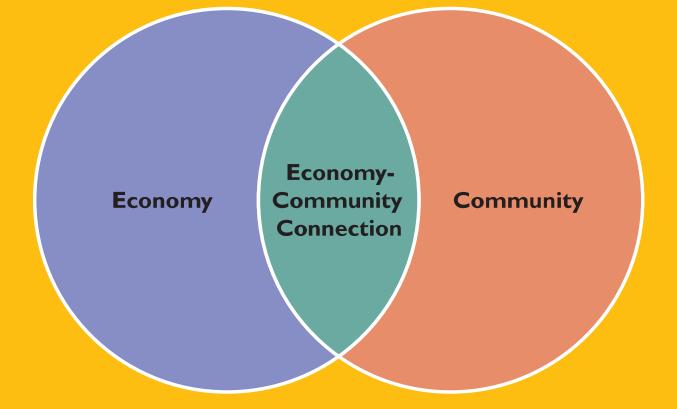


# Solano County 2016 Index of Economic and Community Progress

County of Solano and Solano Economic Development Corporation

April 2017



# Solano County 2016 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, the Bay Area, California and the United States. The 2012 to 2016 editions include the objective analysis of Dr. Robert Eyler from Economic Forensics and Analytics (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.

n this, the ninth annual Solano County Index of Economic and Community Progress (Index) prepared for the County in collaboration with Solano EDC and Dr. Robert Eyler, the report shows Solano County's continued economic recovery and a 2.8% increase in private sector hiring over 2015.

Developed in 2007, this annual report provides an in-depth look at various indicators capturing trends that shape our local economy and provides a longer-term perspective for economic development. This approach provides context for viewing today's circumstances alongside our long-term economic strategy.

Based upon the most recent federal and state data sources available (December 2014 to June 2016), this report highlights local industry employment, the "gross county product", housing, and government revenues which have made positive gains over the last year. The 2016 index shows personal income and gross domestic product (GDP) per capita continue to trend upward while median household income decreased slightly.

#### The key to a successful economy? Jobs.

Strong, robust economies are driven by well-paying jobs, and a well-educated and flexible workforce working and residing in vibrant communities with housing choices and excellent educational and recreational opportunities. The 2016 index further explores business and housing affordability measures – two indicators for competitiveness to attract and retain businesses providing jobs for Solano County residents.

Unemployment rates continue to fall and private sector hiring is up as is export focused industries led by non-durable manufacturing and logistics jobs. Housing prices increased by 15% in 2016, further signifying the gradual recovery of the housing market. Even with this increase, housing prices remain affordable when compared to prices in the Bay area.

The future is full of opportunities!

The 2016 index highlights opportunities for working collaboratively to forge our economic direction as well as outside influences we need to be mindful of in the coming years.

As the report shows, our economy is growing and recovering. We challenge you to review this document with an eye to the multitude of ways in which you can commit to building upon our strengths and addressing our challenges so that we can reach our positive vision for the future.

Sincerely,

John Vasquez

Chair

Solano County Board of Supervisors

Sandy Person

President

Solano Economic Development Corporation

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**Solano County Key Facts** 

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

Water area	84 squ	uare miles	Particular Con	4
2016 Population (Janua	ary 1, 2016)	431,498		
Benicia		27,501	Benitsi	
Dixon		19,018	Educational Attainment (2011–15)	Avg.)
Fairfield		112,637	Less than high school	12.5%
Rio Vista		8,601	High school graduate	23.8%
Suisun City		29,091	Some college, no degree	29.0%
Vacaville		97,667	Associate's degree	9.7%
Vallejo		117,322	Bachelor's degree	17.6%
Unincorporated		19,661	Graduate or Professional degree	7.4%
Population Change fro	m 2015	+4,794	Age Distribution (2011–15 Avg.)	
			Under 5 years old	6.2%
Solano County 2040 Po	opulation Est.	548.046	5 to 19	19.6%
(ABAG/MTC)	- F	3.5,310	20 to 44	33.7%
Ç/			45 to 64	27.5%
Ton C Coopley manual Coo		- 2017)	65 and older	13.0%

#### Top 5 Employment Sectors (as of Dec. 2016)

Education & Health Services	26,700		
All Government (incl. US Military)	25,400	Ethnic Composition (2011–15 Avg.)	
Retail Trade	19,700	White, non-Hispanic	39.8%
Leisure & Hospitality	15,000	Hispanic	25.3%
Professional & Business Services	10,100	Asian, non-Hispanic	14.6%
		African-American, non-Hispanic	13.5%
Total Industry Jobs (Nov. 2016)	140,500	Other (incl. mixed race/Pacific Islander)	6.8%

Jobs-Housing Ratio (2016)	0.95	Building Permits Issued, New Housing Units
Jobs-Housing Ratio,	0.89	(2015–16) 875
ABAG/MTC (2040)		

#### Sources:

- 1. Population data come from the California Department of Finance (www.dof.ca.gov), as of Dec 2014 availability.
- 2. Employment data come from the California Employment Development Department (<u>www.edd.ca.gov</u>), Dec 2014.
- 3. Demographic data from the Census Bureau's American Community Survey (factfinder.census.gov), Jan 2015.
- 4. Building Permits data were provided by the County of Solano for fiscal year 2015-16, ending June 30, 2016.

## **Key Highlights from the 2016 Index**

#### **Our Changing Economy**

- Solano County private sector employers hired 3,700 more workers in 2016; this is a 2.8 percent increase from 2015.
- Total Solano County business, government, and nonprofit employment was 140,300 as of January 1, 2017.
- Solano County's unemployment rate is 5.1 percent as 2017 begins.
- Based on the most recent available data, Gross County Product grew by 3.1 percent in 2015, up a bit from 2014.
- Farm jobs growth was flat and agriculture values slipped in 2015 (the latest year for which data are available), most likely due to commodities prices falling in 2015.
- Personal income per person increased in 2015, based on the most recent available data, while other income measures were flat in 2015, suggesting that Solano County's cost of living is rising and catching up to recent income growth, resulting in a rise in standards of living.
- Employment in export-focused industries increased between 2015 and 2016 by 2,740 jobs, led by non-durable manufacturing and logistics jobs.
- Solano County wages remain a competitive advantage and relatively low versus core Bay Area counties where wages are rising more quickly due to both local minimum wage ordinances and market forces.
- The jobs-housing ratio in Solano County was 0.95 in 2016, a sign that Solano County employment is rising faster than housing units. (This ratio was 0.84 in 2015.)
- Estimates of Solano County employment indicate that 167,300 people are expected to be employed by Solano County employers by 2040.

#### **Our Changing Community**

- Solano County's population added 4,794 residents in 2016; this is a 1.1 percent increase from 2015.
- Solano and Sacramento counties are forecasted to be fast-growing counties from 2016 to 2040.
- In the 2014–15 academic year, Solano County's graduation rate increased, but dropout rates also slightly increased as the student population rises.
- More county students were UC/CSU-ready in the 2014–15 academic year than in 2013–14.
- Housing prices increased 15.3 percent in 2016, and housing affordability increased slightly, a sign of income growth to come in 2017.
- For residential housing units, building permits activity was slower in fiscal year 2015-16 than in 2014-15. Over 1.76 million in square feet of commercial space was permitted during fiscal year 2015-16, up 41.6 percent from 2014-15
- Solano County Government revenue from property and sales taxes continued to rise in 2015, due to rising personal income levels and assessed property values rising to over \$48 billion in 2016.

#### **Considerations for the Future**

The coming year holds many new economic concerns. A new president and uncertainty in both fiscal and monetary policy may force more volatility in American financial markets. California has statewide legislation for an increased minimum wage and the allowance of legal cannabis use for recreation. These current and upcoming changes can easily pressure labor, health care, housing, and commercial real estate markets in ways that are not easy to forecast. However, as of March 2017, there are no forecasts of recession for either the national or state economies through 2020.

#### **Index Overview**

Economic Indicators: Solano County continued its strong jobs growth in 2016.

Non-farm employment grew by 2.8 percent in 2016, adding approximately 3,700 more jobs at local employers. Key growth industries include construction (+770 jobs), manufacturing (+470 jobs), health care (+530 jobs), hotels and restaurants (+350 jobs), and federal and state government (+310 jobs). Retail jobs increased by 230 employees, and agriculture jobs were flat for

In 2016, Solano County employment grew by 2.8%, adding approximately 3,700 jobs.

2016. From 2010 to 2016, Solano County employers added a total of 16,400 jobs. Manufacturing growth is widespread across a mix of non-durable (e.g., food and beverages) and durable goods (e.g., aircraft, machine parts, and machines) sectors. Health care, as an industry, remains a foundational employer in Solano County. Local economic development in the Advanced Materials and Logistics sectors singles out these industries as foundational to long-term economic growth for Solano County.

Previous Index reports focused on labor market comparisons to the 2008–10 recession in Solano County. That recession left deep wounds in labor markets throughout California. This 2016 version of the Index focuses on 2010 and beyond. Why? Recession has ended for Solano County; heavy effects on employment in construction, real estate, and related sectors are now somewhat reversed, and we can now focus on Solano County's economy has experienced significant changes since 2010.

The Solano County economy has many positive aspects. Construction has made an employment comeback. Residential building permits activity in fiscal year 2015-16 was for 875 new housing units, down from 1,038 units the previous fiscal year. Commercial square feet under construction was up by 41.6 percent, 94 percent was industrial space and 6 percent office.

In 2016, the economic situation outside Solano County showed continued expansion, with California employment growing by 2.5 percent. Forecasts for California's economy through 2020 are available from the California Department of Finance (www.dof.ca.gov). As has been the case since 2012, the forecast

is for just over one percent jobs growth from 2017 to 2020 and

As of March 2017, there is no recession predicted between 2017 and 2020.

for California's unemployment rate to reach a steady level of approximately 5.0 percent through 2020. Forecasts point to the national economy growing at just over 2 percent and to the California economy growing at just over 2.5 percent, assuming no unexpected events occur to disrupt these positive expectations.

Three major statewide legislative occurred in 2016. The first began in April 2016 when the California legislature agreed that a minimum wage law needed to be established statewide. Senate Bill 3's legislation went into effect on January 1, 2017. In an effort to help alleviate poverty and the detrimental effects of a rising cost of living on lower-income workers,

California's new minimum wage legislation signifies quicker, upward movements in pay for workers at lower wages.

The second and third changes were initiated by the November 7 election results in 2016. Proposition 64 passed in California, allowing cannabis to be grown, distributed and sold legally for recreational purposes throughout our state, starting on January 1, 2018. Proposition 64 has many social and economic implications and uncertainties, including changes in public safety demands, demand for warehousing and office space, agricultural land use, and retail demand that may shift toward the cannabis supply chain.

The election of Donald Trump as president may affect local labor force availability, port activity, and perhaps both current health care systems and the number of residents that have private or public health care insurance. Throughout this 2016 Index report, the extent to which the new presidency affects the Solano County economy in 2017 and beyond is discussed when relevant. One major concern is volatility in equity markets and interest rates, which may affect personal income growth for county residents.

In December 2016, as one year earlier, the Federal Reserve increased from 0.25 percent to 0.5 percent the interest rates used by banks to lend to each other. The Federal Reserve chairperson, Janet Yellen, stated publicly that as many as three more interest rate increases are coming in 2017. Equity markets have rallied in 2016 after a flat 2015; on January 25, 2017, the Dow Jones Industrial Average broke 20,000.

Anticipate at least two interest rate increases by the Federal Reserve in 2017.

This rally likely reflects commodity price rebounds—a development that may be good for Solano County farmers in 2016 and 2017—and predicted reductions in recent regulation for both health care and financial markets. If inflation and interest rates rise more quickly than currently forecasted, growth forecasts—including those for Solano County—are likely to be revised downward. Interest rates and confidence in the overall economy also significantly affect housing market demand.

Solano County housing markets had a strong year of price growth in 2016; the California Association of REALTORS® reports that the median sale price for single-family homes in Solano County was \$405,000 in December 2016, up 15.9 percent from the previous year. Comparatively, median single-family home prices in California overall grew only 3.9 percent in 2016. With home prices rising and the growth of permits

Housing prices went up 15.3 percent in Solano County in 2016.

slowing down, housing market forecasts for Solano County point toward continued price growth due to low inventory and stable demand. Personal income,

population, jobs growth, and relatively low interest rates, further corroborate 2017 as another year for rising Solano County home prices.

Commuting is the confluence of housing and labor markets in building a regional economy. Solano County acts as a "laborshed" or place to live for workers who commute to Sacramento, the Bay Area, and beyond. Commuters flow from, through and to Solano County for work,

While 65 percent of Solano County residents commute to jobs outside Solano County, 60 percent of workers hired by Solano County employers live somewhere else.

suggesting opportunities for greater use of the local labor force by county employers as well as for greater retail capture.

Moving Solano Forward Phase II has settled on industry clusters upon which to focus economic development efforts. New clusters are now the foci of Solano Economic Development Corporation (EDC) and its economic development strategy:

- Advanced Materials;
- Biotech/Biomed;
- Food and Beverages;
- Logistics; and
- Travis Air Force Base.

Business attraction, retention, and expansion efforts by Solano County's cities and Solano EDC help fill available commercial real estate and determine occupancy and industry mix. Industrial space, including manufacturing space and warehousing, had 6.0 percent vacancy as of 2016 Q3. Prices were basically flat for both Class A and B space during 2016 (up about \$0.05 per square foot since Q3 2015). The passing of Proposition 64 (recreational use of cannabis becoming legal in 2018) may change commercial real estate demand through 2020. This is a key economic and social guestion to be explored and monitored.

Solano County employers' hiring of 3,700 more workers brought the total employment level to 140,300 as of January 1, 2017. This growth has happened during a time of labor force reductions in Solano County; the labor force is down from its peak in the last

Solano County's employers kept hiring in 2016.

decade by over 7,000 people. These data suggest more imported workers and traffic from regional commuting. The farm employment total was 1,800 jobs, with no growth from 2015.

Solano County's goods-producing industries (building houses or making products by adding value to raw materials) grew as a proportion of the local economy. This continued diversification for Solano County businesses emphasizes export-focused industries (businesses that have customers primarily outside of Solano County). Hiring in health care, retail, bars, restaurants, and hotels grew.

Solano County Employment 2016 Annual Average Gains and (Losses) of Jobs Since 2010, 2014 and 2015

	<u>Since 2010</u>		<u>Since 20</u>	<u> 114</u>	<u>Since 2015</u>	
Industry	Gain/(Loss)	% Chg	Gain/(Loss)	% Chg	Gain/(Loss)	% Chg
Manufacturing	2,570	26.5%	1,270	11.5%	470	4.0%
Construction	2,370	32.9%	1,270	15.3%	770	8.7%
Retail Trade	2,230	13.6%	1,130	6.4%	230	1.2%
Bars and Restaurants	1,230	12.1%	530	4.9%	230	2.0%
Health Care	4,970	25.5%	1,970	8.7%	870	3.7%
Local Government Education	800	5.2%	500	3.2%	200	1.3%
Federal Government (incl. Travis AFB)	(820)	-17.8%	80	2.3%	80	2.3%
Agriculture	390	28.0%	(10)	-0.5%	(10)	-0.5%
Wholesale Trade	390	9.3%	190	4.4%	90	2.0%
Financial Activities	(250)	-4.8%	150	3.1%	50	1.0%
Information (Software and Publishing)	(210)	-16.0%	(10)	-0.8%	(10)	-0.8%
State Government Excl. Education	130	2.5%	(70)	-1.4%	30	0.5%
All Other Industries	3,000	14.2%	1,400	6.2%	700	3.0%
Total, All Industries	16,800	13.9%	8,400	6.5%	3,700	2.8%

Source: EDD (http://www.labormarketinfo.edd.ca.gov/), Labor Market Information, Annual Averages used in 2016

Forecasts mentioned above in combination with the historic links of Solano County's economy to the broader economies suggest that Solano County employment is likely to continue positive growth through 2017 and perhaps to 2020, following the state of California's employment pattern closely.

#### Solano County Residents and the Local Labor Force

Population growth and resident employment are tied together within the local labor force. Since 2010, the number of employed residents has grown by 11.7 percent in Solano County while the labor force has grown by only 3.3 percent. These data suggest a strong conversion of unemployed residents to employed.

