

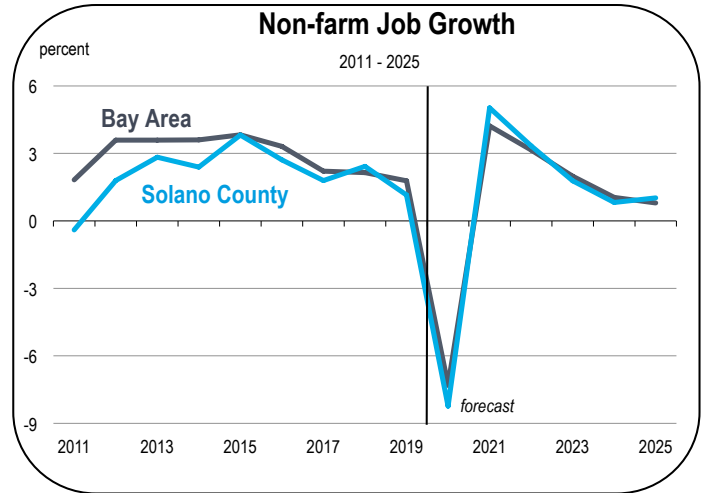
Solano County Economic Forecast

Forecast Summary

- It is estimated that an average of 10,000 to 13,000 jobs will be lost in Solano County during 2020. Job losses will be heavy in the first half of the year.
- Employment losses will be largest in leisure services, professional business services, private education and healthcare, retail trade, and wholesale trade.
- The unemployment rate averaged 3.8 percent in 2019. It will average somewhere between 10 percent and 12 percent for the 2020 calendar year.
- The Solano County population is expected to grow more quickly than the Bay Area average during most of the forecast period.
- Home values are not expected to change much in 2020 or 2021.
- Housing production is expected to decrease sharply in 2020 but rebound convincingly in 2021.

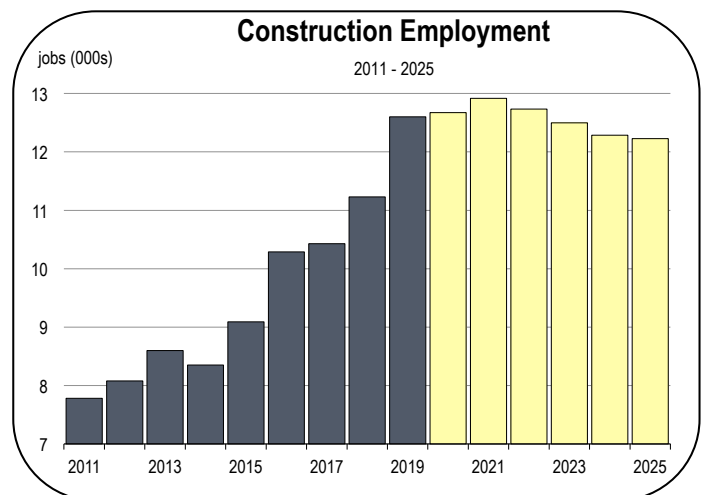
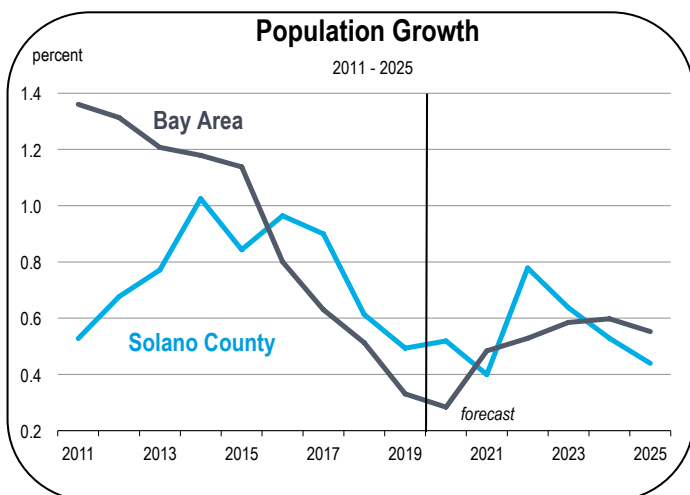
Job Growth

- Total employment in the County will decline between 7 and 9 percent in 2020. This is an annual average change from 2019.
- In 2021, Solano County is expected to re-gain many of the jobs lost during the Coronavirus Recession.

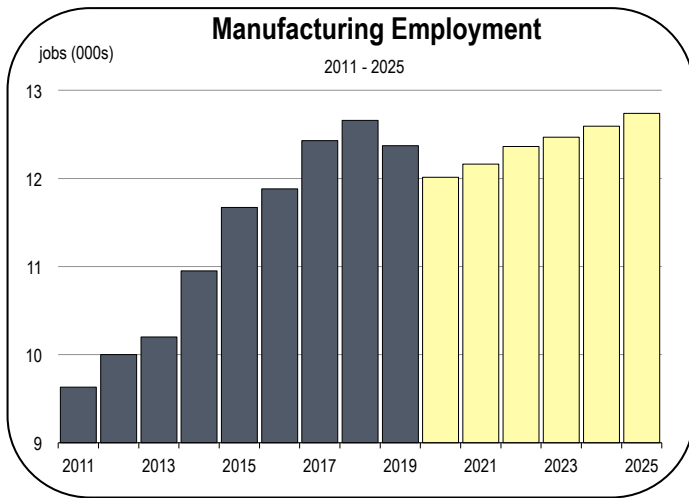


Construction Employment

- Most California construction activity was deemed non-essential for several weeks in March and April, leading to construction layoffs.
- Construction activity resumed in May and June, bringing most construction workers back to their jobs.
- On an annual average basis, construction employment is not expected to change substantially in 2020.
- Over the entire 2020 to 2025 forecast period, employment in construction will rise marginally and then decline as construction projects in the entitlement pipeline are completed.

