



Solano County 2019

Index of Economic and Community Progress

County of Solano and Solano Economic Development Corporation

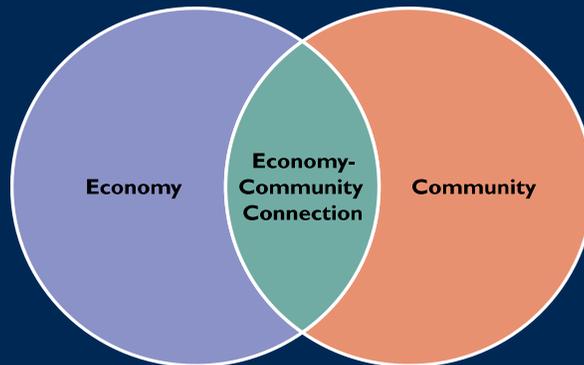
March 2020

Solano County 2019

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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 2019 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.

The logo features the word "Solano" in a bold, black, sans-serif font, with a stylized yellow and black graphic element above the letter 'o'. Below "Solano" is the phrase "Means Business" written in a black, cursive script font.

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As we are in one of the difficult periods of time in modern history as a result of the COVID-19 pandemic, it seems even more important to provide to you our 12th annual Solano County Index of Economic and Community Progress. Like previous years, the intent of this report is to provide a comprehensive analysis of various indicators, capturing trends shaping our local economy while providing long-term perspectives and considerations for economic development. While most of the underlying data was gathered up to the previous twelve-month period, it was also imperative to provide current context and prospective considerations of the effects of the COVID-19 pandemic.

The purpose of the analysis is and has been to guide our policies and programs as well as aspirations to grow the health of our regional economy. Our data-based understanding of the short- and long-term effects of the current crisis will unfold in the weeks and months to come. However, having a strong grasp of our economy leading up to our recent downturn will provide a better understanding of the expected impacts and guidance on how we will emerge as a stronger and healthier region.

Solano Job Growth Continues

The County continued to add jobs in 2019, however this was at a milder growth pace than the previous year, one percent compared to 3.1 percent in 2018. Through the end of 2019, unemployment continued its downward trend to 3.7 percent, down from 4.0 percent the previous year. To gauge, unemployment is generally considered to represent full employment at four percent. Largest numerical gains occurred in the Construction, Healthcare, Bars/Restaurants and the miscellaneous “All other industries” Sectors, combined adding a net new 2,700 jobs. Sectors with a net decrease in jobs included Agriculture, Manufacturing, and Retail, with a combined 1,300 jobs lost.

Employment data will reveal significant job loss in the coming months particularly in industries effected by anxiety of virus spread and “social-distancing” orders such as retail, restaurants, business services, tourism/hospitality, and many others.

The Bigger Picture

Leading up to the COVID-19 crisis, our economy remained on a course of growth, albeit relatively mild to moderate. The analysis of the short- and long-term effects of the pandemic has only begun as traditional data sources have not yet reported on job, investment and income effects. The longer-term impacts on Solano’s economy will largely be a result of the resilience and structure of the regional economy prior to the onset of virus and policy effects. Equally as important is the need to make well-informed policy decisions based on sound economic information.

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. The strategy has had tangible positive effects on the economy. In consideration of the unfolding crisis, regional and local economic development is more important than ever, and Moving Solano Forward will be revisited in 2020 to meet the needs of our regional economy as new data emerges.

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

2019 Population (January 1, 2019) 441,307

Benicia	27,570
Dixon	19,794
Fairfield	117,149
Rio Vista	9,416
Suisun City	29,447
Vacaville	98,807
Vallejo	119,544
Unincorporated	19,580

Population Change: 2018 to 2019 (Jan 1) +2,205

Solano County 2030 Population Est. 472,048 (CA Dept. of Finance, estimate as of Jan 2020)

Top 5 Employment Sectors (as of Dec. 2019)

Education & Health Services	29,000
All Government (incl. US Military)	24,800
Retail Trade	18,000
Leisure & Hospitality	16,100
Construction	12,600
Manufacturing	12,400

Total Industry Jobs (Dec. 2019) 145,100

Employment to Housing Units (2019) 90.9%

Employment to Housing Units (2010) 79.3%



Educational Attainment (2014–18 Avg.)

Less than high school	12.0%
High school graduate only	23.3%
Some college, no degree	28.3%
Associate's degree	10.1%
Bachelor's degree	18.3%
Graduate or Professional degree	7.9%

Age Distribution of Pop (2014–18 Avg.)

Under 5 years old	6.1%
5 to 19	18.8%
20 to 44	33.7%
45 to 64	26.7%
65 and older	14.7%

Ethnic Composition of Pop (2014–18 Avg.)

White	38.5%
Hispanic	26.1%
Asian	15.0%
African-American	13.6%
Other (incl. mixed race/Pacific Islander)	6.8%

Building Permits Issued, New Housing Units (Fiscal Year 2018–19) 1,066

Sources and Notes:

1. Population and housing data come from California Department of Finance (www.dof.ca.gov), March 2020.
2. Employment data come from California Employment Development Department (www.edd.ca.gov), March 2020.
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 2020.
5. Building Permits data were provided by the County of Solano for fiscal year 2018-19, ending June 30, 2019.

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Key Highlights from the 2019 Index

Our Changing Economy

- Solano County employers hired 1,400 more workers in 2019 to a total 145,100 workers; this is a 1.0 percent increase from 2018.
- Farm jobs fell by 300 in 2019, while non-farm jobs increased by 1,700 workers (1.1 percent growth) at Solano County businesses, government, and nonprofit employers.
- Approximately 201,700 residents of Solano County were employed in 2019, 700 more than 2018.
- Solano County's unemployment rate was 3.7 percent at the start of 2020, the lowest rate on record for Solano County's economy.
- Based on the most recent available data, inflation-adjusted (real) gross product for Solano County grew by 2.0 percent in 2018 (the latest data), slightly slower than both California and the national economy.
- Solano County's real personal income per person increased in 2018, the most recent available data.
- Median household income also increased in 2018 after inflation.
- Employment in industries focused on sales outside Solano County ("base" industries) increased by an estimated 267 jobs in 2019, led by more state government jobs, wholesale and finance.
- Solano County median wages in 2019 increased from 2018 for local workers, though wages remain lower than the Bay Area and California on average.
- Data on poverty rates for local residents in 2018 (the latest data), based on five-year averages, showed continued progress; Solano County's poverty rate fell by more than a full percentage point to 10.4 percent of all residents in 2018 from 2017.
- The latest data on regional cost of living show rising cost levels in Solano County by 2.8 percent in 2018 (the latest data), with local inflation outpacing state and national averages in 2017.
- Local farmers gained in 2018 (the latest data) from 2017 to the highest level of agriculture value since 2010. Nursery products, processed tomatoes, alfalfa, beef cattle, and wine grapes were the top five agriculture products in terms of value harvested.

Our Changing Community

- Solano County's population increased by 0.5 percent in 2018, and 6.8 percent since 2010.
- Population growth included 740 new residents moving to Solano County from other places.
- Solano County's population is forecasted to grow from 2020 to 2030 by approximately 6.5 percent, slightly faster than the state average.
- Solano County's graduation rate increased to 84.9 of those eligible, slightly ahead of the state average for the 2018-19 academic year.
- African-American students in Solano County continue to graduate at a higher rate than California on average.
- Housing prices increased 0.3 percent in 2019 to \$448,200 at the median; housing affordability in Solano County increased. Rental prices increased to a median price of \$2,109 for all rentals in Solano County as of January 2020.
- Recent allocations of housing units from state government assigned over 3,600 more units need to be built to balance supply and demand in Solano County.
- 1,066 building permits were issued for new homes for fiscal year 2018-19, the most since 2006-07. Approximately 2.1 million square feet of commercial space was permitted during fiscal year 2018-19, over three times the square feet from the previous fiscal year.
- Commute times to work increased in 2018 by 2 minutes on average from 2017 for Solano County residents.
- Solano County government revenue from property values and taxable sales continued to rise in 2019. Assessed property values increased to over \$57 billion in 2019.

Considerations for the Future

The COVID-19 crisis of 2020 is likely to dominate the data in the Index for two years minimum, and the evolution of Solano County's economy depends greatly on its exit from this crisis into the early 2020s. The national and state economies both started 2020 with forecasts of slower growth, with no forecasted recession until 2022 at the earliest. Forecasts for the remainder of 2020 are likely showing a national and state recession due to the COVID-19 crisis. Amid crisis, there are opportunities for Solano County after 2020.

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COVID-19 and Solano County

In February 2020, a flu outbreak (subsequently known as Coronavirus or COVID-19) in Asia began to transmit worldwide due to travel, trade and slow-moving social policies. As of March 2020 (the time of this writing), most of the world's advanced economies (and some countries in sub-Saharan Africa, Central America, and other emerging economic regions) engaged in social policies meant to reduce the potential strain on healthcare resources at the cost of potential economic recession.

The subsequent economic slowdown may cast a shadow for years. This index, since the 2012 edition, has considered 2010 as a benchmark year from which recovery from the Great Recession in Solano County began. Because Solano County has relative strong balance among goods-producing and services-producing and government employment versus California overall, silver linings for Solano County may exist relative to other counties. However, pain will be felt throughout the state economy.

The social policy of "shelter-in-place" affects California's economy in many ways, including Solano County. Most of the local economy went into hibernation, though some parts do remain open; Solano County continued to allow construction during shelter-in-place and Travis AFB may be a stabilizing factor to the economy as it continues to operate as a military installation and also as an extension of healthcare capacity. Tourism businesses (hotels, retail and restaurants focused on visitors) were hurt first and likely are the last employers to return to normal once social policies are lifted.

In the United States, economic policy reactions included the largest, "bailout" fiscal-spending package in history and new monetary policy reminiscent of the Great Recession (2008-10) policy reactions. Data such as unemployment insurance claims and notices of default on home loans – data this Index followed during the Great Recession – are likely focal data for 2020. Visitor spending data is to be keenly watched, including hotel demand (with implications on transient occupancy tax (TOT) revenues), taxable retail sales (visitor spending, cars and other consumer durables) and restaurant meals. Visitors include inbound, commuting workers that come to Solano County along Interstates 80, 505, and 680.

The short-term economic effects on Solano County depend on the **depth** and **duration** of social policies. Economics teach us that the progression of this disease's effects on the macroeconomy, given the measures in place and likely to continue in the first two quarters of 2020, affect labor markets primarily. Economic development may face a tough choice of where to focus support efforts based on strategic decisions by local businesses to remain in business due to reduced revenues and pessimistic forecasts. Housing markets are currently predicted to see some price depression; due to an inability to maintain mortgage payments from job loss or a need to move during or after this crisis, we should expect an increase in existing homes for sale and also an increase in notices of default and foreclosures.

City and county government revenues are going to be lower on multiple fronts. Reduced taxable sales, property values and transient occupancy taxes all lead to local government budget challenges in two fiscal years (2020-21 and 2021-22) minimum. Equity market downturns may also strain public pension funds both for revenue reasons (returns on investment) but also increased liability reasons (health services costs rising and rising retirements as public employees observe incentives to retire). In short, the data in this edition of the Index provides prologue and a benchmark; 2020 is likely to be a challenging year for Solano County and California, where some opportunities also exist for Solano County and discussed in this report.

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Index Overview

Solano County jobs growth continues to over 145,000 workers.

For a ninth consecutive year, non-farm employment in Solano County increased. Approximately 1,700 more workers were hired at non-farm employers in Solano County, a 1.1 percent increase; farm jobs contracted by -300. From 2010 to 2019, since the Great Recession ended, Solano County employers added a total of 24,100 jobs. New construction jobs increased by 1,400 jobs in 2019, supporting overall county employment growth. Healthcare workers, including non-profit, health services, increased by 300 jobs in 2019.

Manufacturing jobs contracted a bit in 2019 by -300 jobs, a reduction for the first time since 2011. Jobs in wholesale services increased by 300 jobs, while jobs in financial services had zero new workers. Almost 14 percent of retail jobs located in Solano County were lost in 2019, down 700 workers. The state and national economies also expanded non-farm jobs, with both areas rising slightly faster than Solano County in percentage terms.

In 2019, Solano County employment increased by 1.0%, approximately 1,400 more jobs than 2018 across farm and non-farm employers.

The Broader Context: State and National Economic Updates

Initial forecasts entering 2020 suggested a slower, but strong economy to 2023. The national and state economics are now likely to enter recession in 2020 because of the COVID-19 crisis.

The California and national economy entered 2020 with jobs and income expansions at the longest period on record. Specifically, non-farm jobs grew for California by 1.7 percent in 2019. Jobs forecasts for California's economy through 2023 were initially set by the California Department of Finance (DOF) in January 2020 at approximately 1.0 percent per year on average; the DOF baseline forecast pointed to California's labor market

remaining near full employment to 2023. Growth of personal income before inflation was forecasted to grow annually at 4.3 percent to 2023; from 2011 through 2019 growth in real personal income was approximately 5.5 percent annually for the state. Consumer spending and taxable sales growth rise with personal income levels.

The national economy experienced continued jobs growth in 2019 (+1.4 percent). However, interest rate reductions took place to bolster waning business investment and consumer spending levels to boost stable but slowing inflation rates during a time of jobs expansion; lower rates helped stock markets recover from a flat 2018 to surge ahead in 2019. As 2019 ended, the Federal Reserve signaled interest rates would be likely be left stable in 2020; the COVID-19 crisis has forced may central banks worldwide to lower

The Federal Reserve cut interest rates three times in 2019, a reflection of concerns over too low of inflation rates. The COVID-19 aftermath in March 2020 has forced the Federal Reserve to drop short-term interest rates near zero.

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interest rates to stave off major economic downturns. The effects of both fiscal and monetary stimulus in 2020 at unprecedented levels may pressure inflation upward after 2021; unfortunately, a national recession is likely as of this writing in March 2020. Future inflation pressure depends very much on national and global reactions to how the COVID-19 crisis ends in 2020. We see later that both Solano County and California have recently shown faster cost of living increases versus national costs of goods and services. Costs of living measures are influenced by housing costs.

Housing and Commercial Permits Grew Quickly in 2019, While Prices Were Flat

Zillow™ Research predicted Solano County home prices in 2020 to fall by 0.1 percent as of January 2020.

Solano County housing prices were forecasted to have a relatively flat year in 2020 as of a January 2020 forecast by Zillow™ Research. The median sale price for homes in Solano County was approximately \$448,200 in December 2019, up 0.42

percent from the previous year according to Zillow™ Research. Median home prices in California overall grew just 1.76 percent in 2019 to just under \$556,900. Regional fires in 2019 were large again -- the Kincaid Fire in Sonoma, Napa and Lake counties was one of the largest in California’s history in terms of square miles -- but less destructive to property and lives; potential power shutoffs have now added more, annual uncertainty to being a resident of and business in California. Projected population and jobs growth suggest medium- to long-term support remains for home values and economic development in Solano County. The COVID-19 crisis may change Solano County’s housing market in multiple ways.

Solano County’s housing and commercial real estate permit and building activity rose sharply in fiscal year 2018-19 (July 1 to June 30) versus fiscal year 2017-18. Residential building permits activity in fiscal year 2018-19 saw 1,066 new housing units permitted. Commercial square feet under construction was up by approximately 2.01 million square feet between July 2018 and June 2019; 83.2 percent of new commercial real estate was in Fairfield, Vacaville and unincorporated Solano County. The COVID-19 crisis in 2020 is likely to slow down statewide construction activity through 2020 as compared to 2019; Solano County continued to allow construction work during shelter-in-place as an essential industry. Because construction in Solano County is related to goods movement, including fulfillment centers, food logistics and consumer goods, allowing construction to continue prepares Solano County for growth once the social policies lift in 2020.

Solano Economic Development Corporation faces challenges and opportunities to attract, expand and retain businesses once the COVID-19 crisis passes for Solano County.

New and expanding businesses may need more and varied commercial space. Data on vacancy and pricing come from Colliers International. Office space available in Solano County was at 19.2 percent vacancy for Class A space, and approximately 8.0 percent for Class B office space as 2019 ended. Industrial space in Solano County, including manufacturing space and warehousing, had 5.0 percent vacancy as of December 2019, continuing to trend down. Price changes were flat for Class A space ending 2019 at approximately \$2.43 per square foot, while prices for Class B increased over

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10 percent for the second year in a row to \$2.21 per square foot in Solano County. In contrast, San Francisco County has a median price of \$10.32 per square foot on average for Class A space as of Q4 2019, where there is less than 5.0 percent vacancy.

Solano Economic Development Corporation (EDC) continues with an economic development strategy focused on the following industry clusters:

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

As these industry clusters hire more workers, that expansion positively affect countywide demand for housing, retail sales, commercial real estate, and businesses hiring even more workers.

Solano County Labor Markets: Growth Flattened in 2019

Solano County's residents working or looking for work (the labor force) increase in 2019 by just 0.1 percent; as the county unemployment rate continued to fall, another 700 county residents in the labor force found work.

The number of employed residents grew by 14.0 percent in Solano County while the labor force has grown by only 3.5 percent since 2010. These data, and the jobs data shown above, suggest that Solano County's

economy grew more due to its local businesses than its working residents in 2019. Jobs growth by industry shows how construction jobs stood out for Solano County in 2019.

	<i>Number of Workers</i>			<i>Percent Change</i>	
	<i>2010</i>	<i>2018</i>	<i>2019</i>	<i>2010</i>	<i>2018</i>
Labor Force	202,400	209,300	209,500	3.5%	0.1%
Employed Residents	177,000	201,000	201,700	14.0%	0.3%
Unemployment Residents	25,400	8,300	7,900	-68.9%	-4.8%
Industry Employment	121,000	143,700	145,100	19.9%	1.0%

Source: EDD (<http://www.labormarketinfo.edd.ca.gov/>), Labor Market Information, Annual Averages; a new benchmark of 2019 was set with some revisions.

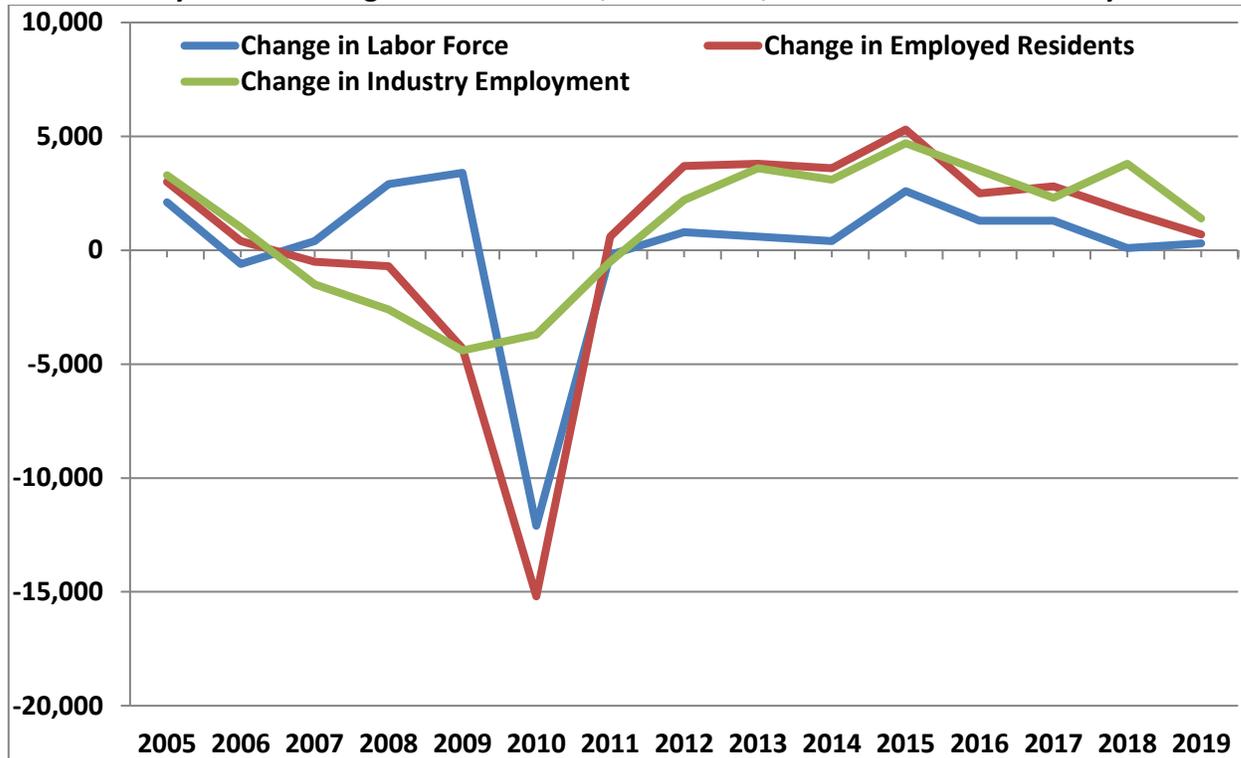
Solano County Employment 2019 Annual Average Gains and (Losses) of Jobs Since 2010, 2017 and 2018

<i>Industry</i>	<i>Since 2010</i>		<i>Since 2017</i>		<i>Since 2018</i>	
	<i>Gain/(Loss)</i>	<i>% Chg.</i>	<i>Gain/(Loss)</i>	<i>% Chg.</i>	<i>Gain/(Loss)</i>	<i>% Chg.</i>
Agriculture (Farm)	0	0.0%	-400	-22.2%	-300	-17.6%
Bars and Restaurants	2,500	24.8%	900	7.7%	500	4.1%
Construction	5,400	75.0%	2,000	18.9%	1,400	12.5%
Federal Government (incl. Travis AFB)	-1,000	-21.7%	-100	-2.7%	100	2.9%
Financial Activities	0	0.0%	100	2.0%	0	0.0%
Healthcare	5,670	38.3%	1,430	7.5%	300	1.5%
Information (Software and Publishing)	-100	-7.7%	100	9.1%	100	9.1%
Local Government Education	600	6.9%	-200	-2.1%	-200	-2.1%
Manufacturing	2,700	27.8%	100	0.8%	-300	-2.4%
Retail Trade	1,600	9.8%	-600	-3.2%	-700	-3.7%
State Government Excl. Education	200	4.3%	100	2.1%	100	2.1%
Wholesale Trade	200	4.8%	200	4.8%	0	0.0%
All Other Industries	3,700	19.4%	1,000	4.2%	400	1.0%
Total, All Industries (Farm + Non-Farm)	24,100	19.9%	5,200	3.7%	1,400	1.0%

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

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Solano County Annual Changes in Labor Force, 2005–2019, Number of Solano County Residents



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

Goods-Producing Businesses at a Greater Productivity Share Than California

In 2018 (the latest data), Solano County services businesses expanded their proportion of the county economy. Solano County's public sector remains relatively large in terms of proportion of the county economy versus the state and national averages. 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.

New businesses continued to emerge in Solano County. The California Employment Development Department (EDD) reports that there were 11,896 Solano County payroll businesses as of 2019 Quarter 2. There were almost 800 net new payroll employers in Solano County between 2018 Quarter 2 to 2019 Quarter 2. "Non-employer" businesses (i.e., businesses that are usually self-owned and operated) continue to be an important segment of Solano County's economy. Of the 1,056 new non-employer jobs for the 25,848 self-owned businesses (the latest data are from 2017) in Solano County, approximately 450 of these new workers were in transportation, likely Uber and Lyft drivers, but perhaps self-proprietor transport businesses for home deliveries.