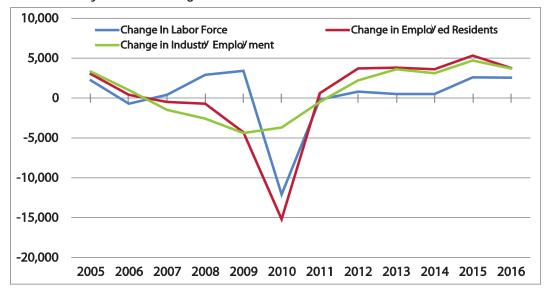
Comparison of Solano County Labor Force Components, 2010 to 2016 Number of Workers and Percent Change Annual Averages

	•			•		
	Number of Workers			Percent Change		
	2010 2015 2016			2010	2015	
Labor Force	202,400	206,600	209,150	3.3%	1.2%	
<b>Employed Residents</b>	177,000	194,000	197,750	11.7%	1.9%	
<b>Unemployment Residents</b>	25,400	12,600	11,400	-55.1%	-9.5%	
Industry Employment	121,000	134,100	137,800	13.9%	2.8%	

Source: EDD (<a href="http://www.labormarketinfo.edd.ca.gov/">http://www.labormarketinfo.edd.ca.gov/</a>), Labor Market Information, Annual Averages; a new benchmark of 2015 was set with some revisions

The California Employment Development Department (EDD) reports that there were 10,513 Solano County payroll businesses in 2016 Quarter 2. "Non-employer" businesses (i.e., businesses that are usually self-owned and operated) are also an important segment of the Solano County business sector. For Solano County, there were an estimated 35,110 such businesses in 2014, according to the most recent data on non-employer (self-employed) businesses. Data on the annual changes in Solano County's labor force since 2005 clearly show recession and recovery.

#### Solano County Annual Changes in the Labor Force, 2005–2016, Number of Workers



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

#### Solano County and its cities continued growth of gross product.

Businesses in Solano County add value to raw materials and pay their owners, workers, creditors, and governments from the resulting revenue, called gross product. Economists use inflation-adjusted gross product data to assess an economy's growth rate. Goods-producing businesses generally focus on markets outside the local economy; in 2015 (the latest year for which data are available), the gross product share of such businesses in Solano County was 28.3 percent (measured in 2009 dollars). Goods-producing sector businesses increase their share of employment again in 2015; this includes a growing manufacturing sector. The share size of the services-producing sector fell in both 2014 and 2015 after increasing from 2010 to 2013. Government (the public sector) was approximately 19.8 percent of the 2015 county economy (measured in 2009 dollars) while private-sector services accounted for 51.9 percent in 2015. Solano County remains a heavy, public-sector jobs area compared to California overall, due mainly to the presence of Travis Air Force Base.

# Sector Shares of Gross Product at the County, State, and National Levels Percent of Total Gross Product in 2009 Dollars, 2010–2015

	Goods-Producing			Servi	ices-Produci	ing	Public Sector		
Year	Solano	CA	US	Solano	CA	US	Solano	CA	US
2010	27.1%	19.0%	16.8%	50.1%	67.5%	69.9%	22.8%	13.5%	13.3%
2013	27.2%	19.2%	16.3%	52.3%	68.2%	71.2%	20.5%	12.6%	12.4%
2014	27.8%	19.2%	16.3%	52.0%	68.5%	71.5%	20.2%	12.3%	12.1%
2015	28.3%	19.2%	16.3%	51.9%	68.7%	71.8%	19.8%	12.1%	11.9%

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

#### Standard of Living: Three Measures

Standard of living is typically measured as real (inflation-adjusted) gross product per capita (per person), and higher values are considered better. Personal income per person is another measurement method, as is measuring the median income for an entire household. The Bureau of Economic Analysis tracks gross product and personal income; median household income is estimated by the Census Bureau, based on a household of four people.

In 2015, personal income per person grew faster in Solano County than for the US or California economies overall. Median household income (MHI) moderated a bit in 2015 after consistent growth since 2010. Solano County continues to be above the state average for MHI, but below the state averages for gross product and personal income per capita. Based on jobs growth and continued increases in equity markets, the 2016 data are likely to show a year of growth for all three of these indicators in real (inflation-adjusted) terms.

# Standard of Living Measures at the County, State, and National Levels 2010, 2014 and 2015 (latest available data), in 2009 Dollars

	Gross Product per Capita			Personal	I Income pe	r Person	Median Household Income		
Place	2010	2014	2015	2010	2014	2015	2010	2014	2015
United States	\$47,287	\$49,203	\$50,054	\$39,649	\$42,152	\$43,195	\$50,046	\$53,482	\$55,775
California	\$51,869	\$55,247	\$56,851	\$42,667	\$46,484	\$48,198	\$57,664	\$61,489	\$64,483
Solano County	\$35,389	\$37,907	\$38,692	\$36,253	\$36,217	\$38,222	\$62,948	\$67,341	\$67,202

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

#### Community Indicators: Continued Gains and Reduced Challenges

In 2016, Solano County's population grew by 4,794 people, increasing pressure on rising housing prices in both the rental and home sales markets. Housing affordability continues to fade, with the trade-off of higher home prices and recovered housing wealth. Education data show that Solano County schools continue to produce more graduates, both those who enter the workforce directly and those who continue on to college. City-level demographic data show that Solano County's population overall is aging and is becoming more educated but is also commuting more for work outside Solano County.

#### Solano County's population grew approximately 1.1 percent.

Foreign immigration versus domestic immigration (i.e., new residents from other parts of the United States) has been a key factor in Solano County's population growth from 2010 to 2015, and that growth leveled off in 2015. However, natural increases (births less deaths) remain the dominant way Solano County's population grows overall, and births exceeded deaths by 2,251 in 2015.

According to the California Department of Finance (DOF) Solano County's estimated population level increased to 431,498 as of January 1, 2016. DOF projects Solano County's

population to further increase to 548,046 by 2040. Jobs and housing unit forecasts suggest that Solano County has an estimated 167,400 households (occupied housing units) by 2040. These estimates come from a joint report made in late 2016 by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), and they indicate that 2040 is an important date in terms of new policies and planning considerations for Solano County's future.

Recent ABAG and MTC estimates for Plan Bay Area imply growth of 19,579 occupied housing units in the next 24 years.

#### Solano County's graduation rate increased to 84.3 percent—out-pacing the state average.

During the 2014–15 academic year (the latest year for which data are available), Solano County's high school dropout rate slightly increased to 2.8 percent, as reported by the California Department of Education. The state average fell to 2.3 percent in 2014–15, and both of these percentages are down significantly since the 2008–09 academic year. Solano County graduates Hispanic and African-American students at higher rates than the state on average. The number of UC/CSU-ready students fell slightly to 36.4 percent of Solano County graduates in 2014–2015, while the share of UC/CSU-ready students in the state of California overall increased to over 43 percent of graduates. Filipino and Asian students graduate college-ready more than any other ethnicity in Solano County. Given population growth, Solano County continues to make progress in education.

#### Housing markets see continued growth in 2016.

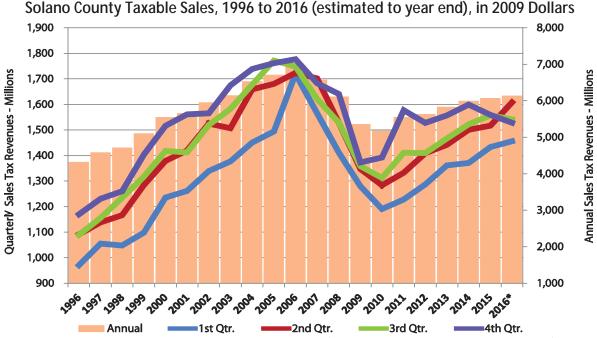
According to the California Association of REALTORS®, Solano County housing prices grew at 15.3 percent on average in 2016; from December 2015 to December 2016, prices grew at 15.8 percent to reach \$405,000 at the median. California home prices grew 5.2 percent over 2016 on average. Rental prices increased approximately 8.0 percent countywide according to Zillow Research, suggesting sustained demand as available inventory levels remain relatively low.

#### Commuting and Economic Development Opportunities for Solano County

By the end of 2014 (the latest year for which data are available), more than 117,000 Solano County residents were commuting every week to work outside the county. There were also 64,000 people coming into Solano County for work every week. Commuting is part of any regional economy, as workers seek to balance where they live with where employers demand their skills. Approximately 54.6 percent of Solano County residents who commute to work outside the county go to what the 2016 Index calls the "Bay Area Other" counties (Contra Costa, Alameda, San Francisco, Santa Clara, Marin, and San Mateo), while those who commute into Solano County for work come mainly from Contra Costa, Yolo, Sacramento, and Napa counties.

#### Government revenue continues to rise

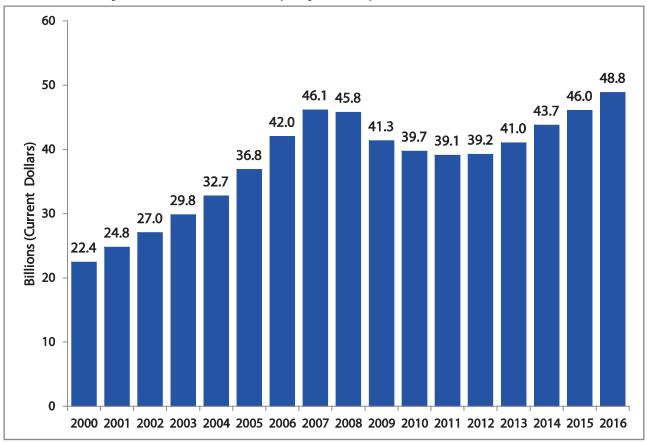
The combination of rising home prices and taxable sales suggests continued revenue increases for Solano County's city and county governments. Overall, taxable sales grew slightly after inflation adjustments; inflation-adjusted, taxable sales have grown by 18.5 percent since 2010 when taxable sales hit 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 by the Solano County Assessor's Office to set the annual tax roll. Property tax revenue for the County of Solano continued to rise as 2016 unfolded; as of June 30, 2016, the assessed value of property in Solano County was \$48.8 billion.



Sources: County of Solano and Calif Board of Equalization (<a href="http://www.boe.ca.gov/news/tsalescont.htm">http://www.boe.ca.gov/news/tsalescont.htm</a>);

\* 2016's annual and Q4 data are estimates.

Solano County Assessed Values for Property Tax Purposes, 2000 to 2016, in Current Dollars



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

#### Geographic Comparisons

Unless stated otherwise, the 2016 Index groups counties into the following three areas in California for the purpose of making comparisons. All of these counties plus Solano County can also be seen as defining a "super region".

- <u>Bay Area Other</u>: 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

In the pages that follow, each subsection of this report provides a brief "TAKEAWAY" statement and a "WHAT IS IMPORTANT" paragraph in order to summarize what the data indicate and to highlight considerations about how specific data affect the Solano County economy currently or in the future.

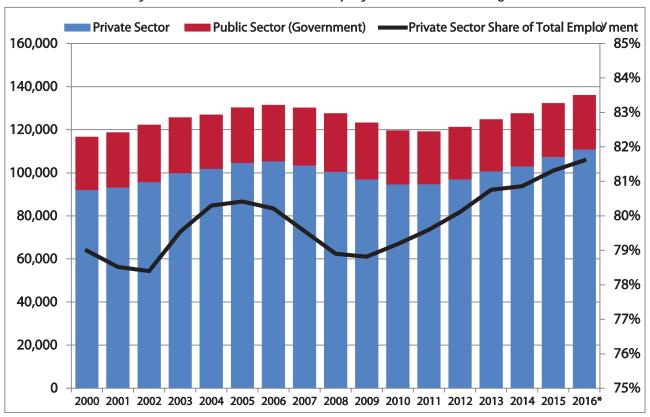
The next report section takes a look at Solano County's changing economy and what 2017 may have in store. It is followed by a section on community indicators.



## **Annual Local Industry Employment**

Solano County employers continue to hire as the county economy expands; in 2016, 3,700 more private sector jobs were created. While this is a 2.8 percent increase in employment from 2015, it is slower growth than in 2015 when Solano County experienced 3.3 percent jobs growth. However, growth compounds as expansion takes place. In addition to the 3,700 jobs gained in the private sector, the public sector gained 300 new jobs across all areas of government in net.

#### Solano County Private and Public Sector Employment Annual Averages, 2000-2016



Source: California Employment Development Department (www.edd.ca.gov); \*2016 is a 12-month average of data from January 2016 through December 2016. Private and Public Sector Employment Levels are indicated on the left-hand axis; Private Sector share of Total Employment is indicated on the right-hand axis.

In 2016, local government workers comprised 64.4 percent of public-sector workers overall, while both state and federal government employment (in Solano County) grew only slightly since 2014. The US Military employment level is estimated as 2,925 full-time equivalent workers across an array of jobs at Travis Air Force Base. Private-sector jobs grew in 2016 as a percentage of non-farm employment to just under 82 percent of workers.

**TAKEAWAY:** Solano County private- and public- sector employers hired over 4,000 more workers in 2016. 3,700 of those workers were in the private sector.

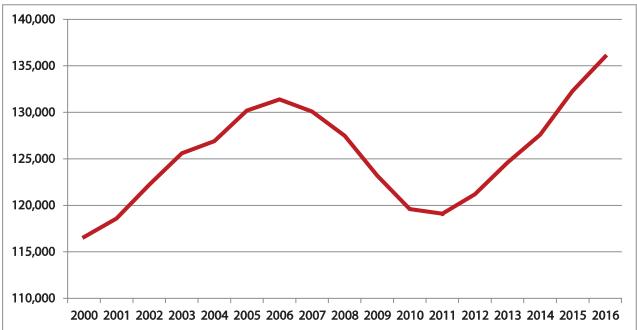
WHAT IS IMPORTANT: Solano County has now created over 8,400 non-farm jobs since 2014.

## **Total Employment**

Solano County has generated over 16,400 jobs since 2010, and is 11.7 percent since 2010. Informative comparisons include the area called Bay Area Other, which generated over 240,000 jobs, representing 28.6 percent growth in employment since those counties hit bottom in 2009. Napa and Sonoma combined generated over 37,000 jobs since 2010, for a growth rate of over 16 percent. California grew about 13 percent since 2010, which translates to just below 1.9 million workers. The Sacramento Metropolitan Statistical Area (MSA) grew about 11 percent, adding 90,400 jobs since 2010.

Solano County jobs growth in 2016 took place in all sectors except two: information and agriculture. While jobs growth accelerated in 2015, global economic conditions and uncertainty led to slightly slower growth in 2016. Looking across the region, Solano County had 3.3 percent growth in 2015, which is greater growth than all comparison areas except the Bay Area Other, which continued its jobs growth at 3.9 percent in 2015. The North Bay counties of Sonoma and Napa showed slower growth that was less than the state average.

#### Solano County Non-Farm Employment, 2000–2016, December Data

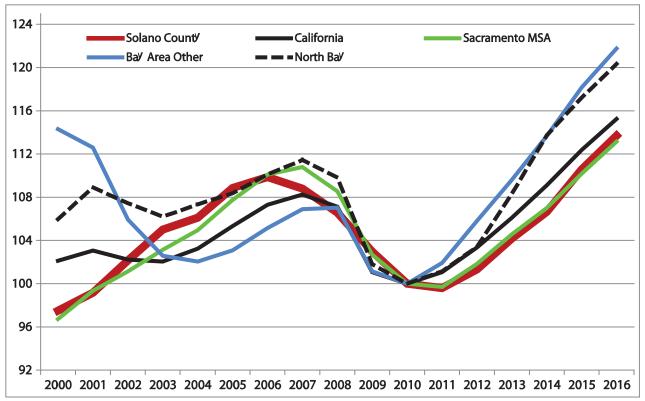


Source: California Employment Development Department (www.edd.ca.gov)

**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 the construction, retail, financial activities, information, and local and federal government sectors, job growth remains under 2007 levels. While the non-farm employment level as of December 2015 is the highest level on record, some industries are still filling the hole left by the Great Recession. Health care and retail jobs have helped to fill the gap.

