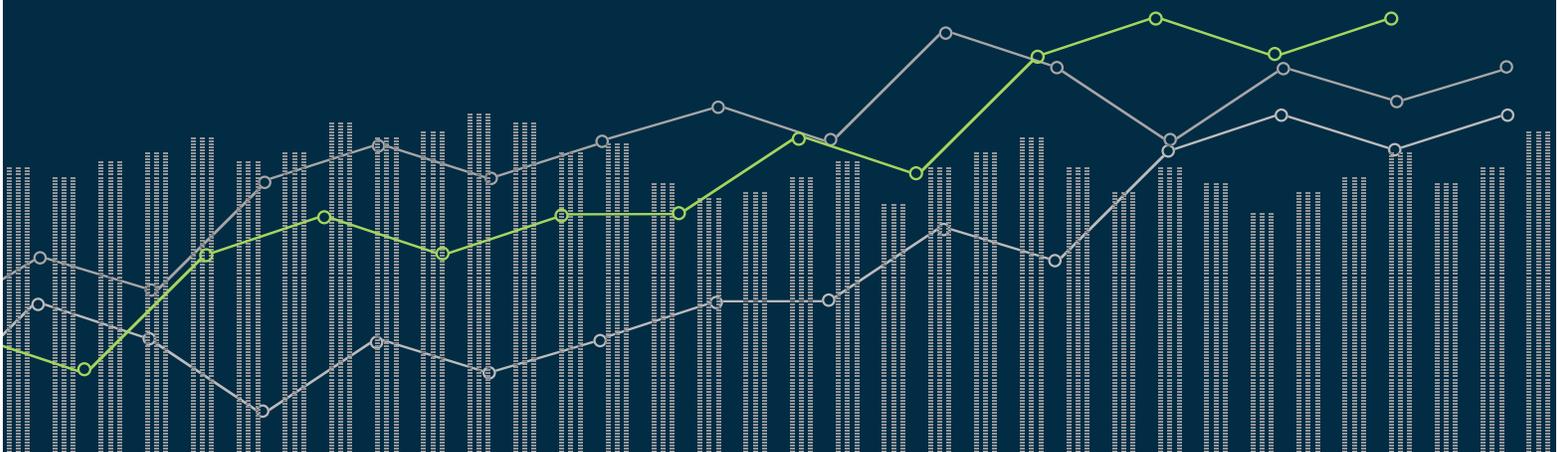




Regional Briefing Book

December 2020



visit us at scag.ca.gov

Regional Briefing Book

STAFF CONTRIBUTORS

Frank Wen, Ph. D, Manager of Planning Strategy

Kevin Kane, Ph. D, Acting Program Manager I

John Cho, Ph. D, Senior Regional Planner

Tom Vo, Senior Regional Planner

Jenna Hornstock, Deputy Director of Planning, Special Initiatives

Scott Strelecki, Senior Regional Planner

Annie Nam, Manager of Goods Movement & Transportation Finance

Courtney Aguirre, Program Manager II

ECONOMIC BENCH

Wallace Walrod, Ph.D., Chief Economic Advisor, SCAG

Michael Bracken, MPA, Development Management Group

Shannon Sedgwick, Director, Institute for Applied Economics, Los Angeles County Economic Development Corporation

Tyler Laferriere, Associate Economist, Los Angeles County Economic Development Corporation

John Husing, Ph.D., Economics & Politics

Matthew Fienup, Ph.D., Executive Director, Center for Economic Research & Forecasting, California Lutheran University

Dan Hamilton, Ph.D., Director of Economics, Center for Economic Research & Forecasting, California Lutheran University

CONSULTANT CONTRIBUTORS

Diana Dorinson, Founder & Principal, Transportation Analytics

Regional Economic Models, Inc.

National Equity Atlas



ABOUT SCAG

SCAG is the nation's largest metropolitan planning organization (MPO), representing six counties, 191 cities and more than 19 million residents. SCAG undertakes a variety of planning and policy initiatives to encourage a more sustainable Southern California now and in the future.

MISSION STATEMENT

To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.

visit us at scag.ca.gov

Overview

SCAG's Economic Summit began in the wake of the Great Recession as a convening to expand the region's economic base and to determine priorities for the region that help businesses, public agencies, and communities improve economic vitality.

However, 2020 has brought increased recognition that improving economic health and achieving equity will require broader approaches that address social, economic, and environmental factors that influence the economy in the wake of recent events, including those related to the COVID-19 pandemic. Relatedly, there are a growing number of emerging initiatives which provide the building blocks to address systemic institutionalized racial inequities. Many challenges remain to address racial disparity within an inclusive economic development strategy.

This briefing book represents a first step toward a more comprehensive framework for an inclusive economic recovery. It is comprised of five parts:

1. State of the SCAG Region Economy & Outlook
2. Modeling the Economic Impacts of COVID-19 Through FY 2021
3. Centering Racial Equity as a Driver for Economic Recovery
4. Conclusions & Next Steps
5. Appendix: County Insights

Executive Summary

Despite the continuing COVID-19 pandemic, the national economy has made significant positive steps forward since the months of April and May 2020. The SCAG region has followed a similar trend, with unemployment rates reaching a high of 18.1 percent in May 2020 before gradually declining back to 12.7 percent in September 2020. Due to government-mandated shutdowns and stay-at-home orders, industries such as Leisure and Hospitality, Information, Nondurable Goods and Retail Trade were hardest hit. As the region rebounds, Leisure and Hospitality, Retail Trade, and Construction industries in the SCAG region have bounced back.

In addition to state and federal stimulus, which helped residents and businesses stay afloat, innovative strategies such as ‘contactless delivery’ and remote work allowed many businesses to stay open during the pandemic. These adaptations have also demonstrated the importance of crucial infrastructure such as high-speed broadband connections. Whether in telehealth, distance learning or video conferencing, the ability for residents, businesses, and academia to continue to connect and collaborate has reduced community spread and kept the regional economy alive.

Just as these affects have been uneven among population segments, they have also exposed intraregional vulnerabilities in the SCAG region, where low-resourced jurisdictions have seen larger impacts. It is clear that the pandemic has disproportionately impacted the least advantaged and most at-risk SCAG region residents. Lower-income segments of the population at the national, state, and regional levels have seen dramatically higher job losses and economic disruptions related to the pandemic. Prior to the pandemic, this segment of the population was already experiencing significant difficulties due to a variety of factors explored in this report, most importantly the high cost of affordable housing, all of which have only been amplified by COVID-19.

This report analyzes COVID-19’s economic impacts on the SCAG region, providing estimates of economic activity, unemployment rates, sector-based impacts and an analysis of key taxable sales data across each region and industry as well as projected 2021 sales taxes. This report also provides estimates of unemployment rates for 2021 based on the best, most recently available data, indicators, and trends.

While a rapid recovery is needed, this recovery must also ensure that the region’s most disadvantaged populations can realize growth and opportunities. We have an opportunity to use the focused, regional energy needed for swift recovery to also catapult the region toward its work of addressing systemic racism. To that end, this report introduces SCAG’s commitment to centering its work on racial and social equity and introduces the new baseline data that SCAG is developing as a starting place for driving the policies of an inclusive economic recovery strategy.

Pulling together a number of different analyses, this report shows that, even as we realize just how challenging this time truly has been, the resilience of our communities, businesses, and individuals during the COVID-19 crisis has been rather extraordinary — and inspiring. To build resilience in the long run, leaders in government and across sectors are using this opportunity to not just recover but to reimagine the future as one that provides equitable access to opportunity for all of the region’s residents. One major lesson from the pandemic is that, when aligned around a common purpose, collectively the SCAG region can achieve goals that would have been considered impossible before the crisis: creating a new, better Southern California.

Overall, the pandemic has dramatically upended nearly every aspect of life. The resilience of the SCAG region and its diverse population indicates, however, that just as after the Great Recession, the region will recover. Local leaders must amplify the power of federal and state stimulus and business innovation by ensuring that the recovery reaches every SCAG resident.

In the coming year, SCAG will engage with regional partners across the business, philanthropic, community and economic development sectors, as well as the municipalities it represents, to craft an inclusive economic recovery action plan, a resource hub for information, and a state and federal legislative strategy in support of a robust, inclusive and equitable economic recovery strategy.

1 | State of the SCAG Region Economy & Outlook

For over a decade, independent economists from each SCAG region county have come together to analyze and report on a variety of economic issues, from economic growth and job creation to housing and demographic trends.

Recovering from the impacts of COVID-19 is certainly the greatest economic challenge that the SCAG region has faced since the Great Recession. California State University Fullerton's (CSUF) Woods Center for Economic Analysis and Forecasting predicts an "exceptionally bumpy" recovery, one that may be "fraught with setbacks and uncertainty and burdened by a trajectory that progresses in fits and starts."¹

University of California Los Angeles (UCLA) professor Edward Leamer predicts long-term economic consequences, writing that:

The government shutdown can be completely eliminated but many of us will remain wary and will avoid cruises, and airplanes and crowded bars. Until COVID-19 has the same status as the annual flu it will continue to make many of us wary of social interactions.²

Unquestionably, this pandemic and the associated economic impacts remain a fluid situation. As a result, the SCAG region's economic situation remains uncertain. National COVID-19 cases reached a new high of 194,610 on November 14, 2020. This increasing case trend, combined with political uncertainty around the presidential transition, could put the brakes on further economic recovery.

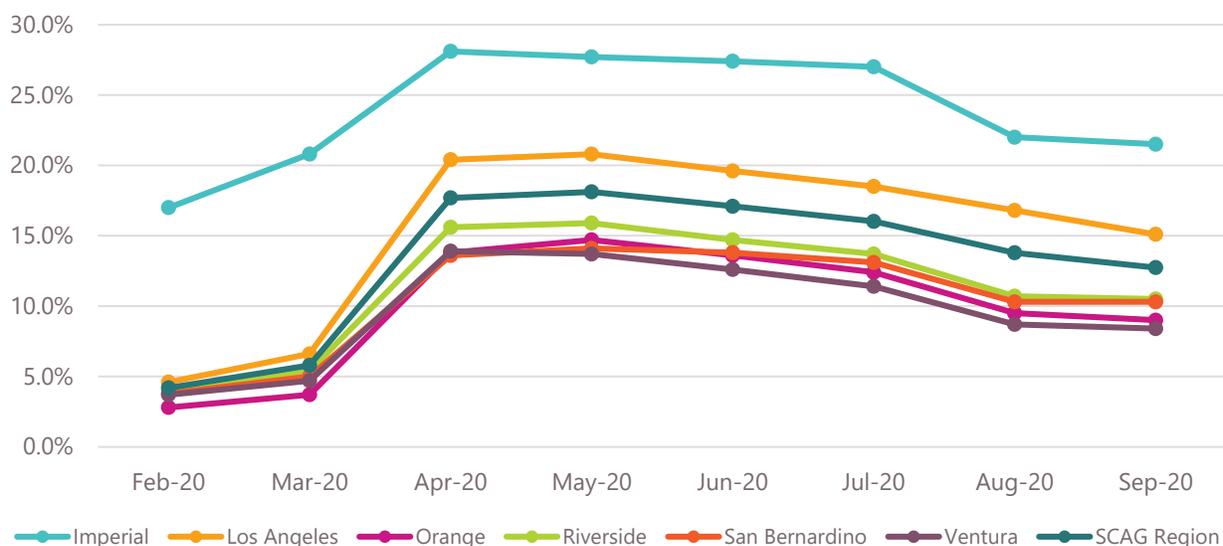
¹ Farka, Mira and Anil Puri. *2021 Economic Forecast: The Nation, Southern California and Orange County*. California State University, Fullerton Woods Center for Economic Analysis and Forecasting, 2020, p. 9. [Economic-Forecast-Report-0028.pdf \(fullerton.edu\)](#)

² Leamer, Edward. "To V or not to V, That is the Question." *The UCLA Anderson Forecast for the Nation and California September 2020 Report*, dir. Jerry Nickelsberg. Regents of the University of California, 2020, p. 23.

The Recovery So Far

The SCAG region’s unemployment rate (Figure 1-1) stood at 4.2 percent in February 2020. Orange County had the region’s lowest unemployment rate (2.8) percent and Imperial County had the highest (17 percent). After peaking in April and May 2020, unemployment rates have gradually decreased. As of September 2020, the regional unemployment rate was 12.7 percent, with the lowest unemployment rate in Ventura County (8.4 percent) and the highest in Imperial County (21.5 percent.)

Figure 1-1: SCAG Region Unemployment Rates (Feb. – Sept. 2020)



Source: California EDD

Overall, the SCAG region unemployment rate (Table 1-1) remains 8.5 percentage points above its February 2020 rate, with Los Angeles County having the largest difference at 10.5 percentage points and Imperial County having the lowest difference at 4.5 percentage points.

Table 1-1: SCAG Region Unemployment Rates (Feb. – Sept. 2020)

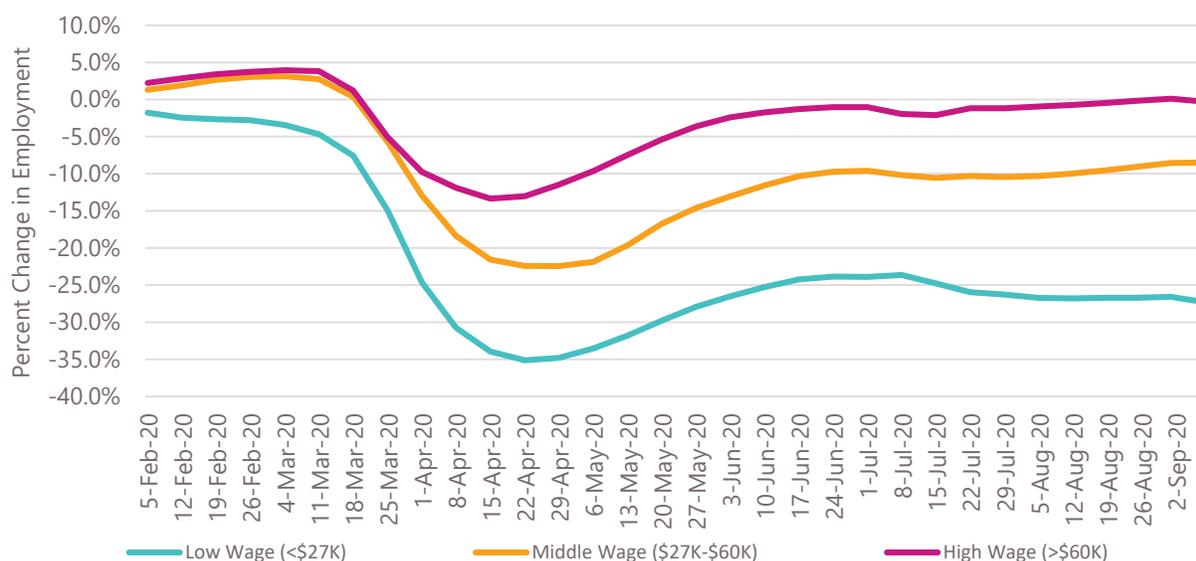
	February 2020	September 2020	Difference
Imperial	17.0%	21.5%	4.5%
Los Angeles	4.6%	15.1%	10.5%
Orange	2.8%	9.0%	6.2%
Riverside	4.1%	10.5%	6.4%
San Bernardino	3.8%	10.3%	6.5%
Ventura	3.7%	8.4%	4.7%
SCAG Region	4.2%	12.7%	8.5%

Source: California EDD

COVID-19 Labor Market Impacts Vary

The majority of pandemic-related job losses were low-skill, low-wage positions that impacted the region’s at-risk communities the most. According to data (Figure 1-2) compiled by Opportunity Insights, a data repository based at Harvard University, the SCAG region’s lowest income group (annual wage of less than \$27,000) saw the most dramatic job losses while its highest income group (annual wage above \$60,000) saw more muted losses. The SCAG region’s lower wage group saw employment decline by 35.1 percent between January 2020 and April 22, 2020; the middle wage group (\$27,000-\$60,000) registered a loss of 22.4 percent and the high wage group saw losses of just over 13 percent. While both the middle and high wage groups have seen gradual improvements starting in August 2020, the lower wage group reversed course on its recovery and has had a general downward trend since July, indicating the pain may not be over for this income segment.

Figure 1-2: SCAG Region Percent Change in Employment Compared to Jan. 2020 by Income Segment (Feb. – Sept. 2020)



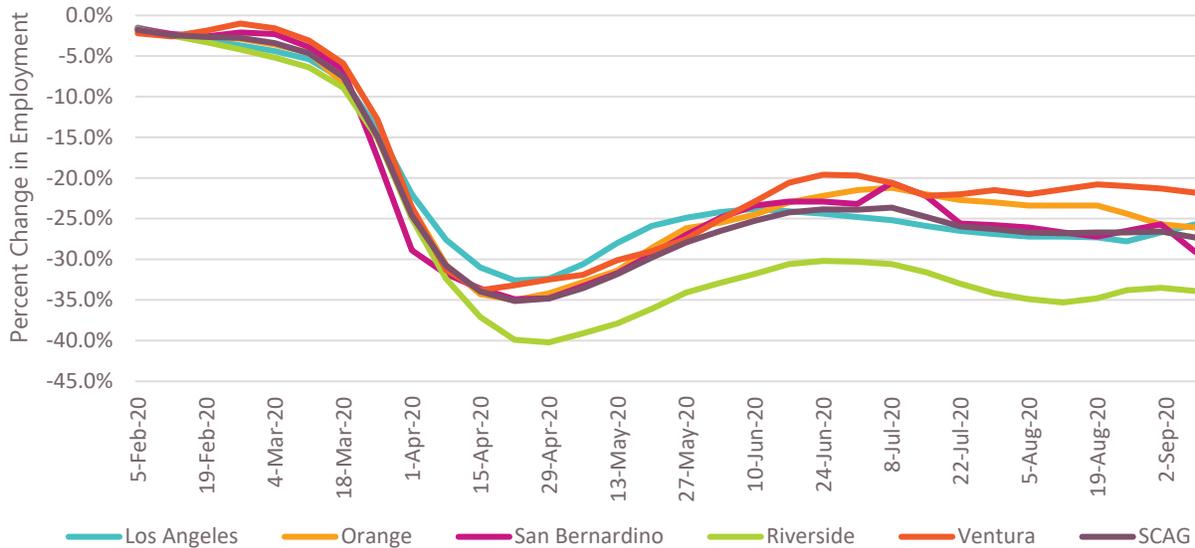
*Note: Data for Imperial County was unavailable for the “Low Wage” and “High Wage” income segments, therefore is not included in those averages yet was included in the “Middle Wage” segment.

Source: Opportunity Insights

Lower-income Southern California residents already faced significant challenges before the pandemic, resulting in continued housing affordability concerns, domestic outmigration, and an overall reduction in quality-of-life. The pandemic has clearly exacerbated these issues. While federal stimulus may have supported these communities during the initial months of the pandemic, it has since diminished, further complicating the financial picture for many families throughout the region. While lower-wage positions are often overlooked, they are crucial to “essential” businesses and to the explosive growth in gross domestic product (GDP) experienced in Q3 2020.

Within the SCAG region, lower wage workers (Figure 1-3) in Riverside County saw the most significant job losses (40.2 percent) as of April 2020. Riverside County’s lower wage group continues to be the worst performer in the SCAG region, with employment levels still 33.9 percent below January 2020 levels as of September 8, 2020.