Government's proportion of the economy is a function of local demand, employers and politics. The COVID-19 crisis is likely to affect both goods-producing and services-producing jobs, and make the government a larger jobs engine in 2020 as federal and state employment expand to assist and for Census 2020. Local government may be asked to do more for local residents and businesses as the economic downturn from the COVID-19 crisis unfolds in Solano County.

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Sector Shares of Gross Product at the County, State, and National Levels Percent of Total Gross Product in 2009 Dollars, 2010 to 2018, Selected Years

Year	Goods-Producing			Services-Producing			Public Sector		
	Solano County	CA	US	Solano County	CA	US	Solano County	CA	US
2010	28.7%	17.6%	19.1%	52.3%	69.4%	67.2%	19.0%	13.0%	14.0%
2015	31.7%	17.1%	19.0%	52.3%	71.4%	68.3%	16.0%	11.5%	12.3%
2016	32.7%	17.3%	18.8%	51.2%	71.3%	68.5%	16.1%	11.4%	12.2%
2017	32.4%	17.3%	18.8%	51.9%	71.6%	68.6%	15.8%	11.1%	12.1%
2018	31.7%	17.1%	18.9%	52.9%	72.1%	68.8%	15.4%	10.8%	11.8%

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

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 standards of living, as is real median household income. The Bureau of Economic Analysis tracks gross product and personal income changes; median household income is estimated by the Census Bureau, based on a household of four people.

In 2018, real personal income per person in Solano County outpaced the national economy but was slightly slower than California. Median household income (MHI) grew almost 2.6 percent, another increase as in 2017. Solano County continues to have MHI levels above statewide and national averages. Solano County remains below the state of California average for gross product and personal income per capita after inflation adjustments. These three measures of living standards increased in 2018 (the latest data) exhibited continued progress for Solano County residents and households. In inflation adjusted terms, Solano County is now better off than before the Great Recession ended (2010) across the standard of living measures in this Index.

Standard of Living Measures at the County, State, and National Levels 2010, 2017 and 2018 (latest available data), in 2009 Dollars

Place	Gross Product per Capita			Personal Income per Person			Median Household Income		
	2010	2017	2018	2010	2017	2018	2010	2017	2018
Solano County	\$47,203	\$54,684	\$55,450	\$37,723	\$48,364	\$51,664	\$62,169	\$62,210	\$63,825
California	\$58,603	\$70,415	\$73,115	\$43,634	\$60,156	\$63,557	\$56,950	\$57,280	\$58,577
United States	\$53,967	\$59,601	\$60,967	\$40,546	\$51,885	\$54,446	\$49,238	\$50,459	\$51,512

Sources: Bureau of Economic Analysis (<http://www.bea.gov>) and Census Bureau (<http://factfinder.census.gov>); there have been changes in benchmarking that make these data different than previous Index versions for the same date and place.

Because standard of living data lag by one year, the 2019 data are likely to show an increase again, but the 2020 data are likely to show a decline due to lost incomes from the COVID-19 crisis. When the 2019 data are available, there is more information about the baseline as 2020 started. Population growth can also affect these standards of living for Solano County.

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Community Indicators: Continued Gains and Some Challenges

Graduation rates at Solano County high schools were higher than the state on average, with gains also made in the number of UC/CSU eligible students.

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, 2018 and June 30, 2019, Solano County's population grew by an estimated 2,170

people; for the calendar year 2018, the estimated population growth was 2,205. Demographic data for 2018 (the latest data available) show that Solano County's population is now 37.9 years old at the median (1.6 years older than California).

Data on high-school graduates estimated Solano County schools produced graduates at a rate over 84.9 percent of eligible students, with 43.7 percent of graduates leaving high school eligible for UC or CSU admission. Solano County is likely to see K-12 enrollments slowly fall over this decade, and then begin to rebound slightly toward 2030. In terms of workforce education levels, Solano County's population over 25 years old has a bachelor's degree 26.2 percent of the time, slightly less than the state average.

Solano County's population gained 740 new residents from other places.

Like much of northern California, and the state overall, there was a net outflow of residents due to movement of people. A natural increase in Solano County's population balanced the population change for a net increase. Between July 1, 2018 and June 30, 2019, the California Department of Finance estimated people moving to Solano County increased by 740 net new residents. Births exceeded deaths by and estimated 1,430 in the 2018-19 fiscal year. Updated forecasts for all 58 California counties by the California Department of Finance (new as of Jan 2020) for 2020 to 2030 estimate that Solano County's population will be 472,048 (down from 507,219 predicted in 2019).

Solano County's graduation rate was 84.9 percent.

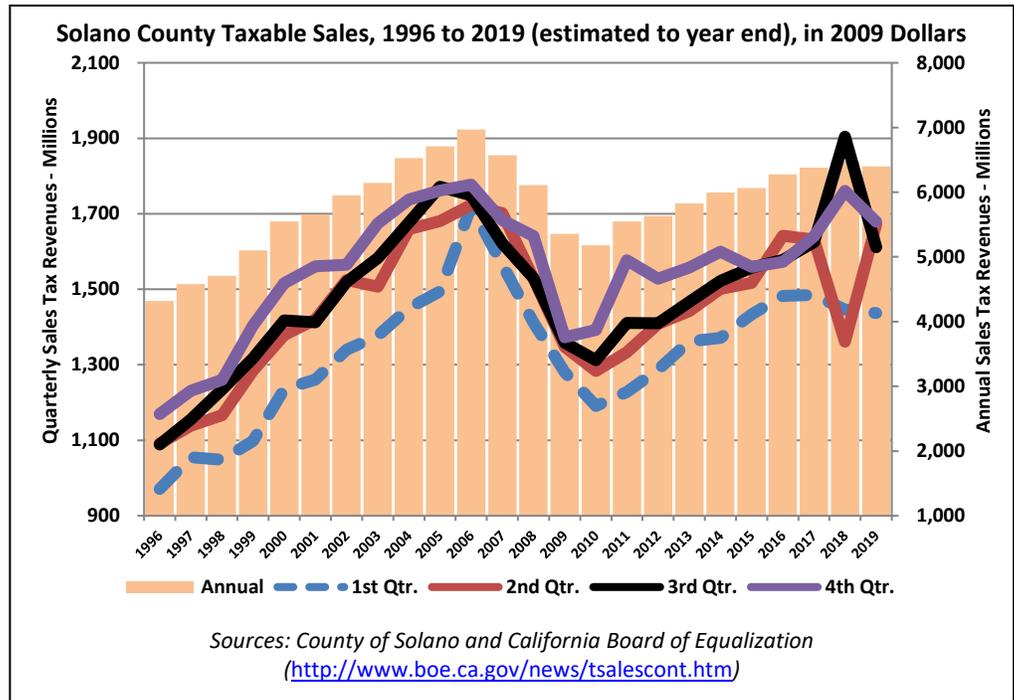
During the 2018-19 academic year (the latest year for which data are available), Solano County's graduation rate increased to 84.9 percent from 81.4 percent in 2017-18, ahead of California's average that increased slightly from 83.0 to 84.5 percent (methodology changes do not allow historic comparisons to graduates data before 2016-17 easily, including data on students preparing for college). The percent of graduates that were UC/CSU-ready was 43.7 percent of Solano County graduates in 2018-19 versus 50.5 percent of graduates for the state of California.

Graduation-rate levels recently achieved are likely to be tested in 2020 and 2021 due to the COVID-19 crisis. If family incomes drop and high-school students are forced to consider working versus school, there may be short-term challenges for local high schools. Further, housing market changes may shift demography toward older residents and slow down new student growth in the early 2020s versus current forecasts. Local government is also going to be challenged due to changing levels of sales tax and property tax revenues.

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Taxable sales and assessed property value continue to rise

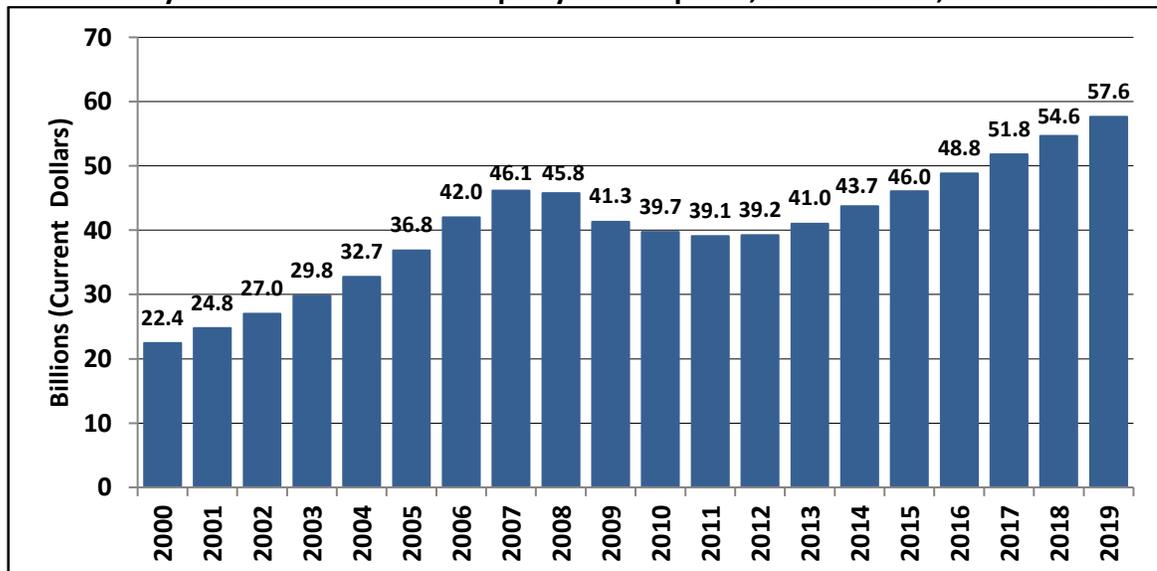
The combination of rising home prices and more taxable sales suggests more revenue for Solano County's city and county governments in 2019. Overall, taxable sales grew slightly after inflation adjustments; inflation-adjusted, taxable sales have grown by 23.9 percent from fiscal year 2009-10 to 2018-19 for the



County of Solano. Solano County should expect lower taxable sales in 2020 due to the COVID-19 crisis; the crisis' shadow also affects transient occupancy tax (TOT) revenues in Solano County's cities.

Solano County's assessed property values in the aggregate continued to grow in the 2018-19 fiscal year; current values are used by the Solano County Assessor's Office to set the annual tax roll. As of June 30, 2019, the assessed value of property in Solano County was \$57.6 billion, the seventh year of increased property tax rolls in a row. Housing market fluctuations, like those during the Great Recession (2008-10), may force property tax rolls down again due to the COVID-19 crisis.

Solano County Assessed Values for Property Tax Purposes, 2000 to 2019, in Current Dollars



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

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Travel Times to Work and Laborshed

Worsening traffic and rising employment opportunities combine for potential, negative effects on Solano County residents. Solano Transportation Authority (STA), Metropolitan Transportation Commission (MTC) and Solano Economic Development Corporation (Solano EDC) continue to partner and seeking funding for projects to make other infrastructure upgrades to Solano County's roadway systems. Between 2010 and 2018 (the latest data available), Solano County residents spent an extra 3.2 minutes going to work on average; the average time it takes someone who lives in Solano County to get to work is 32.6 minutes. 60.3 percent of commuters spend a minimum of 20 minutes getting to and from work each work day. Most commuters leaving Solano County go to San Francisco, Contra Costa, Alameda, and Sacramento counties according to the Census Bureau. Commute patterns remain similar to the period since 2010, but the COVID-19 crisis may have effects on where and how people work after 2020.

Geographic Comparisons

Unless stated otherwise, the 2019 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 previous versions of this Index, the author has ended each of the following subsections with a brief "TAKEAWAY" and either an "OPPORTUNITY" or a "CHALLENGE" for Solano County economic development. Due to COVID-19 and the global economy slowing down as a result of social policies to restrict movement of workers and disease spread, 2020 is likely to be a challenging economic year. If there is a true opportunity or a serious challenge seen by the author, it is identified after the subsection's TAKEAWAY. If not, we use "For 2020" and try to point the reader to the most likely scenario for 2020 and what next year's Index report may reveal. The report starts with a look at Solano County's economy followed by community indicators.

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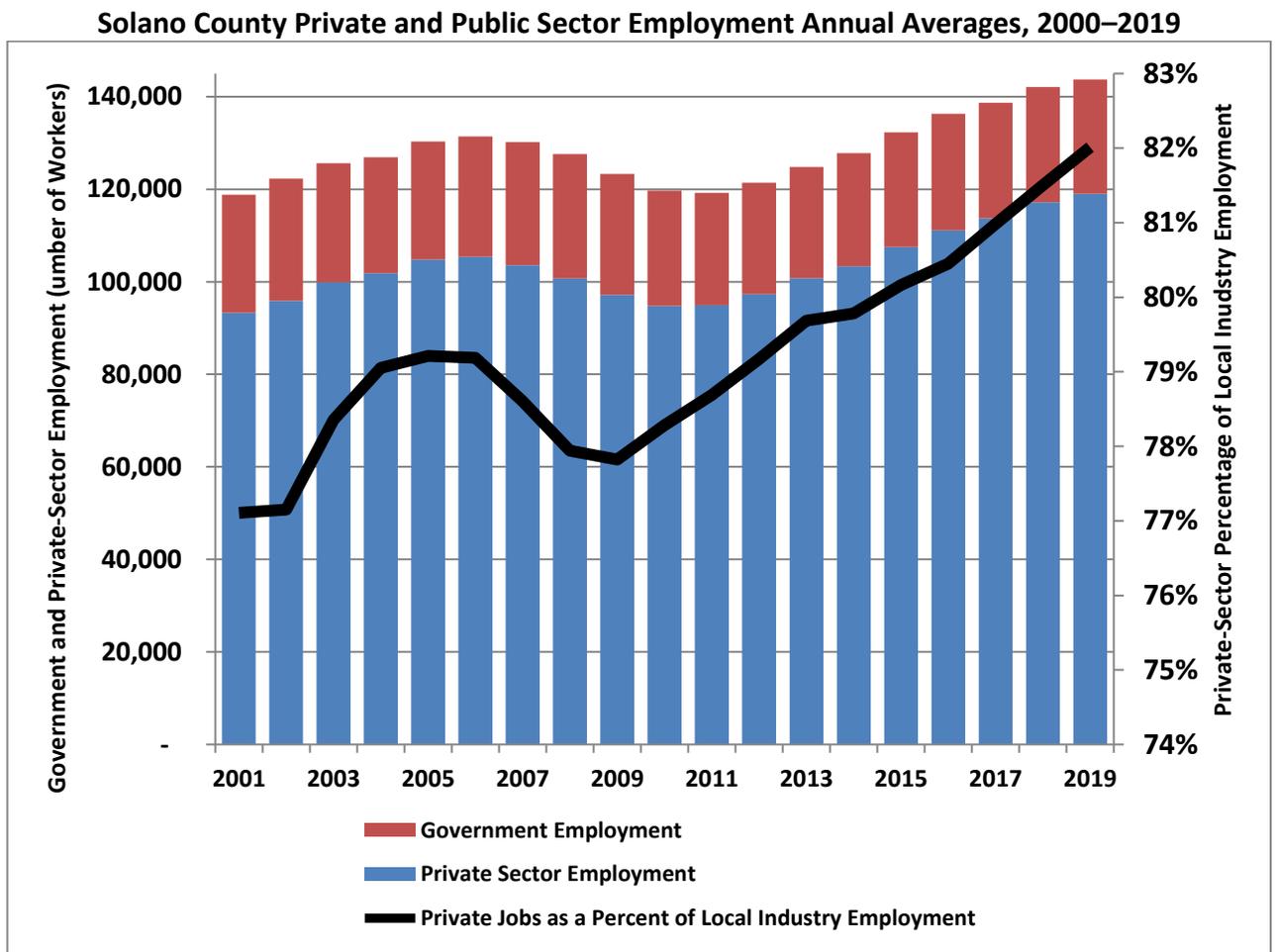
Our Changing Economy

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Labor Markets

Annual Local Industry Employment

Solano County employers increased the number of workers hired in 2019 from the previous year by 1,400 workers. Total payroll workers employed by Solano County businesses, governments and non-profits (employers that are not self-employed) was 145,100 workers at the end of 2019. This change of 1,400 more workers is a 1.0 percent increase from 2018 and the eighth year of continuous jobs growth for Solano County. Government employment fell (due to 100 fewer workers) as a proportion of total employment versus private-sector jobs growth.



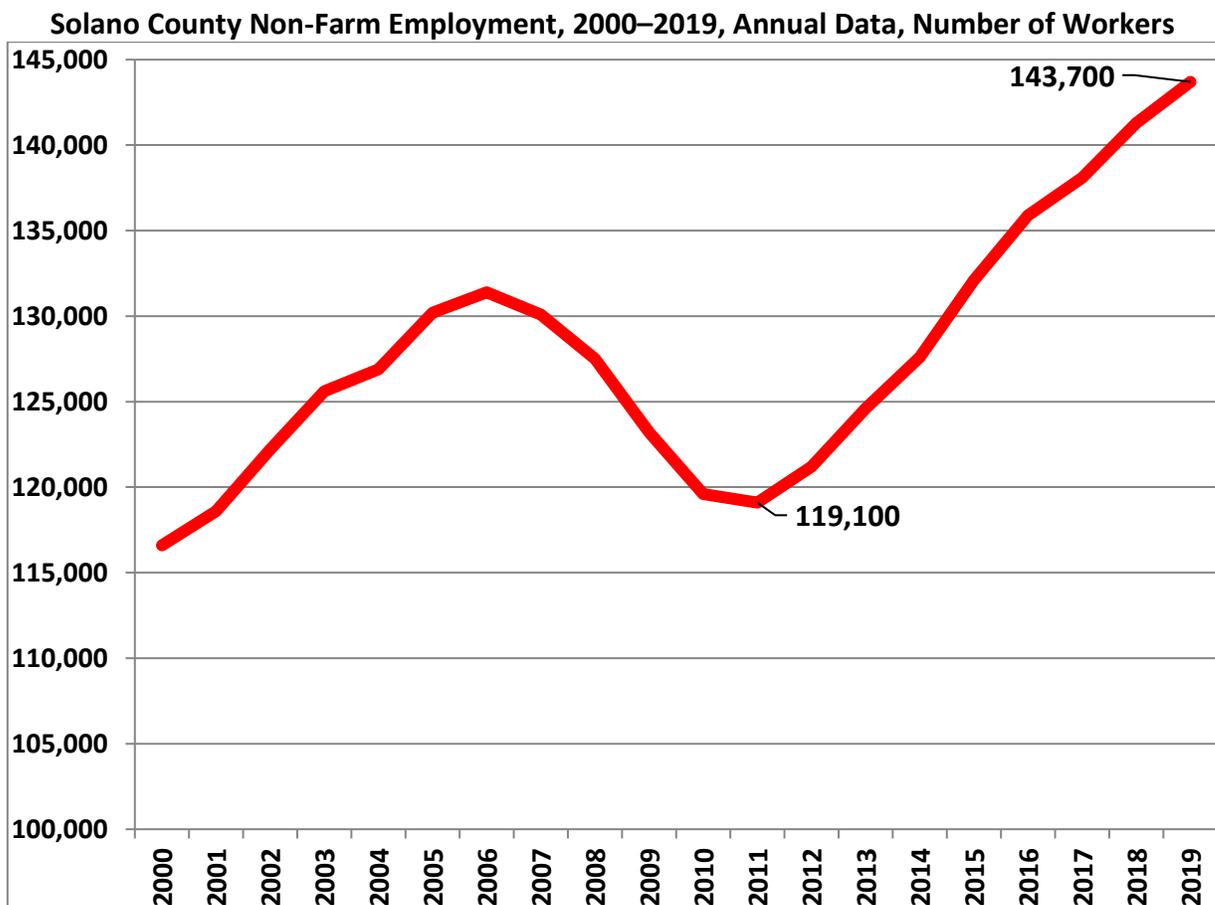
Source: California Employment Development Department (www.edd.ca.gov). Private- and public-sector employment levels are indicated on the left-hand axis; share of private-sector (%) jobs to total employment is indicated on the right-hand axis.

TAKEAWAY: Solano County payroll employers hired 1,400 more workers in 2019 (1.0 percent gain), and have hired over 24,000 more workers since 2010.
For 2020: As the aftermath of COVID-19 affects Solano County, it is likely that in 2020 and 2021, public employment rises as a percentage of employment for Solano County as private-sector employment falls.

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Total Non-Farm Employment

Agricultural jobs in Solano County slipped again in 2019 (-300 jobs); however, Solano County employers hired 1,700 more workers in non-farm jobs in 2019 (1.1 percent gain). Since 2011, there are 24,600 more people working at jobs in Solano County (15.6 percent growth, see figure). Healthcare hiring led to 300 more jobs; Solano County's healthcare sector has annual jobs gains for thirty (30) years in a row, including three recessions. Construction employment in Solano County saw another robust year with 1,400 new jobs in 2019. Solano County's gain in non-farm jobs in 2019 was in spite of 700 jobs lost in retail. Manufacturing and public education also slipped slightly in 2019. Counties in the Bay Area Other category grew non-farm jobs at 2.0 percent in 2019, including San Francisco County. The North Bay counties of Sonoma and Napa had non-farm jobs growth of 1.2 percent overall in 2019, while Sacramento County grew by 1.6 percent; the statewide average was 1.8 percent growth in 2019.



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

TAKEAWAY: Jobs in Solano County continued to grow in 2019, though at a percentage change slower than the state on average, the Bay Area and the North Bay counties.

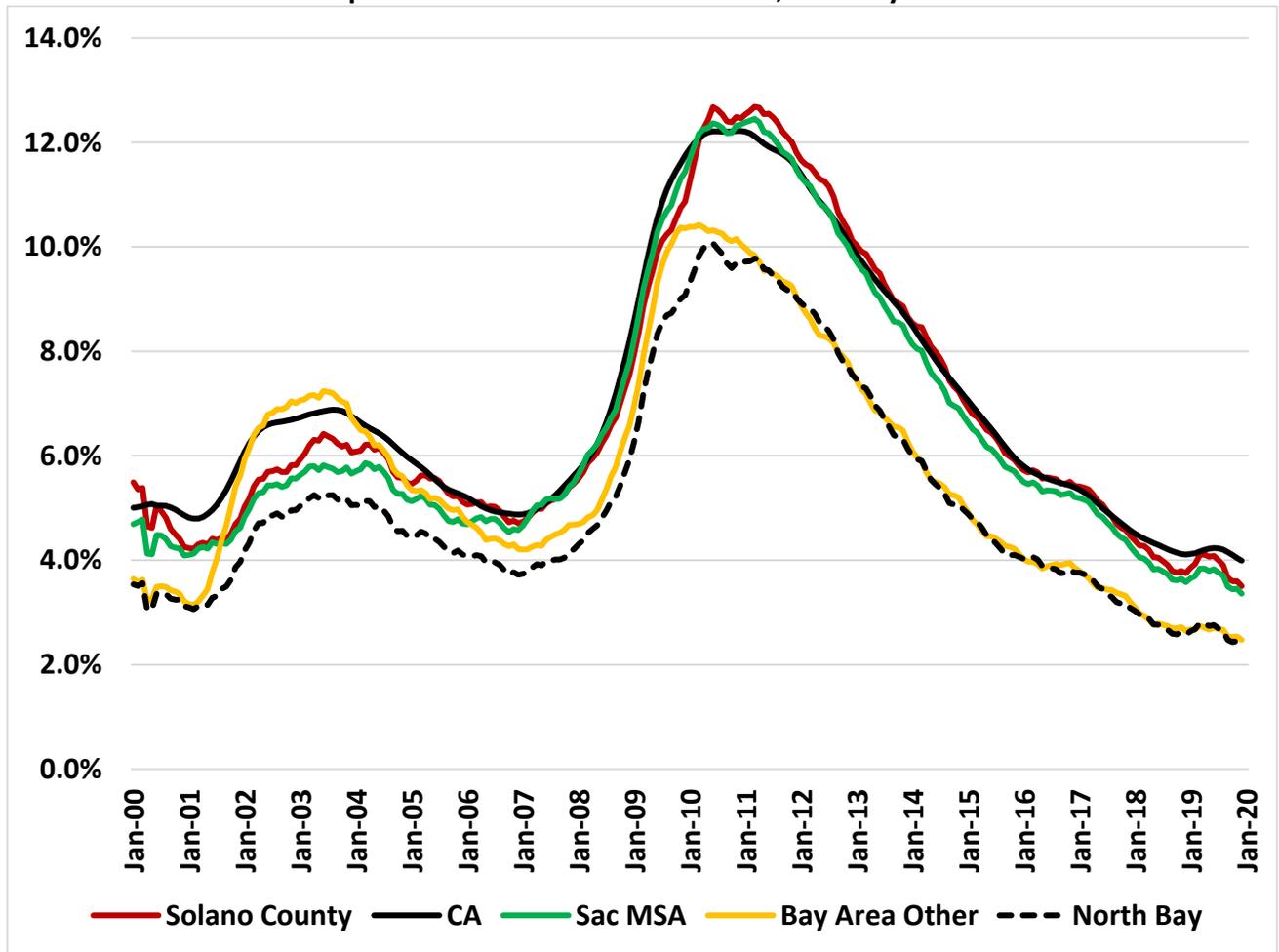
OPPORTUNITY: Because non-farm jobs in Solano County are less-dominated by services than the state of California on average, non-farm employment may see a larger percentage drop for the state than for Solano County because of the COVID-19 crisis.