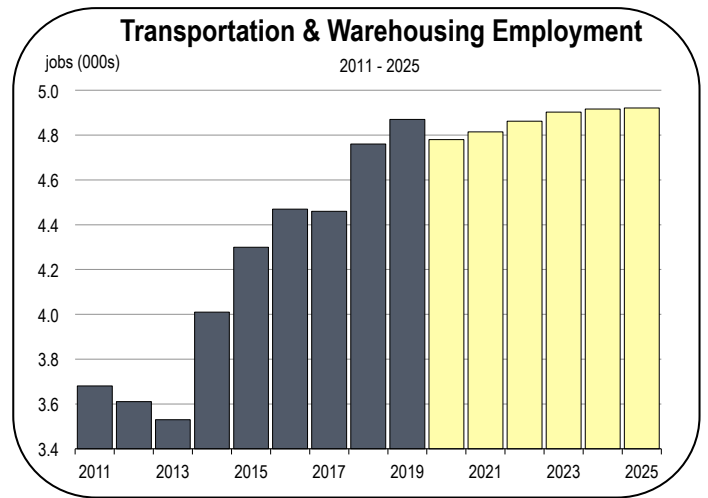


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Manufacturing Employment

- Solano County has a high concentration in food manufacturing, anchored by the Jelly Belly Factory, Guittard Chocolate, Valley Fine Food, and the Anheuser-Busch brewery.
- The Jelly Belly factory has approximately 800 employees. The factory not only produces Jelly Belly products, it also contributes to Solano County's tourism activity, bringing 7 million visitors to the region since the factory was established in the 1980s.
- Solano County also has a large number of pharmaceutical manufacturing jobs, primarily at Genentech, Novici Biotech, and Muri Genics.



- Manufacturing employment declined by hundreds of jobs during the second quarter of 2020. It is expected to rebound slowly during the restart phases of 2020 and continue to rebound in 2021.

Transportation and Warehousing Employment

- Most transportation jobs in Solano County are in trucking and warehousing, where firms deliver goods to and from the Port of Oakland, and store these goods in logistics facilities.
- A meaningful number of jobs are in delivery firms like UPS, FedEx, and Instacart. Delivery firms hired large numbers of workers during the second quarter of 2020 and may be among the few corners of the labor market to expand throughout the year.
- Overall transportation employment will begin to rebound as increased consumer spending leads to higher volumes of trade through retail establishments and the Port of Oakland.



Jelly Belly factory in Solano County

Solano County Economic Forecast

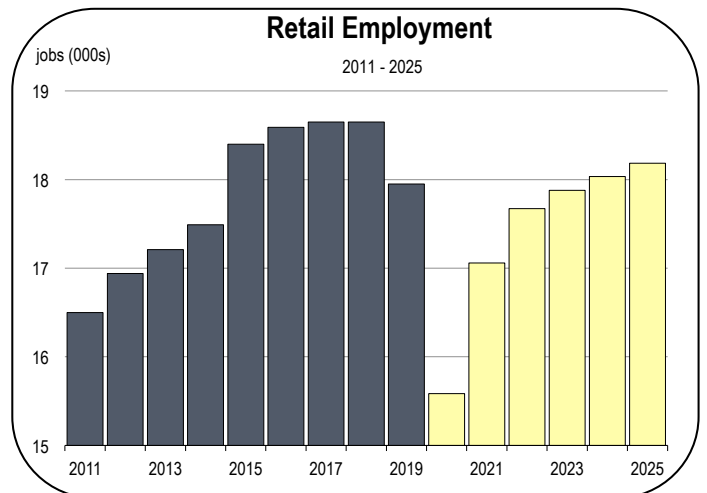
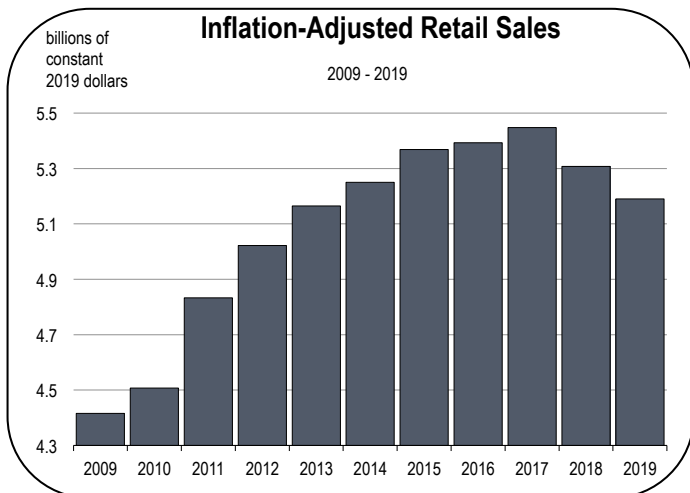
Retail Sub-Sectors 2019	Jobs in Subsector	Subsector's Share of Overall Industry
General Merchandise Stores	3,600	20.1%
Grocery Stores	2,900	16.2%
Car Dealers	1,700	9.5%
Clothing Stores	1,600	8.9%
Home Improvement / Garden Supply	1,500	8.4%
Gas Stations	1,100	6.1%
Electronics Stores	600	3.4%
Pharmacies & Drug Stores	400	2.2%
Furniture & Furnishings Stores	400	2.2%
Other	4,100	22.9%



