

ORANGE COUNTY COMMUNITY INDICATORS 2021-2022



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DEAR COMMUNITY PARTNER

Orange County Business Council, First 5 Orange County, Orange County United Way, CalOptima, and the Orange County Community Foundation are pleased to present 2021–22 *Orange County Community Indicators*.

An informed indicator reveals a region’s performance, showing whether key areas are improving, worsening, or remaining constant. The indicators in this report track a comprehensive range of issues important to Orange County’s long-term health and prosperity, highlighting areas where the county is performing well and making progress as well as those areas where improvement is needed and community efforts could positively impact the future. We also compare Orange County to “peer” counties within California and across the nation based on the many characteristics we have in common. While this structure has worked well since the first annual report was released in 2010, some adjustments have been made to address the continuing impacts of COVID-19.

This year’s report features a detailed look at the long-term impacts of the COVID-19 pandemic for Orange County, exploring shifts in consumer behavior, the mainstreaming of remote work, and digitization of the workplace and how these changes could potentially influence the county’s housing market. The insights of the report can help guide ongoing pandemic response and highlight areas where Orange County can focus resources and efforts during recovery.

As always, the findings in the report are intended to serve as a starting point for further dialogue and collaboration. In working together to ensure a resilient OC, we hope you will use *2021–22 Orange County Community Indicators* as a thought-provoking resource and guide that helps position the region as a front-runner in addressing the challenges facing communities across the country. Please share the report with others interested in sustaining the county’s long-term health and high quality of life and securing a promising future for all who call Orange County home.

Sincerely,



SUSAN B. PARKS

President and CEO
*Orange County
United Way*



LUCY DUNN

President and CEO
*Orange County
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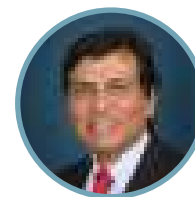
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ORANGE COUNTY PROFILE



799
land area
(square miles)

42
miles of coastline

3,947
persons
per square mile

34
cities and
several large
unincorporated
areas

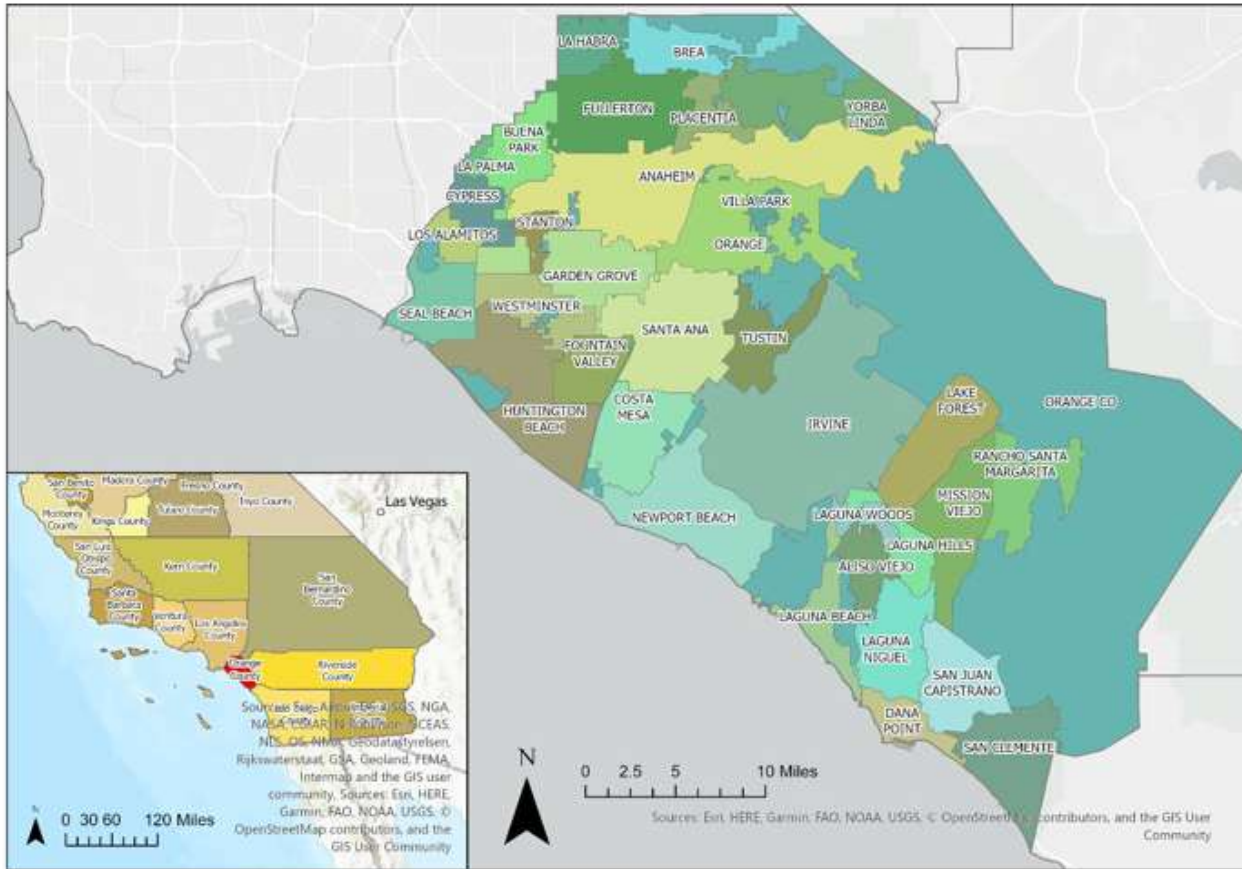
Orange County
has
8%
of California's
population but only
0.5%
of its land area.

PLACE/LAND USE

Southern California, home to 22 million people in 209 cities spread over 42,000 square miles, experienced significant impacts resulting from the COVID-19 pandemic, yet recent economic trends suggest a recovery has already begun to materialize. Effectively, the pandemic served to test the resilience of many regional economies as government mandates forced business closures while providing comparatively little in financial support. Nevertheless, businesses implemented innovative strategies to comply with ever-changing regulations while residents wrestled with their new normal of distance-learning and work-from-home. Alongside multiple vaccine rollouts and a better understanding of the virus, daily cases across the nation began to shrink rapidly while additional federal stimulus helped buoy consumer spending, and eviction moratoriums kept people in their homes. With vaccination rates ranging from 45.9 percent in San Diego County to 57.6 percent in Ventura County as of August 23, 2021,¹ and the reopening gaining speed, Southern California's diversified industry base and innovation industry clusters will help to bring economic activity back to and surpass pre-pandemic levels.

¹ https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-total-admin-rate-total

SOUTHERN CALIFORNIA AND ORANGE COUNTY CITIES, 2021



Orange County, whose population totaled 3,153,764, faced significant challenges during the COVID-19 pandemic, many stemming from its status as a global tourist destination. Disneyland and other tourist destinations were shut down for most of 2020 and much of 2021, for instance, and national and international travel remain well below pre-pandemic levels. The county's strong and diverse economy, however, enabled it to withstand the economic downturn and begin an economic recovery fueled in large part by its well-educated workforce.

POPULATION DENSITY

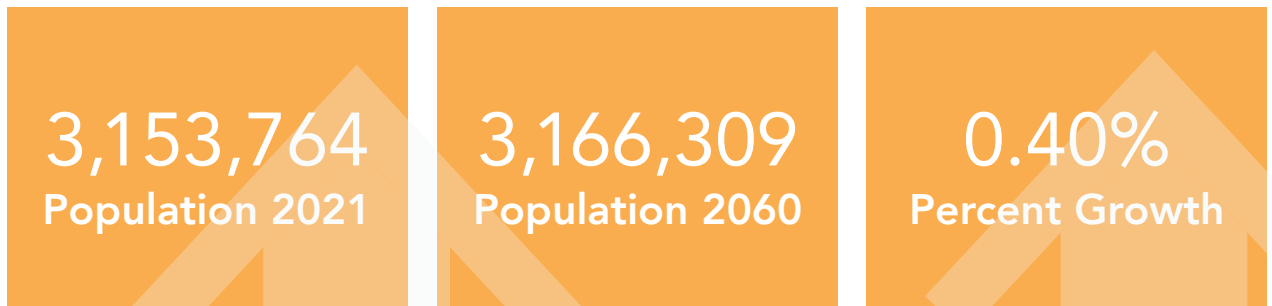
Orange County had an average population density of 3,947 residents per square mile, 5.7 percent more than in 2010. Orange County is significantly denser than neighboring counties, as seen to the right.

COUNTY POPULATION PER SQUARE MILE, 2021

COUNTY	POPULATION PER SQUARE MILE
Orange	3,947
Los Angeles	2,475
Riverside	341
San Bernardino	108
San Diego	788
California (Statewide)	253

Sources: California Department of Finance, Demographic Research Unit

PEOPLE/DEMOGRAPHICS/DIVERSITY



Orange County's Population Shrinks Slightly in 2021

Orange County's population declined by over 25,000 residents between 2020 and 2021, but it remains the state's third largest county, after Los Angeles and San Diego, with more residents than Arkansas, Kansas, and 16 other states.

Increasingly Older and More Diverse

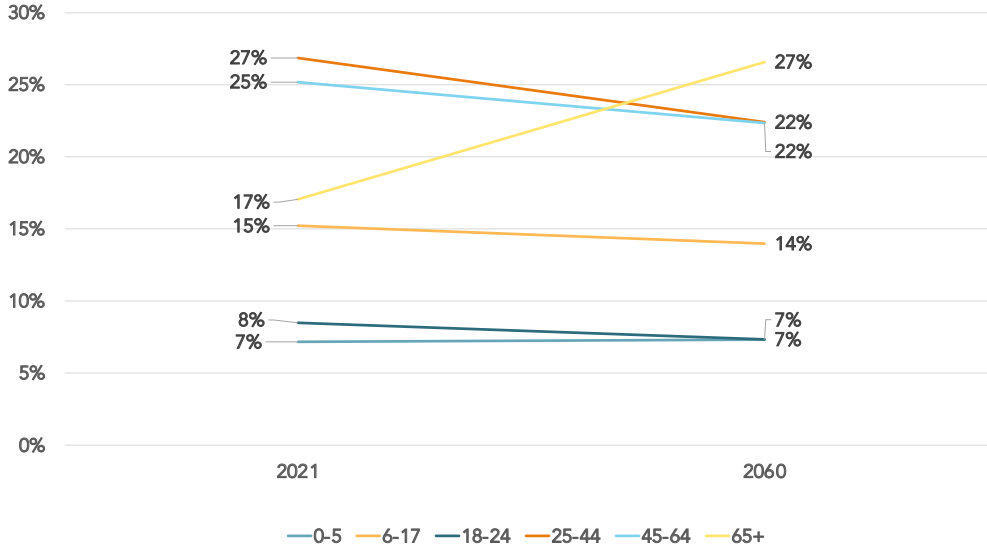
Orange County's median age reached 38.6 years in 2019, higher than both the state (37 years) and national (38.5 years) median ages as well as an increase of 0.3 years over its median age in 2018. Meanwhile, the proportion of Asian, Latino, and African American communities increased since 2010 by approximately 17, 7, and 1 percent, respectively, while the proportion of White communities fell by 10 percent over the same time period.

International Migration Surpasses Natural Increase as Driver of Population Growth

While natural increase — the number of births minus deaths in a given region — has driven Orange County's growth for decades, international migration outpaced natural increase in 2020 for the first time since 1990. Orange County added an estimated 12,930 international immigrants in 2020 compared to a natural increase of only 12,869, with a negative net domestic migration of over 30,000, a figure not seen since 2007. As explored elsewhere in this report, Orange County's skyrocketing housing costs remain the primary reason for its negative net migration (and negative population growth in 2020).

Residents aged 65 and older are the only segment of the population expected to see growth between 2021 and 2060, eventually representing 27 percent of the county's population.

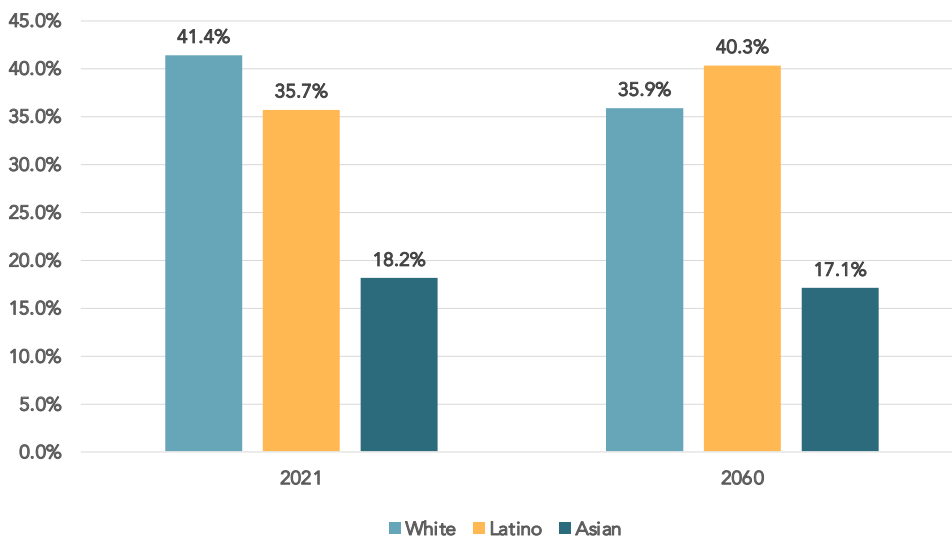
POPULATION 65+ TO CONTINUE TO EXPAND



Sources: California Department of Finance. Demographic Research Unit. Report P-2B: Population Projections by Individual Year of Age, California Counties, 2010-2060 (Baseline 2019 Population Projections; Vintage 2020 Release). Sacramento: California. April 2021

LATINO COMMUNITIES SET TO EXPAND OVER NEXT FEW DECADES

PROJECTED CHANGE BY RACIAL AND ETHNIC GROUPS AS PROPORTIONS OF THE TOTAL ORANGE COUNTY POPULATION, 2021 AND 2060



Sources: California Department of Finance. Demographic Research Unit. Report P-2D: Population Projections by Total Hispanic and Non-Hispanic Race, California Counties, 2010-2060 (Baseline 2019 Population Projections; Vintage 2020 Release). Sacramento: California. March 2021.



DIVERSITY:
ORANGE COUNTY'S DIVERSE COMMUNITIES ARE A KEY STRENGTH

Orange County's Latino communities are expected to grow from representing 36 percent of the population in 2021 to 40 percent by 2060. White and Asian communities are expected to decline by 5.5 percentage points and 1.1 percentage points, respectively.

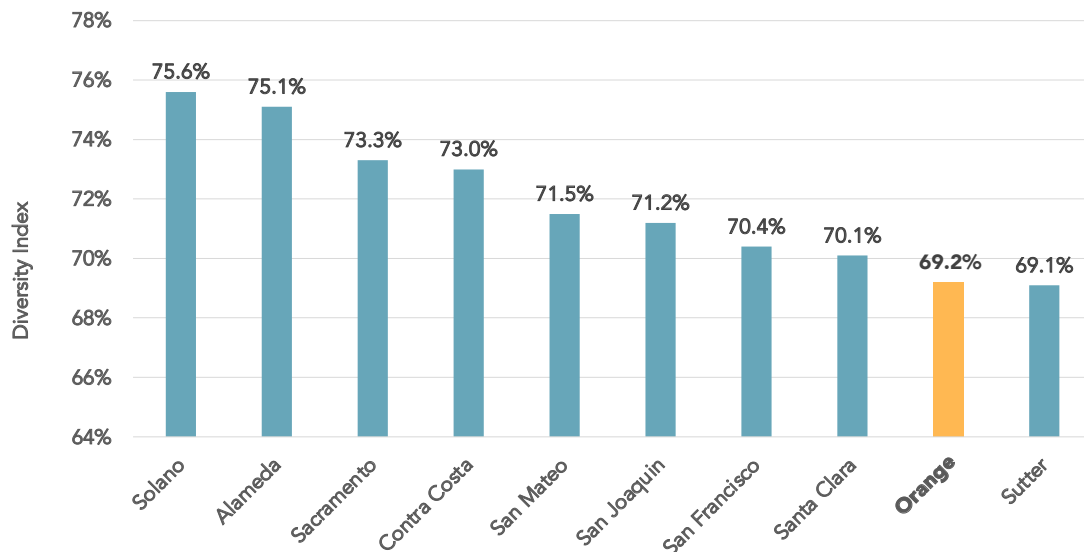
Orange County Scores Highest Diversity Index in Southern California

The United States Census Bureau’s Diversity Index (DI) measures “the probability that two people chosen at random will be from different race and ethnicity groups.... A value close to 1 indicates that everyone in the population has different racial and ethnic characteristics.”² The United States average is 61.1 percent, up from 54.9 percent in 2020, while California’s statewide average was 67.7 percent in 2010 and 69.7 percent in 2020. California finished second in the nation in diversity, after Hawaii, in both 2010 and 2020. The nation’s ten most diverse states in 2020 were:

1. Hawaii (76.0 percent);
2. California (69.7 percent);
3. Nevada (68.8 percent);
4. Maryland (67.3 percent);
5. District of Columbia (67.2 percent);
6. Texas (67.0 percent);
7. New Jersey (65.8 percent);
8. New York (65.8 percent);
9. Georgia (64.1 percent); and
10. Florida (64.1 percent).

Orange County, as seen in the chart below, had a DI of 69.2 percent in 2020, which ranked 9th out of California’s 58 counties. (Orange County’s DI was 66.0 percent in 2010 for 10th in the state.) It finished first among counties outside the Bay Area and thus first in Southern California as well. All of Orange County’s neighbors finished lower on the list in 2020: San Diego County at 11th, Los Angeles County at 13th, Riverside County at 15th, and San Bernardino County at 16th.

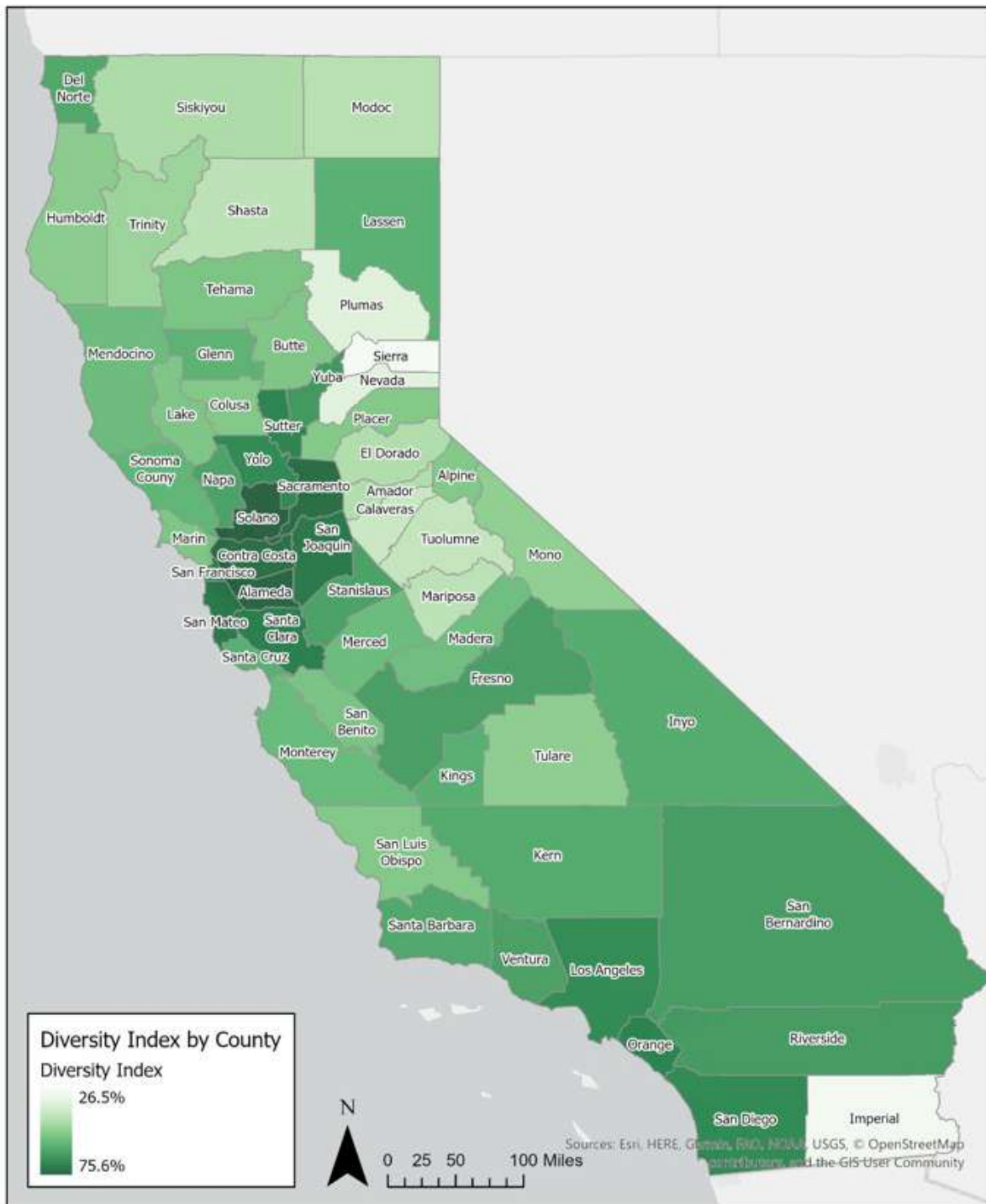
TOP 10 CALIFORNIA COUNTIES BY DIVERSITY INDEX, 2020



Source: U.S. Census Bureau, *Racial and Ethnic Diversity in the United States: 2010 Census and 2020 Census*

² <https://public.tableau.com/shared/3ZKNJZHXS?:showVizHome=no>

DIVERSITY INDEX BY CALIFORNIA COUNTY



INTERNATIONAL RESIDENTS

Orange County has the nation's fourth largest international population with approximately 949,825 foreign-born residents and is home to 2.1 percent of the nation's international population and 8.9 percent of the state's international population.

30%
of county residents were born in other countries

47%
of all residents over age five speak a language other than English at home

FOREIGN-BORN POPULATIONS CONTINUE TO INCREASE IN ORANGE COUNTY

FOREIGN-BORN POPULATION METRICS BY SOUTHERN CALIFORNIA COUNTY		
COUNTY	FOREIGN-BORN POPULATION	% FOREIGN-BORN POPULATION
Los Angeles	3,401,887	33.9%
Orange	949,825	29.9%
San Diego	761,933	22.8%
San Bernardino	468,907	21.5%
Riverside	525,953	21.3%

Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table B05006

TOP 10 COUNTRIES OF ORIGIN	
COUNTRY	POPULATION IN ORANGE COUNTY
Mexico	303,095
Vietnam	141,724
China	84,079
Korea	68,686
Philippines	59,126
India	33,341
Iran	27,400
Taiwan	26,254
El Salvador	20,128
Canada	11,009

Sources: U.S. Census Bureau, American Community Survey, 1-year Estimates, Table B05006

ORANGE COUNTY BOASTS HIGHEST INCOME AND LOWEST POVERTY AMONG REGIONAL NEIGHBORS

BY THE NUMBERS SNAPSHOT: ORANGE COUNTY CHARACTERISTICS COMPARED TO REGIONAL PEERS, 2021

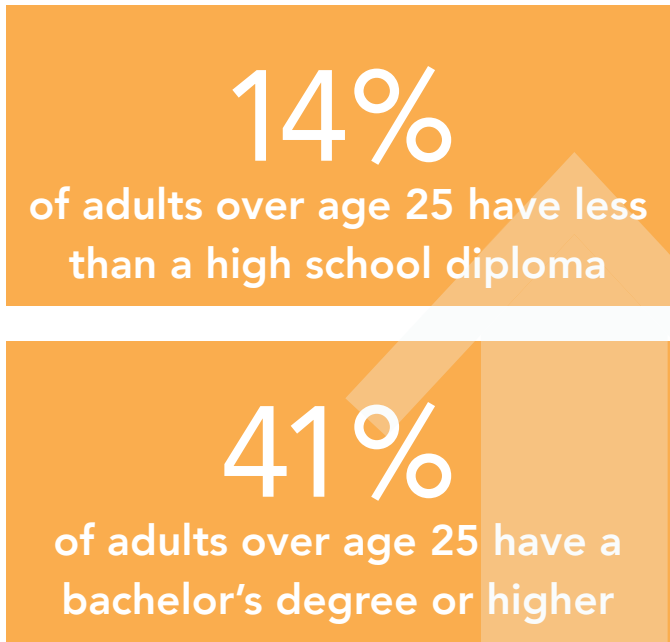
COUNTY	MEDIAN HOUSEHOLD INCOME	MEDIAN AGE	POVERTY LEVEL (%)	MEAN COMMUTE TIME (IN MINUTES)	FOREIGN-BORN POPULATION (%)
Orange	\$95,934	38.6	9.4%	28.3	29.9%
San Diego	\$83,985	36.4	10.3%	27.2	22.8%
Los Angeles	\$72,797	37.0	13.4%	32.8	33.9%
Riverside	\$73,260	36.2	11.3%	35.7	21.3%
San Bernardino	\$67,903	33.8	13.3%	31.9	21.5%
California (Statewide)	\$80,440	37.0	11.8%	30.7	26.7%

Source: U.S. Census Bureau, American Community Survey, 1-year Estimates

EDUCATION/STEM/COLLEGES & UNIVERSITIES:

Orange County is Highly Educated

Total STEM-related bachelor's and graduate degrees conferred by Orange County colleges and universities totaled 14,448, representing 42.8 percent of all degrees conferred in Orange County in 2020. Since 2010, STEM-related degree conferrals in Orange County have increased by 68 percent or by an annual average of 5.4 percent. Orange County's high levels of education, as seen in the chart below, will be a major asset in the economic recovery from COVID-19.



ORANGE COUNTY EDUCATIONAL ATTAINMENT COMPARED TO PEER REGIONS

REGION	BACHELOR'S DEGREE OR HIGHER	PERCENT GRADUATE OR PROFESSIONAL DEGREE
Orange County	41.0%	15.2%
San Diego County	39.9%	15.4%
California	35.0%	13.1%
Los Angeles County	33.8%	11.5%
United States	33.1%	12.8%
Riverside County	23.5%	8.5%
San Bernardino County	22.5%	7.9%

Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table S1501

Unemployment Rates Steadily Decline, Indicating A Sustainable Recovery

\$95,934

Median household income (2019)

6.3%

Unemployment rate (July 2021)

\$1,090,000

Median existing single-family home price (July 2021)

ECONOMY/BUSINESS COMMUNITY/LABOR MARKET

ORANGE COUNTY'S ECONOMY DEMONSTRATING RESILIENCE IN THE FACE OF UNCERTAINTY

Employment

SOUTHERN CALIFORNIA UNEMPLOYMENT RATES LAG NATIONAL AVERAGES

ORANGE COUNTY INCOME AND UNEMPLOYMENT RATE REGIONAL COMPARISON

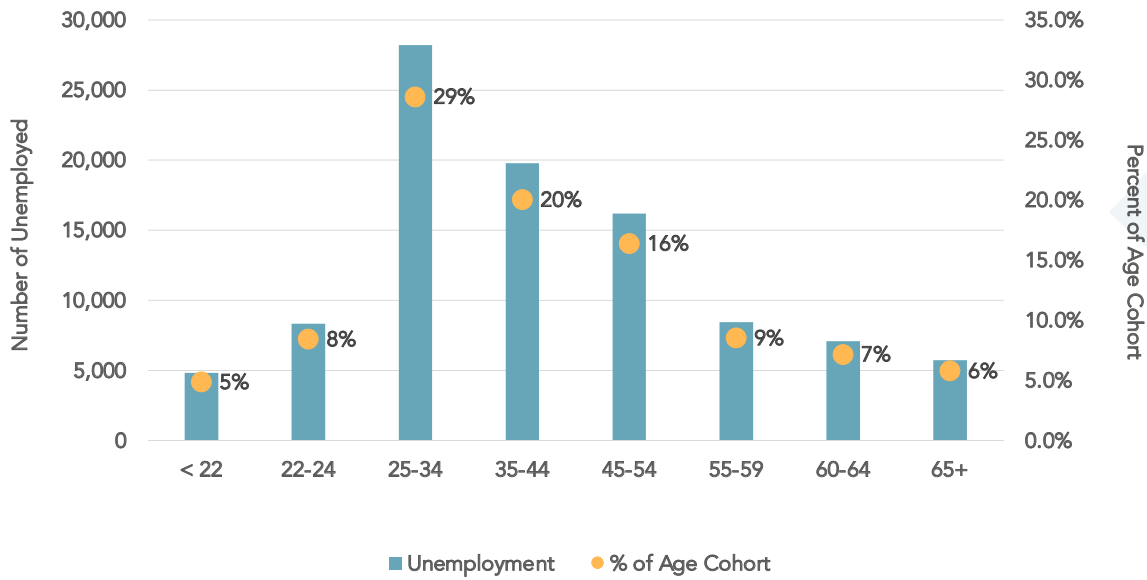
REGION	MEDIAN HOUSEHOLD INCOME	UNEMPLOYMENT RATE (JULY 2021)
Orange	\$95,934	6.30%
Los Angeles	\$72,797	10.20%
Riverside	\$73,260	7.90%
San Bernardino	\$67,903	8.00%
San Diego	\$83,985	6.90%
California	\$80,440	7.90%
United States	\$65,712	5.70%

Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table B19013; California Employment Development Department

Unemployment Trends Impacting Middle Age Populations the Most

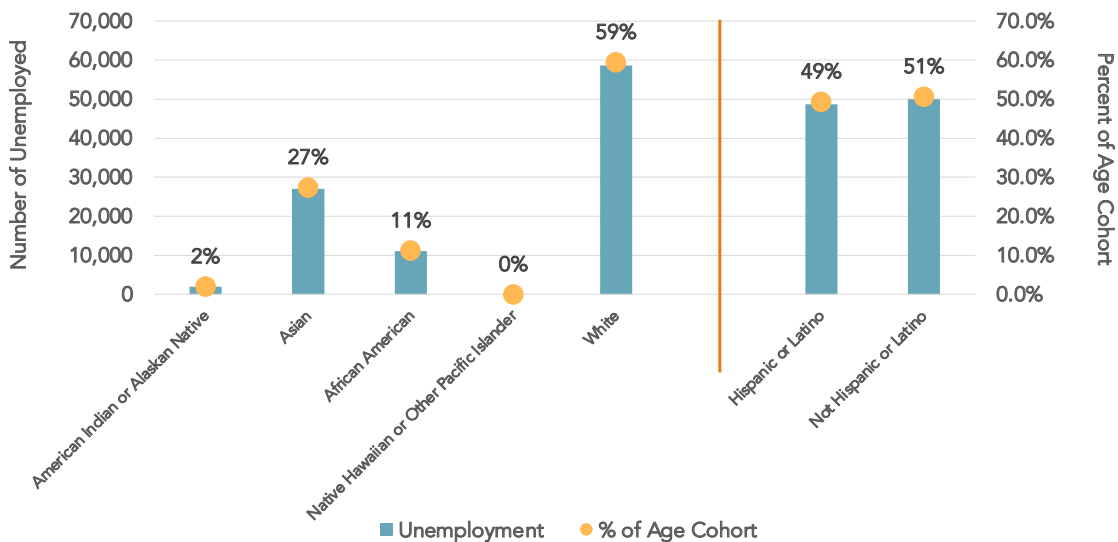
Despite accelerated vaccine rollouts and economic re-opening plans, unemployment continues to impact communities across the region. Residents aged 25-34 have the county's highest unemployment rate (28.4 percent for a total of 28,555 unemployed individuals) followed by residents aged 35-44 (19.1 percent or a total of almost 20,000 residents).

ORANGE COUNTY UNEMPLOYMENT BY AGE COHORT (JULY 2021)



Source: Economic Modeling Specialists International

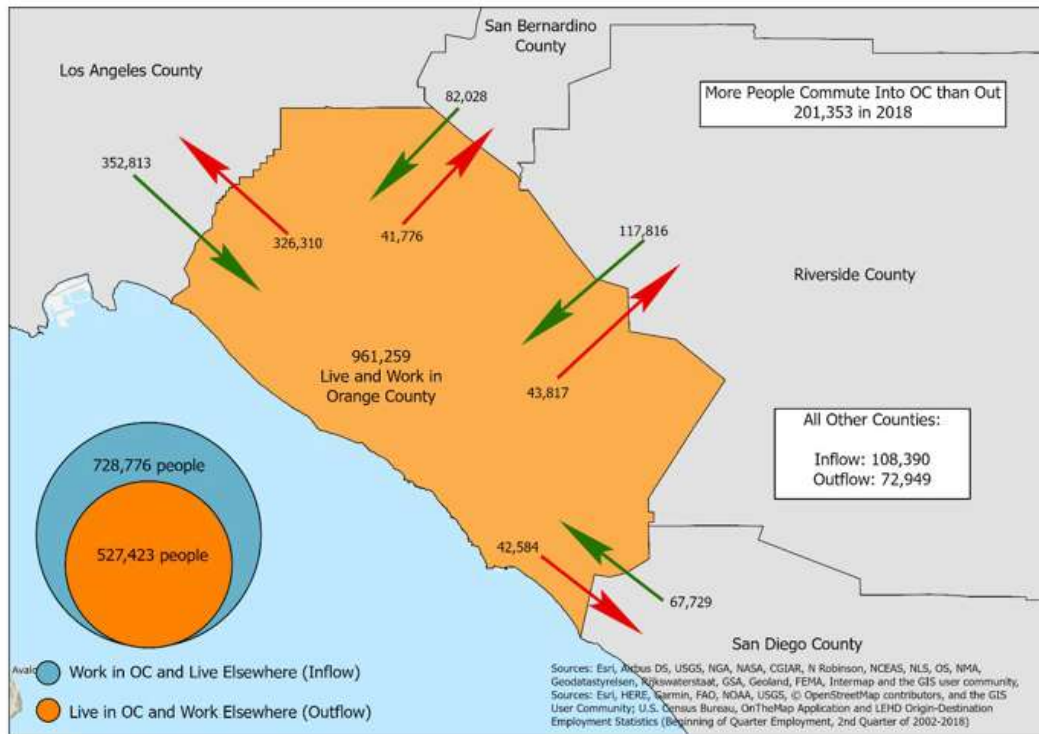
ORANGE COUNTY UNEMPLOYMENT BY ETHNICITY AND RACE (JULY 2021)



Source: Economic Modeling Specialists International

Number of Net Commuters into Orange County Grows from 167,000 to Over 200,000 in Three Years

INFLOW/OUTFLOW PATTERNS OF ORANGE COUNTY WORKERS AND RESIDENTS, 2018



Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

ORANGE COUNTY'S LARGEST EMPLOYERS WILL PLAY KEY ROLE IN RECOVERY

LARGEST EMPLOYERS IN ORANGE COUNTY, 2021

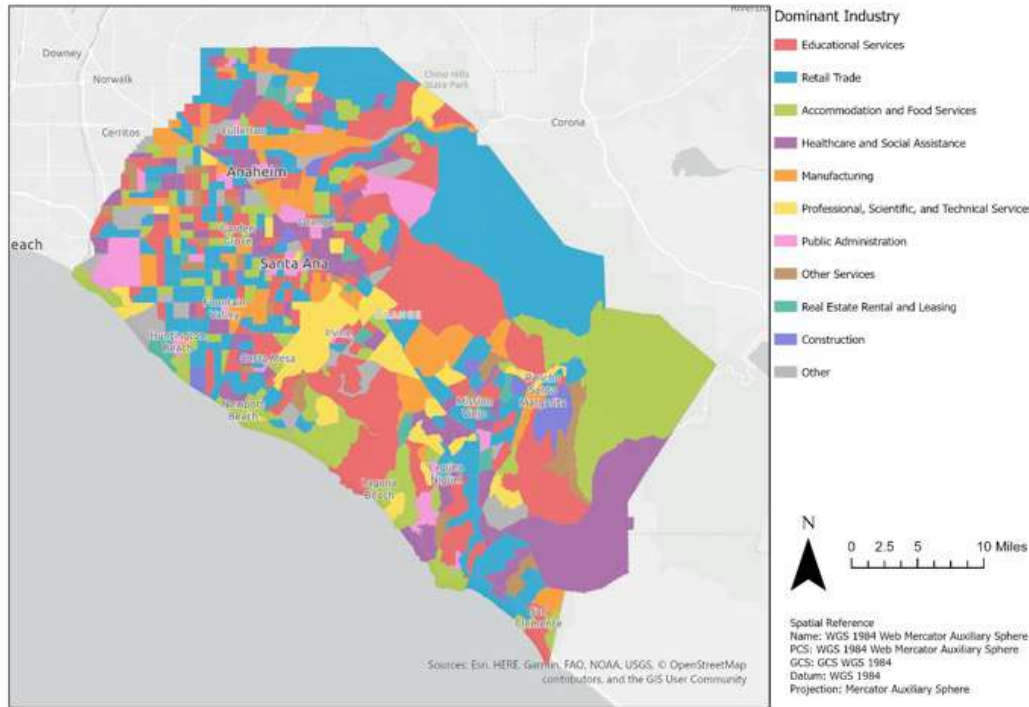
COMPANY	EMPLOYMENT IN ORANGE COUNTY	COMPANY	EMPLOYMENT IN ORANGE COUNTY
The Walt Disney Co.	28,000	MemorialCare	5,500
University of California, Irvine	25,512	Edwards Lifesciences Corp.	5,319
County of Orange	18,543	Bank of America Corp.	5,000
Providence	12,866	Boeing Co.	5,000
Albertsons Southern California Division	8,159	California State University, Fullerton	4,349
Kaiser Permanente	8,050	Home Depot Inc.	4,300
Hoag Memorial Hospital Presbyterian	6,710	Allied Universal	4,152
Walmart Inc.	6,400	Children's Hospital of Orange County	4,107
Target Corp.	6,000	Costco Wholesale Corp.	4,011
Yum Brands Inc.	5,600	loanDepot	4,000

Source: Orange County Business Journal, 2021 Book of Lists

Orange County's Diverse Industry Sectors

MANUFACTURING AND HEALTHCARE IN CENTRAL OC, PROFESSIONAL AND TECHNICAL DOMINATE IN SOUTH AND ALONG COAST

DOMINANT INDUSTRY BY CENSUS TRACT IN ORANGE COUNTY, 2021



Orange County has the nation's third most diverse mix of high-tech sectors, as seen below. The following table highlights the region's most concentrated industries communicated through 'location quotients' — a measure which indicates how concentrated an industry is in a given region compared to the national average. An industry with a score of 5 means that this industry is 5 times more concentrated in a given region than the national average.

TOP ORANGE COUNTY INDUSTRIES BY LOCATION QUOTIENT, 2021

INDUSTRIES	LOCATION QUOTIENT	INDUSTRIES	LOCATION QUOTIENT
Amusement and Theme Parks	13.91	Fluid Power Pump and Motor Manufacturing	6.61
Other Apparel Knitting Mills	10.52	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	6.51
Nonferrous Forging	10.19	Family Planning Centers	6.24
Dental Laboratories	9.81	Men's and Boys' Cut and Sew Apparel Manufacturing	6.22
Dental Equipment and Supplies Manufacturing	8.55	Other Lighting Equipment Manufacturing	5.81
Electromedical and Electrotherapeutic Apparatus Manufacturing	8.49	Electronic Connector Manufacturing	5.69
Computer Storage Device Manufacturing	7.61	Industrial Design Services	5.66
Bare Printed Circuit Board Manufacturing	7.49	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	5.54
Surgical and Medical Instrument Manufacturing	7.18	Biomass Electric Power Generation	5.46
Plumbing Fixture Fitting and Trim Manufacturing	6.80	Guided Missile and Space Vehicle Manufacturing	5.20

Source: Economic Modeling Specialists International

The U.S. Cluster Mapping Project — a Different Look at Orange County Industry Clusters

The U.S. Cluster Mapping Project, a collaboration between the U.S. Economic Development Administration and the Institute for Strategy and Competitiveness at Harvard Business School, provides another snapshot of Orange County industry clusters using slightly different methodology for measuring industry concentration and output. It collects and analyzes metrics including labor productivity, job growth, location quotients, wages, and many other metrics to determine industry concentration.

Using this indicator, Orange County’s most concentrated industry clusters included:

- Medical Device (5.30)
- Apparel Manufacturing (2.32)
- Biopharmaceuticals (2.04)
- Lighting and Electrical Equipment (1.90)
- Information Technology (1.87)
- Hospitality and Tourism (1.86)
- Communications (1.73)
- Financial Services (1.62)

ORANGE COUNTY NATIONALLY LEADING INDUSTRY CLUSTERS

REGION	EMPLOYMENT	NATIONAL RANK	LOCATION QUOTIENT
Medical Devices	17,231	1	5.30
Apparel	2,976	3	2.32
Biopharmaceuticals	6,970	7	2.04
Lighting	6,915	2	1.90
Information Technology	30,527	5	1.87
Hospitality and Tourism	77,547	4	1.86
Communications	9,697	8	1.73
Financial Services	38,257	6	1.62

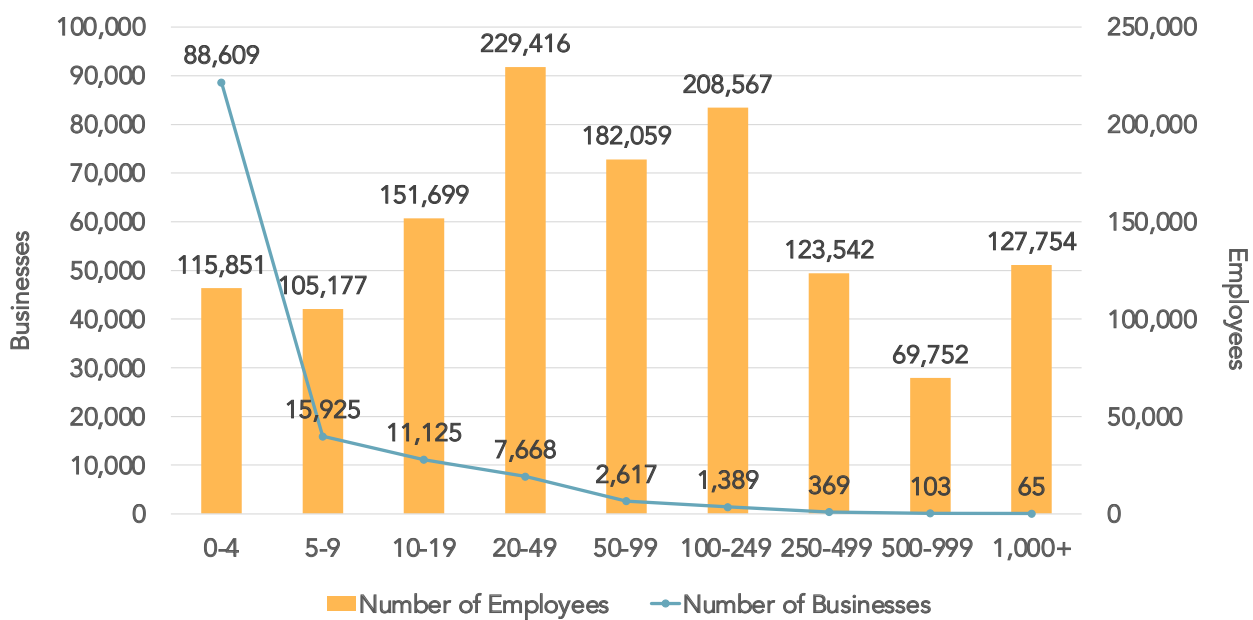
Source: U.S. Cluster Mapping, U.S. Department of Commerce, Economic Development Administration, Harvard Business School

Businesses of All Sizes Thrive in Orange County

96 PERCENT OF ALL OC BUSINESSES ARE CONSIDERED SMALL BUSINESSES

In Orange County, small businesses employing under 50 people accounted for 96 percent of all business in the region and accounted for 45 percent of all employees. Approximately 168 businesses in the region employ more than 500 people while 65 businesses employ over 1,000 people.

NUMBER OF BUSINESSES AND EMPLOYEES, BY SIZE OF BUSINESS, 2020



Source: California Employment Development Department, Size of Business Data 2020

Orange County Compared: OC Significantly More Productive Per Capita Than Regional Peers

GROSS REGIONAL PRODUCT DECLINES ACROSS THE REGION IN 2020

Orange County’s gross regional product (GRP), a county-level measure of gross domestic product (GDP), fell from \$309 billion in 2019 to \$262 billion in 2020, representing a decline of nearly 15 percent resulting from pandemic-related economic declines. Despite this, Orange County remains one of the most productive regions in Southern California, generating over \$328 million in economic activity per square mile.

If Orange County was a state, it would be the 24th largest state by GRP output, just behind Wisconsin, Missouri, and Connecticut, while ahead of 27 other states including Oregon, Louisiana, and South Carolina.

Despite San Diego having over 150,000 more residents, Orange County had nearly 50,000 more employed residents making it the second largest labor market in Southern California, behind only Los Angeles County. As a result of its largest labor market and comparatively smaller geographic region, Orange County boasts a staggering 2,194 employees per square mile, well above Los Angeles County (1,237 employees per square mile) and San Diego County (405 employees per square mile).

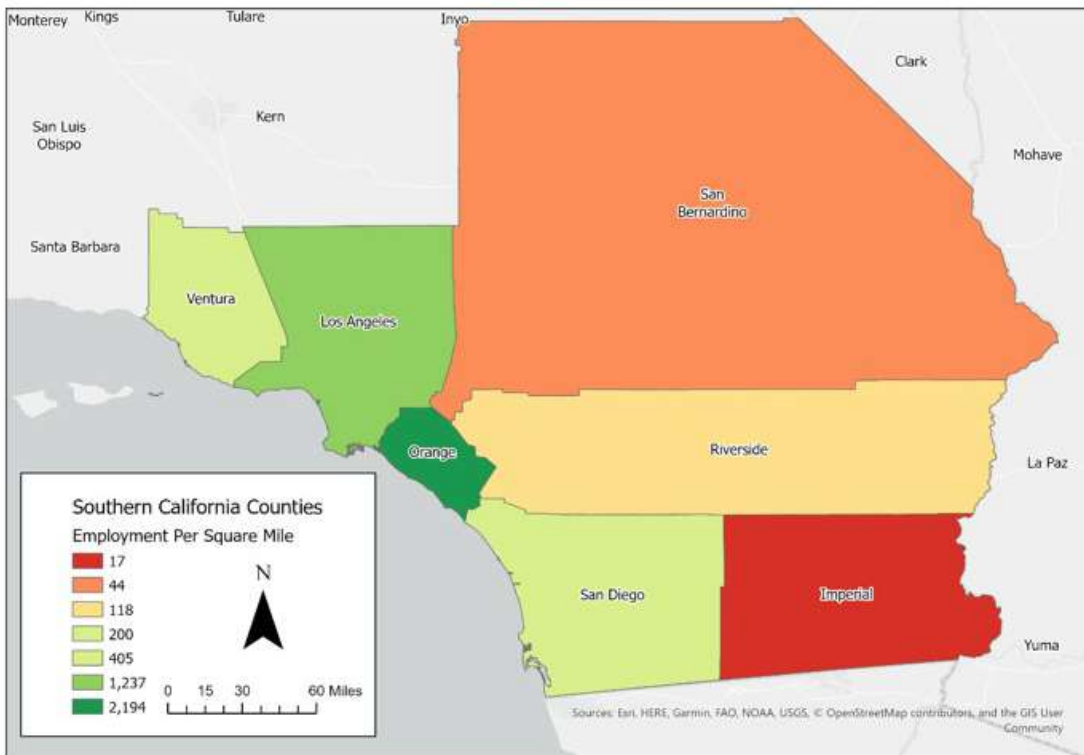
GROSS REGIONAL PRODUCT AND EMPLOYMENT COMPARISON BY SOUTHERN CALIFORNIA COUNTY, 2020

COUNTY	TOTAL POPULATION	TOTAL EMPLOYMENT	TOTAL REGIONAL PRODUCT (\$ IN B)	EMPLOYMENT PER CAPITA	GRP PER CAPITA	GRP PER SQUARE MILE	EMPLOYMENT PER SQUARE MILE
San Diego	3,315,404	1,702,504	\$252	0.51	\$75,890	\$59,806,656	405
San Bernardino	2,175,909	876,419	\$98	0.40	\$44,980	\$4,879,664	44
Riverside	2,454,453	850,569	\$90	0.35	\$36,537	\$12,445,104	118
Orange	3,153,764	1,753,352	\$262	0.56	\$83,150	\$328,204,102	2,194
Los Angeles	10,044,458	5,018,070	\$766	0.50	\$76,255	\$188,747,052	1,237

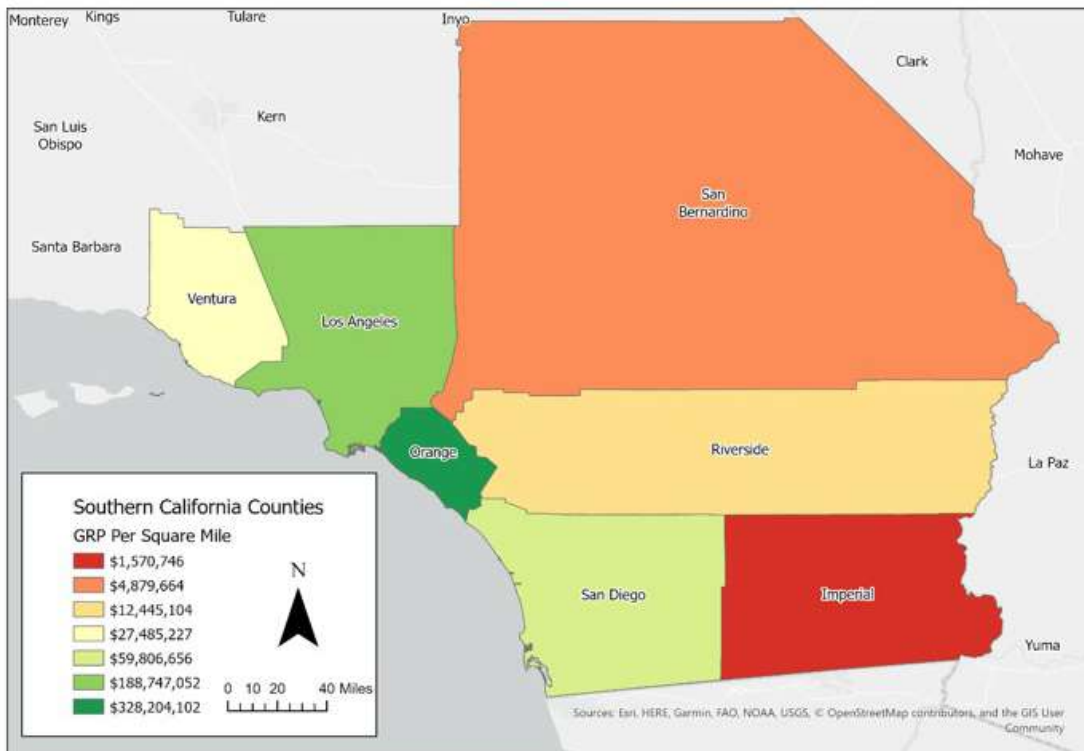
Source: Economic Modeling Specialists International; California State University, Fullerton



EMPLOYMENT PER SQUARE MILE BY SOUTHERN CALIFORNIA COUNTY, 2021



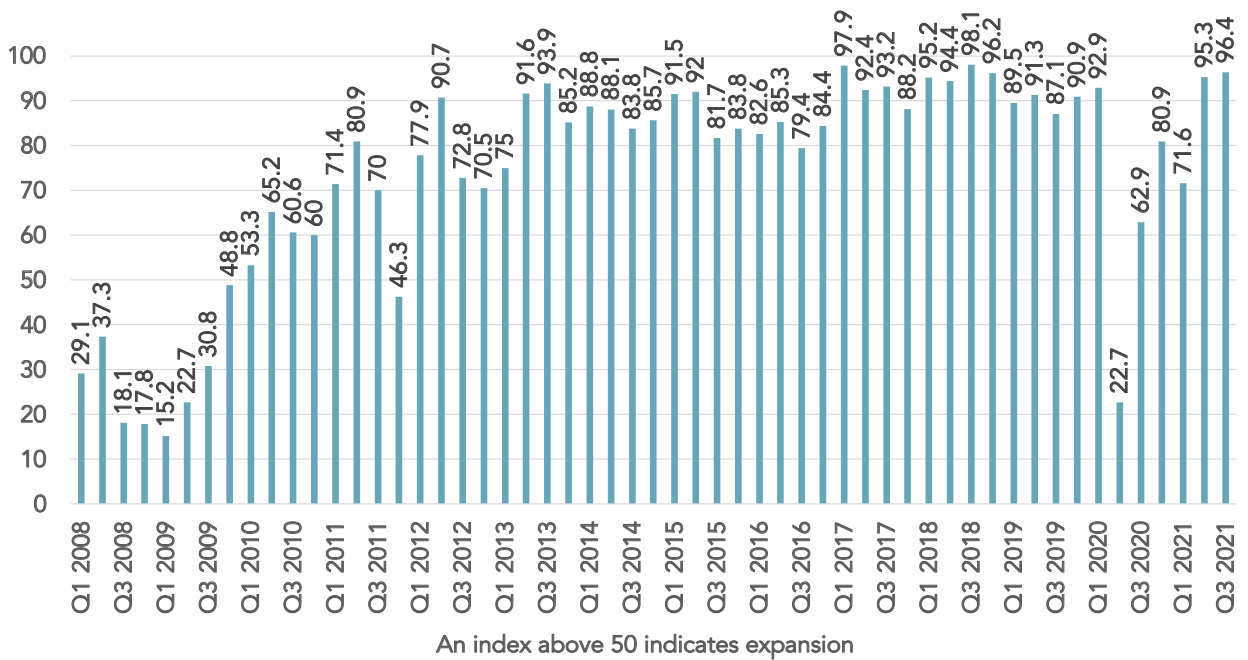
GROSS REGIONAL PRODUCT (GRP) PER SQUARE MILE BY SOUTHERN CALIFORNIA COUNTY, 2021



OCBX Recovers Yet Remains Below Pre-Pandemic Levels

California State University, Fullerton's Orange County Business Expectation Index (OCBX) fell and recovered dramatically during the COVID-19 pandemic, reaching a low of 22.7 in Q2 2020 before rising to 80.9 in Q4 2020. The index fell to 71.6 in Q1 2021, before increasing to 95.3 and 96.4 in Q2 and Q3 2021, respectively, indicating renewed optimism for future economic growth and activity. According to the survey summary, inflation was the primary concern for executives indicating that employers are beginning to be less concerned with the effects of the COVID-19 and more concerned with the current economic and financial landscape post-pandemic.

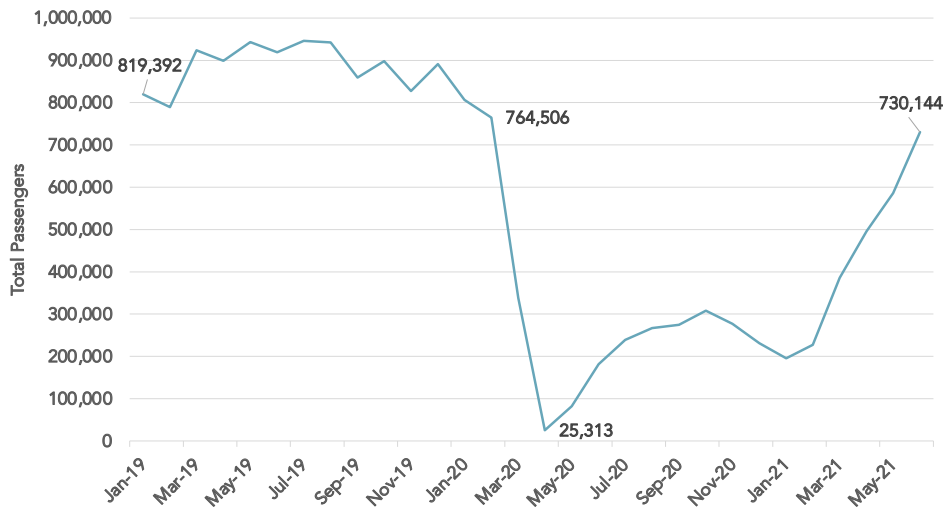
ORANGE COUNTY BUSINESS EXPECTATION INDEX, Q1 2008 – Q3 2021



Source: California State University, Fullerton

TRAVEL AND TOURISM

TOTAL MONTHLY PASSENGERS SERVED AT JOHN WAYNE AIRPORT, JANUARY 2019 – JUNE 2021



Source: OCair.com

The majority of visitors in Orange County came from in-state regions (39.2 percent) followed by Arizona (11.6 percent), Nevada (6.3 percent), and Texas (5.4 percent). Over the past year, total visitors from California have increased by 27.1 percent and by 4.1 percent and 2.4 percent from Arizona and Nevada, respectively.