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Unemployment Rate Comparisons

Solano County’s unemployment rate was 3.7 percent as 2020 began, compared to 4.0 percent one year earlier. The drop in the unemployment rate was due to jobs growth and approximately 200 fewer Solano County residents in the labor force in 2019 and 400 fewer unemployed. The state of California had 4.1 percent unemployment, while the United States overall had 3.5 percent unemployment as of January 1, 2020. San Francisco and the Bay Area Other counties dropped below 2.5 percent unemployment as 2019 ended.

Unemployment Rate (%), January 2000 – December 2019
Comparisons Between Selected Areas, Monthly Data



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

TAKEAWAY: Unemployment rates in Solano County and California were at their lowest levels on record (since 1976) as of December 2019.

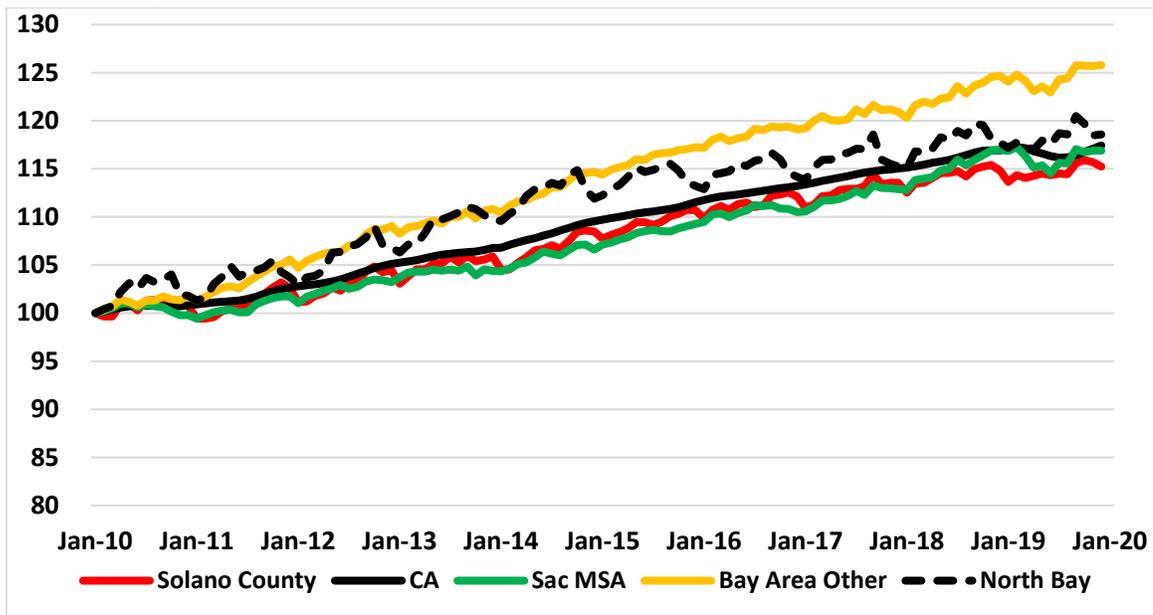
FOR 2020: After years of low unemployment, Solano County is likely to see some of the largest jumps in unemployment rate history in 2020 due to the COVID-19 crisis, but potentially remain at lower unemployment rates than the state on average.

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Total Employed Residents Comparisons

In 2019, Solano County experienced 0.3 percent more employed residents, an increase of approximately 700 Solano County residents working. The figure below compares Solano County’s employed residents by index numbers to employed workers in other, selected areas. Changes in the index are monthly, percentage changes from January 2010, the index base month equal to 100. In December 2019, the index was 114.9, thus 14.9 percent growth since 2010 (annual averages suggest slightly higher growth than the monthly data).

Total Employed Residents, 2010-19, 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 2018 Compared to Dec 2019

Employed Residents	2010-19	2018-19
Solano County	14.9%	0.3%
California	16.5%	1.3%
Sacramento MSA	16.2%	1.6%
Bay Area Other	24.8%	2.7%
North Bay (Napa/Sonoma counties)	15.7%	0.5%

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

TAKEAWAY: Solano County has more residents working in 2019 than 2018; county residents work in multiple counties throughout northern California.

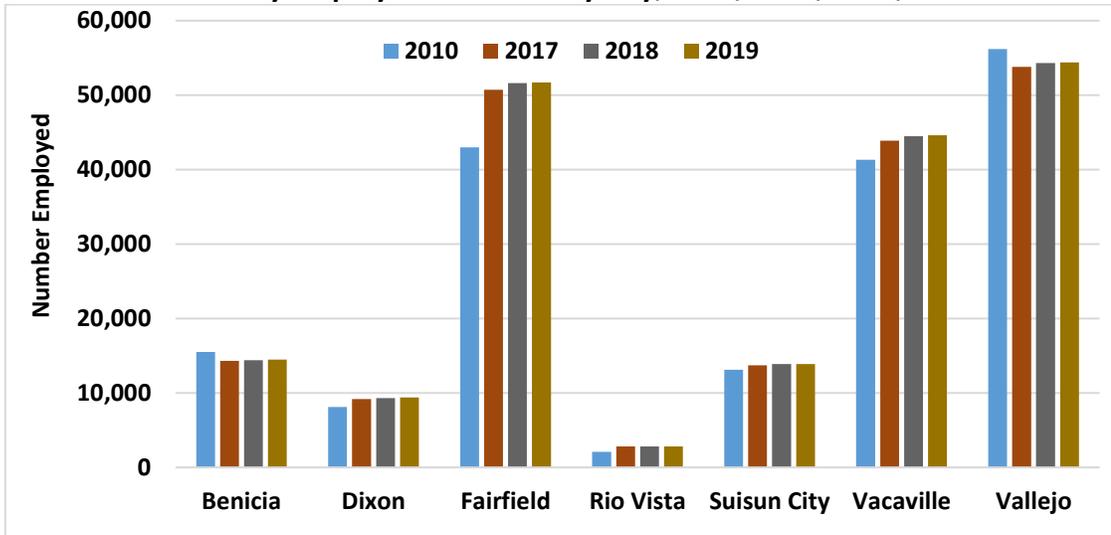
FOR 2020: Levels of employed residents are likely to be lower in 2020 as the COVID-19 crisis evolves. Solano County’s residents that commute away from Solano County to jobs elsewhere, especially to urban areas such as core Bay Area counties like San Francisco and Alameda, may have longer, negative effects than those with jobs within Solano County. Cities may see two rounds of social distancing and business closures if COVID-19 returns toward the end of 2020.

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Cities Overview: Labor Markets

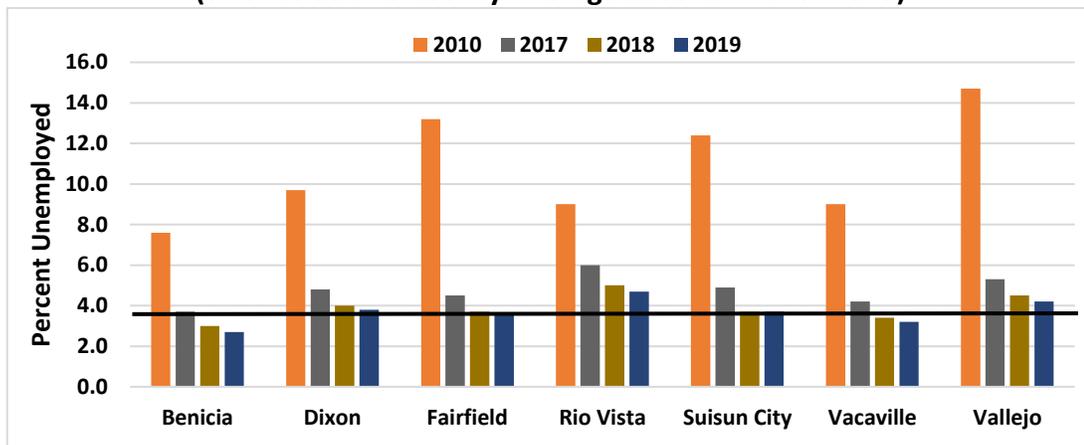
Data on Solano County’s incorporated cities and their labor markets come from California’s Employment Development Department (EDD). Jobs growth in 2019 increased slightly for all Solano County’s cities except Rio Vista and Suisun City that had zero percent growth; unemployment rates also fell in all cities due to both slight jobs growth and reduced labor force levels. Solano County’s unemployment rate had an annual average of 3.7 percent.

Solano County Employed Residents by City; 2010, 2017, 2018, and 2019



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

Solano County Unemployment Rate by City, 2010, 2017, 2018, and 2019 (3.7% as Solano County Average at solid line for 2019)



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

TAKEAWAY: For Solano County cities, the number of employed residents increased in 2019 except for zero change in Rio Vista and Suisun City; with unemployment rates falling in all cities, city residents may be leaving the labor force due to retirements.

FOR 2020: As unemployment rises in the wake of the COVID-19 crisis, all the cities in Solano County are likely to be affected negatively, regardless of the city’s size.

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Employment in Base Industries and Locally-Serving Industries

Economic development generally focuses on attraction, retention and expansion of “base” or “traded-sector” industries, businesses with markets beyond Solano County’s borders. Base-industry employment increased slightly as of 2019 Quarter 2 versus 2018 Quarter 2. Solano County jobs growth tilted toward government jobs over those four quarters. Warehousing and transportation, as well as visitor services (accommodation and food services) industries also increased jobs.

Construction saw a big increase in jobs (+14.8 percent or 1,632 more jobs), as did educational services over these four quarters. Healthcare jobs also saw a continued increase. While generally not the primary focus of economic development efforts, locally-serving businesses provide local options for residents and reduce income leakages to other counties.

Efforts such as Moving Solano Forward (www.solanomeansbusiness.com) continue to support base-industry jobs growth. Because such businesses draw from global markets, more base jobs can stimulate more locally-serving jobs.

Solano County Base Industry Employment Second Quarter Data for 2010, 2017, 2018, and 2019

	2010 Q2	2017 Q2	2018 Q2	2019 Q2
Base Industries Total	32,401	36,740	36,537	36,804
Agriculture	1,489	1,919	1,673	1,572
Mining	223	240	560	524
Wholesale Trade	3,986	4,098	4,203	4,212
Information	612	244	267	237
Finance and Insurance	991	1,001	1,047	1,070
Real Estate and Rental and Leasing	119	241	275	316
Prof., Scientific, Technical Services	266	263	306	283
Management/Consulting	1,217	966	797	763
Arts, Entertainment, and Recreation	2,455	2,860	2,833	2,822
Accommodation and Food Services	701	703	702	886
Federal government	4,975	3,702	3,548	3,579
State government	4,618	6,043	5,400	5,982
Manufacturing	6,109	9,378	9,816	9,559
Retail Trade	2,334	2,360	2,249	2,070
Transportation and Warehousing	2,306	2,722	2,861	2,929
Locally-Serving Industries Total	68,902	83,937	86,804	92,771
Utilities	480	586	585	593
Construction	7,119	9,993	11,047	12,679
Information	586	244	267	237
Finance and Insurance	2,323	1,001	1,047	1,070
Real Estate and Rental and Leasing	1,218	241	275	316
Prof, Scientific, Technical Services	3,121	263	306	283
Admin/Waste Management Services	6,579	5,607	6,059	5,387
Educational Services	1,537	1,217	1,322	2,034
Healthcare and Social Assistance	12,777	23,406	24,068	25,914
Arts, Entertainment, and Recreation	222	2,860	2,833	2,822
Accommodation and Food Services	438	349	437	496
Other Services	3,097	3,847	3,734	4,475
Local Government	15,380	16,061	16,077	15,847
Local Portion of Retail Trade	13,281	15,540	15,886	17,689
Local Portion, Trans and Warehouse	744	2,722	2,861	2,929
Jobs in industries unassigned	21,332	18,141	18,315	14,591

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 increased by 267 jobs between Quarter 2 2018 and Quarter 2 2019 (the latest data), while total workers at Solano County employers increased by 2,433 over these four quarters.

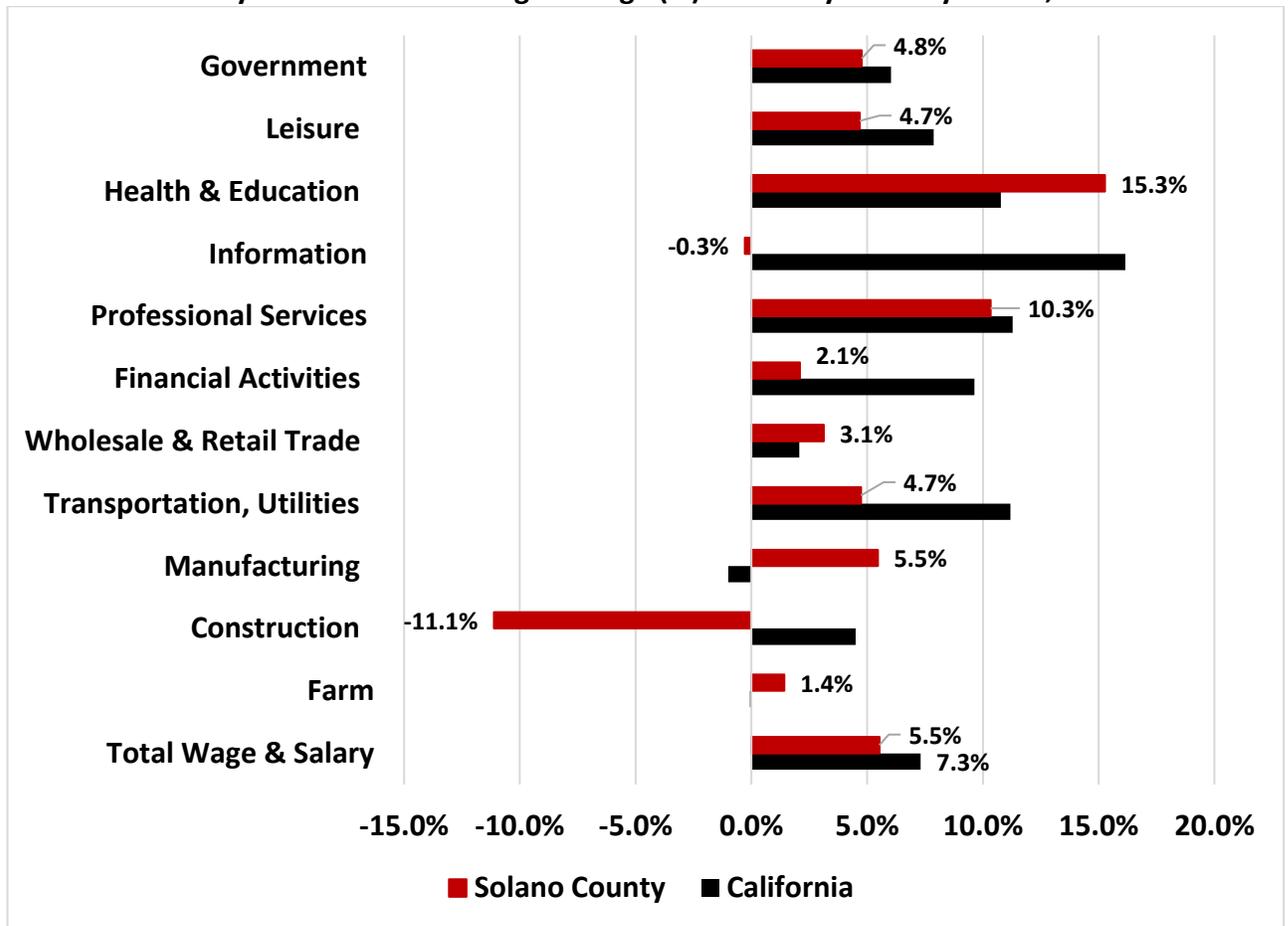
OPPORTUNITY: The COVID-19 crisis shows that having businesses essential to sustaining households. Economic development opportunities may expand in “essential” production as a way to provide import substitution: pharmaceuticals; chemicals; medical devices; and other advanced materials.

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Long-Term Jobs Forecast to 2030

CalTrans, the California Department of Transportation, forecasts socioeconomic indicators for all 58 California counties and the state overall annually. Projected jobs growth from 2019 to 2030 in Solano County is shown here as positive but slower growth than the state overall to 2030. Construction jobs in Solano County are forecasted to contract; such a change may be due to assumed growth in the early 2020s, followed by a slowdown as home and commercial construction reaches a short-term peak. Farm jobs and all other industries, except for Information (software and publishing), are forecasted to grow positively to 2030. These data change each year as CalTrans gains new information; the forecasts can be seen as opportunities for economic development professionals.

Solano County Estimated Percentage Change (%) in Jobs by Industry Sector, 2019 to 2030



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

TAKEAWAY: As of 2019, Solano County had a positive jobs-growth forecast of 5.5 percent in net from 2019 to 2030, slower than for the state overall (7.3 percent).
OPPORTUNITY: For economic development, Solano County has opportunities to attract and expand industries that have portable jobs (workers can work from home) and also essential businesses (e.g., healthcare and construction). While this forecast is from before the COVID-19 crisis in 2020, California’s and Solano County’s emergence from the crisis may ultimately lead to little change in jobs growth predictions to 2030.

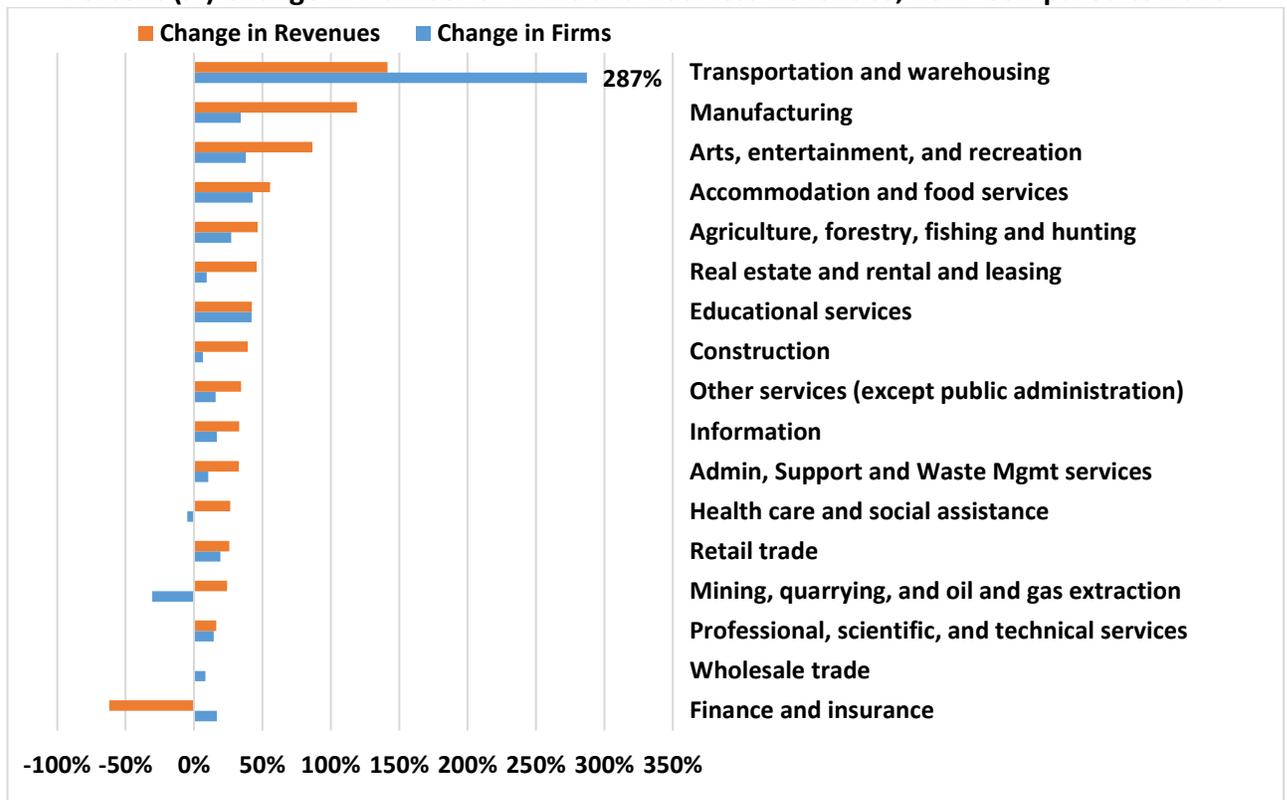
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Businesses and Incomes

Non-Employer Businesses

The growth of transportation and warehousing businesses for self-employed, “non-employer” businesses since 2010 to 2017 (the latest data available) outpace the sum of all other new self-employed businesses created for Solano County (287 percent growth as shown in the figure). This is likely due to drivers being workers for businesses such as Uber, Lyft, and Amazon Prime. Non-employer businesses hire fewer than four (4) workers, and are generally self-employed businesses. The Census Bureau estimates the number of non-employer businesses to track total business entities in the United States. Of Solano County’s 1,056 self-employed businesses that newly opened in 2017, 42.6 percent were transportation/warehousing businesses. As of 2017, there were approximately 25,850 such businesses operating in Solano County.

**Solano County Non-Employers,
Percent (%) Change in Number of Firms and Business Revenues, 2017 Compared to 2010**



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

TAKEAWAY: Jobs in transportation as Uber and Lyft drivers continue to dominate growth of new, small business formation of firms with less than four, non-payroll employees since 2010. The data continue to lag 24 to 36 months.

