

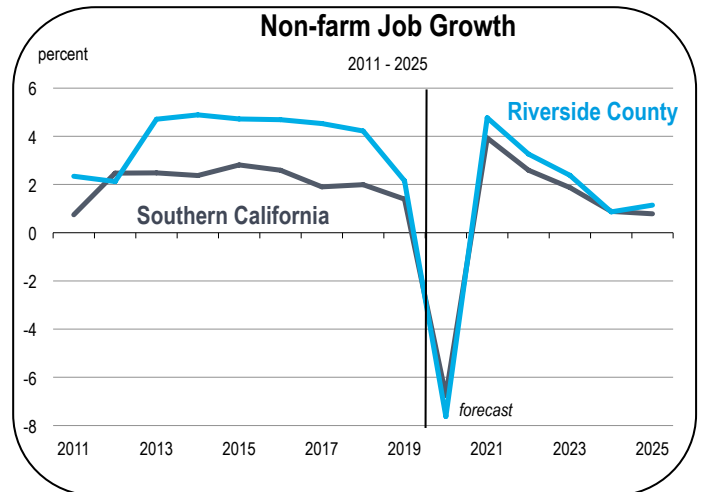
Riverside County Economic Forecast

Forecast Summary

- On an annual average basis, between 53,000 and 62,000 non-farm jobs will be lost in Riverside County during 2020. Job losses will be very heavy in the first half of the year but could begin to rebound in the second half.
- Employment losses will be largest in leisure services, retail trade, and government.
- The unemployment rate averaged 4.2 percent in 2019. It will average somewhere between 10 and 13 percent for the 2020 calendar year.
- The population is expanding faster than broader Southern California, and this trend will continue. Because of affordable home prices, net migration will remain positive.
- Housing production will decline in 2020 but should rebound in 2021 and 2022.
- Home prices are not expected to change much during 2020 or 2021. There will be fewer home buyers in the market, but because of building restrictions (housing construction has been deemed non-essential), the drop in demand will be matched by a similar drop in the supply of homes for sale.

Job Growth

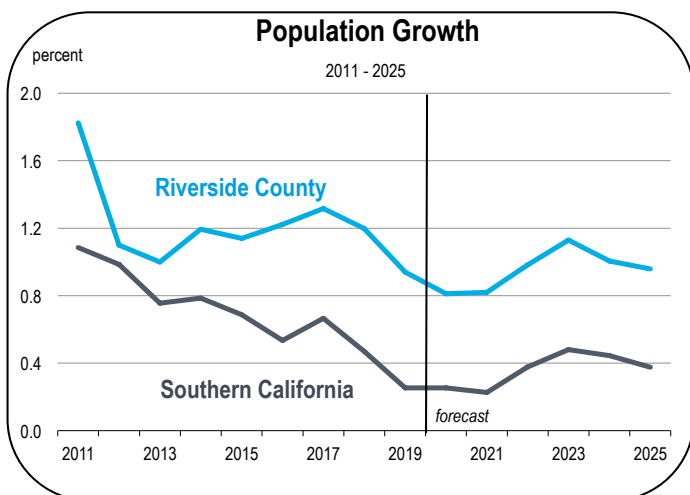
- Total employment in Riverside County will decline by 6 or 7 percent in 2020. This is an annual average change from 2019.



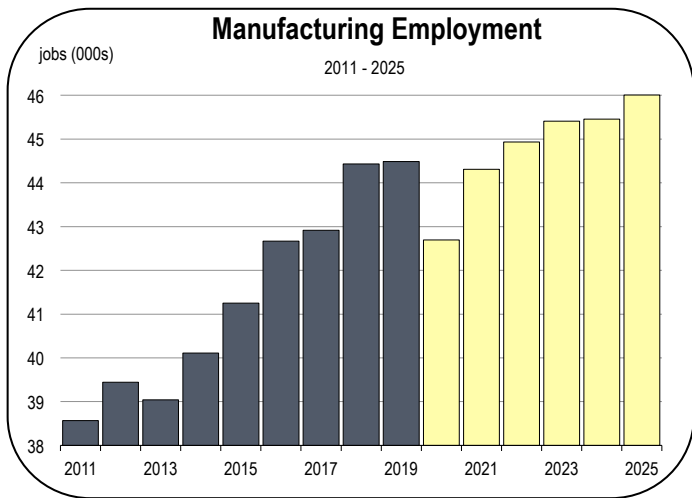
- In 2021, the county is expected to re-gain many of the jobs lost during the Coronavirus Recession.

Construction Employment

- The construction sector is expected to lose more than 3,000 jobs in 2020.
- Most California construction activity was deemed non-essential for several weeks in March and April, leading to significant construction layoffs that average down total employment in 2020.
- Construction employment will expand in 2021 and may return to pre-recession levels as early as 2022.



