LAEDC

2021 ECONOMIC FORECAST

A TALE OF
TWO RECOVERIES

LAEDC INSTITUTE FOR APPLIED ECONOMICS

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INSTITUTE FOR APPLIED ECONOMICS
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FOREWORD

As Los Angeles County's primary economic development organization, the Los Angeles County Economic Development Corporation (LAEDC) produces an annual forecast to assess and predict key national, state, regional and local economic indicators, as well as to look beneath those "headline" indicators at deeper and more detailed trends.

We continue the precedent set by our previous LAEDC Forecasts by focusing on key issues, pressing economic concerns and longer-term systemic challenges at the local, state and national levels.

The Los Angeles region, like the rest of the United States, has experienced a dramatic economic decline over the last 11 months. Early 2020 proved to be the height of nearly ten years of strong economic growth for the County. Unemployment rates were consistently low, so-called "full employment" was achieved, wages were gaining ground, and the chance of a recession was low.

The exogenous, single-event shock of a global pandemic caused by the highly contagious novel coronavirus (herein "COVID-19") initiated a rapid paradigm shift. Life came to a grinding halt as governments across the globe acted to reduce transmission of the deadly virus. As a result, the flow of economic activity was stanched seemingly overnight across many industries. Global supply chains were interrupted by factory closures and quarantines. Travel restrictions flatlined both international and domestic tourism, business travel, and related spending. Public gatherings were prohibited, suspending many forms of entertainment and recreation. Consumer spending rapidly fell in the United States as businesses were forced to close their doors to the public in order to limit infection. Almost instantaneously, we found ourselves entangled in the "shock and awe" of a COVID-19 recession induced by the global health crisis.

Last year, we looked beneath the surface at the "other" Los Angeles, illustrating then how the sustained top-line economic and GDP growth, full employment and stock market highs leading up to the pandemic were not translating into prosperity for all; there were deeper levels to the economic story that needed to be further unpacked, which were laid bare by the secondary effects of the COVID-19 pandemic in 2020. We highlighted the need for those engaged in economic development to construct more resilient, industrially diverse and inclusive economic systems to provide defense against uncertain futures, to offer economic security and assistance to those most vulnerable to economic shocks and to connect more of our region's residents to the industrial drivers of our economy.

COVID-19 has only increased the severity of pre-existing challenges and inequalities in Los Angeles County, and if left unchecked, it may continue to do so for years to come. The economic impact of COVID-19 is highly variable depending on the segment of the population and economy involved. Low-income workers are experiencing job loss at disproportionately high rates, small businesses are closing at higher levels due to drastically decreased revenues and low levels of liquidity and non-essential service industries that rely on person-to-person interaction are faring worse than essential industries and knowledge-based industries which were able to transition to remote work. Women are leaving the labor force at a higher rate, likely to care for and oversee the education of their children engaged in online learning at home. Meanwhile, minorities continue to be disproportionately impacted by the virus in terms of cases, deaths, jobs lost and business insolvencies, as many minority business owners have been forced into high-risk, low-margin sectors such as food service due to structural distortions that existed long before the pandemic, such as limited access to financial capital.

Mass inoculation against the COVID-19 virus is a clear and viable solution to the current public health crisis. Solving the subsequent economic crisis will prove much more difficult, especially as the pandemic has perhaps permanently changed the nature and place of work. But there are reasons for cautious economic optimism going into 2021. Post-holiday case numbers indicate that the second wave is over and restrictions are subsequently being lifted. If COVID-19 follows the same seasonality as other seasonal coronaviruses, the winter surge may be in our rearview mirror with warmer spring and summer months bringing lower case numbers.

As vaccines are being rolled out across the nation, the federal reserve has enacted expansionary monetary policy in light of the deep recessionary effects of the pandemic and interest rates are expected to remain low for the foreseeable future. A new administration in the White House portends upcoming changes that address climate change and systemic issues such as racial and socioeconomic disparities. The House of Representatives recently passed the Senate-amended budget resolution, and a reconciliation bill for the COVID-19 rescue package is being drafted which will provide much-needed support to businesses and households negatively impacted by COVID-19. The optimism related to a new stimulus bill and vaccine distribution has had a positive impact on the stock market as of late. Still, it will take years for the economy to fully recover, especially for those who have been hit the hardest, and there are potential clouds looming on the horizon, such as the prospect of inflation and overheating valuations in certain asset classes.

Before we proceed, we would like to note that nearly 10 years of exceptional wage and employment growth from 2011 to 2019 led many to believe that 2020 would follow suit. The shock of the COVID-19 pandemic is a reminder that economic forecasting cannot anticipate such unpredictable, exogenous events. Although ingrained in economic analysis, forecasting between major institutions, think tanks, and governments has diverged more in the past 12 months than any time over the last decade.

Forecasts rely on certain assumptions. Our economic forecast considers (1) the current speed of vaccination distribution and (2) assumes business will begin to return to normal for industries where person-to-person interaction is required in the third quarter of 2021. With this in mind, the LAEDC presents the 2021 Economic Forecast: A Tale of Two Recoveries.

Sincerely,

LAEDC
Institute for Applied Economics

THE COVID-19 PANDEMIC

The Pre-Pandemic Economy

Los Angeles County produced strong economic fundamentals for nearly a decade through the end of 2019, with unemployment plateauing around 4.5 percent from mid-2017 through the beginning of 2020.

Steadily low unemployment led to stronger wages, as workers maintained high bargaining power. In 2019, real household income in Los Angeles County was nearly 11 percent higher than in 1990 and about 18.5 percent higher than in 2010. Nonfarm employment reached over 4.6 million in Los Angeles County in February 2020, just before the COVID-19 hit and public health orders were issued.

Los Angeles, and California in general, faced a number of challenges prior to the pandemic, with housing affordability and accessibility at the forefront. Despite these issues, California and Los Angeles were experiencing consistently positive, albeit slowing, GDP growth in the years leading up to the COVID-19 pandemic.

An Unexpected Shock

The economic strength of the last decade was rapidly reversed beginning in March of 2020.

The CDC confirmed the first case of COVID-19 in the United States on January 21st and by March 11th, the World Health Organization officially declared a global pandemic. Mayor Eric Garcetti initiated the first emergency order for business closures across Los Angeles on March 15th, and Governor Gavin Newson issued a statewide Stay at Home order on March 19th.

The COVID-19 pandemic has dramatically altered lives across the United States. Efforts to curb the spread of the virus, including the closure of bars, nightclubs, restaurants, gyms, schools and public spaces, have had negative economic and cultural consequences. However, the drive to slow the spread of the virus has been critical, as hospitals across the nation lack resources to care for the magnitude of patients infected by COVID-19, especially during the peak of the multiple waves we have experienced since the onset of the pandemic.

March and April of 2020 brought dramatic spikes in job losses. Institutional closures and widespread uncertainty compromised the flow of goods, services, and cash. **Los Angeles County alone lost 716,000 jobs within these two months (March and April) and the seasonally adjusted unemployment rate peaked at 21.1 percent in May 2020.**

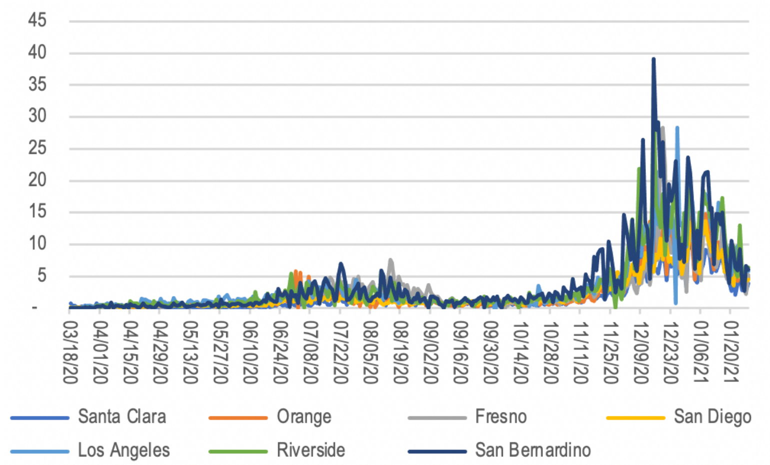


Figure 1: Daily COVID-19 Cases by Most Impacted California Counties (per 10,000 Residents)

The summer yielded marginal relief; with case numbers declining, restrictions were relaxed. Nearly 30 percent of the 716,000 jobs lost in in Los Angeles County in March and April were recovered by September. The seasonally adjusted unemployment rate fell to 15.5 percent in September and 10.9 percent in November. However, as many had feared, the colder winter season, laxer restrictions and holiday gatherings again brought increasing cases. Due to the surge in hospitalization related to new cases, a modified health order reinstating restrictions was issued for Los Angeles County beginning November 25th. While this certainly saved lives, it also created more economic hardship in the region. The holidays led to record highs in case rates in Los Angeles County, with the seven-day average daily rate reaching 15,284 on January 8th, 2021.

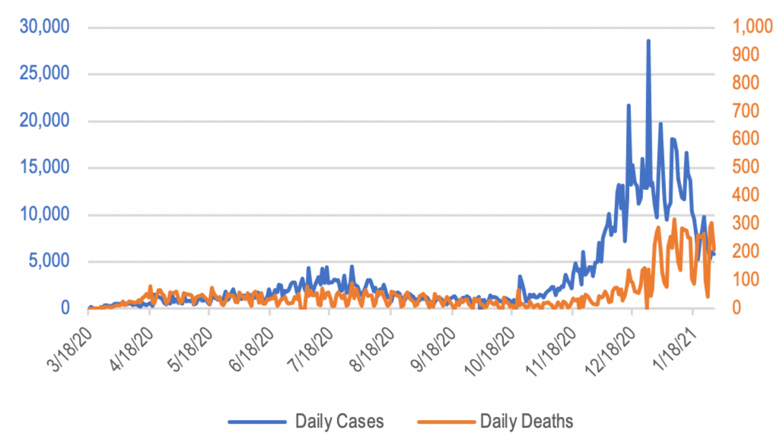


Figure 2: Daily Cases and Deaths Rate in Los Angeles County

The Disparate Effects of COVID-19

The economic shock related to the virus manifested differently across workers, businesses and industries according to varying characteristics.

WORKFORCE

Low wage workers have experienced disproportionate levels of unemployment compared to high wage workers.

The labor market places a premium on education, often resulting in wage disparity along educational lines. Broadly, high-income jobs tend to be classified as high-skill, requiring higher levels of education.

These jobs are typically knowledge-based, such as professional, managerial, mathematical, and computational occupations. On the other end of the skills spectrum, low-income jobs typically require lower levels of education. These jobs are generally more labor-intensive and/or require close proximity to others to successfully complete their job duties, like food services, accommodation and personal care occupations.

For the purposes of exposition, high wage workers are defined as those who earn an average annual income of $60,000 and above, which constitutes the top quartile of the income distribution. Middle wage workers are classified as those who earn between $27,000 and $60,000, and low wage workers, which comprise the bottom quartile, earn an average annual income of less than $27,000.

The pandemic has unequally affected high and low wage workers. At the worst point of the employment shock in April 2020, high wage workers in Los Angeles County had experienced a 12.6 percent decline in employment compared to January 2020 levels. By contrast, low wage employment had declined by 37.6 percent over the same period (Figure 3). By October 22nd, high wage workers had actually exceeded January levels of employment by 1.6 percent while low wage employment was still deeply recessed, at 21 percent below the January[1] level.

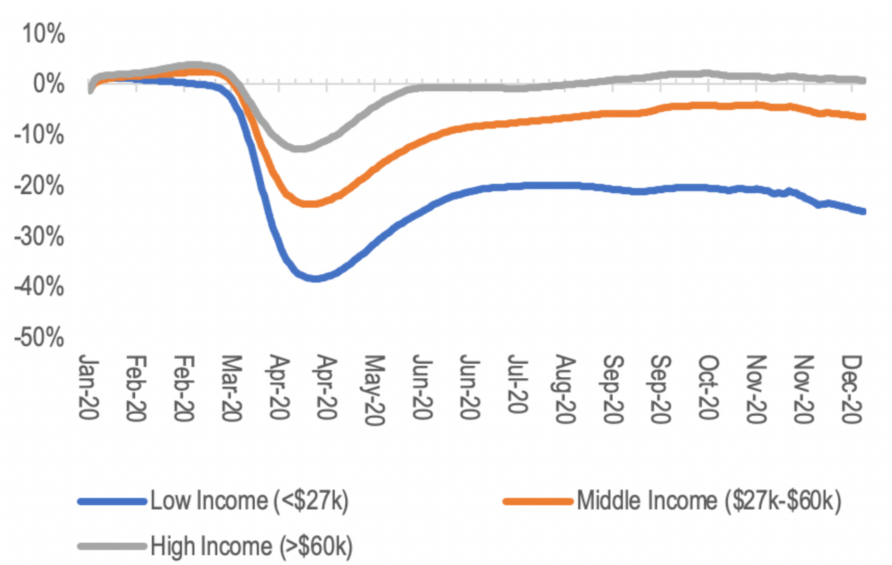


Figure 3: Percent Change in Employment Compared January 2020, United States

Source: Opportunity Insights Economic Tracker

Women and minorities have been disproportionately impacted by COVID-19.

Racial and ethnic minorities have been disproportionately affected by the virus. Los Angeles County was the first in the nation to report over one million COVID-19 cases. Over 60 percent of cases where the infected individual's race was confirmed have been attributed to Hispanic residents, compared to just 14 percent for White and about 5 percent for Asian and Black residents. When accounting for the size of each cohort's population in the county, the estimated proportion of Hispanic residents who have been infected (3.3 percent) is more than double that of any other group — 1.6 percent of Black residents, 1.4 percent of White and 0.9 percent of Asian residents.

[1] "The Economic Tracker." Accessed February 1, 2021. https://trackthrecovery.org/.

Women have been dropping out of the labor force during the pandemic. The combination of the lack of childcare options due to closures, the degree of supervision required for online schooling while children are at home, and the high proportion of women working in service sectors heavily impacted by COVID-19 and stay at home orders, have taken their toll. According to the Bureau of labor Statistics, women comprised just over 47 percent of the labor force in January 2020 but accounted for 58 percent of 4.3 million people who have dropped out of the labor force between January of 2020 and January of 2021 (Figure 5). An individual must be employed or actively seeking work to be counted as part of the labor force.

