

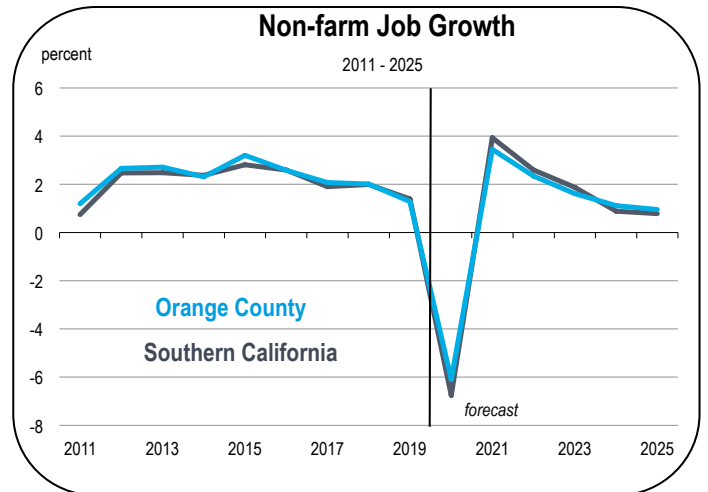
Orange County Economic Forecast

Forecast Summary

- It is estimated that an average of 90,000 to 110,000 jobs will be lost in Orange County during 2020. Job losses will be heavy in the first half of the year, rebounding in the second half.
- Employment losses will be largest in professional business services, leisure services, and construction.
- The unemployment rate averaged 3.0 percent in 2019. It will average between 8 and 10 percent for the 2020 calendar year.
- The population is expanding slower than broader Southern California, and this trend will continue. Because of high home prices, net migration will remain negative.
- Housing production will fall sharply in 2020.
- Home prices are not expected to change much during 2020 or 2021. There will be fewer home buyers in the market, but the drop in demand will be matched by a similar drop in the supply of homes for sale.

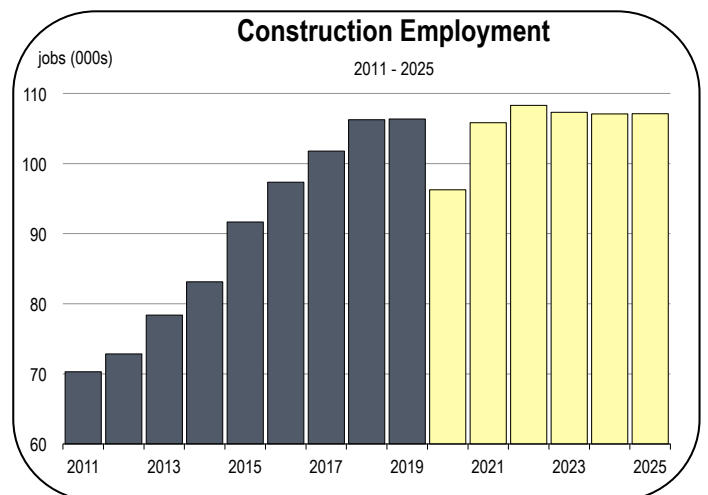
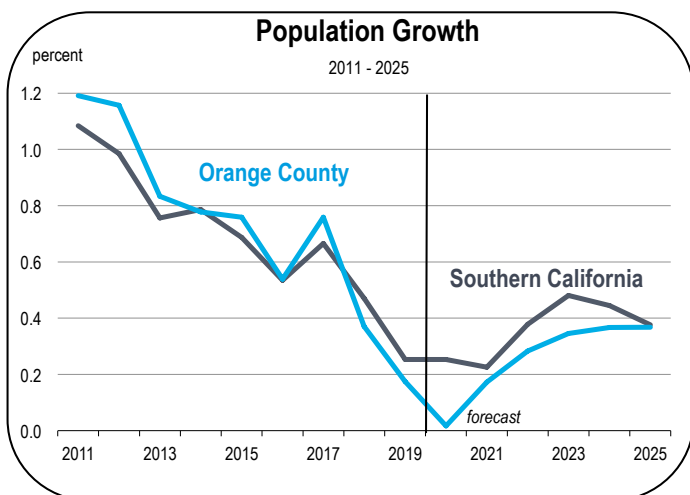
Job Growth

- Total employment in Orange County will decline by 5 to 7 percent in 2020 on an annual average basis.
- In 2021, the county is expected to re-gain many of the jobs lost during the Coronavirus Recession.