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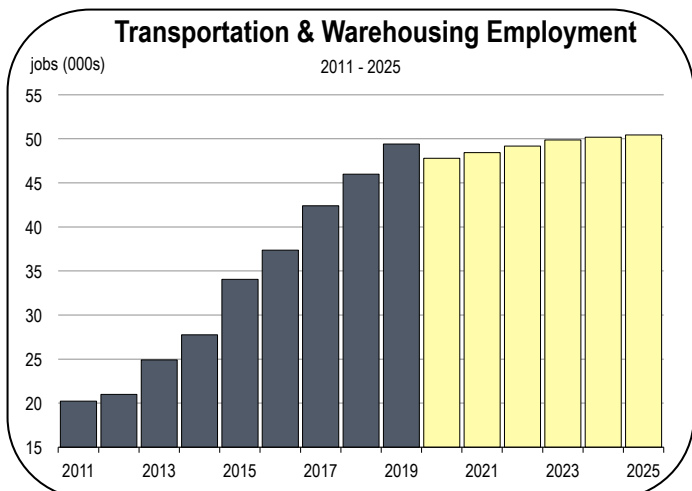


Manufacturing Employment

- Riverside County has a diversified manufacturing sector that spans a range of product types. The most prominent are food and beverages, construction and building materials, chemicals and pharmaceuticals, furniture, computer products, and auto parts.
- Manufacturing employment is expected to decline by approximately 1,500 to 2,000 jobs during 2020. Employment could begin to rebound in 2021 and continue to increase in 2022.

Transportation and Warehousing Employment

- Most transportation jobs in Riverside County are in trucking and warehousing, where firms deliver goods to and from businesses and store these goods in logistics facilities.
- Riverside County has become a hub for “Megawarehouses,” logistics facilities larger than 1 million square feet, and has such facilities for Amazon and a number of major retailers.

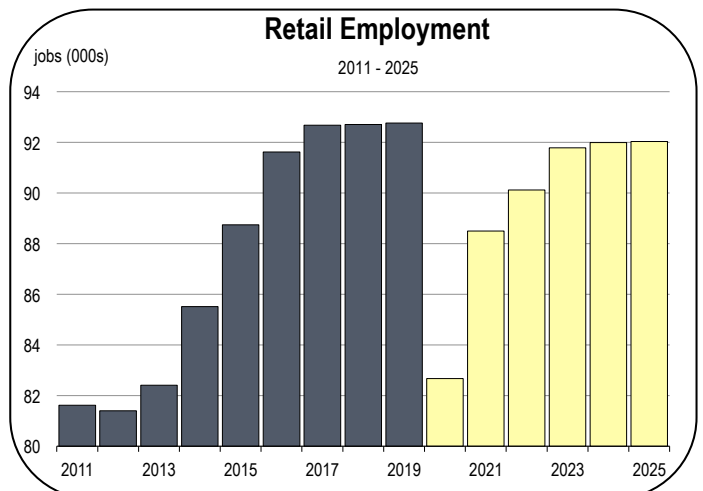


Transportation and Warehousing Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Warehousing / Storage	32.9	66.6%
Trucking	8.7	17.6%
Delivery Services	2.4	4.9%
Other	5.4	11.0%

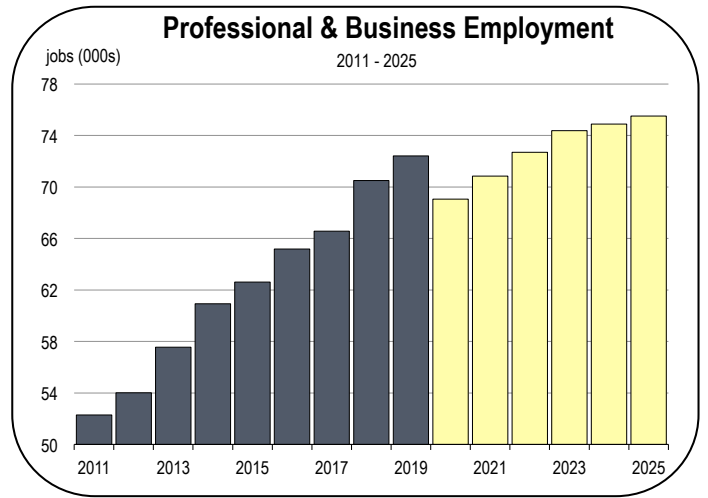
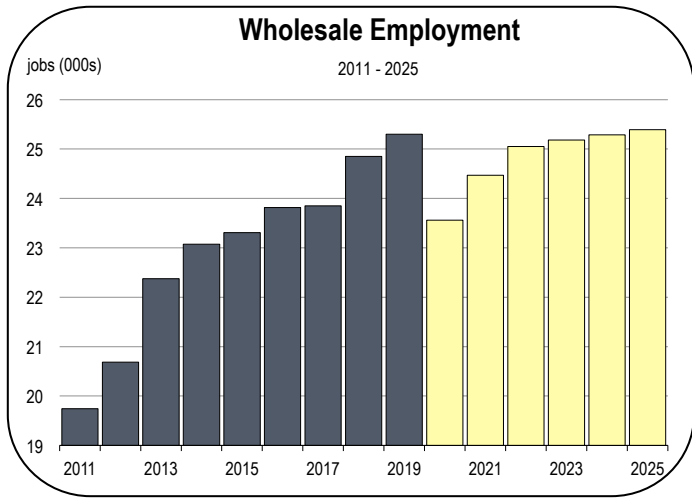
- Job growth in trucking and warehousing was exponential before the Coronavirus Recession, with overall employment levels more than doubling between 2009 and 2019.
- A meaningful number of jobs are in delivery firms like UPS, FedEx, and Instacart.
- Overall transportation and warehousing employment declined in March and April but began to expand again in May during Phase 2 of California’s restart.