BUSINESSES

Small businesses in non-essential industries reliant upon high levels of interaction have experienced the most economic distress due to the pandemic.

The businesses most vulnerable to the effects of stay-at-home orders operate in non-essential industries with high levels of in-person interaction, often lack an online presence, and have low reserves of cash on hand. These characteristics tend to be more common in small businesses, further exacerbating the divergence of fortunes between small and large businesses, with a huge impact in LA County's economy where 93 percent of businesses have less than 20 employees.

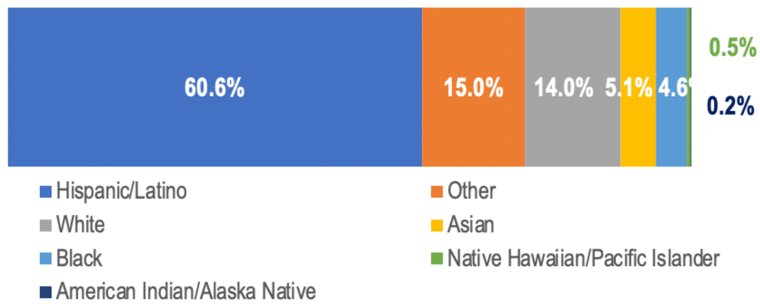


Figure 4: Race and Ethnicity of Confirmed COVID-19 Cases in Los Angeles County

Source: LADPH

Figure 5: Change in U.S. Labor Force by Gender, January 2020 to January 2021

Source: BLS

Small businesses generally provide in-person services at a local level. These businesses include restaurants, bars, hair salons, nail salons, laundry services, and more. The public health crisis of COVID-19 prevented the delivery of such services due to the risk of transmission associated with unnecessary person-to-person contact. Services that rely on personal interaction are incompatible with remote substitution, leaving these businesses with few reliable streams of revenue, if any, throughout the pandemic. As mentioned, many small businesses also have low cash reserves, creating the challenge of weathering the storm of reduced revenue with little liquidity. Larger businesses, on the hand, tend to have higher levels of liquidity and more channels for revenue through electronic commerce. Smaller businesses are thus more likely to face greater financial distress throughout the pandemic, and in fact many thousands of small businesses in LA County have closed either temporarily or permanently.

INDUSTRY

Certain industries have fared better than others over the course of the pandemic, defining the experience of both the workers and businesses classified therein.

Generally, the nature of the pandemic has resulted in a sharp decline in demand for non-essential services that require a high degree of personal interaction. This includes both accommodation and food services, and arts, entertainment and recreation. Additionally, sectors like commercial aviation have experienced large reductions in revenue as a result of travel advisories, quarantines and the public's general fear of infection. This recession is unique in that the highly contagious nature of the pandemic is the key determinant of the industries that have been most impacted. While consumer spending on the whole has sharply fallen across the United States, this fall is not evenly spread across all sectors.

In terms of positive impact, COVID-19 has intuitively stimulated demand for essential health care services. Also, as more people spend time in their homes due to stay-at-home orders, industries that support remote lifestyles, such as utilities and construction, have fared better than many industries in terms of consumer spending. Transportation and warehousing are doing relatively well as a supporting industry to e-commerce; however, the fall in passenger travel was a drag on transportation not related to goods movement such as public transit.

Looking Forward

Widespread vaccination against COVID-19 is a crucial step to return to normalcy, as a full recovery depends on it.

The CDC updates metrics regarding the nation's vaccination progress daily. As of January 29th, 2021, over 49.2 million doses have been distributed with over 56 percent of those doses administered. Nearly 23 million people have received one or more doses of the vaccine, and nearly 5 million have received two doses.[2] The United States still has a long road ahead on the path to community-wide vaccination but rollout is well on its way. Assuming vaccine distribution continues at its current pace, the United States will have 70 percent of its population vaccinated by early January 2022.[3]

Just as the Great Recession affected real estate and business services disproportionately, the recession resulting from COVID-19 disproportionately affected those providing services which require face-to-face interactions such as food service, accommodation, passenger travel, and personal services such as hair and nail salons. Those that work in these industries are much more likely to be persons of color, women, and earn below the region's median household income. Recovery for employees in these industries has been minimal, especially in urban

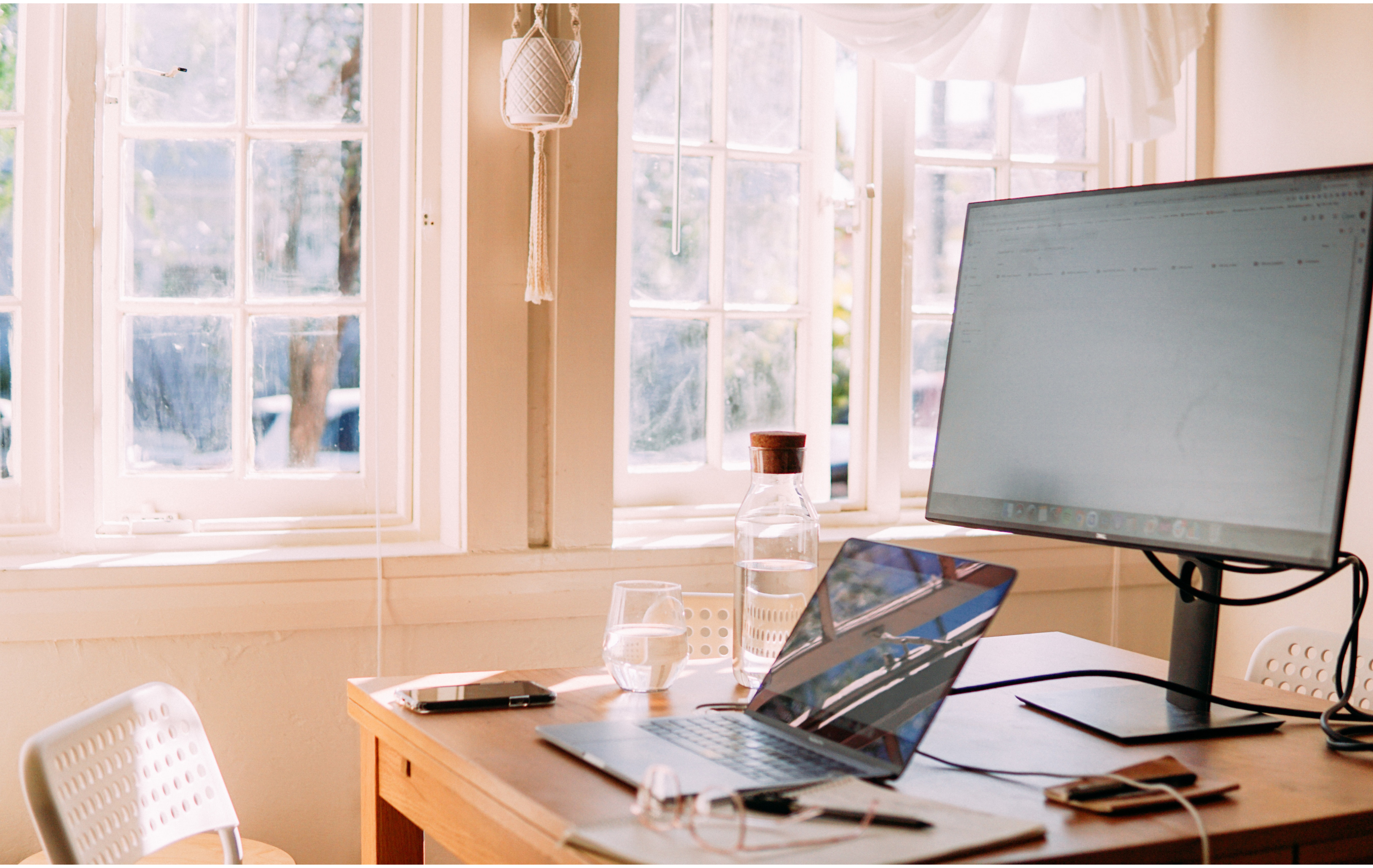
[2] Centers for Disease Control and Prevention. COVID-19 Vaccinations in the United States. CDC COVID Tracker. https://covid.cdc.gov/covid-data-tracker/#vaccinations.

[3] Redfern, Adam. 2021. "COVID-19 Vaccination Tracker". Covidvax.Live. https://covidvax.live/location/usa.

centers where restrictions have limited business operations for the vast majority of 2020, as a full recovery centers around a fully vaccinated general public.

On the other hand, there are many workers who have been able to transition to working in the digital world. The majority of workers in knowledge-based industries, such as professional and business services, the financial services industry and the information industry, are now working remotely from home. While business is far from usual for these workers, these jobs will continue independently of the vaccination progress. Additionally, these workers were also more likely to earn an hourly wage greater than the 75th percentile, keeping them insulated from the economic hardships that many low-income workers have faced.

The racial and ethnic dichotomy between those who can and those who cannot work from home exemplifies the underlying tale of two economic recoveries. The Economic Policy Institute identified fewer than one in five black workers and fewer than one in six Hispanic workers have the ability to work from home.[4]



[4] Gould, Elise, and Heidi Shierholz. 2020. "Not Everybody Can Work From Home". Working Economics Blog. https://www.epi.org/blog/black-and-hispanic-workers-are-much-less-likely-to-be-able-to-work-from-home/.

THE UNITED STATES

The nation is in the midst of a severe recession with unique characteristics related to the COVID-19 pandemic. The federal reserve has engaged in expansionary monetary policy in an attempt to stimulate economic activity. As just outlined, the severity of the economic crisis varies greatly across different cohorts, industries and sizes of business. Equity indicators based off large, publicly owned companies are doing well while GDP, consumer sentiment, consumer spending, and employment are showing the strains of the economic contraction.

Real GDP dropped by approximately 4 percent in 2020, largely due to the pandemic. This was accompanied by a major drop in employment from the previous year and a spike in the unemployment rate. On the other hand, real personal income and real per capita income grew year-over-year in an unintuitive turn. This growth was driven by the $300 billion pumped into the national economy by the Coronavirus Aid, Relief and Economic Security (CARES) Act.

Figure 6: United States Headline Statistics and Forecast

	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	1.7%	2.3%	3.0%	2.2%	-4.1%	3.0%	3.3%
Real Personal Income Growth	1.7%	3.0%	3.1%	2.4%	5.3%	-5.3%	2.0%
Total Employment Growth	2,525,300	2,259,800	2,301,800	2,044,600	-8,674,700	1,519,500	4,400,200
Unemployment Rate	4.8%	4.4%	3.9%	3.7%	8.1%	7.7%	6.6%
Real Per Capita Income	1.0%	1.7%	2.4%	1.7%	2.2%	-5.2%	2.0%
CPI	1.3%	2.1%	2.4%	1.8%	1.2%	1.9%	2.0%

The next two years will likely be characterized by economic recovery, the speed of which remains tied to the health crisis. Should the efficacy of the vaccines adhere to the initially published numbers, recovery should have a straightforward timeline.[5] It is estimated that the majority of industries will return to pre-pandemic employment levels by 2024. This four-year recovery timeline appears much more promising compared to the Great Recession, wherein it took over six years for employment to reach its pre-recession peak.

The consumer price index is expected to rise in the coming years as injections of stimulus payments into the economy and anticipated pent-up demand for travel, live entertainment, and large events are projected to be major drivers of growth. Prices for inputs are rising as well, recovering in early 2021 to their pre-pandemic levels.[6] While all of this signifies a potential for inflation in the coming years, decreased competition in the labor market stemming from unemployment and uncertainty will likely hamper this effect.

[5] Efficacy data can be found at: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html

[6] U.S. Bureau of Labor Statistics, Producer Price Index by Commodity: All Commodities [PPIACO], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/PPIACO

Major Economic Indicators

FEDERAL FUNDS RATE

The United States federal reserve enacts monetary policy via three tools: open market operations, the discount rate, and reserve requirements. These tools trigger a chain of events by first impacting the federal funds rate. Changes in the federal funds rate then affect short- and long-term interest rates, foreign exchange rates, the money supply and the level of credit available in the economy. These factors greatly influence key economic variables like employment, prices and output.[7]

As shown in Figure 7, the federal funds rate is intentionally lowered in the wake of recessions. This is true for the dot-com recession in the early 2000's and the Great Recession of 2008. The latter was far deeper, and as such the rate was effectively lowered to zero. When the federal funds rate declines, liquidity in the economy rises. The goal of such expansionary monetary policy is heightened economic activity, full employment, and price stability.[8] The federal reserve has once again enacted expansionary monetary policy in light of the deep recessionary effects of the COVID-19 pandemic. The current window for the federal funds rate is 0.00 to 0.25, which has been calibrated to improve economic stimulation and employment. The Atlanta Federal Reserve estimates the probability of a rate hike by March 15th, 2020 at less than 1 percent.[9]

REAL GROSS DOMESTIC PRODUCT

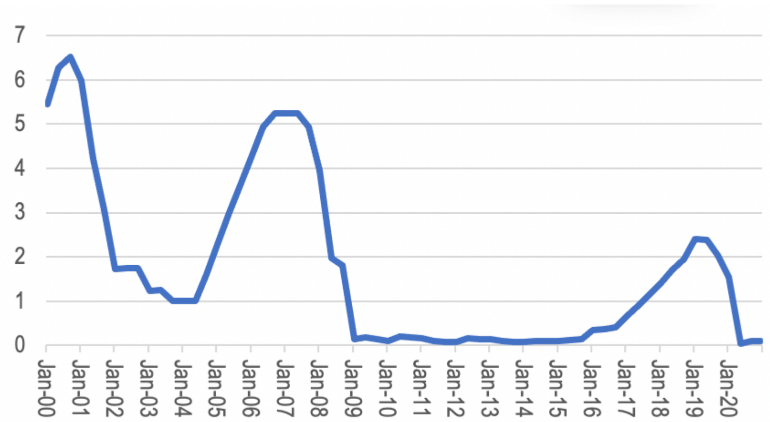


Figure 7: Federal Funds Rate 2000-2020

With air travel falling below 20 percent of its pre-pandemic baseline, dine-in restaurants no longer serving patrons on-site and many low-wage workers unable to work from home, it became clear in March of 2020 that an economic crisis was imminent. Gross domestic product (GDP) fell 9 percent in the second quarter of 2020 as businesses shut down per state and local mandates. Every state in the nation saw major declines in GDP, with Nevada and Hawaii experiencing the largest reductions as the accommodation and food services industry decimated these tourist-centric economies.