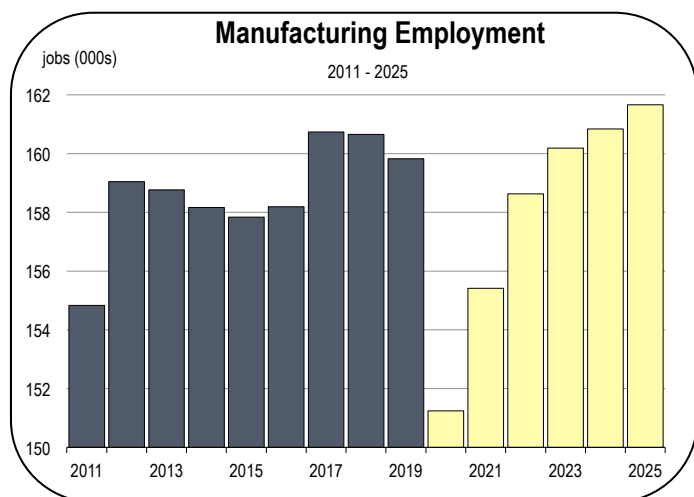


Construction Employment

- The construction sector is expected to lose at least 10,000 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

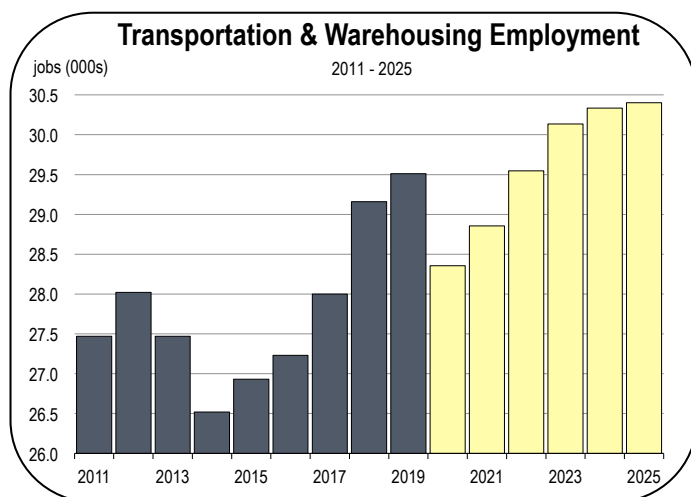
- Orange County has heavy concentrations in food and computer/electronic manufacturing and aerospace manufacturing.
- Manufacturing employment is expected to decline by approximately 9,000 jobs during 2020. Employment could begin to rebound in 2021 and continue to increase in 2022.

Transportation and Warehousing Employment

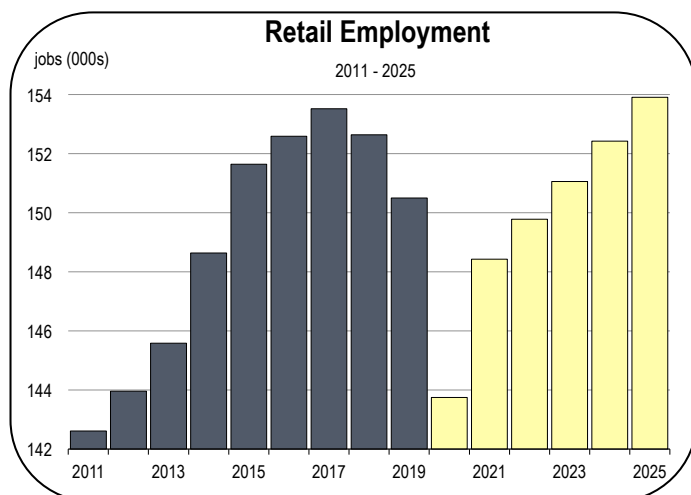
- Most transportation jobs in Orange County are in freight trucking, local delivery services, and warehousing/logistics centers.
- Employment levels in trucking and warehousing were impacted by the reduction in global trade and the decline in domestic commerce, and should begin to expand again as overall economic activity recovers.
- Local delivery firms hired large numbers of workers during the second quarter of 2020 and may be characterized by an increase in annual average employment levels during the entire 2020 calendar year.

