



*13TH ANNUAL SOUTHERN CALIFORNIA*

# **ECONOMIC SUMMIT**

*RESOURCING THE REGION*

**REGIONAL BRIEFING BOOK**

DECEMBER 2022

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## Executive Summary

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As 2022 draws to a close, the SCAG region, composed of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties, is in a post-pandemic recovery, with business activity and labor markets rebooting as the COVID-19 pandemic subsides. In 2022, the SCAG region saw significant growth in employment, income, tourism, home building, infrastructure and new development. The region's labor markets are booming, ending the year with unemployment at historical lows. However, the region, as much of the world, faces economic and political uncertainty and high inflation, with annual inflation at 7.9 percent in Southern California as of September.

Overall, economic growth was stellar in the SCAG region in 2022. The post-pandemic jobs recovery combined with new labor market opportunities, was unprecedented. Unemployment rates have fallen sharply, and unfilled jobs remain a major challenge for employers, which led to wage increases. Labor productivity, measured as per capita gross domestic product (GDP), increased by 7.6 percent in 2022 in the region, after a 6.5 percent growth in 2021. SCAG industry as continued to grow in core industries, including information, transportation and warehousing, and leisure. Investment dollars in commercial and industrial buildings are on pace to rival the record years of 2018 and 2019. The 2022 pace of multi-family unit permits in the region remains at a historical high. Development projects include the modernization of several LAX terminals, downtown Los Angeles high-rise construction, 405 freeway expansion in Orange County, and housing projects in Coachella Valley.

Despite these strengths, the regional economy is closely linked to the national and global economies. Historic inflation has impacted the region in several ways. Southern California home sales were down 32 percent on a year-over-year basis and trending toward the lowest annual sales since the Great Recession of 2008. Taxable sales are decreasing, suggesting lower consumption. Although real wages increased during the pandemic, they have not been able to sustain this same level of purchasing power over the last year amid soaring inflation.

The aggressive monetary policy aimed at cooling inflation has thus increased the risk of a recession. In the SCAG region, warning signs of a weakening economy are beginning to emerge. For example, inbound container traffic through the Ports of Los Angeles and Long Beach decreased by 18 percent year-over-year. Nevertheless, the SCAG region could engineer its own soft landing by leveraging the region's strengths to offset the impact of a recession.

The goal of this Regional Briefing Book is to provide a comprehensive understanding of the economic landscape and environment within the SCAG region, which we present in Chapter 1. The Briefing Book also aims to highlight strategies to best leverage regional competitive advantages to further accelerate regional growth. Chapter 2 proposes a framework for creating a business-friendly climate in the region while considering equity and the environment. Finally, this Briefing Book includes snapshots of all six SCAG counties, analyzing their economic performance and expert outlooks.

For well over a decade, SCAG's team of independent economists from each of the region's six counties and in labor, equity and sustainability specialty areas have collaborated with SCAG staff to produce analyses of key trends impacting the region, pooling their expertise, and reporting on a broad range of economic issues from housing affordability and availability to continued economic growth and job creation. This team was reconstituted as SCAG's Economic Roundtable in 2022. The Roundtable will meet quarterly and discuss issues of import, with new data and findings regularly reported in SCAG's forthcoming SoCal Economic Trends Tool.

# 1. SCAG Region Economy & Outlook

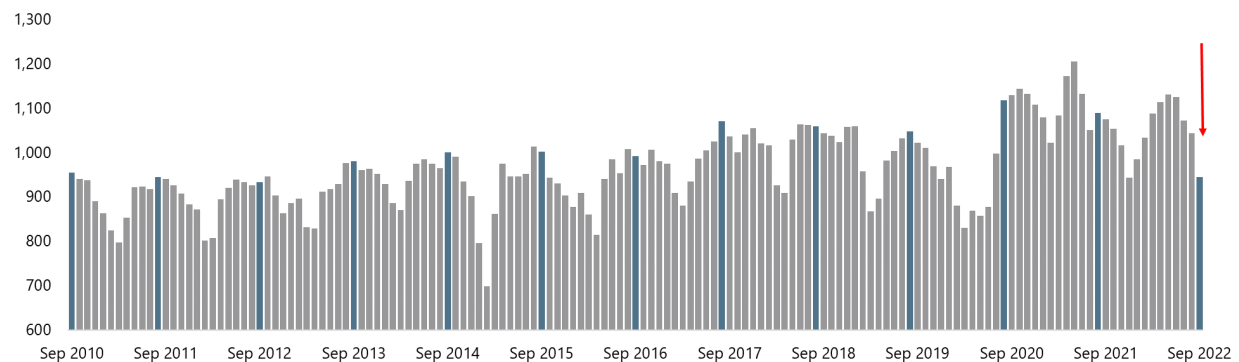
## OVERVIEW: STATE OF THE SCAG REGION ECONOMY

The SCAG region's economy in 2022 can be broadly characterized as an economy in post-pandemic recovery, with business activity and labor markets rebooting. The emergence of the Omicron BA.2 variant in December 2021 was the most severe wave of COVID-19 in terms of transmission. Subsequent waves have been less severe in terms of mortality and have had less impact on interpersonal interaction and economic activity. Consequently, 2022 has been a year of significant growth in employment, income, tourism, home building, infrastructure and new development.

For most of 2022, there was not much evidence of economic weakening arising from the historic inflation plaguing the global economies, aggressive monetary tightening from the Federal Reserve and collapse of stock market valuations in the financial markets. However, more recently, warning signs of a weakening economy are beginning to emerge. For example, September 2022 inbound container traffic through the Ports of Los Angeles and Long Beach decreased by 18 percent on a year-over-year basis (**Exhibit 1**). September container traffic typically peaks around this time for the holidays.

### Exhibit 1 Total Container Traffic at the Ports of Los Angeles & Long Beach, Sept 2010–Sept 2022

*Thousands of Containers (Inbound and Outbound)*

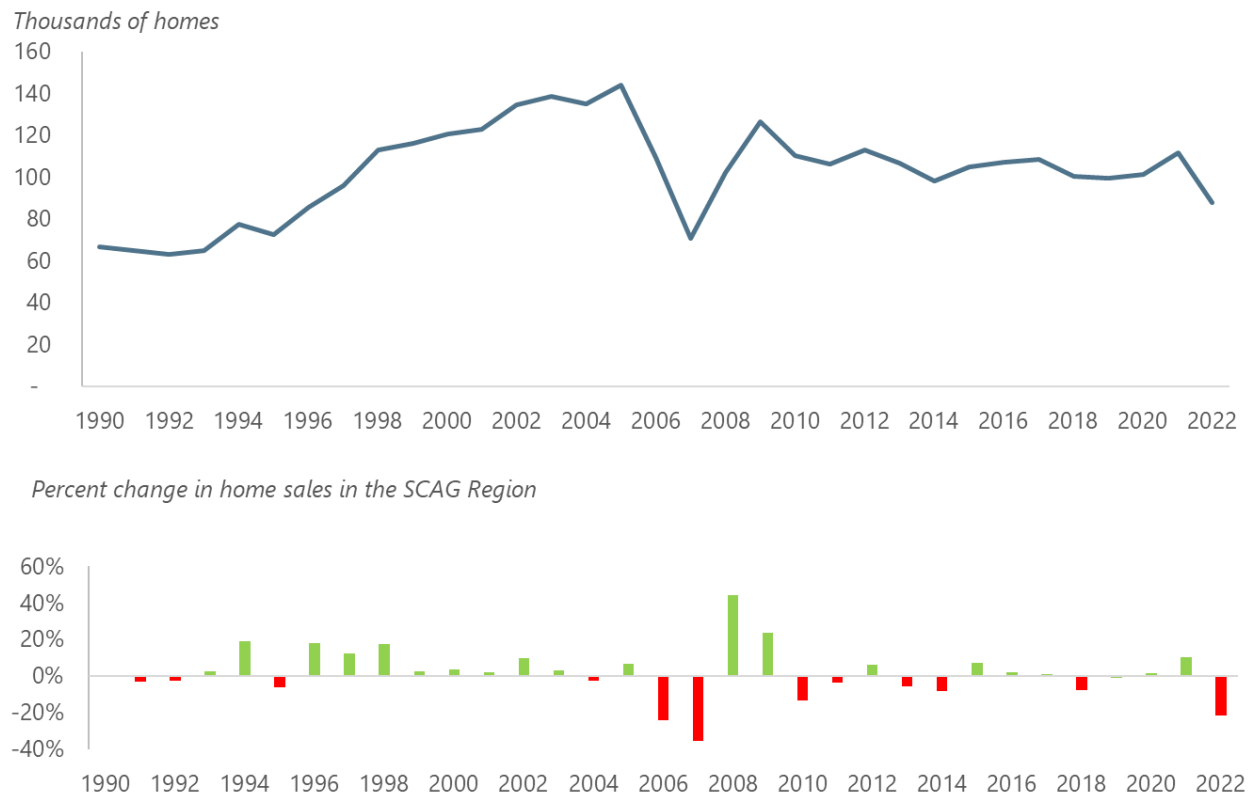


Port of Los Angeles Container Statistics and Port of Long Beach Container Statistics.

As a result of high mortgage rates, the pace of home sales this year has slowed significantly. In September 2022, Southern California home sales were down 32 percent on a year-over-year basis and trending toward the lowest annual sales since the Great Recession of 2008 (**Exhibit 2**). Ultimately, this will result in lower employment in the real estate sector; however, there is little evidence today of job attrition in this sector.



## Exhibit 2 Home Sales in the SCAG Region, 1990-2022

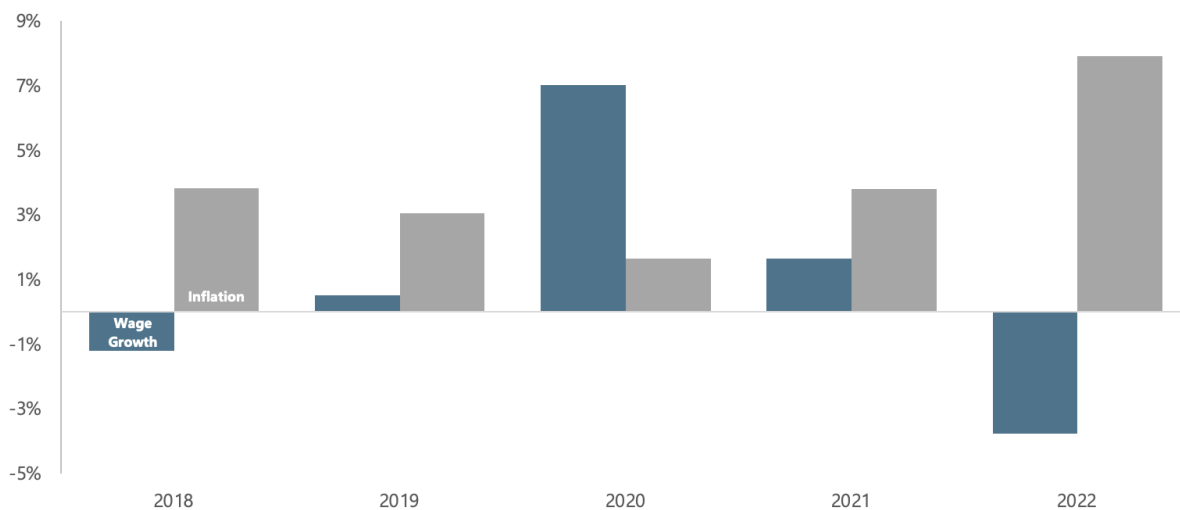


Source: California Association of Realtors

## IMPACTS OF INFLATION ON THE REGION

The regional inflation rate, measured by the percent change in the consumer price index for the Los Angeles-Long Beach-Anaheim metropolitan area, peaked in June 2022 at 8.6 percent (year-over-year), the highest in 40 years. The regional impact of inflation parallels the impacts observed nationally, with food and energy prices at historic highs. The SCAG region is particularly affected by record-high prices for new and used vehicles because the SCAG region relies heavily on single-occupancy commuting. Moreover, the region has among the highest prices for both home purchases and rental housing in the nation.

Real wages are in decline in the SCAG region and have not kept pace with inflation (**Exhibit 3**). Based on the Quarterly Census of Employment and Wages for First Quarter 2022, annualized 2022 wages are expected to decrease by 3.8 percent to \$74,000 from \$77,000 in 2021. Relative to 2021, inflation is expected at 7.9 percent in 2022. Although wages saw a 7 percent increase in 2020 from 2019, wages have not been able to sustain this same level of purchasing power over the last year amid soaring inflation.

**Exhibit 3 Growth in Real Average Annual Wages in the SCAG Region & Inflation, 2018-2022***Annual Percent Change from Previous Year*

Source: QCEW Census of Employment and Wages and Bureau of Labor Statistics, 1Q2022. Annualize real wages for 2022 assume growth equal to 1Q2022 year-over-year growth.

Real taxable sales for the most recent reporting quarter turned negative, providing further evidence that consumer purchasing power is in decline. **Exhibit 4** shows that real consumer retail spending this year was increasing in the second quarter of 2021 but started a decline in fourth quarter 2021 and became (slightly) negative in second quarter 2022. This decline reflects the impact of inflation, and the contraction in real consumer spending is likely to continue into next year.

Adjusted for inflation, taxable sales in the region decreased by 0.2 percent on a year-over-year basis. Year-over-year, second quarter 2022 nominal spending increased 8 percent. The high inflation today has entirely offset this increased spending on retail goods and services.

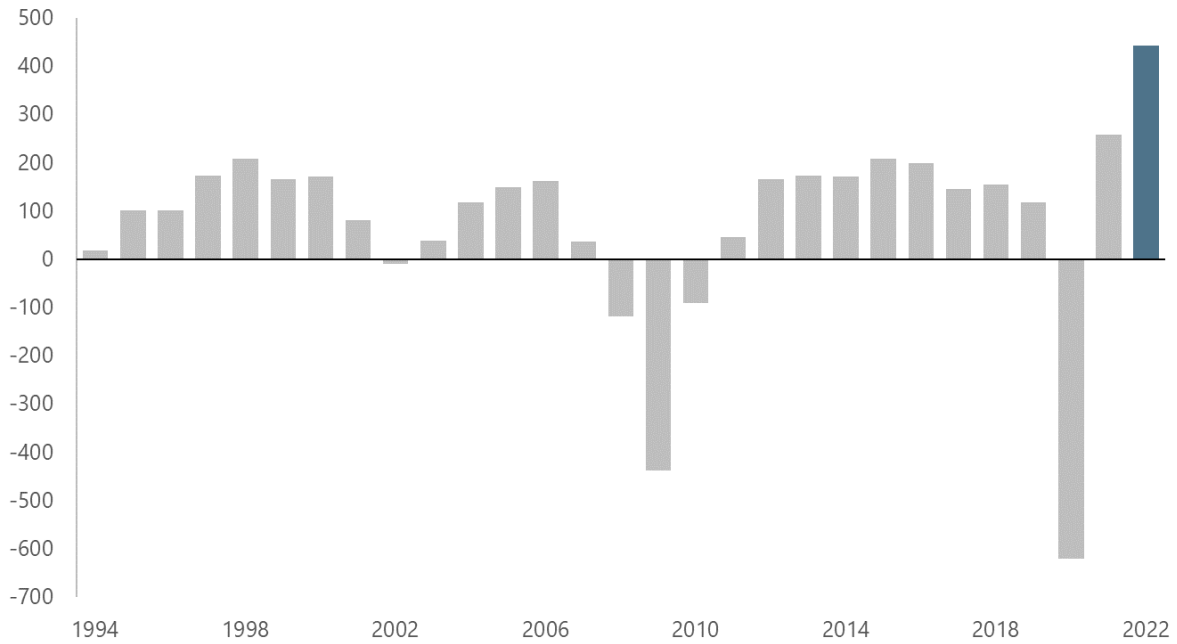
The decline in real wages is indicative of the general economy of California and the nation. Inflation erodes the household's ability to purchase goods and services, which leads households to purchase fewer goods, and along with the monetary tightening, may ultimately result in lower production of those goods or services. The decreased demand will also lead to lower employment and household income.

### LABOR MARKETS & THE JOBS RECOVERY

Job creation in the SCAG region has been stellar in 2022 as employment returned to pre-pandemic levels. The pace of job creation will generate 443,000 jobs in the SCAG region — an historical record for single-year employment growth (**Exhibit 4**). Furthermore, the employment surge includes a recovery of jobs in the devastated leisure and hospitality sector, which was shuttered in the spring of 2020 during the stay-at-home orders to protect human health. Business was curtailed intermittently during much of 2020 and the first 6 months of 2021 as the region and the world coped with COVID-19.

**Exhibit 4 Jobs Created in the SCAG Region, 1994-2022**

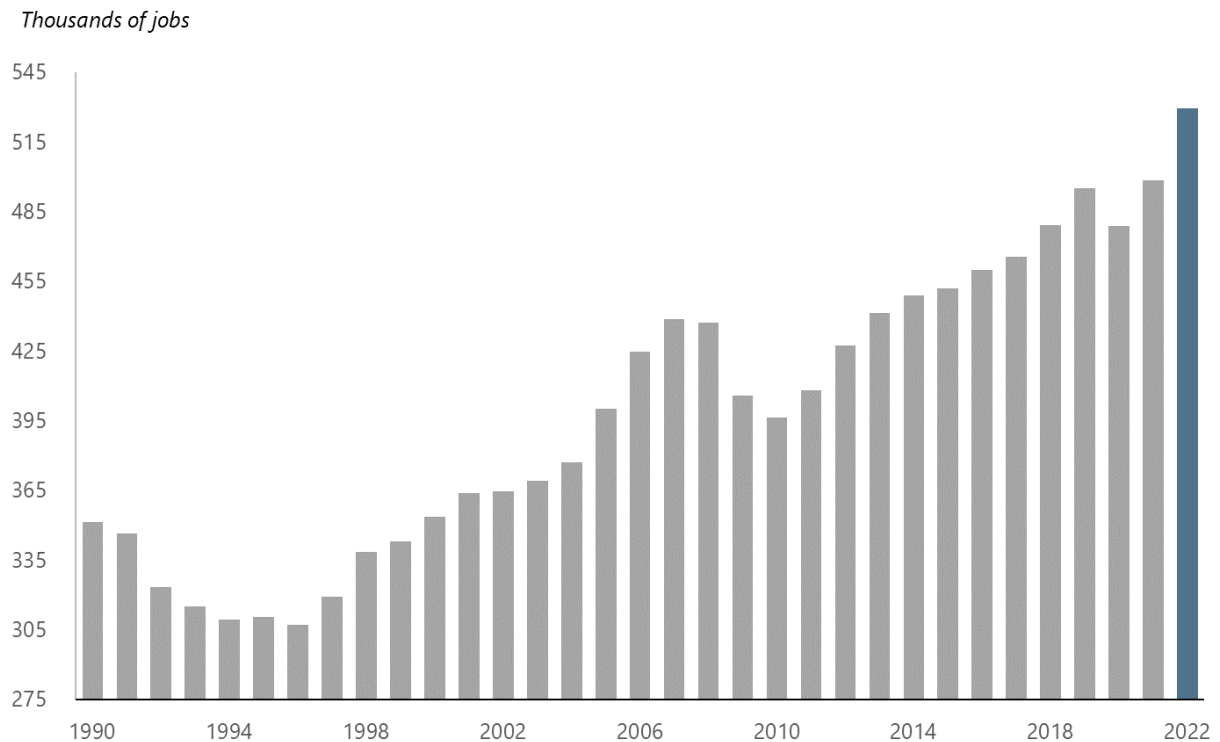
*Thousands of jobs*



Source: California Employment Development Department (EDD), Employment by Industry Data (monthly), September 2022

Strong demand for professional and technology jobs has fueled growth in the region, particularly in Los Angeles and Orange Counties. Employment in the professional, technical and scientific services has soared this year, rising 6.1 percent over 2021 and recording the largest percentage increase in jobs since 2002 (**Exhibit 5**).

## Exhibit 5 Employment in Professional, Scientific & Technical Consulting in the SCAG Region



Source: California Employment Development Department (EDD), Employment by Industry Data (monthly), September 2022

### JOB CREATION BY SECTOR

During 2022 employment increased in all sectors except Mining and the federal government, contributing to aggregate employment gains in the SCAG region (**Exhibit 6**). As of September 2022, total employment in the SCAG region was at 8 million wage and salary jobs. The 6.3 percent growth in wage and salary jobs is the largest single-year increase since records have been kept. While many jobs represent a restoration of positions temporarily lost due to the pandemic, other sectors have exceeded restoration levels, resuming their pre-pandemic growth trajectory.

**Exhibit 6 Wage & Salary Employment by Sector in the SCAG Region, 2021 & 2022**

<b>Industry/Sector</b>	<b>2021</b>	<b>2022</b>	<b>Percent Change</b>
<i>---- thousands of jobs ----</i>			
Total All Industries	7,848	8,341	6.3
Total Farm	54	56	2.0
Total Nonfarm	7,793	8,285	6.3
Natural Resources and Mining	4	4	-1.4
Construction	379	388	2.3
Manufacturing	582	599	2.9
Durable Manufacturing	372	382	2.6
Wholesale Trade	358	366	2.1
Retail Trade	767	793	3.4
Transportation, Warehousing, and Utilities	452	491	8.5
Information	251	284	13.2
Financial Activities	389	387	-0.3
Professional and Business Services	1,165	1,221	4.8
Educational and Health Services	1,388	1,448	4.3
Leisure and Hospitality	804	1,005	24.9
Other Services	234	265	13.3
Federal Government	90	89	-1.1
State and Local Government	930	962	3.4

Source: California Employment Development Department (EDD), Employment by Industry Data (monthly), September 2022.

The Transportation and Warehousing sector grew significantly in 2022. Inland Empire transportation and warehousing are only 3.2 percent of SCAG region total jobs today, but growth in this sector in this subregion reflect 12.7 percent of the entire SCAG region's increase in jobs since 2012. Over 63 percent of the jobs in this sector are in Riverside and San Bernardino Counties, as millions of square feet of warehouse and distribution space have opened to support the rapidly expanding logistics industry.

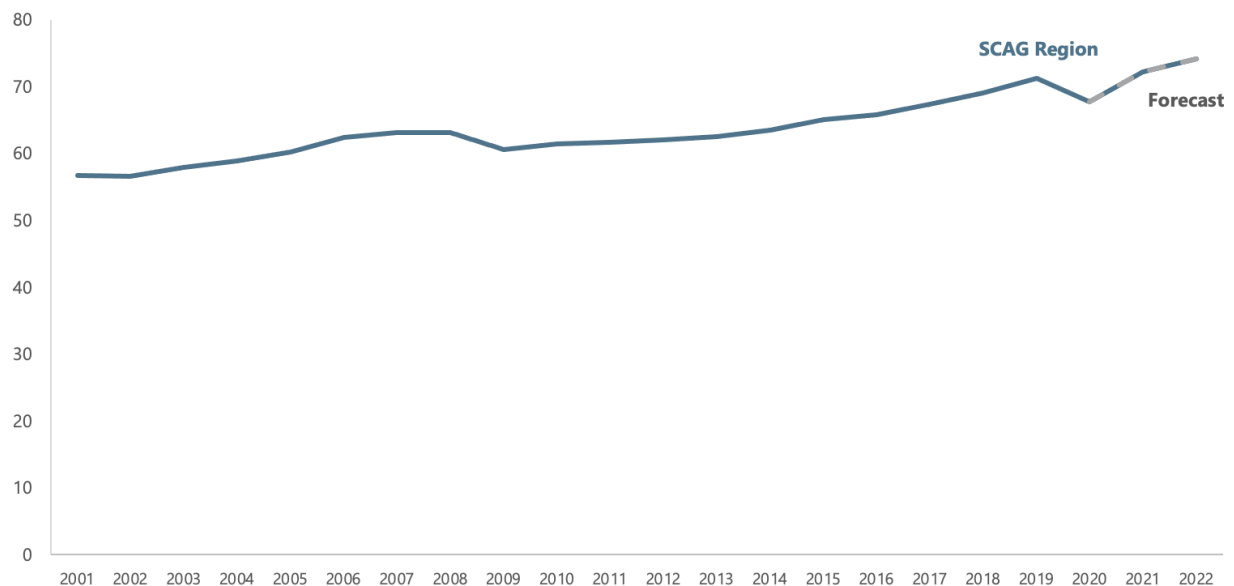
Distribution and warehousing space and attendant employment has dominated new industrial development throughout the region. The rapid onset of e-commerce has transformed the need for retail space into fulfillment centers. Amazon has been the dominant company in building new facilities throughout Southern California, but Wal Mart, Lowes and Costco are also active in this space.

Overall growth in output can be measured in terms of gross domestic product (GDP) for the region. Record employment levels occurring during 2022 in the SCAG region are the principal

reason why GDP per capita is forecast to rise 7.6 percent this year, a meaningful increase over last year when gross product per person jumped 6.5 percent (**Exhibit 7**). Gross domestic product per capita is the broadest measure of economic growth and demonstrates succinctly how significant 2022 was for economic activity in the SCAG region.

### Exhibit 7 Per Capita Gross Domestic Product (GDP) in the SCAG Region, 2001-2022

Thousands of 2022 U.S. dollars



Based on REMI Transight model. Data for 2001-2021 are actuals from the Bureau of Economic Analysis. GDP for 2021- 2022 forecasted using REMI model.

## LABOR FORCE & UNEMPLOYMENT

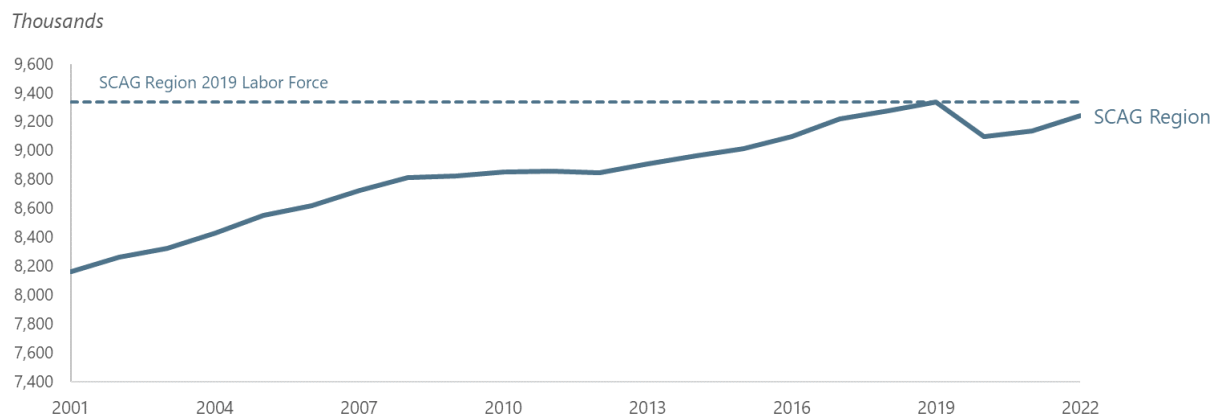
The September 2022 unemployment rate of 4.3 percent represents a full recovery from the pandemic recession of 2020 and an extraordinarily tight labor market in the Counties of Orange and Ventura, and the Inland Empire. In view of the thousands of open job positions in the region, it will take months before the labor market loosens enough to result in layoffs and rising unemployment rates as the economy weakens. Consequently, serious labor market impacts are not forecasted for 2023 in the SCAG region.