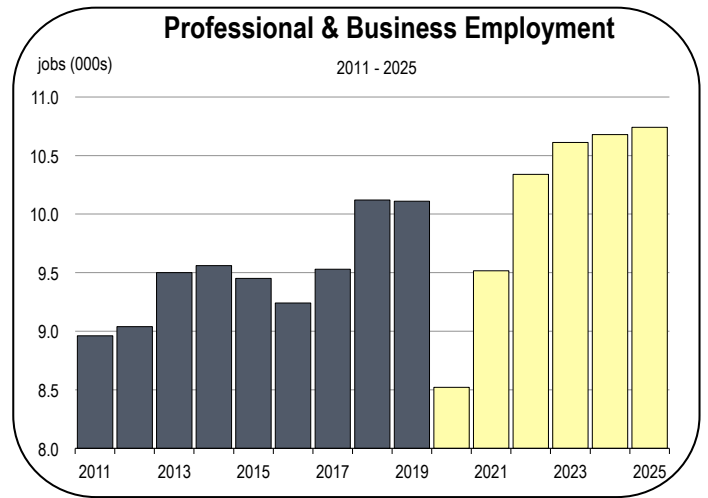
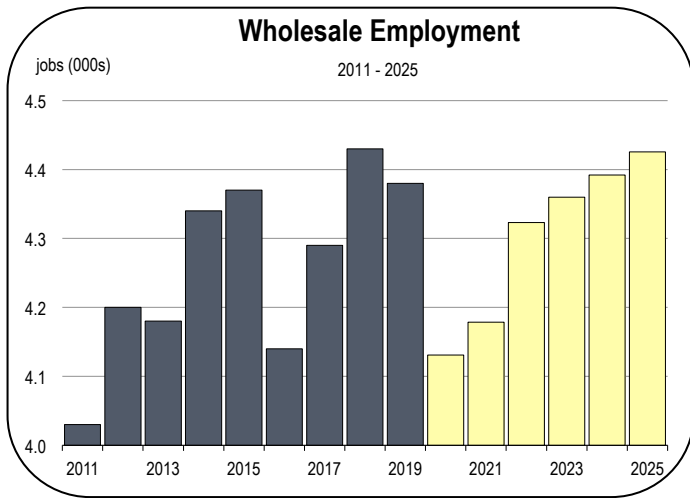
Retail Trade Employment

- The most prominent retail fixture in Solano County is the Vacaville Premium Outlets, which has 87 clothing and accessory stores, 2 restaurants, and a recreation venue.
- Of the 1,600 jobs at clothing stores across Solano County, approximately 1,100 are located at the outlets.
- Retail trade employment, as well as total retail sales, were declining in Solano County before the onset of the Coronavirus Recession.
- In 2019 the largest retail job losses were in car dealers, clothing stores, and general merchandise stores.

- The retail sector is expected to lose more than 2,000 jobs in 2020 on an annual average basis.
- Many retail chains have chose to furlough their employees rather than lay them off completely, and furloughed workers are not considered to be unemployed. This is a technical detail that will mask the true number of work stoppages in the retail sector.
- Accounting for furloughed workers more than 3,500 retail workers could be effectively not working and not earning an income on an annual average basis in 2020.
- Retail trade jobs will begin to recover when social distancing protocols are removed in a sustained way, but it is unclear when retail employment will eclipse pre-recession levels.



Solano County Economic Forecast

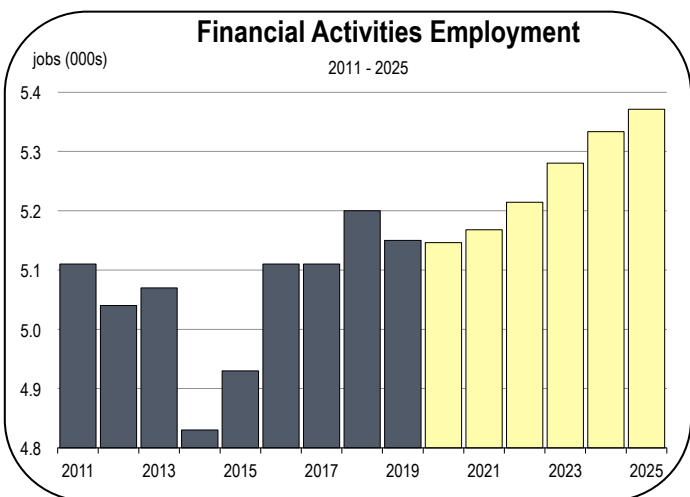


Wholesale Trade Employment

- Wholesale trade employment is expected to fall by at least 200 jobs on an annual average basis in 2020.
- Wholesale employment is likely to expand in tandem with employment in manufacturing and transportation/warehousing. Solano County wholesalers largely connect buyers with the goods produced at local manufacturing plants and the products stored in local warehouses.

Financial Activities Employment

- The financial activities sector is not expected to gain or lose a meaningful number of jobs in 2020.
- Employment levels are expected to increase slowly in 2021 and 2022.



Professional and Business Services Employment

- The professional and business services industry has a diverse array of subsectors, and each will be impacted differently during the recession and recovery phases of 2020 and 2021.
- Jobs in corporate security and building maintenance declined substantially during the shutdowns but are expected rebound at office and industrial buildings with repopulating employment.
- Staffing agencies had significant losses during the contraction, but may bounce back quickly once the economy begins to expand again.