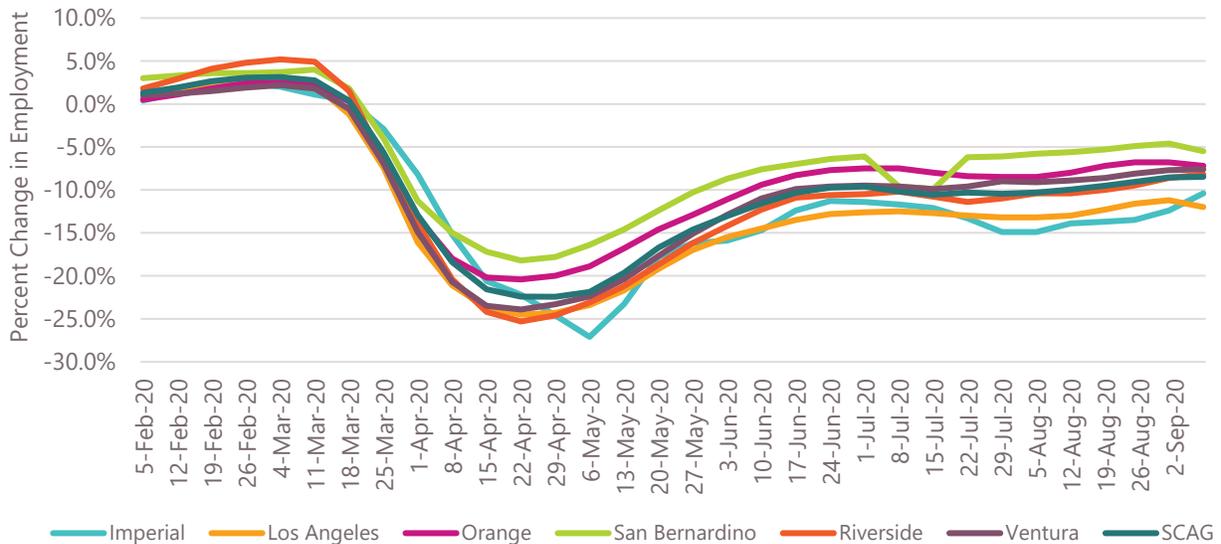
Figure 1-3: Employment Change Compared to Jan. 2020 in Low Income Segment by County in SCAG Region (Feb. – Sept. 2020)



*Note: Data for Imperial County was unavailable for the “Low Wage” and “High Wage” income segments, therefore Imperial County is not included in this SCAG average. Source: Opportunity Insights

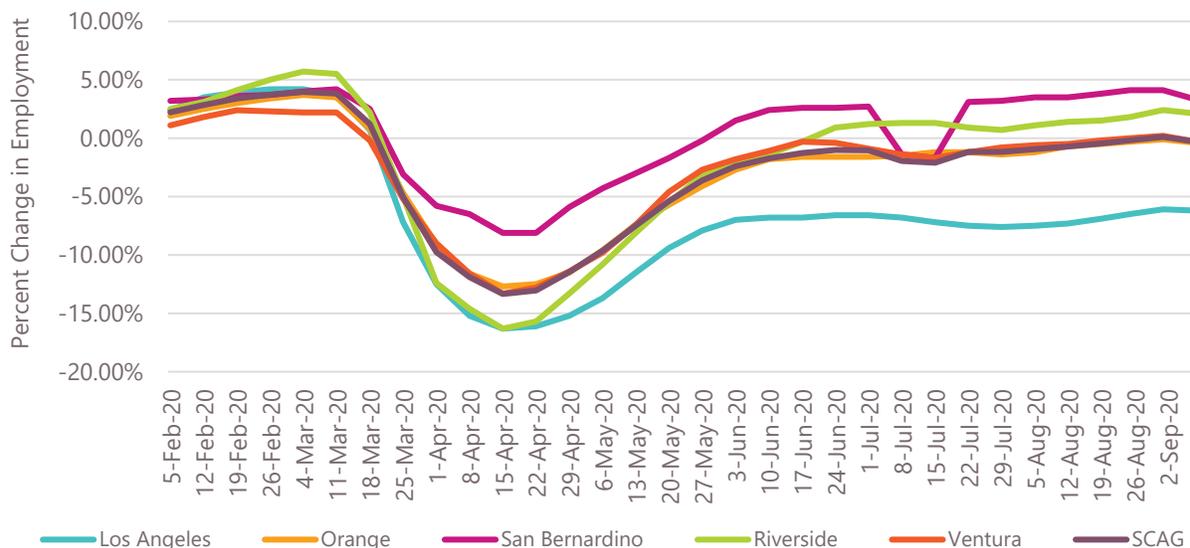
San Bernardino County’s middle- (Figure 1-4) and high-wage (Figure 1-5) groups experienced the most moderate declines in employment: 18.2 percent and 8.1 percent, respectively. Los Angeles’s high wage segment performed the worst in the SCAG region, with employment lagging January 2020 levels by 16.3 percent in mid-April and staying below 5 percent well into September 2020.

Figure 1-4: Employment Change Compared to Jan. 2020 in Middle Income Segment by County in SCAG Region (Feb. – Sept. 2020)



Source: Opportunity Insights

Figure 1-5: Employment Change Compared to Jan. 2020 in High Income Segment by County in SCAG Region (Feb. – Sept. 2020)



*Note: Data for Imperial County was unavailable for the "Low Wage" and "High Wage" income segments, therefore Imperial County is not included in this SCAG average. Source: Opportunity Insights

Early Stage Economic Recovery

While "economic recovery remains hostage to the virus outlook," in the words of CSUF professors Anil Puri and Mira Farka,³ the national economy has taken significant positive steps since May:

- The United States added 3.4 million workers to its labor force in May and June, reducing unemployment from 14.7 percent to 10.2 percent.⁴
- The nation's housing market has not only more than recovered — it has boomed, with home sales as of September already exceeding 2019's total.⁵ The National Associations of Homebuilders' homebuilder confidence index hit an all-time high in September.⁶
- U.S. consumer confidence rose by 15 points in September, the largest increase in 17 years.⁷
- Retail and durable goods sales have bounced back to pre-pandemic highs.⁸
- U.S. GDP contracted 5 percent and 31.4 percent in Q1 and Q2 2020, before recovering by 33.1 percent in preliminary estimates for Q3 2020.

³ Farka and Puri, p. 9.

⁴ Ibid, p. 5.

⁵ Feler, Leo and Jerry Nickelsberg. "The Recovery is Losing Momentum." *The UCLA Anderson Forecast for the Nation and California September 2020 Report*, dir. Jerry Nickelsberg. Regents of the University of California, 2020, p. 18.

⁶ Farka and Puri, p. 23.

⁷ Ibid, p. 23.

⁸ Ibid, p. 8.

Several factors have played a major role in the recovery so far. For example, CSUF estimates total federal stimulus at \$7.1 trillion.⁹ The Paycheck Protection Program (PPP) has been perhaps the most notable federal program, with approximately 623,000 loans in California alone.¹⁰ In addition to PPP, the federal government has created three new unemployment programs:

- The Pandemic Emergency Unemployment Compensation (PEUC), which provides an additional 13 weeks of unemployment insurance;
- The Pandemic Unemployment Assistance (PUA), which provides up to 46 weeks of benefits for individuals who are not eligible for regular state benefits; and
- Federal Pandemic Unemployment Compensation, which provided claimants with an extra \$600 per week and ended on July 31, 2020.

At the state level, California spent almost nine times more on unemployment insurance benefits between March and August 2020 than it did in all of 2019. Combined, these policy interventions represent the single most important metric in keeping residents financially afloat during these troubling times. Increasing financial support as well as improving accessibility for those who need it most will be crucial in support a rapid recovery, especially for those struggling businesses hit hardest by the pandemic.

COVID-19 mortality rates have also declined, even during the current third wave. The US death toll peaked in April and remained at around a third of that total in August and September.

Finally, businesses across the nation have found ways to adapt and innovate during the pandemic, from distilleries switching production to hand sanitizer to restaurants offering contactless and curbside delivery.

Despite initial stimulus injections into the economy, an improved understanding of the disease, and innovative business solutions and strategies, many at-risk communities continue to struggle. Lower-wage segments at the national, state, and SCAG regional level have all felt significantly more employment losses than middle- or high-wage segments.

Entry-level and lower-wage positions, such as Leisure and Hospitality service occupations, were hit hard by the pandemic, while higher-paid white collar positions could better leverage telecommunication technologies and implement flexible schedules or social distancing strategies. While some service-based businesses and occupations such as restaurants were able to take advantage of food delivery services or outdoor dining options, many others, especially those in more remote areas, were unable to implement these strategies and were forced to close.

The hardest hit occupations and industries have seen the slowest recoveries during winter 2020 due to a relative inability to comply with often unclear or changing government mandates. Therefore, lower-income SCAG residents have not only seen more dramatic impacts from the pandemic, but they are also projected to see a slower, more drawn-out recovery. This uneven decline and recovery impacted an already at-risk segment of the population. Without additional financial stimulus or support from the government, additional pain is expected — especially in regions with a high cost-of-living like Orange County. These uneven impacts are explored further in this report.

⁹ Farka and Puri, p. 7.

¹⁰ Bengali, Leila. "Pandemic Policies and the California Outlook." *The UCLA Anderson Forecast for the Nation and California September 2020 Report*, dir. Jerry Nickelsberg. Regents of the University of California, 2020, p. 75.

Impacts & Recovery Outlook

Imperial County

As of October 2020, Imperial County had a registered unemployment rate of 21.4 percent, with 14,500 unemployed individuals in a labor force of 67,800. The pandemic served to impact Education (-1,600), Government (-1,300), Hospitality and Leisure (-900) and Transportation (-100) the hardest. Assuming additional lockdown or stay-at-home orders, additional losses can be expected in Hospitality and Leisure, Retail and Food Service which could total 3,000 to 5,000 jobs lost.

The Payroll Protection Program (PPP) provided significant support to approximately 266 businesses throughout the county, saving an estimated 6,400 jobs from being lost, or 1 in 12 jobs. If the pandemic continues to worsen and case counts continue to rise, Imperial County is likely to see additional job losses and reduced economic growth without additional stimulus or support from the federal government. This will also be observed in the greater SCAG region, where a lack of additional federal stimulus for both businesses and consumers will likely result in a much more prolonged recovery.

Economic Indicators in the SCAG Region

SCAG employed 7.88 million workers in September, with total unemployment of 1,149,400. Compared to February 2020, the last month before the pandemic really hit regional economies, the SCAG region has lost over 1.1 million employed workers while adding over 750,000 unemployed workers. The National Federation of Independent Business reported historically high job vacancies in September: 32 percent of business owners had openings for skilled workers, 16 percent for unskilled workers. 89 percent of owners looking to hire reported few or no qualified applicants.

California's unemployment rate of 10.8 percent in September represents an improvement from the record 16.2 percent in April. While California added more than 1 million jobs between May and September, its total employment remains more than 2 million below what it was at the beginning of the year; state unemployment peaked at 3,043,300 in April. Overall, the most significant job losses occurred between February and April 2020, with an initial recovery between May and September, with some initial signs pointing to a slower recovery going forward.

SCAG unemployment generally followed a similar trend, reaching a high of 18.1 percent in May 2020 before falling back down to 12.7 percent. Due to the importance of tourism-related sectors in Orange and Los Angeles counties and the oversized impact the pandemic had on those sectors, the SCAG region saw more significant impacts stemming from the pandemic when compared to the nation or state. While the region's unemployment rate has fallen, the state of California has imposed more stringent protocols and public guidelines in an attempt to reduce the community spread of COVID-19. While in the interest of public health, these guidelines have also limited the ability for businesses to reopen and bounce back and could thus prolong the economic recovery, as would a surge in COVID-19 cases.

Impacts & Recovery Outlook

Ventura County

Prior to the pandemic, Ventura County was already experiencing some economic softness, denoted by a shrinking labor force and economic growth slowing from 4.8 percent in 2013 to 1.0 percent in 2019. Employment reached 337,400 in February 2020 before it cratered by 41,800 jobs, a loss of 12 percent, while the labor force shrunk by 19,000.

Based on pre-pandemic growth rates, Ventura County is likely to see a slow and prolonged recovery period, with growth rates likely to lag those at the state level over the next few years. By the end of 2022, after non-farm job growth of 2.1 percent in 2021 and 1.8 percent in 2022, Ventura County will still be more than 9,000 jobs below its peak.

In order to best support a rapid recovery, the SCAG region should concentrate on two types of sectors: high economic multiplier sectors that have weathered COVID impacts better than most, such as Manufacturing, Construction, Utilities and Transportation and Warehousing, and key regional sectors that have struggled during the pandemic, such as Leisure and Hospitality and Educational Services. Leisure and Hospitality was the hardest hit sector at both the national¹¹ and regional¹² levels; at the national level, international tourist spending was down by 95 percent.

SCAG region incomes have seen a steady rise in the years before the pandemic, increasing faster than the national average and reaching \$76,981 in 2019. Fortunately, the region's educational attainment continues to improve as well. In 2019, 32.4 percent of residents had a bachelor's degree or higher, which was 1.1 percentage points higher than the previous year but approximately 0.7 percentage points lower than the national rate of 33.1 percent and the state rate of 35 percent. It is unclear how the pandemic-driven switch to distance learning will affect future enrollment and graduation rates, especially at the post-secondary level. Many teachers and students view distance learning programs as potentially inadequate, indicating a general dissatisfaction with current educational and safety guidelines which may lead to a future reduction in students and graduates as individuals wait for a return to normalcy. Additionally, many residents may no longer have the luxury of attending post-secondary institutions due to pandemic-related job and income losses, adding to significant affordability issues that predate COVID-19.

SCAG region poverty rates declined from 13.3 percent in 2018 to 12.3 percent in 2019 but remained above the state average of 11.8 percent. All SCAG counties saw declining poverty rates except for Imperial County, whose poverty rate increased from 23.1 percent in 2018 to 25.1 percent in 2019. COVID-19 will likely reverse some of these gains. While federal support helped buoy a significant portion of the population during the early months of the pandemic, a lack of more recent support has resulted in significant financial concerns for many families across the nation and within the SCAG region, especially in lower-income segments.

¹¹ Leamer, p. 30.

¹² Farka and Puri, p. 20.

Impacts & Recovery Outlook

Los Angeles County

At the start of 2020, Los Angeles County had an unemployment rate of 4.4 percent; its payroll employment had grown to 4.5 million individuals, driven primarily by growth in Health Care; Accommodation and Food Services; Arts, Entertainment, and Recreation; and Transportation and Warehousing. Five months into the year, the unemployment rate had skyrocketed to 21.1 percent and, while things began to recover, September 2020 employment was 437,800 jobs lower than one year prior to a seasonally adjusted unemployment rate of 15.1 percent.

Some Los Angeles County industries were able to completely recover between April and September 2020, such as Finance and Insurance, Utilities, and Mining and Logging. Industries currently seeing the worst recovery include Education, Information and Government, with employment still dramatically trailing pre-pandemic highs. Los Angeles County is expected to see total employment in the region fall from 4,501,600 in 2019 to an estimated 4,343,500 by 2020, a reduction of 158,100 jobs or 3.5 percent, and dropping further to 4,325,500 by 2021, a year-over-year decline of 18,000 jobs. By 2022, Los Angeles County employment will total 4,396,300, a year-over-year increase of over 70,000 jobs yet still 105,300 jobs below its 2019 peak.

As the largest county in the SCAG region, much of Los Angeles County's recovery is dependent on the region's ability to shake off the impacts of the pandemic. Its Tourism sector will likely take several years before it reaches pre-pandemic highs as global travel recovers and people feel more comfortable. Finally, as in much of the rest of the SCAG region, the majority of jobs lost in Los Angeles County were low-wage, low-skill positions often held by the region's most at-risk populations.

Across the SCAG Region

The SCAG region suffered dramatic employment losses due to the pandemic, with the majority of those losses occurring in the March to May 2020 time period. However, while most of the gains since the 2008 Recession have been wiped out, strong regional fundamentals and early growth trends suggest a recovery has already commenced. Total SCAG region industry employment fell by over 1.78 million jobs, or by 19.7 percent, between February and April 2020. The hardest hit industries in this two-month period included:

- Leisure and Hospitality (-45.4 percent)
- Other Services (-27.3 percent)
- Information (-22.7 percent)
- Nondurable Goods (-17.4 percent)
- Retail Trade (-17.2 percent)

The table below (Table 1-2) provides employment changes in the SCAG region by industry between February 2020 and April 2020.

Table 1-2: SCAG Region Employment Change (Feb. – April 2020)

	February 2020	April 2020	Absolute Change	Percent Change
Mining and Logging	4,400	4,300	(100)	-2.3%
Construction	383,500	335,900	(47,600)	-12.4%
Durable Goods	404,000	371,200	(32,800)	-8.1%
Nondurable Goods	218,200	180,200	(38,000)	-17.4%
Wholesale Trade	378,700	339,500	(39,200)	-10.4%
Retail Trade	791,100	655,200	(135,900)	-17.2%
Transportation, Warehousing & Utilities	403,600	371,600	(32,000)	-7.9%
Information	283,100	218,900	(64,200)	-22.7%
Financial Activities	406,500	388,800	(17,700)	-4.4%
Professional & Business Services	1,177,500	1,038,400	(139,100)	-11.8%
Educational & Health Services	1,417,600	1,270,000	(147,600)	-10.4%
Leisure & Hospitality	988,500	539,400	(449,100)	-45.4%
Other Services	266,200	193,500	(72,700)	-27.3%
Government	1,104,200	1,085,400	(18,800)	-1.7%

Source: California EDD

From April to September 2020, a period of significant growth resulting from pent-up demand and improved public and business sentiments regarding the pandemic, the region has recovered 631,500 jobs, representing an increase of 8.7 percent. Only two sectors—Government and Mining and Logging—saw job losses over this period. Recovering industries between April and September 2020 include:

- Leisure and Hospitality (+29.5 percent)
- Retail Trade (+11.9 percent)
- Construction (+11.5 percent)

The table below (Table 1-3) provides employment changes in the SCAG region by industry between April 2020 and September 2020.

Table 1-3: SCAG Region Employment Change (April – Sept. 2020)

	April 2020	September 2020	Absolute Change	Percent Change
Mining and Logging	4,300	4,100	(200)	-5%
Construction	335,900	374,500	38,600	11%
Durable Goods	371,200	377,400	6,200	2%
Nondurable Goods	180,200	195,900	15,700	9%
Wholesale Trade	339,500	359,600	20,100	6%
Retail Trade	655,200	733,100	77,900	12%
Transportation, Warehousing & Utilities	371,600	388,000	16,400	4%
Information	218,900	221,100	2,200	1%
Financial Activities	388,800	396,100	7,300	2%
Professional & Business Services	1,038,400	1,098,000	59,600	6%
Educational & Health Services	1,270,000	1,326,800	56,800	4%
Leisure & Hospitality	539,400	698,600	159,200	30%
Other Services	193,500	208,300	14,800	8%
Government	1,085,400	1,011,600	(73,800)	-7%

Source: California EDD

Before the pandemic, SCAG counties enjoyed increasing median household incomes (Table 1-4) due to steady business attraction, strong regional labor markets and improving educational attainment. As previously mentioned, Hospitality and Tourism have seen the heaviest job losses. This sector provides entry-level job opportunities for new workers or those re-entering the workforce; its struggles mean that the region's least advantaged residents have likely been disproportionately impacted by the pandemic. This is exacerbated by a lack of affordable workforce housing, a long-term issue for the Southern California region that has been exacerbated by the pandemic. While eviction moratoriums for renters and mortgage-holders have allowed individuals to stay in their homes, these protections will begin to expire and re-payment of rents that were temporarily suspended will be due, putting thousands of families at risk of homelessness.

Table 1-4: Growth in Median Household Income, SCAG Region vs. U.S. (2017-2019)

Year	SCAG Region	United States
2017	+3.04%	+4.72%
2018	+4.53%	+2.65%
2019	+7.14%	+6.09%

SCAG Housing Market Overview

- Despite the pandemic, home prices continue to increase in the region (+2.6 percent from August to September 2020) led by Los Angeles (+10.4 percent) and Ventura (+6.2 percent) counties.
- Changes in apartment rentals were spread unevenly across the SCAG region, with Orange County seeing marginal declines while Riverside and San Bernardino saw small increases. This suggests that some residents may be leaving higher priced coastal regions for less-expensive inland areas.
- Domestic out-migration from the SCAG region and the state of California, especially from expensive coastal areas, seems to have accelerated during the pandemic. This suggests accelerating demographic shifts, such as the aging of Orange and Los Angeles counties.

Impacts & Recovery Outlook

Riverside & San Bernardino Counties

Prior to the pandemic, the Riverside and San Bernardino counties were generating an average of over 43,000 in new jobs for a compound annual growth rate of 3.3 percent; if the current pace of job loss continues Riverside and San Bernardino counties stands to lose 102,100 jobs in 2020, a decrease of 6.6 percent. Assuming that the pandemic begins to improve, a vaccine is created and accepted, and additional COVID-19-related stimulus is passed, Riverside and San Bernardino counties are estimated to recover 62,900 jobs or growth of 4.2 percent, with total employment reaching 1,517,200 by 2021.

Much like the rest of the SCAG region, tourism-related sectors in Riverside and San Bernardino counties were the hardest hit and will likely lag pre-pandemic highs well after 2021. Additionally, growth in high growth sectors such as Logistics, Construction, and Healthcare has been revised down due to complications imposed by U.S. tariff policies and uncertainty regarding Supreme Court rulings on the Affordable Care Act. While areas such as the Riverside and San Bernardino counties have and may continue to benefit from in migration, the considerable job losses experienced in the region could work to slow its population growth and subsequent recovery.

Many industries adapted quickly during the pandemic, providing innovative solutions to business closures and stay-at-home orders:

- Videoconferencing applications such as Zoom saw historic growth as businesses, schools and governments implemented remote work or distance learning programs. Many businesses were therefore able to resume activities and maintain communication with their employees while schools resumed courses.
- While work from home policies were largely successful and allowed businesses to resume activities, distance learning programs have been more problematic due to broadband accessibility, program quality, and a variety of other factors.
- The importance of childcare services was immediately noticed as childcare centers were shut down, leaving parents struggling to both work and manage their households and children's education.
- Restaurants, a highly at-risk industry segment due to its reliance on in-person interactions, responded to prohibited in-door dining by setting up tables on sidewalks and parking lots while leveraging delivery services such as DoorDash, Postmates, and Uber Eats.
- E-commerce and delivery services flourished as many customers shopped from home.

Impacts & Recovery Outlook

Orange County

Orange County saw its unemployment rise from 2.8 percent in February 2020 to reach a high of 14.7 percent in May, before dropping to 9.0 percent in September, losing close to 270,000 jobs between March and May 2020. The hardest hit sector in Orange County was Leisure and Hospitality, which saw considerable losses as restaurants, hotels, and of important note, Disneyland shut their doors for the first extended period since opening in 1955. Despite these losses, Orange County's diversified industry base has already made progress in rebuilding its labor market. Business and consumer sentiment in the region are already improving.

