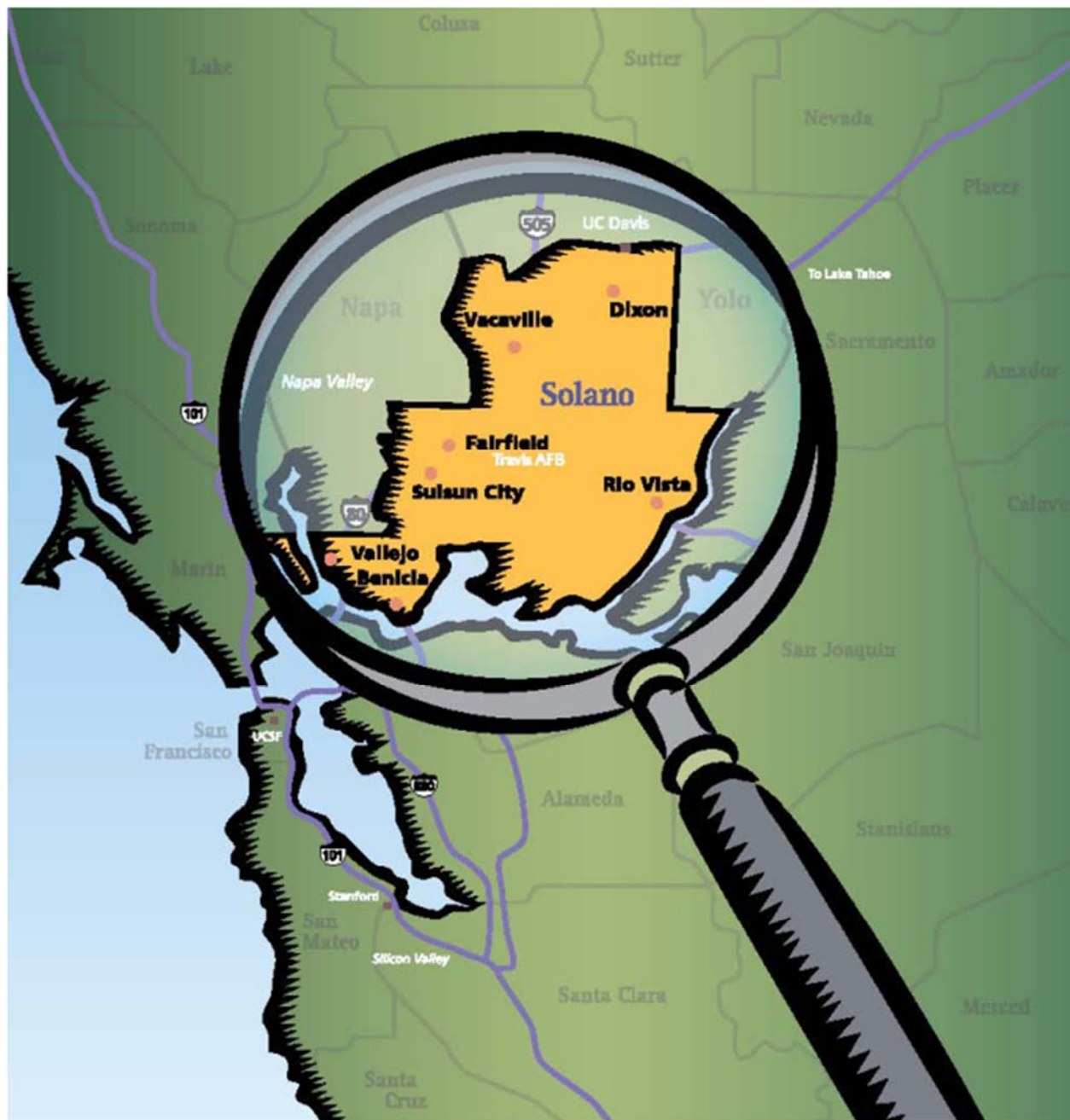




Solano County 2018

Index of Economic and Community Progress

County of Solano and Solano Economic Development Corporation

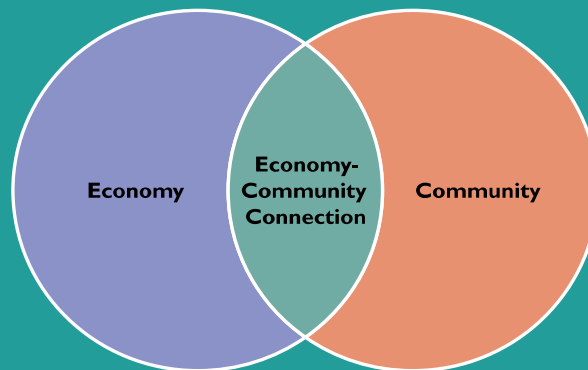
May 2019

Solano County 2018

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 2018 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.



We are proud to provide to you our 11th annual Solano County Index of Economic and Community Progress. This report provides a comprehensive reporting of various indicators, capturing trends shaping our local economy while providing long-term perspectives and considerations for economic development. The purpose of the analysis is to guide our policies and programs as well as aspirations to grow the health of our regional economy. Our hope is that you will not only see an impressive display of data and information, but also how these independent indicators are connected and create a picture of our County's economic performance and quality of life.

Solano Job Growth Continues

The County continued to add a healthy number of jobs in 2018. While 4% unemployment is generally considered to represent full employment, Solano County is improving on that rate with unemployment at 3.8 percent. Employment outpaced labor force growth, creating a further reduction of unemployment by 0.3 percent. The addition of 4,300 new non-farm jobs was 3.1 percent growth over 2017. This number surpassed the growth rate of our surrounding regions; Other Bay Area at 2.4, Sacramento at 1.6, and North Bay at 1.4 percent. Growth was incremental and occurred in a relatively balanced way throughout private-industry sectors. This document further dissects job growth a number of different ways to show what these new jobs mean to our economy.

The Bigger Picture

As we have done over past years, it is important to take a look at performance indicators and issues that affect sustainability in the region such as inflation, housing affordability, income, as well as job skills and education. Strong improvement and strength in these areas not only propel healthy growth but also build resiliency when the state, national and international economies contract. Affordability, real estate opportunities and educational attainment speak to our competitiveness to attract and grow the industries that will take our economy and quality of life to the next level. Income and spending data show how growing wages and wealth turn into economic activity and future investment. These and other factors create a comprehensive view of the region's economic health.

Moving Solano Forward

The 2017 launch of our countywide campaign *Solano Means Business* encompasses the idea of a collective regional action plan for economic development that is bringing more economic opportunities to the Cities and County of Solano. This campaign has been implemented and significant new public and private resources have been put into action to raise the visibility of the region resulting in investment and new jobs in sectors that have been determined to optimize positive impact. This document provides guidance for future activities.

The 2018 Index shows us that our economy is growing at a healthy pace, however there are challenges that could impact our future success and quality of life. It is our mission to use this information to help guide our region's leadership toward positive change.

Sincerely,



Erin Hannigan
Chairwoman
Solano County Board of Supervisors



Robert Burris
President
Solano Economic Development Corporation

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Solano County Key Facts

Area

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

2018 Population (January 1, 2018) 439,793

Benicia	27,499
Dixon	19,896
Fairfield	116,156
Rio Vista	9,188
Suisun City	29,192
Vacaville	98,977
Vallejo	119,252
Unincorporated	19,633

Population Change: 2017 to 2018 +3,153

Solano County 2030 Population Est. 507,219 (CA Dept. of Finance, estimate as of Jan 2019)

Top 5 Employment Sectors (as of Dec. 2018)

Education & Health Services	27,900
All Government (incl. US Military)	25,300
Retail Trade	18,800
Leisure & Hospitality	15,400
Manufacturing	12,200
Construction	12,100

Total Industry Jobs (Dec. 2018) 143,900

Employment to Housing Units (2018) 90.6%

Employment to Housing Units (2010) 79.6%



Educational Attainment (2013–17 Avg.)

Less than high school	12.4%
High school graduate only	23.3%
Some college, no degree	28.7%
Associate's degree	10.0%
Bachelor's degree	17.9%
Graduate or Professional degree	7.7%

Age Distribution of Pop (2013–17 Avg.)

Under 5 years old	6.1%
5 to 19	19.0%
20 to 44	33.8%
45 to 64	27.0%
65 and older	14.1%

Ethnic Composition of Pop (2013–17 Avg.)

White	39.0%
Hispanic	25.8%
Asian	14.8%
African-American	13.8%
Other (incl. mixed race/Pacific Islander)	6.6%

Building Permits Issued, New Housing Units (Fiscal Year 2017–18) 659

Sources and Notes:

1. Population and housing data come from California Department of Finance (www.dof.ca.gov), March 2019.
2. Employment data come from California Employment Development Department (www.edd.ca.gov), March 2019.
3. Employment to housing unit ratios help city and county development planning for efficient municipalities and transit networks. A ratio of 100 percent suggests a balance in housing units and commuting workers. Ratios below 100 percent suggest the local economy has more residents working outside than those coming into the local area to work; ratios above 100 suggest rising numbers of commuters from outside the local area.
4. Demographic data from the Census Bureau's American Community Survey (factfinder.census.gov), Mar 2019. In July 2019, the Census Bureau transitions to a new database at <http://data.census.gov>.
5. Building Permits data were provided by the County of Solano for fiscal year 2017-18, ending June 30, 2018.

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Key Highlights from the 2018 Index

Our Changing Economy

- Solano County private-sector employers hired 4,000 more workers in 2018; this is a 3.5 percent increase from 2017. The public sector hired 300 more workers in 2018.
- Farm jobs fell by 300 in 2018, while non-farm jobs increased by 4,300 workers (3.1 percent growth) for Solano County businesses, government, and nonprofit employers to a total employment level of 143,900 as 2018 ended.
- Approximately 205,000 residents of Solano County were employed in 2018 after growth of 5,700 more working residents from 2017.
- Solano County's unemployment rate was 3.8 percent at the start of 2019, the lowest rate on record for the county economy.
- Based on the most recent available data, inflation-adjusted (real) gross product for Solano County grew by 2.4 percent in 2017, slightly slower than California, but faster than the national economy.
- Solano County's real personal income per person increased in 2017, the most recent available data. Median household income also increased in 2017 after inflation, suggesting Solano County's jobs growth and income growth are occurring together.
- Employment in industries focused on sales outside Solano County ("base" industries) decreased by an estimated 203 jobs in 2018, led by fewer non-durable manufacturing jobs and fewer farm workers.
- Solano County median wages continue to rise and improve for local workers, lower than the median wages for the Bay Area and California overall.
- The latest data on poverty rates (2017), based on five-year averages for Solano County, California and the nation, showed continued progress; Solano County's poverty rate fell by a full percentage point to 8.6 percent of households in 2017 from 2016.
- The latest data on regional cost of living show rising cost levels in Solano County, with local inflation outpacing state and national averages in 2017. Continued jobs growth, rising rents and rising home prices explain most of the price growth.

Our Changing Community

- Solano County's population added 3,153 residents in calendar year 2017, a 0.7 percent increase.
- Solano County's population is forecasted to grow from 2018 to 2030, with 64,420 more residents over those 12 years, with percentage growth faster than the state average.
- Solano County's graduation rate fell slightly and is behind the state average for the 2017–18 academic year, but still remains above 81 percent. Methodology changed in 2016-17 to estimate these data and also for graduates that are UC/CSU ready.
- Solano County high-school graduates were UC/CSU ready in the 2017–18 academic year at the same rate as the previous academic year.
- Housing prices increased 8.2 percent in 2018 to \$450,000 (up from \$416,000 in 2017) at the median; housing affordability in Solano County fell. Rental prices continued to rise, to a median price of \$2,160 for all rentals in Solano County as of January 2019.
- 659 building permits were issued for new homes for fiscal year 2017-18, fewer than fiscal year 2016-17. Approximately 695,000 square feet of commercial space was permitted during fiscal year 2017-18, also nearly half the square feet than the previous fiscal year.
- Solano County government revenue from property values and taxable sales continued to rise in 2018. Assessed property values increased to over \$54 billion in 2018.

Considerations for the Future

The national and state economies both have forecasts of slower growth into the early 2020s, but no forecasted recession until 2021 at the earliest. The Federal Reserve has indicated no additional interest rate increases in 2019 after two years of aggressive policy changes. California faces cost and labor challenges as jobs growth is forecasted into the 2020s also. Solano County remains poised to use its regional advantages as shown in this year's Index to create more businesses and job opportunities and this decade ends. Forecasts for the 2020s and beyond suggest increased population growth rates, more housing units demanded, more use of roads, but also more demand for goods and services for new and expanding businesses in Solano County.

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Index Overview

Solano County continues creating jobs and incomes.

Non-farm employment in Solano County grew by 3.1 percent in 2018, with approximately 4,300 more jobs at local employers; farm jobs contracted by 300. From 2010 to 2018, since the Great Recession ended, Solano County employers have added a total of 22,800 jobs. Construction jobs showed an increase in 2018, a total of 1,400 more jobs for 12.8 percent growth, a real surge. Health care workers, including non-profit health services, increased by 780 jobs in 2018. Manufacturing jobs contracted a bit in 2018 by 100 jobs, ending a streak of annual growth since 2011. Jobs in wholesale and finance bounced back positively in 2018, with 200 more wholesale jobs and 100 more finance jobs.

In 2018, Solano County non-farm employment grew by 3.1%, adding approximately 4,300 jobs.

The Broader Context: State and National Economic Updates

Data and forecasts available as of March 2019 suggest a national and state-level economic slowdown, but perhaps no recession through 2022 for California.

California's economy is in its eighth straight year of jobs expansion according to California EDD. In 2018, non-farm jobs grew for California by 2.0 percent. Forecasts for California's economy through 2022 are available from the California Department of Finance; these forecasts point to

California's labor market remaining near full employment in 2019. Growth of gross state product, the state-level analog to national income, is forecasted to grow annually at 0.9 percent to 2022; growth from 2011 through 2018 was approximately 2.3 percent annually.

2018 was a year of stock market fluctuations downward, but economic growth continued for the US economy in spite of stock market woes. Interest rate increases, along with trade policy concerns and tax policy realities, began to hurt stock markets early in 2018 and then again from October 2018 to January 2019. The Federal Reserve upheld its promise to raise interest rates three times in 2018, similar to 2017. As 2018 ended, rhetoric began that the Federal Reserve would slow down rate increases to one or two increases in 2019; as of March 2019, the Federal Reserve has signaled it may not raise interest rates at all in 2019. Global and national forecasts were downgraded early in 2019. Inflation data continue to be a policy focus for the Federal Reserve, forecasted to remain slow and stable in 2019. We see later that both Solano County and California have inflation measures that show cost of living rising faster regionally and statewide versus the national average.

The Federal Reserve may only raise interest rates once in 2019 or not at all, a reflection of an economic slowdown predicted nationally.

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Regional Housing Markets Continue to See Price Growth

Zillow Research is predicting 6.6 percent growth for Solano County home prices in 2019 as of March 2019, where recent fires in Northern California likely have some dubious, positive effects on Solano County property values.

Housing market forecasts for 2019 estimate another year of rising home values, but at a slower pace than 2018. With rising costs of living throughout the Bay Area, Solano County housing prices likely have support to remain stable or to rise further. The median sale price for single-family homes in Solano County was \$450,000 in December 2018, up 8.6 percent from the previous year according to California Association of

REALTORS®. Median single-family home prices in California overall grew only 6.6 percent in 2018 to just under \$600,000. Regional fires in 2018 in Butte and Shasta counties may create rising demand for Solano County housing and also additional costs for home building and other construction projects in 2019 and beyond.

Solano County's housing and commercial real estate permit and building activity was slower in fiscal year 2017-18 (July 1 to June 30) for Solano County than fiscal year 2016-17. Residential building permits activity in fiscal year 2017-18 was for 659 new housing units. As 2018 ended, for the first two quarters of fiscal year 2018-19, 438 building permits have been issued for new homes. Commercial square feet under construction was up by approximately 695,000 square feet between July 2017 and June 2018; 85.8 percent of new commercial real estate was in Fairfield, Vacaville and unincorporated Solano County.

New and expanding businesses may need more and varied commercial space. Office space available in Solano County was at 16.9 percent vacancy for Class A space, and less than 10.7 percent for Class B office space as 2018 ended. Industrial space, including manufacturing space and warehousing, had 5.2 percent vacancy, continuing to trend down into 2019. Prices per square foot increased over 10 percent for both Class A and B space during 2018 (up about \$0.20 per square foot since Q4 2017) to \$2.20 per square foot in Solano County. In contrast, San Francisco County has a median price of \$8.80 per square foot on average for Class A and B space as of Q4 2018, where there is less than 5 percent vacancy. Solano Economic Development Corporation (EDC) and its economic development strategy include the following industry clusters:

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

Moving Solano Forward continues to provide support for business and entrepreneurship growth in Solano County. These efforts are likely to increase housing and commercial real estate demand also.

These clusters and their expansion positively affect demand for housing and commercial real estate as well as available workers.

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Solano County Labor Markets: Solid Growth

Solano County residents continue to find employment regionally, in now the eighth straight year of rising employment. Since 2010, the number of employed residents has grown by 15.8

percent in Solano County while the labor force has grown by only 5.3 percent.

These data are signs of strong regional employment and local jobs opportunities, as Solano County residents continue to find jobs inside and outside the county.

Solano County's goods-

producing industries (construction, manufacturing generally) grew by 1,300 jobs in 2018.

New services jobs make up the remaining, new non-farm jobs of 3,000 workers in 2018.

**Comparison of Solano County Labor Force Components, 2010 to 2018
Number of Workers and Percent Change Annual Averages**

	Number of Workers			Percent Change	
	2010	2017	2018	2010	2017
Labor Force	202,400	209,200	213,200	5.3%	1.9%
Employed Residents	177,000	199,300	205,000	15.8%	2.9%
Unemployment Residents	25,400	10,000	8,200	-67.7%	-17.2%
Industry Employment	121,000	139,900	143,900	18.9%	2.9%

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

**Solano County Employment
2018 Annual Average Gains and (Losses) of Jobs Since 2010, 2016 and 2017**

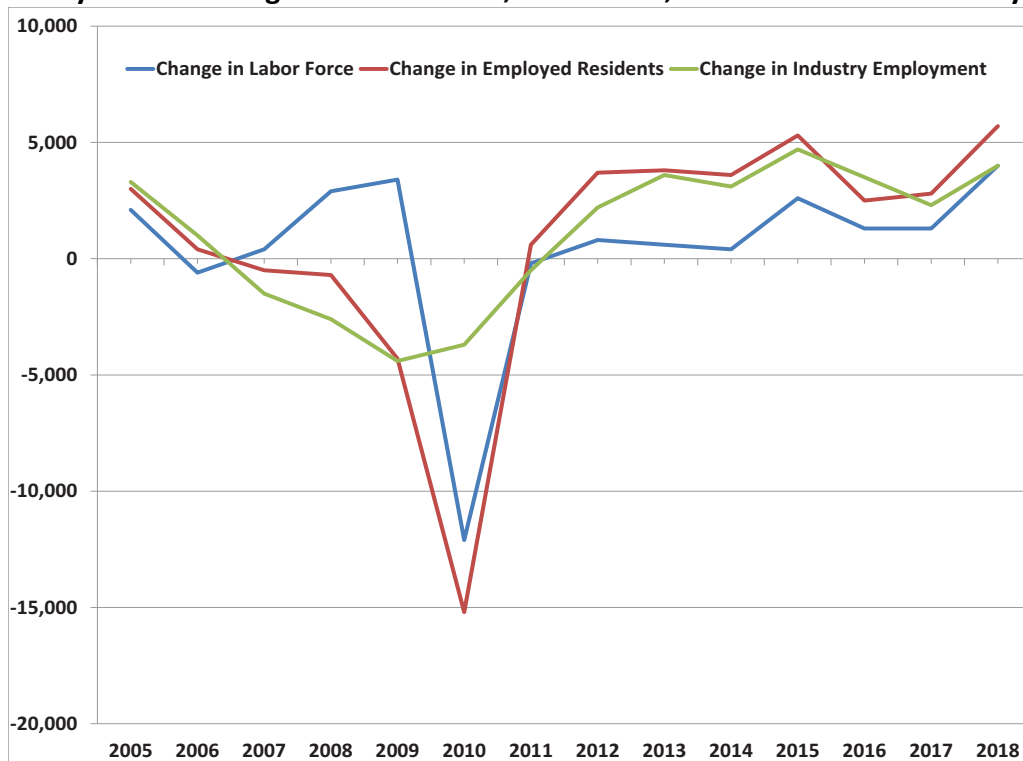
Industry	Since 2010		Since 2016		Since 2017	
	Gain/(Loss)	% Chg	Gain/(Loss)	% Chg	Gain/(Loss)	% Chg
Agriculture	100	0.4%	-300	-4.8%	-300	-7.5%
Construction	4,800	21.0%	1,800	28.6%	1,400	35.0%
Durable Goods Manu	800	3.5%	200	3.2%	100	2.5%
Education and Social Services	2,783	12.2%	-583	-9.3%	424	10.6%
Federal Government	-900	-3.9%	-	0.0%	-	0.0%
Financial Services	-	0.0%	-	0.0%	100	2.5%
Health Care	5,017	21.9%	2,883	45.8%	776	19.4%
Hotels/Motels	2,000	8.7%	600	9.5%	400	10.0%
Information	-300	-1.3%	-100	-1.6%	-100	-2.5%
Local and State Government	1,300	5.7%	200	3.2%	300	7.5%
Logistics/Utilities	600	2.6%	300	4.8%	300	7.5%
Non-Durable Goods Manu	1,700	7.4%	200	3.2%	-200	-5.0%
Other Services	500	2.2%	-100	-1.6%	-200	-5.0%
Professional and Business Services	1,300	5.7%	900	14.3%	700	17.5%
Restaurants	1,900	8.3%	600	9.5%	300	7.5%
Retail	2,400	10.5%	300	4.8%	200	5.0%
Wholesale	200	0.9%	100	1.6%	200	5.0%
Total	22,900	18.9%	6,300	4.6%	4,000	2.9%

Source: EDD (<http://www.labormarketinfo.edd.ca.gov/>), Labor Market Information, Annual Data, Chg = Change

New businesses continue to emerge in Solano County. The California Employment Development Department (EDD) reports that there were 11,097 Solano County, payroll businesses as of 2018 Quarter 2. There were 267 more such employers in Solano County between 2017 Quarter 2 to 2018 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. Of the 956 new non-employer jobs for self-owned businesses (the latest data are from 2016), 852 of these new workers are in transportation, likely Uber and Lyft drivers, but perhaps also Amazon drivers and self-proprietor transport businesses.