Two important concepts for understanding the labor market are labor force participation and the labor force participation rate. The labor force is the number of people age 16 and older who are working or actively looking for work. The labor force participation rate is the percentage of the population age 16 and older who are part of the labor force. Both the labor force and the labor force participation rate were disrupted during the COVID-19 pandemic because people left the labor force due to illness, death or COVID-19 mitigation policy.

While labor force participation has been restored in the Inland Empire, the total number of residents looking for work or working has not returned to pre-pandemic levels in Los Angeles,

Ventura, Orange and Imperial Counties. The SCAG region labor force remains slightly below pre-pandemic levels (**Exhibit 8**), which is not surprising given the excess deaths due to COVID-19, the reduction in international immigration to the region and migration out of the region.

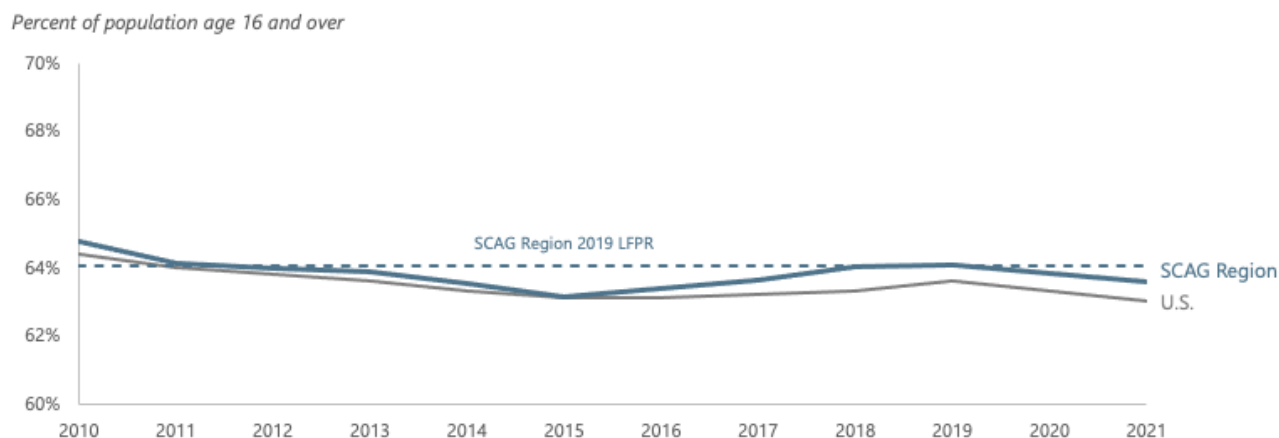
**Exhibit 8 Labor Force in the SCAG Region, 2001-2022**



Source: California Employment Development Department (EDD), Employment by Industry Data (annual), September 2022. Count for 2022 estimated based on data through September 2022.

The labor force participation rate (LFPR), which measures the percentage of the working-age population in the labor force, is only half a percentage point below the 2019 rate (**Exhibit 9**). In other words, labor force participation has fully recovered since the pandemic in the SCAG region. Moreover, the labor force participation rate in the SCAG region has historically been approximately 1 percentage point higher than the U.S. Combined with high demand in the region, this results in tight labor markets.

**Exhibit 9 Labor Participation Rate in the SCAG Region & the Rest of California, Workers Age 16 & Over**

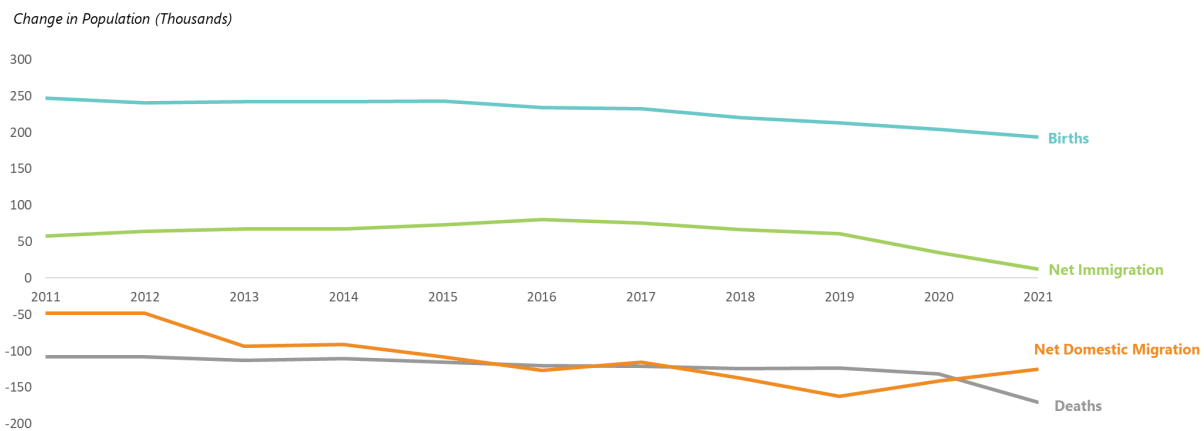


Source: U.S. Census Bureau, 2010-2019 and 2021 American Community Survey 1-year Samples, Table S2301.

## DEMOGRAPHICS

While the SCAG region’s population increased modestly over the last decade, it has been decreasing since the pandemic began in 2020. The region’s population continued to decline in 2021 and so far in 2022, but less steeply (**Exhibit 10**). There are several causes.

### Exhibit 10 Population Change in the SCAG Region, 2011 to 2021



Source: State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year — July 1, 2010–2021, December 2021

In 2021, California received fewer than a third as many foreign immigrants as it had been averaging during the 2010s, removing a major source of population and labor force growth from the region. Excess deaths associated with the pandemic also contributed to the population decline. The region’s fertility rates have also been in decline since the mid-2000s with the result being that natural increase contributed very little to the region’s population change in 2021.

In addition, while net domestic migration fluctuates based on economic cycles and relative housing cost, Southern California has lost more people to other parts of the state and nation than it has gained for 28 of the last 30 years (**Exhibit 11**). This trend has been more pronounced in the region since the mid-2010s and resulted in an even greater population loss during 2020 and 2021 as home price increases and work-from-home flexibility influenced household migration decisions. Evidence from address change data suggests a substantial, but not record-setting, level of out-migration during the peak of the pandemic in 2020–2021. This bump in net outflow, which was far more pronounced in Los Angeles County, subsided during late 2021 and early 2022 though the outflow still exceeds pre-pandemic levels<sup>1</sup>.

While the recent population decline has been exceptional, long-term trends alone predict a slow or no growth future for the region’s population especially as the large baby boomer cohort enters old age. This trend is more pronounced in the SCAG region than statewide, and more

<sup>1</sup> For additional detail, see Kane 2022. Three Stories about California Migration, SCAG-USC 33rd Annual Demographic Workshop, <https://scag.ca.gov/sites/main/files/file-attachments/091422-dw-kane.pdf>.



concentrated in the cores of the Bay Area and Los Angeles County than elsewhere. While in-migrants to the SCAG region tend to have higher education levels and earning potential, out-migration, which is larger in magnitude, can be largely attributed to household overcrowding and housing cost.

Not addressing this issue will make regional job growth increasingly challenging, with the potential for an increasing divide between those who can and can't afford housing. Out-migration is just one response to high costs—other more problematic responses include overcrowding, residential displacement and even homelessness. While a shrinking population could have benefits, such as lower crowding in housing and public facilities, road congestion and carbon emissions, the declining trend in K-12 school enrollment is also a risk to the largest public sector employment category in the state.

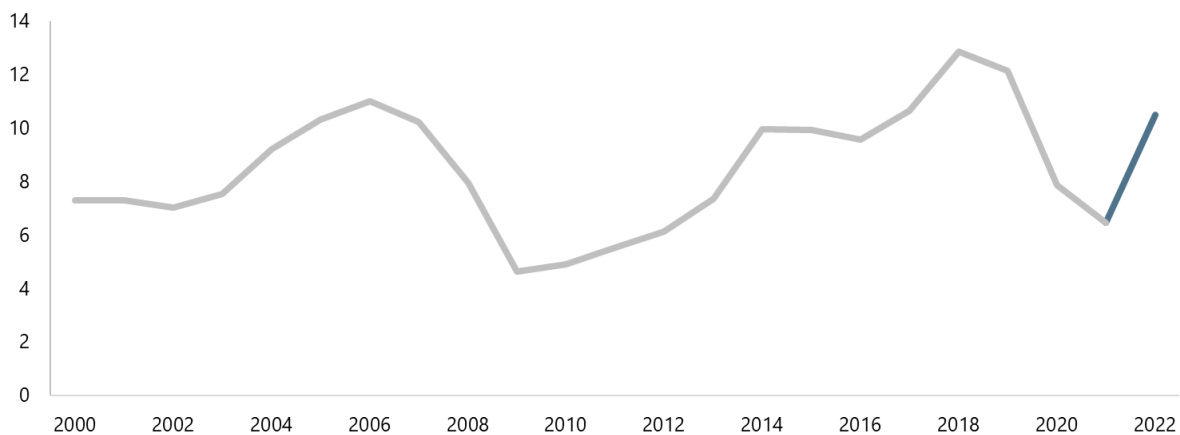
### Exhibit 11 SCAG Region & County Population 2010 & 2022

County	2010	2022	Percent Change
	----- (millions) -----		
Imperial County	0.17	0.18	2.8%
Los Angeles County	9.82	9.86	0.4%
Orange County	3.01	3.16	5.0%
Riverside County	2.19	2.44	11.2%
San Bernardino County	2.04	2.19	7.5%
Ventura County	0.82	0.83	1.3%
SCAG Region	18.05	18.66	3.4%
California	37.25	39.19	5.2%

Source: California Department of Finance Report E4 (2011-2020) and E5 (2021-2022).

## A PRINCIPAL ENGINE OF GROWTH: NEW DEVELOPMENT

The development of commercial, industrial and residential buildings in the region is a key engine of growth. Development in the region that has already been contracted and financed is not likely to be impacted by inflation. Investment dollars in commercial and industrial buildings are on pace to rival the record years of 2018 and 2019. The 2022 pace of multi-family unit permits in the region remains at an historically high level (**Exhibit 12**).

**Exhibit 12 Value of Total Non-Residential Building Permits in the SCAG Region, 2000-2022***Billions of Current Dollars*

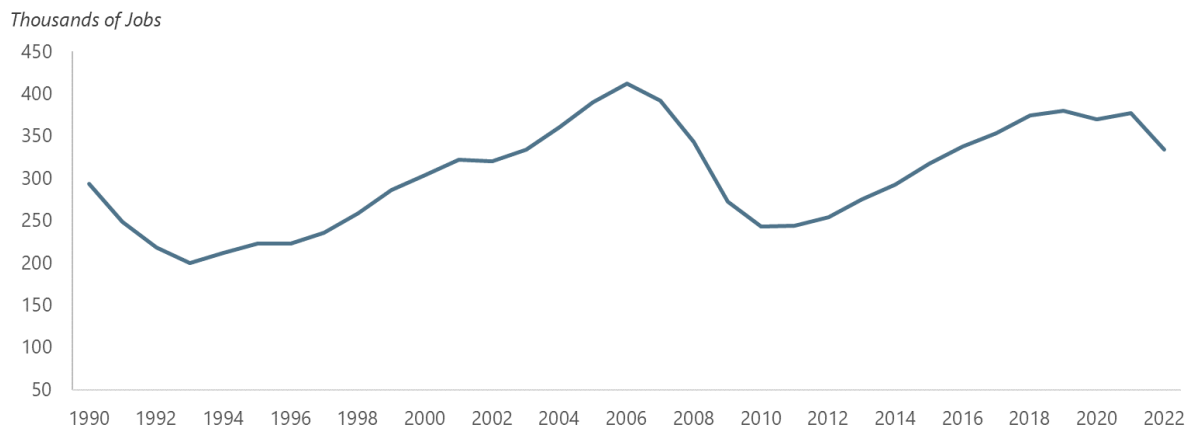
Source: CIRB January 2020 - September 2022.

Notable infrastructure projects in Los Angeles County include terminal modernization and the new people mover at LAX. Notable infrastructure projects in Orange County are the 16-mile 405 freeway widening and overpass improvement projects. In addition, development of warehouse and distribution space in Riverside and San Bernardino Counties will create thousands of jobs over the coming decade. Two large solar projects are now operating in the Anza Borrego Desert of Imperial County, and three additional massive solar farm projects are currently in the entitlement process. Also, in Imperial County are plans for covering the exposed shoreline of the Salton Sea with alternative energy projects including solar arrays, algae farms and solar gradient ponds. These projects are indicative of a strong development environment statewide.

Downtown Los Angeles high-rise development, including thousands of apartments and mixed-use office and commercial buildings, is substantially modernizing the landscape of the city's inner core. The most notable project at this time is the one-billion-dollar development called "The Grand" scheduled to open in early 2023.<sup>2</sup> There are more than 10,000 homes approved or in planning in La Quinta, Palm Springs, Palm Desert and Rancho Mirage. There is a major development of hotels in Orange County, and Disney is planning a large expansion of its amusement/resort enterprise. Two of the largest housing projects in the region are underway in the City of Santa Clarita and San Bernardino County.<sup>3</sup>

<sup>2</sup> The Grand includes 176,000 square feet of upscale retail space anchored by restaurants and a movie theater complex, a 309-room hotel and 436 luxury apartments.

<sup>3</sup> The Valencia project by Fivepoint is planned for 21,400 homes and the master planned community called Tapestry, located in Hesperia, will accommodate 15,663 homes and 700,000 square feet of retail and commercial space.

**Exhibit 13 Employment in the Construction Sector in the SCAG Region, 1990-2022**

Source: California Employment Development Department (EDD), Employment by Industry Data (annual); 2022 annualized based on previous 12 months.

The extent of this surge in building activity has generated a 15-year high in construction employment (**Exhibit 13**). A principal problem within the SCAG region and California is filling construction job openings. Even with the sharp rise in lumber, concrete and steel prices in 2022, there is no discernible slowdown in construction employment. Historically, demand for labor during construction booms was partially satisfied with foreign immigration. Thus, the recent and continued decline in foreign immigration poses a challenge to filling construction positions.

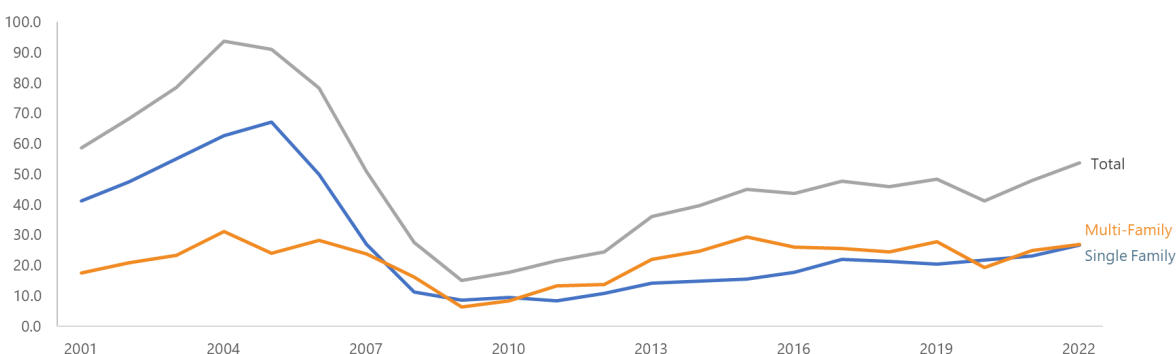
## HOUSING

The pace of all new housing starts in 2022 — both single-family detached, attached and apartment units — is the highest since 2006 (**Exhibit 14**). Despite sharply higher mortgage rates, a meaningful impact on new housing activity is not noticeable yet, though a slowdown is probably inevitable as rising interest rates exclude many potential buyers from the mortgage loan process. The impact is clearly visible on the existing home market; sales have declined sharply in 2022 in tandem with escalating rates. Sales during 2022 are 35 percent lower than the volume of sales in the region during 2021.

**Exhibit 14 New Residential Units from Building Permits Issued in the SCAG Region, 2001-2022**

New Residential Units from Building Permits Issued in the SCAG Region, 2001-2022

Thousands of units



Notes: Computed from CIRB Building Permits data. Counts for 2022 are annualized based on historical monthly CIRB data.

However, the response of prices has not been clear. While median sales prices have generally moved lower since March 2022, the extent of their decline is modest compared to the exceptional growth seen last year (**Exhibit 15**). Furthermore, the lower median reported value may only reflect an increasing distribution of lower priced homes that are selling, rather than a clear decline in the value of a home.<sup>4</sup>

**Exhibit 15 Median Sale Price of Single-Family Homes in the SCAG Region Over Past Year & Past Six Months**

Region	Change in Home Values Over Past Year			Change in Home Values Over Past 6 Months		
	2021	2022	Percent Change	March 2022	September 2022	Percent Change
Imperial	323,929	382,902	18.2%	359,265	407,038	13.3%
Los Angeles	771,858	838,868	8.7%	781,050	891,770	14.2%
Orange	1,089,282	1,276,937	17.2%	1,305,000	1,200,000	-8.0%
Riverside	557,783	639,551	14.7%	620,000	600,000	-3.2%
San Bernardino	424,908	485,901	14.4%	475,000	480,000	1.1%
Ventura	819,938	910,318	11.0%	914,000	850,000	-7.0%

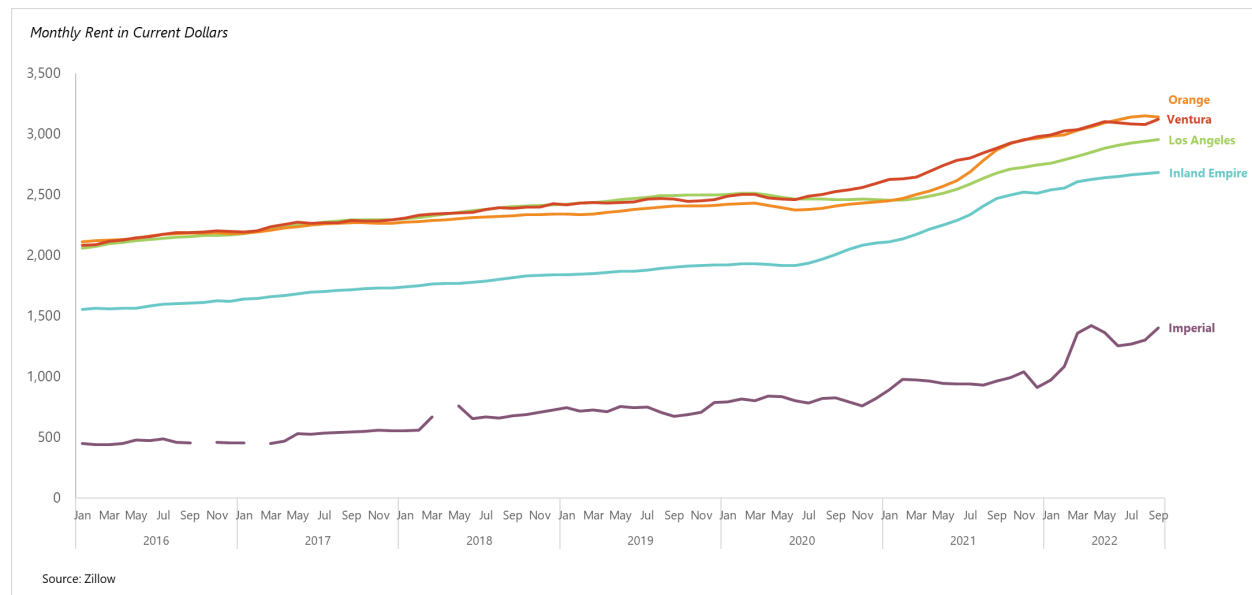
Sources: California Association of Realtors for all counties except Imperial and Zillow for Imperial County. Data for 2022 through September 2022.

<sup>4</sup> The September median value for Los Angeles County as reported was a record high value. There has been no discernable softening of home selling values observed in the aggregate for Los Angeles County

## RENTAL MARKET

Rents over the past year have soared, rising 10 percent in Orange and Los Angeles Counties, 9 percent in the Inland Empire and 8 percent in Ventura County.<sup>5</sup> The September values represent the highest rents ever recorded in the SCAG region counties (**Exhibit 16**).

**Exhibit 16 Average Monthly Rental Prices in the SCAG Region, 2016-2022**



Rising rents of this magnitude are driven by high occupancy. According to RentCafe, vacancy rates during the first 6 months of 2022 continue to tighten further, due largely to the substitution of rental apartments for home purchases.<sup>6</sup> Rental vacancy rates within the SCAG counties vary from 2.5 percent in Orange County to 4.4 percent in western Los Angeles County according to RentCafe. According to the US Census Bureau, nationwide rental vacancy averaged 5.8 percent in 2022 and 7.2 percent over the prior decade while California's rental vacancy averaged 4.2 percent over the last decade. Low vacancy rates and rising rents are a clear signal for more residential construction. Hence, the surge in new apartment production in the region this year.

Additionally, state legislation that streamlined and promoted Accessory Dwelling Unit (ADU) production over the past several years is starting to drive results. According to a newly developed data source from the state Department of Housing and Community Development, SCAG region ADU permitting increased from 5,429 units in 2018 to 11,110 in 2021. SCAG's preliminary regional growth projection shows a decrease in household size from 2.99 in 2019 to

<sup>5</sup> According to monthly rental price information by county from Zillow. See: <https://www.zillow.com/research/data>

<sup>6</sup> Rentcafe.com, "The Most Competitive Rental markets in 2022 . . . "

2.64 in 2050 — a trend that could result in smaller units being a larger share of the future housing stock<sup>7</sup>.

## ECONOMIC OUTLOOK FOR THE SCAG REGION

Overall, economic growth was stellar in the SCAG region in 2022. The post-pandemic jobs recovery combined with new labor market opportunities was unprecedented. Unemployment rates have fallen sharply, and unfilled jobs remain a major challenge for employers. This has led to wage increases; however, they have been roughly equaled by inflation.

New development activity is a leading economic engine in the region. Both housing and commercial/industrial structures along with infrastructure are reshaping the landscape and meaningfully adding to GDP in the region, which is driven by growth in jobs, income, and wholesale and retail spending.

Tourism throughout Southern California has returned to record levels. This is evidenced by the surge in accommodation and food services employment, record hotel/motel room rates, a rebound of hotel/motel occupancy rates and sharply rebounding levels of passengers at the region's commercial airports.

Nearly all industries are achieving their full potential this year, despite the prospects of recession next year. Nevertheless, inflation remains one of the most problematic issues for the nation. The longer it is present, the more likely the economy will be vulnerable to a downturn in which labor markets are impacted.

The adverse effects of soaring price levels have already reduced consumer purchasing power for goods and services, and generated hardships. This can be observed in the retail sales data that is no longer rising year-over-year when adjusted for inflation. The effect of inflation is especially hard for lower-income households who have less savings, less ability to substitute for cheaper alternatives and less ability to avoid transportation cost by working from home.

If inflation can be controlled without additional significant monetary tightening, coupled with a potential resolution of the war in Ukraine, the region may avoid an economic contraction that would negatively impacts on workers and households. A global reduction in inflation, together with the current and likely continuing momentum in the regional economy raises hope that an anticipated 2023 recession will not severely impact the SCAG region.

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<sup>7</sup> See <https://scag.iqm2.com/Citizens/FileOpen.aspx?Type=1&ID=2286&Inline=True#page=51>

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## 2. Creating Sustaining Economic Growth in Southern California

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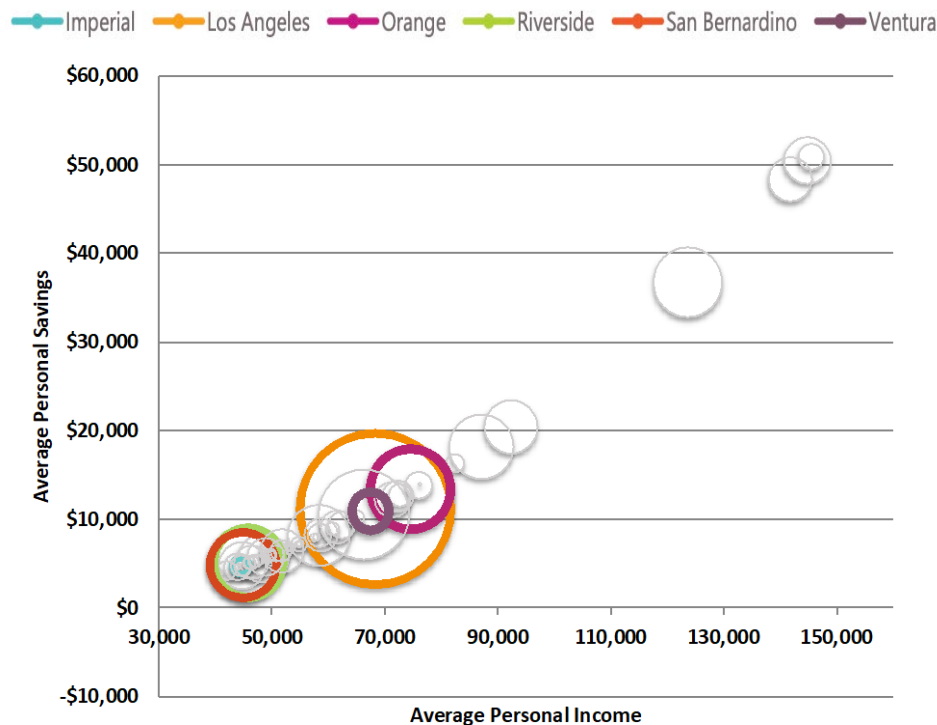
*Section written by Dr. David Wells Roland-Holst, Berkeley Economic Analysis & Research, Berkeley.*

Investment is a primary driver of economic growth and opportunity. The main resource for investment is savings, either from one's own income or borrowing. For this reason, local investment capacity varies significantly with wealth differences, which are quite substantial between and within SCAG communities. Historically, these differences sustained patterns of unequal opportunity and growth, but across a globalized economy, investment resources can be transferred to and from faraway places. In today's world, California communities can access growth resources from across the state, national and global economy by improving investor perceptions of their local "climate" for business.