As in the rest of the SCAG region, low-wage and entry-level positions were disproportionately affected by the pandemic and are likely to see a much slower recovery than higher-skill, more technical positions. This also places additional pressure on affordability concerns which were impacting the region long before the pandemic took hold. While apartment rents have registered some declines, home prices seem to continually rise, supported by a low-interest rate environment, low supply, and high demand.

SCAG Region Economic Outlook

The COVID-19 pandemic hit the United States during what CSUF’s Woods Center calls “a golden age of expansion:” a decade of GDP growth, employment growth, declining household debt burdens and a thriving stock market that reached record highs in February 2020.¹³ Professors Puri and Farka write that, unlike in the years leading up to the Great Recession, “There was nothing fundamentally wrong with the economy back in February. There were no massive debt overhangs, no glaring misallocation of resources and no obvious credit bubble.”¹⁴

Therefore, the current situation is very different from the Great Recession and, while the future will remain uncertain until the development of a successful vaccine, there remains room for optimism, with the caveat that another COVID-19 surge—and subsequent lockdowns or other regulations—remain potential stumbling blocks. The Woods Center predicts a real GDP recovery by the end of 2021 and a full employment recovery by the end of 2022.¹⁵ California, however, continues to have one of the nation’s highest rates of unemployment insurance usage, suggesting a continued softness in the labor market.

Despite these uncertainties, there remains plenty of optimism for the future of the economy. The University of California, Los Angeles (UCLA) *Anderson Forecast for the Nation and California* released in September 2020, which was thought to be optimistic, estimated the GDP in Q3 2020 to be 28.3 percent, well below the recently released actual total of 33.1 percent. This better-than-expected outcome was largely attributable to a less than expected decline in Q2 2020, a quicker re-opening than anticipated, increased levels of restrictions which limited transmission in summer months, and the ability for consumers and businesses to adapt to a virtual and socially-distanced new normal.

Looking at current projections (Table 1-5), the SCAG region’s unemployment rate is expected to average 12 percent by the end of the year, 1 percentage point above the state rate and 3 percentage points above the national rate. While the nation saw employment decline by 6.7 percent and the number of unemployed rise by 130 percent, the SCAG region saw more dramatic impacts with employment dropping by an estimated 10.6 percent and unemployment rising by 185 percent; both figures are also higher than the state average, as seen below.

Table 1-5: Projected National, State & SCAG Regional Labor Market Trends (2019-2020)

	United States		California		SCAG Region	
	2019	2020*	2019	2020*	2019	2020*
Civilian Labor Force	163,539,000	160,819,000	19,411,558	18,936,422	9,311,508	9,074,844
Civilian Employment	157,538,000	147,032,000	18,627,383	16,897,978	8,927,733	7,979,944
Civilian Unemployment	6,001,000	13,787,000	784,183	2,038,422	383,808	1,094,900
Civilian Unemployment Rate	3.7%	8.6%	4.0%	10.8%	4.1%	12.1%
Total (All Industries)	150,939	141,687	17,849,192	16,547,067	8,203,208	7,591,522

Note: *2020 is average from January to September.

Source: U.S. – BLS (total nonfarm, not seasonally adjusted); CA, SCAG – EDD (total wage and salary employment, not seasonally adjusted).

¹³ Farka and Puri, pp. 3-4.

¹⁴ Farka and Puri, p. 7.

¹⁵ Ibid, p. 7.

In terms of industries, the most significant declines (Table 1-6) between 2019 and 2020 are expected in Leisure and Hospitality (-24 percent) followed by Other Services (-17 percent) and Nondurable Goods Manufacturing (-11 percent). While no industries are expected to see any increases, the smallest employment impacts are expected in Financial Activities (-1 percent) and Transportation, Warehousing and Utilities (-2 percent).

Table 1-6: Projected Changes in Wage & Salary Employment, SCAG Region

	2019	2020 (9-Month Average, Jan. – Sept.)	Percent Change
Total, All Industries	8,203,208	7,591,522	-7%
Total Farm	57,142	52,133	-9%
Total Nonfarm	8,146,067	7,539,389	-7%
Total Private	7,062,033	6,490,022	-8%
Goods Producing	1,013,433	959,022	-5%
Mining, Logging & Construction	385,092	374,100	-3%
Manufacturing	628,342	584,922	-7%
Durable Goods	404,900	385,833	-5%
Nondurable Goods	223,442	199,089	-11%
Service Providing	7,132,633	6,580,367	-8%
Private Service Providing	6,048,600	5,531,000	-9%
Trade, Transportation & Utilities	1,571,658	1,478,689	-6%
Wholesale Trade	381,442	361,489	-5%
Retail Trade	795,450	729,833	-8%
Transportation, Warehousing & Utilities	394,767	387,367	-2%
Information	260,092	236,867	-9%
Financial Activities	402,567	397,578	-1%
Professional & Business Services	1,173,450	1,105,144	-6%
Educational & Health Services	1,383,400	1,338,456	-3%
Leisure & Hospitality	990,575	752,956	-24%
Other Services	266,858	221,311	-17%
Government	1,084,033	1,049,367	-3%
Federal Government	89,017	93,678	5%
State & Local Government	995,017	955,689	-4%
State Government	162,583	157,322	-3%
Local Government	832,433	798,367	-4%
Local Government Excluding Education	371,950	367,067	-1%

Source: California EDD March 2019 Benchmark, SCAG

Impacts & Recovery Outlook

SCAG Region

Overall, the SCAG region is a sum of its parts — while the economic and employment picture for each county has improved since April 2020, the region’s economy remains well below pre-pandemic highs. The trends and impacts outlined in this report though, remain a fluid situation, just like COVID-19 infection rates.

National case counts surged in October 2020, putting the speed and shape of the expected recovery in doubt. As of November 9, 2020, Pfizer, a multinational pharmaceutical company, announced that its COVID-19 vaccine is more than 90 percent effective, sending the stock market soaring by 3 percent to a record high. The following week, Moderna announced end stage testing for a vaccine with a 95 percent effective rate. While the timing and rollout of a vaccine remains to be determined, this news will undoubtedly improve both consumer and business sentiments, likely spurring additional economic activity and contributing to the recovery. The extreme fluidity of the situation, however, makes accurate forecasting extremely difficult.

So far, the only constant themes of the pandemic have been that lower-income segments of the population have experienced dramatically more negative impacts, including deeper job losses and a projected longer recovery, and that federal stimulus has been insufficient.

Lower-income segments of the population were likely already struggling, especially in areas with a high cost-of-living. The initial concept of a “V” shaped recovery was based on the dramatic economic activity experienced in the third quarter of 2020, but that economic activity was largely supported by federal stimulus. With no additional stimulus since the early months of the pandemic, this recovery has taken on more of an “L” or “lazy-U” shape as detailed by UCLA’s *Anderson Economic Forecast*.

Increasing case counts but news of significant vaccine effectiveness, a perceived end to political instability but no sign of additional federal stimulus, increasing employment yet continued business closures, increasing home prices despite rising affordability concerns: the situation continues to evolve with a variety of events influencing the region’s economics trajectory. While forecasting remains a challenge, the SCAG region is likely to follow broader state and nationwide trends in its recovery.

SCAG Regional Strategies, by Industry

This analysis uses location quotients, or measures of an industry’s concentration in a particular area, to determine which industries might fuel the region’s recovery. Industry clusters are typically measured through location quotients, which identify how concentrated an industry in a region is compared to the nation. A location quotient of 1 means that an industry is as concentrated in the region as in the nation as a whole, while a quotient of 10 means that it is ten times more concentrated. Location quotients can be

used to determine local or regional specializations, to identify strong or weak export industries, and to identify which industries and occupations to invest time and resources in. Industries with high location quotients typically have high levels of exports and bring new capital into the regional economies. This provides significantly more benefit than industries such as retail or restaurants, which largely recirculate capital in a region.

SCAG industries with the highest location quotients included Motion Picture and Sound Recording Industries; Apparel Manufacturing; and Performing Arts, Spectator Sports and Related Industries, the first and third of which have been seriously affected by the pandemic. The tables below illustrate regional industries' employment, location quotients, and employment multipliers with the intent of highlighting which industries could lead to a more rapid recovery.

Job multipliers are another useful index. In an industry with a job multiplier of 5, one new industry job creates four other jobs across the regional economy for a total of five; supporting industries with high multiplier effects could help accelerate the region's recovery. The table below (Table 1-7) provides the SCAG region's top industries by jobs multipliers.

These industries' high degree of specializations indicates that they could drive economic activity—and thus regional economic recovery—if properly supported. They also help draw capital into the region, a key factor leading to job creation and overall growth in economic activity.

Table 1-7: Top Industries by Location Quotient in the SCAG Region (2020)

	Location Quotient	Employment	Jobs Multiplier
Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing	8.20	9,683	2.05
Teleproduction and Other Postproduction Services	8.09	11,606	4.28
Motion Picture and Video Production	7.32	121,151	5.66
Cut and Sew Apparel Contractors	7.02	14,491	1.56
Agents for Artists, Athletes, Entertainers, and Other Public Figures	6.54	18,064	4.37
Motion Picture and Video Distribution	6.16	3,080	7.83
Nonferrous Forging	5.24	2,378	3.67
Women's, Children's, and Infants' Clothing Merchant Wholesalers	4.35	18,805	3.31
HMO Medical Centers	4.34	51,892	3.73
Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	4.10	5,988	3.05
Music Publishers	4.06	1,565	3.94
Other Guided Missile / Space Vehicle Parts / Auxiliary Equipment Manufacturing	3.97	1,604	4.14
Hazardous Waste Collection	3.88	2,671	3.18
Marine Cargo Handling	3.86	13,694	4.22
Record Production and Distribution	3.69	1,777	5.12
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	3.67	8,226	4.37
Guided Missile and Space Vehicle Manufacturing	3.63	13,660	4.96
Other Apparel Knitting Mills	3.55	701	1.84
Steam and Air-Conditioning Supply	3.48	320	3.32
Toy and Hobby Goods and Supplies Merchant Wholesalers	3.37	4,063	4.05

Source: Economic Modeling Specialists International

Location quotients and employment multipliers help highlight industries, which stand to create an above-average economic impact on the region and, as such, regional policymakers within the SCAG region need to collaborate on strategies to better support these sectors. In the SCAG region, industries focused in manufacturing, arts and entertainment and utilities stand to generate significant economic activity, providing a more likely path to economic recovery.

2 | Modeling the Economic Impacts of COVID-19 Through FY 2021

The first section provided an overview of the current status of the SCAG region's key economic indicators. This section provides two separate analyses, conducted by SCAG staff and consultants, which model the anticipated impacts of the COVID-19 pandemic in the region in the next two years. This study builds on the report, "Potential Impacts of COVID-19 in the SCAG Region,"¹⁶ which was released by SCAG on May 14, 2020. The analyses focus on impacts to regional taxable sales and anticipated unemployment rates.

Impacts of COVID-19 on Regional Taxable Sales

ANALYSIS BACKGROUND

Table 2-1 below shows that on average, sales and use taxes make up 26.7 percent of municipal revenues in the SCAG region. **Note that this is not a forecast or assessment of revenues in the region.** The impacts presented here are based on the latest data available to SCAG as of October 30, 2020 and are presented in 2020 dollars. Given uncertainties inherent in forecasting these outcomes, SCAG has assessed a range in outcomes based on assumptions that will be updated as new information becomes available.

Table 2-1: SCAG Region Revenue Sources (2018)

		Total Revenues (Millions)	Secured & Unsecured Property Taxes (%)	Sales % Use Taxes (%)	Transient Occupancy (Hotel) Taxes (%)	Sales & Hotel Taxes Combined (%)
SCAG Regional Local Jurisdictions (197)	Min.	\$0.75	0.0%	0.0%	0.0%	0.3%
	Avg.	\$119.55	21.1%	26.7%	6.3%	32.9%
	Max.	\$6,359.45	73.8%	77.7%	48.9%	78.9%

Source: CA State Controller

This analysis should be used with caution. Information on the likely effects of the pandemic—and the governmental, business, and consumer responses to those effects—continues to change daily. Given the limited nature of relevant data that is available at this time, the preliminary forecast was developed using a top-down analysis at the regional level; overall findings about aggregate results may not translate directly to local jurisdictions. This assessment is provided to help spur the conversation on appropriate actions to take at this time, but the forecast will necessarily change and become more detailed in the months ahead as more concrete data becomes available.

INPUTS & KEY ASSUMPTIONS

SCAG developed both a *status quo ante* baseline estimate and a forecast for the total value of taxable sales in the six-county region based on available historical data and third-party forecasts of the recovery trajectory. The inputs for this analysis came from three main sources:

¹⁶ SCAG, [Potential Impacts of COVID-19 in the SCAG Region](#).

- Historical data on actual taxable sales by county and by industry group up through the end of Q1 2020 was obtained from the Open Data Portal of the California Department of Tax & Fee Administration (CDTFA).¹⁷
- Data for the second calendar quarter of 2020 is not yet available from CDTFA, but a preliminary estimate is available from HdL Companies data, which offers tax and revenue services to local government entities through which they have early access to detailed tax filings data for many California jurisdictions. HdL publishes quarterly aggregated summaries of data on sales and use taxes that consolidate the jurisdiction-level data to the county-level. HdL then works backwards to produce an “adjusted” estimate of the taxable sales that actually occurred in each county, by industry group, each quarter.¹⁸
- For the forecast period of this analysis (FY 2020-21 and FY 2021-22) the main inputs are drawn from HdL’s consensus forecast of anticipated year-over-year changes in taxable sales by quarter, by industry group, for California as a whole. HdL’s most recent forecast was published in September 2020.¹⁹

All three of these data sets are grouped into sub-categories based on the nature of the business that collects the tax. There are separate categories for different types of brick-and-mortar businesses, such as car dealers, gas stations, and grocery stores; online e-commerce transactions are captured in a single standalone category, regardless of the type of item being purchased. There is also a separate category that includes the taxable sales from all other industry codes besides retail and food services. According to data from CDTFA, this “All Other Outlets” category is dominated by wholesale trade (37 percent of the category in CY 2019), manufacturing (22 percent), real estate (12 percent), and construction (5 percent).

It should be noted that the industry groupings in the HdL data sets do not align precisely with the CDTFA categories, likely due in part to the requirement to aggregate data due to the confidentiality agreements HdL maintains with its clients. As a result, a mapping (Table 2-2) was developed to be able to apply the HdL inputs to CDTFA’s historical data series, both to estimate the final quarter of FY 2019-20 and to forecast future quarters.

Table 2-2: Category Mapping for Application of HdL Industry Groupings

CDTFA Category	HdL Category
Motor Vehicle and Parts Dealers	Autos and Transportation
Home Furnishings and Appliance Stores	General Consumer Goods
Building Material and Garden Equipment and Supplies Dealers	Building and Construction
Food and Beverage Stores	Food and Drugs
Gasoline Stations	Fuel and Service Stations
Clothing and Clothing Accessories Stores	General Consumer Goods
General Merchandise Stores	General Consumer Goods
Food Services and Drinking Places	Restaurants and Hotels
Other Retail Group (includes e-commerce)	County & State Pool
All Other Outlets (besides retail and food service)	Business and Industry

¹⁷ Available at <https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=TaxSalesAllCounties>

¹⁸ Available at <https://www2.hdlcompanies.com/misc/Standard%20Adjusted%20by%20Region.pdf>

¹⁹ Available at <https://www2.hdlcompanies.com/misc/September%202020%20Consensus%20Forecast.pdf>

The HdL forecast of taxable sales is presented as a set of year-over-year growth rates for each industry grouping across eight fiscal quarters in FY 2020-21 and FY 2021-22. To better illustrate the likely trajectory of the recovery in each industry, the year-over-year changes have been converted to an index relative to the respective quarters of CY 2019, which is the last timeframe that was unaffected by the pandemic. Figure 2-1 shows the index values derived from the HdL forecast inputs by calendar quarter for each of the CDTFA industry sectors.

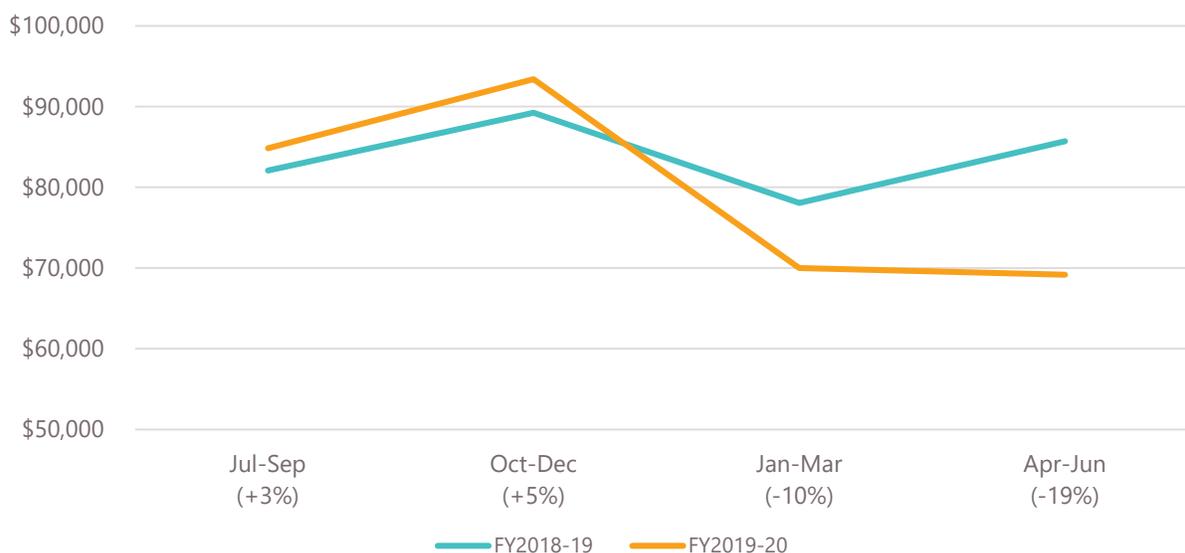
Figure 2-1: HdL Consensus Forecast (Index Value of Quarterly Taxable Sales by Industry, Relative to CY 2019 Quarterly Actuals)



Note: Per category mapping listed in Table 1, some industry groups use the same forecast inputs from HdL, so their index values overlap exactly on the chart.

BASELINE SCENARIO

In FY 2018-19, the last full fiscal year prior to the pandemic, the total value of all taxable sales in the six-county SCAG region was \$335 billion. In FY 2019-20, this figure decreased by -5 percent to \$317 billion (Figure 2-2).

Figure 2-2: Total Taxable Sales in the SCAG Region by Quarter (Millions)

FY 2019-20 started off somewhat stronger than the prior year, with regional taxable sales in the first six months of FY 2019-20 coming in 4 percent ahead of the first half of FY 2018-19. However, the second half of FY 2019-20 was down -15 percent versus the first half of FY 2018-19, with the largest year-over-year decline in the final fiscal quarter. Typically, the first half of each fiscal year produces more than half of annual taxable sales—mostly as a result of increased sales during the back-to-school and holiday shopping seasons—so the growth seen in late 2019 helped to blunt the overall year-over-year impact of the economic slowdown that began in early 2020.²⁰

The baseline scenario assumes that, absent the pandemic, taxable sales in the six-county SCAG region would have grown at a composite rate of +1.34 percent per year in real terms.²¹ Assuming the continuation of this long term trend, the taxable sales in FY 2019-20 would have been 1.34 percent higher than the prior fiscal year, coming out to nearly \$340 billion. Thus, the actual value of regional taxable sales \$317 billion noted above represents a drop of almost \$22 billion (-7 percent) versus pre-pandemic expectations.²²

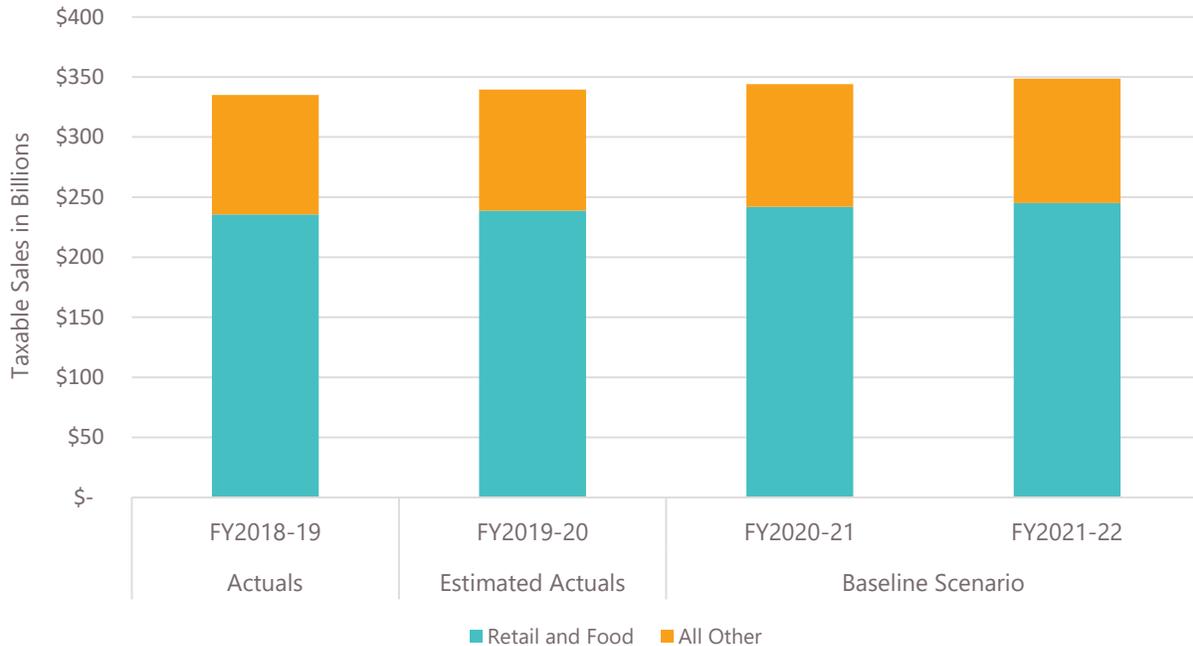
For the forecast period, the 1.34 percent growth rate is applied to the pre-pandemic estimate of \$340 billion in taxable sales. This results in a forecast of \$344 billion in taxable sales in FY 2020-21 and \$349 billion in taxable sales in FY 2021-22, for a 2-year total of \$693 billion. Figure 2-3 portrays the SCAG region baseline estimate of annual taxable sales.