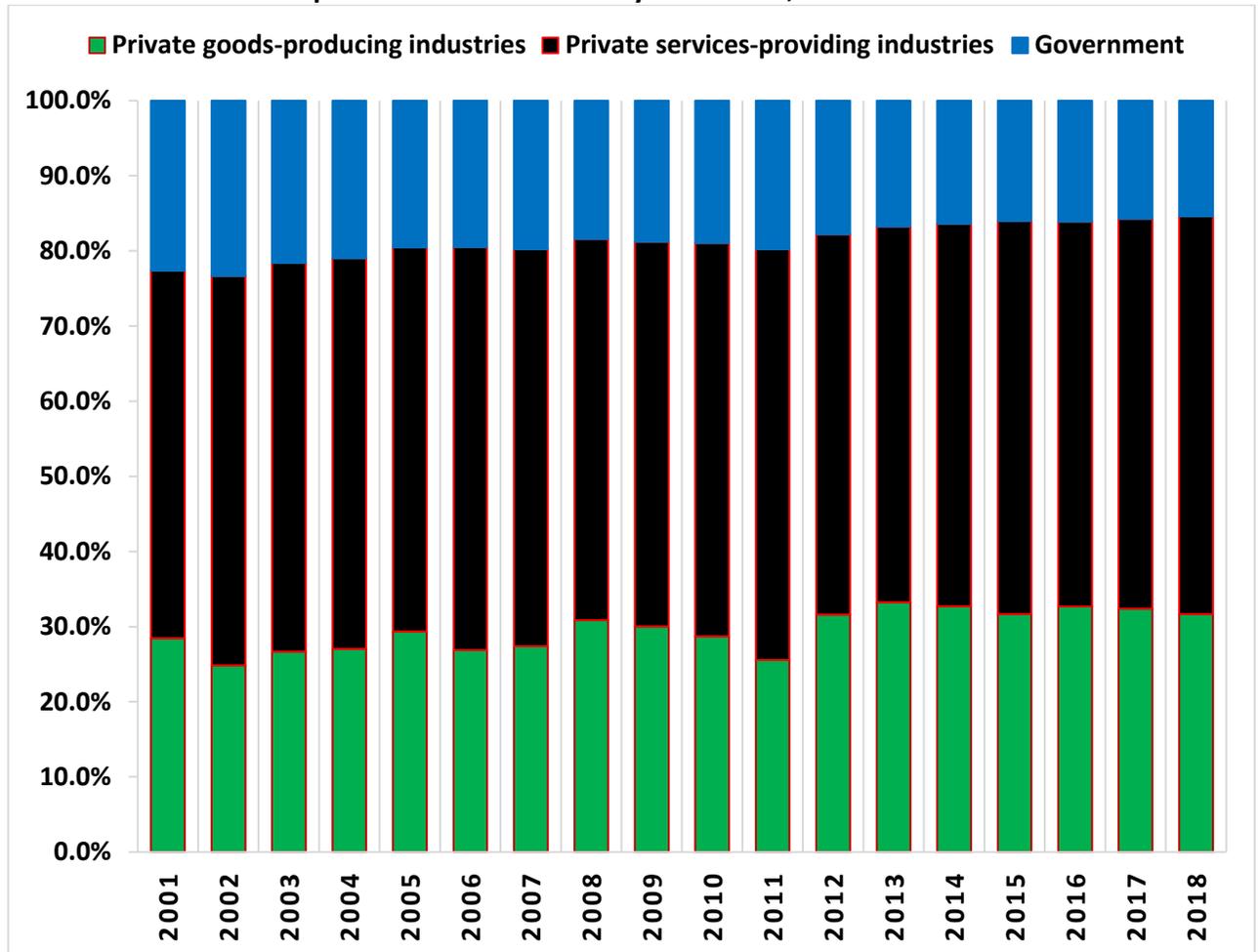
FOR 2020: While these data lag, the COVID-19 crisis and implications from 2019’s Assembly Bill (AB) 5’s definition of a worker may change how these workers approach remains in business. These smaller businesses may not be as plentiful after 2020 for some time due to the COVID-19 crisis hitting smaller, self-owned businesses harder than larger businesses.

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Gross Product Change by Industry Sector

Gross product measures how employers add value to raw materials and create goods and services. Gross County Product (GCP) data show Solano County continued to grow across industry sectors and countywide in 2018 (the latest data available). While public-sector employers remain important, including Travis Air Force Base, private-sector services have grown in terms of their proportion of income generated for county business.

Gross Product Share (%) by Major Sector, 2001-18
Proportions in Solano County Over Time, in 2009 Dollars



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

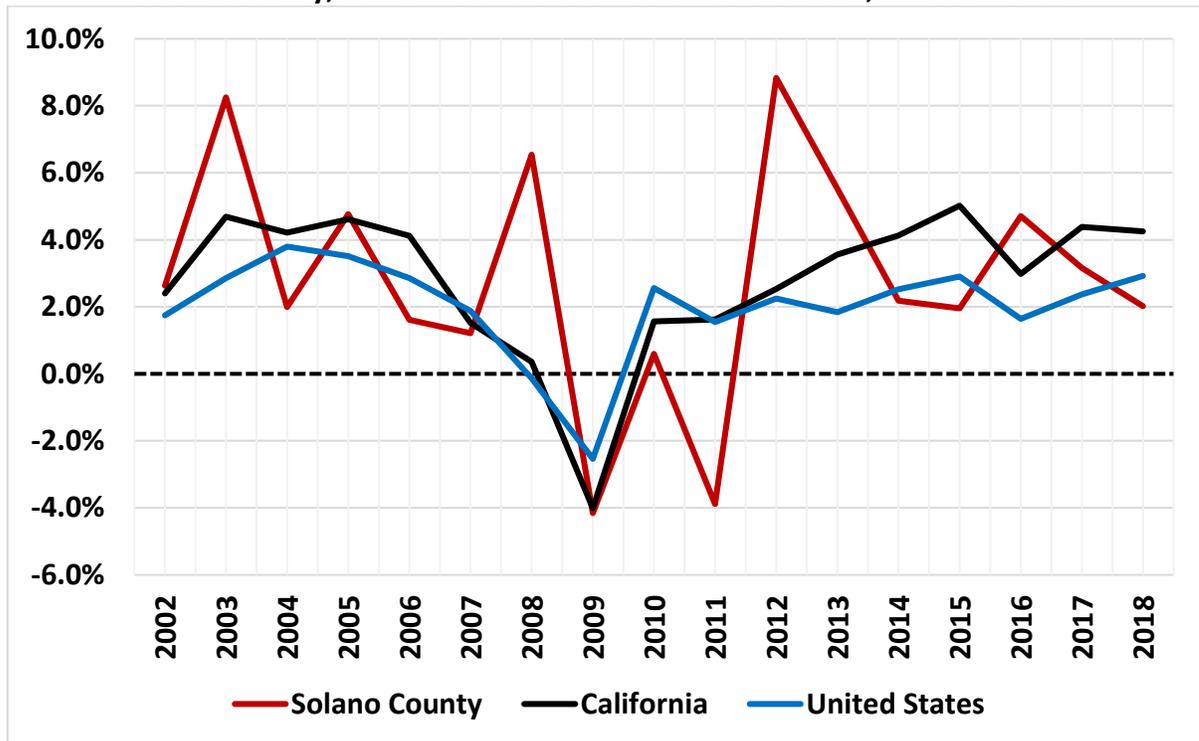
TAKEAWAY: Since 2010, the public sector has become smaller as a proportion of Solano County’s economy to 2018, as private-sector services businesses saw more gross product growth during 2018 than goods-producing or public-sector employers.

FOR 2020: Due to the COVID-19 crisis, 2020 is likely a year where the public sector increases as a percentage of the total gross product for Solano County versus private-sector industries due to an economic contraction.

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Gross product growth rates slowed down in 2017 and 2018 for Solano County, where county gross product growth was 2.0 percent in 2018. Healthcare, advanced manufacturing, retail, and construction remain foundations of Solano County's economy; finance and non-durable manufacturing gross product (food and beverage mainly) contracted a bit in 2018. Government is approximately 15.4 percent of gross product in Solano County in 2018 (the latest data available) down from 15.8 percent in 2017.

**Gross Product Growth Annually, 2002–2018, Percent (%) Growth
Solano County, California and the United States Overall, in 2009 Dollars**



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

TAKEAWAY: Solano County's gross product growth after inflation at 2.0 percent in 2018 (the latest data available) was slower than the national economy (2.9 percent), and almost half the growth of California (4.3 percent) on average. The increase in the gross product deflator (see below) in Solano County partially accounts for slower growth.

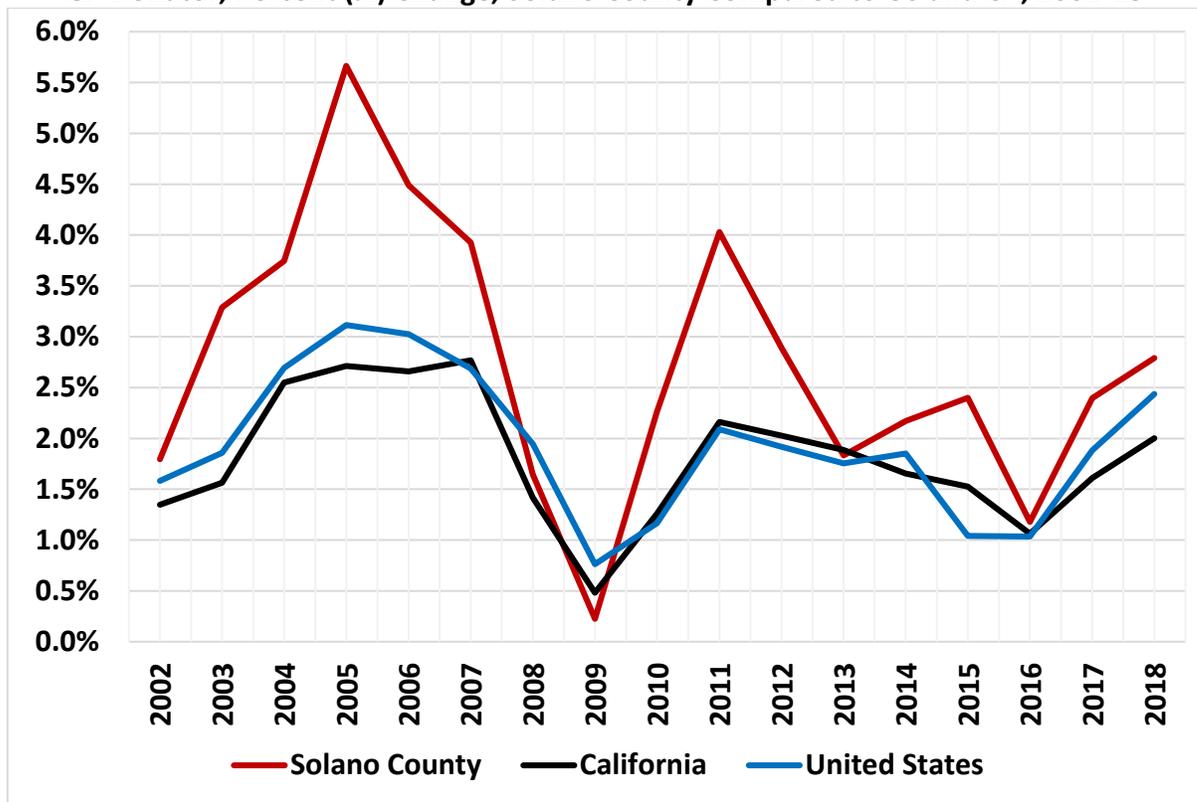
FOR 2020: Increasing unemployment from reduced consumer and business demand for goods and services in 2020 due to the COVID-19 crisis is likely to make gross product growth negative for Solano County in 2020. This is similar to the depths of the Great Recession (2008-10). Much depends on the number of jobs and businesses lost as a result of COVID-19 social restrictions and the supportive effects of fiscal and monetary stimulus packages by federal and state governments.

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Gross Product Deflator and Local Cost of Living

The Gross Product Deflator (GP Deflator) is technically the ratio of nominal to real (inflation-adjusted) gross product; the GP Deflator is a price index that converts the value of production today to its purchasing-power level as of a base year from the past. The Consumer Price Index (CPI) is closely related to the GP Deflator; while there is no official CPI data available for Solano County, the GP Deflator can act as a proxy. Changes in this deflator index may or may not suggest economic expansion or contraction alone. The GP Deflator is the percentage change in the cost of living from the last year **locally**. For Solano County, a 2.8 percent change (as in 2018, the latest data available) means, it is 2.8 percent more expensive to live in Solano County since the previous year, but does not suggest how expensive it is to live in Solano County versus national, state or other regional economies.

GP Deflator, Percent (%) Change, Solano County Compared to US and CA, 2002-18



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

TAKEAWAY: Solano County's cost of living (2.8 percent) grew slightly faster than the state and national rates of change (2.0 percent and 2.4 percent) respectively.

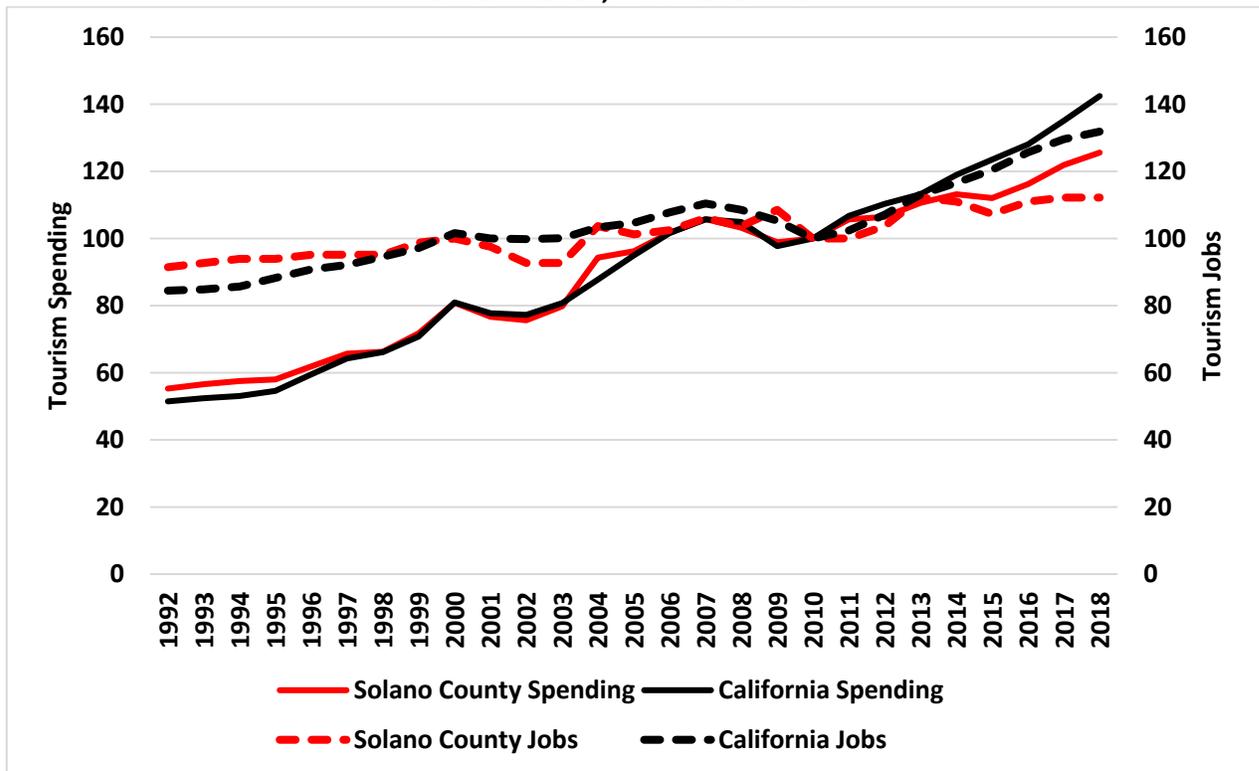
OPPORTUNITY: Demand and jobs contraction in Solano County due to the COVID-19 crisis in 2020 may generally lower costs for consumers and businesses, providing incentives to spend. Lower prices also reduce the cost of living for lower-income residents and families in Solano County to offset potential income reductions.

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Tourism Industry: Supporting Visitors

Recent, regional fires in northern California reduced the number of visitors to places like Sonoma, Napa, Butte, and Shasta counties in 2018; the fires' effects were also felt in Solano County. Spending by visitors to Solano County support an array of local attractions, retail and restaurant employers, and their workers. The figure compares Solano County business revenues from visitors to the state overall, as well as visitor-related employment. Solano County has over 6.5 percent of non-farm jobs in 2018 (the latest data available) directly supporting visitors.

Tourism Jobs and Spending, Visitors Spending in Solano County and California 1992 to 2018, Index 2010 = 100



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

TAKEAWAY: Solano County tourism jobs did not grow or shrink in 2018, while statewide jobs supporting visitors grew slightly. Tourism spending in Solano County increased in 2018 versus 2017.

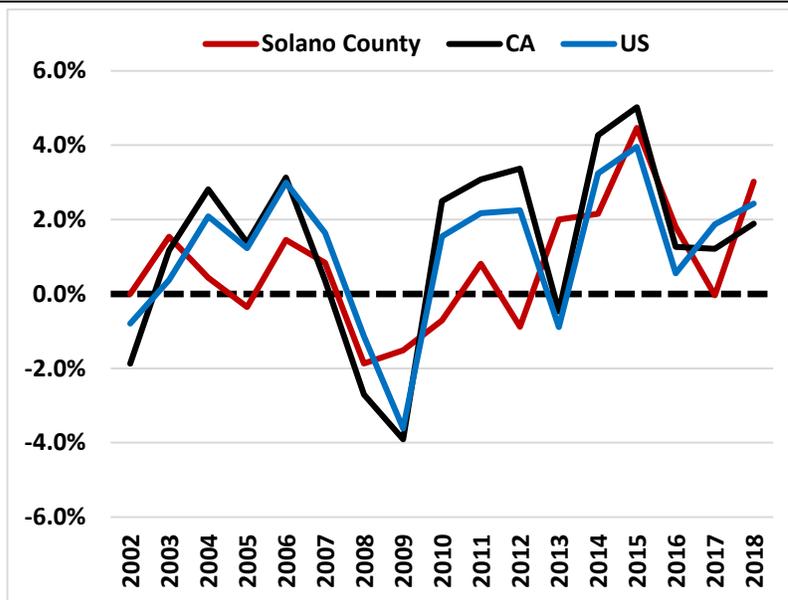
CHALLENGE: Because of social restrictions on gathering and travel due to the COVID-19 crisis in 2020, Solano County's visitor industries are likely (as for most of the state of California) to have economic development challenges (businesses and jobs lost) for a longer period during and after 2020 than other industries.

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Personal Income

Solano County saw higher levels of per-person personal income in 2018 (the latest year data available) compared to the state and national economies. This was after a year in 2017 of basically no per capita income changes for local residents. Personal income estimates in Solano County are the sum 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 for county residents. Transfer payments, what residents receive from government, increased slightly in 2018, but less quickly than wage/salary, investment and other sources. Solano County’s taxable sales rise with local personal income growth and visitor spending in Solano County.

Percent (%) Change in Per Capita Personal Income (PI), Solano County, California (CA) and United States (US), 2005–2018, in 2009 Dollars



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

Percent (%) Change in Per Capita PI, 2009 Dollars, Compared to 2018 Solano County, CA and US

Comp to 2018	Solano County	CA	US
2010	14.0%	21.3%	16.6%
2015	4.8%	4.4%	4.9%
2016	3.0%	3.1%	4.3%
2017	3.0%	1.9%	2.4%

Source: BEA (www.bea.gov)

TAKEAWAY: Personal income per capita after transfer payments grew more quickly than the state or national economies in 2018, bouncing back after a flat 2017. Equity market growth (or lack thereof) reduced the state and national growth rates more than Solano County.

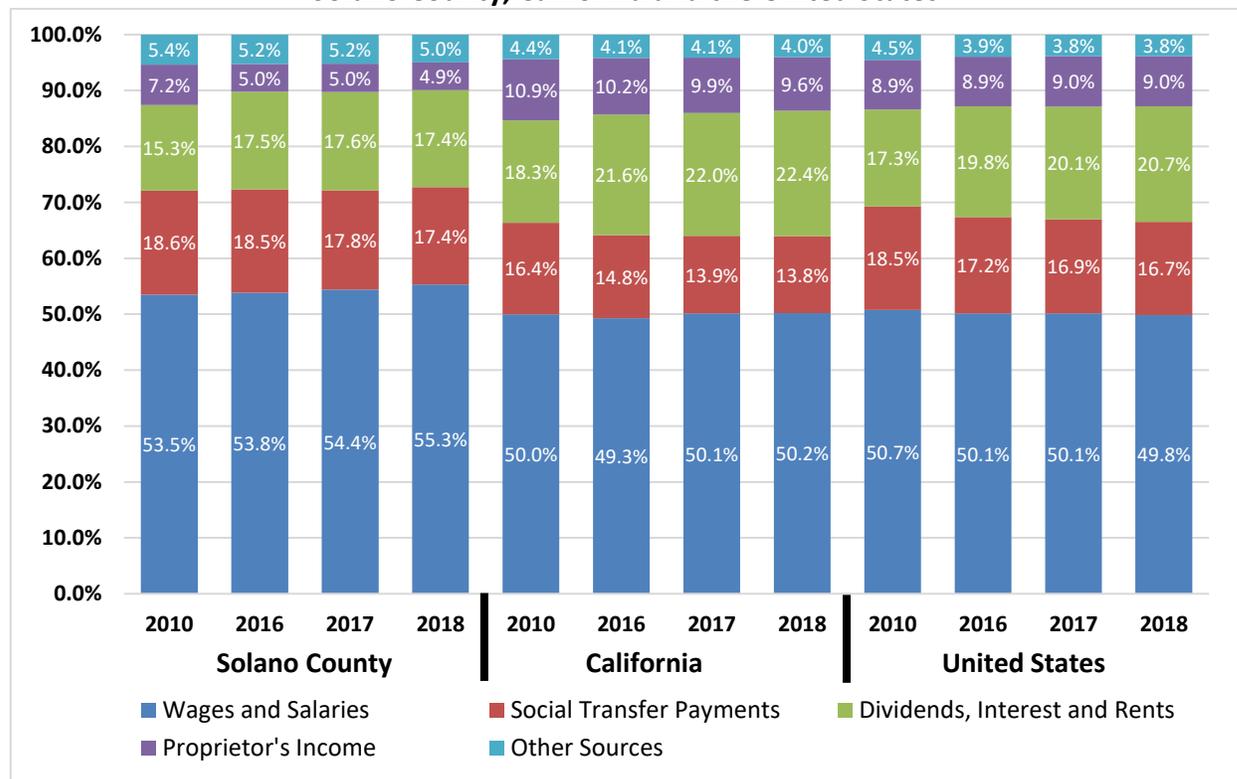
For 2020: Given the potential contraction of equity markets, jobs and income in 2020 due to the COVID-19 crisis, per-capita personal income is likely to decline for Solano County (and the state and national economies), likely following a year of rising per-capita income due to jobs growth and equity market gains in 2019.

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Sources of Personal Income

What Solano County’s residents earn at work is historically the largest proportion of their personal income. Some wage and salary income are made by Solano County residents outside Solano County and also made internally by those that commute into Solano County for work. This amount is due to outbound commuting in net, a so-called “Adjustments for Residence”. Workers that live in Solano County and work elsewhere bring their incomes home, augmenting county personal income levels. The figure shows California and the United States had slight growth in investment income (dividends, interest) proportions while Solano County was slightly lower at 17.4 percent of total personal income. Governmental transfer payments fell to 18.2 percent of Solano County’s total; transfers payments include social assistance from county government.