Retail Trade Employment

- The retail sector is expected to lose approximately 10,000 jobs in 2020 on an annual average basis, a decrease of 11 percent.
- Many national retail chains 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 12,000 retail workers could be effectively not working, and not earning an income, on an annual average basis in 2020.



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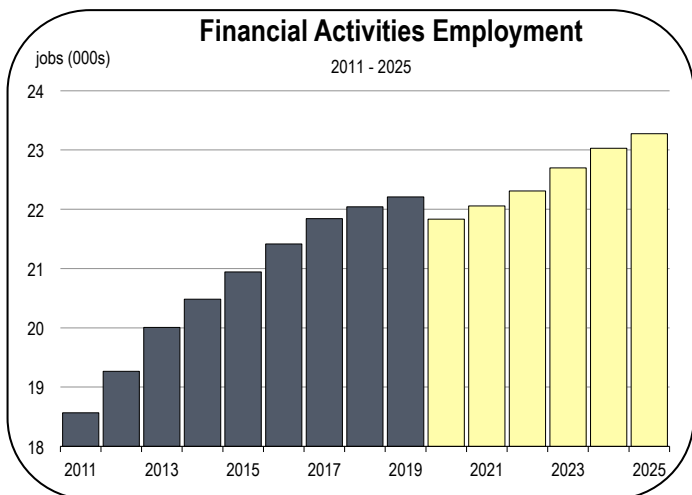


Wholesale Trade Employment

- Wholesale trade employment is expected to fall by at least 1,500 jobs on an annual average basis in 2020.
- Wholesale employment should begin to rebound by 2021 but is not expected to reach pre-recession levels for several years.

Financial Activities Employment

- Minor job losses are expected in 2020 because many employers closed, committing their employees to shelter-in-place for health reasons.
- The most prominent losses are expected in real estate sales and lending.
- There have been fewer homes on the market in 2020 than there were in 2019, and this should translate into fewer home sales, reducing the need for real estate agents and mortgage brokers.
- Banks also reduced their head counts in 2020 due to a temporary reduction of in-person branch visits.



Professional and Business Services Employment

- The professional and business services industry has a diverse array of subsectors, and each will be affected differently during the recession and recovery phases of 2020.
- Jobs in corporate security and building maintenance are expected to decline substantially but rebound at office and industrial buildings with repopulating employment.
- Staffing agencies can expect very significant losses during the contraction, but may bounce back quickly once the economy begins to expand again.
- Staffing agencies primarily employ temp workers. Temp workers are usually laid off first during a downturn but hired back first during a recovery.

Professional & Business Services Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Building Maintenance	18.9	26.2%
Staffing Agencies	16.2	22.4%
Corporate Security	12.5	17.2%
Engineering & Architecture	5.4	7.5%
Corporate Headquarters	3.8	5.2%
Accounting & Bookkeeping	3.5	4.9%
Marketing and Advertising	3.4	4.7%
Law	3.4	4.7%
Business Consulting	2.7	3.7%
Custom IT Services	2.4	3.3%
Scientific Research	0.2	0.2%

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- 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