The output of the accommodation and food services industry decreased by 88.4 percent nationally as domestic and international visitors remained at home.[10] Los Angeles was a prime

[7] Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/monetarypolicy/fomc.htm.

[8] Federal Reserve issues FOMC statement. Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm.

[9] Federal Reserve Bank of Atlanta, EconomyNow App

[10] Bureau of Economic Analysis. 2020. "Gross Domestic Product By State, 2nd Quarter 2020". https://www.bea.gov/news/2020/gross-domestic-product-state-2nd-quarter-2020.

target for these economic challenges; a detailed look at foot traffic in tourism-related industries provided in the Los Angeles section.

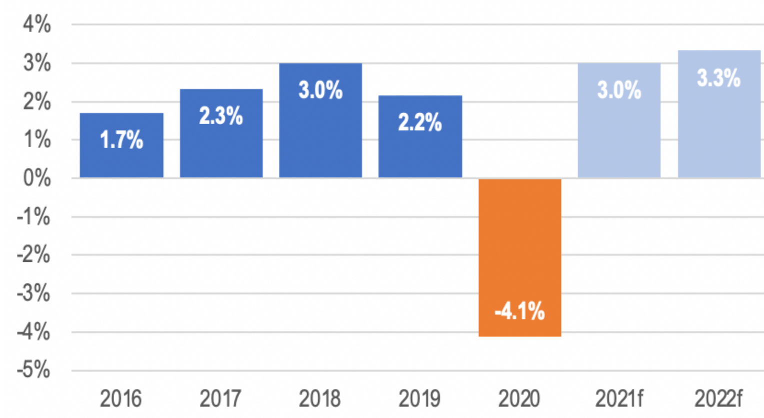


Figure 8: United States Real GDP Growth by Year

The third quarter marked the largest quarterly GDP growth in the United States in recent economic history. The economy rebounded as businesses reopened in large swaths across the country. Per the Bureau of Economic Analysis, the 7.5 percent growth in real GDP "reflected increases in personal consumption expenditures (PCE), private inventory investment, exports, nonresidential fixed investment, and residential fixed investment." [11] These positive fluctuations nationwide were led by service recoveries in the accommodation and food industries as well as goods recoveries in motor vehicle sales and portions of the clothing and footwear industry. Still, these GDP gains were partially offset by decreased expenditures by government entities at the local and state level.[12]

Quarter four saw a resurgence in COVID-19 cases and many states reinstated restrictions on businesses, including mandated closures, to help mitigate the spread of infections. Per the New York Times, as of January 30, 2021, 16 states have widespread business closures resulting from state and local mandates while 7 states have stay-at-home orders in place.[13] As seen in the introduction, locally cases rose severely in Los Angeles in the final months of 2020. Spending on goods again decreased, driven by an expenditure drop in the food services industry. Services spending did increase, with health care being a major driver in the minimal 1 percent GDP growth over the previous quarter.

The 2020 contraction of the United States GDP marks the largest contraction in recent economic history. Mobilized by the instant communication and efficacy of the internet, government mandates were disseminated at near instant speed while the general public followed the spread of the coronavirus on all media platforms. Real GDP sits at roughly 500 billion less year-over-year, and the uncertainty of the virus poses a similarly harrowing threat for businesses and employees.

THE STOCK MARKET

In a stark contrast to GDP, economic indicators such as the Dow Jones Industrial Average (DJIA) and the S&P 500 have performed well throughout the pandemic, reaching record highs.

[11] Bureau of Economic Analysis. 2021. "Gross Domestic Product, Third Quarter 2020". https://www.bea.gov/news/2020/gross-domestic-product-third-quarter-2020-advance-estimate.
[12] The Los Angeles Economic Development Corporation conducted a study identifying the fiscal exposure of city budgets in Los Angeles County during the COVID-19 crisis. Further information can be found at: https://laedc.org/download/51348/
[13] "Coronavirus Restrictions And Mask Mandates Interactive Map". 2021. Nytimes.Com. https://www.nytimes.com/interactive/2020/us/states-reopen-map-coronavirus.html.

The recent gains experienced by the large, public companies that make up such indices come after a volatile year in equity markets.

The DJIA is a stock market index tracking 30 large and publicly owned companies characterized by stable earnings. The performance of the DJIA is commonly used as a benchmark of economic health. Prior the pandemic, the DJIA reached a local peak of 29,551 points on February 12th, 2020. As shown in Figure 9, the DJIA fell by a massive 37 percent to 18,592 points on March 23rd. The uncertainty surrounding the impact of the pandemic on business operations combined with reduced flows of goods, services, and cash led to increased volatility in equity markets.

The S&P 500, an index comprised of just over 500 common stocks issued by large-cap companies, experienced similar losses in the first quarter of 2020. Between February 19th and March 23rd, the S&P 500 fell by about 34 percent (Figure 10).

As of January 8th, 2021, both of these high-profile indices have surpassed their pre-pandemic peak. The DJIA rose by 5 percent and the S&P 500 by almost 13 percent. These gains, incurred by large and publicly traded companies, underscore the diverging economic recoveries for different business cohorts in America.

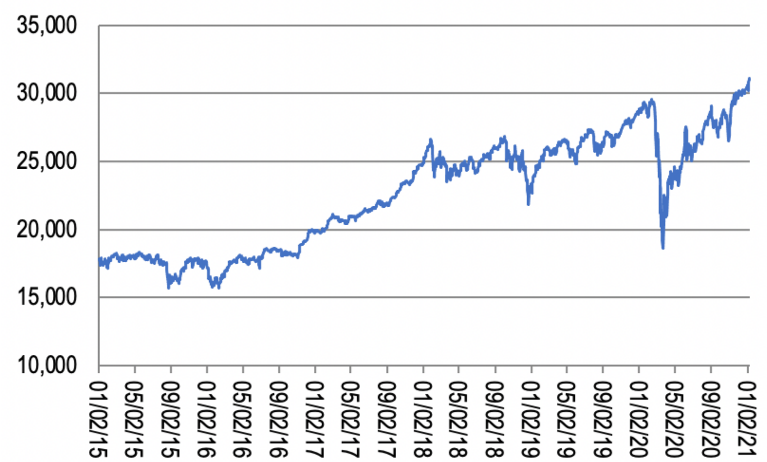


Figure 9: Dow Jones Industrial Average

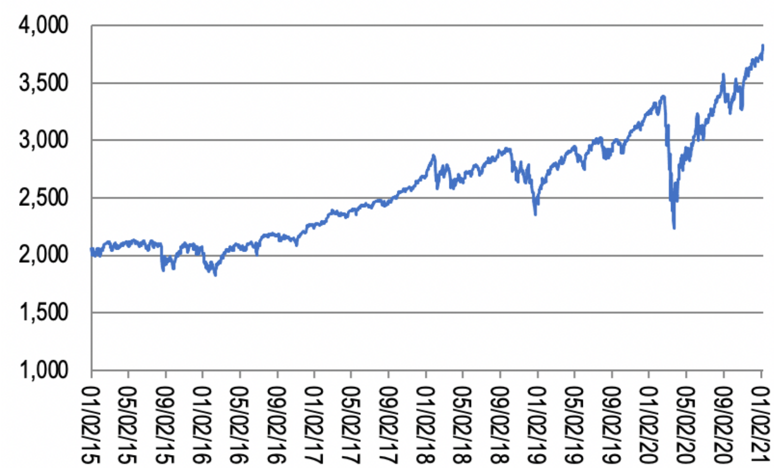


Figure 10: S&P 500 Index

The exceptional performance of equity indicators relative to other key metrics like employment could represent a few different key economic inferences. The stock market is inherently forward looking, thus pricing in future revenue streams of listed companies. This trend might indicate strong investor confidence in an expedited recovery (at a minimum for large corporations) or the position of large, publicly listed, businesses relative to their smaller, private, counterparts. With two rounds of PPP loans nearly 9 months apart, small businesses are more likely to face larger liquidity issues resulting from the pandemic. The "tale of two recoveries" is quite applicable to the contrasting recoveries experienced by small and large businesses on Main Street versus Wall Street. It is worth noting that the stock market performance is further contributing to the wealth divide experienced by households in the U.S.

because low-income households most impacted by the crisis are least likely to have significant investments.

CONSUMER SENTIMENT

The University of Michigan ConsumerSentiment Index provides information about US households' expectations regarding the overall economy. A monthly survey is sent out to households across the nation to track changes in attitudes surrounding personal finances, business conditions, and major purchases. Exhibit 10 shows the movement of the consumer sentiment index over the last two decades.

The drop in consumer sentiment following the COVID-19 pandemic was less steep than the drop following the 2008 financial crisis, likely related to this recession being completely induced by COVID-19 and not resulting from any inherent economic weaknesses or instability. Thus, consumers might expect a faster recovery period and hold more faith in the economy at large.

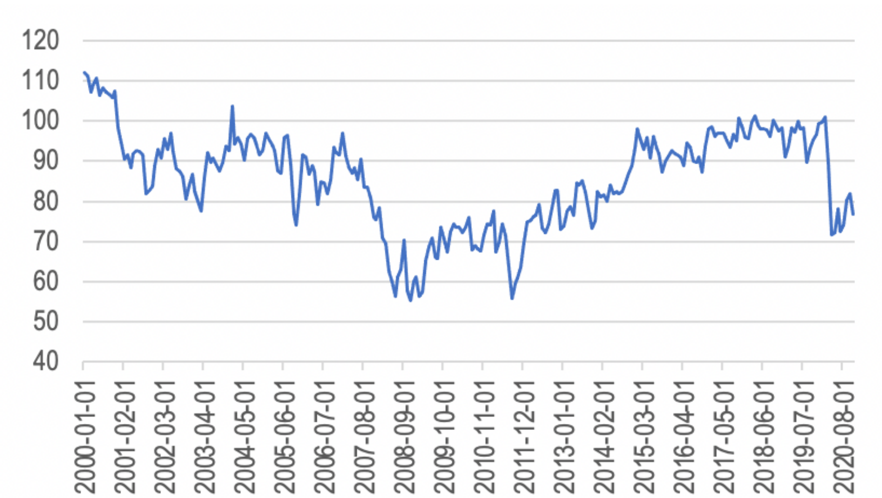


Figure 11: Consumer Sentiment Index 2000-2020

CONSUMER SPENDING

Mandated businesses closures, stay-at-home orders and general fear surrounding the transmission of COVID-19 resulted in a 32.4 percent decline in total consumer spending from January to March 30th, 2020.

Not all industries were affected evenly, however. Over the same period, spending in restaurants and hotels dropped by 66.6 percent, entertainment and recreation by 72.6 percent, and retail by 24 percent. Consumer spending on groceries, on the other hand, rose by 7.8 percent as many individuals prepared for the worst.[14]

The drop in consumer spending was also unevenly spread across income levels. From January to March 30th, 2020, high-income consumers reduced spending by 36 percent, middle-income by 31.2 percent, and low-income by 28.7 percent.[15]

[14] "The Economic Tracker." Accessed February 1, 2021. https://tracktherecovery.org/.

[15] Ibid.

This is partially due to higher income workers representing a larger portion of consumer spending. Higher-income workers have the ability to work remotely more frequently than low-income workers, thus creating a dichotomy of those able to continue working during the pandemic. Total consumer spending was still down from January 2020 levels by 2.5 percent on January 3rd, 2021.

The pandemic has caused disproportionate job losses for low-wage workers compared to high-wage workers. High-income households reduced their spending sharply as COVID-19 became widespread in March. This reduction was largely felt by services that require in-person interaction. As a result, businesses operating in affluent ZIP codes lost significant revenue and laid off mainly low-income workers; these layoffs were more frequent in the highest-rent ZIP codes compared to the lowest-rent.[16]

EMPLOYMENT

The COVID-19 pandemic sharply reduced employment across the United States in March, April, and May 2020. Figure 12 displays the year-over-year percent changes in nonfarm employment for the United States, California, and Los Angeles over the last two decades.

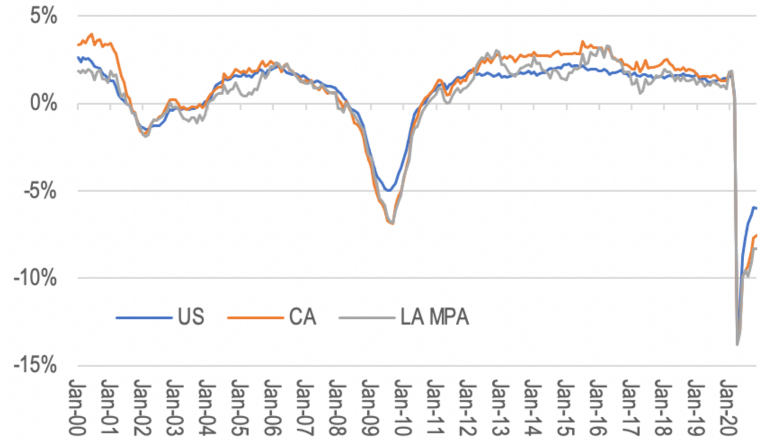


Figure 12: Year-Over_Year Percent Change in Nonfarm Employmnt

Changes in employment are evaluated year-over-year to control for potential seasonality discrepancies. Comparing April 2019 to April 2020, nonfarm employment fell by 13.4 percent in the US. Employment loss in California was slightly higher over the same period at 13.6 percent, and Los Angeles even higher at 13.8 percent. **The US as a whole has recovered jobs more quickly than California and Los Angeles.**

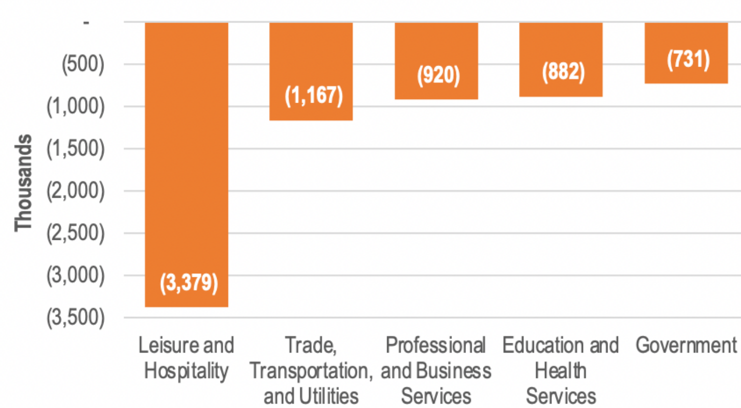


Figure 13: Sectors with the Largest Job Losses In the United States

Nonfarm employment in the United States is expected take approximately 4 years to recover fully. Employment recovery can be uncertain as federal aid, or the lack thereof, can significantly affect the speed of the economic recovery. With the vaccine rollout currently underway and a new round of stimulus and PPP loans coming in early 2021, currently this timeline remains feasible.