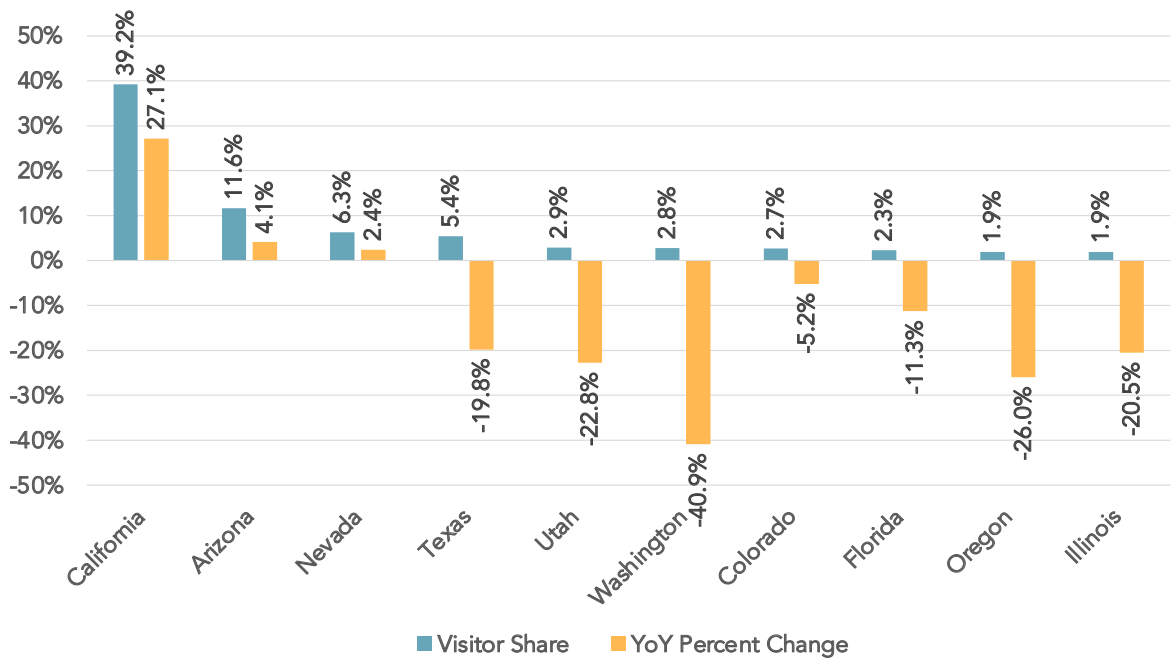
When looking at visitors from within California, visitors from neighboring counties such as San Diego and Los Angeles have increased year-over-year while visitors from regions further away, including San Francisco and Sacramento counties, have declined. This indicates that travelers may feel safer driving rather than traveling on more crowded transportation options such as airplanes. Phoenix, Las Vegas, and Salt Lake City had the highest share of visitors into Orange County from out-of-state regions at 16.4 percent, 9.2 percent, and 4.8 percent, respectively.

PASSENGER VOLUME AT JOHN WAYNE AIRPORT RECOVERING

As COVID case numbers declined in the first half of 2021 and travel restrictions began to soften, travelers once again felt safe to fly and book vacations. With Disneyland reopening in late April and dropping mask requirements for vaccinated visitors in mid-June, alongside restaurants and entertainment venues being fully re-opened, Orange County's tourism industry is slowly regaining strength. Total passengers at John Wayne Airport declined from 764,506 in February 2020 to 25,313 by April 2020, a decline of 96 percent. As of June 2021, passengers at John Wayne Airport totaled 730,144, only 5 percent below its February 2020 totals.



ORANGE COUNTY VISITOR SHARE BY STATE AND YEAR-OVER-YEAR CHANGE, Q1 2021



Source: VisitCalifornia, Domestic Visitor Profiles, Q1 2021

ORANGE COUNTY VISITORS SHARE AND YEAR-OVER-YEAR CHANGE BY METRO REGIONS

IN-STATE METRO REGIONS			OUT-OF-STATE METRO REGIONS		
REGION	VISITOR SHARE	YOY PERCENT CHANGE	REGION	VISITOR SHARE	YOY PERCENT CHANGE
San Francisco	20.7%	-27.0%	Phoenix, AZ	16.4%	16.9%
San Diego	17.1%	32.1%	Las Vegas, NV	9.2%	20.2%
Sacramento	15.8%	-16.8%	Salt Lake City, UT	4.8%	-11.3%
Los Angeles	14.9%	30.2%	Denver, CO	3.5%	4.8%
Fresno-Visalia	9.2%	-5.7%	Seattle-Tacoma, WA	3.4%	-35.9%
Bakersfield	8.0%	44.6%	Dallas-Ft. Worth, TX	3.1%	-19.9%
Palm Springs	5.4%	40.7%	New York, NY	2.6%	-17.4%
Santa Barbara	5.1%	2.4%	Chicago, IL	2.6%	-12.6%
Monterey-Salinas	2.0%	-13.4%	Portland, OR	2.2%	-28.0%
Chico-Redding	1.3%	-13.7%	Houston, TX	2.1%	-8.4%

Source: VisitCalifornia, Domestic Visitor Profiles, Q1 2021

QUALITY OF LIFE

VIOLENT AND PROPERTY CRIME RATES IN SOUTHERN CALIFORNIA

Nearly all areas measured in this year's crime index saw increases in their total crime index, with Orange County seeing its total crime index jump from 80 to 82. Despite this increase, the region's assault crime index declined by 1 point to 52, significantly below any other region measured in the table below.

Irvine:
Safest Major City in America

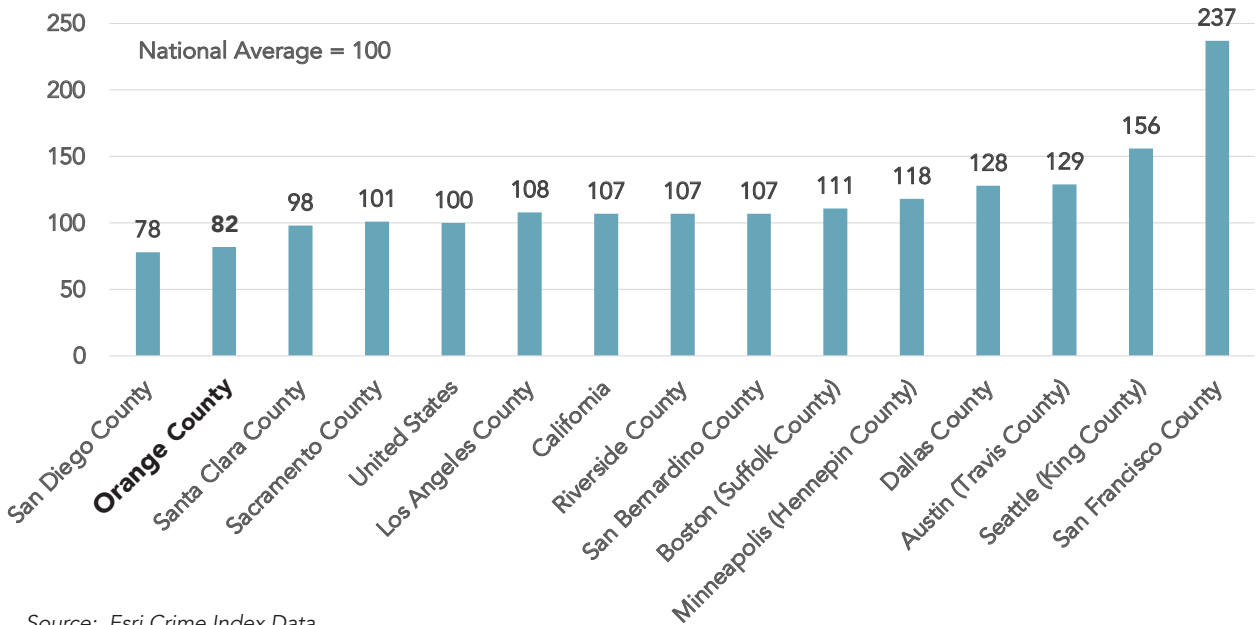
Assault Crime Index in Orange County Continues to Decline

ORANGE COUNTY AND REGIONAL CRIME INDEXES, 2021

REGION	TOTAL CRIME INDEX	ASSAULT CRIME INDEX	PROPERTY CRIME INDEX
San Diego County	78	83	77
Orange County	82	52	85
Santa Clara County	98	67	101
United States	100	100	100
Sacramento County	101	120	99
California	107	107	106
Riverside County	107	87	110
San Bernardino County	107	121	105
Los Angeles County	108	122	104
Boston (Suffolk County)	111	184	99
Minneapolis (Hennepin County)	118	82	120
Dallas County	128	98	128
Austin (Travis County)	129	83	144
Seattle (King County)	156	78	166
San Francisco County	237	128	244

Note: An index value of 100 represents the national average
Source: Esri Crime Index Data

CRIME INDEX, COUNTY COMPARISON, 2021



Orange County has long been seen as a perfect destination to raise a family, with some of the nation's lowest crime rates, highest incomes, and best educational institutions. It remains highly attractive to both young and more established families. Irvine, Huntington Beach, Garden Grove, Anaheim, and Santa Ana all make WalletHub's recent list of The Best Places to Raise a Family, due in large part to exceptional scores in Health & Safety, which outweighed generally low affordability.

WALLETHUB'S BEST PLACES TO RAISE A FAMILY – ORANGE COUNTY CITIES AND SCORES, 2021

RANK	CITY	TOTAL SCORE	FAMILY FUN	HEALTH & SAFETY	EDUCATION & CHILD CARE	AFFORDABILITY	SOCIO-ECONOMICS
3	Irvine, CA	69.19	17	1	3	57	9
12	Huntington Beach, CA	64.31	64	10	4	96	12
53	Garden Grove, CA	55.9	38	15	15	173	38
92	Anaheim, CA	51.69	34	14	73	174	54
133	Santa Ana, CA	47.76	91	18	69	180	49

Source: WalletHub

Data Notes:

The racial and ethnic categories presented are the three largest in Orange County and are not mutually exclusive. Latino includes children of any race who are of Hispanic or Latino ethnicity. Asian includes the race Asian alone and includes both Hispanic and non-Hispanic. White, non-Hispanic includes only White alone and non-Hispanic. Projection data by race/ethnicity and age have been updated by the source.

Sources:

Place – Land Area: County of Orange Public Works; **Density:** U.S. Census Bureau; **GHT-PH1-R: Population, Housing Units, Area, and Density, Census 2010 (land area) and State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2020.** Sacramento, California, May 2020.

People – California Department of Finance. Demographic Research Unit. Report P-2B: Population Projections by Individual Year of Age, California Counties, 2010-2060 (Baseline 2019 Population Projections; Vintage 2020 Release). Sacramento: California. April 2021; California Department of Finance. Demographic Research Unit. Report P-2D: Population Projections by Total Hispanic and Non-Hispanic Race, California Counties, 2010-2060 (Baseline 2019 Population Projections; Vintage 2020 Release). Sacramento: California. March 2021; **Foreign Born, Language:** U.S. Census Bureau, 2019 American Community Survey, 1-Year Estimates, Table DP02.

Education – Educational Attainment: U.S. Census Bureau, 2019 American Community Survey, 1-Year Estimates, Table S1501.

Economy – Median Household Income: U.S. Census Bureau, 2019 American Community Survey, 1-Year Estimates, Table B19013; **Unemployment Rate:** California Employment Development Department Labor Market Information, April 2021; **Median Existing Single-Family Home Price:** California Association of Realtors, Current Sales and Price Statistics.



UNITED TO IMPROVE LIVES IN OUR COMMUNITY

Orange County United Way is committed to leading the fight for equity by removing barriers, closing gaps, and leveling the playing field for everyone who lives here.

Join us in helping our students succeed, our struggling families gain financial security, and our homeless neighbors find a place to call home.

Learn More at [UnitedWayOC.org](https://www.UnitedWayOC.org)



COVID-19 AND THE FUTURE OF WORK

Orange County's economic recovery from the COVID-19 pandemic will be a process, rather than an event, as local, national, and global economies face the long-term consequences of their "lost year." McKinsey & Company describes the current economic downturn as "double-barreled," in that it involves changes in both supply and demand. Orange County's world-famous Hospitality and Tourism industry is a perfect example of this double-barreled downturn: pandemic restrictions both shut down or greatly restricted the capacity of tourist attractions (as well as the ability to travel, domestically or internationally) and significantly reduced consumer demand for those attractions and related travel.

This special section of the report explores three pandemic-driven changes that could have long-term impacts:

- Shifts in consumer behavior;
- The mainstreaming of remote work; and
- The accelerated automation and digitization of the workplace.

While much of Orange County's economy is returning to normal, these shifts may continue to impact the county far into the future.

Consumer Behavior

From online grocery shopping to food delivery apps to virtual doctor's visits, the COVID-19 pandemic has transformed consumer behavior, boosting the sales of some goods and services (such as cycling, home fitness, and home improvement),³ while almost completely closing the market for others (hotels, movie theaters, the performing arts, etc.). The pandemic has had a particularly profound and potentially long-lasting impact on three of Orange County's most important industry sectors: Hospitality and Tourism, Retail, and Health Care.

HOSPITALITY AND TOURISM

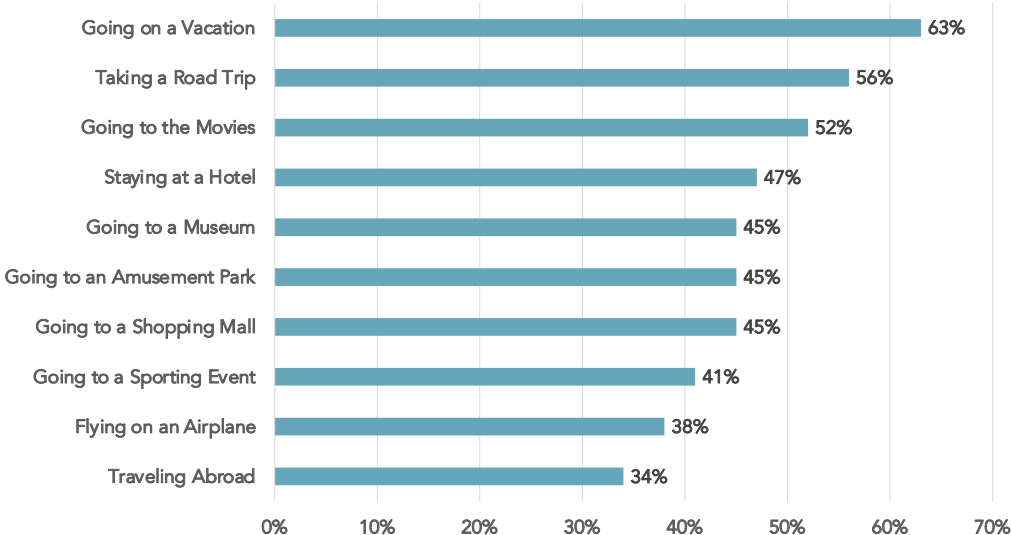
Orange County's Hospitality and Tourism sector faces the consequences of a lost year of revenue as well as lingering consumer caution. While Disneyland reopened on April 30, 2021, after being closed for more than a year, it did so at limited capacity. The county's travel industry as a whole is operating at a limited capacity, albeit with much fewer limits than during the worst months of the pandemic. According to the U.S. Travel Association, in April 2021, international travel to the

³ <https://www.weforum.org/agenda/2020/05/covid-19-where-consumers-are-flocking-under-lockdown/>

United States remained 87 percent below pre-pandemic levels, a discouraging statistic for one of the country's premier international travel destinations. Only 29 percent of U.S. adults surveyed by Morning Consult in March 2021 reported feeling comfortable flying on an airplane.⁴ Furthermore, the pandemic-driven popularity of virtual meetings on Zoom and other platforms means that hotels and convention centers may expect less business travel-related income over the next few years.

Similarly, the U.S. Travel Association estimates that the U.S. travel industry lost almost \$500 billion in revenue in 2020, a decline of approximately 42 percent.⁵ International travel, according to the U.S. Travel Association, saw a 76 percent decrease, with business travel declining by 70 percent. This reduction in travel has in turn drastically diminished the market for related sectors; a lack of airport traffic forced Hertz and Advantage Rent a Car to declare bankruptcy in 2020.

NATIONAL CHANGE IN YEAR-OVER-YEAR TRAVEL SPENDING, 2020



Source: U.S. Travel Association, *Weekly Coronavirus Impact on Travel Expenditures in the U.S.*, January 22, 2021 Updated

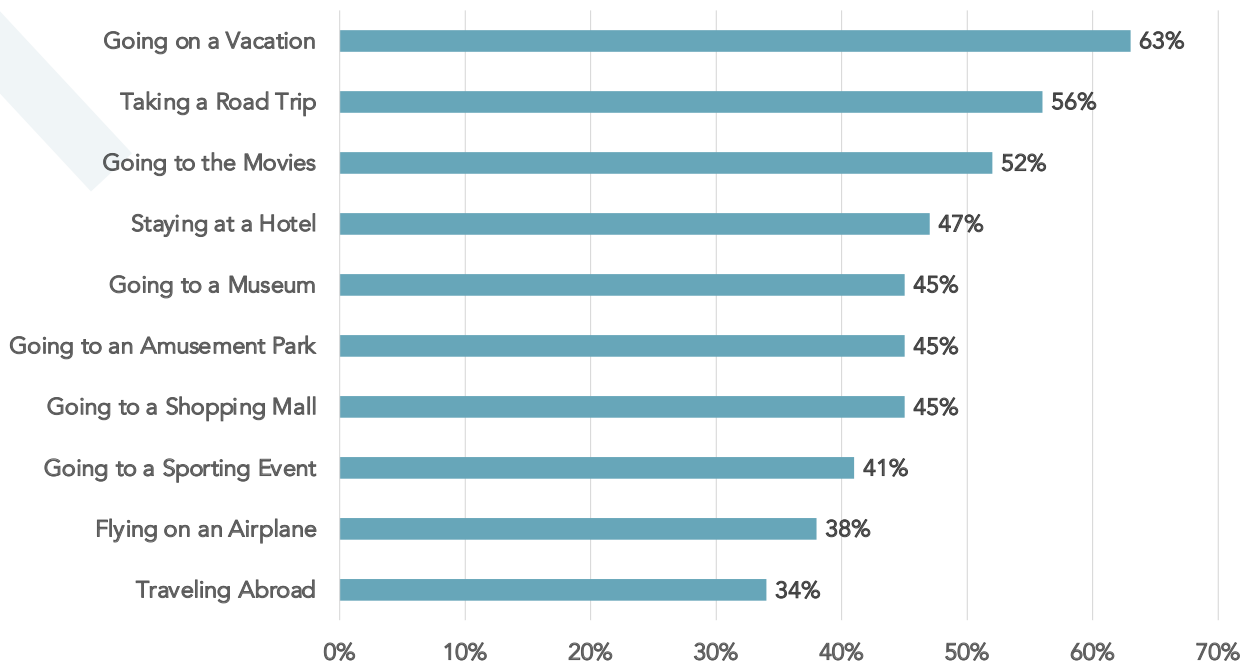
Despite these losses, Disneyland and Knott's Berry Farm were able to return to full capacity on June 15, 2021. As COVID-19 vaccination levels began to increase and case counts declined, the United States, along with several other countries, began to ease travel restrictions meant to reduce the potential for transmission. While case trends have been declining for the majority of 2021, the recent rise of a more transmissible variant of COVID-19 known as the Delta variant has many concerned about reinstating lockdowns and additional travel restrictions. Despite this, many researchers and media commentators predict that pent-up demand could lead to a surge in Hospitality and Tourism consumer spending.

⁴ <https://morningconsult.com/2021/03/24/pent-up-demand-travel-restaurants-cruise-pandemic/>

⁵ https://www.ustravel.org/sites/default/files/media_root/document/TE_Coronavirus_WeeklyImpacts_01.22.21.pdf

A Morning Consult survey, for instance, asked more than 2,000 U.S. adults about their enthusiasm for returning to various activities after the end of the pandemic.⁶ As might be expected, more survey respondents reported being “very excited” about returning to their normal routine than about any other activity; 43 percent reported high levels of excitement about taking a vacation, 33 percent about taking a road trip, and 29 percent about socializing in public places. The following chart shows Hospitality and Tourism-related activities by the percentage of “very excited” or “somewhat excited” survey respondents.

PERCENT OF SURVEY RESPONDENTS “VERY EXCITED” OR “SOMEWHAT EXCITED” BY HOSPITALITY AND TOURISM-RELATED ACTIVITY ONCE PANDEMIC IS UNDER CONTROL



Source: Morning Consult, 6 Charts Illustrate Where Pent-Up Demand Is Strongest (and Weakest) in a Post-Pandemic Economy

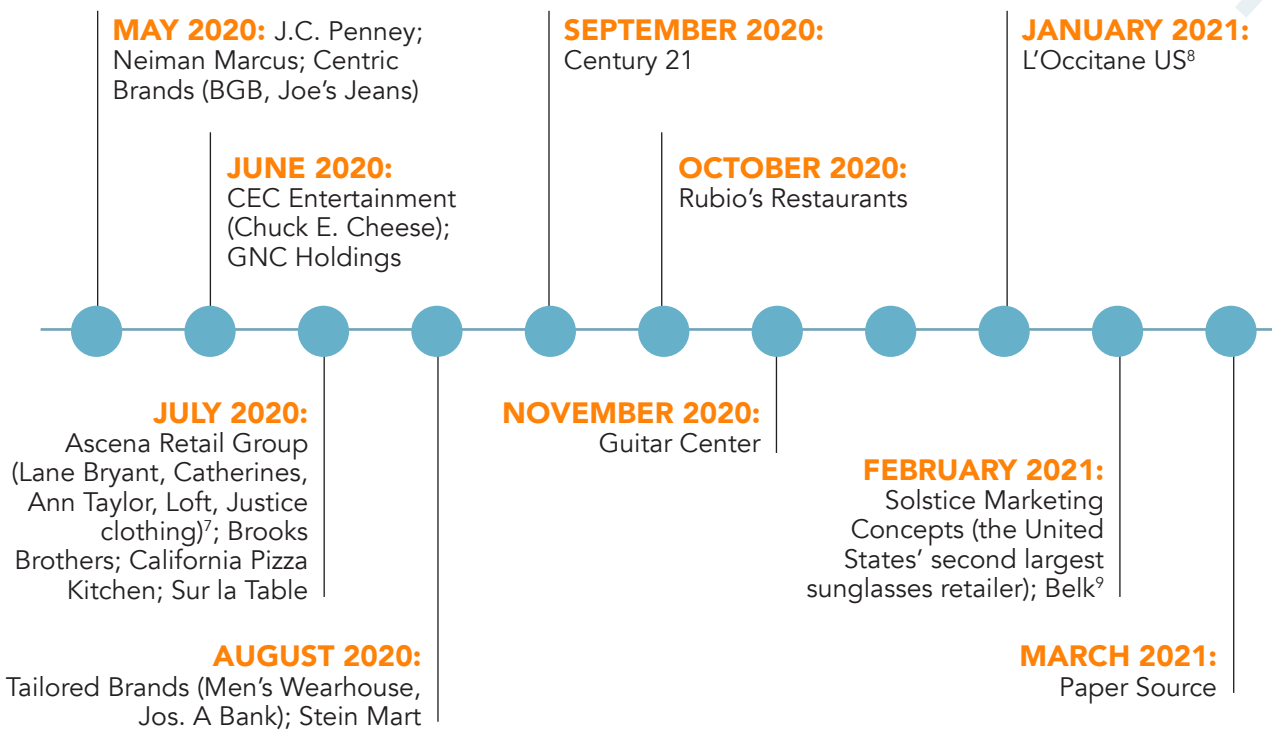
Excitement about going on a vacation positively correlates with income and educational attainment: 76 percent of post-graduates reported excitement compared to only 60 percent of those without a college degree. Morning Consult also found that younger generations generally reported higher levels of excitement. “It appears that Millennials and, to some extent, Gen Z adults will bolster the post-pandemic economy,” writes Morning Consult head of industry intelligence Joanna Piacenza. Surveyed Millennials are more excited about going on a vacation, going to the movies, visiting a museum, staying in a hotel, attending a sporting event, flying in an airplane, and traveling abroad than members of any other generation; they also show the highest levels of excitement about traveling for work. Gen Z respondents reported the highest levels of excitement about going to an amusement park, seeing a concert, and going to a party or social event.

RETAIL

Brick-and-mortar retail taxable sales, which account for a significant part of Orange County's tax revenue, faced more competition from e-commerce during the pandemic than ever before, with regulations shutting down many stores, consumers choosing to stay at home, and the convenience of e-commerce. The pandemic, McKinsey notes, "has driven unprecedented numbers of consumers into digital channels."

Orange County retail faced major challenges before the pandemic, as explored in OCBC's report *Inside Orange County's Retail E-volution: How E-commerce is Transforming the Future of Orange County's Retail Sector, Land Use, Workforce and Tax Base*. Between 2000 and 2020, competition from e-commerce led to the bankruptcy of many national retailers — from RadioShack and Toys 'R' Us to Quiksilver and Sears Holdings — and the obsolescence of entire retail categories, such as video rental and music stores. The United States experienced a similar "retail apocalypse" during the COVID-19 pandemic. JC Penney, Neiman Marcus, Chinos Holdings (J. Crew), Guitar Center, and other major retailers all declared bankruptcy in 2020. The following chart provides a timeline of major dining and retail bankruptcies during the pandemic.


TIMELINE OF DINING AND RETAIL BANKRUPTCIES DURING PANDEMIC



⁷ <https://www.bloomberg.com/graphics/2020-us-bankruptcies-coronavirus/>

⁸ <https://www.retaildive.com/news/the-running-list-of-2021-retail-bankruptcies/594891/>

⁹ <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/whats-next-for-digital-consumers>



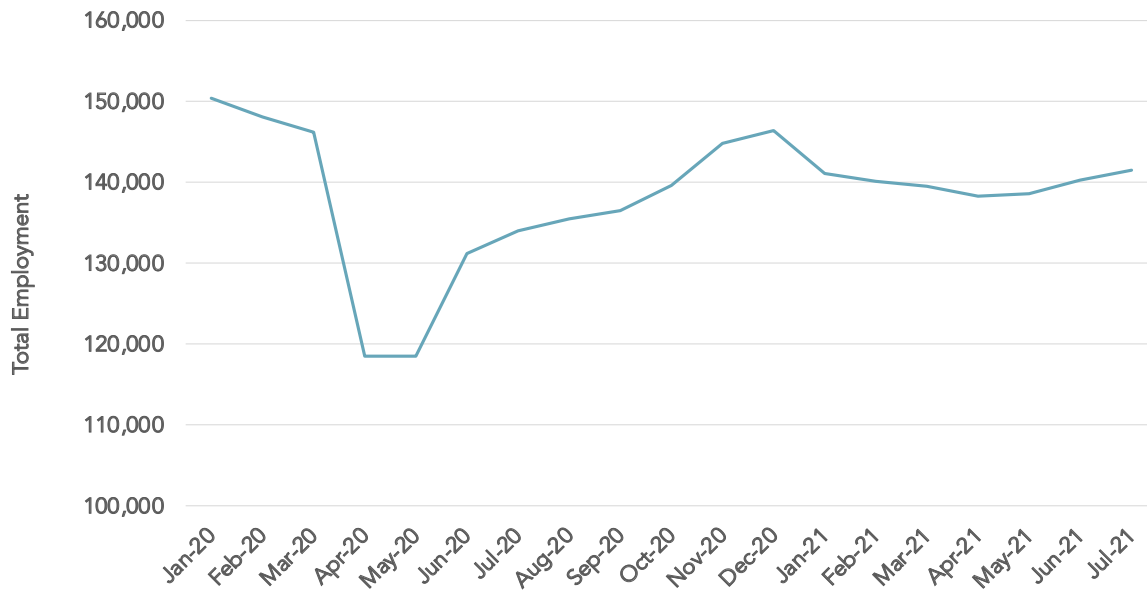
As in Hospitality and Tourism, there is some evidence to suggest pent-up demand for brick-and-mortar retail. Of Morning Consult survey respondents, 45 percent reported excitement about returning to a shopping mall; 23 percent reported having already done so, with only eight percent reporting no excitement about going to a shopping mall.

There is also evidence suggesting that e-commerce has reached near-saturation levels and has limited room to expand. McKinsey's May 2021 article "What's Next for Digital Consumers" analyzes the results of a survey of almost 30,000 global consumers, observing that...

"...the acceleration into digital channels now seems to have leveled off in both Europe and the United States, with consumers in some industries saying that they will be using digital channels less frequently once the pandemic ends. As a result even as total digital adoption remains above prepandemic levels, many industries and regions may see a modest negative net change in postpandemic digital use relative to 2020."¹⁰

Despite the significant pressures facing retailers across the nation, Orange County retail employment has begun to recover. County retail employment declined from 150,400 in January 2020 to 118,500 in April and May 2020, a loss of 31,900 jobs or 21 percent. As case levels declined in mid-2020, retail employment began to recover as stores were able to reopen at limited capacities and with mask mandates in place. Retail employment reached 146,400 in December 2020, supported by pent-up demand and holiday spending. From December 2020 to April 2021, retail employment began to steadily decline before starting to improve again in May and June 2021. The sector should slowly recover as vaccination rates increase and the overall economy reopens and recovers.

TOTAL MONTHLY RETAIL EMPLOYMENT IN ORANGE COUNTY, JANUARY 2020 – JULY 2021



Source: California Employment Development Department

Post-pandemic, retailers can use the same strategies that helped them compete against previous waves of e-commerce — “experiential retail.” *Inside Orange County’s Retail E-volution* identified several ways in which retailers can leverage the unique properties of a staffed, physical brick-and-mortar space. “Tried-and-true retail values still work,” that report concluded, “because today’s shoppers still have needs for the brick-and-mortar fundamentals that haven’t changed: good customer service, an enjoyable shopping environment, the experience of discovering new things, making connections to other people and to a community.”¹¹

The post-pandemic consumer is perhaps hungrier now for these place-based, retail-specific experiences than ever before.

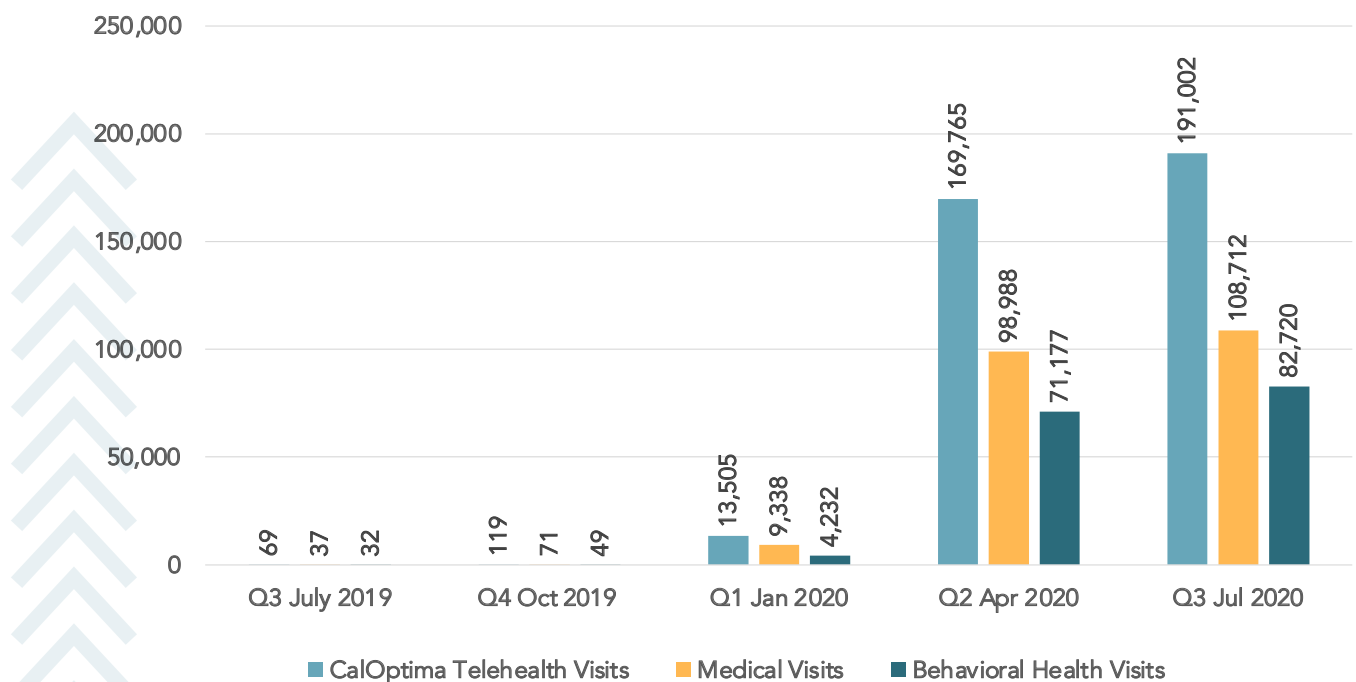
¹¹ *Inside Orange County’s Retail E-volution*, p.148.

HEALTH CARE

The COVID-19 pandemic demonstrated clearly how important Orange County’s Health Care sector is to the overall health, wellbeing, and economy of Orange County. The sector has undergone a transformative year and a half, from treating intensive care patients at hospitals and ICUs to rolling out the county’s mass vaccination program. Perhaps the most notable change for consumers has been the rising importance and use of Health Care Information Technology, or Health Care IT, especially in the form of telehealth replacing in-person doctor’s office visits. An American Medical Association (AMA) survey found that 28 percent of surveyed physicians used telehealth for virtual office visits in 2019, twice as many as in 2016; Vice President of Digital Innovation, Meg Barron estimates that up to 90 percent of U.S. physicians offered telehealth services in 2020.¹²

Patients’ usage of and interest in telehealth has also increased. An April 2020 McKinsey survey found that 75 percent of patients reported interest in telehealth, compared with only 11 percent of patients who used telehealth in 2019. In addition, 74 percent of telehealth consumers reported high levels of satisfaction.¹³ Overall, McKinsey predicts that up to \$250 billion in health care services could be switched to telehealth or other digital channels. The chart below illustrates the skyrocketing use of CalOptima telehealth services: from just 69 virtual visits in July 2019 to more than 191,000 in July 2020.

CALOPTIMA TELEHEALTH SERVICES, JULY 2019–JULY 2020



Data Note: This figure includes the most recent data reported, as of January 2021.

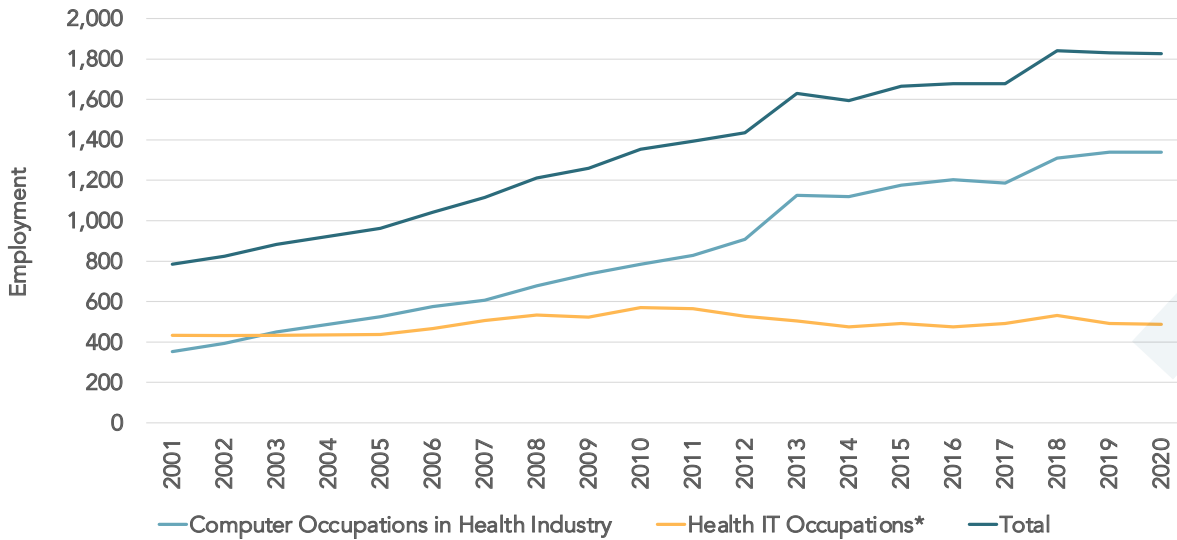
Source: CalOptima

¹² <https://www.ama-assn.org/system/files/2020-02/ama-digital-health-study.pdf>

¹³ <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality>

Orange County saw significant Health Care IT growth before the pandemic. As seen in the chart below, total subsector employment more than doubled between 2001 and 2020, with the number of Computer Occupations in the Health Industry — Software Programmers, Network Administrators, and other non-Health Care-specific roles — more than tripling.

ORANGE COUNTY HEALTH IT JOBS GROWTH, 2001–2020



*Health IT Occupations includes: Health Information Technologists, Medical Registrars, Surgical Assistants, and Health Care Practitioners and Technical Workers.

Source: Emsi

Local educators have supported this growth by building strong talent pipelines, especially at the community college and university levels. As seen below, the University of California, Irvine had more graduations from Health Care IT-related programs than any other Orange County college or university. Overall, 4,860 Orange County students graduated from Health Care IT-related programs in 2019. Educators will need to continue to refine these pipelines in order to better support the growing consumer demand for Health Care IT services.

TOP 10 ORANGE COUNTY COLLEGES AND UNIVERSITIES BY NUMBER OF HEALTH CARE IT PROGRAM COMPLETIONS

INSTITUTION	NUMBER OF COMPLETIONS, 2019	INSTITUTION	NUMBER OF COMPLETIONS, 2019
University of California, Irvine	1,509	Cypress College	147
California State University, Fullerton	1,275	Golden West College	128
Trident University International	460	Irvine Valley College	128
Saddleback College	350	Chapman University	109
Orange Coast College	228	Coastline Community College	96

Source: Emsi

REMOTE WORK

Beyond any specific industry, the rise of remote work during the pandemic marks a sea of change for the world of work, one with implications for employment, tax revenue, residential and commercial real estate, transportation infrastructure, and workforce development. In the words of a recent McKinsey article, “the virus has broken through cultural and technological barriers that prevented remote work in the past, setting in motion a structural shift in where work takes place, at least for some people.”¹⁴ While another section of this report analyzes mainstream remote work’s potential impacts on the housing market, this section focuses on potential remote work impacts on the workplace and labor market.

While many remote workers have already returned to in-person work, multiple sources predict that a significant number of remote workers will not return to the office, or will return on a limited basis, even after the pandemic ends. A December 2020 Pew Research Center poll, for instance, found that 54 percent of American workers were willing to continue working from home after the pandemic.¹⁵ Of surveyed workers, 38 percent report that they can perform most of their work activities from home, a number that increased with income and educational attainment; 68 percent of workers with a postgraduate degree report that their work can be done at home, compared to only 17 percent of workers with a high school diploma or less.

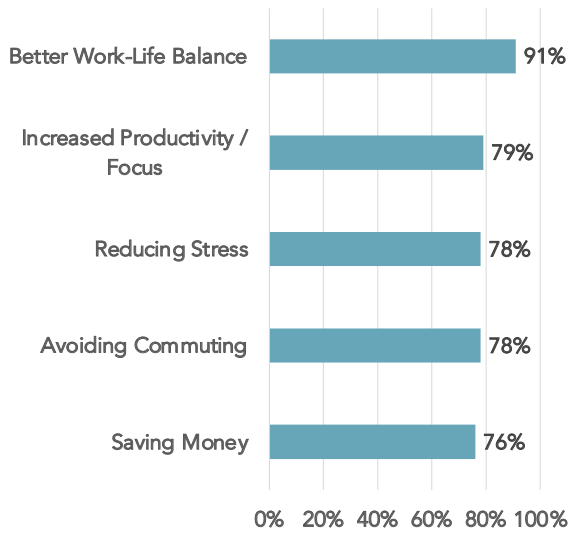
Why are some workers willing to continue working from home? As seen on the next page, avoiding commutes tied with avoiding COVID-19 infection as a reason for working remotely, according to a survey by remote collaboration provider Owl Labs.¹⁶ Even during a global pandemic, remote workers cited a number of other significant motivating factors. Owl Labs’ 2019 survey of pre-pandemic remote workers provides a clear picture of remote work’s advantages for many employees; it appears that a significant percentage of the workforce discovered these advantages while forced to work from home in 2020.

¹⁴ <https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries?cid=other-eml-alt-mgi-mck&hdpid=ef77708e-97cb-4375-abe3-bc174c2f-6edf&hctky=1945270&hlkid=9efc52d57ade41e6b9a3b792248f5c59>

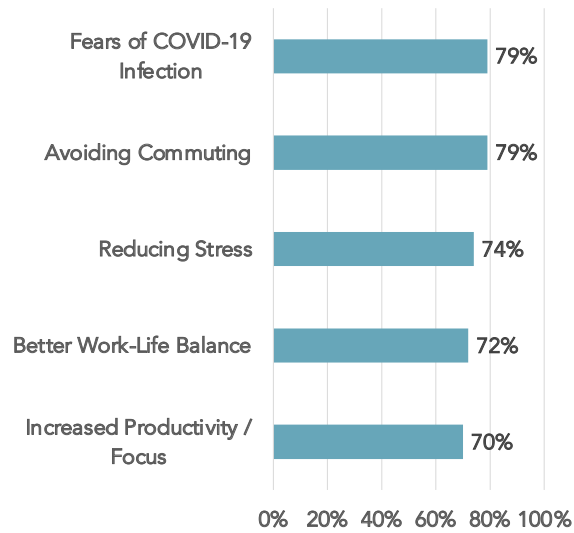
¹⁵ <https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/>

¹⁶ <https://resources.owl-labs.com/state-of-remote-work/2020>

MAIN REASONS FOR WORKING REMOTELY, 2019



MAIN REASONS FOR WORKING REMOTELY, 2020



Source: OWL Labs Surveys, 2019-2020

Global Workplace Analytics predicts that up to 30 percent of the workforce will continue to work from home at least part of the time by the end of 2021.¹⁷ In the words of Global Workplace Analytics president Kate Lister, “the genie is out of the bottle and it’s not likely to go back in.”¹⁸ Similarly, McKinsey predicts that between 20 and 25 percent of workers in advanced economies could permanently work from home several days per week.¹⁹ McKinsey researchers analyzed hundreds of occupations and more than 2,000 job tasks to identify the sectors with the highest potential to effectively make a long-term transition to remote work. As seen below, “white collar” sectors tend to have the highest remote work potential, which aligns with the aforementioned Pew survey.

1. Finance and Insurance (76–86 percent)
2. Management (68–78 percent)
3. Professional, Scientific, and Technical Services (62–75 percent)
4. IT and Communications (58–69 percent)
5. Education (33–69 percent)²⁰

Sectors with the lowest potential for remote work include Agriculture, Accommodation and Food Services, Construction, and Transportation and Warehousing.

¹⁷ <https://globalworkplaceanalytics.com/work-at-home-after-covid-19-our-forecast>

¹⁸ Ibid.

¹⁹ <https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries?cid=other-eml-alt-mgi-mck&hdpid=ef77708e-97cb-4375-abe3-bc174c2f-6edf&hctky=1945270&hlkid=9efc52d57ade41e6b9a3b792248f5c59>

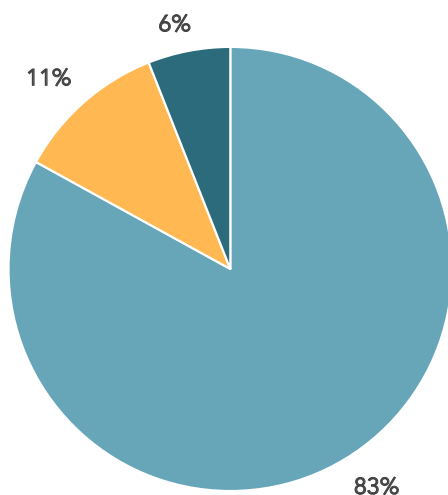
²⁰ The first percentage represents a sector’s potential to effectively transition to remote work with no productivity losses, with the second representing a “theoretical maximum.”

A number of major tech companies have announced plans to continue supporting remote work after the end of the pandemic:

- Coinbase will let employees choose between working from home and working at an office, as will Square and Twitter.
- Dropbox plans on letting all employees continue working remotely, with offices transformed into coworking spaces called Dropbox Studios.
- Facebook plans on letting half of its employees work remotely after July 2021.
- Infosys will allow up to 50 percent of its employees to work remotely.
- Shopify plans to let all employees work from home indefinitely.
- Skillshare plans to permanently shift to entirely remote work, as does Upwork.

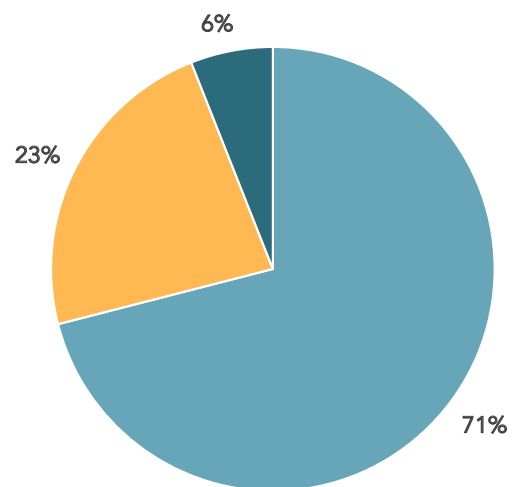
These shifts toward remote working are likely to have significant impacts on demand for commercial real estate and office space as employers will likely reduce their overall physical footprints as more workers adopt remote working strategies. A PWC survey of 128 business executives, for instance, found that remote work will likely have a major impact on commercial real estate.²¹ Of surveyed executives, 87 percent predicted changes in real estate strategy over the next year, with 61 percent planning on consolidating office space in business districts and 58 percent planning on opening different kinds of locations in different areas, such as “satellite offices in suburbs.” Furthermore, coworking spaces such as WeWork could continue to take market share away from traditional office buildings as companies continue to focus on remote work and flexibility. Overall, the shift to remote work has been a success as indicated by 83 percent of employers and 71 percent of employees surveyed by PWC.²²

HAS REMOTE WORK BEEN A SUCCESS FOR EMPLOYERS?



■ Successful ■ Mixed Results ■ Unsuccessful

HAS REMOTE WORK BEEN A SUCCESS FOR EMPLOYEES?



■ Successful ■ Mixed Results ■ Unsuccessful

Source: <https://www.pwc.com/us/en/library/covid-19/us-remote-work-survey.html>

²¹ <https://www.pwc.com/us/en/library/covid-19/us-remote-work-survey.html>

²² Ibid.

Of executives surveyed by PWC, 43 percent predicted that they would increase remote work going forward, with 13 percent claiming that “we’re better off giving up on office space entirely.”²³ Only 17 percent reported a desire to return to the pre-pandemic status quo. This shift, in turn, will lead to a reimagining of the office itself, potentially reducing office footprints and clearing space for different kinds of businesses, or for mixed-use spaces.

Which Work Activities Can Effectively Be Performed From Home?

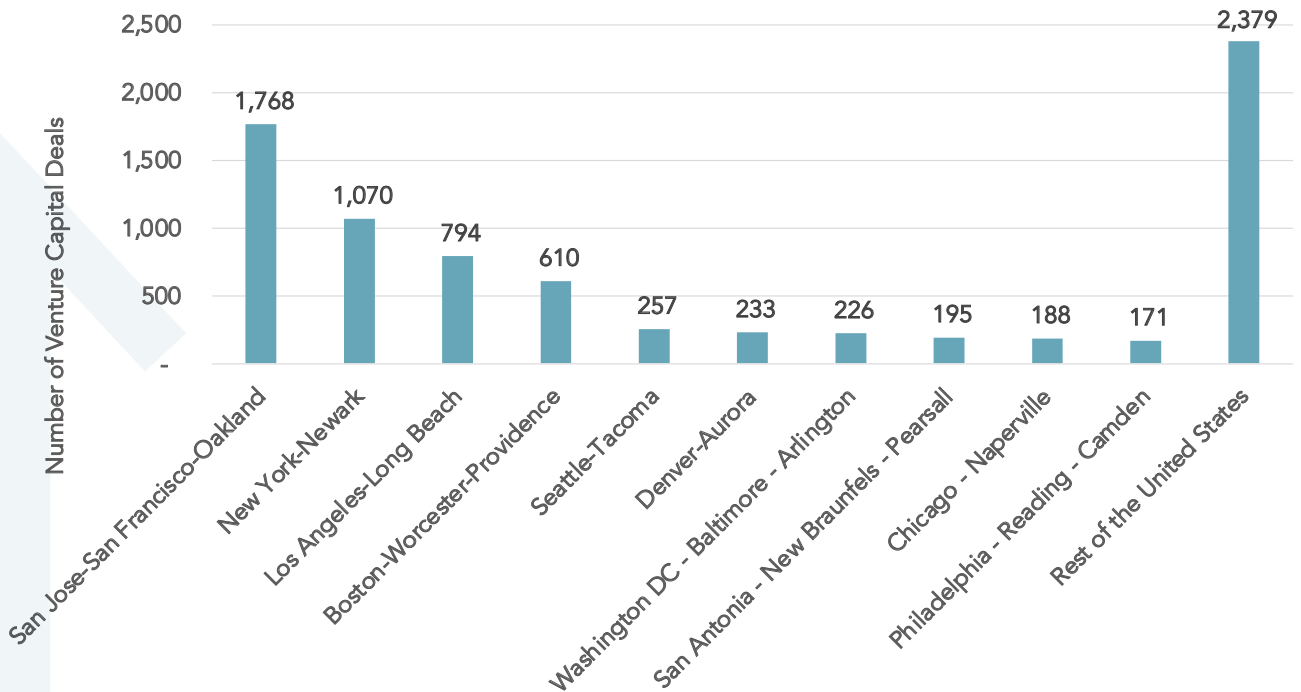
In the study “What’s Next for Remote Work: An Analysis of 2,000 Tasks, 800 Jobs and Nine Countries,” McKinsey researchers identify which work activities can and cannot be performed effectively at home. Two work activities have zero remote work potential: Handling and Moving Objects; and Controlling Machines and Mechanical Equipment. Working with Equipment, Materials and Machinery, and Assisting and Caring for Others also have fairly low remote work potential. On the other hand, work activities with high potential to transition to remote work include:

1. Updating Knowledge and Learning;
2. Interacting with Computers;
3. Thinking Creatively;
4. Communicating With and Guiding Clients or Colleagues; and
5. Processing, Analyzing, and Interpreting Information.

²³ Ibid.

The shift to remote work has already begun to affect venture capital, with investment shifting away from traditional technology hubs. While Silicon Valley remains the United States' largest destination for venture capital, its share of total investment fell from 26 percent in 2014 to 22.4 percent in 2020; its share is predicted to fall below 20 percent in 2021, the first time in history it will have done so.²⁴

TOP U.S. VENTURE CAPITAL MARKETS, Q3 2020



Source: Q3 2020 Pitchbook-NVCA Venture Monitor Report

²⁴ <https://www.cnbc.com/2021/01/14/silicon-valleys-share-of-venture-capital-may-drop-below-20percent-in-2021.html>

Employee Perspectives on Work after COVID-19

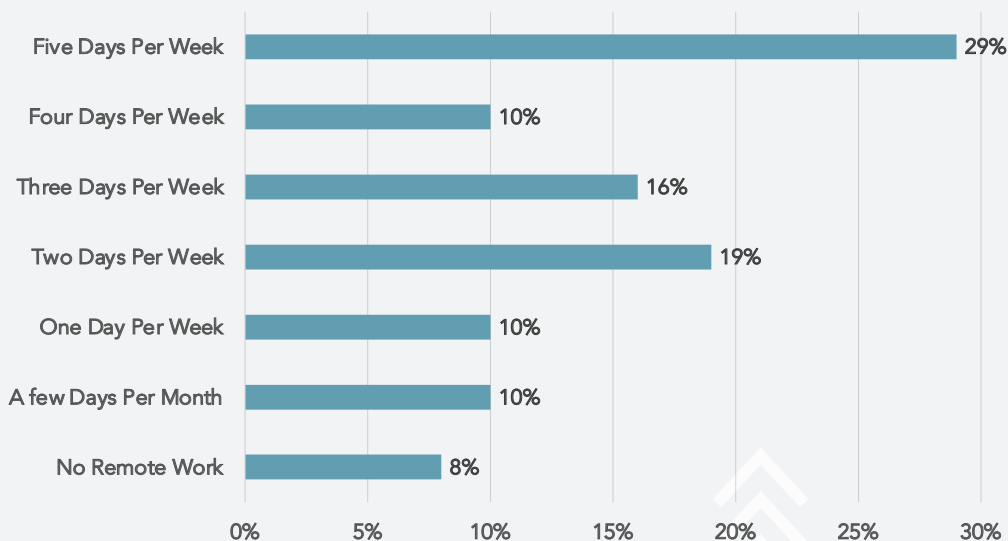
A McKinsey survey of more than 5,000 employees of private and public sectors found that:

- Only 37 percent of surveyed employees preferred working on-site to hybrid or remote models, compared to 62 percent of employees before the pandemic. More than half of surveyed employees preferred a flexible hybrid model incorporating both on-site and remote work.
- More than half of surveyed employees would prefer to work from home at least three days per week; this includes more than two-thirds of surveyed parents with young children.
- A significant number of surveyed employees reported concerns with remote work: 46 percent were concerned about work-life balance, 44 percent about losing community and their connections to colleagues, 43 percent about reduced collaboration, and 43 percent about a decreased focus on employee well-being.
- Surveyed employees were asked to list their top five most important company policies regarding remote work. The most commonly listed policies were:
 - Clear expectations for online and offline hours, with flexibility outside of online hours (34 percent);
 - Reliable and well-supported virtual collaboration tools (29 percent);
 - A strategy to determine “what is and isn’t working,” for example, via employee surveys (27 percent);
 - Regular small team-connectivity events to facilitate social cohesion (26 percent);
 - Guidelines for dialing into remote meetings (26 percent); and
 - Clear expectations for documenting remote and in-person work activities (26 percent).

A PWC survey of more than 100 U.S. executives and 1,200 office workers found that only 8 percent of U.S. office workers do not want to work remotely, if allowed to by their employer. Working from home five days a week was more popular than any other option, as seen below.

“How often would you want to work remotely after COVID-19 is no longer a concern (if your employer allowed you to work remotely as you want to)?”

PWC SURVEY RESULTS



Source: PricewaterhouseCoopers, PwC's US Remote Work Survey – January 12, 2021

Digitization and Automation of the Workplace

In addition to remote work, companies across a variety of industries saw a general increase in digitization. “The pace of digitization and automation quickened in some companies,” in the words of McKinsey’s recent report titled “*Will Productivity and Growth Return After the COVID-19 Crisis?*” Firms became more efficient and agile, and many businesses — and people — went online for the first time. The bold response of many companies and governments proved that organizations could transform quickly when they had to. This bold response, it should be noted, was not limited to governments and large companies. Orange County’s entrepreneurs and small business owners also adapted to the “new normal,” from restaurateurs switching to an online ordering/curbside pickup model to doctors switching to telehealth and businesses of all sizes replacing conferences with Zoom meetings.