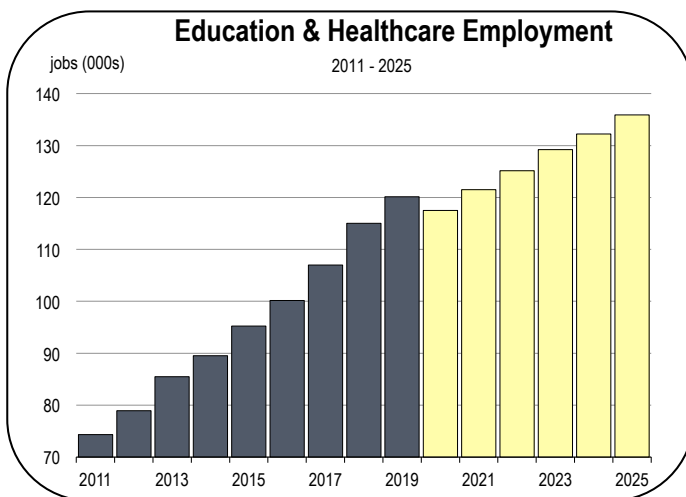
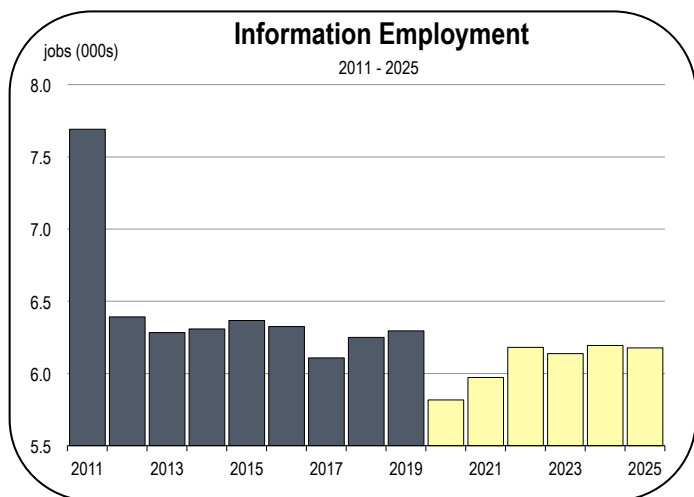
- In Riverside County, the information sector is dominated by telecommunications firms and movie theaters.
- Telecommunications jobs have been classified as essential and these workers largely remained employed throughout the recession.
- Movie theaters were completely shut down when the lockdowns were announced. Employment at movie theaters will return slowly through 2021 and 2022 because theaters will be required to institute social distancing practices that limit the number of people in each theater, and because some consumers will hesitate to visit confined spaces.
- Many newspaper and magazine 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.
- Most subsectors of the information industry are in long term patterns of decline, which will prevent meaningful job creation during the 2020-2025 forecast period.

Private Education and Healthcare Employment

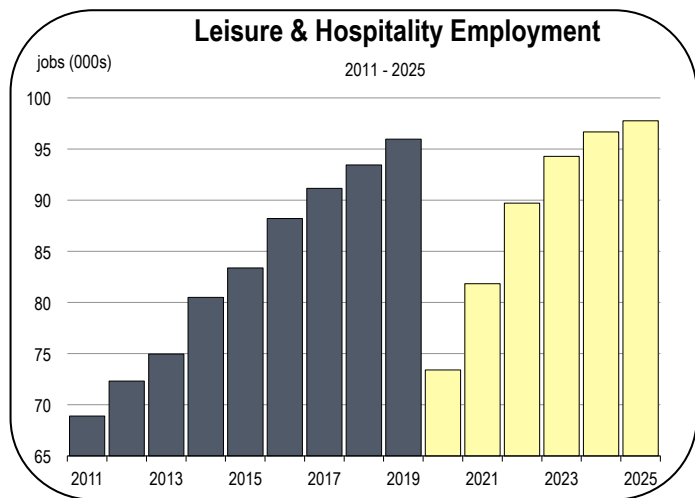
- There were 68,000 healthcare jobs in Riverside County in 2019, representing more than half of all jobs in the broader private education and healthcare sector.

Information Sub-Sectors 2019	Jobs in Subsector	Subsector's Share of Overall Industry
Telecommunications	3,100	48.8%
Movie Theaters	1,400	22.3%
Newspaper / Magazine / Book Publishing	600	10.1%
Data & Internet Services	600	10.1%
Movie / TV / Sound Production	300	4.7%
Software Publishers	200	3.9%

- 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 37,000 social assistance jobs in 2019, including industries like childcare, housing shelters, and non-medical care for senior citizens.
- There were also 7,000 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, but there were still layoffs at institutions with revenue shortfalls.



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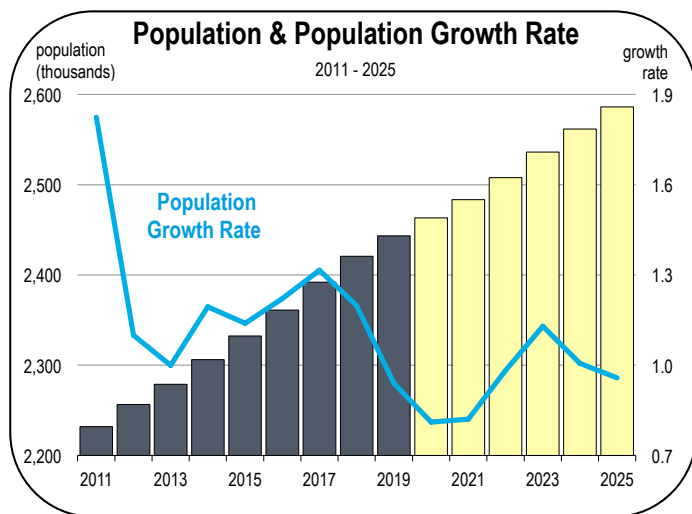
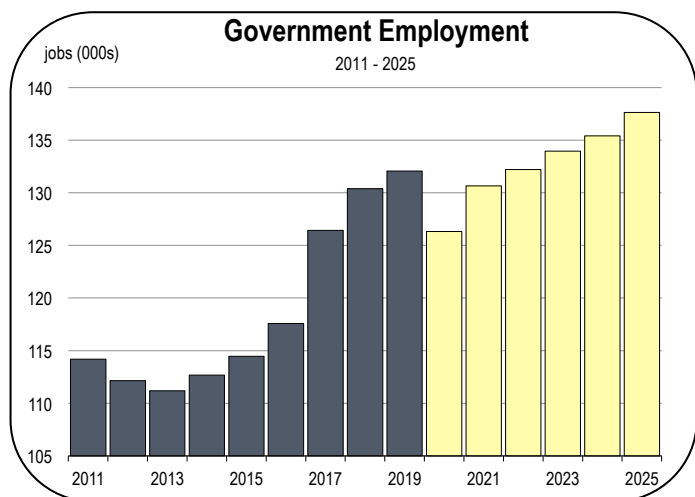


