Because retired workers are difficult to measure, due to some workers owning businesses after retirement, some of Rio Vista’s unemployment may be due to an older population and labor force.

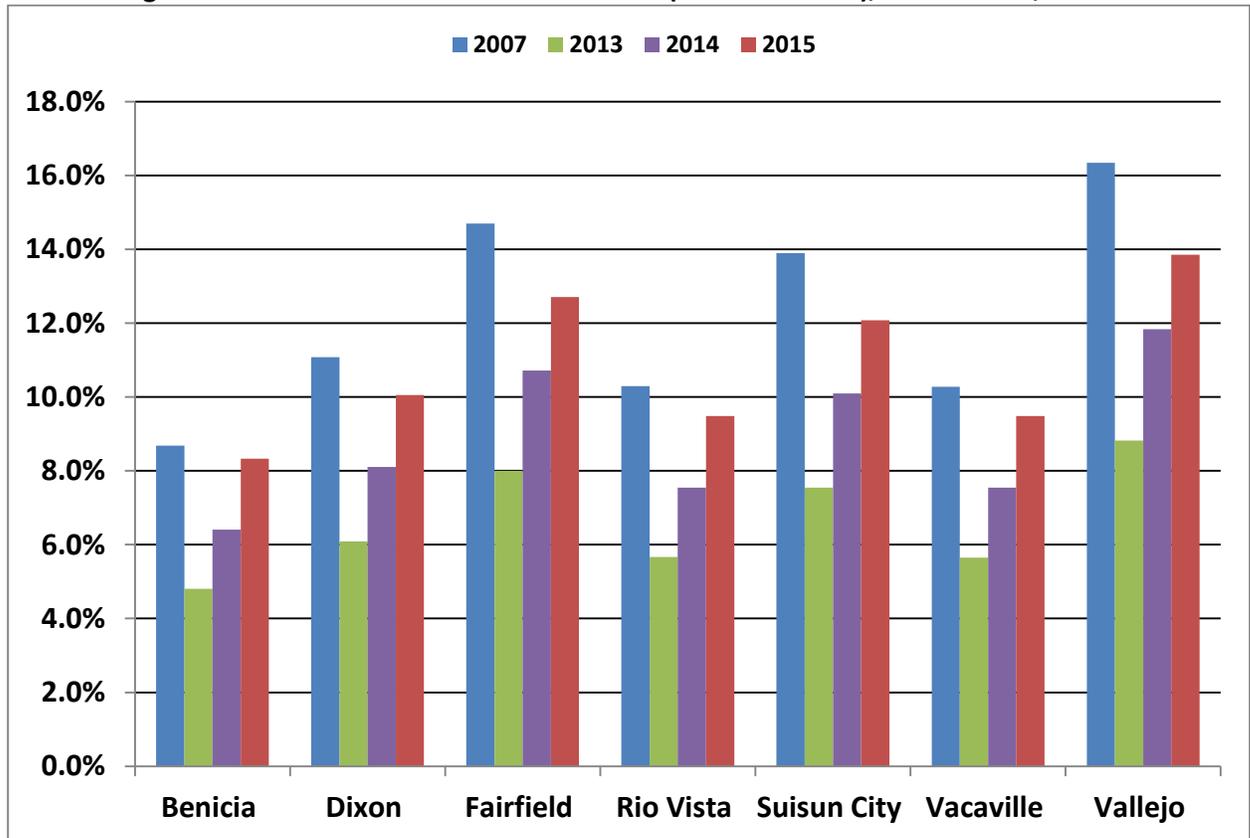
**WHAT IS IMPORTANT:** The relatively-high unemployment rate in Vallejo suggests that challenges remain specific to Vallejo as do opportunities in workforce development; the fall in Vallejo’s unemployment rate suggests progress is being made.

## Cities Overview (cont.)

### Gross City Product (GCityP)

Gross City Product (GCityP) is gross product at the city level: the total value of all final goods and services produced in the city limits in one year. Like the jobs data above, these data are a signal as to how the countywide income level is growing. The chart is the percentage change in GCityP for each city versus 2010, the year the recent recession ended. The levels of employment in 2015 continued trends across most cities and the county overall.

Percentage Difference in Gross Product versus 2010 (estimated data), 2009 Dollars, Selected Areas



Sources: California EDD ([www.edd.ca.gov](http://www.edd.ca.gov)), IMPLAN ([www.implan.com](http://www.implan.com))

**TAKEAWAY:** Income growth continues in Solano County’s cities, and the proportion of Solano County’s economy in the three larger cities continues to grow and drive the overall county employment level, income levels, and overall spending.

**WHAT IS IMPORTANT:** Solano County’s economic growth depends on business and jobs vitality in Fairfield, Vacaville and Vallejo; given labor market data at the city level, Solano County still has room to grow.

## Base Employment and Locally-Serving Industries

Moving Solano Forward Phase I provided specific industries and subindustries in Solano County with a focus on export markets (markets outside Solano County) and estimated levels of employment that serve these markets. These industries were contrasted with businesses that primarily serve the local population in Solano County. This dichotomy is known as an “economic base” analysis. Base industries are industries that provide a foundation for the local economy to build wealth and income based on customers and clients outside Solano County (drawing in resources from outside the local area). The data show a broad mix of industries that have some components that are export focused (base industries).

The data also show the number of jobs in each industry for the second quarter of 2007, 2010, and 2014 as compared to 2015. The latest data for Solano County’s labor market that are official estimates (for subindustry estimates, we use the Quarterly Census of Employment and Wages or QCEW); note that preliminary estimates are from 2015 quarter 2, and thus we are comparing Quarter 2 from our comparison years.

### Base Industry Employment, 2007 Q2, 2010 Q2, and 2014 Q2 compared to 2015 Q2

	2007 Q2	2010 Q2	2014 Q2	2015 Q2
<b>Base Industries Total</b>	<b>31,596</b>	<b>32,401</b>	<b>30,779</b>	<b>33,955</b>
Agriculture	1,661	1,489	1,851	1,945
Mining	278	223	269	238
Wholesale Trade	3,958	3,986	3,689	4,320
Information	651	612	464	458
Finance and Insurance	1,080	991	966	893
Real Estate and Rental and Leasing	290	119	217	232
Professional, Scientific, Technical Services	180	266	298	230
Management of Companies and Enterprises	1,031	1,217	787	778
Arts, Entertainment, and Recreation	2,651	2,455	3,524	2,786
Accommodation and Food Services	684	701	792	841
Federal government	3,943	4,975	2,861	3,739
State government	4,334	4,618	2,861	4,640
Manufacturing	6,985	6,109	7,816	8,355
Retail Trade	2,209	2,334	2,122	2,155
Transportation and Warehousing	1,661	2,306	2,262	2,345

Sources: *Moving Solano Forward* and Bureau of Labor Statistics ([www.bls.gov](http://www.bls.gov)) and its *Quarterly Census of Wages and Employment (QCEW)*

The current set of industry clusters that act as foci for Solano County’s economic development efforts are the following, as an output from Moving Solano Forward, Phase I:

- Energy (utilities, wind and solar, and fuel refining);
- Food Systems (agriculture and food manufacturing);
- Life Sciences (health care delivery to biotechnology research); and
- Advanced materials (manufacturing, research and logistics for products that add value to technology and other markets).

## Base Employment and Locally-Serving Industries (cont.)

The evolution of economic development efforts in Solano County may change these clusters and the businesses within each sector. Jobs left unassigned normally serve a mix of local and export markets.

### Locally Serving Industry Employment, 2007, 2010, 2012, 2014, and 2015 Q2

	2007 Q2	2010 Q2	2012 Q2	2014 Q2	2015 Q2
<b>Locally Serving Industries Total</b>	<b>74,537</b>	<b>68,902</b>	<b>68,249</b>	<b>75,802</b>	<b>74,271</b>
Utilities	442	480	499	559	554
Construction	11,217	7,119	7,662	8,420	8,515
Information	633	586	547	544	458
Finance and Insurance	2,508	2,323	2,757	2,533	893
Real Estate and Rental and Leasing	1,292	1,218	1,005	1,065	232
Professional, Scientific, Technical Services	3,177	3,121	2,967	3,735	230
Admin and Waste Management Services	6,778	6,579	4,589	4,576	4,782
Educational Services	1,467	1,537	1,462	1,465	1,051
Health Care and Social Assistance	8,842	12,777	13,556	17,551	18,906
Arts, Entertainment, and Recreation	1,490	222	326	1,351	2,786
Accommodation and Food Services	462	438	468	406	404
Other Services	3,421	3,097	3,338	3,621	3,697
Local Government	16,680	15,380	14,566	14,798	15,805
Local Portion of Retail Trade	15,220	13,281	13,930	14,541	15,350
Local Portion of Transportation and Warehousing	908	744	577	637	608
Jobs in industries unassigned by MSF to date	22,798	21,332	21,451	20,863	24,185

Sources: Moving Solano Forward (MSF) and Bureau of Labor Statistics ([www.bls.gov](http://www.bls.gov)) and its Quarterly Census of Wages and Employment (QCEW)

**TAKEAWAY:** Base industry employment increased in 2015 as job growth surged in Solano County, a further sign of a broadening economic base.

**WHAT IS IMPORTANT:** The most important idea with base versus locally-serving industries is economic balance and the reduction of the local economy's dependence on the local population for markets and customers. The more balanced Solano County remains, the more jobs are spread across educational and skill levels, and the less income leaks to other counties.

## Business Affordability: Wages

The Employment Development Department (EDD) of California publishes wage survey results annually for specific types of occupations. These occupations may have different industry settings; for example, a maintenance worker may be employed by a biotechnology firm, a retail store, or a hotel, but their core occupation is as a maintenance worker if changing employers. The tables here refer to only the major occupation categories. Comparisons are to metropolitan statistical areas (MSAs) in California and this Index’s comparison areas. The 2010 data is shown as a frame of reference for changing wages.

### Wages and Occupations, Solano County Compared to Other MSAs, % of State Average Wages in 2010

<i>Occupations</i>	<i>CA</i>	<i>Solano</i>	<i>Solano Wages</i>	<i>Sonoma</i>	<i>Napa</i>	<i>Sac</i>	<i>Oak</i>	<i>SF</i>	<i>SJ</i>
<b>Total all</b>	<b>\$24.10</b>	<b>94%</b>	<b>\$22.65</b>	<b>95%</b>	<b>97%</b>	<b>98%</b>	<b>110%</b>	<b>125%</b>	<b>135%</b>
Management Services	56.64	88%	<b>49.84</b>	88%	97%	90%	102%	114%	123%
Business and Financial Operations	34.98	93%	<b>32.53</b>	90%	94%	88%	106%	126%	119%
Computer and Mathematical	42.16	88%	<b>37.10</b>	96%	88%	87%	98%	110%	126%
Architecture and Engineering	41.56	84%	<b>34.91</b>	90%	90%	98%	103%	100%	116%
Life, Physical, and Social Science	35.36	102%	<b>36.07</b>	101%	134%	92%	107%	117%	124%
Community and Social Services	24.59	117%	<b>28.77</b>	88%	93%	101%	105%	107%	104%
Legal Services	56.00	86%	<b>48.16</b>	97%	105%	82%	95%	112%	125%
Education, Training, and Library	27.46	98%	<b>26.91</b>	92%	113%	95%	100%	109%	104%
Arts, Design, Entertainment, Sports, and Media	31.60	70%	<b>22.12</b>	80%	68%	82%	94%	109%	104%
Healthcare Practitioners and Technical	40.21	99%	<b>39.81</b>	95%	112%	103%	110%	112%	122%
Healthcare Support Services	14.62	104%	<b>15.20</b>	110%	112%	104%	109%	122%	113%
Protective Services	25.37	128%	<b>32.47</b>	114%	102%	97%	105%	97%	111%
Food Preparation and Serving-Related	10.66	95%	<b>10.13</b>	104%	113%	99%	101%	114%	101%
Building and Grounds Cleaning and Maintenance	13.23	104%	<b>13.76</b>	105%	103%	102%	111%	111%	104%
Personal Care and Services	12.97	96%	<b>12.45</b>	111%	103%	96%	109%	125%	105%
Sales and Related Services	18.93	82%	<b>15.52</b>	96%	102%	94%	108%	128%	129%
Office and Administrative Support	17.82	100%	<b>17.82</b>	101%	103%	102%	110%	117%	117%
Farming, Fishing, and Forestry	10.11	109%	<b>11.02</b>	121%	125%	114%	125%	177%	110%
Construction and Extraction	24.62	105%	<b>25.85</b>	110%	105%	99%	115%	123%	114%
Installation, Maintenance, and Repair	22.86	110%	<b>25.15</b>	104%	104%	101%	113%	113%	113%
Production Jobs	15.95	119%	<b>18.98</b>	107%	122%	107%	113%	113%	114%
Transportation and Material Moving Services	\$16.06	102%	<b>16.38</b>	99%	102%	100%	114%	123%	104%

Source: Employment Development Department, Occupations Data ([www.edd.ca.gov](http://www.edd.ca.gov)), 2010 Q1

In the 2015 wage data, the Bay Area’s metropolitan areas of Oakland, San Jose and San Francisco are all significantly above the state average in almost all occupations. Sacramento, another metropolitan area, is just trailing the state average wage level. Solano County has more expensive labor in 2015 overall than in 2010 and now exceeds Napa and Sonoma Counties on average. Some categories in 2010 and 2015 were similar except for agricultural jobs, especially education, business services and financial occupations. What these data provide are ways to look at labor affordability in various locations around California relative to each other and the State average.

## Business Affordability: Wages (cont.)

### Wages and Occupations, Solano County Compared to Other Areas, % of State Average Wages in 2015

Occupations	CA	Napa	Sonoma	Solano	Solano Wages	Sac	Oak	SF	SJ
<b>Total all occupations</b>	<b>\$26.41</b>	<b>89%</b>	<b>92%</b>	<b>92%</b>	<b>\$24.30</b>	<b>96%</b>	<b>112%</b>	<b>129%</b>	<b>141%</b>
Management Services	60.98	89%	89%	84%	51.22	87%	105%	120%	128%
Business and Financial Operations	38.87	96%	90%	96%	37.32	89%	105%	122%	119%
Computer and Mathematical	48.48	77%	88%	87%	42.18	84%	102%	108%	125%
Architecture and Engineering	46.64	82%	91%	89%	41.51	95%	103%	108%	117%
Life, Physical, and Social Science	38.15	99%	94%	103%	39.29	92%	111%	120%	108%
Community and Social Services	25.13	99%	98%	103%	25.88	100%	107%	104%	113%
Legal Services	58.55	59%	91%	68%	39.81	90%	92%	117%	118%
Education, Training, and Library	28.32	96%	87%	94%	26.62	95%	103%	105%	107%
Arts, Design, Entertainment, Sports, and Media	34.33	83%	79%	68%	23.34	76%	84%	104%	101%
Healthcare Practitioners and Technical	45.18	101%	89%	104%	46.99	106%	114%	119%	119%
Healthcare Support Services	16.68	105%	114%	101%	16.85	105%	115%	118%	115%
Protective Services	25.93	89%	109%	125%	32.41	97%	107%	115%	96%
Food Preparation and Serving-Related	11.55	116%	103%	96%	11.09	98%	99%	115%	105%
Building and Grounds Cleaning and Maintenance	14.18	102%	108%	102%	14.46	101%	112%	117%	108%
Personal Care and Services	13.21	110%	108%	92%	12.15	91%	102%	123%	106%
Sales and Related Services	20.82	103%	94%	85%	17.70	94%	108%	135%	128%
Office and Administrative Support	19.22	98%	103%	98%	18.84	99%	110%	119%	120%
Farming, Fishing, and Forestry	10.38	128%	123%	113%	11.73	102%	132%	167%	112%
Construction and Extraction	26.41	107%	108%	101%	26.67	97%	113%	122%	113%
Installation, Maintenance, and Repair	24.25	96%	103%	106%	25.71	98%	111%	119%	111%
Production Jobs	17.23	111%	104%	117%	20.16	107%	116%	119%	114%
Transportation and Material Moving Services	17.10	94%	98%	101%	17.27	98%	120%	121%	105%

Source: Employment Development Department, Occupations Data ([www.edd.ca.gov](http://www.edd.ca.gov)), 2015 Q1

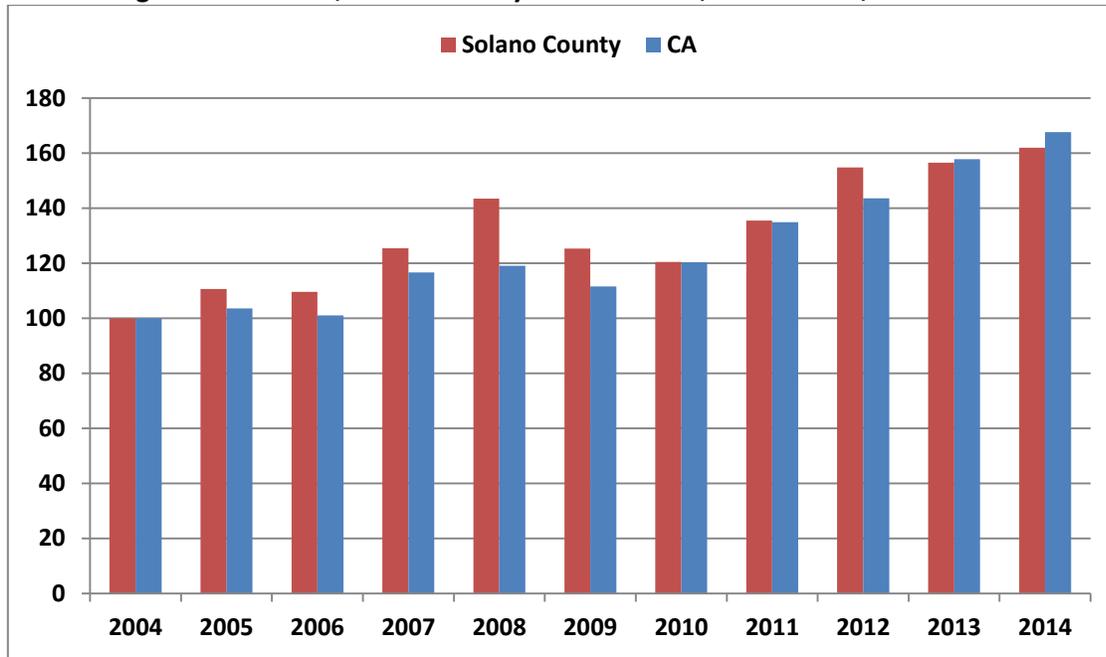
**TAKEAWAY:** Solano County continues to be a place with relatively less-expensive labor for similar occupations compared to the Bay Area outside Solano County and Sacramento’s MSA.