Gain or Loss in Industry Employment (Non-Farm), 2000–2016 Comparisons Between Selected Areas, Index 2010 = 100



Source: California Employment Development Department (www.edd.ca.gov)

# Change in Total Industry Employment Gain or (Loss) as a Percent of Total Solano County Employment

Place	2010–16	2014–15	2015–16
Solano County	13.7%	3.3%	2.8%
California	15.2%	3.0%	2.5%
Sacramento MSA	13.1%	2.6%	2.7%
Bay Area Other	21.8%	3.9%	3.1%
North Bay	20.3%	2.4%	2.7%

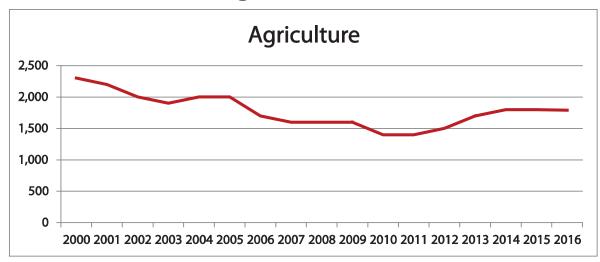
Source: www.edd.ca.gov

The charts on the following pages explore employment data at the industry level, including federal government jobs and local and state government jobs. In the comparison tables, 2007 is retained as a pre-2010 year of interest. In most industries, net new jobs since 2007 are positive, suggesting that there has been an expansion of those industries. Health care, manufacturing, construction, and tourism support industries were standouts for jobs growth in 2016.

**TAKEAWAY:** In 2016, non-farm jobs grew faster in Solano County than in most of the region and California overall.

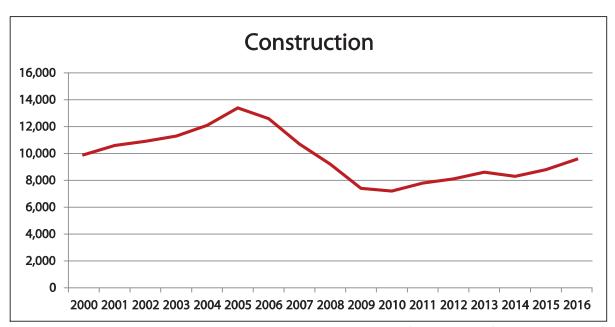
WHAT IS IMPORTANT: Employment in the Bay Area Other counties group (including San Francisco, Alameda, Contra Costa, San Mateo, Marin, and Santa Clara counties) grew more quickly than in Solano County and the state overall. The Bay Area continues to be a competing jobs center for Solano County employers seeking workers.

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



Source: California Employment Development Department (www.edd.ca.gov)

Agriculture	2007–16	2010–16	2015–16
Change in Jobs	190	390	(10)
Percent Change	12.0%	28.0%	(1.3%)
	2007	2010	2016
Share of Total	1.2%	1.2%	1.3%



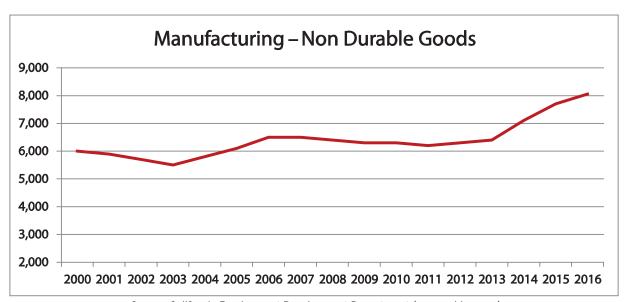
Source: California Employment Development Department (www.edd.ca.gov)

Construction	2007–16	2010–16	2015–16
Change in Jobs	(1,130)	2,370	770
Percent Change	(10.6%)	32.9%	8.7%
	2007	2010	2016
Share of Total	8.1%	6.0%	6.9%



Source: California Employment Development Department (www.edd.ca.gov)

Durable Goods	2007–16	2010–16	2015–16
Change in Jobs	110	810	110
Percent Change	2.6%	23.8%	2.6%
	2007	2010	2016
Share of Total	3.1%	2.8%	3.1%



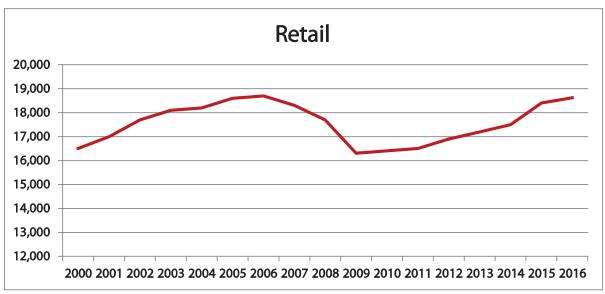
Source: California Employment Development Department (www.edd.ca.gov)

Non-Durable	2007–16	2010–16	2015–16
Change in Jobs	1,560	1,760	360
Percent Change	24.0%	27.9%	4.7%
	2007	2010	2016
Share of Total	4.9%	5.2%	5.8%



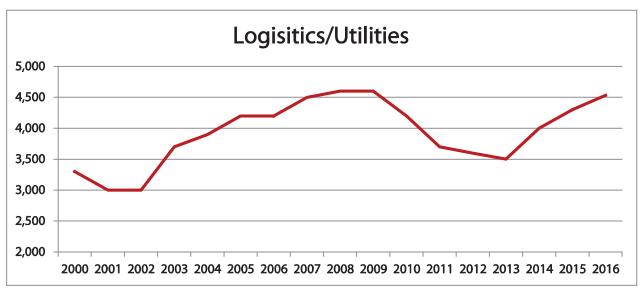
Source: California Employment Development Department (www.edd.ca.gov)

Wholesale	2007–16	2010–16	2015–16
Change in Jobs	490	390	90
Percent Change	12.0%	9.3%	2.0%
	2007	2010	2016
Share of Total	3.1%	3.5%	3.3%



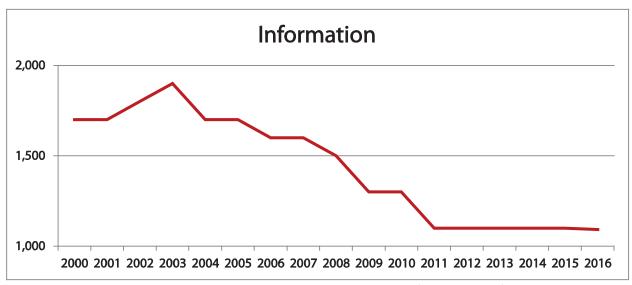
Source: California Employment Development Department (www.edd.ca.gov)

Retail	2007–16	2010–16	2015–16
Change in Jobs	(325)	1,580	230
Percent Change	(1.8%)	9.6%	1.2%
	2007	2010	2016
Share of Total	13.9%	13.6%	13.5%



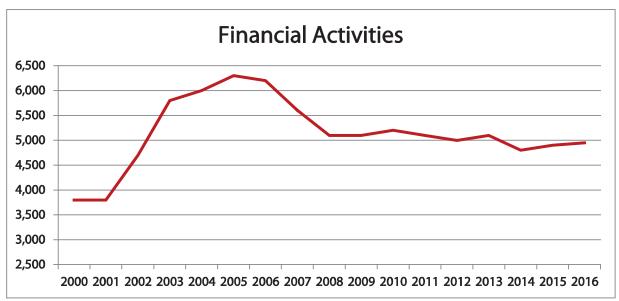
Source: California Employment Development Department (www.edd.ca.gov)

Logistics/Utilities	2007–16	2010–16	2015–16
Change in Jobs	30	330	230
Percent Change	0.7%	7.9%	5.4%
	2007	2010	2016
Share of Total	3.4%	3.5%	3.3%



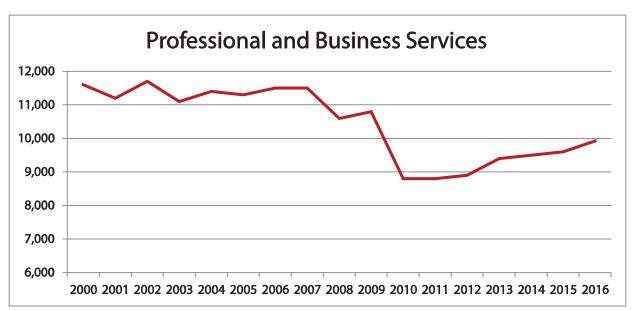
Source: California Employment Development Department (www.edd.ca.gov)

Information	2007–16	2010–16	2015–16
Change in Jobs	(510)	(210)	(10)
Percent Change	(31.8%)	(16.0%)	(0.8%)
	2007	2010	2016
Share of Total	1.2%	1.1%	0.8%



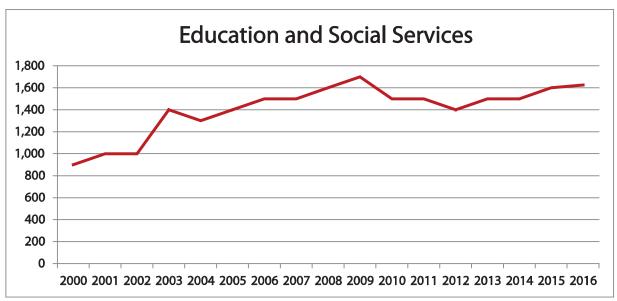
Source: California Employment Development Department (www.edd.ca.gov)

Financial	2007–16	2010–16	2015–16
Change in Jobs	(650)	(250)	50
Percent Change	(11.6%)	(4.8%)	1.0%
	2007	2010	2016
Share of Total	4.3%	4.3%	3.6%



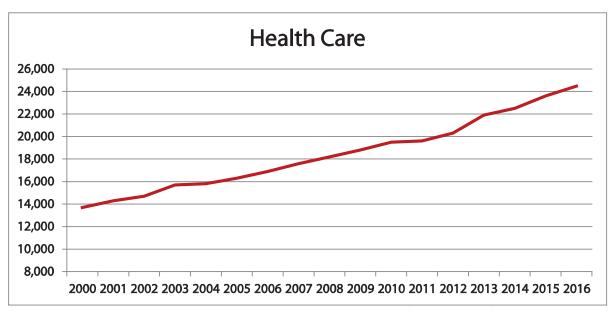
Source: California Employment Development Department (www.edd.ca.gov)

Professional and			
Business Services	2007–16	2010–16	2015–16
Change in Jobs	(1,570)	1,130	330
Percent Change	(13.7%)	12.8%	3.4%
	2007	2010	2016
Share of Total	8.7%	7.3%	7.2%



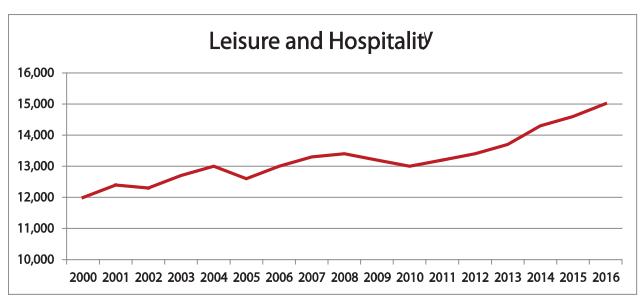
Source: California Employment Development Department (www.edd.ca.gov)

Educational and	2007–16	2010–16	2015–16
Social Services			
Change in Jobs	120	120	20
Percent Change	8.3%	8.3%	1.6%
	2007	2010	2016
Share of Total	1.1%	1.2%	1.2%



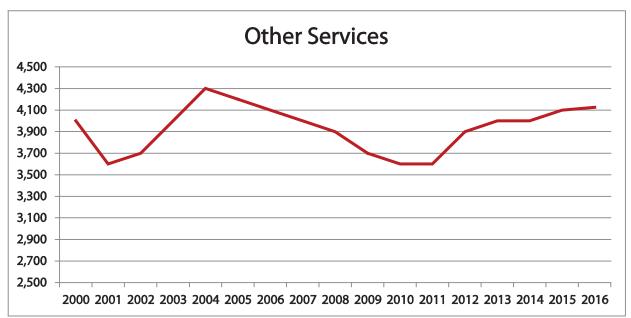
Source: California Employment Development Department (www.edd.ca.gov)

Health Care	2007–16	2010–16	2015–16
Change in Jobs	6,870	4,970	870
Percent Change	39.0%	25.5%	3.7%
	2007	2010	2016
Share of Total	13.4%	16.1%	17.8%



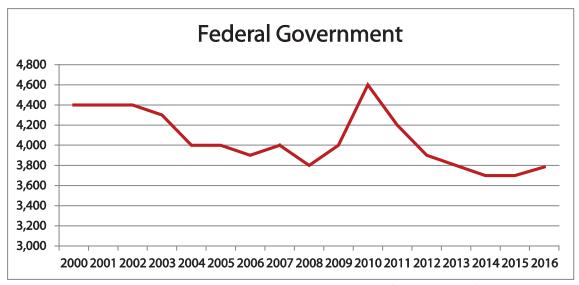
Source: California Employment Development Department (www.edd.ca.gov)

Leisure and Hospitality	2007–16	2010–16	2015–16
Change in Jobs	1,720	2,020	420
Percent Change	12.9%	15.5%	2.9%
	2007	2010	2016
Share of Total	10.1%	10.7%	10.9%



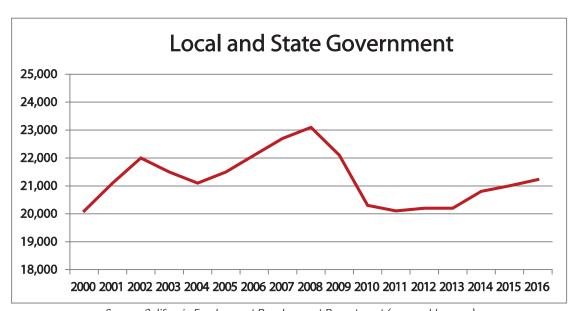
Source: California Employment Development Department (www.edd.ca.gov)

Other Services	2007–16	2010–16	2015–16
Change in Jobs	130	530	30
Percent Change	3.1%	14.6%	0.6%
	2007	2010	2016
Share of Total	3.0%	3.0%	3.0%



Source: California Employment Development Department (www.edd.ca.gov)

Federal Government	2007–16	2010–16	2015–16
Change in Jobs	(220)	(820)	80
Percent Change	-5.4%	-17.8%	2.3%
	2007	2010	2016
Share of Total	3.0%	3.8%	2.7%



Source: California Employment Development Department (www.edd.ca.gov)

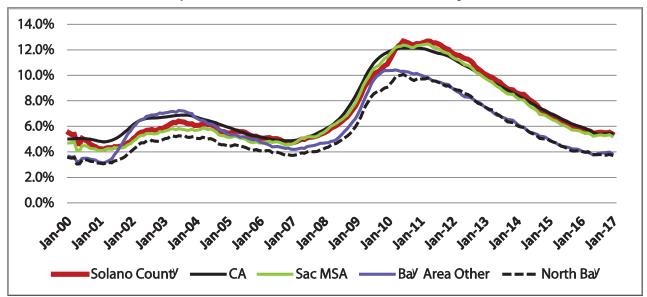
Local and State Government	2007–16	2010–16	2015–16
Change in Jobs	(1,470)	930	230
Percent Change	-6.5%	4.6%	1.1%
	2007	2010	2016
Share of Total	17.2%	16.8%	15.4%

The next set of comparison charts on the following pages examine labor data at a monthly frequency.

## **Unemployment Rate Comparisons**

Solano County's unemployment rate was 5.1 percent as of December 2016, compared to 5.7 percent for December 2014. The current unemployment rate for Solano County residents reflects continued job growth regionally, as local residents may be employed outside the county. Solano County's cities have also seen unemployment fall across the board. Notice that city-level unemployment rates range from Rio Vista at 10.2 percent unemployment on the high end to Benicia at 3.2 percent unemployment on the low end.

Unemployment Rate Comparisons Between Selected Areas, Monthly Data



Source: California Employment Development Department (www.edd.ca.gov)

City-Level Unemployment Rates, December of Each Year

Place	2010	2014	2015	2016
Solano County	12.5%	6.5%	5.7%	5.1%
Benicia	8.0%	4.1%	3.5%	3.2%
Dixon	10.8%	5.6%	4.8%	4.3%
Fairfield	11.3%	5.9%	5.1%	4.6%
Rio Vista	23.1%	12.8%	11.2%	10.2%
Suisun City	11.0%	5.7%	4.9%	4.4%
Vacaville	10.1%	5.2%	4.5%	4.1%
Vallejo	16.5%	8.8%	7.7%	6.9%

Source: California Employment Development Department (<u>www.edd.ca.gov</u>)

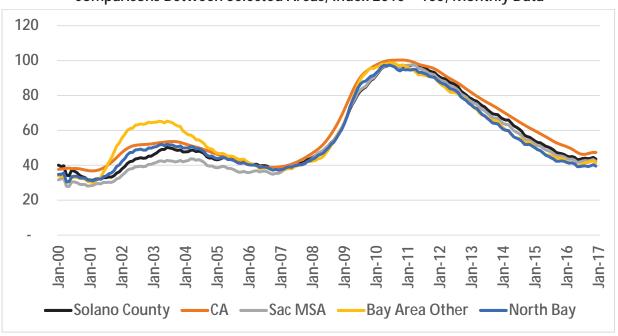
**TAKEAWAY:** Solano County continues to show improvement in residents becoming employed.