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Solano County Annual Changes in Labor Force, 2005–2018, Number of Solano County Residents



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

Solano County's goods-producing jobs remains a greater share of productivity than California.

Businesses that produce goods and provide services pay their owners, workers, creditors, and all levels of government from revenue they make, adding up to what is called gross product. Economists use the percentage change in inflation-adjusted, gross product data to assess an economy's "real" growth rate. The public sector remains a relatively large part of Solano County's employers compared to the state and national labor markets. Federal and state budget forecasts should be monitored closely by economic development professionals and elected officials alike, especially as the 2020 elections draw closer, for potential changes in defense and other funding.

Sector Shares of Gross Product at the County, State, and National Levels Percent of Total Gross Product in 2009 Dollars, 2010–2017, Selected Years

Year	Goods-Producing			Services-Producing			Public Sector		
	Solano County	CA	US	Solano County	CA	US	Solano County	CA	US
2010	27.8%	16.8%	19.0%	50.1%	69.9%	67.5%	22.1%	13.3%	13.5%
2015	30.3%	16.5%	19.2%	49.5%	71.7%	68.8%	20.2%	11.8%	12.1%
2016	30.3%	16.6%	19.0%	49.6%	71.6%	69.0%	20.1%	11.8%	12.0%
2017	30.7%	15.9%	17.4%	49.1%	72.4%	70.0%	20.2%	11.7%	12.6%

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

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Standards of Living Adjusting: Incomes and Costs both Rising

Cost of living indexes measure relative prices of goods and services and also the cost of doing business locally. Standards of living fall when costs of living rise quickly versus growth of incomes. Standard of living measures include income measures in **real** (inflation-adjusted) terms per person or household; higher values are considered progress. Beyond real gross product per person, real personal income per person is another indicator of changing living standards, as is real median household income. 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 2017, real personal income per person in Solano County outpaced the national economy but was slightly slower than California. Median household income (MHI) grew almost 2.4 percent, the highest jump up since 2013. Solano County continues to have a MHI level above statewide and national averages. Solano County remains below the state of California average for gross product and personal income per capita after adjustments for inflation. These three measures of living standards increased in 2017 (the latest data) exhibiting progress as Solano County residents and households. In short, Solano County residents gained from the local and regional economy in 2017.

Standard of Living Measures at the County, State, and National Levels 2010, 2016 and 2017 (latest available data), in 2009 Dollars

Place	Gross Product per Capita			Personal Income per Person			Median Household Income		
	2010	2016	2017	2010	2016	2017	2010	2016	2017
United States	\$50,425	\$54,651	\$55,418	\$39,891	\$44,543	\$45,197	\$49,238	\$49,451	\$50,459
California	\$55,130	\$63,711	\$65,160	\$43,069	\$50,467	\$50,983	\$56,950	\$55,984	\$57,270
Solano County	\$36,411	\$39,529	\$40,000	\$37,239	\$40,984	\$41,877	\$62,169	\$60,762	\$62,199

Sources: Bureau of Economic Analysis (<http://www.bea.gov>) and Census Bureau (<http://factfinder.census.gov>)

Community Indicators: Continued Gains and Some Challenges

Despite forecasts of population growth, the California Department of Finance is predicting Solano County to have 1,453 fewer K-12 students in local schools over the next ten years.

Population is estimated twice annually by the California Department of Finance, once for the calendar year to compare to annual Census estimates and again for county and state fiscal-year counts (July to June) and the components of any changes. Between July 1, 2017 and June 30, 2018, Solano County's population grew by an estimated 2,038 people. Education data, after a change to estimation methods in the 2016-17 academic

year, showed Solano County schools produced graduates at a rate over 81 percent of eligible students, a mix of graduates who both enter the workforce directly and continue on to college. City-level demographic data show that Solano County's population continues to age, but with more educated, working residents on average. A projected, aging population in Solano County is partially behind recent California Department of Finance predictions that between the 2017-18 and 2027-28 academic years, Solano County's K-12 enrollments are to fall by 2.3 percent or 1,453 fewer students.

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Solano County's population grew more from births than new residents.

Fiscal-year counts also estimate changes in population components, such as births, deaths and people moving to and away from Solano County. Between July 1, 2017 and June 30, 2018, people moving to Solano County from some other place grew by 1,265 new residents. Births exceeded deaths by 1,521 in 2017. Updated forecasts for all 58 counties in California by the California Department of Finance (new as of Jan 2019) for 2018 to 2030 project that Solano County's population to be 507,219 in 2030 or 14.5 percent growth from 2018 to 2030 versus 9.9 percent growth for California overall. As a regional contrast, Napa County had more deaths than births in fiscal year 2017-18; that was the second year in a row that Napa County had fewer residents.

Solano County's graduation rate was 81.4 percent.

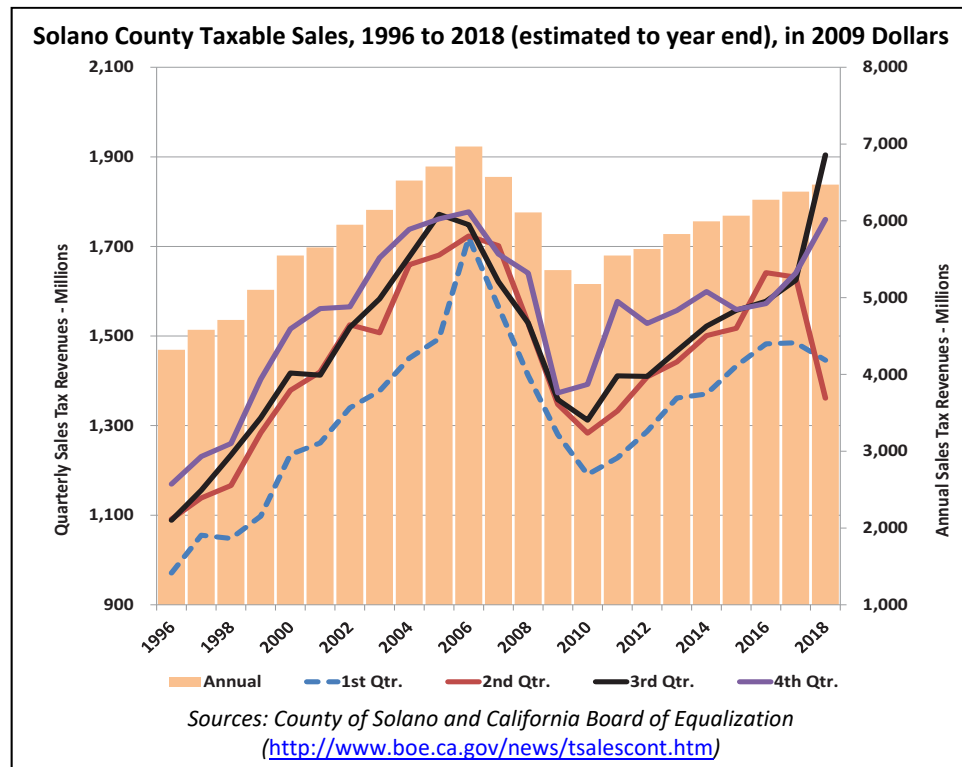
During the 2017-18 academic year (the latest year for which data are available), Solano County's graduation rate barely fell from 81.5 to 81.4 percent, behind the state average which increased slightly from 82.7 to 83 percent (a recent methodological change does not allow historic comparisons to graduates data before 2016-17 easily, including data on students preparing for college). The slight slip in graduation rates is likely a function primarily of labor market incentives. The percent of graduates that were UC/CSU-ready was 43 percent of Solano County graduates in 2017-18 versus 49.9 percent of graduates for the state of California, with no change from the previous academic year.

Taxable sales and assessed property value continue to rise

The combination of rising home prices and more taxable sales suggests more revenue for Solano County's city and county governments. Overall, taxable sales grew slightly after inflation adjustments; inflation-adjusted, taxable sales have grown by 23.9 percent from fiscal year 2009-10 to 2017-18 for the County of Solano.

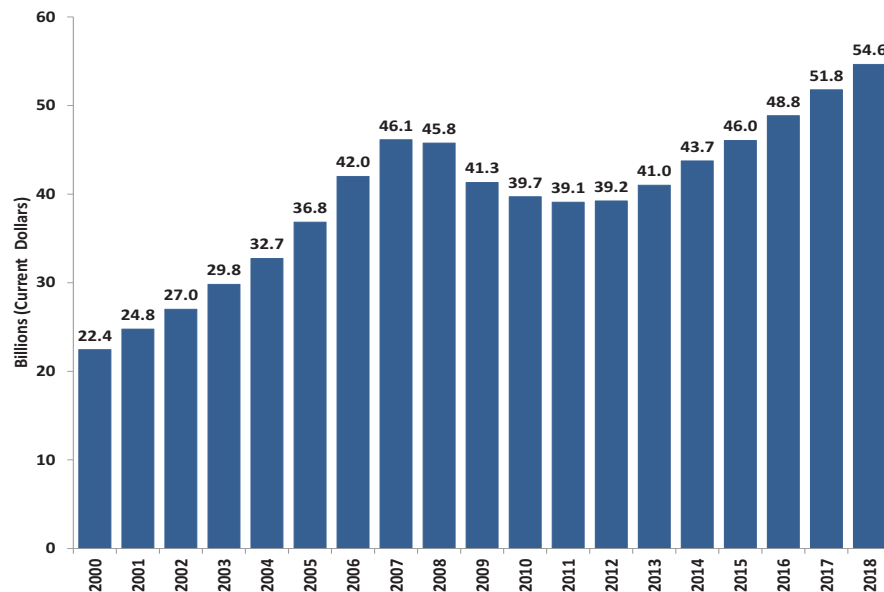
Solano County's assessed property values in the aggregate continued to grow in both inflation-adjusted (2009) dollars and current values; current values are used by the Solano County

Assessor's Office to set the annual tax roll. Property tax revenue for the County of Solano increased in 2018; as of June 30, 2018, the assessed value of property in Solano County was \$54.6 billion, the seventh year of increased property tax rolls in a row.



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Solano County Assessed Values for Property Tax Purposes, 2000 to 2018, in Current Dollars



Source: Solano County Assessor's Office (current assessed value)

Travel Times to Work and Laborshed

This year's index looks at travel times to work (in previous editions of this Index, we looked at commute patterns for both Solano County residents and those that work in Solano County), as Solano Transportation Authority (STA), Metropolitan Transportation Commission (MTC) and Solano Economic Development Corporation (Solano EDC) are partnering to consider and fund projects to add express lanes and make other infrastructure upgrades to roadway systems in Solano County. Worsening traffic and rising employment opportunities combine for potential, negative effects on Solano County residents. Between 2010 and 2017 (the latest data available), Solano County residents spent an extra 2.4 minutes going to work on average; the average time it takes someone who lives in Solano County to get to work is 31.8 minutes. 59.2 percent of commuters spend a minimum of 20 minutes getting to and from work each work day.

Geographic Comparisons

Unless stated otherwise, the 2018 Index groups counties into the following three areas in California for the purpose of making comparisons. All of these counties, including Solano County, can also be defined as a "super region".

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

Takeaways and What Is Important

In the pages that follow, each subsection of this report provides a brief "TAKEAWAY" and either an "OPPORTUNITY" (in green) or a "CHALLENGE" (in red) as Moving Solano Forward looks to identify both using these data. The report starts with a look at Solano County's changing economy followed by community indicators.

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Our Changing Economy

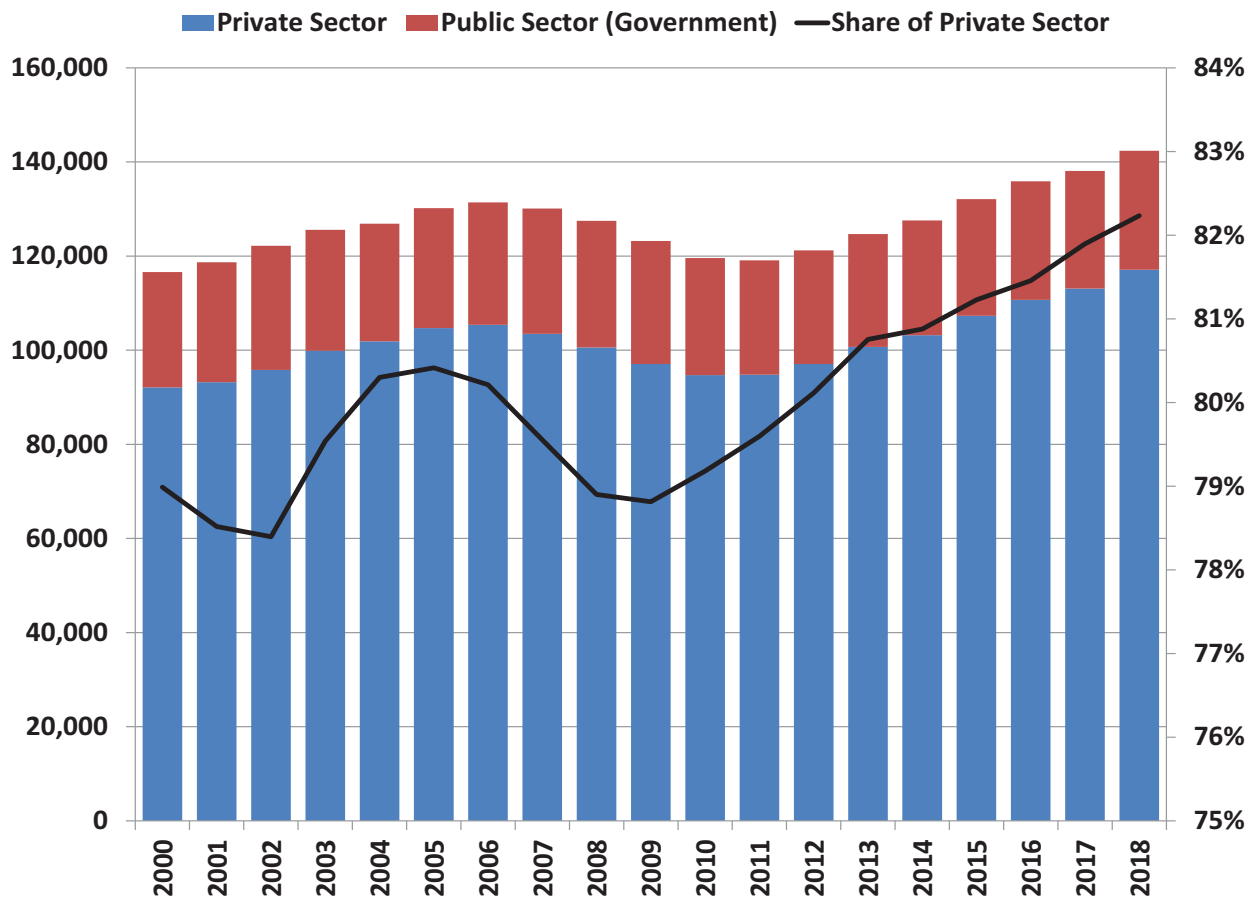
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Labor Markets

Annual Local Industry Employment

Solano County employers continued hiring in 2018 for the seventh year in a row; total workers hired by Solano County employers was 143,900 workers at the end of 2018. This change is a 2.9 percent increase, or 4,000 more workers. Continued growth of jobs at this pace helps expand spending and incomes in Solano County, supporting local governments and hundreds of local businesses.

Solano County Private and Public Sector Employment Annual Averages, 2000–2018



Source: California Employment Development Department (www.edd.ca.gov). Private and Public Sector Employment Levels are indicated on the left-hand axis; Share of Private Sector (%) for Total Employment is indicated on the right-hand axis.

TAKEAWAY: Solano County employers hired 4,000 more workers in 2018, the most jobs growth in one calendar year since 2015.

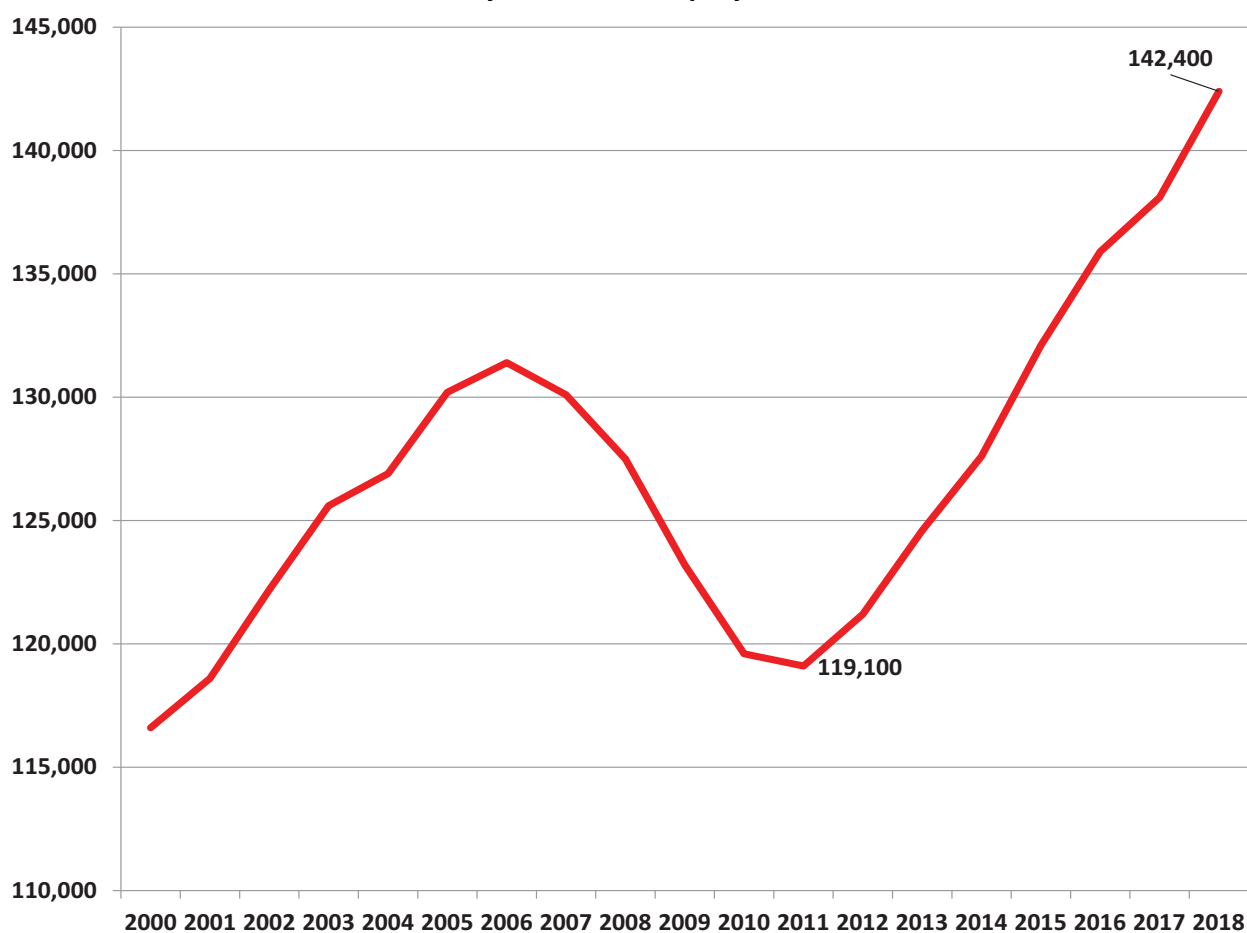
OPPORTUNITY: As Solano County employers hire more workers, local residents seeking to work can be trained and hired and work locally, perhaps from partnerships between education and employers. Such relationships reduce commute times and have positive traffic and environmental impacts.

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Total Non-Farm Employment

Though agricultural jobs slipped in 2018 (-300 jobs), Solano County generated 4,300 non-farm jobs in 2018 (3.1 percent growth) and 22,900 more workers since 2010 (18.9 percent growth). Growth of non-farm jobs in 2018 took place in all sectors except non-durable manufacturing (food and beverage, e.g.), information (including software) and personal services. Solano County's growth of non-farm jobs in 2018 was a greater percentage change (3.1 percent) than all comparison areas; the Bay Area Other grew at only 2.4 percent in 2018. The North Bay counties of Sonoma and Napa had non-farm jobs growth of 1.4 percent, and both Sacramento County and the statewide averages were 1.6 percent growth in 2018.