Leisure and Hospitality Employment

- Leisure and hospitality firms were impacted by the lockdowns more than almost any other sector of the labor market.
- In 2019, Riverside County had 83,500 jobs in restaurants, hotels, and bars. Our research indicates that most were laid off, furloughed, or had their hours cut in March and April.
- Jobs in this sector are not expected to reach a new peak for several years, and may not reach a new peak before the end of the 2020-2025 forecast period.

Government Employment

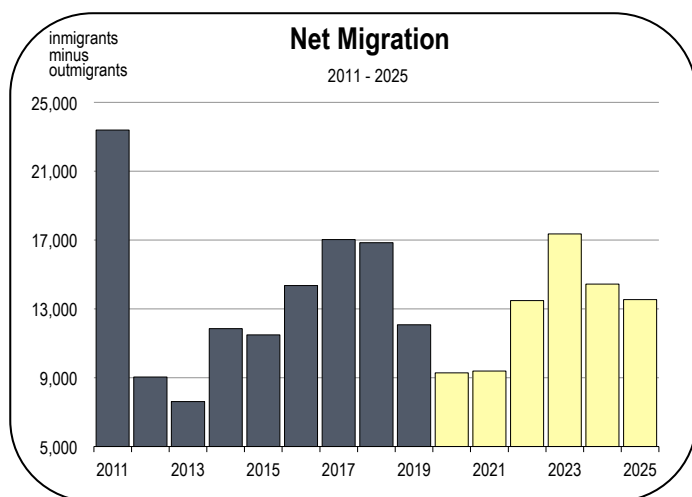
- Government agencies are expected to lose revenue from taxes and fees in 2020, and these revenue shortfalls will likely persist into 2021 and 2022.



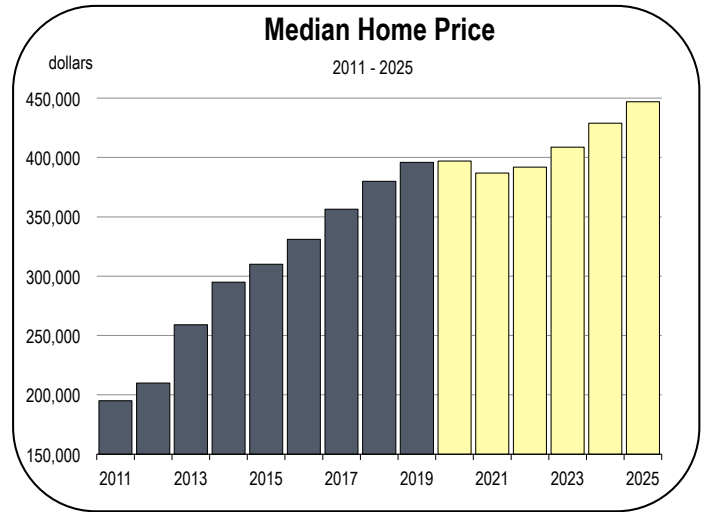
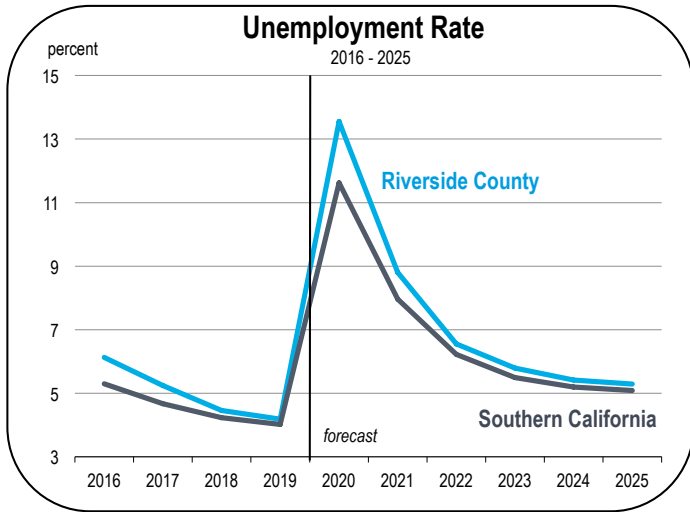
- When government agencies need to reduce expenditures on salaries, many workers are expected to be given unpaid furlough days that are distributed throughout the year, and many staffing reductions could be the result of hiring freezes rather than layoffs.
- However, if revenue shortfalls are severe and Congress does not appropriate funding to mitigate these shortfalls, government agencies may have no choice but to issue layoffs.