[16] "The Economic Tracker." Accessed February 1, 2021. https://tracktherecovery.org/.

While no industry remained economically unscathed by COVID-19, leisure and hospitality industries were among the hardest hit. With restrictive public health orders directly affecting the industry, combined with restrictions in place for non-essential travel causing both international and domestic tourism to dry up, workers in hotels and restaurants quickly found themselves out of work. Demographically, employees in these industries are typically white women, with about a quarter of workers identifying as Hispanic. Only recreational vehicle parks and alcoholic drinking places (ex. bars, breweries and wineries) skew slightly male.[17]

The trade, transportation and utilities supersector also reported massive losses in employment, driven predominantly by the decline in retail trade employment. Retail stores were forced to close across the United States for months in an attempt to control the spread of COVID-19. Furniture, electronic, clothing, and hobby stores all were labeled as non-essential and mandated to shut down their operations in the early months of 2020. Recovery was driven by motor vehicle and clothing and accessory sales in quarter three, though job recovery in hobby and sporting stores is still struggling.[18] Air transportation continues to be a drag on the industry, with air travel revenue passenger miles down 73 percent and available seat miles down 62 percent year over year (Exhibit 13).[19] Widespread travel will remain unfeasible until the COVID-19 vaccine has been widely distributed and people start to return to their pre-pandemic behaviors.

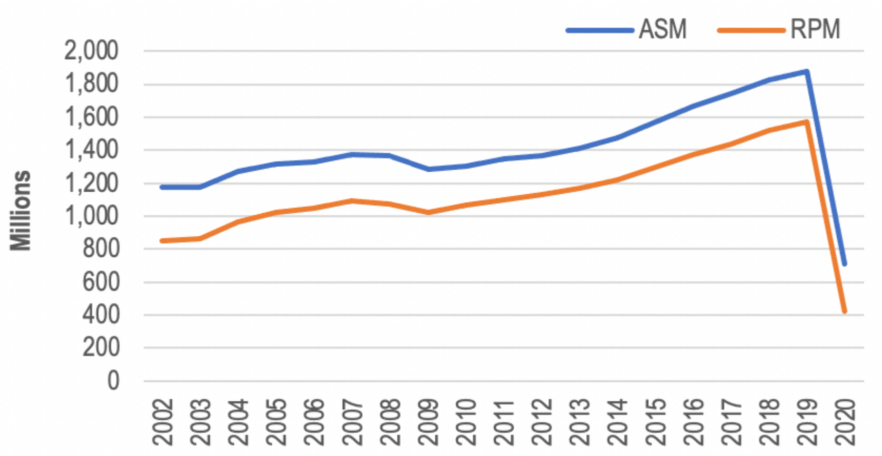


Figure 14: Available Seat Miles (ASM) and Revenue Passenger Miles (RPM) for Certified Air Carriers

HOUSEHOLD DEBT PAYMENTS AND DISPOSABLE INCOME

Household debt payments represented around 9.8 percent of disposable income at the onset of 2020. This figure intuitively dropped to 8.8 percent in April as interest rates lowered in response to expansionary monetary policy. Additionally, the CARES Act granted the right to mortgage forbearance for many consumers. Debt payments were reduced by the decrease in interest owed and participation in forbearance programs. Figure 15 shows that the ratio is once again climbing, reaching 9.1 percent as of July 2020.

[17] Labor Force Statistics from the Current Population Survey, Bureau of Labor Statistics. https://www.bls.gov/cps/cpsaat18.htm

[18] Bureau of Economic Analysis. 2021. "Gross Domestic Product, Third Quarter 2020". https://www.bea.gov/news/2020/gross-domestic-product-third-quarter-2020-advance-estimate.

[19] "OST_R". 2021. Transtats.Bts.Gov. https://www.transtats.bts.gov/DatabaseInfo.asp?DB_ID=111.

Real disposable income per capita spiked in the months following the pandemic, as shown in Figure 16. This spike is due to the economic stimulus introduced in the CARES act and the expansive unemployment benefits paid out in early months of the pandemic. The spike may have also been partially driven by the disproportionate loss of low-income jobs, skewing per capita income higher than it would have been otherwise.

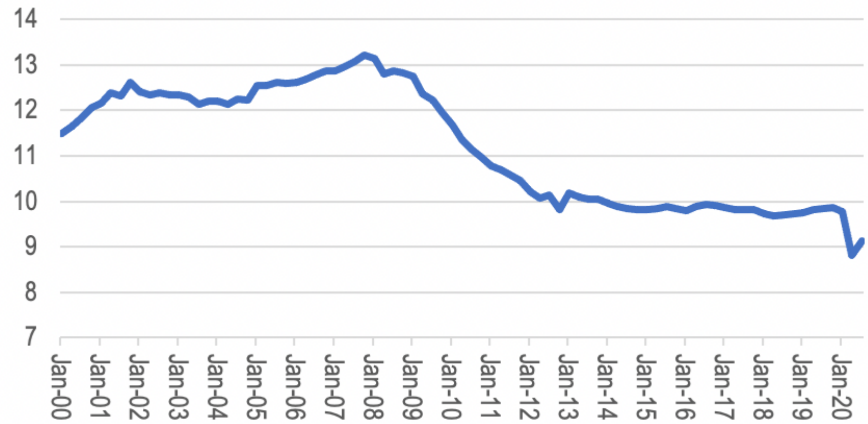


Figure 15: Household Debt Service Payments as a Percent of Personal Disposable Income

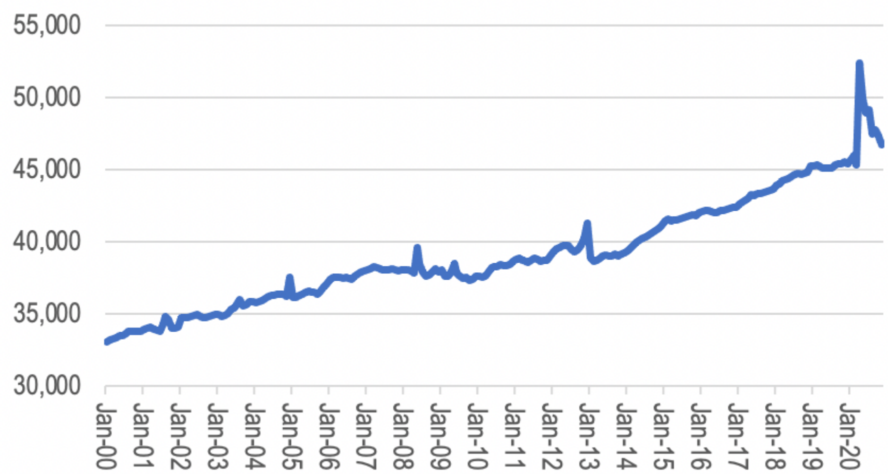


Figure 16: Real Disposable Income Per Capita in 2012 Dollars

Looking Forward

The United States ushered in a new administration headed by President Joseph R. Biden and Vice President Kamala Harris on January 20th, 2021. The Biden-Harris administration identified seven immediate priorities on the White House government website: COVID-19, climate, racial equity, economy, health care, immigration, and restoring America's standing.[20] President Biden's top priority is mitigating transmission of the virus by ramping up testing, increasing production and circulation of personal protective equipment (PPE), and effectively distributing vaccines. The new administration has proposed a $1.9 trillion stimulus package, which will help directly combat the pandemic through vaccination, boost local and state government budgets, and increase payments and benefits to individuals.[21]

The first step to recovery in the United States is achieving herd immunity against COVID-19. Herd immunity occurs when a high enough percentage of people achieve immunity, thus indirectly protecting those who are not yet immune. The exact percentage of people who must have resistance against COVID-19 to reach population immunity has yet to be determined, but will certainly be achieved through community wide vaccination combined with immunity in those who have recovered from COVID-19. Administration of vaccines in the United States has seen a slow start in the beginning of the year but there is still a chance that the nation will reach herd immunity within the third or fourth quarter of 2021.[22]This could however be delayed until 2022 for a number of reasons, including safety issues with early vaccination efforts, manufacturing shortages, supply chain challenges, infectious variants and slow adoption of the vaccine.[23] The odds of achieving herd immunity by the end of 2021 improves with each successfully administered vaccine. A decline in the mortality of COVID-19 through community wide vaccination is a critical step toward returning to normalcy.

[20] "Priorities." The White House. The United States Government, January 20, 2021. https://www.whitehouse.gov/priorities/.

[21] Tankersley, Jim, and Michael Crowley. "Biden Outlines $1.9 Trillion Spending Package to Combat Virus and Downturn." The New York Times. The New York Times, January 14, 2021. https://www.nytimes.com/2021/01/14/business/economy/biden-economy.html.

[22] Charumilind, Sarun, Matt Craven, Jessica Lamb, Adam Sabow, and Matt Wilson. "When Will the COVID-19 Pandemic End?" McKinsey & Company. McKinsey & Company, January 21, 2021. https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/when-will-the-covid-19-pandemic-end.

[23] Ibid.

CALIFORNIA

Like the rest of the United States, California has been severely impacted by the COVID-19 pandemic. By the end of January 2021, the state had well over three million total cases, more than any other in the nation. The pandemic and subsequent crisis severely impacted California's economic performance in 2020.

The first half of the year featured a sharp spike in unemployment due to the rapid decline in consumer spending and mandated business closures. Nonfarm employment in California fell substantially, especially in non-essential industries and those that provide services with a high degree of personal interaction. The loss of income stemming from unemployment further complicated the state's ongoing housing crisis. California remains significantly more expensive than much of the United States, with nearly double the median home price and a larger share of rent-burdened households. State legislature provided protections for renters and homeowners who could not make housing payments, but these protections will soon expire barring renewal.

Major Economic Indicators

REAL GROSS STATE PRODUCT

Real gross state product (GSP) for California dropped less than one percent in 2020, indicating a significant level of economic resiliency in the state that now boasts the highest number of COVID-19 cases in the nation.

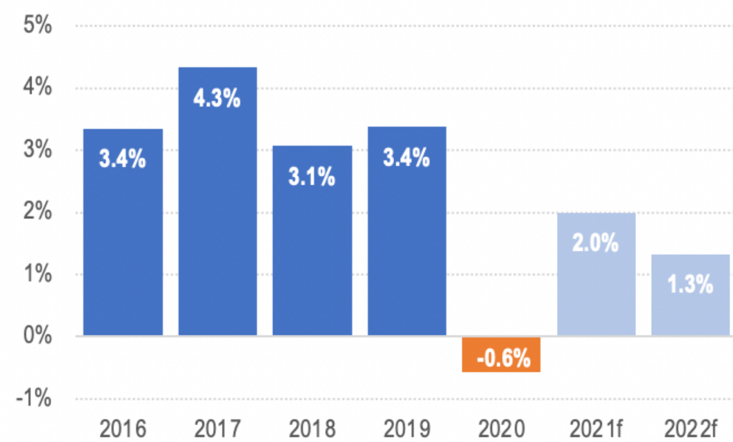


Figure 17: California Real Growth in Gross State Product by Year

Real personal income and real per capita income rose by 6.2 percent and 4.1 percent year-over-year. As with the United States as a whole, the state's 39 million residents received increased unemployment benefits and economic stimulus payments. Our forecast does not account for these increased benefits in the 2021 year, and thus these metrics fall significantly. In the following years, these measures of income will rise once again as the California and United States economy at large recover.

UNEMPLOYMENT

The early stages of the COVID-19 pandemic was characterized by immense financial uncertainty felt by businesses and workers.

Revenue losses stemming from COVID-19 were felt almost immediately as consumer spending in California between January and mid-April 2020 declined by 36 percent.[24] Job losses were immediate too, distinguishing the current COVID-19 recession from previous recessions where unemployment rose gradually over time.

Due to the fast-moving nature of the pandemic's economic impact, we looked to unemployment insurance (UI) claims filing data as a supplement to traditional labor force and industry employment data, which has a significant data lag, for UI data can act as an early indicator of what may transpire in the labor market prior to the more accurate monthly and quarterly figures publications. Initial claims are how many new people have filed for unemployment benefits in the previous week; they are not representative of the number of individuals filing unemployment claims (unique claimants). From March through December, close to 11.25 million initial UI claims were filed in California, and the state's unemployment rate rose sharply from 3.9 percent in February to a peak of 16.4 percent in April and May of 2020.