Digitization and automation were headline news well before the COVID-19 pandemic, with artificial intelligence, machine learning, the Internet of Things (IoT), and related concepts spawning waves of speculation on their potential labor market impacts. In 2018, OCBC collaborated with OC Pathways and the Orange County Department of Education (OCDE) on *The Dimensions of Defensibility: Human-Centered Design in an Automated Workplace*, which rates the defensibility — or resistance to automation — of skills, activities, and other aspects of work. Three work activities, for instance, are strongly defensible:

- Developing Objectives and Strategies;
- Thinking Creatively; and
- Providing Consultation and Advice to Others.

The least defensible work activities, on the other hand, include:

- Estimating the Quantifiable Characteristics of Products, Events, or Information;
- Performing Administrative Activities; and
- Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment.

Work-related skills are some of the best predictors of defensibility. The most defensible skills include:

1. Active Learning;
2. Critical Thinking;
3. Systems Evaluation;
4. Systems Analysis;
5. Learning Strategies;
6. Judgment and Decision-Making; and
7. Complex Problem-Solving.²⁵

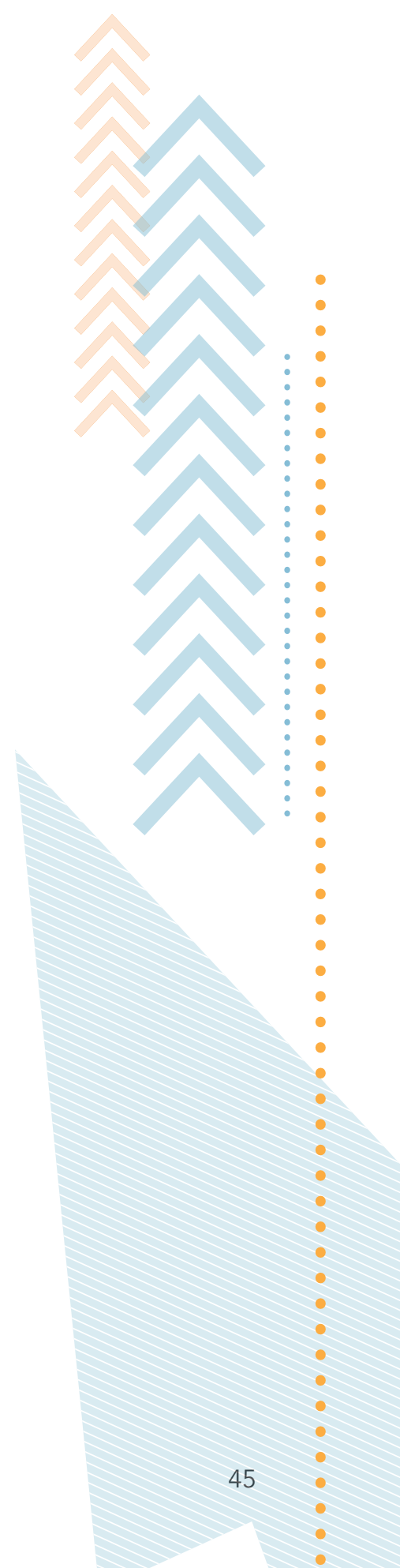
In many cases, the workers most vulnerable to automation are those who were hit hardest by the pandemic. For one, the pandemic disproportionately affected job security in sectors with high numbers of non-technical, entry-level jobs, such as Dining, Retail, and Hospitality and Tourism. While defensibility does not perfectly coordinate with educational attainment, jobs with higher educational requirements tend to be more defensible. Across the economy, as previously mentioned, the ability to work from home positively correlates with both education and income.

A Pew Survey found that only 17 percent of workers with a high school diploma or less could work remotely, a number that increases to only 29 percent for workers with some college education. Less than a quarter of low-income workers reported being able to work from home, compared to 37 percent of middle-income workers and 56 percent of upper income workers.

Going forward, county educators and workforce development professionals will need to focus on Orange County's residents who face the double displacements of automation and the impacts of the COVID-19 economic downturn. Defensible skills, activities, and other aspects of work — as outlined in *The Dimensions of Defensibility*—should guide the development of programs to serve these residents. Skills development programs, focused on both transferable “soft” skills and currently in-demand “hard” skills, should target a population of mid-career professionals and unemployed adults in addition to traditional students. Entrepreneurs and small business owners are another target audience, as they are likely operating in a much more digital environment now than before the pandemic.

On an individual level, employer-subsidized professional development/ upskilling courses in digital-related skills could help employees in almost every industry better adapt to an increasingly digital environment. Information Technology in particular has expanded out of tech companies and Fortune 500 corporations to become an essential part of businesses of all sizes and in all industries.

Educators and workforce development professionals should also keep track of emerging technologies with an eye toward how they can be incorporated into the classroom; educators and librarians have already done good work in incorporating technologies such as 3-D printing.



Conclusion

While 2021 will likely be remembered as a return to normal, many aspects of the workplace, consumer experience, and overall economy have seen long-term — if not permanent — changes. The COVID-19 pandemic transformed the day-to-day physical environment in Orange County and across the world, with plexiglass dividing tables and people, social distancing marks on store floors, and hand sanitizing stations in seemingly every public place. While some of these pandemic measures will fade away, other pandemic impacts will likely transform the Orange County landscape for decades.

In the retail landscape, further e-commerce gains against “big box” stores mean that large footprint clothing stores will lose further ground as the anchor tenants of large shopping malls. 2020 and 2021 have already seen community health clinics replacing shops and restaurants in Orange County shopping centers, offering another example of the “consumerization” of Health Care: Health Care as something more akin to a brick-and-mortar retail experience than a hospital visit.

How can Orange County adapt in the long-term to this newer normal? It’s important to remember that Orange County showed tremendous resilience during the COVID-19 pandemic: breweries and distilleries switched from producing drinks to producing hand sanitizer; Soka University and the Disneyland Resort became temporary vaccine distribution centers; teachers and professors moved classes online. The county, in other words, has shown tremendous capacity for flexibility and reinvention and is thus fully capable of adapting to the future of work — a much less immediate disruption than the COVID-19 crisis. Many of the lessons learned over the past year and a half will help Orange County take this next step in its evolution.

COVID's Impact on Demographics in Orange County

POPULATION

For the first time in over a century, California experienced a net loss in population in 2020, a drop of 0.46 percent as reported by the Census.²⁶ Orange County recorded a net loss of more than 8,000 residents in Q4 of 2020.²⁷ This population loss is due to many factors including: COVID deaths, domestic migration in search of cheaper living, and a halt on immigration during the pandemic. Many experts expect the population to rebound after the pandemic, but the pandemic's lasting effects, such as the prevalence of remote work, may change that.

AGE AND ETHNICITY

Orange County's population is aging. According to the most recent data from the California Department of Finance, residents aged 65 and over are the only age group expected to increase in proportion between 2020 and 2060 in Orange County. With only the oldest age group increasing, the old-age dependency ratio will increase, meaning fewer workers and students and more elderly dependents. This puts increasing pressure on the medical and social support systems, forcing current workers to pay more into the system.

COVID disproportionately affected elderly communities, which make up a large part of Orange County's population. In January of this year, Dr. Clayton Chau, the county's Chief Health Officer, reported that "54 percent of the hospitalized COVID-19 patients are 61 and older. Of the patients admitted into Intensive Care Units, 71 percent are 61 years old or older. Nearly 72 percent of those in ICU are on a ventilator and are also over the age of 61."²⁸ On top of that, 75 percent of COVID deaths in Orange County are people aged 65 and over.

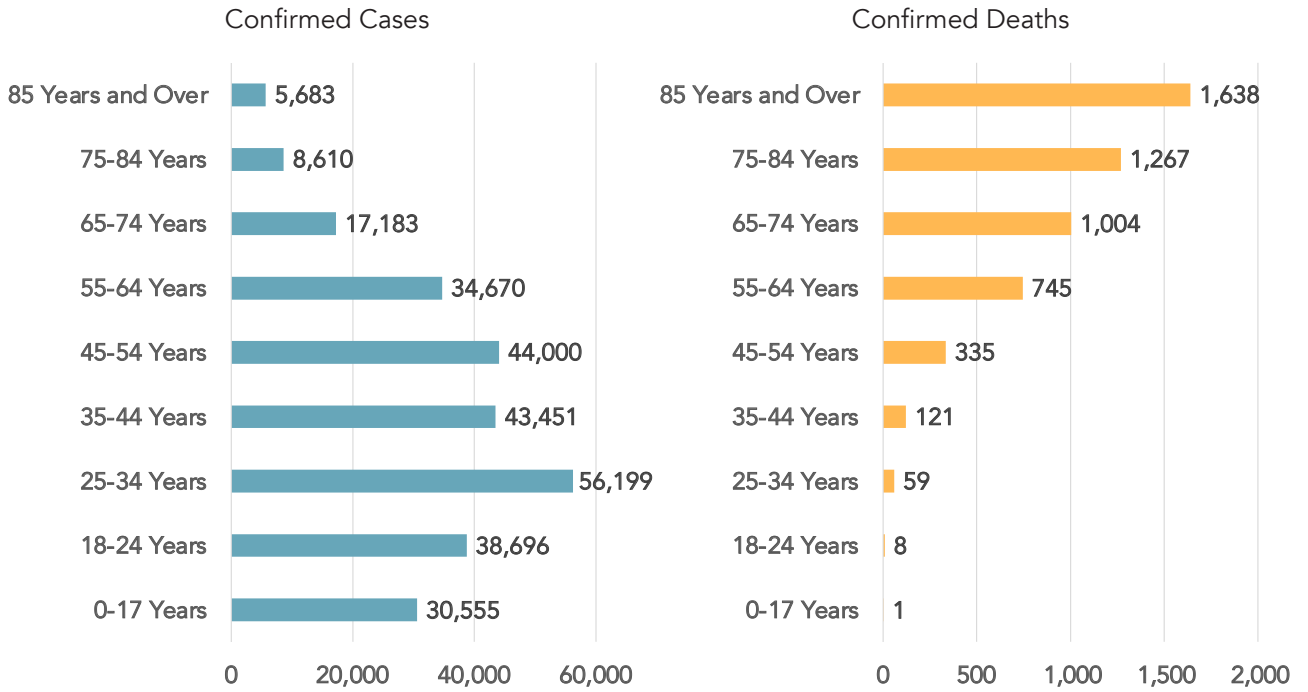
Whereas younger age groups in Orange County reported more COVID cases, people aged 65 and over accounted for the vast majority of COVID deaths.

²⁶ <https://www.nytimes.com/2021/05/07/us/california-population-loss.html?referringSource=articleShare>

²⁷ <https://www.capolicylab.org/calexodus-are-people-leaving-california/>

²⁸ <https://patch.com/california/orange-county/orange-countys-senior-citizens-remain-hardest-hit-coronavirus>

CONFIRMED COVID-19 CASES AND DEATHS IN ORANGE COUNTY BY AGE GROUP, DATA AS OF 8/23/21

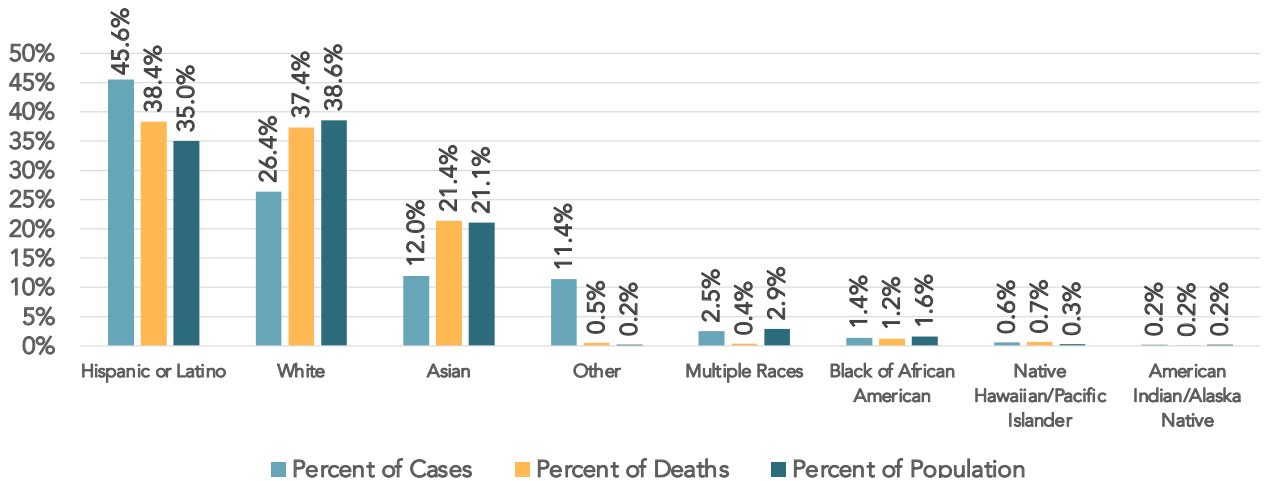


Source: Orange County Health Care Agency, Orange County COVID-19 Dashboard, Updated 8/23/21

When looking at COVID-19 cases by ethnicity in Orange County, Hispanic or Latino populations had a significantly higher percent of total cases (45.6 percent) when compared to their proportion of the population (35 percent).

Latino or Hispanic, White, and Asian communities accounted for 1,985, 1,932, and 1,106 deaths, respectively, as of August 23, 2021. When compared to their proportion of the population, only Hispanic or Latino communities had a higher death rate at 38.4 percent.

PROPORTION OF COVID-19 CASES AND DEATHS BY PERCENT OF POPULATION BY ETHNICITY, DATA AS OF 8/23/21



Source: Orange County Health Care Agency, Orange County COVID-19 Dashboard, Updated 8/23/21

INCOME

Lower-income, minority communities experienced increased prevalence of COVID-19 compared to affluent, predominately white areas in Orange County. Results from a study done by UC Irvine and the Orange County Health Care Agency show that the “greatest prevalence of exposure is maintained by the Latino community and persons of lower income. Latinx and low-income residents had the highest prevalence of antibodies with prevalence rates of 17% and 15%, respectively.”²⁹ The data gathered from the study found that, “the seroprevalence of SARS-CoV-2 in Orange County is 1.8-fold greater among Hispanics than among the referent group of mostly non-Hispanic whites.” They attributed this disparity to the work settings of Hispanics and lower-income communities that may not allow for physical distancing, or working in hazardous conditions out of economic necessity, or relatively dense housing situations.³⁰ The ability to work remotely is correlated with higher incomes, thus people of lower income levels were less likely to be able to do their jobs safely from home, increasing the likelihood of exposure.

FERTILITY

It is too early to definitively conclude what will happen to fertility rates, but it is certain that there will be a temporary drop in fertility. A postdoctoral scholar in the UC Berkeley Department of Demography identified three reasons why fertility has declined during the pandemic. She points to physical closures of fertility clinics, economic hardships — especially for women — and the increased burden placed on parents.³¹

Preliminary data analysis from the Associated Press found that births have fallen dramatically during the pandemic in many states. In California, births in December 2020 declined 10 percent from a year earlier, with even more dramatic declines in January 2021, which were over nine months after the spring lockdowns.³² Analysis from 24 states found that, “December, January, and February together had about 41,000 fewer births than the same three-month span a year earlier. That’s an 8% decline.”

²⁹ <https://calmatters.org/commentary/my-turn/2020/11/the-shocking-prevalence-of-covid-19-in-orange-county-minority-communities/>

³⁰ <https://www.medrxiv.org/content/10.1101/2020.10.07.20208660v1>

³¹ <https://alumni.berkeley.edu/california-magazine/just-in/2020-12-08/covid-19-may-have-long-term-effects-childbearing-us>

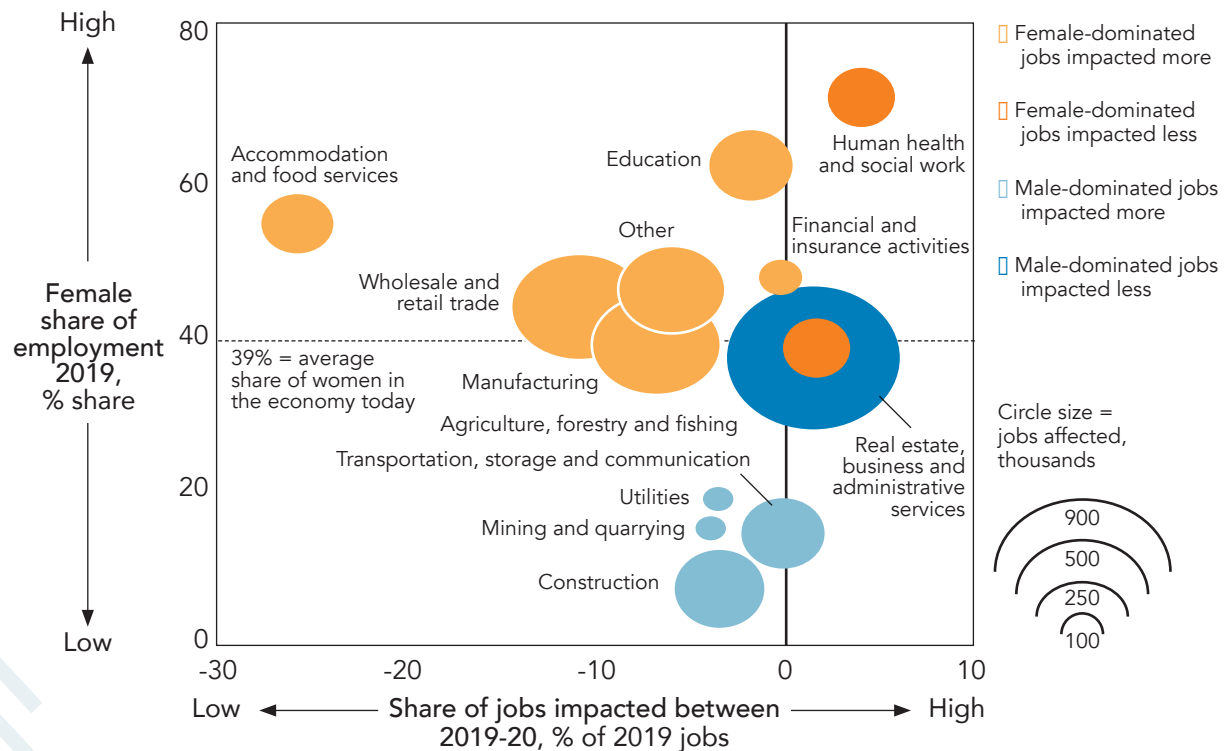
³² <https://apnews.com/article/coronavirus-science-health-3dc7033a62728f1a99a176c5577af58c>



GENDER

The pandemic has had a significant economic impact on women. Women's jobs are 1.8 times more vulnerable than men's jobs to COVID, according to a McKinsey study. Globally, "female jobs are 19 percent more at risk than male ones simply because women are disproportionately represented in sectors negatively affected by the COVID-19 crisis."³³

WORLD EMPLOYMENT IMPACT IN 2020 BY INDUSTRY



Source: McKinsey – COVID-19 and Gender Equality: Countering the Regressive Effects

Women also disproportionately provide unpaid care such as dependent childcare, caring for the elderly, cooking, and cleaning. COVID has increased the time women spend on family responsibilities by an estimated 1.5 to 2 hours a day, causing women to drop out of the labor force. In California, the unemployment rate for men over the age of 20 was 4.8 percent in April 2021. For women, it was 5.8 percent, according to data from the Bureau of Labor Statistics.³⁴ The National Women's Law Center reports that more than 2.3 million women have dropped out of the workforce since the pandemic began, versus only 1.8 million men. As a result, the female labor force participation rate has fallen to just 57 percent, its lowest point since 1988.³⁵

³³ <https://www.mckinsey.com/featured-insights/future-of-work/covid-19-and-gender-equality-countering-the-regressive-effects#:~:text=Women%20are%20more%20vulnerable%20to,to%20the%20COVID%2D19%20pandemic.>

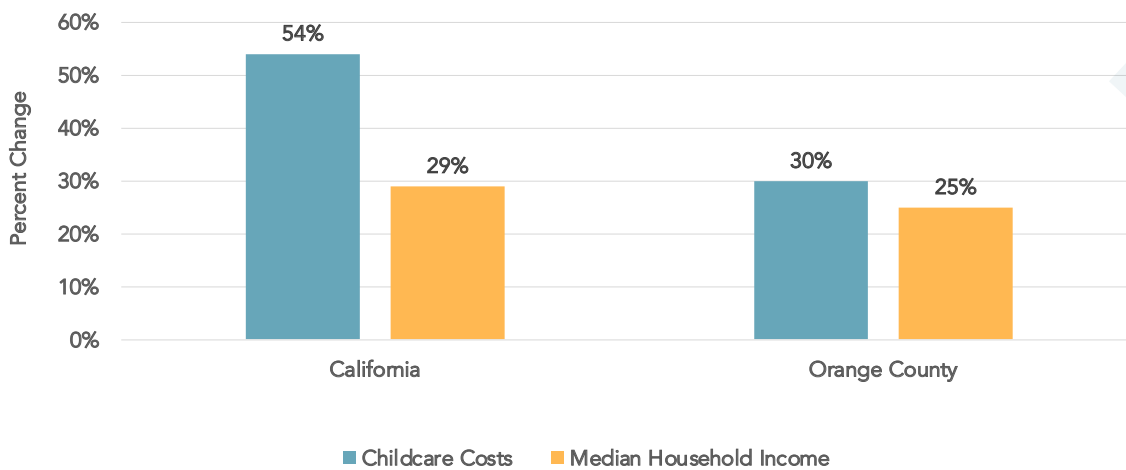
³⁴ https://www.labormarketinfo.edd.ca.gov/specialreports/CA_Employment_Summary_Table.pdf

³⁵ https://nwlc.org/wp-content/uploads/2021/03/Final_NWLC_Press_CovidStats.pdf

CHILDCARE AND WORKING PARENTS

Even prior to the pandemic, the childcare sector served an incredibly important role in both generating economic activity and employment on its own while also allowing working parents to pursue full-time career options. Unfortunately, there is a severe lack of childcare services in Orange County with only enough licensed capacity for 1 in 7 children. Due to both the supply of childcare centers and demand from working parents, childcare costs have risen more rapidly than median household incomes in recent years, which has forced many parents to pick between employment and childcare services.

INCREASE IN CHILDCARE COSTS FOR CHILDREN UNDER 5 AND MEDIAN HOUSEHOLD INCOMES, 2012–2018



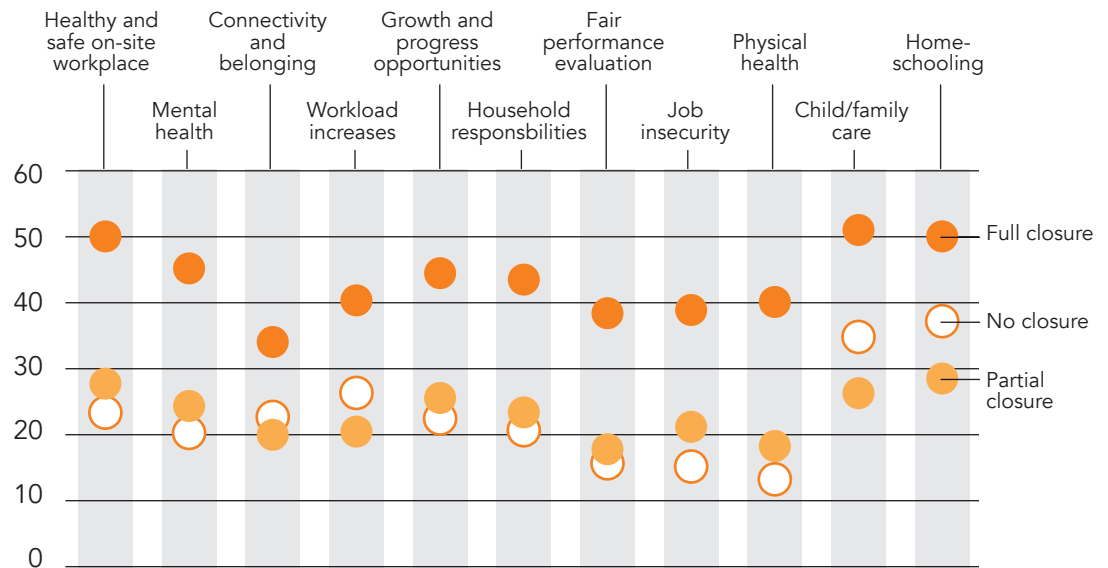
Source: Kidsdata.org; U.S. Census Bureau, American Community Survey, 1-Year ACS

As the COVID-19 pandemic forced the closures of both schools and daycare centers, parents took on significantly more responsibilities as schools adopted and rolled out distance-learning programs and children remained home throughout the day. School closures had significant consequences for working parents; surveyed parents who experienced full school closures indicated significant challenges in all facets of their lives, from mental health to job security and homeschooling.

Survey results show that parents whose schools closed down entirely faced similar results as parents whose schools partially closed, indicating that partial school closures may provide the best cost benefit — children are still able to see their peers and preserve some form of important social interaction, while parents have time to focus on other responsibilities. While respondents who experienced no closures saw fewer challenges in terms of job security, job opportunities, and physical and mental health, they did experience more workload and childcare challenges when compared to parents who only had partial closures. Overall, working parents have experienced significantly more challenges than nonparents, challenges primarily caused by full school closures.

Working parents in general have been disproportionately affected by the pandemic, as they have been responsible for childcare on top of their jobs. With widespread childcare closures, working parents have had to navigate childcare, facilitate their children's schooling, and maintain their own jobs. This has caused many parents, especially women, to drop out of the labor force. The loss of jobs only makes childcare and education more expensive, creating difficult situations for many families.

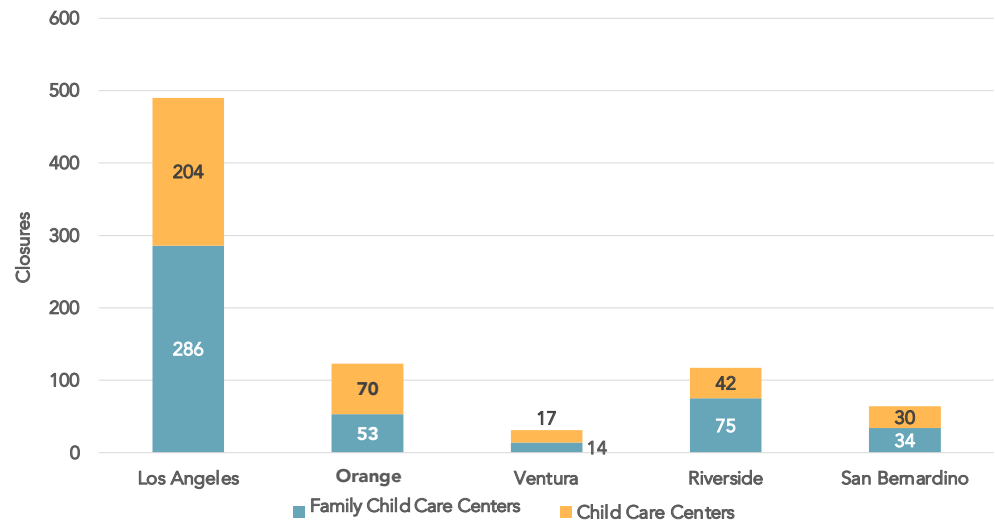
SHARE OF PARENT RESPONDENTS CITING A 'SIGNIFICANT' CHALLENGE DURING THE COVID-19 CRISIS, BY SCHOOL CLOSURE, %



¹Please indicate which of the following has been challenging for you as an employee during the COVID-19 crisis (parents, n=1,397; nonparents, n=1,259; full school closure, n=655; partial school closure, n=567; no school closure, n=175). Acute challenges are those where respondents described the challenge as being "significant" (other options included "somewhat," "not a challenge," and "not applicable").
²This category is primarily relevant for parents, and hence has been marked as "N/A."

Source: McKinsey

PERMANENT LICENSED CHILD CARE CLOSURES BY COUNTY, MARCH 2020 – JULY 2021



Data Note: The State of California's Department of Social Services – Community Care Licensing does not provide data or information regarding small family child care centers due to privacy concerns. As such, this list only provides closure information on large family child care centers.

Source: State of California, Department of Social Services – Community Care Licensing

Economic Impacts of Disruptions in Child Care in Orange County

According to research published by First 5 Orange County, child care disruptions cost Orange County approximately \$4.3 billion in lost productivity and wages and \$372 million lost in tax revenue every year, as well as the yearly loss of more than 67,000 jobs. These disruptions can result in workers arriving late or leaving early, workers choosing to resign in order to take over child care responsibilities, or workers who are forced to work only part-time.

ECONOMIC IMPACT OF DISRUPTIONS IN CHILDCARE IN ORANGE COUNTY

	LOST JOBS	LOST EARNINGS	LOST TAXES
Impact on Orange County Families and the Overall Economy*	36,376	\$2.27 Billion	\$202 Million
Impact on Orange County Employers**	31,013	\$2.04 Billion	\$170 Million
Total Economic Impacts	67,389	\$4.3 Billion	\$372 Million

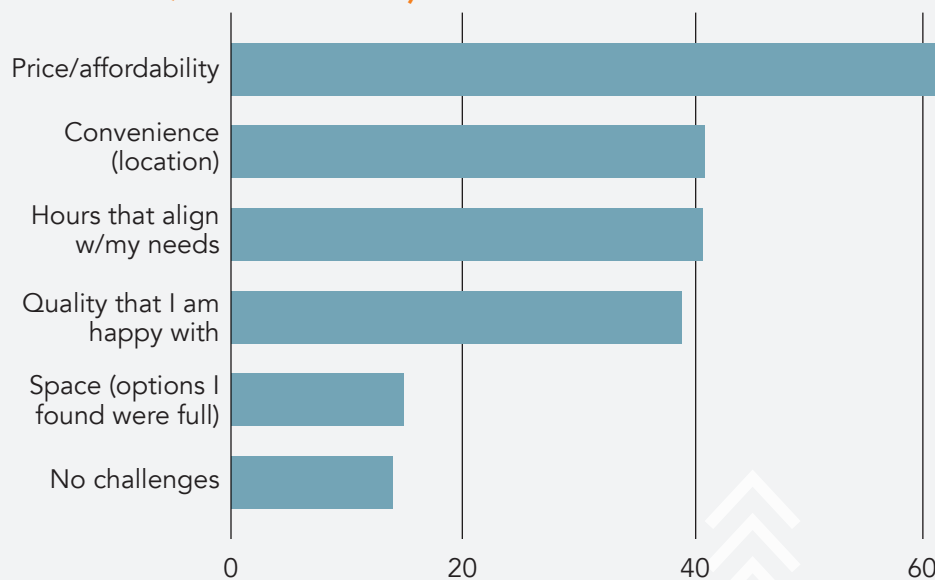
* Due to voluntary and involuntary separations from work, going from full- to part-time, and not being able to go full-time due to child care challenges

** From turnover, absenteeism, and recruitment

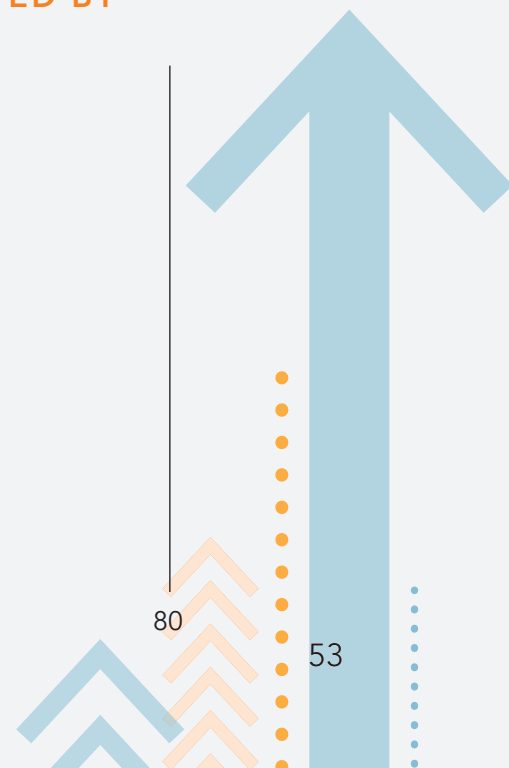
Source: First 5 Orange County

Overall, the cost of childcare remains the greatest challenge for Orange County families, often forcing parents to choose between working or taking on child care themselves. Parents and guardians surveyed by First 5 Orange County identified affordability, convenience and quality of care as the most important challenges in finding childcare, as seen below.

BIGGEST CHALLENGES FINDING CHILD CARE (REPORTED BY PARENTS/GUARDIANS)



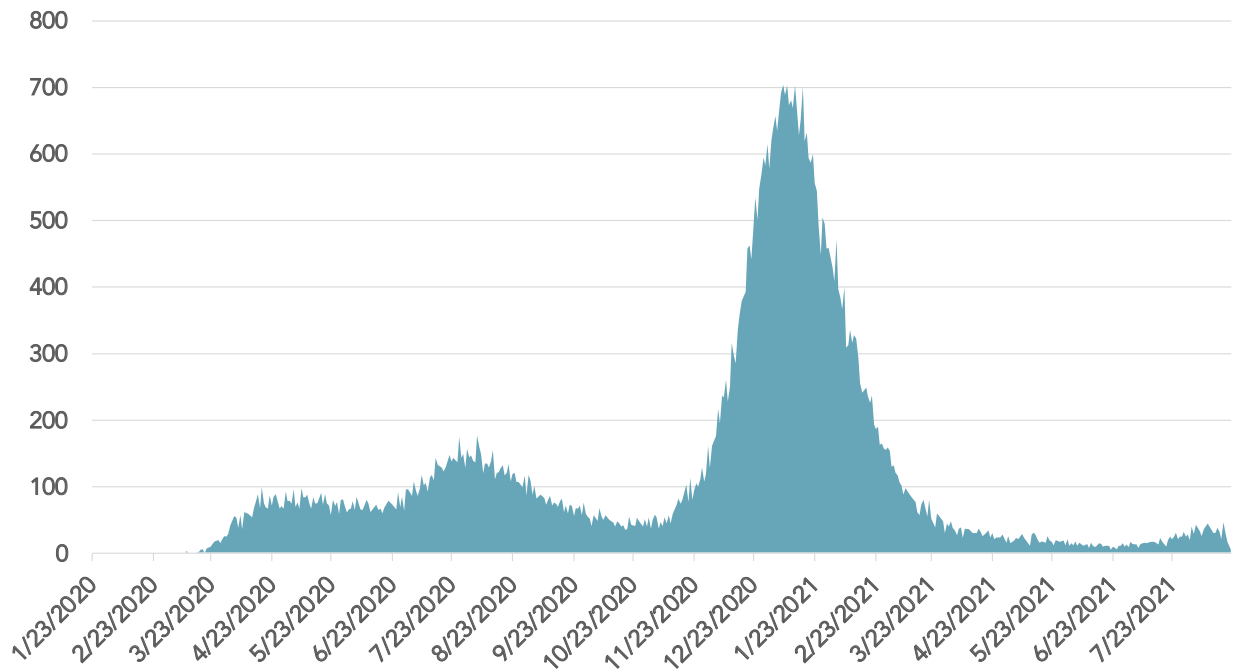
Source: First 5 Orange County



MORTALITY

The population of California also decreased directly from COVID-19 deaths during the pandemic. California's death rate increased by 19 percent in 2020, accounting for about 50,000 excess deaths.³⁶ Orange County reported just over 5,000 COVID-related deaths, as reported by the *New York Times*.³⁷ The nation's sixth largest county, Orange County ranked 11th in both COVID-19 cases and deaths, according to data from Johns Hopkins University.³⁸

COVID DAILY DEATHS IN CALIFORNIA, 2020 TO 2021



Note: Number of deaths reported on this page are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period. Data are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction and cause of death. Data on all deaths excluding COVID-19 exclude deaths with U07.1 as an underlying or multiple cause of death. Death counts were derived from the National Vital Statistics System database that provides the timeliest access to the vital statistics mortality data and may differ slightly from other sources due to differences in completeness, COVID-19 definitions used, data processing, and imputation of missing dates. Weighted estimates may be too high or too low in certain jurisdictions where the timeliness of provisional data has changed in recent weeks relative to prior years. Data for jurisdictions where counts are between 1 and 9 are suppressed.

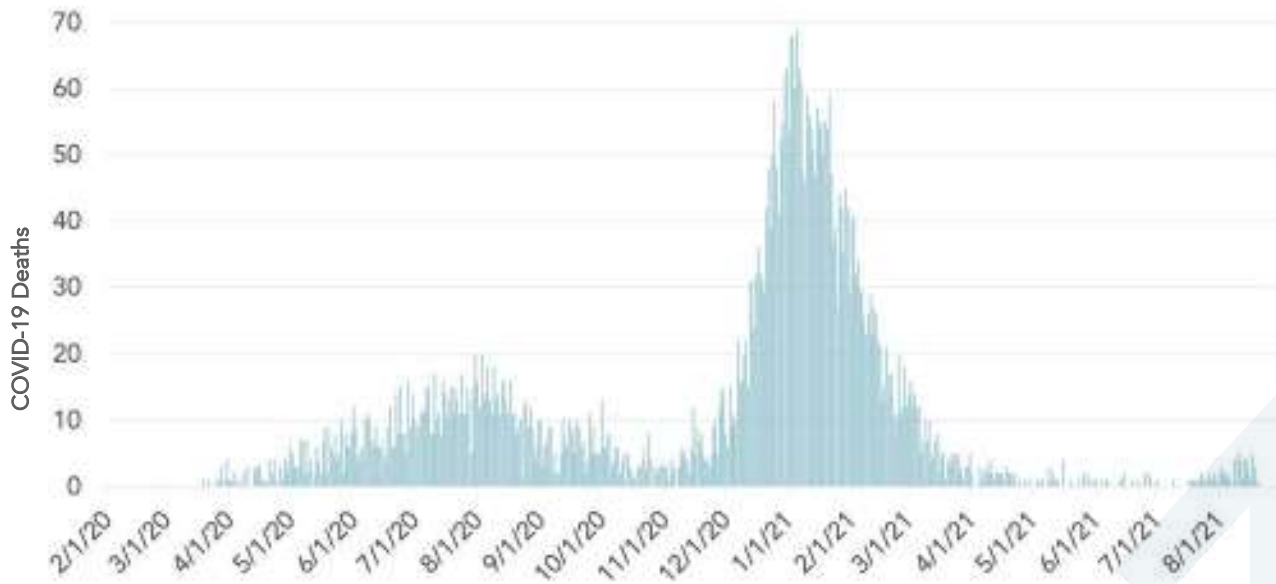
Source: Center for Disease Control, <https://www.cdc.gov/nchs/nvss/vsrr/COVID19/index.htm> for more information.

³⁶ <https://www.nytimes.com/2021/05/07/us/california-population-loss.html?referringSource=articleShare>

³⁷ *New York Times*, <https://www.nytimes.com/interactive/2021/us/california-covid-cases.html>

³⁸ <https://www.arcgis.com/apps/opsdashboard/index.html#/409af567637846e3b5d4182fcd779bea>

COVID DAILY DEATHS IN ORANGE COUNTY, 2020 TO 2021



Note: Data on cases, deaths, and testing is not reported on weekends or state holidays. This data is reported on the first day following the weekend or holiday. Data on administered vaccines is reported daily. Case rate is based on a 7-day average with a 7-day lag. Rates of deaths is based on a 7-day average with a 21-day lag due to delays in reporting. Test positivity is based on a 7-day average with no lag. Directional change is compared to the prior 7-day period. Data is provided by the California Department of Public Health. The population denominators used for the per 100K rates come from the California Department of Finance's population projections for 2020.

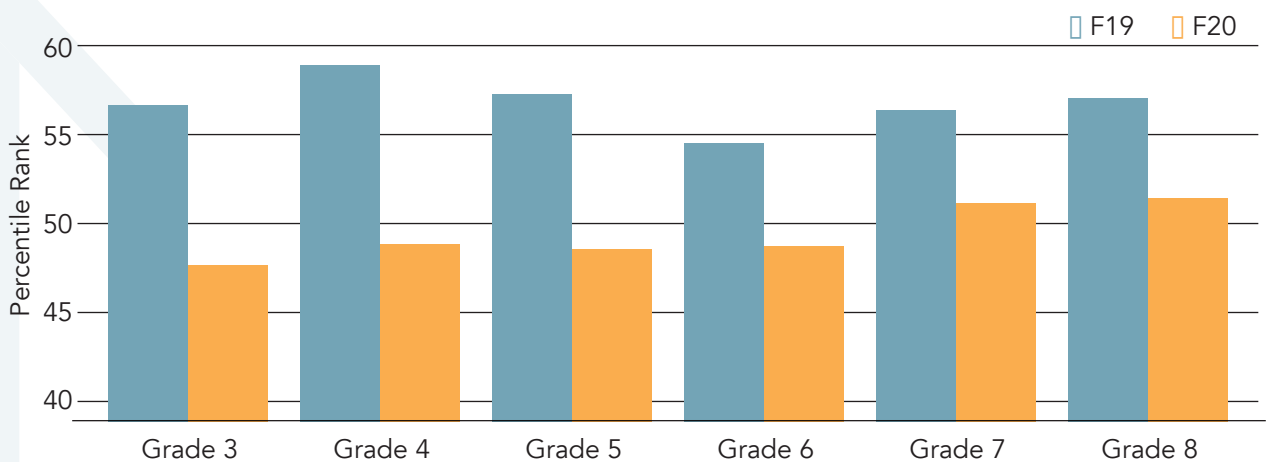
Source: State of California COVID-19 Dashboard, Tracking COVID-19 in California, Update for July 16, 2021

STUDENTS

Another demographic that has been drastically affected by the pandemic is students. From elementary school to graduate school, students have been displaced, isolated, and forced to adapt to an entirely new way of learning. Orange County public schools were closed in March 2020 when the pandemic began and started reopening in October, long before schools in other parts of California.³⁹

Data from MAP Growth reading and math assessments show that students fell behind academically during the pandemic as compared to students from the year before.⁴⁰

MAP GROWTH PERCENTILES IN MATH BY GRADE LEVEL IN FALL 2019 AND FALL 2020



Note: Each bar represents the median percentile rank in a given grade/term.

Source: Author calculations with MAP Growth data.

However, not all students are being affected uniformly. As of early May 2021, 87 percent of California's public schools have reopened for in-person learning. However, less than half of students have returned either full-time or part-time in a hybrid model. During the pandemic, 45 percent of students were in distance learning in Orange County, compared to 83 percent in Los Angeles County. EdSource research found that, "two-thirds of students in district schools with the largest proportions of low-income families were in distance learning, compared with only 43% of students in schools with the fewest low-income families."⁴¹ This means that school districts in higher income areas have sent more students back to in-person learning than less affluent districts. Higher COVID rates in less affluent areas may have disincentivized parents from sending their children back or teachers from returning to campus.

³⁹ <https://edsource.org/2020/a-look-at-orange-county-as-first-in-a-wave-of-school-reopenings-in-california/641701>

⁴⁰ <https://www.brookings.edu/blog/brown-center-chalkboard/2020/12/03/how-is-covid-19-affecting-student-learning/>

⁴¹ <https://edsource.org/2021/new-data-55-of-california-public-school-students-remain-in-distance-learning/653848>

This trend occurred on a larger scale in higher education as well, with four-year college enrollment dropping 29 percent for students from lower-income high schools, a much larger decline than the national average of 13 percent, according to data from a McKinsey report.⁴² Furthermore, “the rates of Black, Hispanic, and Native American students returning to college were lower than that of White students,” reflecting the disproportionate burden COVID has had on disadvantaged students. Postponing college enrollment is described as a “privileged person’s game” by Sara Urquidez, executive director of ASP Dallas, a nonprofit that provides college counseling for low-income and first-generation high school students. She says that the choice between full-time work and full-time school is not even a choice many students are able to make; if their family needs them to work, “school is absolutely going to go by the wayside.”

Students in community or four-year colleges have had their futures turned upside down when the pandemic forced more than half a million students across the country to drop out of college, according to the McKinsey report. Men are reportedly dropping out at nearly three times the rate that women are, likely due to needing to take a second job. President of Southwest Tennessee Community College, Tracy Hall said “life” happened to their students, when they needed to care for ill parents or children: “COVID-19 is just another slap in the face to what they’ve already been experiencing.”

All students have been impacted by the pandemic in one way or another, but not to the same extent. Family income, resources, and access to internet have created very different experiences for students of different income levels throughout the state and county. A return to more normalcy in the fall will hopefully lessen these disparities and help students get back on track.

⁴² <https://www.mckinsey.com/about-us/covid-response-center/inclusive-economy/covid-19-crisis-pushes-us-students-into-an-uncertain-job-market?cid=other-eml-alt-mip-mck&hdpid=50c5001b-7e04-4b38-9766-754b605ff813&hctky=194527-0&hklid=40378e83f6b9408098d53c67e57b756f>





Connections

Businesses are a lifeline for communities like Orange County. That's why AT&T works with local organizations to help keep business connected.

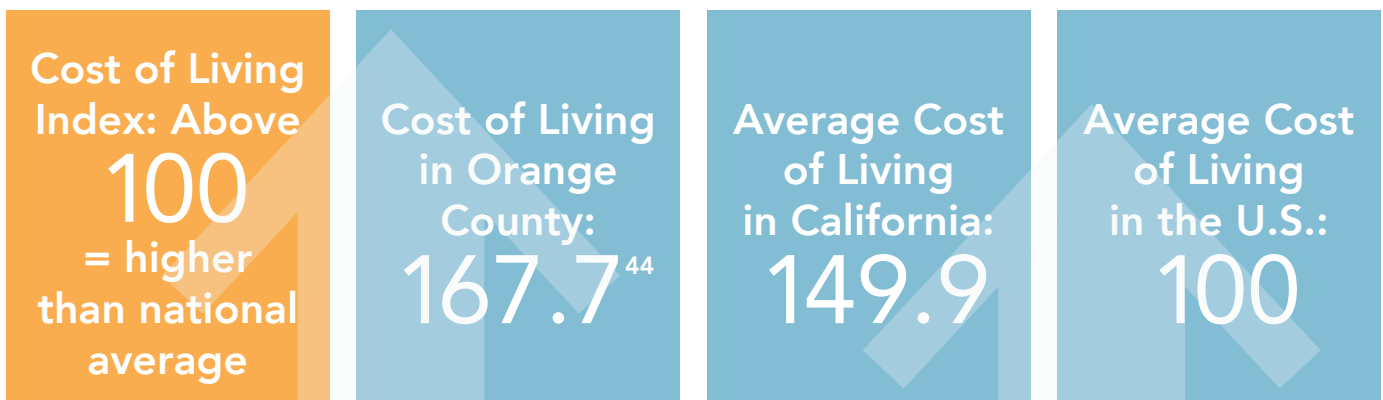
We're proud to work with Orange County Business Council.

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REMOTE WORK'S POTENTIAL IMPACT ON WORKFORCE HOUSING

California has some of the most expensive housing markets in the country, one of the most notable being Orange County. For so long, the state's globally competitive job market and world-class employers outweighed the cost of living for many residents. However, the COVID-19 pandemic has brought about drastic changes to how people are working and long-term transitions to remote work could disrupt this balance. In Orange County, "home prices are among the highest in Southern California, over \$200,000 more than the state's average."⁴³ An extreme shortage of workforce housing is continually forcing prices higher at a time when the feasibility and appeal of remote work is increasing, creating potential for migration-driven demographic shifts.



For decades, workforce housing has been a prominent policy focus in Orange County and California. Due to the high demand for housing in California, along with a persistent shortage of housing supply — estimates of the shortage vary from one to three million homes statewide — prices continue to skyrocket.⁴⁵ While experts differ in their analysis of population shifts both within and outside of California, discretionary relocation and workforce housing shortages have certainly impacted California demographics, causing what some experts term an "exodus" from California as a means of escaping crowded areas and ever-increasing prices.⁴⁶ Remote work will potentially accelerate these changes and, in turn, result in dramatic changes to the housing market.

Remote work, in other words, has already started to upend traditional housing and labor market forces. In the past, employment opportunities often centered on population centers and/or employment and transportation hubs, with businesses competing by offering higher salaries and the ensuing high housing demand driving up home prices. If widespread remote work outlasts the pandemic, which seems increasingly likely, significant ongoing impacts could result in a profound alternation of traditional location-based labor and housing market dynamics.

⁴³ <https://patch.com/california/orange-county/orange-countys-median-housing-prices-remain-sky-high-over-1-1m>

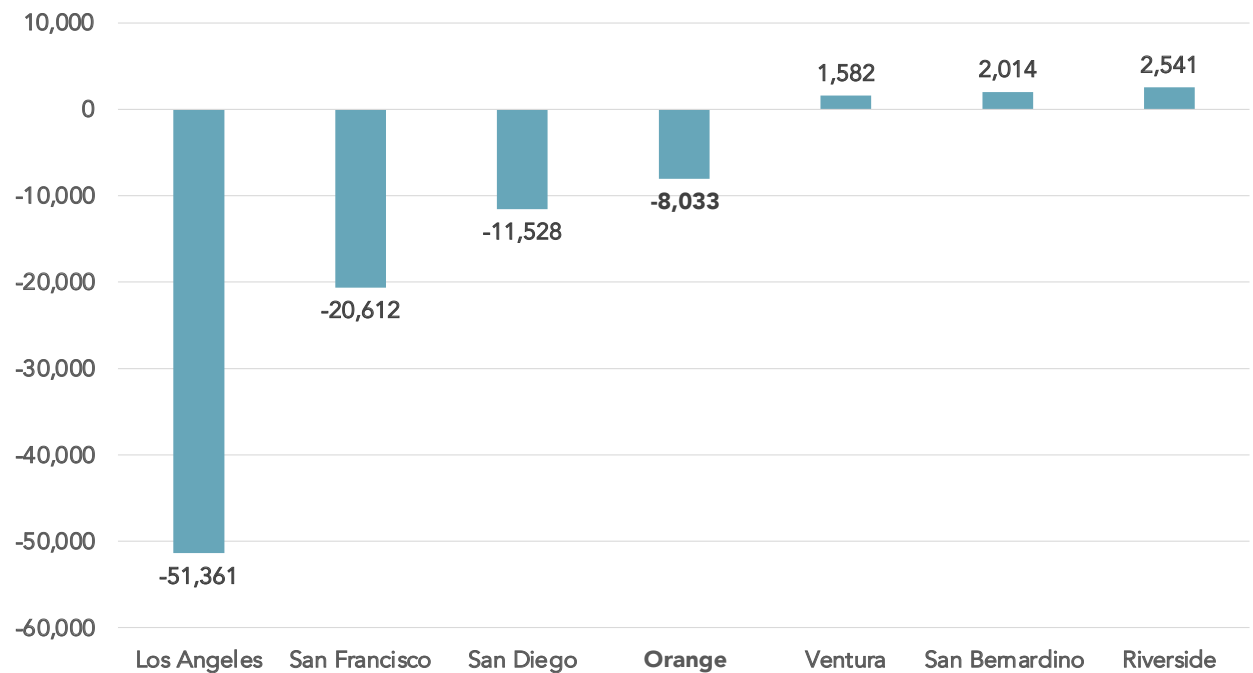
⁴⁴ https://www.bestplaces.net/cost_of_living/county/california/orange

⁴⁵ <https://www.cato.org/blog/whats-going-californias-housing-market#:~:text=Even%20low%E2%80%90%E2%80%8Bend%20estimates,a%203.5%20million%20home%20shortfall>

⁴⁶ <https://www.latimes.com/california/story/2021-01-12/california-exodus-intensifying-retirees-musicians-teachers-actors>

Others, such as the California Policy Lab’s research, found that thus far the pandemic has not so much caused an exodus from California, but rather has caused people to relocate within the state.⁴⁷ The Public Policy Institute of California (PPIC) found that those who did leave the state were primarily lower- and middle-income residents who were displaced by rising housing costs or in search of jobs.⁴⁸ The direction of relocation within California has primarily been from the most expensive counties to the cheaper, more suburban and rural ones with higher proportions of single-family detached housing, evidence that a lifestyle shift from the pandemic and remote work is already occurring.

NET MIGRATION BY COUNTY, Q4 2020



Source: California Policy Lab, *CalExodus: Are People Leaving California?*

Other perspectives do find that outmigration from California is a growing issue. According to the *New York Times*, “hundreds of thousands of people did leave California entirely during the pandemic, with Texas as the primary destination, and Arizona and Nevada close on its heels.” They cite catalysts such as “high taxes, and disagreements over Gov. Gavin Newsom’s strict Covid-19 lockdowns.” However, Dr. Richard K. Green, Chair of the Lusk Center for Real Estate at the University of Southern California, has stated that “the root cause is likely much more simple: they just couldn’t afford a house.”⁴⁹ In his opinion, “the high level takeaway is that you’ve got a lot more people moving to other states than coming here from other U.S. states.”⁵⁰

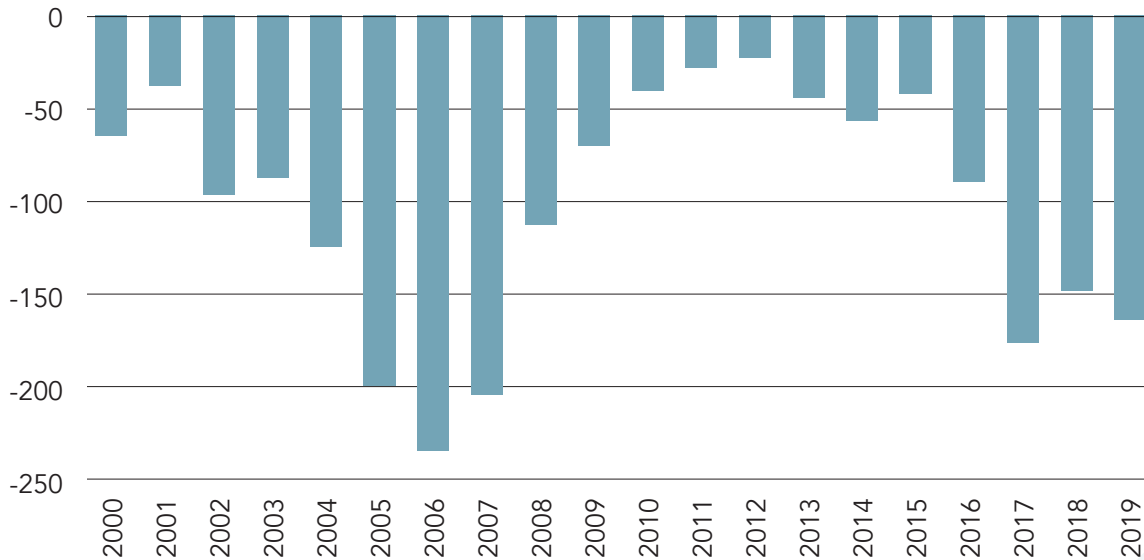
⁴⁷ <https://www.capolicylab.org/wp-content/uploads/2021/03/CalExodus-Are-People-Leaving-California.pdf>

⁴⁸ <https://www.ppic.org/blog/whos-leaving-california-and-whos-moving-in/>

⁴⁹ <https://www.nytimes.com/2021/05/28/realestate/california-real-estate.html>

⁵⁰ <https://www.wbur.org/onpoint/2021/02/11/whats-driving-californias-exodus>

NET MIGRATION OF CALIFORNIA TAX FILERS, THOUSANDS



Source: California Legislative Analyst's Office, *Net Taxpayer Outmigration Increased During 2017-2019*

In fact, California's Legislative Analyst's Office (LAO) studied IRS data that showed net taxpayer outmigration from California increased from 2017–2019, which seemingly contradicts the data from the University of California and the California Policy Lab.⁵¹ This data misalignment and the impact of COVID-19 suggest it may be too early to definitively say if people are leaving California in larger numbers than before. However, it is impossible to deny that California is experiencing historically low population growth and even declines, enough for the state to recently lose a Congressional seat. The cause of this phenomenon is complex, likely due in large part to the state's high cost of living and housing shortage. This is proven by the fact that lower income households flee in larger net numbers, while wealthier households tend to enter, although even that trend may have reversed recently.⁵²

THE CURRENT PANDEMIC-INDUCED HOUSING MARKET

The pandemic housing market has caused house hunters to "go to extremes to win homes," according to CBS News.⁵³ Homes are being put into lotteries due to record-level competition for family homes in California's suburbs.⁵⁴ Buyers have been offering well over asking price, waiving inspections, and offering other enticements in a time of unusually high demand. The National Association of Realtors reported that housing prices are currently around 15 percent higher nationally than they were a year earlier. Not only in Orange County, but nationally, 99 percent of U.S. metro areas experienced year-over-year (YOY) home price increases during the first quarter of 2021, whereas only 25 percent saw growth of the same caliber in the first quarter of 2020.⁵⁵

⁵¹ https://lao.ca.gov/LAOEconTax/Article/Detail/675?mc_cid=963c1cec5e&mc_eid=62119e3d27

⁵² <https://www.wbur.org/onpoint/2021/02/11/whats-driving-californias-exodus>

⁵³ <https://www.cbsnews.com/news/housing-real-estate-market-home-buying-difficulty/>

⁵⁴ <https://www.nytimes.com/2021/05/29/business/economy/new-home-building-suburbs.html>

⁵⁵ https://www.builderonline.com/data-analysis/ninety-nine-percent-of-u-s-metros-recorded-rising-home-prices-in-q1-o?utm_source=newsletter&utm_content=Article&utm_medium=email&utm_campaign=BP_051821&

As of July 2021, the median price of an existing single-family home in Orange County was priced at over \$1.09 million dollars, representing an increase of 23.9 percent compared to the previous year. Los Angeles County had the highest jump in sales compared to the prior year at 6.4 percent, followed by Ventura (1.9 percent) and San Diego (1.4 percent) counties. San Bernardino County saw the highest jump in prices over the past year at 25.7 percent with Orange and Riverside counties closely behind.