Solano County Non-Farm Employment, 2000–2018



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

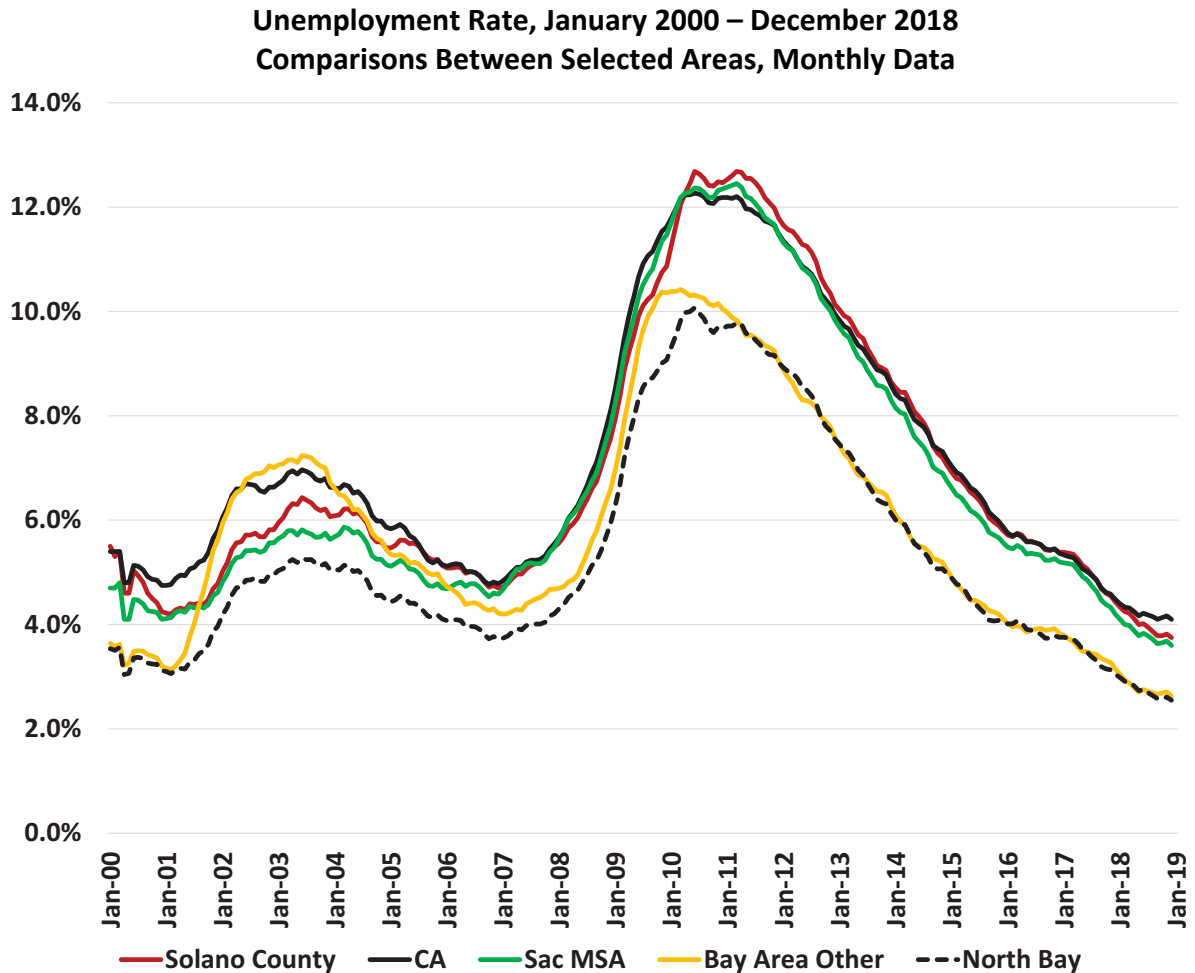
TAKEAWAY: Non-farm jobs in Solano County continued to climb in 2018 by 4,300 new workers; Solano County outpaced jobs growth compared to other counties in the region, exceeding all comparison areas in percentage terms.

CHALLENGE: In 2018, Solano County's employers hired fewer people than the number of county residents that found work, suggesting the total of Solano County residents working outside the county increased. Such outbound commuting is likely due to relatively higher-wage jobs outside Solano County.

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Unemployment Rate Comparisons

Solano County's unemployment rate was 3.8 percent as 2019 began, compared to 4.1 percent one year earlier. Further, 1,900 fewer Solano County residents were unemployed in 2018. The state of California had 4.2 percent unemployment and the United States had 3.9 percent as of January 1, 2019.



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

TAKEAWAY: Low unemployment rates in Solano County reflect fewer unemployed residents, and thus more residents with jobs (labor force utilization increased).

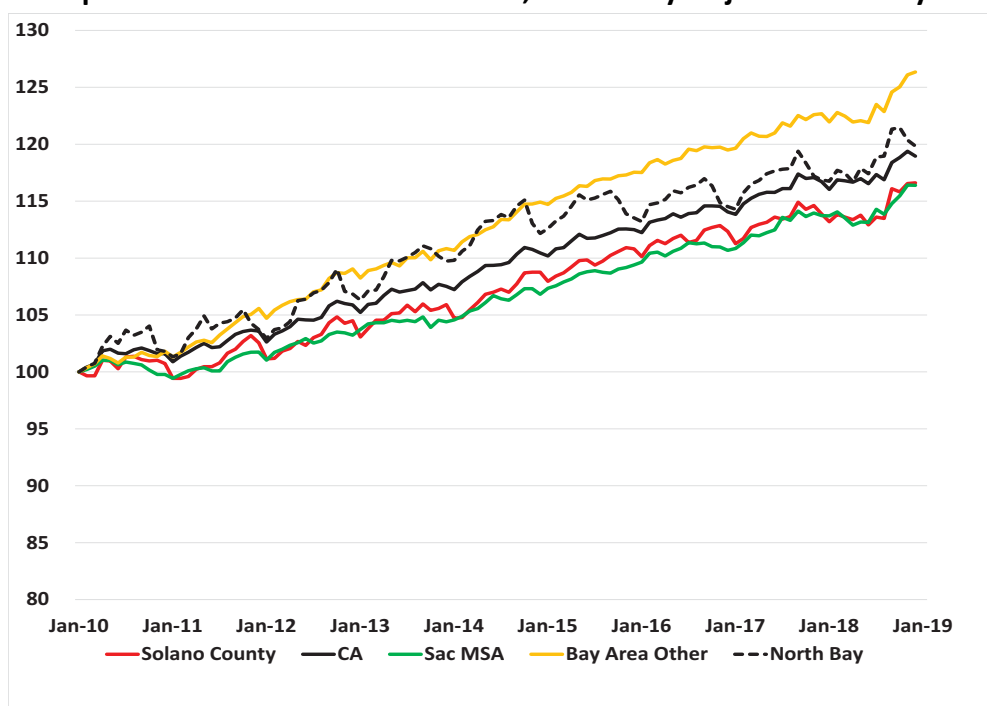
CHALLENGE: Wage pressures and search costs rise for local employers when unemployment rates fall. Successful, local workforce development programs can act as medium to long-term relief to reduce job-matching costs for local residents and employers. We cannot easily estimate the number of new jobs in Solano County that are filled by local residents only.

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Total Employed Residents Comparisons

In 2018, Solano County experienced 2.9 percent growth in its number of employed residents. Compared to 2017, 5,700 more Solano County residents were employed in 2017, while the county's labor force grew by approximately 4,000. The figure below compares employed residents of Solano County by index numbers to larger levels of employed workers in other places. Changes in the index are percentage changes from January 2010, the index base month equal to 100. In December 2018, the index was 117, thus 17 percent growth since January 2010

Total Employed Residents, 2010-18, Index Jan 2010 = 100
Comparisons Between Selected Areas, Seasonally-Adjusted Monthly Data



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

Percent Change in Employed Residents, Jan 2010 and Dec 2017 Compared to Dec 2018

Employed Residents	2010-18	2017-18
Solano County	17.0%	2.9%
California	18.2%	2.7%
Sacramento MSA	15.8%	3.5%
Bay Area Other	25.5%	4.4%
North Bay (Napa/Sonoma counties)	18.9%	1.9%

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

TAKEAWAY: 5,700 more Solano County residents found jobs in 2018, almost double the growth of employed residents in 2017.

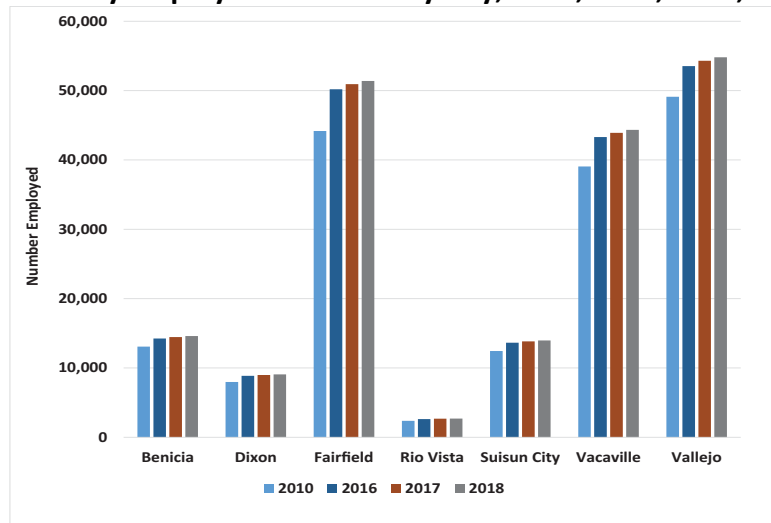
CHALLENGE: More working residents is a good thing; however, housing market pressures and rising wage demands result from more local residents working.

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Cities Overview: Labor Markets

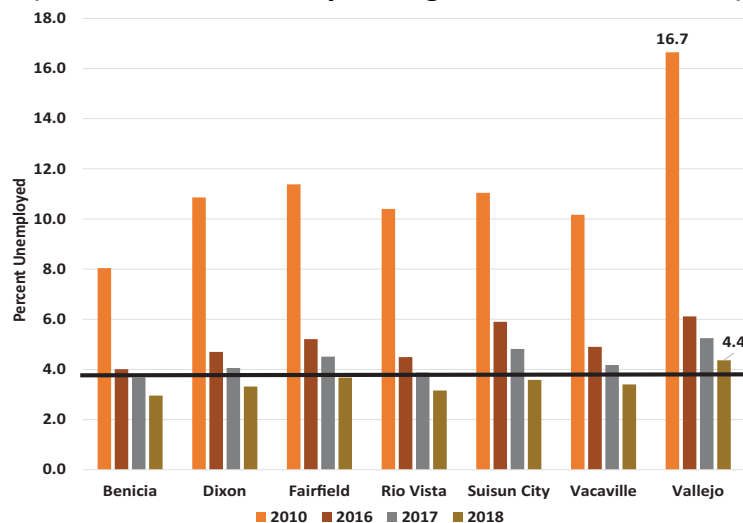
Data for Solano County's incorporated cities and labor markets come from California's Employment Development Department (EDD). Jobs growth in 2018 took place in all Solano County's cities except Rio Vista; the unemployment rate fell in all cities. Solano County's unemployment rate as of December 2018 was 3.8 percent, the solid line in the figure below.

Solano County Employed Residents by City; 2010, 2016, 2017, and 2018



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

**Solano County Unemployment Rate by City, 2010, 2016, 2017, and 2018
(3.8% as Solano County Average at solid line for 2018)**



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

TAKEAWAY: Solano County cities have improving employment conditions across all cities since 2010 through 2018.

CHALLENGE: Vacaville and Benicia continue to have relatively low residential unemployment downward, suggesting the other cities in Solano County may need more workforce development assistance to find local residents jobs in the future.

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Employment in Base Industries and Locally-Serving Industries

Base industries are comprised of businesses that are in “traded” sectors, or have markets beyond the county’s borders. Base industry employment fell slightly as of 2018 quarter 2 versus the previous four quarters. Jobs growth in Solano County overall tilted toward jobs that serve county residents versus external markets.

Efforts such as Moving Solano Forward (www.solanomeansbusiness.com) focus on base industry jobs growth because of these jobs’ higher average wages and larger multiplier effects: more base jobs stimulate more locally-serving jobs than vice-versa.

Locally-serving jobs have lower relative multiplier effects versus base industries on the local economy. Locally-serving businesses not only serve local residents, but also serve local employers as their customers. Such service reduces sales tax and business revenue leakages to regional competition. Retail, construction and health care are classic example industries serving the local market.

**Solano County Base Industry Employment
Second Quarter Data for 2010, 2015, 2016, and 2017**

	2010 Q2	2016 Q2	2017 Q2	2018 Q2
Base Industries Total	32,401	36,170	36,740	36,537
Agriculture	1,489	1,871	1,919	1,673
Mining	223	251	240	560
Wholesale Trade	3,986	4,137	4,098	4,203
Information	612	435	244	267
Finance and Insurance	991	964	1,001	1,047
Real Estate and Rental and Leasing	119	217	241	275
Prof., Scientific, Technical Services	266	236	263	306
Management/Consulting	1,217	796	966	797
Arts, Entertainment, and Recreation	2,455	2,887	2,860	2,833
Accommodation and Food Services	701	839	703	702
Federal government	4,975	3,705	3,702	3,548
State government	4,618	5,926	6,043	5,400
Manufacturing	6,109	9,107	9,378	9,816
Retail Trade	2,334	2,135	2,360	2,249
Transportation and Warehousing	2,306	2,664	2,722	2,861
Locally-Serving Industries Total	68,902	80,687	80,491	83,393
Utilities	480	575	586	585
Construction	7,119	10,040	9,993	11,047
Information	586	435	244	267
Finance and Insurance	2,323	964	1,001	1,047
Real Estate and Rental and Leasing	1,218	217	241	275
Prof, Scientific, Technical Services	3,121	236	263	306
Admin/Waste Management Services	6,579	5,718	5,607	6,059
Educational Services	1,537	1,739	1,217	1,322
Health Care and Social Assistance	12,777	19,249	19,960	20,657
Arts, Entertainment, and Recreation	222	2,887	2,860	2,833
Accommodation and Food Services	438	381	349	437
Other Services	3,097	3,787	3,847	3,734
Local Government	15,380	16,055	16,061	16,077
Local Portion of Retail Trade	13,281	15,740	15,540	15,886
Local Portion, Trans and Warehouse	744	2,664	2,722	2,861
Jobs in industries unassigned	21,332	19,456	21,587	21,726

Sources: Bureau of Labor Statistics (www.bls.gov) and its Quarterly Census of Wages and Employment (QCEW), Calculations by Author (“Unassigned” jobs in industries that serve a mix of local and export markets)

TAKEAWAY: Base industries employment fell by 203 jobs in 2017 between Quarter 2 2017 and Quarter 2 2018 (the latest data).

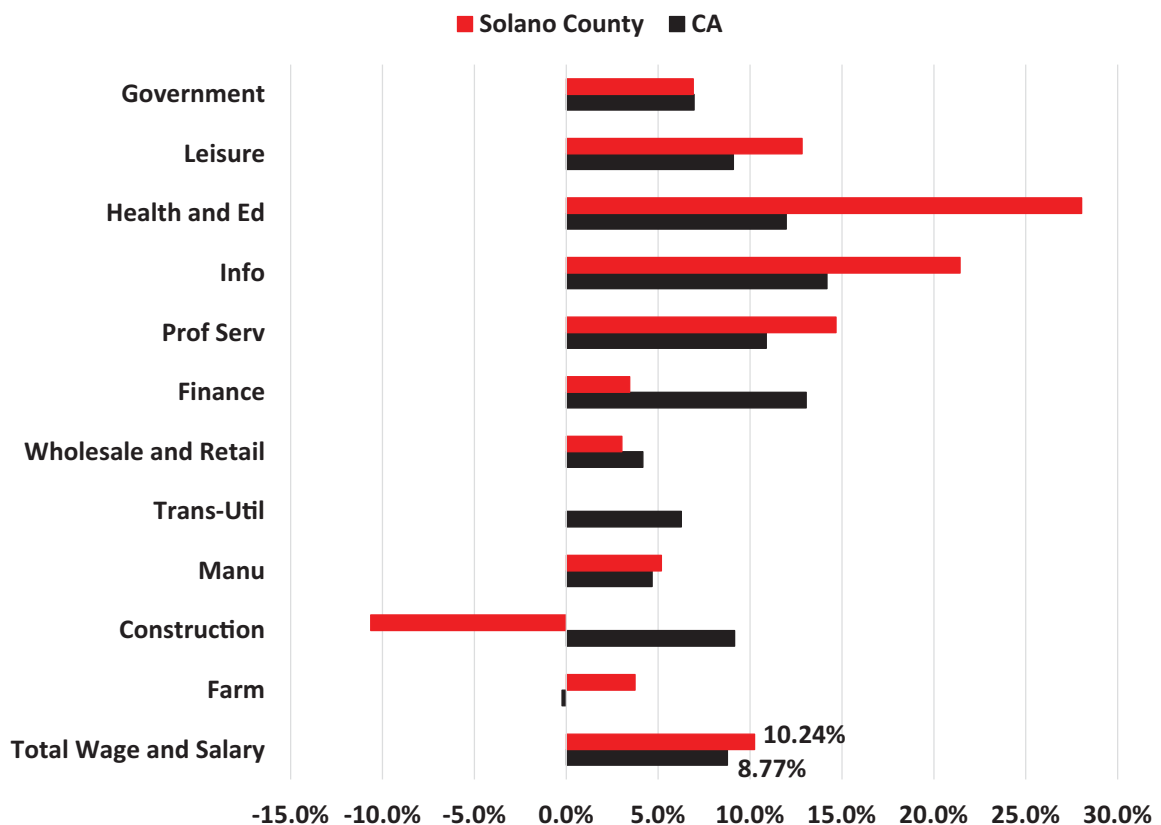
OPPORTUNITY: As economic development efforts focus more on base industries with national and global markets, local labor markets in Solano County can create training and placement opportunities for local residents to work for base industry employers.

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Long-Term Jobs Forecast to 2030

Jobs growth from 2018 to 2030 in Solano County is forecasted to outpace the state overall by CalTrans and the California Economic Forecast as part of a joint forecast effort for all 58 counties in California from 2018 to 2030. Construction jobs in Solano County are forecasted to see some loss, likely due to the current growth phase slowing down after the first half of the 2020s. Farm jobs and all other industries, except for transportation and utilities (“Trans-Util”) at zero growth, are forecasted to grow positively over the next 10 years. The following figure shows the forecast through 2030 for Solano County and California (CA). The figures change each year based on new data and assumptions about the future, so there are changes from last year’s Index.

Solano County Estimated Total Employment (Number of Jobs), 2018 to 2030



Sources: California EDD (www.edd.ca.gov) and CalTrans (www.caltrans.org)

TAKEAWAY: Solano County has a positive jobs growth forecast of 10.24 percent in net from 2018 to 2030, outpacing similar statewide growth forecasts (8.77 percent).

OPPORTUNITY: Health, education, software and coding (**Info**), and visitor-support (**Leisure**) jobs in Solano County are all forecasted as growing faster than the state average and suggest these industries and their jobs should be elements of workforce development strategies in the 2020s for Solano County.

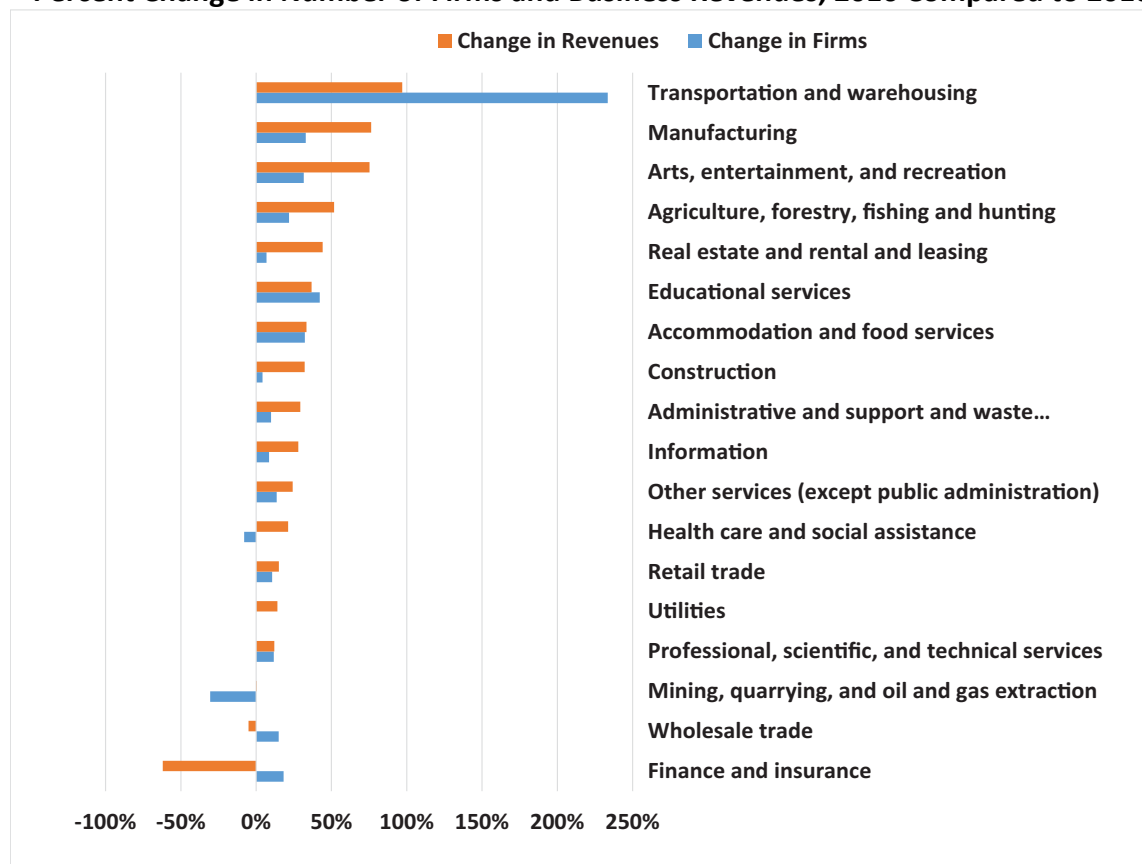
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Businesses and Incomes

Non-Employer Businesses

Finance and insurance business revenues continue to be negative in terms of self-employed, “non-employer” businesses since 2010 as of 2016 (the latest data available). Non-employer businesses hire fewer than four (4) workers, generally representing self-proprietorships. The Census Bureau estimates the number of non-employer businesses to track total business entities in the United States. Of Solano County’s 956 self-employed businesses that newly opened in 2016, 89 percent were transportation businesses. It is likely most of these new business in net are a mix of car-sharing drivers and also delivering packages for businesses such as Amazon.

**Solano County Non-Employers,
Percent Change in Number of Firms and Business Revenues, 2016 Compared to 2010**



Source: Census Bureau (<http://factfinder.census.gov>)

TAKEAWAY: Jobs in businesses such as Uber and Lyft drivers continue to dominate growth of new, small business formation of firms with less than four employees since 2010.