Professional & Business Services Sub-Sectors 2019	Jobs in Subsector	Subsector's Share of Overall Industry
Building Maintenance	2,000	19.4%
Staffing Agencies	1,700	16.5%
Engineering & Architecture	1,200	11.7%
Corporate Headquarters	800	7.8%
Corporate Security	600	5.8%
Accounting & Bookkeeping	400	3.9%
Business Consulting	300	2.9%
Custom IT Services	300	2.9%
Marketing and Advertising	300	2.9%
Law	300	2.9%
Other	2,400	23.3%

Solano County Economic Forecast

- Staffing agencies primarily employ temp workers. Temp workers are usually laid off first during a downturn but hired back first during a recovery.
- Aside from security, maintenance, and staffing agencies, most subsectors of the professional business services industry were able to operate remotely and were less affected by the recession.

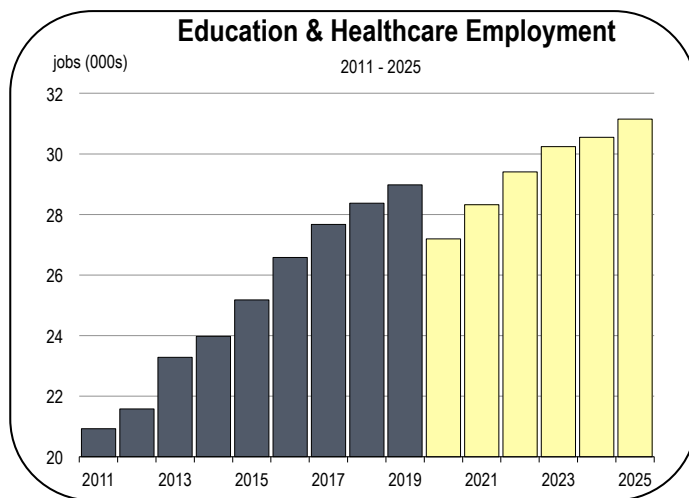
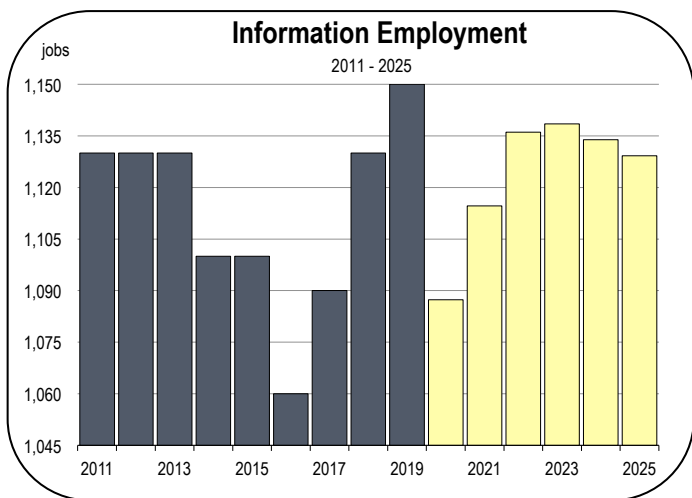
Information Employment

- In Solano County, the information sector is dominated by telecommunications companies like Comcast.
- Telecommunications jobs were classified as essential and these workers largely remained employed during shelter-in-place. Consequently, employment was not impacted as it was in other sectors.
- Solano County also has a meaningful number of jobs at movie theaters. Movie theater employment may not return to pre-recession levels until 2021 or later as strict social distancing policies will likely reduce the number of customers that are allowed into theaters.
- Many newspaper, magazine, and TV/radio workers were allowed to remain in their jobs, but advertising revenues shrank with the rest of the economy, giving employers little choice but to issue layoff notices.
- The Solano County information sector is expected to be in recovery mode for a few years, but employment levels may begin to decline during the second half of the forecast period. Telecommunications, newspaper publishing, and movie theaters are in long-term patterns of decline, and these patterns are likely to emerge again once the economy transitions to a more normal environment.

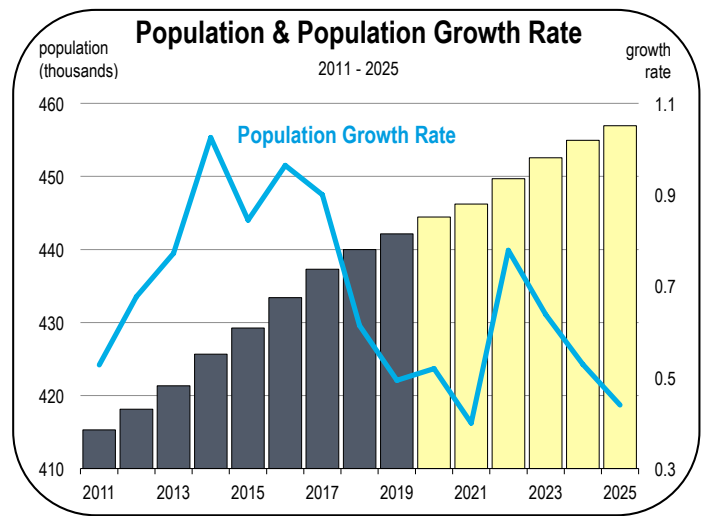
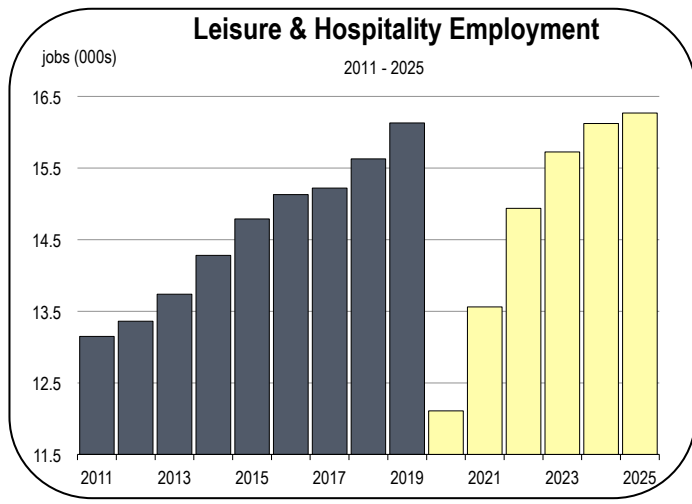
Information Sub-Sectors 2019	Jobs in Subsector	Subsector's Share of Overall Industry
Telecommunications	400	36.4%
Movie Theaters	200	18.2%
Newspaper Publishers	100	9.1%
Other	400	36.4%