### LOCAL INVESTMENT RESOURCES

Historically, investment has been funded from local household and community resources. While this has sustained one of economic history's most important dynamics, its benefits have been distributed very unevenly. Reliance on local savings as the primary resource for investment has two unwelcome consequences. Firstly, by narrowing the horizon for investors, it denies them the benefits of diversification and risk-taking that can yield higher returns. Secondly, reliance on local savings resources tends to reinforce inequality. **Figure 1** illustrates this point with California counties. Plotting personal (local) income against personal (local) savings shows that local savings are highly correlated with income. This means that lower-income communities will have lower investment rates and less growth potential, while higher-income counties are in the opposite position, with deeper savings resources to fund higher per capita investment levels. The result is a self-reinforcing cycle of rising inequality.

Figure 1 Local Savings &amp; Incomes



Note: Circles represent all California counties, with diameter proportional to population.

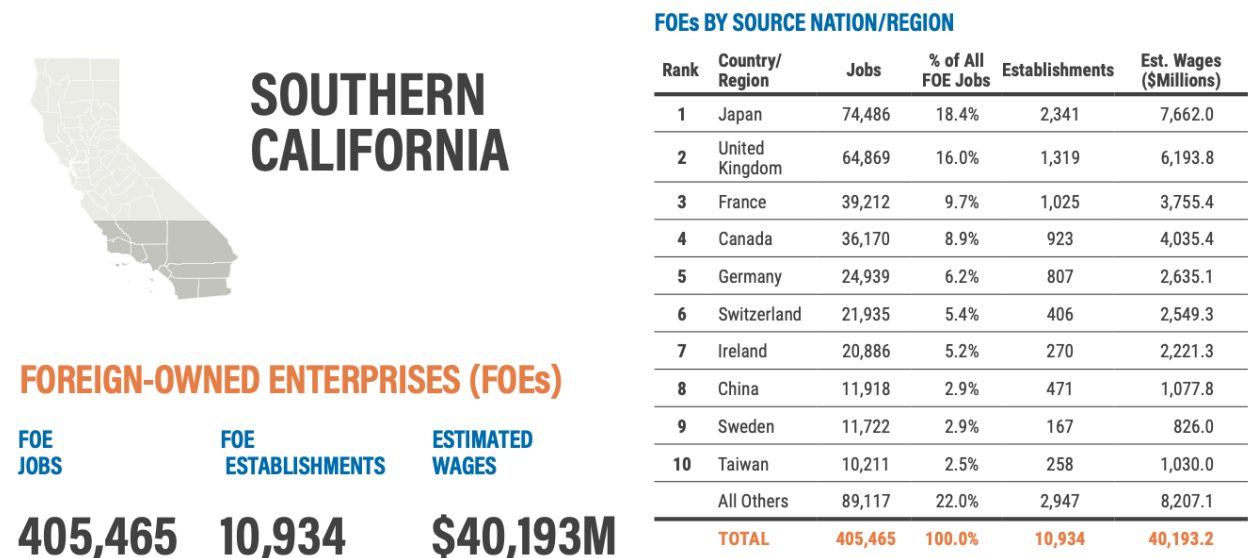
## EXTERNAL INVESTMENT RESOURCES – FDI

Expanding our perspective, external investment offers three potent growth benefits to local economies. The first, as already explained, is additional savings resources to support local investment and jobs. The second is access to larger markets. External investors often want to leverage their established brands to grow demand beyond the local market, creating jobs that would not exist without them. Finally, the same outside investors often transfer technology with their new projects, including both advanced processes (hard technology) and methods (soft technology). Introducing new skills, management practices and innovative technologies can increase local productivity, wages and spillover to upgrade local business practices.

In the days before globalization, countries and even communities relied more on domestic savings to fuel investment. As explained above, this financial isolation reinforced global patterns of inequality, as wealthier countries could sustain faster growth with greater savings resources. More recently, international investment flows have disrupted this international order, transferring savings from rich to poor countries and promoting economic convergence by allowing lower income “emerging” countries to grow faster than wealthier ones. The same dynamic is at work today and provides an attractive example of how improving our business climate can attract investment resources from around the world into California. A recent report on Foreign Direct Investment (FDI) clearly reveals this process (Figure 2), adding over \$40 billion

to Southern California’s investment resources, more than 400,000 jobs and more than \$17 billion to Los Angeles County alone.

Figure 2 FDI Inflows to Southern California by Origin

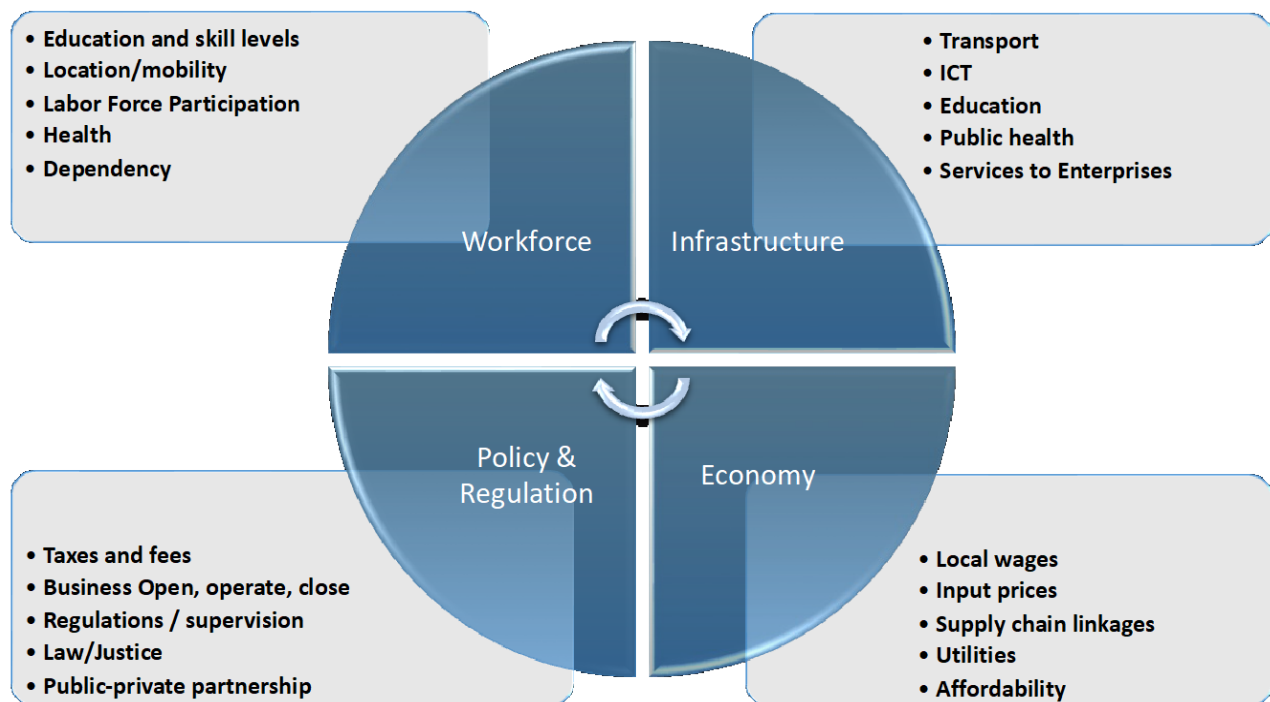


Source: Los Angeles Business Journal, 2022.

### HOW TO ATTRACT INVESTMENT & KEEP IT: IMPROVING VISIBILITY ON THE LOCAL BUSINESS CLIMATE

The most important way local governments can promote the virtuous cycle of investment and growth is to improve the local business climate, making it more attractive to external investors. Not all investors may be a good fit for a given destination, but local governments must be competitive if they want resources and choices for development partnerships. So-called business climate or investment climate indicators are a very convenient way to arouse and sustain investor interest. These metrics can also serve as a map and compass for growth-oriented policymaking and standard setting. These indicators can take many forms, but their main objective is to provide metrics that reflect local economic and social values and promote beneficial competition to fulfill them. To support an initiative like this, we propose a hypothetical prototype business climate indicator (BCI) that could be adapted for use by SCAG and its member institutions.

**Figure 3** Composition of a Representative Business Climate Indicator



Even small community economies can be complex. A robust BCI indicator design should enable outside investors and inside economic and policy actors to identify diverse socioeconomic characteristics, opportunities and challenges. **Figure 3** summarizes some relevant attributes, decomposing them into four fundamental groups representing a locality’s workforce, infrastructure, regulatory environment and economy. Each of these “pillars” of the business environment is then further disaggregated into more specific features. Of course, many alternative components can be suggested — this example is intended only to illustrate the approach.

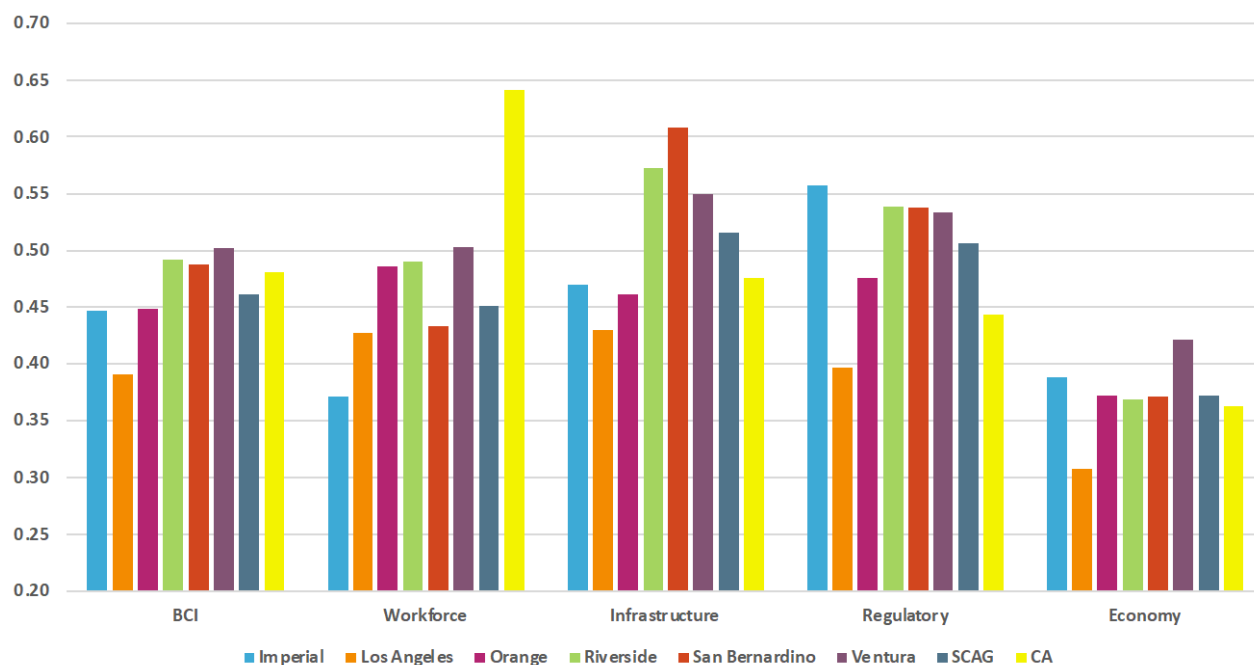
Within the limits of this briefing note, we rely on the reader to interpret the relevance to investors and policymakers of each of the 20 suggested BCI components. However, to facilitate this thinking, we offer a few examples of how the components can be interpreted across the SCAG economic landscape. Before doing so, **Table 1** and **Figure 2** summarize the main BCI components with 2021 data for all SCAG counties and the state economy, generally.

Table 1 Sample Estimates of BCI & Components

	BCI	Workforce	Infrastructure	Regulatory	Economy
<b>Imperial</b>	0.45	0.37	0.47	0.56	0.39
<b>Los Angeles</b>	0.39	0.43	0.43	0.40	0.31
<b>Orange</b>	0.45	0.49	0.46	0.48	0.37
<b>Riverside</b>	0.49	0.49	0.57	0.54	0.37
<b>San Bernardino</b>	0.49	0.43	0.61	0.54	0.37
<b>Ventura</b>	0.50	0.50	0.55	0.53	0.42
<b>SCAG</b>	0.46	0.45	0.52	0.51	0.37
<b>California</b>	0.48	0.64	0.48	0.44	0.36

Note: All estimates presented here are illustrative only. They do not reflect any official policy and remain subject to revision without notice.

Figure 4 Sample BCI Estimates



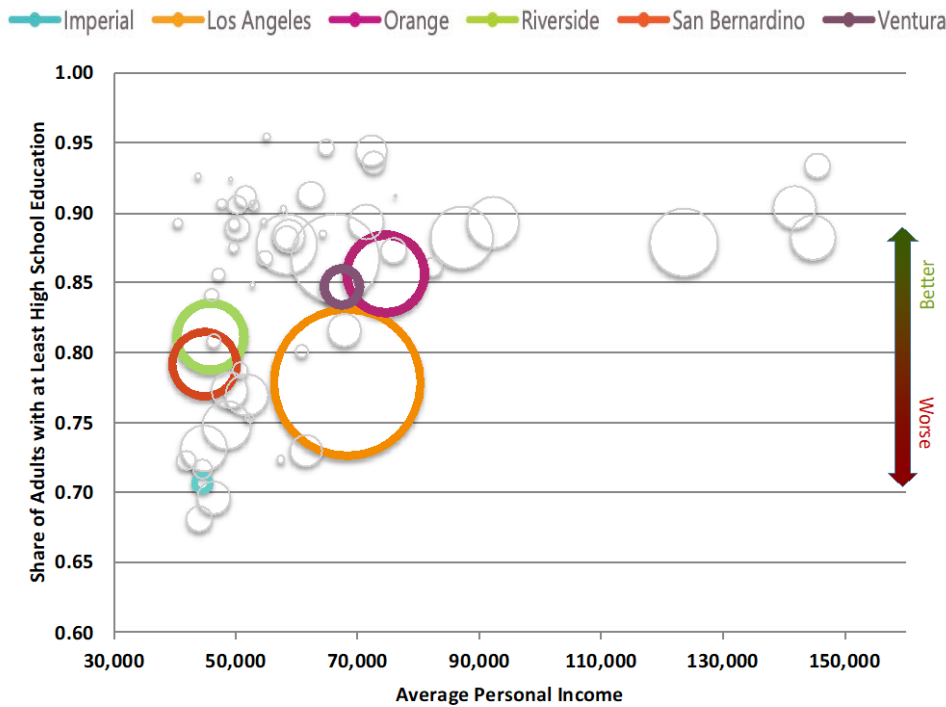
These numbers are based on preliminary data for a subset of the 20 components and should be seen as indicative only. If a full set of background data are developed, these indicators can more fully capture the complexity and diversity of local business/investment conditions. Like the CNBC, World Bank and UN/SDG indicators, they will then be able to support (and adapt to) public and private decision-making and stakeholder dialog.

### WORKFORCE

If local governments want to improve opportunities for current residents, attributes of the existing workforce should be considered as a primary focal point. These include characteristics investors want in a workforce, such as productivity, which can be proxied (among other things)

by education levels. **Figure 5** shows differences across California counties in terms of this metric and by average personal income. Three insights are immediate from this data. First, incomes may (as expected) be correlated with education levels, but Ventura and Orange County appear to have been more effective in promoting economically inclusive education. Second, for its average income level, Los Angeles appears to be behind the state’s standards for attainment levels. Finally, attainment for most counties is quite high, even for many with lower average incomes. This diversity suggests there may be lessons available regarding best practices in securing educational access and service delivery.

**Figure 5 Educational Attainment by County**

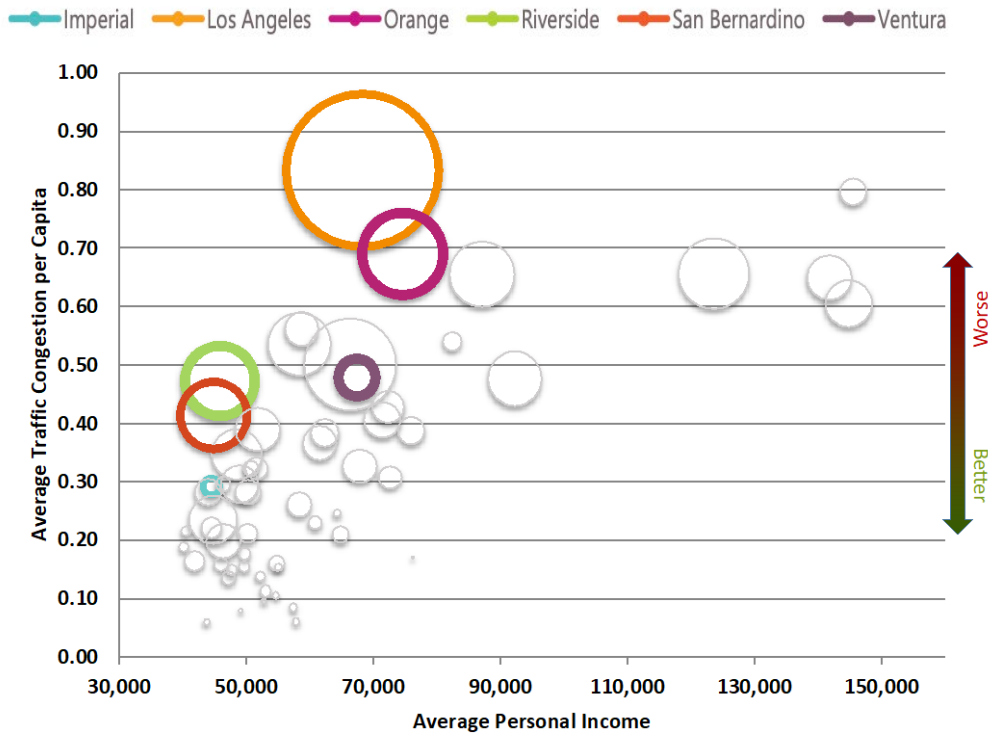


*Note: Circles represent all California counties, with diameter proportional to population.*

## INFRASTRUCTURE

The quantity and quality of infrastructure is an essential determinant of economic progress, securing both present living standards and economic growth potential. Hard and soft infrastructure services often seem invisible, but they facilitate every aspect of economic activity and, by lowering search and transactions costs, they can dramatically increase productivity and profitability. Among the suggested BCI components for SCAG is an indicator of traffic congestion. **Figure 6** displays congestion as measured in CES4: "Traffic density, in vehicle-kilometers per hour per road length." Here, we see substantial differences across SCAG counties. It should be emphasized that there are both supply and demand side remedies to traffic congestion problems, but disparities like this invite closer policy attention in some localities.

Figure 6 Traffic Congestion by County

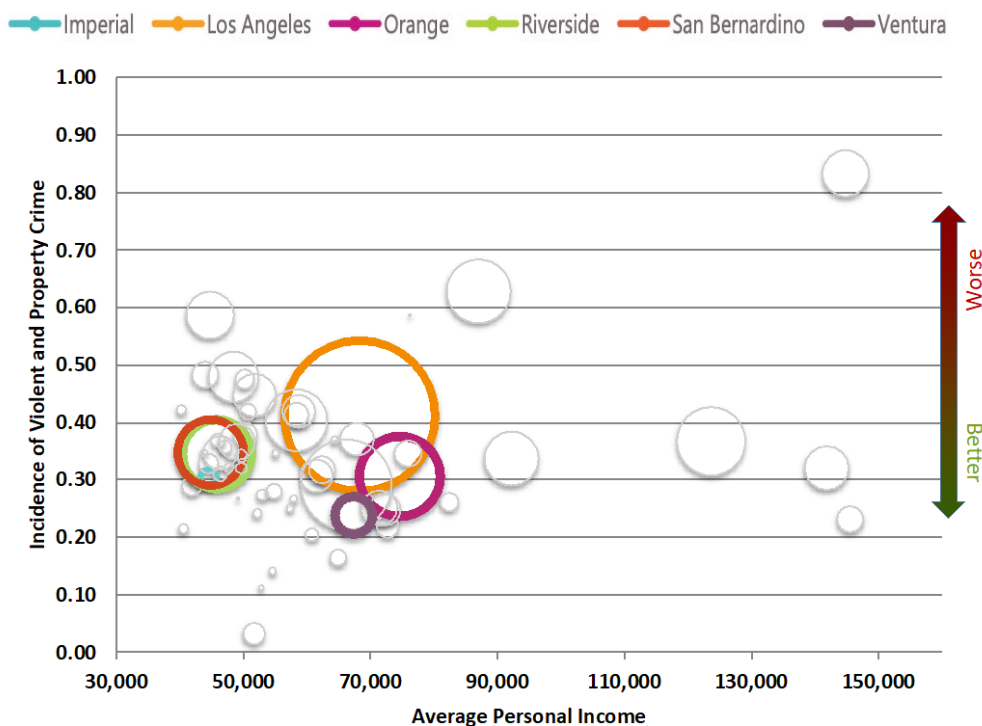


Note: Circles represent all California counties, with diameter proportional to population.

## POLICY & REGULATION

Public policy can itself be seen as a form of soft infrastructure, a service that can facilitate many dimensions of economic activity. Policy is often difficult to observe and measure, but it can be proxied by metrics that influence business decisions, like tax and license fees, compliance costs, risk and other costs of doing business. To illustrate geographic diversity in this context, we use a BCI component on crime incidence, estimated with data from the California Attorney General’s office. While crime is a stubborn challenge across most of American society, some localities are clearly bearing a greater burden in this context, with all the attendant social and enterprise costs that can discourage new investors.

Figure 7 Crime Incidence by County



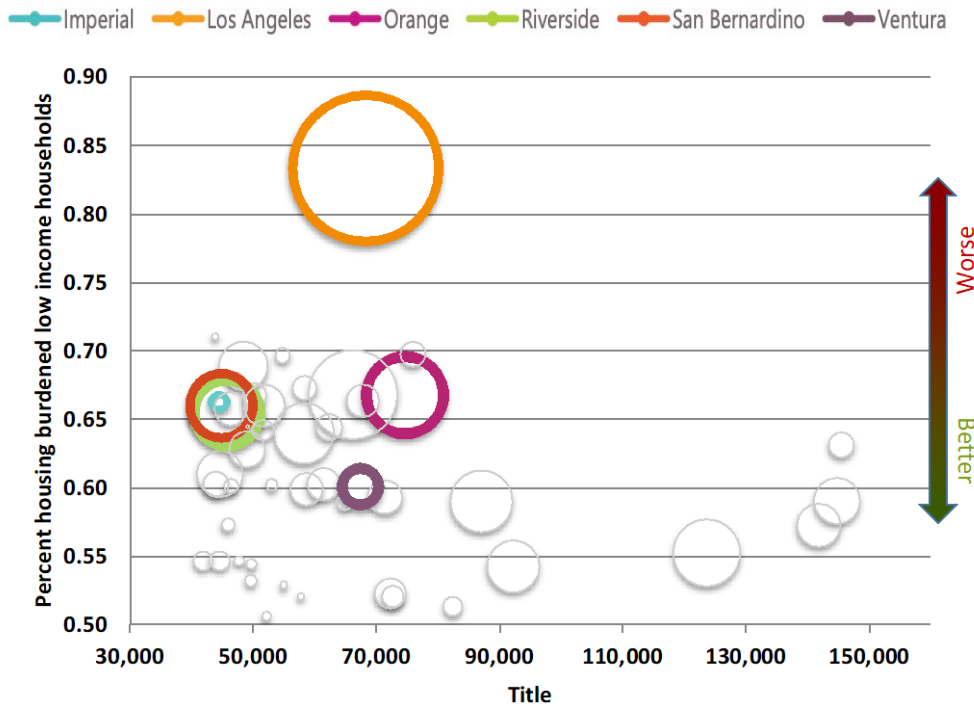
Note: Circles represent all California counties, with diameter proportional to population.

## ECONOMY

Among innumerable dimensions of the economy relevant to investor decisions, our current prototype BCI considers only 5 (Figure 3). Most of these are direct cost considerations (prices of inputs and resources), but for this example, we choose a socioeconomic indicator to illustrate differences across the SCAG region: housing affordability for lower-income groups. This metric reflects very important social dynamics, including gentrification, migration pressure, commute decisions and many dimensions of household welfare. From an investor perspective, housing affordability is an indirect but essential consideration because it will affect not only labor costs but also job satisfaction and productivity. As is apparent from Figure 8, there are significant disparities in residential affordability across SCAG counties.



**Figure 8 Residential Affordability**

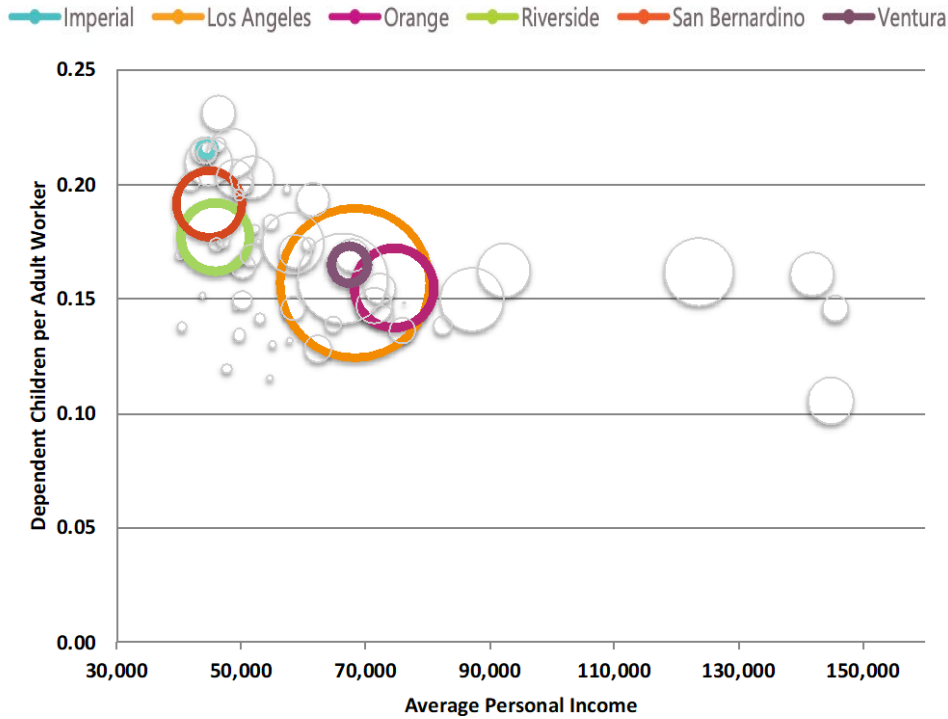


*Note: Circles represent all California counties, with diameter proportional to population.*

## CHALLENGES & OPPORTUNITIES WITHIN THE SCAG COUNTIES

The previous examples have compared BCI rankings across counties, yet most California countries are very diverse within themselves. For this reason, it makes sense to extend the BCI approach to a more granular spatial perspective. Not only does this allow identification of more diverse economic opportunities and challenges, but it can support more effective policy targeting. To see the importance of this, consider one of the Workforce BCI components: Child Dependency Ratio (BCI-ChI), illustrated in **Figure 9**. Children may be society’s greatest emotional blessing, but in the context of the economy, their care requires real-time commitments by family members and/or service providers. Depending on the provider, these services come at a direct or implicit cost, which must be factored into private (household, employer) and/or public decisions. Beyond simple costs, several important equity and inclusion issues also relate directly to this topic.