²⁰ On June 8, 2020, the National Bureau of Economic Research (NBER) announced that quarter-over-quarter economic expansion in the United States peaked in the final calendar quarter of 2019. Details are available in NBER's press release: <https://www.nber.org/news/business-cycle-dating-committee-announcement-june-8-2020>

²¹ This 1.34 percent figure is based on the long-term annual growth rate in sales tax revenues in the SCAG region as a whole, in constant dollars, over the full 25-year forecast period in Connect SoCal, without taking economic cycles into account.

²² According to the State of California budget website (<http://www.ebudget.ca.gov/>) the enacted budget for FY 2019-20 anticipated that statewide sales and use tax collections would grow by +4.4 percent versus FY 2018-19, due in part to implementation of required sales tax collection by online retailers. Instead, sales and use tax collections were down -8.4 percent for the state as a whole between FY 2018-19 and FY 2019-20. The enacted budget for FY 2020-21 assumes that statewide sales and use tax collections will fall a further -17.5% from FY 2019-20 to FY 2020-21.

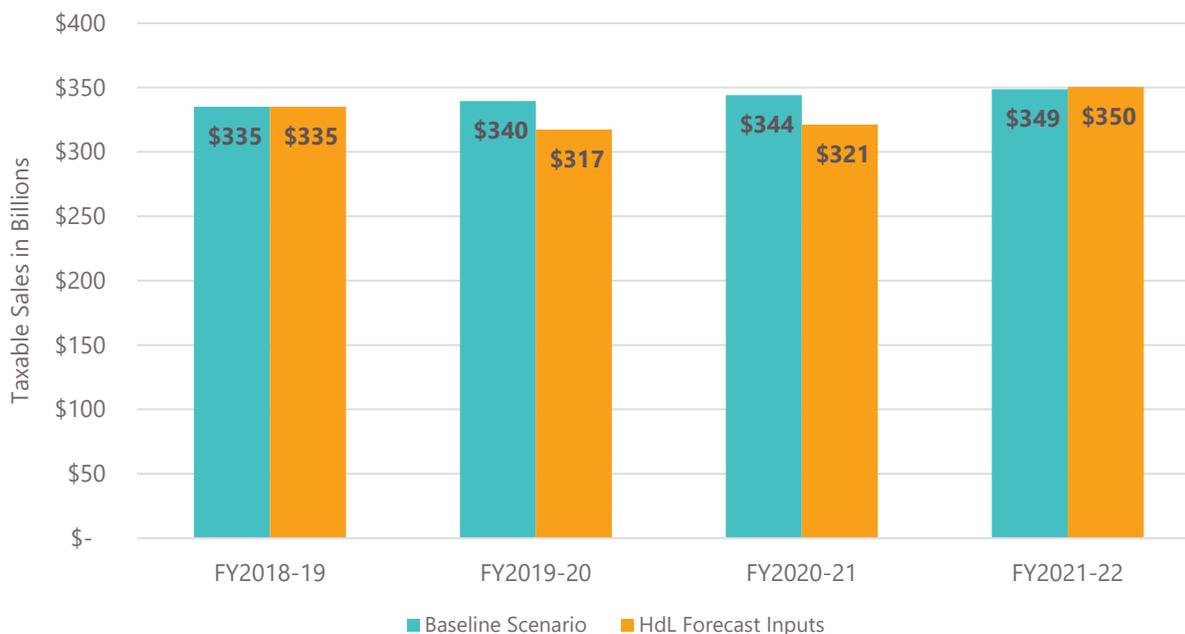
Figure 2-3: Annual Taxable Sales in the SCAG Region (Historical Actuals and Baseline Scenario)



FORECAST SCENARIO

The forecast scenario used for this analysis is based on the consensus estimate produced by HdL Companies. Building off estimated actual taxable sales for FY 2019-20 described above, the forecast applies year-over-year input factors to the prior year values of taxable sales for each industry grouping, using the category mappings shown in Table 2-1 and is calculated on a quarterly basis for two full fiscal years (FY 2020-21 and FY 2021-22).

Using the HdL input factors, the forecast results indicate that over the two forecast years, taxable sales in the SCAG region would decline by a combined \$33 billion (-5 percent) versus the Baseline Scenario for those same two years. Figure 2-4 shows this amount is in addition to the \$22 billion decline in taxable sales in FY 2019-20 compared to the Baseline Scenario value for that year.

Figure 2-4: Annual Taxable Sales in the SCAG Region (Baseline Scenario vs. HdL Forecast)

The HdL forecast inputs for FY 2021-22 generate total taxable sales that exceeds the Baseline Scenario value for FY 2019-20 and almost matches the Baseline Scenario value for FY 2020-21, implying a return to a pre-pandemic level of economic activity after two years of lower output. However, the overall total masks key differences by industry that are already apparent and expected to continue during the recovery period, due to COVID-19 related changes in purchasing patterns. For example, taxable sales at bars and restaurants are expected to remain well below pre-pandemic levels while grocery stores will likely still be somewhat elevated above historic volumes. Table 2-3 below displays forecasts of regional taxable sales for each industry in FY 2021-22 compared to the actual taxable sales for calendar year 2019, which is the last 12-month historical period before the effects of the pandemic began to affect purchasing behavior.

Table 2-3: HdL-based Forecast of Taxable Sales in the SCAG Region, by Industry Grouping (\$Billions)

Industry Grouping	CY 2019 (Historical)	FY 2021-22 (Forecast)	FY 2021-22 (Relative to CY 2019)
Motor Vehicle and Parts Dealers	\$42	\$40	96%
Home Furnishings and Appliance Stores	\$14	\$14	96%
Building Material and Garden Equipment and Supplies Dealers	\$18	\$19	107%
Food and Beverage Stores	\$14	\$15	110%
Gasoline Stations	\$25	\$22	88%
Clothing and Clothing Accessories Stores	\$23	\$22	93%
General Merchandise Stores	\$28	\$28	100%
Food Services and Drinking Places	\$44	\$36	83%
Other Retail Group (including e-commerce)	\$32	\$44	138%
<i>Sub-total: All Retail and Food Service</i>	\$239	\$239	100%
All Other Outlets (besides retail and food service)	\$103	\$104	101%
TOTAL (All Outlets)	\$342	\$343	100%

It should be noted that although online e-commerce purchases have increased significantly during the pandemic as shoppers stay at home and reduce contact with brick-and-mortar establishments, a non-trivial portion of the forecast growth shown for the “Other Retail Group” in Table 2-3 includes the effect of new regulatory requirements that are unrelated to the pandemic. California implemented its Marketplace Facilitator Act (AB 147) during calendar year 2019, requiring that most e-commerce sellers collect and remit sales tax on all California-based purchases. This requirement increases the total taxable sales that will be reported to CDTFA under this category over the next several years as companies more fully comply with the new rules, and the HdL forecast inputs reflect this change.

Given the significant uncertainty inherent in the use of this simplified forecast method, the final output for this forecast is presented as a range estimate in Table 2-4 below that was developed by varying the values of all asserted industry inputs by +/-10 percent from the from the year-over-year factors provided by HdL, in order to evaluate the results for lower impact (10 percent better) and higher impact (10 percent worse) conditions.

On a calendar year basis, our estimates suggest a possible decrease in taxable sales versus baseline expectations of -8 percent in 2020, -9 percent in 2021, and -1 percent in the first two quarters of 2022. These impacts reflect the composite effects of widely varying impacts by industry sector, including double-digit declines projected in all years for hard-hit sectors such as gas stations and bars and restaurants, single-digit gains projected in all years for grocery stores, and strongly increasing double-digit gains projected in online purchases relative to the baseline due to the statewide rollout of sales tax collection for all online purchases. This compares favorably to our May 2020 estimate of a -26 percent to -38 percent decrease over calendar years 2020-2021 combined, due to both economic effects in CY 2020 that were less severe than initially anticipated and a change in methodology to use forecasting inputs more specific to the SCAG region.

Table 2-4: Range Estimate of Taxable Sales in the SCAG Region, FY 2020-21 and FY 2021-22 Combined

Industry Grouping	Total Taxable Sales FY 21 + FY 22 Combined (in billions, 2020 \$)		Percent Change vs. Baseline Scenario	
	Lower Impact	Higher Impact	Lower Impact	Higher Impact
Motor Vehicle and Parts Dealers	\$80	\$79	-8%	-9%
Home Furnishings and Appliance Stores	\$27	\$26	-10%	-14%
Building Material and Garden Equipment and Supplies Dealers	\$37	\$36	3%	2%
Food and Beverage Stores	\$30	\$30	6%	5%
Gasoline Stations	\$43	\$40	-17%	-23%
Clothing and Clothing Accessories Stores	\$42	\$40	-10%	-14%
General Merchandise Stores	\$54	\$52	-3%	-7%
Food Services and Drinking Places	\$69	\$63	-22%	-29%
Other Retail Group (including e-commerce)	\$85	\$83	36%	32%
<i>Sub-total: All Retail and Food Service</i>	<i>\$468</i>	<i>\$448</i>	<i>-4%</i>	<i>-8%</i>
All Other Outlets (besides retail and food service)	\$204	\$201	-1%	-3%
TOTAL (All Outlets)	\$672	\$649	-3%	-6%

As such, Table 2-4 above provides a convenient comparison for planning on a fiscal-year basis. It may also be helpful, however, to express these results as a comparison to CY 2019 in which case this analysis suggests a decrease versus baseline expectations of -8 percent in 2020, -9 percent in 2021, and -1 percent

in the first two quarters of 2022. These figures are lower than those in the table above due to the strong growth seen in the second half of CY 2019—put differently, when compared against a stronger base year, the outlook appears more pessimistic.

Impacts of COVID-19 on Regional Employment

BACKGROUND

The preceding analysis of taxable sales presents a first-order calculation of how certain assumptions about COVID-19's economic impact may be directly reflected in regional taxable sales through 2020 and 2021. In contrast, this analysis uses a structural economic forecasting model (REMI) to evaluate a similar yet distinct set of assumptions on employment in the region's six counties during 2020 and 2021. This analysis captures economic interactions between industries over time but relies on a set of assumptions which is by its nature is more speculative and wide-ranging.

SCAG has long assessed the economic output and job creation impacts of the investments associated with its Regional Transportation Plan/Sustainable Communities Strategy (see the Economic & Job Creation Analysis Technical Report²³). The REMI model uses a system of equations based on county-specific information to forecast how the region's economy changes over time and reacts to new conditions by county and full calendar year. SCAG staff developed assumptions of some of the direct shocks to output that certain industries are facing due to the COVID-19 pandemic, using them as inputs into the REMI model to evaluate some of the implications on the regional economy. Employment is defined as the number of jobs, full-time plus part-time, by place of work for all industries, where full-time and part-time jobs are counted at equal weight.

ASSUMPTIONS & CAVEATS

Key assumptions are how much and how long each industry sector will be impacted, while the outputs shown take into account county-specific characteristics such as industrial composition. This analysis was conducted by SCAG staff in consultation with outside experts (including REMI staff). In contrast to the taxable sales analysis above, which roots its assumptions to HdL forecasts, this analysis necessitates assumptions on a broader range of industries for which similar data may not yet be readily available. For certain industries, reliable information or prognoses were not available and an assumption based on a related industry was used while in other instances there may not yet be a full understanding of the economic shock due to COVID-19.

Data sources relied on to update the previous assumptions include the September 2020 UCLA Anderson forecast, REMI's updated baseline forecast (RSQE August & CBO September Macroeconomic Update), and California Employment Development Department's (EDD) official industry employment estimates in September 2020. Other assumptions mirror those presented in the background material and taxable sales analyses above; however, assumptions used in the REMI model may differ since they reflect direct output shocks rather than taxable sales impacts. Still other assumptions rely on the expertise of SCAG's team of independent economists (Economic Bench), REMI, and SCAG research staff or reflect combinations of these information sources.

²³ Available at www.connectsocial.org.

Several sectors were assumed to have severely affected output. These include arts, entertainment, and recreation, accommodation and food services, other services (except public administration), and retail trade. Output assumptions for these sectors range from 62 percent to 84 percent in 2020 and from 70 percent to 84 percent in 2021 compared to baseline forecasts.

Sectors which were assumed to have moderately affected output include manufacturing, wholesale trade, transportation and warehousing, real estate and rental and leasing, and administrative, support, waste management, and remediation services. Output assumptions for these sectors range from 85 percent to 90 percent in 2020 and from 89 percent to 94 percent in 2021.

Sectors which were assumed to have lightly affected output include mining, construction, information, professional, scientific, and technical services, management of companies and enterprises, private educational services, health care and social assistance, state and local government, federal military, and farm (crop and animal production, aquaculture). Output assumptions for these sectors range from 90 percent to 96 percent in 2020 and from 95 percent to 98 percent in 2021. Utilities, finance and insurance, and federal civilian are the sectors with no impact or increased output assumptions from 100 percent to 106 percent in 2020 and 2021.

FINDINGS

The results of this analysis are shown below. Employment change is the number of jobs compared to the previous year. Unemployment rate is expressed as an annual average.

For historical context, the highest national unemployment rate recorded by the BLS was 24.9 percent in 1933, three years into the Great Depression—a rate that did not return to single-digits until 1941. The highest annual unemployment rate in recent memory in the SCAG region was 12.3 percent in 2010 following the Great Recession. Furthermore, similar to the recovery from the Great Recession, employment growth may first manifest itself in a combination of part-time and temporary positions.

Compared to our May 2020 analysis, we project lower unemployment rates in 2020 and 2021 (Table 2-5). This is in part due to the actual unemployment figures seen as the year progressed, but also reflects increased knowledge about the virus itself as well as increased optimism about the ability to continue economic activity despite the continued spread of COVID-19. Initial dire estimates of skyrocketing unemployment rates have been mitigated somewhat by government interventions and support such as the Paycheck Protection Program (PPP), additional federal unemployment benefits, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), and other federal support programs. These programs provided an important lifeline to both businesses and residents, allowing them to remain afloat and provide support for economic activity and employment recovery despite the dramatic challenges caused by COVID-19-related shifts in the economy. It is important to note that this analysis does not comment on which segments of the population are experiencing unemployment. Data presented earlier in this report indicates that workers in the lowest wage category have experienced continued decline since July despite gradual improvements in moderate- and high-wage employment.

Table 2-5 Preliminary Assessment of Potential Impact of COVID-19 Output Shocks on Annual Employment, SCAG Region

County	2019	2020		2021	
	Observed Unemployment Rate	Estimated Employment Change	Estimated Unemployment Rate	Estimated Employment Change	Estimated Unemployment Rate
Imperial County	18.2%	-5,700	24.3%	2,100	22.1%
Los Angeles County	4.4%	-357,700	11.5%	194,500	7.7%
Orange County	2.8%	-122,400	9.5%	60,900	6.2%
Riverside County	4.2%	-72,700	12.7%	22,200	10.1%
San Bernardino County	3.8%	-66,600	11.6%	19,200	9.3%
Ventura County	3.6%	-19,900	9.1%	9,000	6.6%
SCAG Region	4.1%	-645,000	11.3%	307,900	7.9%

Source: SCAG's growth forecast, REMI model results, California EDD's March 2019 Benchmark.

Final Thoughts

There is no question that COVID-19 has radically changed nearly every aspect of our lives. While the pandemic has exposed some points of weakness and fragility, it has been striking how well and how fast many organizations and communities have adapted, achieving new levels of agility and efficiency. For example, plans for the rollout of e-health and telehealth services that may have otherwise taken many years have been deployed in a matter of days and weeks. While recovery may take time, Southern California's strong economy, robust healthcare infrastructure, and strong education system will all prove valuable in the process of recovery and resilience.

Southern California has the opportunity to center a coordinated focus on economic recovery with an equity lens, taking on the challenge of addressing systemic racism and striving toward expanding access to opportunity for lower income communities and communities of color. The opportunity is to expand the baseline data and knowledge to include equity-focused indicators, look at where our region still falls short, start fixing what is broken, and embark upon the changes needed along the pathway to something new.

The next section provides an introduction to SCAG's work to center racial equity across its work program as a first step towards developing an inclusive economic recovery.

3 | Centering Racial Equity as a Driver for Economic Recovery

Background

Southern California's greatest asset is its diversity, particularly in its people. People of color currently represent more than 68 percent of the region's population and the region's diversity is only expected to increase as it moves towards 2045, when people of color will represent nearly 80 percent of the population. Unfortunately, there is a disproportionate burden of poverty on people of color relative to their white counterparts. Black (21.5 percent), American Indian/Alaskan Native (19.4 percent), and Hispanic/Latinx (19 percent) communities experience the highest rates of poverty in the region compared to the white (13.5 percent) and Asian population (11.5 percent). Note that these larger census groupings conceal the income inequalities within the categories, depending on a variety of factors such as ethnic origin, experience (e.g., education), and gender. For example, though Asians overall rank as the highest earning racial and ethnic group in the US, it is not a status shared by all Asians: Nearly one in four Asians in California are working but struggling with poverty.²⁴ The region's low-income families and communities of color also tend to reside in areas where they experience more poor air quality (e.g., areas near freeways and high traffic roads), resulting in more asthma emergency room visits. Analysis of regional conditions continues to reinforce that where a person lives matters. A range of economic and social impacts such as health outcomes, education, employment, housing conditions, the likelihood of incarceration, and life expectancy, vary vastly in this region based on race, income, and census tract.

Considering the region's known disparities and moved by recent events, on July 2, 2020, SCAG's Regional Council adopted Resolution 20-623-2, affirming its commitment to meaningfully advance justice, equity, diversity, and inclusion, and declaring its intent to end racial and social disparities internal to the agency, strengthen the way it engages and convenes to protect and expand community voice and power, and work in partnership with others to close the gap of racial injustice and better serve the region's communities of color. The resolution called for the formation of an ad hoc Special Committee on Equity and Social Justice to further develop SCAG's response to advancing social justice throughout the agency's activities and advise the Regional Council on policies and practices to advance its resolved intentions. The work of the committee may include, but not be limited to:

- Establishing an agency-wide definition of "equity" to have a shared understanding of it.
- Providing guidance on the development of SCAG's internal Equity, Diversity, and Inclusion work plan that prioritizes, supports, and invests in equity, diversity, and inclusion.
- Reviewing SCAG's public participation plan and stakeholder engagement strategies to lift up voices of communities of color and other disadvantaged communities to ensure meaningful engagement and capacity building opportunities for communities most impacted by racial and social injustice.

²⁴ <https://www.pewsocialtrends.org/2018/07/12/income-inequality-in-the-u-s-is-rising-most-rapidly-among-asians/>
<https://www.prii.org/research/the-working-lives-and-struggles-of-asian-americans-and-pacific-islanders-in-california/>
<https://www.census.gov/library/publications/2013/acs/acsbr11-17.html>
<https://www.census.gov/content/dam/Census/library/working-papers/2020/demo/sehsd-wp2020-12.pdf>

- Developing an Equity Inventory Report, which would catalogue the existing equity-related activities throughout SCAG's departments.
- Establishing an Equity Framework containing quantitative and qualitative indicators of existing inequities and disparities that exist in the region, and how communities and people in the region experience SCAG's desired outcomes.
- Preparing a set of policies and recommended changes to SCAG bylaws as necessary to guide and sustain SCAG's regional leadership in service of equity and social justice.

In response, SCAG staff across departments have formed racial equity working groups to move forward with this agenda by looking internally at hiring practices and policies and externally at existing and proposed work programs.

Building an Inclusive Economic Recovery Strategy

With the direction to center racial equity across its charge of improving quality of life and innovating for a better tomorrow, SCAG has begun to create baseline data that can support the development of an inclusive economic recovery strategy, bringing economic equity indicators into the analysis of the economic health of the region. These initial efforts include an interactive dashboard highlighting Intraregional Vulnerability to COVID 19 and engaging the National Equity Atlas to generate a baseline of economic equity indicators for the SCAG region.