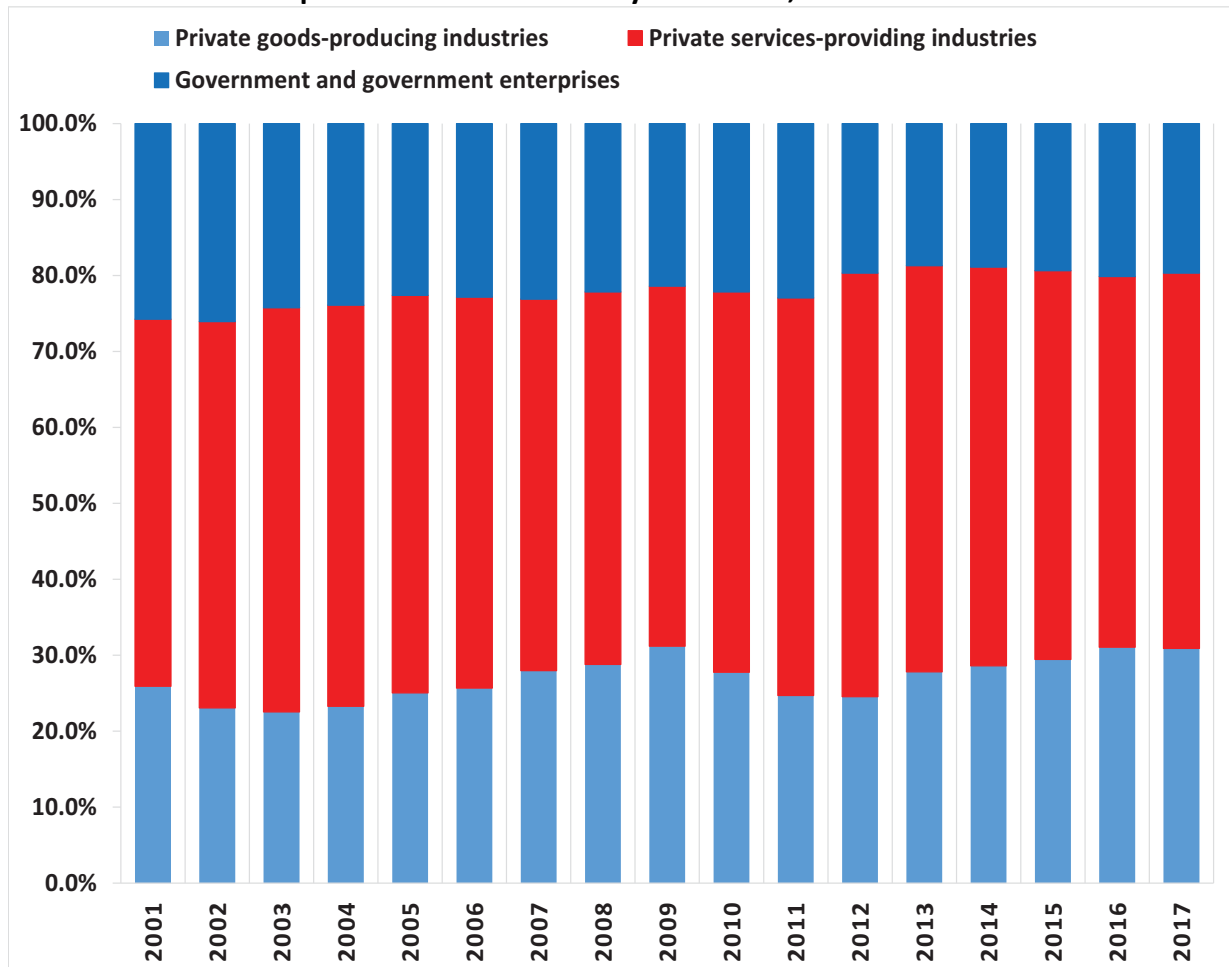
CHALLENGE: Other industries with small employers need more support as business growth otherwise is slow in Solano County since 2010. Also, these data do not tell us how many of these new jobs in transportation are primary or additional income earnings for a person or household.

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Gross Product Change by Industry Sector

Gross product measures how businesses add value to raw materials and create products and income for workers. Gross County Product (GCP) data show Solano County continues to grow across industry sectors and countywide. Recent shifts away from government toward private-sector industries have slowed somewhat; the public sector remains - Travis Air Force Base is an obvious example - important to the Solano County economy. Data on gross product are through 2017 (the latest data available).

Gross Product Share by Major Sector, 2001-17
Proportions in Solano County Over Time, in 2009 Dollars



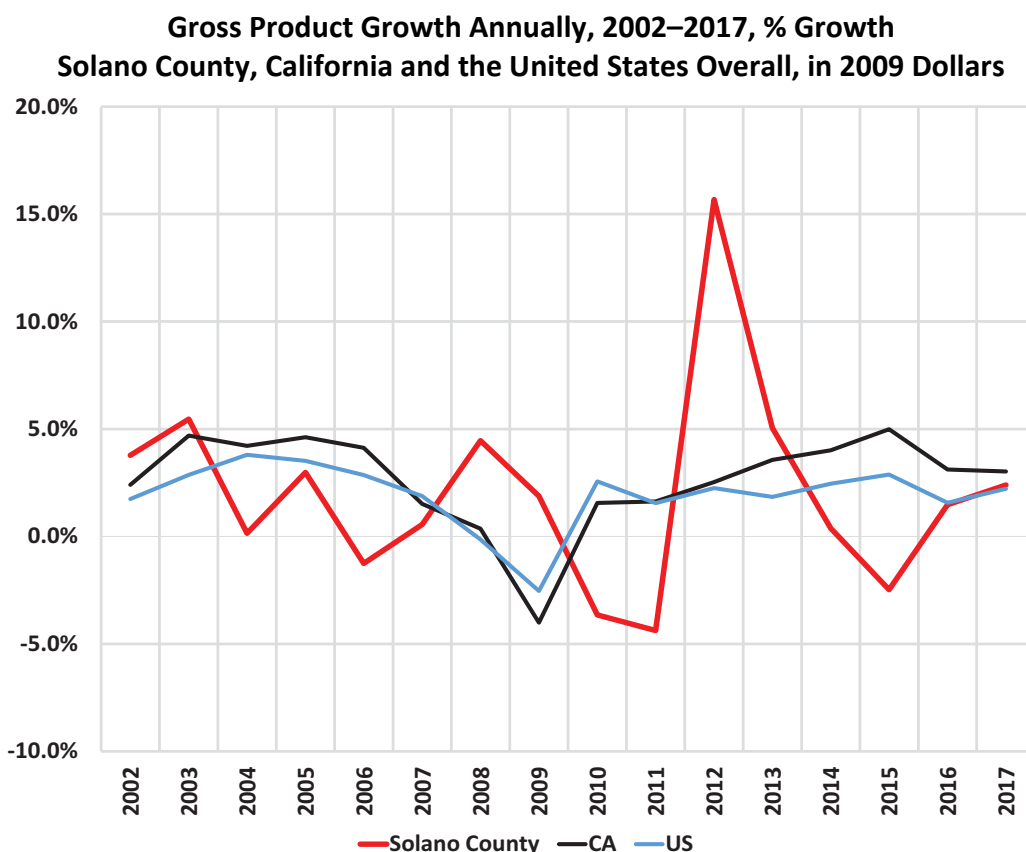
Source: Bureau of Economic Analysis (www.bea.gov)

TAKEAWAY: Since 2010, the public sector has become less important to Solano County's economy, while goods-producing businesses have become more important.

OPPORTUNITY: Continuing economic development efforts, such as Moving Solano Forward, drive private-sector growth as these efforts focus on more jobs in goods-producing industries. Such jobs help diversify Solano County's economy to balance private- and public-sector jobs opportunities, a goal of Moving Solano Forward.

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Gross product growth in Solano County has been volatile since 2011. After a productivity spike in 2012, growth in Solano County slowed (but remained positive) each year to 2015, where a pause in real-estate market growth and rising costs of living were a drag on the recovering, county economy. 2016 and 2017 saw estimated growth of gross product rise again and look more like the national pace. Health care, manufacturing, retail, and construction remain foundations of Solano County's economy in the private sector; the public sector is approximately 1/5th of gross product in Solano County in 2017 (the latest data available).



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

TAKEAWAY: Solano County's gross product growth after inflation in 2017 (2.4 percent) was faster than the national economy (2.2 percent), but slightly slower than California (3.0 percent).

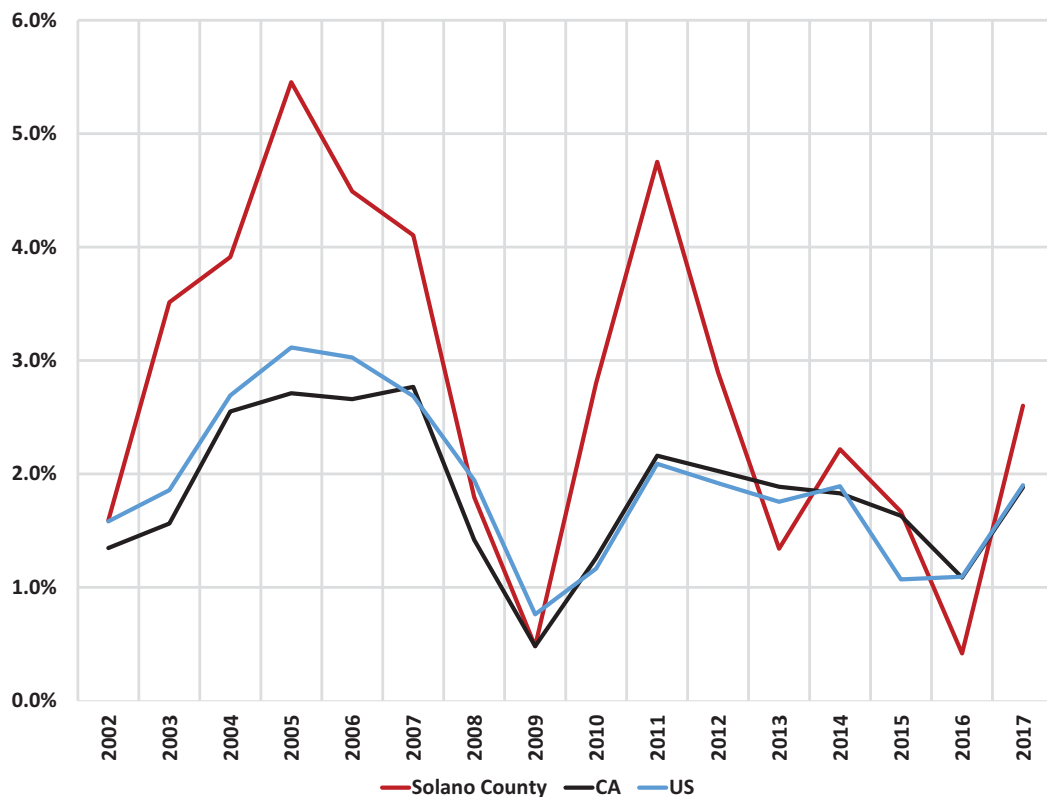
CHALLENGE: Public-sector growth as a percentage of gross product is a trend that needs to be watched closely as federal funding battles take place in Washington, D.C. in 2019 and likely to remain a concern into the 2020s.

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Gross Product Deflator and Local Cost of Living

The ratio of nominal to real (inflation-adjusted) gross product measures prices of goods and services. The Gross Product Deflator (GP Deflator) is this ratio. The Consumer Price Index (CPI) is reported for California and the United States by the Bureau of Labor Statistics (BLS) and is highly correlated to the GP Deflator in the state and national data. There are no official CPI data available for Solano County. The Bureau of Economic Analysis (BEA) estimates gross product for all metropolitan statistical areas (MSAs) across the United States both before and after inflation, including Solano County. Changes in the deflator may or may not suggest expansion or contraction alone. Notice inflation increased in 2017 after slower growth in 2016 for all comparison areas (see the figure above for gross product growth).

GP Deflator, % change, Solano County Compared to US and CA, 2002-17



Source: Bureau of Economic Analysis, Regional Data (<http://www.bea.gov/regional>)

TAKEAWAY: Solano County and California and the United States all face rising prices, following jobs and incomes growth since 2011. In 2017, prices rose 2.6 percent in Solano County versus 1.9 percent in both California and the United States on average.

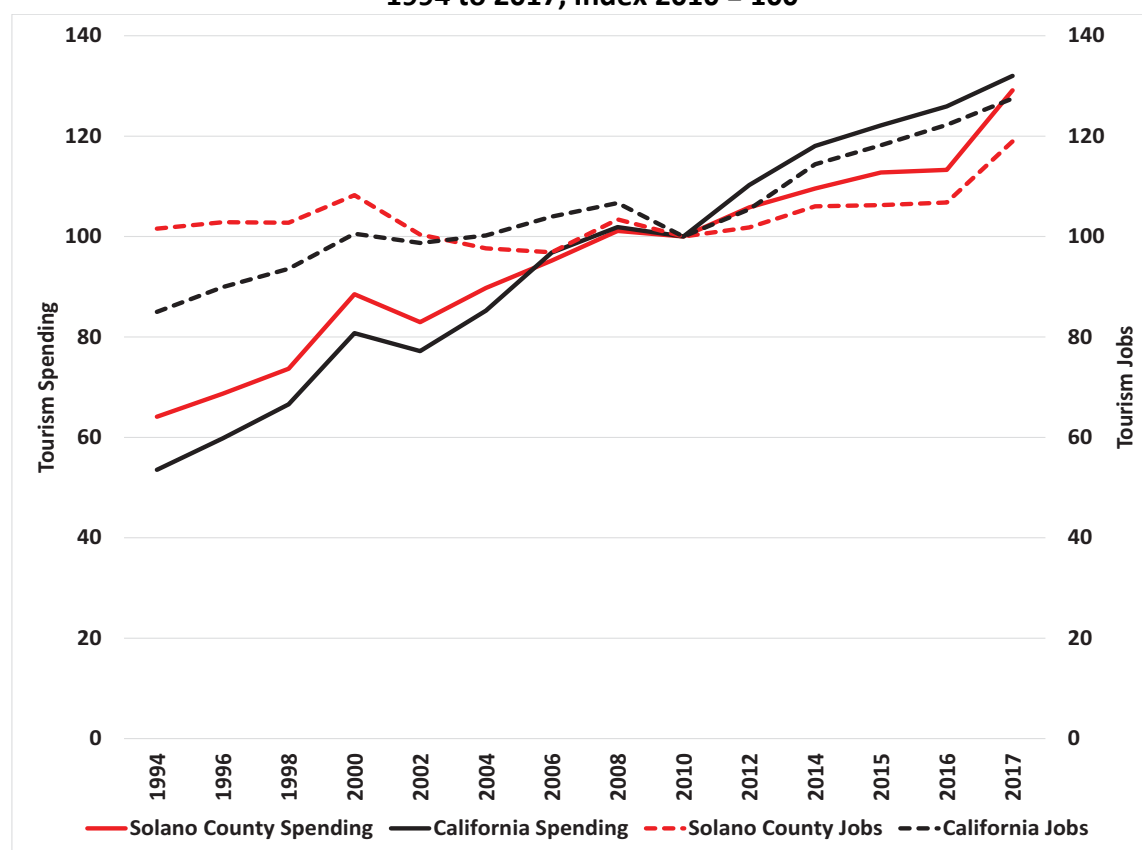
CHALLENGE: As economic and jobs growth continues, rising prices are opportunity costs. For economic development, Solano County remains a place where costs of living are relatively low (housing costs as an example) and can attract businesses and highly-talented workers coming to locate in Solano County from relatively higher-cost areas.

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Tourism Industry: Supporting Visitors

While services-producing businesses generally support local residents, some services businesses also support visitors. Tracking jobs and spending supported by visitors to Solano County provides insights on how competitive local attractions are compared to the state averages and also tracking governmental revenue from overnight stays (transient occupancy tax or TOT). Sales tax revenues from spending are also tracked by Dean Runyan Associates, which estimates the number of jobs, income levels and other visitor-industry data for all 58 counties of California. Solano County has over 6.5 percent of non-farm jobs in 2017 (the latest tourism analysis data) directly supporting visitors.

**Tourism Jobs and Spending, Visitors Spending in Solano County and California
1994 to 2017, Index 2010 = 100**



Source: Dean Runyan Associates (<http://www.deanrunyanassociates.com>)

TAKEAWAY: Solano County tourism jobs and spending increased in 2017, rising more quickly than the statewide average in percentage growth terms.

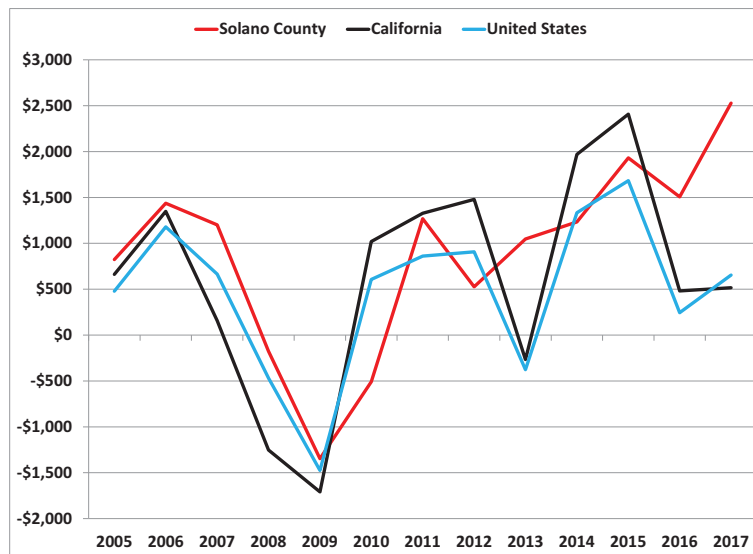
OPPORTUNITY: Given Solano County's location, specifically adjacent to Napa and Sonoma counties and their wine country areas to the west, visitors continue to be an opportunity and extension of "base" markets as an economic development focus into the 2020s.

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Personal Income

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 higher per-person personal income gains in 2017 (the latest year data available) compared to the state and national economies. Transfer payments, what people receive from government sources, increased slightly in 2017, but less quickly than wage/salary, investment and other sources of income. Personal income is what households use from what they earn to pay taxes, buy goods and services, and also save. Local taxable sales are related to local personal income growth but also related to visitor spending in Solano County.

Percent Change in Per Capita Personal Income (PI), Solano County, California and United States, 2005–2017, in 2009 Dollars



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

Percent Change in Per Capita PI, 2009 Dollars, Compared to 2017 Solano County, California and US

Comp to 2016	Solano County	CA	US
2010	18.0%	18.4%	13.3%
2014	8.3%	7.2%	6.1%
2015	7.0%	2.0%	2.0%
2016	4.3%	1.0%	1.5%

Source: BEA (www.bea.gov)

TAKEAWAY: Personal income less transfer payments continued to grow for Solano County, and outpaced both the state and national economy levels per person.

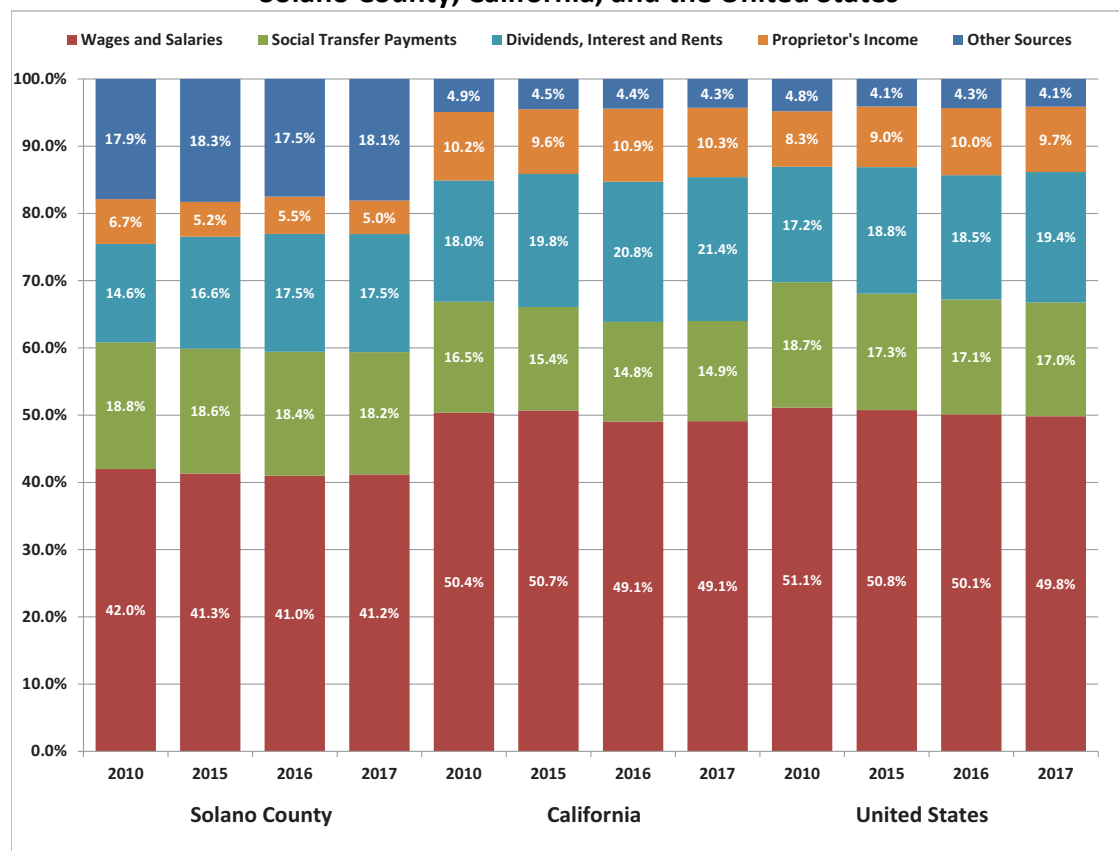
CHALLENGE: While the 2018 personal income data are not yet available, stock market volatility downward in 2018 suggests that personal income per capita (as Solano County's population increased in 2018) is likely to see a downturn for Solano County to a slower growth rate. Such a slowdown may affect local spending levels in 2019 and 2020. Personal income rising indicates residents have rising incomes, but not necessarily that those incomes are coming from Solano County employers, as the Adjustments for Residence to personal income shows next.

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Sources of Personal Income

Earnings at work (wages and salaries and other cash payments from an employer) dominate personal income levels. The “Other Sources” category is relatively large in Solano County versus California and the US overall. This difference is due to the flow of income from other areas, so-called “Adjustments for Residence”, as more people leave Solano County for work than come in to work. This adjustment increased slightly in 2017 (the latest data available). California and the United States overall experienced growth in investment income (dividends, interest) while Solano County was flat at 17.5 percent of total personal income. Transfer payments fell to 18.2 percent of the total for Solano County. Business owner income fell across California and the nation, suggesting rising incentives to work for an employer versus owning a business as a primary income source.