Private Education and Healthcare Employment

- There were 18,000 healthcare jobs in Solano County in 2019.
- Healthcare jobs were recession proof during the 2008-2009 financial crisis. However, some non-essential medical offices had to close in 2020, and hospitals reduced their employment levels because resources were not utilized as envisioned to support Coronavirus patients.
- There were approximately 8,000 social assistance jobs in 2019, including industries like childcare, housing shelters, and non-medical care for senior citizens.
- There were also 2,000 jobs in private schools and colleges, tutoring services, vocational schools, and other educational organizations.
- Jobs in social assistance and education were mostly classified as essential. Nevertheless, there were layoffs at institutions with revenue shortfalls.



Solano County Economic Forecast

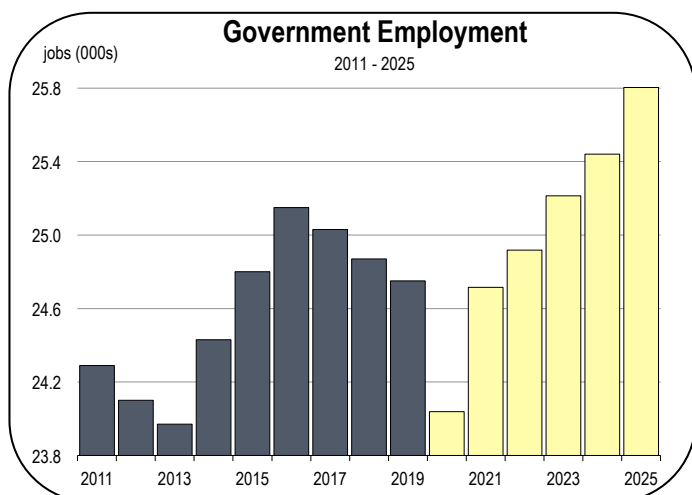


Leisure and Hospitality Employment

- The leisure and hospitality industry was devastated by the recession more than any other sector of the labor market.
- In 2019, Solano County had 13,000 jobs in restaurants, hotels, and bars. Our research indicates that most were laid off, furloughed, or had their hours cut in March and April of 2020.
- Solano County also had 3,000 jobs in entertainment and recreation in 2019, including things like fitness centers, museums, and recreation centers. Many of these organizations will operate at reduced capacities through 2020 and potentially into 2021.

Government Employment

- Government agencies are expected to lose revenue from taxes and fees in 2020, and these revenue shortfalls will likely persist into 2021 and 2022.
- When government agencies need to reduce expenditures on salaries, many workers are expected to be given unpaid furlough

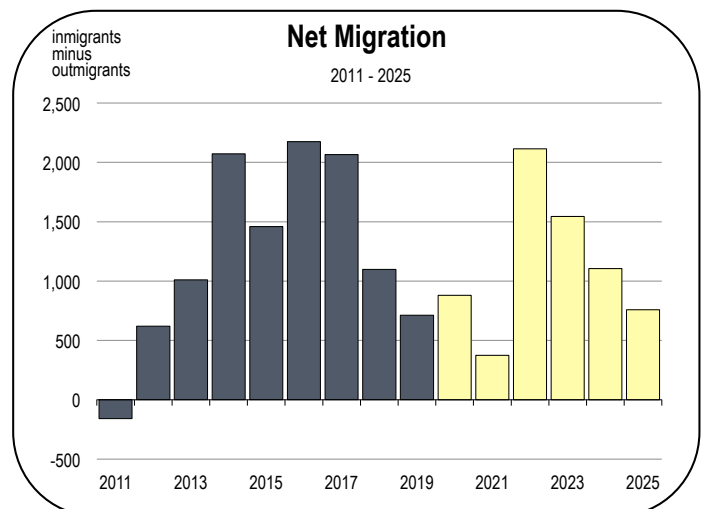


days that are distributed throughout the year, and many staffing reductions could be the result of hiring freezes rather than layoffs.