Sources of Personal Income (Percent (%) of Total), 2010–2018, 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 2018 as a percentage of personal income more than government transfers, creating positive, personal-income growth from private sources; investment income fell in 2018 as a proportion of personal income.

CHALLENGE: Government transfers are projected to rise in 2020 (rising use of social assistance, federal stimulus payments and extended/expanded unemployment insurance) such that the proportion of county personal income derived from public sources would quickly against modest changes likely from 2019.

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Business Affordability: Wages

Data on hourly wages is available by occupation and by industry employer from California's Employment Development Department (California EDD). Occupational wage data for jobs in Solano County helps compare to other regional economies and the state overall by categorical occupation. San Francisco and San Jose are over 140 percent of California's median wage level in 2019, while Solano County's median wage of \$20.32 remains just under that median wage of \$20.86. Solano County's labor market remains a place to earn higher wages across many occupations than the state average.

**Solano County and California 2019 Wages and Occupations, 2019 Dollars
Compared to Other Areas as a Percent (%) of Median Wages (\$/hour) in California**

<i>Occupational Categories</i>	<i>CA</i>	<i>Solano County Wages</i>	<i>Solano County</i>	<i>Napa County</i>	<i>Sonoma County</i>	<i>Sacramento MSA</i>	<i>Alameda County</i>	<i>San Jose MSA</i>	<i>San Francisco County</i>
Total all occupations	\$20.86	97.4%	\$20.32	98.4%	99.3%	101.2%	115.8%	141.7%	142.9%
Management Services	\$58.54	86.2%	\$50.46	92.2%	88.1%	88.5%	109.8%	131.6%	129.1%
Business and Financial Operations	\$36.31	99.0%	\$35.93	97.7%	93.9%	96.6%	108.6%	119.1%	121.4%
Computer and Mathematical	\$50.53	82.0%	\$41.45	75.7%	83.7%	85.4%	104.0%	119.5%	117.9%
Architecture and Engineering	\$46.65	90.1%	\$42.02	88.7%	97.7%	102.3%	100.6%	117.8%	108.9%
Life, Physical, and Social Science	\$38.84	124.4%	\$48.31	112.9%	98.7%	95.4%	105.3%	108.0%	123.0%
Community and Social Services	\$25.20	92.6%	\$23.33	105.8%	95.2%	104.7%	109.1%	111.6%	111.8%
Legal Services	\$49.59	81.8%	\$40.57	123.2%	97.3%	101.3%	95.2%	140.3%	136.7%
Education, Training, and Library	\$27.59	89.0%	\$24.55	94.3%	96.9%	93.9%	98.4%	107.0%	106.1%
Arts, Design, Entertainment, Sports, and Media	\$28.88	80.5%	\$23.25	81.4%	94.0%	80.4%	87.4%	111.9%	121.3%
Healthcare Practitioners and Technical	\$43.35	101.9%	\$44.18	104.7%	96.0%	111.6%	112.6%	119.5%	129.5%
Healthcare Support Services	\$17.61	112.1%	\$19.74	108.4%	112.2%	104.2%	107.0%	116.1%	143.7%
Protective Services	\$23.22	188.3%	\$43.72	101.9%	116.7%	100.6%	105.5%	90.3%	98.0%
Food Preparation and Serving-Related	\$12.60	100.2%	\$12.63	109.0%	103.7%	97.0%	109.1%	108.4%	121.2%
Building and Grounds Cleaning and Maintenance	\$15.22	93.8%	\$14.27	97.4%	108.3%	101.2%	118.6%	112.0%	109.4%
Personal Care and Services	\$12.49	100.6%	\$12.56	104.6%	111.4%	98.8%	107.2%	107.4%	113.1%
Sales and Related Services	\$15.48	93.4%	\$14.46	119.5%	111.6%	95.3%	108.3%	129.8%	138.0%
Office and Administrative Support	\$19.38	100.8%	\$19.53	107.9%	104.5%	99.8%	111.0%	117.6%	126.1%
Farming, Fishing, and Forestry	\$11.95	114.4%	\$13.67	136.2%	124.7%	99.2%	135.6%	99.3%	131.6%
Construction and Extraction	\$27.02	103.1%	\$27.87	111.6%	109.1%	95.7%	115.8%	111.8%	115.2%
Installation, Maintenance, and Repair	\$24.51	107.1%	\$26.24	100.0%	102.2%	98.6%	112.9%	111.3%	119.7%
Production Jobs	\$16.82	124.9%	\$21.00	122.5%	108.0%	100.8%	111.2%	114.9%	111.4%
Transportation and Material Moving Services	\$16.32	102.2%	\$16.68	109.8%	109.9%	97.9%	115.6%	112.9%	123.9%

Source: Employment Development Department, Occupations Data (www.edd.ca.gov), Q1 2019, 2010 Data Adjusted for Inflation
Wages in GREEN are for occupations where Solano County median wages are greater than California wages.

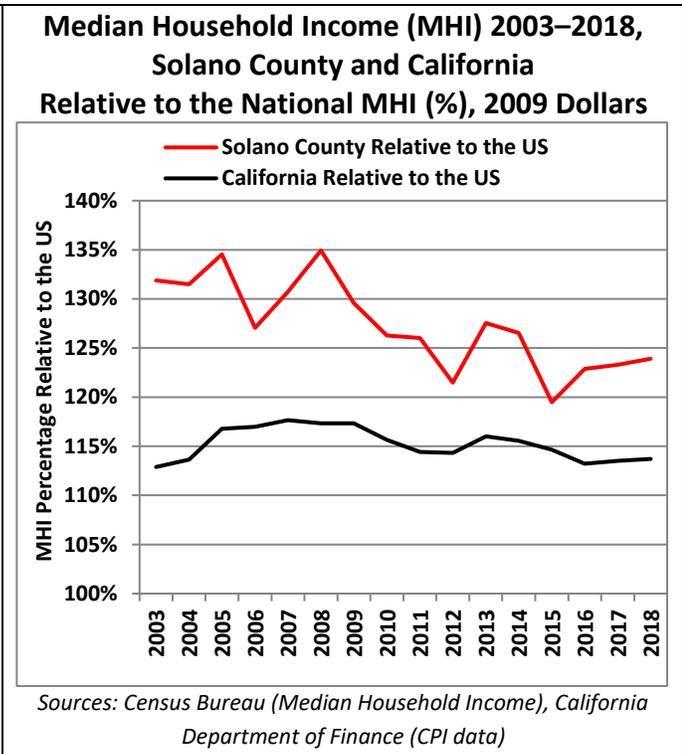
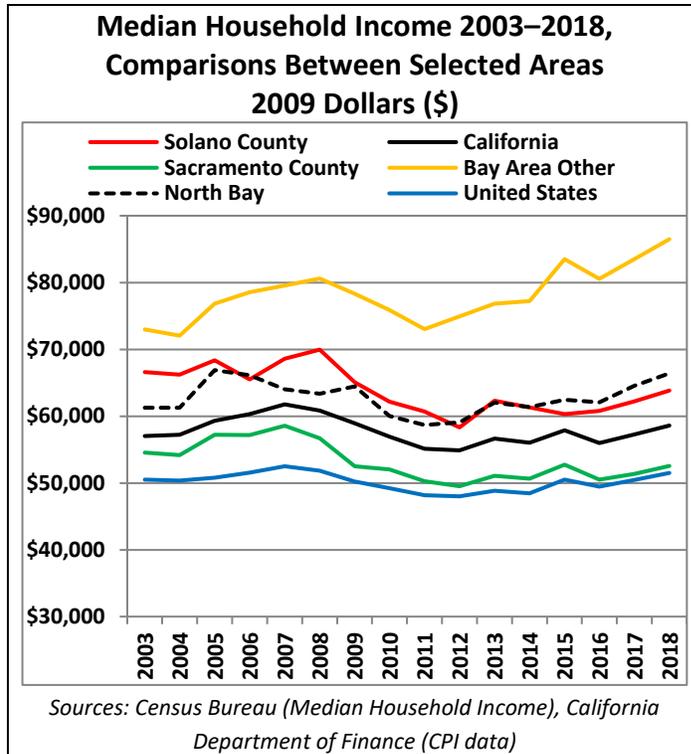
TAKEAWAY: The gap between Solano County's median wage per hour (\$20.32) and the state median wage (\$20.86) grew in 2019, with many occupations are now paying higher median wages in Solano County (shown in **GREEN**), mainly in services jobs.

FOR 2020: One of the unknowns to come from the COVID-19 crisis is how many people will remain out of work for a sustained period of time. Such increases in unemployment put downward pressure on wages; we may also see the legislated, minimum-wage ascension slowed by the Governor's Office in California per Senate Bill 3 (SB 3) from 2017 to support employers and provide incentives to re-hire.

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Median Household Income Comparisons

For Solano County, inflation-adjusted, median household income increased in 2018 (the latest data) as compared to the state and national averages, adding to gains from 2017. 2018 was a year of median household income gains across Solano County and across California. As shown in the Index Overview, median household income (MHI) is a standard of living measure for local residents. The median “household” here represents four people in one housing unit. In 2018, Solano County’s MHI was \$63,825 after an inflation adjustment.



TAKEAWAY: Since 2015, median household income (MHI) after inflation adjustments has increased for Solano County each year; in 2018, MHI in Solano County after inflation was \$63,825, or \$1,615 more in purchasing power dollars than 2017 per household.

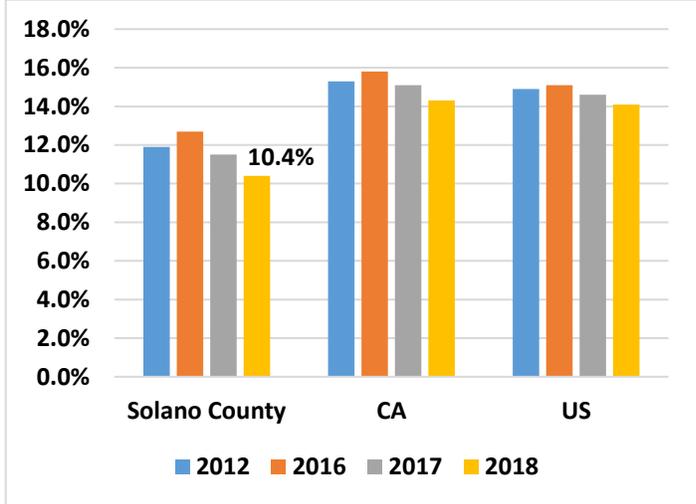
For 2020: It is likely that median household income in 2020 will fall due to the COVID-19 crisis, after inflation adjustments, for Solano County. California and the United States overall are all likely to also experience a drop. What is critical is how Solano County falls versus its regional neighbors and the state average; a larger decrease reflects relatively more jobs and business income losses locally versus other California counties.

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Poverty Rates

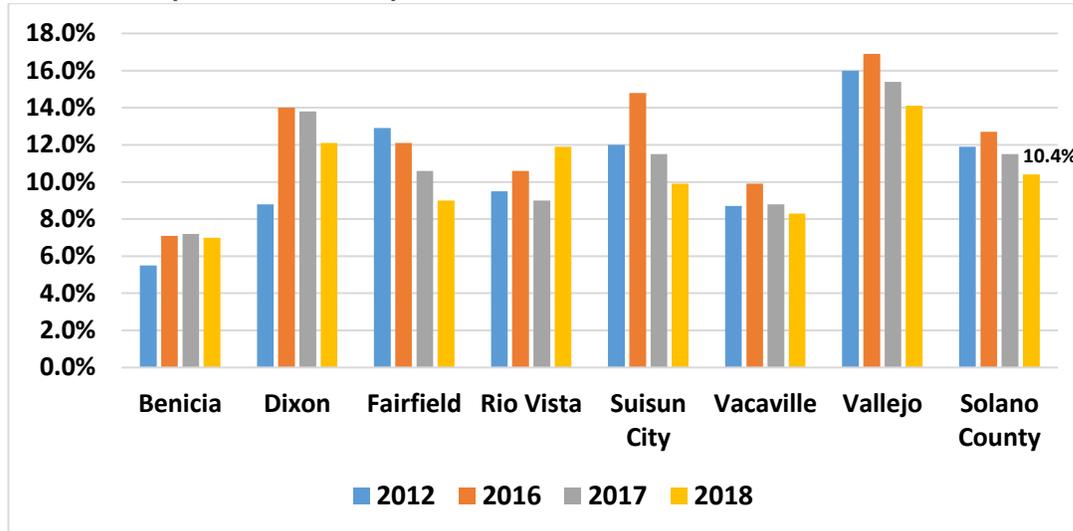
Poverty rates continued to improve across Solano County. The American Community Survey (ACS) of the Census Bureau tracks poverty rates, the percent of people with annual incomes below the federal poverty line. These poverty rates are based on averages over five years from Census-style surveys. Solano County has a lower poverty rate than both the United States and California on average since 2010; in 2018 (the latest data) the rate was 10.4 percent. Since 2010, Vallejo continues to have a relatively high poverty rate among Solano County cities.

Poverty Rates, 2012, 2016, 2017, 2018; Percent (%) of Residents in Solano County, California and United States



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

Poverty Rates, 2012, 2016, 2017, 2018 Percentage of Residents (%), Solano County Cities and County Overall



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

TAKEAWAY: Poverty rates continue to fall across Solano County in 2018 (the latest data). **For 2020:** Poverty rates in 2020 and perhaps 2021 in Solano County are likely to rise and hit already high-rate places like Dixon, Rio Vista and Vallejo first and hardest, but such a change depends greatly on changes in income levels and the number of jobs for local residents.

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Agriculture

**Solano County Top 10 Agricultural Industry Revenues (\$)
2010, 2015, 2016, 2017, and 2018 Sorted by 2018 Values**

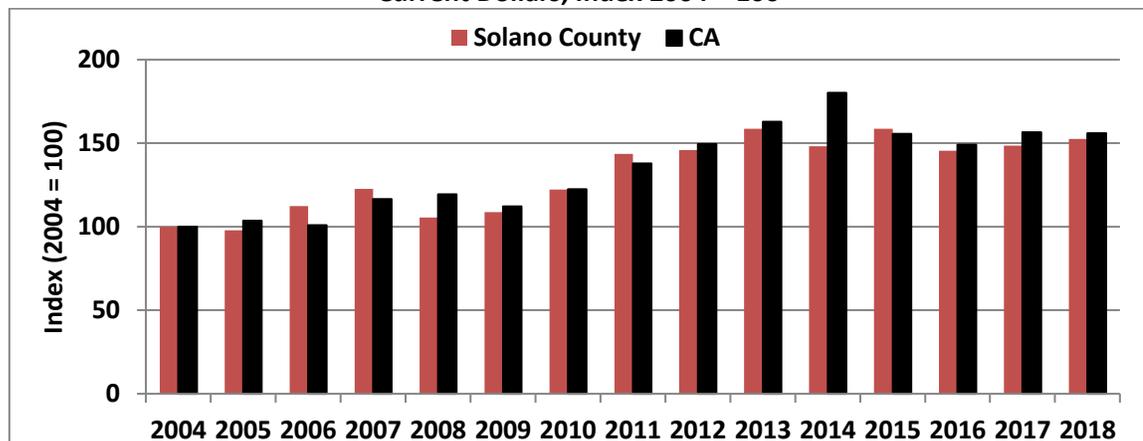
<i>Agricultural Product</i>	<i>2010</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Total Solano County	\$259,398,000	\$353,869,000	\$347,172,000	\$354,556,000	\$363,977,000
Nursery Products	\$23,352,000	\$37,648,000	\$39,754,000	\$44,627,000	\$43,248,000
Tomatoes (Processed)	\$36,901,400	\$42,156,000	\$33,843,000	\$27,022,000	\$34,720,000
Alfalfa	\$19,742,700	\$34,821,000	\$22,267,000	\$25,612,000	\$31,746,000
Cattle/Calves	\$22,608,000	\$27,556,000	\$9,192,000	\$25,113,000	\$30,367,000
Grapes	\$9,274,800	\$14,988,000	\$19,560,000	\$20,369,000	\$29,404,000
Almonds	\$8,468,100	\$23,603,000	\$35,917,000	\$38,619,000	\$29,299,000
Sunflower Seeds	\$7,845,300	\$6,904,000	\$11,414,000	\$17,233,000	\$25,203,000
Walnuts	\$31,161,700	\$37,912,000	\$44,822,000	\$47,358,000	\$25,133,000
Wheat	\$9,672,700	\$9,092,000	\$7,428,000	\$7,261,000	\$7,580,000
Sheep	\$6,355,600	\$6,684,000	\$9,339,000	\$6,032,000	\$3,721,000
All Other Ag Products	\$81,895,800	\$112,505,000	\$113,636,000	\$95,310,000	\$103,556,000

Source: Solano County Agricultural Commissioner

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

Agricultural values continued to climb in 2018 (the latest data), with rising harvest volumes and revenue for ranchers. Agriculture is a base industry for Solano County, focused primarily on markets outside Solano County. Solano County maintains food and beverage manufacturing, which connect to local farmers through a supply chain. The Solano County Agricultural Commissioner's annual data (the Crop Report) showed processed tomatoes sharply increased in value (+28.4 percent) in 2018. Grapes experienced also increased in value, as did calves and cattle. After another strong winter of rain in 2019 and continued, global economic growth, values are likely to improve again in the 2019 data.

Total Agricultural Value, Solano County and California, 2004 to 2018
Current Dollars, Index 2004 = 100



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

TAKEAWAY: Agricultural values increased in 2018 for the third year in a row.

OPPORTUNITY: As the wine industry goes through a cyclic glut of wine due to large harvests in 2018 and 2019, Solano County may be a place where agricultural processing and warehousing/distribution becomes a larger part of Solano County and the wine industry. Further, as an essential industry, agriculture may fare better in 2020 than other industries for Solano County.

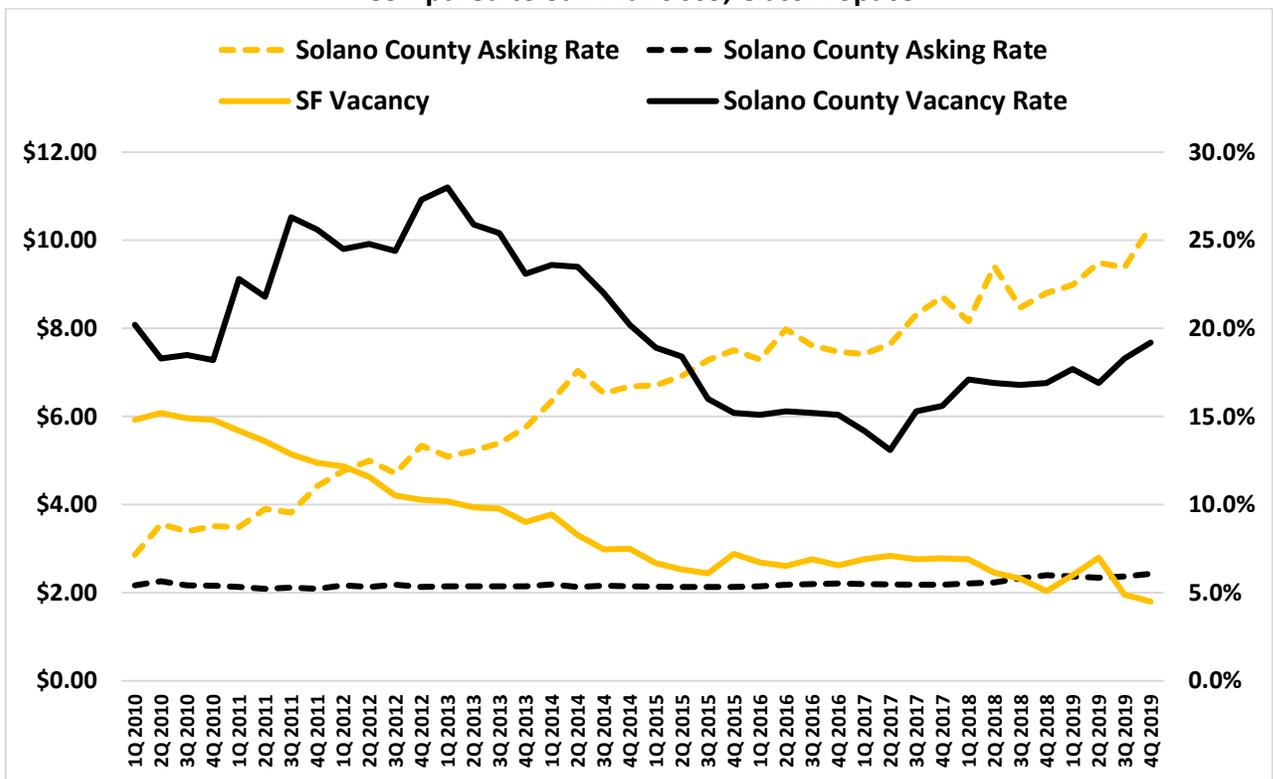
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Housing and Commercial RE Demand

Commercial Real Estate Pricing and Vacancy

Solano County saw commercial real estate vacancy in office space increased a bit in 2019 while commercial leasing rates also slowly increased according to Colliers Research. Commercial real estate markets are regional; San Francisco’s office space markets saw prices rise and vacancy fall in 2019, as the Bay Area economy continued to expand. Prices for office space in San Francisco County were approximately \$10.32 per square foot (sq ft) as of Quarter 4 2019 compared to \$2.43 per sq ft in Solano County for Class A space (as shown in the figure). Industrial space vacancy in Solano County was at 5.0% as 2019 ended, priced at \$0.63 per square foot on average.

Solano County Office Space Asking Prices (\$)/Sq Ft and Vacancy Rates (%), 2010 Q1 to 2019 Q4, Compared to San Francisco, Class A Space



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 ticked up a little in 2019 for Class A office space, while prices increased slightly; industrial space remained close to five (5) percent vacancy as of Quarter 4 2019.

OPPORTUNITY: The Bay Area commercial real estate markets’ continued high prices may drive some cost-conscious employers to consider Solano County, especially if there is a switch to more telecommuting workers for jobs and employers that utilize portability of work in the wake of the COVID-19 crisis in 2020 to reduce urban real estate costs and shift offices to where their workers live and smaller volumes of square feet leased.