**Sources of Personal Income (% of total), 2010–2017, in 2009 Dollars, Selected Years
Solano County, California, and the United States**



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

TAKEAWAY: Earnings from work increased in 2017 while transfers decreased; these two sources of personal income accounted for most of 2017's increase in personal income per capita for Solano County.

CHALLENGE: Higher wage levels outside Solano County provide incentives to commute to jobs outside Solano County. The slight increase in “Other Sources” suggests that Solano County residents are continuing to find jobs outside the city and increasing commute times, creating more traffic, and reducing locally-available talent for Solano County's employers.

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Business Affordability: Wages

Occupational wage data in California allow comparisons of Solano County wages to regional counties otherwise. The California Employment Development Department (EDD) publishes wages by occupations from payroll surveys annually. Sacramento's MSA was ahead of California's median wage level in 2018, while Solano County remains just under the state median. Solano County's median wage is closer to the state average in 2018 than in 2017; however, many occupational categories for Solano County are now paying median wages above the state median level (13 of 23 occupations).

**Solano County and California 2018 Wages and Occupations, 2018 Dollars
Compared to Other Areas as a Percent of Median Wages in California (2010 Data Shown for Comparison)**

Occupational Categories	CA	Solano County Wages	Solano County	Napa County	Sonoma County	Sacramento MSA	Alameda County	San Francisco County	San Jose MSA	2010 CA Median	2010 Solano % Of CA
Total all occupations	\$20.14	\$19.81	98.4%	97.4%	99.2%	102.3%	116.2%	139.9%	140.4%	\$25.00	94%
Management Services	\$56.60	\$48.84	86.3%	95.9%	87.7%	89.0%	108.7%	128.4%	132.0%	58.76	88%
Business and Financial Operations	\$36.28	\$35.56	98.0%	99.6%	92.2%	94.7%	108.3%	120.2%	120.7%	36.29	93%
Computer and Mathematical	\$49.06	\$40.32	82.2%	77.9%	86.5%	84.5%	104.4%	119.5%	119.5%	43.74	88%
Architecture and Engineering	\$46.14	\$41.75	90.5%	91.5%	93.6%	102.6%	101.7%	108.3%	116.9%	43.12	84%
Life, Physical, and Social Science	\$36.94	\$46.89	126.9%	110.1%	100.2%	99.4%	109.3%	117.1%	110.7%	36.68	102%
Community and Social Services	\$24.10	\$24.35	101.0%	121.4%	98.5%	96.5%	105.8%	109.7%	103.8%	25.51	117%
Legal Services	\$50.51	\$52.65	104.2%	111.0%	87.7%	90.8%	95.4%	136.0%	137.8%	58.10	86%
Education, Training, and Library	\$26.60	\$23.73	89.2%	101.1%	97.0%	93.6%	101.9%	105.2%	103.0%	28.49	98%
Arts, Design, Entertainment, Sports, and Media	\$28.46	\$21.42	75.3%	78.8%	87.7%	78.9%	78.6%	121.1%	109.8%	32.78	70%
Healthcare Practitioners and Technical	\$41.64	\$46.81	112.4%	112.6%	99.8%	113.7%	112.1%	131.9%	125.3%	41.71	99%
Healthcare Support Services	\$16.82	\$18.79	111.7%	110.6%	113.1%	107.8%	105.4%	135.4%	117.8%	15.17	104%
Protective Services	\$23.37	\$42.16	180.4%	91.9%	114.2%	92.0%	106.6%	85.6%	92.4%	26.32	128%
Food Preparation and Serving-Related	\$12.13	\$12.22	100.7%	108.6%	105.4%	97.8%	105.5%	121.5%	106.2%	11.06	95%
Building and Grounds Cleaning and Maintenance	\$14.47	\$13.92	96.2%	99.7%	107.5%	102.1%	115.7%	118.1%	103.2%	13.73	104%
Personal Care and Services	\$12.03	\$11.82	98.3%	99.8%	110.1%	98.7%	101.8%	110.5%	103.3%	13.46	96%
Sales and Related Services	\$14.91	\$13.23	88.7%	117.0%	108.1%	94.2%	109.3%	131.5%	129.4%	19.64	82%
Office and Administrative Support	\$18.81	\$19.13	101.7%	105.8%	104.7%	98.9%	111.2%	125.8%	117.4%	18.49	100%
Farming, Fishing, and Forestry	\$11.54	\$13.79	119.5%	128.0%	126.3%	104.3%	114.5%	130.3%	99.8%	10.49	109%
Construction and Extraction	\$26.15	\$27.82	106.4%	110.1%	106.3%	98.1%	116.8%	115.1%	113.9%	25.54	105%
Installation, Maintenance, and Repair	\$23.91	\$24.83	103.8%	104.5%	108.4%	98.9%	113.0%	121.7%	111.6%	23.72	110%
Production Jobs	\$15.69	\$19.52	124.4%	131.4%	112.9%	103.8%	113.4%	118.4%	119.6%	16.55	119%
Transportation and Material Moving Services	\$15.52	\$15.84	102.1%	107.9%	106.7%	99.5%	117.5%	125.2%	110.6%	\$16.66	102%

Source: Employment Development Department, Occupations Data (www.edd.ca.gov), Q1 2018, 2010 Data Adjusted for Inflation
Wages in **GREEN** are for occupations where Solano County median wages are greater than California wages.

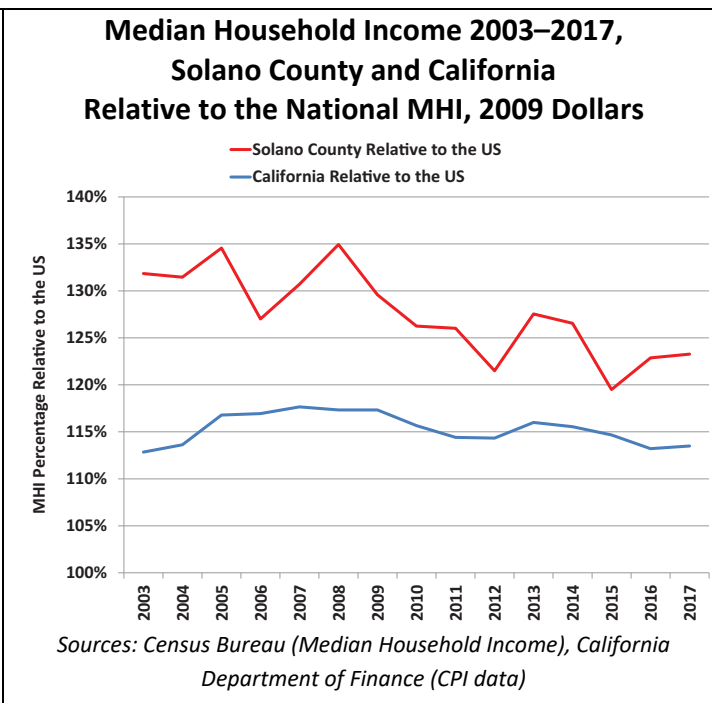
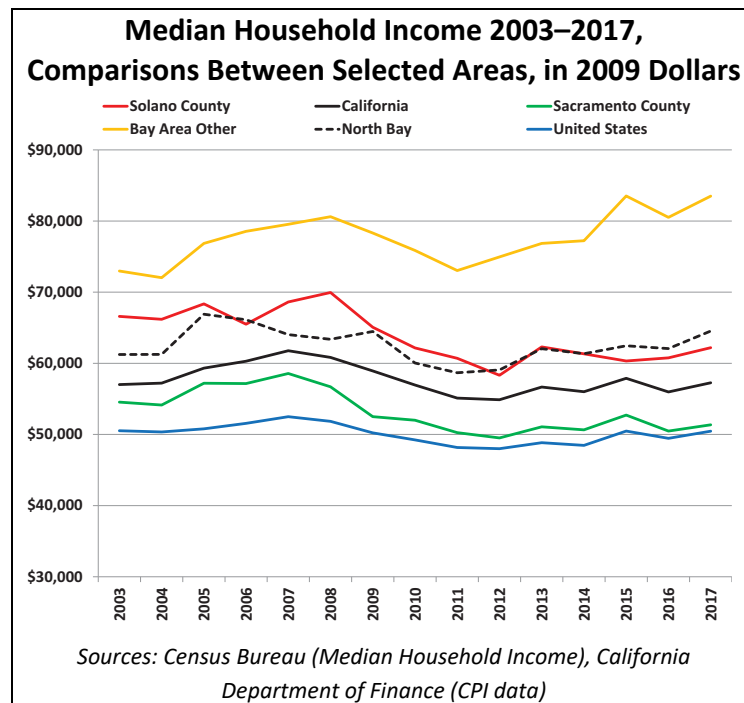
TAKEAWAY: Solano County's median wage (\$19.81) continue to be lower than the state median wage (\$20.14), though many occupations are now paying higher median wages in Solano County (shown in **GREEN**).

CHALLENGE: Higher-wage jobs in Solano County attract local residents to work closer to home, but may undermine Solano County being a relatively lower cost place to do business as an economic development incentive to move or expand a business here.

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Median Household Income Comparisons

For Solano County, inflation-adjusted, median household income increased a bit again in 2017 as did other comparison areas. As previously stated with personal income growth, 2017 was a year of median household income gains across Solano County and its region. Median household income is another measure of resources for local residents to spend and save. A median “household” represents four people in one housing unit. Solano County, relative to the national MHI, continues to be larger than California on average.



TAKEAWAY: For the second year in a row, median household income (MHI) after inflation adjustments increased for Solano County and continue to outpace California relative to the national level of MHI.

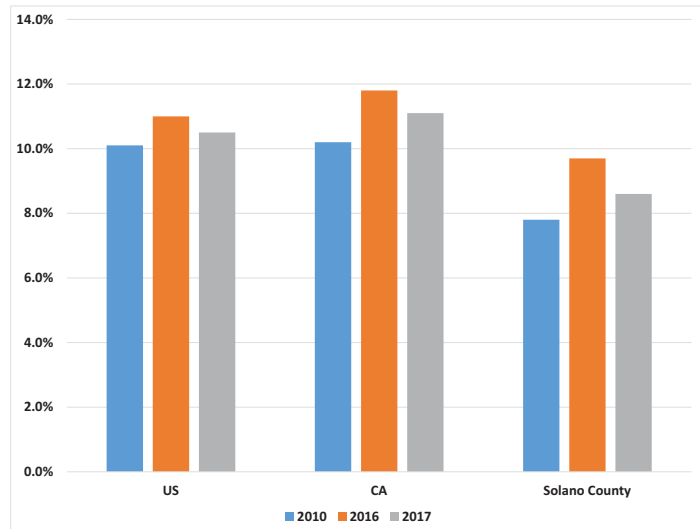
CHALLENGE: Solano County’s MHI after inflation is higher than the state average, but low versus the North Bay and the Bay Area otherwise. When median household incomes rise, demand for housing and goods and services pressure local costs of living to increase as a trade-off of a strong county economy.

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Poverty Rates

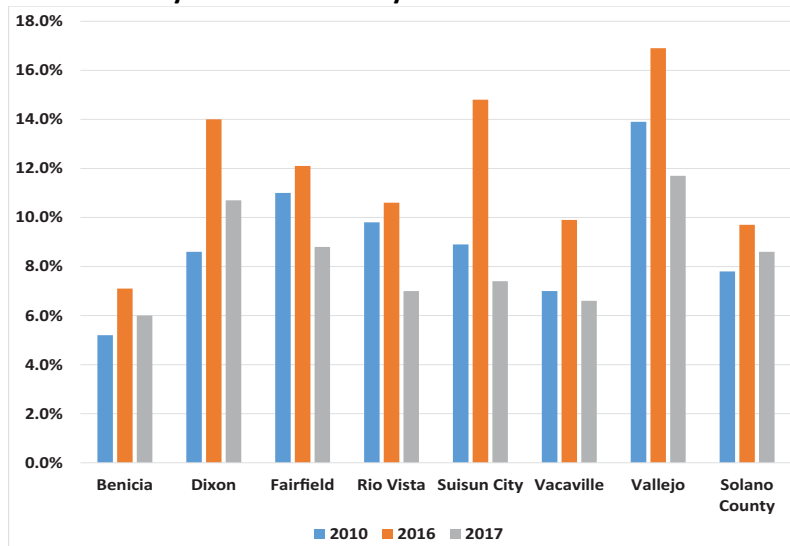
We expect to see lower rates of poverty (the percent of households under a federal standard for a household of four) as economic conditions get better. The American Community Survey (ACS) of the Census Bureau tracks poverty rates along with other demographic and economic data cited in this Index. These poverty rates are based on averages over five years from Census-style surveys. Solano County has a lower poverty rate than both the United States and California on average since 2010; in 2017 the rate was 8.6%. Since 2010, Vallejo has the highest poverty rate of Solano County cities, a rate that is now declining as jobs and income growth continues for Vallejo and Solano County overall.

Poverty Rates, 2010, 2016 and 2017, Percentage of all Households, Solano County, California and United States



Source: American Community Survey (ACS) Table DP03:
<http://factfinder.census.gov>

Poverty Rates, 2010 and 2017, Percentage of all Households, Solano County Cities and County Overall



Source: American Community Survey (ACS) Table DP03:
<http://factfinder.census.gov>

TAKEAWAY: Poverty rates are falling across Solano County in 2017, including Vallejo, where all cities are at or below the state average in the latest data available.

CHALLENGE: Places with relatively high poverty rates may demand more government resources to support lower-income households. Economic development and workforce development may have their strongest opportunities in Vallejo in the 2020s.

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Agriculture

Agriculture is a base industry for Solano County, focused on markets outside the county. There are also links to local food and beverage businesses; Solano County has a strong, farming history. The Solano County Agricultural Commissioner's annual data (the

**Solano County Top 10 Agricultural Industries and Revenues
2010, 2014, 2015, 2016, and 2017, Sorted by 2017 Values**

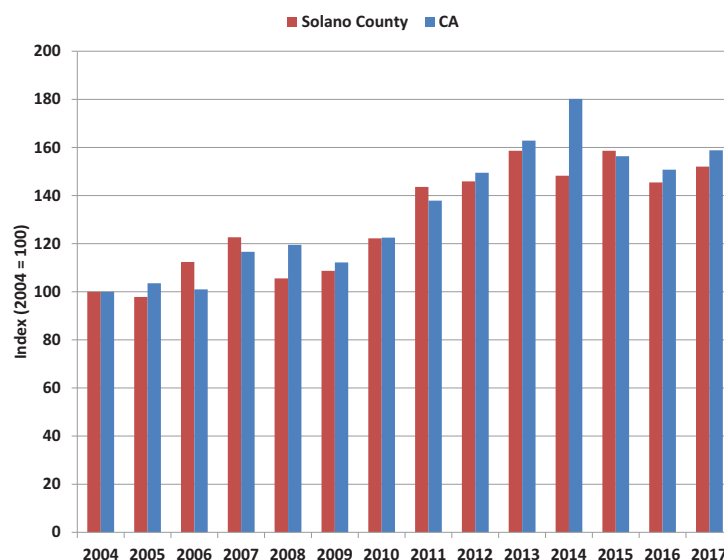
<i>Agricultural Product</i>	<i>2010</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>
Total Solano County	\$259,398,000	\$378,645,000	\$353,869,000	\$347,172,000	\$362,822,000
Walnuts	\$ 31,161,700	\$45,422,000	\$37,912,000	\$44,822,000	\$47,358,000
Nursery Products	23,352,000	35,594,000	37,648,000	39,754,000	44,627,000
Almonds	8,468,100	14,156,000	23,603,000	35,917,000	38,619,000
Tomatoes(Processed)	36,901,400	46,124,000	42,156,000	33,843,000	27,022,000
Alfalfa	19,742,700	43,700,000	34,821,000	22,267,000	25,612,000
Cattle/Calves	22,608,000	31,673,000	27,556,000	9,192,000	25,113,000
Grapes	9,274,800	17,621,000	14,988,000	19,560,000	20,369,000
Sunflower Seeds	7,845,300	14,455,000	6,904,000	11,414,000	17,233,000
Wheat	9,672,700	13,789,000	9,092,000	7,428,000	7,261,000
Sheep/Lambs	6,355,600	7,912,000	6,684,000	9,339,000	6,032,000
All Other Ag Products	81,895,800	113,988,000	112,505,000	113,636,000	103,576,000

Source: Solano County Agricultural Commissioner

(http://solanocounty.com/depts/agriculture/crop_report/2009_2018.asp)

Crop Report) for Solano County increased in 2017 for the first time since 2014. Calves and cattle saw a strong comeback to recent, normal levels (though sheep/lambs were lower), while the value of processed tomatoes fell; other major agricultural industries saw growth. After two strong winters of rain and continued, global economic growth, values improved in 2017.

**Total Agricultural Value, Solano County and California, 2004–2017
Current Dollars, Index 2004 = 100**



Sources: BEA (www.bea.gov) and Solano County Agricultural Commissioner

TAKEAWAY: Agricultural values increased in 2017, though tomatoes and sheep/lambs lost value.

OPPORTUNITY: As a base industry, these values increasing have relatively large multiplier effects in Solano County and link to local food and beverage manufacturers.

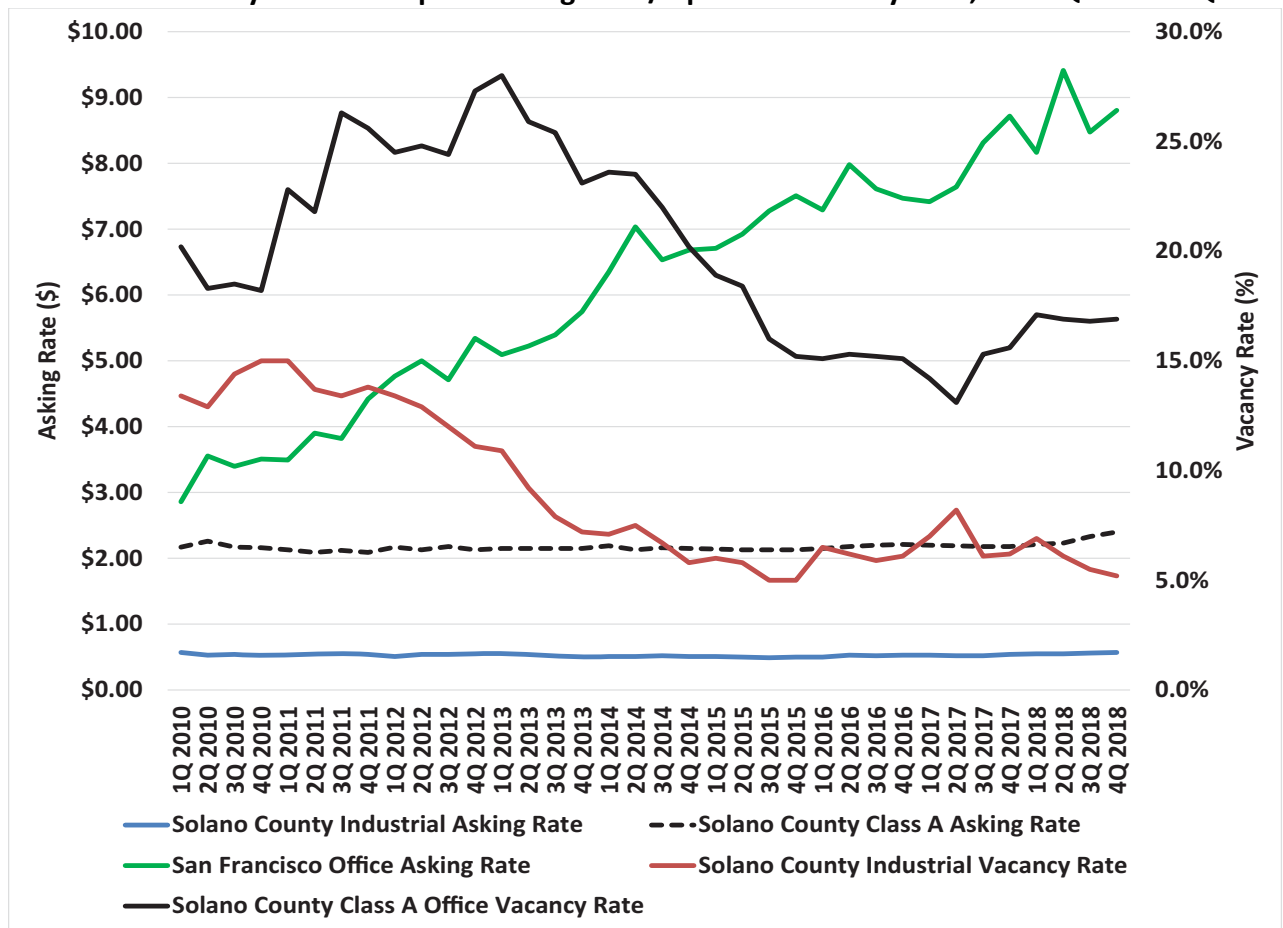
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Housing and Commercial RE Demand

Commercial Real Estate Pricing and Vacancy

Commercial real estate price and vacancy data track quarterly how markets for industrial and office space are performing in summary ways. Commercial real estate markets are regional; San Francisco's office and industrial space markets act as a benchmark for all Bay Area markets, including Solano County. Prices for office space in San Francisco County were \$8.80 per square foot (sq ft) as of Quarter 4 2018 compared to \$2.25 in Solano County for Class A space.

Solano County Industrial Space Asking Price/Sq Ft and Vacancy Rate, 2010 Q1 - 2018 Q4



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: Vacancy rates in Solano County remained flat in 2018 (similar to 2017) for office space, while prices increased slightly; industrial space continues to be well utilized at under 5 percent vacancy as 2018 ended.

OPPORTUNITY: Commercial real estate lease prices remain regionally competitive as Bay Area prices continue to climb, and office-space vacancy exists in Solano County to absorb new and expanding businesses. Such a difference remains one of many reasons for Bay Area companies to consider Solano County for relocation or expansion.