WHAT IS IMPORTANT: Unemployment rates are linked to gross product growth and also reflect regional workers, as local residents may be employed outside of Solano County.

## **Total Unemployed Residents Comparisons**

In 2016, the number of unemployed residents continued to fall across the region. In Solano County, a reduction in unemployed residents of 11.5 percent means that there were 1,260 county residents no longer unemployed. This does not mean that they became employed, as some may have dropped out of the labor force. However, the rise in the number of employed residents by 3,800 shows gains for Solano County overall.

Total Unemployed Residents Comparisons Between Selected Areas, Index 2010 = 100, Monthly Data



Source: California Employment Development Department (www.edd.ca.gov)

#### Percent Change in Unemployed Residents, 2016 Compared to 2010

Unemployed Residents	2010	2016
Solano County	-53.9%	-11.5%
California	-52.1%	-13.5%
Sacramento MSA	-55.5%	-11.0%
Bay Area Other	-57.7%	-10.5%
North Bay (Napa/Sonoma counties)	-58.0%	-11.3%

Source: California Employment Development Department (www.edd.ca.gov)

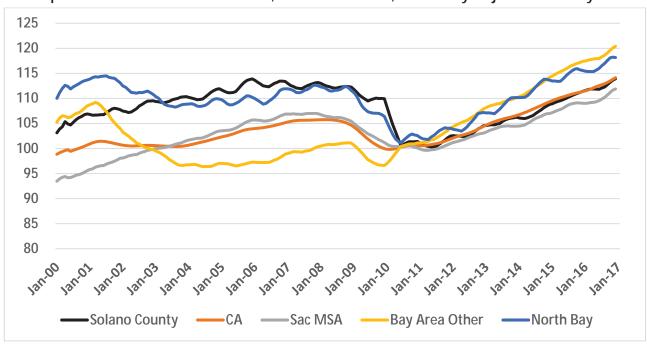
**TAKEAWAY:** Fewer Solano County residents remained unemployed in 2016.

WHAT IS IMPORTANT: Monitoring changes in the labor force—specifically how the number of employed residents evolves in comparison to the number of unemployed residents—gives an indication of the degree to which any change in labor force is due to formerly-unemployed residents becoming employed versus simply dropping out of the labor force.

## **Total Employed Residents Comparisons**

In 2016, Solano County residents experienced greater success finding jobs, and the county experienced 2.0 percent growth in its number of employed residents. Given how Solano County employers hired, local hiring growth outpaced the growth of residents finding jobs. The North Bay counties of Sonoma and Napa saw 1.7 percent growth in employed residents in 2016; California overall grew its number of employed residents by 2.0 percent. The Bay Area Other group of counties saw 2.2 percent growth in employed residents, showing that regional employment strength remains in those counties. Compared to 2015, 3,800 more Solano County residents were employed in 2016, while the labor force grew by approximately 2,500.

Total Employed Residents
Comparisons Between Selected Areas, Index 2010 = 100, Seasonally-Adjusted Monthly Data



Source: California Employment Development Department (www.edd.ca.gov)

#### Percent Change in Employed Residents, As Compared to 2016

Employed Residents	2010	2015
Solano County	9.4%	2.0%
California	12.4%	2.0%
Sacramento MSA	9.6%	1.6%
Bay Area Other	18.8%	2.2%
North Bay (Napa/Sonoma counties)	13.6%	1.7%

Source: California EDD (www.edd.ca.gov)

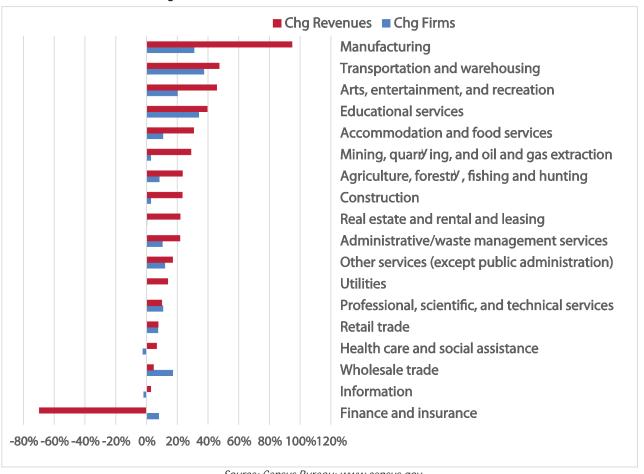
**TAKEAWAY:** Approximately 3,800 more Solano County residents found jobs in 2016, while the labor force grew more slowly, adding only 2,500 more workers.

WHAT IS IMPORTANT: While Solano County employers and governments hired 4,000 more workers and 3,800 more residents were employed, we do not know how many of these new workers both live and work in Solano County.

#### **Non-Employer Businesses**

Non-employer businesses employ fewer than four (4) workers and are mainly self-employment businesses. The Census Bureau tracks non-employer businesses as part of its estimate for total business entities by zip code. In Solano County, the number of these firms is up since 2010 by 1,977 businesses, representing growth of 9.6 percent. The following charts compare 2010 to 2014, the latest year for which data are available. The figure below shows that since the Great Recession, self-employed workers in finance and insurance remained out of the local marketplace in terms of revenue. Other industries are showing gains across the board, suggesting that expansion has come to all sizes of businesses. Finance and insurance show a loss of revenues since 2010 because the recession effects remain in that industry in terms of small employers.

Solano County Non-Employers,
Percent Change in Number of Firms and Business Revenues, 2010 to 2014



Source: Census Bureau: www.census.gov

**TAKEAWAY:** Small business formation is rising in Solano County, slightly slower than California (10.8 growth) and faster than the nation overall (7.8% growth) from 2010 to 2014.

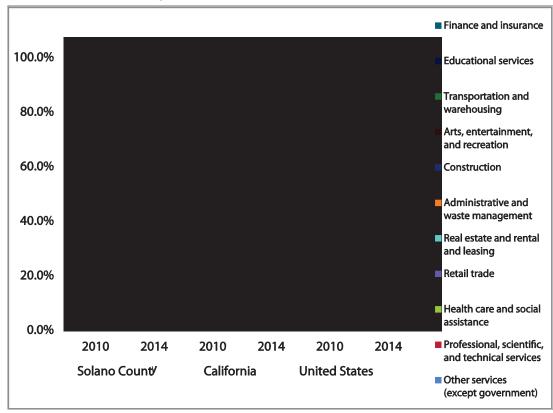
WHAT IS IMPORTANT: Small business formation is a standard goal of economic development efforts; Solano County continues to be a place for such growth.

#### Percent Change in Number of Non-Employers and Their Revenue, 2010 to 2014

Industry	% Chg Firms	% Chg Rev
Total for all sectors	9.6%	11.6%
Manufacturing	31.1%	94.7%
Transportation and warehousing	37.4%	47.3%
Arts, entertainment, and recreation	20.2%	45.7%
Educational services	33.9%	39.4%
Accommodation and food services	10.7%	30.7%
Mining, quarrying, and oil and gas extraction	2.8%	29.0%
Agriculture, forestry, fishing and hunting	8.3%	23.4%
Construction	2.8%	23.3%
Real estate and rental and leasing	0.3%	21.9%
Administrative and support and waste management and remediation services	10.4%	21.8%
Utilities	0.0%	13.9%
Professional, scientific, and technical services	10.7%	10.0%
Retail trade	7.5%	7.6%
Health care and social assistance	-2.3%	6.5%
Wholesale trade	17.2%	4.6%
Information	-1.9%	2.7%
Finance and insurance	8.0%	-69.8%

Source: Census Bureau: www.census.gov

#### Non-Employers by Industry Percentage Solano County, California and the United States, 2010 and 2014

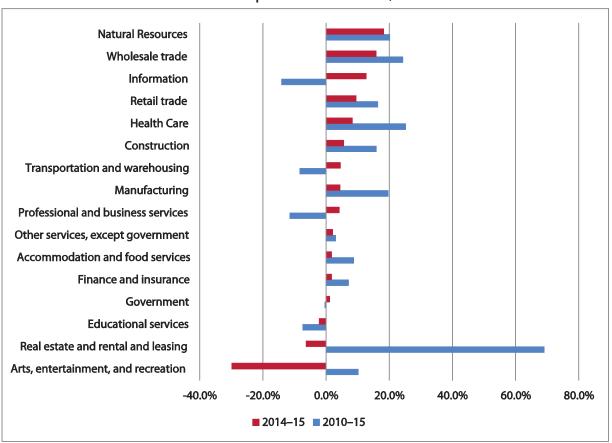


Source: Census Bureau: www.census.gov

## **Gross Product Change by Industry Sector**

Gross product is a measure of how businesses add value to raw materials and land. Gross County Product (GCP) data show that Solano County is growing across its industry sectors. The most recent data is from 2015. In contrast to recent years (2010 to 2014), industries such as natural resources (including agriculture), information, logistics, and professional services all had good years in 2015. Real estate, the largest growth industry since 2010, came back a bit in 2015. The arts, entertainment, and recreation industry sector had a tough year in 2015 in terms of lower gross product.

# Percent Change in Solano County Gross Product by Sector 2014–2015 Compared to 2010–2015, in 2009 Dollars

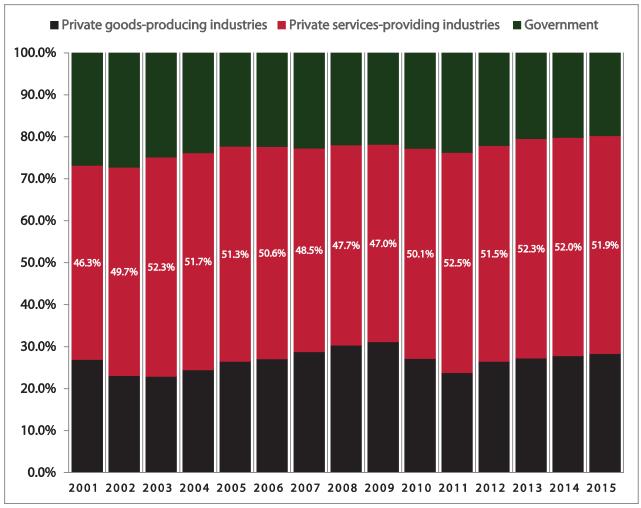


Source: Bureau of Economic Analysis (www.bea.gov)

**TAKEAWAY:** Gross product growth across Solano County's major employment sectors in 2015 corroborates jobs and personal income growth seen elsewhere in the 2016 Index.

WHAT IS IMPORTANT: Large percentage changes can come from industries that had growth from smaller base levels. However, it is good to see gross product growth in industries that have struggled recently, such as Information. Health care, wholesale, construction and manufacturing industries remain solid foundations of gross product in Solano County since 2010.

Gross Product Share by Major Sector Proportions in Solano County Over Time, in 2009 Dollars



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

The goods-producing industries share of gross product in Solano County continued to increase, as government share of gross product continued to shrink. In Solano County, services businesses remain the dominant industry sector, as is the case in other counties in the Bay Area and along the I-80 corridor. The shift away from government toward private industries suggests that private sector growth continues. However, as exemplified by Travis Air Force Base, the governmental organizations in Solano County continue to bring in revenue from state and federal funding.

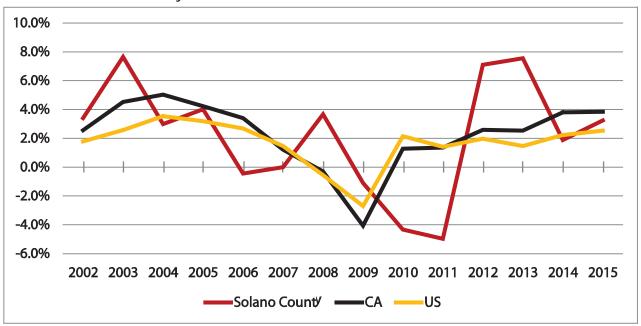
Non-durable manufacturing (mainly food and beverages) productivity continues to stand out among the industries in Solano County in terms of creating income. Health care and social assistance, as in other communities, remains an economic lynchpin for jobs and income. Real estate and leasing continued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

Industry Shares of Solano County Gross Product, 2010, 2014, and 2015, in 2009 Dollars

Industry	2010	2014	2015
Agriculture and Natural Resources	0.8%	0.8%	0.9%
Construction	5.4%	5.3%	5.4%
Durable goods manufacturing	2.7%	2.7%	2.6%
Nondurable goods manufacturing	18.0%	18.5%	18.8%
Wholesale trade	4.4%	4.2%	4.7%
Retail trade	7.1%	6.8%	7.2%
Transportation and warehousing	2.0%	1.6%	1.6%
Information	1.7%	1.2%	1.3%
Finance and insurance	3.0%	2.8%	2.8%
Real estate and rental and leasing	8.0%	13.0%	11.8%
Professional and business services	6.3%	4.8%	4.8%
Educational services	0.6%	0.6%	0.5%
Health Care	10.0%	10.4%	10.9%
Arts, entertainment, and recreation	0.7%	0.9%	0.6%
Accommodation and food services	2.2%	2.1%	2.1%
Other services, except government	4.3%	4.0%	4.1%
Private industries	77.2%	79.7%	80.1%
Government	22.8%	20.1%	19.7%

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

Gross Product Growth, 2002–2015 Solano County, California and the United States Overall, in 2009 Dollars



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

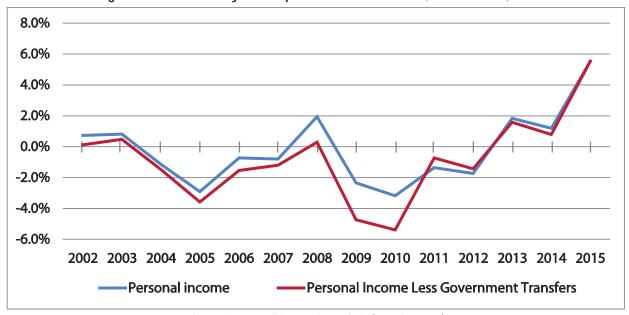
**TAKEAWAY:** Solano County continued to see gross product growth in 2015 (3.2 percent) faster than county growth in 2014 (1.9 percent) and faster than the national economy in 2015 (2.3 percent), but slightly slower than California (3.8 percent).

WHAT IS IMPORTANT: Manufacturing in 2015 became the largest generator of gross product in Solano County, surpassing the sum of all levels of government, measured in inflation-adjusted dollars.

#### **Personal Income**

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), income from owning a business (proprietor's income), and other income sources. Solano County saw further personal income gains in 2015 (the latest year for which data are available). As a percentage of total personal income, transfer payments continued to fall, while earned and investment income gains rose. These data are good signs of continued growth in Solano County, which then translates into enhanced retail sales, housing demand, and demand for other services.

#### Percent Change in Solano County Per Capita Personal Income, 2002–2015, in 2009 Dollars



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

# Percent Change in Personal Income Per Capita Compared to 2015, in 2009 Dollars Solano County, California, and United States

Comp to 2015	Solano County	CA	US
2010	5.4%	13.0%	8.9%
2013	6.8%	7.1%	4.9%
2014	5.5%	3.7%	2.5%

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

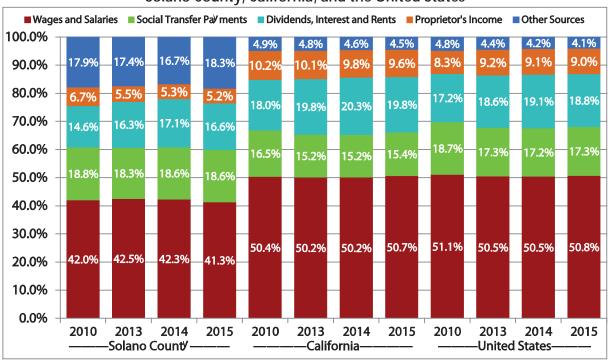
**TAKEAWAY:** Personal income less transfer payments grew faster in 2014 than in 2012 and 2013, a sign of continued growth and positive economic outcomes for county residents.

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

#### Sources of Personal Income

Households generate personal income primarily due to earnings at work. Including Bureau of Economic Analysis adjustments for commuting residents, other sources of income saw some growth in Solano County. This other sources category is relatively large versus California and the US overall. Investment income from dividends, interest and rents increased slightly in Solano County, while government (social) transfers were relatively flat. Continued equity market growth in 2015 helped support earned income and overall personal income growth to outpace the very small growth in government transfer payments.