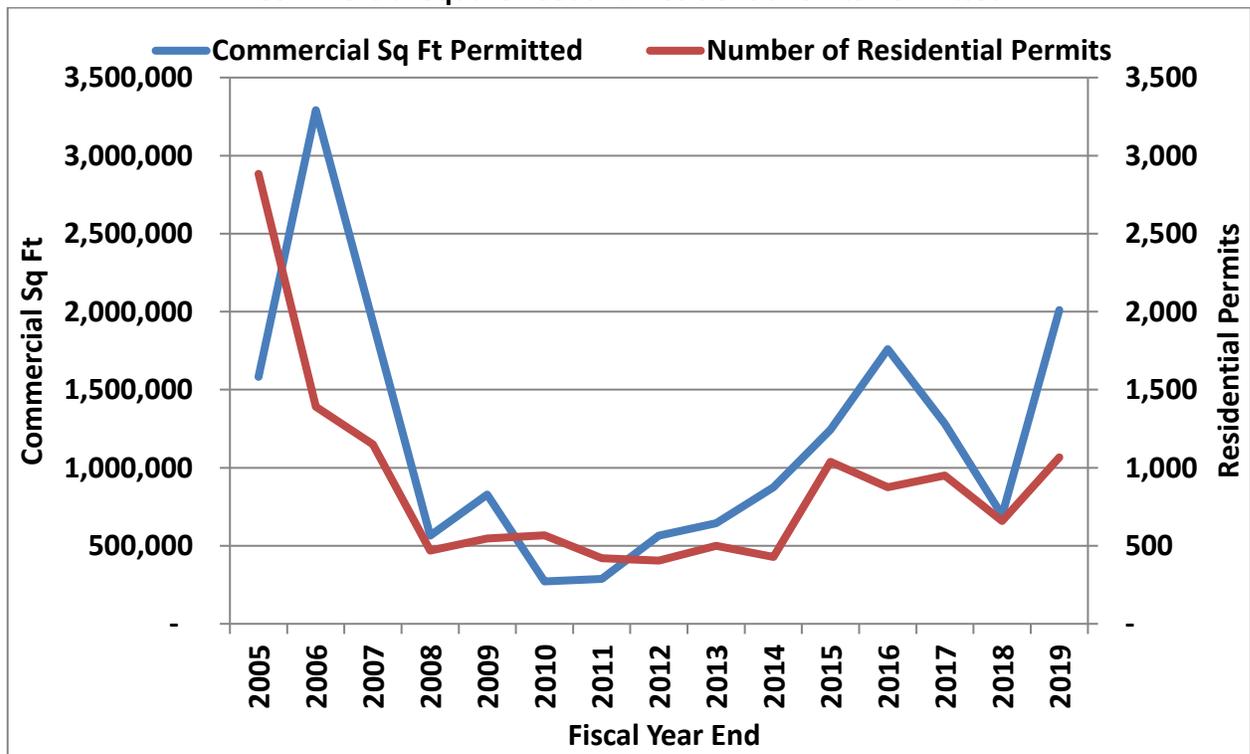
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Building Permits

Building permits for residential units in Solano County increased at a faster pace in fiscal year 2018-19, as did permitted, commercial square feet from the previous fiscal year. As interest rates increased in fiscal years 2016-17 and 2017-18, slower growth in permits seemed likely. As interest rates fell in 2019, a subsequent uptick in housing permits and permitted commercial square feet took place fiscal year 2018-2019. Economic development efforts also likely drove building activity, as did prospects for more jobs growth at the national and state levels.

Approximately 2,010,200 square feet of new commercial space was permitted in the period of July 2018 to June 2019. There were 1,066 residential building permits issued, 927 of which were for single-family houses. Fairfield, Vacaville and Dixon are where 81.2 percent of commercial permits were pulled; Fairfield, Vacaville and Vallejo were where 81.9 percent of new housing permits were pulled in the 2018-19 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 2018-19
Commercial Square Feet and Residential Units Permitted



Source: County of Solano, data provided by county staff

TAKEAWAY: Building permits for both residential and commercial space increased in fiscal year 2018-19 compared to the previous fiscal year.

For 2020: Both commercial real estate and residential permit levels are likely to growing more slowly in fiscal year 2020-21 versus fiscal year 2019-20, even though construction was not restricted by Solano County during social distancing and isolation policies per COVID-19. Lower interest rates may help support more construction once constrictive social policies are relaxed generally, if the economic outlook for 2021 and beyond is positive.

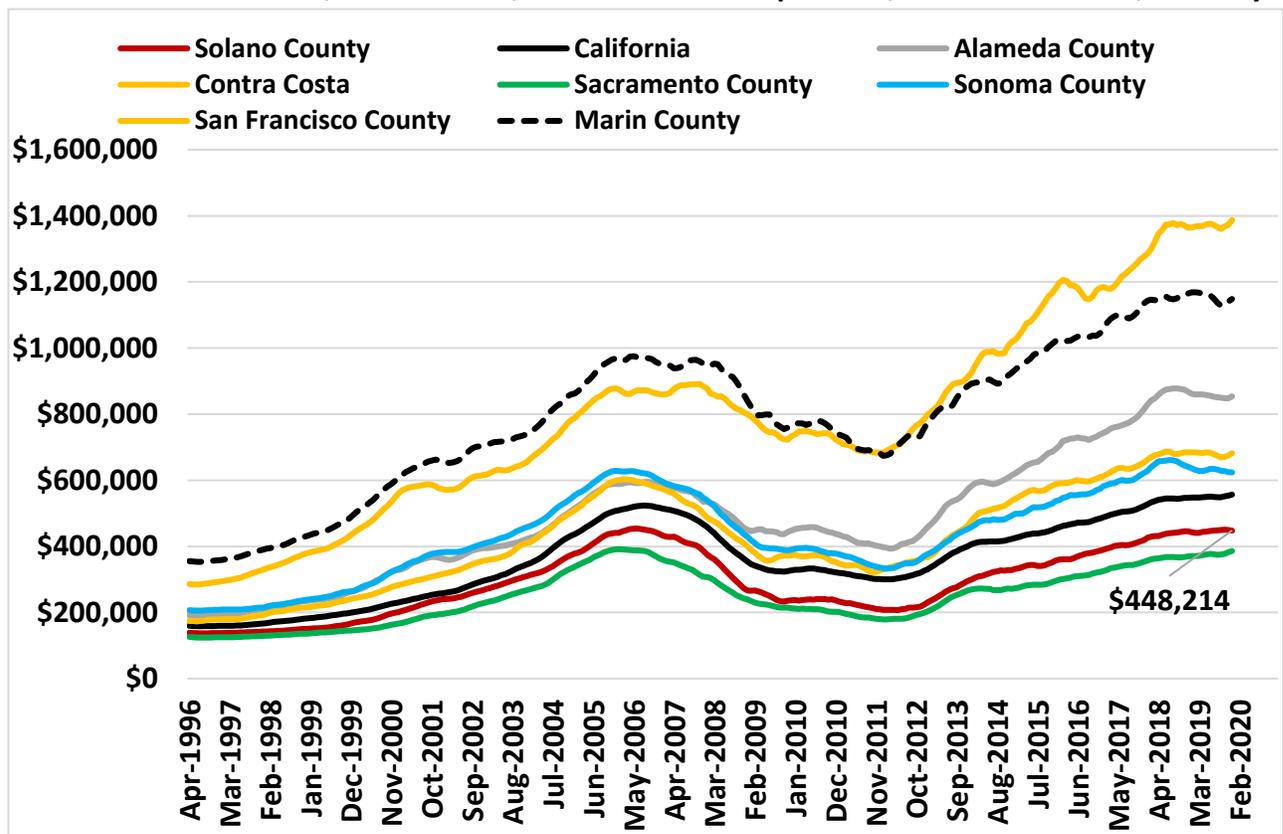
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Housing “Deep Dive”

Median Home Prices: Two Perspectives

Solano County’s median home price ended 2019 at approximately \$448,200, up 0.3 percent from December 2018. The statewide median home price was \$556,815 according to Zillow™ Research. An estimated 6,799 single-family homes in Solano County for 2019 were sold, fewer than in 2018 by just 35 homes. The figure shows home prices in current dollars for selected places and the state on average as compared to Solano County.

Median Home Price, 1996 to 2019, Selected Area Comparisons, in Current Dollars, Monthly



Source: California Association of REALTORS® (<http://www.car.org>), Single-Family Homes Only

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

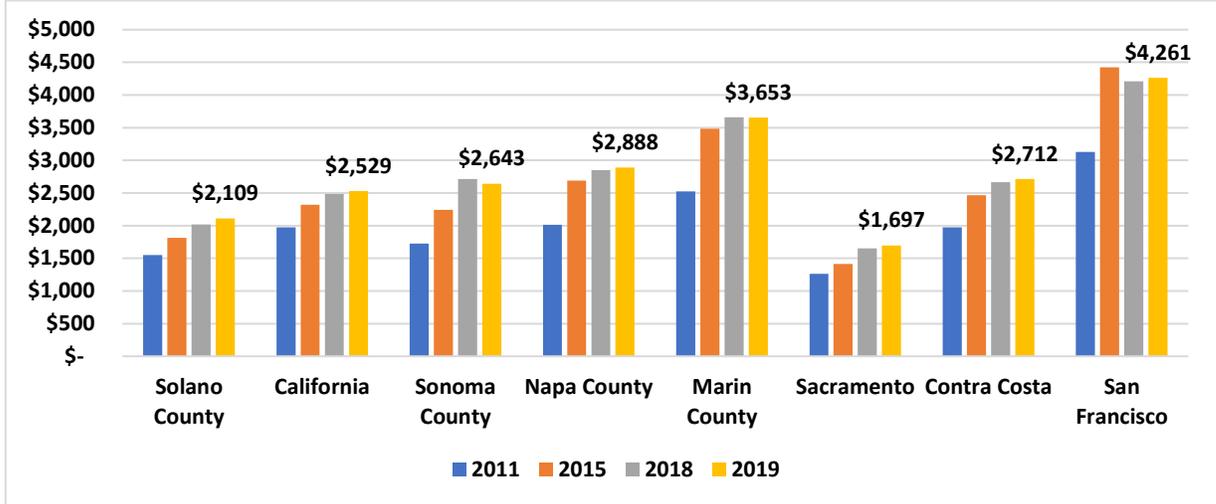
Rental Prices

Rental prices continued to trend higher in Solano County and regionally, though 2019 saw some reductions in median rental prices for Sonoma and Marin counties. Solano County’s median rental price for any style of home available for rent was approximately \$2,109 as of December 2019, according to Zillow™ Research. Notice that San Francisco County rental prices are down from recent peaks, but median prices are still relatively high at approximately \$4,261 per month. Sacramento County has been consistently between \$200 and \$300 less than Solano County since 2011 in terms of rental prices, and is slightly more than \$400 less as of December 2019.

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Housing “Deep Dive” (cont.)

Rental Prices (\$/month), Annual Average of All Rentals, 2011, 2015, 2018, 2019, Current Dollars



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

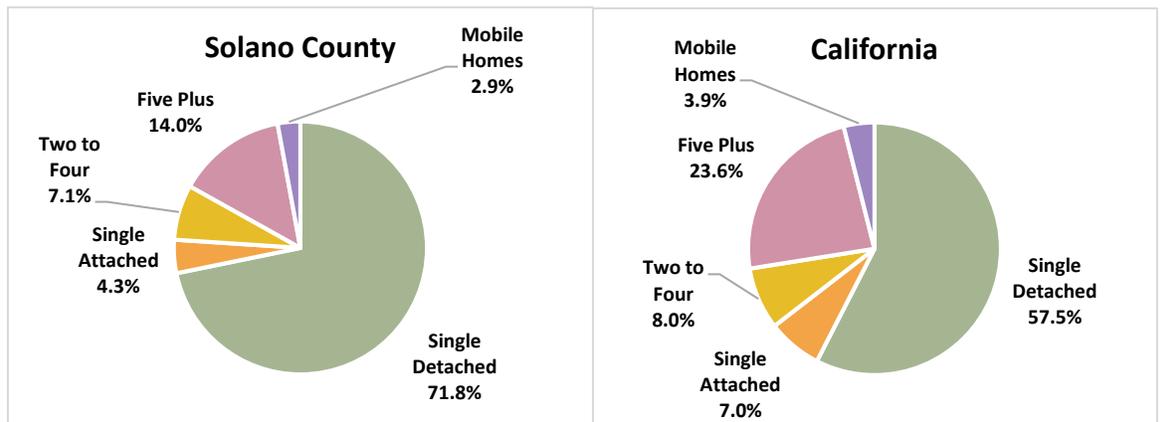
TAKEAWAY: While homes to purchase had flat prices in 2019, rental prices continued to rise in Solano County.

For 2020: Home prices and rental prices may fall in 2020 as more existing units go up for sale and as people potentially leave rental properties due to an inability to afford current rents, lack of short-term job opportunities and move away from Solano County. It is also possible that low interest rates and federal stimulus payments to households and employers may stabilize housing markets otherwise in 2020.

Housing Stock

The mix of housing may be as important as its availability to attracting and retaining workers. The growth of housing units in Solano County since

Housing Stock, Types of Homes as % of Total, Solano County and California, 2019



Source: California Department of Finance (<http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/>)

County since 2010 has affected little change in the housing mix as more units have been built. Approximately 75.2 percent of Solano County’s housing stock as of 2019 is single-family, predominantly detached homes versus condominiums. California, due to larger, urban areas, has more of a mix of multifamily (apartment) units.

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Housing “Deep Dive” (cont.)

Housing Prices Versus Median Household Income: Affordability

Home price stability in Solano County helped local housing become more affordable in 2019, according to California Association of REALTORS®. This measure is a “Housing Affordability Index” or HAI, a ratio of households that can pay the cost of owning a home (mortgage, average cost of utilities and maintenance, etc.) at the current median household income in an area. The threshold between affordable and unaffordable for a household is a monthly cost of housing that exceeds 30 percent of household income.

If household incomes do not keep pace with rising, local housing prices, affordability falls; as of Quarter 3 2019, approximately 47 percent of households in Solano County could afford to purchase a home at the median home price based on median household income, given current rates of interest and the average monthly cost of home ownership. This positive outcome was up from 2018, suggesting Solano County’s housing prices were more affordable in 2019. A higher percentage here is an improvement.

Housing Affordability Index, 2010 Q3 to 2019 Q3
Percent (%) of Households That Can Afford a Median-Priced Home

Quarter	Solano	Sacramento	Calif.	Sonoma	Napa	Santa Clara	Alameda	Contra Costa	Marin	San Francisco
2010.Q3	71%	68%	46%	40%	41%	30%	31%	21%	23%	22%
2011.Q3	75%	72%	52%	46%	48%	34%	36%	27%	25%	26%
2012.Q3	77%	73%	49%	46%	45%	32%	34%	28%	27%	25%
2013.Q3	56%	50%	32%	31%	28%	22%	21%	22%	18%	16%
2014.Q3	49%	48%	29%	29%	21%	21%	21%	20%	15%	12%
2015.Q3	45%	47%	29%	26%	23%	19%	20%	34%	19%	11%
2016.Q3	43%	43%	30%	26%	24%	21%	23%	36%	18%	13%
2017.Q3	43%	43%	28%	25%	26%	17%	20%	33%	18%	13%
2018.Q3	38%	42%	27%	22%	24%	17%	18%	32%	19%	15%
2019.Q3	47%	45%	31%	28%	29%	22%	26%	39%	22%	18%

Source: California Association of REALTORS® (<http://www.car.org/marketdata/data/haitraditional/>),
 Quarter 3 2019 is the latest data point

TAKEAWAY: Solano County’s housing mix is primarily single-family, detached houses. Price affordability increased for such homes in 2019 strongly from the recent past due to rising incomes and slower price ascension in housing markets.

For 2020: Housing affordability in Solano County remains a way to attract workers and businesses. Workers that have portable employment and change how they spend their time commuting versus remaining at home to work may increase housing demand. Housing affordability challenges are likely to persist, where the opportunity cost may be rising vacancy rates in rental, lower median home prices (thus lower housing wealth), or both.

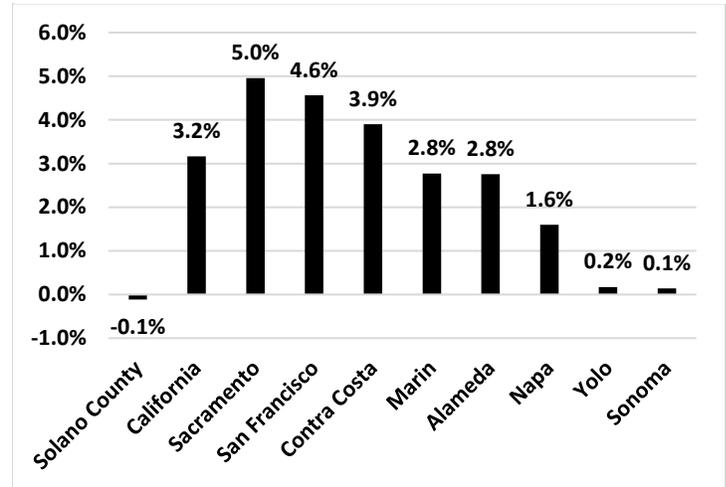
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Housing “Deep Dive” (cont.)

Market Dynamics: Housing Forecasts

Solano County was forecasted for a slight drop in housing prices for 2020 (-0.1 percent) as of January 2020 per a forecast by Zillow™ Research. Housing, like all other markets, is an interaction between supply and demand. For the state overall, the forecast was 3.2 percent growth for 2020. Sacramento and San Francisco and Contra Costa are set to see housing prices rise faster than the state average, while Yolo and Sonoma counties have forecasted prices that are relatively flat. We are likely to see forecasts revised downward for 2020 and perhaps 2021 due to COVID-19.

Housing Forecast for 2020, January 2020, Selected Counties and California, Percent (%) Change for Year



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

Market Dynamics: Housing Burden, Owners and Renters

Housing debates about affordability throughout California include an issue called housing “burden”. The federal department of Housing and Urban Development (HUD) defines housing burden as a situation where a household spends more than 30 percent of its monthly gross income on housing payments (rent or mortgage). The estimated burden data shown here are from 2010 and 2018 as five-year averages. Notice that Solano County started the 2010s with renters more households burdened than the state on average; Solano County has seen better conditions in the latest data from 2018; a lower percent of households here is an improvement. Housing burden can fall, however, from either lower housing prices and rents or from rising household incomes or both. We saw above housing costs and incomes have increased, suggesting that Solano County’s household income growth outpaced housing costs for owners more than renters, but both groups experienced lower levels of burden in 2018.

Rent Burden, Percent (%) of Households that pay at least 30 percent of household income for housing

Place	2010	2011	2012	2013	2014	2015	2016	2017	2018
Solano County	56.2	55.6	55.7	57.9	56.3	60.6	59.2	58.0	56.4
California	55.1	55.7	56.5	56.9	57.2	59.6	59.1	58.5	58.1
Benicia	46.9	46.9	45.3	54.0	53.8	60.1	63.9	61.2	61.0
Dixon	55.1	62.6	58.9	63.6	68.8	69.5	62.4	57.5	49.3
Fairfield	57.4	56.1	56.7	58.7	54.5	62.5	61.4	58.6	56.7
Rio Vista	56.3	50.5	55.3	57.2	59.5	60.5	62.1	50.1	52.1
Suisun City	60.3	59.3	62.3	64.6	57.1	61.7	59.4	55.1	49.6
Vacaville	57.4	55.2	53.5	52.8	51.7	55.6	51.5	52.3	53.6
Vallejo	57.0	58.1	58.6	61.4	60.9	61.9	61.4	61.8	59.8

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

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Housing “Deep Dive” (cont.)

Owners Burden, Percent (%) of Households paying at least 30 percent of household income for housing

Place	2010	2011	2012	2013	2014	2015	2016	2017	2018
Solano County	52.3	50.1	47.7	44.7	41.5	38.4	35.5	34.5	33.8
California	52.3	51.9	50.3	48.1	45.7	43.3	41.2	39.7	39.0
Benicia	44.5	45.2	42.2	38.5	35.0	31.9	29.6	29.9	30.8
Dixon	53.9	48.7	46.7	40.3	39.1	35.3	33.4	36.9	35.8
Fairfield	54.3	53.8	52.3	49.0	45.0	40.0	35.6	32.9	30.5
Rio Vista	56.9	50.7	45.2	43.7	41.7	37.9	40.6	38.0	34.4
Suisun City	56.1	51.9	49.5	43.8	38.7	36.2	33.5	34.1	34.5
Vacaville	48.5	44.7	43.2	40.3	37.7	34.3	31.9	31.9	31.7
Vallejo	55.2	52.9	49.9	47.7	44.3	43.1	40.3	38.2	37.9

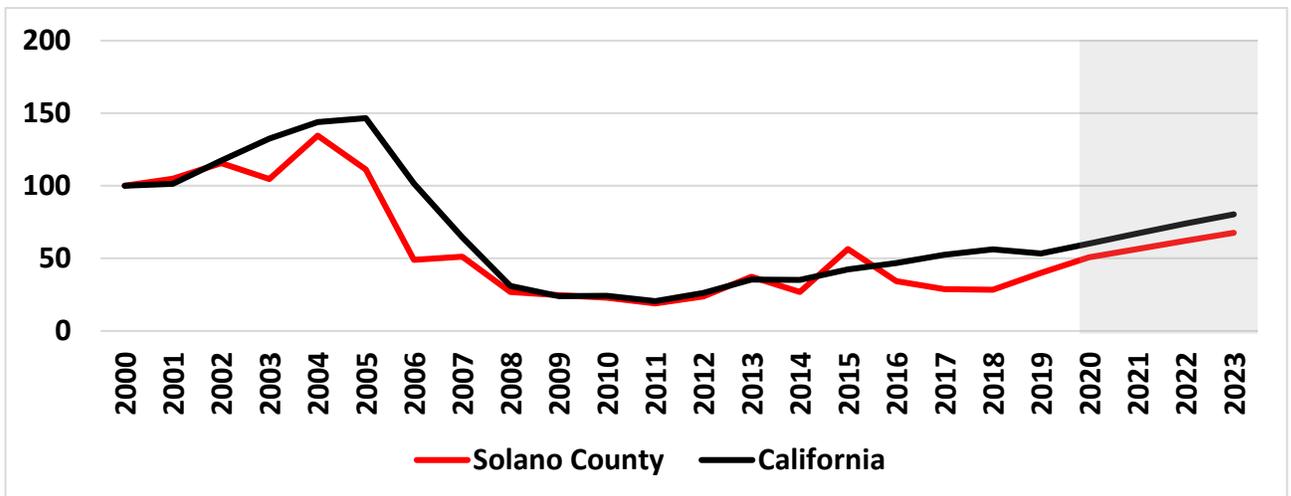
Source: American Community Survey (ACS) Table DP03: <http://data.census.gov>

Market Dynamics: Building Permits for Housing through 2023

We now look at the potential future of housing permits pulled by developers and contractors, a signal that housing units are going to be built. The California Department of Finance (DOF) forecasts the number of residential building permits annually for the state of California; the latest forecast as of January 2020 is through December 2023. Notice in the figure that Solano County and California have closely followed each other over time in terms of changes in the number of building permits from a baseline year (2000). The forecast shown here is for Solano County to have residential permits grow at a slower pace than the state on average to 2023. The index number is the percent change from the year 2000.

Building Permits, Solano County and California, 2000-2023,

Residential Permits Annually, Index, Year 2000 = 100 (Shaded Area = Forecast)



Sources: Census Bureau (<https://www.census.gov/construction/bps/>) and County of Solano

TAKEAWAY: Housing forecasts are for relatively flat prices growth in 2020, while housing burden remains across owners and renters at relatively high proportions with some relief in 2018.

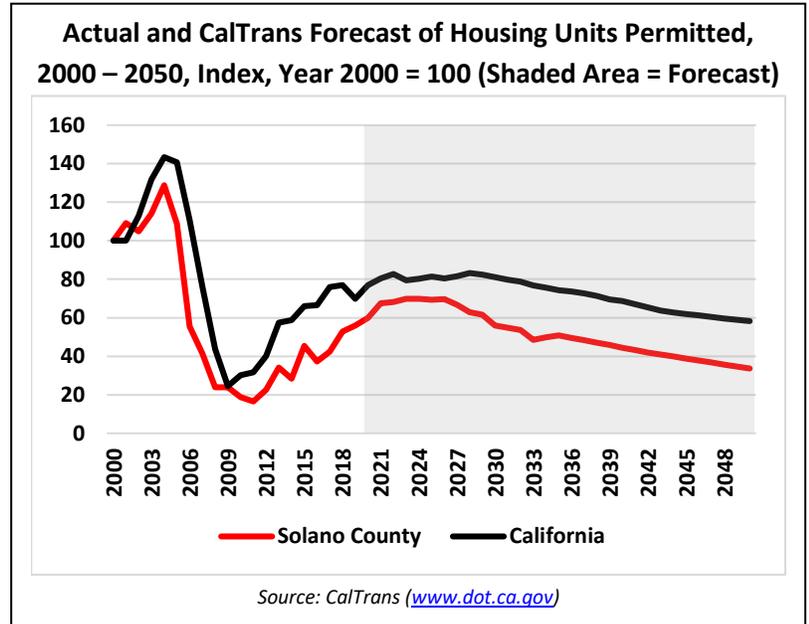
For 2020: Housing burden may be exacerbated as incomes fall in 2020 unless there is either stabilization of rents, rising incomes after the COVID-19 crisis, or both. It is also not clear if lower interest rates motivate renters to consider home purchases or developers to build more units or both.