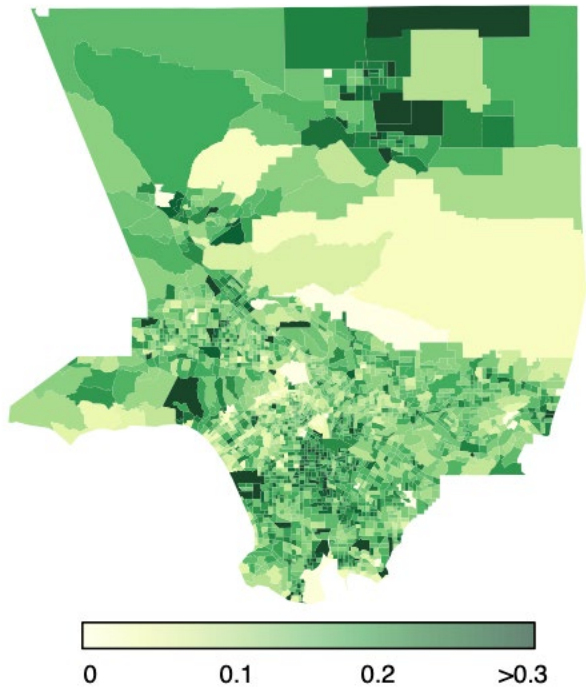
**Figure 9 Child Dependency Ratio by County**



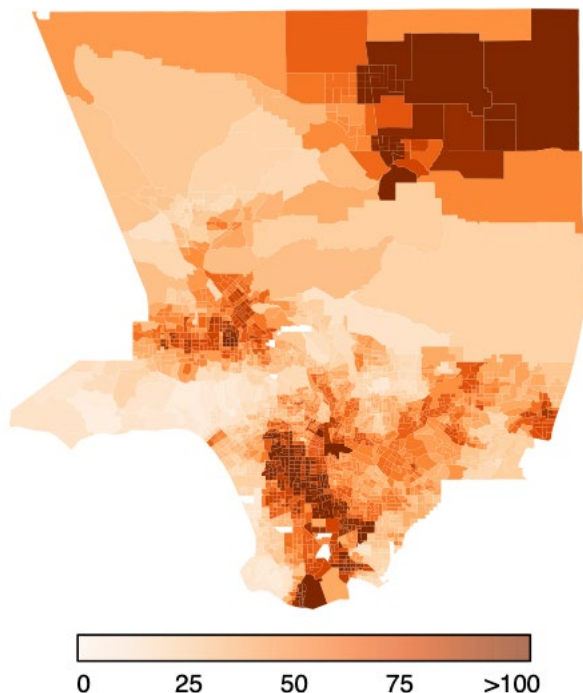
*Note: Circles represent all California counties, with diameter proportional to population.*

It can be seen in county comparisons that more per capita childcare is needed in some places than others, and of course, this reasoning extends within county economies too. For example, Los Angeles comprises more than 2,300 census tracts, averaging 4,353 people each. **Figure 10** reveals how diverse this landscape is in terms of both Child Dependency and basic economic necessity as proxied by local poverty rates. Prospective investors should recognize the relative importance of childcare, both as a job quality standard and a cost to families, but local policymakers can also be more effective with better visibility on this issue.

Figure 10 Child Dependency Ratio by Census Tract in Los Angeles County (*number of children per working household adult*)



A final example of the importance of heterogeneity looks at the Workforce-Health component of the BCI. Again, for Los Angeles County, **Figure 11** illustrates the spatial incidence of chronic asthma at the census tract level. In terms of many relevant policy and enterprise issues, including air pollution vulnerability, health care delivery and labor productivity, the capacity to identify heterogeneity can improve decision-making.

**Figure 11 Asthma Incidence by Census Tract in Los Angeles County***Age-adjusted rate of emergency room visits for asthma*

## CONCLUSION

Ever since the Golden State got its name in the mid-nineteenth century, California has been a beacon of opportunity, not only for job seekers but for investors who created jobs and helped lay the foundation for today's prosperity. California still owes its superior economic growth to its sustained ability to attract superior talent and investment resources, knowledge-intensive industries like IT and biotech being only the most recent examples. Globally, California remains a magnet for external savings resources, with the Southland alone hosting more than \$40 billion of FDI and comparable flows from the rest of the U.S. To sustain investor interest and the growth benefits they offer, this brief note proposes a BCI be added to SCAG's recurrent economic statistics. Such an index can improve public and private awareness of the multiple dimensions of a healthy enterprise environment, guide effective decisions and policymaking, and promote more inclusive and transparent stakeholder dialog.

Business and investment climate indicators have been widely followed nationally and internationally. For two decades, CNBC has scored all 50 states on 88 metrics in 10 broad categories of competitiveness. Internationally, the Organisation for Economic Co-Operation and Diversity (OECD) and World Bank have both produced detailed accounting standards for countries to develop and public investment climate indicators. Like the Sustainable Development Goals, unanimously agreed by the 192 members of the United Nations, these

metrics have now been mainstreamed into the policy dialog, and exert pervasive influence on public and private decision making.

The prototype BCI presented here can be adapted in several ways, including more component indicators as well as a variety of spatial standards. Sample results were presented here for SCAG's six member counties as well as the 2,613 census tracts in Los Angeles County. Using the very high-resolution tract data, the BCI can also be estimated for each of SCAGs 191 municipalities, as well as unincorporated entities like the Colonias of Imperial County, school, tribal and other administrative jurisdictions.

Inbound migration has long attested to California's many virtues (deep reserve of natural and human resources, technology, etc.), but of course the state also faces challenges (affordability, congestion, public health adversity, etc.). A carefully designed and statistically rigorous indicator can take account of these countervailing forces, promoting the balanced private perspective and policy coherence needed to achieve sustainable and inclusive prosperity.

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**Appendix Table A1 BCI Component Indicators**

		Title
Workforce	1 BCI-Ed1	Education and skill levels
	2 BCI-Loc	Location/mobility
	3 BCI-Emp	Employment
	4 BCI-HI1	Health
	5 BCI-ChI	Child Dependency
Infrastructure	6 BCI-Trn	Transport
	7 BCI-ICT	ICT
	8 BCI-Ed2	Education
	9 BCI-HI2	Public health
	10 BCI-BSv	Soft infrastructure - public services that facilitate business
Economy	11 BCI-Wag	Local wages
	12 BCI-Pin	Input prices
	13 BCI-Lnk	Supply chain linkages
	14 BCI-Utl	Utilities
	15 BCI-Aff	Affordability
Regulatory	16 BCI-BTx	Taxes and fees
	17 BCI-OOC	Opening, operating, and closing a business
	18 BCI-Crm	Crime
	19 BCI-Lic	Local licensing and permits
	20 BCI-PPP	Public-private partnership

*Notes:*

- All indicators are scaled from raw data to indexes ranging from 0 to 1.
- In the figures above, indicators are displayed according to visual intuition, sometimes larger value are better (education), sometimes lower values are better (traffic congestion).
- For the numerical index components and aggregates, however, all are scaled to increase with the quality of the local business climate.
- For aggregating BCI and the four pillars, all components are currently weighted equally.

## Appendices: County Outlook Reports

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The Appendices of the Regional Briefing Book include economic snapshots of the counties in the SCAG region. Working with regional experts, SCAG provides an analysis of each county's economic performance and our regional experts' outlooks for each county. The regional experts consulted on the County Outlook Reports are listed below.

### IMPERIAL COUNTY

*Michael Bracken, Managing Partner & Chief Economist,  
Development Management Group, Inc.*

### LOS ANGELES COUNTY

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

### ORANGE COUNTY

*Wallace Walrod, Ph.D., Chief Economic Advisor,  
Orange County Business Council*

### RIVERSIDE & SAN BERNARDINO COUNTIES

*Manfred Keil, Ph.D., Robert Kleinhenz, Ph.D. and  
Fernando Lozano, Ph.D., Inland Empire Economic Council*

### VENTURA COUNTY AND SCAG REGION

*Mark Schniepp, Ph.D., Director, California Economic Forecast*



## Outlook: Imperial County

*This chapter was written by Michael Bracken, Development Management Group, Palm Desert*

### OVERVIEW: STATE OF THE IMPERIAL COUNTY ECONOMY

Imperial County is in the southeastern corner of California and borders San Diego County (west), Riverside County (north), Arizona (east) and Mexico (south). The region is served by 2 international border crossings, 1 consumer and pedestrian crossing and a commercial crossing. Approximately 179,300 people live in the region. The economic base in Imperial County consists of agriculture production, transportation (both of agriculture products and imports from Mexico), border security, state prisons and local serving operations (food, food service, hospital, education, and local government).

Currently, the unemployment rate is 13.9 percent, significantly below the county's pre-pandemic five-year average unemployment rate (**Exhibit IM-1**). Imperial's population in 2022 was 179,329, a 2.8 percent increase since 2010. The labor force has approximately 69,000 participants, far fewer than at the peak of approximately 80,000 in 2011. The real median household income in 2021 was \$55,300, which has remained flat since 2016 (**Exhibit IM-2**). Median home prices hit a record high of \$335,000 in 2022.

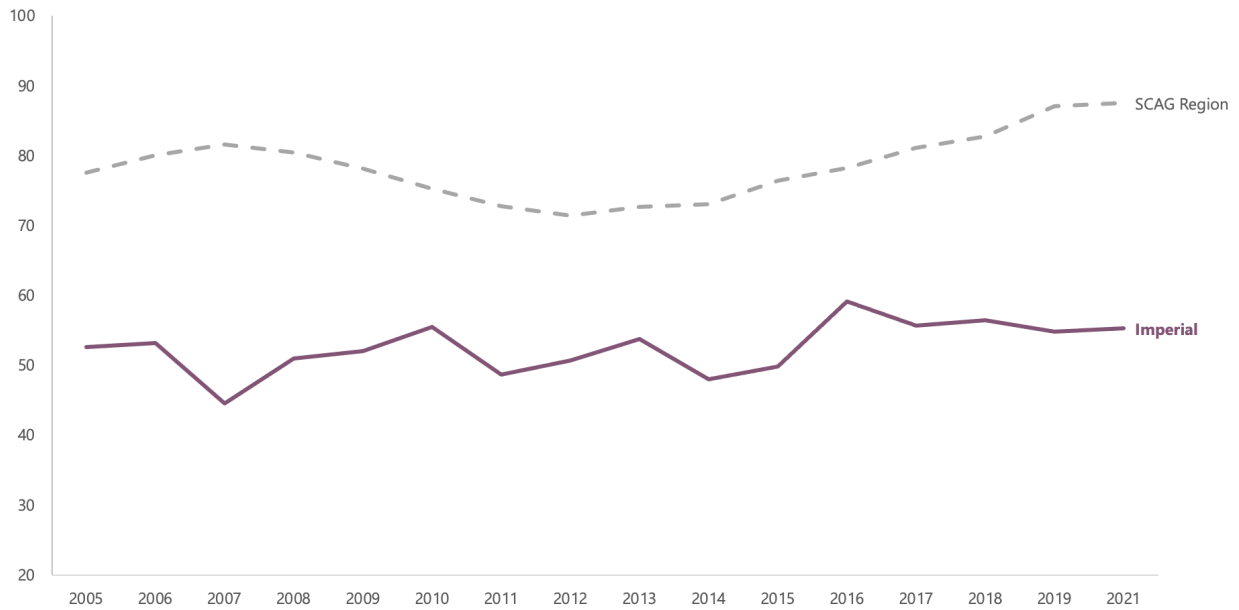
#### Exhibit IM-1 Unemployment Rate (%) in Imperial County, 2001-2022



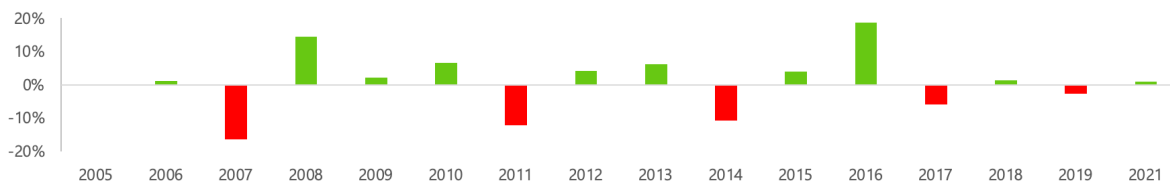
Source: California Employment Development Department (EDD), Employment by Industry Data (monthly), September 2022.

### Exhibit IM-2 Real Median Household Income in Imperial County Compared to the SCAG Region, 2005-2021

Thousands of constant 2022 dollars



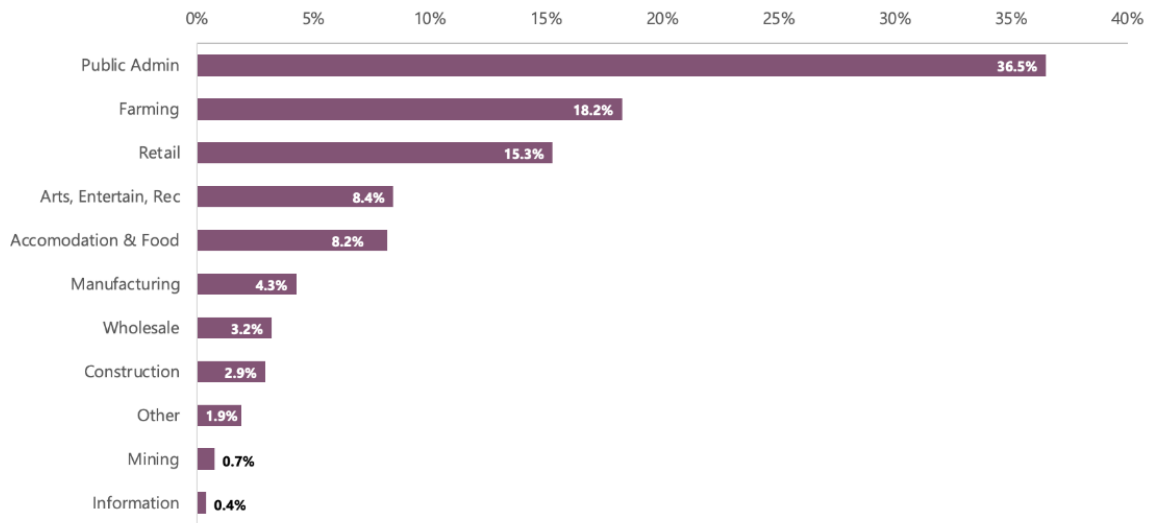
Annual percent change in real household income in Imperial



Source: Bureau of the Census, American Community Survey 1-Year Samples for 200-2019 and 2021.

The top employment sectors in Imperial County are Public Administration, Farming and Retail (**Exhibit IM-3**). Agricultural production reached \$2.287 billion in 2021, the highest on record. Vegetables/Melons accounted for \$1.04 billion while livestock (mostly cattle) totaled \$527.5 million (County of Imperial Agricultural Commissioner Crop Report).

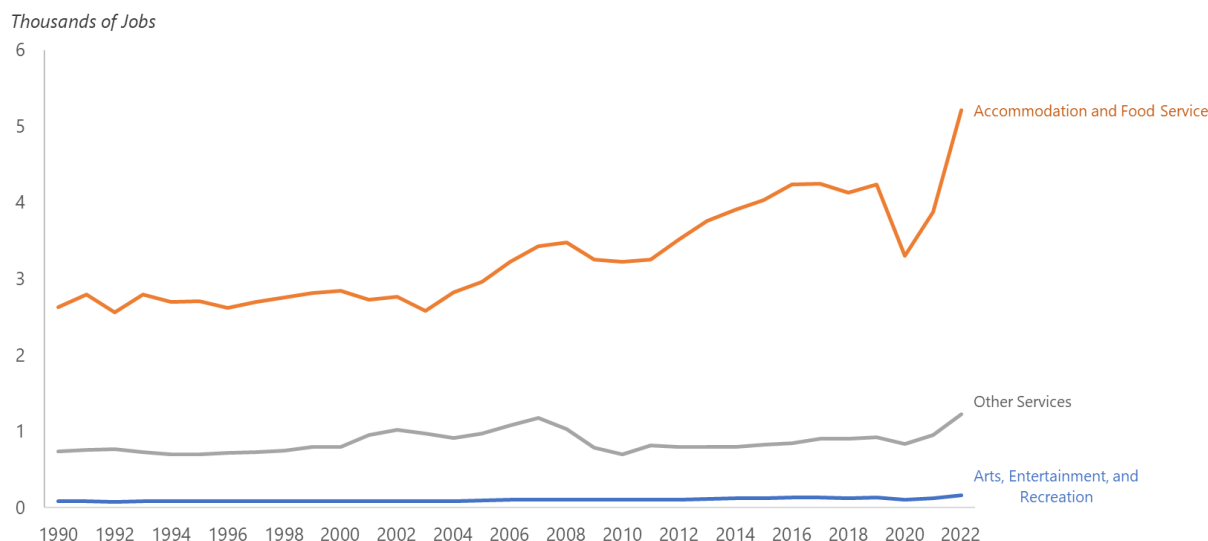
**Exhibit IM-3 Percent of Total Employment by Sector in Imperial County in 2022**



Source: California Employment Development Department (EDD), Employment by Industry Data (annual), retrieved from <https://labormarketinfo.edd.ca.gov/data/employment->

Several sectors saw strong growth in employment in 2022 in Imperial County (**Exhibit IM-4**). Arts, Entertainment, and Recreation; Accommodation and Food Service; and Other Services had the largest growth in employment in 2022. The county continues to see investment in solar production and battery storage. Over 3,400 megawatts of electricity generation is operating (power for 1.1 million homes) with another 1,200 megawatts of solar production and 1,500 megawatts of battery storage in the permitting process.

## Exhibit IM-4 Total Employment in Sectors with Largest 2022 Growth in Imperial County, 1990-2022



Source: California Employment Development Department (EDD), Employment by Industry Data (annual); 2022 annualized based on previous 12 months.

The region is expected to see billions of dollars of investment in new geothermal and rare-earth mineral (lithium) extraction with the potential to create thousands of new jobs and significantly increase the country's tax base.

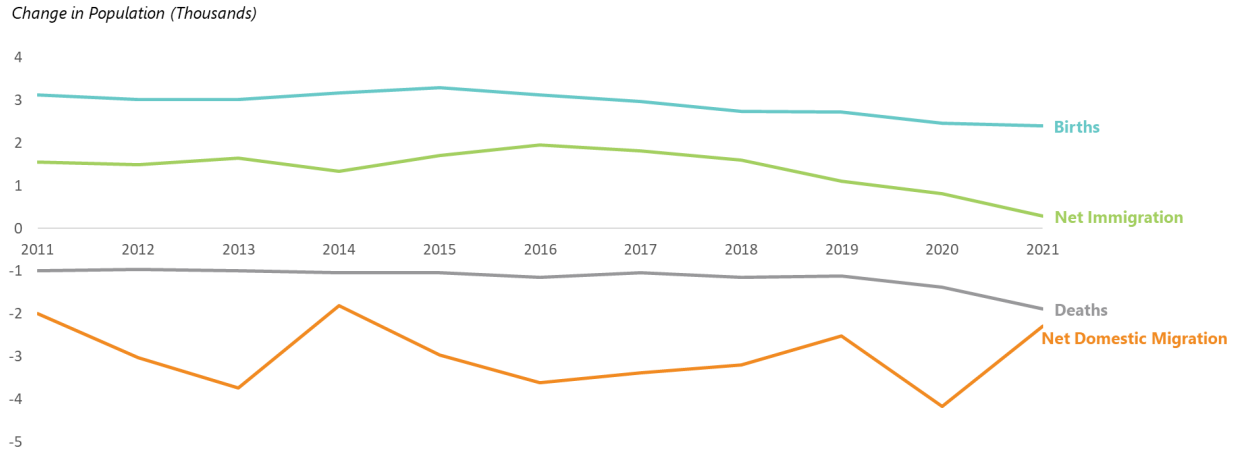
Headwinds relative to inflation, rising interest rates and availability of labor may have adverse short-term impacts on the regional economy. Finally, the drought situation may result in reduced water deliveries to the region from the Colorado River. Such reductions will negatively impact agriculture production in Imperial County. Combined with other regions in California experiencing a water crisis, said reductions could ultimately result in fresh food shortages.

## ECONOMIC INDICATORS

### DEMOGRAPHICS & SOCIOECONOMICS

Imperial County currently has a population of approximately 179,300, a 2.8 percent increase since the 2010 Census. As shown in **Exhibit IM-5**, since the beginning of the pandemic, the county has experienced a population decline, similar to most regions in California. Factors behind declines in Imperial County include a reduction in births, a decline in net (international) immigration and an increase in deaths (partially due to the COVID-19 pandemic).

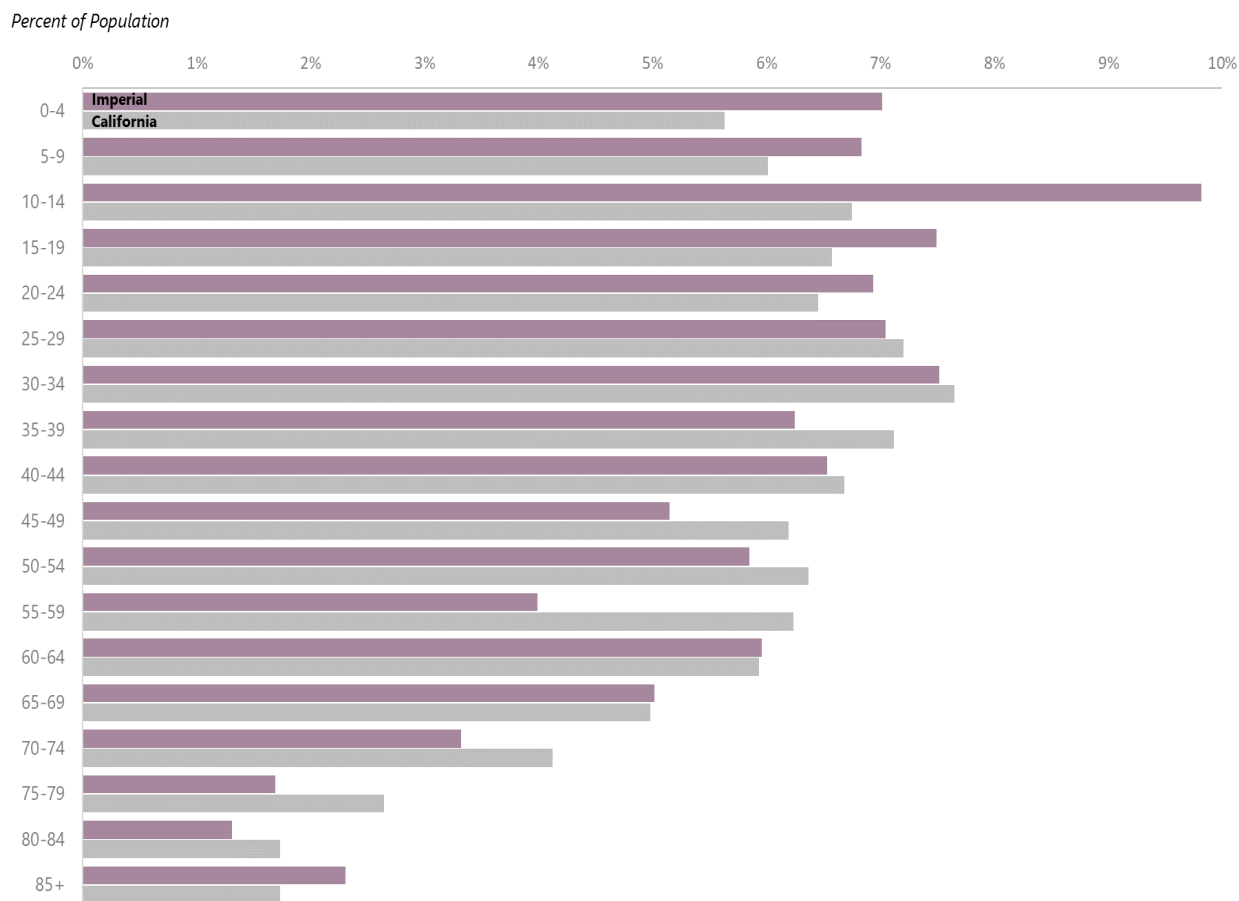
### Exhibit IM-5 Components of Population Change in Imperial County, 2011-2021



Source: State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year — July 1, 2010–2021, December 2021

Compared to the U.S. population, the Imperial County population is younger. The median age in Imperial County is 32.5, about 5 years younger than the median age in the U.S. and 4 years younger than the median age in California. As shown in **Exhibit IM-4**, 31.2 percent of Imperial’s population is under the age of 20, whereas in California 25 percent of the population is under the age of 20.

### Exhibit IM-4 Age Distribution of the Population in Imperial County Compared to the Rest of California, 2021



Source: U.S. Census Bureau. (2022). 2021 American Community Survey 1-year Samples.

The share of the population that identifies as Hispanic or Latino continues to increase in Imperial County. In 2010, 80.4 percent of the Imperial population identified as Hispanic or Latino. Today, that number is 85.2 percent. The share of the Imperial County population identifying as White decreased from 13.7 percent in 2010 to 9.4 percent in 2020 (U.S. Census).<sup>8</sup> Persons identifying as Black, Asian, two or more races, or other races did not change significantly between 2010 and 2020, with the sum of these groups accounting for about 5 percent of the total population.