SOUTHERN CALIFORNIA COUNTY MEDIAN HOME PRICE AND SALES, JULY 2021

	MEDIAN PRICE	YOY PERCENT CHANGE IN PRICE	YOY PERCENT CHANGE IN SALES
Los Angeles	\$809,750	22.6%	6.4%
Orange	\$1,090,000	23.9%	1.1%
Riverside	\$570,000	23.4%	-9.9%
San Bernardino	\$440,000	25.7%	-13.2%
San Diego	\$860,000	19.6%	1.4%
Ventura	\$825,000	14.6%	1.9%

Source: California Association of Realtors, Current Sales and Price Statistics

The rapid increase in Orange County’s median home price is due to a combination of factors. A historically strong labor market and economy continually attract working professionals into the region for robust job opportunities, while beautiful beaches, theme parks, luxury retail destinations, world-renowned educational institutions, and diverse communities cultivate a high quality of life for new and existing residents. As the demand to live and work in the region increased, the supply of housing failed to keep pace resulting in skyrocketing prices. Orange County is becoming a victim of its own success, as these ever-increasing home prices are pushing many young families and working professionals into less expensive regions.

The supply of housing is not a problem singular to Orange County. The entire Southern California region has a significant lack of housing supply at nearly all income levels. According to the Southern California Association of Governments (SCAG) 6th Regional Housing Needs Assessment covering the planning period from October 2021 to October 2029, Orange County needs an additional 183,861 housing units⁵⁶ of which 41.1 percent are either very low-income or low-income housing units.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (SCAG) 6TH REGIONAL HOUSING NEEDS ASSESSMENT HOUSING NEEDS ALLOCATION

	VERY-LOW INCOME	LOW INCOME	MODERATE INCOME	ABOVE MODERATE INCOME	TOTAL
Imperial	4,671	2,357	2,198	6,767	15,993
Los Angeles	217,273	123,022	131,381	340,384	812,060
Orange	46,416	29,242	32,456	75,657	183,861
Riverside	41,995	26,473	29,167	69,716	167,351
San Bernardino	35,667	21,903	24,140	56,400	138,110
Ventura	5,774	3,810	4,525	10,343	24,542
Total	351,796	206,807	223,957	559,267	1,341,827

Source: Southern California Association of Governments 6th Regional Housing Needs Assessment

According to academic and policy research most notably conducted by Dr. John Landis, former Chair of the City and Regional Planning Department at the University of California, Berkeley, a ratio of 1.5 jobs per new home provides an acceptable balance for workforce housing — a higher ratio indicates more workers per job and, as such, less housing for workers. In the *Workforce Housing Scorecard 2019-2020*, OCBC identifies the housing shortage in Orange County at around 58,000 units resulting in a new jobs to new housing ratio of 1.58, a ratio which is projected to increase to 1.69 as the regional housing shortage grows to 115,000 units. This indicates that housing scarcity is likely to increase in Orange County in the coming decades, keeping overall supply low and prices high.

Housing Shortage (in units)

2020: 58,000
2045: 115,000

New Jobs per New Housing Ratio

2020: 1.58
2045: 1.69

OCBC WORKFORCE HOUSING SCORECARD CITY RANKINGS, 2016–2030

- | | | |
|----------------|----------------|------------------|
| 1. Irvine | 5. Buena Park | 33. Laguna Beach |
| 2. Santa Ana | 31. Seal Beach | 34. Laguna Woods |
| 3. Lake Forest | 32. Villa Park | 35. La Palma* |
| 4. Anaheim | | |

**The OCBC Workforce Housing Scorecard included an analysis of all 34 incorporated cities in Orange County as well as a combination of all the unincorporated Orange County areas, communities which fall outside of incorporated city boundaries, as a 35th "city." This allowed for a much more comprehensive analysis of Orange County's workforce housing situation.*

The cities with the best rankings report notable projected job and housing growth in the future. In other words, the top five are planning now for future growth and tend to be in the center of the county, closer to growing employment and industry hubs. Overall, they are successfully addressing the housing shortage by providing adequate workforce housing to meet future job growth. Cities at the bottom of the list are not accomplishing this and tend to be more developed, expensive cities such as Laguna Beach, Villa Park, and Seal Beach that may be reluctant to add large-scale workforce housing.

NEW HOUSING CONSTRUCTION

It takes significant time for builders to increase their production of new homes in order to meet the demand. Inspections, regulations, permits, lack of building sites, and rising prices of building products all slow the process. Sales have outpaced new construction starts by the “largest gap ever,” according to National Association of Home Builders Chief Economist Robert Dietz.⁵⁷

ORANGE COUNTY SINGLE FAMILY AND MULTI-FAMILY HOUSING STARTS, 2018–2020

	2018	2019	2020
Single-Family Residential Starts	4,500	3,200	4,000
Multi-Family Residential Starts	3,900	5,200	3,600

Source: *FirstTuesdayJournal*, *Orange County Housing Indicators*, June 20, 2021

Orange County saw a decrease in new homes built in 2020 due at least in part to slowdowns from the pandemic. However, single family construction increased while multi-family decreased. The Orange County Housing Indicators data shows that “after years of increased single family residential (SFR) construction starts, 2018 and 2019 both saw a decrease in the number of new SFRs started. In 2020, the trend reversed, with SFR construction rising and multi-family declining.” U.S. builders are on track to start construction on 1.1 million single-family homes this year, the most since 2006.⁵⁸

Remote work, already a growing trend before the pandemic, will likely continue long past it, as explored in this report’s chapter on COVID-19 and the Future of Work, and could significantly impact the housing market by allowing workers to move far away from their workplaces. This could potentially lead to major price corrections in expensive housing markets, such as Orange County and Silicon Valley. They have already resulted in increased home prices in rural areas, which nonetheless remain affordable and attractive to young families. While the full effects of increased remote work on the housing market remain to be seen, the housing market is currently booming, with Orange County home values reaching new, record-setting highs seemingly every month.

CHANGES IN HOUSING DEMAND BY TYPE

Approximately 51 percent of Orange County’s housing is single-family detached homes, with multi-unit housing accounting for only 33.7 percent in 2020. However, with the shortage of new, detached home construction and lack of turnover, multi-unit housing is growing in importance. While multi-family development is the most land-efficient way to increase the supply of housing and alleviate the shortage, the pandemic has shifted homebuyer’s demand away from multi-family and toward single-family housing.

⁵⁷ <https://www.miamiherald.com/news/business/real-estate-news/article248460985.html>

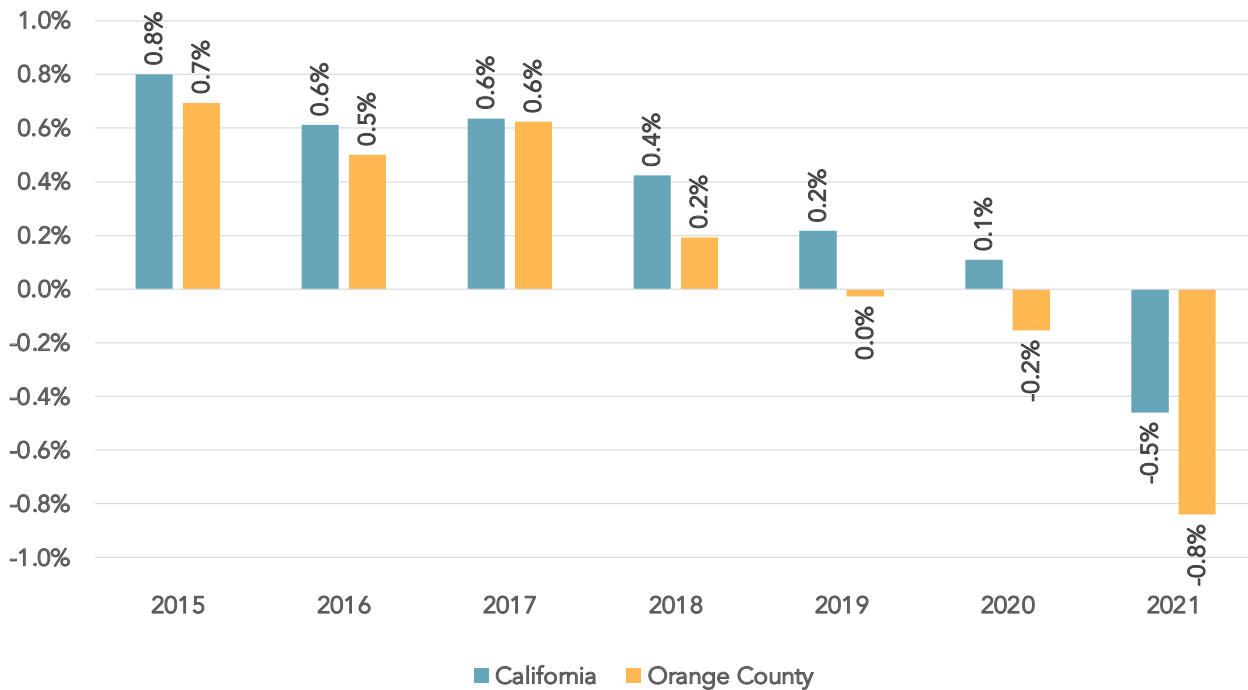
⁵⁸ <https://www.nytimes.com/2021/05/29/business/economy/new-home-building-suburbs.html>

Multi-family housing industry leader David Blackwell says the pandemic and remote work, “will adversely affect multi-family development in larger metropolitan areas, as employees will forgo small expensive apartments in dense urban areas for affordable housing in the suburbs, exurbs, or in less expensive states. Adding a lingering fear of viral transmission could indeed result in a steady outflow from urban areas.”⁵⁹ However, he predicts that eventually most workers will return to work in-person and demand for urban multi-family housing will increase once again.

Yardi Matrix data shows that, in 2020, “developers broke ground on 1,810 units, accounting for nearly one-third of the market’s 5,872 units underway” in Orange County.⁶⁰ Despite Orange County’s reputation for expensive housing, 10 of the 25 projects underway are fully affordable housing. Demand is expected to increase once again following the pandemic, which is when the housing projects currently in the pipeline are scheduled to be completed. Economic uncertainty and permitting delays due to the pandemic caused construction of multi-family units to lag, yet they have since picked back up.⁶¹

POPULATION CHANGES

ORANGE COUNTY SINGLE FAMILY AND MULTI-FAMILY HOUSING STARTS, 2018–2020



Source: State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, 2011-2021, with 2010 Census Benchmark. Sacramento, California, May 2021.

⁵⁹ <https://www.jdsupra.com/legalnews/multi-family-market-sentiment-continues-4262535/>

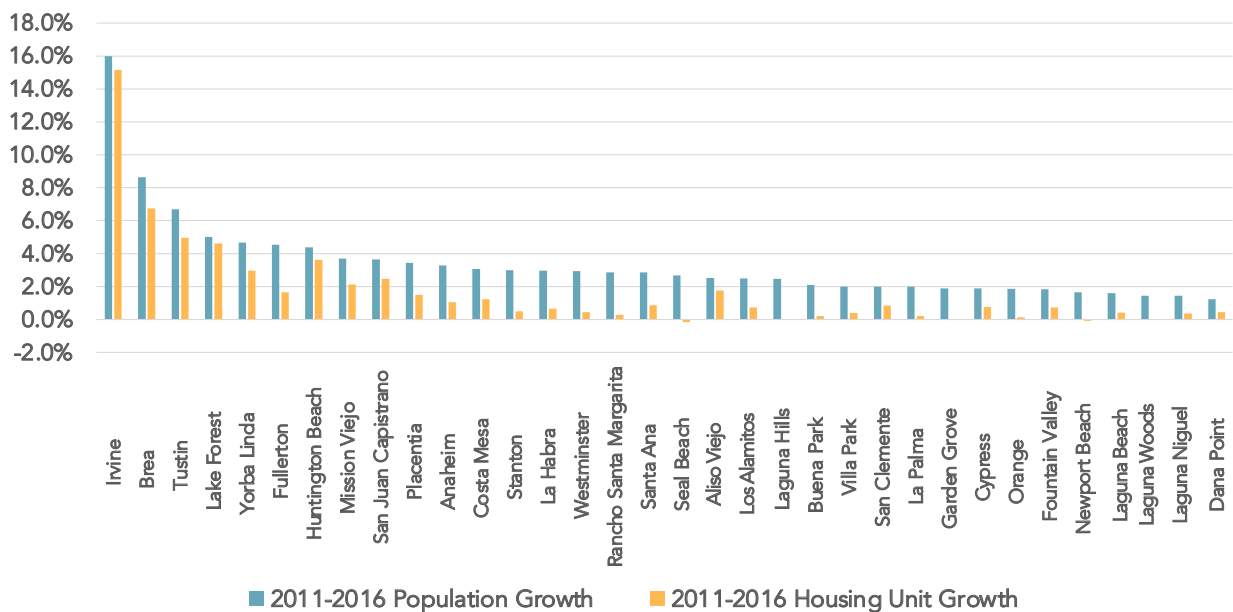
⁶⁰ <https://www.multihousingnews.com/post/top-5-multifamily-projects-under-construction-in-orange-county/>

⁶¹ <https://www.multihousingnews.com/post/construction-delays-continue-for-multifamily-developers/>

Orange County's population had begun its decline in 2019, shrinking by 0.1 percent, followed by a 0.2 percent decline in 2020 and another 0.8 percent decline so far in 2021. At the same time, the state of California saw its population increase slightly in both 2019 and 2020 before seeing a 0.5 percent decline in population in 2021. These population declines are the result of increased outmigration likely spurred by the increasingly high cost of living, especially in Orange County which is forcing many families to seek out more affordable housing outside the region.

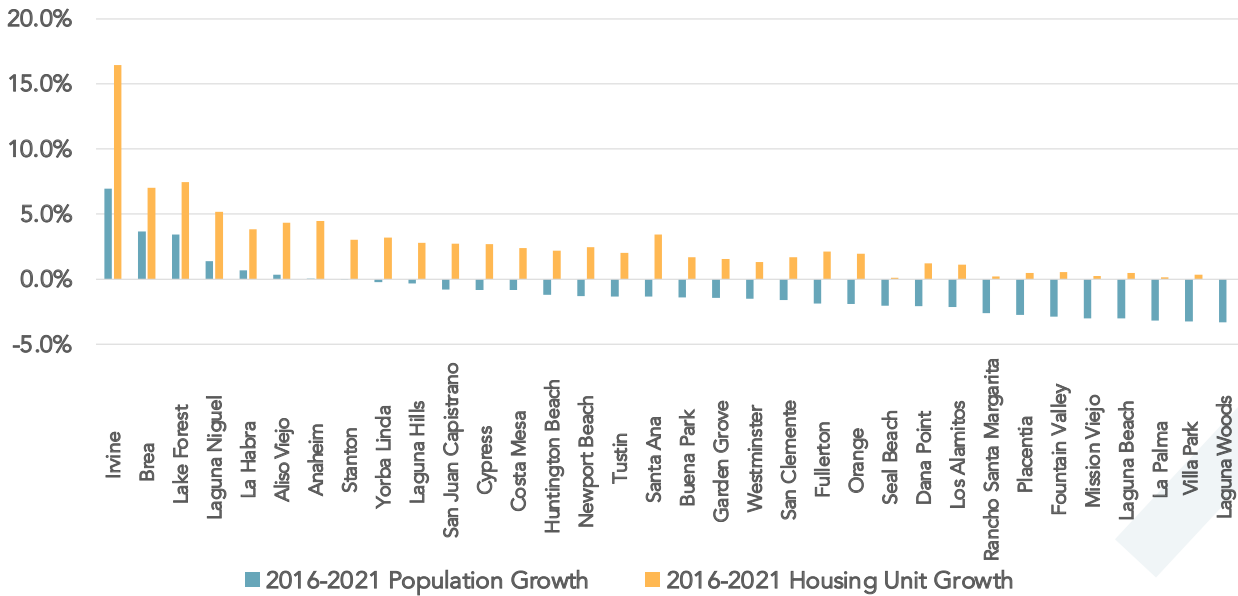
From 2011 to 2016, population growth in all Orange County cities outpaced housing unit growth as the region's rapid recovery from the previous recession gained steam and the strengthening labor market and discounted home prices attracted working professionals and families of all ages. As demand to live and work in the region continued to increase, home prices rose and the supply of available homes began to dwindle, further driving large increases in home values. As home prices reached new highs, many residents began to cite affordability issues — especially young families and young professionals looking to establish themselves in the area. As such, domestic outmigration began to increase year-over-year and population growth slowed dramatically. Between 2016 and 2021, housing unit growth outpaced population growth in every city in Orange County. The two charts below help highlight this shift.

POPULATION AND HOUSING UNIT GROWTH BY ORANGE COUNTY CITY, 2011–2016



Source: State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2021. Sacramento, California, May 2021.

POPULATION AND HOUSING UNIT GROWTH BY ORANGE COUNTY CITY, 2016–2021

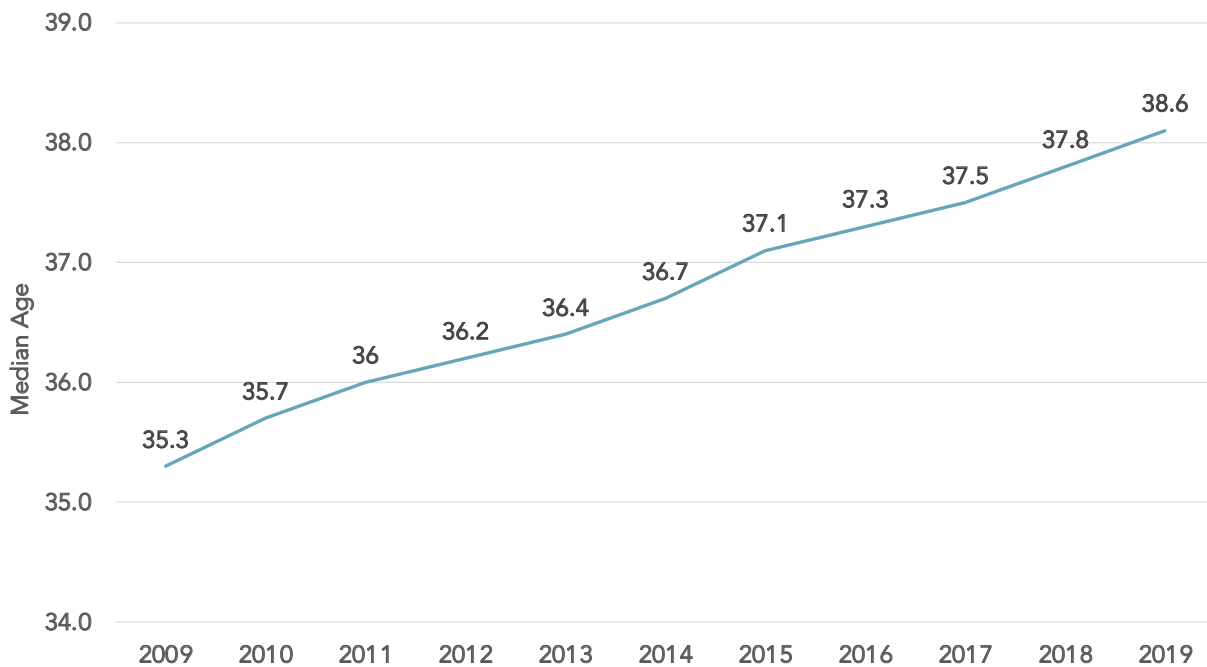


Source: State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2021. Sacramento, California, May 2021.

AGING POPULATIONS IN ORANGE COUNTY AND CALIFORNIA

Another factor that has impacted the housing market is the “graying” of Orange County, and California as a whole. Between 2020 and 2060 in Orange County, residents 65 and over are the only population segment expected to grow as a percentage of overall population.

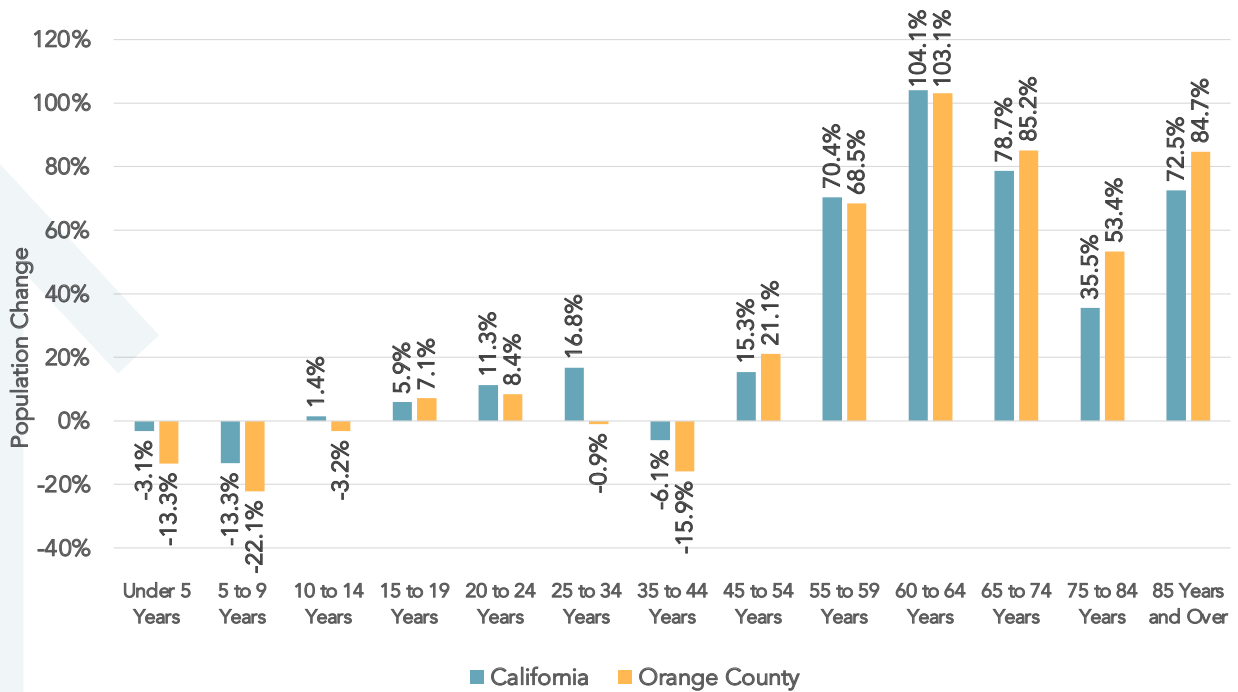
MEDIAN AGE OF RESIDENTS IN ORANGE COUNTY, 2009–2019



Source: U.S. Census Bureau, American Community Survey, 1-year Estimates

Orange County's aging population will likely result in a lack of turnover in housing markets as people "age in place" and remain in their homes. This will make it more expensive for younger families to live in the county, which will only reinforce aging population trends.

POPULATION CHANGE BY AGE COHORT IN ORANGE COUNTY AND CALIFORNIA, 2000-2019



Source: U.S. Census, American Community Survey, 1-Year Estimates

WHO IS LEAVING CALIFORNIA?

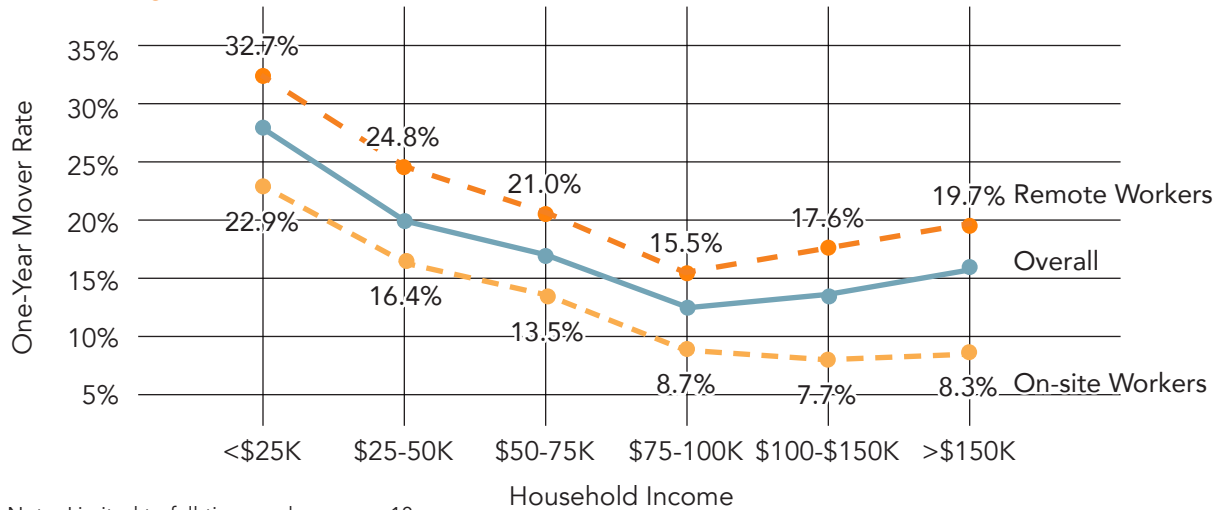
According to *Business Insider*, "remote work ignited a rebound in residential migration as the number of movers increased to 16% in 2020, up from 14% in 2019 — it was the first US migration increase in over a decade."⁶² Apartment List data found that "the largest jump in residential migration took place among high-income households earning over \$150,000, who for the last decade have actually been the least likely to move." They point to remote work as the major driver of the trend, as wealthy workers moved further from job centers and were more likely to relocate than on-site workers.⁶³

⁶² <https://www.businessinsider.com/wealthy-millennials-moving-suburbs-buying-houses-upended-migration-trends-2021-5>

⁶³ <https://www.apartmentlist.com/research/remote-work-wealthy-americans-moving-again>

REMOTE WORK IS DRIVING THE 2020 MIGRATION BOOM

THE SHARE OF WORKERS WHO MOVED BETWEEN APRIL 2020 AND APRIL 2021

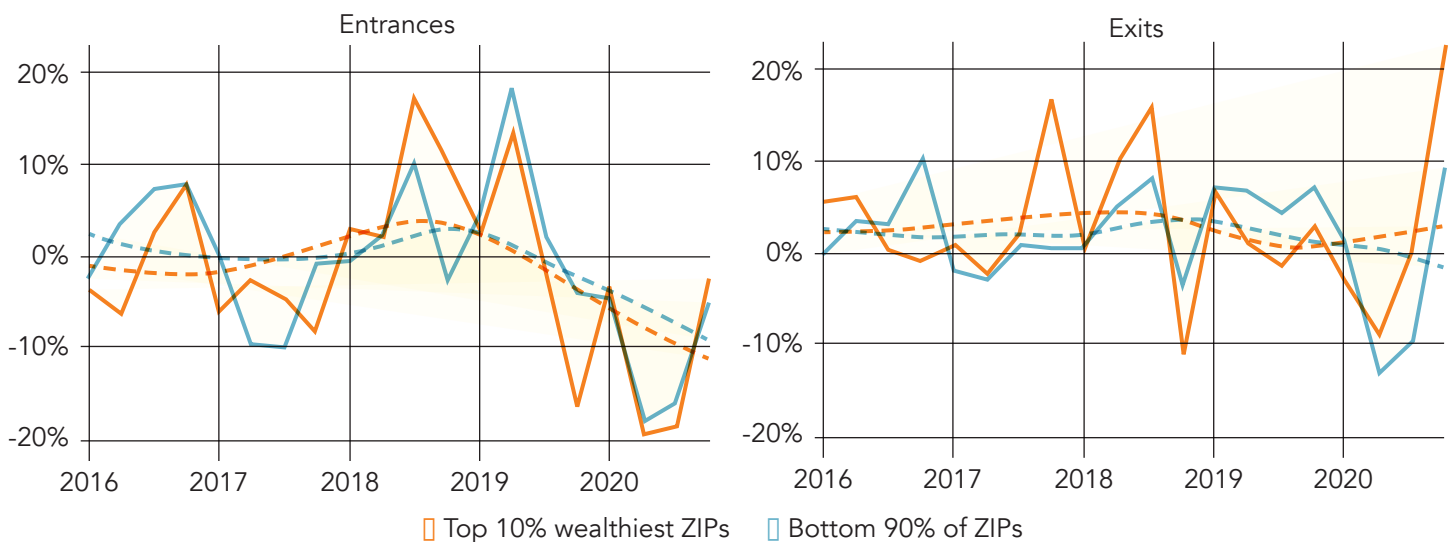


Note: Limited to full-time workers, ages 18+

Source: Apartment List Remote Work Survey, April 2021

As seen in the graph below from the California Policy Lab, exits have increased more for the top 10 percent of the wealthiest ZIP codes than for the bottom 90 percent. Although lower- and middle-income residents historically leave in larger numbers, the increase in exits from the wealthiest residents suggests that affluent residents with employment amenable to remote work such as tech jobs may be relocating along with their transition to remote work. Sixty-eight percent of workers with a postgraduate degree can do their work from home, compared to only 17 percent of workers with a high school diploma or less.⁶⁴ The ability to work remotely increases with education and income, meaning wealthy workers in the tech and professional industries are among the most capable of continuing to work remotely.

YEAR-OVER-YEAR PERCENT CHANGE IN CALIFORNIA ENTRANCES AND EXITS, BY INCOME, 2016-20



⁶⁴ <https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/>

THE PANDEMIC'S EFFECTS ON RENT AND HOUSING AFFORDABILITY

The pandemic is clearly changing who chooses to move, along with why and where people move. According to Freddie Mac's Chief Economist, Sam Khater, "There's clearly a relationship between affordability and migration. In the past Americans used to move for opportunity. But in recent years, they've been moving for affordability."⁶⁵

Entering the second year of the pandemic, "more than ten million households are behind on rent—more than three times the historical rate"⁶⁶ according to McKinsey & Company. Orange County enacted emergency rental assistance programs to help renters who were struggling due to the pandemic. Governor Gavin Newsom also extended the state eviction moratorium through the end of September 2021, preventing landlords from evicting tenants if they cannot pay due to COVID.⁶⁷ Despite these measures to help, the pandemic has significantly impacted the state's already-existing housing crisis, making housing even less affordable for Californians, and the case for relocating even more compelling.

RETHINKING RETAIL WITH THE TRANSITION TO REMOTE WORK

E-commerce and online shopping have become mainstream during the pandemic with the widespread closure and health risks of brick-and-mortar retail. In 2020, e-commerce as a share of total retail sales grew at 3.3 times the rate before COVID-19.⁶⁸

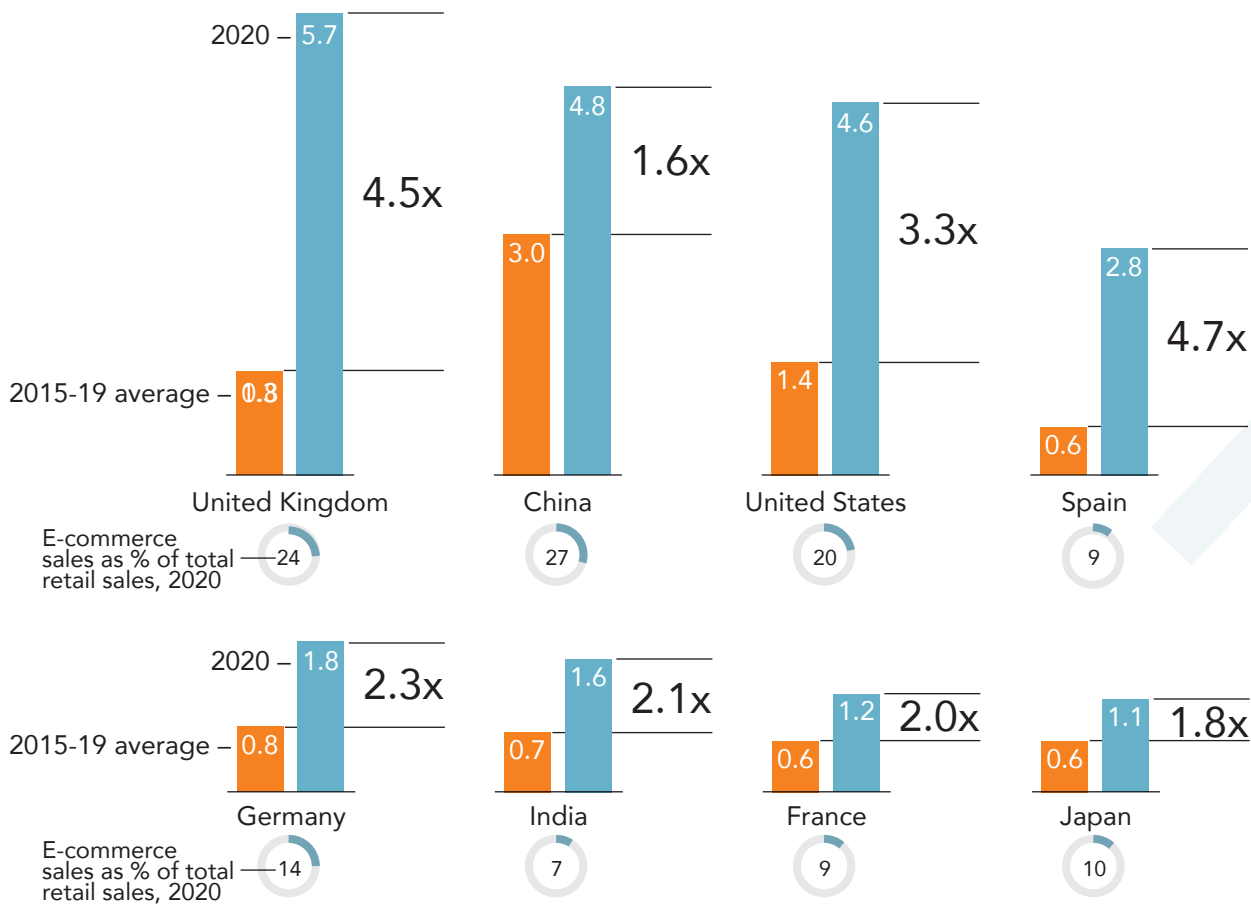
⁶⁵ <https://www.nytimes.com/2021/05/28/realestate/california-real-estate.html>

⁶⁶ <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/preserving-the-largest-and-most-at-risk-supply-of-affordable-housing>

⁶⁷ <https://calmatters.org/housing/2021/06/california-eviction-moratorium-deal/>

⁶⁸ <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19>

YEAR-OVER-YEAR GROWTH OF E-COMMERCE AS SHARE OF TOTAL RETAIL SALES, PERCENTAGE POINTS



Source: Retailing by Euromonitor International 2021; McKinsey Global Institute analysis

South Coast Plaza debuted a collection of outdoor, open-air, private shopping suites called the Pavilion to combat the COVID retail restrictions. They are available by appointment only, following an online preference survey, and still require social distancing, masks, and other precautions. With the increased appeal of online shopping, this hybrid format may continue after the pandemic.⁶⁹

Orange County is recognized for its retail centers; places such as Fashion Island and South Coast Plaza have become tourist destinations. Furthermore, retail employs 1 in 10 Orange County residents, making up a considerable part of the workforce. Zoning for retail rather than housing is more profitable because of the sales tax generation to municipalities. However, the pandemic and lifestyle changes that working from home has brought about are changing the appeal and purpose of retail centers and malls.

Now that online retail is more prominent than ever, the demand for retail space is decreasing. Although retail is important in Orange County, the way retail is changing could be a blessing in disguise. Brick and mortar shopping has become more of an experience, and customers

⁶⁹ <https://www.southcoastplaza.com/the-pavilion/>

want entertainment, gathering spaces, and dining along with their shopping. This transition to more multi-use spaces could be a valuable opportunity to help the housing and affordability crisis that has been exacerbated by the pandemic. Repurposing excess retail space can help create more workforce housing, as Bella Terra in Huntington Beach and Platinum Triangle in Anaheim have already done. In Placentia, located in north Orange County, a large mixed-use development project is underway that will contain 418 apartments and 8,200 square feet of retail space. It will not only help the lack of housing supply in Placentia but also help revitalize the downtown into an urban center.⁷⁰

Creating higher density housing near experiential shopping centers may be the solution for both the housing crisis and loss of retail revenue. However, with the transition to remote work, people have become interested in larger, more spaced-out housing with room for an office and other in-home amenities. While housing affordability and shortages are now more pressing than ever, high-density apartments located in or near shopping and gathering areas may become less desirable following the pandemic. Time will tell.

WHAT DOES THIS MEAN FOR THE FUTURE OF HOUSING IN ORANGE COUNTY AND CALIFORNIA AT LARGE?

OCBC's *Workforce Housing Scorecard 2019–2020* demonstrates that many California counties and cities continue to attract people with strong job markets, their ability to attract businesses, and proximity to job centers. If the transition to remote work continues after the pandemic, as it is likely to do, California's advantage of having bustling job centers and industries may become less of a competitive advantage. Remote work has the potential to decrease the demand for expensive housing markets located near business and industry centers. Economists at Builder identified Riverside and San Bernardino counties as emerging housing markets to watch. Their analysis considered the effects of working from home, infrastructure, and home prices among other things. They predict that residents of Los Angeles and Orange counties will begin to move inland in search of cheaper, more spacious housing now that they are no longer tied to in-person work in the Los Angeles metro area.⁷¹ They predict a similar phenomenon in which the Sacramento region absorbs people relocating from the expensive, crowded Bay Area.

FINAL THOUGHTS

Increased demand for relocating to larger, more affordable homes, along with a pressing housing shortage, may accelerate the exodus from California that has already started. Orange County needs to build more affordable workforce housing units to reduce the shortage, but also should build more family-friendly homes to appease the demand for more space. Housing affordability was already a leading issue in Orange County that has only been worsened by the impacts of the pandemic. COVID-19 and the related transition to remote work will continue to accelerate the changes occurring in Orange County's housing markets.

⁷⁰ <https://www.multihousingnews.com/post/jpi-secures-financing-for-social-development/>

⁷¹ https://www.builderonline.com/data-analysis/2021s-key-markets-work-from-home-meets-migration-and-infrastructure_o



HOPE IS GROWING

City of Hope is bringing its lifesaving cancer care to more OC locations

We're delivering on our promise to bring lifesaving cancer care closer to home. That's why City of Hope is adding three new locations to our Orange County network to help more people who need us. With our world-class cancer center opening in Irvine in 2022, hope is truly growing. **Learn more at [CityofHope.org/OC](https://www.cityofhope.org/OC)**

Huntington Beach | Irvine Sand Canyon | Newport Beach Fashion Island | Newport Beach Lido





A NOTE REGARDING THE PANDEMIC'S IMPACT ON THIS YEAR'S REPORT: EDUCATION DATA

Orange County Community Indicators relies on the most accurate, current data from a multitude of private, public, and government sources. The Education section of this report and several of its sub-sections rely on data aggregated, analyzed, and presented by the California Department of Education through its DataQuest portal. Due to the COVID-19 pandemic and associated state government mandated school closures, many of the data points provided in prior years of the *Orange County Community Indicators* are not available for the 2019–2020 academic school year. Specifically, the California Assessment of Student Performance and Progress (CAASPP) and Physical Fitness Exams for 2019–2020 were not administered or placed on hold. This impacted both the Academic Performance: English and Academic Performance: Math sections as well as the Health & Fitness section, which provided indicators of student health and obesity. Additionally, the College and Career Readiness section provided measures of enrollment in Career-Technical Education (CTE), Advanced Placement (AP), and International Baccalaureate (IB); these data points were also unavailable due to impacts related to the pandemic, and therefore will be unavailable for this year's iteration of *Orange County Community Indicators*.

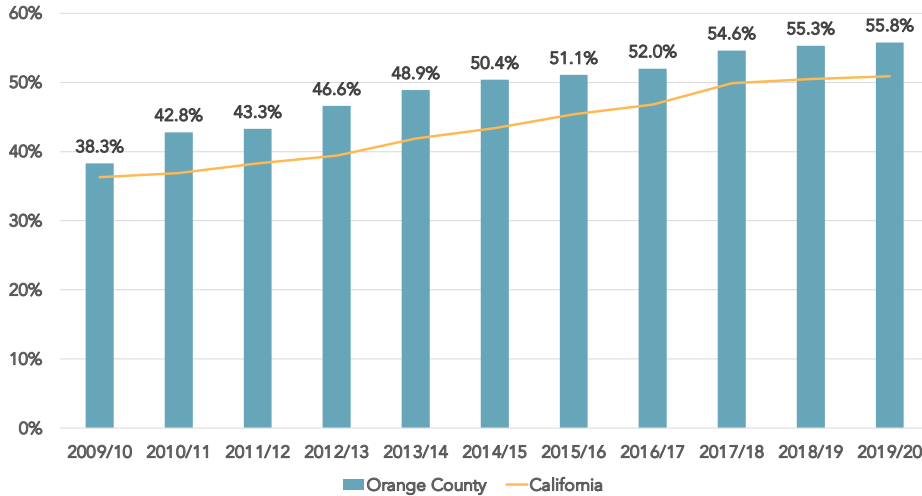
Rather than omitting these sections completely, this year's report instead aggregates the metrics for which new data was available from these sections and combines them below. In next year's iteration of *Orange County Community Indicators*, data aggregation of these metrics will resume as data is made available. Suitable replacements will be included if data points continue to remain unavailable.

COLLEGE READINESS

The percent of Orange County high school graduates eligible for entry into University of California (UC) or California State University (CSU) systems increased from 55.3 percent in 2018/19 to 55.8 percent in 2019/20. During the same time period, at the state-level UC/CSU eligible graduates increased from 50.5 percent to 50.9 percent. Despite the continued growth at both the county and state level, UC/CSU eligible graduate growth has slowed, indicating that new strategies may need to be implemented to further guide students toward higher education programs.

UC/CSU ELIGIBILITY GROWTH CONTINUES TO INCREASE

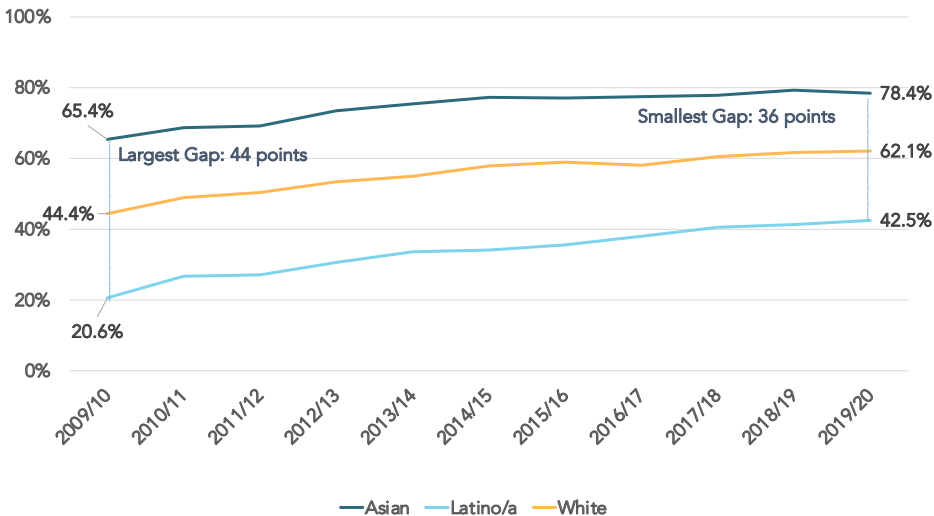
PERCENTAGE OF HIGH SCHOOL GRADUATES THAT ARE UC/CSU ELIGIBLE IN ORANGE COUNTY, 2009/10–2019/20



Source: California Department of Education, DataQuest

UC/CSU ELIGIBILITY DROPS SLIGHTLY FOR ASIAN STUDENTS; CONTINUES TO IMPROVE FOR LATINO/A AND WHITE STUDENTS

PERCENTAGE OF HIGH SCHOOL GRADUATES ELIGIBLE FOR UC/CSU BY RACE/ETHNICITY IN ORANGE COUNTY, 2009/10–2019/20



Source: California Department of Education, DataQuest (<http://data1.cde.ca.gov/dataquest/>)

Orange County's three largest racial/ethnic groups have all seen significant improvements in UC/CSU eligibility since 2009/10, a metric that is a good indicator of overall college preparation. While over the past year, Orange County's Asian students – which boast the highest UC/CSU eligibility – experienced a slight decline, dropping from 79.3 percent in 2018/19 to 78.4 percent in 2019/20, eligibility of Orange County's White and Latino/a students increased by 0.4 percentage points and 1.2 percentage points, respectively.



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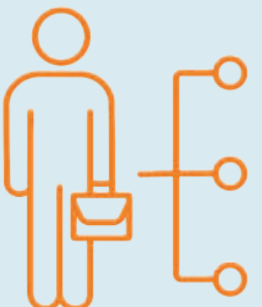
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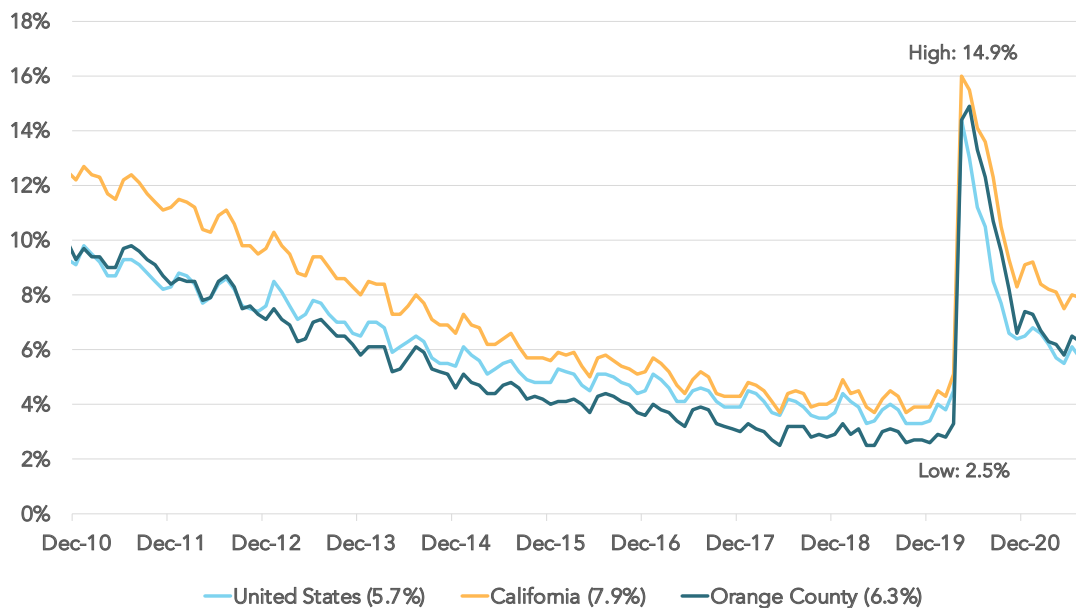


EMPLOYMENT

Orange County's unemployment rate has consistently improved throughout 2021, reaching 6.3 percent in July 2021, well below its peak rate of 14.9 percent in May 2020, yet still well above the April 2019 rate of 2.5 percent. While Orange County's unemployment rate is 1.6 percentage points below the state rate of 7.9 percent, it is also 0.6 percentage points above the national rate of 5.7 percent. Over the past year, employment in Orange County has expanded by 133,100 jobs to 1,487,200, an increase of slightly over 10 percent, while the number of unemployed individuals shrank by 90,800, or by 48 percent, totaling 99,500 in July 2021.

COUNTY AND STATE UNEMPLOYMENT RATES LAG BEHIND NATION

UNEMPLOYMENT RATES IN ORANGE COUNTY, CALIFORNIA, AND UNITED STATES, 2010-2021



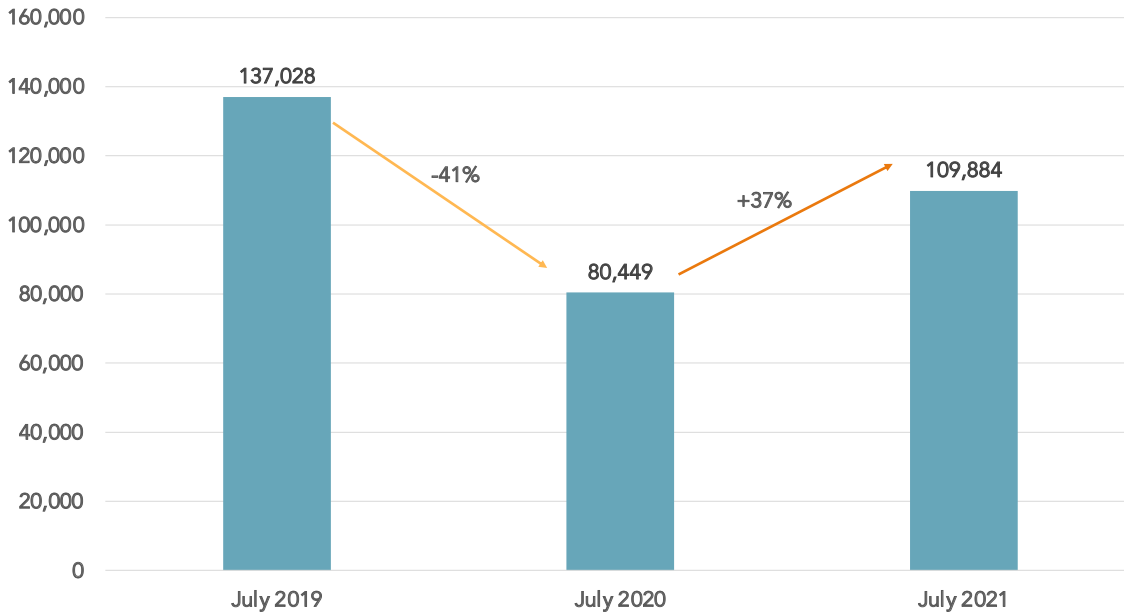
Source: California Employment Development Department, Bureau of Labor Statistics

Between July 2020 and July 2021, Orange County had approximately 494,315 job postings with a median posting duration of 29 days and an average advertised salary of \$50,000. The city of Irvine continued to drive employment demand in the region with 113,461 job postings over the past year, followed by Anaheim (44,949 job postings) and Santa Ana (35,881 job postings). The employers with the most job openings in the region included University of California, Oracle Corporation, and Amazon.com Inc., reflecting some of the most in-demand occupations.

While COVID-19 caused job postings to decline 41 percent between July 2019 and July 2020, they recovered by 37 percent during the following year, totaling 109,884 in July 2021. Software Developers and Software Quality Assurance Analysts and Tester was the most in-demand occupation with 20,057 job postings, closely followed by Registered Nurses (19,660 job postings) and Heavy and Tractor-Trailer Truck Drivers (15,185 job postings).

UNIQUE JOB POSTINGS RECOVER FROM 2020 DECLINE

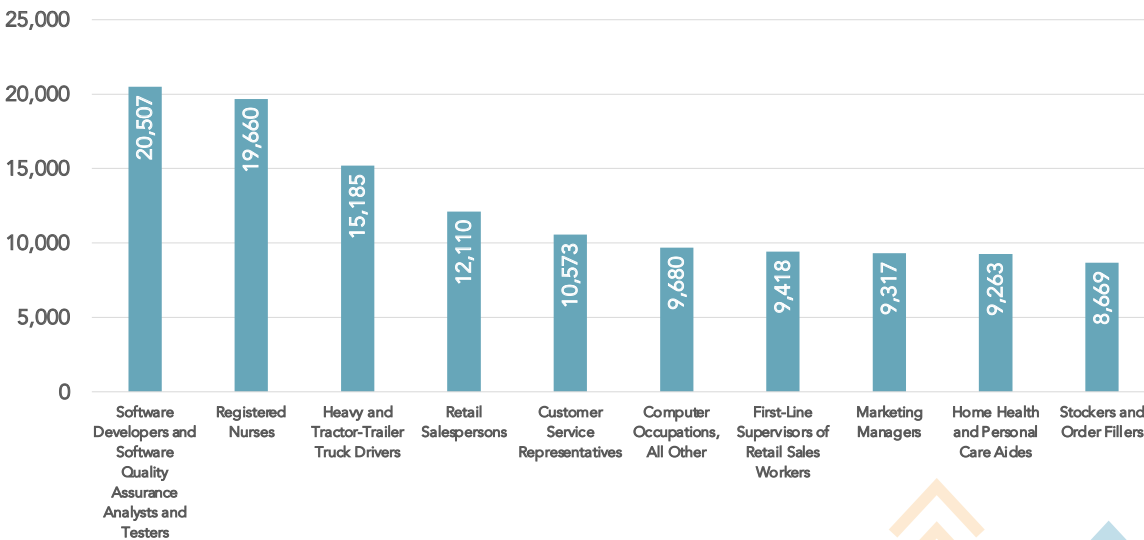
TOTAL JOB POSTINGS IN ORANGE COUNTY, JULY 2019 – JULY 2021



Source: Economic Modeling Specialists International

SOFTWARE DEVELOPERS OVERTAKE REGISTERED NURSES AS MOST IN-DEMAND OCCUPATION

MOST IN-DEMAND OCCUPATIONS IN ORANGE COUNTY BY JOB POSTINGS, JULY 2020 – JULY 2021



Source: Economic Modeling Specialists International

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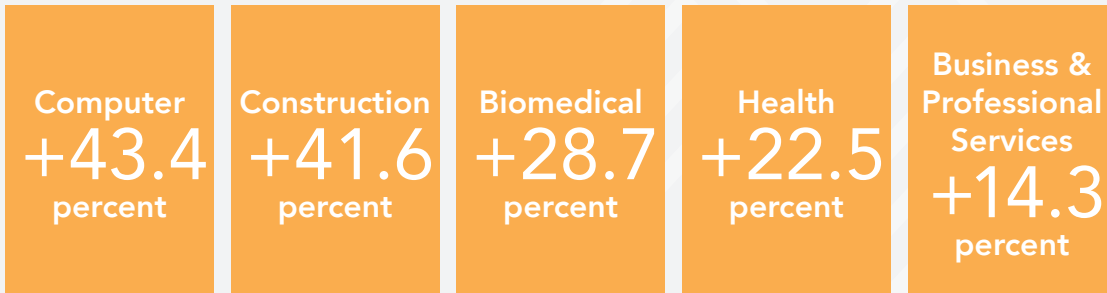


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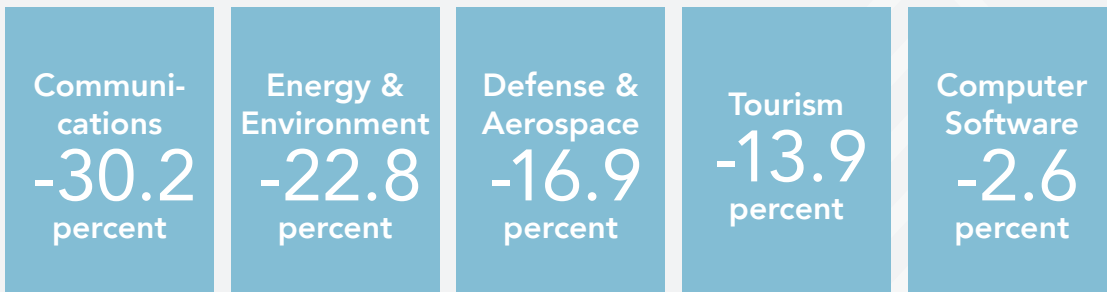
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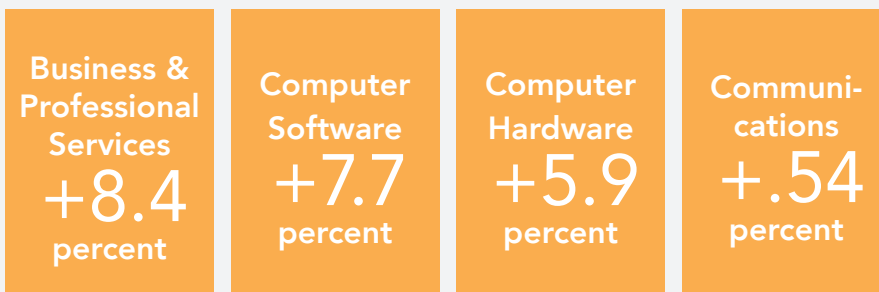
Orange County's industry clusters grew by over 165,000 jobs between 2011 and 2019, reaching total employment of nearly 770,000 before experiencing a decline of over 100,000 jobs from 2019 to 2020 due to the COVID-19 pandemic. Overall, from 2011 to 2020 the most significant growth occurred in:



Five industry clusters saw employment declines since 2011:



Between 2019 and 2020, industries with the fastest salary growth included:

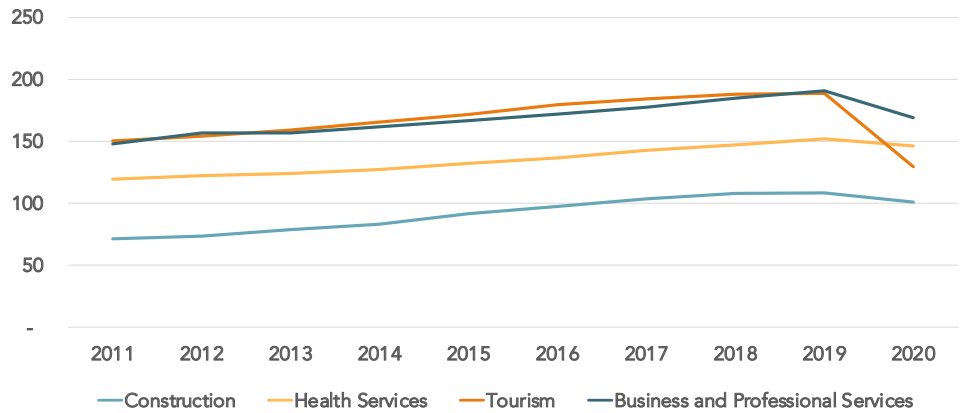


All industry clusters have seen earnings improve since 2011, with the fastest growth taking place in Computer Software (37.7 percent) and Computer Hardware (36.9 percent).