Population Growth

- Population growth is slowing but Riverside County still added new residents at a faster pace than the rest of Southern California in 2019.
- In 2019 people relocated from Coastal California to Riverside County for affordable housing options and job opportunities.



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- More than 12,000 net migrants entered the county last year, which is more than any other county in California.
- An average of 12,900 net migrants are expected to enter the county each year between 2020 and 2025.
- Population growth will average 1.0 percent per year and the county will approach 2.6 million residents by 2025.

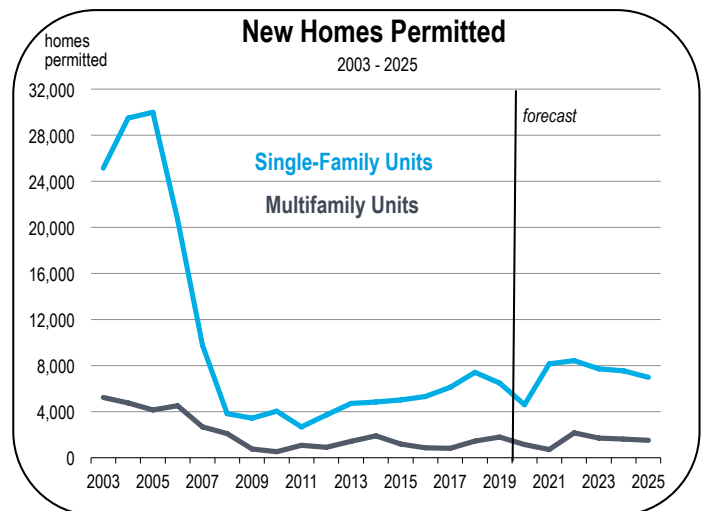
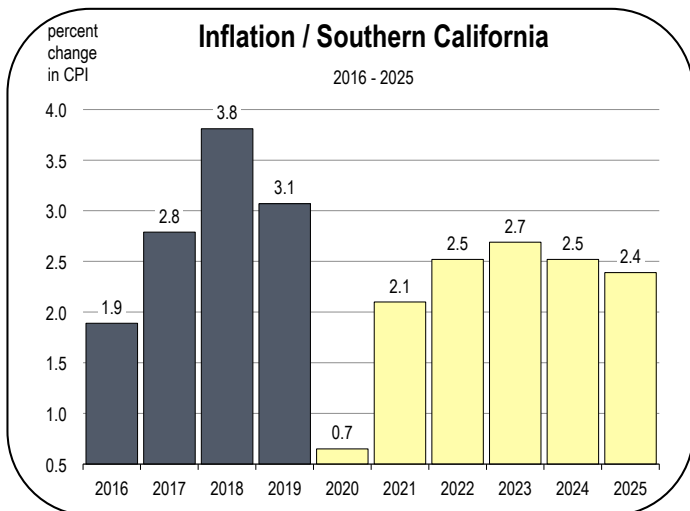
- Inflation decelerated in 2019 as energy prices declined and home prices increased more slowly than the previous year.
- Inflation is expected to be very low in 2020 but could accelerate in 2021 or 2022.

Unemployment and Inflation Rates

- The unemployment rate in Riverside County averaged 4.2 percent in 2019, similar to the composite rate for Southern California.
- The unemployment rate is expected to average between 10 and 13 percent during the 2020 calendar year.
- The unemployment rate is expected to remain elevated for several years, but is likely to improve more quickly than after the 2008-2009 recession.

Home Prices and New Housing Production

- The median home price is expected to be largely unchanged in 2020 and 2021.
- From 2014 to 2019, an average of 7,200 new homes were started per year.
- Housing production is forecast to average 8,700 homes per year from 2020 to 2025.
- During the 2020-2025 forecast period, more than 80 percent of units are expected to be single-family homes.