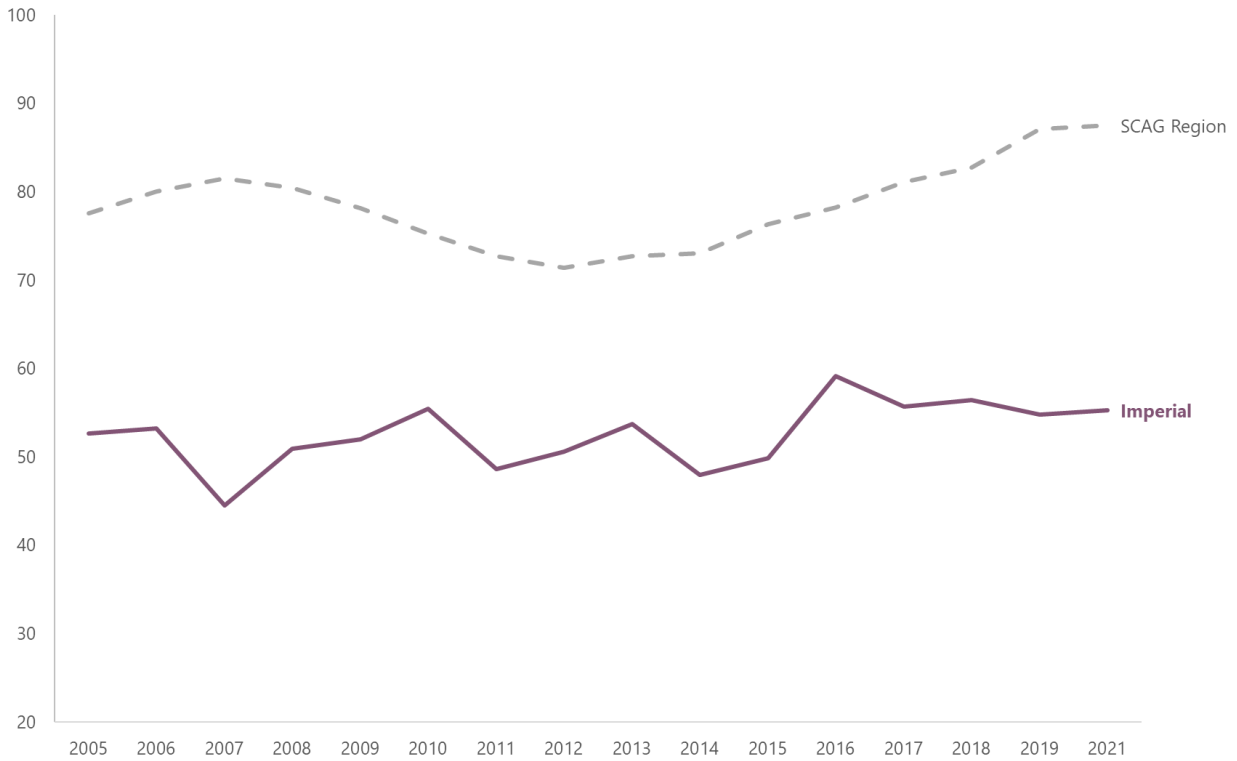
Income in Imperial County continues to be significantly below household incomes in the SCAG region. In 2021, household income in Imperial County was approximately \$55,300 compared to more than \$87,000 in the SCAG region. **Exhibit IM-6** shows a slight increase in real household

<sup>8</sup> This report defines race/ethnicity categories as follows: Hispanic includes all races. Each individual race category refers to non-Hispanic members of each group. For example, White includes individuals identifying as White and not Hispanic.

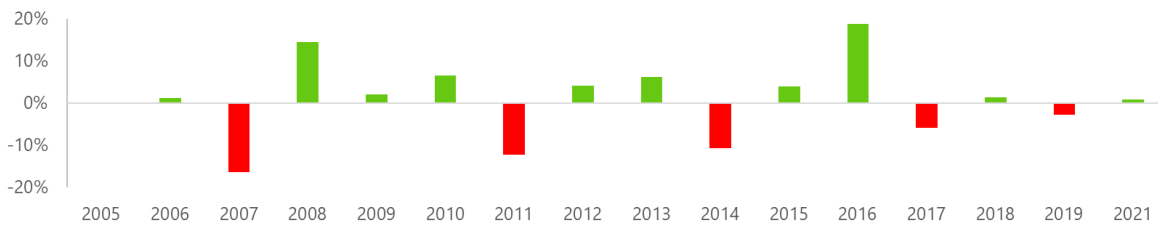
income in Imperial County through 2016, then a flattening of income growth from 2016 through 2021, which contrasts to steady growth region-wide from 2016 to 2021.

**Exhibit IM-6 Real Median Household Income in Imperial County Compared to the SCAG Region, 2005-2021**

*Thousands of constant 2022 dollars*



*Annual percent change in real household income in Imperial*

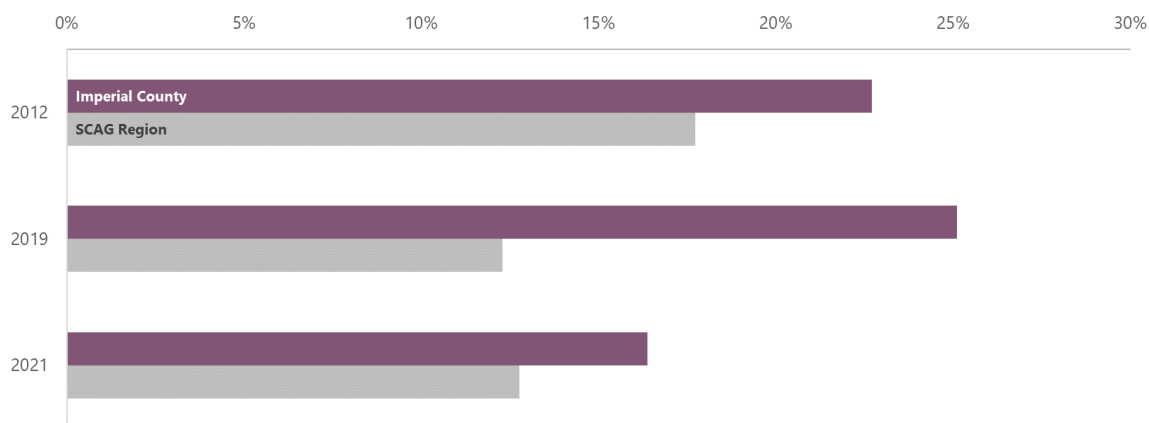


Source: Bureau of the Census, American Community Survey 1-Year Samples for 200-2019 and 2021.

Poverty has long been a socioeconomic issue for Imperial County. **Exhibit IM-7** compares the poverty rate in Imperial to the SCAG region for 2012, 2019 and 2021. In 2019, more than 25 percent of the population in Imperial County lived below the federal poverty line, 35 of whom were children. The SCAG region had a poverty rate of a little over 12 percent in 2019 and 2021,

about half the poverty rate of Imperial County. In 2021, the poverty rate in Imperial County fell to 16 percent, a significant improvement from 2012 and 2019. In 2019, 11.8 percent of California’s population lived below the poverty line and this share increased to 12.3 percent in 2021. Interestingly, while California’s poverty rate has increased slightly between 2019 and 2021, Imperial County’s rate went down by more than one-third. Overall cost of living and increases in minimum wage are likely reasons for the decrease in the poverty rate in Imperial County.

#### Exhibit IM-7 Percent of Population in Poverty in Imperial County and the SCAG Region, 2012, 2019 and 2021



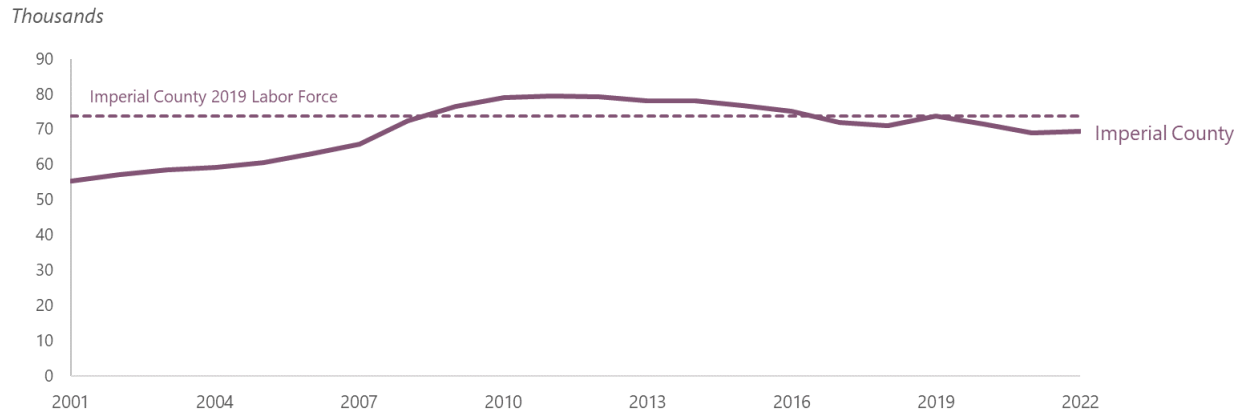
Source: U.S. Census Bureau. (2022). 2012, 2019, and 2021 American Community Survey 1-year Samples, Table S1701.

## EMPLOYMENT

The labor force in Imperial County declined from a high of 79,600 participants in 2011 to 69,500 in 2022 (**Exhibit IM-8**). The labor force participation rate in Imperial County was 52.5 percent in 2021, 2.5 percentage points higher than in 2019 and near its 10-year average of 53 percent (**Exhibit IM-9**). However, compared to the SCAG region, the labor force participation rate in Imperial County is more than 10 percentage points lower. The 10-year average labor force participation rate in the SCAG region is 63.8 percent. An explanation for this difference is that Imperial County’s younger population results in more parents staying home to care for children. Generally, there are fewer childcare opportunities and flexible employment options in Imperial County than in much of the rest of the SCAG region.

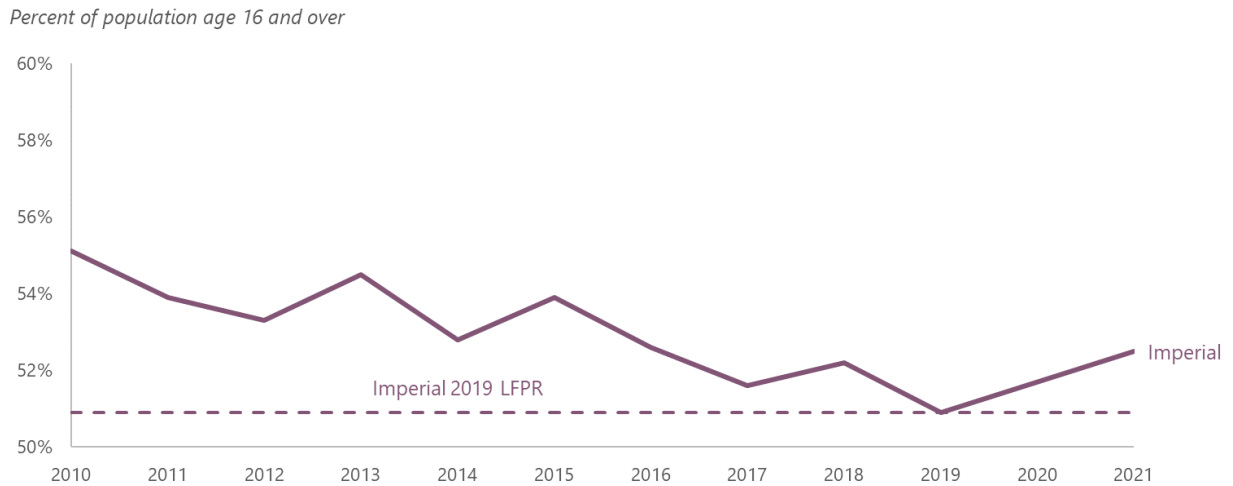


### Exhibit IM-8 Labor Force in Imperial County, 2001-2022



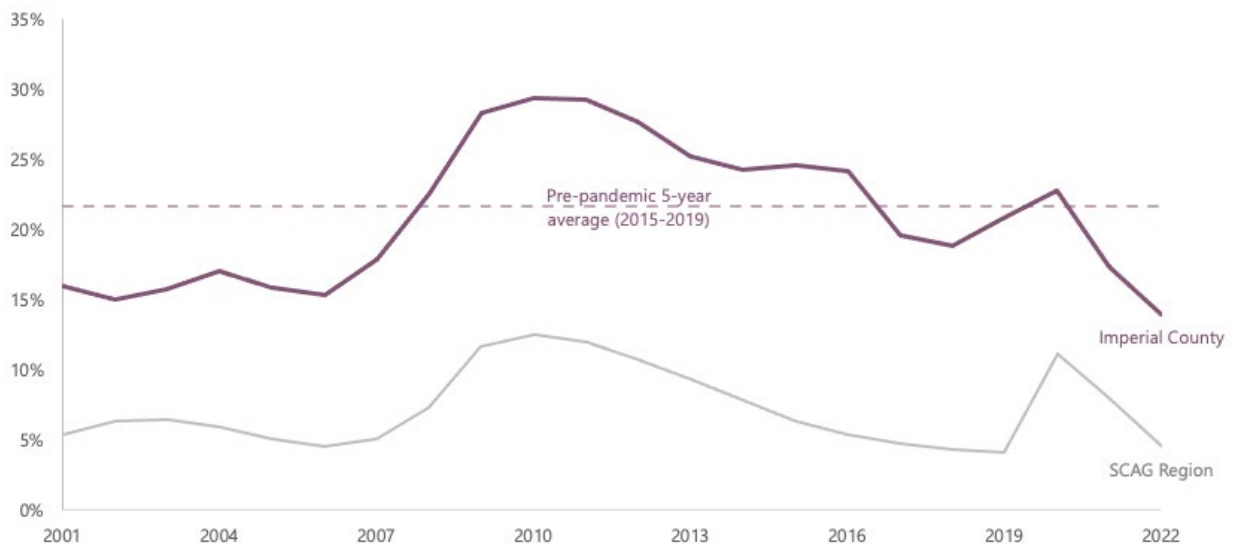
Source: California Employment Development Department (EDD), Employment by Industry Data (annual), September 2022. Count for 2022 estimated based on data through September 2022.

### Exhibit IM-9 Labor Force Participation Rate in Imperial, 2010-2021



Source: U.S. Census Bureau, 2010-2019 and 2021 American Community Survey 1-year Samples, Table S2301.

### Exhibit IM-10 Unemployment Rate (%) in Imperial County, 2001-2022



Source: California Employment Development Department (EDD), Employment by Industry Data (monthly), September 2022.

The unemployment rate in Imperial County is 14.0 percent as of September 2022, which is in line with historic low unemployment in 2002-2006, the height of the previous economic boom. The unemployment rate in Imperial County is high compared to the United States, California and the overall SCAG region due to some unique factors.

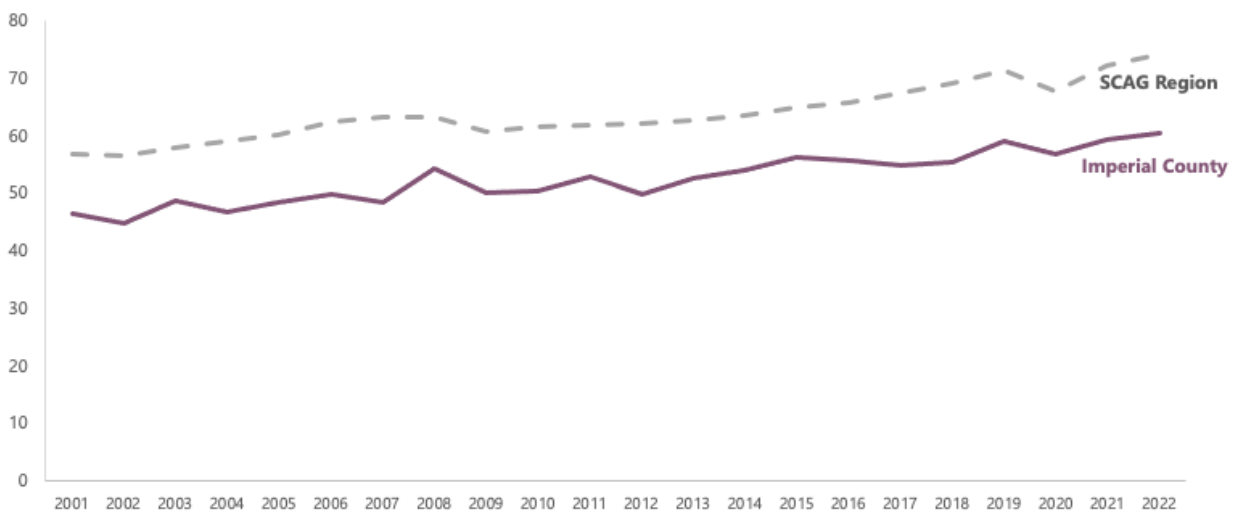
First, Imperial County is bordered by Mexicali, Mexico, a region of more than 1.1 million people, which is more than 6 times the population of Imperial County. A significant number of people from Mexicali enter the U.S. labor market by first going through Imperial County, whose unemployment rate measurement may be inflated as a result. Further, as an agriculture-based economy, the seasonality of crop production causes fluctuation in labor demand.

## PRODUCTIVITY

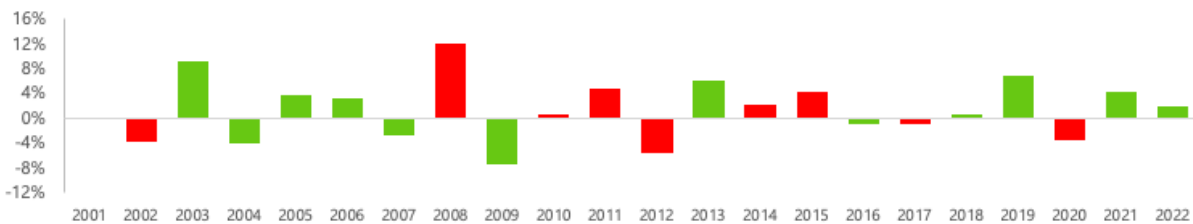
Imperial County's GDP is largely driven by output in agriculture, construction, mining (namely gold) and professional services. Imperial County's GDP per capita is approximately \$60,400 per person, or about \$10.8 billion total (**Exhibit IM-11**). While Imperial County often lags other counties within the SCAG region in most socioeconomic indicators, in per capita GDP, Imperial County is ahead of Riverside (\$42,000 per capita) and San Bernardino (\$50,000 per capita) Counties.

**Exhibit IM-11 Per Capita Gross Domestic Product (GDP) in Imperial County, 2001-2021**

*Thousands of 2022 U.S. dollars*



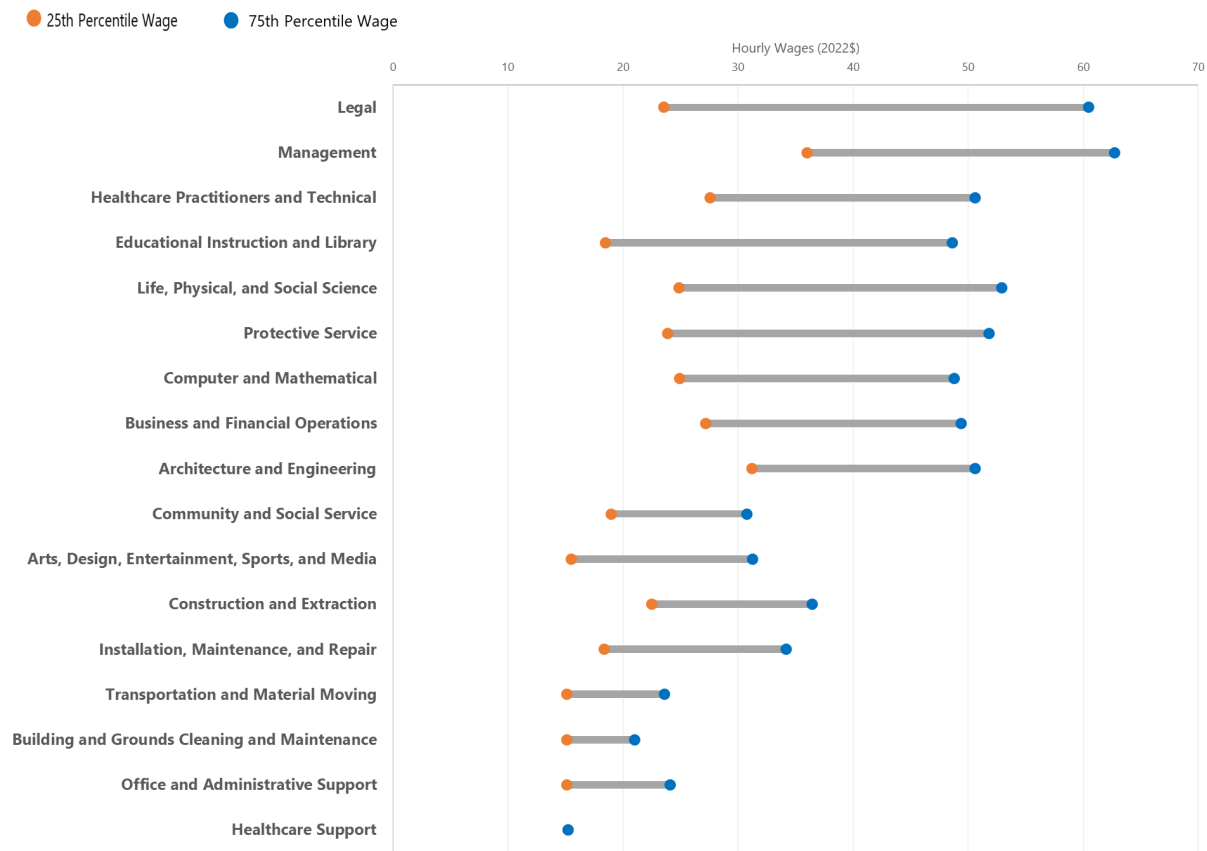
*Annual percent change in per capita GDP in Imperial County*



Based on REMI Transight model. Data for 2001-2021 are actuals from the Bureau of Economic Analysis. GDP for 2021- 2022 forecasted using REMI model.

Occupational wages in Imperial County typically lag other regions in Southern California. Unfortunately, the professions with the greatest number of jobs are the ones that often pay the least. Agriculture, food services and entry-level medical (home health type professions) often pay at or just above minimum wage. Often, the path to the middle-class in Imperial County comes through working in public service, including law enforcement, city/county professions and education. **Exhibit IM-12** below provides a graphical understanding of median pay by occupation.

### Exhibit IM-12 Wages by Occupation in Imperial County: 25<sup>th</sup> to 75<sup>th</sup> Percentiles (2022 Q1)

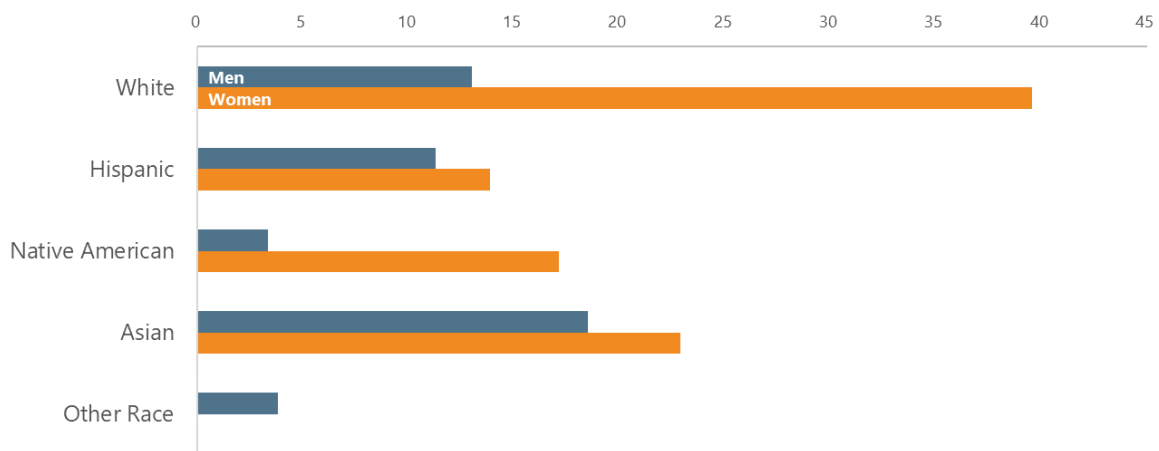


Source: EDD, Occupational Employment and Wage Statistics (OEWS) Survey (2022 1st Quarter).

Educational attainment for adults 25 years and older continues to be low in Imperial County. While almost 40 percent of White women have a bachelor’s degree, this far exceeds the college education rate of the substantially larger Hispanic population of the county. Men lag far behind women in educational attainment. This is generally common in agriculture and rural economies as men tend to join the workforce at an earlier age, thereby forgoing higher education.

### Exhibit IM-13 Percent of Prime-age Workers with at Least a Bachelor's Degree in Imperial County

*Percent of Prime-Age Workers*



Source: 2016-2020 ACS PUMS 5-Year Sample

Overall, Imperial County's economy can be classified as stable. Today, unemployment is at historic lows for the region, albeit still 4 times that of the United States or California as a whole. Agriculture production (2021) hit an all-time high with livestock and vegetable/melon crops leading the way. The county is the second largest producer of renewable energy in California and is one of the few places in the United States with the capacity to generate solar, wind and geothermal energy.

#### Geothermal/Lithium Production

The region is on the cusp of what could be the largest economic boon in its history. While it has long been known that Imperial County's geothermal fields hold lithium and other rare-earth minerals, the technology to extract them from the geothermal brine is close to market. Coupled with global demand for lithium – driven largely by electric vehicle battery demand – there is a real opportunity for Imperial County to become a market leader. It is estimated that Imperial County holds 15 million metric tons of lithium, enough lithium for more than 650 million electric cars. At the current market value of \$80,000 per metric ton, the value of the asset is \$1.2 trillion. Earlier in 2022, President Joe Biden held a town hall conference specific to lithium extraction in the region and challenged Congress and state officials to work with leaders in the county to maximize the opportunity.

In summer 2022, California passed legislation providing financial and economic infrastructure to assist Imperial County. The package included \$5 million in seed money to be used for a Specific Plan (SP) and Programmatic Environmental Impact Report (PEIR) as well as funding for Community Based Organizations (CBOs) and Non-Government Organizations (NGOs) to be better informed and represented in the SP/PEIR process.

Currently, there are three major companies actively working to entitle and permit geothermal/lithium extraction facilities in Imperial County. These include Berkshire Hathaway Energy, Control Thermal Resources and Energy Source. Additionally, Italtolt/Statevolt, a European based battery manufacturing start-up, is working to develop a 54 gigawatt battery plant (producing batteries for about 500,000 vehicles annually). 2023 will likely be a year of intense work by both the private and public sectors to help bring this industry to the region resulting in billions of new investments.

Exhibit IM-14 maps the Known Geothermal Resource Areas (KGRA’s) in Imperial County. Note that the prime area for geothermal production and lithium extraction is in the northern portion of the County closer to the Southeast portion of the Salton Sea.