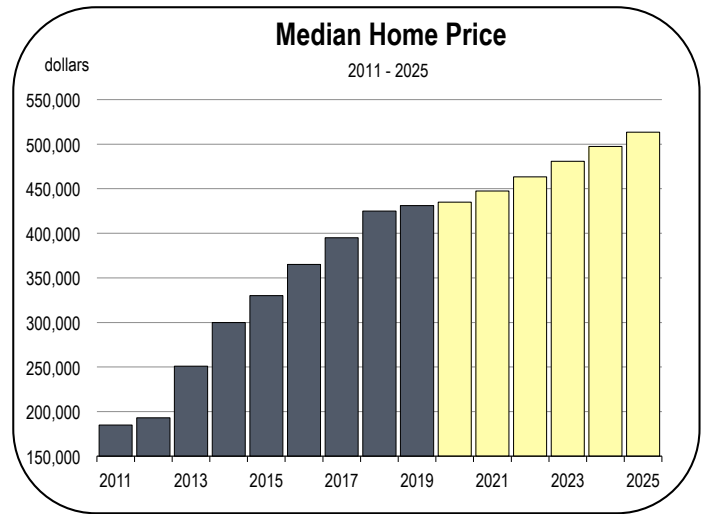
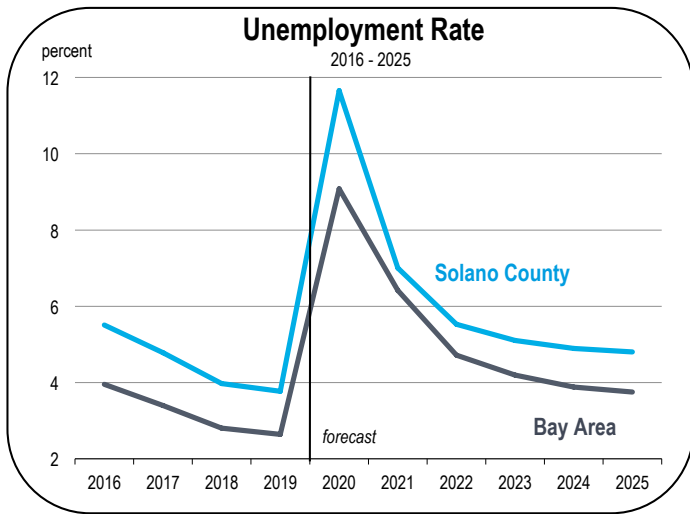
- However, if revenue shortfalls are severe and Congress does not appropriate funding to mitigate these shortfalls, government agencies may have no choice but to issue layoffs.

Population Growth

- The Solano County population is expected to expand more quickly than they Bay Area average between 2020 and 2025.
- Net migration is expected to be a meaningful contributor to population growth as residents relocate from San Francisco for more affordable housing options in Solano County.
- An average of 1,200 net migrants will move into the county each year between 2020 and 2025.
- The population will grow at an annual average rate of 0.6 percent per year from 2020 to 2025. By 2025 the Solano County population will surpass 455,000 residents.



Solano County Economic Forecast

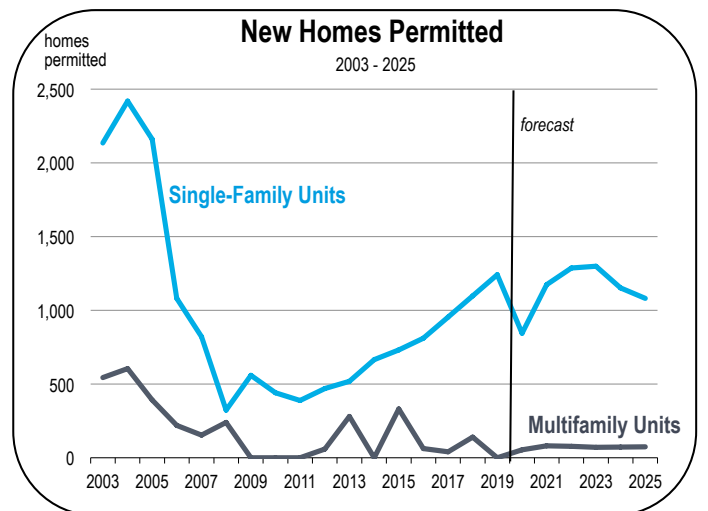
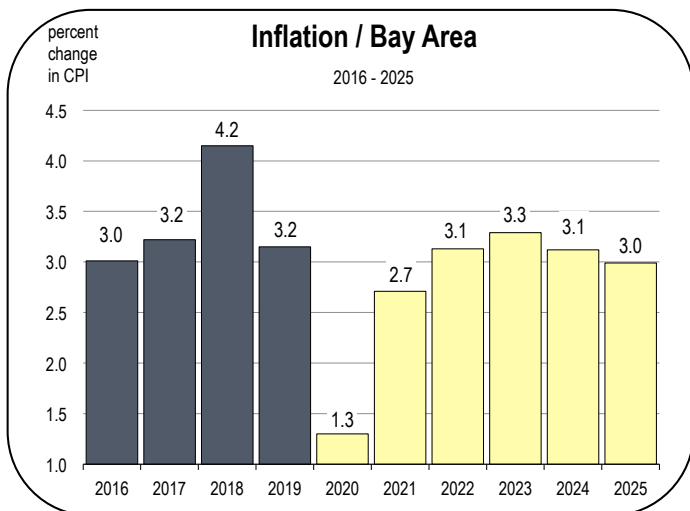


Unemployment and Inflation Rates

- The unemployment rate in Solano County averaged 3.8 percent in 2019, which was above the composite rate for the Bay Area.
- The unemployment rate is expected to average between 10 and 12 percent in 2020.
- The unemployment rate is expected to remain elevated for several years, but is likely to improve more quickly than after the 2008-2009 recession.
- Inflation decelerated in 2019 as energy prices declined and home prices increased more slowly than the previous year.
- Inflation is expected to be very low in 2020 but could accelerate in 2021 or 2022.