Retail Trade Employment

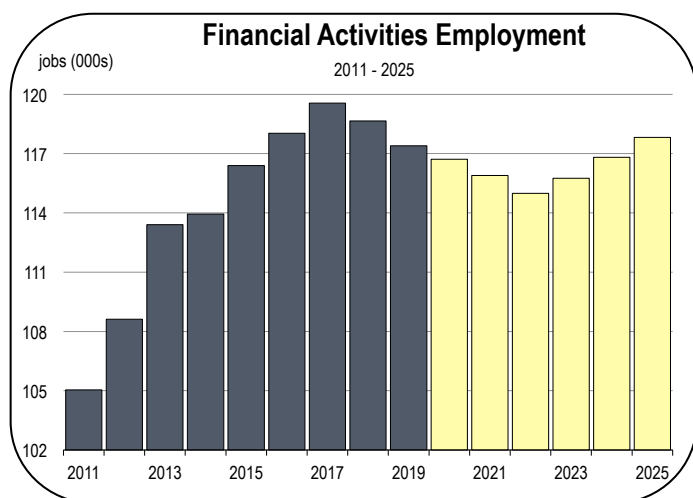
- The retail sector is expected to lose more than 6,000 jobs in 2020 on an annual average basis, a decrease of at least 5 percent.



- 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 15,000 retail workers could be effectively not working, and not earning an income, on an annual average basis in 2020.



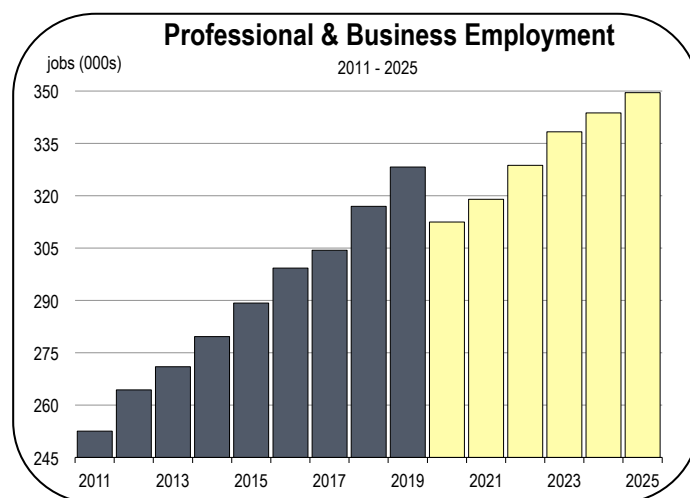
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Financial Activities Employment

- A small number of job losses are expected this year because some 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 are far fewer homes on the market than there were in 2019, and there is far less interest from potential buyers. This should translate into fewer home sales, reducing the need for real estate agents and mortgage brokers.
- Banks also reduced their head counts due to a temporary reduction of in-person branch visits.

Financial Activities Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Banks and Mortgage Lenders	39.3	33.5%
Real Estate	34.1	29.1%
Insurance	25.3	21.6%
Asset Management	12.6	10.8%
Rental / Leasing Other than Real Estate	6.0	5.1%