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Housing Deep Dive (cont.)

CalTrans Forecast for Housing Units versus MTC

Demographers estimate a slowdown in population growth for California. CalTrans, per its transportation infrastructure planning, estimates a rise in housing units permitted through 2026, and then a gradual decline in residential construction to 2050. With estimates of slower population growth, and rising costs of living for California, an assumption behind this gradual decline is a slowly, aging population in California. Decisions on where to build new homes, and designing new homes, are likely tied to transportation system access and multi-family dwellings more in the future than in the past. The index number is the percent change from the year 2000.



**Change in Housing Units by Type, 2000-09 and 2010-19
Solano County and its Cities and California**

Place	2000-09		2010-19	
	Single	Multifamily	Single	Multifamily
Solano County	13,244	4,393	5,702	1,155
Benicia	442	371	38	0
Dixon	613	376	224	177
Fairfield	4,644	745	2,346	317
Rio Vista	1,890	-94	988	0
Suisun City	1,073	93	95	10
Vacaville	2,725	1,201	1,736	545
Vallejo	1,206	1,874	202	106
Unincorporated	651	-173	73	0
California	1,057,766	334,727	260,142	302,474

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

Housing Type Comparison, 2010 to 2019: 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 2019 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 2019). Solano County did not follow that trend. There were almost 5,702 new, single-family homes built since 2010 and only an additional 1,155 multifamily (apartment) units built.

TAKEAWAY: Housing forecast are for relatively flat prices growth in 2020, while housing burden remains across owners and renters at relatively high proportions.

For 2020: The number of new houses to be built during 2020 depends greatly on how the construction industry returns to work after the COVID-19 crisis and how California reacts to new housing market conditions in 2020 and beyond. With rental demand rising, and a shift to more renters proportionately since 2010, developers may be tempted and have incentives to build more rental than homes to own, which can exacerbate wealth inequality and increase housing burden without the commensurate gains in wealth.

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Housing “Deep Dive” (cont.)

Homeownership since 2010

Percent (%) Occupied Housing Units, Owner vs Rental, 2010 and 2018 compared, Solano County, Cities and California

Place	2010	2010	2018	2018
	Owner	Rental	Owner	Rental
Solano County	72.9%	27.1%	60.7%	39.3%
Benicia	65.8%	34.2%	71.0%	29.0%
Dixon	63.6%	36.4%	68.7%	31.3%
Fairfield	64.2%	35.8%	58.4%	41.6%
Rio Vista	77.0%	23.0%	82.7%	17.3%
Suisun City	66.5%	33.5%	60.8%	39.2%
Vacaville	62.1%	37.9%	60.6%	39.4%
Vallejo	57.4%	42.6%	54.9%	45.1%
California	71.0%	29.0%	54.6%	45.4%

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

Home prices may outpace a typical household’s ability to easily afford to buy a home. Rental markets are a complement and substitute for home ownership in all communities. Lower proportions of homeowners in an area can negatively affect worker retention for local employers. Data shown are from the American Community Survey for Solano County, its cities, and California as of 2018 (the latest data available). Only Rio Vista and Dixon had an increase in home ownership as a proportion of the total from 2010 to 2018; California has now experienced a shift toward more renters.

Regional Housing Needs Allocation (RHNA)

Each of Solano County’s cities faces a regional policy allocation for new housing units from the state of California. Because each city has different zoning and general plans concerning housing units, the regional housing needs allocation or RHNA estimates are sometimes highly debated by the Bay Area’s city and county governments. These numbers inform Plan Bay Area, regional planning for employment, housing and ultimately transportation infrastructure by Metropolitan Transportation Authority (MTC). As of March 2020, the following estimates are the assessment of new housing needed from 2015 to 2023. The number of new, net housing units by city are also shown here based on California Department of Finance estimates. For Solano County, as of March 2020, the estimated housing units needed is 3,646.

RHNA Estimates, Solano County, March 2020, MTC 5th Cycle, as of March 2020, Housing Units

City	Permits Issued 2015-2019	RHNA Estimates	Remaining To meet RHNA levels
Benicia	22	327	305
Dixon	260	197	50
Fairfield	2,073	3,100	1,279
Rio Vista	476	299	77
Suisun City	84	505	421
Vacaville	1,334	1,084	277
Vallejo	146	1,362	1,216
Unincorporated Solano County	141	103	21

Source: RHNA Subregional Delegation, report by Placeworks Consulting for MTC, data provided by County of Solano

TAKEAWAY: Solano County continued to see homeownership decrease in 2018, as did California overall. **For 2020:** While Solano County had no construction restrictions during the shelter-in place, the forecasted economic downturn for all of California and Solano County may reduce developer incentives and put pressure to meet the RHNA estimates below. Changes in renter income versus homeowner income, as well as incentives to put existing units up for sale in the wake of the COVID-19 crisis in 2020 may shift the tenure (renter vs. owner) percentages.

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Our Changing Community

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People

Population Growth

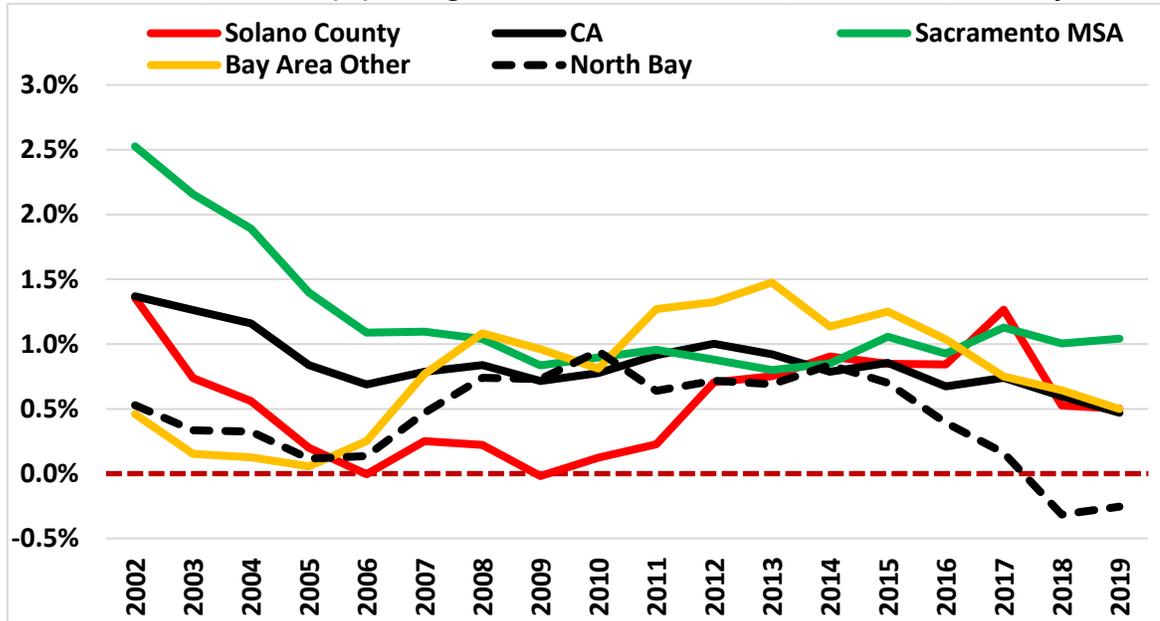
Population growth slowed regionally, with some counties and areas experiencing population losses. In calendar-year measures by the California Department of Finance, Solano County’s population grew by 2,205 residents from January 1, 2018 to January 1, 2019; the growth rate was approximately 0.5 percent, as was California overall. The Bay Area Other counties grew by 31,907 people, a growth rate that was 0.5 percent. Sacramento’s population growth remained robust at over 1.0 percent in 2018. The recent fires likely contributed to Sonoma and Napa counties’ (the North Bay) population decline in 2018; some of those 2,302 people leaving those two counties likely moved to Solano County.

Change in Total Population, compared to 2019, Number of People and Percent (%) Change Solano County and Selected Comparison Areas

Place	2010	2018	2010	2018
Solano County	27,963	2,205	6.8%	0.5%
California	2,673,359	186,807	7.2%	0.5%
Sacramento MSA	127,386	15,932	9.0%	1.0%
Bay Area Other	573,196	31,907	9.8%	0.5%
North Bay	31,562	-2,302	3.6%	-0.3%

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

Population Growth, Percent (%) Change from the Previous Year, 2002–2019, January 1 Estimates



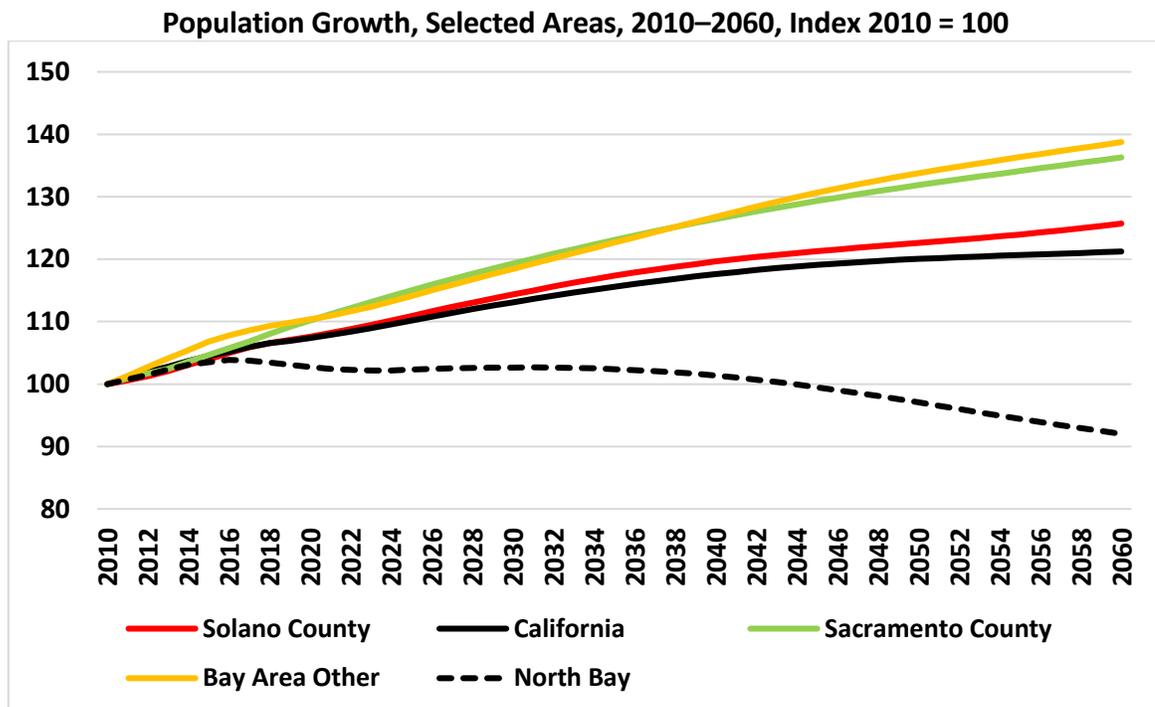
Source: California Department of Finance, Demographic Research Unit (www.dof.ca.gov)

TAKEAWAY: Population growth in Solano County increased in 2018 by 0.5 percent more residents as of January 1, 2019.
OPPORTUNITY: As more people leave both fire-affected and rising cost-of-living areas, Solano County may be a place where more working families and self-employed workers come to live.

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Population Growth Projections

The California Department of Finance (DOF) updated its county forecasts on population growth to 2060 in January 2020. Solano County is compared to other areas in the figure reflecting these updated forecasts. Notice the dramatic drop in the North Bay counties of Sonoma, Marin and Napa; this estimated population change is new to the 2020 DOF forecasts. Population forecasts help build employment and housing forecasts based on assumed labor-force participation rates, people per household and the number of children that become local students and potentially local workers.



Source: CA Department of Finance, Demographics Unit, Revised Jan 2019

(<http://www.dof.ca.gov/Forecasting/Demographics/Projections>)

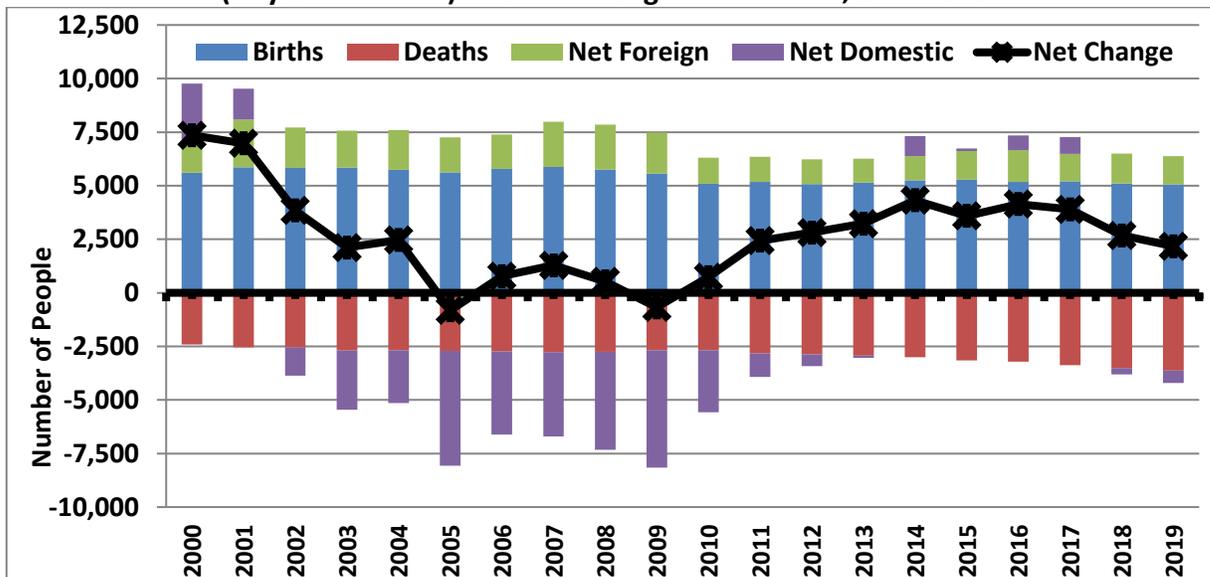
TAKEAWAY: Solano County's population growth is forecasted to grow at a decreasing rate toward 2060, slower than the urban Bay Area counties and Sacramento County. The North Bay counties (Sonoma and Napa specifically) are to see population decline. **For 2020:** As the effects of the COVID-19 crisis slowly unfold, Solano County's population may rise due to outmigration from cities to suburban/rural areas such as Dixon, Vacaville, Fairfield, and Vallejo. After 2020, labor-force participation challenges and strains on both public and private health systems may come to Solano County depending on the types of households that come to Solano County.

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Components of Population Change

Solano County’s population increased over fiscal year 2018-19 from the previous fiscal year; for the period July 2018 to June 2019, Solano County’s population was estimated to have grown by 2,170 people. Births outpaced deaths and new residents moved to Solano County from other places worldwide in net. However, more people moved away from Solano County to other parts of the United States in net. 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). It is also when adjustments are made to the calendar year figures to benchmark the following year’s estimates. The 2020 Census data will help show they types of households that migrated to and away from Solano County.

Solano County Components of Population Change (People) from Previous Fiscal Year (July 1 to June 30) and Net Change in Residents, 2000–2019



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

Solano County Change in Population Compared to 2019, Number of People

Fiscal Year End	Births	Deaths	Net New Residents from the United States (Net Domestic)	Net New Residents from other Countries (Net Foreign)	Net New Residents Moving to Solano County
2010	46,454	-28,519	-80	11,417	11,337
2013	31,075	-19,884	1,661	7,949	9,610
2014	25,823	-16,881	723	6,816	7,539
2015	20,542	-13,733	607	5,473	6,080
2016	15,365	-10,520	-80	3,985	3,905
2017	10,156	-7,144	-873	2,712	1,839
2018	5,058	-3,628	-575	1,315	740

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

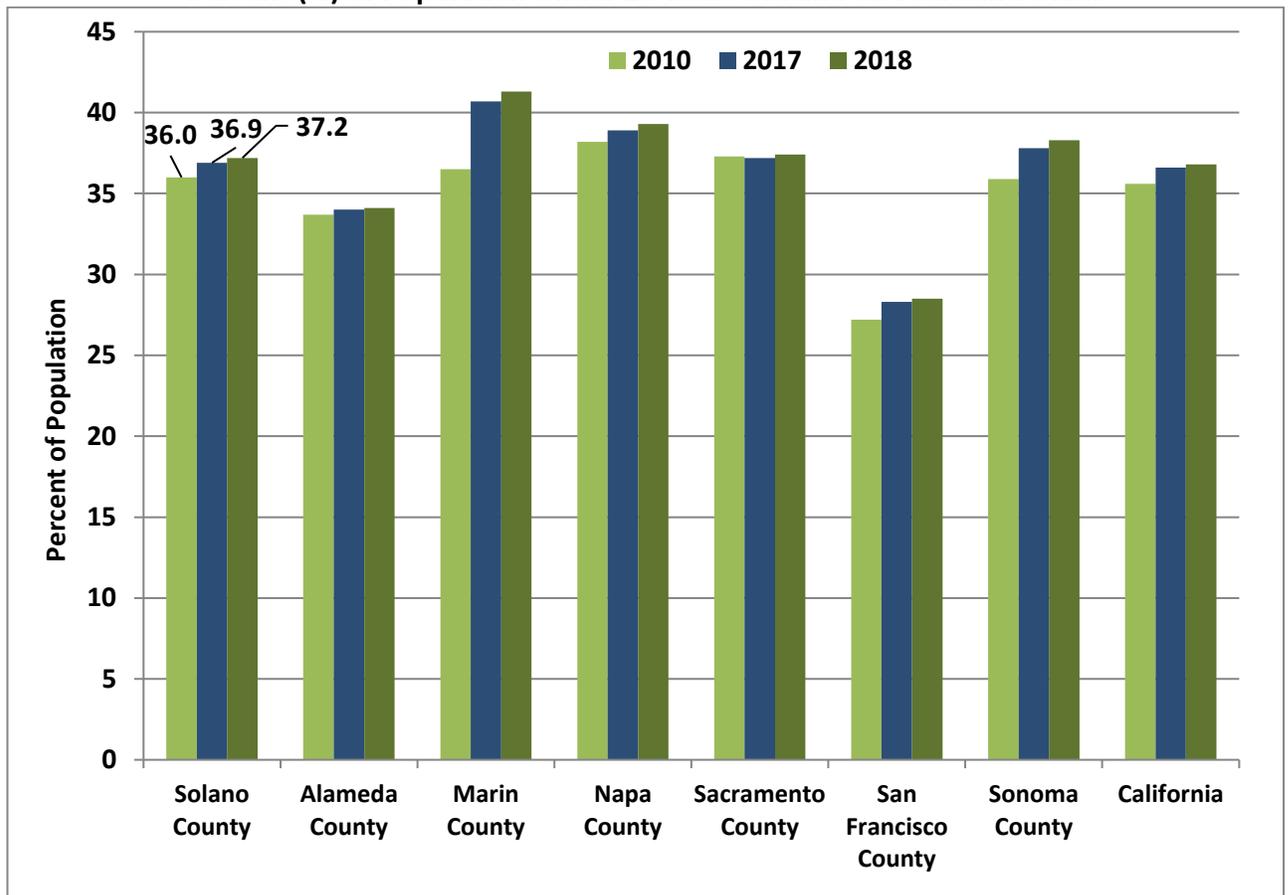
TAKEAWAY: Solano County’s population grew in fiscal year 2018-19 by a mix of natural change and also in-bound migration from places outside the United States.
For 2020: Strains on county social assistance are affected by migration patterns (trading workers for retirees and also families for single-person households). As the COVID-19 crisis effects urban more than suburban/rural areas, migration patterns may change.

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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 dependency ratio rises, it signals that 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 2018 to 37.2 percent from 36.9 in 2017 (2018 data are the latest available). San Francisco County continues as relatively young versus regional counterparts, with all other comparison counties experiencing a rising dependency ratio in 2018.

Total Dependency Ratio, Comparison Between Selected Areas, 2010, 2017 and 2018
Percent (%) of Population Under 18 Years Old and 65 Years and Older



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

TAKEAWAY: Solano County’s dependency ratio increased at a slow rate in 2018 (0.3 percent), as did all other comparison counties.

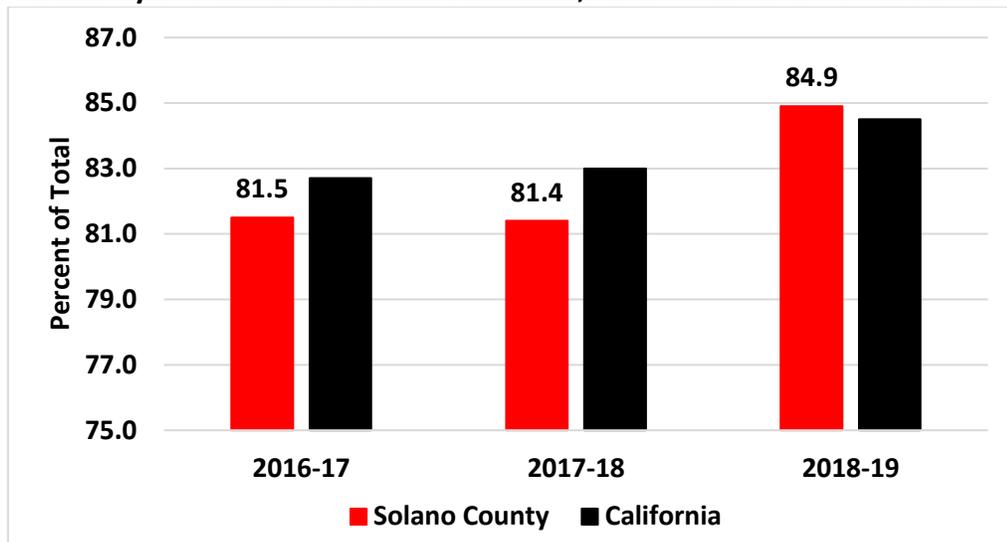
CHALLENGE: If migration patterns change due to the COVID-19 crisis in 2020 such that more families **and** more senior households come to Solano County, the dependency ratio may rise in 2020 and afterward. The number of people that receive social assistance from the County of Solano may also rise as a result of a larger dependency ratio, the core reason why policy makers follow this data point.

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High School Graduation Rates

Solano County's graduation rate increased in 2018-19 (the latest data available) from the previous academic year and exceeded the state of California's graduation rate on average. Graduation rates also increased for the state of California in academic year 2018-19. Labor market incentives are connected to graduation rates; when wages and job opportunities rise, students have incentives to leave high school. Solano County remained a place of African-American student success in the 2018-19 academic year at 1.82 percentage points higher than the state average.