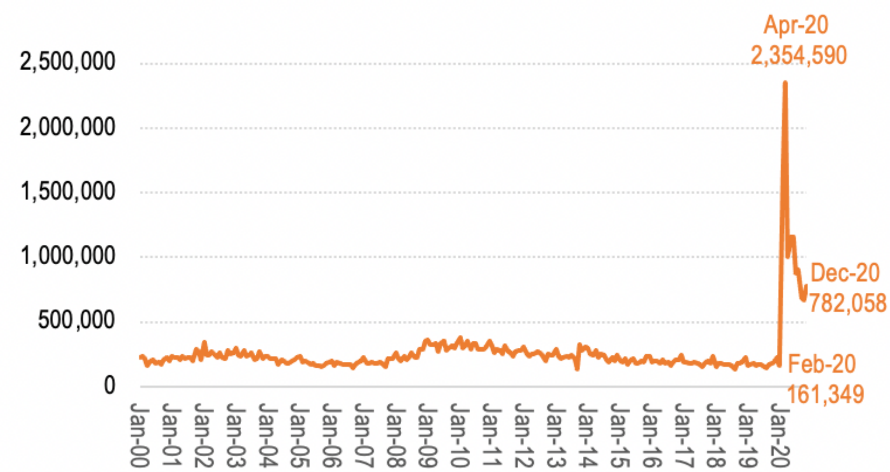


Figure 18: Initial Unemployment Claims in California, Jan 2000 - Dec 2020

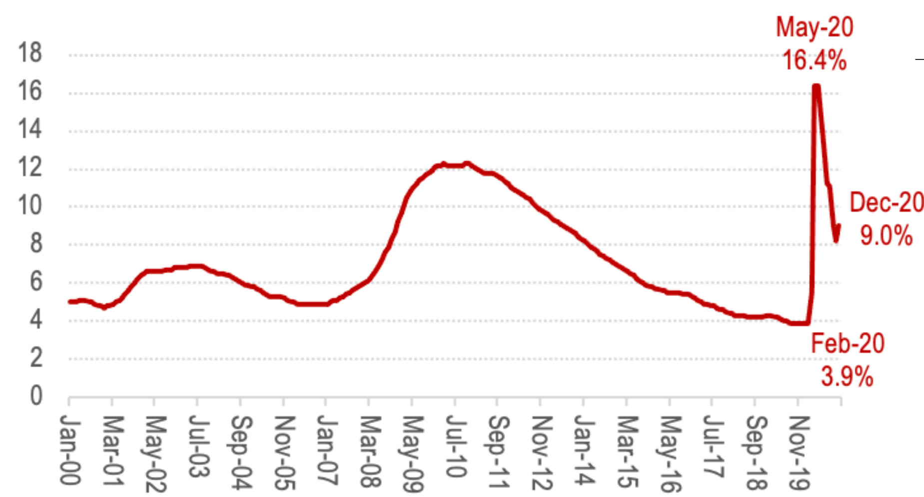


Figure 19: U3 Unemployment Rate in California, Seasonally Adjusted

[24] Chetty, Raj, John Friedman, Nathaniel Hendren, and Michael Stepner. 2020. "The Economic Impacts Of COVID-19: Evidence from A New Public Database Built Using Private Sector Data". https://opportunityinsights.org/wp-content/uploads/2020/05/tracker_paper.pdf.

Consumer spending slowly recovered throughout the year, as businesses were able to open with restrictions as daily case rates fell, and unemployment declined from 16.4 percent in May to 8.2 percent in November 2020. However, the second wave of cases led to reinstated restrictions and pushed the state's unemployment back up to 9.0 percent in December. By mid-December, consumer spending in the state was about 10 percent below January 2020.[25]

The second round of stimulus payments began on January 3rd, 2021. Increased liquidity in the economy will hopefully stimulate consumer spending and reduce unemployment, though the total economic impact remains uncertain.

EMPLOYMENT

California mirrored the national experience with unemployment as service sectors were the hardest hit.

As was the case in the United States overall, the hospitality industries of accommodation and food services, experienced the greatest job losses between 2019 and 2020 (Figure 20). Industry earnings have recovered slightly in quarter three but remain 20 percent below their pre-pandemic levels.

Figure 20: Change in Payroll Employment, 2019 to 2020

We expect most industry sectors to begin recovery starting the second half of 2021 as the vaccine becomes available to more individuals through phased distribution (Figure 21).

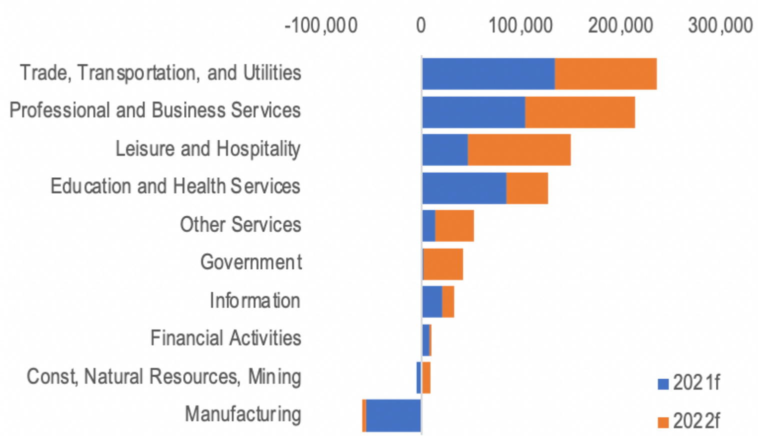


Figure 21: Employment Growth by Industry, 2020 to 2022

California's manufacturing industry is expected to contract relative to others as a result of COVID-19; manufacturing jobs are down about 8 percent from the start of 2020. However, the state's auto-manufacturing industry is experiencing a resurgence; employment has risen 117 percent over the last decade to nearly 18,000 employees statewide, driven by the rising popularity of electric vehicles and the state's push towards greener transportation.

[25] Chetty, Raj, John Friedman, Nathaniel Hendren, and Michael Stepner. 2020. "The Economic Impacts Of COVID-19: Evidence from A New Public Database Built Using Private Sector Data". https://opportunityinsights.org/wp-content/uploads/2020/05/tracker_paper.pdf.

Health care and educational services deserves a mention for mixed recovery, as the majority of job recovery and growth is expected in health care; education services are expected to slightly shrink in the coming years as California experiences outmigration and a minor population decline.

HOUSING AND MIGRATION

California faces distinct challenges in housing affordability and accessibility.

California's median home listing price was $727,050 in December 2020, more than double the national median home price of $340,050.[26] The gap in home prices between California and the rest of the nation began widening around 1970, and the trend has continued over the last 50 years. Housing shortages, high demand, steep land and construction costs in coastal communities and resident disproval (NIMBY) drive the growth in home prices and rents. These increasing costs are driving residents to find inland alternatives, raising prices across the state.[27]

In 2019, about 51 percent of California's population experienced rent burden, when a household spends a third or more of their income on housing; this was 6 percent higher than the nation as a whole (Figures 22 and 23). Just over 25 percent of households in California were severely rent burdened, spending more than half of their income on housing; about 4 percent higher than the rest of the United States.[28]

California sits at 49th in the nation, only slightly ahead of New York, when it comes to homeownership rates. Homeownership has been falling since its 2006 peak of 60.2 percent. In 2019, the most recent year of data, they fell 0.3 percentage points to 54.8 percent. Issues with housing affordability and availability combined with the negative financial and cultural effects of COVID-19 may become overwhelming and force residents to look for alternative, more affordable cities to call home. While COVID-19 is the most pressing issue for lawmakers, incentivizing the building of new and affordable housing should be on the state's radar of pertinent economic legislation.

Figure 22: Share of Rent Burdened Households

	2009	2019	Change
United States	47.7%	45.1%	(5.4%)
California	52.8%	50.7%	(3.9%)

[26] Realtor.com, Housing Inventory: Median Listing Price in California [MEDLISPRICA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MEDLISPRICA

[27] Taylor, M. (2015). (rep.). California's High Housing Costs: Causes and Consequences. Legislative Analyst's Office. Retrieved from https://lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.pdf

[28] Census Bureau, ACS 2019

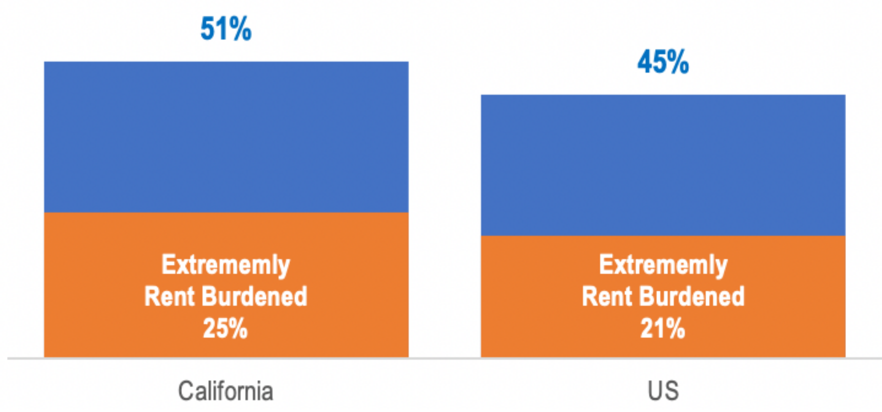


Figure 23: Rent Burdened Households

Median Home Price

CA: $727,050
US: $340,050

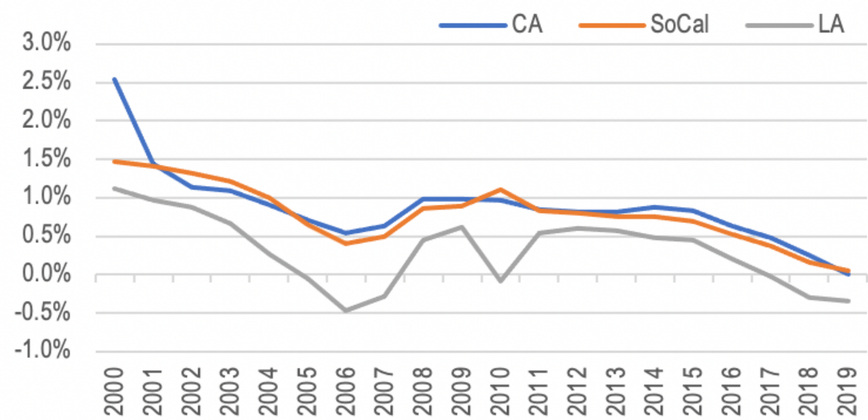


Figure 24: Year-Over-Year Percent Change in Population

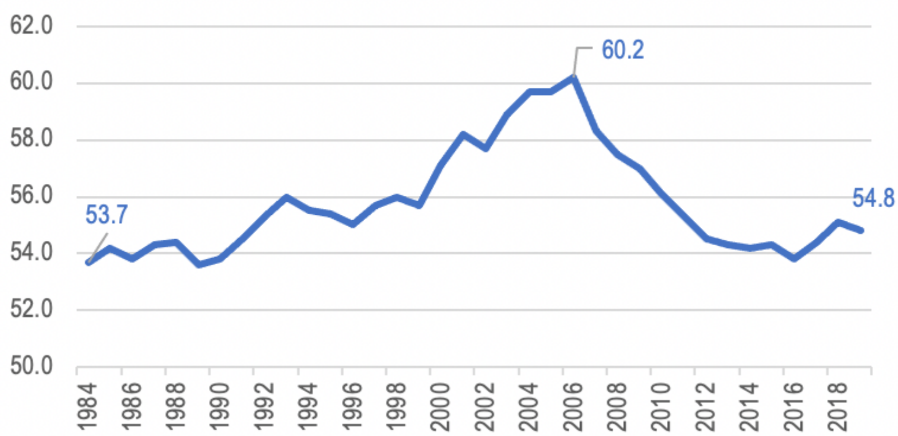


Figure 25: California Homeownership Rates by Year (%)

COVID-19 AND HOUSING

Low-income residents, who are at the highest risk of eviction, are facing disproportionate levels of employment loss compared to high- and middle-income residents.

The pandemic has resulted in loss of income for many California residents, straining rent and mortgage payments across the state. A recent study from the UCLA Luskin Institute on Inequality and Democracy[29] found that as of May 9th, 2020, about 449,000 unemployed people with no income occupied about 365,000 units of rental housing in Los Angeles County.

The state of California has been taking steps to avoid a potential eviction crisis as hundreds of thousands of people have experienced job loss or reduced hours during the pandemic. California state law introduced on March 1, 2020 protects tenants experiencing financial distress from eviction for failure to pay rent. While recently extended, this law is set to expire on June 30th, 2021.[30] Los Angeles County, along with many other California counties, are thus facing a potential eviction crisis as employment has not fully recovered from the negative effects of the COVID-19 pandemic. Additionally, low-income residents, who are at the highest risk of eviction, are facing disproportionate levels of employment loss compared to high- and middle-income residents.

Looking Forward

California has faced a number of challenges over the past year, including unprecedented employment declines related to the current health crisis, a declining population, and falling homeownership. Achieving herd immunity through vaccination would likely ameliorate the employment contraction, but population growth and housing accessibility troubled the golden state long before COVID-19. Resources and time have been used to manage the pandemic, which may result in further delay in addressing long-standing challenges in California.

Figure 26: California Headline Statistics and Forecast

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	3.4%	4.3%	3.07%	3.4%	-0.6%	2.0%	1.3%
Real Personal Income Growth	2.9%	2.0%	3.0%	3.0%	6.2%	-4.8%	3.9%
Total Employment Growth	428,600	346,400	345,700	252,700	(1,228,100)	353,900	451,200
Unemployment Rate	5.5%	4.8%	4.2%	4.0%	10.4%	9.4%	7.8%
Real Per Capita Income	2.2%	2.3%	2.8%	2.9%	4.1%	-4.5%	2.7%
Housing Permits	84,000	92,000	96,000	91,000	86,000	81,000	104,000
Median Listing Price ($)	494,300	517,200	536,200	567,200	663,200	588,200	595,100

[29] Blasi, Gary (2020). UD Day: Impending Evictions and Homelessness in Los Angeles. Los Angeles: UCLA Luskin Institute on Inequality and Democracy.

[30] McGreevy, Patrick. 2021. "Gov. Gavin Newsom Signs Bill To Extend COVID-19 Eviction Protections Through June". Los Angeles Times. https://www.latimes.com/california/story/2021-01-29/newsom-extend-covid-eviction-moratorium-june.

LOS ANGELES

At the onset of 2020, the Los Angeles County was enjoying a long and unprecedented expansionary period where economic fundamentals were strong and the chance of a recession was low. Circumstances changed rapidly by the end of the first quarter, overturning all forecasts of growth and stability.

As with other jurisdictions across the nation, Los Angeles County's "Safer At Home" order issued on March 19, 2020 put in place restrictions and closures for businesses; bars, gyms, schools, and entertainment centers were shut down with restaurants limited to take-out and delivery services only. Restrictions began to relax towards the end of May 2020, authorizing businesses to reopen in phases or tiers, but two separate surges in case numbers resulted in the reinstatement of these orders in July and November, which impacted the trajectory of the county's economic recovery.