**WHAT IS IMPORTANT:** Relatively lower wages are both a blessing and curse. As housing prices and the costs of living rise, Solano County residents require higher wages to maintain their income’s purchasing power. They may commute to gain access to such wages. Low labor costs, however, can be attractive to businesses wanting to locate in Solano County versus the surrounding region.

## Agriculture

For the 2015 Index, we include a brief look at agricultural revenues. Drought conditions and the role of agriculture in the Food Chain industry cluster make this industry one to watch. Solano County has a long history in agriculture, from tomato processing, hay and nuts to livestock and regional processing facilities. Solano County is an agricultural hub for Northern California, from meat processing to warehousing. The county’s Agricultural Commissioner publishes annual data on the agricultural outcomes in Solano County. The Bureau of Economic Analysis also provides such data, though at the aggregate level. Cattle and grapes have become more important since 2010. Solano County ranks among California’s top producers of tomatoes. Dairy products slipped out of the top-ten industries after 2014.

**Total Agricultural Value, Solano County and California, 2004 – 2014, Index 2004 = 100**



Sources: [www.bea.gov](http://www.bea.gov) and Solano County Agricultural Commissioner

**Top 10 Agricultural Industries and Revenues, 2010-2014, Sorted by 2014 Data**

	2010	2011	2012	2013	2014
Tomatoes (Processed)	\$36,901,400	\$24,326,500	\$29,294,000	\$29,745,000	\$46,124,000
Walnuts	31,161,700	36,597,400	46,759,000	55,435,000	45,422,000
Alfalfa	19,742,700	33,183,100	36,085,000	35,368,000	43,700,000
Nursery Products	23,352,000	23,630,200	32,707,000	35,144,000	35,594,000
Cattle/Calves	22,608,000	22,030,700	40,765,000	35,795,000	31,673,000
Grapes	9,274,800	10,418,800	19,778,000	17,997,000	17,621,000
Almonds	8,468,100	8,975,500	12,799,000	17,113,000	14,156,000
Wheat	9,672,700	14,399,900	9,986,000	9,164,000	13,789,000
Corn	9,965,200	12,881,900	12,927,000	13,391,000	8,666,000
Sheep	6,355,600	9,977,000	5,754,000	5,755,000	7,912,000
All Other Ag Products	81,895,800	95,238,000	95,841,000	93,308,000	113,988,000
<b>Total Solano County</b>	<b>\$259,398,000</b>	<b>\$291,659,000</b>	<b>\$342,695,000</b>	<b>\$348,215,000</b>	<b>\$378,645,000</b>

Source: Solano County Agricultural Commissioner

([http://solanocounty.com/depts/agriculture/crop\\_report/2009\\_2018.asp](http://solanocounty.com/depts/agriculture/crop_report/2009_2018.asp))

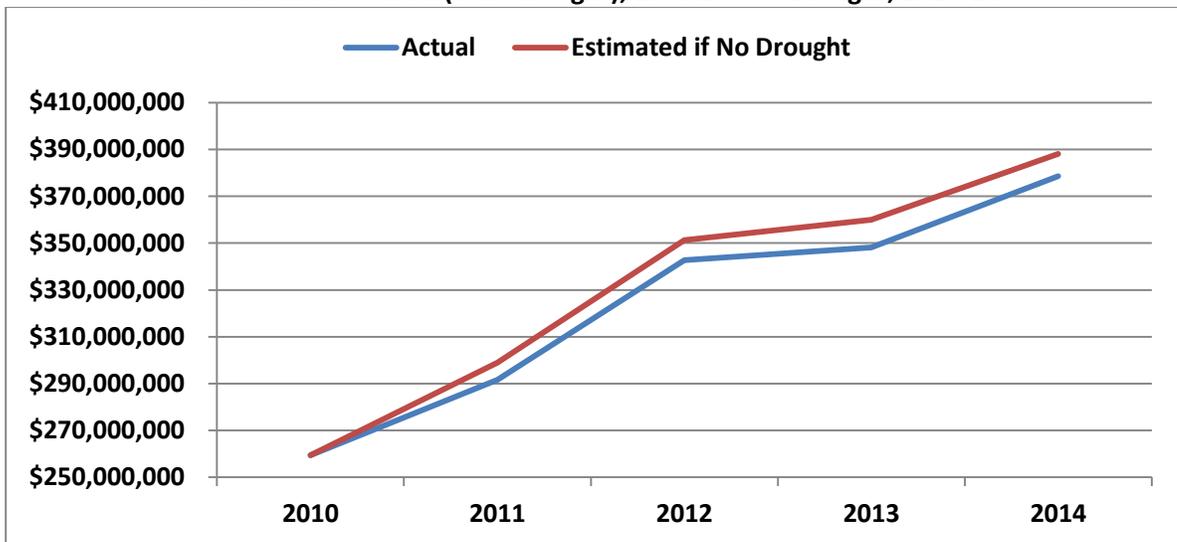
**TAKEAWAY:** Solano County’s agricultural industries have shown growth since 2010, while other goods-producing industries, such as construction, have shown relatively flat growth; agriculture has helped provide the county economy with some balance after the Great Recession.

**WHAT IS IMPORTANT:** Agriculture provides a local connection for food and beverage manufacturing in Solano County, where the tomato-processing business is one example of that; local farmers help other local businesses in the agricultural supply chain.

## Drought Conditions

Water is part of a local area’s infrastructure; a lack of water can push businesses that are water-intensive away and having water can attract such businesses. Food and beverage manufacturing can be water-intensive businesses; for beverages, water is the basic input. For farmers, water is a major input for any crop or livestock. A recent study by UC Davis suggested that the economic impact of the California drought in 2015 may have been as much as \$2.7 billion of lost revenues and additional costs to farmers, and perhaps as many as 21,000 jobs, starting with agriculture. Crop losses were estimated at 2.6 percent and livestock losses were 2.8 percent. For Solano County, drought can lead to larger costs of water for local businesses and non-farm businesses will face similar tradeoffs to local farmers the longer drought conditions linger. The following chart shows an estimated loss to agriculture from drought, assuming 2.5 percent of farm revenue was lost each year from 2010 forward. Drought also affects other businesses, and there is a strong connection between water utility rates, water systems, rainfall, water-intensive businesses concentrating in Solano County, and also residential use of water all coming together to impact water systems.

**Comparison of Agricultural Revenue in Solano County  
Actual and Potential (if no drought), 2.5% Lost to Drought, 2010-14**



Sources: UC Davis and Solano County Agricultural Commissioner and Author’s Calculations

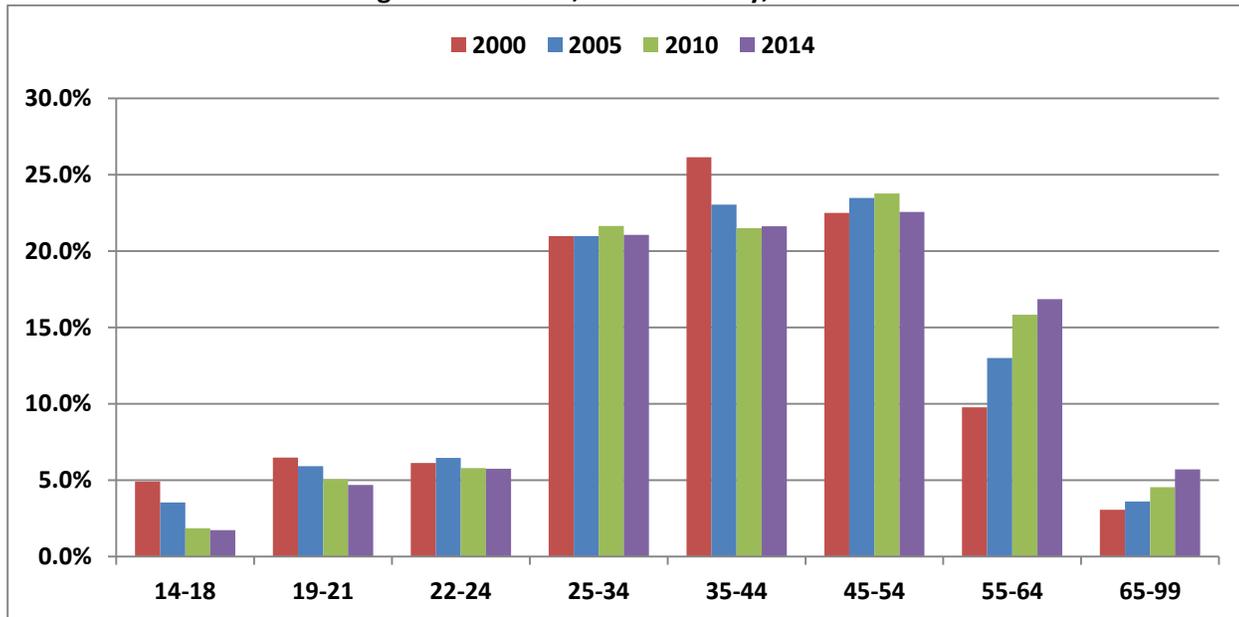
**TAKEAWAY:** Solano County, like other parts of California, has faced drought conditions that have likely affected agricultural revenue. We assume farmers are the primary industry drought conditions affect in Solano County.

**WHAT IS IMPORTANT:** All of California has faced these conditions, and businesses that are water-intensive (food and beverage manufacturing, e.g.) beyond farming can also be affected.

## Age of the Workforce

A concern after 2010 (and the Great Recession’s end) was employment shifting toward older workers and reducing opportunities for younger workers. The data show clearly that since the year 2000, the labor force has aged. Recessions delay decisions to retire and to hire, which may also lead to more workers above the age of 55 and fewer replacement and growth opportunities for new entrants, such as high-school and college graduates. The data for California and Solano County show such shifts toward an older workforce, especially since 2010. San Francisco County is more mixed since 2010, a sign of attracting younger workers to the Bay Area overall.

Age of Workforce, Solano County, 2000 - 2014

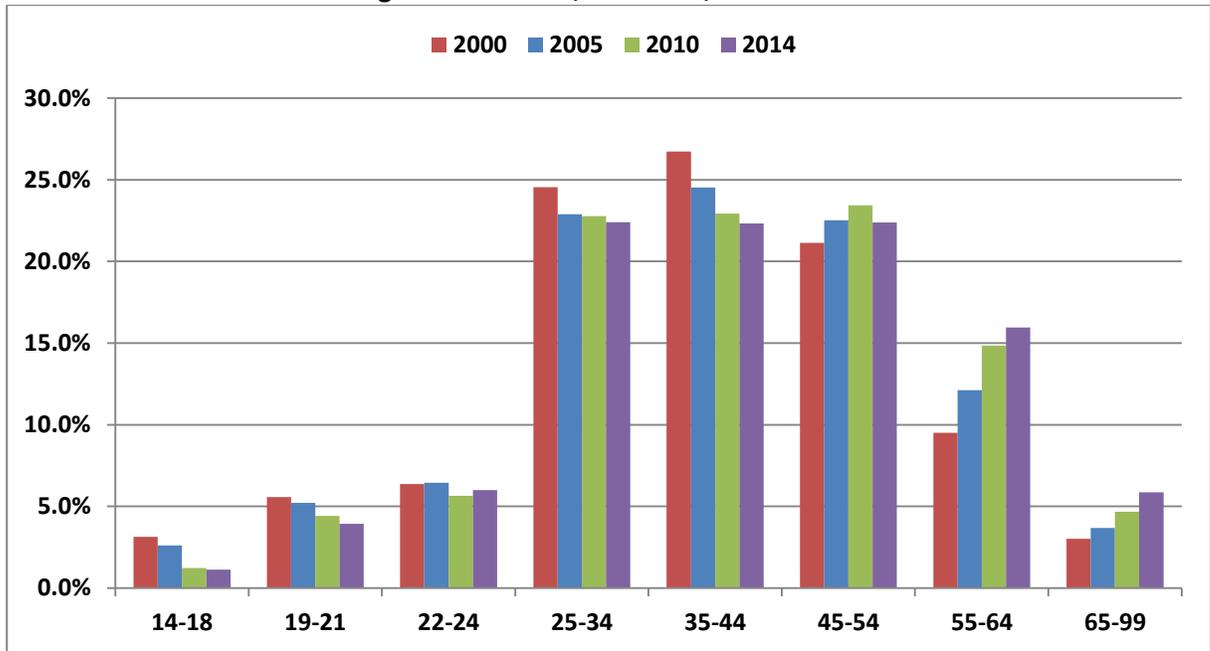


Source: QWI Explorer (<http://qwiexplorer.ces.census.gov/>)

**TAKEAWAY:** Solano County’s workforce has aged, shown specifically in the 55 and older category. This is a combination of a larger population of aging, working adults and workers that need to work into later ages than previous generations.

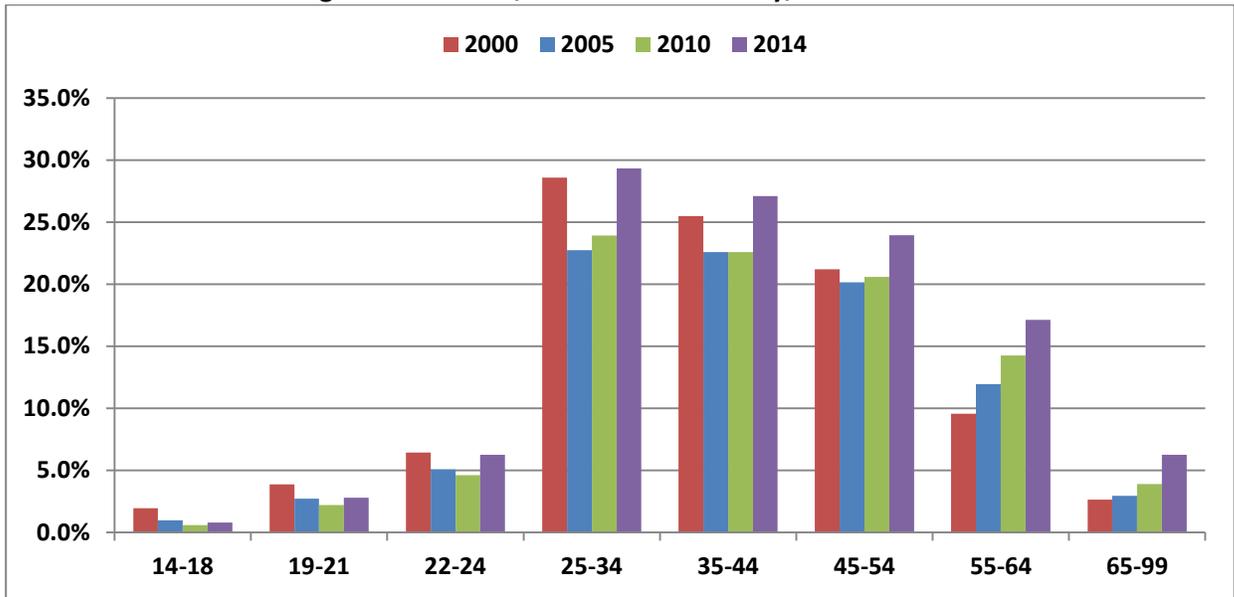
**WHAT IS IMPORTANT:** There are workforce development challenges as the workforce ages in terms of retraining and retooling workers. Older, more-experienced workers close off opportunities to younger workers, especially those coming out of community colleges and universities.

Age of Workforce, California, 2000 - 2014



Source: QWI Explorer (<http://qwiexplorer.ces.census.gov/>)

Age of Workforce, San Francisco County, 2000 - 2014



Source: QWI Explorer (<http://qwiexplorer.ces.census.gov/>)

## Jobs-Housing Ratios

The Association of Bay Area Governments (ABAG) published a strategy document on jobs, housing and transportation called “Plan Bay Area” in 2013 ([www.planbayarea.org](http://www.planbayarea.org)). This strategy document included Solano County as one of the Bay Area counties. One data point that compared the nine counties identified by ABAG is a jobs-housing ratio. The reason why this metric is used for regional planning is to measure the number of jobs to the number of housing units to indicate the amount of commuting necessary to satiate employer needs for workers locally. This assumes that everyone working demands a housing unit, and also assumes one worker per housing unit (where there are many households with more than one worker).

The data below compare selected areas to each other, including the Sacramento MSA counties which are not in the ABAG document but do compete with Solano County for workers and housing options. The jobs are non-farm jobs, which looks at who is employed locally to the number of local housing units.