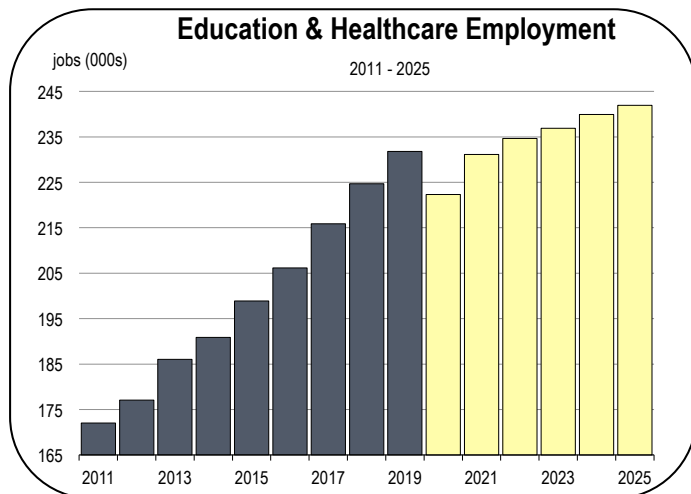
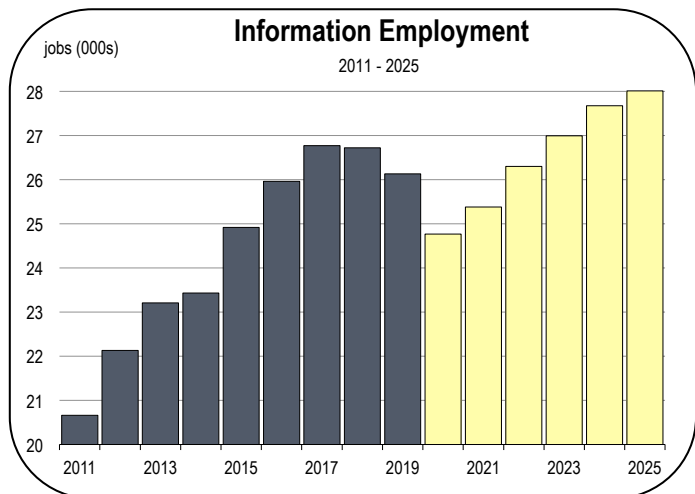


Professional and Business Services Employment

- The professional and business services industry has a diverse array of subsectors, and each was affected differently during the recession and recovery phases of 2020.
- The largest subsector - staffing agencies - experienced significant losses during the contraction, but may bounce back quickly in 2021 and 2022.
- Staffing agencies primarily employ temp workers. Temp workers are usually laid off first during a downturn but hired back first during a recovery.
- Corporate security and building maintenance jobs also declined in the first half of 2020, but most workers in other subsectors were able to work from home and were less affected by the recession.

Professional & Business Services Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Staffing Agencies	84.5	25.8%
Building Maintenance	47.1	14.4%
Corporate Headquarters	45.5	13.9%
Engineering & Architecture	30.2	9.2%
Custom IT Services	26.7	8.1%
Business Consulting	23.1	7.0%
Law	19.3	5.9%
Accounting & Bookkeeping	17.0	5.2%
Marketing and Advertising	15.9	4.8%
Corporate Security	11.9	3.6%
Scientific Research	6.9	2.1%

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Information Employment

- In Orange County, the information sector is dominated by software firms, telecom, and Internet/data services. Most of these jobs were classified as essential or were able to be performed remotely, but some subsectors had sharp job losses.
- Job losses were meaningful in newspaper and magazine publishing, both in print and online.
- 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.

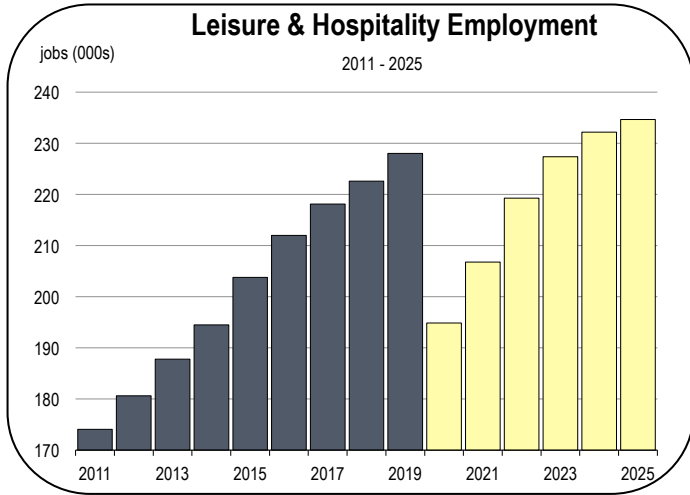
Information Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Software Publishers	75.3	34.7%
Telecommunications	54.6	25.1%
Data & Internet Services	43.6	20.0%
Movie Theaters	17.2	7.9%
Newspaper / Magazine / Book Publishing	16.8	7.7%
Movie / TV / Sound Production	9.8	4.5%

- Losses were high at movie theaters, and movie theater jobs could return much more slowly than the rest of the labor market because social distancing requirements could prevent movie theater customers from returning to normal levels quickly.