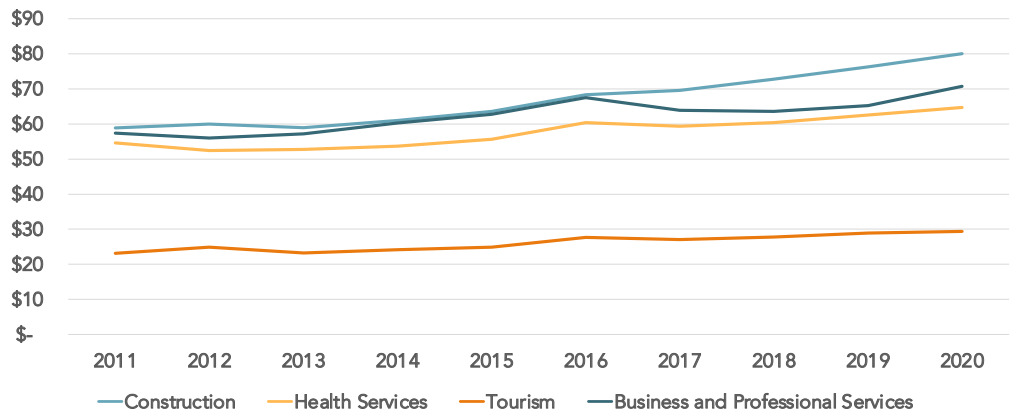
TOURISM EMPLOYMENT SEES SIGNIFICANT DECLINE

EMPLOYMENT AND AVERAGE SALARIES IN ORANGE COUNTY CLUSTERS WITH MORE THAN 50,000 JOBS, 2011–2020

Jobs in Thousands



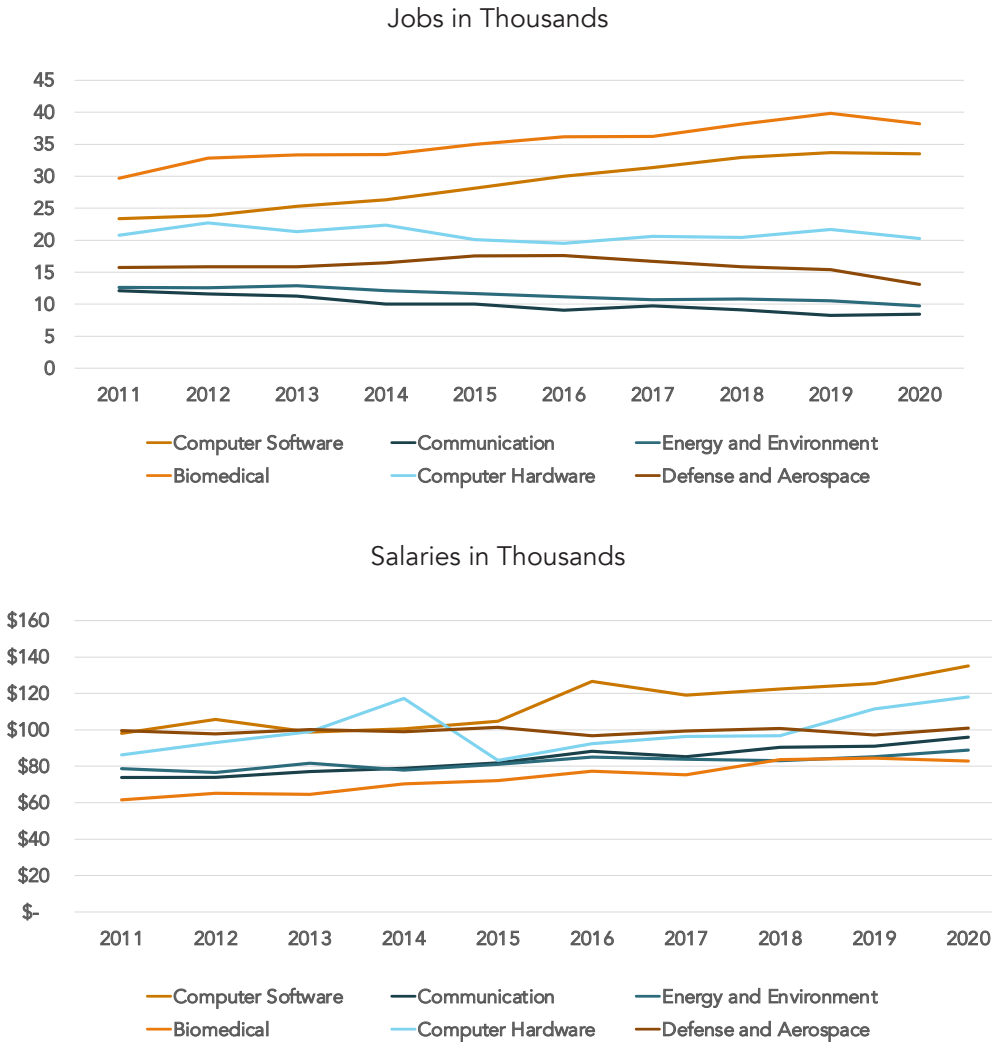
Salaries in Thousands



Sources: California Employment Development Department; U.S. Inflation Calculator, reporting Consumer Price Index (CPI-U) data provided by the U.S. Department of Labor, Bureau of Labor Statistics (www.usinflationcalculator.com)

BIOMEDICAL ONLY INDUSTRY TO SEE EARNINGS DECLINE IN 2020

EMPLOYMENT AND AVERAGE SALARIES IN ORANGE COUNTY CLUSTERS WITH 50,000 JOBS OR FEWER, 2011-2020



Data Notes

Average salaries have been inflation-adjusted to 2020 dollars.

Sources: California Employment Development Department; U.S. Inflation Calculator, reporting Consumer Price Index (CPI-U) data provided by the U.S. Department of Labor, Bureau of Labor Statistics (www.usinflationcalculator.com) Note: Average salaries have been inflation-adjusted to 2020 dollars.

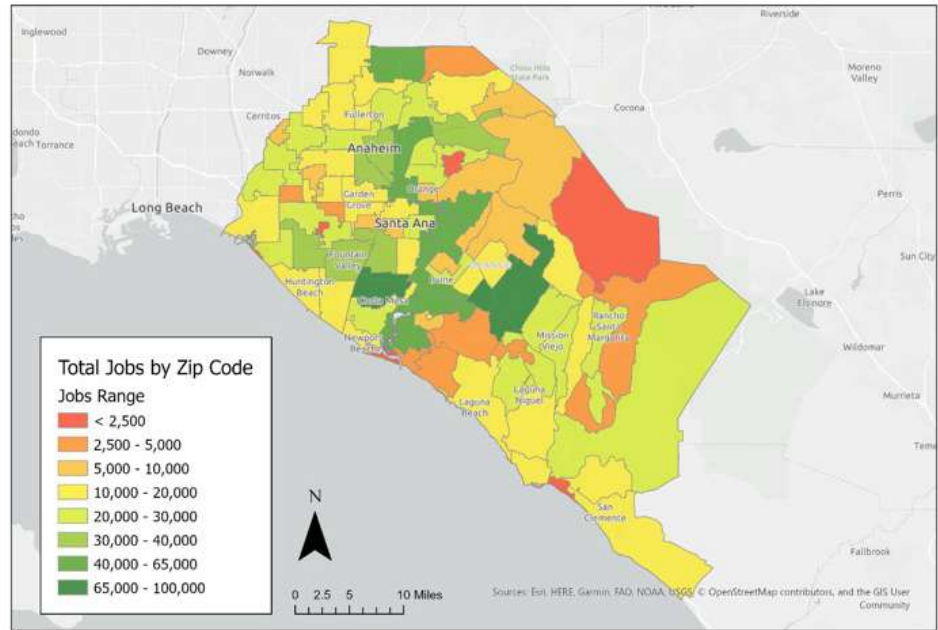


OC JOB CENTERS REMAIN STRONG

Before the pandemic hit, Irvine, Santa Ana, and Anaheim were Orange County's major job centers, with significant opportunities for both resident workers and commuters. In Irvine, where job growth dramatically outpaced housing supply, 56 percent of jobs were filled by commuters, compared to 3 percent in Anaheim and 1 percent in Santa Ana. This is likely due to the high cost of living in Irvine, where workers may be forced to live in neighboring cities or counties, while maintaining employment in the city.

These three major job centers have been heavily affected by the pandemic, especially Anaheim, which is the center of the county's tourist industry. Their ability to withstand and bounce back will play a major role in the county's overall recovery.

ORANGE COUNTY TOTAL JOBS BY ZIP CODE, 2020

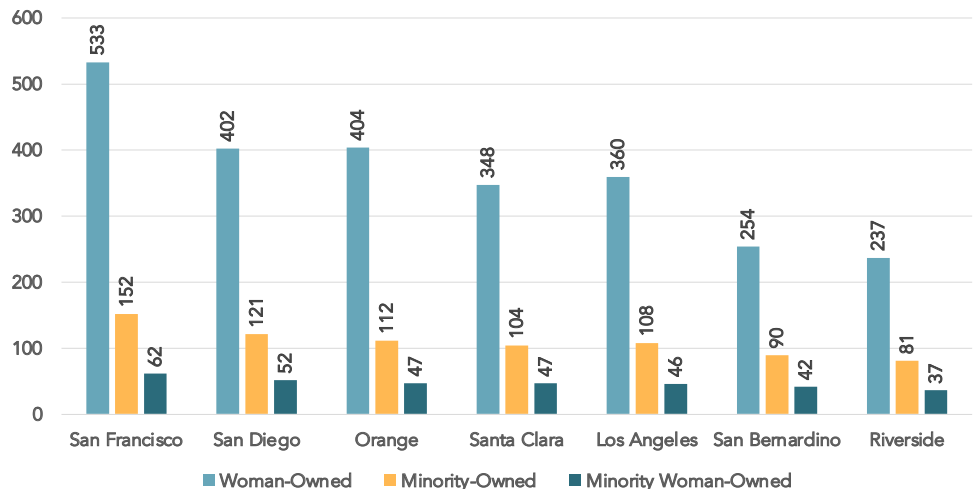


DIVERSITY IN BUSINESS

As the economy and business environment recovered in Orange County, so did the number of woman-owned, minority-owned, and woman minority-owned businesses. The number of woman-owned businesses in Orange County increased from 389 in 2020 to 404 in 2021, while the number of minority-owned businesses increased from 98 to 112 and women minority-owned businesses increased from 42 to 47 during the same time period.

OC WOMAN-OWNED BUSINESSES SURPASSES SAN DIEGO COUNTY

REGIONAL WOMAN-OWNED, MINORITY-OWNED, AND MINORITY WOMAN-OWNED BUSINESSES PER 100,000 PEOPLE, 2021



Source: Dun and Bradstreet, Market Insight

HIGH-TECH DIVERSITY AND GROWTH

Following the detailed rankings created by the Milken Institute in its 2021 Best Performing Cities Report, Orange County continued to show strength in high-tech sector employment concentrations – tied for 3rd place with Seattle and San Diego – yet fell in rankings measuring high-tech sector GDP output – from 82nd place in the 2020 iteration of this report to 126th in the most recent report.

ORANGE COUNTY TIES SEATTLE AND SAN DIEGO FOR HIGH-TECH EMPLOYMENT CONCENTRATION

RANKINGS FOR HIGH-TECH SECTOR EMPLOYMENT CONCENTRATION IN ORANGE COUNTY COMPARED TO PEER METRO AREAS, 2021

METRO REGIONS	RANKINGS	METRO REGIONS	RANKINGS
Oakland	1	San Francisco	15
Seattle	3	Austin	15
San Diego	3	Dallas	25
Orange County	3	Minneapolis	48
San Jose	5	Boston	48
Los Angeles	7	Riverside/San Bernardino	110

Source: Milken Institute, Best Performing Cities Report

OC HIGH-TECH GDP FALLS IN RANKING

RANKINGS OF HIGH-TECH GDP OUTPUT IN 2018–2019 FOR ORANGE COUNTY AND PEER REGIONS

METRO REGIONS	RANKINGS	METRO REGIONS	RANKINGS
San Francisco	6	San Jose	72
Seattle	12	Los Angeles	76
Riverside/San Bernardino	26	Oakland	102
Boston	27	Orange County	126
Austin	46	Minneapolis	142
San Diego	69	Dallas	171

Source: Milken Institute, Best Performing Cities Report

Overall, Orange County ranked 61st in the 2021 Best Performing Cities report, a drop from its 46th place finish the previous year. While the region does have a significant number of high-tech industries and considerable high-tech employment, recent high-tech job growth has been lackluster. When combined with current affordability issues, which have been making it increasingly difficult for many residents to live and work in the region, this resulted in Orange County dropping in the overall rankings.

ORANGE COUNTY RANKS 18TH FOR HIGH-TECH CONCENTRATION

REGIONAL RANKINGS FOR HIGH-TECH INDUSTRY CONCENTRATION FOR ORANGE COUNTY AND PEER REGIONS, 2021

METRO REGIONS	RANKINGS	METRO REGIONS	RANKINGS
San Jose	1	Orange County	18
San Francisco	2	Dallas	23
Seattle	3	Minneapolis	51
Austin	9	Boston	54
San Diego	13	Los Angeles	76
Oakland	14	Riverside/San Bernardino	114

Source: Milken Institute, Best Performing Cities Report

Data Note: Due to changes in how the scores of regions are presented by the Best Performing Cities Report, this year's indicators have changed from scores to overall rankings.

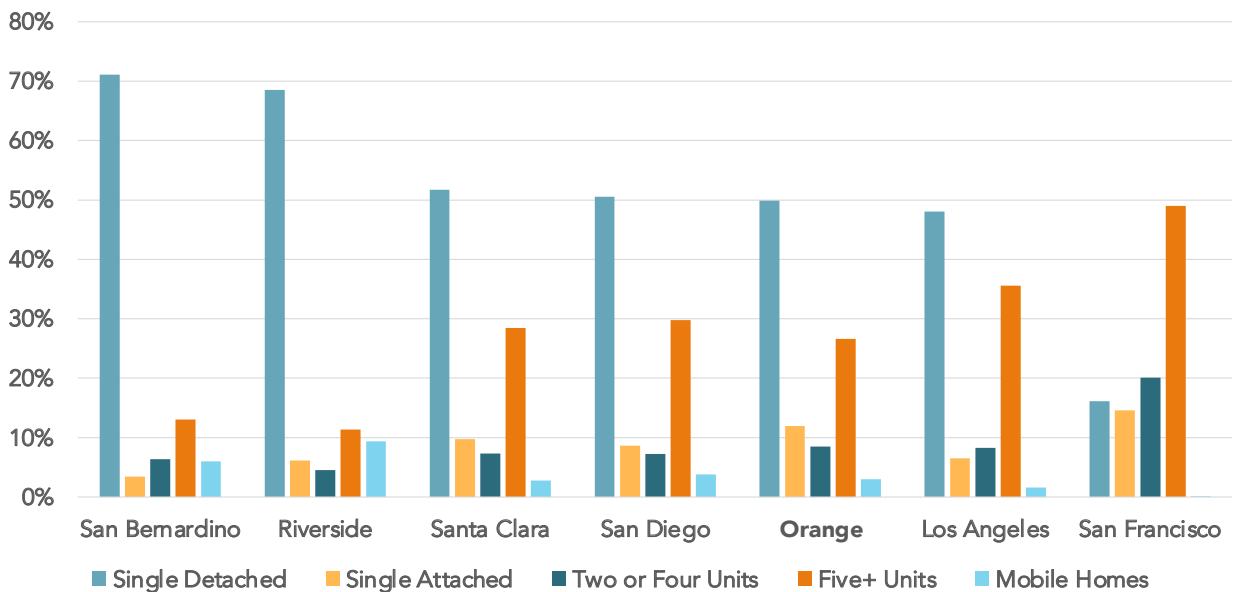


HOUSING LANDSCAPE

Tracing back its roots as a bedroom community for Los Angeles manufacturing industries, 50 percent of Orange County housing structures are single-detached homes, similar to Santa Clara, San Diego, and Los Angeles counties. San Bernardino and Riverside counties have even higher proportions of single-family structures, while San Francisco has significantly higher proportions of multi-family structures — likely due to the strict zoning regulations and already tight housing density.

SINGLE-FAMILY HOMES DOMINATE IN SOCAL

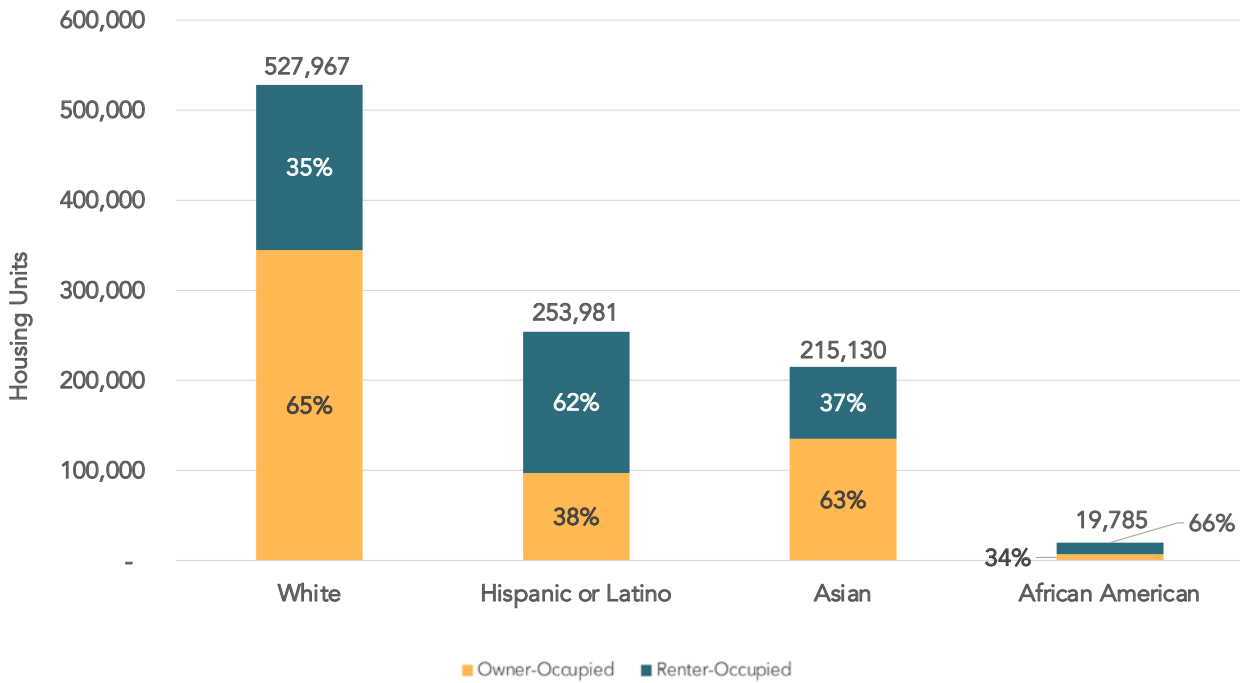
HOUSING STRUCTURES BY TYPE FOR PEER CALIFORNIA REGIONS, 2021



Source: State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2021. Sacramento, California, May 2021.

Orange County had a homeownership rate of 57 percent in 2019, unchanged from the year before, and below the national (64 percent) yet above the state rate of 55 percent. White and Asian communities in Orange County had the highest rates of homeownership at 65 percent and 63 percent, respectively, while Hispanic or Latino and African American communities had the lowest rates at 38 percent and 34 percent, respectively.

OWNER- AND RENTER-OCCUPIED RATES OF HOMEOWNERSHIP BY MAJOR ETHNIC GROUPS IN ORANGE COUNTY, 2019



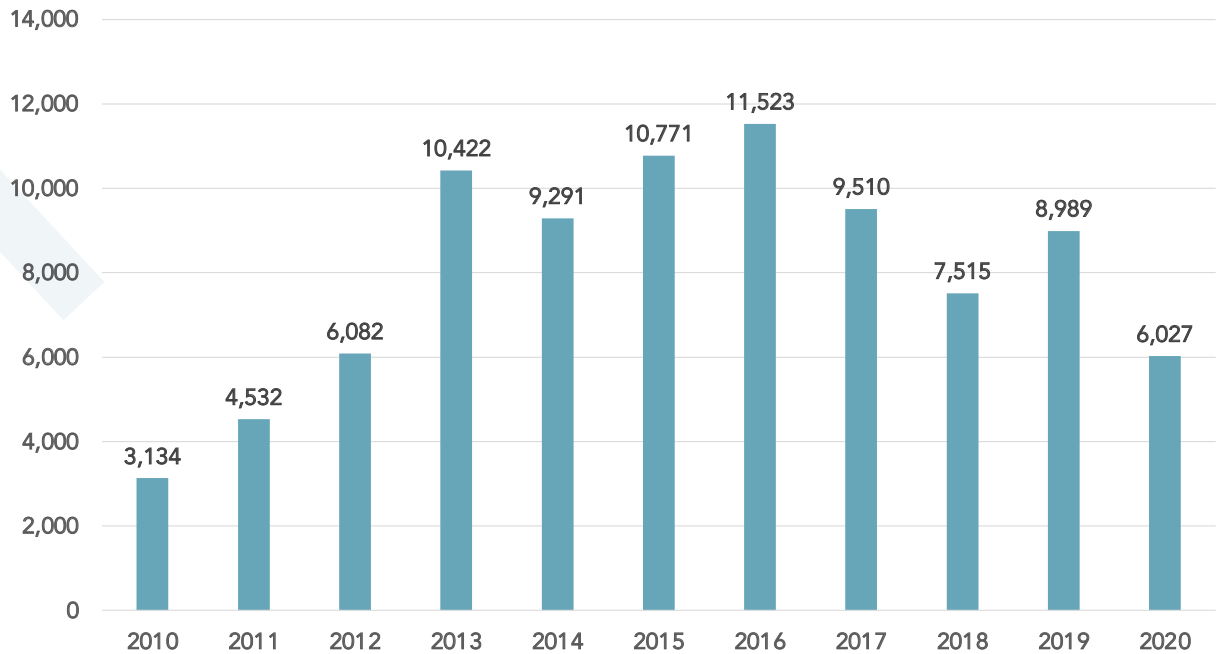
Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table S2502

Building permit issuance in Orange County declined in 2020 by 33 percent to a total of 6,027 building permits. The decline in 2020 is directly related to the COVID-19 pandemic which caused many businesses and construction sites to shut down temporarily in an effort to reduce community transmission. This delay in home building adds to the problem of an already low housing supply in the region, which likely served to further boost home prices. As businesses and industries come back online and begin mitigating pent-up demand, many expect a dramatic resurgence in home building and housing supply.



BUILDING PERMITS SEE DECLINE IN 2020

ORANGE COUNTY BUILDING PERMIT MONTHLY TRENDS, 2010-2020

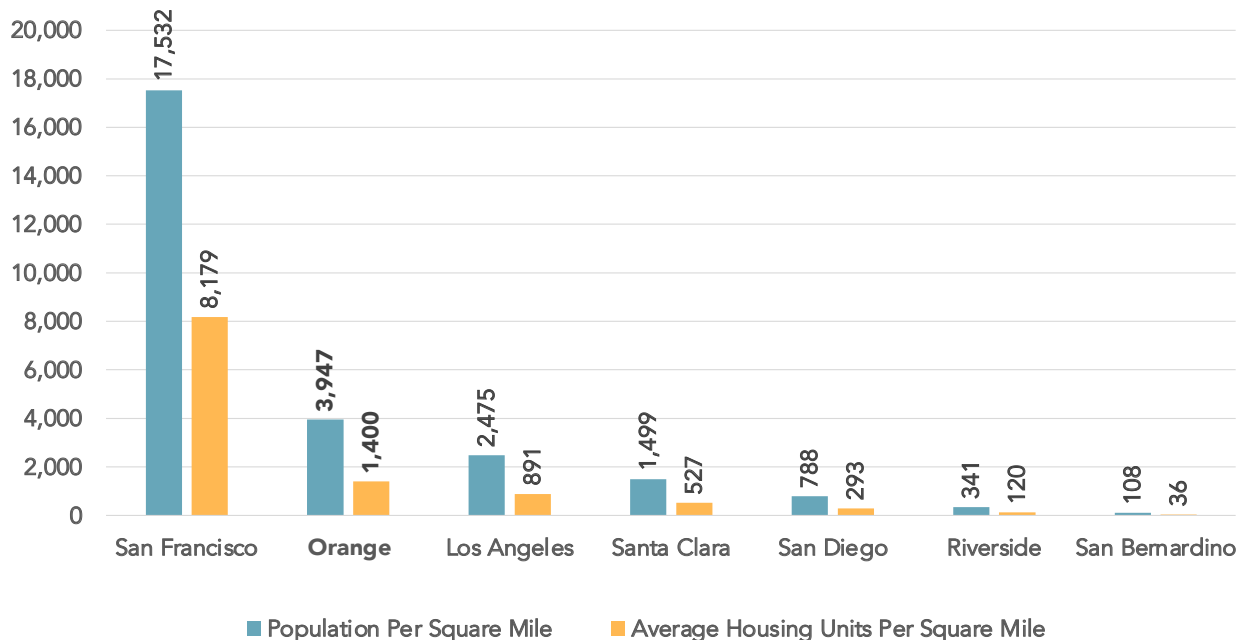


Source: U.S. Census Bureau's Building Permits Survey

Demonstrating Orange County's relative density, the region had the second highest housing and population densities at 3,947 and 1,400, respectively, second only to San Francisco County.

ORANGE COUNTY SEES HIGH POPULATION AND HOUSING DENSITY

HOUSING UNIT AND POPULATION PER SQUARE MILE IN PEER CALIFORNIA COUNTIES, 2020



Source: State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2021. Sacramento, California, May 2021.

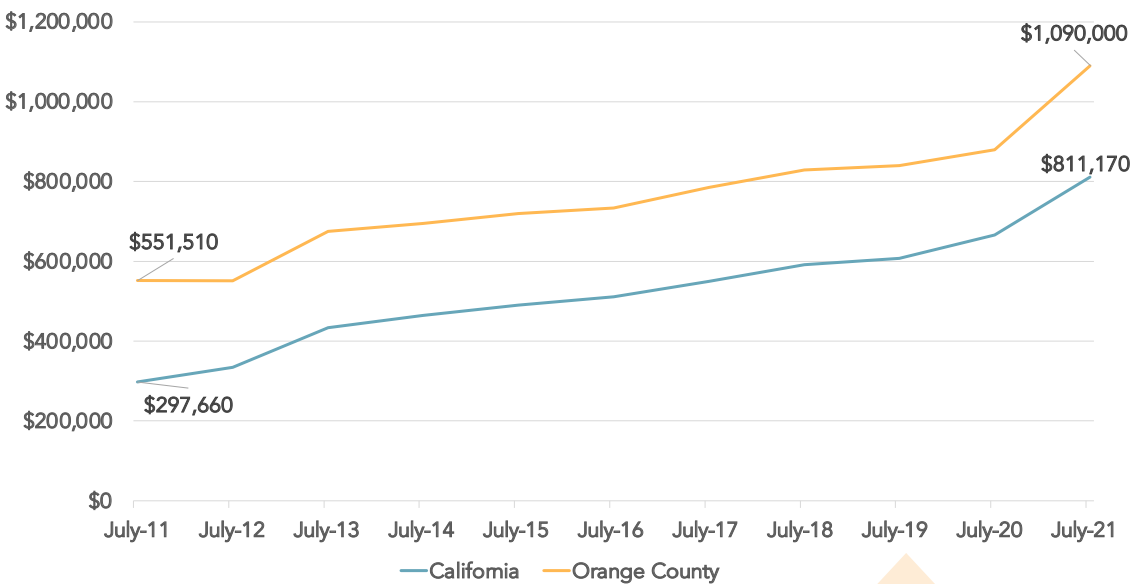
HOUSING AFFORDABILITY

Despite the ongoing pandemic and related labor market struggles, Orange County home prices continue to hit new highs — a trend being observed in many high cost-of-living regions with major job centers nearby. From July 2011 to July 2021, Orange County’s median home price increased by 97.6 percent to \$1,090,000 as of July 2021. Further complicating affordability in the region, first-time home buyers in Orange County would need a minimum qualifying income of \$124,500 to afford an entry-level home priced at \$850,000. As of the first quarter of 2021, only 34 percent of first-time home buyers can afford an entry-level home, down from 36 percent in the fourth quarter of 2020. This represents the lowest first-time home buyer affordability since the fourth quarter of 2007.

COVID-19 has served to dramatically disrupt the housing sector across the nation. Moratoriums on evictions and paused rent payments have kept many individuals in their homes, while skyrocketing prices supported by low interest rates and supply/demand imbalances are causing bidding wars with buyers paying well over asking prices. While the housing market is likely to push forward during the popular home buying summer months, many expect the market to cool down once construction inventories return to normal and evictions are allowed to resume.

MEDIAN HOUSING PRICES HIT RECORD HIGH IN ORANGE COUNTY

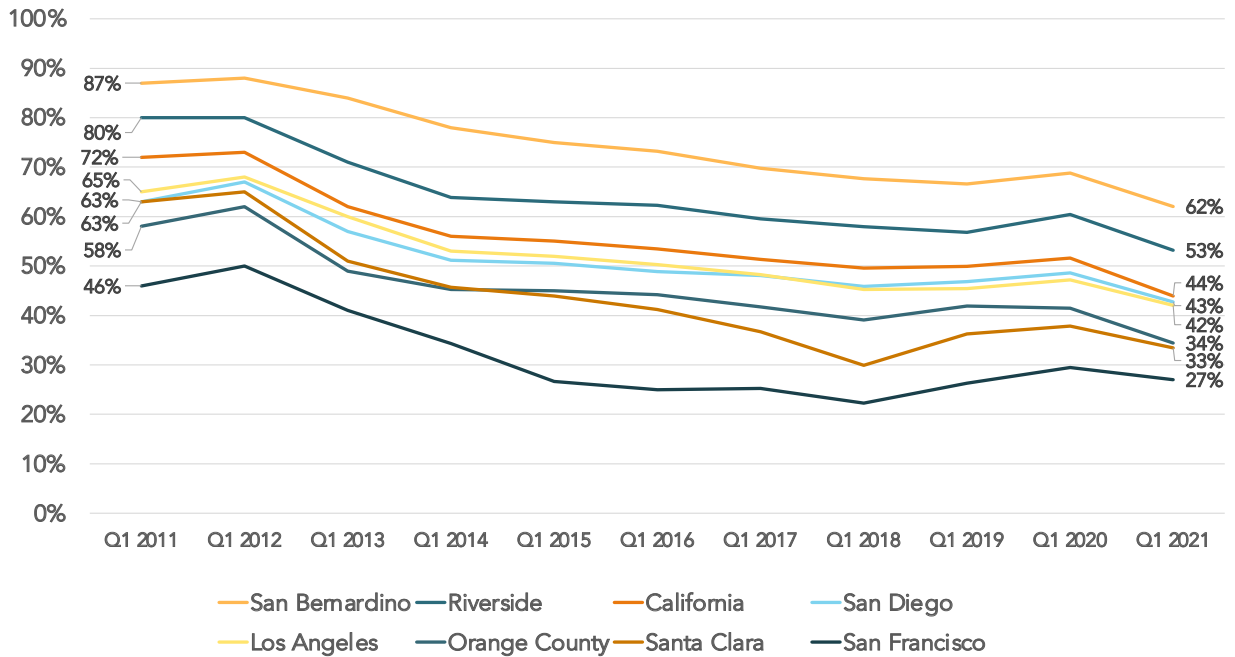
MEDIAN EXISTING SINGLE-FAMILY HOME SALES PRICES IN ORANGE COUNTY AND CALIFORNIA, JULY 2011 – JULY 2021



Source: California Association of Realtors, Current Sales & Price Statistics

AFFORDABILITY DROPS ALONGSIDE RECORD HOME PRICES

REGIONAL COMPARISON OF THE PERCENTAGE OF FIRST-TIME HOMEBUYERS ABLE TO AFFORD AN ENTRY-LEVEL HOME, Q1 2011 – Q1 2021



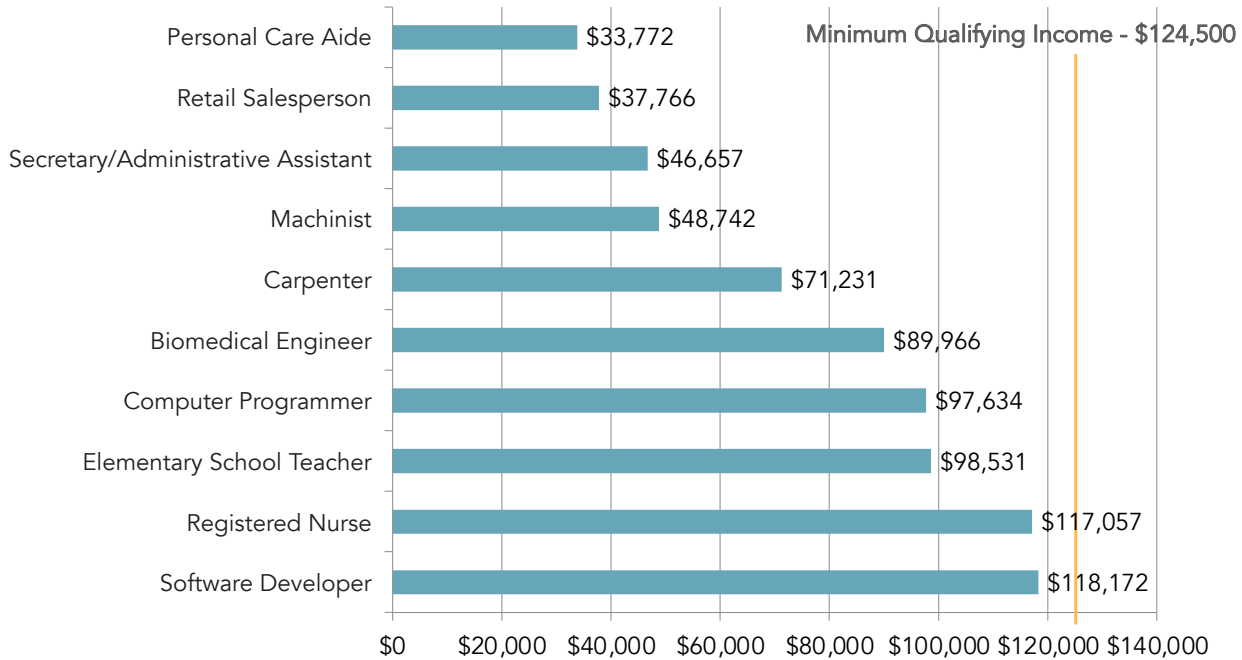
Source: California Association of Realtors, First-Time Home Buyer Affordability Index

With home prices in Orange County reaching record highs and increased wages being largely supported by government aid, all of the occupations now measured in this report failed to meet the necessary required minimum qualifying income for a first-time home buyer. This growing mismatch has been tracked now for several years and highlights a growing decline in the proportion of individuals who are able to buy a home in the region. Despite increases in wages experienced across the county, housing prices have increased much quicker, pricing an increasingly large proportion of the population out of the area — a trend which may be accelerating domestic out-migration and hurting future population and labor market growth.

Orange County must make concerted efforts to ensure all their residents can afford to both live and work in the region. If these issues are not addressed, young professionals and families will continue to move out of the region for areas with lower housing costs and more housing options. Effectively, Orange County is at risk of losing one of its major competitive advantages — a well-educated, qualified workforce who is able to actively fill lucrative positions of local employers. If the region fails to continually attract, retain, and more importantly, house young families and professionals, it is unlikely to remain an economic engine of Southern California.

HOUSING NOW OUT OF REACH FOR MANY OCCUPATIONS

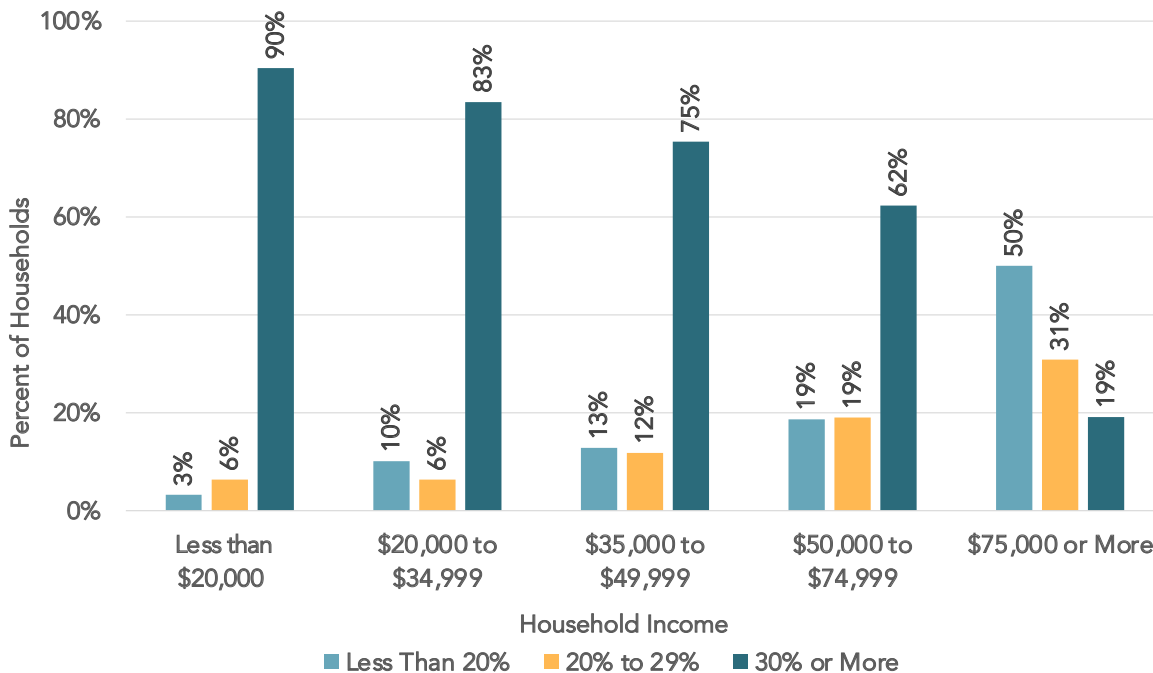
MINIMUM INCOME NEEDED TO AFFORD AN ENTRY-LEVEL HOME COMPARED TO MEDIAN SALARIES IN SELECTED OCCUPATIONS IN ORANGE COUNTY, 1ST QUARTER 2021



Source: California Association of Realtors, First-Time Home Buyer Affordability Index; California Employment Development Department, Occupational Employment and Wage Statistics Program

LOW-INCOME RESIDENTS STRUGGLE TO REDUCE HOUSING COSTS

ORANGE COUNTY OWNER-OCCUPIED HOUSING COSTS AS A PERCENT OF INCOME, 2019



Source: U.S. Census Bureau, 2019 American Community Survey 1-Year Estimates

RENTAL AFFORDABILITY

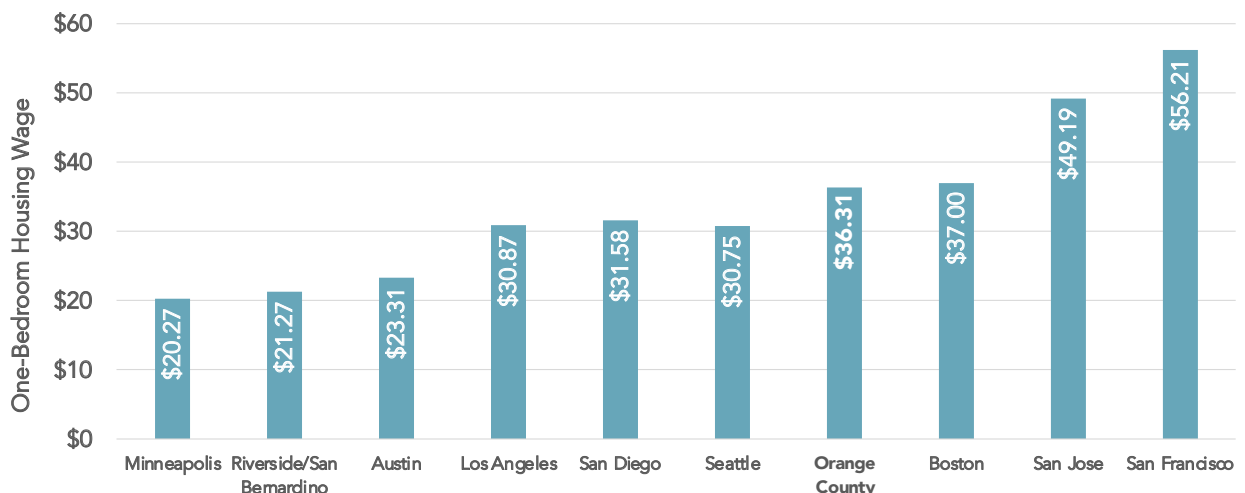
With the housing market experiencing significant shifts due to the pandemic, the rental market was no different. While eviction moratoriums allowed a significant portion of the population to remain in their homes, these protections are likely to end soon — right at the time when many expect rent prices to increase dramatically as workers return to their places of employment in major city centers.

In Orange County, the “housing wage” or minimum wage a worker would need to earn in order to afford a median-priced, one-bedroom apartment increased to \$36.31 an hour or \$75,529 per year. This represents an increase of 5.8 percent over last year’s housing wage. A minimum wage worker would need to work 104 hours a week to afford a one-bedroom apartment, 128 hours a week to afford two bedrooms, and 177 hours per week to afford three bedrooms.

While rent in Orange County has been consistently increasing for the past decade, rental costs marked their first decline in the second quarter of 2020. Marred by increased vacancy, the pandemic, and regional labor market exposure to tourism-related sectors, Orange County’s average rent dropped by \$27 to \$2,066 per month. Prior to the pandemic, rent in the region had largely plateaued due to the construction of new housing supply. Looking forward, rent in Orange County is expected to drop further by 0.5 percent, the smallest drop among 30 metro areas. These rising housing costs, already an issue well before the pandemic, have been dramatically amplified by COVID-19, which will undoubtedly affect the local, regional, and national housing markets, potentially driving up rental demand, as was the case during the Great Recession.

ORANGE COUNTY RENTALS SEE LARGE INCREASE IN PRICE

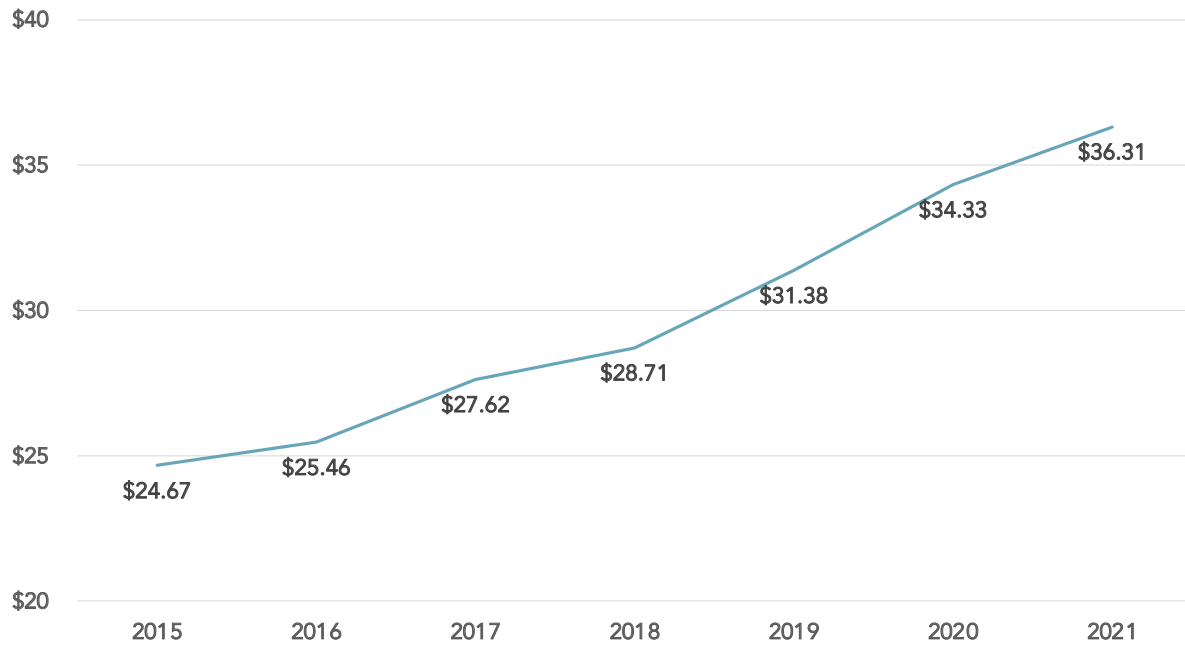
REGIONAL COMPARISON OF THE HOURLY WAGE NEEDED TO AFFORD A ONE-BEDROOM UNIT, 2021



Sources: Community Indicators Report analysis of Fair Market Rent data from the U.S. Department of Housing and Urban Development using the methodology of the National Low Income Housing Coalition

REQUIRED WAGE FOR ONE-BEDROOM JUMPS BY 9.4%

HOURLY WAGE NEEDED TO AFFORD A ONE-BEDROOM UNIT IN ORANGE COUNTY, 2015–2021



Sources: Community Indicators Report analysis of Fair Market Rent data from the U.S. Department of Housing and Urban Development using the methodology of the National Low Income Housing Coalition

AFFORDING MEDIAN RENT REQUIRES 104 MINIMUM WAGE WORK HOURS

RENTAL MARKET AFFORDABILITY IN ORANGE COUNTY, 2017–2021

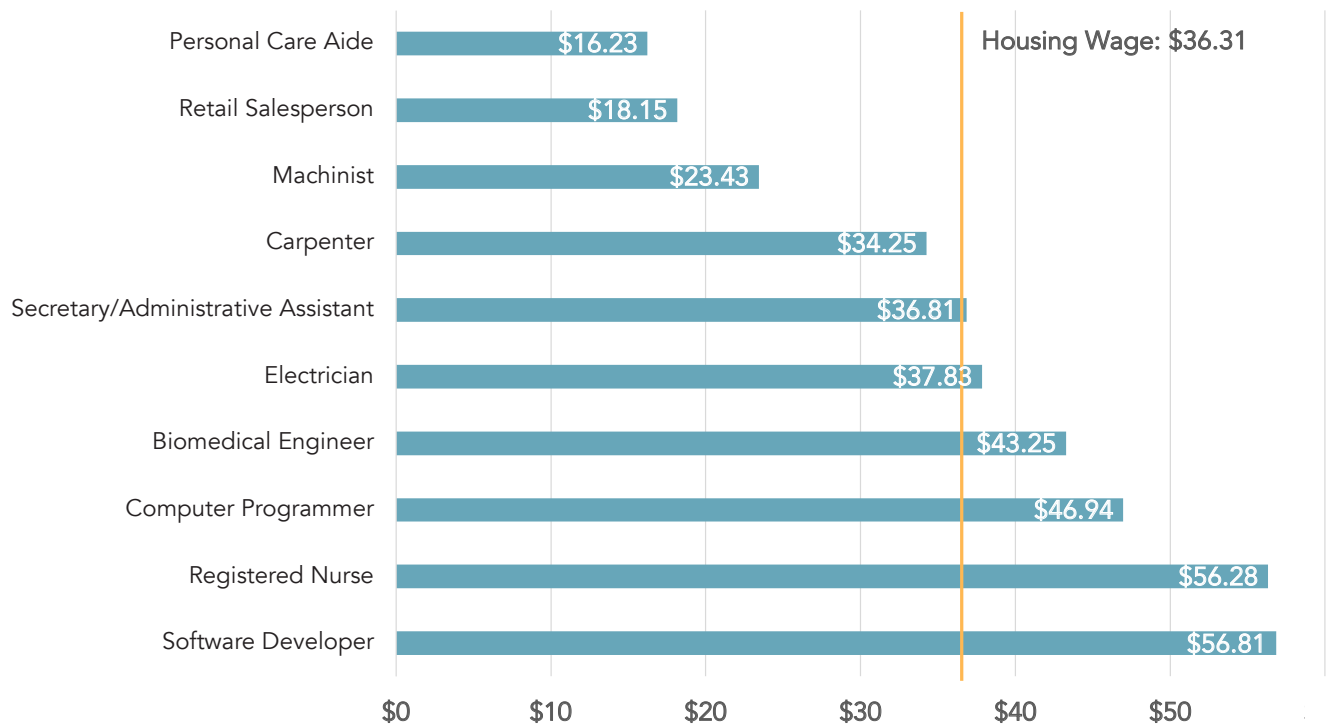
FAIR MARKET RENT (MONTHLY)	2017	2018	2019	2020	2021
One Bedroom	\$1,436	\$1,493	\$1,632	\$1,785	\$1,888
Two Bedroom	\$1,813	\$1,876	\$2,037	\$2,216	\$2,331
Three Bedroom	\$2,531	\$2,626	\$2,862	\$3,098	\$3,227
Amount a Household with One Minimum Wage Earner Can Afford to Pay in Rent (Monthly)	\$546	\$572	\$624	\$676	\$728
Number of Hours per Week a Minimum Wage Earner Must Work to Afford a One-Bedroom Apartment	105	104	105	106	104

Sources: Community Indicators Report analysis of Fair Market Rent data from the U.S. Department of Housing and Urban Development using the methodology of the National Low Income Housing Coalition

Half of the county's most common occupations — carpenters, machinists, administrative assistants, retail salespersons, and personal care aides — earn less than the required \$36.31 per hour to afford a one-bedroom apartment. While individuals in these occupations may seek out shared housing arrangements with roommates, housing price increases have outpaced wage increases and, if not properly addressed, could lead to increased homelessness, especially considering recent housing shifts brought about by COVID-19. While eviction moratoriums currently protect many renters and homeowners, they will soon expire, significantly increasing the risk of homelessness for many families in Orange County.

HOUSING WAGE TOO HIGH FOR MANY OC OCCUPATIONS

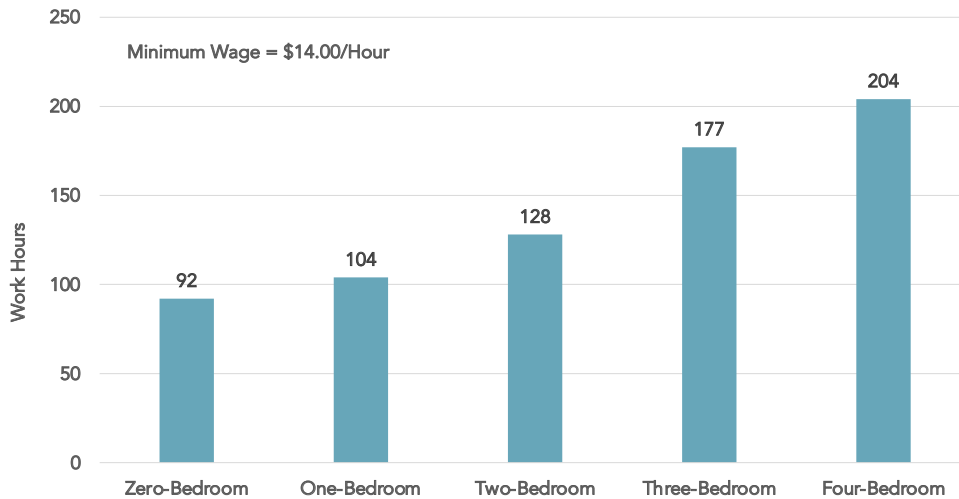
HOURLY WAGE NEEDED TO AFFORD A MEDIAN ONE-BEDROOM UNIT IN ORANGE COUNTY (2021) COMPARED TO MEDIAN LOCAL WAGES IN SELECTED OCCUPATIONS (1ST QUARTER 2021)



Sources: Community Indicators Report analysis of Fair Market Rent data from the U.S. Department of Housing and Urban Development using the methodology of the National Low Income Housing Coalition (2020 housing wage); California Employment Development Department Occupational Employment Statistics (1st Quarter 2020)

WITH CURRENT AFFORDABILITY RATES, RENTERS SHOULD BRACE FOR IMPACTS FROM COVID-19

ORANGE COUNTY WORK HOURS REQUIRED BY HOUSING SIZE FOR MINIMUM WAGE WORKERS, 2021

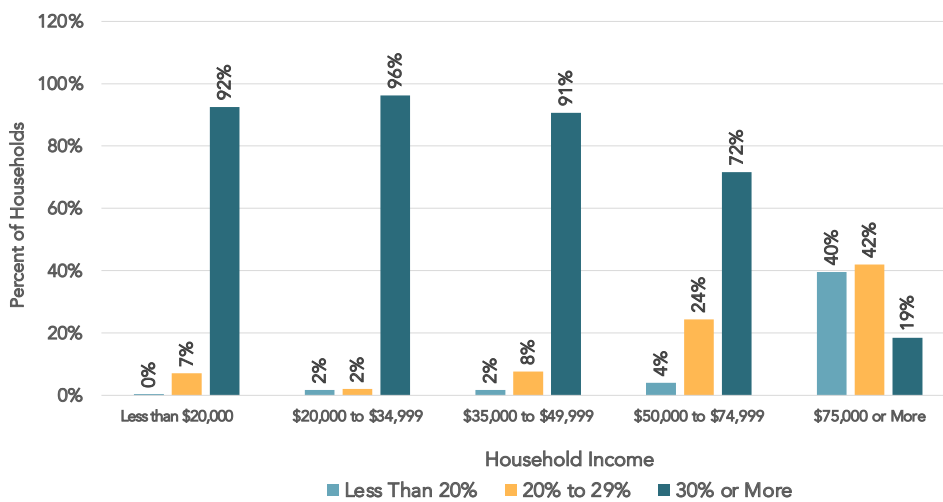


Sources: Community Indicators Report analysis of Fair Market Rent data from the U.S. Department of Housing and Urban Development using the methodology of the National Low Income Housing Coalition

Considering the comparatively high cost-of-living in the county, a significant portion of low-income renters spend over 30 percent of their incomes on housing needs. As a result, these communities are less capable of saving for big-item expenses, such as home or car purchases. This further inhibits their ability to build equity or generational wealth and limits their employment opportunities to areas in their proximity, or areas which are accessible via public transportation.