**Jobs/Housing Ratio, Selected Areas, 2010, 2014, 2015**



Sources: California Dept. of Finance ([www.dof.ca.gov](http://www.dof.ca.gov)) and California EDD ([www.edd.ca.gov](http://www.edd.ca.gov))

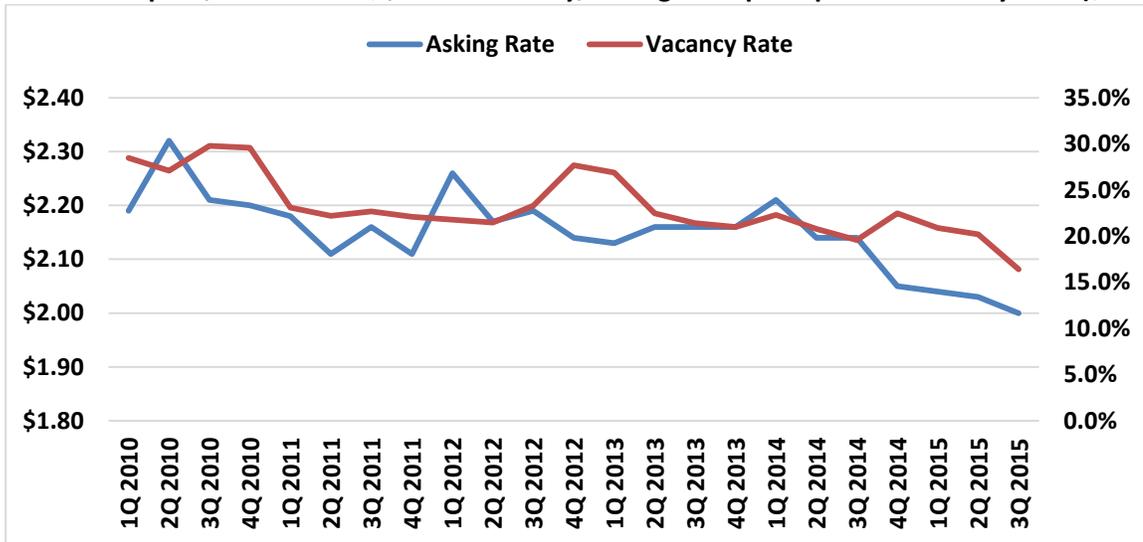
**TAKEAWAY:** Solano County has a relatively low jobs-housing ratio, suggesting relatively lower prices for homes and the ability for more workers to live locally.

**WHAT IS IMPORTANT:** These data show that San Francisco’s MSA likely has a shortage of housing if local housing is meant to house local workers, as does Napa County. These data are also used as ways to consider commuting patterns versus workforce; a low ratio suggests a heavy outbound commute, and a high ratio suggests heavy inbound commute patterns.

## Commercial Real Estate

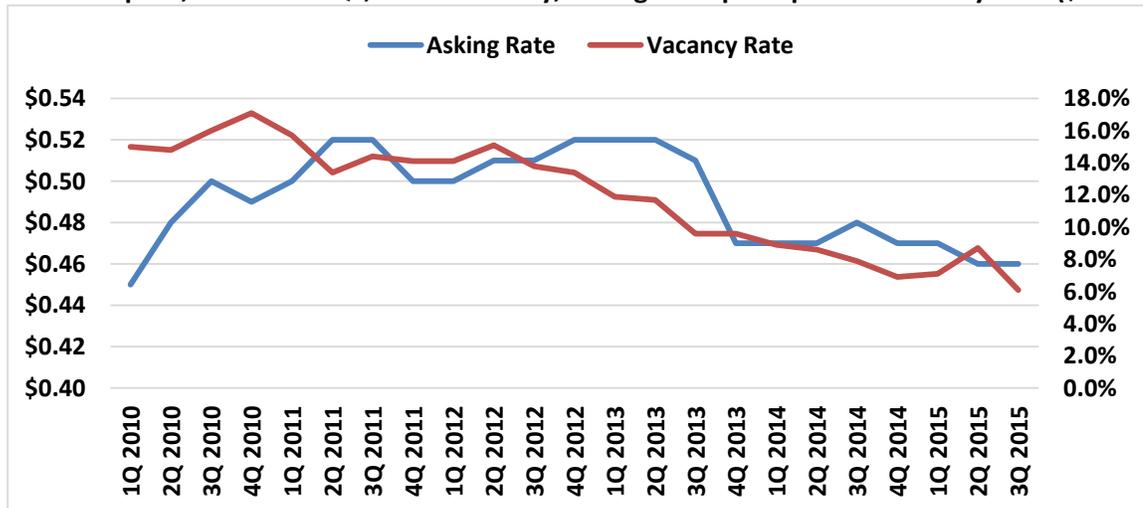
Commercial real estate data provide a way to track the available infrastructure for companies to operate. This can be office, industrial, medical, retail, and other types of specialty spaces. The focus here is on industrial and office, two of the most common types. As with other markets, the commercial real estate market is regional.

**Class A Office Space, 2010-2015 Q3, Solano County, Asking Price per Sq Ft and Vacancy Rate (\$ and %)**



Source: Colliers International

**Industrial Space, 2010-2015 Q3, Solano County, Asking Price per Sq Ft and Vacancy Rate (\$ and %)**



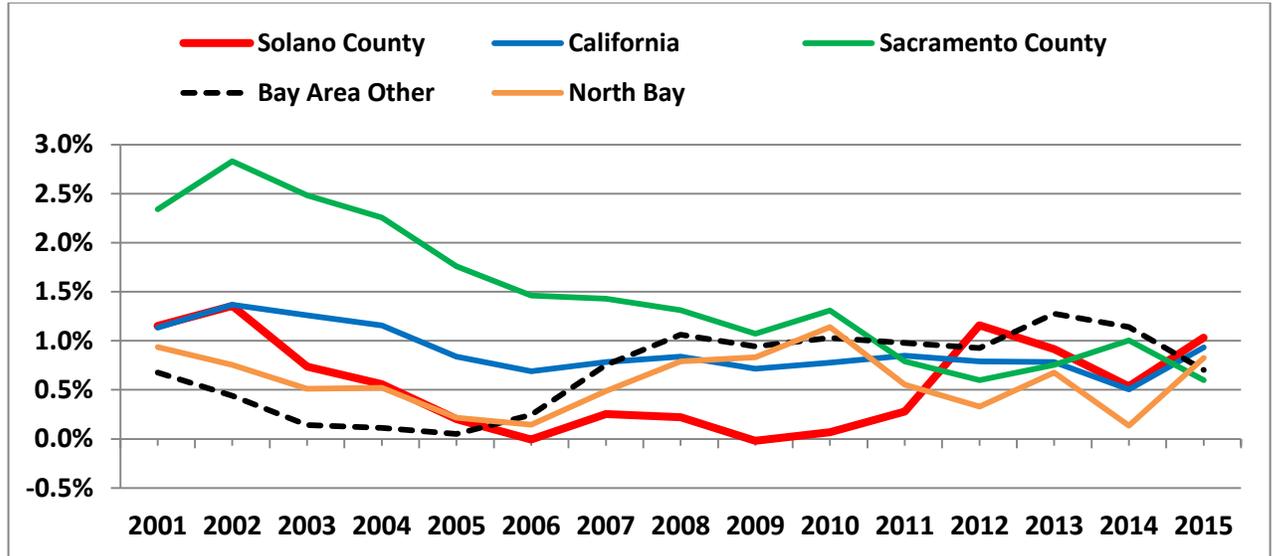
Source: Colliers International

**TAKEAWAY:** Vacancy rates falling are signs that the local economy has improved and that businesses, both attracted and expanding, are utilizing commercial space to do business.

**WHAT IS IMPORTANT:** Asking prices and vacancy rates falling simultaneously suggest that there remains a large amount of commercial space available, such that demand is not exceeding supply.



## Population Growth



Source: California Department of Finance, Demographic Research Unit (www.dof.ca.gov)

Solano County’s residents grew by 4,383 people in 2015, growth of approximately one percent. The Bay Area economy continues to grow its population faster than Solano County, just over 1.2 percent in 2015. California’s population grew slightly slower than Solano County, just under one percent. Sacramento’s metro area (MSA) also grew by 0.9 percent. Since 2010, Solano County has now seen its population grow by four percent. The Bay Area population outside of Solano County has risen 5.1 percent since 2010. In 2015, the Bay Area outside of Solano County has just over 45,040 new residents, fewer new residents than 2015. Housing prices and general costs of living will slow population growth in these areas over time. Sonoma and Napa counties combined grew at a slower pace of 0.8 percent or only 5,221 people since 2014.

### Population Growth as Compared to 2015, Selected Areas (change in Total Population)

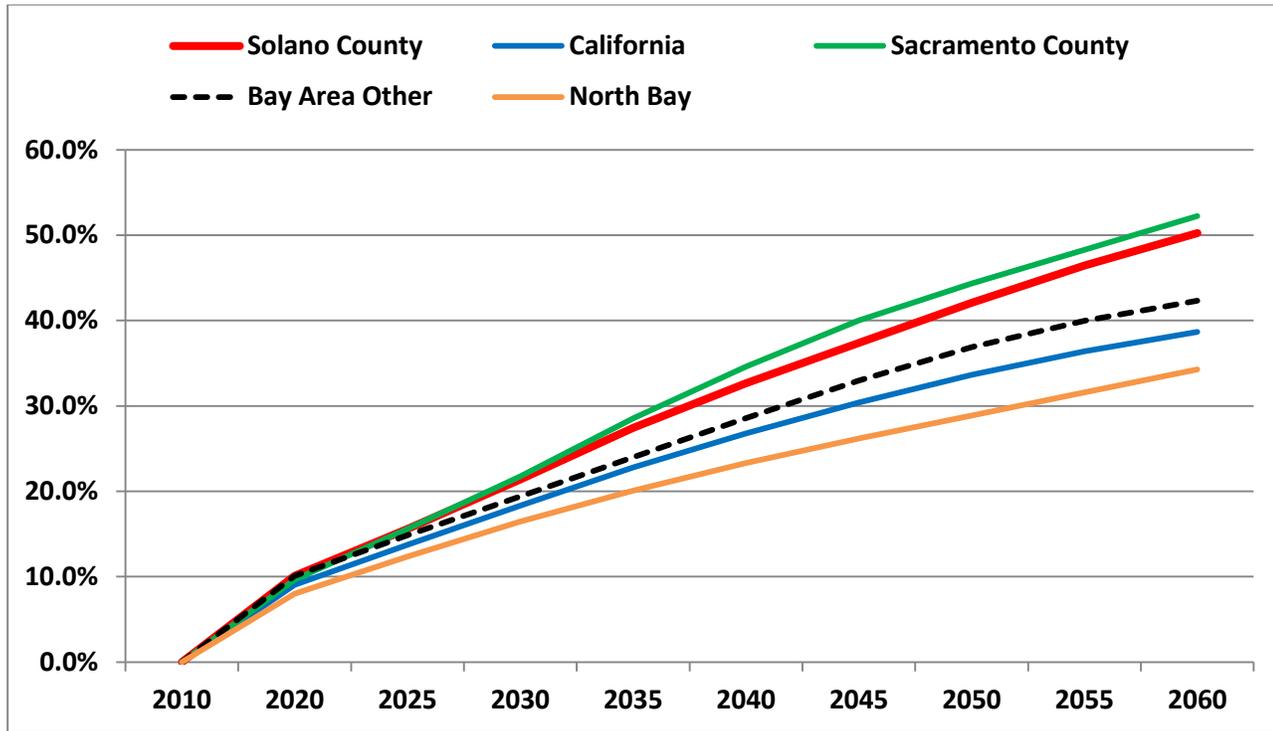
Place	2010	2014	2010	2014
<b>Solano County</b>	<b>4.0%</b>	<b>1.0%</b>	<b>16,438</b>	<b>4,383</b>
California	3.9%	0.9%	1,460,769	357,604
Sacramento MSA	3.8%	0.9%	81,896	13,301
Bay Area Other	5.1%	1.2%	314,135	45,040
North Bay	2.5%	0.8%	15,774	5,221

Source: California Department of Finance, Demographic Research Unit (www.dof.ca.gov)

**TAKEAWAY:** Solano County’s population continued to grow in 2015, slightly faster than the state on average.

**WHAT IS IMPORTANT:** Solano County, due to its proximity to the greater Bay Area and Sacramento, remains a place for new residents. Local housing prices and ease of commuting help attract new residents. However, if that population is not working locally, Solano County simply becomes a place where people commute and live. This helps retail sales, but not necessarily all local employers.

## Population Growth Projections



Source: California Department of Finance, Demographic Research Unit ([www.dof.ca.gov](http://www.dof.ca.gov)), Dec 2014

Solano County is projected to have its population grow more quickly than any selected areas beyond Sacramento County. The growth accelerates for both Solano and Sacramento counties after 2030, though not as much for the state overall or the coastal counties of the Bay Area; California’s Department of Finance forecasts that Solano County will stay on pace with the state overall between 2014 and 2025.

**Cumulative Population Growth Projections 2020-2060, Selected Areas**

Place	2010-20	2020-25	2025-30	2030-35	2035-40	2040-45	2045-50	2050-55	2055-60
Solano County	10.1%	15.6%	21.4%	27.4%	32.7%	37.4%	42.1%	46.4%	50.2%
California	9.0%	13.7%	18.3%	22.8%	26.8%	30.4%	33.6%	36.4%	38.7%
Sacramento MSA	9.6%	15.6%	21.8%	28.5%	34.6%	40.0%	44.3%	48.3%	52.2%
Bay Area Other	10.1%	14.8%	19.4%	24.0%	28.6%	33.0%	36.9%	40.0%	42.3%
North Bay	8.0%	12.4%	16.5%	20.1%	23.3%	26.2%	28.9%	31.6%	34.3%

Source: California Department of Finance, Demographic Research Unit ([www.dof.ca.gov](http://www.dof.ca.gov))

**TAKEAWAY:** Solano and Sacramento counties are projected to grow by more than 50 percent each through the year 2060.

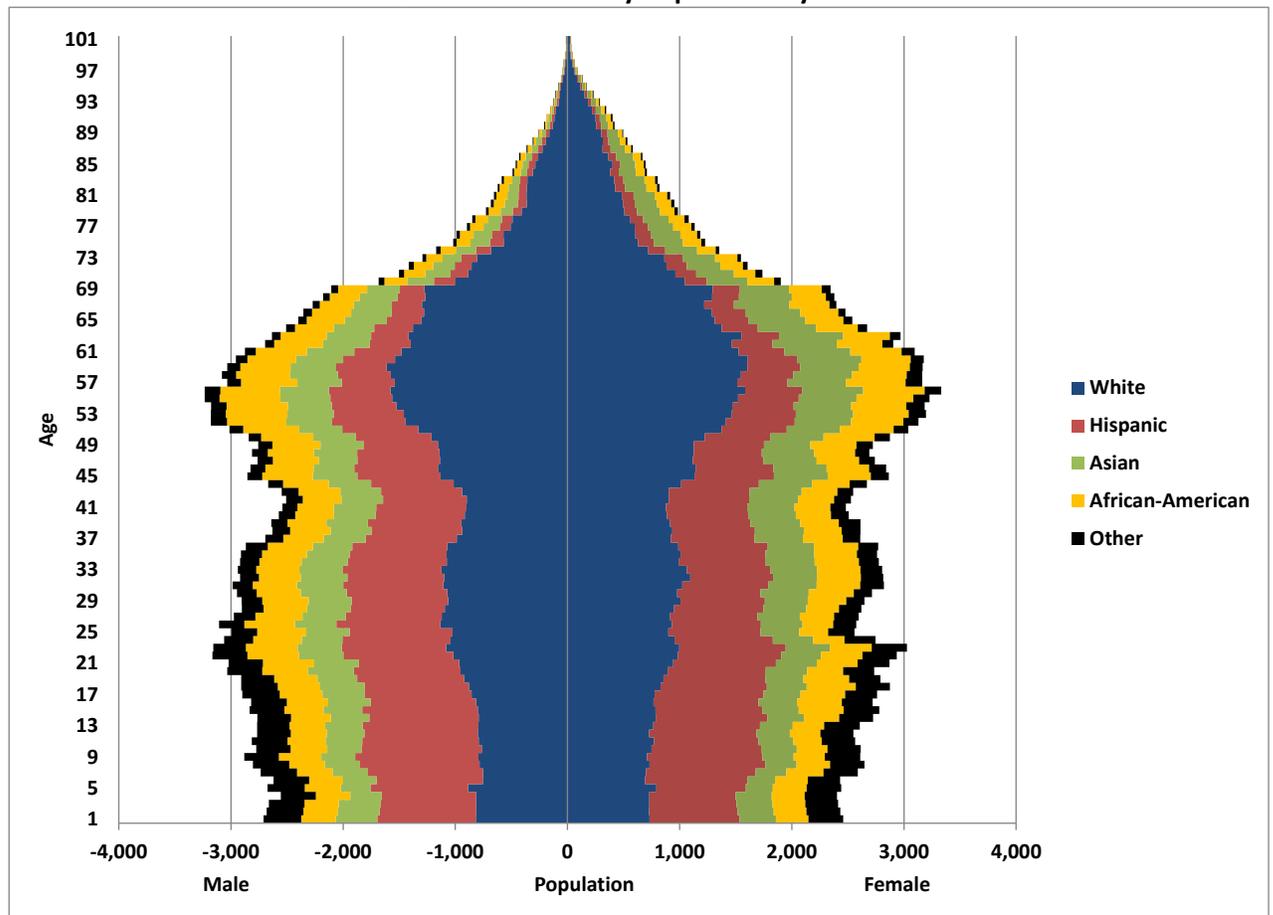
**WHAT IS IMPORTANT:** Projected population growth becomes projections of employment, demand for goods and services, housing stock needs, and commute flows. Solano County needs to monitor changes in population and if these changes are keeping pace with these forecasts regularly.