Currently, Los Angeles County has reported over 1 million COVID-19 cases since the onset of the pandemic, with about one in every ten Angelinos having contracted the virus. Maps of COVID-19 deaths across Los Angeles County by City are provided in the Appendix. Fortunately for businesses and individuals alike, the vaccination process has begun with over 800,000 individuals receiving the vaccine at the end of January 2021.[31]

Major Economic Indicators

REAL GROSS COUNTY PRODUCT

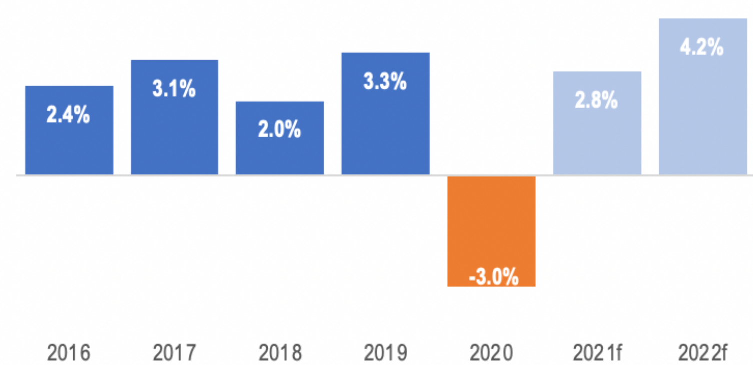


Figure 27: Real Growth in LA County Gross County Product

With a large share of its economic base in industries hardest hit by the pandemic, the Los Angeles County economy has been severely affected by COVID-19.

The hardest hit industries in the county include: hospitality and tourism; the motion picture and television industry; non-essential retail, such as furniture and clothing stores; personal care services; and arts, entertainment and recreation that includes performing arts, spectator sports, museums, and amusement parks. Mandated closures and business restrictions, unprecedented job loss and changes in consumption reversed economic growth in 2020, as real gross county product (GCP) fell 3 percent year-over-year.

[31] "LA County COVID-19 Vaccine Dashboard". 2021. Publichealth.Lacounty.Gov. http://publichealth.lacounty.gov/media/coronavirus/vaccine/vaccine-dashboard.htm.

UNEMPLOYMENT

The effects of the COVID-19 pandemic on employment were seen most intensely in March and April. An estimated 716,100 nonfarm jobs were lost within those two months, and by May, the County's seasonally adjusted unemployment rate skyrocketed from 4.3 percent in February to a shocking 21.1 percent (Figure 28). In December 2020, the unemployment rate in Los Angeles County had fallen to 11.0 percent.

Nearly 45 percent of the jobs lost in March and April have been recovered, with 318,100 nonfarm job additions from May through December.

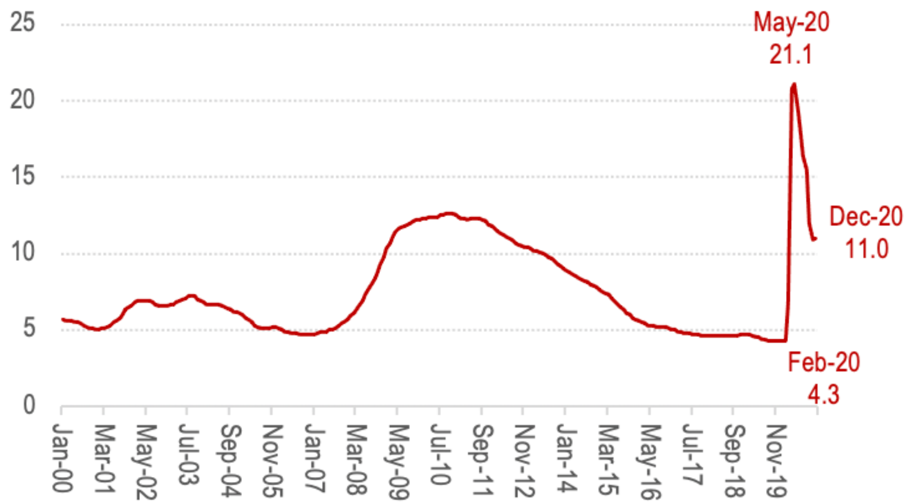


Figure 28: U3 Unemployment Rate in LA County, Seasonally Adjusted

EMPLOYMENT

All major industry sectors saw a decline in employment as a result of the virus, with leisure and hospitality and trade, transportation and utilities (which includes retail trade), experiencing the largest negative employment shocks (Figure 29). Businesses involved in Los Angeles' popular tourist attractions such as hotels, motels, and recreational vehicle lots were decimated as typical tourist travel plans were upended by state and national regulations.

The region continues to recover jobs in the wake of the pandemic, however, many industries facing the most severe restrictions are still trailing behind in the recovery process including: arts, entertainment and recreation; food services and drinking places; information (with large declines in the motion picture and sound recording industry); and other services (which includes personal care services such as hair and nail salons).

Over the next two years, hard-hit industries that have hemorrhaged large numbers of jobs from their payrolls will gradually add these workers back as restrictions are softened and activity begins to return to normal (Figure 30).

Real income exhibited an unintuitive trend in the county as it rose year-over-year. Just as with California and the rest of the United States, this trend was likely due to increased unemployment

Figure 29: Change in Payroll Employment, 2019 to 2020

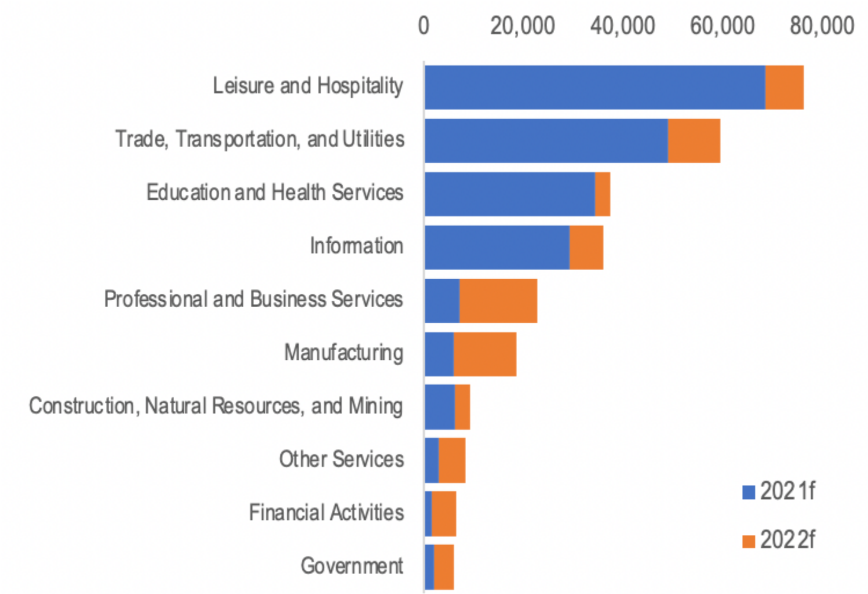


Figure 30: Employment Growth by Industry, 2020 to 2022

benefits and economic stimulus payments distributed by the federal government. As such, this figure is expected to fall in 2021 once these supplemental benefits expire.

Looking Forward

The effects of the pandemic may increase preexisting inequalities, but the diversity and vibrancy of the people, cultural and historical amenities, entertainment options and industry in Los Angeles County promises a rebound in economic growth.

Los Angeles County faces a number of difficulties that predate the COVID-19 pandemic, including housing accessibility and inequality; the effects of the pandemic have likely worsened both. A disproportionate share of low-income workers in Los Angeles County have lost jobs compared to high-income workers. By the end of April 2020, low-income employment (less than

$27,000 annually) fell by about 33 percent compared to January levels, while high-income employment (over $60,000 annually) only fell by around 15 percent. Not only was the initial employment shock felt most intensely by low-income workers, but job recovery has also been slower for this cohort compared to high-income workers. By the end of September 2020, low-income employment was still down by about 29 percent compared to January levels, while high-income employment was only down by about 4 percent.[32] While longer-term impacts of increased inequalities between low- and high-income earners are certainly unpredictable right now, the sustained loss of income felt mainly by low-income workers may contribute to even worse housing accessibility in the future. A study from the UCLA Luskin Institute on Inequality and Democracy[33] found that as of May 9th, 2020, about 449,000 unemployed people with no income occupied about 365,000 units of rental housing in Los Angeles County

The extent of unemployment, economic displacement and business failures will have ramifications beyond the end of the pandemic; while our current projections suggest we should still be feeling the impacts of this economic shock well into the future, Los Angeles County will hopefully see an abundance of activity once public gatherings are safe again. The county is a hub for entertainment and live events, and households who have not been negatively impacted during the pandemic will likely have increased savings (reduced consumption) and pent-up demand for entertainment after nearly a year of quarantines and social distancing. Once herd immunity is reached at the national, state and county level, Los Angeles is expected to once again be a vibrant center of food, culture and economic activity.

Figure 31: LA County Headline Statistics and Forecast

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	2.4%	3.1%	2.0%	3.3%	-3.0%	2.8%	4.2%
Real Personal Income Growth	3.0%	1.7%	2.3%	2.4%	1.1%	-1.7%	2.8%
Total Employment Growth	109,400	53,400	67,200	49,000	(332,800)	206,600	73,300
Unemployment Rate	5.3%	4.8%	4.6%	4.4%	13.6%	9.3%	8.1%
Real Per Capita Income	2.8%	1.8%	2.6%	2.8%	5.3%	-3.2%	4.6%
Housing Permits	20,600	21,600	22,000	21,600	19,600	22,700	22,400
Median Listing Price ($)	656,200	692,800	715,200	773,100	797,300	792,400	801,800

[32] "The Economic Tracker." Accessed February 1, 2021. https://tracktherecovery.org/.

[33] Blasi, Gary (2020). UD Day: Impending Evictions and Homelessness in Los Angeles. Los Angeles: UCLA Luskin Institute on Inequality and Democracy.

APPENDIX

United States

Quick Facts	
Population*	**324.7 Million**
Prime Age %*	**39.5%**
Gross Domestic Product**	**18.7 Trillion**
Median Income*	**$31,333**
Poverty Rate*	**17.9%**
Pre-Pandemic Unemployment Rate^	**3.7%**
Current Unemployment Rate^	**8.1%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	1.7%	2.3%	3.0%	2.2%	-4.1%	3.0%	3.3%
Real Personal Income Growth	1.7%	3.0%	3.1%	2.4%	5.3%	-5.3%	2.0%
Total Employment Growth	2,525,300	2,259,800	2,301,800	2,044,600	(8,674,700)	1,519,500	4,400,200
Unemployment Rate	4.9%	4.3%	3.9%	3.7%	8.1%	7.7%	6.6%
Real Per Capita Income	1.0%	1.7%	2.5%	1.7%	2.2%	-5.2%	2.0%
Housing Permits	1,200,000	1,300,000	1,300,000	1,400,000	1,400,000	1,800,000	1,800,000
Median Listing Price ($)	256,000	272,200	293,600	311,600	334,100	310,200	328,200
CPI	1.3%	2.1%	2.4%	1.8%	1.2%	1.9%	2.0%
Employment Growth by Sector							
Construction, Natural Resources & Mining	122,400	245,700	372,500	216,600	(302,800)	317,900	300,300
Manufacturing	17,800	86,200	248,800	151,200	(586,600)	142,300	155,200
Trade, Transportation and Utilities	374,400	203,200	215,800	108,700	(1,166,800)	(162,500)	760,200
Information	43,100	19,000	25,000	22,000	(183,900)	60,800	124,300
Financial Activities	161,400	164,600	139,900	156,900	(46,800)	184,500	157,700
Professional and Business Services	416,900	398,200	445,200	365,200	(919,900)	351,800	434,100
Education and Health Services	615,100	549,300	446,800	539,200	(881,500)	343,400	515,800
Leisure and Hospitality	502,800	396,200	246,200	282,200	(3,379,400)	(80,400)	1,269,600
Other Services	68,800	78,700	61,800	62,200	(475,800)	(59,200)	178,200
Government	202,60	118,700	99,800	140,400	(731,200)	420,900	504,800

California

Quick Facts	
Population*	**39.3 Million**
Prime Age %*	**41.4%**
Gross Domestic Product**	**2.8 Trillion**
Median Income*	**$31,960**
Poverty Rate*	**17.6%**
Pre-Pandemic Unemployment Rate^	**4.0%**
Current Unemployment Rate^	**10.4%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	3.4%	4.3%	3.0%	3.4%	-0.6%	2.0%	1.3%
Real Personal Income Growth	2.9%	2.0%	3.0%	3.0%	6.2%	-4.8%	3.9%
Total Employment Growth	428,600	346,400	345,700	252,700	(1,228,100)	353,900	451,200
Unemployment Rate	5.5%	4.8%	4.2%	4.0%	10.4%	9.4%	7.8%
Real Per Capita Income	2.2%	2.3%	2.8%	2.9%	4.1%	-4.5%	2.7%
Housing Permits	84,000	92,000	96,000	91,000	86,000	81,000	104,000
Median Listing Price ($)	494,300	517,200	536,200	567,200	663,200	588,200	595,100
Employment Growth by Sector							
Construction, Natural Resources & Mining	39,500	34,200	50,400	22,600	(33,300)	(4,800)	9,100
Manufacturing	6,700	2,600	11,400	(500)	(82,200)	(54,900)	(4,500)
Trade, Transportation and Utilities	58,200	50,100	30,900	4,100	(182,200)	133,200	102,100
Information	37,800	2,900	13,800	19,400	(27,600)	20,500	11,700
Financial Activities	20,700	9,400	5,300	3,300	(800)	7,900	2,200
Professional and Business Services	40,900	50,600	87,100	51,700	(111,300)	103,800	109,600
Education and Health Services	88,300	97,400	71,900	81,200	(102,700)	85,200	41,300
Leisure and Hospitality	73,600	50,700	39,600	40,000	(486,400)	46,900	101,800
Other Services	10,100	10,000	7,900	4,500	(94,000)	13,700	38,500
Government	52,800	38,500	27,400	26,400	(107,600)	2,400	39,400