Exhibit IM-14 Map of Known Geothermal Resources in Imperial County

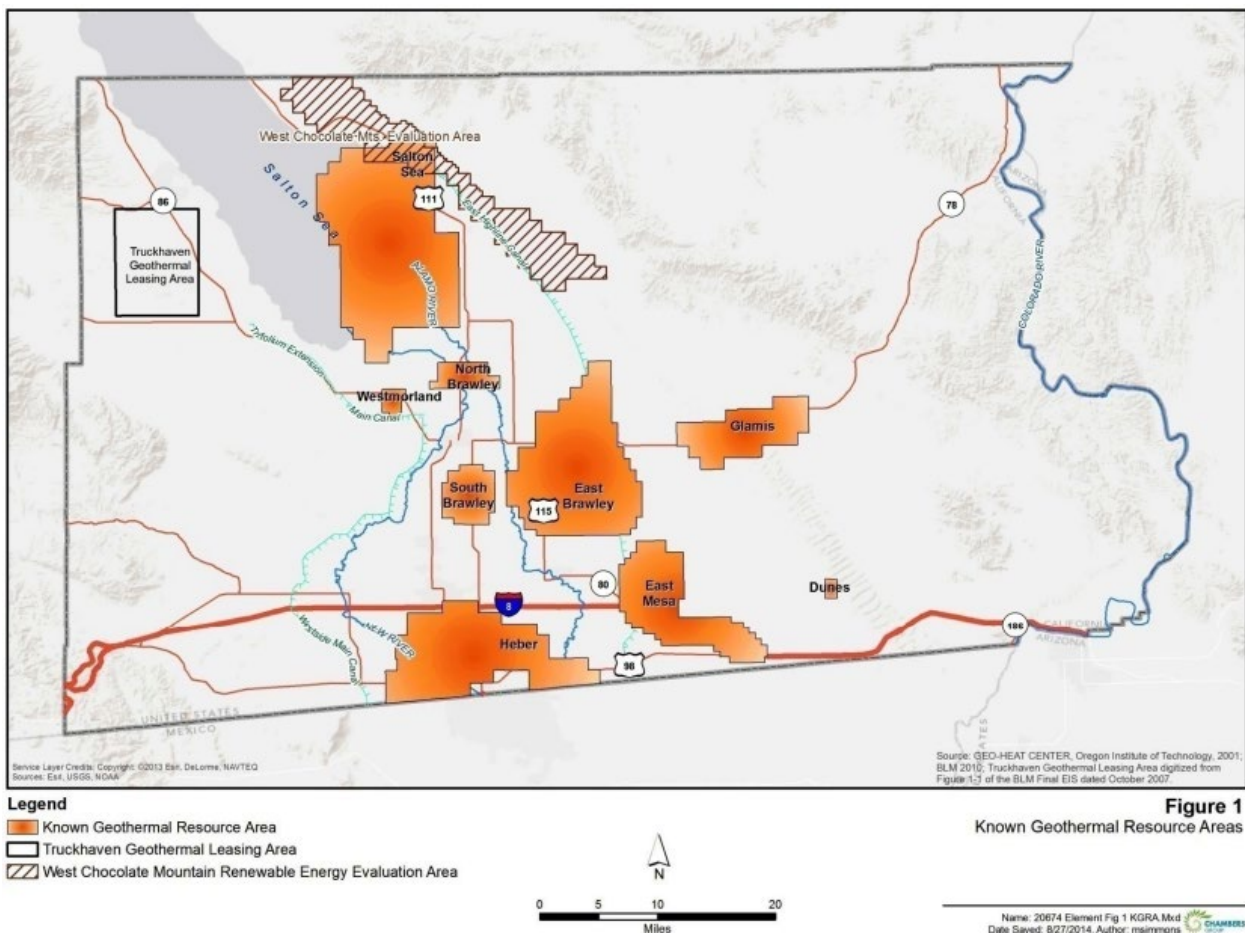


Figure 1  
Known Geothermal Resource Areas

### Solar Energy Production/Battery Storage

In addition to lithium, there is 1,200 megawatts of solar energy production and 1,500 megawatts of batter storage currently in the entitlement process. The battery storage component is vital to California’s grid stability as it provides on-demand power at night when solar production is not available. As California has moved toward a Renewable Portfolio

Standard (RPS), there are gaps in power availability during the peak demand hours of 4pm and 9pm, especially in the summer and early fall months).

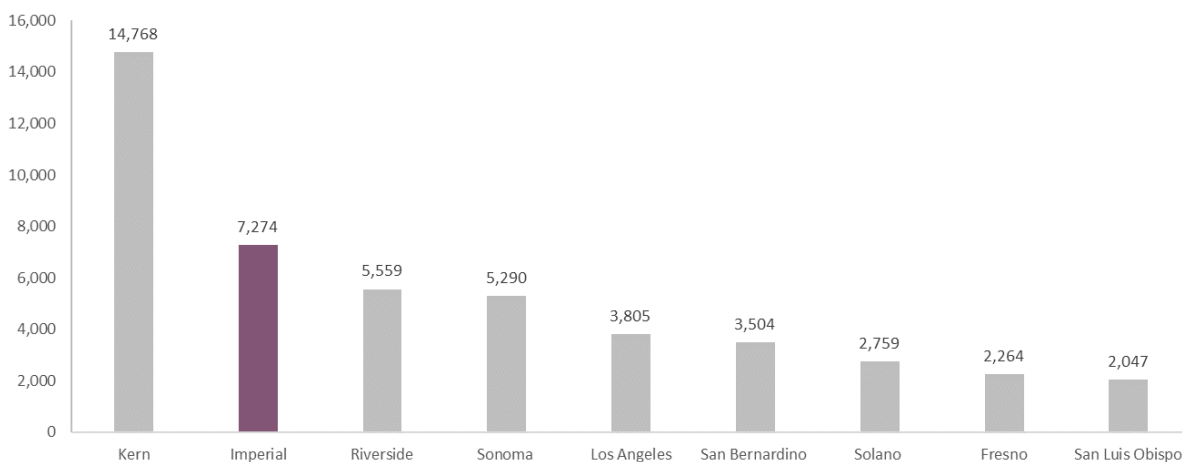
**Agriculture**

Over the next year, agriculture production is expected to be stable with higher production values than in years past as business expenses have increased (seed, fertilizer, machinery, labor and water). Livestock will continue to lead the way, followed by vegetable/melon production. Over the next few years, fallowing (based on water transfers) will begin to impact overall production and, therefore, employment and ancillary business support.

Agriculture continues to be the most important private industry to the Imperial Valley. In 2021, the region produced over \$2.2 billion of agriculture products. This was led by vegetable/melon production at \$1.04 billion and livestock (predominately cattle) at \$527.5 million. Farmers report significant price increases in “crop inputs,” which include seed, fertilizer and pesticides. Labor continues to be a challenge with minimum wage increases and immigration challenges (some related to COVID-19).

Imperial County is an important part of California’s energy goals. The past three governors have championed a shift to renewable energy. Much of this energy will come from solar, geothermal and wind. as Areas like Imperial County that are rural and have abundant sun, wind and geothermal resources have the ability to make a real difference in energy production statewide and beyond. Based on the most current figures available, Imperial County is ranked second in California for renewable energy production generating some 7,274 gigawatt hours in 2021.

**Exhibit IM-20 Renewable Energy Generation in GWh – Top CA Counties**



Source: California Energy Commission.

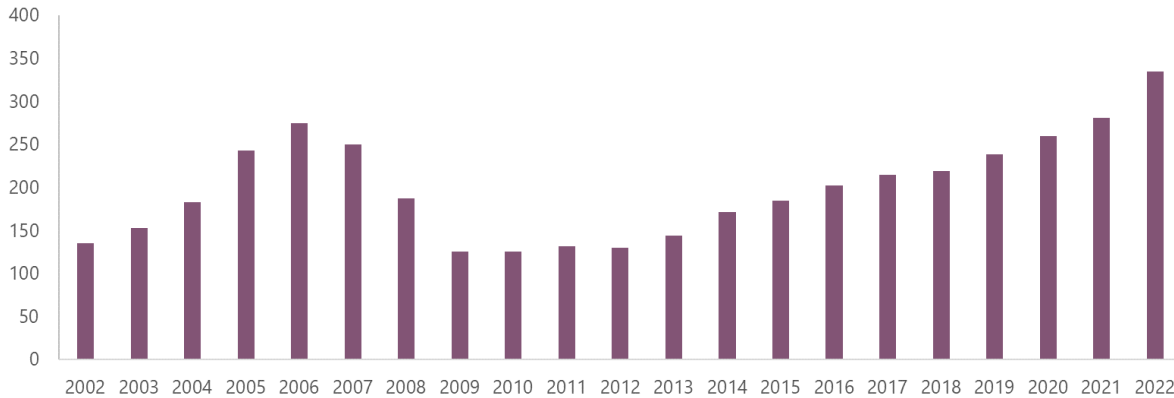
**HOUSING**

In 2009, the height of the Great Recession, the median home price in Imperial County fell to \$125,000. Since that time, there has been a steady increase in home prices. **Exhibit IM-15**

below shows that the current median home price (single-family) is \$335,000. The consistent increase in prices has been more remarkable, versus large swings seen in other communities across Southern California.

**Exhibit IM-15 Median Home Price in Imperial County**

*Thousands of current dollars*

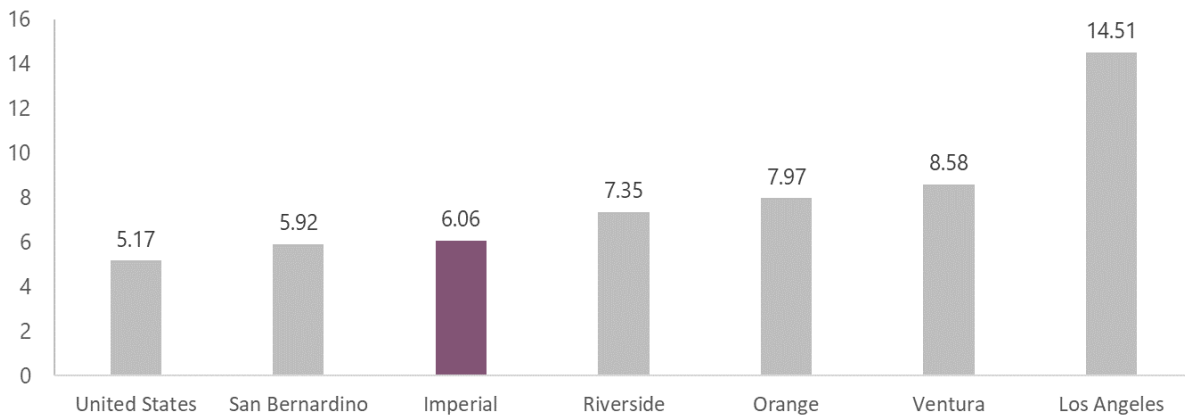


Source: CoreLogic (2002-2021), Redfin (2022)

Comparing regions relative to housing affordability can be challenging. **Exhibit IM-16** below provides one comparison based on the Median Home Price divided by the Median Household Income by SCAG County and the United States as a whole. Historically, Imperial County has been the most affordable of the counties listed. For 2022, San Bernardino County has proven to be slightly more affordable than Imperial County, even though they have seen a substantial increase in housing prices. This is simply a factor of limited wage growth in Imperial County.

**Exhibit IM-16 Housing Affordability Index by County**

*Index (Median Home Price/Median Household Income)*

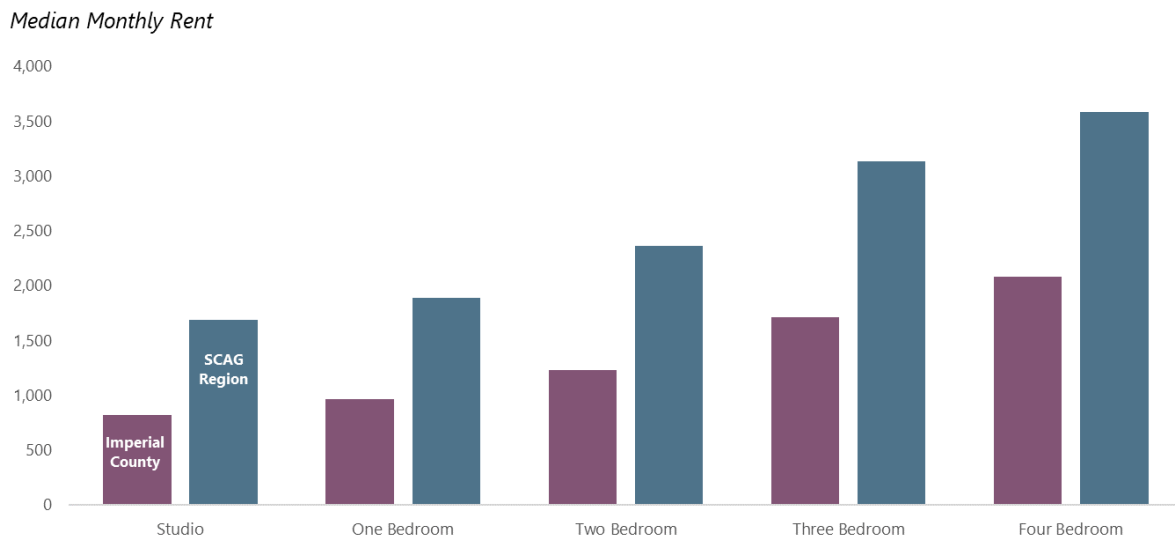


Sources: California Association of Realtors, Redfin, TradingEconomics, FRED, and Development Management Group, Inc.



Mirroring statewide trends, median rent has gone up in Imperial County in recent years. Rental demand and rents in Imperial County have increased for several reasons. Recent step increases in minimum wage have increased ability-to-pay and therefore rents. Home purchase price increases have also resulted in upward pressure on rents. Finally, the foreclosure crisis in 2009 drove many Imperial County households to rent. Today, a 2-bedroom/2-bathroom apartment costs around \$1,200-\$1,400 per month. A 4-bedroom (usually 2-bathroom) housing unit (typically a single-family home) rents for between \$2,000- \$2,400 per month (**Exhibit IM-17**). Property managers are reporting that vacancies are less than 2 percent on an annualized basis and the percentage of persons paying rent on a timely basis exceeds 98 percent (same as pre-pandemic).

### Exhibit IM-17 Projected Median Monthly Rent in Imperial County and the SCAG Region (Federal FY2023)

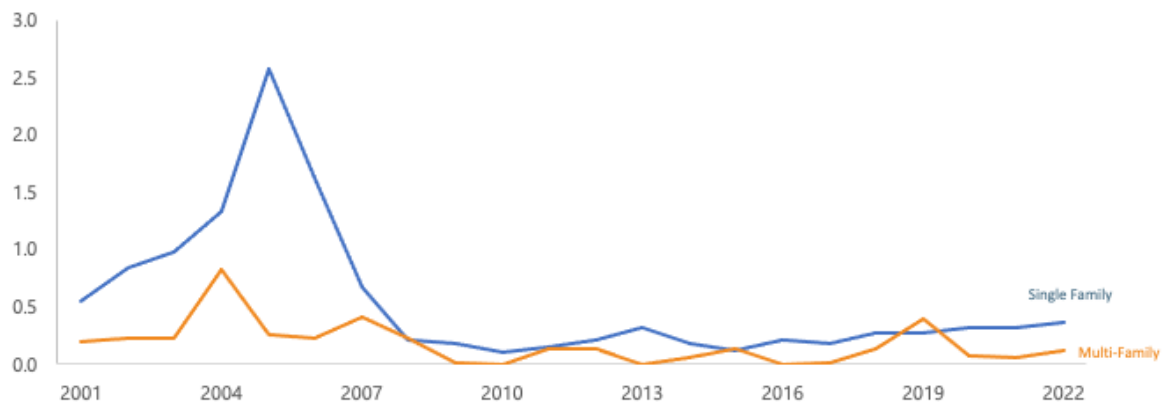


Source: HUD 50th Percentile Fair Market Rents, adjusted for inflation and HUD estimated growth for FY2023.

One limiting factor on rentals is the cost to construct new units. Unfortunately, the per square foot price to build a new unit is still prohibitive versus the market rents. Imperial County is seeing some naturally affordable units coming on the market as a couple multi-family investors have seen the opportunity to convert older hotel/motel properties into micro-apartments (usually between 300-450 square feet) and renting them for between \$600-\$750 per month.

## Exhibit IM-18 New Residential Units from Building Permits Issued in Imperial County, 2001-2022

Thousands of units



Notes: Computed from CIRB Building Permits data. Counts for 2022 are annualized based on historical monthly CIRB data.

After the Great Recession, Imperial County has been slow to see new residential construction. In fact, many years have seen less than 200 single-family permits and zero multi-family permits. The latest economic boom (before interest rates started to rise) saw an uptick. For 2022, it is estimated that about 500 new permits will be issued total, 366 for single-family homes and 116 for multi-family homes. As 30-year mortgage rates have more than doubled in the last 12 months, it remains to be seen what the market absorption of the single-family units will be. The multi-family permits appear to all be for rental housing (senior housing and market-rate).

### ECONOMIC OUTLOOK FOR IMPERIAL COUNTY

As the drought in California and the west continues, Imperial County faces dangerous water conditions. Imperial County agricultural producers rely exclusively on Colorado River water, primarily supplied by the Imperial Irrigation District. Due to drought and impacts from climate change, Colorado River supplies are at risk for all Colorado River users across seven states, numerous tribes and Mexico. To provide relief across the southwestern states, the U.S. Bureau of Reclamation has asked water agencies to voluntarily reduce withdrawals from the river. The State of California has proposed reducing Colorado River withdrawals by 400,000 acre-feet, with Imperial Irrigation District contributing 250,000 acre-feet of water.<sup>9</sup>

If California's proposal is accepted by the Colorado River users, Imperial County growers will be compensated for fallowing land and the region may receive drought relief funds from the Inflation Reduction Act. However, this still poses severe pressure on the Imperial County economy. Growers in Imperial County have already planned crops for the year, and fallowing land can have devastating impacts on agricultural suppliers and workers.

<sup>9</sup> Ronayne, Kathleen and Fonseca, Felicia, "California offers up a 400,000 acre-feet cut to its Colorado River water," Associated Press, 10/5/22.

Imperial County can also look forward to a year of opportunity in 2023, as work continues on geothermal/lithium production. The year will also bring new needed investment in solar/battery storage that will help stabilize the California electrical grid. The region will need to work to protect its water resources to sustain both a regional economic engine and to produce food (for both humans and livestock). Finally, interest rate increases will result in a slowing of consumer spending and materially impact both the new and existing housing market.

## Outlook: Los Angeles County

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*This chapter was written by Shannon Sedgwick, Los Angeles Economic Development Corporation, Los Angeles*

### OVERVIEW: STATE OF THE LOS ANGELES COUNTY ECONOMY

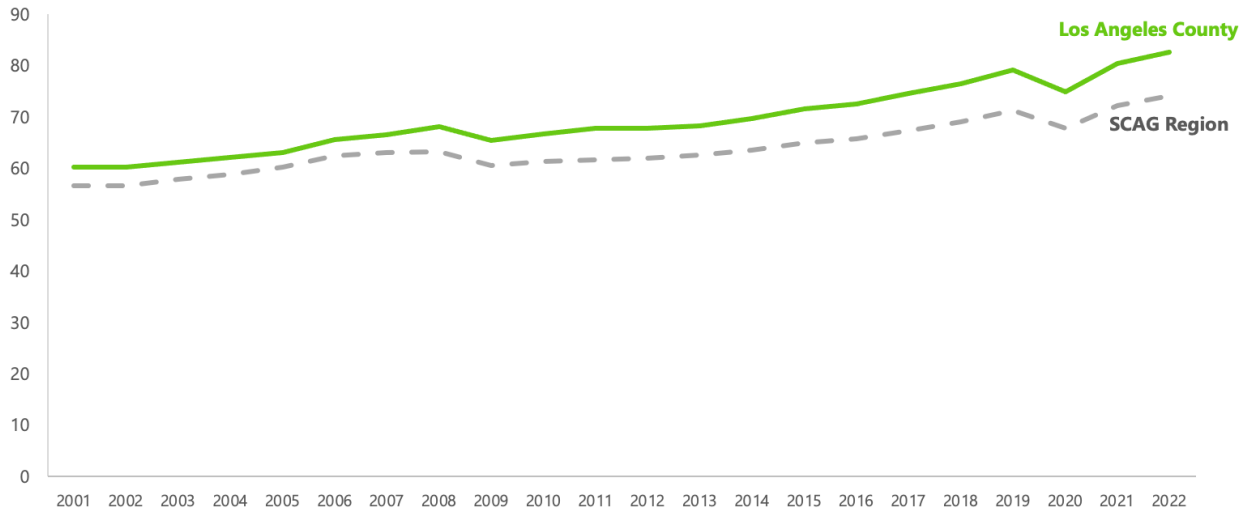
Los Angeles County's strong post-COVID-19 recovery is at risk of a slowdown over the next five years. Moving into the third quarter of 2022, roughly 91 percent of the 784,800 non-farm jobs lost over March and April of 2020 have been added to payrolls. However, national economic developments will significantly influence the county's economic performance in the near future. The direct effects of inflation and the Federal Reserve's attempts to combat it pose the most significant risk. Historically, significant contractionary monetary policy and economic downturns tend to happen together. If a national recession occurs, it will slow Los Angeles County's local economy.

Inflation, measured by the consumer price index (CPI), is influenced by a variety of factors including the lag at which past expansionary policy measures end up injecting money into the economic system, changes in monetary policy, and the speed at which these policy changes end up affecting the growth in the supply of money and credit. In addition, if global supply chain issues persist, their effects on production will influence the supply of several goods available to consumers and, therefore, prices. CPI in Los Angeles County is expected to increase by 7.6 percent year-over-year from 2021 to 2022 and is expected to slow to 3.5 percent growth over the year in 2023, as the economy cools in response to the federal government's monetary and fiscal measures, tempering aggregate demand.

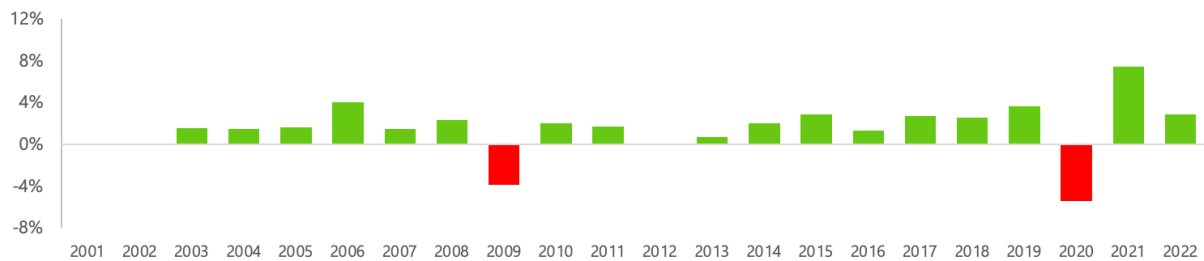
Los Angeles County contributes 58.6 percent of the SCAG region's \$1.3 billion in gross regional product (GRP), making it the major economic driver of the six-county region. Even with a population 3 times the size of any other county in the region, Los Angeles County has the second largest GRP per capita, with \$82,700 in output per person. Moving forward, the GRP per capita of Los Angeles County is expected to continue growing, surpassing \$92,200 in 2030. One threat to this GRP growth is inflation and the contractionary monetary policy being implemented by the Federal Reserve to combat it: historically, significant contractionary monetary policy and economic downturns tend to happen together; if a national recession occurs, it will slow Los Angeles County's local economy. Real GRP growth in Los Angeles County is expected to slow to 2.9 percent in 2022 and 1.3 percent in 2023.

### Exhibit LA-1 Per Capita Gross Domestic Product (GDP) in Los Angeles County, 2001-2022

Thousands of 2022 U.S. dollars



Annual percent change in per capita GDP in Los Angeles County



Based on REMI Transight model. Data for 2001-2021 are actuals from the Bureau of Economic Analysis. GDP for 2021- 2022 forecasted using REMI model.

## ECONOMIC INDICATORS

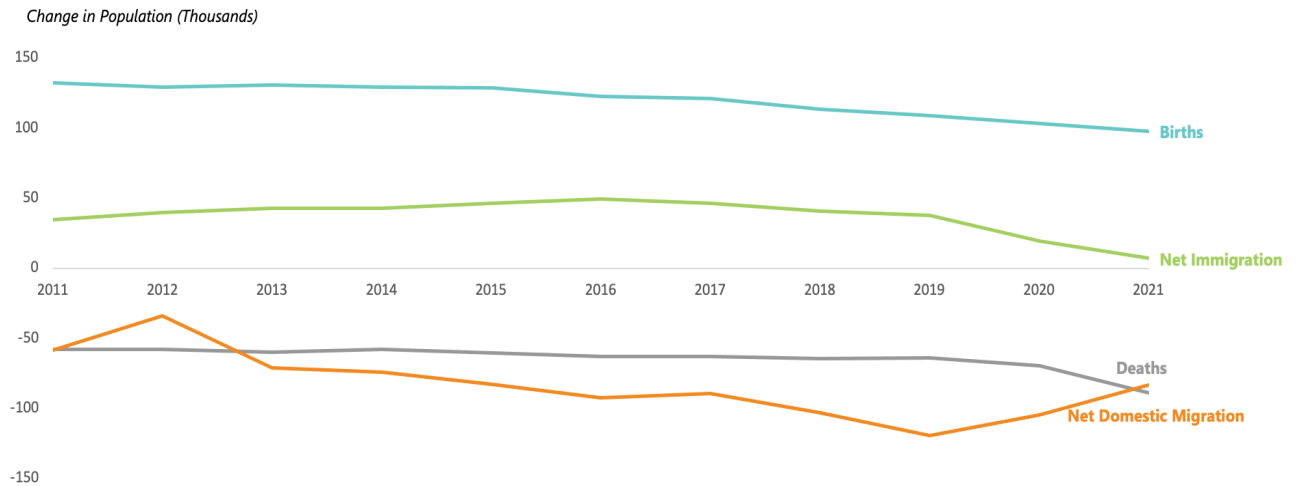
### DEMOGRAPHICS & SOCIOECONOMICS

Knowing how a population is projected to grow can help to determine what an area will require in the future in terms of products and services, and the labor resources the region will provide to industry.

Los Angeles County remains the most populous county in the SCAG region and the nation, with its 9.9 million residents making up more than half the region’s population and more than a quarter of California’s population. However, the population of Los Angeles County is shrinking; from 2013 to 2021, the number of Los Angeles County residents hovered at just over 10 million according to the California Department of Finance estimates, but decreasing fertility and

immigration, accompanied by increasing domestic migration out of the County have led to a population decline of about 68,000 persons between 2020 and 2021 (1 percent).