## Population Changes by Age and Ethnicity, 2015-2045

The California Department of Finance (DOF) generates population projections for all counties in California. These projections are split into categories based on ethnicity, age and gender through 2060 as of February 2016. One way to compare and contrast population data for past years and those projected is through the use of population pyramids. These pyramids are a graphic used in demographic research to look at age (the vertical axis), gender mix (where females are positive and males are negative values on the horizontal axis) and ethnicity comparisons (shaded areas reflect each ethnicity’s population proportion).

The following figures show these data for Solano County from 2015, 2025 and 2045. The 2015 ethnicity mix for Solano County is provided in the “Key Facts” section at the front of this Index.

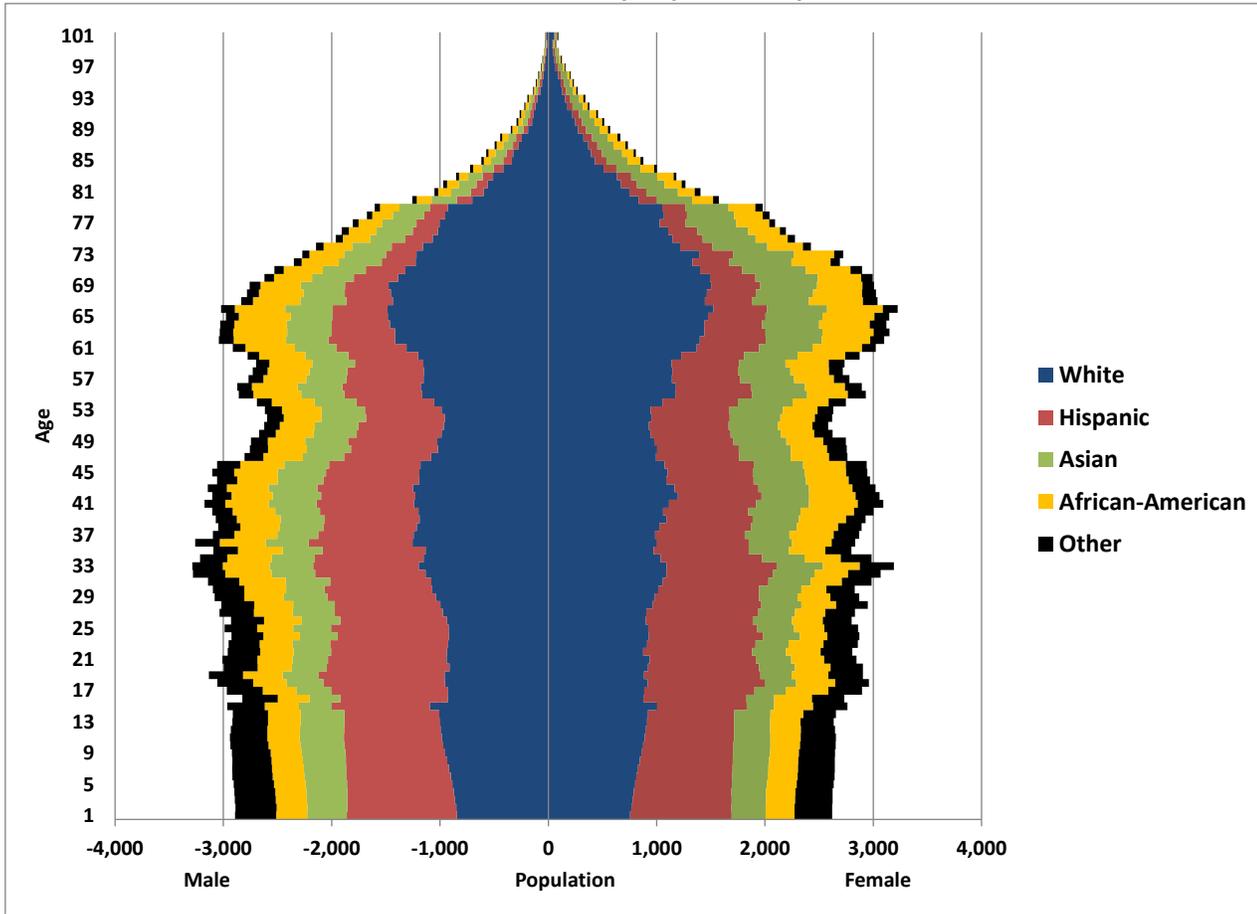
**2015 Solano County Population Pyramid**



Source: California Department of Finance, Demographic Research Unit ([www.dof.ca.gov](http://www.dof.ca.gov))

These figures do not change wildly from year to year unless the underlying demographic assumptions change. However, these figures remind us that Solano County is projected to become older and more ethnically diverse through 2045.

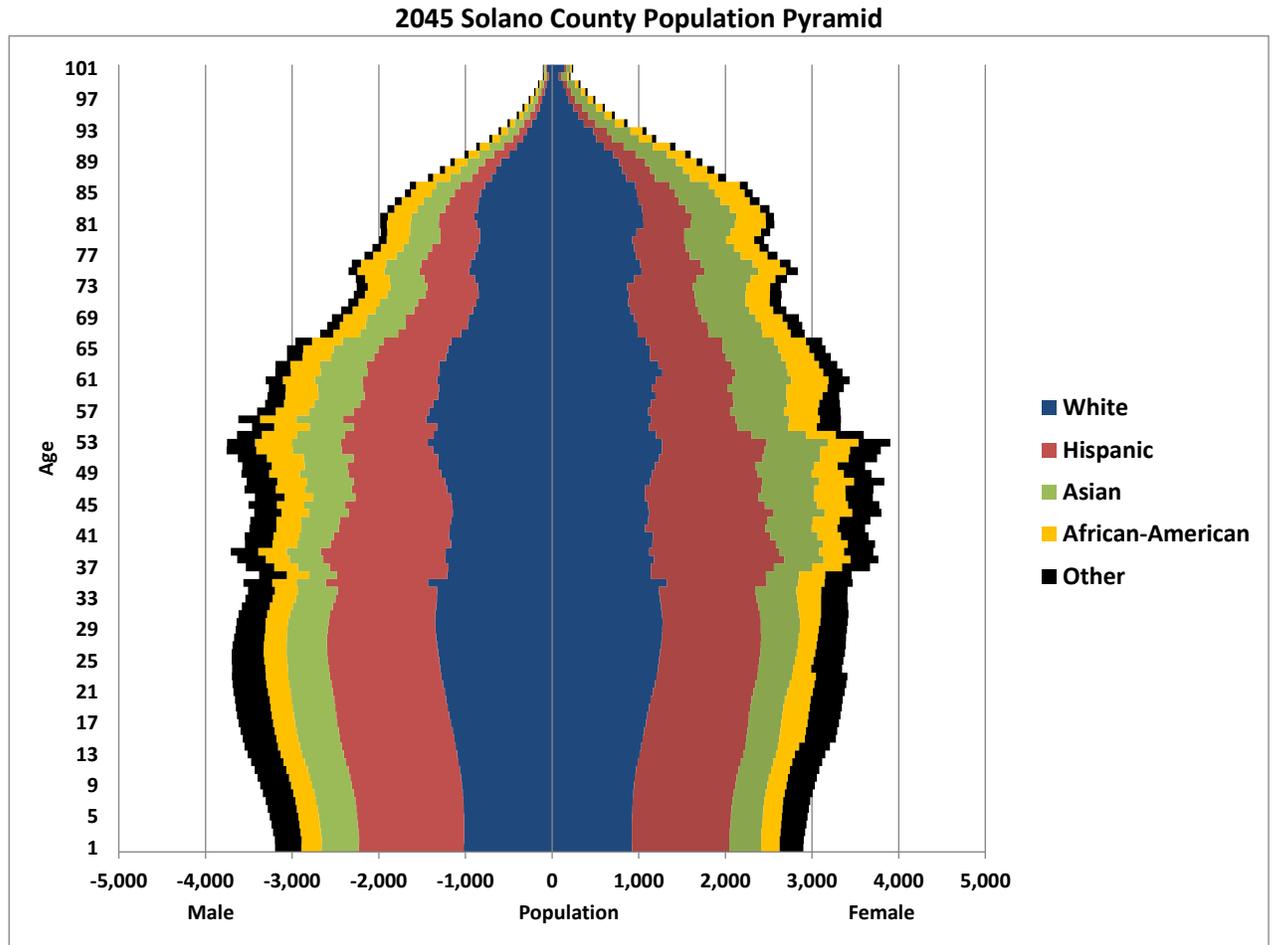
2025 Solano County Population Pyramid



Source: California Department of Finance, Demographic Research Unit ([www.dof.ca.gov](http://www.dof.ca.gov))

Predictions in 2025 include Solano County will be 38.9 percent White, 26.5 percent Hispanic, 14.5 percent Asian, and 12.4 percent African-American. In 2045, the Hispanic and White population will be closer to each other in proportions (35.4 percent to 31.6 percent); the 38-53 year olds will be the dominant age group by 2045.

## Population Changes by Age and Ethnicity, 2015-2045 (cont.)



Source: California Department of Finance, Demographic Research Unit ([www.dof.ca.gov](http://www.dof.ca.gov))

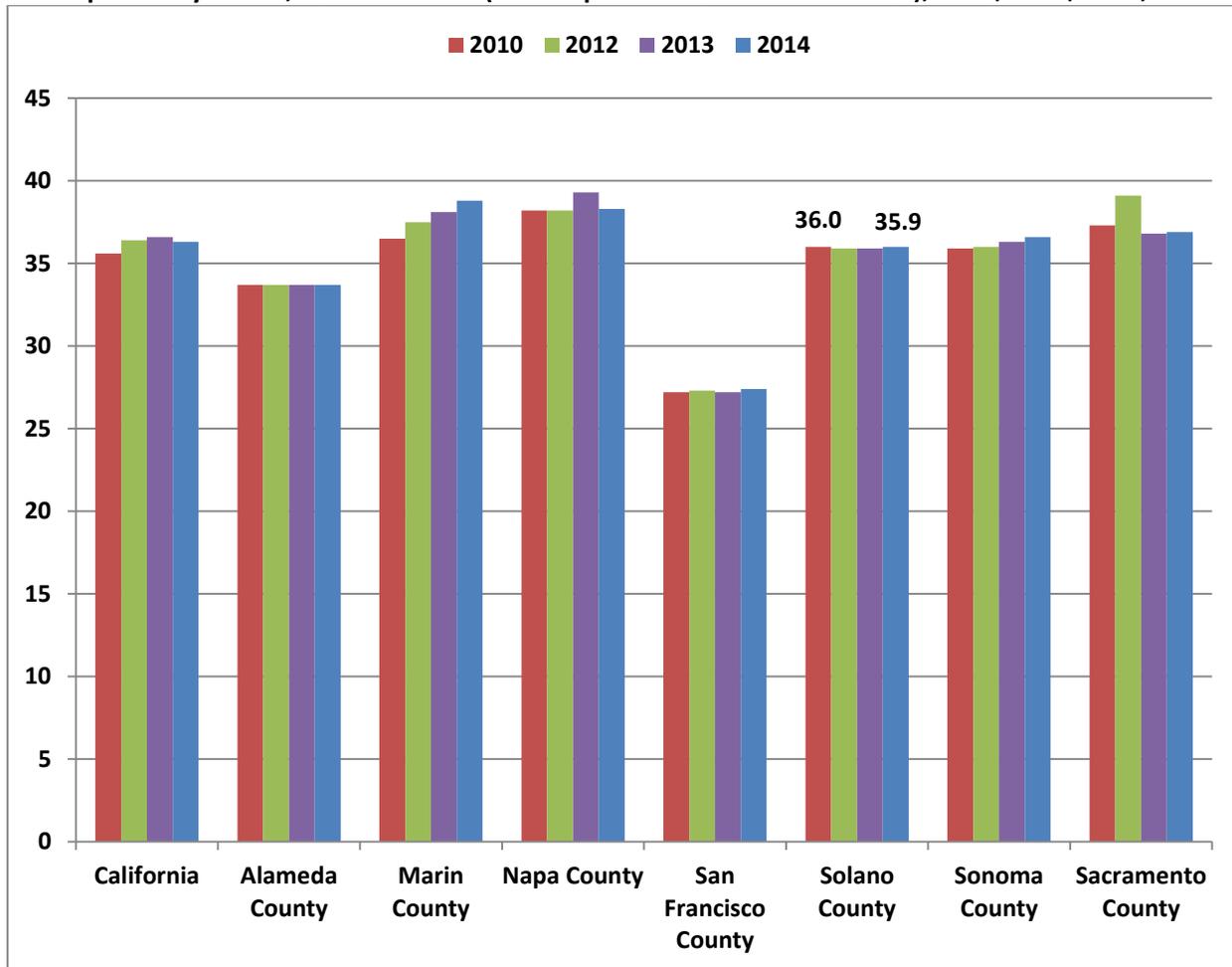
**TAKEAWAY:** The Hispanic population remains a strong reason why Solano County’s population through 2045 is foreseen to become more ethnically diverse.

**WHAT IS IMPORTANT:** Solano County is aging in both its residential population and its workforce. It is important to see that these trends may not continue if an aging population is not necessarily working locally.

## Dependency Ratios

The total dependency ratio is the local population’s percentages that are both 65 and older and less than 18 years of age. As this ratio rises, there are fewer residents who are of classic working age (18-64 years old), hence are dependent on working-age residents to provide resources or to redistribute income for social programs. Solano County’s dependency ratio was 36.0 percent in 2010, and was 35.9 in 2014.

**Dependency Ratios, Selected Areas (% of Pop under 18 and 65 and over), 2010, 2012, 2013, 2014**

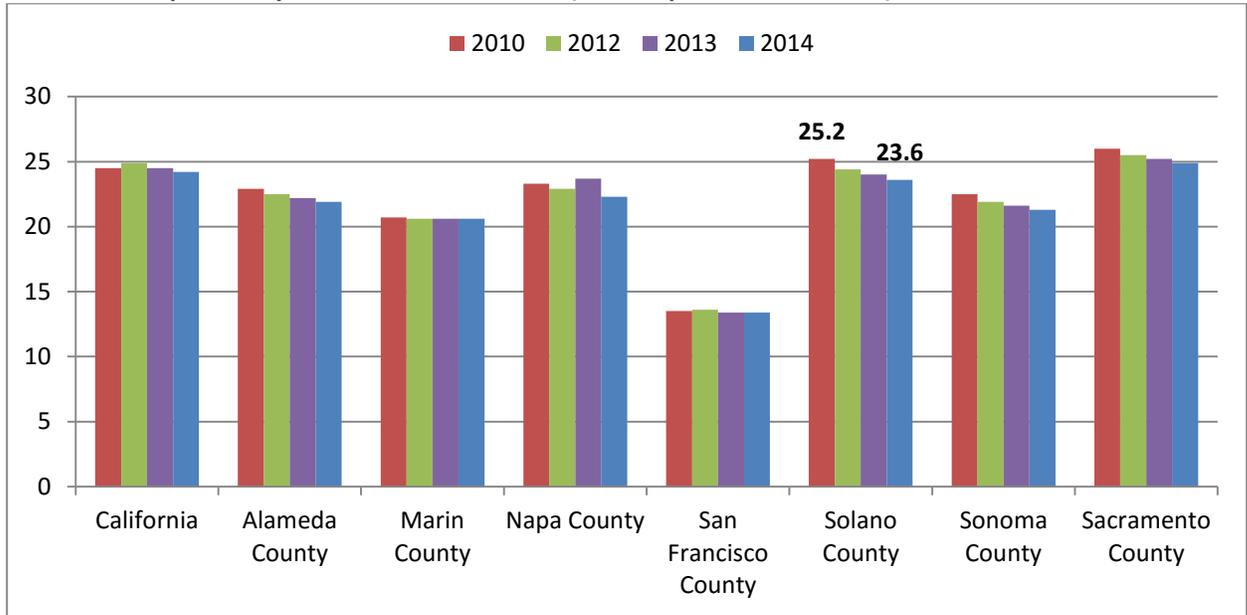


Source: Census Bureau ([www.census.gov](http://www.census.gov)) at [factfinder2.census.gov](http://factfinder2.census.gov)

Since 2010, Solano County’s data have seen little to no change in the non-working population percentage. Marin County continues to steadily age, as does Sonoma County. San Francisco and Alameda counties resemble Solano County. Sacramento County has more working-age residents since 2010. In almost all of these areas, rising dependency ratios are driven by older residents and not more children being born. For Solano County, child dependency has fallen due to the proportion of the county population shrinking for residents under 18 years of age; those over 65 have increased as a proportion of Solano County’s population from 10.8 to 12.4 percent from 2010 to 2014 (the latest data available).