Home Prices and New Housing Production

- In 2019 the median home price in Solano County was \$431,000.
- The median price is not expected to change much in 2020 or 2021.
- Homes in Solano County are more affordable than homes across California and other parts of the Bay Area, which has driven a substantial number of residents to relocate to the East Bay.
- In Solano County, the typical household spends less than 30 percent of its income on mortgage payments or rent. In San Francisco the typical household spends more than 50 percent of its income on housing costs.
- From 2014 to 2019, an average of 1,000 new homes were started per year in Solano County. Approximately 90 percent were single-family homes. Housing production is expected to average 1,200 homes per year from 2020 to 2025, consisting primarily of single-family homes.



Solano County Economic Forecast

Economic Indicators

2015-2019 History, 2020-2050 Forecast

	Population (people)	House- holds (thousands)	Net Migration (people)	New Homes Permitted (homes)	Registered Vehicles (thousands)	Personal Income (billions)	Taxable Retail Sales (billions)	Total Taxable Sales (billions)	Real Industrial Production (billions)	Real per Capita Income (dollars)	Unemployment Rate (percent)	Real Farm Production (millions)	Inflation Rate (percent)
2015	429,256	144.8	1,459	1,063	402	\$19.6	\$4.7	\$7.0	\$7.8	\$52,106	6.0	\$404	2.6
2016	433,395	145.9	2,175	873	416	\$20.6	\$4.9	\$7.3	\$8.3	\$52,832	5.5	\$385	3.0
2017	437,294	146.7	2,066	995	420	\$21.5	\$5.1	\$7.7	\$8.5	\$52,744	4.8	\$390	3.2
2018	439,975	147.6	1,099	1,238	430	\$23.1	\$5.1	\$7.9	\$8.4	\$54,097	4.0	\$375	4.2
2019	442,145	148.3	712	1,242	439	\$24.1	\$5.2	\$8.2	\$8.4	\$54,445	3.8	\$375	3.2
2020	444,440	149.6	880	898	445	\$22.0	\$4.5	\$7.5	\$8.1	\$48,968	11.7	\$374	1.3
2021	446,215	150.5	375	1,254	451	\$24.1	\$5.1	\$7.8	\$8.3	\$51,869	7.0	\$372	2.7
2022	449,687	151.6	2,114	1,364	456	\$25.8	\$5.4	\$8.2	\$8.6	\$53,548	5.5	\$370	3.1
2023	452,553	152.9	1,544	1,369	461	\$27.4	\$5.7	\$8.6	\$8.8	\$54,592	5.1	\$369	3.3
2024	454,944	154.1	1,105	1,225	466	\$28.7	\$6.1	\$9.2	\$9.0	\$55,198	4.9	\$367	3.1
2025	456,943	155.3	759	1,155	470	\$30.0	\$6.5	\$9.7	\$9.1	\$55,836	4.8	\$365	3.0
2026	459,056	156.3	912	1,124	474	\$31.3	\$6.9	\$10.3	\$9.3	\$56,222	4.6	\$364	2.9
2027	461,074	157.4	862	1,056	477	\$32.5	\$7.3	\$11.0	\$9.5	\$56,618	4.5	\$362	2.8
2028	462,577	158.3	396	952	481	\$33.8	\$7.8	\$11.7	\$9.7	\$57,021	4.5	\$360	2.9
2029	464,405	159.2	769	911	484	\$35.0	\$8.1	\$12.2	\$9.8	\$57,169	4.4	\$359	3.0
2030	466,595	160.0	1,187	811	486	\$36.3	\$8.3	\$12.7	\$9.9	\$57,217	4.5	\$357	2.9
2031	469,172	160.8	1,632	804	489	\$37.5	\$8.6	\$13.1	\$10.0	\$57,322	4.4	\$355	2.8
2032	471,643	161.5	1,588	828	492	\$38.8	\$8.9	\$13.6	\$10.2	\$57,277	4.4	\$354	3.0
2033	473,952	162.3	1,486	692	495	\$40.1	\$9.1	\$13.9	\$10.3	\$57,334	4.5	\$352	2.6
2034	476,331	162.9	1,620	739	497	\$41.5	\$9.4	\$14.4	\$10.4	\$57,457	4.4	\$350	2.8
2035	478,990	163.6	1,970	778	500	\$42.9	\$9.6	\$14.8	\$10.6	\$57,446	4.4	\$349	2.9
2036	481,114	164.3	1,505	821	503	\$44.5	\$10.0	\$15.3	\$10.6	\$57,397	4.5	\$347	3.3
2037	482,977	165.1	1,313	789	505	\$46.1	\$10.3	\$15.8	\$10.7	\$57,396	4.5	\$345	3.4
2038	484,525	165.8	1,069	746	507	\$47.8	\$10.7	\$16.4	\$10.9	\$57,456	4.5	\$344	3.2
2039	485,561	166.5	618	698	509	\$49.5	\$11.0	\$16.9	\$11.0	\$57,504	4.5	\$342	3.4
2040	486,403	167.1	484	675	511	\$51.3	\$11.4	\$17.5	\$11.1	\$57,598	4.5	\$341	3.3
2041	487,439	167.8	727	636	513	\$53.1	\$11.8	\$18.1	\$11.2	\$57,652	4.5	\$339	3.1
2042	488,309	168.3	605	614	515	\$54.8	\$12.2	\$18.6	\$11.3	\$57,758	4.5	\$337	3.0
2043	488,874	168.9	329	571	516	\$56.6	\$12.5	\$19.2	\$11.5	\$57,927	4.5	\$336	2.9
2044	489,988	169.4	908	549	517	\$58.4	\$12.9	\$19.7	\$11.6	\$58,047	4.5	\$334	2.7
2045	491,623	169.9	1,457	583	519	\$60.3	\$13.3	\$20.3	\$11.8	\$58,048	4.5	\$332	2.9
2046	493,314	170.5	1,530	613	520	\$62.2	\$13.7	\$20.9	\$11.9	\$58,086	4.5	\$331	2.8
2047	494,875	171.0	1,406	618	522	\$64.2	\$14.1	\$21.6	\$12.0	\$58,138	4.5	\$329	2.8
2048	496,312	171.6	1,288	612	523	\$66.3	\$14.5	\$22.2	\$12.1	\$58,217	4.5	\$327	2.8
2049	497,723	172.2	1,268	604	525	\$68.4	\$14.9	\$22.8	\$12.3	\$58,307	4.5	\$326	2.8
2050	499,197	172.7	1,347	603	526	\$70.6	\$15.3	\$23.5	\$12.4	\$58,360	4.5	\$324	2.8