Southern California

Quick Facts	
Population*	**23.8 Million**
Prime Age %*	**41.6%**
Gross Domestic Product**	**1.5 Trillion**
Median Income*	**$30,894**
Poverty Rate*	**18.3%**
Pre-Pandemic Unemployment Rate^	**4.1%**
Current Unemployment Rate^	**11.3%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	2.4%	3.4%	1.9%	3.0%	-2.9%	3.0%	3.4%
Real Personal Income Growth	3.0%	2.0%	2.6%	2.8%	3.6%	-2.7%	3.1%
Total Employment Growth	240,700	183,400	197,700	142,200	(755,400)	383,300	237,300
Unemployment Rate	5.5%	4.8%	4.4%	4.1%	11.3%	8.2%	7.0%
Real Per Capita Income	2%	2%	2%	3%	5%	-4%	4%
Housing Permits	59,600	64,000	60,100	59,500	48,000	55,600	61,000
Median Listing Price ($)	611,746	644,658	655,178	687,703	726,822	718,521	733,502

Employment Growth by Sector	2016	2017	2018	2019	2020	2021f	2022f
Construction, Natural Resources & Mining	21,500	18,700	28,100	5,600	(14,000)	3,600	10,000
Manufacturing	(2,600)	(8,100)	(2,400)	400	(49,200)	(2,700)	20,500
Trade, Transportation and Utilities	30,100	36,400	22,700	5,500	(83,600)	82,800	35,200
Information	22,200	(14,000)	1,700	-	(27,200)	31,900	9,200
Financial Activities	8,000	3,500	1,200	(100)	(7,700)	10,300	13,500
Professional and Business Services	23,000	20,900	48,200	39,500	(92,000)	41,600	47,900
Education and Health Services	53,700	60,300	51,100	53,200	(66,600)	69,200	24,900
Leisure and Hospitality	50,500	34,900	26,700	23,500	(300,900)	128,200	46,400
Other Services	6,200	3,500	5,200	1,700	(60,500)	15,200	11,800
Government	28,100	27,300	15,200	12,900	(53,700)	3,200	17,900

Los Angeles County

Quick Facts	
Population*	**10.1 Million**
Prime Age %*	**43.2%**
Gross Domestic Product**	**708.8 Billion**
Median Income*	**$29,985**
Poverty Rate*	**20.1%**
Pre-Pandemic Unemployment Rate^	**4.4%**
Current Unemployment Rate^	**13.6%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	2.4%	3.1%	2.0%	3.3%	-3.0%	2.8%	4.2%
Real Personal Income Growth	3.0%	1.7%	2.3%	2.4%	1.1%	-1.7%	2.8%
Total Employment Growth	109,400	53,400	67,200	49,000	(332,800)	206,600	73,300
Unemployment Rate	5.3%	4.8%	4.6%	4.4%	13.6%	9.3%	8.1%
Real Per Capita Income	2.8%	1.8%	2.6%	2.8%	5.3%	-3.2%	4.6%
Housing Permits	20,600	21,600	22,000	21,600	19,600	22,700	22,400
Median Listing Price ($)	656,200	692,800	715,200	773,100	797,300	792,400	801,800
Employment Growth by Sector							
Construction, Natural Resources & Mining	7,400	4,300	7,500	3,000	(3,000)	6,100	3,200
Manufacturing	(7,400)	(11,800)	(7,800)	(1,900)	(22,900)	5,900	12,500
Trade, Transportation and Utilities	13,400	10,200	5,900	(100)	(46,800)	49,000	10,300
Information	21,800	(14,400)	1,500	900	(19,500)	29,100	6,900
Financial Activities	4,200	1,800	1,600	800	(2,100)	1,600	4,900
Professional and Business Services	9,300	9,000	18,300	12,500	(37,800)	7,200	15,400
Education and Health Services	26,800	27,900	20,700	22,300	(25,100)	34,300	3,100
Leisure and Hospitality	23,400	14,600	11,900	8,200	(132,300)	68,400	7,700
Other Services	2,300	2,400	3,100	(300)	(27,000)	3,000	5,300
Government	8,200	9,400	4,500	3,600	(16,300)	2,000	4,000

Orange County

Quick Facts	
Population*	**3.2 Million**
Prime Age %*	**41.3%**
Gross Domestic Product**	**222.8 Billion**
Median Income*	**$36,135**
Poverty Rate*	**13.8%**
Pre-Pandemic Unemployment Rate^	**2.8%**
Current Unemployment Rate^	**8.7%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	2.1%	5.3%	1.6%	2.1%	-4.4%	3.5%	2.9%
Real Personal Income Growth	3.3%	2.8%	2.7%	3.0%	4.3%	-0.7%	2.7%
Total Employment Growth	39,900	32,900	32,500	21,300	(140,100)	54,200	47,500
Unemployment Rate	4.0%	3.5%	3.0%	2.8%	8.7%	6.7%	5.2%
Real Per Capita Income	2.8%	2.5%	2.7%	3.0%	4.2%	-5.3%	4.5%
Housing Permits	11,500	9,500	7,500	9,000	4,100	6,100	6,300
Median Listing Price ($)	806,100	870,500	873,200	864,900	934,600	976,900	1,007,600
Employment Growth by Sector							
Construction, Natural Resources & Mining	5,600	4,600	4,500	100	(2,200)	(1,600)	1,800
Manufacturing	400	2,600	(100)	(800)	(12,500)	(7,200)	(600)
Trade, Transportation and Utilities	1,000	2,100	1,100	(2,300)	(16,800)	9,600	6,800
Information	1,000	800	-	(600)	(3,200)	(200)	800
Financial Activities	1,600	1,500	(900)	(1,200)	(2,100)	4,600	3,700
Professional and Business Services	10,100	5,100	12,600	11,200	(20,100)	8,700	9,700
Education and Health Services	7,300	9,700	8,800	7,200	(11,700)	10,000	4,600
Leisure and Hospitality	8,200	6,100	4,500	5,400	(54,200)	19,300	15,500
Other Services	1,500	(200)	1,000	600	(10,000)	7,900	1,700
Government	3,200	600	1,000	1,700	(7,300)	3,100	3,500

Riverside County

Quick Facts	
Population*	**2.4 Million**
Prime Age %*	**39.3%**
Gross Domestic Product**	**85.6 Billion**
Median Income*	**$28,557**
Poverty Rate*	**17.8%**
Pre-Pandemic Unemployment Rate^	**4.2%**
Current Unemployment Rate^	**10.1%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	3.1%	3.6%	2.3%	3.4%	-2.3%	4.3%	2.6%
Real Personal Income Growth	5.0%	2.4%	2.8%	3.3%	6.8%	-3.6%	2.5%
Total Employment Growth	30,200	30,400	30,300	19,100	(67,800)	19,800	26,100
Unemployment Rate	6.1%	5.2%	4.5%	4.2%	10.1%	7.2%	6.4%
Real Per Capita Income	3.4%	1.0%	1.6%	2.3%	5.5%	-5.3%	3.3%
Housing Permits	7,000	8,000	9,200	9,000	10,400	11,900	14,200
Median Listing Price ($)	395,500	415,600	433,200	436,100	467,100	467,300	464,600
Employment Growth by Sector							
Construction, Natural Resources & Mining	5,700	3,700	5,200	200	(2,100)	(1,600)	1,600
Manufacturing	1,400	200	1,600	600	(3,100)	(900)	2,200
Trade, Transportation and Utilities	6,700	6,100	4,700	4,900	5,700	5,500	3,600
Information	-	(200)	100	300	(200)	-	-
Financial Activities	500	400	300	(600)	(500)	(400)	600
Professional and Business Services	2,600	1,400	4,000	2,500	(25,700)	7,000	8,000
Education and Health Services	4,900	6,800	7,900	5,700	(12,200)	7,000	6,300
Leisure and Hospitality	4,800	2,900	2,600	3,600	(23,000)	1,100	1,200
Other Services	500	300	200	400	(5,100)	1,900	2,000
Government	3,100	8,800	3,700	1,500	(1,600)	200	600

San Bernardino County

Quick Facts	
Population*	**2.2 Million**
Prime Age %*	**40.4%**
Gross Domestic Product**	**84.8 Billion**
Median Income*	**$27,235**
Poverty Rate*	**22.3%**
Pre-Pandemic Unemployment Rate^	**3.8%**
Current Unemployment Rate^	**9.5%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	3.1%	3.4%	2.0%	3.1%	-2.6%	4.2%	3.3%
Real Personal Income Growth	4.3%	1.9%	2.3%	3.3%	5.1%	-3.1%	2.8%
Total Employment Growth	17,300	23,500	21,800	15,900	(43,600)	25,500	18,400
Unemployment Rate	5.8%	4.9%	4.1%	3.8%	9.5%	8.2%	7.6%
Real Per Capita Income	3.4%	1.0%	1.6%	2.7%	4.5%	-2.0%	2.2%
Housing Permits	3,900	6,700	5,600	5,600	3,900	5,400	5,300
Median Listing Price ($)	313,300	323,300	344,100	363,100	410,400	321,600	348,100
Employment Growth by Sector							
Construction, Natural Resources & Mining	700	1,300	2,800	500	(1,800)	(400)	900
Manufacturing	1,400	-	300	(500)	(2,200)	(100)	600
Trade, Transportation and Utilities	6,400	13,100	9,400	6,200	2,600	2,400	6,100
Information	200	(100)	100	(200)	(100)	(100)	200
Financial Activities	800	(1,400)	(700)	900	(600)	900	600
Professional and Business Services	(4,200)	(300)	500	1,600	(6,600)	3,800	1,500
Education and Health Services	4,200	5,600	4,900	4,900	(2,400)	6,200	3,500
Leisure and Hospitality	3,200	3,600	1,800	1,000	(20,900)	10,200	2,600
Other Services	600	-	200	(300)	(4,200)	400	800
Government	4,000	1,700	2,500	1,800	(7,400)	2,200	1,600

San Diego County

Quick Facts	
Population*	3.3 Million
Prime Age %*	42.3%
Gross Domestic Product**	219.9 Billion
Median Income*	$34,307
Poverty Rate*	14.1%
Pre-Pandemic Unemployment Rate^	3.2%
Current Unemployment Rate^	9.0%

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	1.9%	3.3%	2.9%	2.9%	-1.9%	0.9%	2.6%
Real Personal Income Growth	2.4%	2.2%	3.8%	3.1%	5.5%	-4.5%	4.1%
Total Employment Growth	37,700	29,600	30,000	21,600	(102,800)	50,100	41,400
Unemployment Rate	4.7%	4.0%	3.4%	3.2%	9.0%	5.9%	4.2%
Real Per Capita Income	1.7%	1.8%	3.5%	2.9%	5.1%	-4.1%	2.7%
Housing Permits	10,800	10,400	9,800	8,200	5,000	4,500	6,600
Median Listing Price ($)	649,600	681,500	684,700	705,600	766,900	751,900	768,900
Employment Growth by Sector							
Construction, Natural Resources & Mining	6,400	3,300	4,200	400	(2,800)	1,900	900
Manufacturing	1,800	1,000	2,900	2,700	(4,300)	(1,000)	4,700
Trade, Transportation and Utilities	1,600	3,800	400	(1,100)	(15,800)	11,500	3,000
Information	(200)	200	200	(100)	(2,700)	2,300	800
Financial Activities	1,600	1,600	1,400	400	(2,200)	2,400	2,700
Professional and Business Services	5,200	4,300	9,900	7,600	1,500	11,500	7,400
Education and Health Services	6,000	5,600	4,600	7,100	(9,000)	6,000	1,900
Leisure and Hospitality	8,000	5,200	4,100	2,800	(46,100)	18,900	13,500
Other Services	1,200	600	500	300	(9,600)	1,700	900
Government	6,100	4,000	1,800	1,500	(11,800)	(5,100)	5,600

Ventura County

Quick Facts	
Population*	**847,000**
Prime Age %*	**39.2%**
Gross Domestic Product**	**49.7 Billion**
Median Income*	**$33,814**
Poverty Rate*	**11.6%**
Pre-Pandemic Unemployment Rate^	**3.6%**
Current Unemployment Rate^	**8.6%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	2.9%	1.8%	0.1%	2.3%	-2.6%	4.0%	3.4%
Real Personal Income Growth	1.5%	1.2%	2.9%	2.8%	5.5%	-2.5%	2.6%
Total Employment Growth	4,000	4,900	3,900	2,500	(21,800)	6,600	11,400
Unemployment Rate	5.2%	4.5%	3.8%	3.6%	8.6%	6.7%	5.8%
Real Per Capita Income	1.3%	1.1%	3.0%	3.0%	5.6%	-4.3%	1.7%
Housing Permits	1,600	2,600	1,200	1,100	700	700	900
Median Listing Price ($)	721,400	773,400	735,900	742,700	836,500	821,200	815,800
Employment Growth by Sector							
Construction, Natural Resources & Mining	300	1,100	1,100	300	(100)	100	300
Manufacturing	(200)	(100)	600	200	(2,200)	800	400
Trade, Transportation and Utilities	500	400	(400)	(1,000)	(5,600)	1,000	1,500
Information	(100)	-	-	(200)	(700)	400	300
Financial Activities	(300)	(500)	(500)	(600)	-	1,100	600
Professional and Business Services	400	1,300	800	1,500	(400)	200	3,100
Education and Health Services	1,500	1,500	1,800	1,300	(1,300)	1,800	2,000
Leisure and Hospitality	700	900	600	500	(6,600)	2,100	1,700
Other Services	-		(100)	200	(1,600)	(100)	100
Government	1,200	300	-	300	(3,300)	(800)	1,400