Solano County and California Graduation Rates, 2016-17 to 2018-19 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 Rates (%) by Ethnicity, 2018-19 Academic Year Compared

Ethnicity	Solano County	California	Difference
African American	78.6%	76.8%	1.8%
American Indian or Alaska Native	77.4%	74.8%	2.6%
Asian	93.0%	94.0%	-1.0%
Filipino	95.2%	94.1%	1.1%
Hispanic or Latino	80.2%	82.1%	-1.9%
Pacific Islander	85.7%	84.6%	1.1%
White	88.9%	88.4%	0.5%
Two or More Races	92.6%	85.5%	7.1%

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.

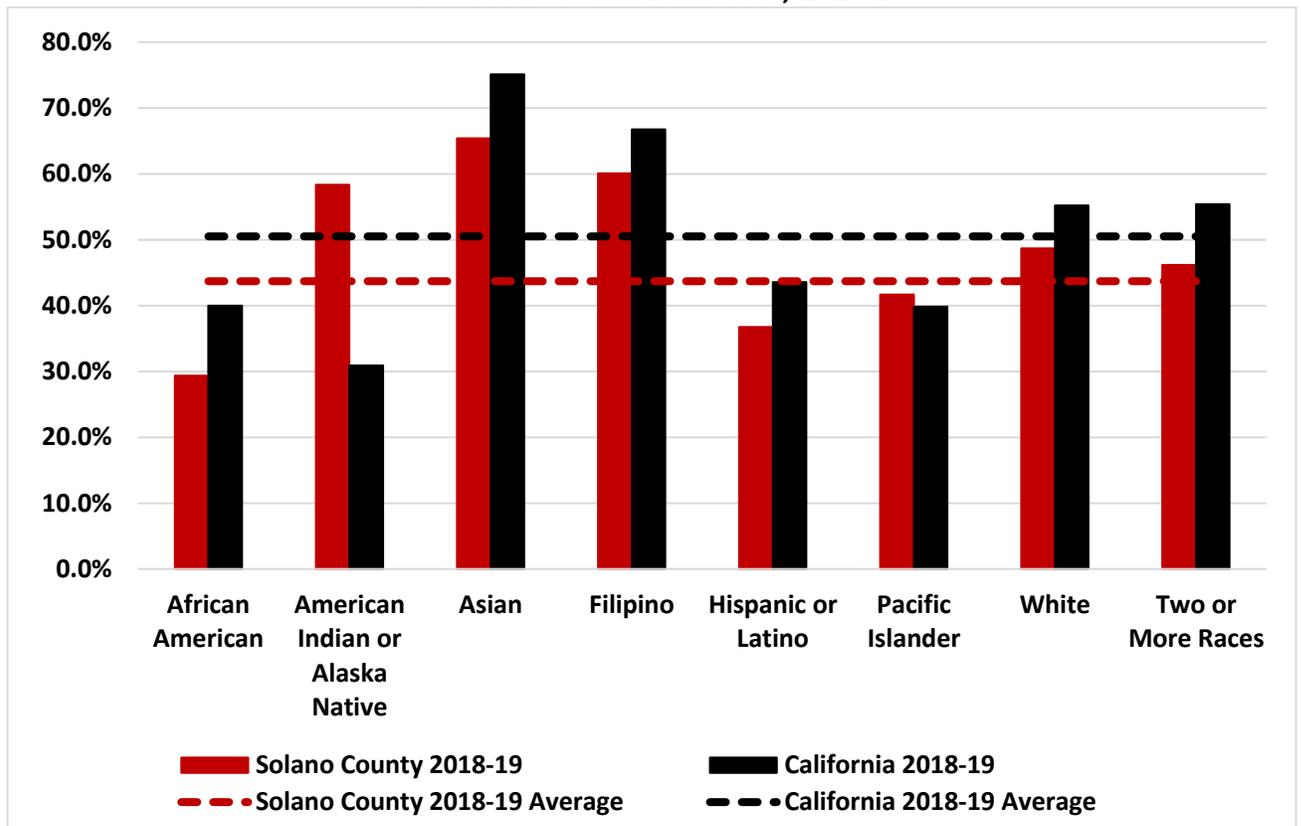
TAKEAWAY: Overall, Solano County had 84.9 percent of those eligible to graduate did so in academic year 2018-19 (the latest data), up sharply from one year before; California's statewide rate increased also, but is now lower than Solano County.
For 2020: Graduation rates are likely to be as good or better in 2019-20, but with a potential contraction in the economy and online learning as the norm, higher dropout rates may occur to earn resources for lower-income households.

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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, Touro University and Solano Community College are also located within or next to Solano County. In the 2018–19 academic year (the latest data available), Solano County increased its percentage of 2018-19 academic year, college-ready graduates to 43.7 percent from 43.3 percent. The state overall also increased to 50.5 percent from 49.9 percent from the 2018-19 academic year versus 2017-18.

Comparisons of Percentages (%) of UC/CSU-Ready Solano County High School Graduates Selected Races and Ethnicities, 2018-19



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 had more high-school graduates for UC or CSU admission in the 2018-19 academic year than the previous year, though the average remains behind the state.

OPPORTUNITY: The increase in African-American and Hispanic student readiness for university admission is rising, providing more employment possibilities for these Solano County students that ultimately attend UC or CSU campuses. Support for these students, especially students with financial need, is critical to convert readiness into career and earnings potential.

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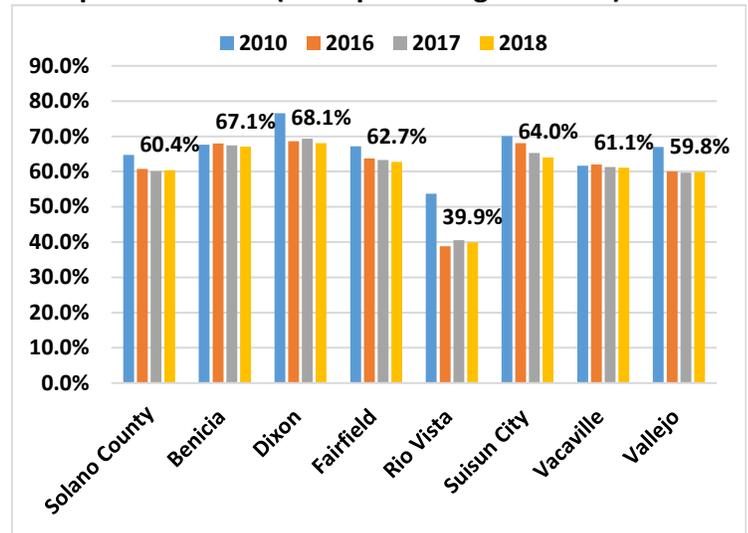
Workforce Readiness and Supply

Labor Force Participation Rates

Labor force participation rates increased across California and the United States in 2018 (the latest data on population by age from the Census Bureau), as measured by the percentage of the working age (over 18 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. In 2018, this measure increased from 60.2 to 60.4 percent.

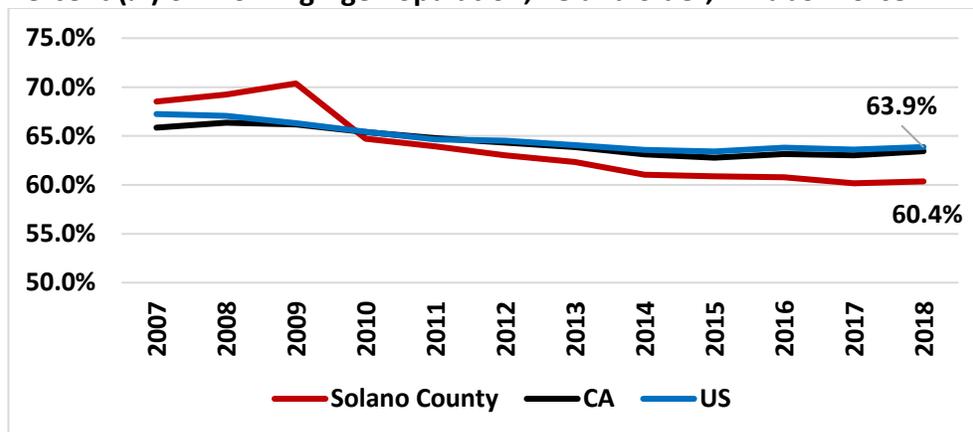
During a recession, labor force participation may fall because people struggling to find and maintain work, which can lead an exit from the labor force. For Solano County, uncertain economic futures for older residents may all lead to more local residents trying to find work. The data here compare national, state and Solano County data.

Labor Force Participation Rates, Workers 18 and older, 2006, 2016, 2017, and 2018, Solano County and its Incorporated Areas (2018 percentages shown)



Source: Census Bureau (factfinder2.census.gov)

Labor Force Participation Rates, 2007 to 2018, Solano County, California and US Percent (%) of Working Age Population, 18 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 2019 the latest population estimates.

TAKEAWAY: Labor force participation in Solano County grew again in 2018.

OPPORTUNITY: If unemployment rises quickly and remains relatively high in 2020, there are training and career-transition services needed for displaced workers and those trying to re-enter the workforce. The effects of the COVID-19 crisis in 2020 is likely to have a mixed effect on labor force levels, as some workers retire and others exit and re-enter 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 (2014-18 is the latest data available from the Census Bureau).

Median Age (Years) in Solano County and Its Cities, 2000, 2010, 2016, 2017, 2018

<i>Place</i>	2000	2010	2016	2017	2018
Solano County	33.9	36.5	37.5	37.7	37.9
United States	35.3	36.9	37.5	37.8	37.9
California	33.3	34.9	36.0	36.1	36.3
Benicia	38.9	45.0	44.2	44.9	45.7
Dixon	31.5	32.3	34.0	35.0	34.0
Fairfield	31.1	32.8	34.4	34.8	35.0
Rio Vista	40.7	55.8	62.3	62.3	62.2
Suisun City	31.7	32.7	33.1	33.7	34.4
Vacaville	33.9	36.7	37.1	37.4	37.3
Vallejo	34.9	37.5	38.3	37.8	38.0

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

Housing and Occupancy, 5-Year Averages Ending in Stated Year: 2010, 2017 and 2018 (How many homes are there and what percentage (%) are occupied or vacant.)

<i>Place</i>	<i>Total Housing Units</i>			<i>Occupied (%)</i>			<i>Vacant (%)</i>		
	2010	2017	2018	2010	2017	2018	2010	2017	2018
Solano County	151,616	155,973	156,896	91.7%	94.5%	95.0%	8.3%	5.5%	5.0%
United States	130,038,080	135,393,564	136,384,292	87.8%	87.8%	87.8%	12.2%	12.2%	12.2%
California	13,552,624	13,996,299	14,084,824	91.4%	92.1%	92.1%	8.6%	7.9%	7.9%
Benicia	11,905	11,717	11,649	91.7%	95.5%	95.5%	8.3%	4.5%	4.5%
Dixon	6,124	6,204	6,304	94.2%	95.1%	95.4%	5.8%	4.9%	4.6%
Fairfield	36,283	37,461	37,892	91.7%	95.5%	95.9%	8.3%	4.5%	4.1%
Rio Vista	3,592	4,506	4,629	92.7%	93.3%	92.6%	7.3%	6.7%	7.4%
Suisun City	9,291	9,448	9,495	93.3%	97.9%	98.1%	6.7%	2.1%	1.9%
Vacaville	31,780	33,812	34,195	94.4%	95.9%	96.3%	5.6%	4.1%	3.7%
Vallejo	45,297	45,026	44,869	88.9%	92.5%	93.6%	11.1%	7.5%	6.4%

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

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Income, Household Size, and Education, 2010, 2017, and 2018, Five-Year Averages

Place	Median Household Income (2009 Dollars)			Average Household Size (People/Housing Unit)			Percent (%) of Residents with HS Diploma or Better			Percent (%) of Residents with Bachelor's Degree or Better		
	2010	2017	2018	2010	2017	2018	2010	2017	2018	2010	2017	2018
Solano County	\$67,559	\$62,196	\$63,782	2.83	2.88	2.87	85.8%	87.6%	88.0%	24.0%	25.6%	26.2%
United States	\$51,269	\$50,450	\$51,461	2.61	2.63	2.63	85.0%	87.3%	87.6%	27.9%	30.9%	31.5%
California	\$60,127	\$57,267	\$58,537	2.93	2.96	2.96	80.7%	82.5%	83.0%	30.1%	32.6%	33.3%
Benicia	\$85,937	\$81,187	\$81,376	2.53	2.50	2.52	94.7%	96.3%	96.5%	41.2%	42.2%	43.4%
Dixon	\$68,876	\$62,279	\$63,448	3.00	3.30	3.28	82.1%	77.0%	78.3%	19.6%	19.6%	17.4%
Fairfield	\$67,164	\$64,193	\$66,527	3.00	3.10	3.09	84.8%	85.6%	85.6%	22.2%	25.6%	26.5%
Rio Vista	\$53,890	\$56,097	\$57,528	2.04	1.98	2.01	93.1%	92.1%	95.3%	25.3%	23.1%	29.2%
Suisun City	\$70,903	\$64,110	\$65,548	3.23	3.15	3.14	86.1%	88.4%	88.9%	19.3%	19.9%	20.5%
Vacaville	\$69,958	\$66,337	\$67,552	2.71	2.79	2.77	85.4%	88.6%	89.1%	21.0%	23.4%	23.5%
Vallejo	\$60,717	\$53,092	\$54,739	2.85	2.86	2.85	84.7%	87.7%	87.9%	24.7%	25.5%	26.1%

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

TAKEAWAY: Housing occupancy increased as number of people per housing units leveled off a bit in 2018. Educational levels are rising as are median household incomes. Solano County continues to age, following changes in the state median at approximately 1.5 years older.

CHALLENGE: As a result of the COVID-19 crisis, all standards of living are likely to fall in 2020 and perhaps 2021. Median household income, in inflation-adjusted terms, was still below 2010 levels in Solano County and California as of 2018; the 2019 data will likely show inflation-adjusted levels for 2010.

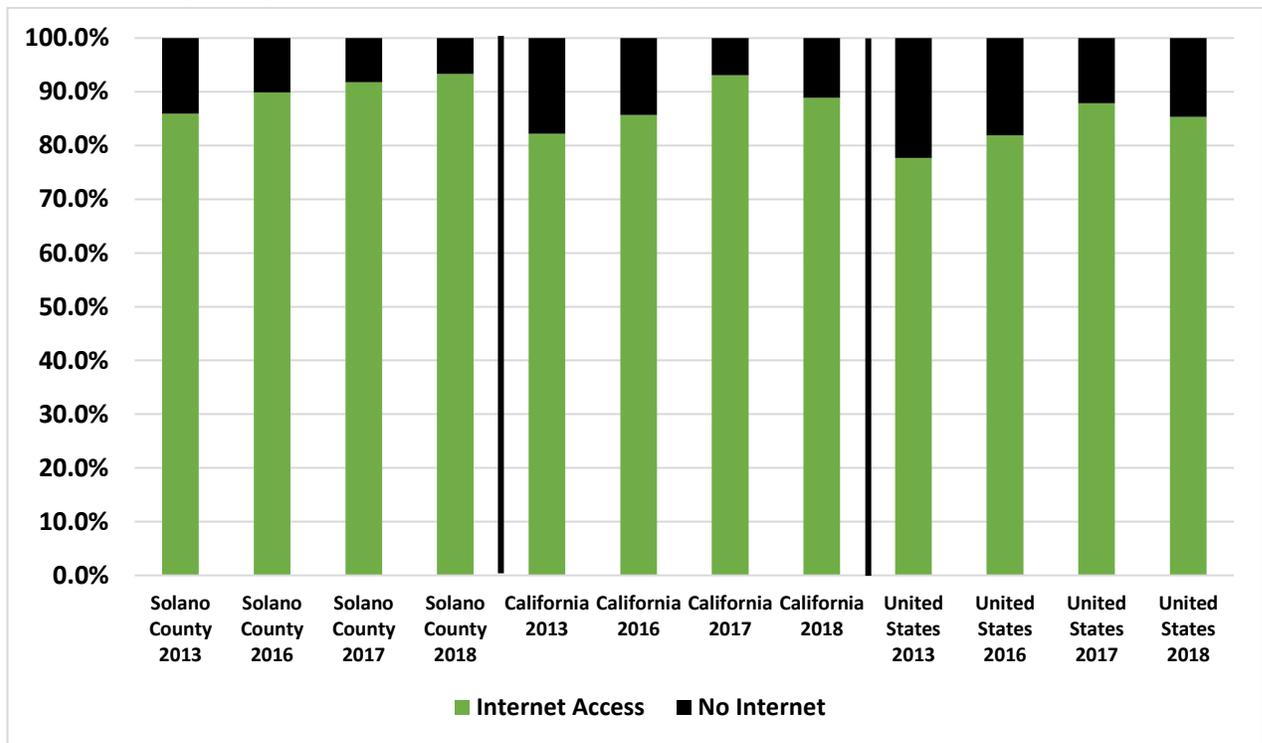
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Broadband and Computer Access

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, connecting students to resources for their education, and potential telehealth connections for residents and families. Data here compare Solano County to the national and state economies overall. As expected, there was continued improvement in the 2018 data (the latest data) compared to 2017, 2016 and 2013 data (2013 was the first year these data were tracked by the American Community Survey); as also expected, Solano County is well connected versus its state and national counterparts.

Broadband and Computer Access, 2013, 2016, 2017, and 2018

Solano County Compared to CA and US, Percent (%) of Households



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

TAKEAWAY: Solano County households increased the proportion of the population that has internet access versus the national and state averages again in 2018, showing almost full coverage across the county population.

OPPORTUNITY: Broadband internet may become one of the most critical, infrastructure needs for all households if the COVID-19 crisis lingers in 2020 and into 2021 affecting schools, employers, healthcare systems, and many other industries. Education and healthcare opportunities for rural communities and those less mobile can take advantage of this connectedness and expand workforce training and health services.

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Commuting: Time to Work in the Car

Time to work data can provide ways of understanding length of commuting and also potential traffic conditions. As the Solano County economy has experienced more hiring and more economic growth, the time to work has increased (from 2009 to 2018 as shown, where 2018 data are the latest available). Notice the proportion of working residents in Solano County has gone up for those traveling 60 minutes or more work; since 2009, due to both a rising proportion and residential growth of workers, there are over 9,600 more Solano County residents that work driving 60 minutes or more each way to and from work.

Time to Get to Work, Solano County Residents, 2009, 2010, 2016, 2017, and 2018 Count (People) and % Share of Annual Total

Time to Work (minutes)	2009		2010		2016		2017		2018	
	Count	Share								
Less than 10 minutes	22,948	13.10%	22,618	12.70%	21,827	12.00%	21,805	11.70%	21,478	11.20%
10 to 14 minutes	26,101	14.90%	26,714	15.00%	27,070	15.20%	27,956	15.00%	27,614	14.40%
15 to 19 minutes	24,524	14.00%	25,111	14.10%	24,933	14.00%	26,278	14.10%	27,039	14.10%
20 to 24 minutes	18,919	10.80%	19,056	10.70%	18,700	10.50%	19,010	10.20%	19,177	10.00%
25 to 29 minutes	7,357	4.20%	7,480	4.20%	8,192	4.60%	8,014	4.30%	8,821	4.60%
30 to 34 minutes	19,619	11.20%	20,837	11.70%	18,878	10.60%	19,196	10.30%	19,944	10.40%
35 to 44 minutes	12,262	7.00%	12,110	6.80%	11,576	6.50%	12,487	6.70%	12,848	6.70%
45 to 59 minutes	17,167	9.80%	17,631	9.90%	17,275	9.70%	18,078	9.70%	18,985	9.90%
60 or more minutes	26,276	15.00%	26,536	14.90%	30,097	16.90%	33,547	18.00%	35,860	18.70%
Mean travel time to work (minutes)	29.4		29.5		30.4		31.8		32.6	

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

TAKEAWAY: Commute times and distances continued to rise in 2018 to 32.6 minutes as jobs growth continued.

OPPORTUNITY: The COVID-19 crisis in 2020 may provide an opportunity to reduce commuter time in the car because more people are working from home. As economic development continues to attract, retain and expand businesses in Solano County, matching commuting workers to local job opportunities can be part of a broader, community development strategy.

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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 up in Solano County in 2018-19, gaining ground on many CA counties.
2010-11 44 th in CA	2017-18 43 rd	2018-19 33 rd in CA	
Commute Times			Solano County experienced rising commute times in 2018 and is now in the top 7 worse counties for minutes to work.
2010 49 th in CA	2017 50 th in CA	2018 52 nd in CA	
Air Quality			Air quality remained relatively similar to 2018 in 2019 for Solano County, as the Air Quality Index for Solano County was 18 th lowest of the 58 counties in CA. (lower is better).
2010 20 th in CA	2018 18 th in CA	2019 18 th in CA	
Educational Attainment: % of Pop, 25 years old or more, BA min			Solano County population above 25 years old remains in the top half of California County for residents with a BA degree minimum.
2010 29 th in CA	2017 24 th in CA	2018 25 th in CA	
Home and Rental Prices (as a % of San Francisco County)			Solano County's home prices increased quickly in percentage terms versus rents in 2019. Solano County remains an affordable real-estate market versus the core Bay Area.
2010 Rent: 50% of SF Buy: 28% of SF	2018 Rent: 48% of SF Buy: 32% of SF	2019 Rent: 51% of SF Buy: 32% of SF	
Taxable Sales/Capita			Solano County residents and visitors continued making taxable purchases as their incomes rise increasing the total versus the state average.
2010 98.6% of State Avg	2018 100% of State Avg	2019 102% 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 2019, quality of place was slightly better than 2018. The COVID-19 crisis in 2020 is likely to positively affect air quality, commute times, graduation rates. It is likely to negatively affect taxable sales and education attainment of the population older than 25, and may be neutral or negative on home and rental prices.

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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 available in 2020 are for January 1, 2019, and also for fiscal year 2018-19 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 2019 and Annual 2019 data are preliminary estimates.

Foreign Immigration and Domestic Immigration

Data are from the E-6: Population Estimates and Components of Change by County – July 1, 2010–2019 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 2019 are preliminary. 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 2019 is an average of data over the years 2014 to 2018 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. <https://www.labormarketinfo.edd.ca.gov/data/industries.html>

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 2019 and are estimates, see <https://www.labormarketinfo.edd.ca.gov/data/industries.html>.

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 2017.

Median Household Income

Data for Median Household Income are from the 2003-2018 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 1992 to 2018.

Gross Product

Data are provided by the U.S. Bureau of Economic Analysis through 2018 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](#). Income values are inflation-adjusted and reported in 2009 dollars, using the California CPI from the California Department of Finance. See

Sources of Personal Income

Data are provided by the [Bureau of Economic Analysis](#) (BEA) through 2018. Data are from Personal Income by Major Source and Earnings by NAICS Industry through 2018. 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/cew>).

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 2018.

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 2018.

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 2019.

Commercial Real Estate

Data on Solano County's commercial real estate comes from author contact with Colliers International's 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 2019.

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. Regional Housing Needs Allocation (RHNA) estimates were provided by County of Solano staff for 2020.

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, 2000–2019 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 projections, the data used comes from the [California Department of](#)

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[Finance](#), P-3 report (State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010–2060 (by year)). The latest estimates are from January 2020.

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 2018.

High School Dropout Rates

Data for the 2018–2019 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 2018–2019 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. Data on housing burden are available from the Census Bureau (<http://data.census.gov>).

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 2018.

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 2018. 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 2019 to 2050 version is available at [CalTrans](#).

Rental and 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 2018 as of January 2020.

The 2019 Solano County Index of Economic and
Community Progress can be found at:

www.solanocounty.com/economicindex

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