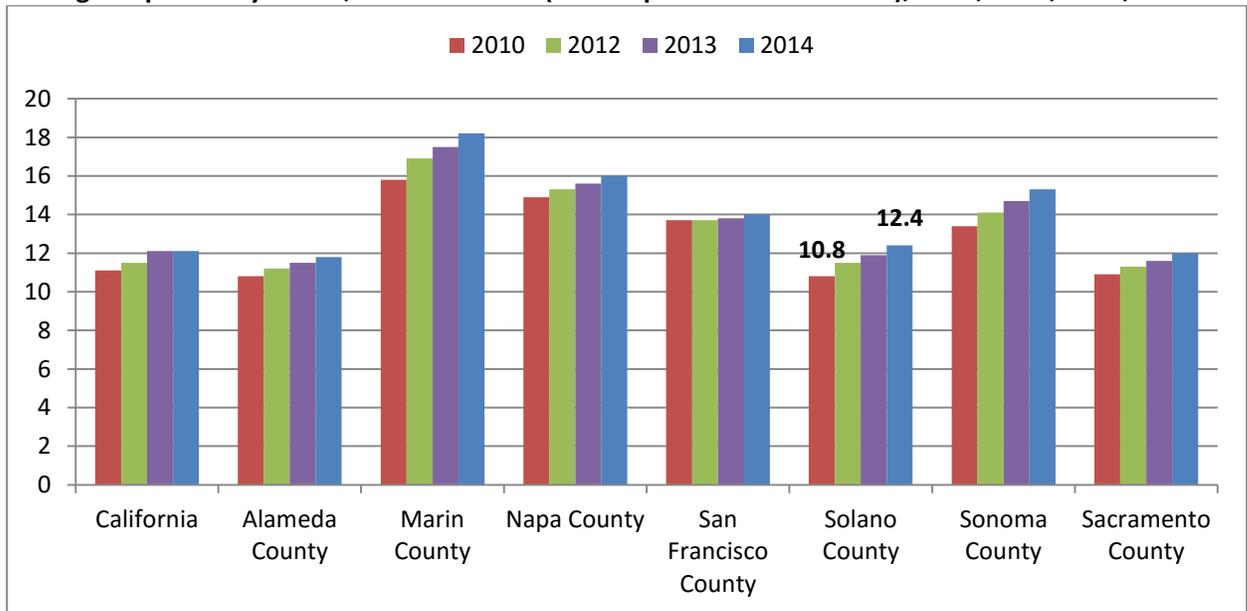
## Dependency Ratios (cont.)

**Child Dependency Ratios, Selected Areas (% of Population under 18), 2010, 2012, 2013, 2014**



Source: Census Bureau (www.census.gov) at factfinder2.census.gov

**Age Dependency Ratios, Selected Areas (% of Population 65 and over), 2010, 2012, 2013, 2014**

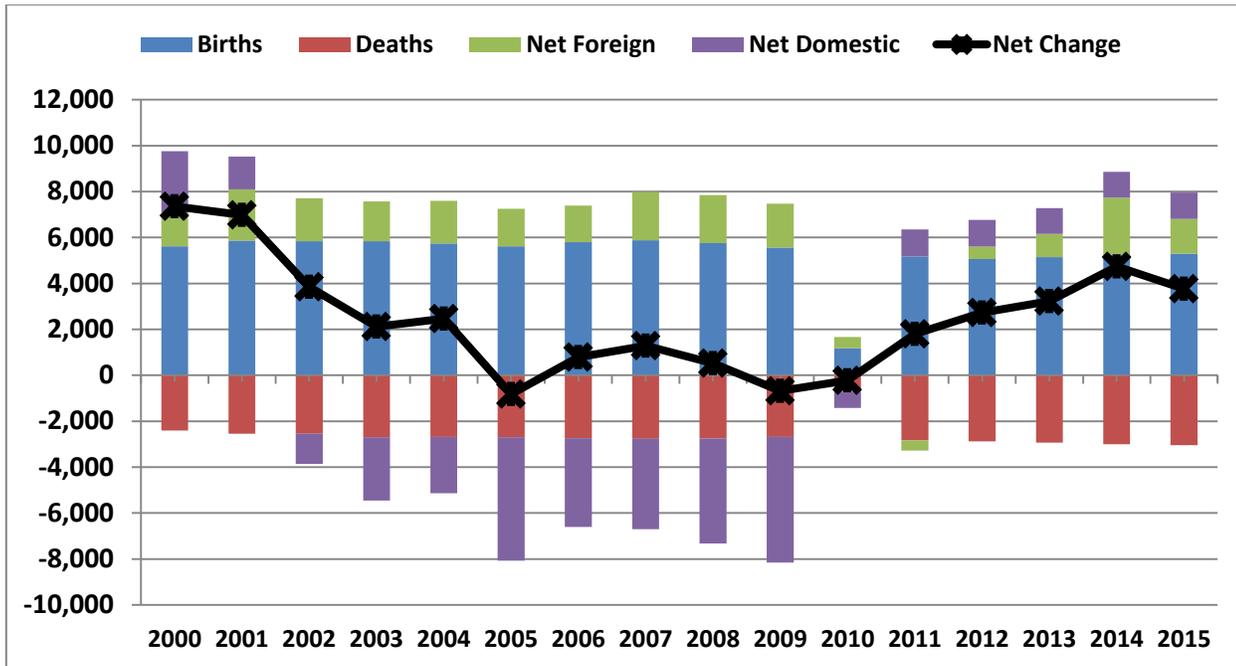


Source: Census Bureau (www.census.gov) at factfinder2.census.gov

**TAKEAWAY:** Solano County has seen little change in its working age population’s proportion since 2010.

**WHAT IS IMPORTANT:** Where change has taken place is in the proportion of its population over the age of 65. As many other counties in Solano County’s region, this population is rising more quickly than those under 18 years of age.

## Components of Population Change



Source: California Department of Finance, Demographic Research Unit (www.dof.ca.gov)

Solano County saw a slight drop in the growth rate of its population, but the county’s population grew more due to births versus deaths than from foreign immigration. Immigration was a key reason for population growth since 2010. In 2015, more people came to Solano County from other parts of the United States and other countries.

### Change in Population Change Components as Compared to 2015, Solano County (% change)

Year	Births	Deaths	Net Foreign	Net Domestic	Net Migration	Net Increase
2007	-10.0%	10.3%	-28.1%	-129.1%	-120.0%	-27.9%
2010	346.2%	328.9%	217.6%	-262.2%	513.3%	-393.5%
2013	3.0%	4.1%	49.3%	2.4%	-450.5%	1.6%
2014	0.8%	1.7%	-39.0%	2.0%	-72.9%	-0.3%

Source: California Department of Finance, Demographic Research Unit (www.dof.ca.gov)

Net migration fell by 39 percent from 2014, but is up since 2010 by over 217 percent. Over 1,500 people came to Solano County from outside in 2015, and births exceeded deaths by 2,251 new residents.

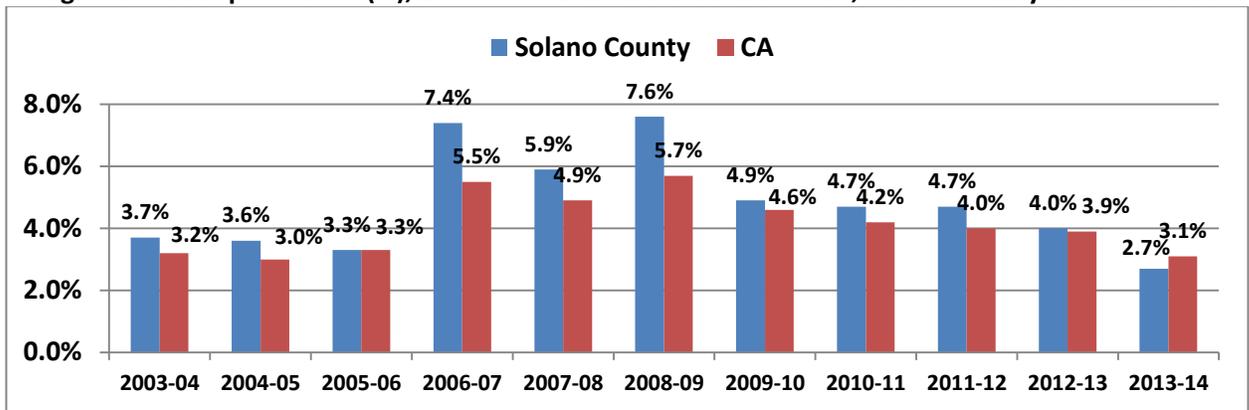
**TAKEAWAY:** Solano County’s population continues to grow, due mainly to more births and the inflow of new residents from other parts of the United States in 2014.

**WHAT IS IMPORTANT:** Matching population growth to growth in the commuting workforce suggests working-age residents moving to Solano County are likely to have jobs elsewhere.

## Dropout Rates Compared to California

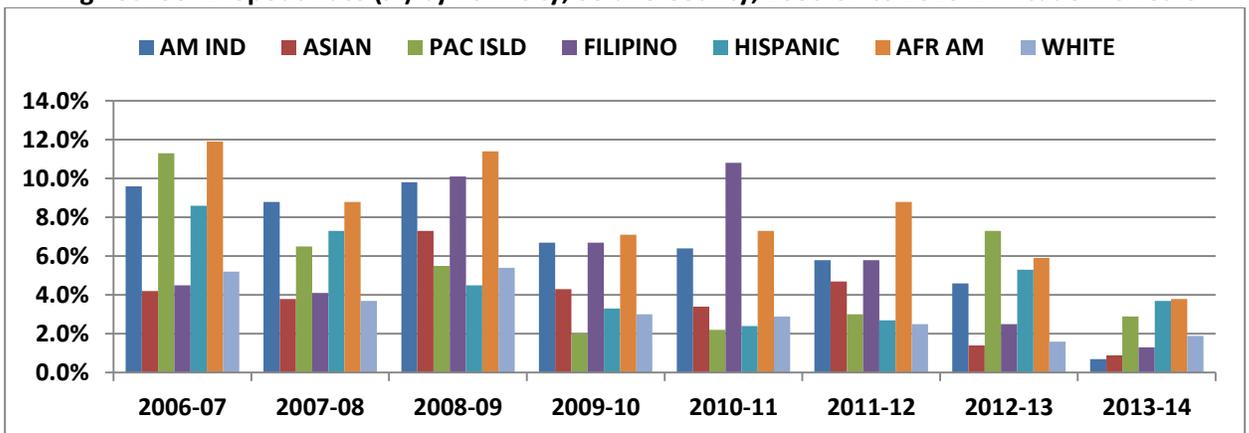
Dropout rates in Solano County continue to be a strong point concerning local community progress. Since the 2005-06 academic year, Solano County has seen the gap between county dropout rates and the state overall rise in recession and then slowly fall. As of the 2013-14 academic year, Solano County is now below the state average for dropout percentages. These improvements suggest that income growth for households has been steady enough, and perhaps competitive enough, to keep kids in high school and have them earn their diplomas. All ethnicities experienced a reduction in dropout rates in the 2013-14 academic year in Solano County. These data show progress for both education and workforce development in Solano County.

**High School Dropout Rates (%), 2003-04 to 2013-14 Academic Years, Solano County and California**



Source: California Department of Education (cde.ca.gov)

**High School Dropout Rate (%) by Ethnicity, Solano County, 2006-07 to 2013-14 Academic Years**



Source: California Department of Education (cde.ca.gov)

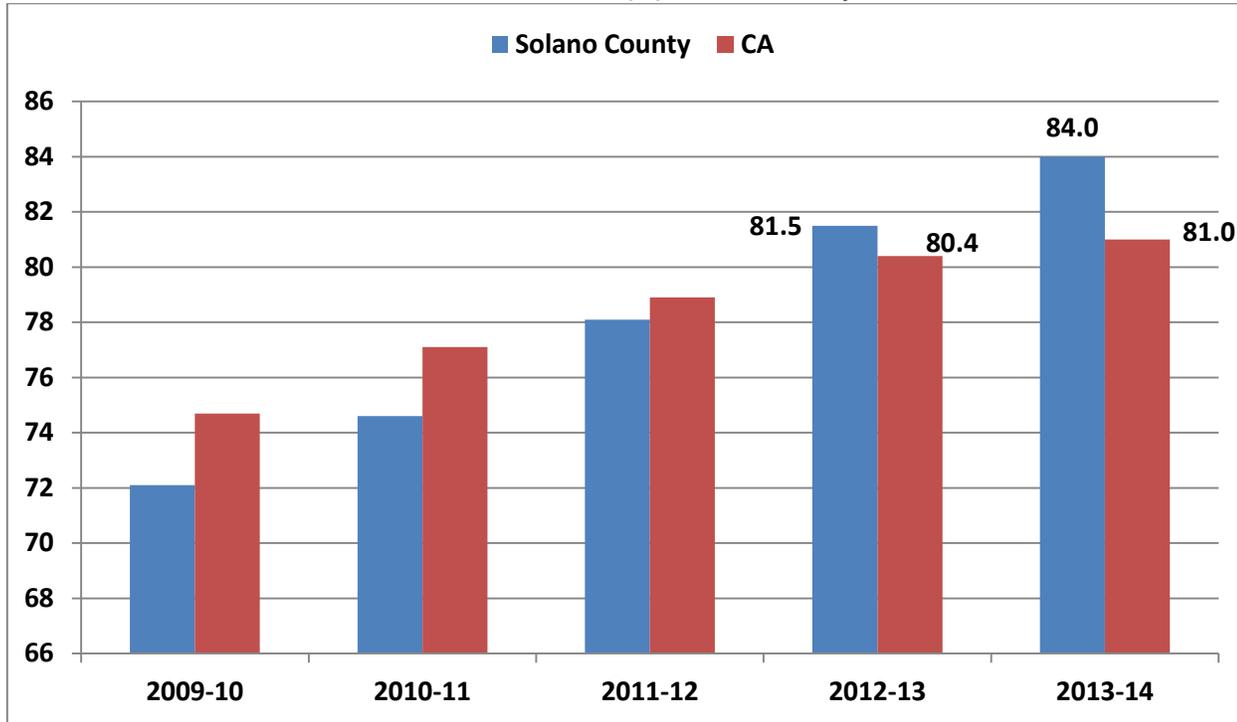
**TAKEAWAY:** Dropout rates have fallen across ethnicities and all students, and the rate is now below the state average.

**WHAT IS IMPORTANT:** African-American dropout rates continue to decrease, as have Pacific Islander, signs that the entire Solano County community is receiving gains from the economic recovery.

## Graduation and Preparation for College

Solano County saw its graduation rates rise above the state of California in 2013-14. Solano County had 84 percent of those eligible to graduate do so, where California was 81 percent. Along with dropout rates falling below the state average in the 2013-14 academic year, there is continued, good news for Solano County schools and workforce development compared to the state overall and previous academic years.

**Graduation Rates (%), Solano County**



Source: California Department of Education (cde.ca.gov)

Note: There was a methodological change at the Department of Education that does not allow a comparison before 2009-10 with the most recent data

**Graduation Rates by Ethnicity, 2013-14**

Ethnicity	Solano County	California	Difference
American Indian or Alaska Native, Not Hispanic	81.6	70.6	11.0
African American, Not Hispanic	76.0	68.2	7.8
Two or More Races, Not Hispanic	89.8	85.6	4.2
White, Not Hispanic	88.5	87.6	0.9
Asian, Not Hispanic	96.4	92.4	4.0
Hispanic or Latino of Any Race	77.7	76.6	1.1
Filipino, Not Hispanic	94.6	92.2	2.4
Pacific Islander, Not Hispanic	77.1	80.4	-3.3

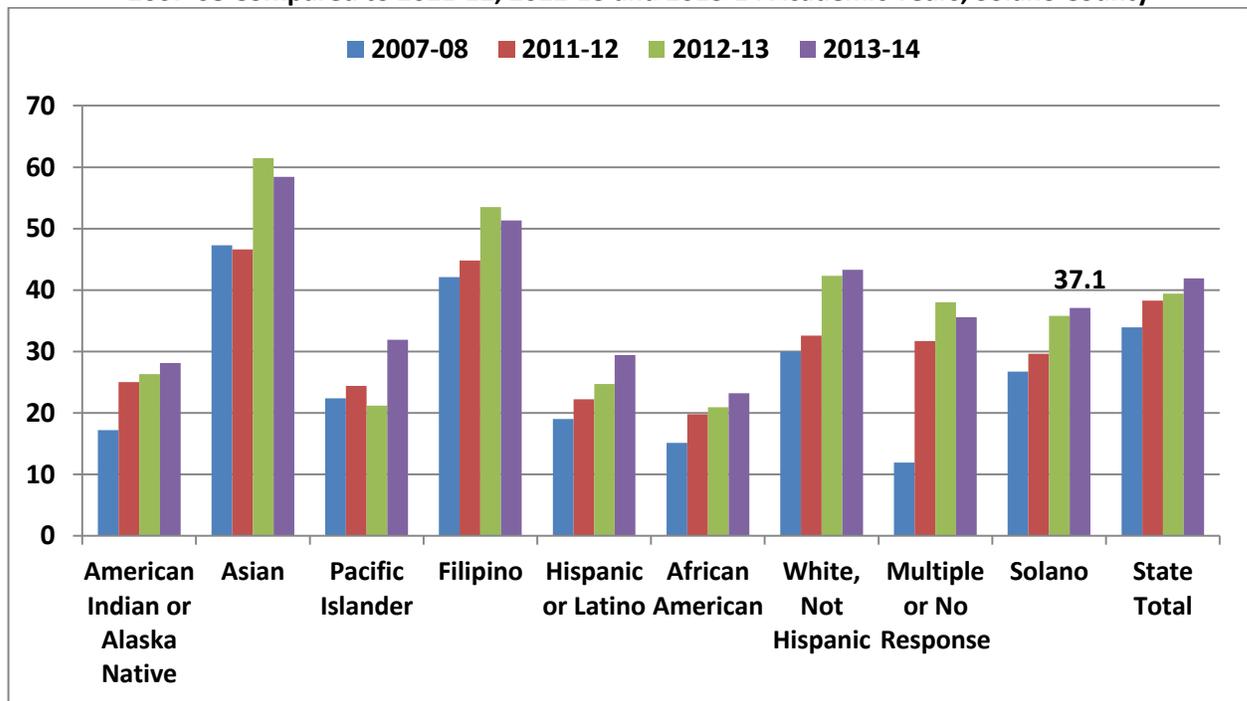
Source: California Department of Education (cde.ca.gov)

Note: There was a methodological change at the Department of Education that does not allow a comparison before 2009-10 with the most recent data

## UC/CSU Ready Graduates

California’s university systems play a vital role in statewide workforce development. Solano County houses campuses for CSU Maritime, Touro University and Solano Community College for higher learning; while UC Davis and UC Berkeley are also close to Solano County, with UC Davis on Solano County’s eastern border. Solano County has a similar pattern to the State of California overall in the number of college-ready graduates from high school since the 2007-08 academic year. Solano County experienced an increase in the number of students eligible in the 2013-14 academic year, an increase of 1.3 percentage points from 35.8 percent to 37.1 percent. The data suggest that Solano County’s school districts are improving how they prepare students for careers beyond high school and college education.