#### Sources of Personal Income, 2010–2015, in 2009 Dollars Solano County, California, and the United States



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

# Percent Change in Personal Income and Its Components, 2010-15 and 2014-15 2009 Dollars; Solano County, California, and the United States

	Solano County		California		United States	
PI Component	2010-15	2014-15	2010-15	2014-15	2010-15	2014-15
Personal Income	11.0%	6.8%	18.4%	4.6%	13.2%	3.3%
Wages and Salaries	9.2%	4.4%	19.2%	5.8%	12.4%	3.9%
Social Transfer Payments	9.6%	6.8%	10.5%	6.2%	5.1%	4.2%
Dividends, Interest and Rents	26.3%	4.0%	30.0%	2.0%	24.0%	1.7%
Proprietor's Income	-13.6%	4.4%	12.1%	3.3%	23.5%	2.6%
Other Sources	13.5%	16.7%	7.9%	1.7%	-3.3%	0.9%

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

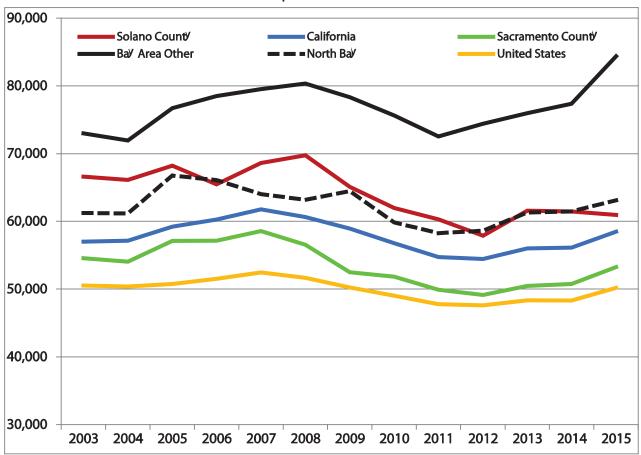
**TAKEAWAY**: Wage and salary income is the largest part of how Solano County residents generate income to spend, save and pay taxes.

**WHAT IS IMPORTANT:** The size of the other sources of income category for Solano County reminds us how residents earn income beyond what they generate from work.

### **Median Household Income Comparisons**

Along with personal income per capita, median household income is another measure of how well typical households generate income to spend and save. For Solano County, inflation-adjusted, median household income decreased a bit again in 2015 versus comparison areas. Factoring in California's consumer price index may explain part of that: prices are rising in Solano County's region (3.0 percent for the nine Bay Area counties in 2015) more quickly than in California for 2015 (only 2.3 percent overall). The Bay Area Other counties, mainly San Francisco and San Mateo counties, continue strong median income growth.

#### Median Household 2003–2015, Comparisons Between Selected Areas, in 2009 Dollars



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

**TAKEAWAY:** In inflation-adjusted terms, Solano County saw median household income fall in 2015 by just \$139 per household.

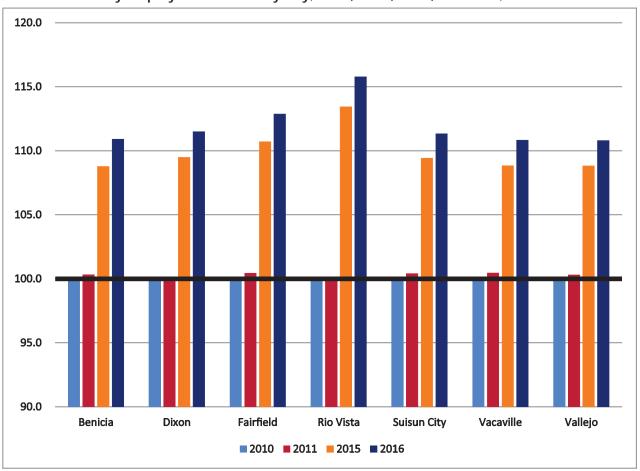
WHAT IS IMPORTANT: While the drop in Solano County's median income is slight, it is a reminder that purchasing power (income after inflation) is important to a household in terms of its ability to both spend and save. If prices in the region had increased only 2.5 percent (i.e., closer to the 2.3 percent increase for California overall), the median household income for Solano County in real terms would have shown an increase in 2015. This study used 3.1 percent inflation for discounting Solano County income.

#### **Cities Overview**

Labor data for Solano County's incorporated cities come from California's Employment Development Department (EDD) and show employment growth for the county's residents. Notice that continuing a post-recession trend, each city has more residents working in 2016.

#### **Employment**

Solano County Employed Residents by City; 2010, 2011, 2015, and 2016; Index 2010 = 100



Source: California EDD (WWW.edd.ca.gov)
Solid Line at 100 to show where the Index starts in 2010

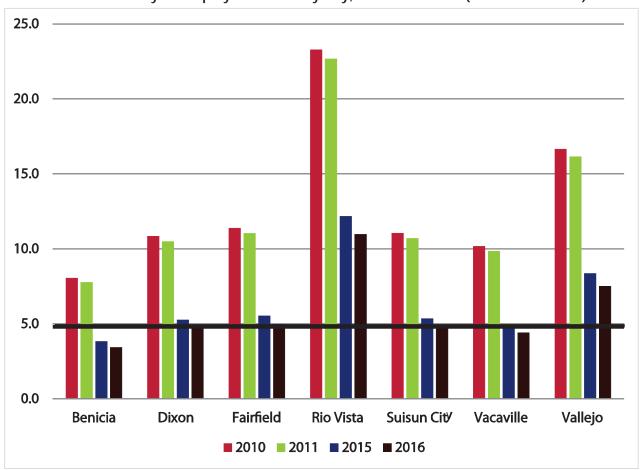
TAKEAWAY: All of Solano County's cities showed employment growth in 2016.

WHAT IS IMPORTANT: Growth in Rio Vista, Suisun City, and Dixon in 2015 and 2016 is strong evidence of continued economic expansion and that growth spreading to more rural communities.

### Unemployment

Solano County's larger cities have unemployment rates that are historically higher than its smaller cities, except for Rio Vista. All the cities are trending down in their unemployment rates, corroborating the countywide data and the fact that labor markets are improving throughout the county. Solano County's unemployment rate in December 2016 was 4.9 percent.

#### Solano County Unemployment Rate by City, December 2016 (4.9% at solid line)



Sources: California EDD (WWW.edd.ca.gov)
Solid Line at 4.9 percent to show Solano County Overall Unemployment Rate in Dec 2016

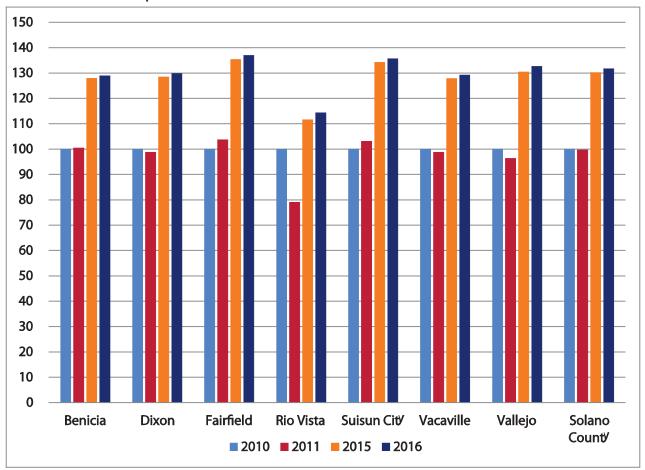
**TAKEAWAY:** While unemployment is still relatively high in some places, all of Solano County's cities are experiencing a downward trend in unemployment rates.

WHAT IS IMPORTANT: Labor force and industry composition affect local labor markets. Older areas farther away from a business and population center are likely to have higher unemployment rates.

#### **Gross City Product**

Annual gross product at the city level, or Gross City Product, is the total value of all final goods and services produced in the city limits in one year, calculated using Bureau of Economic Analysis (BEA) data and EDD data combined. Each city also experienced production growth in terms of gross income from providing goods and services. Notice how many cities were at a low point in 2011 before the recent growth period following the recent recession.

Percent Difference in Gross City Product Comparisons Between Cities, in 2009 Dollars, Index 2010 = 100



Sources: California EDD (www.edd.ca.gov), IMPLAN (www.implan.com), and BEA (www.bea.gov)

**TAKEAWAY:** The average change in Gross City Product from 2010 to 2016 ranges from 14 percent in Rio Vista to over 35 percent in Fairfield and Suisun City.

WHAT IS IMPORTANT: Notice that Fairfield exited the recession slightly ahead of the other cities in Solano County, as 2010 was its lowest year of gross product versus the other cities and towns except Suisun City and Benicia.

See also the City Overview subsection in the "Our Changing Community" section of this report, where additional city-level demographic data are provided for more comparisons.

# **Employment in Base Industries and Locally-Serving Industries**

Base industries are comprised of businesses that build wealth and income due to drawing in revenue from customers and clients outside the local area. The Solano County data show a mix of industries with components that are export-focused, thus making them base industries. Growth trends for base industries and locally-serving industries are indicated by employment data. The latest data for Solano County's labor market that are official estimates at the sub-industry level are provided by the Quarterly Census of Employment and Wages or QCEW; note that preliminary estimates for 2016 are from Quarter 2, so that quarter is used for comparison with preceding years.

#### Solano County Base Industry Employment Second Quarter Data for 2010, 2014, 2015, and 2016

	2010 Q2	2014 Q2	2015 Q2	2016 Q2
Base Industries Total	32,401	30,779	33,955	36,735
Agriculture	1,489	1,851	1,945	1,960
Mining	223	269	238	263
Wholesale Trade	3,986	3,689	4,320	4,207
Information	612	464	458	451
Finance and Insurance	991	966	893	962
Real Estate and Rental and Leasing	119	217	232	211
Professional, Scientific, Technical Services	266	298	230	235
Management of Companies and Enterprises	1,217	787	778	790
Arts, Entertainment, and Recreation	2,455	3,524	2,786	3,035
Accommodation and Food Services	701	792	841	852
Federal government	4,975	2,861	3,739	3,702
State government	4,618	2,861	4,640	5,953
Manufacturing	6,109	7,816	8,355	9,139
Retail Trade	2,334	2,122	2,155	2,171
Transportation and Warehousing	2,306	2,262	2,345	2,804

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

As specified in the Moving Solano Forward, Phase II project, the current set of industry clusters that act as foci for Solano County's economic development efforts are the following:

- Food and Beverage Manufacturing;
- Logistics (warehousing, transportation);
- Life Sciences (health care delivery, biotechnology research, e.g.); and
- Advanced materials (manufacturing, research and logistics for products that add value to technology and other markets).

The evolution of economic development efforts in Solano County may change these clusters and the businesses within each sector. "Unassigned" jobs in industries that are not classified as either base industries or locally-serving industries normally serve a mix of local and export markets. Health care is a large, locally-serving employer, as is construction. Local government is also a large employer, but notice that both state and federal government jobs are considered part of the base industries. Because outside governments receive "export" income from state and federal sources outside Solano County, they are part of the base industries by that definition. However, outside of Travis Air Force Base, the state and federal government levels of employment are unlikely to be foci of economic development activities.

## Solano County Locally-Serving Industry Employment Second Quarter Data for 2010, 2014, 2015, and 2016

	2010 Q2	2014 Q2	2015 Q2	2016 Q2
Locally-Serving Industries Total	68,902	76,223	74,123	79,976
Utilities	480	559	554	585
Construction	7,119	8,420	8,515	10,034
Information	586	544	458	451
Finance and Insurance	2,323	2,533	893	962
Real Estate and Rental and Leasing	1,218	1,065	232	211
Professional, Scientific, Technical Services	3,121	3,735	230	235
Admin and Waste Management Services	6,579	4,576	4,782	5,687
Educational Services	1,537	1,465	1,051	1,137
Health Care and Social Assistance	12,777	17,551	18,906	19,097
Arts, Entertainment, and Recreation	222	1,351	2,786	3,035
Accommodation and Food Services	438	406	404	357
Other Services	3,097	3,483	3,549	3,586
Local Government	15,380	15,357	15,805	16,061
Local Portion of Retail Trade	13,281	14,541	15,350	15,734
Local Portion of Transportation and Warehousing	744	637	608	2,804
Jobs in industries unassigned by MSF to date	21,332	17,797	23,190	17,557

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

**TAKEAWAY**: Base industry employment increased in 2016 as the economic expansion that started in 2014 continued.

WHAT IS IMPORTANT: Growing base industry jobs drives locally-serving jobs due to compounding of economic impacts. Supply-chain jobs and industries like health care and construction are supported further by employed residents when base industries grow.

### **Business Affordability: Wages**

The California Employment Development Department (EDD) publishes wage survey results annually for specific types of occupations. These occupations may be for different types of employers: for example, a computer programmer may be employed by a hospital, a logistics firm, or a community college. In each case, the core occupation is computer programmer. The tables here refer only to major occupational categories. Comparisons are to selected metropolitan statistical areas (MSAs) in California and areas in Solano County's region. In a repeat from the 2015 Index, the 2010 data table is shown as a frame of reference for changing wages.

#### Solano County and California 2010 Wages and Occupations Compared to Other Areas as a Percent of State Average Wages in 2010

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

Source: Employment Development Department, Occupations Data (www.edd.ca.gov), 2010 Q1 Wages in GREEN are for occupations where Solano County wages are greater than California wages

In the 2016 wage data shown in the following table, the Bay Area's metropolitan areas of Oakland, San Jose and San Francisco continue to be significantly above the state average in almost all occupations. Sacramento's MSA is just behind the state average wage level, as is Napa County. Solano County has more expensive labor in 2016 overall than in 2010 and now exceeds Napa and Sonoma counties on average.

Solano County and California 2016 Wages and Occupations Compared to Other Areas as a Percent of State Average Wages in 2016

						Sacra-			
Occumentional Contemporaries	0.4	Calama	Solano	Mana	C	mento	11-md-	San	San
Occupational Categories	<i>CA</i> \$19.49	<i>Solano</i> 98.7%	<i>Wages</i> \$19.24	<i>Napa</i> 94.2%	<i>Sonoma</i> 97.1%	<i>MSA</i> 104.1%	<i>Alameda</i> 118.8%	Francisco 137.6%	<i>Jose</i> 147.9%
Total all occupations									
Management Services	\$54.33	86.9%	\$47.20	90.2%	86.6%	89.2%	109.0%	127.8%	141.0%
Business and Financial Operations	\$35.92	95.5%	\$34.31	96.9%	90.5%	90.8%	107.8%	120.1%	125.6%
Computer and Mathematical	\$48.21	85.1%	\$41.01	77.6%	87.3%	83.4%	104.3%	111.1%	127.1%
Architecture and Engineering	\$45.20	92.5%	\$41.79	86.9%	93.8%	99.6%	102.5%	107.1%	121.6%
Life, Physical, and Social Science	\$36.26	110.6%	\$40.09	108.2%	96.8%	98.1%	111.6%	126.7%	106.8%
Community and Social Services	\$23.13	106.1%	\$24.53	108.6%	99.8%	95.4%	106.0%	101.8%	104.3%
Legal Services	\$49.58	90.5%	\$44.85	75.3%	68.1%	96.1%	99.0%	126.5%	134.4%
Education, Training, and Library	\$25.83	98.0%	\$25.32	97.4%	85.3%	91.2%	101.9%	106.5%	110.0%
Arts, Design, Entertainment, Sports, and Media	\$27.30	70.8%	\$19.33	84.8%	91.2%	82.1%	84.7%	118.5%	112.1%
Healthcare Practitioners and Technical	\$41.12	123.6%	\$50.82	105.5%	86.8%	115.8%	123.3%	131.3%	125.4%
Healthcare Support Services	\$15.87	106.4%	\$16.88	106.7%	111.2%	108.9%	115.7%	117.9%	115.8%
Protective Services	\$20.62	180.4%	\$37.20	95.5%	90.2%	91.1%	93.5%	102.5%	93.1%
Food Preparation and Serving-Related	\$10.70	96.6%	\$10.34	112.7%	106.6%	95.2%	101.9%	118.5%	107.1%
Building and Grounds Cleaning and Maintenance	\$12.95	107.3%	\$13.90	102.9%	108.3%	101.1%	116.8%	115.8%	101.0%
Personal Care and Services	\$11.42	91.6%	\$10.46	103.4%	111.3%	94.5%	105.3%	123.7%	108.1%
Sales and Related Services	\$13.81	86.6%	\$11.96	117.7%	103.6%	97.1%	109.1%	132.7%	124.5%
Office and Administrative Support	\$18.17	102.2%	\$18.57	101.8%	103.3%	101.8%	112.8%	123.7%	120.5%
Farming, Fishing, and Forestry	\$9.67	101.2%	\$9.79	128.2%	124.8%	104.9%	131.0%	153.5%	109.4%
Construction and Extraction	\$25.00	106.7%	\$26.67	108.1%	110.7%	97.6%	116.7%	124.6%	113.8%
Installation, Maintenance, and Repair	\$22.84	104.2%	\$23.81	103.9%	104.6%	99.0%	114.6%	126.0%	114.7%
Production Jobs	\$14.70	114.4%	\$16.81	124.6%	111.3%	107.8%	117.3%	123.3%	120.1%
Transportation and Material Moving Services	\$14.47	100.0%	\$14.47	100.5%	104.4%	105.4%	124.3%	118.7%	107.0%

Source: Employment Development Department, Occupations Data (www.edd.ca.gov), 2016 Q1 Wages in GREEN are for occupations where Solano County wages are greater than California wages.