Riverside 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 (billions)	Inflation Rate (percent)
2015	2,332,491	708.0	11,494	6,196	1,902	\$86.0	\$23.2	\$33.2	\$12.2	\$41,330	6.7	\$1.5	0.9
2016	2,360,984	715.4	14,355	6,180	1,984	\$90.4	\$23.9	\$34.5	\$12.8	\$42,101	6.1	\$1.4	1.9
2017	2,392,055	715.8	17,023	6,921	2,008	\$94.2	\$25.5	\$36.4	\$13.2	\$42,136	5.2	\$1.3	2.8
2018	2,420,714	719.2	16,844	8,859	2,046	\$99.6	\$27.7	\$38.9	\$13.5	\$42,402	4.5	\$1.3	3.8
2019	2,443,454	725.2	12,070	8,279	2,114	\$105.5	\$28.6	\$40.3	\$14.1	\$43,173	4.2	\$1.4	3.1
2020	2,463,272	732.7	9,281	5,750	2,163	\$104.5	\$26.8	\$38.1	\$14.5	\$42,147	13.5	\$1.3	0.7
2021	2,483,479	737.5	9,386	8,862	2,199	\$107.2	\$28.7	\$40.3	\$14.2	\$41,999	8.8	\$1.3	2.1
2022	2,507,870	745.0	13,481	10,584	2,227	\$113.5	\$29.7	\$41.8	\$14.5	\$42,959	6.5	\$1.3	2.5
2023	2,536,204	753.9	17,355	9,402	2,253	\$120.3	\$30.9	\$43.6	\$14.8	\$43,837	5.8	\$1.3	2.7
2024	2,561,714	761.8	14,439	9,172	2,277	\$126.2	\$32.2	\$45.4	\$15.0	\$44,423	5.4	\$1.3	2.5
2025	2,586,265	769.5	13,538	8,506	2,294	\$132.5	\$33.6	\$47.3	\$15.4	\$45,110	5.3	\$1.3	2.4
2026	2,609,381	776.6	12,286	8,386	2,306	\$138.0	\$35.0	\$49.3	\$15.7	\$45,521	5.0	\$1.2	2.3
2027	2,631,676	783.7	11,657	8,425	2,315	\$143.5	\$36.4	\$51.3	\$15.9	\$45,905	4.8	\$1.2	2.2
2028	2,653,055	790.8	10,920	8,445	2,322	\$149.4	\$38.0	\$53.5	\$16.1	\$46,351	4.8	\$1.2	2.3
2029	2,674,530	797.9	11,159	8,291	2,327	\$155.3	\$39.2	\$55.3	\$16.3	\$46,674	4.7	\$1.2	2.4
2030	2,695,564	804.9	10,990	8,253	2,332	\$161.1	\$40.3	\$56.8	\$16.5	\$46,976	4.8	\$1.2	2.3
2031	2,716,327	811.8	11,000	7,968	2,336	\$166.9	\$41.4	\$58.3	\$16.6	\$47,292	4.6	\$1.2	2.2
2032	2,735,847	818.5	10,048	7,782	2,340	\$173.0	\$42.6	\$60.0	\$16.8	\$47,529	4.7	\$1.2	2.4
2033	2,755,097	825.1	10,163	7,319	2,344	\$178.9	\$43.5	\$61.4	\$17.0	\$47,865	4.8	\$1.2	2.0
2034	2,773,358	831.2	9,738	7,277	2,349	\$185.1	\$44.6	\$62.8	\$17.1	\$48,151	4.7	\$1.2	2.2
2035	2,790,931	837.3	9,819	7,060	2,354	\$191.6	\$45.7	\$64.4	\$17.3	\$48,444	4.7	\$1.2	2.3
2036	2,806,957	843.3	9,034	7,281	2,361	\$198.7	\$47.0	\$66.2	\$17.4	\$48,641	4.8	\$1.2	2.7
2037	2,822,890	849.4	9,681	7,261	2,369	\$206.0	\$48.4	\$68.2	\$17.4	\$48,809	4.7	\$1.2	2.8
2038	2,837,799	855.5	9,596	7,168	2,379	\$213.4	\$49.7	\$70.1	\$17.5	\$49,027	4.8	\$1.2	2.6
2039	2,851,367	861.5	9,191	6,994	2,391	\$221.2	\$51.2	\$72.2	\$17.6	\$49,235	4.8	\$1.2	2.8
2040	2,863,938	867.4	9,068	7,063	2,404	\$229.1	\$52.7	\$74.3	\$17.7	\$49,457	4.7	\$1.3	2.7
2041	2,875,684	873.4	9,083	6,838	2,418	\$237.1	\$54.1	\$76.3	\$17.8	\$49,744	4.7	\$1.3	2.5
2042	2,885,769	879.1	8,200	6,616	2,433	\$245.3	\$55.6	\$78.3	\$18.0	\$50,103	4.7	\$1.3	2.4
2043	2,894,769	884.7	7,949	6,245	2,447	\$253.7	\$57.0	\$80.3	\$18.1	\$50,516	4.7	\$1.3	2.3
2044	2,902,809	889.9	7,918	6,223	2,461	\$262.0	\$58.3	\$82.2	\$18.3	\$50,957	4.7	\$1.3	2.1
2045	2,910,295	895.2	8,070	6,234	2,475	\$270.6	\$59.7	\$84.1	\$18.4	\$51,340	4.7	\$1.3	2.3
2046	2,917,267	900.4	8,014	6,239	2,488	\$279.4	\$61.1	\$86.1	\$18.6	\$51,761	4.7	\$1.3	2.2
2047	2,923,804	905.7	7,925	6,228	2,500	\$288.4	\$62.5	\$88.1	\$18.7	\$52,166	4.7	\$1.3	2.2
2048	2,930,141	910.9	7,889	6,115	2,512	\$297.5	\$64.0	\$90.2	\$18.8	\$52,565	4.7	\$1.3	2.2
2049	2,936,151	916.1	7,744	6,198	2,524	\$306.9	\$65.5	\$92.3	\$19.0	\$52,964	4.7	\$1.3	2.2
2050	2,942,328	921.3	8,104	6,205	2,535	\$316.6	\$67.1	\$94.5	\$19.1	\$53,360	4.7	\$1.3	2.2