**Percent of High-School Graduates that Are UC/CSU Ready, 2007-08 Compared to 2011-12, 2012-13 and 2013-14 Academic Years, Solano County**



Source: California Department of Education ([www.cde.ca.gov](http://www.cde.ca.gov))

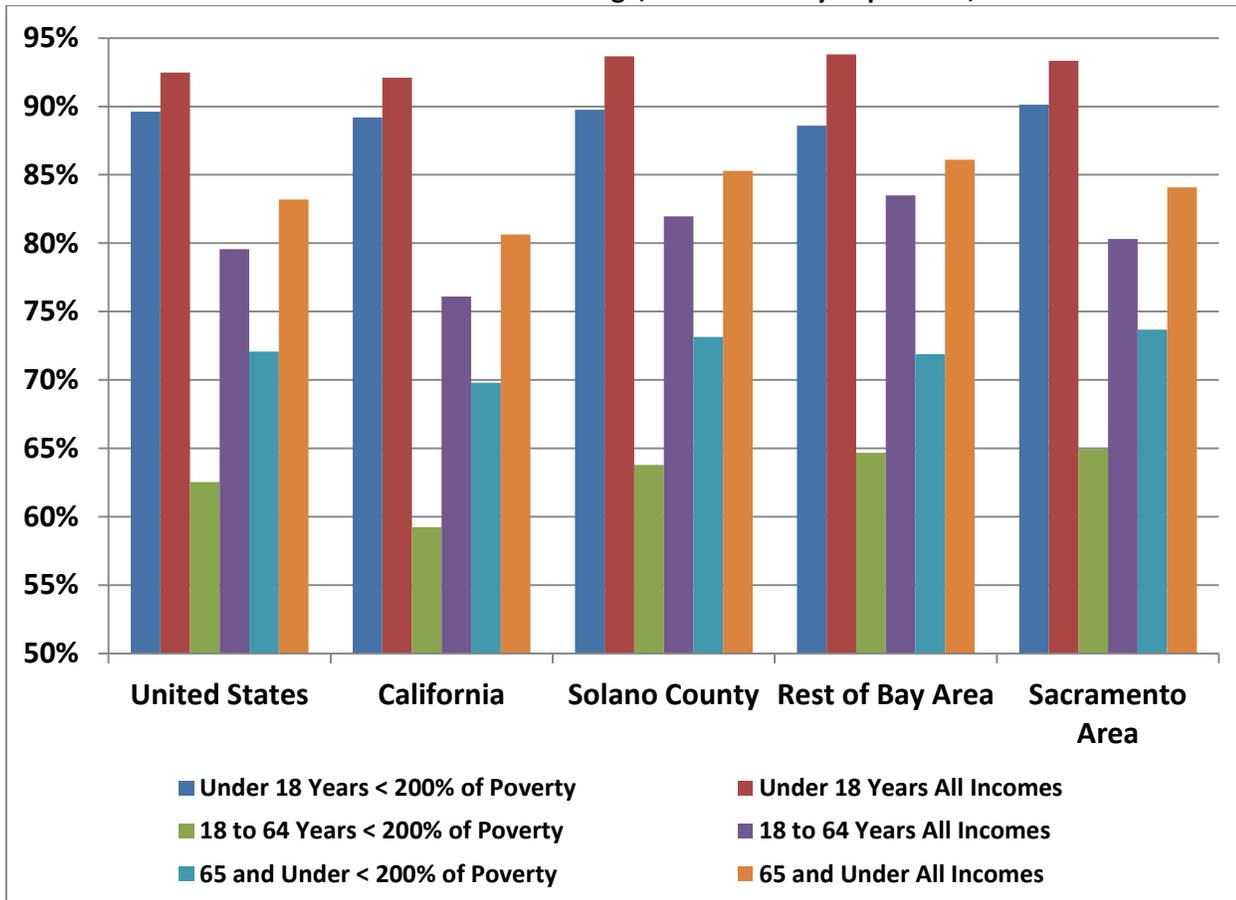
**TAKEAWAY:** Graduation rates are now higher in Solano County versus California, and most ethnicities continue to show improvement in graduating at a higher rate as of the 2013-14 academic year in Solano County and more students are college ready.

**WHAT IS IMPORTANT:** Solano County continues to get closer to the state average in CSU and UC ready graduates overall.

## Health Insurance Coverage

The introduction of the Affordable Care Act (ACA) came with Medi-Cal eligibility changes in 2013 and then expanded to general insurance coverage in 2014. Because of those changes, we report on this data point for 2013, but will likely not include it from here. These data help to confirm coverage rising in Solano County is robust compared to regional and national counterparts on average.

**Percent Health Insurance Coverage, Solano County Population, 2013**



Source: SAHIE (Small Area Health Insurance Estimates), Census Bureau, [www.census.gov/did/www/sahie/](http://www.census.gov/did/www/sahie/)

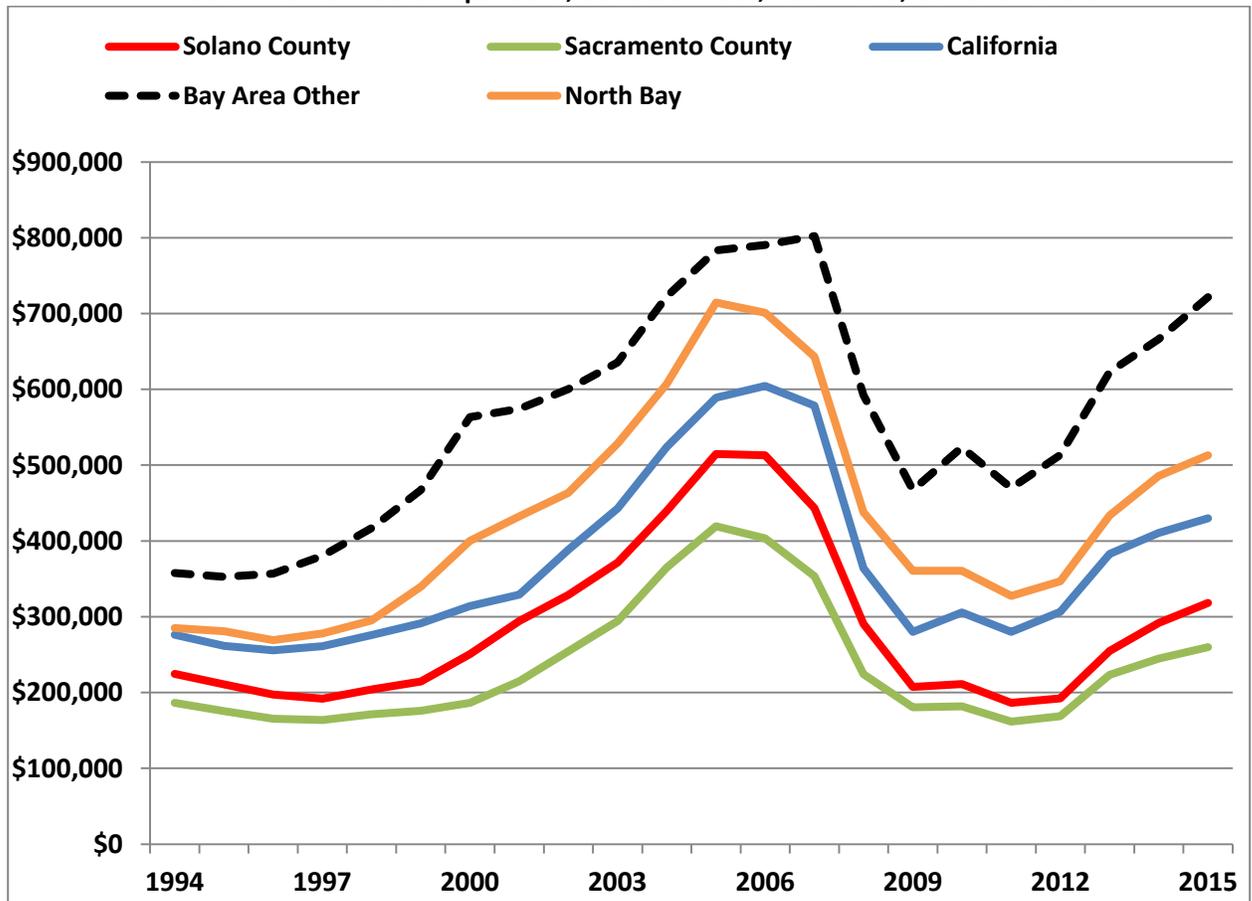
**TAKEAWAY:** In the 2013 data, Solano County continues to show its ability to provide health care across all income levels as compared to other areas but has seen some loss lower incomes specifically. Solano County experienced an increase in 2013 across all incomes and ages as the Affordable Care Act (ACA) began through enhanced Medi-Cal eligibility.

**WHAT IS IMPORTANT:** The 2014 data are likely to reflect new legal requirements to have coverage, making these data point less important short of corroborating that ACA is working.

## Median Home Prices

Housing markets continued their recovery and expansion in 2015 in terms of median home price. The supply side of the market grew in 2015 and the volume of sales increased. When prices rise and number of units sold fall, it is a sign of excess demand conditions in a market. California Association of Realtors is predicting 3.2 percent for median home price growth in 2016; in 2015, California experienced approximately 8 percent growth. Sales volume in Solano County increased by 19.3 percent in 2015, the strongest year for sales volume growth since the Great Recession.

**Median Home Price Comparisons, Selected Areas, 1994-2015, Current Dollars**

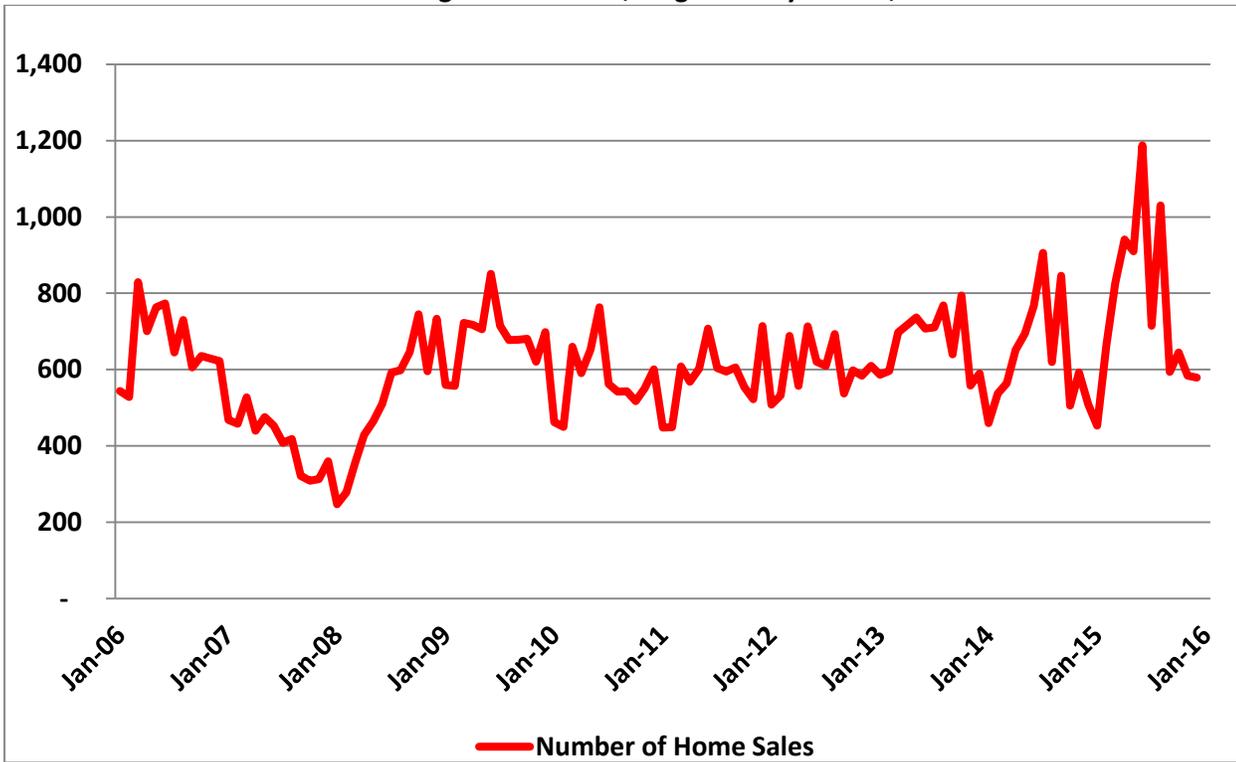


Sources: California Association of Realtors

Note: Sacramento County is shown alone (rather than the metro area) because there is not similar data over time for Placer, Yolo and El Dorado counties.

Solano County’s median home prices have grown by 58.6 percent from December 2010 to December 2015 according to the California Association of Realtors; the lowest, monthly price since 2010 in Solano County – according to the California Association of Realtors – was in February 2012 at \$179,020. Solano County’s median home price for single-family, detached houses is \$356,640 as of December 2015. For the state of California, the bottom was hit in February 2009, and state-level, median prices have grown 56.2 percent since December 2010.

Year on Year Change in Unit Sales, Single-Family Homes, 2006-2015



Sources: California Association of Realtors([www.car.org](http://www.car.org)) and Author's Calculations

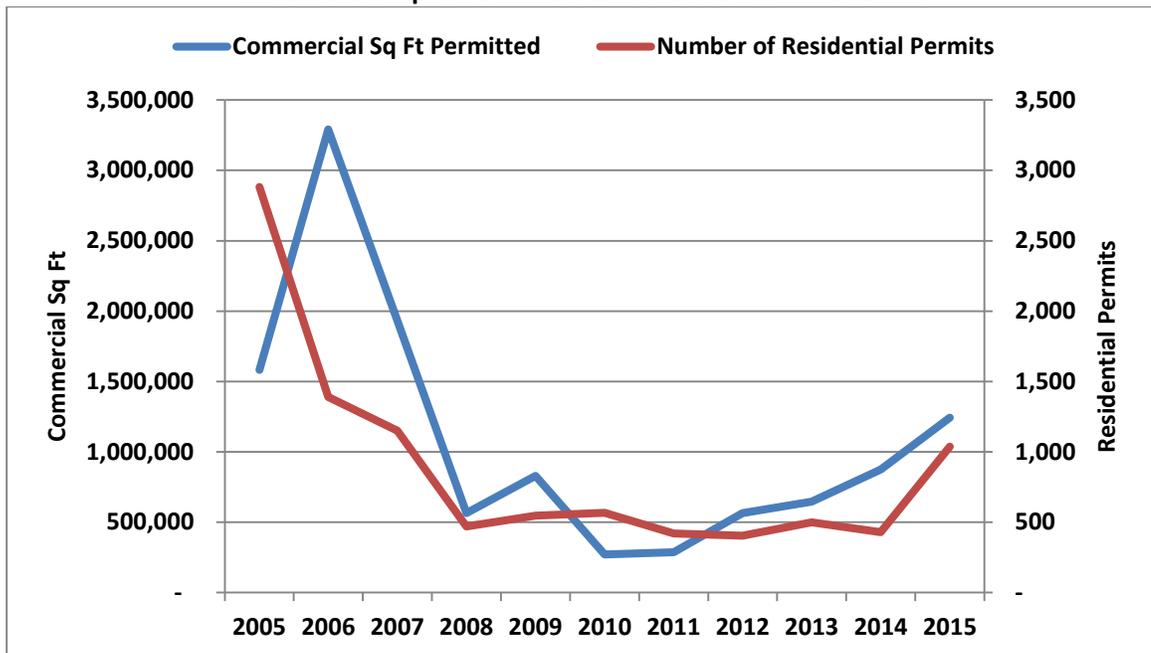
**TAKEAWAY:** 2015 was a year of continued median home price growth for Solano County, and sales volume increased at a brisk pace. Population and employment growth helps provide demand for homes for sale, especially as rental prices continue to rise.

**WHAT IS IMPORTANT:** Home prices rising change housing affordability for the worse, but also provide more wealth for owners and permanence for labor markets versus rental housing.

## Building Permits

Residential building permits data are one way to forecast an increase in housing units, construction activity around housing, and broader impacts on the local economy. Few areas were untouched by the Great Recession in terms of a slowdown in housing permits. In terms of raw data, the Census Bureau reported that Solano County had a monthly low of one (1) unit permitted in October 2007, and a maximum of 376 units in March of 2015 since 2007. Smaller local-area data tends to be more episodic than larger areas. The graph here looks at the entire state of California compared to Solano County as a six-month moving average and indexed to July 2009. Notice that, as in many other components of this index, the state overall hits bottom (early 2009) before Solano County does (early 2012), but both areas have been trending upward since early 2012. The growth of construction jobs corroborates these data; housing prices rising suggests the number of permitted units have been behind demand versus existing inventory for sale or rent.