**TAKEAWAY:** Solano County remains a place with less-expensive labor compared to California overall but is catching up as the Solano County economy expands.

WHAT IS IMPORTANT: Relatively high wages in the Bay Area (San Francisco, San Jose, Alameda County) and in Sacramento represent opportunities for business attraction to Solano County.

### **Agriculture**

Agriculture is approximately
1.1 percent of Solano County's
economy. However,
agriculture comes in many
forms based on its supply
chain. Some local
manufacturers use Solano
County products as raw
materials. The Solano County
Agricultural Commissioner
publishes annual data on
agricultural outcomes in the
county. The Bureau of
Economic Analysis also
provides such data, although

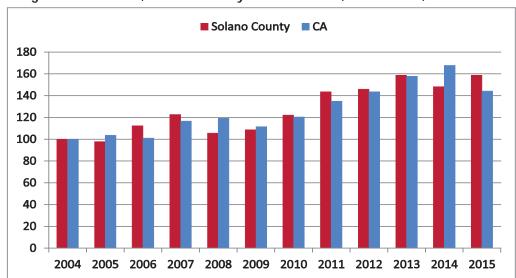
## Solano County Top 10 Agricultural Industries and Revenues 2010, 2013, 2014, and 2015, Sorted by 2015 Value

Agricultural Product	2010	2013	2014	2015
Total Solano County	\$259,398,000	\$348,215,000	\$378,645,000	\$353,869,000
Tomatoes (Processed)	\$36,901,400	\$29,745,000	\$46,124,000	\$42,156,000
Walnuts	31,161,700	55,435,000	45,422,000	37,912,000
Nursery Products	23,352,000	35,144,000	35,594,000	37,648,000
Alfalfa	19,742,700	35,368,000	43,700,000	34,821,000
Cattle/Calves	22,608,000	35,795,000	31,673,000	27,556,000
Almonds	8,468,100	17,113,000	14,156,000	23,603,000
Grapes	9,274,800	17,997,000	17,621,000	14,988,000
Wheat	9,672,700	9,164,000	13,789,000	9,092,000
Sunflower Seeds	7,845,300	13,070,000	14,455,000	6,904,000
Sheep	6,355,600	5,755,000	7,912,000	6,684,000
All Other Ag Products	81,895,800	93,308,000	113,988,000	112,505,000

Source: Solano County Agricultural Commissioner (http://solanocounty.com/depts/agriculture/crop\_report/2009\_2018.asp)

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, 2004–2015, Index 2004 = 100



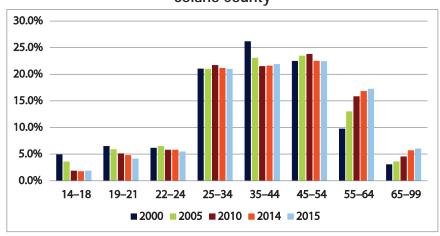
Sources: www.bea.gov and Solano County Agricultural Commissioner

**TAKEAWAY:** Solano County's agricultural industries fell in terms of value from 2014 to 2015, likely due to both lower commodities price pressure and continued drought impacts in 2015. Wet winters in 2016 and 2017 may provide better yields.

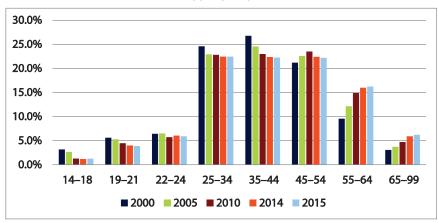
WHAT IS IMPORTANT: Agricultural goods are raw materials for food and beverage manufacturing in Solano County and beyond, so local farmers should be part of an economic development strategy that involves food and beverage manufacturing as a traded sector or base industry.

### **Age of the Workforce**

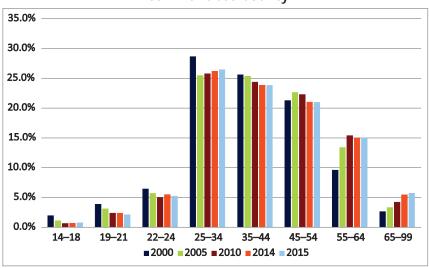
Age of Workforce, 2000, 2005, 2010, and 2015 Solano County



California



San Francisco County



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

Data show clearly that the labor force has aged since 2000 and that after 2005, that aging gained speed. The largest effect of an aging workforce is fewer opportunities for new labor force entrants: graduating high school and college students. In comparison, San Francisco County is weighted more toward 25-34 year old workers versus California and Solano County since 2010.

TAKEAWAY: Solano County's workforce has aged in a similar way to California's workforce overall and has aged more than San Francisco County's workforce in comparison.

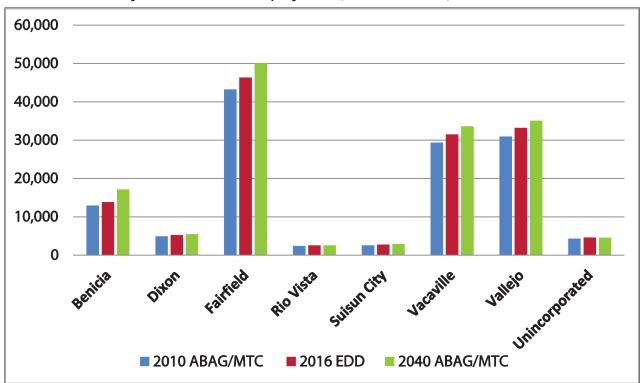
WHAT IS IMPORTANT: Recent work and regional partnerships on career pathways development are challenged when older workers remain in the labor force.

### **Long-Term Jobs Forecast to 2040**

In 2013, the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) published a joint strategy document on jobs, housing and transportation called "Plan Bay Area 2040" (www.planbayarea.org). This strategy includes Solano County as one of the Bay Area counties, was updated in October 2016, and includes employment level forecasts. Such forecasts attempt to count both payroll and non-payroll workers with minimal duplication.

The baseline number in 2010 for the ABAG/MTC estimates is 130,160 workers in Solano County; the EDD estimate for 2010 employment is 121,000 payroll workers. The difference is assumed to be non-employers, or self-employed businesses that have no payroll employment.

#### Solano County Estimated Total Employment (Number of Jobs), 2010, 2016, and 2040



Sources: California EDD (www.labormarketinfo.edd.ca.gov) and ABAG/MTC (www.planbayarea.org)

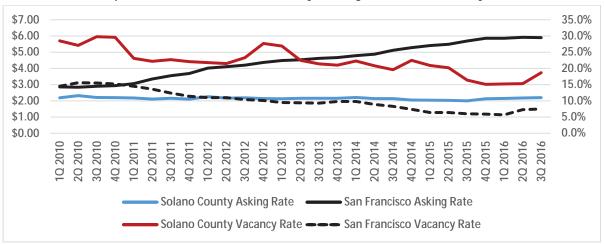
**TAKEAWAY:** Solano County's growth of jobs through 2040 is estimated to be concentrated in its major cities in priority development areas (PDAs), according to ABAG and MTC. The Solano County forecast by ABAG/MTC is for 151,000 workers by 2040.

WHAT IS IMPORTANT: These data are tied to estimates of household formation because households are where workers originate.

### **Commercial Real Estate Pricing and Vacancy**

Commercial real estate data provide a way to track the available infrastructure for companies operating (or wishing to operate) in the region. This space can be office, industrial, medical, retail, or other types of specialty space. The figures here show industrial and office space, two of the most common types. As with other markets, the commercial real estate market is regional. High prices in San Francisco County provide an economic development opportunity for Solano County. San Francisco's asking price for office space is shown for comparison due to its relatively high price. There was 1.76 million square feet of space permitted in fiscal year 2015-16 for Solano County, 94 percent of which is industrial versus 6 percent as new office.

## Solano County Class A Office Space Asking Price/Sq Ft and Vacancy Rate, 2010-2016 Q3 Compared to San Francisco County Asking Price and Vacancy Rate



#### Solano County Industrial Space Asking Price/Sq Ft and Vacancy Rate, 2010-2015 Q3



Source: Colliers International (http://www.colliers.com/en-us/fairfield/insights)
Asking Price is indicated on the left-hand axis; Vacancy Rate is indicated on the right-hand axis.

**TAKEAWAY:** Rising demand is driving higher asking rates per square foot. However, office space continues to have relatively high vacancy rates above 15 percent overall. **WHAT IS IMPORTANT:** The coming legalization of cannabis for recreational use in California may increase occupancy and demand for space in industrial, office and retail markets throughout the state.



### **Population Growth**

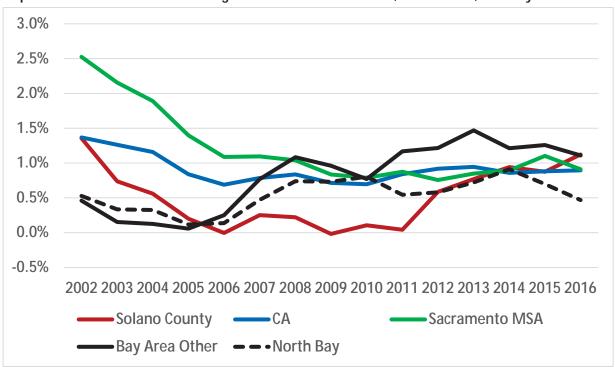
Population growth creates workforce and housing demand. Solano County's population grew by 4,794 residents from January 1, 2015 to January 1, 2016; the growth rate was approximately 1.1 percent. The Bay Area Other counties grew by 69,621 people, with a growth rate that was also 1.1 percent. California's population grew slightly slower than in Solano County, at 0.9 percent. The Sacramento MSA also grew by 0.9 percent, while the North Bay counties of Sonoma and Napa grew more slowly at 0.5 percent.

Change in Total Population, Compared to 2016

Place	2010	2015	2010	2015
Solano County	4.4%	1.1%	18,230	4,794
California	5.5%	0.9%	2,031,983	348,241
Sacramento MSA	5.5%	0.9%	78,038	13,494
Bay Area Other	7.7%	1.1%	449,588	69,261
North Bay	4.0%	0.5%	34,705	4,213

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

#### Population Growth Percent Change from the Previous Year, 2002–2016, January 1 Estimates



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

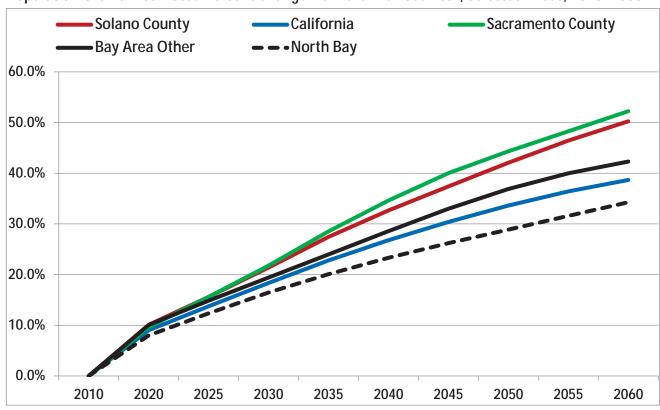
**TAKEAWAY:** The population in Solano County continued to grow in 2015 slightly faster than in the state on average.

WHAT IS IMPORTANT: Solano County is part of two "laborshed" regions, the Sacramento region and the Bay Area region. Due to Solano County's location, residents live locally and provide a workforce for both regions.

### **Population Growth Projections**

The population in Solano County is projected to grow more quickly than the population in any of the selected comparison areas except Sacramento County. The growth accelerates for both Solano and Sacramento counties after 2030, faster than the state overall and also faster than the Bay Area other counties. This acceleration is due to assumptions that a larger Hispanic population has more children per person. California's Department of Finance (DOF) forecasts that Solano County stays on pace with the state overall to 2025. The Population Growth chart here is repeated from the 2015 Index as context for the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) occupied housing (households) forecasts below. (Comparisons using Sacramento MSA data include counties that are not in the ABAG/MTC document but are counties that compete with Solano County for workers and housing options.)

#### Population Growth Estimated Percent Change from the Previous Year, Selected Areas, 2010–2060

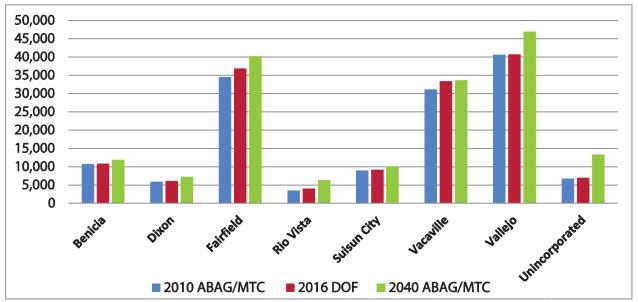


Source: California Department of Finance, Demographic Research Unit (WWW.dof.ca.gov), Dec 2014

#### Occupied Housing (Households) Forecasts

Estimates complementary to California Department of Finance (DOF) forecasts have come in October 2016 from Plan Bay Area 2040 and the ABAG/MTC planning scenario for housing and transportation, and they forecast that Solano County is expected to have 167,400 occupied housing units (households) by 2040. As of 2016, this figure is 147,821 occupied housing units with a total of 156,375 possible places to live. Jobs are also part of this scenario, with an estimated combination of payroll and non-payroll workers at 151,000.

Solano County Occupied Housing Units (Households), 2010, 2016, and Estimated 2040

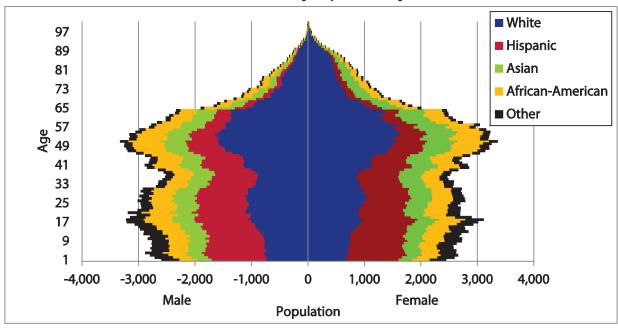


Sources: California Dept. of Finance (www.dof.ca.gov) and ABAG/MTC (www.planbayarea.org)

#### **Population Projections**

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, and as of February 2016, they cover the period through 2060. One way to compare and contrast population data for past years with these projections is by using population pyramids. These pyramids are graphics used in demographic research to look at comparisons of age (on the vertical axis), gender mix (where females are positive values and males are negative values on the horizontal axis), and ethnicity (where shaded areas reflect each ethnicity's population proportion).

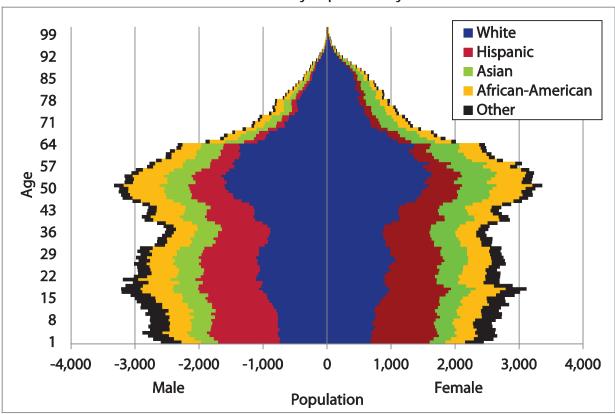
#### 2010 Solano County Population Pyramid



Source: California Department of Finance, Demographic Research Unit (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 2040.