LOW-INCOME RENTERS SPEND DISPROPORTIONATELY MORE ON HOUSING

ORANGE COUNTY RENTER-OCCUPIED HOUSING COSTS AS A PERCENT OF INCOME, 2019



Source: U.S. Census Bureau, 2019 American Community Survey 1-Year Estimate, Table B25106

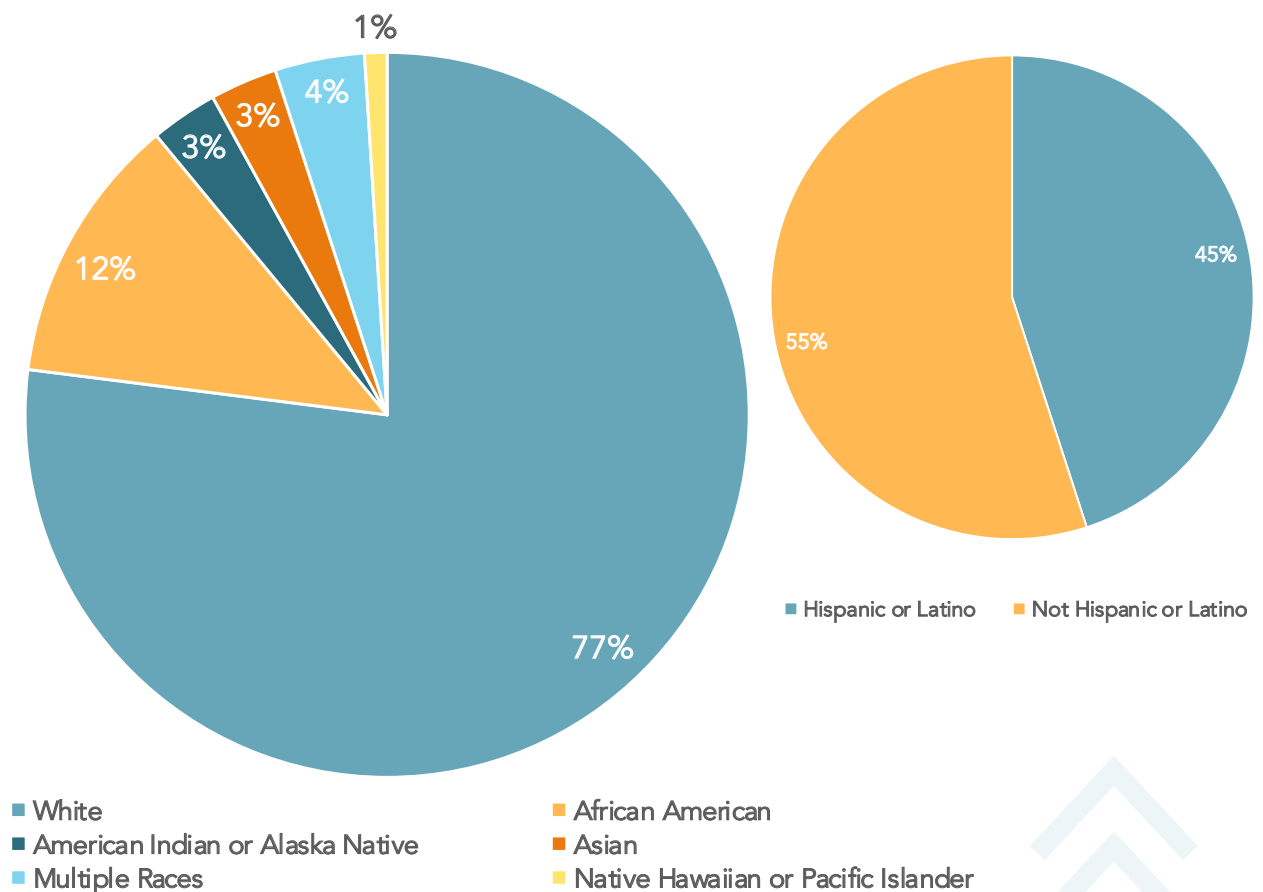


HOUSING SECURITY

As of 2021, Orange County has approximately 2,441 people living in sheltered homeless arrangements, of which 43 percent are adults with children, while only 1 percent are children without adults. From 2020 to 2021, the number of homeless adults declined by 548 people, or 28 percent, while the number of homeless adults with children declined by only 40 people, or 3.7 percent, during the same time period. The number of sheltered homeless children without an adult actually increased from just 7 people in 2020 to 19 people in 2021.

White communities represent 77 percent of homeless sheltered people in 2021, an increase from 73 percent in 2020. The next highest rates of homelessness were endured by African Americans (12 percent) and Multiple Races (4 percent). Overall, African American and White communities experience homelessness at much higher rates than other ethnicities throughout the county.

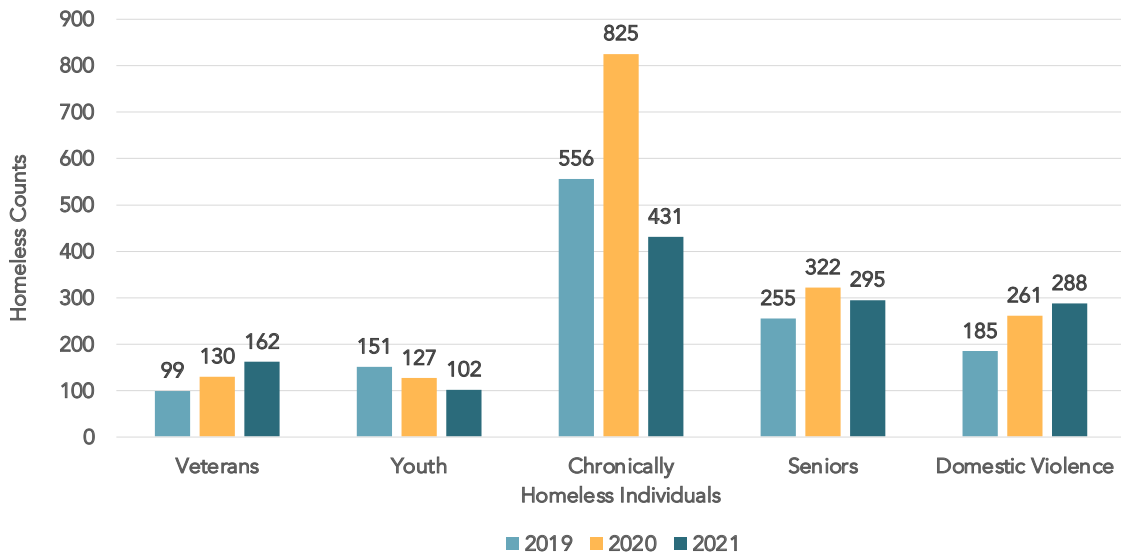
PROPORTION OF SHELTERED POINT-IN-TIME HOMELESS BY RACE/ETHNICITY IN ORANGE COUNTY, 2021



Source: Orange County 2-1-1, 2021 Sheltered Point in Time Count

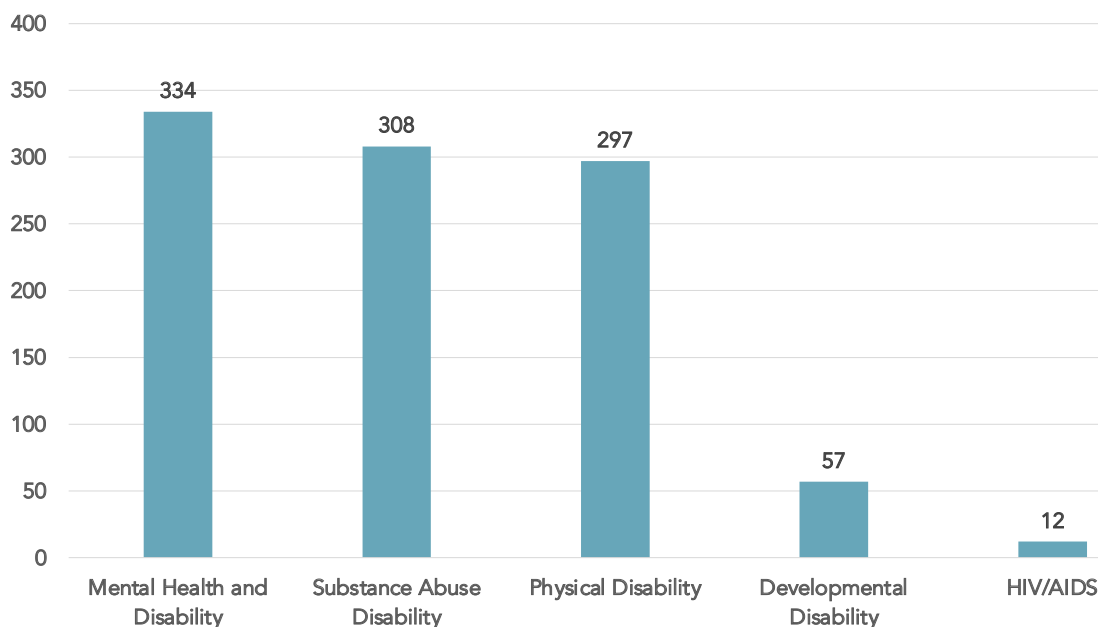
Chronically Homeless Individuals saw the most significant improvement in homelessness rates from 2020 to 2021, with their population shrinking from 825 to 431, a decline of 48 percent. While homelessness among Youths and Seniors was also reduced, the number of homeless Veterans and Domestic Violence survivors increased by 24.6 percent and 10.3 percent respectively. Major disabilities still impacting homeless populations included Mental Health Disability, Physical Disability, and Substance Abuse Disability.

SHELTERED HOMELESS COUNTS BY SPECIAL POPULATIONS IN ORANGE COUNTY, 2021



Source: Orange County 2-1-1, 2021 Sheltered Point in Time Count

DISABILITIES REPORTED BY PERSONS SHELTERED IN ORANGE COUNTY, 2021



Source: Orange County 2-1-1, 2021 Sheltered Point in Time Count



Best Places *TO CALL HOME*



BrookfieldResidential.com

Brookfield
Residential

COX

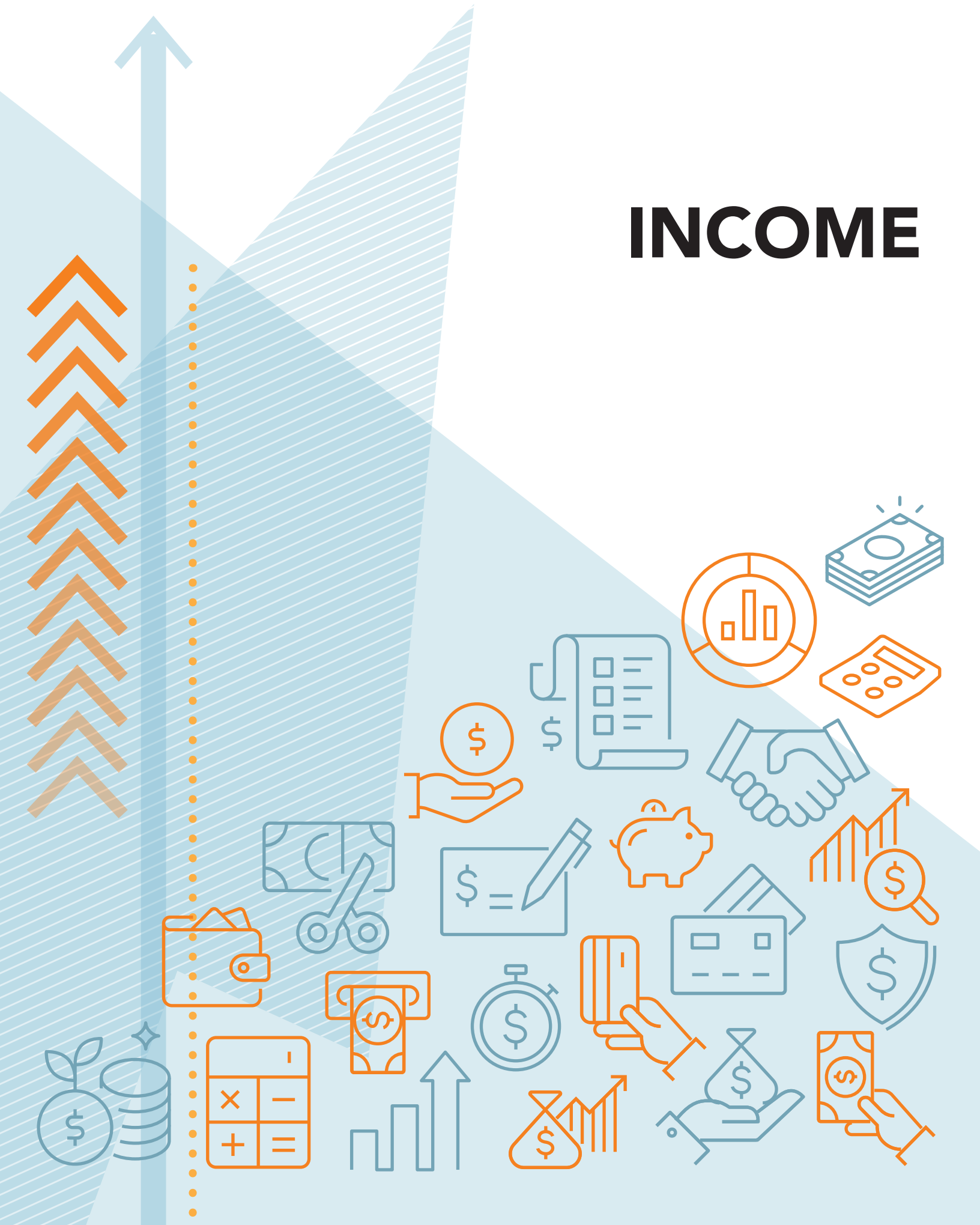
Bringing us closer

Creating strong connections between families and schools.

Cox is committed to helping bridge the digital divide by providing affordable home internet for low-income families through our Connect2Compete program.



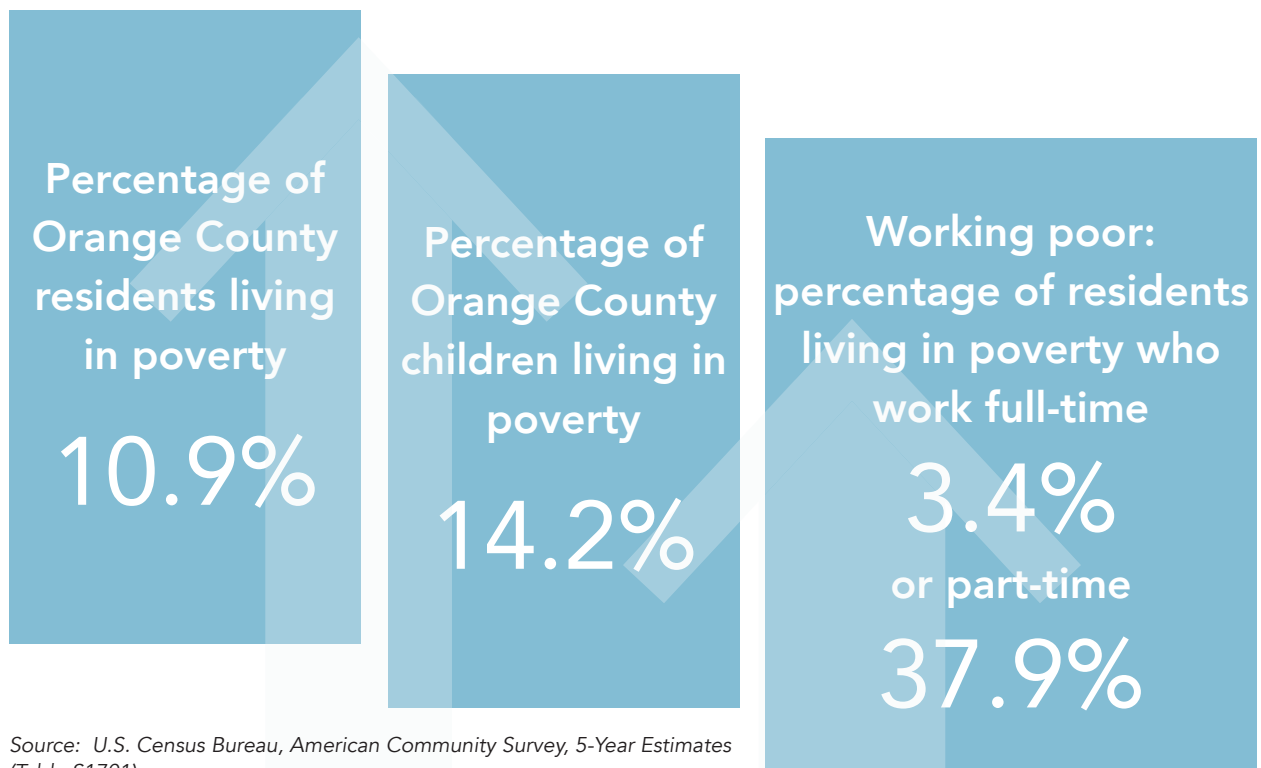
INCOME



HOUSEHOLD INCOME

The median household income in Orange County grew by a staggering \$6,175 from 2018 to 2019, representing an increase of 6.9 percent, and reached \$95,934 in 2019. Orange County's median household income was \$30,222, or 46 percent, higher than the national average (\$65,712) and \$15,494, or 19.3 percent, higher than the state average (\$80,440) in 2019.

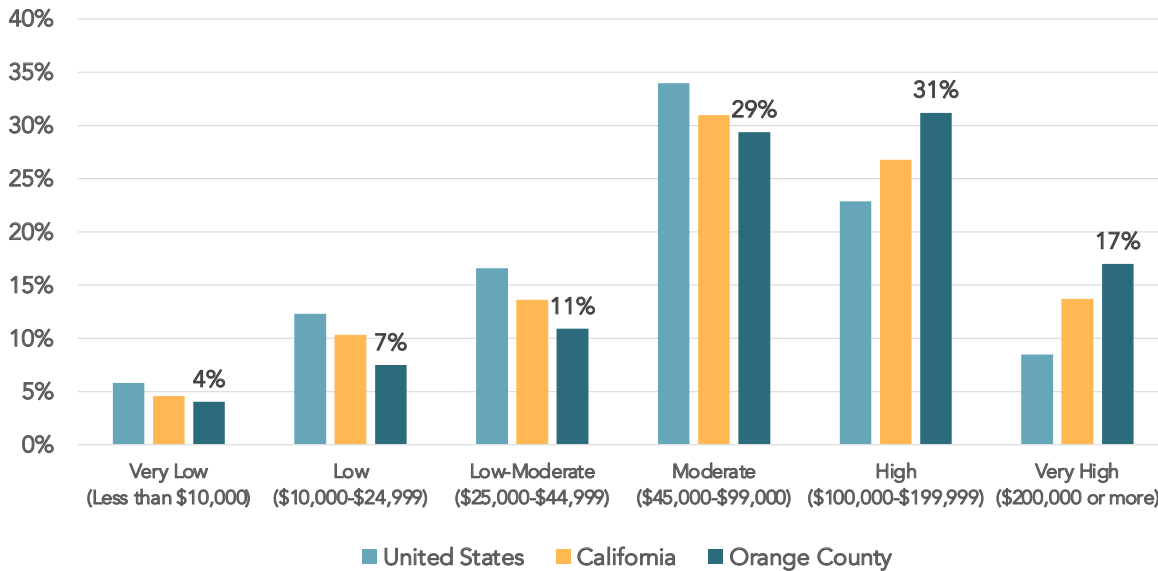
The percentage of Orange County households in the "very high" income category increased by 2 percent from 2018 to 2019 while the percent of households in the "low" income category declined by 2 percent, largely due to the region's strong and diversified industry base and business environment. Overall, 22 percent of Orange County households earned less than \$45,000 in 2019 while 4.1 percent (42,330 households) earned less than \$10,000. The percentage of households earning \$200,000 or more increased from 15.3 percent in 2018 to 17 percent in 2019, representing 177,477 households.



Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates (Table S1701)

MORE OC HOUSEHOLDS JOIN "VERY HIGH" INCOME CATEGORY

DISTRIBUTION OF HOUSEHOLDS BY MEDIAN HOUSEHOLD INCOME, ORANGE COUNTY, CALIFORNIA, AND THE UNITED STATES, 2019



Number of Orange County households in the "Very Low" income group in 2019:

43,771

Approximate 2019 U.S. poverty threshold for a 4-person household:

\$25,926

Eligibility for many support services begins at

<185%

of poverty, or roughly \$48,000 for a 4-person household.

2019 median household income in Orange County:

\$95,934

Minimum qualifying income for a first-time homebuyer in Orange County in 2017:

\$124,500

The number of Orange County households grew 5% between 2010 and 2018, while the number of households in the "Very High" group grew

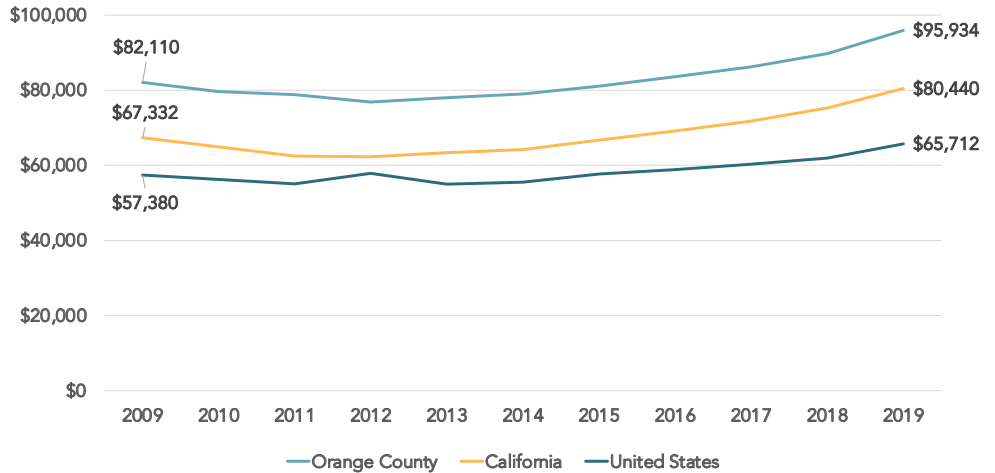
60%.

Sources: U.S. Census Bureau, American Community Survey, 5-Year Estimates (Table B19001), 2010 through 2019; U.S. Census Bureau, Poverty Thresholds for 2019; California Association of Realtors, First-Time Buyer Housing Affordability Index

While many expected reductions in personal and household incomes resulting from the COVID-19 pandemic and subsequent government mandates shutting down business operations across the nation, federal and state aid in the form of stimulus and extended unemployment benefits have buoyed personal and household incomes. This has brought about a number of discussions regarding the current level of compensation for workers being considerably too low. As such, and in the face of increasing inflation rates, it is imperative that employers across the nation understand that compensation rates must improve if the nation is to experience a continued economic recovery.

OC MEDIAN INCOMES BOUNCE 7 PERCENT

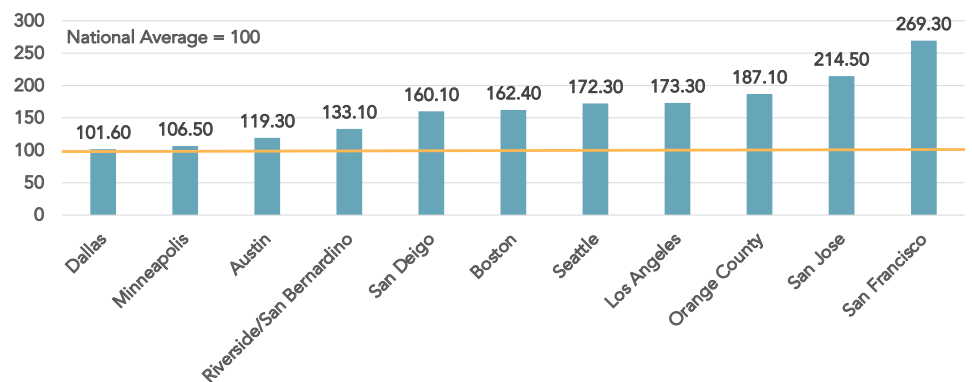
MEDIAN HOUSEHOLD INCOME (INFLATION ADJUSTED TO 2019 DOLLARS), ORANGE COUNTY, CALIFORNIA, AND UNITED STATES



Sources: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table B19013 (<http://factfinder.census.gov/>); U.S. Inflation Calculator, reporting Consumer Price Index (CPI-U) data provided by the U.S. Department of Labor, Bureau of Labor Statistics (www.usinflationcalculator.com)

HIGH COST MARKETS SEE A DECLINE IN COST OF LIVING

While cost of living in Orange County is 87 percent higher than the national average, it did decline by 4 points compared to the previous year. Several major markets experienced similar declines, especially San Jose and San Francisco. Orange County's housing costs, which are 374 percent higher than the national average, continue to drive its high cost of living. The cost of living takes housing, groceries, health, utilities, transportation, and miscellaneous expenses into account; while Orange County outpaced the nation in nearly all metrics, the costs for Health (95.9) and Utilities (98.3) were both below the national averages.



FAMILY FINANCIAL STABILITY

Family Financial Stability Continues to Improve into 2019

The 2019 Family Financial Stability Index for Orange County (FFSI-OC) showed that 18 percent of neighborhoods had high levels of family financial instability (scores of 1, 2, 3, and 4 out of a maximum score of 10). The FFSI-OC measures the financial stability of families with children under 18 by Orange County neighborhood and is a composite of three metrics: family income, employment status, and the proportion of household income spent on rent. FFSI-OC tracking began in 2012, when 39 percent of neighborhoods received “unstable” FFSI-OC scores of 4 or less. While this level of instability rose to include 41 percent of neighborhoods in 2013, family financial stability has steadily improved each year between 2013 and 2019. The improvement in overall financial stability scores since 2012 appears to be driven by:

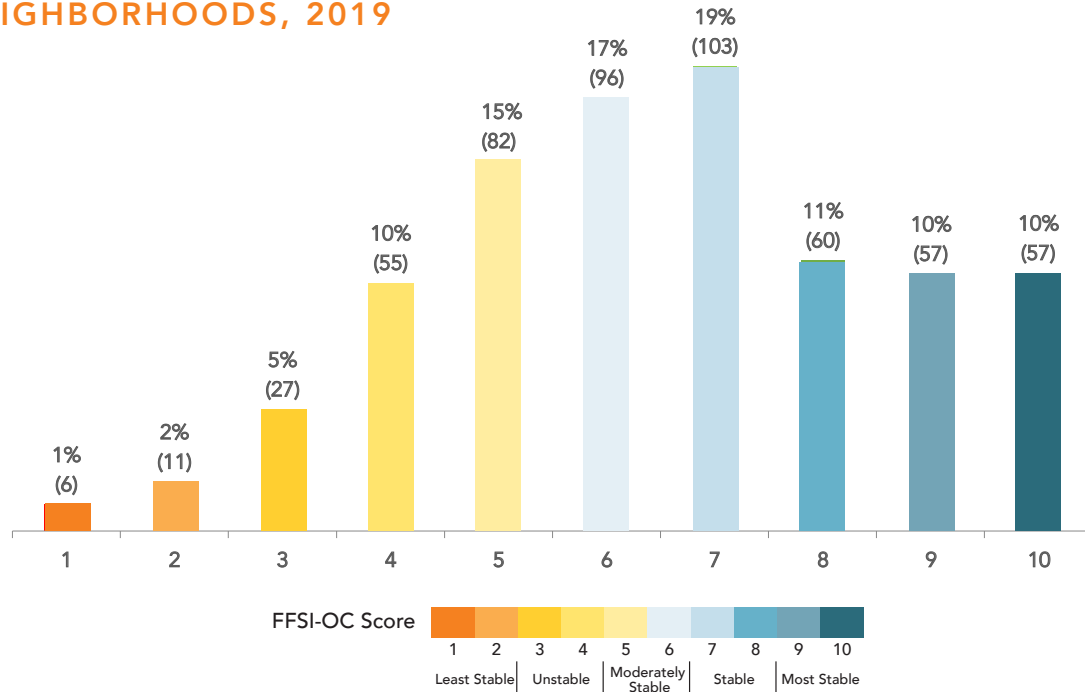
- A substantial increase in employment levels;
- Fewer families with very low income; and
- A modest easing of rent burden.

Two cities (Santa Ana and Stanton) and one major unincorporated area (Midway City) had the highest concentrations of family financial instability with scores of 4 on the 2019 FFSI-OC. No city or unincorporated area scored below a 4 in 2019.

FFSI-OC results for 2020, which will show the impact of the coronavirus pandemic, will be available in January 2022.

MAJORITY OF NEIGHBORHOODS MODERATELY STABLE OR STABLE

FFSI-OC SCORES: PERCENT (AND COUNT) OF ORANGE COUNTY NEIGHBORHOODS, 2019

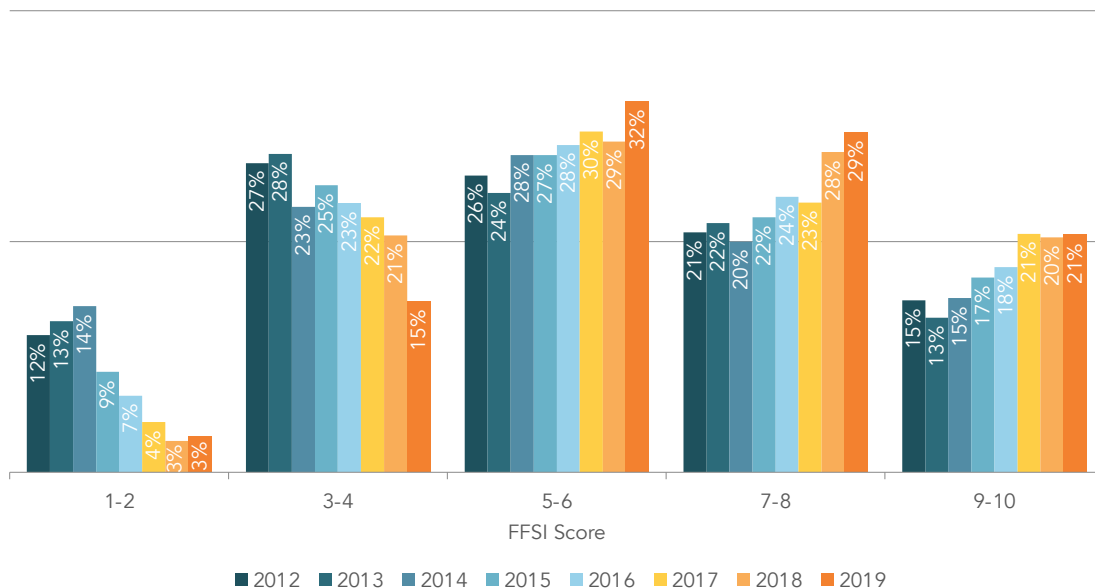


Note: Percentages have been rounded. The number of neighborhoods falling within each FFSI-OC index score is provided in the parentheses following the percentage.

Source: Parsons Consulting, Inc. for Orange County United Way

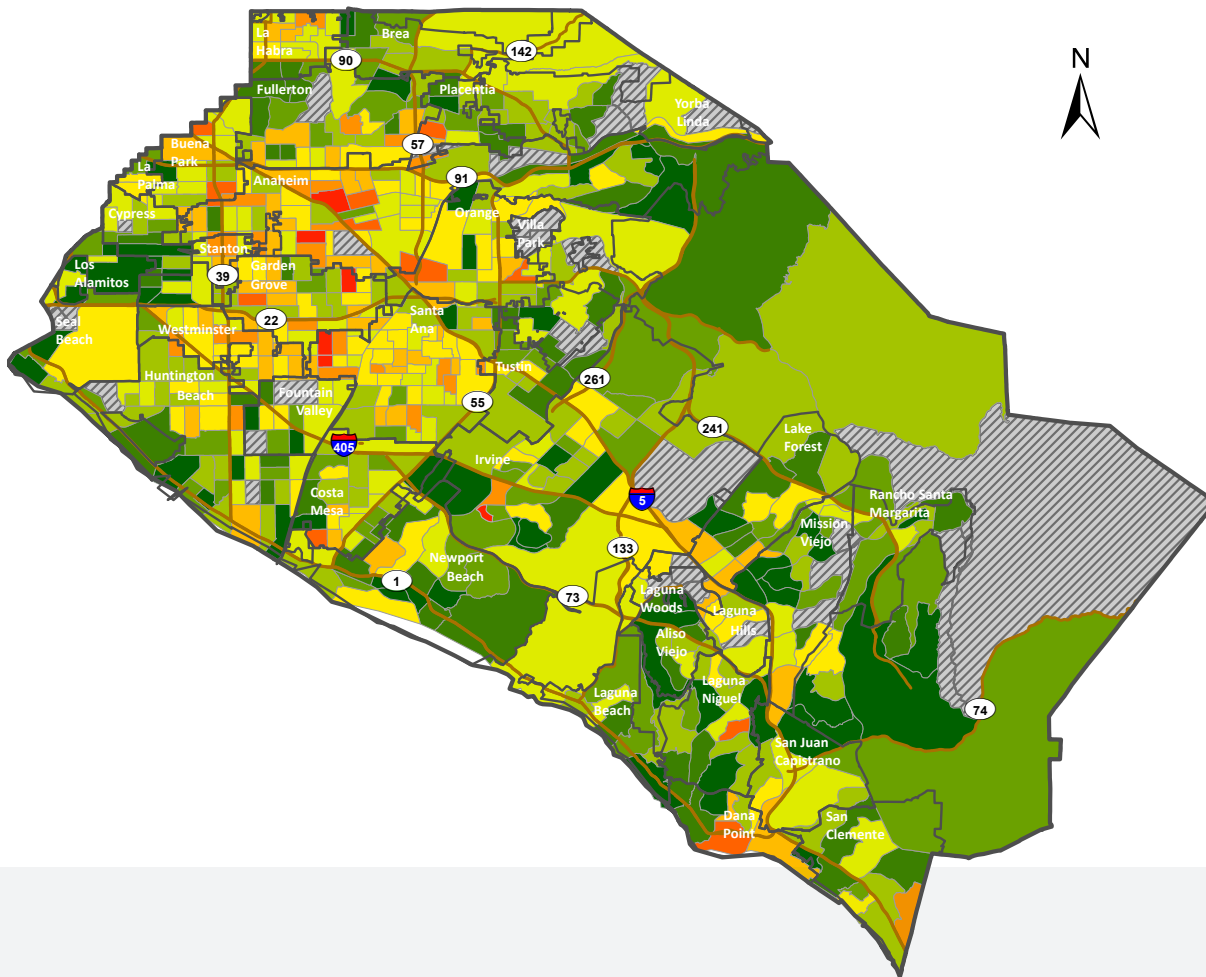
FAMILY FINANCIAL STABILITY INCREASES TO HIGHEST LEVEL SINCE TRACKING BEGAN

PERCENTAGE OF ORANGE COUNTY NEIGHBORHOODS BY FFSI-OC SCORE, 2012-2019



18 PERCENT OF NEIGHBORHOODS HAVE LOW LEVELS OF FAMILY FINANCIAL STABILITY

FAMILY FINANCIAL STABILITY INDEX – ORANGE COUNTY: 2019 NEIGHBORHOOD-LEVEL RESULTS



Red or dark orange areas on the map represent neighborhoods with low levels of family financial stability. Families with children in these neighborhoods are more likely to have a low income (less than 185 percent of the poverty level), spend 50 percent or more of household income on rent, and/or have one or more unemployed adults seeking employment. Green areas, on the other hand, have a higher proportion of families that are financially stable. Gray hatch marked areas represent neighborhoods with no data available due to small numbers of families with children in those neighborhoods and thus data has been suppressed to protect privacy.

Lack of quality child care affects all of us

In Orange County, the impact of child care related challenges — **to the overall economy, families and employers** — is significant.

Orange County Impacts

**\$4.3
BILLION**

lost productivity and wages annually

**\$372
MILLION**

lost tax revenue annually

67,000

lost jobs annually due to disruptions or gaps in child care



We need your help. We're looking for leaders to help formulate local recommendations and a plan of action to solve our child care crisis.

Learn more at first5oc.org/childcare

EDUCATION



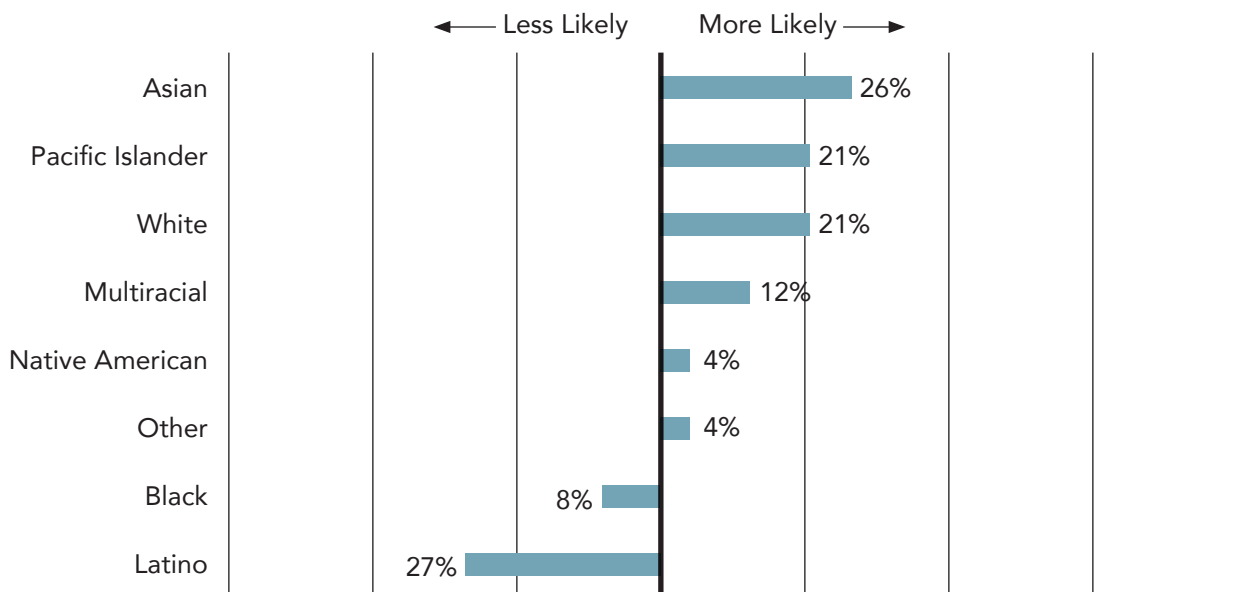
KINDERGARTEN READINESS

Significant Racial Disparity Among Kindergarten Readiness in OC Children

Orange County's Early Development Index (EDI) measures the percentage of children who are ready for kindergarten, defined as being on track in all five EDI domains: physical health and well-being, communication skills and general knowledge, social competence, emotional maturity, and language and cognitive development. Kindergarten readiness serves as a predictor of future performance, as it provides a strong foundation for academic and career growth.

It is imperative that all children are provided the necessary tools to develop the skills needed to ensure future success, and yet there is a disparity in developmental readiness among Orange County's children. This disparity is exemplified in the chart below, where Latino students are estimated to be 27 percent less likely to be ready for kindergarten than non-Latino children; Asian students, on the other hand, are 26 percent more likely to be kindergarten ready than non-Asian children. Acknowledging, understanding, and putting policies in place to understand and reduce the equity gap among children would not only benefit the lives of these children, but also help guarantee that Orange County retains a strong, diversified labor market.

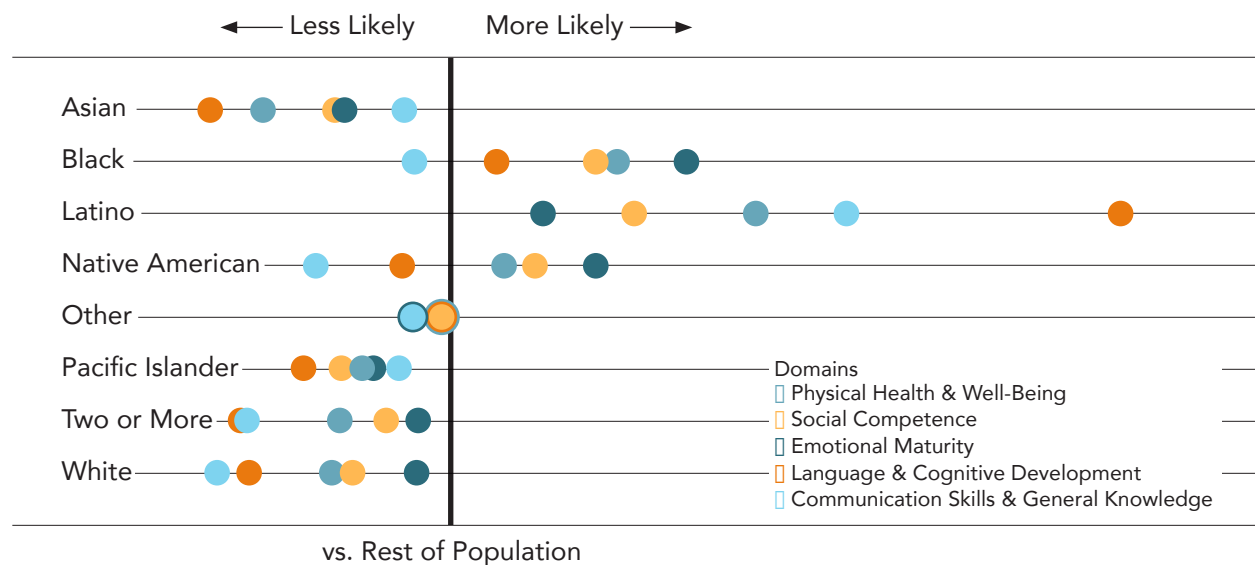
CHILDREN'S LIKELIHOOD OF BEING READY FOR KINDERGARTEN BY RACE AND ETHNICITY, 2019



Source: First 5 Orange County, Early Development Index, Equity Ratio

When crafting policies or strategies aimed at supporting early learning and child development, school districts and kindergarten teachers must consider more equitable and inclusive solutions to support students of every background. This will ensure all groups see meaningful improvements in early childhood health and development. In order to do so, it is important to understand where children are in their development and what tools, or skills, would allow them to close those gaps. Looking at the chart below, Asian students were less likely to be vulnerable in any of the EDI domains compared to non-Asian students; White students also were less likely to be vulnerable compared to non-White students. Reducing the vulnerability of Latino, Black, and Native American students and increasing the equitable outcomes for all Orange County children would not only improve the quality of life for these families, but for all families in the region.

CHILDREN'S LIKELIHOOD OF BEING VULNERABLE ON THE EDI, BY RACE AND ETHNICITY AND DEVELOPMENTAL DOMAIN, 2019

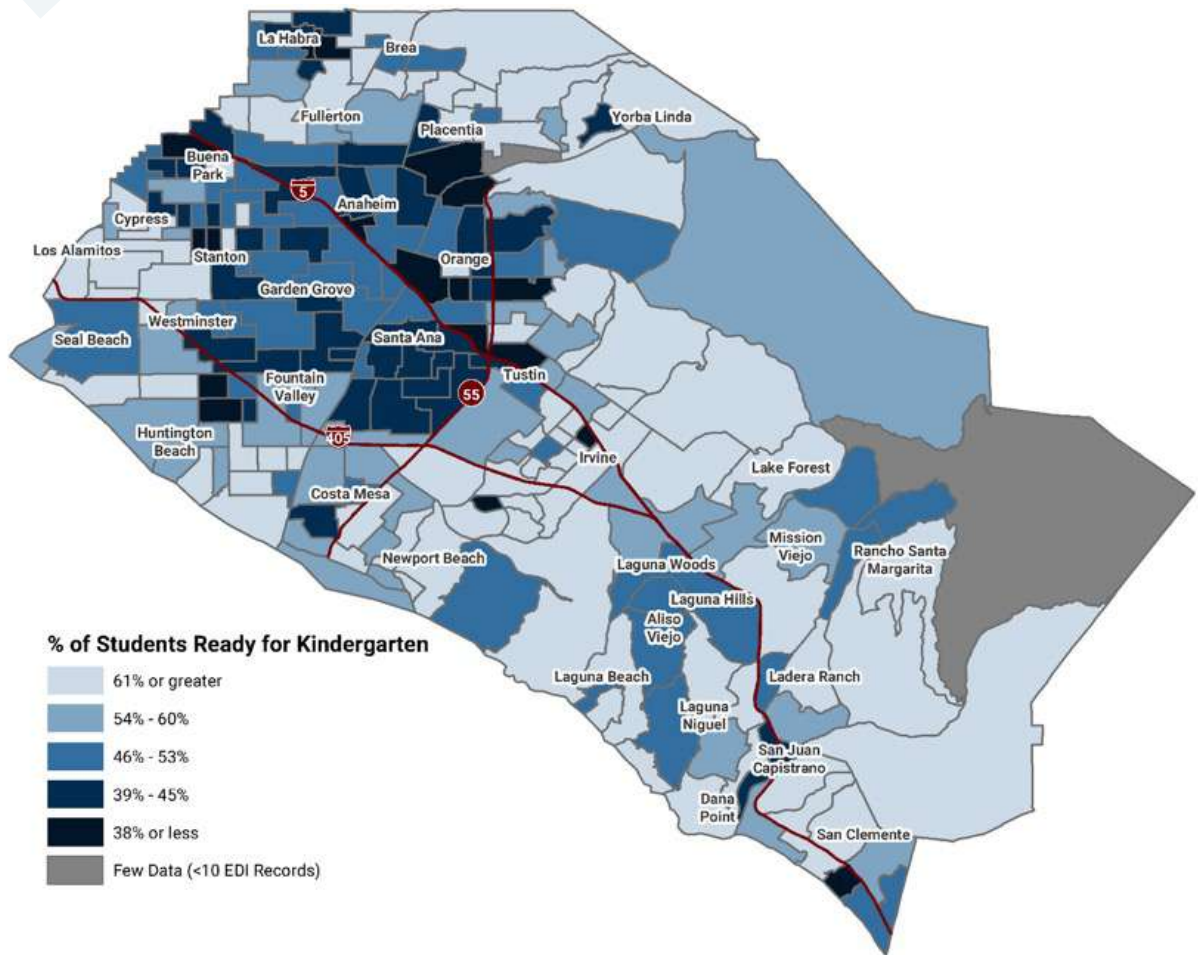


Source: First 5 Orange County, Early Development Index, Equity Ratio

Noticeable Difference in Kindergarten Readiness Between North and South OC

Overall, an estimated 52.9 percent of Orange County children were considered ready for kindergarten in 2019. In addition, 63.9 percent of Asian children were considered ready compared to only 44.5 percent of Latino children.

PERCENTAGE OF STUDENTS READY FOR KINDERGARTEN, EARLY DEVELOPMENT INDEX, 2019

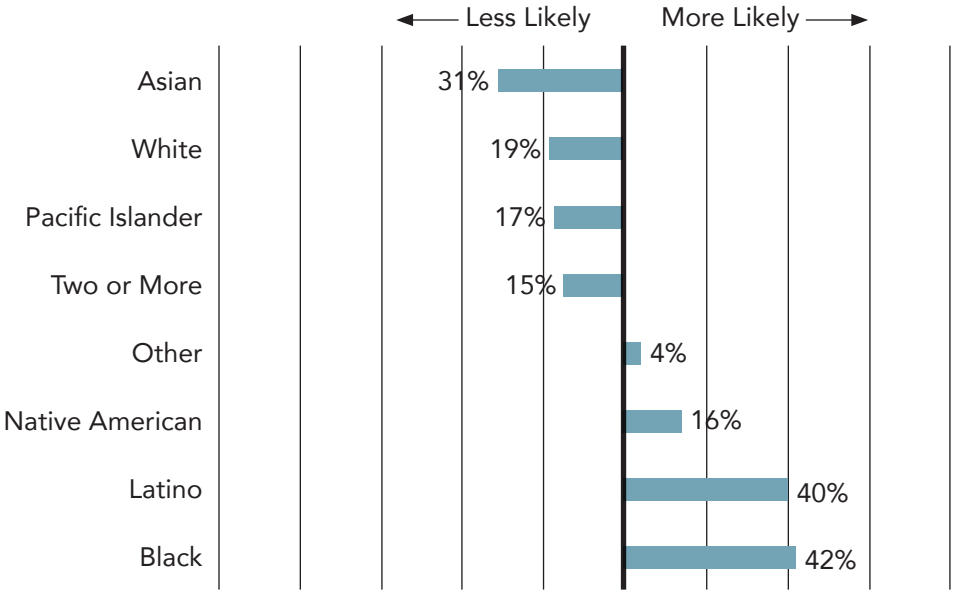


Note: The EDI assists stakeholders in identifying how children are faring developmentally as they enter school. Therefore, data in this map is based on where children live rather than the school (and district) where their data is collected.

Source: First 5 Orange County, Early Development Index, Equity Ratio



CHILDREN’S LIKELIHOOD OF BEING SOCIALLY AND EMOTIONALLY VULNERABLE BY RACE AND ETHNICITY, 2019



Source: First 5 Orange County, Early Development Index, Equity Ratio

SOCIAL-EMOTIONAL DEVELOPMENT

Approximately 9.7 percent of Orange County kindergarteners in 2019 were considered vulnerable in their social-emotional development on the EDI. However, Black and Latino kindergarteners were 42 percent and 40 percent more likely to be vulnerable, respectively, while other groups are less likely to be considered vulnerable.

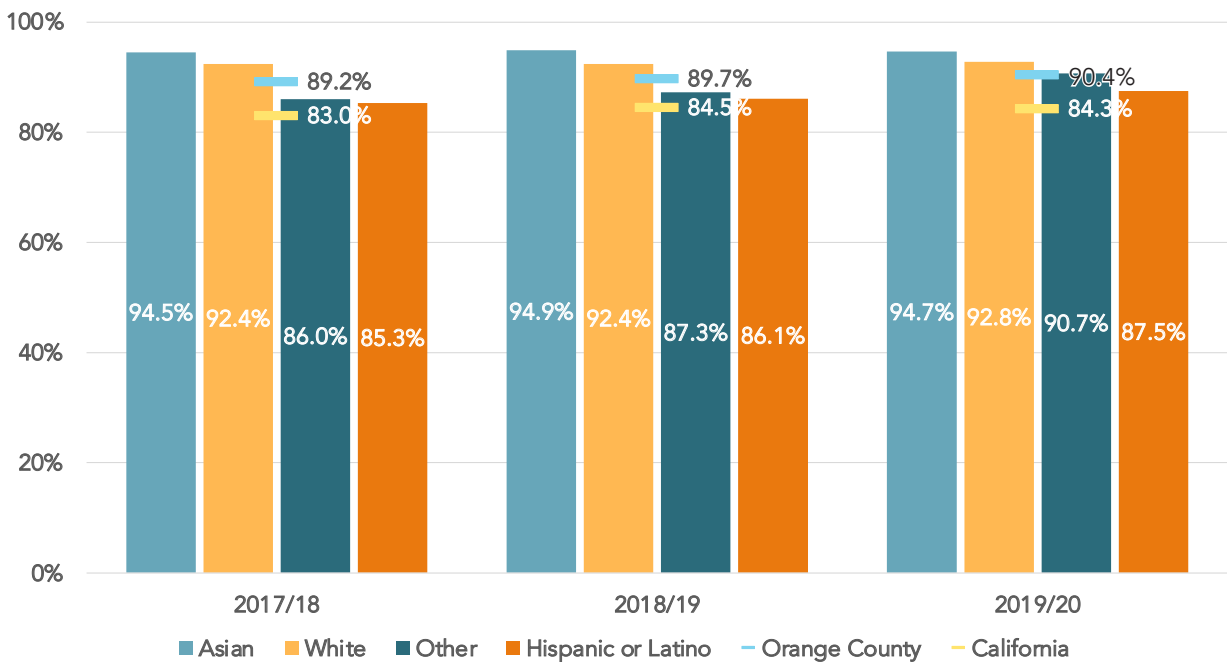
HIGH SCHOOL GRADUATION RATE

In the 2019/20 academic year, 90.4 percent of students who entered 9th grade in 2016 graduated on time four years later, an improvement of 0.7 percentage points compared to the prior year. When compared to the statewide average, Orange County outperformed the state's graduation rate of 84.3 percent by more than 6 percentage points.

In Orange County, Asian students posted the highest graduation rates once again at 94.7 percent, followed by White students (92.8 percent), 'Other' ethnicities (90.7 percent) and Latino students (87.5 percent). Despite posting the highest overall graduate rate, the Asian student cohort also posted the only year-over-year decline in graduation rates, falling from 94.9 percent to 94.7 percent. The 'Other' student cohort posted the largest improvement over the past year with graduation rates increasing from 87.3 percent to 90.7 percent.

ASIAN STUDENT COHORTS SEE SMALL DECLINE IN GRADUATION RATES

GRADUATION RATE BY RACE/ETHNICITY IN ORANGE COUNTY, 2017/18-2019/20

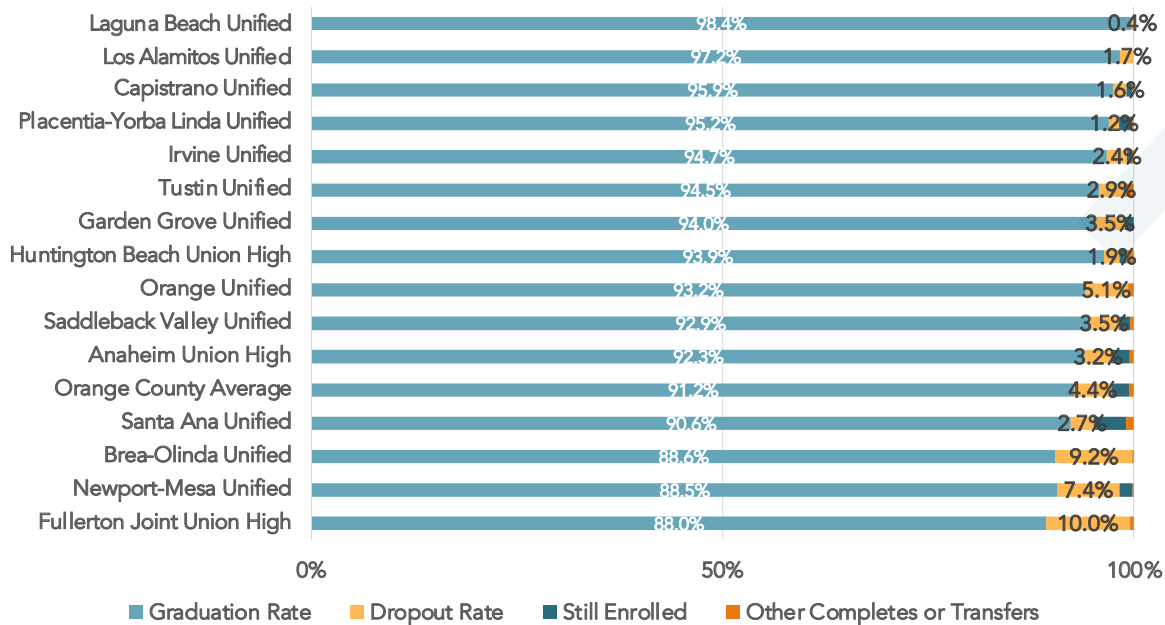


Source: California Department of Education, DataQuest

Laguna Beach Unified overtook Los Alamitos Unified for the Orange County school district with the highest graduation rate at 98.4 percent in 2019/20 while Fullerton Joint Union High registered the lowest rate at 88 percent. Laguna Beach Unified, Placentia-Yorba Linda Unified, and Capistrano Unified registered dropout rates of 0.4 percent, 1.2 percent, and 1.6 percent, respectively. At the county-level, the overall dropout rate declined from 4.6 percent in 2018/19 to 4.4 percent in 2019/20.