**Residential and Commercial Permits, Fiscal Years 2005 – 15, Solano County  
Commercial Square Feet and Residential Units Permitted**



Sources: Census Bureau ([www.census.gov/const](http://www.census.gov/const)) and County of Solano

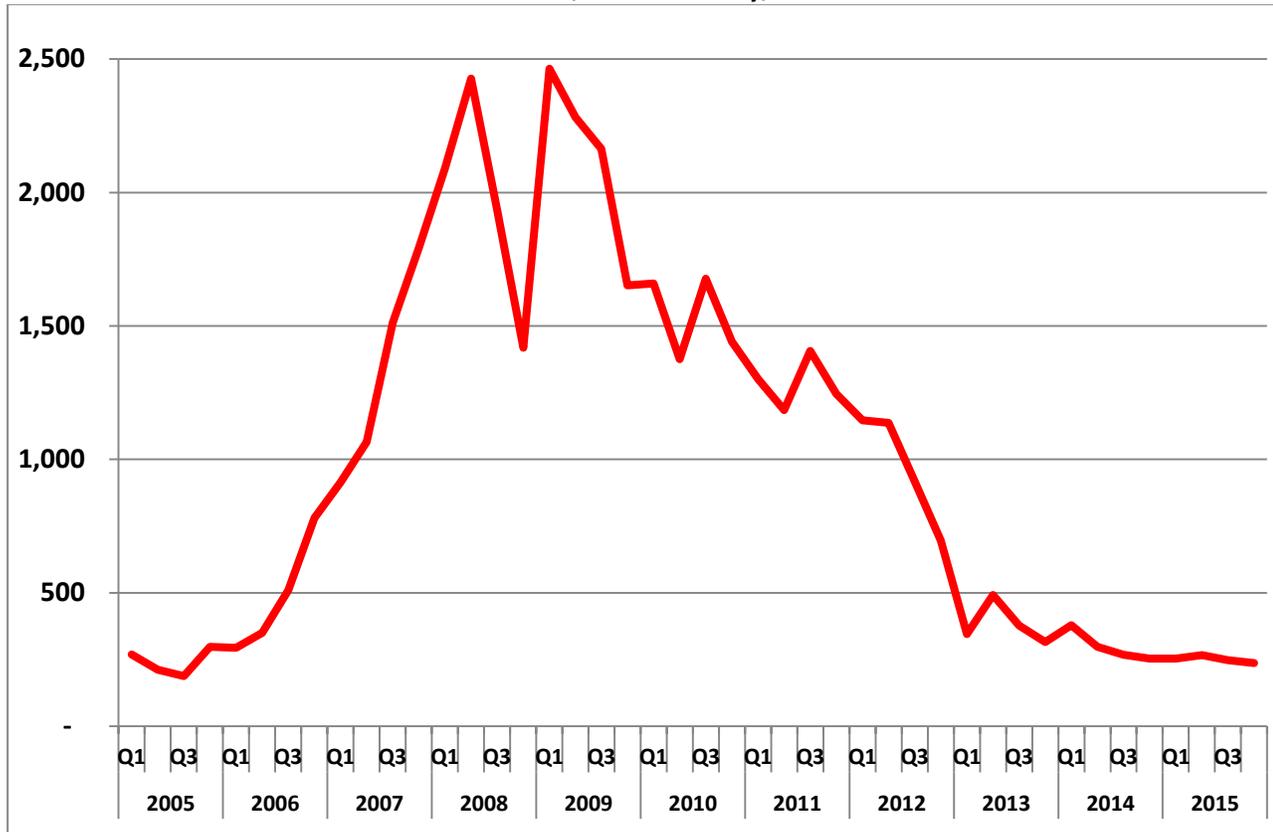
**TAKEAWAY:** Building permits are generally a leading indicator of economic activity by portending growth of construction jobs growth, demand for raw materials to build residential units, and increased use of credit markets. Construction employment has grown since 2010 proportionately between residential and commercial construction, despite a lag in commercial permits, and is net positive between 2010 and 2015.

**WHAT IS IMPORTANT:** Solano County has experienced growth in building permits since early 2012 in trend and is likely to see continued growth due to relatively low interest rates and rising home prices fueling developers’ incentives to build.

## Notices of Default: Foreclosures

Just before the Great Recession was declared, foreclosure activity was rising quickly across California. The figure below shows this in Solano County through notices of default, data which act as a precursor to a foreclosed home. When this Index began, tracking these notices was a big concern for both the economic and social fabric of Solano County’s communities. Since 2012, these data have dropped dramatically and remain low. More stable financial and housing markets from 2012 forward have helped. After 2012, defaults fell quickly as a by-product of economic recovery. In Solano County, the number of notices of default was 1,003 in 2015; in 2005, that number was 966, the height of the last real-estate cycle in terms of real estate prices.

Notices of Default, Solano County, 2005 – 2015



Source: Solano County Recorder’s Office (gathered by author)

**TAKEAWAY:** Solano County employment levels and housing prices both reduce the risk of foreclosure when they are growing; these data show that Solano County’s economic emergence from recession and continued growth are reducing the risk of people losing their housing investments.

**WHAT IS IMPORTANT:** Housing wealth continues to grow, providing stability to Solano County residents and also increasing the assessed value of residential real estate across the county.

## Housing Affordability: Housing Prices Versus Median Household Income

Rising home prices have helped support Solano County through its emergence from the Great Recession. Home affordability has slowly fallen due to rising home prices. However, Solano County remains relatively affordable versus its regional counterparts. The California Association of Realtors provides a way to look at housing affordability through a “Housing Affordability Index” or HAI. The HAI takes household income levels and estimates of the cost of owning a home (mortgage, average cost of utilities and maintenance, etc.), then compares these data to determine what percentage of the population can afford to buy a home at the current median home price.

If household income does not keep pace with local housing prices, affordability falls. Notice Marin and San Francisco counties are the lowest affordability areas in this set, and among the least-affordable counties in California overall, far below the state average of 30 percent. Solano County is at 46 percent on this index, which means at the current, median household income and median home price levels, 46 percent of households in Solano County can afford to purchase a home.

Housing in Solano County remains a business recruitment and retention tool. Economic development efforts should continue to monitor housing vacancy and affordability and advertise Solano County as a place for workers to live and work. Comparisons here are shown by county rather than metropolitan statistical area because data are reported by county.

**Housing Affordability Index, 2010 Q3 to 2015 Q3, Percent of Pop that Can Afford Median Priced Home**

Quarter	Solano	Sac	Calif	Sonoma	Napa	Santa Clara	Alameda	Contra Costa	Marin	San Francisco
2010.3	<b>71%</b>	68%	46%	41%	40%	31%	30%	21%	23%	22%
2011.3	<b>75%</b>	72%	52%	48%	46%	36%	34%	27%	25%	26%
2012.3	<b>77%</b>	73%	49%	45%	46%	34%	32%	28%	27%	25%
2013.3	<b>56%</b>	50%	32%	28%	24%	21%	21%	18%	18%	16%
2014.3	<b>49%</b>	48%	30%	21%	49%	19%	14%	19%	15%	15%
2015.3	<b>46%</b>	<b>47%</b>	<b>30%</b>	<b>23%</b>	<b>46%</b>	<b>18%</b>	<b>16%</b>	<b>18%</b>	<b>17%</b>	<b>10%</b>

Source: California Association of Realtors (<http://www.car.org/marketdata/data/haitraditional/>)

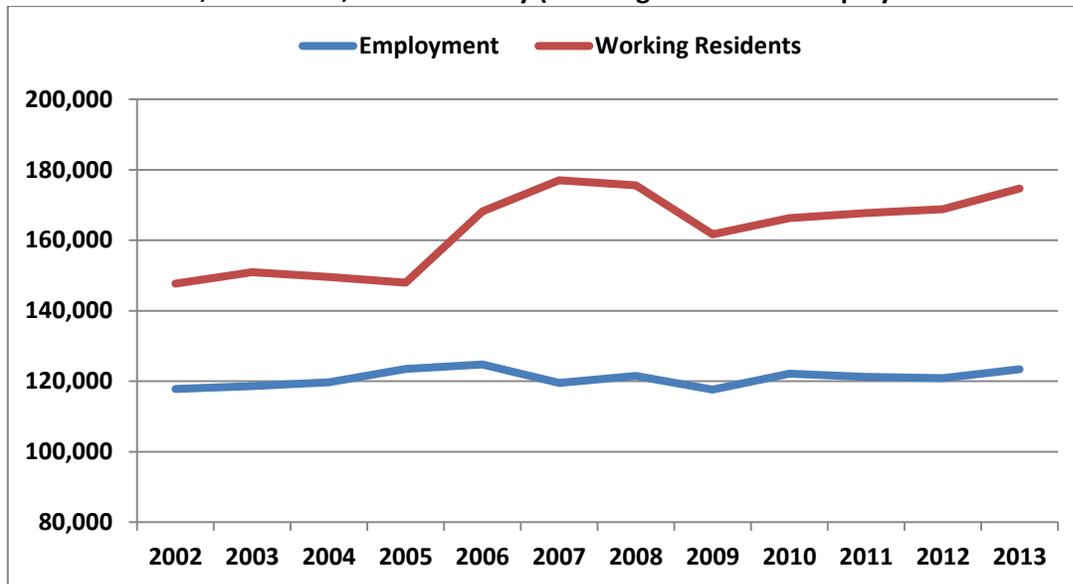
**TAKEAWAY:** Solano County has seen a drop in affordability, but not as significant as the Bay Area counties and remains as a place where housing is affordable to a wide variety of workers.

**WHAT IS IMPORTANT:** As housing prices rise or remain stable - and not falling again - household incomes need to keep pace with housing prices to keep Solano County relatively affordable.

## Commuting

While commuting workers provide more choices for local employers, it is important to see commuting also as a social issue; the use of roadways and connecting an interregional labor force are issues that affect housing, household formation, local government decisions and resources concerning infrastructure and workforce development, and ultimately flows of traffic. Solano County experienced a net outflow of workers over time. Data from the Longitudinal Employment and Housing Dynamics (LEHD) of the Census Bureau estimate commute flow information for all census blocks in the United States. The data here show the net outflow from Solano County to other areas. Other Bay Area counties are more urbanized and are good comparisons; Sacramento County is included here because of its proximity to Solano County. The difference between working residents and local employment is an indicator of the volume of commuting. The latest data available are from 2013.

**Net Flow of Workers, 2002-2013, Solano County (Working Residents – Employment = Net OutFlow)**



Source: LEHD (<http://onthemap.ces.census.gov/>)

Only 34.1 percent of working residents of Solano County work for employers in Solano County; this implies that 65.9 percent of the county’s working residents leave the county to work in the latest data available (2013) as of February 2016. Given the county geography, where Vacaville and Dixon are on the eastern end, connections to Sacramento as a jobs center may explain some of this outbound commuting (more outside residents coming to Sacramento and Yolo counties than local residents leave for work); Vallejo and Benicia and Fairfield are close to Alameda and Contra Costa counties, remind us there is regional competition for workers and the core Bay Area counties are a major labor market in California.

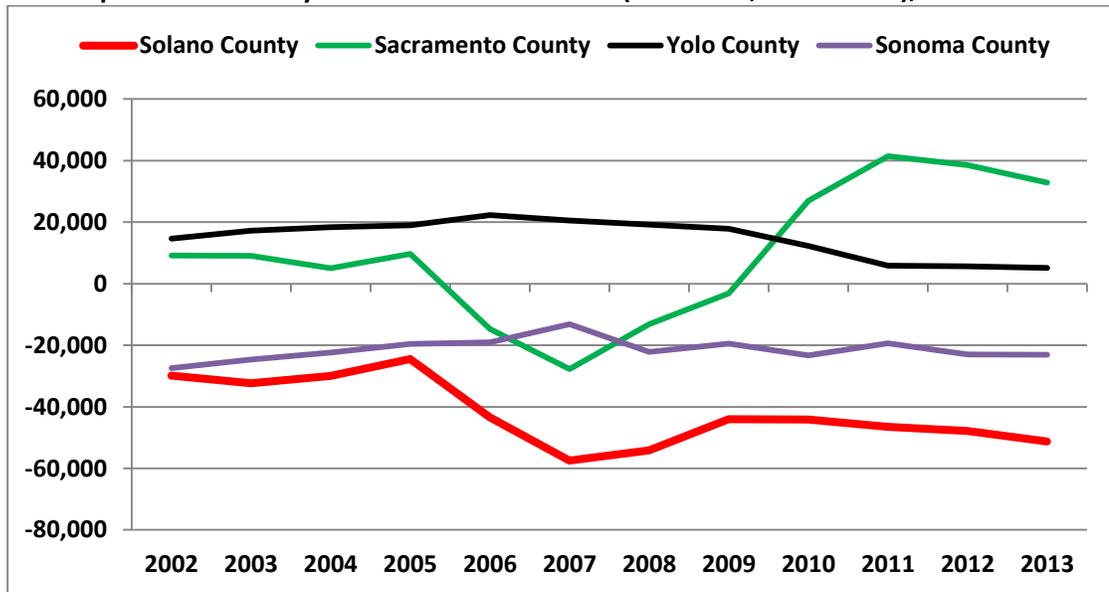
## Commuting (cont.)

Where Solano Residents Go to Work, 2007, 2010, 2013

County	2007		2010		2013	
	Count	Share	Count	Share	Count	Share
Solano	63,531	35.9%	59,782	35.9%	60,915	34.9%
Contra Costa	25,064	14.2%	21,165	12.7%	22,397	12.8%
Alameda	16,268	9.2%	14,110	8.5%	14,932	8.5%
Sacramento	9,570	5.4%	11,318	6.8%	11,824	6.8%
San Francisco	11,084	6.3%	10,506	6.3%	11,076	6.3%
Napa	9,824	5.5%	9,613	5.8%	10,877	6.2%
Santa Clara	6,387	3.6%	5,364	3.2%	5,800	3.3%
San Mateo	5,635	3.2%	4,844	2.9%	5,007	2.9%
Marin	4,403	2.5%	4,327	2.6%	4,772	2.7%
Yolo	5,042	2.8%	4,598	2.8%	4,668	2.7%
All Other Locations	20,267	11.4%	20,703	12.4%	22,399	12.8%

Source: LEHD (<http://onthemap.ces.census.gov/>)

Comparison of County Worker Commute Flows (+ = Inflow, - = Outflow), 2002 to 2013



Source: LEHD (<http://onthemap.ces.census.gov/>)

**TAKEAWAY:** Solano County is a place where people live and access regional labor markets due to relatively affordable housing locally.

**WHAT IS IMPORTANT:** Commuting is a way for local residents to live in Solano County, work in higher-wage environments, and bring those incomes home to spend and support the local economy.

## City Overview: Demography, Housing and Incomes

The 2015 Index updates information from the American Community Survey (ACS) data on Solano County's cities. Solano County continues to show improvements in occupied housing, housing units and the population's education level. After three years of continuous increases, it is a reminder that even slow inflation can have an effect on incomes if they rise more slowly. These data are a five-year average, which captures the bottom of the Great Recession also. 2015 may see a jump back up in these data given employment growth and slower inflation. Data shown here are: median age; housing occupancy; and income/education levels with household size.

### Median Age in Solano County and Its Cities

Place	2000	2010	2013	2014
<b>Solano County</b>	<b>33.9</b>	<b>36.5</b>	<b>37.1</b>	<b>37.4</b>
United States	35.3	36.9	37.3	35.6
California	33.3	34.9	35.4	37.2
Benicia	38.9	45.0	44.0	43.0
Dixon	31.5	32.3	34.1	31.7
Fairfield	31.1	32.8	33.0	34.0
Rio Vista	40.7	55.8	59.3	57.9
Suisun City	31.7	32.7	32.8	33.0
Vacaville	33.9	36.7	37.5	37.5
Vallejo	34.9	37.5	38.5	38.5

Source: Census Bureau (factfinder2.census.gov)

### Housing and Occupancy, 5-Year Averages Ending in Stated Year (How many homes are there and how many are occupied or vacant)

Place	Total Housing Units			Occupied			Vacant		
	2010	2013	2014	2010	2013	2014	2010	2013	2014
<b>Solano County</b>	<b>151,616</b>	<b>153,180</b>	<b>153,769</b>	<b>91.7%</b>	<b>92.4%</b>	<b>92.7%</b>	<b>8.3%</b>	<b>7.6%</b>	<b>7.3%</b>
United States	130,038,080	132,057,804	132,741,033	87.8%	87.5%	87.5%	12.2%	12.5%	12.5%
CA	13,552,624	13,726,869	13,781,929	91.4%	91.4%	91.5%	8.6%	8.6%	8.5%
Benicia	11,905	11,433	11,432	91.7%	93.6%	94.4%	8.3%	6.4%	5.6%
Dixon	6,124	6,335	6,349	94.2%	94.0%	95.3%	5.8%	6.0%	4.7%
Fairfield	36,283	36,176	36,521	91.7%	94.3%	94.9%	8.3%	5.7%	5.1%
Rio Vista	3,592	4,023	3,839	92.7%	89.8%	90.2%	7.3%	10.2%	9.8%
Suisun City	9,291	9,123	8,995	93.3%	95.7%	96.5%	6.7%	4.3%	3.5%
Vacaville	31,780	32,491	32,941	94.4%	94.6%	94.8%	5.6%	5.4%	5.2%
Vallejo	45,297	46,125	46,245	88.9%	88.3%	88.3%	11.1%	11.7%	11.7%

Source: Census Bureau (factfinder2.census.gov)

## City View: Demography, Housing and Incomes (cont.)

Benicia and Rio Vista remain different from the other cities in Solano County based on age and median incomes. These cities remind us about Solano County contrasts between rural characteristics as well as its ties to the greater Bay Area.