#### 2040 Solano County Population Pyramid



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

**TAKEAWAY:** There are now forecasts for Solano County's population and households (occupied housing units) through 2040: the California Department of Finance estimates Solano County's population as 548,046 in 2040 and ABAG and MTC estimate the number of households as 167,400.

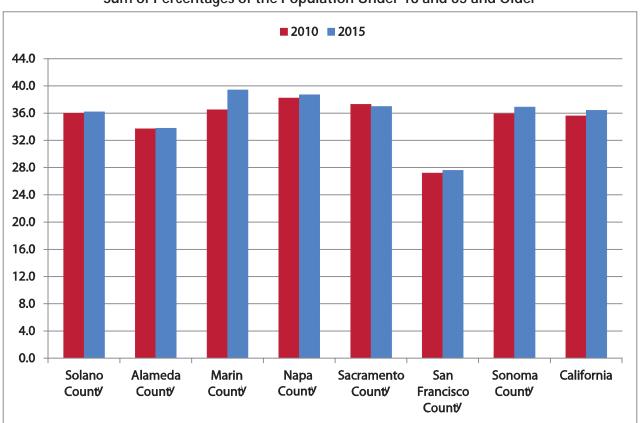
WHAT IS IMPORTANT: The population is estimated to become more ethnically diverse by 2040 and using the estimates above, the number of people per household is expected to be 3.27. In 2015, the Census estimate for people per household for Solano County was 2.89.

### **Dependency Ratios**

An area's total dependency ratio measures the percentages of residents 65 and older and under 18 years of age. As this ratio rises, there are fewer residents who are of classic working age (18–64 years old), and more young and old residents who are "dependent" on workingage residents to provide resources or to redistribute income through social programs. Solano County's dependency ratio was 36.0 percent in 2010 and was 36.2 percent in 2015.

Solano County's rising dependency ratio is driven by older residents and not as much by more children. The population under 18 years of age has fallen steadily since 2010 to 23.3 percent; residents 65 and older have increased as a proportion of Solano County's population from 10.8 to 12.4 percent between 2010 and 2015 (the latest year for which data are available). San Francisco County remains less dependent than other regional counties.

#### Total Dependency Ratio, Comparison Between Selected Areas, 2010 and 2015 Sum of Percentages of the Population Under 18 and 65 and Older

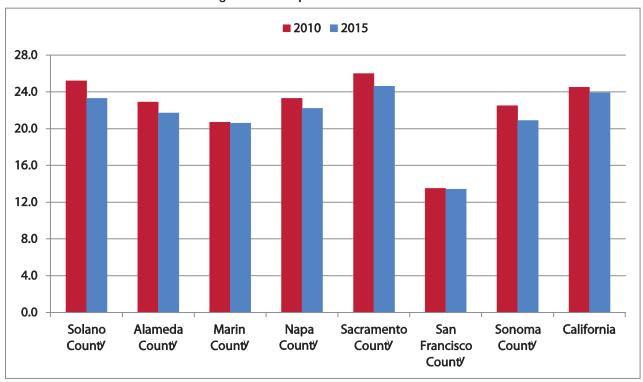


Source: Census Bureau (www.census.gov) at factfinder2.census.gov

**TAKEAWAY:** Like other counties in its region, Solano County is slowly aging, so a rising proportion of the population is 65 and older and outside the working-age population range of 18 to 64 years old.

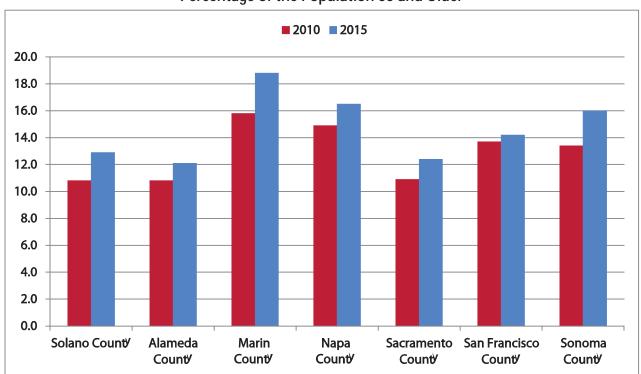
WHAT IS IMPORTANT: As the total dependency ratio rises, there are fewer residents of classic working age (18 to 64 years old) and also a rising demand on government services at all levels based on more children locally, more people over 65 and older (causing rises in local use of Medicare, for example), or both.

Child Dependency Ratio, Comparisons Between Selected Areas, 2010 and 2015
Percentage of the Population Under 18 Years Old



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

Old-Age Dependency Ratio, Comparisons of Selected Areas, 2010 and 2015 Percentage of the Population 65 and Older

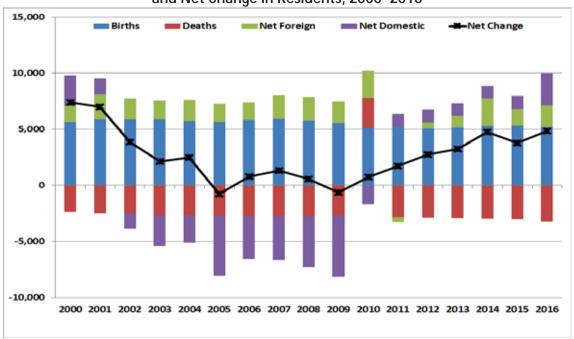


Source: Census Bureau (www.census.gov) at factfinder2.census.gov

### **Components of Population Change**

Solano County has seen a slight increase in the growth rate of its population, which has increased overall more due to births versus deaths than from immigration. However, immigration has been a key reason for population growth since 2010. In 2015, fewer people came to Solano County from other parts of the United States and other countries as "net foreign or domestic" migration. Net migration fell by 39 percent from 2014 but is up since 2010 by over 217 percent. In 2015, over 1,500 people immigrated to Solano County, and births exceeded deaths by 2,251.

Solano County Components of Population Change from Previous Year and Net Change in Residents, 2000–2016



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

#### Solano County Change in Population Compared to 2016, Number of People

Year	Births	Deaths	Net Foreign	Net Domestic	Net Migration
2007	49,483	-26,828	13,630	-6,044	-7,015
2010	32,289	-18,633	7,509	7,939	847
2012	20,865	-12,214	6,940	6,299	3,042
2013	15,723	-9,288	5,925	5,179	3,147
2014	10,471	-6,293	3,442	4,055	1,788
2015	5,175	-3,248	1,927	2,908	1,420

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

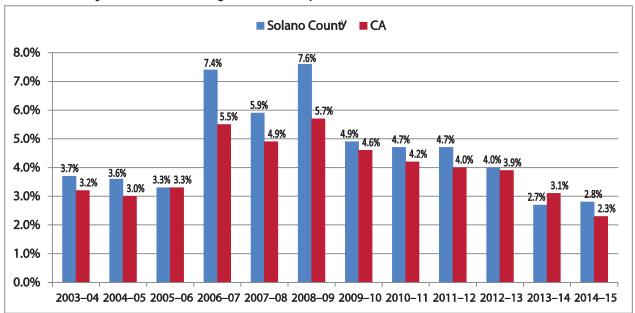
**TAKEAWAY:** Solano County's population continues to grow, due mainly to births exceeding deaths.

WHAT IS IMPORTANT: The recent slowdown in net migration from foreign and domestic sources may be further affected due to immigration policies coming from the new presidential administration. The 2017 data may show these changes. The population's changing composition helps shape the number of local labor force participants.

### **High School Dropout Rates and Graduation Rates**

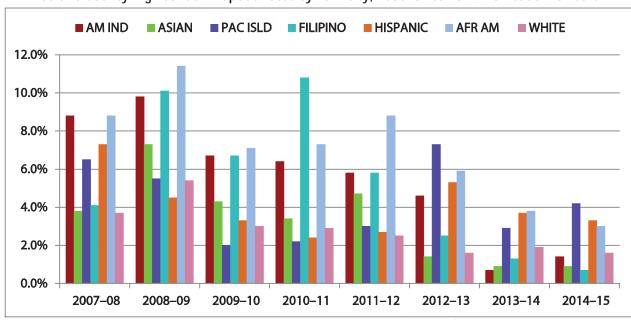
Decreasing high school dropout rates in Solano County continue to indicate strength in local education, although the overall dropout rate increased slightly to 2.8 percent in the 2014–2015 academic year. A growing population and continued economic growth can affect dropout rates. Since the 2008–09 academic year, Solano County has seen the gap narrow between the county dropout rate and the state dropout rate overall, and dropout rates are one-third as high as they were during the Great Recession. However, in the 2014–15 academic year, the Solano County dropout rate was slightly above the state average. Overall, these data show progress for both education and workforce development in Solano County.

#### Solano County and California High School Dropout Rates, 2003–04 to 2014–15 Academic Years



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

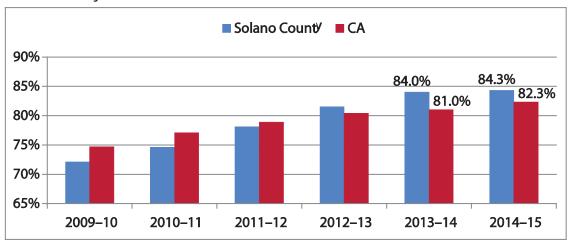
#### Solano County High School Dropout Rates by Ethnicity, 2006–07 to 2014–15 Academic Years



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

Solano County saw its graduation rates rise above the state of California's rates in 2014–15. Overall, Solano County had 84.3 percent of those eligible to graduate do so, while California's rate was 82.3 percent. These data are good news for Solano County schools compared to the state overall. Population and economic growth can provide incentives not to graduate on time, even if a student does not drop out of school completely. These data monitor changes based on evolving labor-market incentives to stay or leave high school.

#### Solano County and California Graduation Rates, 2009–10 to 2014–15 Academic Years



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.

#### Solano County and California Graduation Rate by Ethnicity, 2014–15 Academic Year

Ethnicity	Solano County	California	Difference	
American Indian or Alaska Native	91.7%	73.1%	18.6%	
African American	77.8%	70.8%	7.0%	
Two or More Races	89.0%	86.0%	3.%0	
White	87.3%	88.0%	-0.7%	
Asian	92.4%	92.6%	-0.2%	
Hispanic or Latino	80.0%	78.5%	1.5%	
Filipino	92.7%	93.0%	-0.3%	
Pacific Islander	82.1%	82.2%	-0.1%	

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.

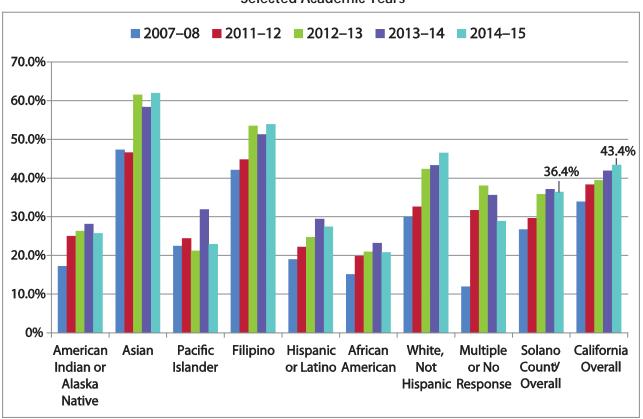
**TAKEAWAY:** While the fall in Solano County dropout rates is slightly reversed for now, graduation rates continue to rise.

WHAT IS IMPORTANT: The African-American dropout rate continues to decrease, as has the Pacific Islander rate. These are continued signs that Solano County schools are providing incentives and opportunities for all ethnicities to stay in school in the face of continued population and economic growth.

### **UC/CSU-Readiness**

California's public university systems play a vital role in statewide workforce development. Solano County houses higher learning campuses at CSU Maritime, Touro University and Solano Community College; UC Berkeley is 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 2007–2008 academic year. In the 2014–2015 academic year, Solano County experienced a decrease in the number of college-ready graduates by 0.7 percentage points, from 37.1 percent in 2013–2014 to 36.4 percent. However, overall the data suggest that Solano County's school districts are improving how they prepare students for careers beyond high school and for college educations.

## Comparisons of Percentages of UC/CSU-Ready Solano County High School Graduates Selected Academic Years



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

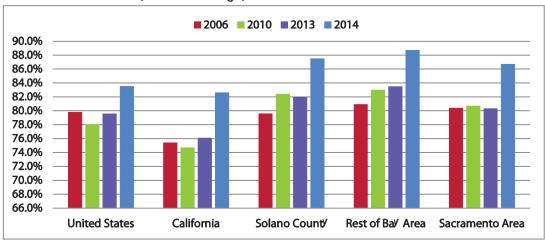
**TAKEAWAY:** Graduation rates are now higher in Solano County compared to California, and most ethnicities continue to show improvement in graduating at higher rates. As of the 2013–14 academic year, more students in Solano County are college-ready.

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

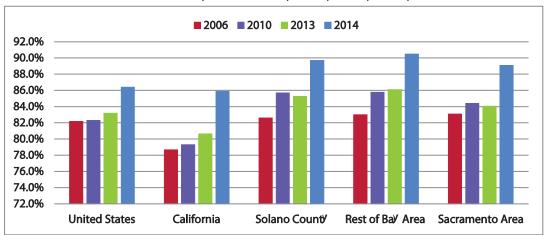
### **Health Insurance Coverage**

During the 2015 Index production, the authors considered no longer using this indicator due to the Affordable Care Act (ACA) providing Medi-Cal eligibility changes and expanded insurance coverage. These data from 2014 (the latest year for which data are available) help to confirm that quickly rising levels of coverage in Solano County happened due to the ACA beginning. For those of workforce age or under 18 years old, Solano County is a well-insured area in comparisons among the selected areas. The year 2006 is shown in these comparisons, as this it is the year that earlier versions of this Index started with in tracking these data over time.

Comparisons of Percentages of Insured Residents 18–64 Years Old (Workforce Age), All Incomes, 2006, 2010, 2013, and 2014



Under 18 Years Old, All Incomes, 2006, 2010, 2013, and 2014



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

**TAKEAWAY:** The surge in insured residents is due mainly to the Affordable Care Act and to changing incentives and subsidies for health insurance.

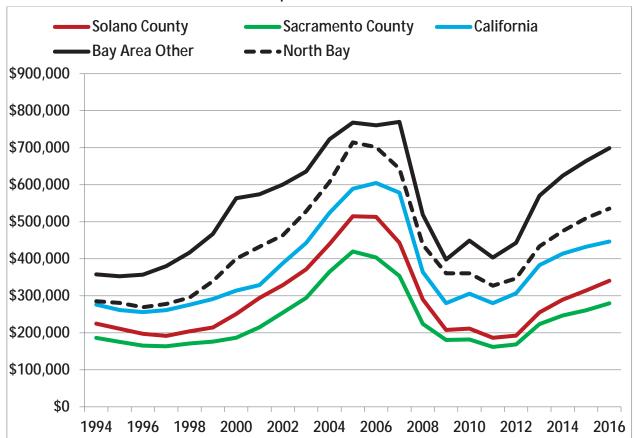
WHAT IS IMPORTANT: Given the election of President Trump and the possibility that ACA may be repealed, replaced or changed in some intermediate step, the Health Insurance Coverage indicator has been retained in the 2016 Index.

### **Median Home Prices, Home Sales Volume, and Rental Prices**

Housing markets continued their recovery and expansion in 2016 in terms of median home price. Sales volume was estimated at 9,524 single-family home units in Solano County for 2016, up 2.9 percent. Prices increased by 15.3 percent in Solano County between December 2015 to December 2016; in 2016, California experienced approximately 3.9 percent growth of single-family home prices.

According to the California Association of REALTORS®, Solano County's median home price has grown by 126 percent from the lowest price during the Great Recession and its aftermath (\$179,000) to \$405,000 as of December 2016. For the state of California, the bottom was hit in February 2009, and the state-level median price has grown 108 percent since that time.