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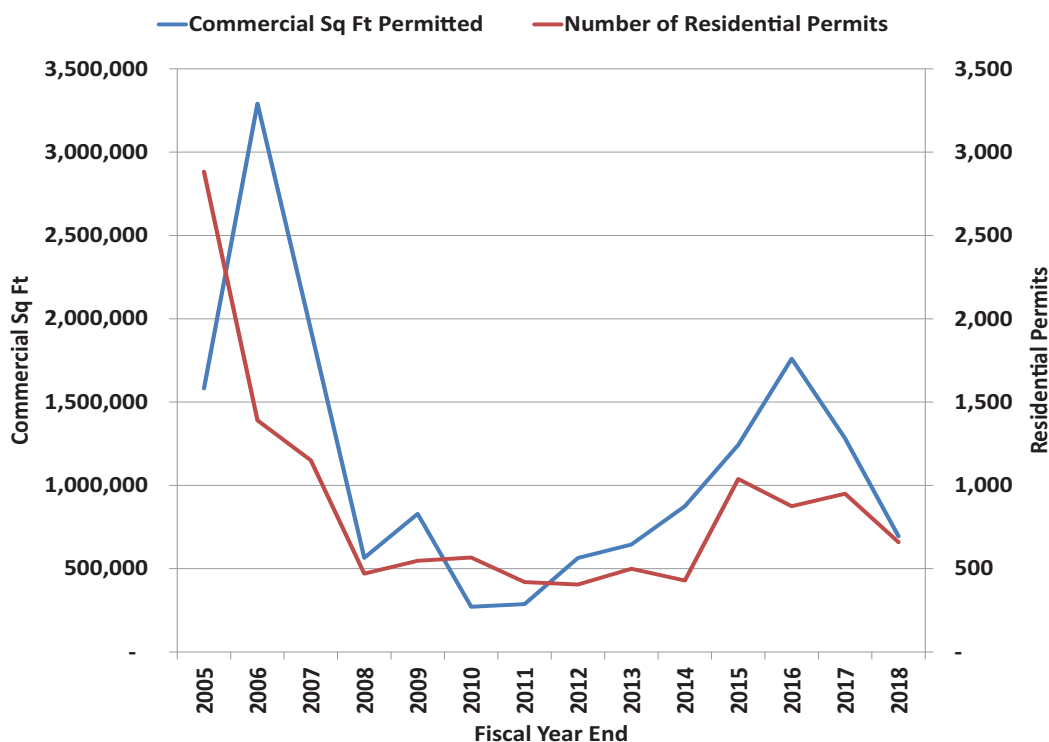
Building Permits

Residential building permits data are a way to forecast an increase in housing units, construction activity around housing, and subsequent impacts on the local economy. Commercial space permitted is another indicator of future construction and also business confidence in the regional economy, as employers build or occupy more space as demand grows.

Approximately 684,000 square feet of new commercial space was permitted in fiscal year July 2017 to June 2018. There were also 659 residential building permits issued. Fairfield, Vacaville and the unincorporated county is where 85 percent of commercial permits were pulled; Dixon, Fairfield and Vacaville is where 82 percent of new housing permits were pulled in the 2017-18 fiscal year for Solano County. The County of Solano tracks both data series.

Solano County Residential and Commercial Building Permits, Fiscal Years 2004-05 to 2017-18

Commercial Square Feet and Residential Units Permitted



Source: County of Solano

TAKEAWAY: Building permits for both residential and commercial space fell in volume in fiscal year 2017-18 compared to the previous fiscal year.

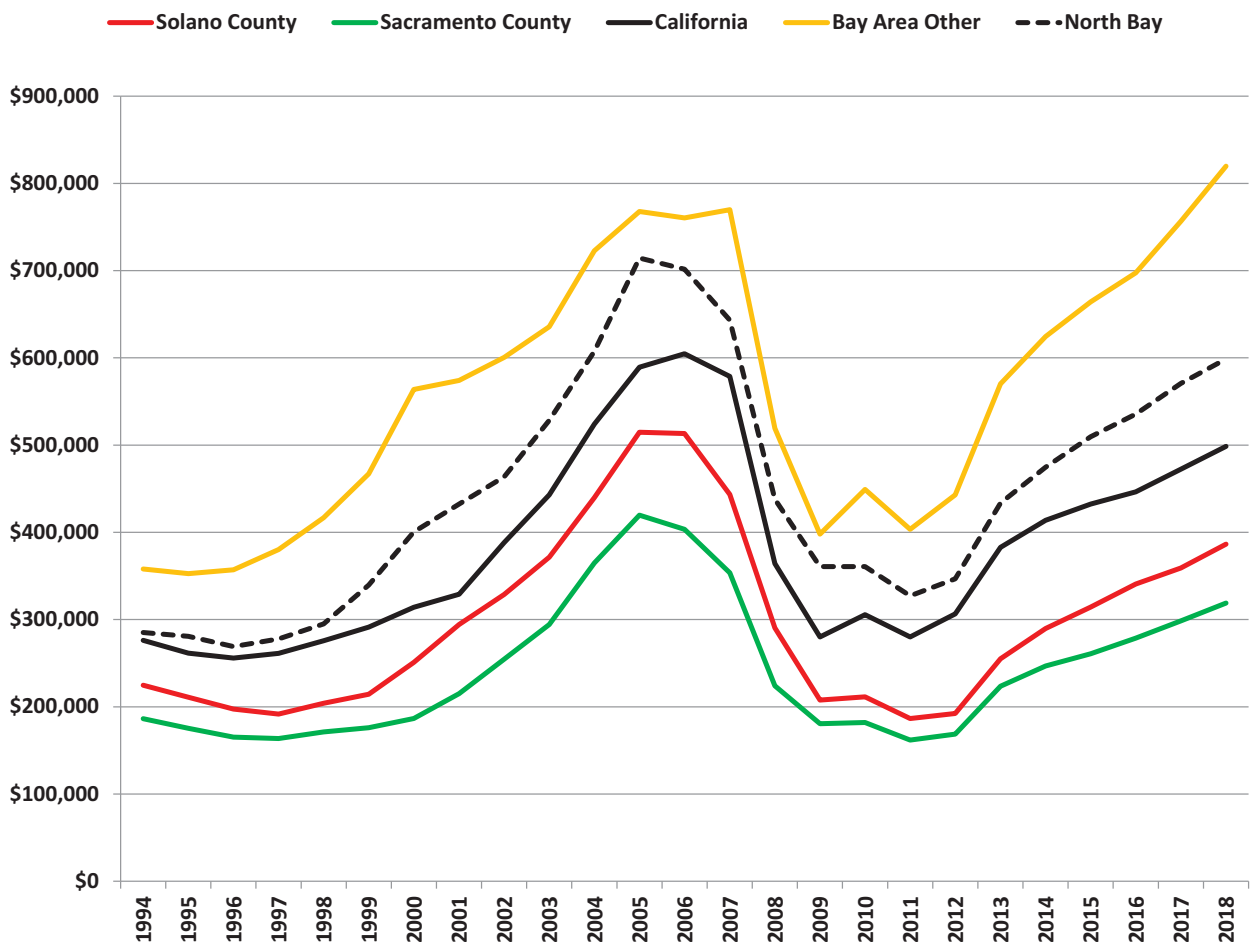
CHALLENGE: Rebuilding after fires is taking place in Sonoma and Napa counties, and now also in Butte and Shasta counties. Construction costs may rise and slow down permitting and building activity in Solano County as construction resources focus on other parts of California for new housing units and commercial spaces.

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Median Home Prices, Home Sales Volume, and Rental Prices

Housing markets in 2018 experienced another year of rising median prices for single-family homes in Solano County. An estimated 9,750 single-family homes in Solano County for 2018 were sold, slightly more than in 2017. Home prices increased by 8.6 percent in Solano County in 2018; according to the California Association of REALTORS®, Solano County's detached, single-family homes had a median home price of approximately \$450,000 as of December 2018 in current dollars. The statewide median home price was \$557,600 according the California Association of REALTORS® at the end of 2018. The figure below shows recent home prices as a proxy for property values in inflation-adjusted (2009) dollars, where the inflation adjustment uses the California CPI per the California Department of Finance's estimates. Most regional markets have yet to see prices rise above their pre-recession peak.

Median Home Price, 1994–2018, Selected Area Comparisons, in 2009 Dollars, Annual Averages



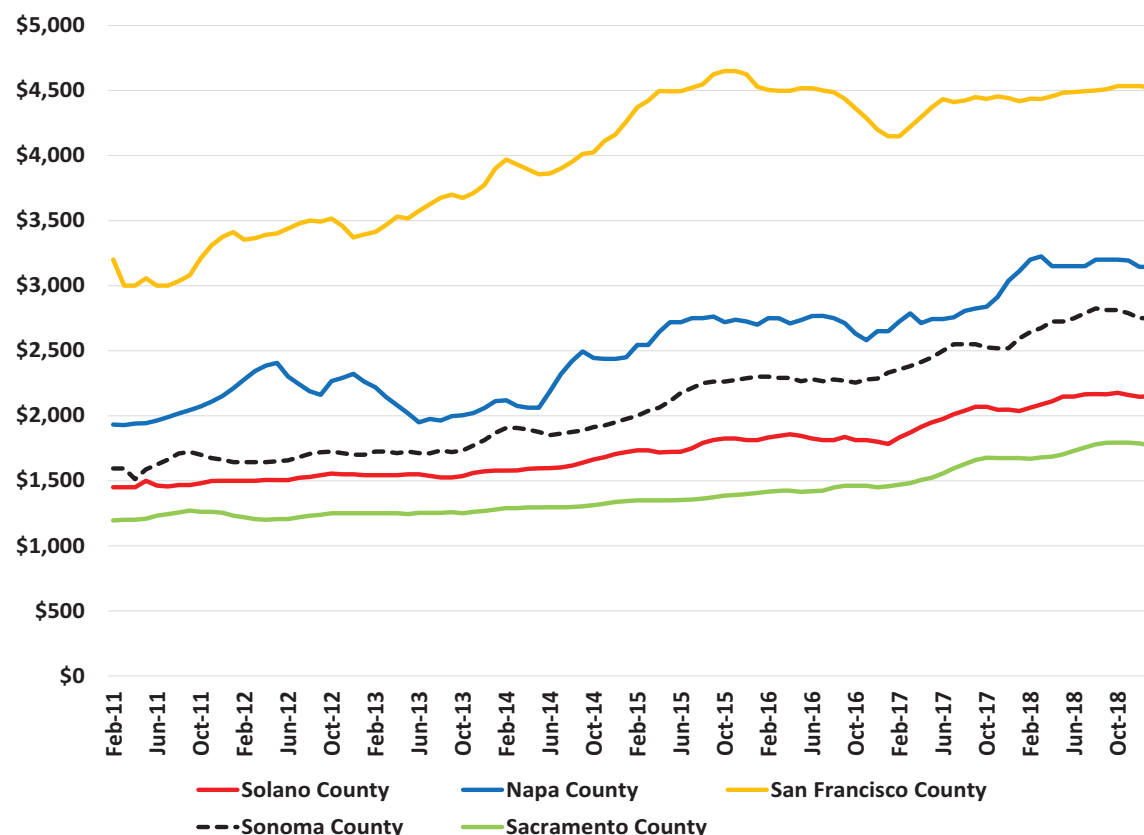
Sources: California Association of Realtors, Single-Family Homes Only and CA Dept of Finance for CPI Data

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.

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Rental prices have also continued to trend higher, though 2018 saw some flattening and even slight contraction across Solano County and the regional economy. For Solano County, the median rental price for any style of home available for rent was approximately \$2,160 in December 2018, according to Zillow Research. This rental price is less than half of the same measure in San Francisco County. Regional fires in 2018 may put more pressure on rental pricing in Solano County if the county receives migrating fire survivors from the north. Sacramento County has been consistently between \$200 and \$300 less than Solano County since 2011 in terms of rental prices.

Rental Prices, Average of All Rental Units, Feb 2011– Dec 2018, Monthly, Current Dollars



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

TAKEAWAY: Prices for homes and also rental costs continued to trend higher in 2018 for Solano County.

CHALLENGE: With low interest rates and regional fires, demand for homes to buy is likely to rise, putting more pressure on housing affordability. Rental prices, while growing at a slower pace in 2018, may see continued growth in 2019 and 2020 in spite of forecasts for state and national economic slowdowns in growth.

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Housing Prices Versus Median Household Income: Affordability

The California Association of REALTORS® provides a way to measure housing affordability through a “Housing Affordability Index” or HAI. The HAI takes median household income levels and estimates of the cost of owning a home (mortgage, average cost of utilities and maintenance, etc.); these data become a ratio to determine what percentage of households can afford to buy a home at the current, monthly cost of owning a home based on the median home price such that the monthly housing cost is 30 percent or less of monthly income (this 30-percent threshold is considered “affordability”).

If household incomes do not keep pace with local housing prices, affordability falls; as of Quarter 3 2018, 38 percent of households in Solano County can afford to purchase a home at the median home price based on household income, given current rates of interest and the average monthly cost of home ownership.

Housing Affordability Index, 2010 Q3 to 2018 Q3
Percent of the Population That Can Afford a Median-Priced Home

<i>Quarter</i>	<i>Solano</i>	<i>Sacramento</i>	<i>Calif.</i>	<i>Sonoma</i>	<i>Napa</i>	<i>Santa Clara</i>	<i>Alameda</i>	<i>Contra Costa</i>	<i>Marin</i>	<i>San Francisco</i>
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	45%	47%	29%	26%	23%	19%	20%	34%	19%	11%
2016.3	43%	43%	30%	26%	24%	21%	23%	36%	18%	13%
2017.3	43%	43%	28%	25%	26%	17%	20%	33%	18%	13%
2018.3	38%	42%	27%	22%	24%	17%	18%	32%	19%	15%

Source: California Association of Realtors (<http://www.car.org/marketdata/data/haitraditional/>), Quarter 3 2018 is the latest data

TAKEAWAY: Solano County’s affordability is relatively good versus regional counties and the state overall, but dropped substantially in 2018 relative to the region and also the state of California overall.

CHALLENGE: Median home prices rising in both 2017 and 2018 faster than median income levels may be due to regional fires, but also due to rising income levels and wages. As Solano County continues to see jobs growth, and if regional employment continues to grow, housing affordability is likely to be pressured to fall further. Coupled with fewer building permits, Solano County home prices are likely to rise.

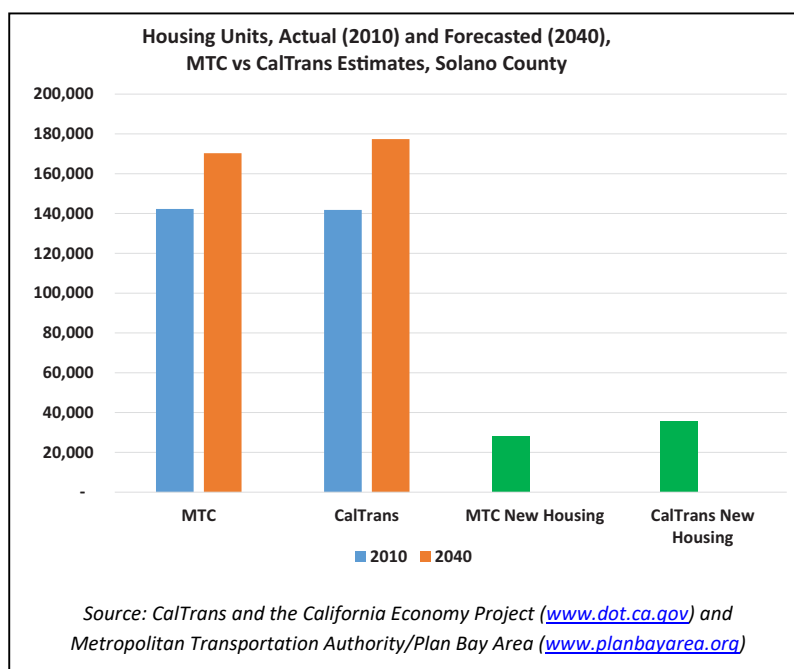
The next subsection looks at more housing data as a “deep dive” in the 2018 Index.

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Housing Deep Dive

CalTrans Forecast for Housing Units versus MTC

A continued concern for California policymakers is the number of housing units versus the number of households. MTC estimates 142,300 households in 2010 and 170,300 households for Solano County in 2040. Plan Bay Area from the Metropolitan Transportation Commission of California (MTC) has estimates to 2040 and a partnership between CalTrans and the California Economy Project recently updated their forecast of demographic, economic and employment data for all 58 counties and the state of California to 2040. For Solano County, the CalTrans report estimates 141,800 households in 2010 and projects 177,400 households in 2040. The CalTrans difference is larger; CalTrans also estimates the number of new housing units for Solano County as 1,100 short of matching the number of new households by 2040 in Solano County. Where to build new homes, and designing where new residents are to live, may be tied to transportation system access more in the future than in the past.



Change in Housing Units by Type, 2000-09 and 2010-18 Solano County and its Cities and California

Place	2000-09 Single	2000-09 Multifamily	2010-18 Single	2010-18 Multifamily
Solano County	13,244	4,393	4,929	1,143
Benicia	442	371	35	0
Dixon	613	376	121	175
Fairfield	4,644	745	2,098	317
Rio Vista	1,890	-94	802	0
Suisun City	1,073	93	95	0
Vacaville	2,725	1,201	1,525	545
Vallejo	1,206	1,874	186	106
Unincorporated	651	-173	67	0
California	1,057,766	334,727	221,208	261,724

Source: California Department of Finance (<http://www.dof.ca.gov>)

Housing Type Comparison, 2010 to 2018: What was built?

One of the effects of the 2000s increase in single-family homes was a slow comeback to building more in the 2010s. Statewide construction of homes from 2010 to 2018 generated more multifamily units than single-family (the figure shows that California built over 40,000 more multifamily units than single-family units from 2010 to 2018). Solano County did not follow that trend. There were almost 5,000 new, single-family homes built since 2010 and only an additional 1,143 multifamily (apartment) units built.

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Homeownership since 2010

Owner vs Rental, 2010 and 2017 compared
Solano County, Cities and California

Place	2010 Owner	2010 Rental	2017 Owner	2017 Rental
Solano County	72.9%	27.1%	61.0%	39.0%
Benicia	65.8%	34.2%	60.0%	40.0%
Dixon	63.6%	36.4%	69.4%	30.6%
Fairfield	64.2%	35.8%	56.0%	44.0%
Rio Vista	77.0%	23.0%	78.9%	21.1%
Suisun City	66.5%	33.5%	59.8%	40.2%
Vacaville	62.1%	37.9%	55.4%	44.6%
Vallejo	57.4%	42.6%	54.5%	45.5%
California	71.0%	29.0%	71.1%	28.9%

Source: American Community Survey (factfinder.census.gov)

Rental markets act as both a complement and substitute for home ownership in all communities. Housing markets have tax incentives for households to own their home; fixed-rate mortgages also provide owners more cost predictability versus renting, an added incentive. However, home prices may outpace a typical household's ability to easily afford to buy in the first

place. Lower proportions of homeowners in an area can negatively affect worker retention for local employers. Data here are from the American Community Survey for Solano County, its cities, and California. Only Rio Vista and Dixon had an increase in home ownership as a proportion of the total from 2010 to 2017; California's mix remained virtually the same since 2010.

TAKEAWAY: Solano County saw a decrease in homeownership since 2010, but an increase in the number of single-family homes available.

CHALLENGE: Given forecasts for new households in Solano County through 2040, more homes are to be built to keep up with demand. More households renting than owning can lead to more employee turnover and higher search costs for local employers of all types; however, multifamily units (where renting is the focus) may be more in demand.

Summary on Housing Deep Dive

Housing in Solano County continues to be stressed by population growth, regional migration away from counties like Sonoma and Solano and also core Bay Area counties as people look for more suburban settings to start families, to retire, and find different employment. Homeownership falling in Solano County is likely a function of people wanting to rent versus own; a workforce that is less rooted or younger may not yet want to establish roots; Solano County owners may also be renting their home while living elsewhere, reducing the housing stock available to buy. Over 25 percent of Solano County's housing units are multifamily, apartment-style units as of 2018.

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Our Changing Community

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People

Population Growth

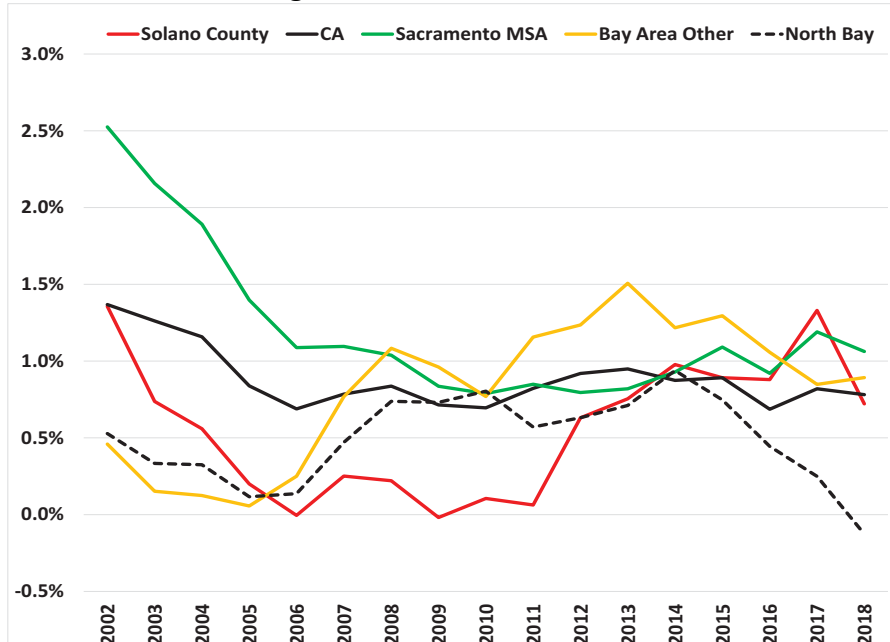
Population growth continued regionally. Solano County's population grew by 3,153 residents from January 1, 2017 to January 1, 2018; the growth rate was approximately 0.7 percent. The Bay Area Other counties grew by 56,826 people, with a growth rate that was also 0.9 percent in contrast. The recent fires were a key reason why Sonoma and Napa counties' (the North Bay) population declined in 2017; some of those 1,147 people likely moved to Solano County.