Employment Sectors

2015-2019 History, 2020-2050 Forecast

	Total Wage & Salary	Farm	Construction	Manufac- turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
	(thousands of jobs)											
2015	134.4	1.8	9.1	11.7	4.3	22.8	4.9	9.5	1.1	25.2	14.8	24.8
2016	138.0	1.8	10.3	11.9	4.5	22.7	5.1	9.2	1.1	26.6	15.1	25.2
2017	140.4	1.7	10.4	12.4	4.5	22.9	5.1	9.5	1.1	27.7	15.2	25.0
2018	143.7	1.7	11.2	12.7	4.8	23.1	5.2	10.1	1.1	28.4	15.6	24.9
2019	145.2	1.4	12.6	12.4	4.9	22.3	5.2	10.1	1.2	29.0	16.1	24.8
2020	133.3	1.4	12.7	12.0	4.8	19.7	5.1	8.5	1.1	27.2	12.1	24.0
2021	139.9	1.4	12.9	12.2	4.8	21.2	5.2	9.5	1.1	28.3	13.6	24.7
2022	144.5	1.4	12.7	12.4	4.9	22.0	5.2	10.3	1.1	29.4	14.9	24.9
2023	147.1	1.4	12.5	12.5	4.9	22.2	5.3	10.6	1.1	30.2	15.7	25.2
2024	148.3	1.4	12.3	12.6	4.9	22.4	5.3	10.7	1.1	30.5	16.1	25.4
2025	149.8	1.4	12.2	12.7	4.9	22.6	5.4	10.7	1.1	31.1	16.3	25.8
2026	150.6	1.4	12.1	12.8	4.9	22.8	5.4	10.8	1.1	31.4	16.4	25.9
2027	151.5	1.4	12.1	12.9	4.9	23.0	5.5	10.9	1.1	31.7	16.5	26.1
2028	152.4	1.4	12.0	13.1	4.9	23.3	5.5	10.9	1.1	31.8	16.5	26.2
2029	153.1	1.4	12.0	13.2	4.9	23.4	5.6	11.0	1.1	32.0	16.6	26.4
2030	153.7	1.4	12.0	13.3	4.9	23.5	5.6	11.1	1.1	32.2	16.6	26.5
2031	154.5	1.4	12.0	13.3	4.9	23.6	5.7	11.1	1.1	32.3	16.7	26.7
2032	155.1	1.4	12.0	13.4	4.9	23.6	5.7	11.2	1.1	32.4	16.8	26.8
2033	155.5	1.4	12.0	13.5	4.9	23.7	5.7	11.3	1.1	32.4	16.8	26.9
2034	156.3	1.4	12.1	13.6	4.9	23.8	5.8	11.3	1.1	32.5	16.9	27.1
2035	156.9	1.4	12.2	13.6	5.0	23.9	5.8	11.4	1.1	32.5	16.9	27.3
2036	157.5	1.4	12.1	13.7	5.0	24.0	5.8	11.5	1.1	32.7	17.0	27.5
2037	158.1	1.4	12.1	13.7	5.0	24.0	5.8	11.5	1.1	32.7	17.1	27.7
2038	158.6	1.4	12.1	13.8	5.0	24.1	5.9	11.6	1.1	32.7	17.1	27.9
2039	158.9	1.4	12.1	13.8	5.0	24.2	5.9	11.7	1.1	32.6	17.2	28.0
2040	159.3	1.3	12.1	13.9	5.0	24.3	5.9	11.7	1.1	32.6	17.3	28.2
2041	159.6	1.3	12.0	13.9	5.0	24.3	6.0	11.8	1.1	32.6	17.3	28.3
2042	159.8	1.3	12.0	14.0	5.0	24.4	6.0	11.9	1.1	32.2	17.4	28.4
2043	160.1	1.3	12.0	14.1	5.0	24.5	6.0	11.9	1.1	32.0	17.4	28.5
2044	160.5	1.3	12.0	14.1	5.0	24.6	6.0	12.0	1.1	31.9	17.5	28.7
2045	160.9	1.3	12.0	14.2	5.0	24.7	6.1	12.1	1.1	31.8	17.5	28.8
2046	161.3	1.3	12.0	14.2	5.0	24.7	6.1	12.1	1.1	31.8	17.6	28.9
2047	161.8	1.3	12.0	14.3	5.0	24.8	6.1	12.2	1.1	31.8	17.7	29.1
2048	162.3	1.3	12.0	14.3	5.0	24.9	6.1	12.3	1.1	31.9	17.7	29.2
2049	163.0	1.3	12.0	14.4	5.0	25.0	6.1	12.3	1.0	32.0	17.8	29.4
2050	163.5	1.3	12.0	14.4	5.0	25.1	6.2	12.4	1.0	32.1	17.8	29.5

Solano County Economic Forecast

Socioeconomic Indicators