#### Median Home Price, 1994–2016, Comparisons Between Selected Areas, in 2009 Dollars

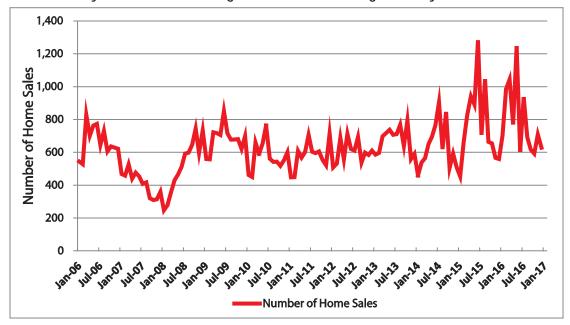


Sources: California Association of Realtors

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

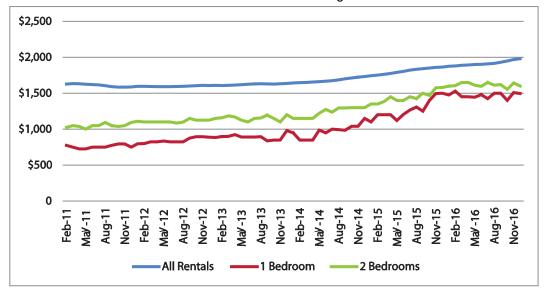
Rental prices have also slowly increased, another sign of both excess demand for housing purchases and for rental housing. In February 2011, the average rental price for one- and two-bedroom apartments in Solano County was \$1,687 per month, according Zillow Research. In December 2016, the figure was \$1,981 per month, an increase of 17.4 percent.

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



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

#### Rental Prices for 1-Bedroom, 2-Bedroom, and Average of All Rental Units, 2011–2016



Source: http://www.zillow.com/research/data/#rental-data

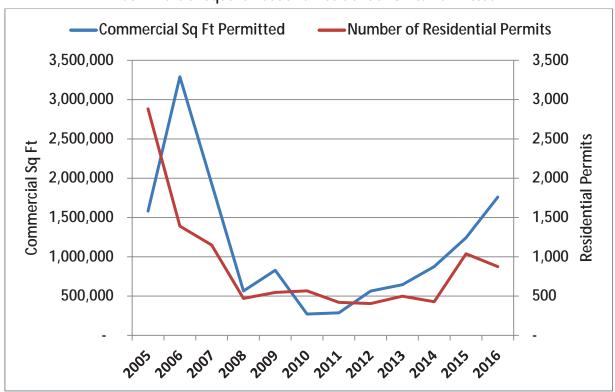
**TAKEAWAY:** 2016 was another good year for home ownership with 15.3 percent higher home prices in Solano County; the state housing market performed below expectations (original estimates were 5 percent growth) on average.

WHAT IS IMPORTANT: Rising home and rental prices put pressure on lower-income workers and families; however, Solano County's home prices being relatively low versus regional neighbors can act as an economic development tool.

### **Building Permits**

Residential building permits data are one way to forecast an increase in housing units, construction activity around housing, and subsequent impacts on the local economy. Commercial space construction is an indicator of confidence in the local and regional economies, as employers build or occupy more space as a business grows. The County of Solano tracks both data series as shown in the figure. Approximately 1.76 million square feet of new commercial space was permitted in fiscal year 2015–2016. There were also 875 building permits issued for residential units.

Solano County Residential and Commercial Building Permits, Fiscal Years 2005 to 2016 Commercial Square Feet and Residential Units Permitted



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

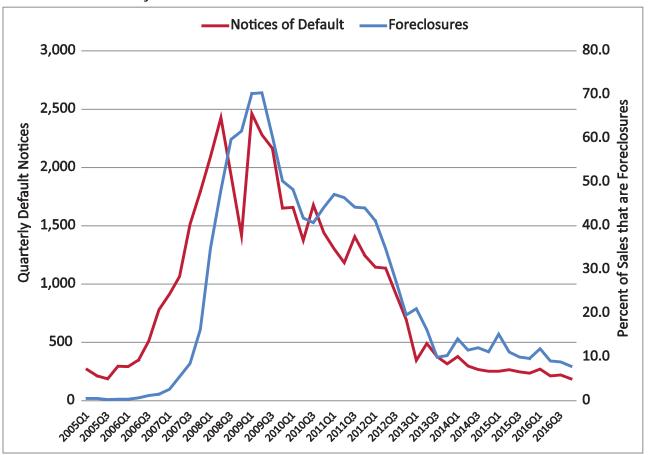
**TAKEAWAY:** Building permits generally act as a leading indicator of economic activity by portending growth of construction jobs, demand for raw materials to build residential units, and increased use of credit markets.

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

### **Notices of Default and Foreclosures**

This indicator shows data that corroborate strong housing markets. Notices of default are an economic indicator for home building, home prices and construction employment. The figure below clearly shows how notices of default (the red line in the graph) lead the changes in foreclosure percentage of sales (the blue line in the graph). In Solano County, the number of notices of default was 894 in 2016 with less than 10 percent sales in foreclosure all year for the first time since 2006.

#### Solano County Notices of Default and Percent of Sales in Foreclosure, 2005–2016



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

**TAKEAWAY:** Notices of default and foreclosure activity remained low in 2016 and provide a simple forecast that housing markets are likely to remain supported for stable or higher prices in 2017.

WHAT IS IMPORTANT: These indicators conditions are reflective of macroeconomic conditions and local levels are also seen across California's counties. There are no indicators of a housing correction in 2017, even if interest rates begin to rise through Federal Reserve policy or market forces.

### Housing Affordability: Housing Prices Versus Median Household Income

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.), and 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; as of 2016 Q3, 45 percent of households in Solano County can afford to purchase a home at the median household income, given current rates of interest and the average cost of home ownership. Notice that the Bay Area Other counties (Alameda, Contra Costa, San Francisco, Marin, Santa Clara) as shown here all have less-affordable housing markets compared to Solano County, as does the state overall; Sacramento's housing market is comparable to Solano County.

#### Housing Affordability Index, 2010 Q3 to 2016 Q3 Percent of the Population That Can Afford a Median-Priced Home

						Santa		Contra		San
Quarter	Solano	Sacramento	Calif.	Sonoma	Napa	Clara	Alameda	Costa	Marin	Francisco
2010.3	71%	68%	46%	40%	41%	30%	31%	21%	23%	22%
2011.3	75%	72%	52%	46%	48%	34%	36%	27%	25%	26%
2012.3	77%	73%	49%	46%	45%	32%	34%	28%	27%	25%
2013.3	56%	50%	32%	31%	28%	22%	21%	22%	18%	16%
2014.3	49%	48%	29%	29%	21%	21%	21%	20%	15%	12%
2015.3	44%	46%	29%	24%	21%	19%	20%	34%	19%	10%
2016.3	45%	45%	31%	27%	25%	22%	22%	35%	19%	14%

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

**TAKEAWAY:** Solano County housing affordability ticked up slightly between 2015 and 2016, as other parts of the region became less affordable.

WHAT IS IMPORTANT: The slow movement of household incomes suggests that housing affordability changes for Solano County may be a function of continued, relatively low interest rates; lower housing affordability comes from rising prices or lower incomes or both.

### Commuting

Solano County has experienced a net outflow of workers over time (2002 to 2014, which is the latest year for which data are available). Data from the US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) project estimate commute-flow information for all census blocks in the United States. The data show that the share of Solano County residents who work within the county (and do not commute for work outside county boundaries) is relatively high compared to other counties. In 2014 (the latest year for which data are available), 34.8 percent of working residents of Solano County worked for employers within Solano County; this implies that 65.2 percent of the county's working residents commute outside the county to work.

Where Solano County Residents Go to Work, 2007, 2010, and 2014

	2007		20	10	2014	
County	Count	Share	Count	Share	Count	Share
Solano County	63,531	35.9%	59,782	35.9%	62,431	34.8%
Contra Costa County	25,064	14.2%	21,165	12.7%	22,412	12.5%
Alameda County	16,268	9.2%	14,110	8.5%	15,037	8.4%
Sacramento County	9,570	5.4%	11,318	6.8%	12,065	6.7%
Napa County	9,824	5.5%	9,613	5.8%	11,397	6.3%
San Francisco County	11,084	6.3%	10,506	6.3%	11,355	6.3%
Santa Clara County	6,387	3.6%	5,364	3.2%	6,097	3.4%
San Mateo County	5,635	3.2%	4,844	2.9%	5,293	2.9%
Marin County	4,403	2.5%	4,327	2.6%	4,791	2.7%
Sonoma County	4,261	2.4%	3,851	2.3%	4,731	2.6%
Other Locations in Laborshed	21,048	11.9%	21,450	12.9%	23,989	13.4%

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

**TAKEAWAY:** Due to its relatively affordable housing, Solano County is a place where the majority of working residents live with an intention to access regional labor markets.

WHAT IS IMPORTANT: The Bay Area generally and Sacramento's metro area dominate the "laborshed" available to Solano County, where residents who commute outside the county to work.

### City Overview: Demographics, Housing and Income

The 2016 Index updates information on Solano County's cities from the US Census Bureau's American Community Survey (ACS) data. 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 too rise more slowly. These data are a five-year average, which captures the bottom of the Great Recession, and 2017 may see a jump back up in these data, given employment growth and slower inflation. Data shown here are median age; housing units and occupancy; and income and education levels compared with household size.

Benicia and Rio Vista remain different from the other cities in Solano County, based on age and median household income. These cities remind us about Solano County's contrasts between rural characteristics and ties to the greater Bay Area.

Median Age in Solano County and Its Cities, 2000, 2010, and 2015

Place	2000	2010	2015
Solano County	33.9	36.5	37.3
<b>United States</b>	35.3	36.9	37.6
California	33.3	34.9	35.8
Benicia	38.9	45.0	43.0
Dixon	31.5	32.3	34.1
Fairfield	31.1	32.8	34.1
Rio Vista	40.7	55.8	60.0
Suisun City	31.7	32.7	33.2
Vacaville	33.9	36.7	37.3
Vallejo	34.9	37.5	38.3

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.)

	To	Occupied			Vacant				
Place	2010	2014	2015	2010	2014	2015	2010	2014	2015
Solano County	151,616	153,769	154,380	91.7%	92.7%	93.0%	8.3%	7.3%	7.0%
<b>United States</b>	130,038,080	132,741,033	133,351,840	87.8%	87.5%	87.7%	12.2%	12.5%	12.3%
California	13,552,624	13,781,929	13,845,790	91.4%	91.5%	91.9%	8.6%	8.5%	8.1%
Benicia	11,905	11,432	11,459	91.7%	94.4%	94.6%	8.3%	5.6%	5.4%
Dixon	6,124	6,349	6,172	94.2%	95.3%	95.1%	5.8%	4.7%	4.9%
Fairfield	36,283	36,521	36,576	91.7%	94.9%	94.7%	8.3%	5.1%	5.3%
Rio Vista	3,592	3,839	4,096	92.7%	90.2%	90.5%	7.3%	9.8%	9.5%
Suisun City	9,291	8,995	9,086	93.3%	96.5%	96.3%	6.7%	3.5%	3.7%
Vacaville	31,780	32,941	33,567	94.4%	94.8%	94.7%	5.6%	5.2%	5.3%
Vallejo	45,297	46,245	45,894	88.9%	88.3%	89.8%	11.1%	11.7%	10.2%

Source: Census Bureau (factfinder2.census.gov)

The final table of city data shown below 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 residents who are high-school graduates, but it remains behind in the number of residents who are college graduates.

Median household income reductions in Solano County likely due to lower wages in the 2011-15 period, as the recession ended for Solano County in 2011. This reflects how Solano County's economy lagged the state and national economies coming out of the Great Recession; median household incomes are larger in Solano County and its cities than state and national counterparts otherwise since 2010 as five-year averages.

Income, Household Size, and Education, 2010, 2014, and 2015, Five-Year Averages

	Median Household Income (2009 Dollars)			Average Household Size			Percent of Residents with HS Diploma or Better			Percent of Residents with Bachelor's Degree or Better		
Place	2010	2014	2015	2010	2014	2015	2010	2014	2015	2010	2014	2015
Solano County	\$68,409	\$67,341	\$66,828	2.83	2.87	2.89	85.8%	87.5%	87.5%	24.0%	24.3%	24.9%
<b>United States</b>	\$51,914	\$53,482	\$53,889	2.61	2.63	2.64	85.0%	86.3%	86.7%	27.9%	29.3%	29.8%
California	\$60,883	\$61,489	\$61,818	2.93	2.95	2.96	80.7%	81.5%	81.8%	30.1%	31.0%	31.4%
Benicia	\$87,018	\$89,094	\$88,394	2.53	2.54	2.55	94.7%	95.5%	95.7%	41.2%	41.1%	43.3%
Dixon	\$69,742	\$66,818	\$72,188	3.00	3.09	3.22	82.1%	82.0%	78.1%	19.6%	20.9%	21.8%
Fairfield	\$68,009	\$66,190	\$67,364	3.00	3.03	3.10	84.8%	85.6%	85.6%	22.2%	23.2%	24.1%
Rio Vista	\$54,568	\$62,616	\$62,079	2.04	2.21	2.11	93.1%	91.8%	92.1%	25.3%	24.2%	26.9%
Suisun City	\$71,795	\$71,306	\$66,452	3.23	3.28	3.28	86.1%	88.6%	87.5%	19.3%	19.8%	18.8%
Vacaville	\$70,838	\$74,207	\$74,001	2.71	2.75	2.76	85.4%	88.1%	88.4%	21.0%	22.5%	22.2%
Vallejo	\$61,481	\$58,472	\$57,028	2.85	2.85	2.85	84.7%	87.0%	87.4%	24.7%	23.5%	24.5%

Source: Census Bureau (factfinder2.census.gov)

**TAKEAWAY:** Solano County saw a small slip in inflation-adjusted (real), median household income in 2015, likely due to slower wage growth versus regional prices. Household size is rising also, as is happening across California. In terms of educated residents and household income, Benicia remains different from the other incorporated areas of Solano County.

WHAT IS IMPORTANT: Attracting and retaining residents holding university degrees is a challenge for Solano County; Solano 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 January 1, 2016.

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

#### **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 are 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 and 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) and EDD reports the estimates.

#### Non-Employer Firm Growth and Percentage of Non-Employers by Industry

Data for Non-employers are 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) data that 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). 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 Phase II

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 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 for the state's workforce.

#### **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 are from the Solano County Assessor's office.

#### **Our Changing Community**

## Population Growth and Domestic and Foreign Immigration

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, and Santa Clara 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 Rates and UC/CSU-Readiness

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 come from the Census Bureau's Small Area Health Insurance Estimates www.census.gov/did/www/sahie/

#### **Trends in Home Sales**

Data were provided by the California Association of REALTORS® (CAR) for median home prices and sales volume of single-family homes and also by Zillow Research (Rental Prices). CAR also calculates the percentage change in homes sales by county, and compares numerous counties across the state.

#### **Building Permits**

Building permits data are 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 come from the Census Bureau and its partnership with the Bureau of Labor Statistics and the QWI called the Longitudinal Employer-Household Dynamics (LEHD) database. These data are from 2002 to 2013 as of January 2016.

#### City Data: Demographics

Data on the cities and their demographics 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. Date shown here are five-year averages per the ACS methodology.

#### Plan Bay Area: Association of Bay Area Governments and Metropolitan Transportation Commission (MTC) Jobs and Households Estimates

Data for Plan Bay Area include Solano County as part of the nine counties in the Bay Area. These data link Census estimates from 2010 to forecasts for county-level employment by employers and the number of occupied households. These data were provided in draft form in June 2013 and updated in October 2016. http://planbayarea.org/the-plan/Draft-Preferred-Scenario.html

#### **Rental Home Prices**

Home rental prices come from Zillow Research, which has information on rental price estimates for most metropolitan areas and counties in the United States. http://www.zillow.com/research/data/#rental-data

#### **Notices of Default**

Notices of default data were gathered by the author from the Solano County Assessor/Recorder office and its online search tool.

http://recorderonline.solanocounty.com/Search/Pages/SearchSimple.aspx

#### Percent of Home Sales in Foreclosure

Foreclosure data come from Zillow Research, which has information on foreclosures for most metropolitan areas and counties in the United States.

http://www.zillow.com/research/data/#rental-data

# The 2016 Solano County Index of Economic and Community Progress can be found at:

### www.solanocounty.com/economicindex

#### **Economic Forensics and Analytics**

Robert Eyler, Ph.D., President
PO Box 750641, Petaluma, CA 94975
(707) 318-0348 ◆ eyler@econforensics.com
www.econforensics.com

#### **County of Solano**

Nancy Huston, Assistant County Administrator 675 Texas Street, Suite 6500, Fairfield, CA 94533 (707) 784-6100 ◆ nlhuston@solanocounty.com www.solanocounty.com

#### Solano County Economic Development Corporation

Sandy Person, President
360 Campus Lane, Suite 102, Fairfield, CA 94534
(707) 784-1855 ◆ sandy@solanoedc.org