The final panel of city data shown here includes median household income, average household sizes in terms of people per household, and also the relative education levels of residents (the percent of residents who are high school graduates and the percent of residents who have a bachelor’s degree or better). Solano County outpaces both the state and national economies in high-school grads that are residents, but remains behind in the number of college graduates that are residents.

**Income and Education and Household Size, 2010, 2013, 2014**

Place	Median Household Income (2010 Dollars)			Avg. Household Size			% of Residents with HS Diploma or Better			% of Residents with Bachelor’s Degree or Better		
	2010	2013	2014	2010	2013	2014	2010	2013	2014	2010	2013	2014
<b>Solano County</b>	<b>\$62,948</b>	<b>\$62,541</b>	<b>\$62,125</b>	<b>2.83</b>	<b>2.85</b>	<b>2.87</b>	<b>86.7%</b>	<b>87.2%</b>	<b>87.5%</b>	<b>24.2%</b>	<b>24.3%</b>	<b>24.3%</b>
United States	\$50,046	\$49,348	\$49,262	2.61	2.63	2.63	85.7%	86.0%	86.3%	28.5%	28.8%	29.3%
California	\$57,664	\$56,878	<b>\$56,727</b>	2.93	2.94	2.95	81.0%	81.2%	81.5%	30.5%	30.7%	31.0%
Benicia	\$87,018	\$83,956	<b>\$82,194</b>	2.53	2.54	2.54	93.8%	94.4%	95.5%	39.3%	40.7%	41.1%
Dixon	\$69,742	\$68,797	<b>\$61,643</b>	3.00	3.11	3.09	81.5%	80.8%	82.0%	19.3%	22.1%	20.9%
Fairfield	\$68,009	\$61,379	<b>\$61,064</b>	3.00	3.02	3.03	86.0%	86.4%	85.6%	23.4%	23.4%	23.2%
Rio Vista	\$54,568	\$52,609	<b>\$57,766</b>	2.04	2.06	2.21	93.5%	90.2%	91.8%	24.7%	22.5%	24.2%
Suisun City	\$71,795	\$66,700	<b>\$65,783</b>	3.23	3.23	3.28	85.6%	87.7%	88.6%	20.6%	20.4%	19.8%
Vacaville	\$70,838	\$69,803	<b>\$68,460</b>	2.71	2.75	2.75	86.8%	87.4%	88.1%	21.7%	22.2%	22.5%
Vallejo	\$61,481	\$55,373	<b>\$53,943</b>	2.85	2.84	2.85	86.1%	86.4%	87.0%	24.2%	23.3%	23.5%

Source: Census Bureau (factfinder2.census.gov)

**TAKEAWAY:** Solano County saw a small slip in inflation-adjusted (real), median household income in 2014, likely due to slower wage growth versus regional prices. Household size is rising also, which is happening across California. Benicia remains as a stand-out from the other incorporated areas of Solano County, specifically in educated residents and household income.

**WHAT IS IMPORTANT:** Attracting university-degree holding residents is a challenge for Solano County, as Solano County remains behind the state and the nation on this data point.

## Data Sources and Methodology

### Solano County Key Facts

#### Area

Data provided by the Solano Economic Development Corporation (EDC).

#### Population

Data are from the E-I: City/County Population Estimates with Annual Percent Change report by the California Department of Finance and for Solano County. Estimates are for July 1, 2015.

#### Jobs

Solano County employment data are provided by the California Employment Development Department, Current Employment Statistics (CES). The industry data may include employees who live outside the county. December 2014 data is preliminary.

#### Foreign Immigration and Domestic Immigration

Data are from the E-6: Population Estimates and Components of Change by County - July 1, 2010-2015 report by the California Department of Finance and are for Solano County, the Bay Area Other (including Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara Counties), the North Bay (Napa and Sonoma counties), and for California overall.

Estimates for 2015 are provisional. Net migration includes all legal and unauthorized foreign immigrants, residents who left the state to live abroad, and the balance of hundreds of thousands of people moving to and from California from within the United States.

#### Adult Educational Attainment, Age Distribution, and Ethnic Composition

Data provided by the U.S. Census Bureau, American Community Survey in 2014 is an average of data over the years of 2010 to 2014 for Solano County.

### Economy: Our Changing Economy

#### Annual Employment

Solano County employment data are provided by the California Employment Development Department Current Employment Statistics (CES). The industry data reflects the

number of jobs in the county that may pay employees who live outside of the county.

#### Change in Annual Jobs

Solano County employment data provided by the California Employment Development Department Current Employment Statistics (CES), the industry data reflect the number of jobs in the county that may pay employees who live outside of the county. The data are as of December 2014 and are estimates.

#### Total Employed Residents & Total Unemployed Residents

Solano County resident employment data is provided by the California Employment Development Department (EDD) Local Area Unemployment Statistics (LAUS). The data reflects the number of residents employed and unemployed in the county. Monthly data reports for Solano County and selected areas originate at the Bureau of Labor Statistics ([www.bls.gov](http://www.bls.gov)) and EDD reports the estimates.

#### Non-employer Firm Growth & Percentage of Non-employers by Industry

Data for Non-employers is from the U.S. Census Bureau. Non-employer statistics originate from tax return information of the Internal Revenue Service. The data are subject to tax forms data, as well as errors of response, non-reporting and coverage. Values provided by each firm are slightly modified to protect the respondent's confidentiality.

#### Median Household Income

Data for Median Household Income are from the 2007-2014 American Community Survey data reports from the U.S. Census Bureau, including the decennial Census in 2009. All income values are inflation-adjusted and reported in 2009 dollars, using the California CPI from the California Department of Finance. This California CPI is a weighted average of consumer price index (CPI) the Bureau of Labor Statistics (BLS) reports for the San Francisco, Los Angeles, and San Diego metropolitan areas.

#### Real per Capita Income

Total personal income and population data are from the Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)). Income values are inflation-adjusted and reported in 2009 dollars, using the California CPI from the California Department of Finance.

## Sources of Personal Income

Data are provided by the Bureau of Economic Analysis (BEA). Data are from Personal Income by Major Source and Earnings by NAICS Industry (CA05N). Personal income has been adjusted into 2009 dollars using either the California CPI from the California Department of Finance or the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics, when the data are national.

## Economic Base and Locally-Serving Industries: Moving Solano Forward

These data come from the Quarterly Census of Employment and Wages (QCEW) which allows for a look at employment, wages, and establishments data at the NAICS-4 digit level. The North American Industry Classification System (NAICS) allows for a drill down below the major industry sector. Wages have been adjusted into 2009 dollars using either the California CPI from the California Department of Finance or the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics, when the data are national.

## Agriculture

Data on county agriculture and the industries within that sector come from the Solano County Agricultural Commissioner and the Bureau of Economic Analysis (BEA). The BEA tracks farm incomes, almost like an income statement, annually with a one-year lag.

## Age of the Workforce

Data for the age and other workforce characteristics by county in California come from the Census Bureau's Quarterly Workforce Indicators (QWI) database, which lags about three to four quarters. These data provide education, level, age, gender and ethnicity characteristics concerning the state's workforce.

## Jobs-Housing Ratios

Data for the jobs-housing ratio combines non-farm job counts from the California EDD and housing estimates compiled by the California Department of Finance. The monthly jobs report from EDD is a survey of payroll businesses in Solano County that asks for the number of employees by industry and housing stock counts are found by research each county and city in California and their recorders offices for housing counts.

## Drought Conditions

The UC Davis report in 2015 on the economic impact of drought conditions in California can be found at [https://watershed.ucdavis.edu/files/biblio/2015Drought\\_PrelimAnalysis.pdf](https://watershed.ucdavis.edu/files/biblio/2015Drought_PrelimAnalysis.pdf). The Solano County Agricultural

Commissioner provides data on agricultural revenue annually.

## Commercial Real Estate

Data on Solano County's commercial real estate comes from Colliers International and their research department. The tracking of office space, both class A and B, as well as industrial space, is from a survey instrument that is proprietary to Colliers. Other commercial real estate firms, such as DTZ, will likely have different estimates, but there is not a governmental source for these data.

## County Revenue and Assessed Property Value

Data for sales tax revenue are from the State of California Board of Equalization and the Solano County Department of Finance. Data on the assessed value of residential properties is from the Solano County Assessor's office.

## Community: Our Changing Community

### Population Growth & Domestic and Foreign Migration

Data are from the E-6: Population Estimates and Components of Change by County - July 1, 2000-2015 report by the California Department of Finance and are for Solano County, the Bay Area Other (including Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara and counties), the North Bay (Napa and Sonoma counties) and California overall. Estimates for 2010 are provisional. Net migration includes all legal and unauthorized foreign immigrants, residents who left the state to live abroad, and the balance of hundreds of thousands of people moving to and from California from within the United States.

For the population pyramids, the data used comes from the California Department of Finance, P-3 report (State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060 (by year)).

### Dependency Ratios

Data for the dependency ratios, which are the percentage of the population that is either under 18 years of age or over 65 years of age, come from the American Community Survey from the U.S. Census Bureau, including the decennial Census in 2010, covering years between 2005 and 2014.

### High School Dropout Rates

Data for the 2013/2014 academic year are provided by the California Department of Education Educational Demographics Office. The 4-year derived dropout rate is an estimate of the percent of students who would drop out

in a four-year period based on data collected for a single year.

## High School Graduation Rate and Percentage that Meet UC/CSU Entrance Requirements

Data for the 2013/2014 academic year are provided by the California Department of Education. There has been a recent change in methodology such that time periods before 2009 are not comparable to those after 2009. In theory, the methodology used calculates an approximate probability that one will graduate on time by looking at the number of 12th grade graduates and number of 12th, 11th, 10th and 9th grade dropouts over a four year period. The adjusted dropout numbers were used which accounts for students who dropout and re-enroll, and lost transfer students.

## Health Insurance Coverage

Data for health insurance coverage comes from the Census Bureau's Small Area Health Insurance Estimates [www.census.gov/did/www/sahie/](http://www.census.gov/did/www/sahie/)

## Trends in Home Sales

Data provided by the California Association of Realtors (CAR) has replaced data provided by Dataquick and RAND Corporation due to cost constraints and an unknown ability to access free or up-to-date information on home sales and foreclosures. CAR also has the percentage change in homes sales by county, and compares numerous counties across the state.

## Building Permits

Building permits data is available from both the County of Solano and the Census Bureau at the metropolitan statistical area (MSA) level. The County of Solano provided both residential permit counts and square footage of new commercial construction permitted. The building permits database at the Census Bureau can be found at the following website:

<http://www.census.gov/construction/bps/>

## Commuting

Data on commuting workers comes from the Census Bureau and its partnership with the Bureau of Labor Statistics and the QWI called the Longitudinal Employment and Housing Dynamics (LEHD) database. These data are from 2002 to 2013 as of January 2016.

## City Data: Demography

Data on the cities and their demography come from the American Community Survey (ACS) of the Census Bureau. While this survey has some data limitation for smaller

municipalities and the unincorporated portions of counties, it is the best, current source of information on cities and towns between the ten-year Census dates.

## 2007 NAICS Codes for 2014 Industry Cluster Definitions:

### Moving Solano Forward Phase I

#### Energy

2111	Oil and Gas Extraction
2121	Coal Mining
2122	Metal Ore Mining
2131	Support Activities for Mining
2211	Power Generation and Supply
2212	Natural Gas Distribution
2213	Water, Sewage and Other Systems
2371	Utility System Construction
2379	Other Heavy Construction
3241	Petroleum & Coal Products Manufacturing
3251	Basic Chemical Manufacturing
3324	Boilers, Tanks, and Shipping Containers
3331	Ag., Construction, and Mining Machinery
3334	HVAC and Commercial Refrigeration Equip
3336	Turbine and Power Transmission Equipment
3344	Semiconductor and Electronic Components
3345	Electronic Instrument Manufacturing
3351	Electric Lighting Equipment Mfg
3353	Electrical Equipment Manufacturing
3359	Other Electrical Equipment & Components
3363	Motor Vehicle Parts Manufacturing
4235	Metal and Mineral Merchant Wholesalers
4236	Electric Goods Merchant Wholesalers
4237	Hardware & Plumbing Merchant Wholesalers
4247	Petroleum Merchant Wholesalers
4860	Pipeline Transportation
5324	Machinery & Equipment Rental & Leasing
5331	Lessors, Nonfinancial Intangible Assets
5413	Architectural and Engineering Services
5416	Management & Technical Consulting Svc
5417	Scientific Research and Development Svc
	Oil and Gas Extraction

#### Food Chain

111	Crop Production
112	Animal Production and Aquaculture
113	Forestry and Logging
119	Support Industries for Agriculture
2213	Water, Sewage and Other Systems
2371	Utility System Construction
3111	Animal Food Manufacturing
3112	Grain and Oilseed Milling
3113	Sugar/Confectionery Product Manufacture
3114	Fruit, Vegetable, & Specialty Foods Mfg
3115	Dairy Product Manufacturing
3116	Animal Slaughtering and Processing
3117	Seafood Product Preparation & Packaging
3118	Bakeries and Tortilla Manufacturing
3119	Other Food Manufacturing
3121	Beverage Manufacturing
3219	Other Wood Product Manufacturing
3222	Converted Paper Product Manufacturing
3253	Agricultural Chemical Manufacturing
3261	Plastics Product Manufacturing
3272	Glass and Glass Product Manufacturing
3321	Forging and Stamping
3322	Cutlery and Handtool Manufacturing
3324	Boilers, Tanks, and Shipping Containers
3331	Ag., Construction, and Mining Machinery
3332	Industrial Machinery Manufacturing
3339	Other General Purpose Machinery Mfg
4238	Machinery & Supply Merchant Wholesalers
4244	Grocery Product Merchant Wholesalers
4245	Farm Product Merchant Wholesalers
4248	Alcoholic Beverage Merchant Wholesalers
4249	Misc Nondurable Goods Merchant Whsle
4452	Specialty Food Stores
4931	Warehousing and Storage
5416	Management & Technical Consulting Svc
5419	Other Professional & Technical Services

## Medical and Life Sciences

3254	Pharmaceutical & Medicine Manufacturing
3332	Industrial Machinery Manufacturing
3333	Commercial & Service Industry Machinery
3345	Electronic Instrument Manufacturing
3391	Medical Equipment and Supplies Mfg
4234	Commercial Goods Merchant Wholesalers
4461	Health and Personal Care Stores
5413	Architectural and Engineering Services
5417	Scientific Research and Development Svc
5621	Waste Collection
5622	Waste Treatment and Disposal
6214	Outpatient Care Centers
6215	Medical and Diagnostic Laboratories
6215	Medical and Diagnostic Laboratories
6219	Other Ambulatory Health Care Services
8112	Electronic Equipment Repair/Maintenance

## Advanced Materials

2122	Metal Ore Mining
2123	Nonmetallic Mineral Mining and Quarrying
3222	Converted Paper Product Manufacturing
3241	Petroleum & Coal Products Manufacturing
3251	Basic Chemical Manufacturing
3252	Resin, Rubber, and Synthetic Fibers
3253	Agricultural Chemical Manufacturing
3254	Pharmaceutical & Medicine Manufacturing
3255	Paint, Coating, & Adhesive Manufacturing
3256	Cleaning Compound and Toiletry Mfg
3259	Other Chemical Preparation Manufacturing
3261	Plastics Product Manufacturing
3262	Rubber Product Manufacturing
3271	Clay Product & Refractory Manufacturing
3272	Glass and Glass Product Manufacturing
3273	Cement & Concrete Product Manufacturing
3274	Lime and Gypsum Product Manufacturing
3279	Other Nonmetallic Mineral Products
3311	Iron and Steel Mills and Ferroalloys
3312	Purchased Steel Product Manufacturing
3313	Alumina and Aluminum Production
3314	Other Nonferrous Metal Production
3315	Foundries
3321	Forging and Stamping
3322	Cutlery and Handtool Manufacturing
3323	Architectural and Structural Metals
3324	Boilers, Tanks, and Shipping Containers
3325	Hardware Manufacturing
3326	Spring and Wire Product Manufacturing
3327	Machine Shops and Threaded Products
3328	Coating, Engraving & Heat Treating Metal
3329	Other Fabricated Metal Product Mfg
3332	Industrial Machinery Manufacturing
3333	Commercial & Service Industry Machinery
3335	Metalworking Machinery Manufacturing
3339	Other General Purpose Machinery Mfg
3341	Computers and Peripheral Equipment
3342	Communications Equipment Manufacturing
3344	Semiconductor and Electronic Components
3345	Electronic Instrument Manufacturing

## Advanced Materials (cont.)

3351	Electric Lighting Equipment Mfg
3353	Electrical Equipment Manufacturing
3359	Other Electrical Equipment & Components
3363	Motor Vehicle Parts Manufacturing
3364	Aerospace Product & Parts Manufacturing
3391	Medical Equipment and Supplies Mfg
3399	Other Miscellaneous Manufacturing
4235	Metal and Mineral Merchant Wholesalers
4246	Chemical Merchant Wholesalers
4247	Petroleum Merchant Wholesalers
5413	Architectural and Engineering Services
5417	Scientific Research and Development Svc

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The 2015 Solano County Index of Economic and  
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**[www.solanocounty.com/economicindex](http://www.solanocounty.com/economicindex)**

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