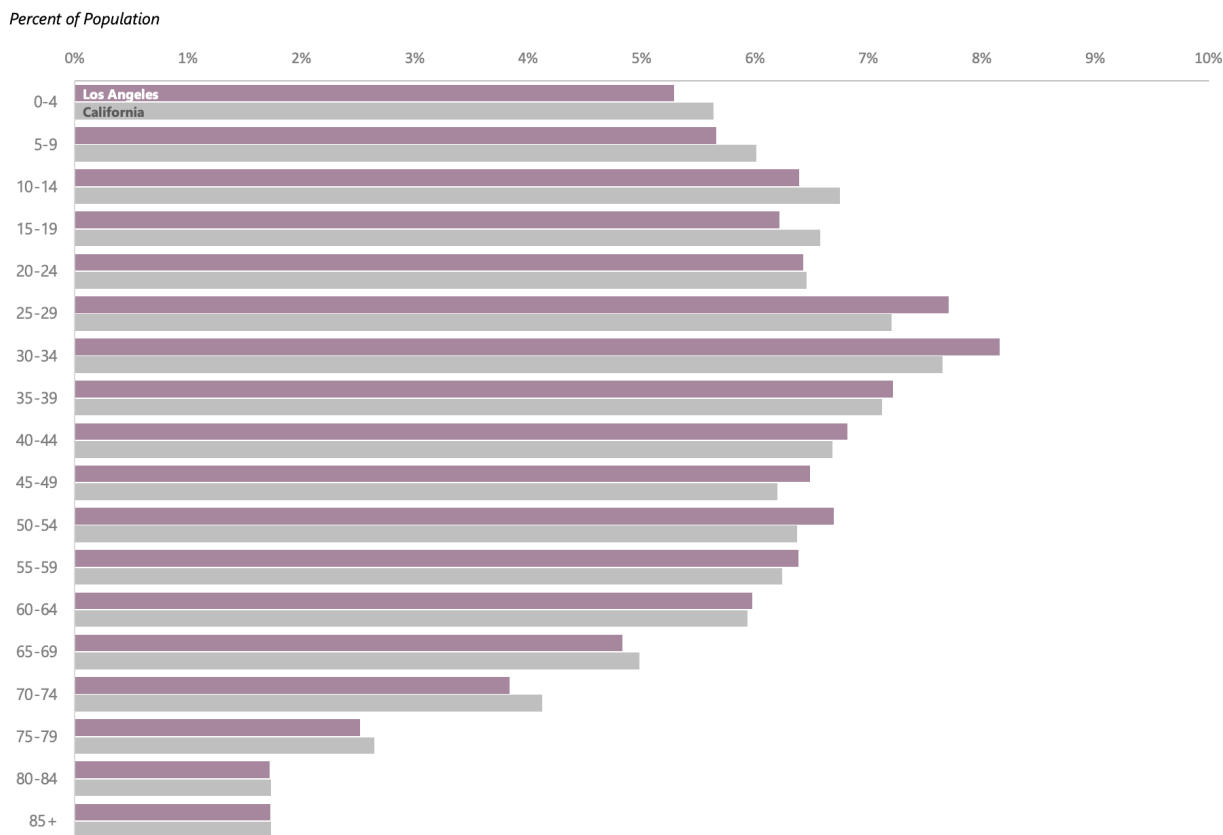
### Exhibit LA-2 Components of Population Change in Los Angeles County, 2011 to 2021



Source: State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year — July 1, 2010–2021, December 2021

Age distribution is one way to determine whether the population within an area is, excluding all other factors, expected to grow or is aging, which will affect future needs and growth projections. Compared to the nation overall, Los Angeles County has a greater share of working age residents: 49.4 percent of the population are between the ages of 25 and 60 years—compared to about 45.4 percent across the U.S.

### Exhibit LA-3 Age Distribution of the Population in Los Angeles County Compared to the Rest of California, 2021



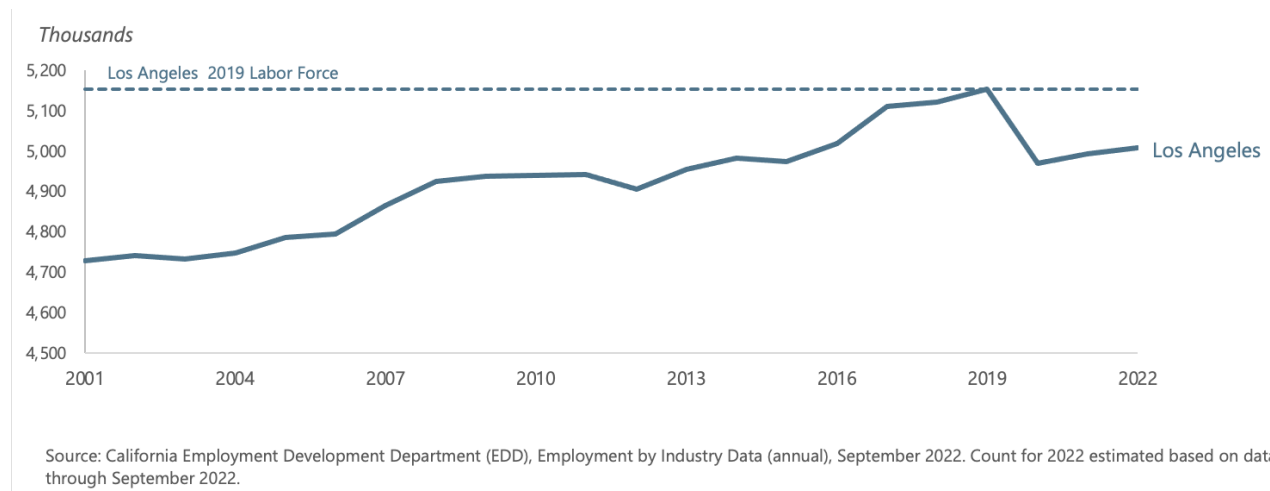
Source: U.S. Census Bureau. (2022). 2021 American Community Survey 1-year Samples.

Despite changes in total population, the distribution by race/ethnicity has not varied much in the past 10 years, with Hispanic/Latino residents still making up the plurality, with 48 percent in 2020. The past decade (2010 to 2020) saw slight decreases in the representation of White (5.9 percentage points) and Black (0.1 percentage point) residents, while Asian residents and residents with two or more races saw notable increases (1.2 and 2.2 percentage points respectively).

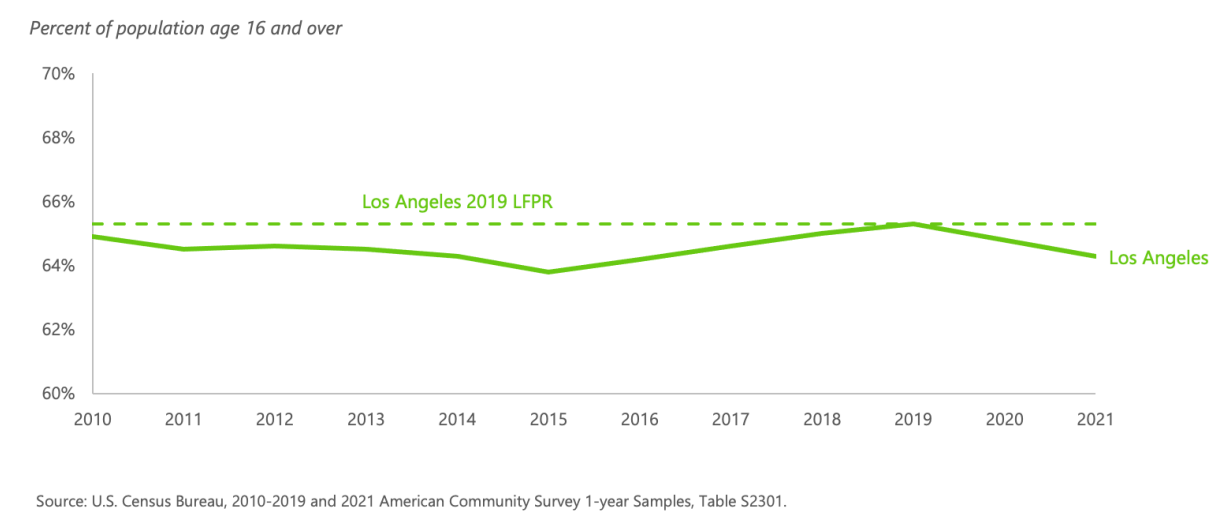
### EMPLOYMENT

The labor force in Los Angeles County has grown slightly, rising to above 5 million residents for the first time since 2019. The county saw a steady increase in the labor force participation rate (which remains higher than that of the SCAG region and the U.S.) in the 5 years before the pandemic, but that has been upended by an exodus of men from the workforce. Between 2019 and 2021, the male labor force participation rate fell by 1.7 percent in Los Angeles County, while the participation rate for females remained relatively unchanged.

### Exhibit LA-4 Labor Force in Los Angeles County, 2001-2022



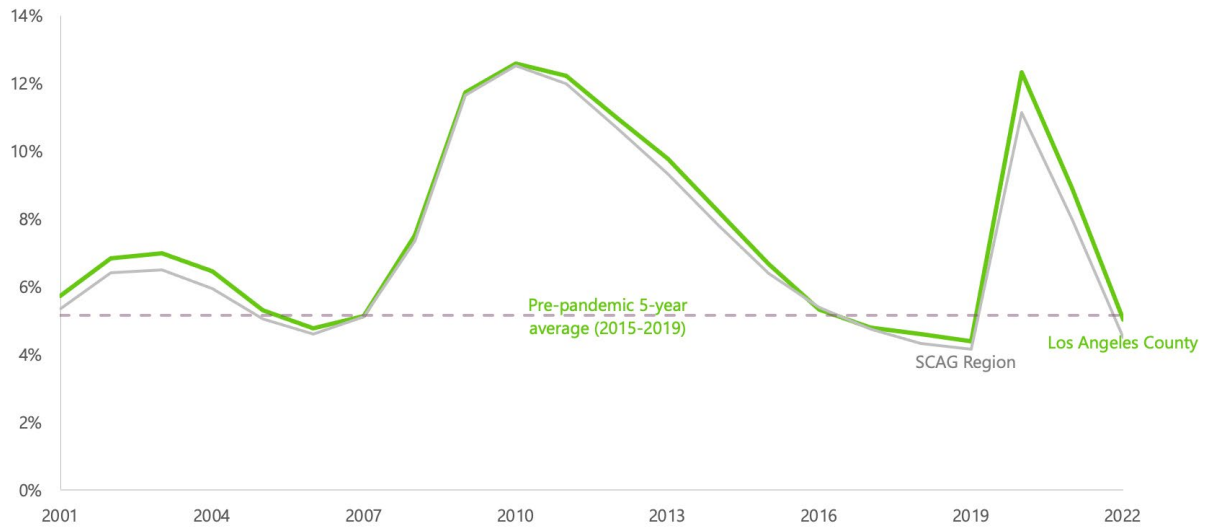
### Exhibit LA-5 Labor Force Participation Rate in Los Angeles County, 2010-2021



Unemployment in Los Angeles County remains the second highest in the SCAG region, projected to at 5.1 percent in 2022; 0.7 percentage points above the 4.4 percent recorded in 2019 before the COVID-19 pandemic. The unemployment rate in Los Angeles County spiked to 12.3 percent in 2020. Looking ahead, the unemployment rate is expected to reach 5.7 percent in 2023 and 5.3 percent in 2024.



Exhibit LA-6 Unemployment Rate (%) in Los Angeles County, 2001-2022

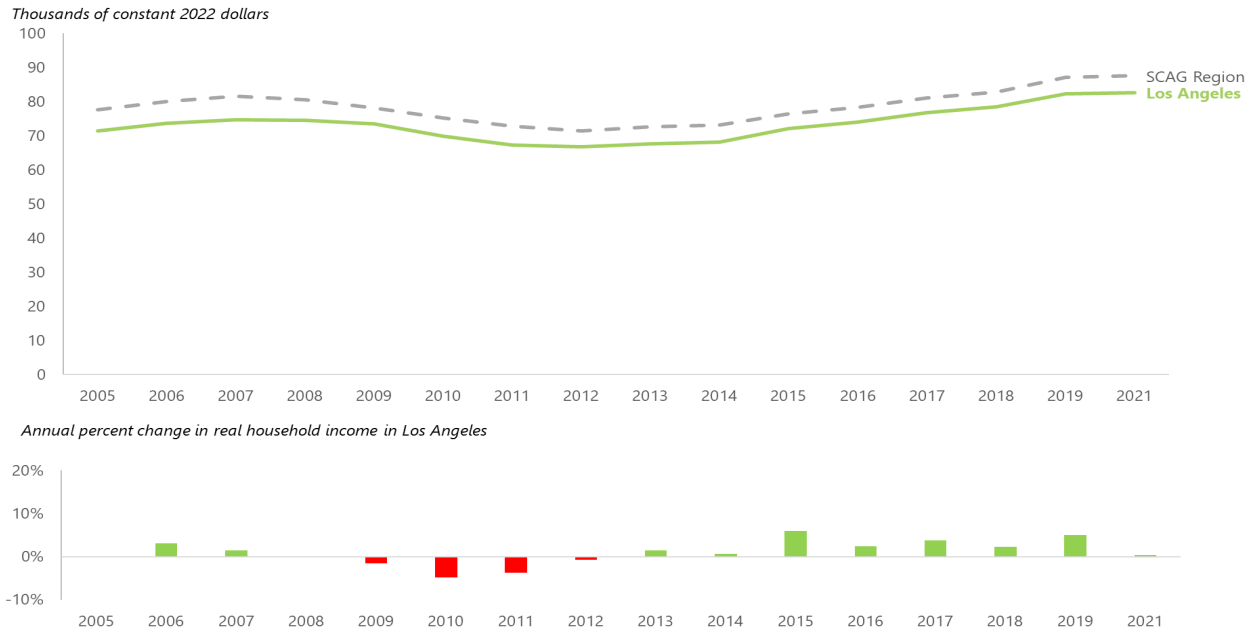


Source: California Employment Development Department (EDD), Employment by Industry Data (monthly), September 2022.

### INCOME AND POVERTY

Los Angeles County has the third highest median household income in the SCAG region at \$82,700, behind Orange and Ventura Counties but greater than Imperial and San Bernardino Counties. Since 2006, real median household income in Los Angeles County has increased; it is now less than \$5,000 away from the SCAG regional median (**Exhibit LA-7**).

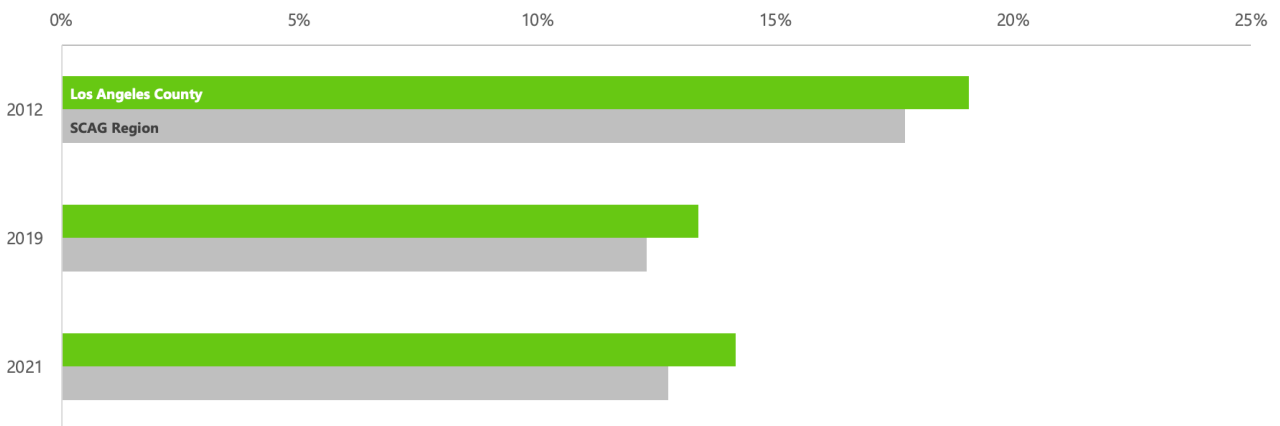
### Exhibit LA-7 Real Median Household Income in Los Angeles Compared to the SCAG Region, 2005-2021



Source: Bureau of the Census, American Community Survey 1-Year Samples for 200-2019 and 2021.

The deep socioeconomic inequities brought to the forefront by the COVID-19 pandemic in Los Angeles County remain with lower income households now disproportionately feeling the effects of inflation. The county’s individual poverty rate increased to 14.2 percent in 2021, the second worst in the SCAG region and the 18.5 percent of residents under 18 in poverty is the worst (**Exhibit LA-8**).

### Exhibit LA-8 Percent of Population in Poverty in Los Angeles County and SCAG Region, 2012, 2019 & 2021



Source: U.S. Census Bureau. (2022). 2012, 2019, and 2021 American Community Survey 1-year Samples, Table S1701.

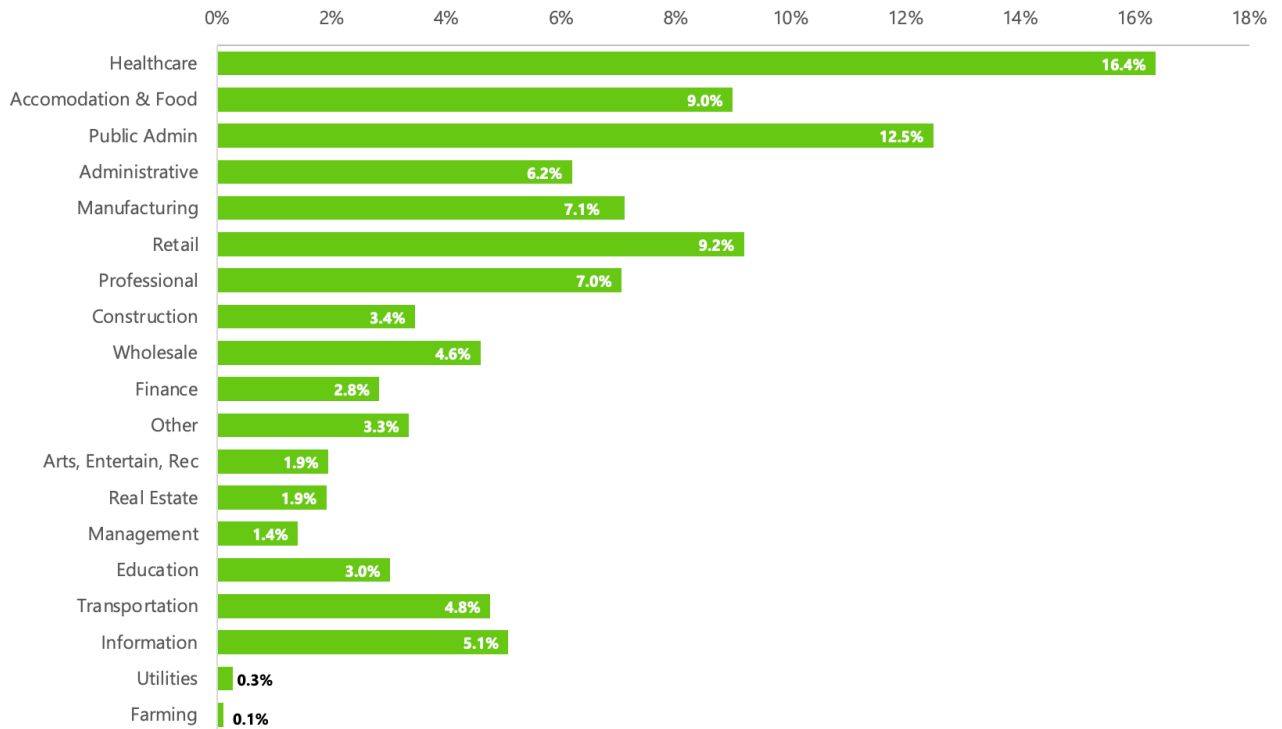
Economic headwinds, including inflation and any upcoming recession, will continue to have an outsized effect on lower income households, especially those experiencing poverty.

### INDUSTRIES & OCCUPATIONS

Moving into the third quarter of 2022, roughly 91 percent of the 784,800 non-farm jobs lost over March and April of 2020 have been added back to payrolls. Los Angeles County's diverse economic base has made the economy more resilient — the lagging recovery experienced by some industries has been offset by gains in healthcare, professional business services and the motion picture and sound recording industry.

The five largest industries by employment in Los Angeles County as of 2022 are Health Care and Social Assistance (735,000 jobs), Public Administration (559,000 jobs), Retail Trade (413,000 jobs), Accommodation and Food Services (403,000 jobs), and Manufacturing (319,000 jobs) (**Exhibit LA-9**).

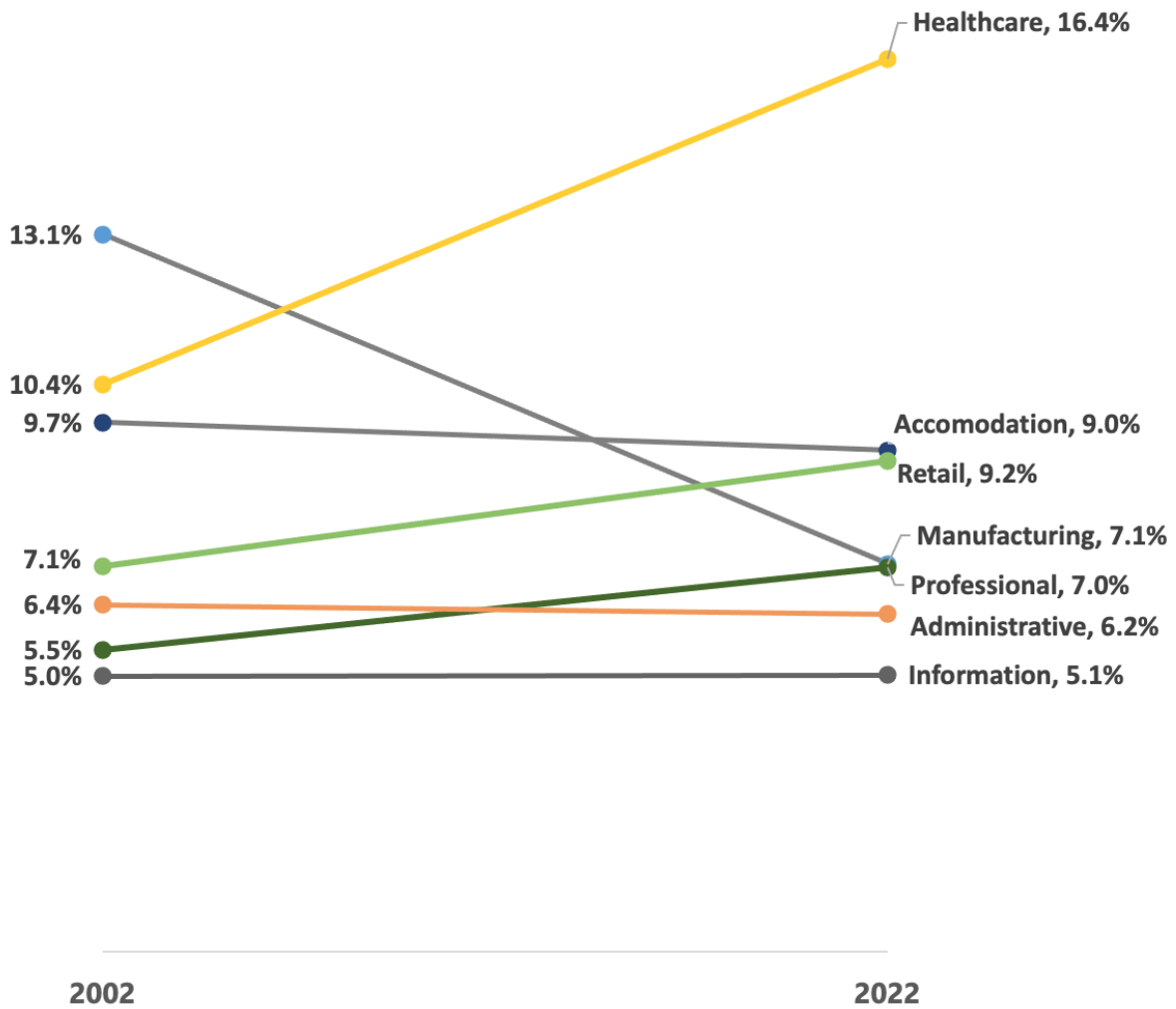
**Exhibit LA-9 Percent of Total Employment by Sector in Los Angeles County in 2022**



Source: California Employment Development Department (EDD), Employment by Industry Data (annual), retrieved from <https://labormarketinfo.edd.ca.gov/data/employment-by-industry.html>; 2022 annualized based on previous 12 months.

Over the last 20 years, industries that have increased their share of employment include: Health Care and Social Assistance with the largest increase, jumping from 10.4 percent to 16.4 percent; Accommodation and Food Services rose from 7.1 percent to 9.0 percent; and Professional Services rose from 5.5 percent to 7.1 percent. Manufacturing had the largest decrease, falling from 13.1 percent to 7.1 percent followed by Government which fell from 14.7 percent to 12.5 percent and Finance which dropped from 3.8 percent to 2.8 percent of the county’s employment (Exhibit LA-10).

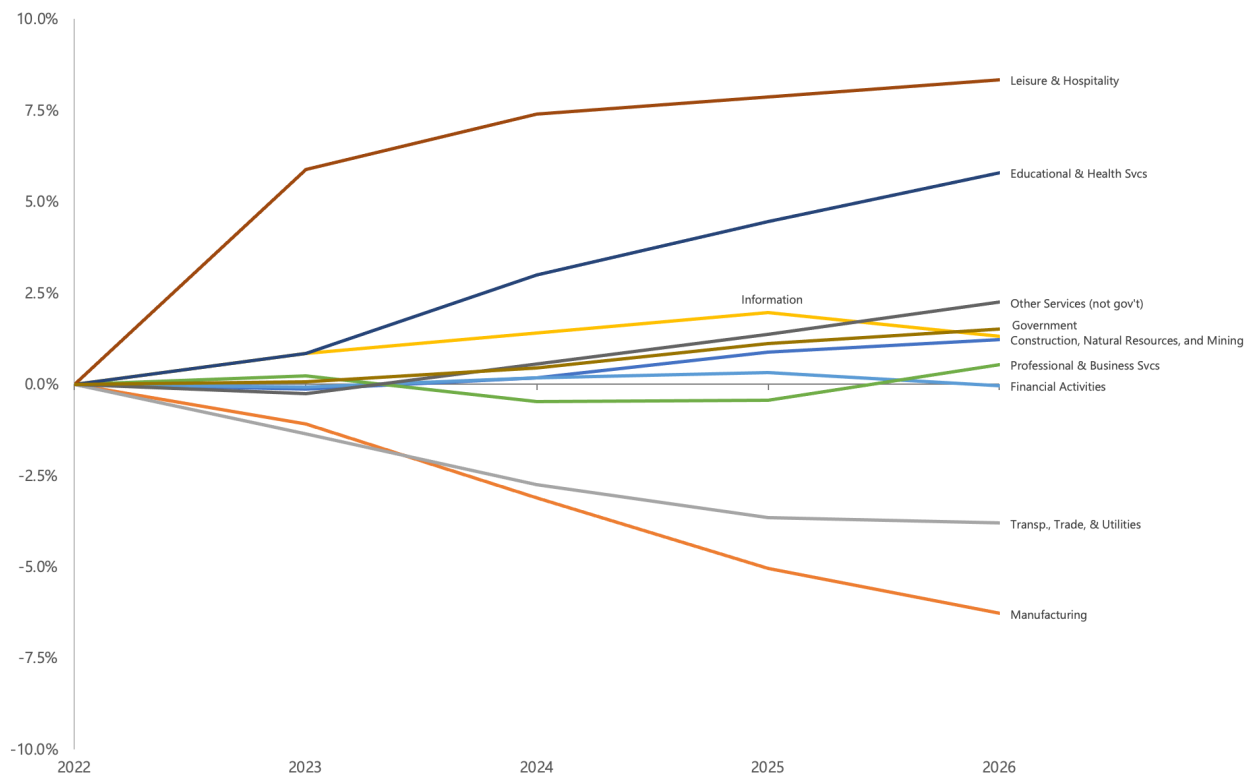
Exhibit LA-10 Industrial Sector Share of Employment in the Los Angeles County Between 2002 & 2022



Notes: Based on EDD Employment by Industry table. Industrial sectors are categorized by 2-digit NAICS codes. Sectors with less than 5 percent of jobs in 2022 are not shown in chart.