Private Education and Healthcare Employment

- There were 150,200 healthcare jobs in Orange County in 2019, representing two thirds of all jobs in the broader private education and healthcare sector.
- 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 50,400 social assistance jobs in 2019, including industries like childcare, housing shelters, and non-medical care for senior citizens.
- There were also 34,700 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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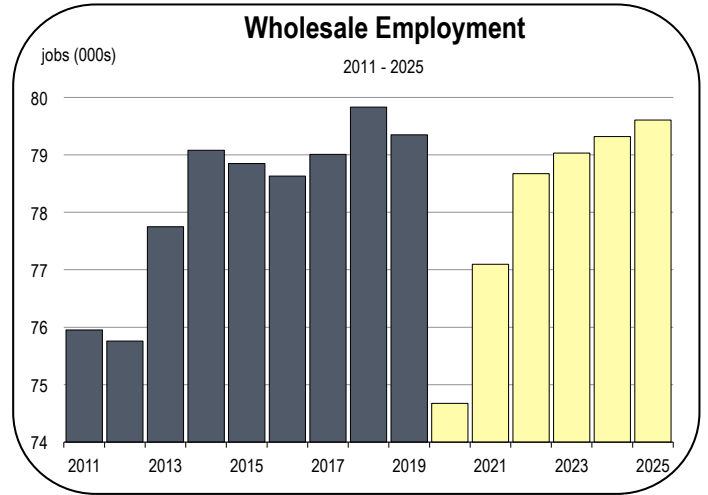
Leisure and Hospitality Employment

- Leisure and hospitality firms were impacted by the recession more than almost any other sector of the labor market.
- In 2019, Orange County had 173,400 jobs in restaurants, hotels, and bars. Our research indicates that most were laid off, furloughed, or had their hours cut in March and April.
- Disneyland announced that half of its workforce would be furloughed without pay but with full health benefits. Furloughs are not counted as lost jobs, so our forecast understates the true number of work stoppages that can be expected.
- Jobs in this sector are not expected to reach a new peak for several years.

Wholesale Trade Employment

- Wholesale trade employment is expected to fall by 5 to 7 percent on an annual average basis.

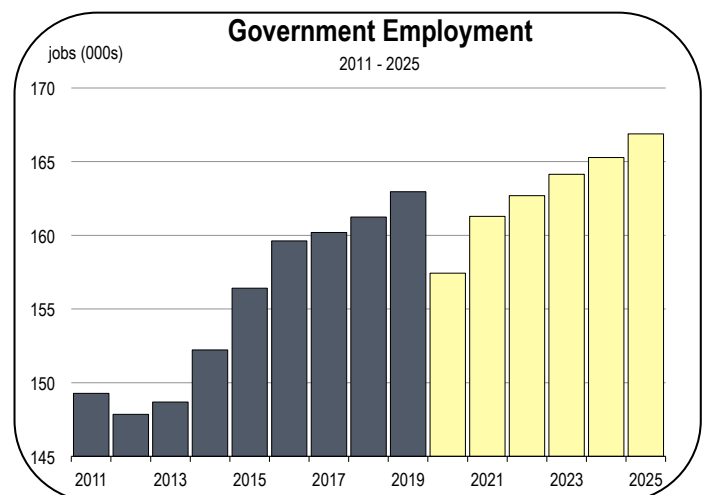
Leisure and Hospitality Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Restaurants / Bars / Caterers	147.4	64.7%
Hotels & Motels	26.0	11.4%
Gyms and Fitness Centers	9.4	4.1%
Performing Arts & Spectator Sports	6.6	2.9%
Other	38.6	16.9%



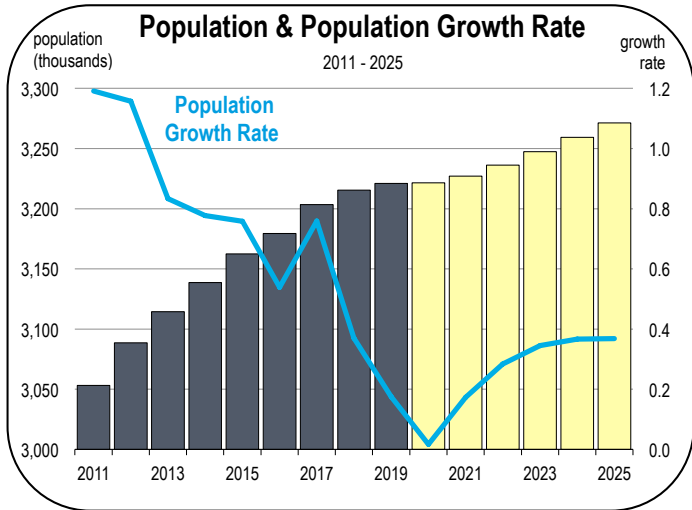
- Wholesale employment should rebound sharply in 2021 in tandem with construction, retail, and manufacturing.