INTRAREGIONAL VULNERABILITY DASHBOARD

There is a broad recognition that the impacts of the pandemic are not felt equally across the region, including at the city-level scale. SCAG has published an interactive dashboard²⁵ which includes indicators of potential vulnerability to COVID-19 for each of the 191 cities and six counties in the region. A comprehensive list of vulnerability indicators²⁶ is made up of slightly more than 70 variables from various sources, including the Census American Community Survey (ACS), California State Controller's Office, InfoUSA, and the California Tax Credit Allocation Committee/Department of Housing and Community Development (TCAC/HCD), Social Services Departments, and homeless services authorities. This dataset provides a wide range of variables related to economic, social, health, transportation, and housing vulnerability indicators.

These indicators allow for a quick assessment of the disproportionate impacts for local jurisdictions across the region. As expected, lower-resourced jurisdictions are likely to experience greater impacts from COVID-19. They have higher shares of vulnerable population such as: 1) Workers in highly impacted sectors; 2) Severely overcrowded households; 3) Severely cost-burdened households; and 4) Environmental Justice communities. In addition, seniors in the region account for more than 10 percent of the total population while residents with no health insurance account for roughly 10 percent—both are factors which vary widely across Southern California.

²⁵ SCAG COVID-19 Vulnerability Indicators Dashboard available at: <https://scag.maps.arcgis.com/apps/opsdashboard/index.html#/50a14802c1bd431e8f30ba0d8bbdcb03>

²⁶ Available at <https://maps.scag.ca.gov/covid19/DataDescription.pdf>.

Local fiscal impacts also vary widely across the region based on a jurisdiction's revenue sources. The preceding analysis of taxable sales, which many jurisdictions rely heavily upon, suggests some disruption continuing into 2022. For about 85 percent of local jurisdictions in the region, sales and use along with transient occupancy taxes make up more than 20 percent of tax revenues. Finally, severe household cost burden (more than 50 percent of gross annual income) is another vulnerability indicator experienced by a high share of the region's households (45 percent) however the severity varies by place.

NATIONAL EQUITY ATLAS – ECONOMIC EQUITY INDICATORS IN THE SCAG REGION

To generate a baseline of regional economic equity indicators, SCAG has partnered with the National Equity Atlas, which produces a detailed report card on American racial and economic equity. The National Equity Atlas defines an equitable community as one where all residents, regardless of their race, nativity, gender, or zip code, are fully able to participate in the community's economic vitality, contribute to its readiness for the future, and connect to its assets and resources. In early 2021 SCAG will publish a report of economic equity indicators for the region, disaggregated by race and other demographics whenever possible.

MOVING BEYOND DATA TO ACTION

SCAG President Rex Richardson provided his leadership on a Framework for Recovery and Reimagining A Resilient Region, and a three-phased approach to an inclusive economic recovery: to listen, to convene, and to catalyze. Building upon the analysis in this report and discussions at the 2020 Economic Summit, SCAG's Economic Bench and other stakeholders will begin to convert conversations into formal partnerships and plans of action which link with SCAG's existing strengths in housing, transportation, and sustainable communities planning.

SCAG will convene members of its Ad Hoc Global Land Use and Economic Council, and augment with additional members that can support formation of a strategy that is action-oriented, centered on the strengths of the Southern California region, and focused on lifting up access to economic opportunities for those that have been systemically left behind. As it will take time to convene and generate a meaningful report, SCAG will concurrently pursue opportunities at the State and Federal level for any new funding in support of economic recovery, as well as partnerships with public, private, community based and philanthropic organizations to act swiftly and innovate programs, policies and strategies that move forward with an inclusive economic recovery.

Recognizing the intersectionality of land use, economic development, transportation, and environmental justice in addressing systemic racism and access to opportunity, this work will feed into the development of the 2024 Regional Transportation Plan/Sustainable Communities Strategy, which will begin in earnest in 2021. This work is funded through SCAG's Overall Work Program (OWP) 055.1531.01.

4 | Conclusions & Next Steps

Paving the Way for Regional Recovery, Resiliency, & Equity

This 11th annual Southern California economic summit occurs at a time of global economic turmoil. COVID-19 has created challenges for Southern California's communities, families, and cornerstone industries, which all face enormous challenges on the road to recovery. Many of the region's communities, for example, are struggling to meet residents' basic needs.

Across the board, cities and counties face a series of major stressors: the current public health crisis, high unemployment, severe municipal finance strains, business failures, increasing climate risk, major public health challenges and other disruptions. These challenges have both highlighted and exacerbated the existing disparities in access to opportunity that communities of color have historically faced.

Policymakers and stakeholders need to address these intersectional issues in order to prepare the SCAG region for an inclusive, equitable, resilient economic recovery. This will also involve addressing uncomfortable truths and regional issues that began long before the pandemic such as homelessness, unemployment, lack of affordable housing, and lack of childcare and the importance of broadband internet access.

Every crisis also creates opportunity, and the COVID-19 pandemic is an opportunity to develop a recovery strategy that addresses the current economic situation of the Southern California region and to lead in centering racial equity and inclusivity in a comprehensive action plan.

In the coming year, SCAG will engage with regional partners across the business, philanthropic, community and economic development sectors, as well as the municipalities it represents, to craft a more focused set of policy recommendations for inclusive economic recovery. This will include best practices and policy and programmatic concepts, a resource hub for information, and a state and federal legislative strategy in support of a robust, inclusive, and equitable economic recovery strategy.

5 | Appendix: County Insights

Imperial County

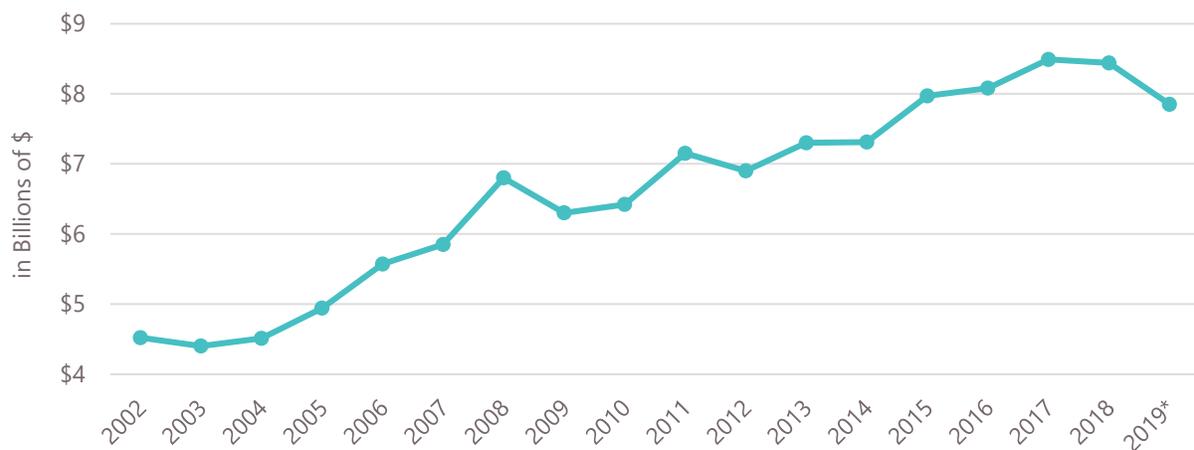
Imperial County is in the southeast corner of California and shares borders with San Diego County, Riverside County, Yuma County (Arizona), and Mexico (and the region and City of Mexicali). The County has an estimated population of 188,777, a slight decline from the previous year. The economy of the region is based on the following industries:

- Agriculture (livestock and crops)
- Energy production (solar, wind, geothermal)
- Prison/detention facilities (federal and state)
- Border security (namely Department of Homeland Security)
- Logistics (agriculture and products assembled in Mexicali, Mexico)
- Local serving small businesses (traditional retail, restaurants, and service-oriented)
- Local/regional government and related services (police, fire, education)

OVERALL COUNTY PRODUCTION

Using the latest year available (2018) and extrapolating through predictive analysis, the GDP of Imperial County in 2019 was \$7.84 billion (Figure 5-1). Agriculture is the largest driver of GDP in the region. Over the last 18 years, agriculture production has averaged 25.57 percent of GDP with a low of 23.1 percent (2009) and a high of 29.6 percent (2013). GDP per capita is estimated at \$41,530, which is similar to the GDP per capita in the states of Idaho, Arkansas, West Virginia, and Kentucky.

Figure 5-1: Imperial County (El Centro MSA) GDP (2002-2019)



Source: Federal Reserve of St. Louis, FRED

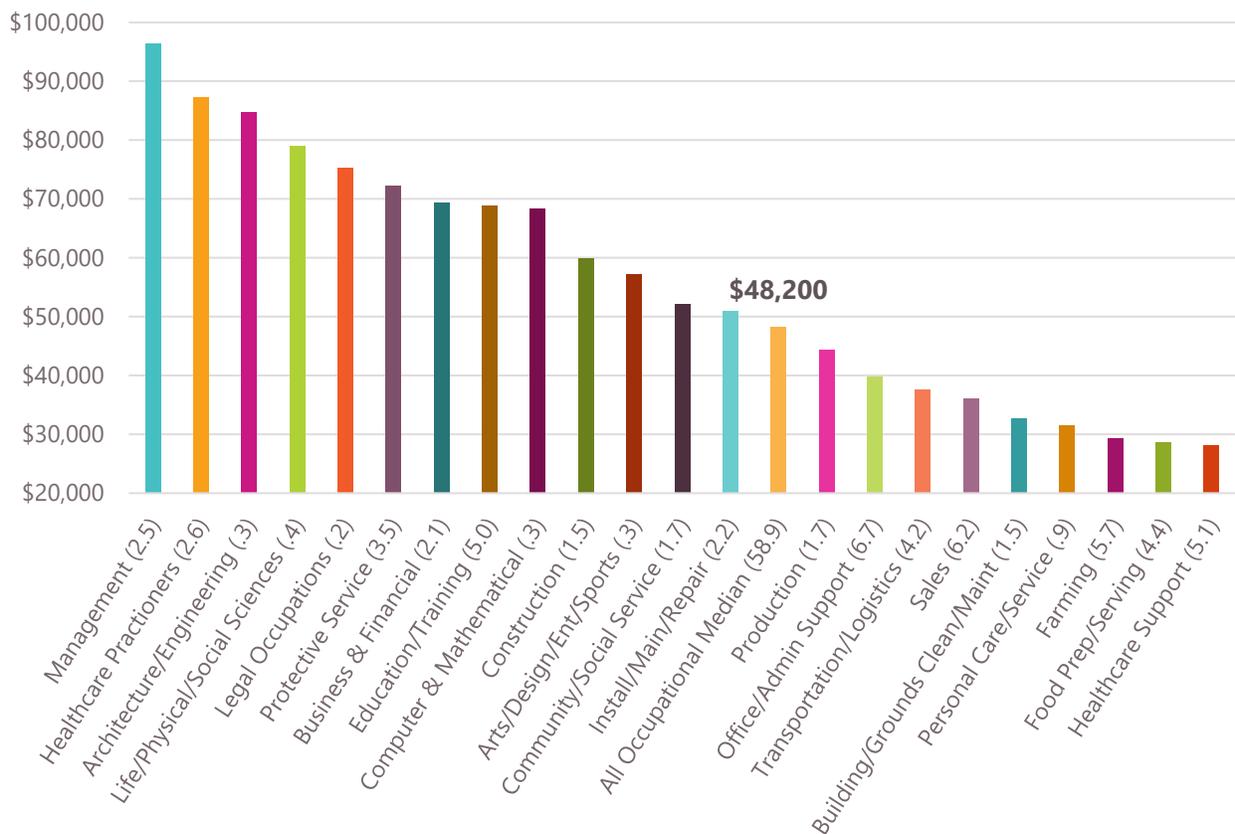
EMPLOYMENT & PAY

As of the beginning of October, Imperial County had an unemployment rate of 21.5 percent. More concerning is that the labor force shrank (year over year) by 4,900 persons or 6.7 percent. There are currently 53,300 jobs for a labor force of 67,800, leaving some 14,500 unemployed. Year over year (September 2019 to September 2020), the hardest hit occupations are Education (-1,600); Government (-1,300); Hospitality and Leisure (-900); and Transportation (-100). These four industries accounted for 3,900 total job losses.

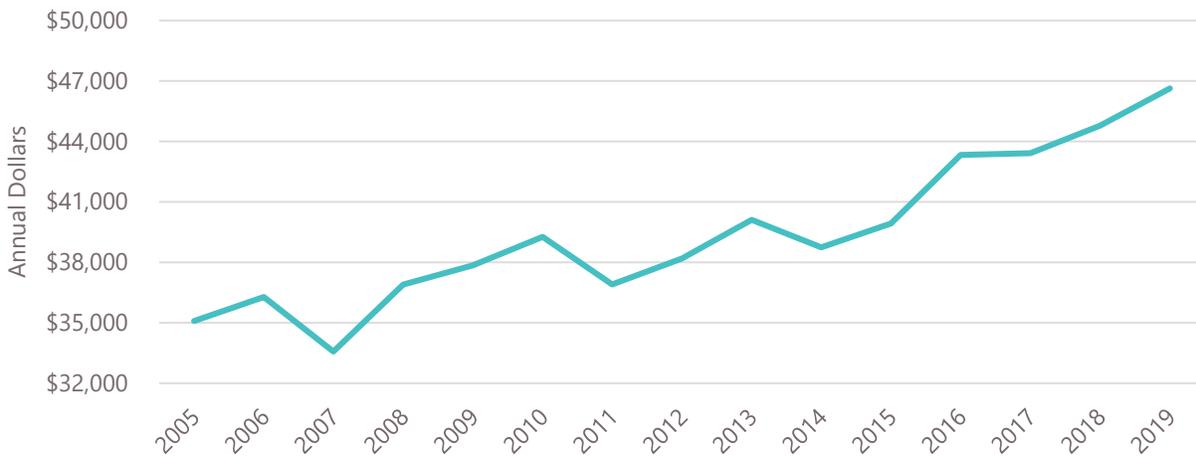
Employment continues to largely be tied to agriculture and government. The Department of Homeland Security, state prisons, and local governments account for 30 percent of total and 36 percent of non-farm jobs. Another 17 percent of jobs are farm direct or farm-related with many others supporting the agriculture industry (logistics, trucking, and transportation).

Median pay (Figure 5-2) has reached an all-time high of \$48,200, though large employment categories such as Office/Administrative Support, Transportation/Logistics, Sales, Farming, and food preparation still pay below the median. Median household income (Figure 5-3) has also reached a high now standing at \$46,633 per annum.

Figure 5-2: Imperial County Median Pay by Occupation (Q1 2020)



Source: California EDD

Figure 5-3: Imperial County Median Household Income (2005-2019)

Source: U.S. Census Bureau, Federal Reserve of St. Louis, FRED

RENEWABLE ENERGY GENERATION

As the Renewable portfolio standard (RPS) requirements continue to increase, so has investment in the region. California has met the RPS standard of a minimum of 33 percent (SBX1-2) and is now working toward the implementation of SB 350, which increases the RPS standard to 50 percent by 2030. In September 2018, former California Governor Jerry Brown signed SB 100 into law, which sets the bar for California to generate 100 percent of energy through renewable sources by the year 2045.

Imperial County is a leader in renewable energy production. To date, the region has approved 3,390 megawatts (MW) of renewable power generation (mainly solar, wind, and geothermal) on over 23,354 acres of land (36.5 square miles). The region is currently processing new projects to store energy (i.e., battery storage), which will enable the region to deliver power to coastal communities during peak periods. There are at least 2,000 MW of energy storage projects in the permitting process.

AGRICULTURE

Agriculture is the largest private sector industry in the Imperial Valley. While the jobs associated with the industry are traditionally low pay, agriculture supports many families in a variety of occupations such as direct farming, professional/business (including accountants), and transportation. In 2019, agriculture production totaled \$2.015 billion (Figure 5-4). This represents a decrease of about \$210 million or a 9.4 percent drop from 2018. In 2019, 528,000 acres of land was in production (a land mass 2.5 times the size of the City of San Diego), with 46,440 acres dedicated to organic crops resulting in \$147.25 million in production. Cattle and grass crop prices were down largely because of the impacts on exports that came from the trade with China. The Imperial Valley agriculture community produced the following in 2019:

- Vegetable/Melons: \$799.42 million
- Livestock: \$522.30 million
- Field Crops (Alfalfa/Bermuda Grass): \$498.17 million
- Seed/Nursery Products: \$113.69 million
- Fruit & Nut Crops: \$75.64 million
- Apiary/Honey: \$6.62 million

Figure 5-4: Imperial County Total Agriculture Production (Livestock & Crops) (2006-2019)



Source: County of Imperial Agriculture Commission

WATER

Current supplies appear to be stable. While Imperial County has one of the most stable supplies of water and an intricate delivery system for farms, the Colorado River must be able to supply water from snowpack to provide the resource. There are ongoing demands on the water supply by coastal communities and other interests within the region. One effort led by a major farmer in the region recently threatened water certainty. The farmer asserted that water rights rested with the farmer-land owners and not the Imperial Irrigation District (IID), the incumbent public agency water provider in the region. The Fourth District Court of Appeals ruled in favor of the IID and the California Supreme Court refused to review the case in October 2020. While the appellant(s) may still appeal the case to the United States Supreme Court, for now there is greater public benefit certainty, though there seems to always be potential changes to water rights for the region. The Imperial Valley does continue to see an increase in higher value crops, namely citrus and tree nuts, that may be relocating from the Central Valley (which has greater water uncertainty).

TAXABLE SALES

Taxable Sales is a measure of spending in the economy by both households and businesses. In 2019, taxable sales in Imperial County totaled \$2.76 billion, down about 1 percent from 2018 (\$2.79 billion). Through the first two quarters of 2020 (impacted by COVID-19), taxable sales had fallen by 5 percent (\$1.3 billion in 2019 versus \$1.235 billion in 2020).

ASSESSED VALUATION

Imperial County saw overall Assessed Valuation increase from \$13.43 billion (FY 2019-20) to \$13.85 billion (FY 2020-21). This represents a 3 percent growth year over year.

HOUSING MARKET

Imperial County's housing market continues to be one of the most affordable in the United States. The median home price is \$255,500. Demand is consistent as the region is on pace for 1,300 transactions in 2020 (averaging 1,400 over the past seven years). New home construction is estimated to total 132 units in 2020, besting the last four years. The region is also comparatively affordable whereby the median home can be purchased for about 4.9 times the median household income compares with almost 8 times for Southern California as a whole.

OUTLOOK

- The overall economy is struggling due to the pandemic and is now seeing a loss of labor force twice that of neighboring counties.
- Agriculture production continues to be high with over \$2 billion of production, but stress remains due to trade wars and supply chain interruption due to the pandemic (i.e., changing consumer behavior).
- The region is poised for additional renewable energy investment (both production and storage).
- The region is seeing inquiries for additional natural resource and precious metal mining operations.
- Path to middle class reliant on government jobs (public safety, Department of Homeland Security, teaching/education).

Los Angeles County

THE COVID-19 ECONOMIC ASSESSMENT

As of the beginning of 2020, Los Angeles County had experienced almost a decade of continuous economic gains since the end of the Great Recession in 2009. Between 2010 and 2019, the county had experienced 2.6 percent compounded annual growth in real gross county product (GCP). Unemployment had fallen from an annual rate of 12.5 percent in 2010 to 4.4 percent in 2019. Payroll employment had risen from 3.8 million to 4.5 million over the period, a growth of 17.2 percent. The four industries that grew the most over the duration of the economic expansion were Healthcare (70.5 percent); Accommodation and Food Services (41.5 percent); Arts, Entertainment and Recreation (35.7 percent); and Transportation and Warehousing (34.9 percent).

Since the onset of the pandemic, however, most of these gains have been erased. By May 2020, Los Angeles County unemployment had reached 21.1 percent, almost double the worst levels of unemployment during the Great Recession. Between September 2019 and September 2020, the latest month for which employment data is available, the employment base had been reduced by 437,800 jobs. The industries most impacted by percent job losses (Table 5-1) were Arts, Entertainment and Recreation (39.5 percent loss); Accommodation and Food Services (28.2 percent loss); and Other (personal) Services (22.1 percent loss). The only industries with net gains year over year were Finance and Insurance (4.8 percent) and Utilities (4.1 percent).