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	657.9	12.6	52.9	41.3	34.1	112.1	20.9	62.6	6.4	95.2	83.4	114.5
2016	688.4	12.8	58.6	42.7	37.4	115.4	21.4	65.2	6.3	100.2	88.2	117.6
2017	718.4	12.3	62.2	42.9	42.4	116.5	21.8	66.6	6.1	107.0	91.2	126.4
2018	748.4	12.5	67.3	44.4	46.0	117.6	22.0	70.5	6.3	115.0	93.5	130.4
2019	764.8	13.0	67.7	44.5	49.4	118.1	22.2	72.4	6.3	120.1	96.0	132.1
2020	706.6	12.2	64.5	42.7	47.8	106.2	21.8	69.1	5.8	117.5	73.4	126.3
2021	740.3	12.8	67.7	44.3	48.4	113.0	22.1	70.8	6.0	121.5	81.8	130.7
2022	764.3	13.0	71.1	44.9	49.2	115.2	22.3	72.7	6.2	125.1	89.7	132.2
2023	782.3	13.1	72.8	45.4	49.9	117.0	22.7	74.4	6.1	129.2	94.3	134.0
2024	789.0	13.2	70.9	45.5	50.2	117.3	23.0	74.9	6.2	132.2	96.7	135.4
2025	797.9	13.2	70.8	46.0	50.4	117.4	23.3	75.5	6.2	135.9	97.8	137.6
2026	802.4	13.2	68.9	46.2	50.7	117.7	23.5	76.1	6.2	138.7	98.7	138.5
2027	808.0	13.3	67.2	46.3	51.0	118.5	23.8	76.8	6.2	141.4	99.4	139.7
2028	815.1	13.2	66.6	46.3	51.4	119.1	24.2	77.8	6.2	144.0	100.4	141.3
2029	822.9	13.2	66.7	46.3	51.8	120.0	24.4	78.8	6.2	146.7	101.3	142.8
2030	829.8	13.3	66.7	46.4	52.2	120.3	24.7	79.7	6.2	149.2	102.0	144.2
2031	836.7	13.3	66.6	46.4	52.5	120.8	24.9	80.6	6.2	151.6	102.9	145.7
2032	843.2	13.3	66.2	46.3	53.0	121.1	25.1	81.6	6.2	153.9	103.8	147.4
2033	849.0	13.3	65.5	46.3	53.3	121.4	25.3	82.5	6.2	156.2	104.4	148.8
2034	854.1	13.4	64.7	46.2	53.6	122.0	25.5	83.1	6.2	158.6	105.0	149.9
2035	859.6	13.4	64.2	46.3	53.8	122.7	25.6	83.7	6.2	161.0	105.6	150.9
2036	865.2	13.4	63.9	46.1	54.0	123.3	25.8	84.4	6.2	163.3	106.3	152.0
2037	871.0	13.4	64.1	46.0	54.3	123.7	26.0	85.0	6.2	165.4	107.0	153.2
2038	876.1	13.5	64.1	45.8	54.5	124.1	26.1	85.7	6.2	167.3	107.5	154.2
2039	881.7	13.5	64.2	45.7	54.8	124.5	26.3	86.4	6.2	169.2	108.2	155.4
2040	886.5	13.5	64.1	45.6	55.1	124.9	26.4	87.1	6.2	171.1	108.7	156.4
2041	891.4	13.5	64.1	45.5	55.3	125.1	26.6	87.8	6.2	172.8	109.3	157.4
2042	896.8	13.5	64.0	45.4	55.7	125.5	26.7	88.6	6.2	174.5	110.0	158.6
2043	902.6	13.5	63.5	45.2	56.1	126.1	26.9	89.6	6.2	176.2	110.9	160.0
2044	906.8	13.5	62.9	45.1	56.3	126.9	27.0	90.2	6.2	177.8	111.4	160.8
2045	911.2	13.5	62.5	45.1	56.5	127.5	27.1	90.8	6.2	179.7	111.8	161.6
2046	916.2	13.5	62.3	45.2	56.7	128.1	27.2	91.4	6.2	181.6	112.3	162.6
2047	921.2	13.5	62.2	45.2	56.9	128.5	27.3	92.0	6.2	183.4	112.8	163.6
2048	926.3	13.5	62.0	45.2	57.2	128.9	27.4	92.7	6.2	185.1	113.4	164.8
2049	931.6	13.6	62.1	45.2	57.4	129.3	27.5	93.5	6.2	186.7	114.0	165.9
2050	937.0	13.6	62.3	45.2	57.7	129.7	27.6	94.2	6.2	188.5	114.5	167.1

Riverside County Economic Forecast

Socioeconomic Indicators