**Change in Total Population, Compared to 2010, Number of People and Percentage Change
Solano County and Selected Comparison Areas**

Place	2010	2017	2010	2017
Solano County	26,525	3,153	6.4%	0.7%
California	2,585,793	308,720	6.9%	0.8%
Sacramento MSA	112,242	16,086	7.9%	1.1%
Bay Area Other	562,063	56,826	9.6%	0.9%
North Bay	36,956	(1,147)	4.2%	-0.1%

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

Population Growth Percent Change from the Previous Year, 2002–2018, January 1 Estimates



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

TAKEAWAY: Population growth in Solano County slowed down in 2017 to 0.7 percent.

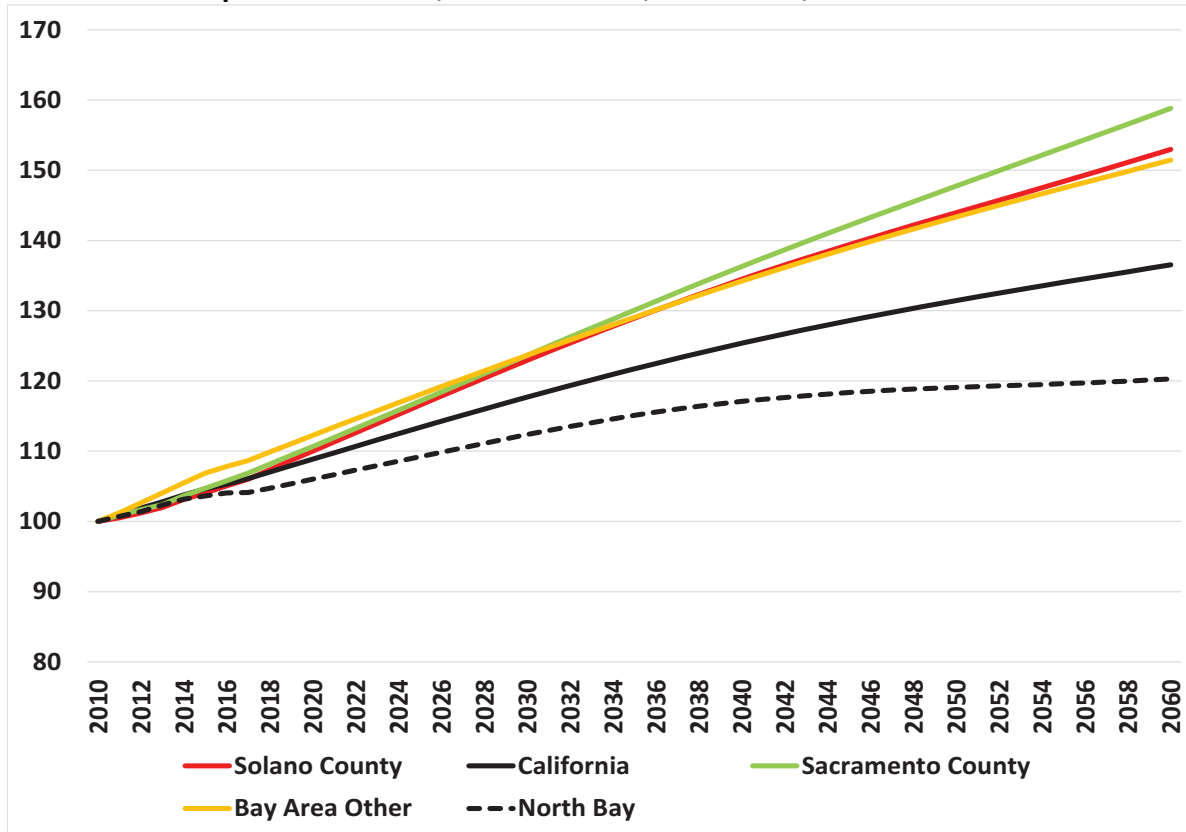
OPPORTUNITY: Regional areas affected by fire disasters may see migration toward Solano County as a destination for new residents. From an economic development standpoint, some of these new residents come with new businesses, skills or both.

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Population Growth Projections

The California Department of Finance recently (in January 2019) updated its county forecasts on population growth to 2060. Solano County is compared to other areas in the figure. Population forecasts help build employment and housing forecasts based on assumed labor-force participation rates, people per household and the number of children these new residents have that become local students and potentially local workers.

Population Growth, Selected Areas, 2010–2060, Index 2010 = 100



Source: CA Department of Finance, Demographics Unit, Revised Jan 2019
<http://www.dof.ca.gov/Forecasting/Demographics/Projections>

TAKEAWAY: Solano County's population growth is among the fastest percentage growth annually in these regional comparisons to 2060.

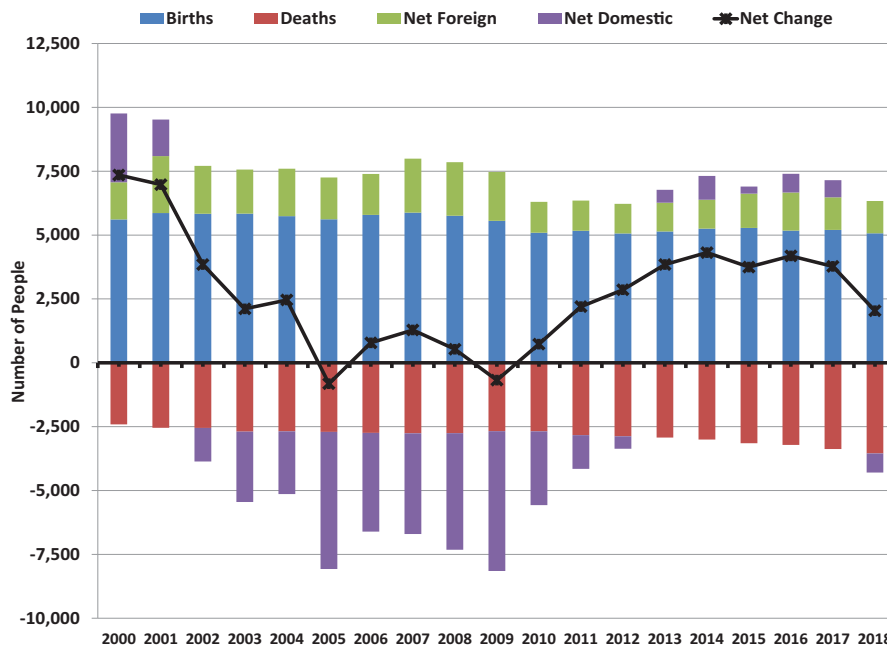
CHALLENGE: Building "enough" housing units for a growing population implies a mix of housing types for a wide array of new households, both for rent and to own.

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Components of Population Change

Solano County's population increased due to more births than deaths and also new residents moving to Solano County from other places. Those residents previously living outside Solano County accounted for 10,009 of the new residents in Solano County since 2010. Fiscal year (July to June) measures are used by the state of California to predict tax revenues and also education data (number of students and graduates).

Solano County Components of Population Change from Previous Fiscal Year (July 1 to June 30) and Net Change in Residents, 2000–2018



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

Solano County Change in Population Compared to 2018, Number of People

<i>Fiscal Year End</i>	<i>Births</i>	<i>Deaths</i>	<i>Net New Residents Moving to Solano County</i>	<i>Net New Residents from the United States (Net Domestic)</i>	<i>Net New Residents from other Countries (Net Foreign)</i>
2010	41,362	-21,375	10,009	1,304	8,705
2013	25,983	-16,288	8,364	1,862	6,502
2014	20,731	-13,285	6,299	930	5,369
2015	15,450	-10,137	4,682	656	4,026
2016	10,273	-6,924	2,462	-76	2,538
2017	5,069	-3,548	517	-748	1,265

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

TAKEAWAY: Migration to Solano County from other parts of the United States fell in 2018, but population overall continues to grow.

CHALLENGE: People leaving Solano County for other parts of the United States may reflect a rising cost of living, as other regional counties are having similar emigration.

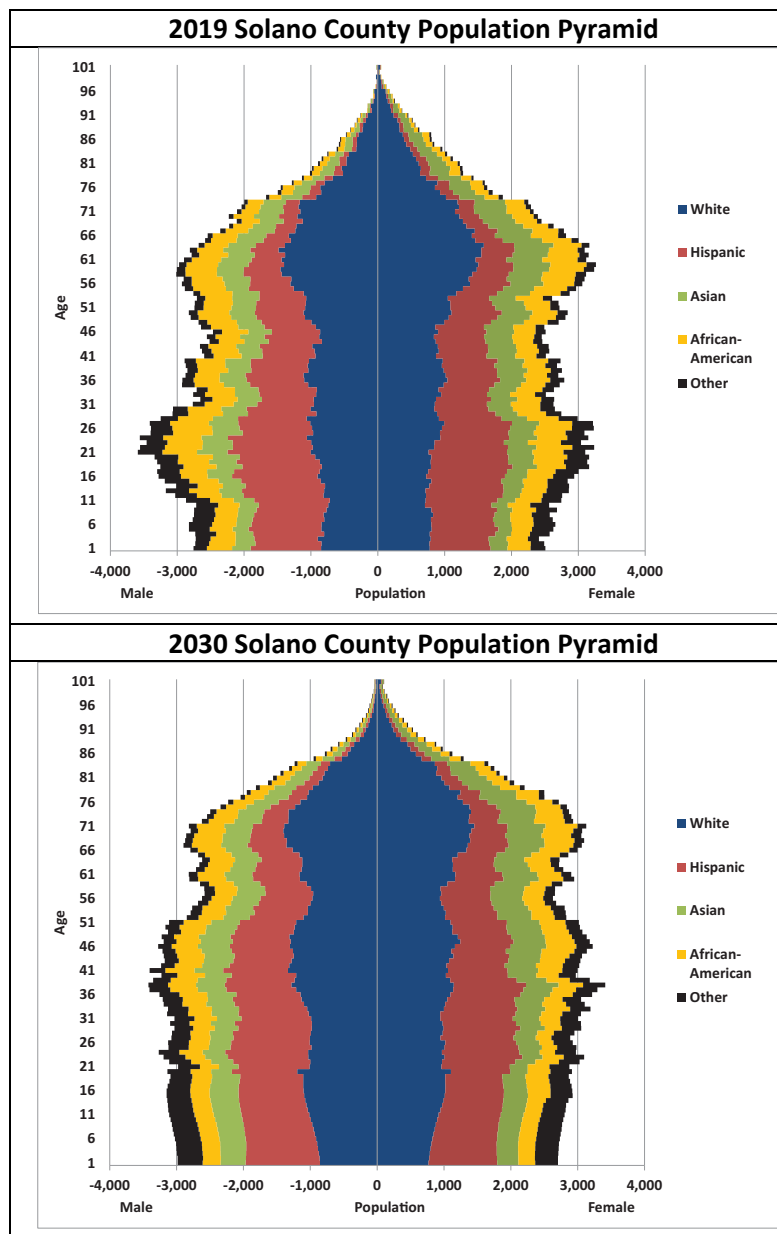
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Population Pyramids for 2019 and 2030

One way to examine population growth projections more closely is using population pyramids. These pyramids are demographic research tools with age comparisons (on the vertical axis), gender mix (where females are positive values and males are negative values on the horizontal axis), and ethnicity and racial estimates (where shaded areas reflect each ethnicity's and race's population proportions of the total) all in one picture.

Solano County's projected age and ethnic composition are unlikely to dramatically change annually, but long-term changes are being forecasted in these figures. The 2030 pyramid suggests older and more ethnically-diverse residents as the pyramid gets larger at older age levels (toward the top of the pyramid). The 2017 edition of this Index showed the 2040 pyramid.

These pyramids can inform economic and workforce development to shift toward training and businesses that service a changing population.



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

TAKEAWAY: Solano County is predicted to get older and more ethnically diverse in the 2020s, a forecast that has been in place for over 10 years.

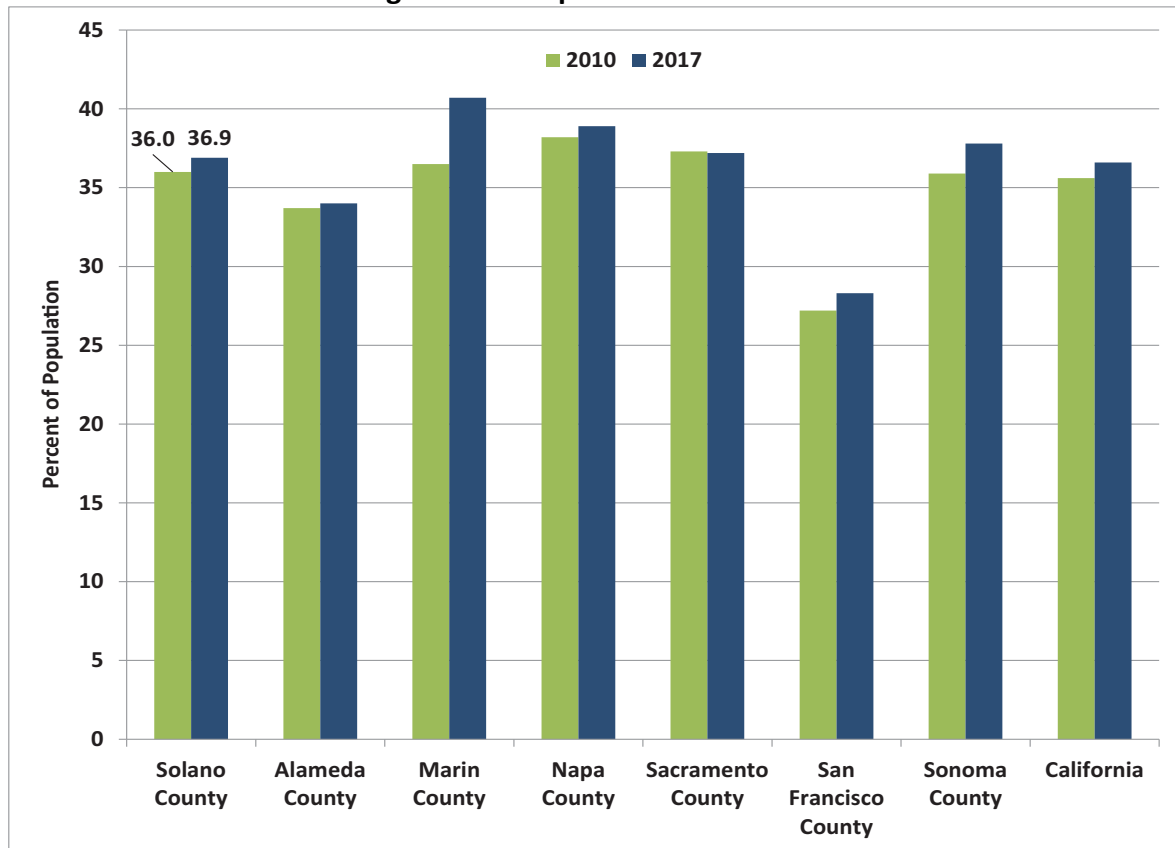
OPPORTUNITY: Local governments in Solano County should plan for more residents over 60 years old. This age group may be more dependent on transfer payments and government services without focal, workforce-development support.

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Dependency Ratios

An area's total dependency ratio measures the percentages of area residents 65 and older and also those under 18 years of age. As the ratios rise, fewer local residents are of classic working age (between 18 and 64 years old). Solano County's dependency ratio was 36.0 percent in 2010 and increased in 2017 to 36.9 (2017 data are the latest available). San Francisco County remains less dependent than other counties, but all comparison counties are experiencing a dependency ratio increase in 2017 otherwise except Sacramento County since 2010.

Total Dependency Ratio, Comparison Between Selected Areas, 2010 and 2017
Sum of Percentages of the Population Under 18 and 65 and Older



Source: Census Bureau (www.census.gov) at <http://factfinder.census.gov>

TAKEAWAY: Solano County's dependency ratio is rising slowly in this decade, due more to an aging population than more children under 18 years of age.

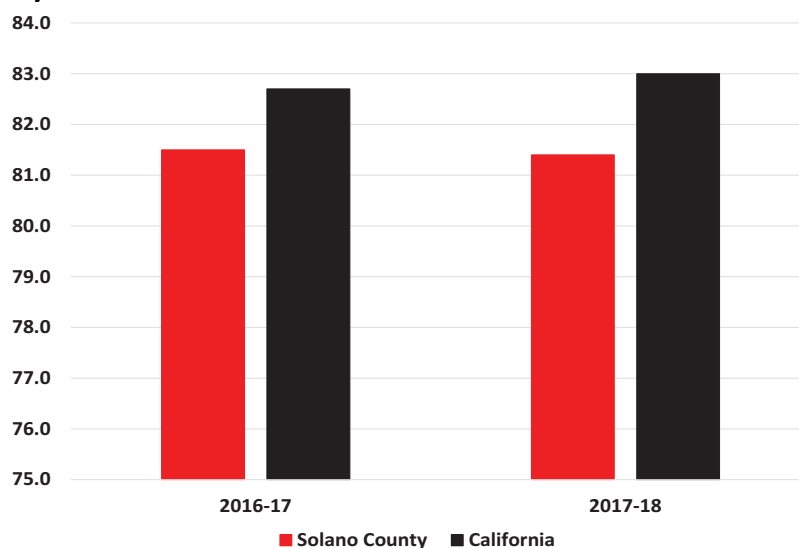
CHALLENGE: Population forecasts expect aging (dependent population rising) to play a significant role in population dynamics throughout California; as fewer children are expected in local schools, labor force dynamics may also change in Solano County for jobs that normally attract younger workers.

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High School Graduation Rates

Solano County's graduation rate fell slightly in 2017-18 (the latest data available) from the previous academic year and remained under the state of California's graduation rate. Graduation rates increased for the state of California in 2017-18 overall. Labor market incentives are connected to graduation rates; when wages and job opportunities rise, students have incentives to leave high school. Solano County remains a place of African-American student success relative to California on average. A methodology change for the 2016-17 data does not allow comparisons to academic years previous to 2016-17.

Solano County and California Graduation Rates 2016-17 and 2017-18 Academic Years



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

Note: There was a methodological change at the Department of Education that does not allow a comparison before 2016-17 academic year with the most recent data.

Solano County and California Graduation Rate by Ethnicity, 2017-18 Academic Year

Ethnicity	Solano County	California	Difference
African American	76.7%	73.3%	3.4%
American Indian or Alaska Native	68.8%	70.5%	-1.7%
Asian	91.0%	93.6%	-2.6%
Filipino	94.0%	93.1%	0.9%
Hispanic or Latino	73.9%	80.6%	-6.7%
Pacific Islander	79.7%	81.3%	-1.6%
White	87.2%	87.0%	0.2%
Two or More Races	86.3%	84.1%	2.2%

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

Note: There was a methodological change warning at the California Department of Education against comparisons before 2016-17 with the most recent data.

TAKEAWAY: Overall, Solano County had 81.4 percent of those eligible to graduate did so in academic year 2017-18 (the latest data), slightly down from 81.5 percent one year before; California's rate increased from 82.7 percent to 83 percent over the same time.

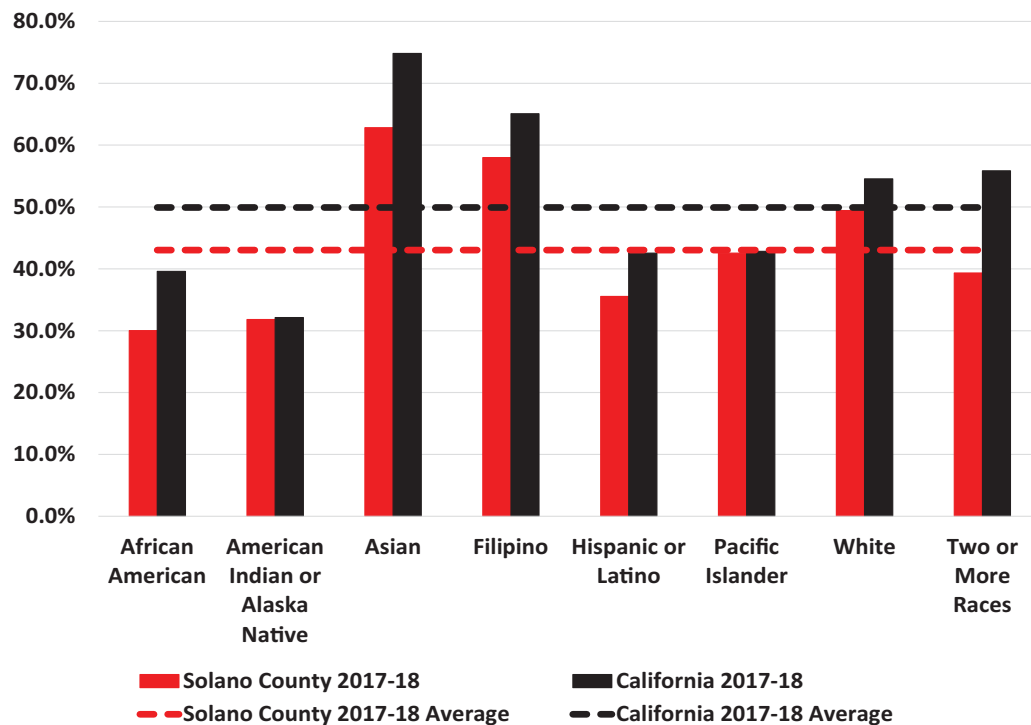
OPPORTUNITY: High-school graduation rates falling provide a signal to investigate the reasons why students are leaving high school without a diploma generally and also to consider expanding workforce development programs focused on high school students.

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UC/CSU-Readiness

California's public university systems prepare students for professional careers. Solano County is home to CSU Maritime. UC Davis is adjacent in Yolo County on Solano County's eastern border. Touro University and Solano Community College are also options within Solano County. In the 2017 – 18 academic year (the latest data available), Solano County had the same percentage as the 2016-17 academic year in college-ready graduates at 43 percent. The state overall also stayed at the same percentage at 49.9 percent from the 2016-17 academic year to the 2017-18 year. The methodology change that affected graduation rates above also applies to estimating college readiness of those graduates; we cannot easily compare to past data using the latest data shown here.