Table 5-1: Industry Employment in Los Angeles County (Sept. 2020)

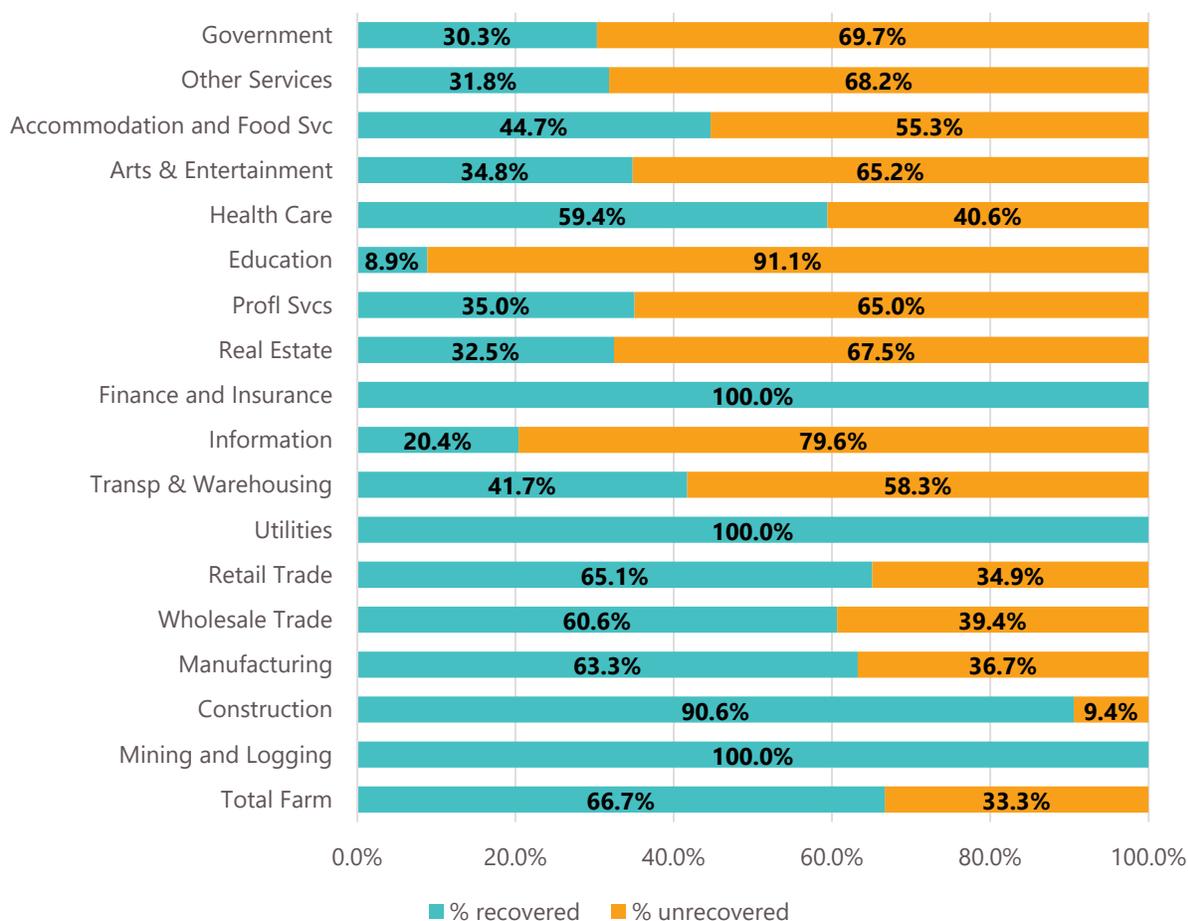
NAICS	Industry Description	Sep-20	% Δ from Sep-19
62	Health Care and Social Assistance	684.8	-3.7%
92	Government	553.6	-5.6%
44-45	Retail Trade	387.9	-5.7%
31-33	Manufacturing	338.3	-7.2%
72	Accommodation and Food Services	322.2	-28.2%
54	Professional and Technical Services	279.9	-6.7%
56	Administrative and Waste Services	255.0	-9.7%
42	Wholesale Trade	208.3	-4.9%
48-49	Transportation and Warehousing	190.7	-6.3%
51	Information	185.5	-15.8%
23	Construction	147.2	-2.6%
52	Finance and Insurance	141.1	4.8%
81	Other Services	123.9	-22.1%
61	Educational Services	123.5	-10.1%
53	Real Estate/Rental/Leasing	79.3	-10.3%
71	Arts, Entertainment and Recreation	59.4	-39.5%
55	Mgmt. of Co's/Enterprises	58.8	-5.0%
22	Utilities	12.6	4.1%
21	Mining and Logging	1.8	-10.0%
	Total Nonfarm	4,129.3	-9.6%

Source: BLS CES (State and Metropolitan Area)

Between March and September 2020, 663,800 jobs were estimated to have been lost, though over 220,000 have since been regained through September. The momentum of job recovery has been uneven, with 3.7 percent job gains between June and July of this year but a -0.2 percent job loss between July and August. August and September each experienced job gains but less than one percent. Additional and continuous job gains will be difficult until households and businesses have the confidence and permission to resume some level of economic normalcy.

As shown in 5-5 below, which details job recoveries by industry between March and September, job recoveries between industries has been uneven. Education, information, and government employment have had the least employment recovery through September, regaining only 8.9, 20.4, and 30.3 percent of jobs lost, respectively, since the pandemic began.

Figure 5-5: Job Losses & Recovery Los Angeles County (March-Sept. 2020)



Source: BLS Current Employment Statistics

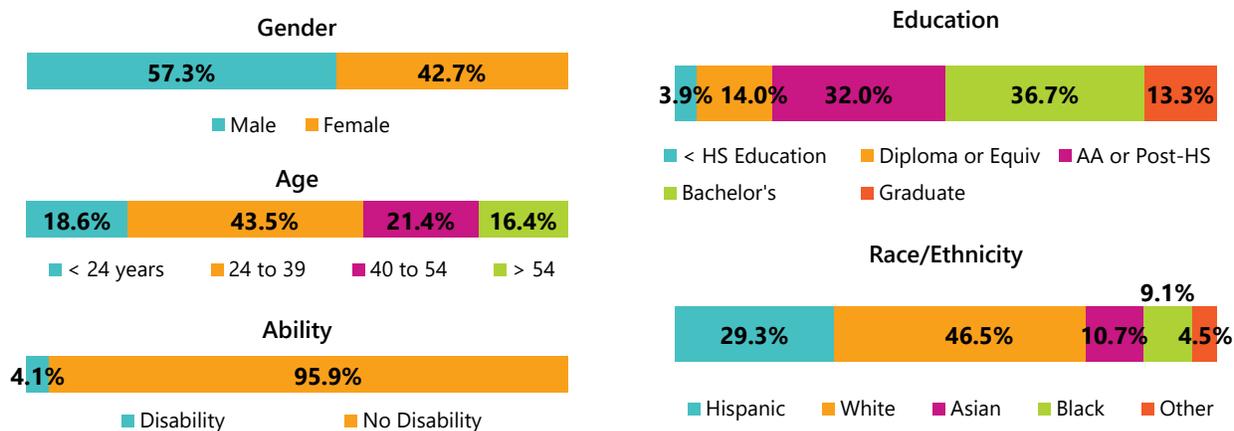
As with all economic crises, impacts split unevenly across industries and demographic groups based upon the profile of each industry’s employment base. Additional details for the top five most effected industries by percentage of employment lost are given below.

ARTS & ENTERTAINMENT

The Arts, Entertainment, and Recreation industry employed an average of 97,000 Los Angeles County workers in 2019. Accounting for all job losses in the intervening months, this industry suffered a 49 percent drop in employment and, as of September, has only recovered 34.8 percent of that employment. Firms within this industry paid an average wage of \$114,480. With a location quotient of 1.32, the industry is particularly concentrated in Los Angeles County, a testament to both the population serving Arts and Entertainment industry, but also those that attract the millions of visitors to the county each year.

Among the subsectors of the industry, job losses were led by Other Amusement and Recreation, which includes golf courses, marinas, fitness centers, and bowling alleys. Between March and September, the industry experienced a net loss of 19,900 jobs, or 59.8 percent of its March to September employment average in 2019. The second-most impacted subsector (Amusement, Gambling, and Recreation) experienced a net loss of 23,000 jobs over the March to September period, the equivalent of 49 percent of 2019 average employment over the same period. This subsector includes amusement parks, which have had to largely remain closed as Los Angeles County remains in Tier 1 status. The demographic breakout of Los Angeles County residents working in that industry is given in the charts below (Figure 5-6).

Figure 5-6: Demographic Breakout – Arts & Entertainment

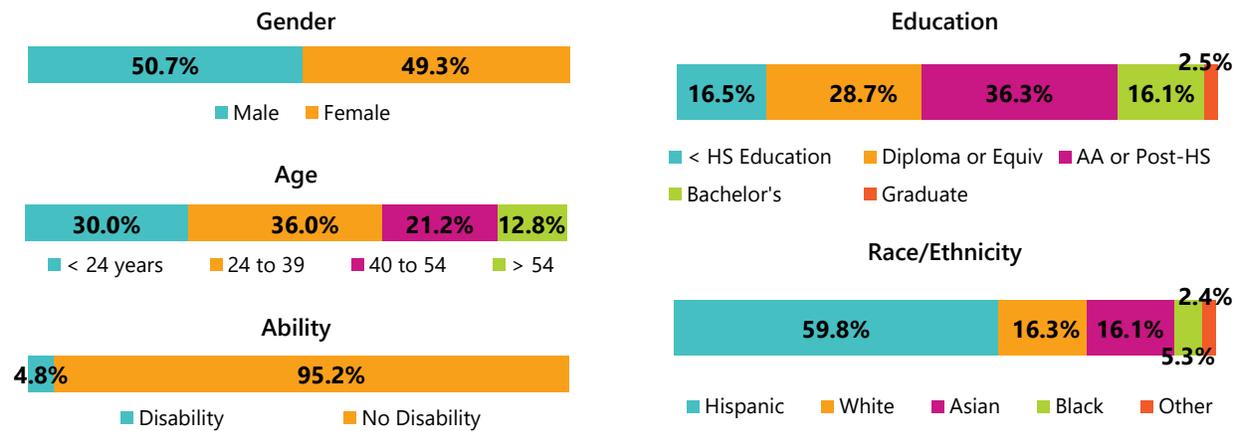


ACCOMMODATION & FOOD SERVICE

Accommodation and Food Services employed an average of 447,900 Los Angeles County workers in 2019. Combining all job losses across the pandemic, this industry’s employment fell by 43 percent, though it has recouped 44.7 percent of these losses due to limited reopening of these establishments. Employment in this industry paid an average of \$27,166 in 2019, and with a location quotient of 1.05, this industry has a slight competitive advantage in Los Angeles County due to the county’s historically strong tourist base.

Among subsectors in the Accommodation and Food Service industry, special food services, which includes contract food services and caterers, has lost of net of 9,300 jobs between March and September, or 42.7 percent of its 2019 average employment over the same period. Full-service restaurants came second in terms of losses, shedding a net of 66,100 jobs over the course of the pandemic to date, a loss equal to 36.5 percent of average 2019 employment from March to September. The demographic breakout of Los Angeles County residents working in that industry is given in the charts below (Figure 5-7).

Figure 5-7: Demographic Breakout – Accommodation & Food Service

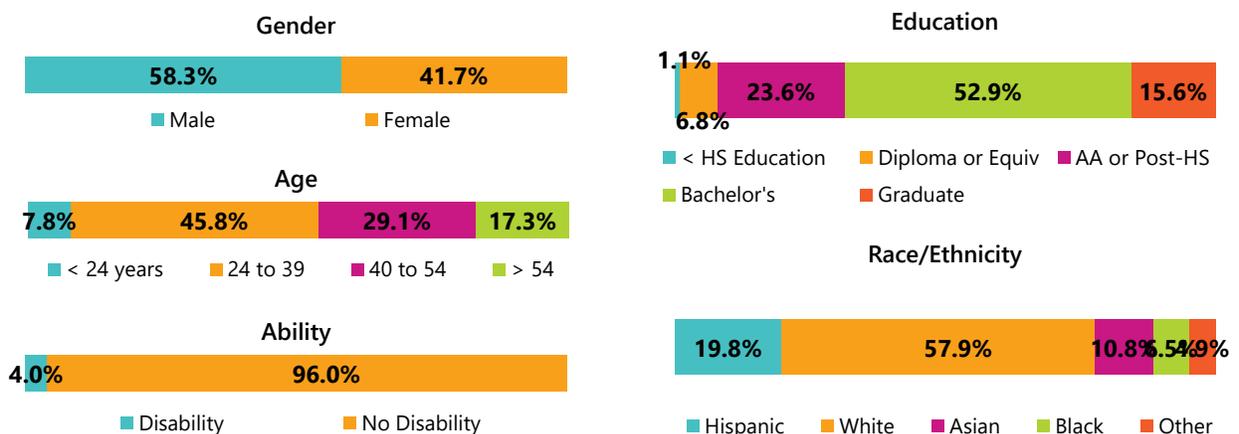


INFORMATION

The Information industry, which includes industries as disparate as Motion Pictures, Sound Recording, Newspapers, Television, and Radio, employed an average of 217,300 Los Angeles County workers in 2019. Accounting for total job losses between March and September, the industry shed 28 percent of its employment base and has only regained 20.4 percent of that employment since then. Employment in this industry paid an average wage of \$141,060, and a location quotient of 2.38, the highest among all Los Angeles County industry sectors, is a testament to Los Angeles being the film and media capital of the United States.

Among subsectors, Motion Pictures and Sound Recording has experienced the most losses due to a shutdown until June and continued restrictions on business activity related to social distancing and public health considerations. On net, this subsector has shed 54,900 jobs, or 43.3 percent of its March to September 2019 employment average. Cable and Subscription Programming is a distant second by percentage loss, shedding 1,000 jobs or 17.2 percent of its employment from the same period in 2019. The demographic breakout of Los Angeles County residents working in that industry is given in the charts below (Figure 5-8).

Figure 5-8: Demographic Breakout – Information

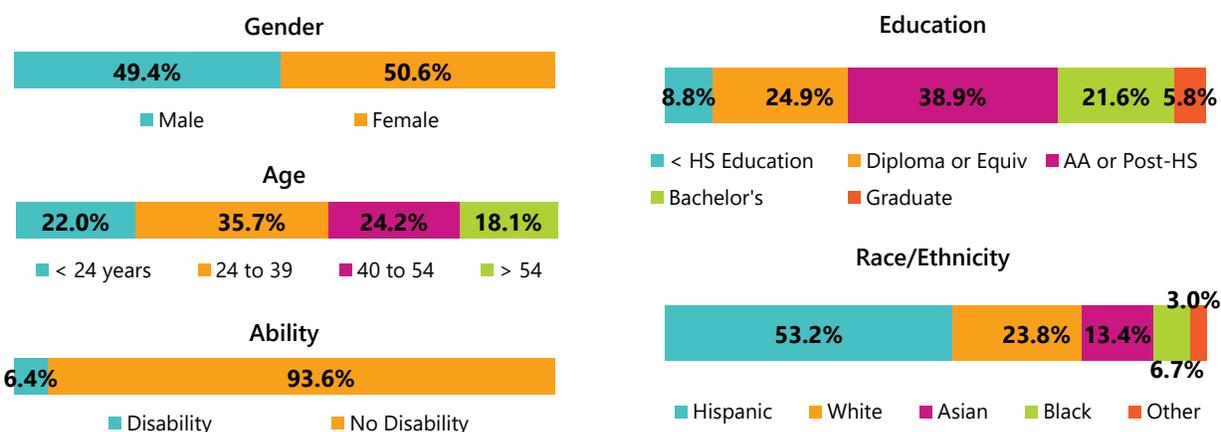


RETAIL TRADE

Retail Trade employed an average of 417,300 Los Angeles County workers in 2019, and as such, is among one of the largest industries in the county. Pandemic-related job losses totaled 18 percent of the industry’s 2019 employment base, but the industry has since recovered 65.1 percent of that employment as businesses have innovated and some reopening has been permitted. Employment in this industry paid an average of \$38,501 in 2019. Despite its size, it only had a location quotient of 0.88 last year, indicating that Retail Trade is somewhat less concentrated in Los Angeles County relative to the rest of the country.

By percentage losses, the subsector that has suffered the most is Book, Periodical, and Music Stores, which shed a net of 2,000 jobs or 80 of its 2019 employment average from March to September. It should be noted, however, that this industry has historically suffered due to ecommerce displacement. By numeric losses, Clothing and Clothing Accessory Stores shed 12,500 jobs, 21.9 percent of its 2019 employment over the same period. Due to large numbers of county residents working from home and students learning from home, households have reduced clothing purchases. For some households, this has been a necessity due to income losses. The demographic breakout of Los Angeles County residents working in that industry is given in the charts below (Figure 5-9).

Figure 5-9: Demographic Breakout – Retail Trade

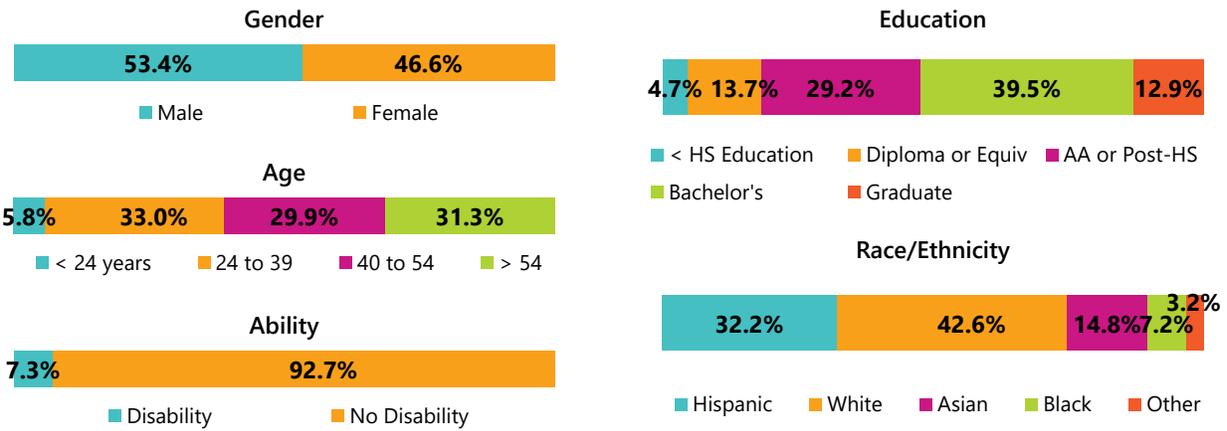


REAL ESTATE

Real Estate, Rental, and Leasing employed 88,400 Los Angeles County residents on average through 2019. Total pandemic-related job losses between March and September equated to 17 percent of this employment base, and the industry has only recovered 32.5 percent of those jobs lost. Employment in Real Estate paid an average wage of \$74,486 in 2019. A location quotient of 1.27 is a testament to Los Angeles County not only being a destination for tourism, but also a highly desired place to live due to the county’s seasonally clement weather and beach access.

On net, job losses by subsector in Real Estate have been chiefly related to non-building-related Real Estate and Leasing, which includes Vehicle Leases, Appliance Rentals, and Rentals of Heavy Machinery. This subsector shed on net 9,000 jobs between March and September, or 42.5 percent of the subsector compared to the same period in 2019. The demographic breakout of Los Angeles County residents working in that industry is given in the charts below (Figure 5-10).

Figure 5-10: Demographic Breakout – Real Estate



OUTLOOK FOR LOS ANGELES COUNTY

Hopes abound for some sort of vaccine or viable, widespread treatment option for COVID-19 in the first half of the 2021 calendar year. The extent of unemployment, economic displacement, and business failures, however, will have ramifications beyond the technical end of the pandemic. The Los Angeles County Economic Development Corporation (LAEDC) forecasts that by 2022 (Figure 5-11), the total employment base of the county will have only returned to 4.4 million, still 2.3 percent below its level in 2019. Estimates for 2021 indicate a likely nadir for total employment in Los Angeles County with 4.3 million, or 3.9 percent below the 2019 level.

Figure 5-11: Total Employment in Los Angeles County (in thousands, 2006-2022f)



Source: BLS QCEW; Forecasts by LAEDC

Table 5-2: Los Angeles County Industry Employment Growth (2019-2022)

Industry Description	Average Annual % Growth	Employment Δ (Thousands)
Health Care and Social Assistance	12.8%	99.8
Public Administration	14.1%	24.6
Transportation and Warehousing	6.8%	15.7
Other (Personal) Services	6.9%	10.7
Education Services	1.9%	7.4
Construction	2.7%	4.0
Finance and Insurance	1.9%	2.6
Utilities	8.9%	2.5
Real Estate, Rental and Leasing	-0.3%	(0.2)
Management of Enterprises	-1.2%	(0.7)
Mining and Natural Resources	-52.3%	(1.0)
Agriculture, Forestry, Fishing & Hunting	-26.4%	(1.2)
Professional and Technical Services	-0.4%	(1.2)
Retail Trade	-2.1%	(8.7)
Wholesale Trade	-8.8%	(19.3)
Manufacturing	-6.0%	(20.2)
Information	-13.7%	(28.9)
Administrative, Support and Waste Services	-12.3%	(34.3)
Arts, Entertainment and Recreation	-35.0%	(37.8)
Accommodation and Food Services	-27.7%	(124.3)
Total	-2.5%	(110.4)

Sources: BLS, QCEW; LAEDC

Between 2019 and 2022, the LAEDC estimates (Table 5-2) that Healthcare and Social Assistance; Public Administration; and Transportation and Warehousing will lead the way in job recovery. This will likely be due to social assistance, ambulatory care, and elective medicine recovering as the post-COVID-19 economy normalizes. Local government budgets will have likely recovered somewhat as commerce, tourism, and business formation return, thus allowing rehires and new hires. Finally, Transportation and Warehousing will continue to industrially improve as rising consumer and business confidence translate into new orders.