LAGUNA BEACH UNIFIED SEES HIGHEST GRADUATION RATE

HIGH SCHOOL STUDENT OUTCOMES BY ORANGE COUNTY SCHOOL DISTRICT, 2019/20



Source: California Department of Education, DataQuest



TITAN of Resilience

An Le had typical teen worries about what to do with her life.

At the nationally-ranked College of Business and Economics at Cal State Fullerton, she discovered her love for accounting and engaged in real-world professional opportunities like VITA (Volunteer Income Tax Assistance), providing free tax preparation to low-income individuals.

An has now graduated, joining more than 115,000 Titan alumni in Orange County who are powering and leading our business community.

Learn more about An's story at: campaign.fullerton.edu/resilience.

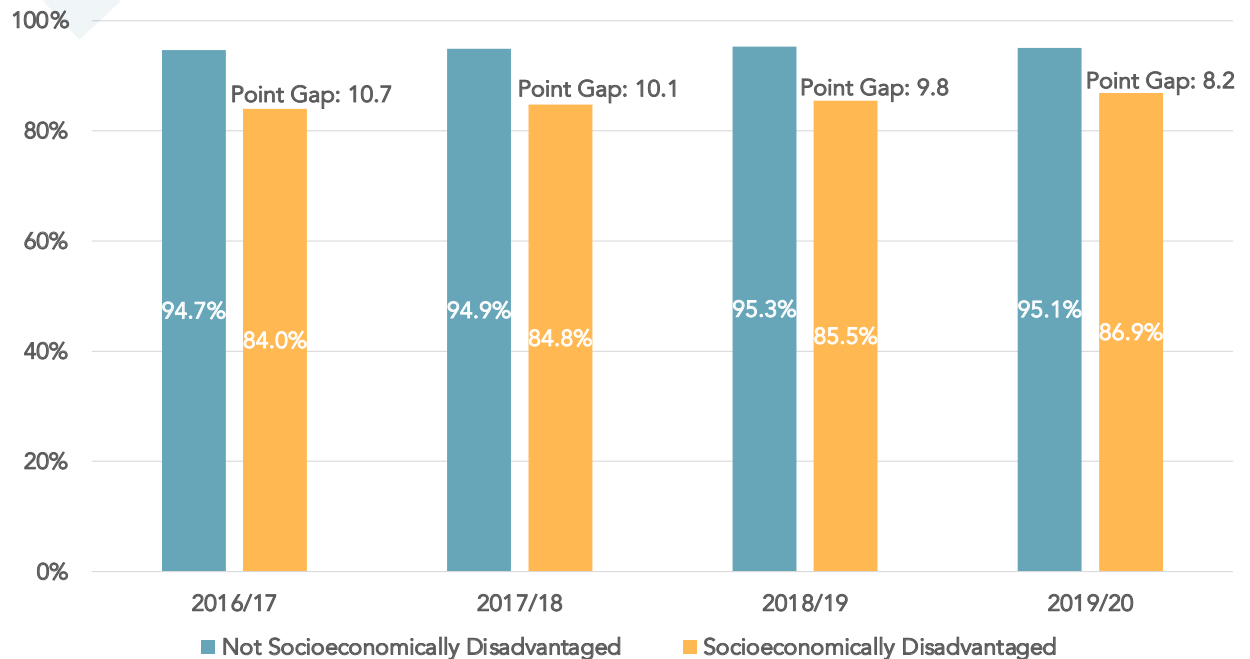
Cal State Fullerton



The percentage point gap between the graduation rate of students who are socioeconomically disadvantaged and those who are not (86.9 percent and 95.1 percent, respectively) totaled 8.2, a continued improvement since 2016/17 when the point gap measured 10.7.

ACADEMIC ACHIEVEMENT GAP BETWEEN SOCIOECONOMIC GROUPS CONTINUES TO SHRINK

FOUR-YEAR ADJUSTED COHORT GRADUATION RATE BY SOCIOECONOMIC STATUS, 2016/17–2019/20



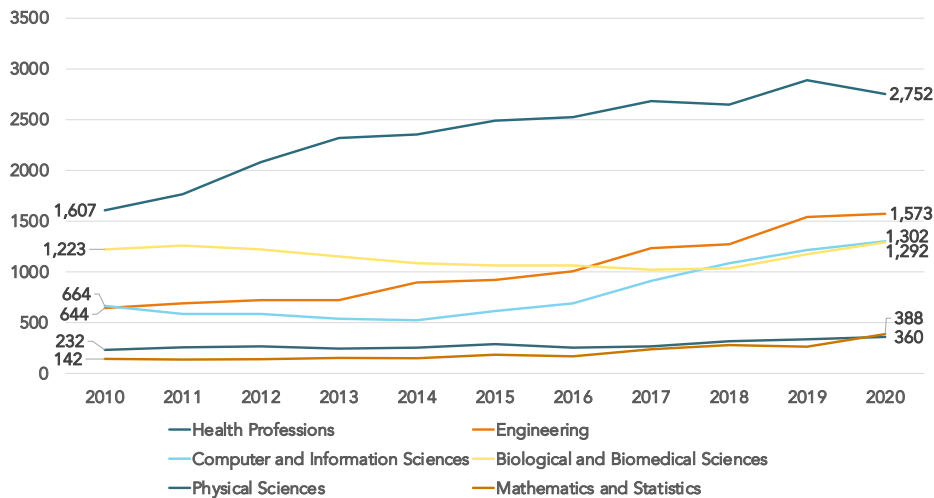
Source: California Department of Education, DataQuest

Data Notes:

The graduation rate measures the percentage of students who receive a diploma in four years. Due to changes in methodology, four-year adjusted cohort graduation rate data are only available for the 2016/17, 2017/18, 2018/19, and 2019/20 school years. Data are for non-charter schools only, with the exception of the analysis by socio-economic status, which includes all schools. "Asian" includes Asian, Pacific Islander, and Filipino. "Other" includes Native American/Alaskan Native, African American, two or more races, or not reported. A student is considered socioeconomically disadvantaged if both parents have not received a high school diploma, the student is eligible for Free or Reduced-Price Meals, or the student is a migrant, homeless, or foster youth.

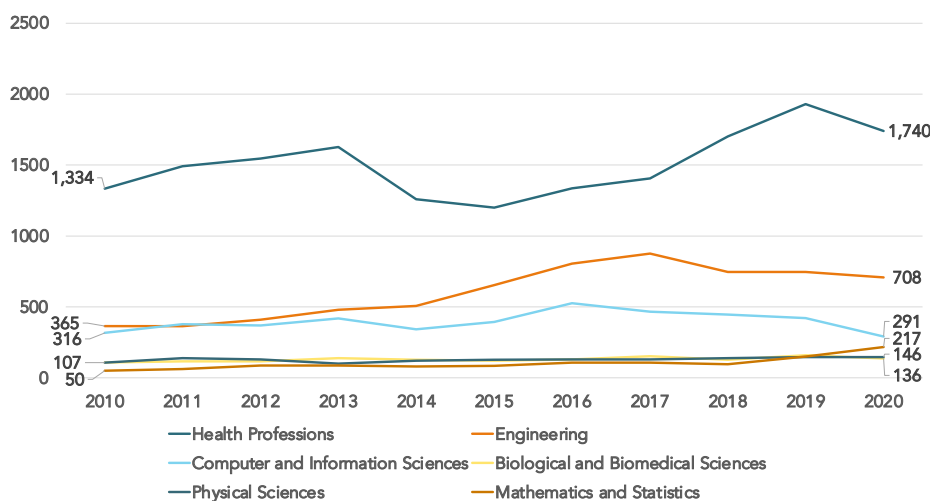
2020 SEES DECLINE IN NUMBER OF HEALTH-RELATED DEGREES

STEM-RELATED BACHELOR'S DEGREES CONFERRED AT ORANGE COUNTY COLLEGES AND UNIVERSITIES, 2010-2020



Source: Economic Modeling Specialists International

STEM-RELATED GRADUATE DEGREES CONFERRED AT ORANGE COUNTY COLLEGES AND UNIVERSITIES, 2010-2020



Source: Economic Modeling Specialists International

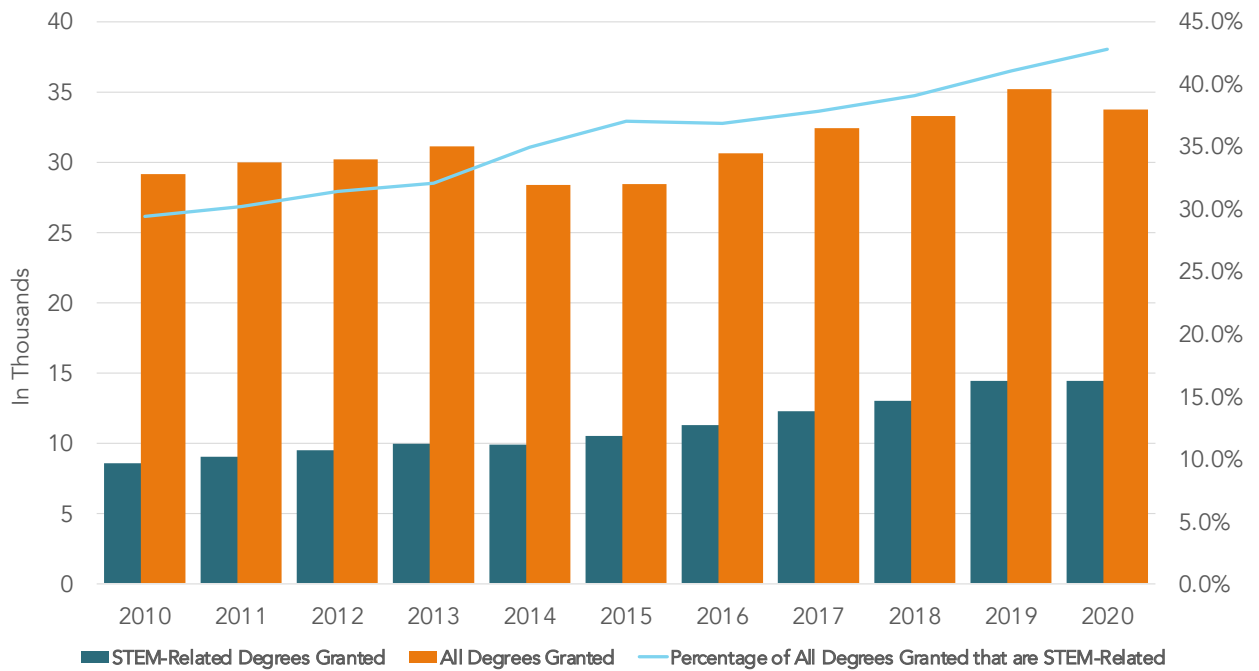
STEM-RELATED DEGREES

Orange County colleges and universities conferred a total of 14,448 STEM-related bachelor's, master's, and doctorate degrees in 2020, a decline of less than 0.1 percent from the previous year. The number of total (STEM and non-STEM) degrees declined by 4.1 percent, indicating that students in STEM-related fields were less affected by the pandemic. The number of STEM-related bachelor's degrees increased by 3.4 percent to 7,667 in 2020, while the number of STEM-related graduate degrees declined by 8.9 percent to 3,238, led primarily by declines in Health Profession and Computer and Information Sciences. The only STEM field to see an increase in the number of graduate degrees was Mathematics and Statistics, which saw 66 more degrees in 2020 than in 2019.

This reflects a longer-term trend. From 2010 to 2020, the number of Mathematics and Statistics degrees (undergraduate and graduate combined) grew by 215 percent, more than any other field, followed by Engineering (126 percent) and Computer and Information Sciences (63 percent).

DEGREES GRANTED IN 2020 DECLINE DUE TO COVID-19

STEM-RELATED DEGREES AS A PROPORTION OF TOTAL DEGREES GRANTED IN ORANGE COUNTY, 2010–2020



Source: Economic Modeling Specialists International

Data Notes:

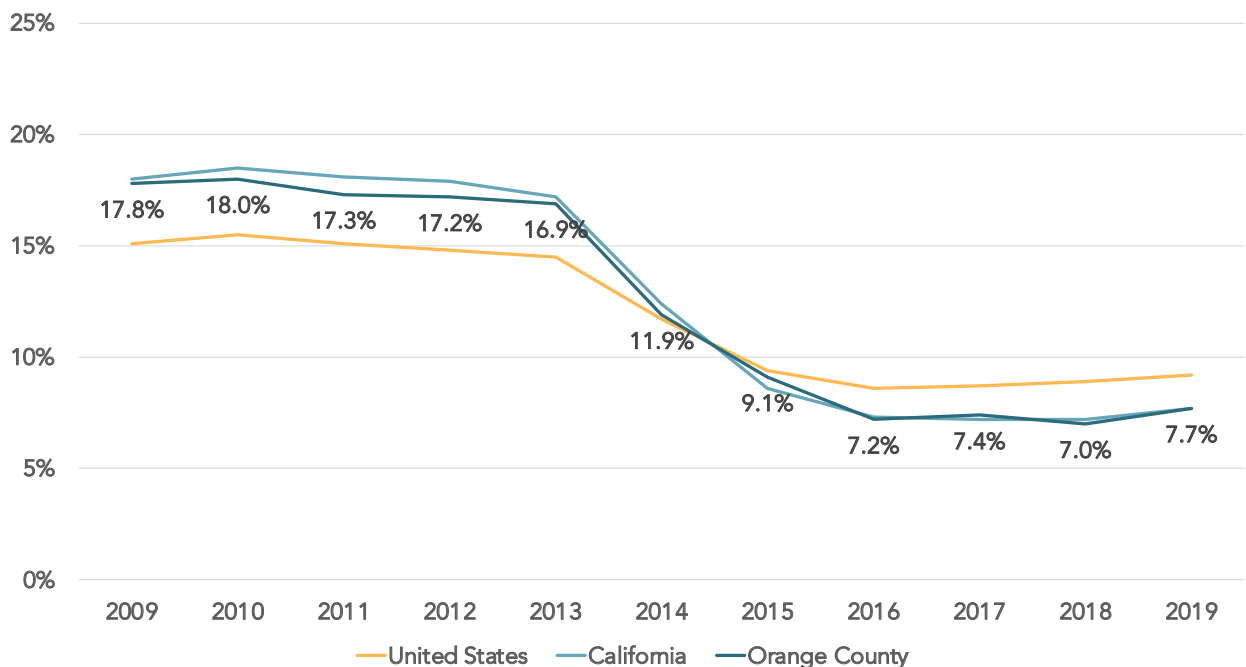
“STEM” degrees are those granted in the fields of science, technology, engineering, and mathematics. Data are inclusive of bachelor’s, master’s, and doctorate degrees granted at public, private, and for-profit 4-year degree granting institutions in Orange County. Data reflect degrees granted in a given school year, where 2019 represents degrees granted in the 2018/19 school year, for example. In the 2020 iteration of the National Center for Education Statistic’s Integrated Postsecondary Education Data System (IPEDS), the Classification of Instructional Programs (CIP) underwent significant revisions which altered historical data points published in prior versions of *Orange County Community Indicators*.

HEALTH CARE ACCESS

The percentage of Orange County residents lacking health insurance increased from 7 percent in 2018 to 7.7 percent in 2019 to fall in line with the state average of 7.7 percent. National uninsured rates, on the other hand, increased from 8.9 percent to 9.2 percent over the same time period. Orange County had California's third lowest uninsured rate, behind San Francisco County (3.8 percent) and Santa Clara County (4.6 percent), but ahead of San Diego County (8.0 percent) and Riverside County (8.7 percent).

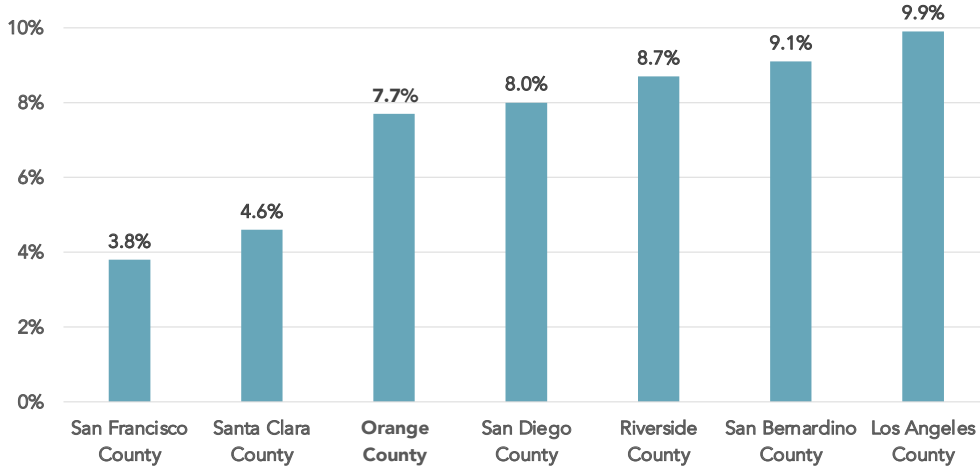
UNINSURED RATES CLIMB SLIGHTLY IN 2019

UNINSURED (ALL AGES) IN ORANGE COUNTY, CALIFORNIA, AND UNITED STATES, 2009-2019



Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table S2701

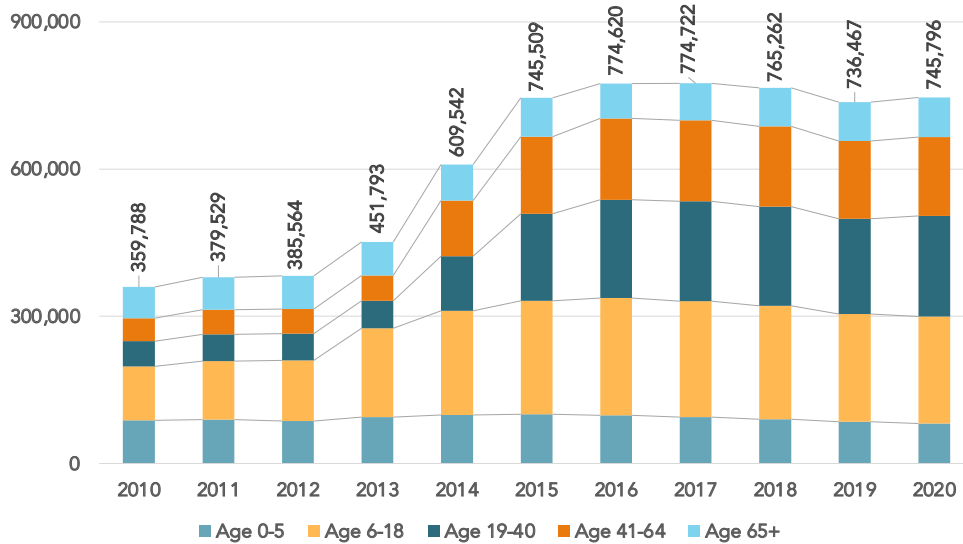
UNINSURED (ALL AGES) IN ORANGE COUNTY AND PEER REGIONS, 2019



Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table S2701

MEDI-CAL MEMBERSHIP SEES ENROLLMENT BUMP IN 2020

CALOPTIMA MEDI-CAL MEMBERSHIP IN ORANGE COUNTY, 2010-2020



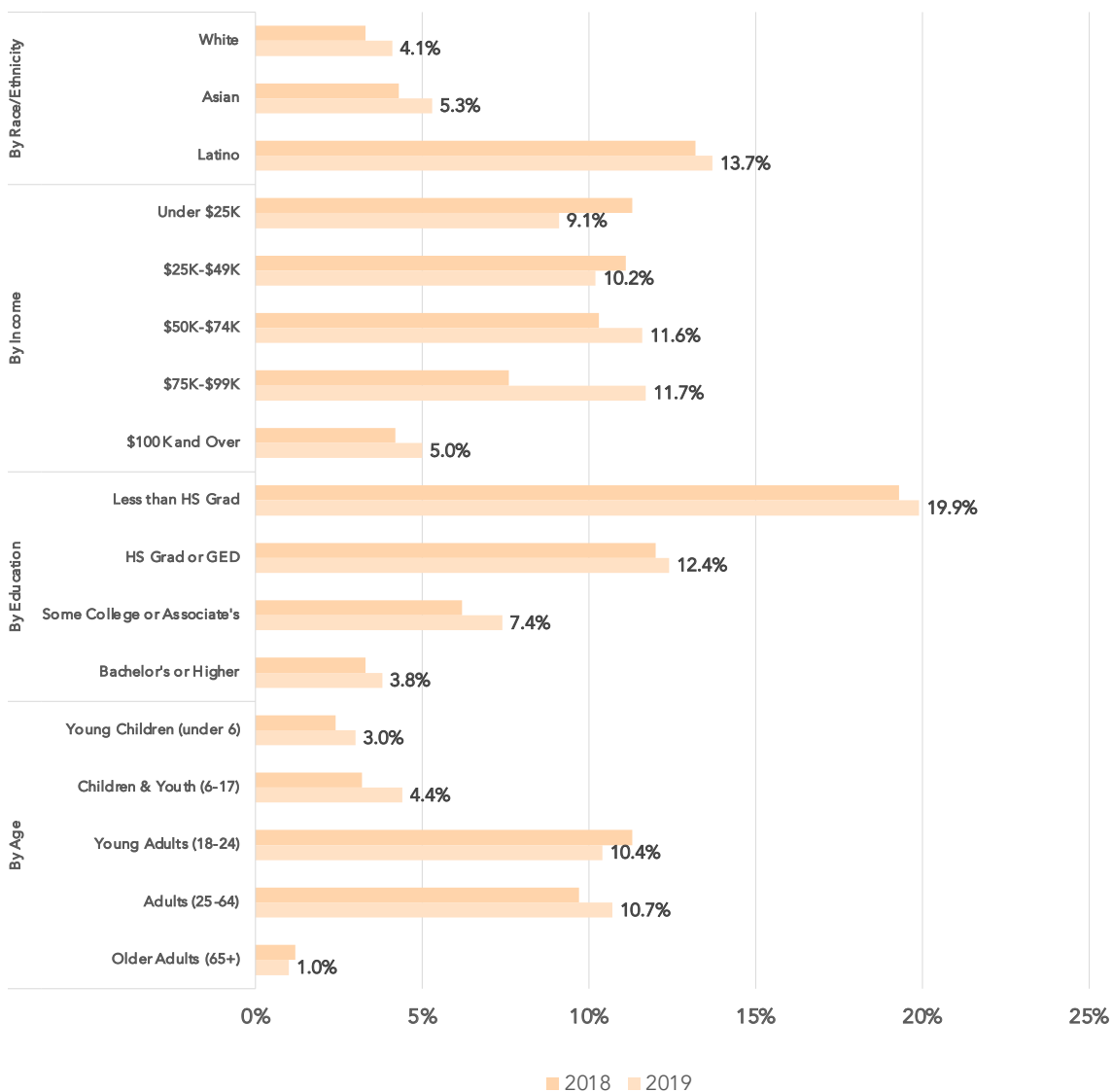
Source: CalOptima

Over the past year, Medi-Cal membership through CalOptima increased by nearly 10,000 members, or by 1.3 percent, reaching a total of 745,796 in 2020. This increase was primarily led by the 19 to 40 year age group, which saw enrollment increase by 5.6 percent, followed by the 41 to 64 year and 65+ year age groups, which both saw increases of 1.6 percent. The 0 to 5 and 6 to 18 age groups, on the other hand, saw enrollment declines of 3.9 percent and 0.9 percent, respectively.

In 2019, insurance coverage in Orange County for residents making under \$25K and making between \$25K and \$49K improved by 2.2 and 0.9 percentage points, respectively. Young Adults aged 18–34 and Older Adults aged 65+ also saw improvements in insurance coverage by 0.9 and 0.2 percentage points, respectively. All other groups highlighted in the chart below saw insurance coverage decline, with the most significant change occurring for residents making between \$75K and \$99K, who saw a decline of 4.1 percentage points.

INSURANCE COVERAGE FOR LOWER-INCOME SEGMENTS IMPROVES; WORSENS FOR NEARLY ALL OTHER GROUPS

UNINSURED IN ORANGE COUNTY BY RACE/ETHNICITY, INCOME, EDUCATION, AND AGE, 2018 AND 2019



Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, Table S2701

CHRONIC DISEASE

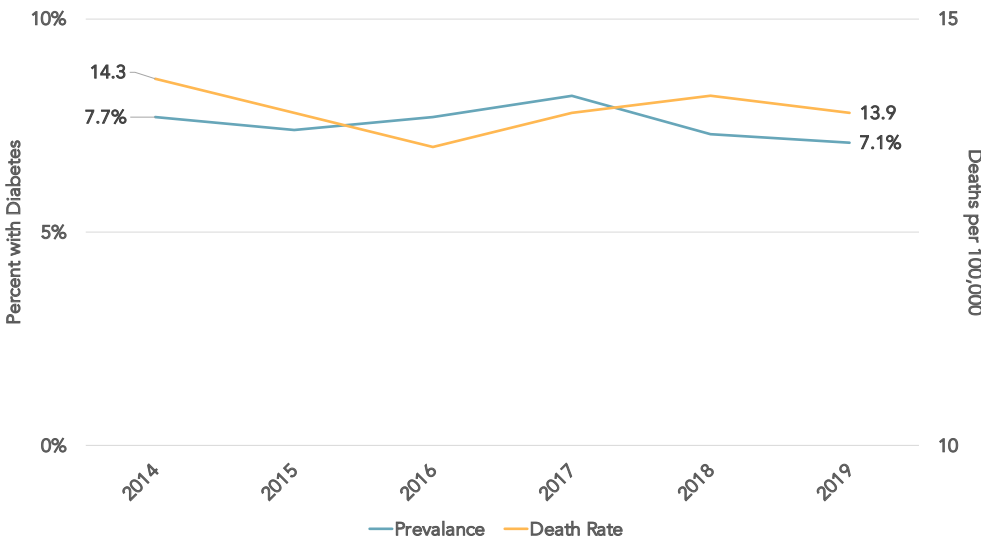
With COVID-19 posing a greater risk to individuals with existing medical conditions, a renewed focus was placed on improving the health of residents across the nation. Most notable are four behaviors which heavily contribute to illness and early death: sedentary lifestyles, poor nutrition, tobacco use, and excessive alcohol consumption. In Orange County, death rates due to diabetes and stroke declined by 0.2 and 2.1 points, respectively, from 2018 to 2019, while deaths related to heart disease and asthma increased by 1.7 and 0.1 points, respectively. While the prevalence of high blood pressure remained constant at 26.8 percent, prevalence rates for diabetes declined by 0.2 percentage points and increased by 0.5 for heart disease. The prevalence rate for residents with asthma increased the most, jumping from 11.8 percent to 15.4 percent from 2018 to 2019.

Despite declining COVID-19 cases across the county, state, and nation, it is imperative that continued focus be placed on better supporting individuals with pre-existing conditions. Ensuring these individuals have access to appropriate healthcare options will help maintain the region’s already high quality of life.



Heart Disease and Asthma Deaths Increase; Diabetes and Stroke Deaths Decline

DIABETES PREVALENCE AND DEATH RATE IN ORANGE COUNTY, 2014–2019



Sources: California Health Interview Survey; California Department of Public Health, County Health Status Profiles

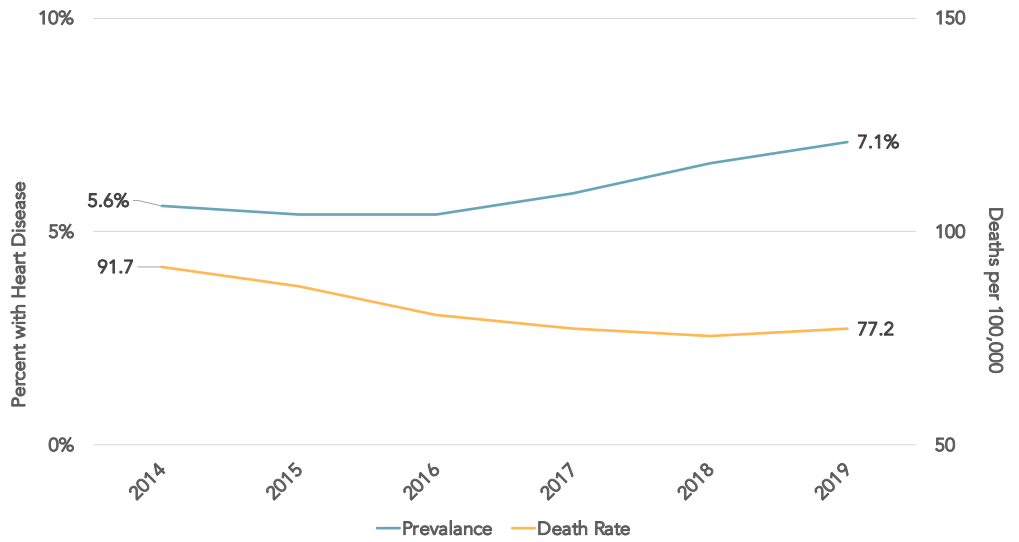
DIABETES

The rate of adults with diabetes declined by 0.2 percentage points to 7.1 percent in 2019, while the death rate declined by 0.2 percentage points to 13.9 percent. This is the lowest prevalence rate measured over the past six years.

HEART DISEASE

The percent of Orange County residents with heart disease increased from 6.6 percent in 2018 to 7.1 percent in 2019, while the death rate increased from 75.5 to 77.2 during the same time period.

HEART DISEASE PREVALENCE AND DEATH RATE IN ORANGE COUNTY, 2014–2019

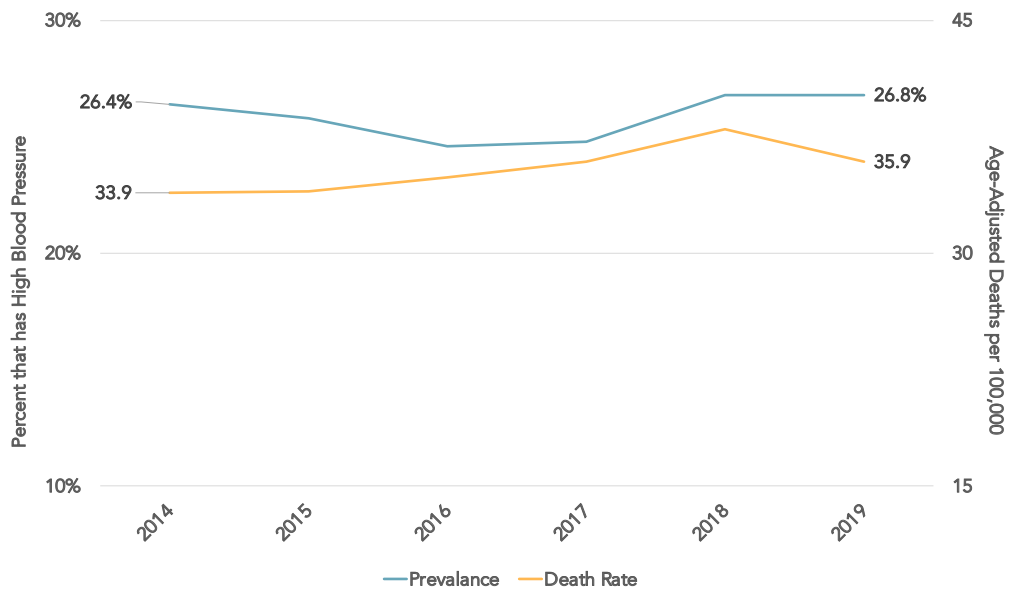


Sources: California Health Interview Survey; California Department of Public Health, County Health Status Profiles

HIGH BLOOD PRESSURE/ STROKE

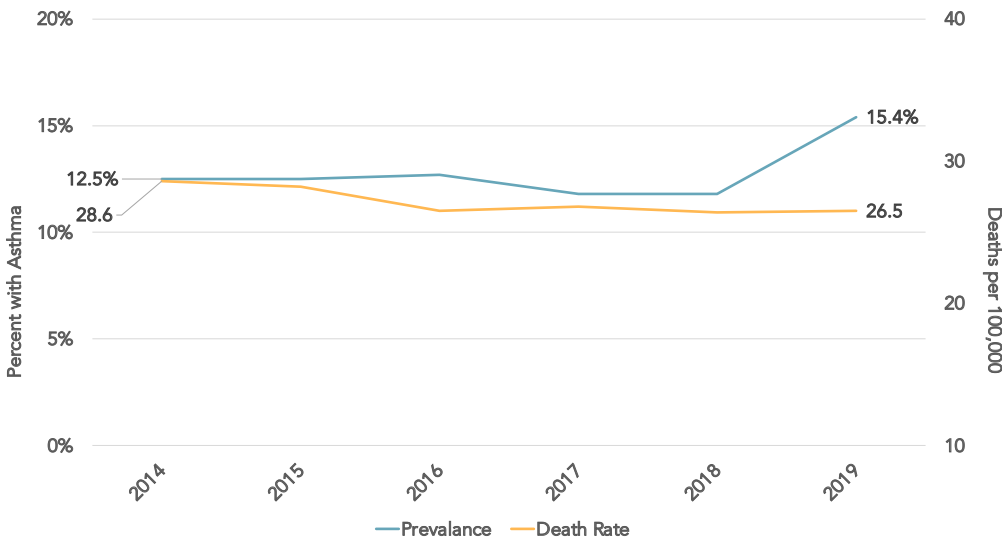
While the prevalence of high blood pressure or strokes in Orange County remained steady at 26.8 percent in 2019, the death rate dropped by a significant 2.1 points to 35.9 in 2019.

HIGH BLOOD PRESSURE PREVALENCE AND STROKE DEATH RATE IN ORANGE COUNTY, 2014–2019



Sources: California Health Interview Survey; California Department of Public Health, County Health Status Profiles

ASTHMA PREVALENCE AND CHRONIC LOWER RESPIRATORY DISEASE DEATH RATE IN ORANGE COUNTY, 2014–2019



Sources: California Health Interview Survey; California Department of Public Health, County Health Status Profiles

Data Notes:

Prevalence and death data reflect rolling (overlapping) three-year averages. For example, “2019” is an average of 2017, 2018, and 2019 data, and “2018” is an average of 2016, 2017, and 2018 data. The death data shown are age-adjusted rates, which controls for regional variability in age composition.

ASTHMA/ CHRONIC LOWER RESPIRATORY DISEASE

15.4 percent of Orange County residents had asthma in 2019, a significant increase from 11.8 percent in 2018. The death rate increased slightly by only 0.1 points to 26.5 in 2019. The increase in asthma prevalence is especially worrying considering the possibility of chronic lung damage from COVID-19.





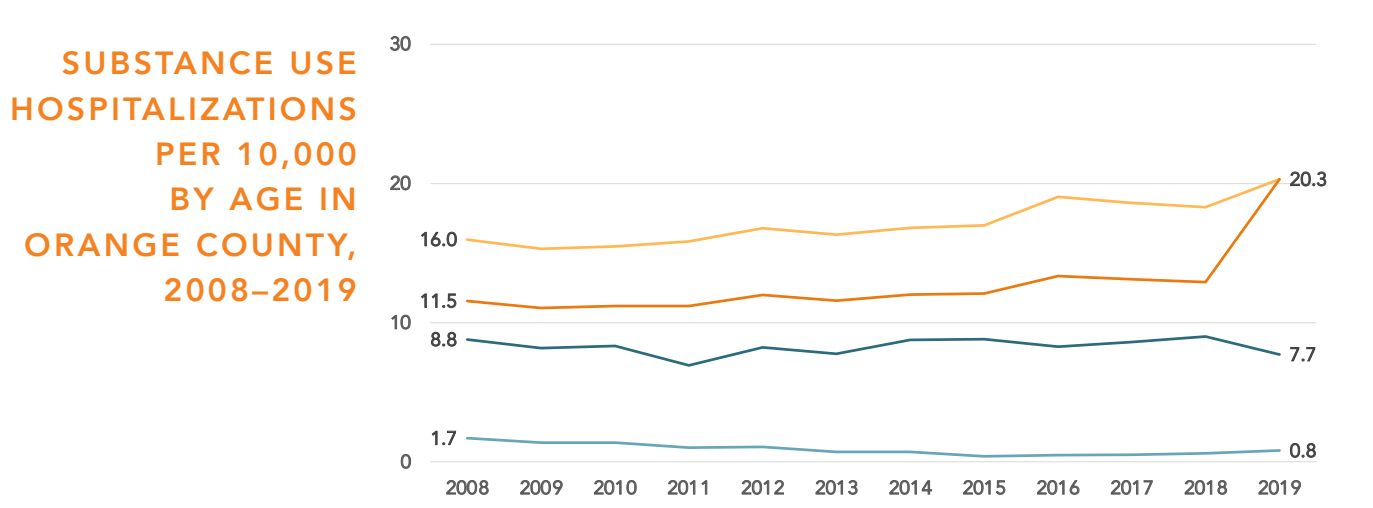
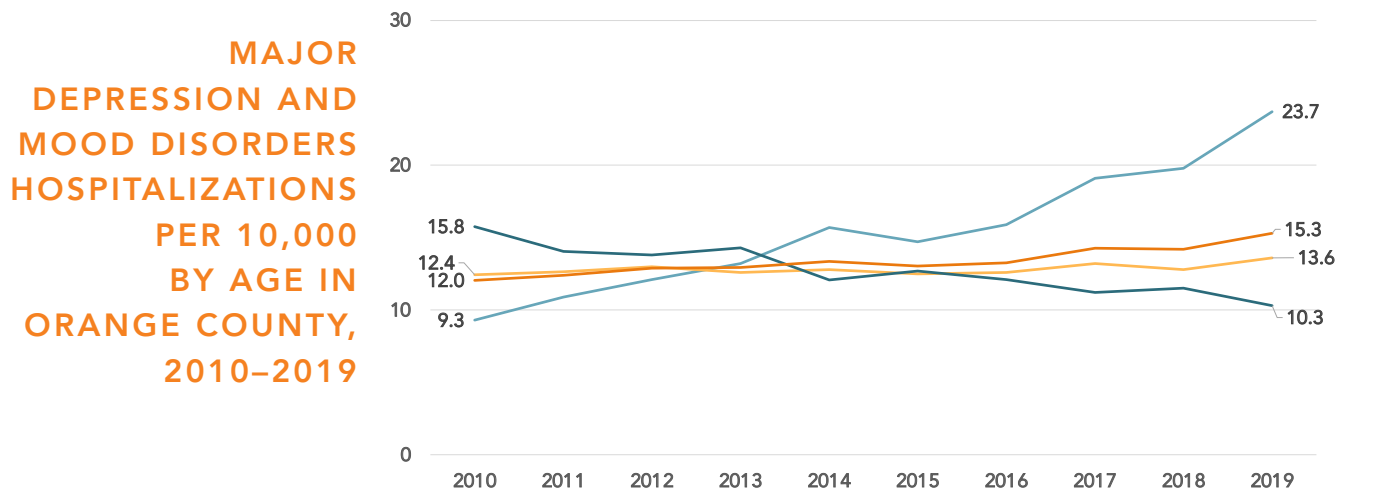
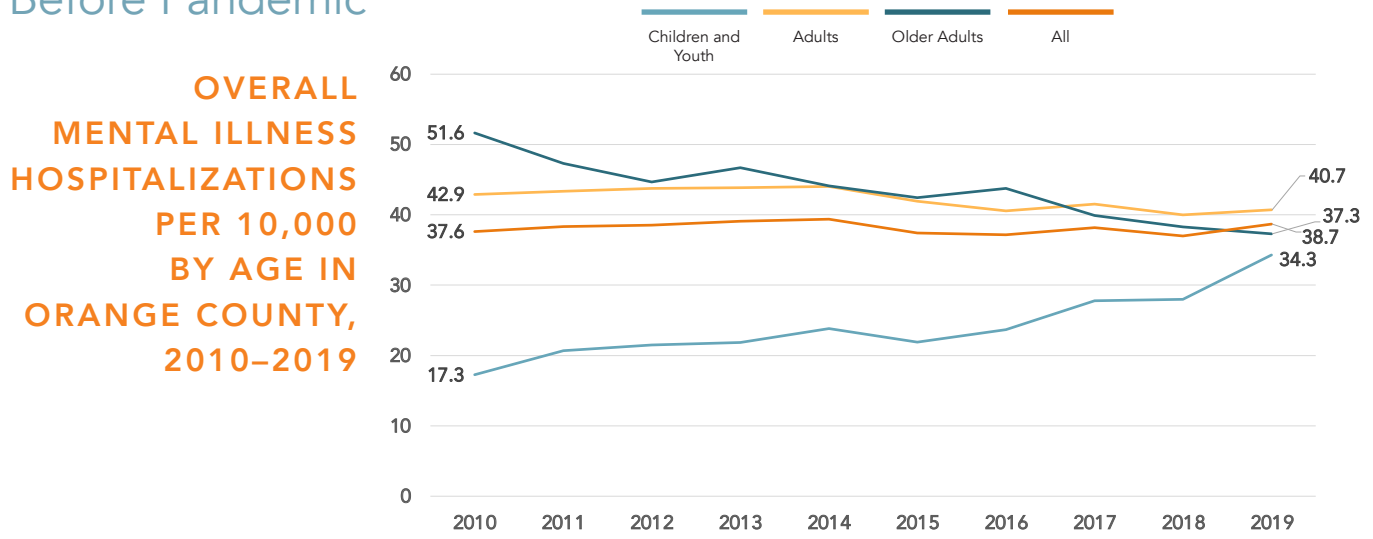
MENTAL HEALTH AND SUBSTANCE USE

Orange County mental health hospitalizations of adults trended downward before the pandemic as hospitalizations of residents aged 65 and older decreased by 28 percent and hospitalizations of residents aged 18–64 decreased by 5 percent between 2010 and 2019. The hospitalization of children and youth (aged 0–17), on the other hand, increased by a staggering 99 percent during the same time period. Hospitalizations for all age groups will likely increase in the wake of the COVID-19 pandemic.

Despite consistent declines in substance use hospitalizations in children and youth over the past decade, there was a 33 percent increase over the past year, and adults saw an 11 percent increase over the same time period. Older adults were the only group that saw a decline in substance use hospitalizations, a number that declined by 14 percent since 2018. The overall death rate due to opioids increased from 7.9 to 8.4, an increase of 6.3 percent over the past year; the hospitalization rate increased by 28.4 percent over the same time period.

Together, mental health and substance use-related hospitalizations in Orange County increased from 50 per 10,000 residents in 2018 to 52.7 in 2019, an increase of 5.4 percent. This was the highest percentage since 2007 and well above the low of 48.8 measured in 2010.

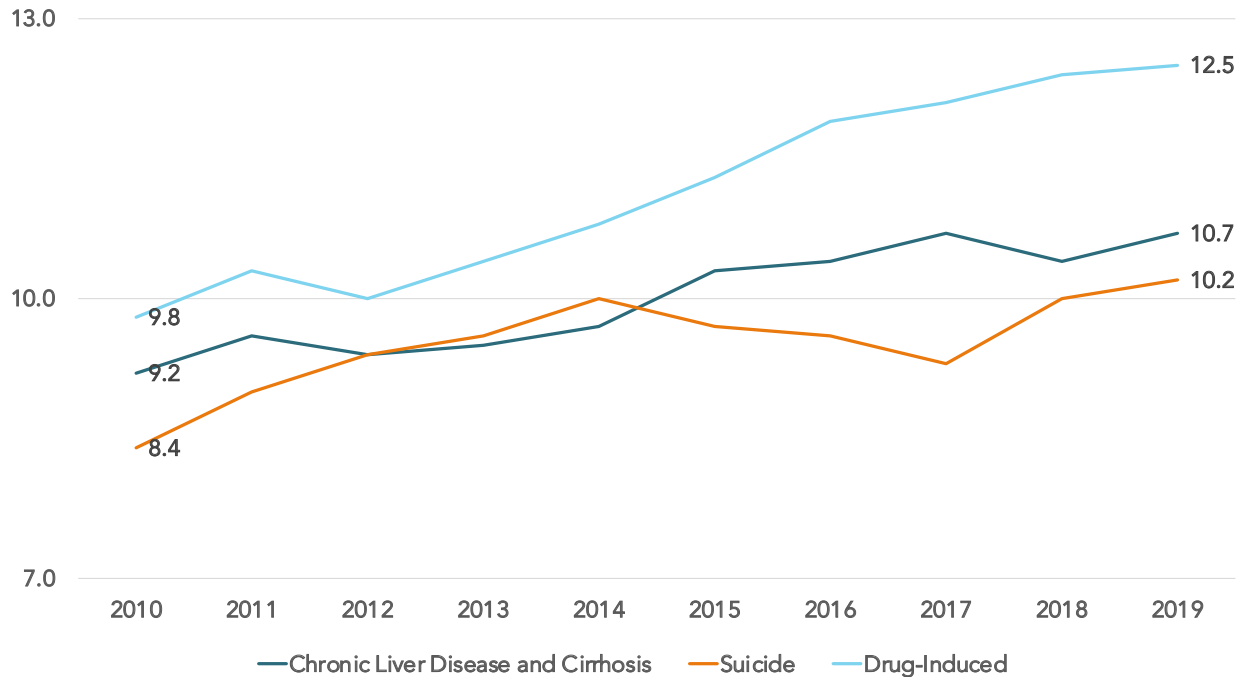
Youth Mental Health and Mood Disorders Increased Before Pandemic



Sources: Office of Statewide Health Planning & Development Patient Discharge Data prepared by Orange County Health Care Agency, Research and Planning; California Department of Finance; U.S. Census Bureau, American Community Survey

Substance-Related Death Rates Continue to Rise

MENTAL HEALTH AND SUBSTANCE USE-RELATED DEATHS PER 100,000 IN ORANGE COUNTY, 2010–2019



Source: California Department of Public Health, County Health Status Profiles

Orange County Schools Join with Children's Hospital to Address Student Mental Health Needs

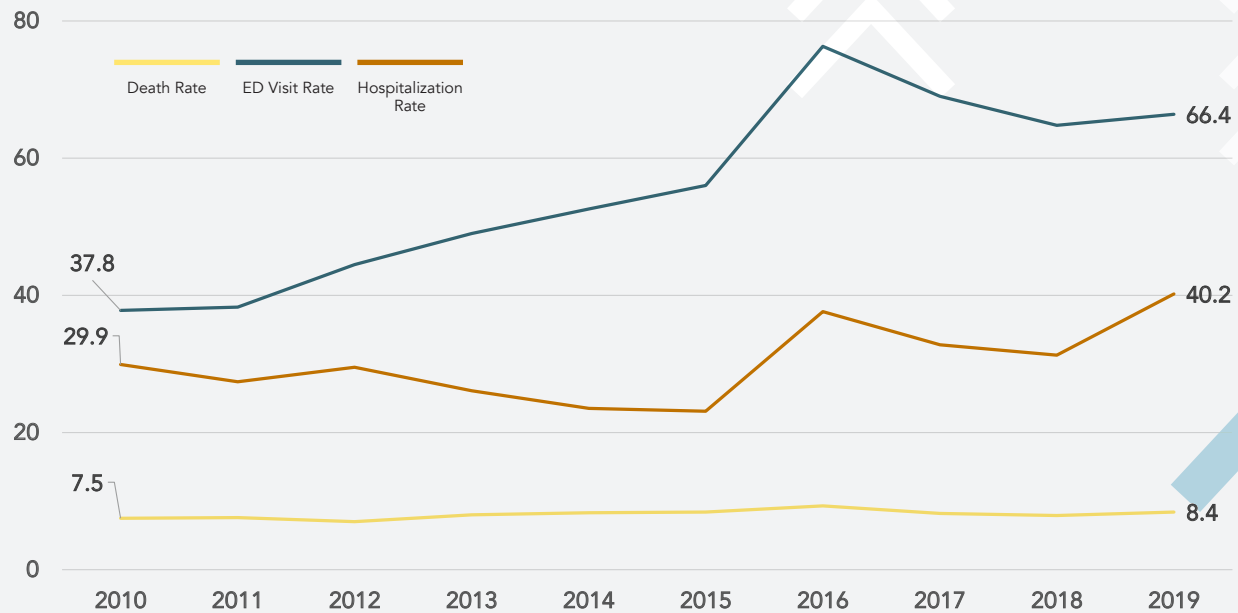
The COVID-19 pandemic accelerated the past decade's increase in mental-health related hospitalizations of children and youth. According to the Community Suicide Prevention Initiative, "[t]he youth suicide rate in Orange County increased by 11 percent from 2010 to 2018, the sharpest increase among the 20 most populous counties in the U.S. Reflecting a national trend, suicide is the second-leading cause of death among adolescents in Orange County." In response to this trend, Children's Hospital of Orange County (CHOC) and the Orange County Department of Education have partnered to provide connections between classrooms and mental health services and to create "well spaces" on all campuses where students can visit counselors, meditate, and relax. The first "well spaces" opened in August 2020 and are staffed by counselors, psychologists, or social workers with whom students can book meetings. CHOC and the OCDE plan to provide access to virtual health checkups and counseling sessions with CHOC doctors and nurses at these spaces.

Source: EDSOURCE, Orange County Schools Join with Children's Hospital to Address Student Mental Health Needs, June 8, 2021

OPIOIDS IN ORANGE COUNTY

- At the national level, the rate of overdose deaths increased by more than 4 percent between 2018 and 2019.
- Synthetic opioids continue to be the main driver of overdose deaths, accounting for 72.9 percent of overdose deaths nationwide.
- No state experienced a significant decrease in overdose deaths over the past year.
- California’s drug overdose death rate was 15 (per 100,000), a significant increase from its death rate of 12.8 the previous year.
- Over the past year, emergency department (ED) visits for opioid overdose or use increased by only 2.5 percent, while the hospitalization rate increased by 28.4 percent.
- Orange County’s overall opioid-related death rate increased from 7.9 to 8.4, an increase of 6.3 percent since 2018.
- Since 2010, the ED visitation rate and hospitalization rates have increased by 76 percent and 34 percent, respectively; the death rate has increased by only 12 percent.

RATE OF OPIOID-RELATED EMERGENCY DEPARTMENT (ED) VISITS, HOSPITALIZATIONS, AND DEATHS IN ORANGE COUNTY, 2010–2019



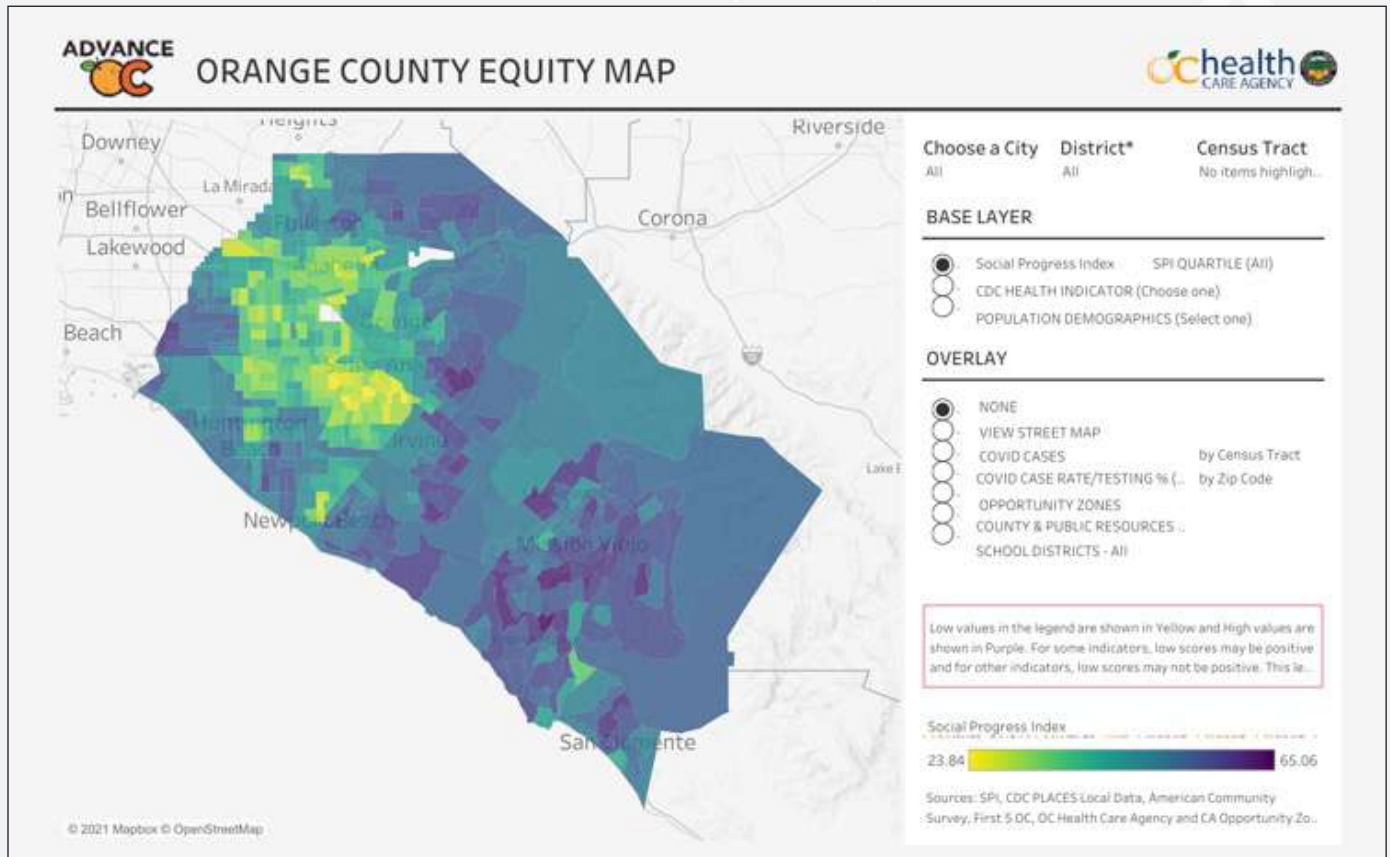
Sources: California’s Office of Statewide Health Planning and Development Emergency Department and Patient Discharge Data (ED/hospitalization data); CDC Wonder (death data)

AdvanceOC Introduces the Orange County Equity Map

Created through a partnership between AdvanceOC, the County of Orange and the Healthcare Agency (HCA), the Orange County Equity Map (OC Equity Map) is an interactive data visualization platform, which highlights the social and health disparities and gaps in the region with a focus on impacts resulting from the COVID-19 pandemic.

It allows users to explore the Social Progress Index (SPI), CDC Health Indicators, and demographic information, and apply other map overlays (including COVID-19 case counts and testing rates) to 580 census tracts in the region. In the words of County Health Officer Clayton Chau, "This depth of data will help to create a roadmap for private and public partnerships to collectively address complex social circumstances at the root of inequities in health and well-being. The platform also supports the OC Health Care Agency's mission to work collaboratively with the community to deliver sustainable and responsive services that promote population health and equity."

The OC Equity Map's foundation is the SPI, which incorporates over 50 indicators of health and wellness of a community into three broad categories: Basic Human Needs, Foundations of Wellbeing, and Opportunity. The SPI was created to inform and educate residents, elected officials, and local stakeholders on their neighborhood's specific needs, and to enable more targeted strategies and effective solutions. While the current iteration uses 2010 Census data, an updated version will use 2020 Census data.