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.

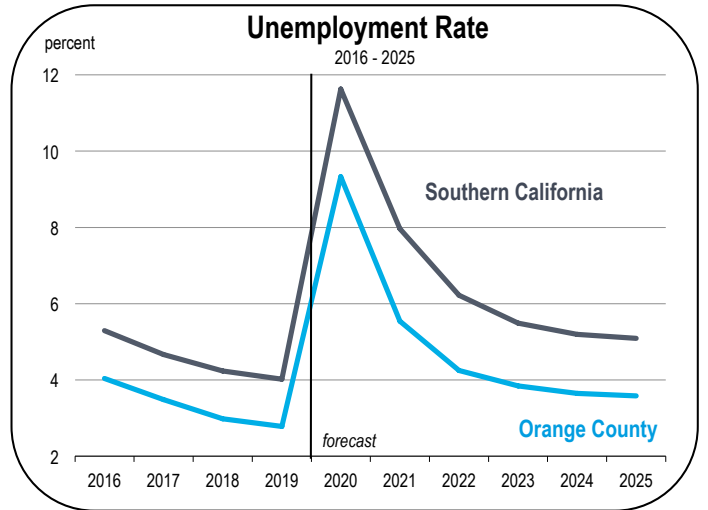


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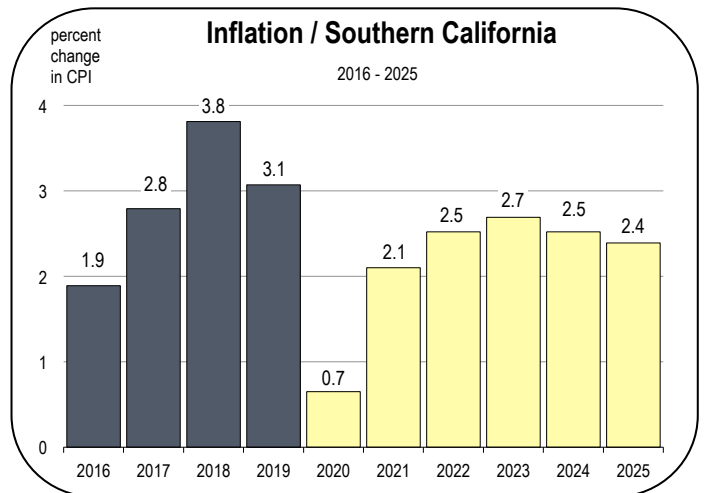
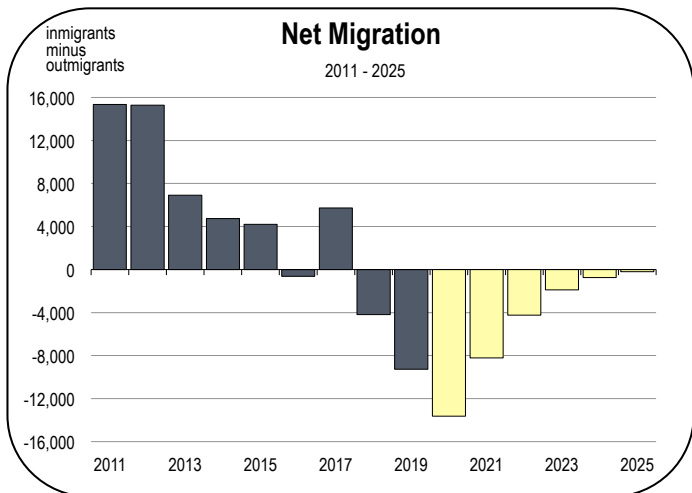
Population Growth

- The Orange County population grew very slowly in 2019.
- More than 8,000 net migrants left the county in 2019.
- Housing affordability is becoming a major issue and contributed substantially to out-migration.
- Over the forecast period, an average of 4,800 net migrants will leave the county each year.
- Population growth will average 0.3 percent, and the county will surpass 3.25 million residents by 2025.