The two-year prognosis for the most negatively impacted industries discussed previously remains grim, with Accommodation and Food Services in particular forecasted to shed over 124,000 jobs between 2019 and 2022, or 27.7 percent of 2019 industry employment. By percentage, Arts, Entertainment, and Recreation exceeds this with a forecasted 35 percent reduction in industry employment over the forecast period; this translates, however, to only 37,800 jobs. By percentage and job count, Real Estate is estimated to have the least negative outcomes over the period, shedding only 0.3 percent or 200 jobs of its 2019 employment base by 2022.

Though the adverse impacts of the pandemic and associated economic crisis will be felt throughout the next several years, there are opportunities for local governments, government coalitions, planning authorities, and private and nonprofit partners to proactively address and redress many of the pains being felt by Los Angeles County households and businesses.

Orange County

Orange County, along with every other region in the nation, experienced a dramatic reduction in employment and economic activity due to the spread of COVID-19 and resulting lockdowns and stay-at-home orders. Prior to the pandemic, Orange County was at near record levels of economic growth and activity, with median household incomes and home prices hitting new highs and unemployment rates at near-record lows.

COVID-19 hit the county's Hospitality and Tourism industry the hardest as restaurants and entertainment venues closed and domestic travel ground to a halt. Business closures left thousands unemployed with no clear timeline for reopening. Disney, whose California parks have been closed since March 14, announced 28,000 layoffs in September; approximately a third of these layoffs are expected to be at the Disneyland Resort.²⁷

While a declining case rate lead to phased re-openings in late summer, a recent, dramatic increase in new cases suggests further economic hardship. Despite these trends, Orange County is likely to rebound quicker than its regional neighbors thanks to its strong labor market, diversified industry base, and unique competitive advantages, all of which contributed to its rapid recovery from the Great Recession. Looking forward, Chapman University's Economics & Business Review predicts that Orange County's economic recovery will generally follow statewide trends. Despite the county's shutdown of the Hospitality and Tourism sector, Chapman researchers predict that its diverse economy, which does not depend on any single sector, will be in comparatively good shape, and that the county's construction sector in particular will prove resilient. As indicated in Chapman's 2020 Orange County Forecast Update:

What helps is that Orange County is a relatively diverse economy not heavily dependent on any one sector. That might be considered a weakness when considering how much the County trails the Silicon Valley in the share of highly paid workers in information technology. But the County's diversity is a strength in softening the blows when particular sectors of the economy weakens.²⁸

Orange County was the first Southern California county to fully recover from the Great Recession. This indicates that while economic hardships will likely continue to grow for most Orange County residents in the short term, the county does have a history of successful economic recovery. Orange County will once again likely play a major role in the Southern California region's overall recovery from COVID-19.

²⁷ Farka and Puri, p. 34.

²⁸ "2020 Economic Forecast Update," *Chapman University Economic & Business Review*, (Vol. 28, No. 2). Chapman University A. Gary Anderson Center for Economic Research, 2020, pp. 16-18.

2020 BY THE NUMBERS

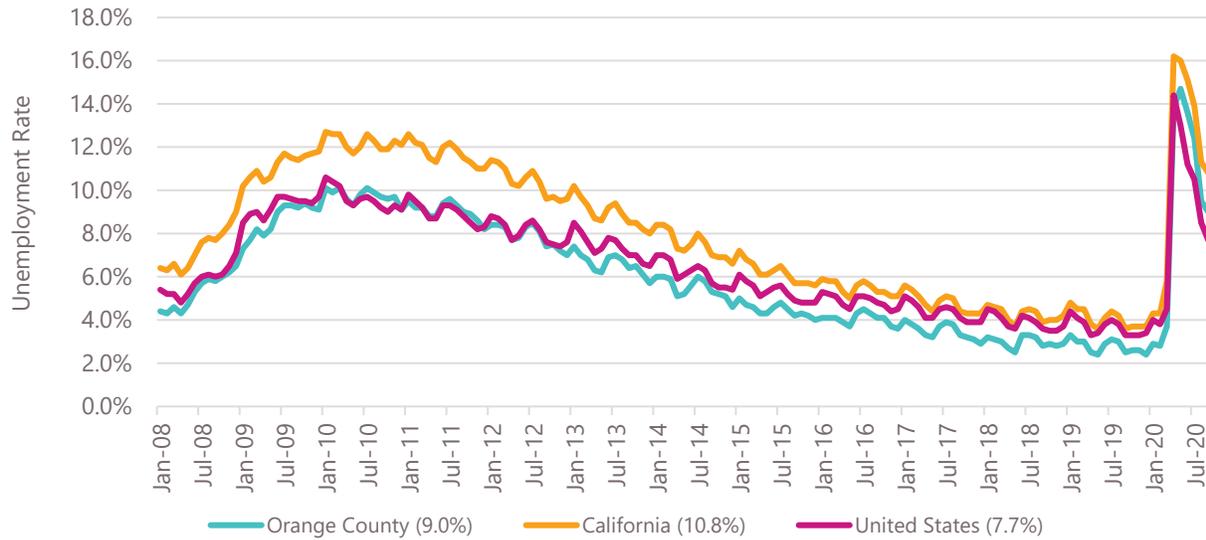
- Orange County had a regional GDP of \$309 billion in 2019.
- Orange County had an unemployment rate of 9.0 percent in September 2020, lower than the state average (10.8 percent), but higher than the national average (7.7 percent).
- Orange County's unemployment rate rose from 2.8 percent in February to 13.8 percent in April and 14.7 percent in May (Figure 5-12).²⁹
- The number of employed individuals in Orange County has shrunk to 1,429,300 while its total unemployment has increased to 142,200.
- Orange County lost approximately 267,000 jobs in a five-week span in March and April 2020.³⁰
- Orange County's median household income grew by \$6,175, or 6.9 percent, between 2018 and 2019, reaching \$95,934 in 2018.
 - Occupational groups with the largest year-over-year salary increases included Healthcare Practitioners and Technical; Life Physical and Social Science; Farming, Fishing, and Forestry; Architecture and Engineering; and Computer and Mathematical.
 - County industries with the largest year-over-year salary increases included Management of Companies; Utilities; and Finance and Insurance.
- Orange County's strong, diverse economy is led by Professional and Business Services (20.6 percent of employment); Educational and Health Services (14.5 percent); and Leisure and Hospitality (10.7 percent). Only its Transportation, Warehousing and Utilities sector saw an employment increase over the past year, adding 700 jobs for a gain of 2.4 percent.
- The year's largest employment declines occurred in Leisure and Hospitality (-66,900 jobs), followed by Professional and Business Services (-19,600) and Educational and Health Services (-11,700).
- As an international travel destination, Orange County was hit hard by the pandemic. Flights into John Wayne Airport fell from over 760,000 in February 2020 to just over 25,000 in April.
- In a survey conducted by CSUF, 26.7 percent of Orange County business executives surveyed predict that the economy will return to pre-pandemic levels by the end of 2020. Approximately 40 percent expect to be back by the end of 2021 while less than one-third predicted it would take until after 2021.³¹
- CSUF's Orange County Business Expectations Index (OCBX) has risen from a low of 22.7 in Q2 2020 to more healthy readings of 62.9 for Q3 2020 and 80.9 for Q4, although this remains below pre-pandemic numbers.
- Orange County's specialization in tech such as life sciences could play an important role in recovery, especially entrepreneurial and innovative emerging sectors such as Medical Devices, Ophthalmics, Biotechnology, and Health Information Technology.

²⁹ Farka and Puri, p. 30.

³⁰ Ibid, p. 30.

³¹ Ibid, p. 36.

Figure 5-12: Orange County Unemployment Rates (2008-2020)



Source: California EDD

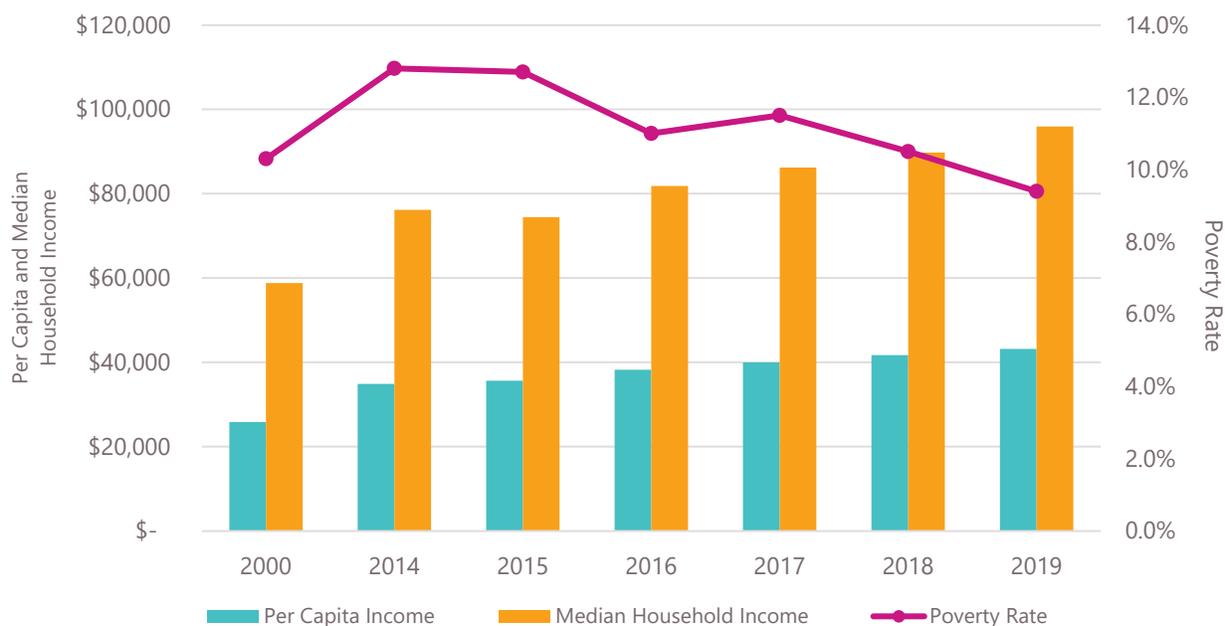
KEY INDUSTRIES REBOUNDING WHILE NEW OCCUPATIONS EMERGE

Orange County’s largest industries as of September 2020 remained Professional and Business Services; Educational and Health Services; and Leisure and Hospitality. The pandemic reduced employment across all county sectors, especially in Hospitality and Tourism. Since April 2020, thus far the nadir of the county’s economic downturn, Leisure and Hospitality saw the most significant employment increase, jumping by 37,000 jobs or by 30 percent, followed by Professional and Business Services (+22,200 or +7.7 percent), and Educational and Health services (+15,600 or 7.7 percent).

PRE-PANDEMIC HIGHS LIKELY TO EXPERIENCE DECLINES

Prior to pandemic, Orange County recorded continued improvements in its per capita income, median household income, and poverty rates (Figure 5-13). Per capita incomes increased by 3.5 percent between 2018 and 2019, while median household incomes grew by 6.9 percent. At the same time, the county’s poverty rate declined by 1.1 percentage points from 10.5 percent to 9.4 percent in 2019. All of Orange County’s ethnic populations saw improvements in income and poverty rates as well in 2019.

Figure 5-13: Orange County Income & Poverty Rates (2000-2019)



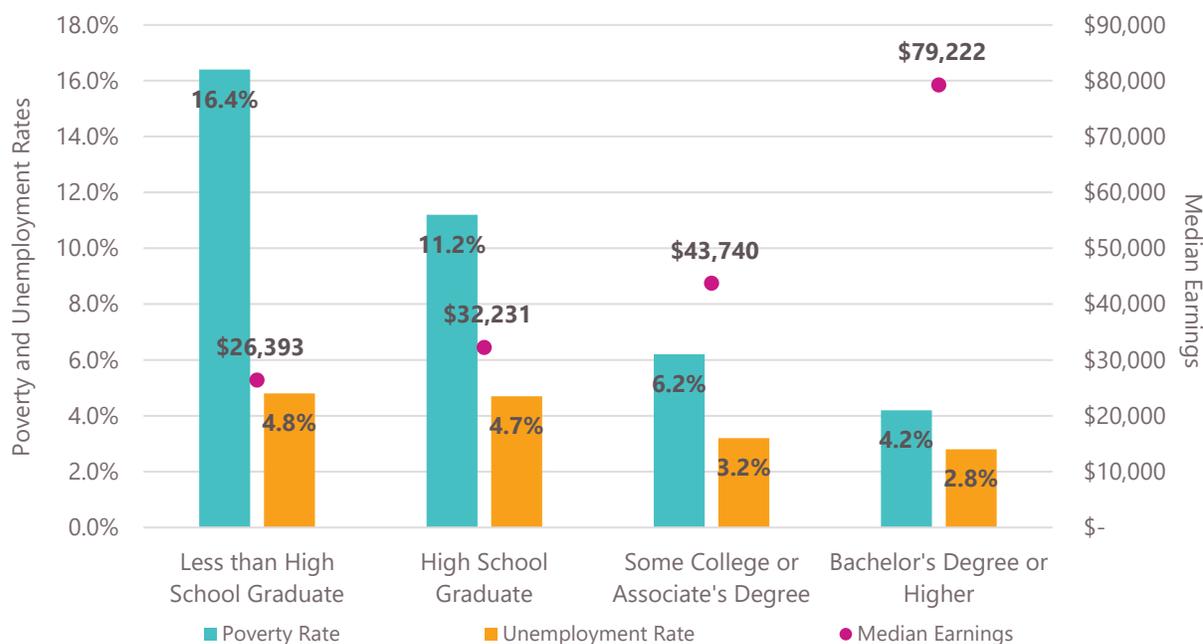
Source: U.S. Census Bureau, 2019 American Community Survey, 1-Year Estimates

The pandemic has affected Orange County communities unequally, with some areas and groups likely requiring additional support. According to the most recent COVID-19 statistics, Orange County had 59,882 cumulative cases as of Oct. 31. Of cases with known ethnicities, 48 percent were Hispanic or Latino, while 25.8 percent were White, 14.6 percent were Other, 8.3 percent were Asian, and 1.3 percent were African American. Deaths followed similar trends with Hispanic or Latinos representing 43.3 percent of all deaths, followed by Whites (34.2 percent), Asians (18.2 percent), and African Americans (1.6 percent).

EDUCATIONAL ATTAINMENT REMAINS THE BEST PATH TO QUALITY-OF-LIFE IMPROVEMENTS

Educational attainment continues to be the best path for residents in Orange County to improve their earnings, ability to find employment, and general quality-of-life. In 2019, residents with a bachelor’s degree or higher had an unemployment rate of 2.8 percent, compared to 4.8 percent and 4.7 percent for individuals with less than a high school diploma and high school graduates, respectively. As seen below (Figure 5-14), poverty rates decline dramatically with increased educational attainment, from 16.4 percent for individuals with less than a high school degree to only 4.2 percent of individuals with a bachelor’s degree or higher. Median earnings followed a similar path, with residents with less than a high school education making three times less than those with a bachelor’s degree or higher.

Figure 5-14: Orange County Poverty, Unemployment & Median Earnings by Educational Attainment (2019)



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

The pandemic has disproportionately affected low-wage and entry-level jobs, which suggest that they might see higher than average growth rates as they bounce back during the post-pandemic recovery. Job postings show that occupations with higher educational requirements are currently in higher demand, as seen below (Table 5-3). Data from September 2019 to September 2020 shows that the majority of job postings were focused in occupations with bachelor's degrees while the highest minimum experience required was 2-3 years.

Table 5-3: Job Postings by Educational Attainment & Minimum Experience in Orange County, (Sept. 2019-Sept. 2020)

Educational Attainment	Percent	Minimum Experience	Percent
Unspecified	54%	No Experience Listed	51%
High School or GED	16%	0-1 Years	17%
Associate's Degree	5%	2-3 Years	18%
Bachelor's Degree	30%	4-6 Years	10%
Master's Degree	7%	7-9 Years	2%
Ph.D. or Professional Degree	2%	10+ Years	2%

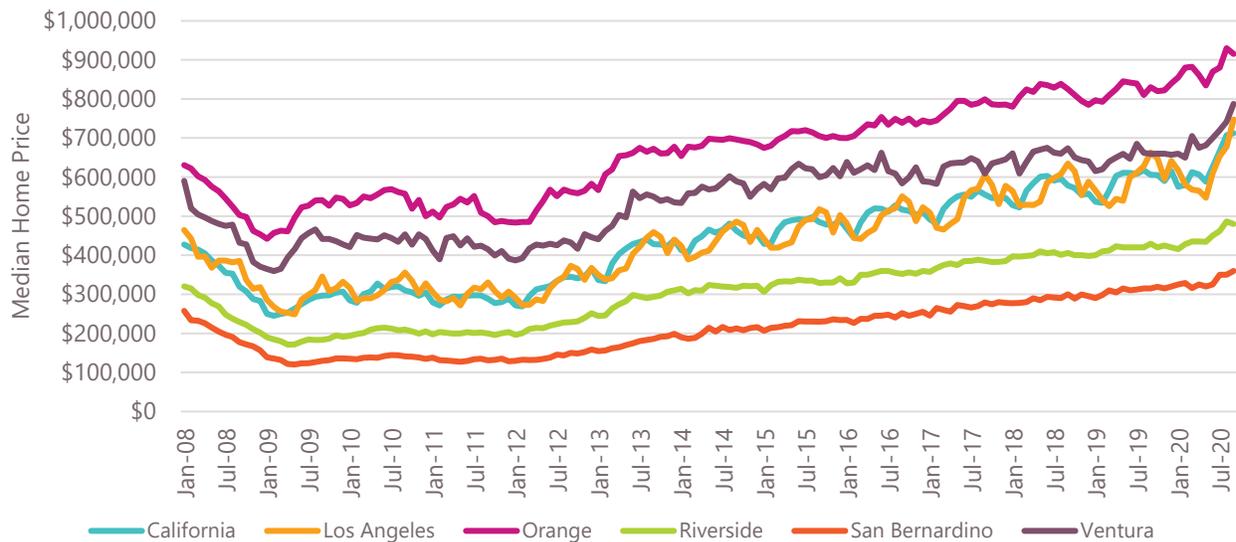
Source: Economic Modeling Specialists International

HOUSING MARKET STRONG, WORKFORCE HOUSING SUPPLY CONCERNS REMAIN

Orange County's median existing home price peaked in August 2020 at \$930,000 before falling by \$15,000 to \$915,000 in September 2020 (Figure 5-15). Its traditional housing affordability index increased from 24 in Q2 2019 to 25 in Q2 2020, indicating that affordability was improving slightly prior to the pandemic. Even

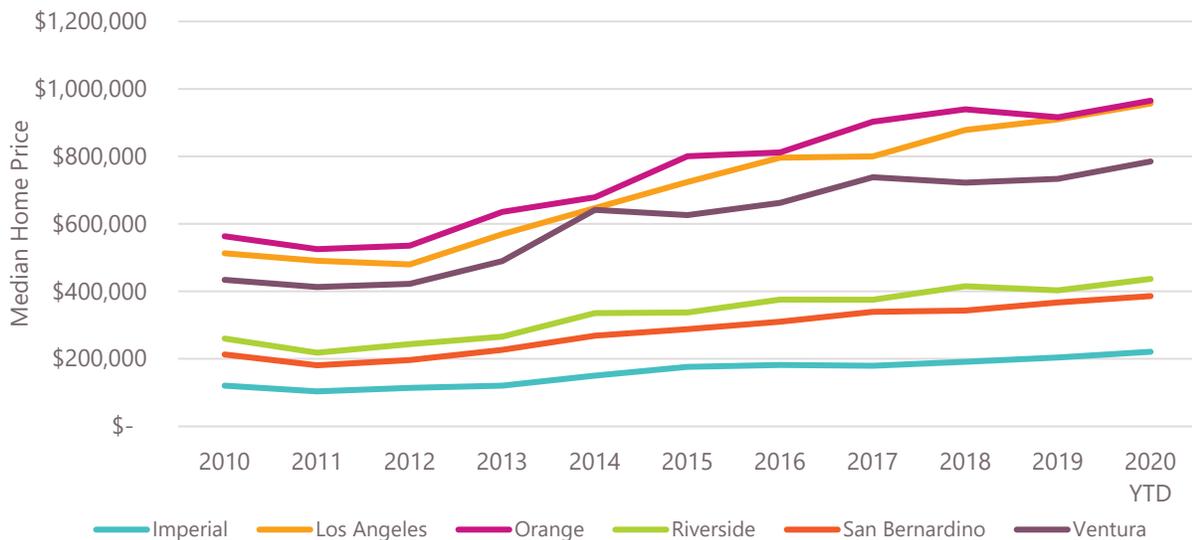
before the pandemic, Orange County’s low housing supply and high demand pushed home prices sky high (Figure 5-16), driving many residents to move to less expensive neighboring counties. If unaddressed, these issues—exacerbated by pandemic-related job losses—could decrease affordability further and encourage continued outmigration to less expensive areas.