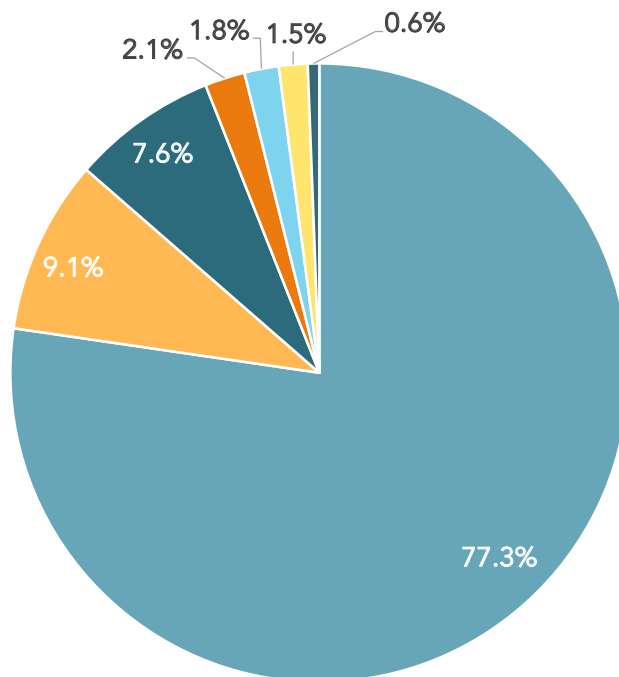


TRANSPORTATION

In 2019, 77.3 percent of Orange County residents ages 16 and older drove to work alone, a small decline from the year before. Carpooling also declined from 9.4 percent to 9.1 percent, as did nearly all modes of transportation. The percentage of individuals working from home, on the other hand, increased from 6.7 percent to 7.6 percent, indicating a growth in remote work's popularity even before the COVID-19 pandemic. The 2020 and 2021 survey results will likely show much higher remote work numbers.

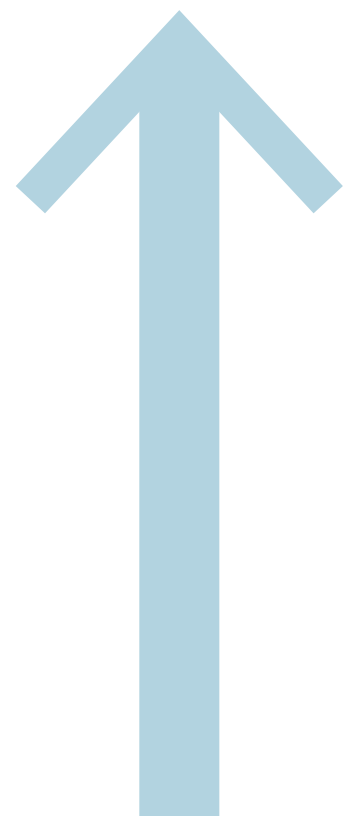
OC Residents Continue to Prefer Driving Alone

MODE OF TRAVEL TO WORK IN ORANGE COUNTY, 2019



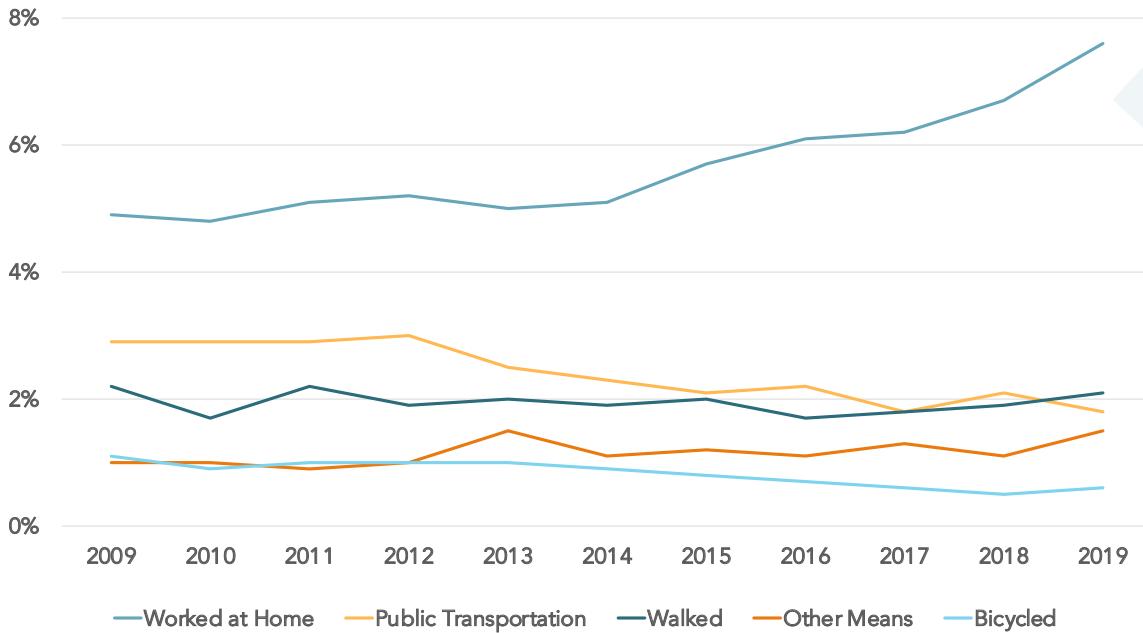
- Drove Alone
- Carooled
- Worked at Home
- Walked
- Public Transportation
- Other Means

Source: U.S. Census Bureau, 2019 American Community Survey, 1-Year Estimates



Working at Home Continues to Increase in Popularity

SELECTED MODES OF TRAVEL TO WORK IN ORANGE COUNTY, 2009-2019



Source: U.S. Census Bureau, 2009-2019 American Community Survey, 1-Year Estimates

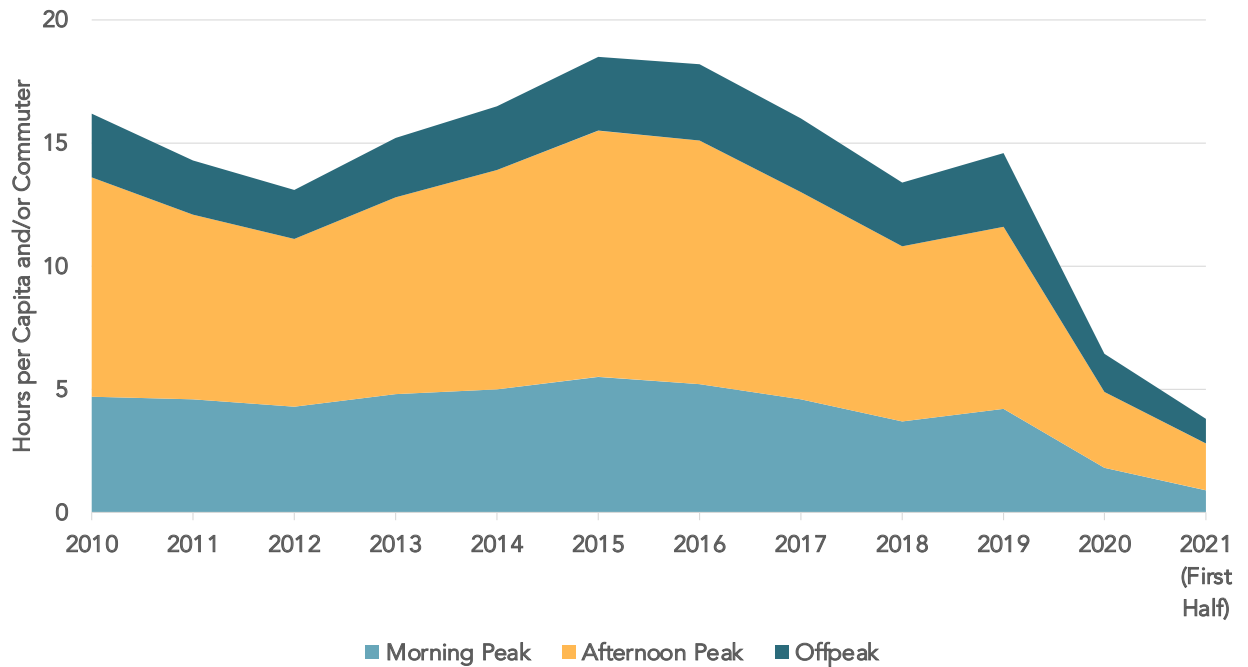
The COVID-19 pandemic dramatically reduced congestion across the entire state as a significant portion of the workforce adopted work-from-home strategies and students began distance learning programs. Orange County was no different. In 2019, the average Orange County traveler experienced 14.6 hours in freeway traffic congestion, up from 13.5 hours in 2018. Orange County had the second highest average annual delay behind only the Inland Empire which recorded 14.5 hours of freeway traffic congestion.

The average delay fell to just 3.8 hours in the first half of 2021 reflecting the continued lockdowns throughout the county. The average delay is expected to increase in the latter half of 2021 as the majority of businesses have reopened and hiring has resumed.

Car ownership has increased by just 0.6 percent over the past year after increasing by 0.9 percent in 2019 and 1.0 percent in 2018.

Freeway Delays Dropped Dramatically During Covid-19

ANNUAL HOURS OF FREEWAY DELAY PER CAPITA OR COMMUTER IN ORANGE COUNTY, 2010-2021 (1ST HALF ONLY)

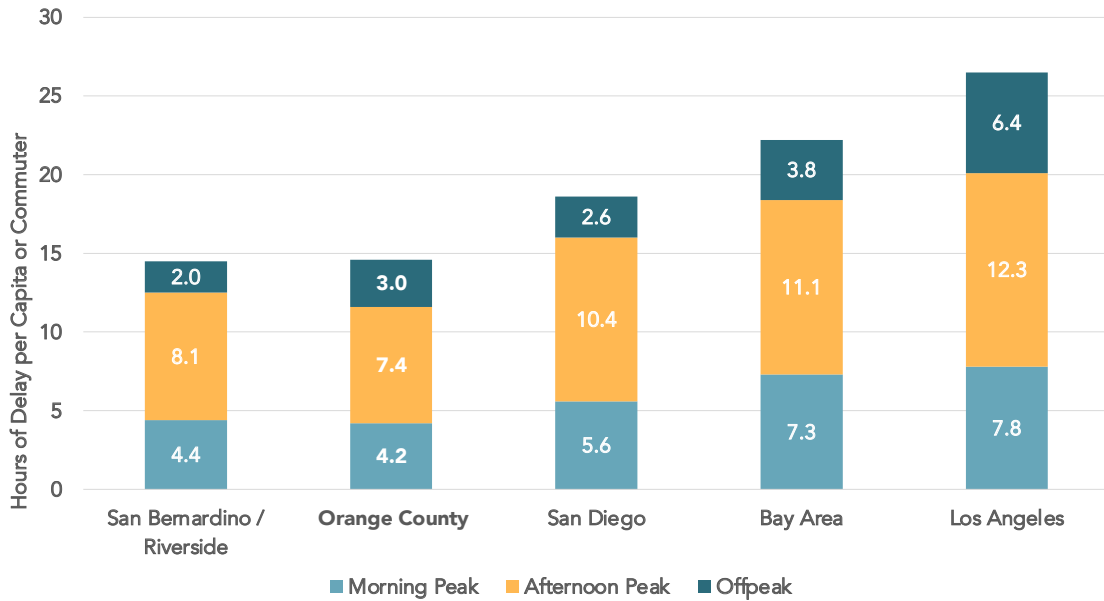


Note: Data for peak hours reflect annual hours of delay per commuter at speeds less than 60 miles per hour on freeways in Orange County. Data for offpeak hours are per capita. Counts of commuters in 2020 and 2019 are projected estimates based on historical trends and change in vehicle miles traveled; consequently, morning and afternoon peak estimates of delay per commuter should be interpreted with caution.

Source: Caltrans, Performance Measurement System; U.S. Census Bureau, American Community Survey, 1-Year Estimates; California Department of Finance, Population Estimates, Tables E-2 & E-4

Afternoon Delays in San Bernardino/Riverside Counties Overtake OC

REGIONAL COMPARISON OF ANNUAL HOURS OF FREEWAY DELAY PER CAPITA OR COMMUTER, 2019

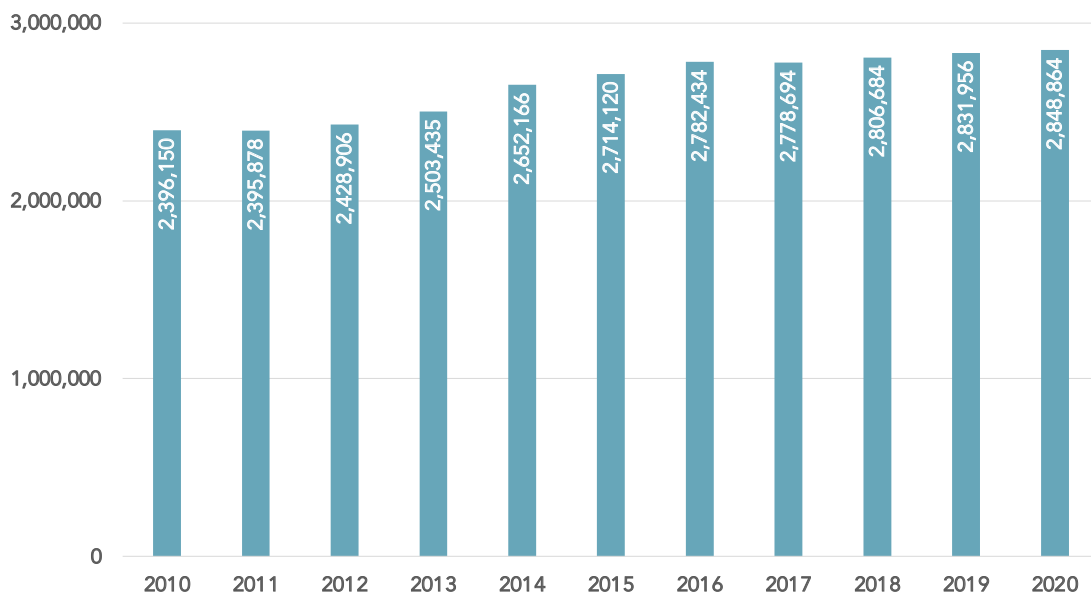


Note: Data for peak hours reflect annual hours of delay per commuter at speeds less than 60 miles per hour on freeways in Orange County. Data for offpeak hours are per capita.

Source: Caltrans, Performance Measurement System; U.S. Census Bureau, American Community Survey, 1-Year Estimates; California Department of Finance, Population Estimates, Table E-2

Car Ownership Rates Begin to Slow

VEHICLE REGISTRATION IN ORANGE COUNTY, 2010-2020



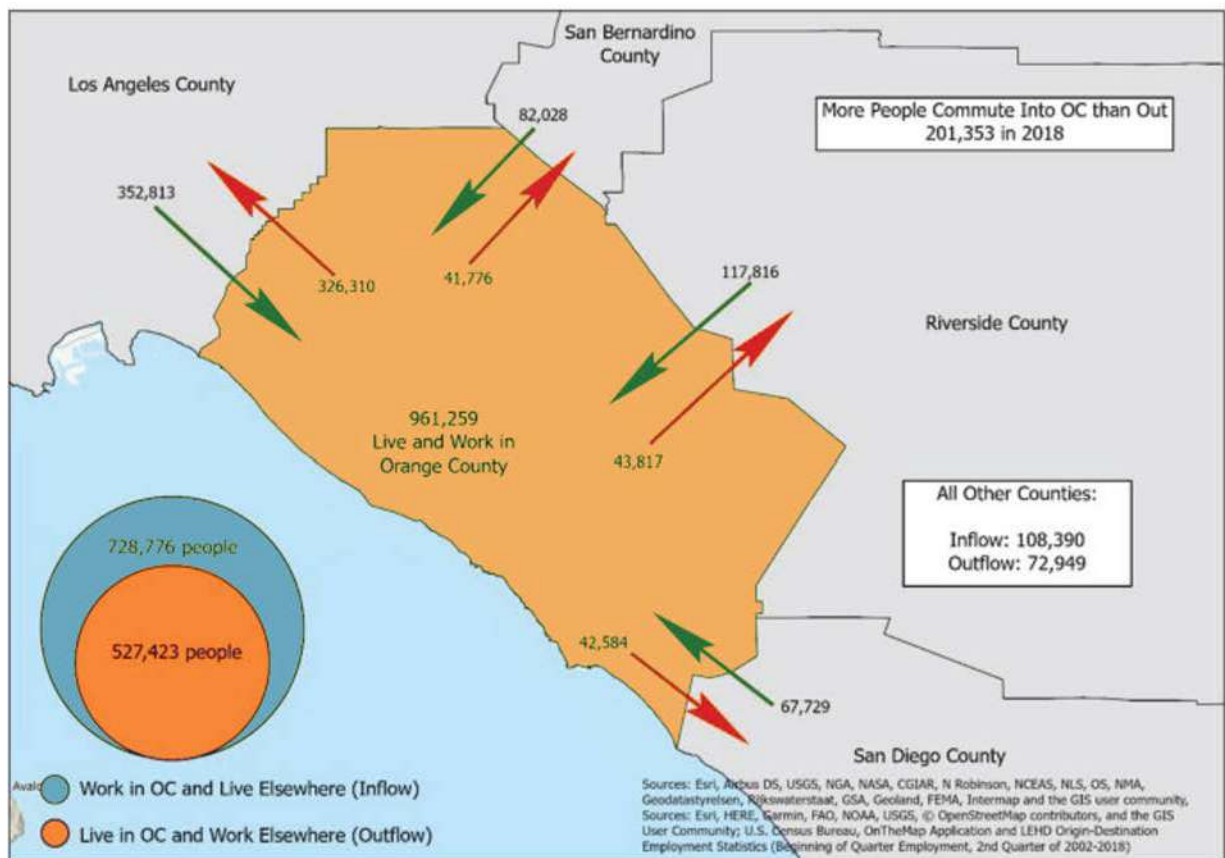
Source: California Department of Motor Vehicles, Forecasting Unit

Over 950,000 people both live and work in Orange County with 200,000 more people commuting into the county than out. Overall, approximately 728,776 individuals work in Orange County but live elsewhere, while 527,423 people live in Orange County but work elsewhere.

The largest regional trade of workers occurs with Los Angeles County, where Orange County sees over 25,000 more commuters entering. Overall, all neighboring counties have more workers commuting into Orange County than Orange County workers commuting into their counties — a testament to the county’s incredibly strong job market. While Orange County’s comparatively higher median household incomes attract many workers into the county, they have been outpaced by home prices, a trend that prices many young professionals and families out of Orange County and into more affordable surrounding areas.

OC CONTINUES TO ATTRACT WORKERS

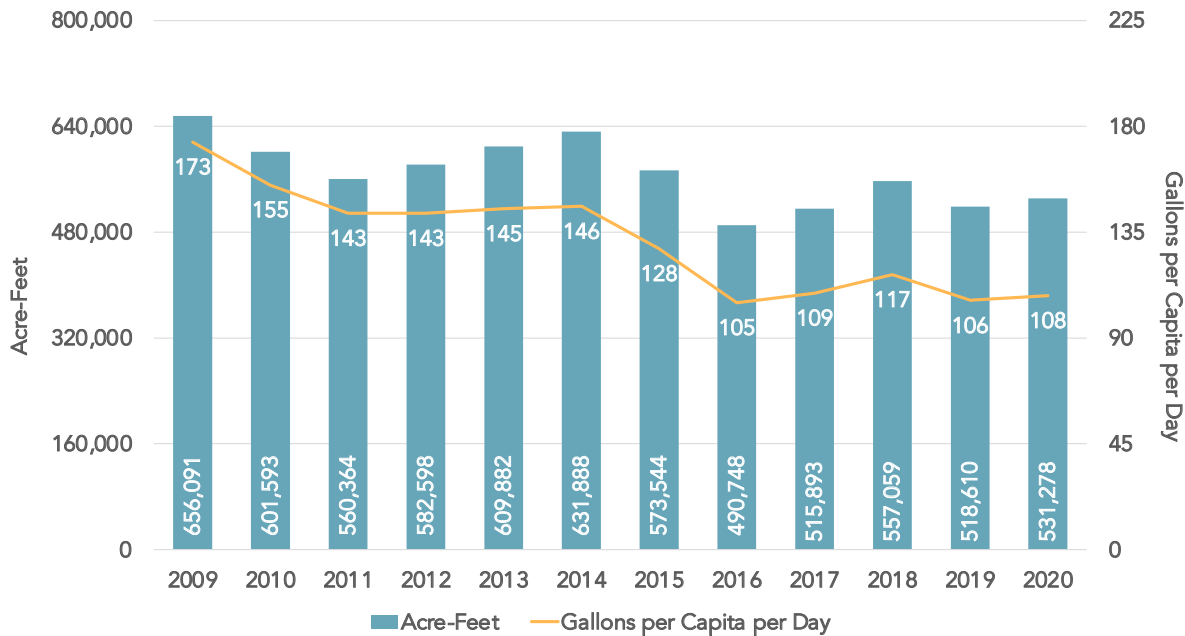
INTERCOUNTY COMMUTING PATTERNS BETWEEN ORANGE AND NEIGHBORING COUNTIES, 2018



WATER USE AND SUPPLY

Orange County water consumption increased from 106 gallons per capita per day (GPCD) in 2019 to 108 in 2020, only slightly above the 10-year low recorded in 2016. Orange County's average water consumption remains well below the Water Conservation Act of 2009 (SB X7-7) target of 158 GPCD, a reflection of recent conservation efforts undertaken by Orange County water users and suppliers. SB X7-7 was enacted in November 2009 and requires water suppliers to increase their water use efficiency and the state to reduce urban water consumption by 20 percent.

WATER USAGE INCREASES SLIGHTLY IN 2020

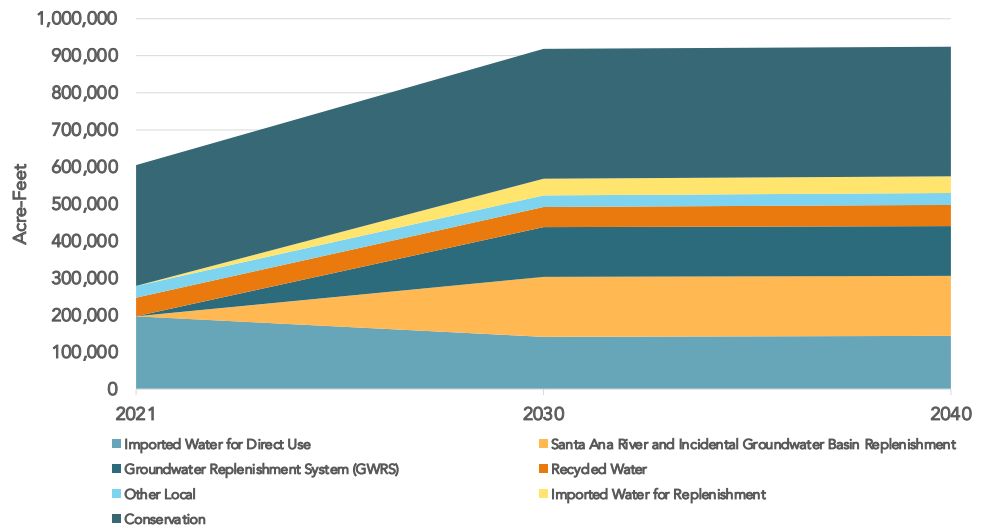


Source: Municipal Water District of Orange County

CONSERVATION EFFORTS INSULATE COUNTY FROM FUTURE DEMAND SPIKES

The region's total 'consumptive use' or total water sourced after conservation efforts totaled 519,000 acre-feet in 2020; this is expected to grow to 580,647 acre-feet by 2030 and 579,189 acre-feet by 2040. Conservation efforts are expected to total 326,496 acre-feet in 2021, slightly below the 330,000 acre-feet conserved in 2020, which can be attributed to a wet year in 2020 vs a dry year in 2021. Looking forward, conservation efforts are expected to reach 365,000 acre-feet by 2040, an increase of over 32 percent.

ORANGE COUNTY WATER SOURCES PROJECTIONS, 2021-2040



Sources: Municipal Water District of Orange County; Orange County Water District



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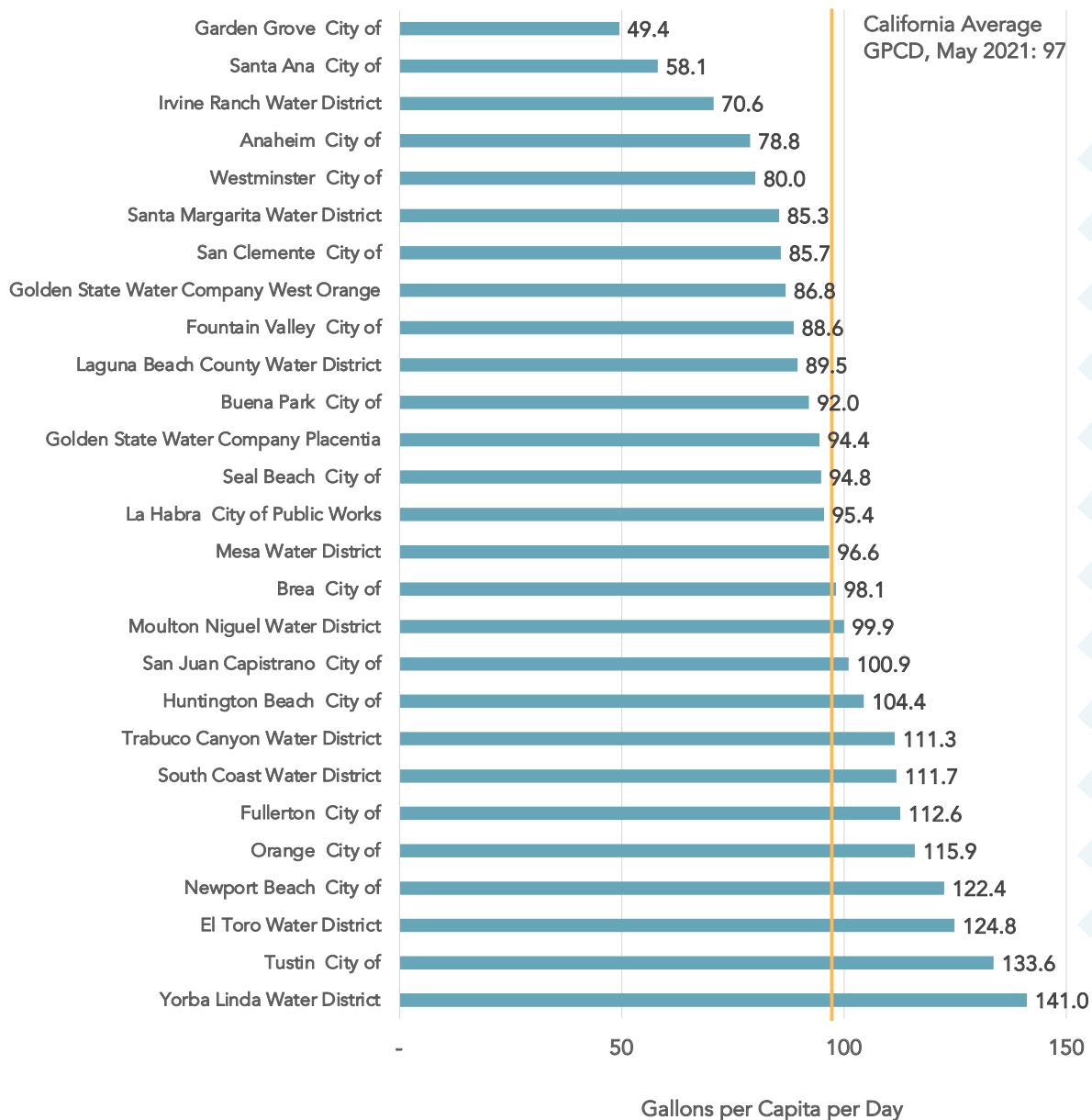


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In May 2021, 15 of the 27 measured water districts in Orange County reported lower per capita water consumption than the statewide average of 97 gallons per day (GCPD). The city with the lowest water consumption in the region was the City of Garden Grove at 49.4 GCPD, while the water district with the highest water consumption was Yorba Linda Water District with 141 GCPD.

12 OC Water Retailers Have Lower Consumption than Statewide Average

WATER CONSUMPTION IN GALLONS PER CAPITA PER DAY BY ORANGE COUNTY WATER RETAILER, MAY 2021



Source: State Water Resources Control Board

Data Notes:

Urban water usage data in acre-feet includes residential, industrial, and commercial water use in a fiscal year (July–June); data identified as 2018, for example, reflects water use in FY 2017/18. The gallons per capita per day (GPCD) calculations for Orange County overall, provided by the Municipal Water District of Orange County, are calculated to comply with SB X7-7. These GPCD calculations include potable water, less recycled water and indirect potable reuse water for the entire fiscal year. This measure of GPCD differs from GPCD reported in Community Indicators Reports prior to 2017. The GPCD figures by water supplier from the State Water Resource Control Board reflect residential water use only and report water usage for a single month. Reporting to the state is currently voluntary for water suppliers. Water conservation savings are calculated based on annual difference between the 240 average GPCD between the year 1980 to 1989 vs the present year [ex. $(240 \text{ GPCD} \times \text{FY 2021 GPCD}) \times 365 \text{ Days} \times 325851 \text{ Gallons} = \text{Annual Savings in Acre Feet}$].



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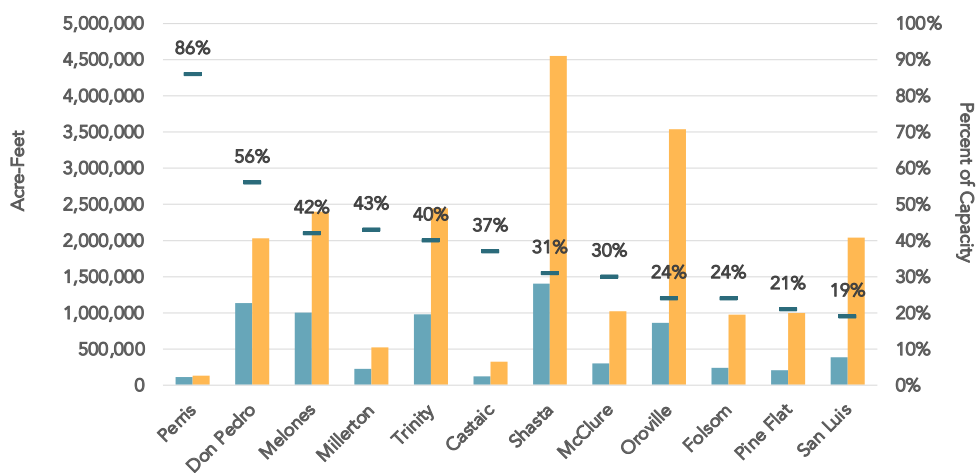


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DROUGHT STATUS

According to the California Department of Water Resources, the snowpack in California was at 65 percent of the average in the April 1st survey. While this doesn't indicate the complete absence of snow, it does indicate that snow has melted at the majority of survey stations used. This 65 percent snowpack is higher than the 2019–2020 winter reading snowpack average of 58 percent but significantly below the snowfall experienced prior to 2019, which was measured at 172 percent of the average. Overall, mountain snowpacks provide 30 percent of the yearly freshwater supply for California, but low runoff levels, where snowmelt runoff is being absorbed by dry landscapes, have resulted in below-average state reservoir levels, which are currently at 67 percent of capacity.

CURRENT TOTAL STORAGE AND CAPACITY FOR MAJOR RESERVOIRS IN CALIFORNIA, AUGUST 25, 2021



Source: California Department of Water Resources, Current Conditions for Major Reservoirs

Nationally,
40.1%
of the U.S. is
currently in a
drought;

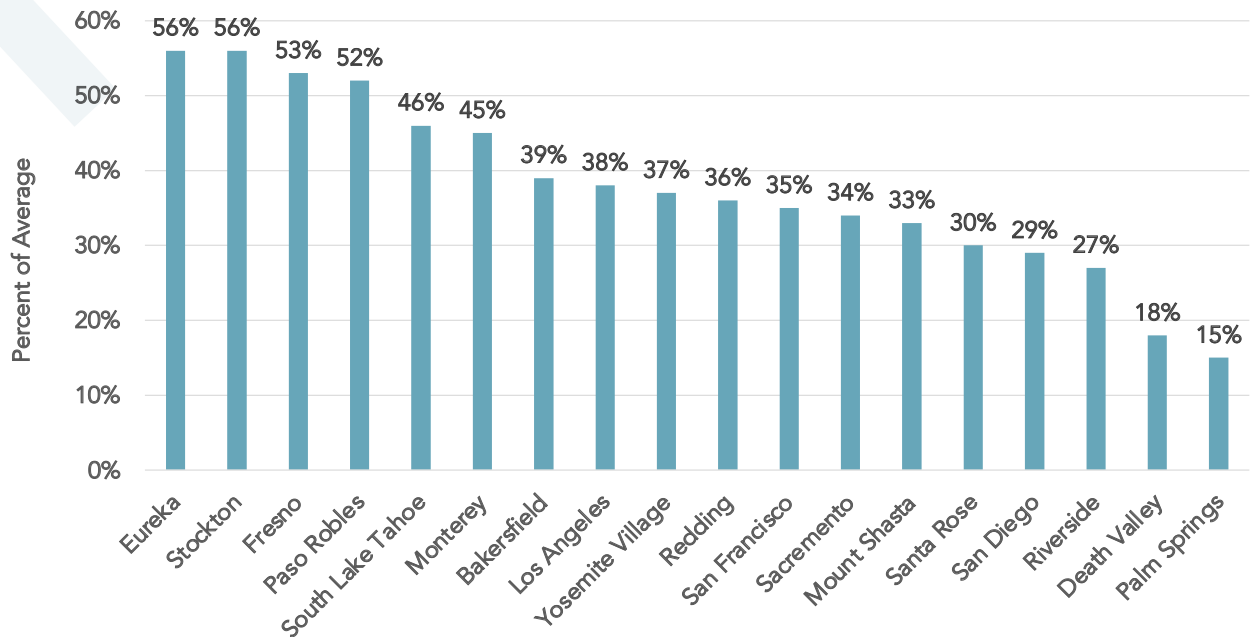
187.3
million acres of
crops and
76.6

million people are
currently affected
by the drought.⁷²

⁷² <https://www.drought.gov/states/california>

In terms of rainfall, all cities measured by the Department of Water Resources had significantly lower average precipitation levels, and all locations are expected to see levels remain below critical levels in the near future.

PERCENT OF NORMAL PRECIPITATION BY CITY SINCE OCTOBER 1, 2020



Source: California Department of Water Resources, Statewide Precipitation Data

Drought conditions are said to be affecting 100 percent of Orange County’s population with FY 2021 marking the seventh driest year in the past 113 years.⁷³ Orange County is currently identified as being in a ‘severe drought’ which is denoted by inadequate grazing lands, longer and more intense fire seasons and stressed trees, and an increase in wildlife diseases.

Despite these drought conditions, Orange County and the Southern California region remain better positioned than other regions in the state due to increased water storage. In the words of Rob Hunter, General Manager of the Municipal Water District of Orange County, “The good news is that Metropolitan (Metropolitan Water District of Southern California) has more water storage than ever...Southern California, because of its investments, is in much better shape than most of the rest of the state.”⁷⁴ Overall, Metropolitan estimates that water storage is roughly 13 times higher than in the 1990s, indicating it could handle drought conditions in 2021 without implementing water-use restrictions.

⁷³ OC Public Works Rain Gauge #121 Santa Ana

⁷⁴ <https://www.ocregister.com/2021/06/25/south-orange-county-gears-up-for-future-droughts-water-emergencies/>

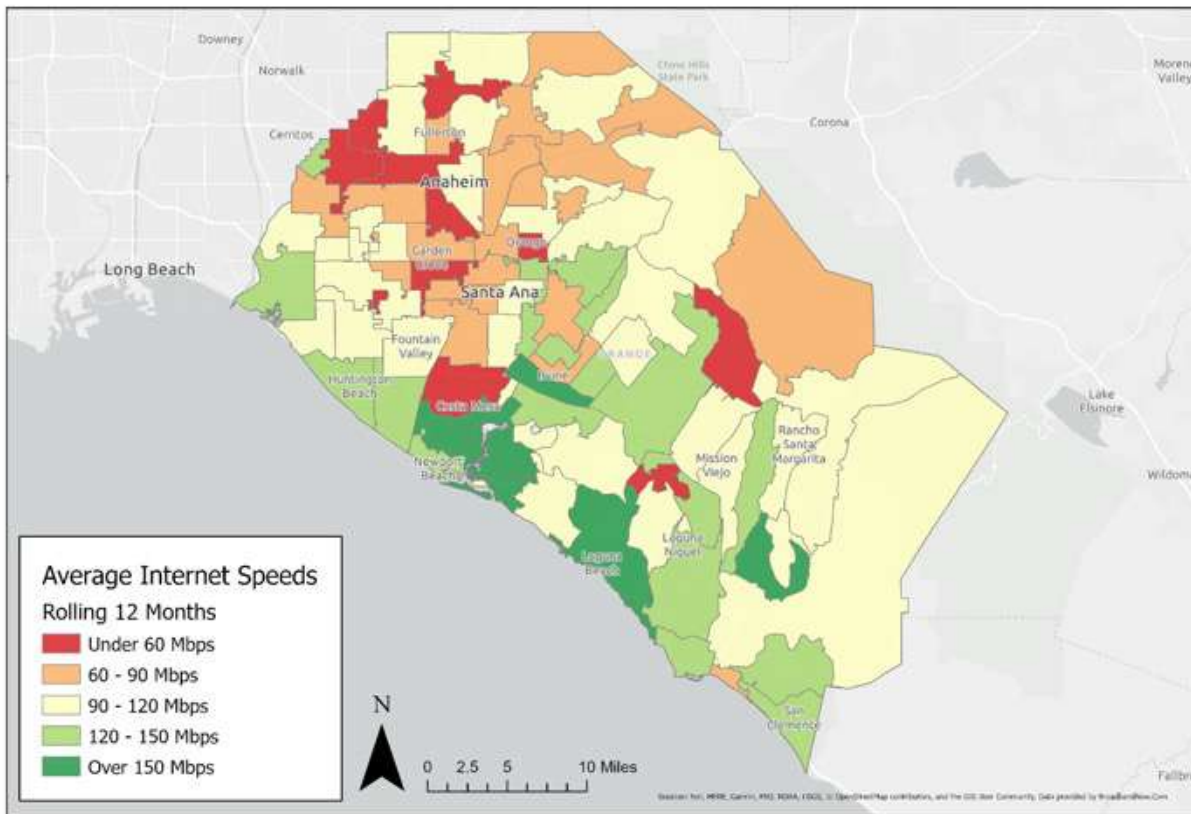
BROADBAND INTERNET ACCESS

During the pandemic, social distancing and remote work made high-speed internet access even more important for households across the nation. As technologies continue to evolve, and telecommuting, telehealth, e-commerce, and online education become more and more mainstream, ensuring all residents have access to high-speed internet will be crucial for future economic growth and prosperity.

Orange County's average download speed by zip code was 100Mbps in 2020. Southern county zip codes had higher average internet speeds than those in northern and central Orange County, likely a result of their relative newness and incorporation of newer infrastructure, as well as their residents' higher average incomes.

Northern and Central Zip Codes See Lowest Download Speeds

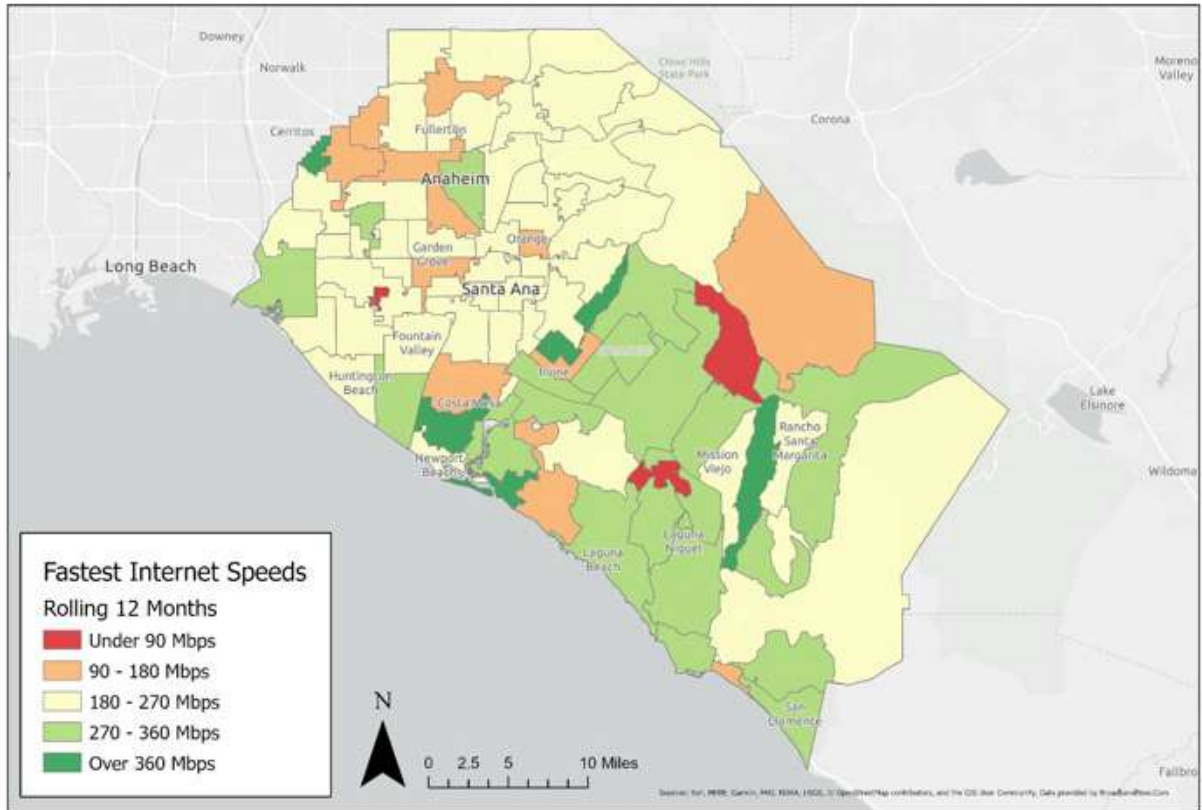
AVERAGE DOWNLOAD SPEED (Mbps) BY ORANGE COUNTY ZIP CODE



Source: [Broadbandnow.com](https://www.broadbandnow.com)

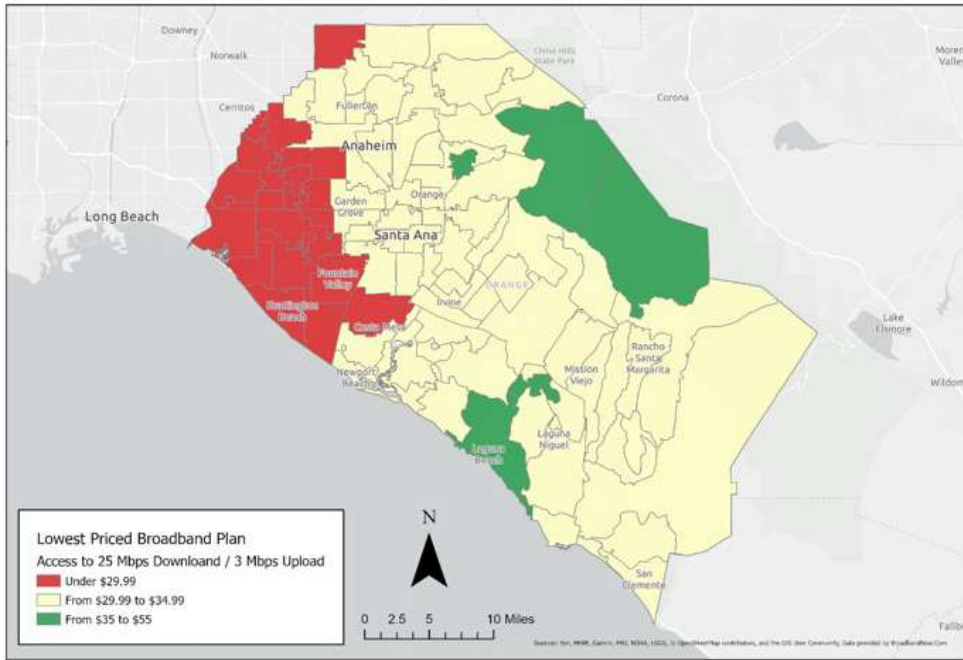
Fastest Average Download Speeds in Newer Communities

FASTEST AVERAGE DOWNLOAD SPEED (Mbps) BY ORANGE COUNTY ZIP CODE



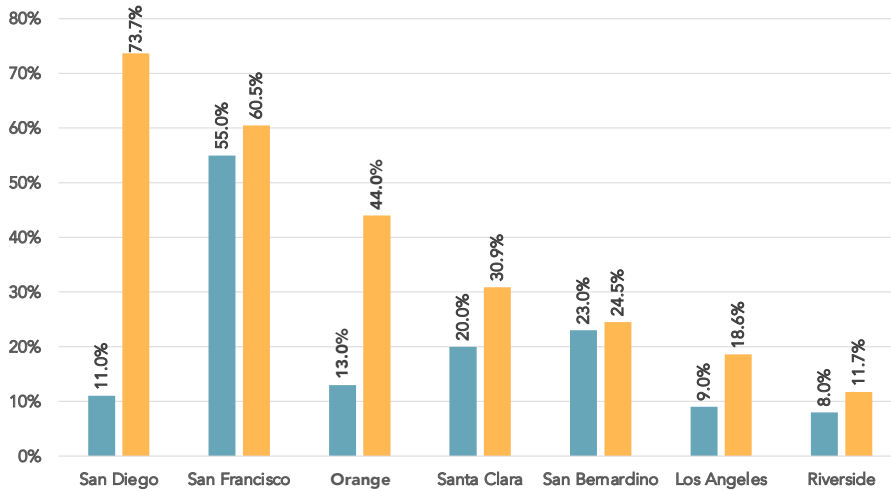
Source: Broadbandnow.com

LOWEST PRICED BROADBAND PLANS BY ORANGE COUNTY ZIP CODE



Source: Broadbandnow.com

PERCENT OF RESIDENTS WITH ACCESS TO 1 GIGABIT BROADBAND COVERAGE BY COUNTY, 2018 & 2019



Source: Broadbandnow.com

NORTHERN/ COASTAL ORANGE COUNTY ZIP CODES SEE LOWEST PRICED PLANS

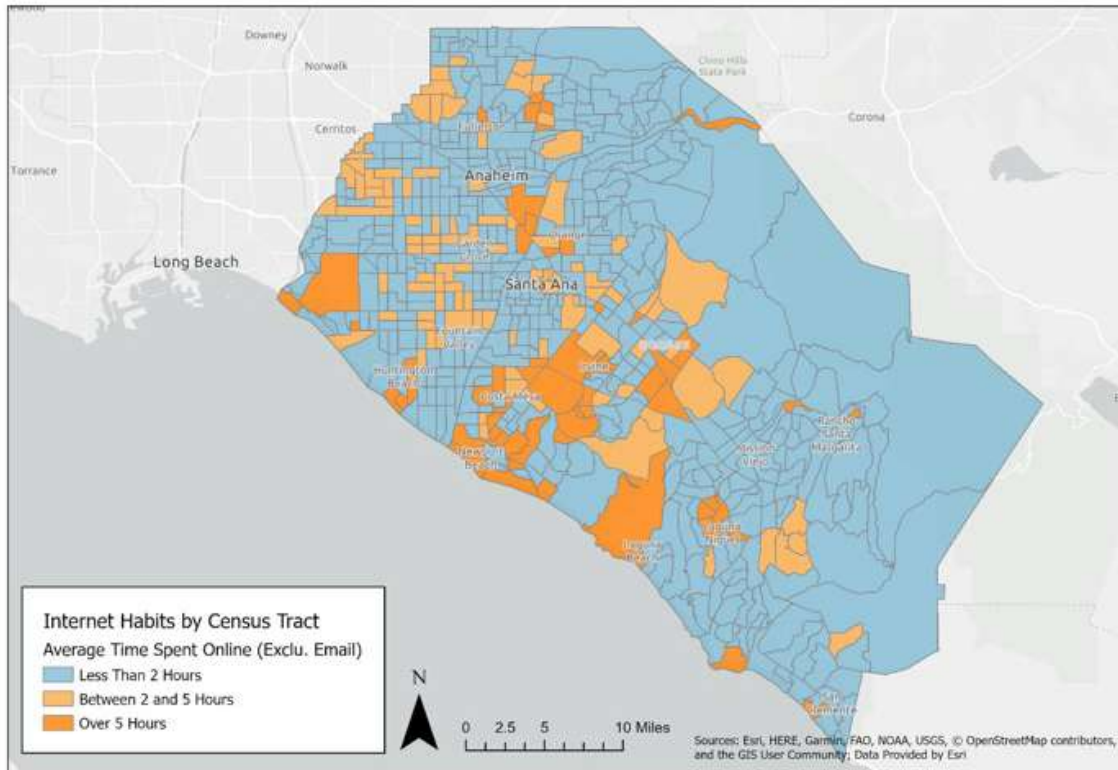
For most of Orange County, the lowest priced broadband plan starts at \$29.99. In more rural areas, however, the lowest priced plan increases to between \$35 and \$55. The northwestern part of the county does have plans under \$29.99, along with average or above average internet speeds.

GOOGLE FIBER IN IRVINE BOOSTS GIGABIT COVERAGE IN OC

The percentage of San Diego residents with access to 1 gigabit broadband speeds increased dramatically from 11 percent to 73.7 percent. Orange County saw the second largest increase in gigabit coverage, jumping from 13 percent to 44 percent, largely due to the presence of Google Fiber in Irvine.

When looking at the typical time spent online in 2021, most residents spend, on average, less than two hours per day online. This excludes time spent looking at messages or email. Areas located around major universities, including University of California, Irvine show much higher times spent online, likely due to the younger population.

TYPICAL TIME SPENT ONLINE BY CENSUS TRACT, 2021

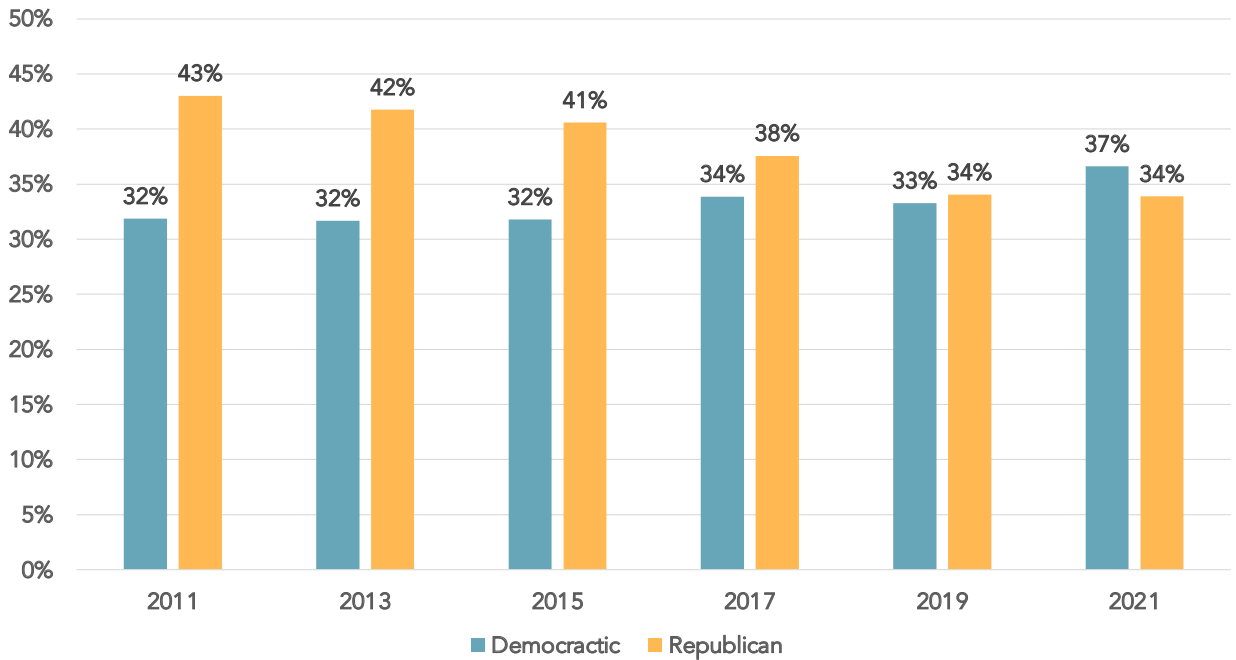


VOTER PARTICIPATION

Over the past decade, Orange County has seen a slow decline in the percentage of registered Republicans and a corresponding increase in the percentage of registered Democrats. This trend has accelerated in recent years, as seen below.

Registered Democrats in OC Surpass Republicans

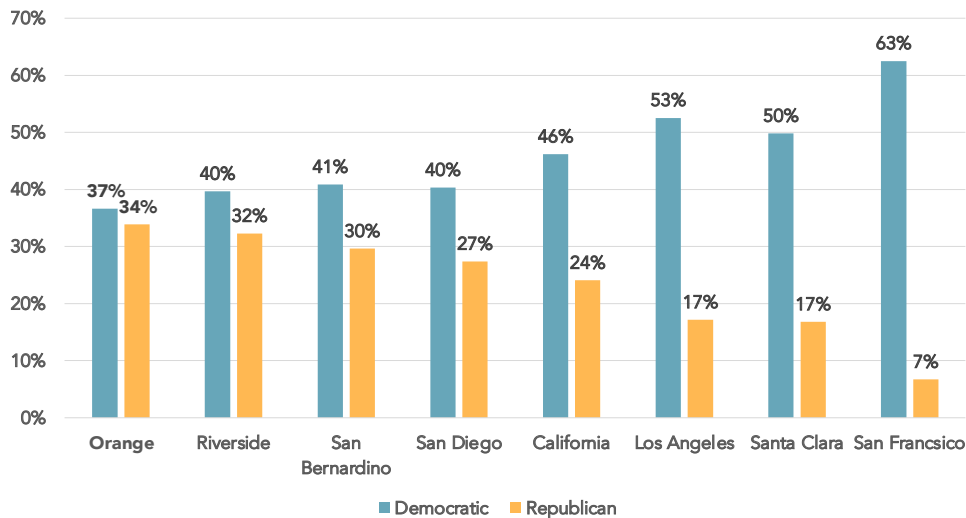
ORANGE COUNTY ODD-YEAR VOTER REGISTRATION BY MAJOR PARTY, 2011–2021



Source: California Registrar of Voters, California Secretary of State

Orange County Voter Registration by Party Fairly Equal When Compared to Regional Peers

COUNTY COMPARISON OF ODD-YEAR VOTER REGISTRATION BY MAJOR PARTY, 2021



Source: California Registrar of Voters, California Secretary of State

IRVINE RANKS #1 AGAIN IN CITY FINANCES

Truth in Accounting's *2020 Financial State of the Cities* report ranked Irvine as the United States' most fiscally healthy city for the fourth year in a row. Irvine received a "B" grade for its net budget surplus of \$380.4 million, approximately \$4,100 per taxpayer; Washington, D.C. ranked second with a budget surplus of \$2,500 per taxpayer. Santa Ana and Anaheim also made the list, at 43rd and 47th place, respectively.



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Spectrum

07



NAME
Carter

TITLE
Team Member, Chick-fil-A

"It's good to feel like you're appreciated."

Chick-fil-A has given Carter purpose and the irrefutable sense of pride that comes with having meaningful employment.

It's clear, a job changes lives.

Goodwill of Orange County helps people who are facing barriers find and keep jobs.



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Carter found his pathway to success through Goodwill's Employment First program. Learn more about our programs and how you can get involved in changing a life at ocgoodwill.org.

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