Unemployment and Inflation Rates

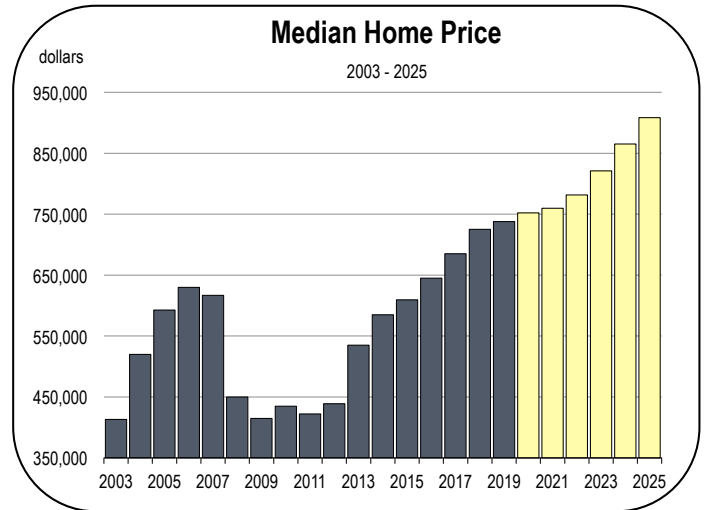
- The unemployment rate in Orange County averaged 2.8 percent in 2019, which was lower than the composite rate for Southern California.
- The unemployment rate is expected to average between 8 and 10 percent in 2020.
- The unemployment rate is expected to remain elevated for several years, but is likely 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.



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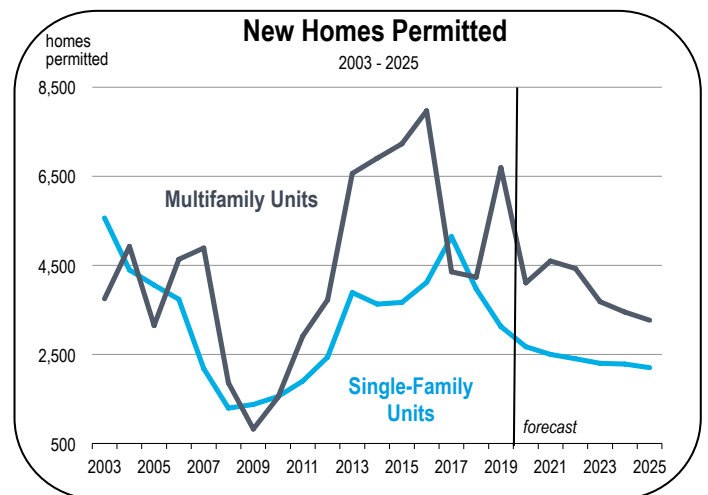
Home Prices and New Housing Production

- The median home price increased by 1.8 percent in 2019, reaching \$738,000.
- Home prices are expected to increase slowly between 2019 and 2021.
- Housing affordability is becoming an issue in Orange County because the supply of new units is not keeping pace with demand. Households frequently have to spend more than 45% of their pre-tax income on mortgage payments, which exceeds the recommendations of most affordability guidelines.
- From 2014 to 2019, an average of 10,200 new homes were authorized per year. Multifamily units accounted for 60 percent of all units.
- Housing production will average 6,300 homes per year from 2020 to 2025. Slightly more than half will be multifamily units.



Orange County Residential Development Pipeline

Area	Units
Mission Viejo	14,000
Irvine	13,006
Santa Ana	9,030
Anaheim	3,580
Lake Forest	2,922
Newport Beach	2,749
Orange	1,573
Costa Mesa	1,380
Portola Hills	930
Garden Grove	600
Brea	426
Placentia	418
La Habra	402
Carson	357
Huntington Beach	279
Laguna Niguel	275
Cypress	244
Stanton	208
Westminster	201



Orange County Economic Forecast

Socioeconomic Indicators