Figure 5-15: Southern California Existing Median Home Prices (2008-2020)



Source: California Association of Realtors

Figure 5-16: Southern California Average Annual Median Sales Price for All Homes by County, (2010-2020 YTD)



Source: CoreLogic; Provided by DQNews

Riverside & San Bernardino Counties

FORECAST 2020 & 2021

Given the enormous shift in direction that the COVID-19 pandemic has caused for the economy of the Riverside/San Bernardino metropolitan area (*SB-RivCo*), a look forward is heavily dependent upon how the market has responded in the partial recovery that has occurred from the April through to September 2020 as well as how the various sectors responded in the 2010-2019 recovery from the Great Recession.

Averaging employment data for the first nine months of 2019 and 2020, the inland area is down 6.3 percent in employment. That is a somewhat greater decline than the 5.6 percent job loss nationwide reported for that same period. These data plus sector trends seem to support the belief that by December 2020, the inland economy will have lost an annual average of 102,300 jobs or 6.6 percent.

Looking to 2021, it is estimated that the SB-RivCo economy will bring back an estimated 62,900 jobs or 4.3 percent. This estimate was derived using the compound annual growth rates by sector following the Great Recession covering the period 2010-2019. The exceptions to this were upwardly adjusting the growth rates for the five sectors most in trouble during 2020 and downwardly adjusting the rates for the three economic base sectors that grew inordinately fast in the 2010-2019 recovery.

By the end of 2021, it is forecasted (Figure 5-17) that the SB-RivCo economy will fall short of its 2019 pre-COVID-19 level of jobs by 39,300. These would need to be recovered in 2022. Importantly, this work assumes that some control over COVID-19 occurs as 2021 progresses and that Congress enacts a stimulus package.

Figure 5-17: Total Wage & Salary Employment, Riverside & San Bernardino Counties (2019-2021e)



Source: CA EDD; Economics & Politics, Inc. Forecast

OCCUPATIONS

For the SB-RivCo area, the key sectors to watch in the near-term start with the four most in trouble during 2020:

- Eating and Drinking is on track to lose 33,700 jobs in 2020 and is forecasted to gain back only 15,500 in 2021. This sector has been very susceptible to being closed by the Governor and hurt by public fear. The 2020 median pay of its occupations is \$30,368. Some 99.6 percent of workers need high school or less schooling for their occupations.
- Retailers are headed for an average loss of 13,600 jobs in 2020 and are forecasted to add back 8,400 in 2021. The sector has seen people using online shopping instead of going to brick-and-mortar stores. Some boutique outlets have closed. Its occupations have a combined median pay of \$36,988 in 2020. For the sector, 91.4 percent of workers need high school or less schooling, given the sector's occupational mix.
- Travel and Entertainment appear likely to lose 12,000 jobs in 2020 and are forecasted to gain back only 4,300 in 2021. Public fear of close contact in enclosed spaces is the greatest obstacle for this group. Its occupations have a median pay of \$37,491 in 2020. For workers in the sector, 93.2 percent need high school or less schooling given its occupational composition.
- Consumer Services are in the process of losing a net of 8,300 jobs in 2020 and are forecasted to add back 3,200 in 2021. This sector is also susceptible to being closed by gubernatorial action or hurt by public fear. Its occupations have a median pay of \$38,844 in 2020. A total of 68.2 percent of sector workers need high school or less schooling for their occupations. Another 28.4 percent had occupations needing some specialized training.

Three key sectors that bring money into the inland economy from the outside world are important to powering a recovery, which had very rapid recoveries from 2010-2019. These were reduced in forecasting 2021 due to differences affecting them in today's environment:

- Logistics (Warehousing and Transportation) is on a pace to average a gain of 2,100 workers in 2020 and appears likely to add 10,300 more in 2021. This sector is driven by escalating e-commerce activity and growing port imports. Its occupations have a median pay of \$49,952 in 2020. For the sector, truck drivers, warehousemen and others, 78.4 percent needed high school or less schooling given the sector's occupation mix. For those in some management jobs, 16.3 percent needed a bachelor's level education.
- Construction will likely lose an average of 4,200 jobs in 2020 and gain back 3,100 workers in 2021. The sector's growth depends on new home construction, infrastructure, and building large facilities for logistics companies. Its occupations have a median pay of \$54,757 in 2020. A total of 82.2 percent of workers in the sector need high school or less education for their occupations.
- Healthcare is poised to lose an average of 1,000 jobs in 2020 but will likely gain back 4,400 in 2021. The sector slowed for the first time with consumer fear of close contact with workers that now appears to be dissipating. Its occupations have a median pay of \$67,497 in 2020. A total of 33.7 percent of healthcare workers need high school or less schooling for their occupations. Another 24.0 percent require some specialized training while 41.4 percent are in occupations needing an associate of arts or higher degree.

PUBLIC HEALTH

The SB-RivCo area is very diverse with a population that is 52.1 percent Hispanic, 30.7 percent White, 7.2 percent Asian, and 6.9 percent Black. This diversity means issues of social justice are of particular concern for the area. The economic challenges facing different population groups are evident:

POVERTY

In general, poverty has fallen for SB-RivCo area, dropping from 21.4 percent in 2010 to 16.1 percent in 2019 (Table 5-4). By ethnicity in 2019, poverty has not affected groups equally:

Table 5-4: Poverty Rates, Riverside & San Bernardino Counties (by ethnic group)

Ethnic Group	Percent All Residents	Percent Under 18
Black	17.3%	22.0%
Hispanic	13.6%	18.8%
White	9.2%	8.5%
Asian	8.9%	8.6%

Source: U.S. Census Bureau, 2019 American Community Survey

MEDIAN INCOME

Overall, SB-RivCo incomes have risen from a median of \$53,548 in 2010 to \$73,260 in 2019 (Table 5-5). By ethnicity in 2019, there are again clear differences:

Table 5-5: Median Income, Riverside & San Bernardino Counties (by ethnic group)

Ethnic Group	Median Income
Asian	\$85,443
White	\$72,904
Hispanic	\$65,892
Black	\$60,281

Source: U.S. Census Bureau, 2019 American Community Survey

HEALTH INSURANCE

Lack of health coverage for all residents has gone from 20.5 percent in 2012 to 8.9 percent in 2019 (Table 5-6). By 2019, Hispanics are the one group not well covered:

Table 5-6: Individuals Lacking Healthcare Coverage, Riverside & San Bernardino Counties (by ethnic group)

Ethnic Group	Percent Without Healthcare
Hispanic	12.0%
Asian	6.2%
Black	5.5%
White	5.2%

Source: U.S. Census Bureau, 2019 American Community Survey

GENERAL HEALTH

A significant portion of the inland black population was only in fair to poor health in 2019 (Table 5-7). This difficulty is often related to income measures:

Table 5-7: Individuals in Fair to Poor Health, Riverside & San Bernardino Counties (by ethnic group)

Ethnic Group	Percent Fair to Poor Health
Black	24.0%
Asian	16.4%
Hispanic	14.4%
White	13.4%

Source: UCLA California Health Interview Survey

EDUCATIONAL ATTAINMENT

Education levels are a major issue for the SB-RivCo area. In 2019, 44.0 percent of the adult population (25 and over) had high school or less schooling (Table 5-8). The share with an associate's degree or higher was 31.2 percent. The competitive coastal economics have a lower percentage of individuals with high school or less schooling and a higher percentage of individuals with an associate's degree or higher.

Table 5-8: Educational Attainment, Riverside & San Bernardino Counties Compared to Other Counties in Southern California

County	Percent High School or Less	Percent Associate's or Higher
Riverside	44.0%	31.2%
Los Angeles	40.8%	40.7%
San Diego	30.1%	48.2%
Orange	31.7%	48.7%

Source: U.S. Census Bureau, 2019 American Community Survey

This has led the region to be uncompetitive for sectors needing educated workers and has made it more dependent upon lower paying sectors needing a less educated labor force (Table 5-9). By ethnicity, the share who did not complete high school was:

Table 5-9: High School or Lower Education, Riverside & San Bernardino Counties (by ethnic group)

Ethnic Group	Percent High School or Less
Hispanic	30.6%
Black	9.8%
Asian	9.1%
White	6.2%

Source: U.S. Census Bureau, 2019 American Community Survey

This has confined important shares of the population to sectors paying a median income of \$30,000-\$38,800, well below the region's overall median household income of \$73,260.

HOUSING

The SB-RivCo area has some of the most affordable housing in Southern California. Prices, however, are starting to migrate to very high levels. In Q3 2019, the median existing home sold for \$414,207. The median new home sold for \$470,603. Both of these levels exceed the highs reached just before the Great Recession. At current levels, only 46 percent of inland families can afford the area's median homes. Home sales volumes have essentially been flat since 2010 at around 16,000 units, with supply remaining very tight despite high demand. This is the fundamental reason for such high and rising prices.

Comparing population shares to who owns and rents (Table 5-10), SB-RivCo's dwelling units shows crowding in the residential market, especially for Hispanics:

Table 5-10: Educational Attainment, Riverside & San Bernardino Counties (by ethnic group)

Ethnic Group	Percent Population Share	Percent Homeowners	Percent Renters
Hispanic	52.1%	38.2%	47.2%
White	30.7%	46.2%	32.6%
Asian	7.2%	8.1%	11.9%
Black	6.9%	5.6%	5.4%

Source: U.S. Census Bureau, 2019 American Community Survey

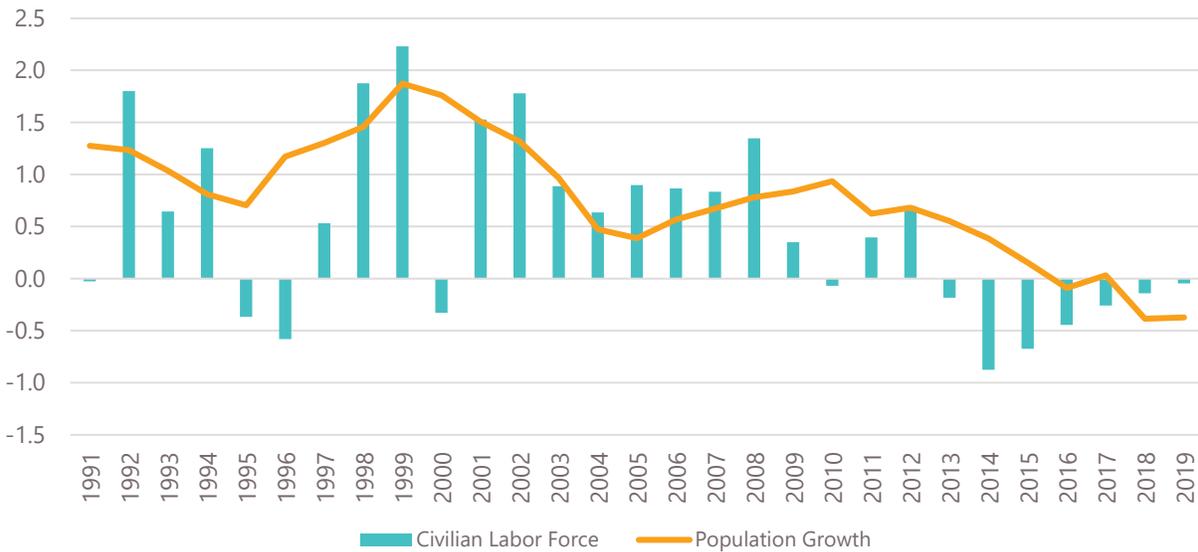
Despite the relatively high prices for SB-RivCo homes, they are a bargain compared to the coastal counties of San Diego (\$709,000), Los Angeles (\$748,000), and Orange (\$882,000). The same is also true of monthly rental prices compared to the coastal counties: SB-RivCo (\$1,562), San Diego (\$1,995), Orange (\$2,147) and Los Angeles (\$2,290) in 2019. The result has been to ultimately force moderate to lower income families, many of whom are Black and Hispanic, to migrate inland for housing. This has often put pressure on the SB-RivCo area's schools and social service agencies. It is one consequence of the failure of California to pay attention to social justice issues by amending the California Environmental Quality Act to forbid its use in stopping residential projects in the coastal counties. It continues to be a major reason why prices have been bid up there and why housing is becoming affordable only to upper middle class and richer families.

Ventura County

STATE OF VENTURA COUNTY'S ECONOMY

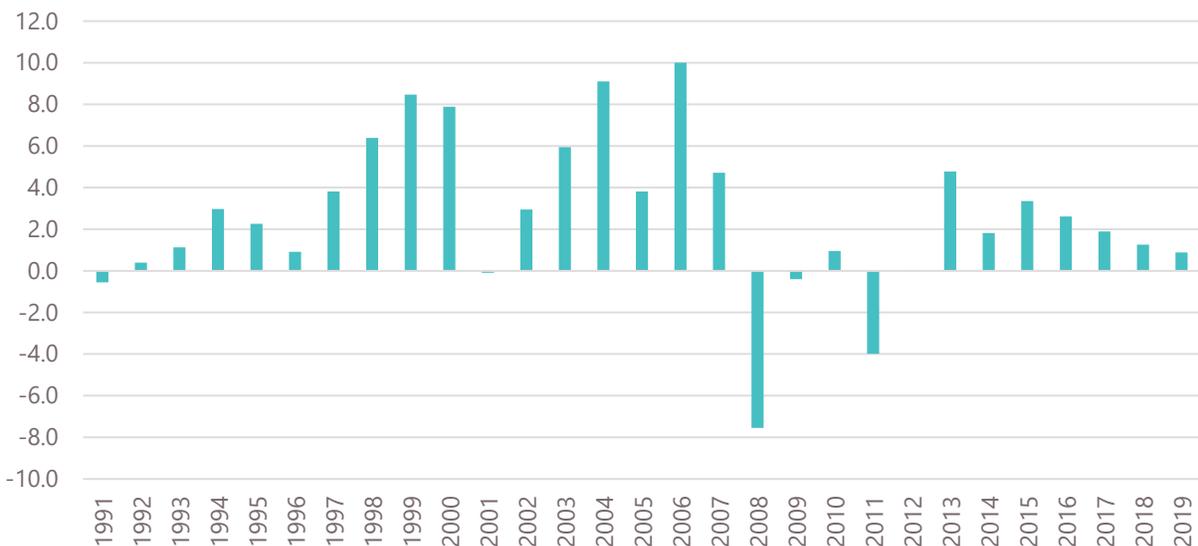
Even before the onset of the coronavirus pandemic, Ventura County was experiencing a prolonged period of economic weakness. Beginning in 2013, the size of the county's labor force contracted in each of seven consecutive years (Figure 5-18). The county's economic growth slowed dramatically over the same period, from a post-Great Recession high of 4.8 percent in 2013 to less than 1.0 percent in 2019 (Figure 5-19).

Figure 5-18: Ventura County Labor Force & Population (% Change, 1991-2019)



Source: California EDD and DOF

Figure 5-19: Ventura County Real GDP Growth (% , 1991-2019)



Sources: U.S. Bureau of Economic Analysis and CERF

The most arresting sign of weakness is county population data. According to the California Department of Finance, Ventura County's population in 2016 declined for the first time in the history for which we have data. The county's population declined again and at a greater rate in 2018 and 2019. In 2019, population losses were spread across seven cities within the county.

Pre-COVID-19 Ventura County jobs data also paints a picture of general economic weakness. During the 12 years between the Great Recession and the start of the pandemic, jobs in Manufacturing, Information Technology, and Financial Activities declined by 12.3, 17.5, and 26.0 percent, respectively. At the same time, Leisure and Hospitality added 20.7 percent and Education and Health Services added an astonishing 50.0 percent. The considerable divide between low-paying and high-paying sectors has created an increasingly bi-modal distribution of incomes in Ventura County.

COVID-19 IMPACTS ON VENTURA COUNTY

The pre-COVID-19 peak of economic activity was February 2020 when there were 337,400 jobs across all industries. Government-mandated shutdowns caused an unprecedented contraction. By May, Ventura County's job market had lost 41,800 jobs, a loss of more than 12 percent. At the same time, the county's labor force contracted by more than 19,000, equal to 45 percent of the jobs lost. The unemployment rate, which only counts those actively working or seeking work, has become a poor indicator of labor market health. Estimates of Ventura County's true unemployment rate peaked in May at slightly more than 20 percent, well above May's headline 13.5 percent figure.

The impacts of the pandemic are not evenly distributed. Jobs in Retail, Leisure and Hospitality, and Personal Services together dropped by a collective 27.6 percent and are the lowest-paying sectors in Ventura County with an average annual salary of just \$30,600. Jobs in these sectors grew by 17.6 percent since the May trough, but are still down nearly 15 percent from the pre-pandemic level.

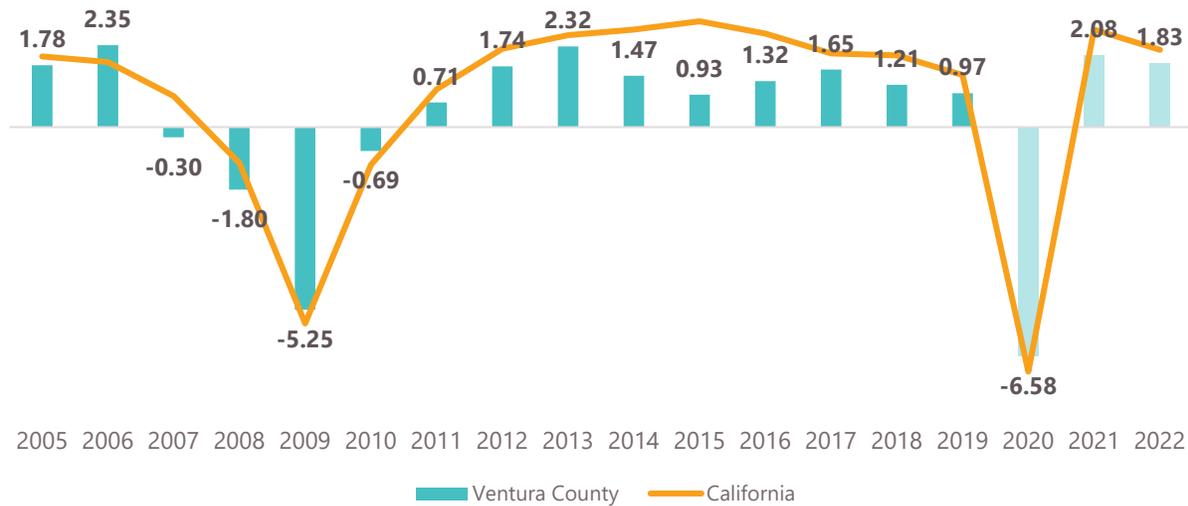
Meanwhile, high-paying jobs are much more likely to support remote working arrangements. As such, jobs in the highest paying sectors, including Information and Technology, Financial Activities, and Management Services, with an average salary of \$109,300, declined by only 7.4 percent. They have subsequently increased by 3.9 percent and are only 3.8 percent below the pre-pandemic level.

Thus far, jobs recovery has proceeded relatively more quickly—if only slightly—than either neighboring Los Angeles County or the state. We attribute this in part to bold action by Ventura County policymakers who moved to open the county's economy as quickly and safely as possible. Since the impacts of the pandemic are felt disproportionately among economically vulnerable workers, however, pre-pandemic compositional changes in Ventura County are likely to accelerate.

ECONOMIC FORECAST

Given pre-pandemic weakness, Ventura County likely faces a slow and prolonged recovery. While Ventura County suffered job losses that were somewhat less severe than the State of California at large, we anticipate that job growth will be significantly slower than the state's in each of the next two years (Figure 5-20). Our current forecast anticipates that at the end of 2022, the county will still be more than 9,000 jobs below the pre-pandemic peak.

Figure 5-20: Ventura County Non-Farm Job Growth (% Change, 2005-2022e)



Sources: CA EDD and CERF

Figure 5-21: Real GDP Growth (% Change, 2005-2022e)



Sources: CA EDD and CERF

It is anticipated that GDP growth in Ventura County will also lag behind California’s, and likely by an even larger margin than the county’s jobs growth (Figure 5-21). This is simply a continuation of a well-established pattern in Ventura County, whereby jobs growth exceeds GDP growth. This also implies declining productivity and stagnant wages for the region. The primary upside risk to the forecast is urban flight from more densely populated and strictly locked-down regions, seeking the open space and environmental amenities for which Ventura County is known. The primary downside risk, however, is a second full-scale government-mandated shutdown.



MAIN OFFICE

900 Wilshire Blvd., Ste. 1700,
Los Angeles, CA 90017
Tel: (213) 236-1800

REGIONAL OFFICES

IMPERIAL COUNTY

1503 North Imperial Ave., Ste. 104
El Centro, CA 92243
Tel: (213) 236-1967

ORANGE COUNTY

OCTA Building
600 South Main St., Ste. 741
Orange, CA 92868
Tel: (213) 236-1997

RIVERSIDE COUNTY

3403 10th St., Ste. 805
Riverside, CA 92501
Tel: (951) 784-1513

SAN BERNARDINO COUNTY

1170 West 3rd St., Ste. 140
San Bernardino, CA 92410
Tel: (213) 236-1925

VENTURA COUNTY

4001 Mission Oaks Blvd., Ste. L
Camarillo, CA 93012
Tel: (213) 236-1960

scag.ca.gov