**Comparisons of Percentages of UC/CSU-Ready Solano County High School Graduates
Selected Races and Ethnicities, 2017-18**



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

Note: There was a methodological change warning at the California Department of Education against comparisons before 2016-17 with the most recent data.

TAKEAWAY: Solano County prepared 43 percent of its high school graduates for UC or CSU admission in the 2017-18 academic year, the same as the previous year.

CHALLENGE: Solano County continues to be behind the statewide average in terms of college readiness, but may also need to be concerned with workforce development for those that do not pursue university degrees.

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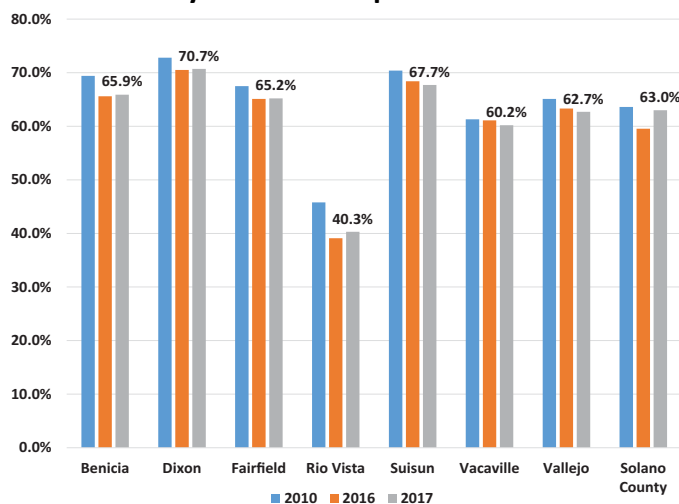
Workforce Readiness and Supply

Labor Force Participation Rates

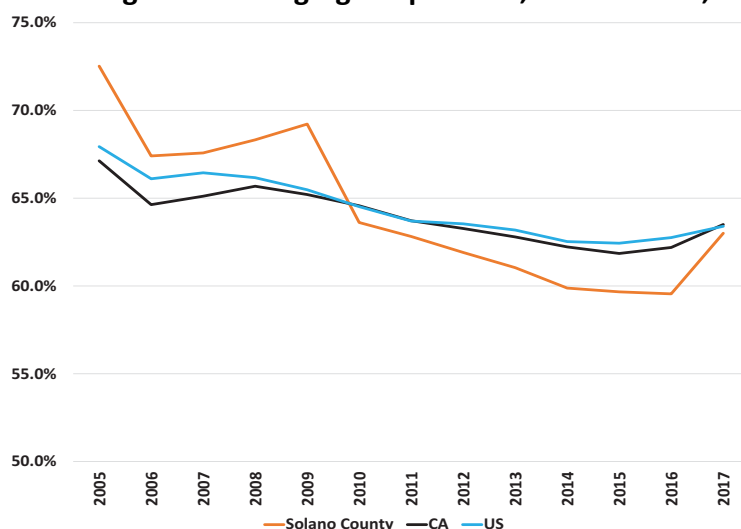
Labor force participation rates increased across California and the United States in 2017 (the latest data on population by age from the Census Bureau), as measured by the percentage of the working age (over 16 years old) population that is employed or considered actively seeking work (collecting unemployment insurance). For Solano County, labor force participation only recently began to increase after a decade of falling levels.

During a recession, labor force participation may fall because people struggling to find and maintain work, which can lead to exiting the labor force. For Solano County, continued economic growth and local employers' demand for workers, new tax laws at the federal level, and uncertain economic futures for older residents may all lead to more local residents trying to find work. The data here compare national, state and Solano County data.

**Labor Force Participation Rates, 2006, 2016 and 2017
Solano County and its Incorporated Areas**



**Labor Force Participation Rates, 2005 to 2017, Solano County, California and US
Percentage of Working Age Population, 16 and older, in Labor Force**



Sources: American Community Survey, Census Bureau (<http://factfinder.census.gov>), Bureau of Labor Statistics for Labor Force (<http://www.bls.gov>), where 2017 the latest population estimates.

TAKEAWAY: Labor force participation in Solano County grew in 2017, the first time since 2009.

OPPORTUNITY: Solano County's cities are not all experiencing labor force growth, suggesting workforce and economic development opportunities for residents considering looking for work or re-entering the labor force.

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City Overview: Education, Housing and Income

Solano County continues to show improvements in occupied housing units, new construction and residential education levels across its cities. These data are five-year averages (2013-17 is the latest data available from the Census Bureau).

Median Age in Solano County and Its Cities, 2000, 2010, 2016, 2017

<i>Place</i>	<i>2000</i>	<i>2010</i>	<i>2016</i>	<i>2017</i>
Solano County	33.9	36.5	37.5	37.7
United States	35.3	36.9	37.5	37.8
California	33.3	34.9	36.0	36.1
Benicia	38.9	45.0	44.2	44.9
Dixon	31.5	32.3	34.0	35.0
Fairfield	31.1	32.8	34.4	34.8
Rio Vista	40.7	55.8	62.3	62.3
Suisun City	31.7	32.7	33.1	33.7
Vacaville	33.9	36.7	37.1	37.4
Vallejo	34.9	37.5	38.3	37.8

Source: American Community Survey, Census Bureau (<http://factfinder.census.gov>)

Housing and Occupancy, 5-Year Averages Ending in Stated Year: 2010, 2016 and 2017 (How many homes are there and how many are occupied or vacant.)

<i>Place</i>	<i>Total Housing Units</i>			<i>Occupied</i>			<i>Vacant</i>		
	<i>2010</i>	<i>2016</i>	<i>2017</i>	<i>2010</i>	<i>2016</i>	<i>2017</i>	<i>2010</i>	<i>2016</i>	<i>2017</i>
Solano County	151,616	155,091	155,973	91.7%	93.7%	94.5%	8.3%	6.3%	5.5%
United States	130,038,080	134,054,899	135,393,564	87.8%	87.8%	87.8%	12.2%	12.2%	12.2%
California	13,552,624	13,911,737	13,996,299	91.4%	92.1%	92.1%	8.6%	7.9%	7.9%
Benicia	11,905	11,653	11,717	91.7%	94.6%	95.5%	8.3%	5.4%	4.5%
Dixon	6,124	6,116	6,204	94.2%	95.0%	95.1%	5.8%	5.0%	4.9%
Fairfield	36,283	37,055	37,461	91.7%	95.0%	95.5%	8.3%	5.0%	4.5%
Rio Vista	3,592	4,395	4,506	92.7%	90.0%	93.3%	7.3%	10.0%	6.7%
Suisun City	9,291	9,192	9,448	93.3%	97.0%	97.9%	6.7%	3.0%	2.1%
Vacaville	31,780	33,339	33,812	94.4%	95.4%	95.9%	5.6%	4.6%	4.1%
Vallejo	45,297	45,612	45,026	88.9%	91.2%	92.5%	11.1%	8.8%	7.5%

Source: American Community Survey, Census Bureau (<http://factfinder.census.gov>)

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Income, Household Size, and Education, 2010, 2016, and 2017, Five-Year Averages

Place	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		
	2010	2016	2017	2010	2016	2017	2010	2016	2017	2010	2016	2017
Solano County	\$67,559	\$60,760	\$62,196	2.83	2.88	2.88	85.8%	87.4%	87.6%	24.0%	25.1%	25.6%
United States	\$51,269	\$49,443	\$50,450	2.61	2.64	2.63	85.0%	87.0%	87.3%	27.9%	30.3%	30.9%
California	\$60,127	\$55,982	\$57,267	2.93	2.95	2.96	80.7%	82.1%	82.5%	30.1%	32.0%	32.6%
Benicia	\$85,937	\$76,369	\$81,187	2.53	2.52	2.50	94.7%	95.5%	96.3%	41.2%	42.5%	42.2%
Dixon	\$68,876	\$63,530	\$62,279	3.00	3.29	3.30	82.1%	78.9%	77.0%	19.6%	20.6%	19.6%
Fairfield	\$67,164	\$60,908	\$64,193	3.00	3.09	3.10	84.8%	85.3%	85.6%	22.2%	25.2%	25.6%
Rio Vista	\$53,890	\$51,828	\$56,097	2.04	2.03	1.98	93.1%	91.9%	92.1%	25.3%	24.4%	23.1%
Suisun City	\$70,903	\$62,810	\$64,110	3.23	3.25	3.15	86.1%	88.4%	88.4%	19.3%	19.0%	19.9%
Vacaville	\$69,958	\$66,870	\$66,337	2.71	2.79	2.79	85.4%	88.8%	88.6%	21.0%	23.0%	23.4%
Vallejo	\$60,717	\$52,310	\$53,092	2.85	2.84	2.86	84.7%	87.2%	87.7%	24.7%	24.4%	25.5%

Source: American Community Survey, Census Bureau (<http://factfinder.census.gov>)

TAKEAWAY: The county's median age was the same in 2017 as in 2016; housing units added to the community increased; occupied housing units increased, as vacancy fell and people per household held at the same level; median income and education levels both increased.

CHALLENGE: While community improvement continues, cities such Vallejo have challenges in terms of housing unit growth and Dixon and Suisun City are experiencing growing populations but struggling to retain or attract proportionally more highly-educated, new residents.

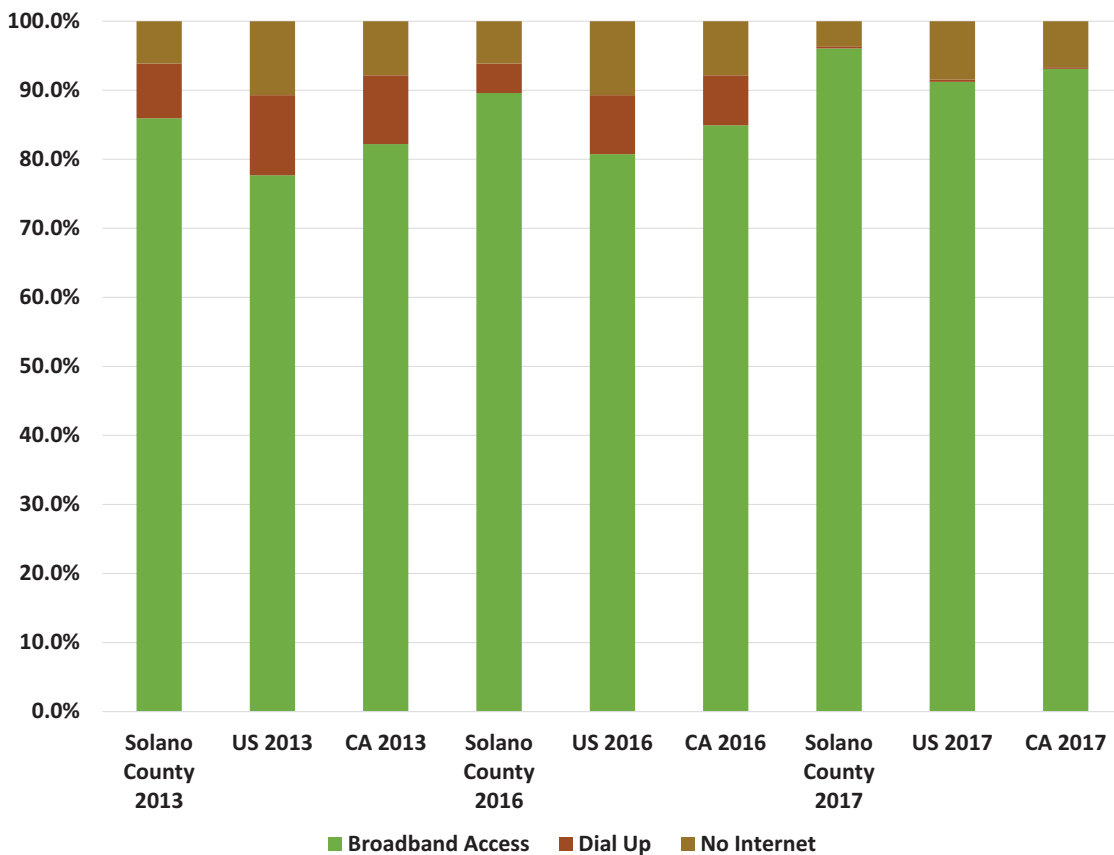
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Broadband and Computer Access

The American Community Survey of the Census Bureau provides data on broadband and computer access for households. Such access helps households become places for a home-based business, also connecting students to resources for their education. Data here compare Solano County to the national and state economies overall. As expected, there was continued improvement in the 2017 data (the latest data) compared to 2016 and 2013 data (2013 was the first year these data were tracked by the American Community Survey).

Broadband and Computer Access, 2013, 2016 and 2017

Solano County Compared to CA and US, Percentage of Households



Source: American Community Survey, 1-year Survey Samples (<http://factfinder.census.gov>)

TAKEAWAY: Solano County households are more connected than their statewide and national counterparts on average.

OPPORTUNITY: For aging residents of Solano County, there is a great opportunity to sell goods and services and start a business using connectivity from home.

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Commuting: Time to Work in the Car

In previous Index editions, we showed data on the commute patterns of both Solano County residents and also those that work in Solano County. Less than half of jobs at Solano County employers are filled by county residents. More cars on the road come with the positive aspects of labor market expansion and a rising number of local residents working. The data here look at the time it takes Solano County residents to get to work. Projects on Interstate 80, express lane construction, and other improvements to the major commuting roadways in Solano County may alleviate this trend of rising times to work since 2009. Notice that the mean travel time to work has increased over two minutes since 2009.

Time to Get to Work, Solano County Residents, 2009, 2010, 2016, and 2017, Count and % Share

Time to Work (minutes)	2009		2010		2016		2017	
	Count	Share	Count	Share	Count	Share	Count	Share
Less than 10 minutes	22,948	13.1%	22,618	12.7%	21,827	12.0%	21,805	11.7%
10 to 14 minutes	26,101	14.9%	26,714	15.0%	27,070	15.2%	27,956	15.0%
15 to 19 minutes	24,524	14.0%	25,111	14.1%	24,933	14.0%	26,278	14.1%
20 to 24 minutes	18,919	10.8%	19,056	10.7%	18,700	10.5%	19,010	10.2%
25 to 29 minutes	7,357	4.2%	7,480	4.2%	8,192	4.6%	8,014	4.3%
30 to 34 minutes	19,619	11.2%	20,837	11.7%	18,878	10.6%	19,196	10.3%
35 to 44 minutes	12,262	7.0%	12,110	6.8%	11,576	6.5%	12,487	6.7%
45 to 59 minutes	17,167	9.8%	17,631	9.9%	17,275	9.7%	18,078	9.7%
60 or more minutes	26,276	15.0%	26,536	14.9%	30,097	16.9%	33,547	18.0%
Mean travel time to work (minutes)	29.4		29.5		30.4		31.8	

Source: American Community Survey, Census Bureau (<http://factfinder.census.gov>)

TAKEAWAY: Solano County residents are spending more time in their cars 2.4 minutes more each direction minimum on average since 2009, a rising opportunity cost of strong labor and business markets.

OPPORTUNITY: Solano County is seeking to expand access to the interstates and highways that run through the county; Solano Transportation Authority is working with Solano EDC and Metropolitan Transportation Commission (MTC) on funding such projects.

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Quality of Place Index

This final section looks at comparison data describing quality of place compared to California (the Bay Area in the case of housing prices) on average: high-school graduation rates; commute times; air quality; educational attainment; home purchase and rental prices; and taxable sales per person. There are 58 counties in California; the data below in many cases are rankings out of these 58 counties. Key takeaways are given by element.

Quality of Place Elements, 2018 (2017 is the latest data in some cases)

Element			Key Takeaway
Graduation Rates for High School			Graduation rates were down a bit in Solano County in 2017-18, and some counties saw an increase.
2010-11 44 th in CA	2016-17 38 th in CA	2017-18 43rd	
Commute Times			Solano County remains a place with relatively long commutes regionally affecting local traffic conditions.
2010 49 th in CA	2016 48 th in CA	2017 50th in CA	
Air Quality			Air quality improved in Solano County relatively to other counties in California, perhaps a reflection of recent fires and also rising traffic in other areas.
2010 20 th in CA	2017 25 th in CA	2018 18th in CA	
Educational Attainment: % of Pop, 25 years old or more, BA min			Solano County continues to attract educated residents (with a BA degree minimum) keeping pace with California on average in 2017.
2010 29 th in CA	2016 24 th in CA	2017 24th in CA	
Home and Rental Prices (as a % of San Francisco County)			Solano County's home prices increased more quickly in percentage terms than San Francisco prices in 2018 as did rents. Solano County remains a lower-cost, real estate market versus the core Bay Area.
2010 Rent: 50% of SF Buy: 28% of SF	2017 Rent: 48% of SF Buy: 28% of SF	2018 Rent: 49% Buy: 32%	
Taxable Sales/Capita			Solano County residents are making more taxable purchases as their incomes rise, as well as having more visitors and workers from outside Solano County buying here.
2010 98.6% of State Avg	2017 98.8% of State Avg	2018 100% of State Avg	

Sources: California Department of Education; American Community Survey; Zillow Research; California Air Resources Board; California Board of Equalization and County of Solano

Quality of Index indicators suggest **opportunities** when in green and **challenges** for policy makers and the community when in red.

OVERALL TAKEAWAY: For both economic and workforce development, Solano County has many advantages for businesses and residents compared to other parts of California, and also similar challenges. For 2018, quality of place was similar to 2017.

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Data Sources and Methodology

Solano County Key Facts

Area

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

Population

Data are from the E-1: City/County Population Estimates with Annual Percent Change report by the California Department of Finance and for Solano County. Estimates are for January 1, 2018, and may be specified for fiscal year 2017-18 in certain data comparisons.

Jobs

Solano County employment data are provided by the California Employment Development Department (EDD). The industry data may include employees who live outside the county. December 2018 data are preliminary.

Foreign Immigration and

Domestic Immigration

Data are from the E-6: Population Estimates and Components of Change by County – July 1, 2010–2018 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 2018 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 2018 is an average of data over the years 2013 to 2017 for Solano County.

Taxable Sales and Assessed Property Value

Data for taxable sales 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 Economy

Annual Employment

Solano County employment data are provided by the California Employment Development Department (EDD). 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 (EDD). 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 2018 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. 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. The latest Census Bureau data are from 2016.

Median Household Income

Data for Median Household Income are from the 2003-2017 American Community Survey data reports from the U.S. Census Bureau, including the decennial Census in 2010. 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.

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Tourism and Visitor Support

Estimated data on visitor spending, jobs that support visitors and tax receipts generated from tourism and hotel stays are provided for all 58 California counties and the state overall by Dean Runyan Associates. Data are from 1994 to 2017.

Gross Product

Data are provided by the U.S. Bureau of Economic Analysis through 2017 Bureau of Economic Analysis (www.bea.gov). Values are inflation-adjusted and reported in 2009 dollars.

Real Per Capita Personal 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) through 2017. Data are from Personal Income by Major Source and Earnings by NAICS Industry through 2017. 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 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 analysis for major industry sectors. These data are the official estimates from the Bureau of Labor Statistics (<http://www.bls.gov>).

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. The latest data are from 2017.

Poverty Rates

Poverty rates represent the percentage of households under the federal poverty level in terms of household income in a given year. Five-year averages for Solano

County are provided by the American Community Survey of the Census Bureau. The latest data are from 2017.

Wages by Occupation

Wages data are available from The California Employment Development Department (www.edd.ca.gov) and the U.S. Bureau of Labor Statistics (www.bls.gov) by occupation following Standard Occupation Classification (SOC) codes. Wages are adjusted to 2009 dollars using 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. These data are from May 2018.

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 Cushman-Wakefield, will likely have different estimates, but there is not a governmental source for these data. The latest data are from Quarter 4 2018.

Housing Deep Dive

Data on forecasted housing units need come from both Metropolitan Transportation Commission (MTC) and from California Department of Transportation (CalTrans). Housing type is estimated by the California Department of Finance as part of its demographic research and housing tenure (own versus rental) data comes from the Census Bureau's American Community Survey.

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, 2000–2018 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. 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

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Projections by Race/Ethnicity, Detailed Age, and Gender, 2010–2060 (by year)). The latest data are January 2019.

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 2017.

High School Dropout Rates

Data for the 2017–2018 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. There has been a recent change in methodology such that time periods before 2016-17 are not comparable to those after 2016-17.

High School Graduation Rates and UC/CSU-Readiness

Data for the 2017–2018 academic year are provided by the California Department of Education. 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. There has been a recent change in methodology such that time periods before 2016-17 are not comparable to those after 2016-17.

Home Sales and Housing Affordability

Data were provided by the California Association of REALTORS® (CAR) for median home prices, sales volume of single-family homes and also by Zillow Research (Rental Prices). CAR also calculates the percentage change in homes sales by county, compares numerous counties across the state, and also has a housing affordability index (HAI) it publishes quarterly at www.car.org.

Labor Force Participation Rates

This is a ratio of the population over 16 years old and under 65 years of age to the total population traditionally. Some measures have expanded that to 16 years and above as a way of measuring local working-age residents and their engagement in local labor markets.

Broadband and Computer Access

The Census Bureau, in its American Community Survey, is now tracking the number of households with a computer or with broadband access of both. These data are shown here as a way to consider Solano County versus the state and nation and the ability to use tools at home to increase labor supply readiness and learning opportunities. The latest data is as of 2017.

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:

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

City Data: Economics and Demographics

Data on the cities and their demographics come from the American Community Survey (ACS) of the Census Bureau through 2017. 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. Data shown here are five-year averages.

CalTrans/CA Economic Forecast

Data for the forecasts of jobs and population for all 58 California counties has been performed by CalTrans in partnership with the California Economic Forecast from the UCLA Anderson School of Business. This forecast is to provide CalTrans with planning data for new roadways and infrastructure as California's economy and population grow. The 2018 to 2050 version is available at http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2018/Full_Report_2018.pdf

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>

Time to Work

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 2017 as of January 2019.

The 2018 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

Robert Burris, President

360 Campus Lane, Suite 102, Fairfield, CA 94534

(707) 784-1855 ♦ robert@solanoedc.org