Santa Barbara County

Quick Facts	
Population*	**445,000**
Prime Age %*	**35.6%**
Gross Domestic Product**	**27.8 Billion**
Median Income*	**$29,657**
Poverty Rate*	**14.9%**
Pre-Pandemic Unemployment Rate^	**3.7%**
Current Unemployment Rate^	**8.2%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	-0.6%	2.9%	3.7%	2.4%	-2.5%	5.8%	4.5%
Real Personal Income Growth	-1.0%	2.0%	1.9%	2.9%	7.1%	-5.3%	3.8%
Total Employment Growth	800	1,600	2,000	3,600	(14,000)	7,700	4,700
Unemployment Rate	5.1%	4.5%	4.0%	3.7%	8.2%	7.0%	6.9%
Real Per Capita Income	-1.4%	1.8%	1.8%	2.8%	6.8%	-4.3%	1.8%
Housing Permits	800	1,300	900	1,200	1,700	1,000	2,300
Median Listing Price ($)	1,194,000	1,114,100	975,100	1,182,100	1,103,800	1,115,700	1,217,600
Employment Growth by Sector							
Construction, Natural Resources & Mining	100	100	700	100	100	(100)	-
Manufacturing	500	(300)	(300)	100	(400)	700	-
Trade, Transportation and Utilities	(300)	-	100	-	(2,000)	1,500	500
Information	100	(200)	(200)	-	(400)	300	100
Financial Activities	-	100	100	400	(100)	(200)	100
Professional and Business Services	(600)	-	800	900	(900)	1,300	1,000
Education and Health Services	900	700	100	900	(1,000)	900	1,100
Leisure and Hospitality	600	600	300	400	(6,100)	3,300	900
Other Services	100	-	100	300	(1,000)	-	300
Government	(600)	600	300	500	(2,200)	-	700

Imperial County

Quick Facts	
Population*	181,000
Prime Age %*	38.1%
Gross Domestic Product**	8.4 Billion
Median Income*	$18,245
Poverty Rate*	31.7%
Pre-Pandemic Unemployment Rate^	18.3%
Current Unemployment Rate^	22.2%

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	3.3%	2.2%	-1.8%	3.0%	-1.4%	2.8%	1.3%
Real Personal Income Growth	-0.7%	2.7%	-0.5%	1.4%	8.1%	-7.7%	6.1%
Total Employment Growth	300	1,300	600	900	(2,600)	1,200	700
Unemployment Rate	24.1%	19.5%	18.8%	18.3%	22.2%	21.9%	21.5%
Real Per Capita Income	-1.4%	2.0%	-0.5%	1.5%	8.0%	-8.7%	4.6%
Housing Permits	200	200	400	400	300	400	400
Median Listing Price ($)	253,900	259,200	261,900	269,700	280,400	289,100	298,300
Employment Growth by Sector							
Construction, Natural Resources & Mining	(700)	-	-	100	-	-	-
Manufacturing	100	200	100	200	200	(100)	(100)
Trade, Transportation and Utilities	200	200	(100)	(200)	-	400	200
Information	-	-	-	-	-	-	-
Financial Activities	(100)	-	-	(100)	-	-	-
Professional and Business Services	100	200	-	(100)	100	100	100
Education and Health Services	200	400	300	600	(1,000)	400	200
Leisure and Hospitality	200	-	(100)	100	(900)	100	100
Other Services	-	100	-	-	(100)	-	-
Government	300	200	400	300	(900)	300	200

Kern County

Quick Facts	
Population*	**888,000**
Prime Age %*	**39.5%**
Gross Domestic Product**	**50.7 Billion**
Median Income*	**$25,013**
Poverty Rate*	**28.6%**
Pre-Pandemic Unemployment Rate^	**7.8%**
Current Unemployment Rate^	**13.2%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

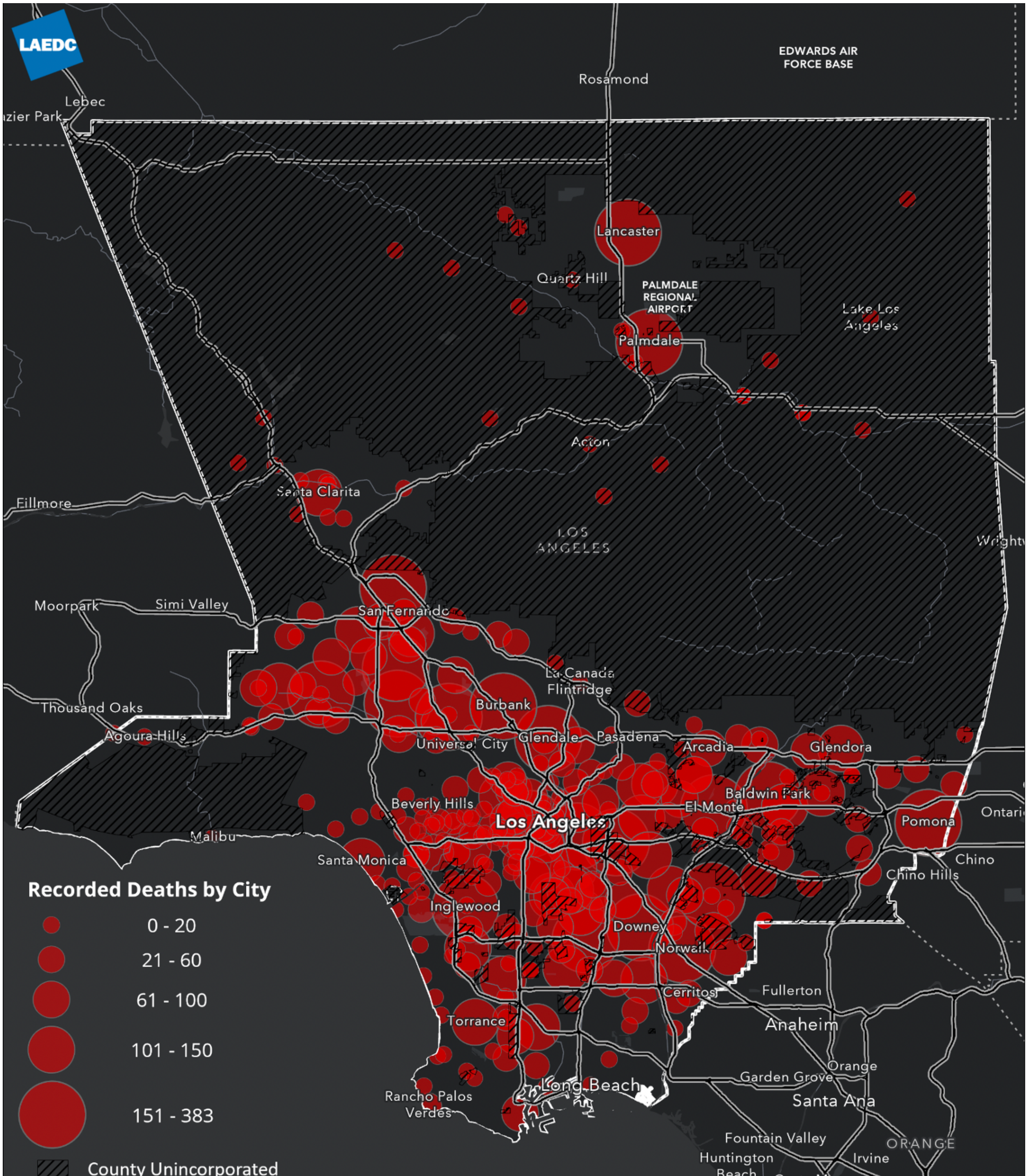
Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	2.2%	2.3%	-1.9%	4.4%	-1.8%	3.9%	1.7%
Real Personal Income Growth	-0.2%	1.0%	1.6%	2.9%	5.8%	-7.7%	6.3%
Total Employment Growth	(1,500)	3,300	7,700	6,200	(18,400)	7,400	9,700
Unemployment Rate	10.4%	9.2%	8.1%	7.8%	13.2%	11.4%	10.2%
Real Per Capita Income	-0.7%	0.3%	0.9%	2.1%	5.0%	-6.8%	3.6%
Housing Permits	2,300	2,600	2,500	2,300	1,400	1,700	1,600
Median Listing Price ($)	232,800	246,000	255,400	259,800	286,300	261,100	270,500
Employment Growth by Sector							
Construction, Natural Resources & Mining	(4,400)	-	1,700	600	(1,400)	(900)	1,300
Manufacturing	(600)	(200)	(200)	(300)	(700)	(900)	600
Trade, Transportation and Utilities	400	500	1,700	(700)	(3,600)	2,100	2,400
Information	(500)	(100)	-	(100)	(300)	200	100
Financial Activities	(200)	(100)	(100)	(100)	-	300	200
Professional and Business Services	(300)	(300)	1,100	1,400	(1,400)	600	1,100
Education and Health Services	1,400	1,600	1,700	2,600	(2,200)	1,800	1,500
Leisure and Hospitality	400	400	800	800	(6,200)	3,000	2,300
Other Services	-	100	200	400	(1,300)	200	200
Government	2,300	1,400	800	1,600	(1,300)	1,000	-

San Luis Obispo County

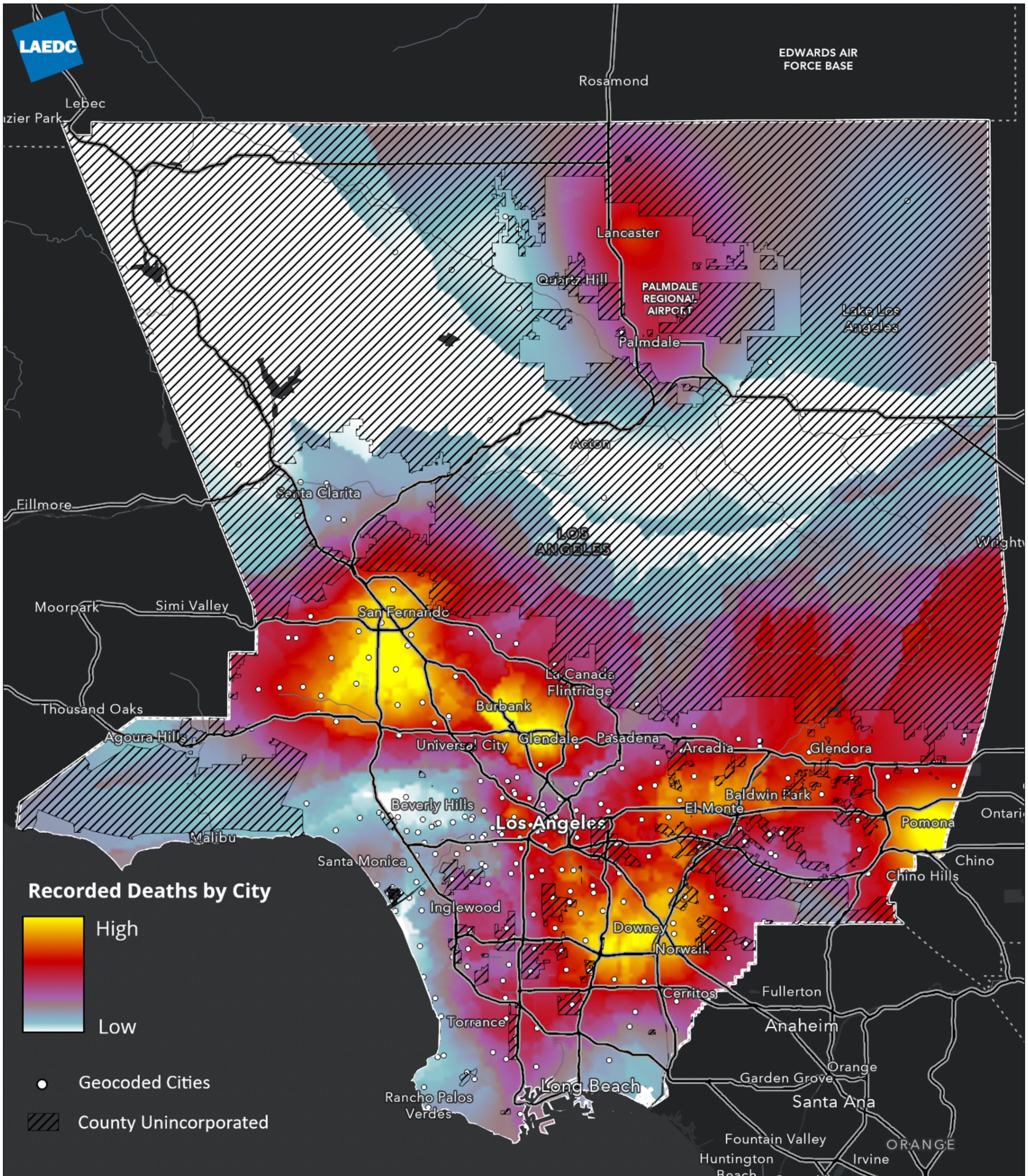
Quick Facts	
Population*	**282,000**
Prime Age %*	**33.6%**
Gross Domestic Product**	**16.1 Billion**
Median Income*	**$31,938**
Poverty Rate*	**9.7%**
Pre-Pandemic Unemployment Rate^	**2.9%**
Current Unemployment Rate^	**7.7%**

Source: *ACS 2019, **Bureau of Economic Analysis, ^Bureau of Labor Statistics

Economic Metrics	2016	2017	2018	2019	2020	2021f	2022f
Real GDP Growth	3.1%	1.7%	2.5%	2.0%	-4.5%	2.2%	3.1%
Real Personal Income Growth	1.6%	3.1%	2.5%	2.5%	6.2%	-4.4%	4.1%
Total Employment Growth	2,600	2,500	1,700	2,100	(11,500)	4,200	4,100
Unemployment Rate	4.3%	3.6%	3.0%	2.9%	7.7%	6.7%	6.1%
Real Per Capita Income	1.1%	2.8%	2.2%	2.5%	6.1%	-3.7%	1.4%
Housing Permits	900	1,100	1,000	1,100	900	1,200	1,000
Median Listing Price ($)	690,600	734,300	744,100	728,000	781,600	734,300	756,900
Employment Growth by Sector							
Construction, Natural Resources & Mining	400	300	400	300	(700)	100	-
Manufacturing	-	300	500	100	(1,100)	100	200
Trade, Transportation and Utilities	200	-	(100)	(200)	(1,300)	(200)	800
Information	(100)	-	-	-	(100)	(100)	-
Financial Activities	(100)	100	-	-	(100)	-	100
Professional and Business Services	400	200	200	400	(700)	1,200	600
Education and Health Services	500	500	300	600	(700)	800	700
Leisure and Hospitality	1,000	600	200	700	(4,600)	1,800	900
Other Services	-	200	-	100	(600)	200	500
Government	300	300	200	100	(1,600)	300	300



Los Angeles County: COVID-19 Deaths by City



Los Angeles County: COVID-19 Deaths by City

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