### Exhibit LA-11 Forecast of Non-farm Employment by Industry Supersector

Job Growth Indexed to 2022



Looking ahead, Los Angeles County non-farm employment is projected to grow by 331,000 jobs from 2021 to 2026 with Leisure and Hospitality, Education and Health Services, and Professional and Business Services leading job growth (**Exhibit LA-11**). Indexing allows for the comparison of employment growth across industries of different sizes. When compared to 2022 employment levels, Leisure and Hospitality, Education and Health Services and Other Service (not government) are forecasted to add the most jobs by 2026. The Manufacturing sector and the combined Transportation, Trade and Utilities “supersector” are expected to lose jobs as the economy slows (**Exhibit LA-12**).

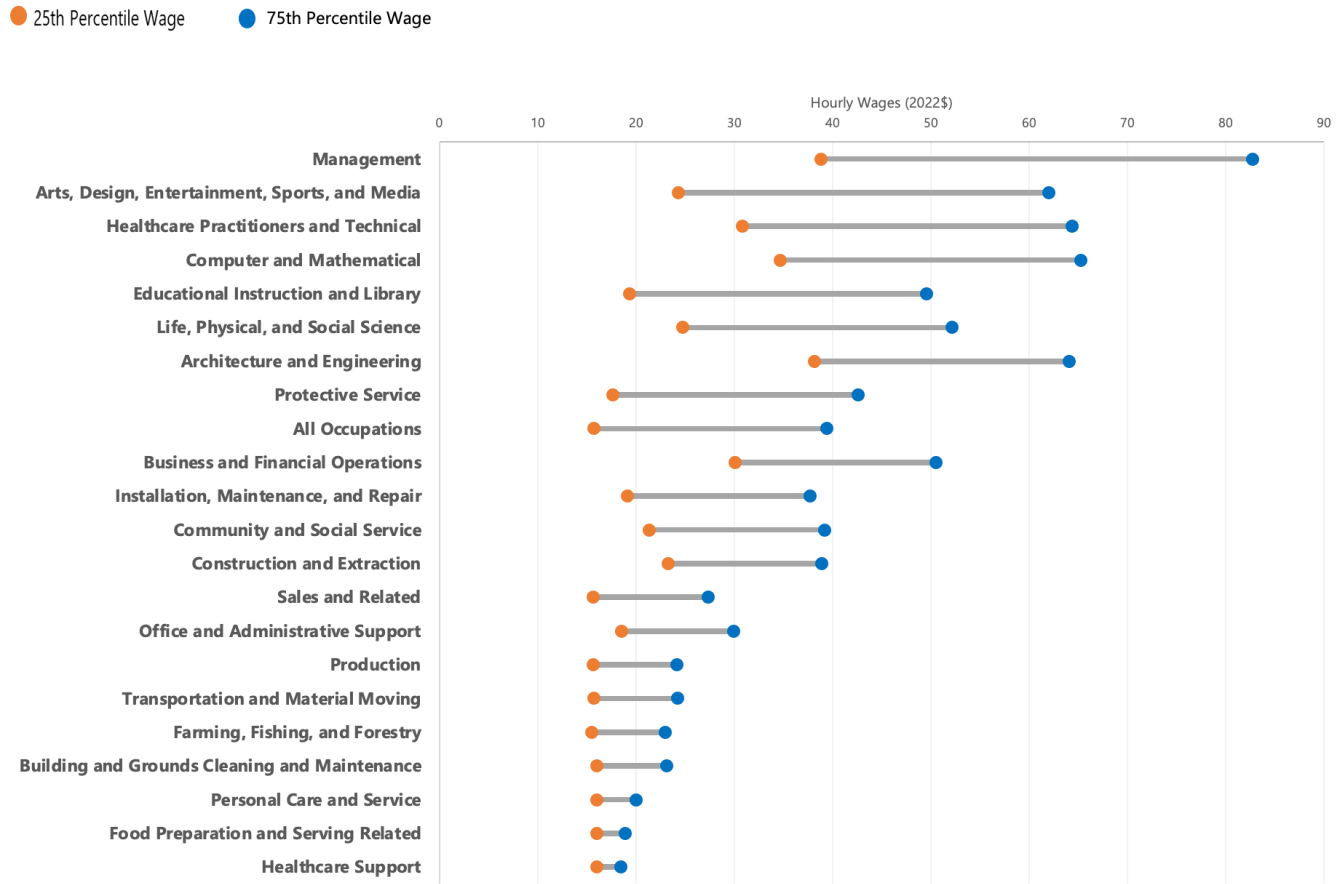
**Exhibit LA-12 Los Angeles County Industrial Forecast 2023-2026**

	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Const, Nat Resources & Mining	-0.10%	0.30%	0.70%	0.30%
Manufacturing	-1.10%	-2.00%	-2.00%	-1.30%
Transportation, Trade & Utilities	-1.40%	-1.40%	-0.90%	-0.10%
Information	0.80%	0.50%	0.60%	-0.60%
Financial Activities	-0.10%	0.20%	0.10%	-0.40%
Professional Business Svcs	0.20%	-0.70%	0.00%	1.00%
Educational & Health Svcs	0.80%	2.10%	1.40%	1.30%
Leisure & Hospitality	5.90%	1.40%	0.40%	0.40%
Other Services (not gov't)	-0.30%	0.80%	0.80%	0.90%
Government	0.10%	0.40%	0.70%	0.40%

Source: Forecast by LAEDC

Occupational wage ranges are sorted based on the number of Los Angeles County workers in each occupation, with the largest occupations at the top of the chart. In the top five occupational categories, the 75th percentile of wages does not extend past \$30 per hour; in four of those occupations, median wages are less than \$19 per hour, which is problematic in a county where the living wage is calculated to be nearly \$22 per hour (**Exhibit LA-13**). Additionally, inflation will result in a drop in the value of real wages, eroding the purchasing power of low wage workers.

Exhibit LA-13 Wages by Occupation in Los Angeles County: 25<sup>th</sup> to 75<sup>th</sup> Percentiles (2022 Q1)

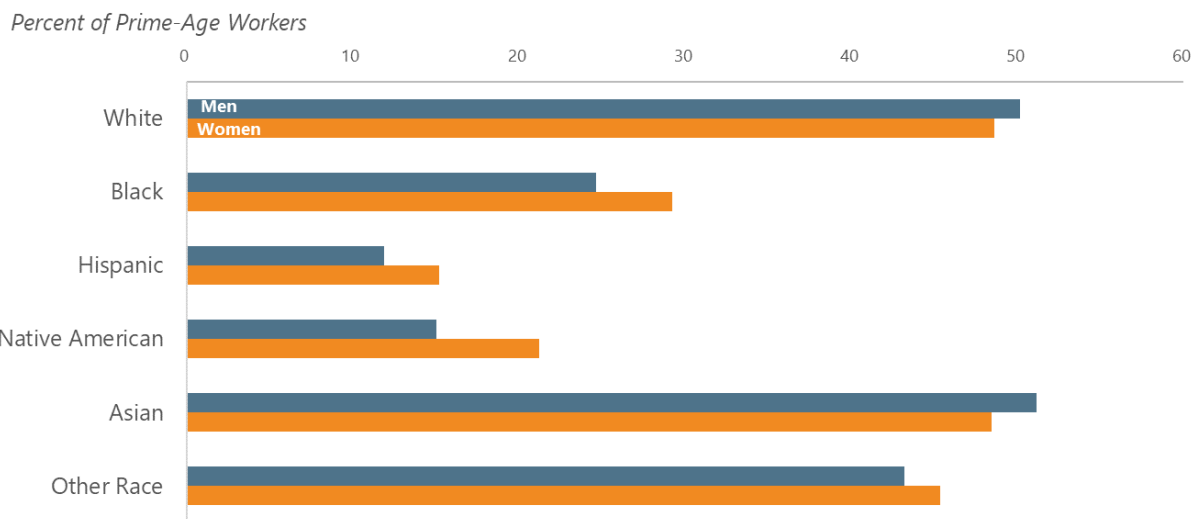


Source: EDD, Occupational Employment and Wage Statistics (OEWS) Survey (2022 1st Quarter).

For most occupations, educational attainment plays a major role in determining compensation, with those with bachelor’s degrees earning more. In Los Angeles County, higher education credentials are much more common among residents who are White, Asian or in the other category compared to Black, Hispanic and Native American workers; this deficit exists across the young, prime-age and mature worker age groups (Exhibit LA-14). By race/ethnicity, fewer prime-age women have a bachelor’s degree than men among White and Asian workers, but the opposite is true for the other racial/ethnic groups. Among young workers, women are much more educated than men. Education is a tool for economic mobility. Making sure access to education is equitable among all groups is vital for the continued economic growth of the county.



## Exhibit LA-14 Percent of Prime-age Workers with at Least a Bachelor's Degree in Los Angeles County



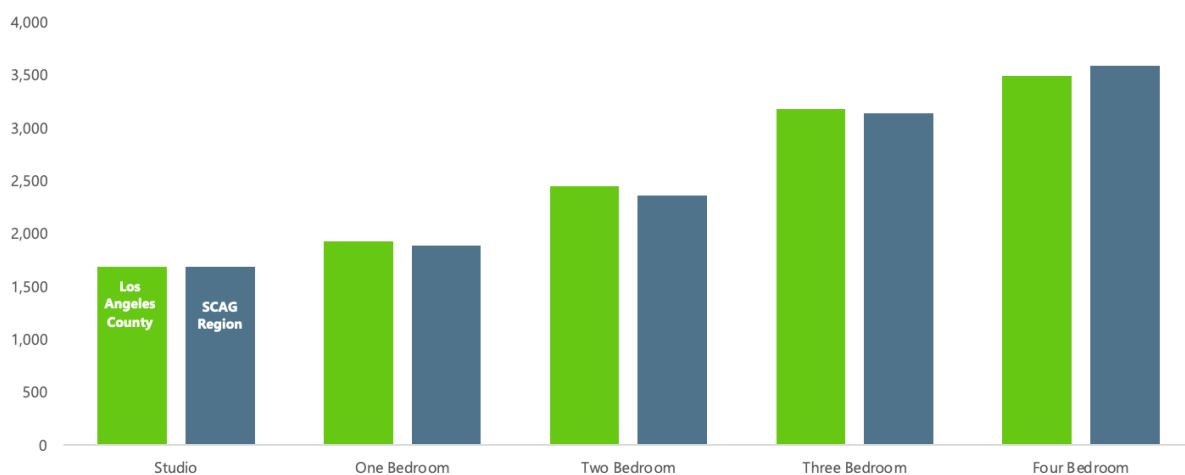
Source: 2016-2020 ACS PUMS 5-Year Sample

## HOUSING

Housing represents the largest component of a household's budget, especially in Los Angeles County. Median home prices remain high despite interest rate increases, as do rents. Ongoing housing affordability and supply issues will continue to pose future challenges for Los Angeles County.

The median single-family detached home price in Los Angeles County fluctuates seasonally but sat at \$855,000 in August 2022, up 193 percent from 10 years prior. As a result, according to the California Association of Realtors, only 16 percent of Los Angeles County households can afford a median-priced single-family home in Q2 2022.

### Exhibit LA-15 Projected Median Monthly Rent in Los Angeles County & the SCAG Region (Federal FY2023)



Source: HUD 50th Percentile Fair Market Rents, adjusted for inflation and HUD estimated growth for FY2023.

Looking ahead, home value increases are expected to slow, though price increases are expected to continue unless there is a significant housing supply increase or an economic shock that significantly decreases housing demand. All else equal, expected tightening of monetary policy will serve to reduce the demand for housing compared to the previous year. All else equal, higher real mortgage interest rates will reduce the rate of appreciation in home values. Median home prices are expected to reach \$867,000 in 2022 and \$899,000 in 2023.

Rent prices have an equally large impact on residents of Los Angeles County, as rentals make up 53.5 percent of all housing units and 50.1 percent of people in the county rented in 2021. Los Angeles County has higher median monthly rent prices across most unit types compared to the rest of the SCAG region, except for four-bedroom units. High rent prices result in an astounding 49.6 percent of Los Angeles County households paying 35 percent or more of their income on rent.

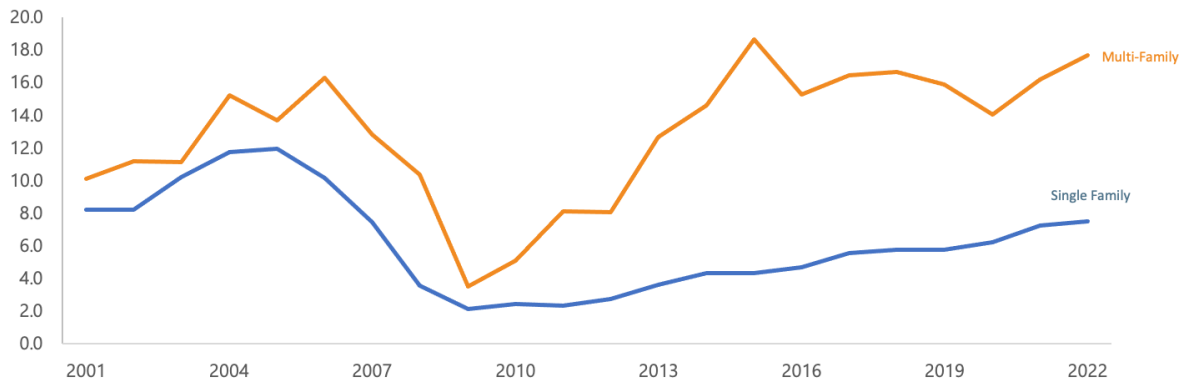
The lack of housing supply drives up housing prices in the region, leading to consequences ranging from decreased discretionary spending to increased risk of eviction. The target for new housing production based on the Regional Housing Needs Assessment (RHNA) through 2029, which considers anticipated household growth, latent housing demand, and LA county's core position within Southern California is 812,060 housing units — around 6 times the number of homes that have been added in the county over the past eight years.

Multi-family housing has received the bulk of residential building permits over the past decade, comprising more than 70 percent of all residential building permits in 2022, compared to around 55 percent in 2001. Additionally, the number of building permits issued is finally approaching the highs of the mid-2000s, with more expected as cities propose housing to meet RHNA goals. Increasing the supply of dense housing stock will help increase affordability in the local real estate market for all Angelenos.

However, the national economic situation will impact the local housing market in Los Angeles County. First, increasing interest rates will affect the affordability of homes for many buyers, as rates will make loans more expensive. Furthermore, if a recession occurs as a result of the federal government’s efforts to stymie the inflation rate, decreased investment may impact the rate at which Los Angeles County can work toward satisfying its housing need.

### Exhibit LA-16 New Residential Units from Building Permits Issued in Los Angeles County, 2001-2022

*Thousands of units*



Notes: Computed from CIRB Building Permits data. Counts for 2022 are annualized based on historical monthly CIRB data.

## ECONOMIC OUTLOOK FOR LOS ANGELES COUNTY

Although Los Angeles County has added a significant number of jobs since the depths of the COVID-19 pandemic, recovery remains incomplete. As of now, Los Angeles County still needs to recover the roughly 70,000 remaining lost non-farm jobs lost as a result of the COVID-19 pandemic.

Low, zero or negative population growth in Los Angeles County portend to impact future economic growth if it continues. Los Angeles has long relied on foreign immigration to fill jobs. While lower fertility and domestic out-migration have contributed to dwindling population, the sharp decline in foreign immigration is the more significant obstacle to growth. While a relative scarcity of labor may lead to higher real wages — currently seen in the food service industry — over time, a declining or even aging population may shrink the labor force, decreasing demand for goods and services, and not sustaining the level of innovation needed for continued economic growth.

Los Angeles County continues to face issues related to inequity, and poverty has increased. Lower income households more vulnerable to the disparate impacts of the pandemic are currently more impacted by high levels of inflation, and will be more vulnerable to any upcoming economic downturn.

While Los Angeles County faces many challenges, there are several opportunities that could provide more economic stability and growth relative to other regions in a time of economic uncertainty. Upcoming investment into the county from federal, state and local government represent the biggest opportunities over the next few years as the economy slows, specifically the expected flow of funds towards infrastructure from the Federal Infrastructure Investment and Jobs Act passed last November and SB-1, The Road Repair and Accountability Act of 2017, intended to fix California’s roads, bridges and freeways, and put more dollars toward transit and safety. Additionally, Los Angeles continues to be a leader in sustainability, with a strong electric vehicle industry and an emerging hydrogen sector. Los Angeles has submitted a proposal to the U.S. Department of Energy for federal funding to be considered a regional “Green Hydrogen Hub” to power hard-to-electrify industries with renewable energy, such as port operations. Upcoming funding related to California’s Community Economic Resilience Fund (CERF) Program will bring \$5 million into the county, intended to build an equitable and sustainable economy and foster long-term economic resilience in the overall transition to a carbon-neutral economy.

## Outlook: Orange County

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*This chapter was written by Wallace Walrod, Tech Coast Consulting Group, Irvine*

### OVERVIEW: STATE OF THE ORANGE COUNTY ECONOMY

Orange County has mostly recovered from the COVID-19 pandemic, due in large part to its diverse industry base and highly educated workforce. Among the six SCAG counties, Orange County has the highest median real household income (\$107,335), highest educational attainment and labor force participation, lowest poverty rate (10 percent), lowest unemployment rate (2.7 percent) and highest per capita GDP productivity.

Orange County also has the region's highest home prices, with a current median sales price of \$1.2 million, which means that only 24 percent of first-time home buyers can afford an entry-level home. Rent prices are also high. As Orange County's high housing costs continue to price out younger residents and their families, the county is getting older, losing population overall the last 2 years, while also becoming more diverse, with growing proportions of Asian and Hispanic/Latino residents.

Most Orange County industries have grown jobs over the past year, led by Accommodation and Food Service; Arts, Entertainment and Recreation; and Education, as well as emerging industry clusters such as Life Sciences (Medical Device, Biotech, IT and Advanced Transportation (EVs and hydrogen). Major new developments, such as DisneylandForward and OCvibe, promise vibrant future economic growth in Orange County.

### ORANGE COUNTY BY THE NUMBERS: OCTOBER 2022

- 2022 population: 3,162,245
- Unemployment rate: 2.7 percent, below where OC was before the COVID-19 pandemic started
- Total employment: 1,560,000, 2 percent below pre-COVID levels
- Labor force: 1,603,800, just below pre-COVID-19 levels
- Top industries by total employment: Professional and Business Services, Education and Health, Trade/Transportation and Utilities, Leisure and Hospitality, Manufacturing
- California State University, Fullerton's Orange County Business Expectations Index (OCBX) declined from 85.3 in Q2 2022 to 59.2 in Q3 2022, before rebounding slightly to 63.9 in Q4 2022. Readings more than 50 indicate Orange County executives expect future positive economic growth, so OC executives are optimistic for 2023.
- Top current concerns for county executives are inflation, labor shortages, tax increases.

### ECONOMIC INDICATORS

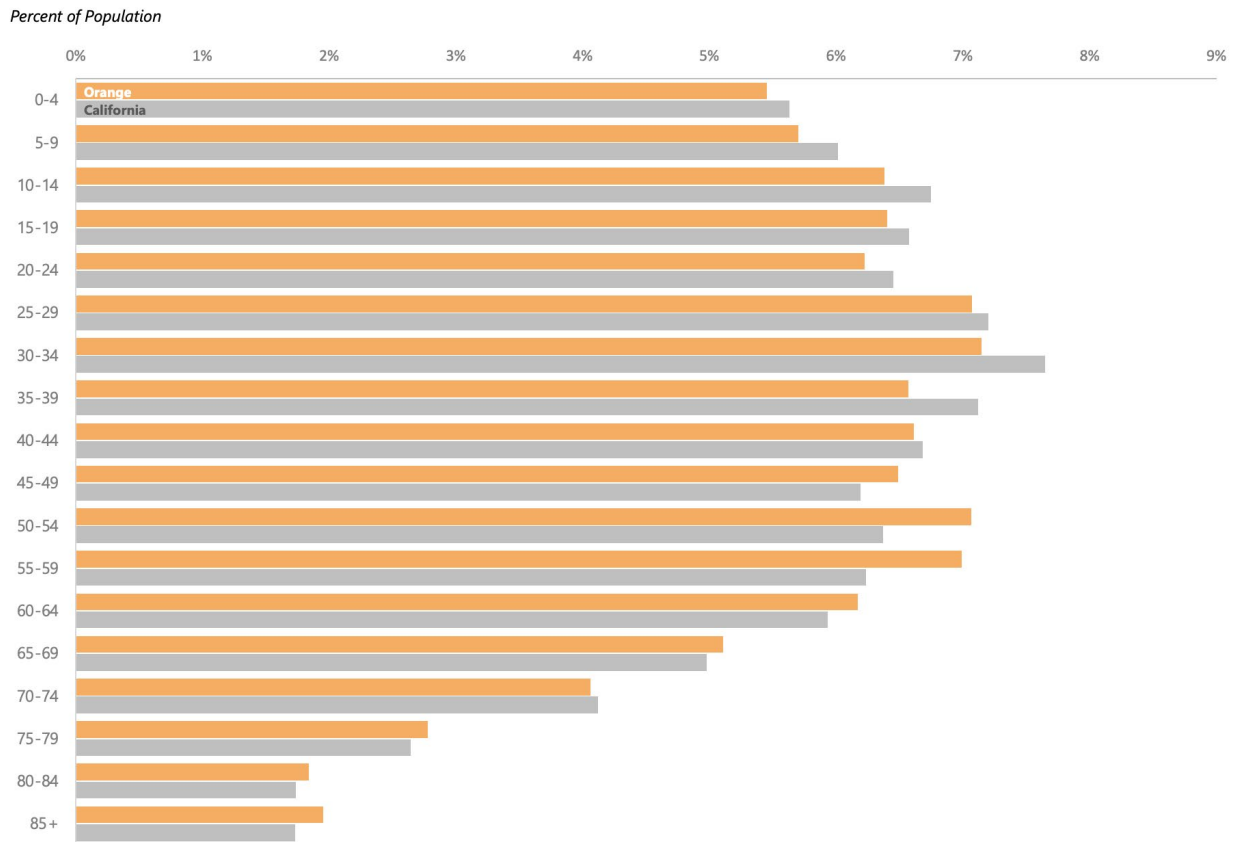
#### DEMOGRAPHICS & SOCIOECONOMICS

Between 2021 and 2022, Orange County's population decreased slightly for the second consecutive year, losing 7,297 residents. This population decline reflects a combination of lower

fertility, a continued net trend toward out-migration and a precipitous drop in foreign immigration during the COVID-19 pandemic. The contribution of out-migration to population decline was largely driven by high housing costs and a high overall cost of living, as was also observed at the SCAG region and statewide levels. Only two SCAG counties (Riverside and San Bernardino) saw population growth over the past year. Orange County has seen negative net domestic migration annually year since 2016.

Orange County’s population is rapidly aging; as seen in **Exhibit OC-1**, Orange County has more residents age 55 and older, and fewer younger residents than the SCAG region as a whole. The county’s median age (39.2) is the highest in the SCAG region. OC’s population is also becoming increasingly diverse: the percentage of Hispanic/Latino residents increased from 33.7 percent in 2010 to 34.1 percent in 2020, while the percentage of Asian residents increased from 17.7 percent to 21.9 percent.

**Exhibit OC-1 Age Distribution of the Population in Orange County Compared to the Rest of California, 2021**



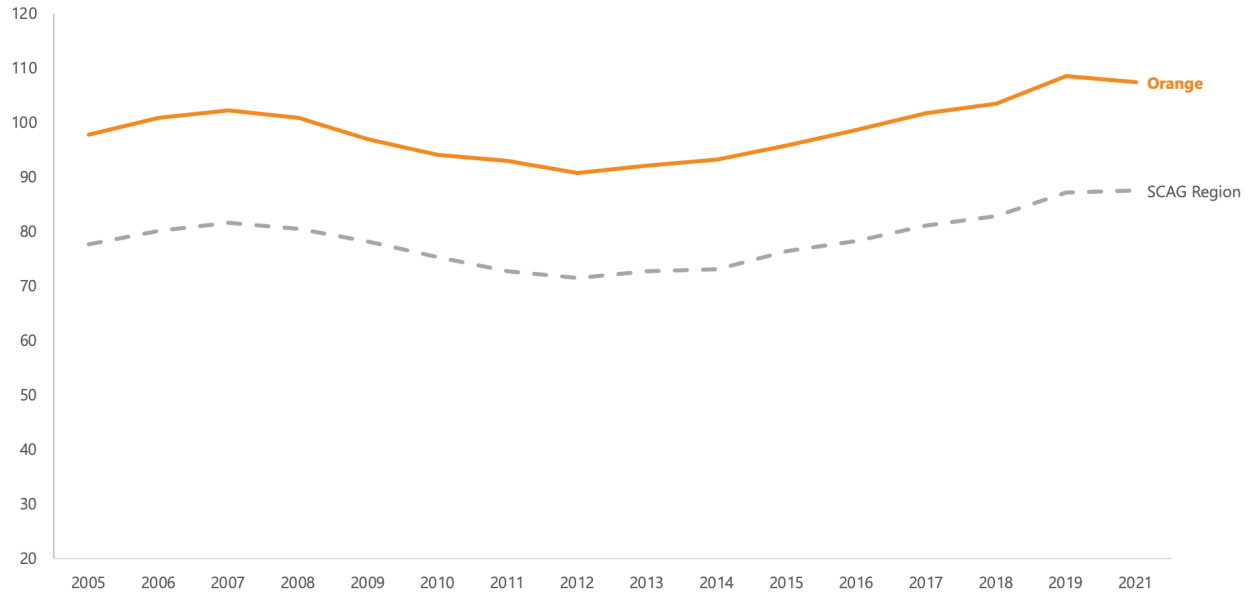
Source: U.S. Census Bureau. (2022). 2021 American Community Survey 1-year Samples.

Orange County’s median real household income declined 1.1 percent from 2019 to 2021, but remains the highest county in the SCAG region. Overall, the SCAG region experienced a slight increase in median real household income over the same period, driven by significant growth in San Bernardino and Riverside counties. Despite this decrease, Orange County’s poverty rate of 10 percent remains the lowest in the SCAG region, although poverty rates have slightly increased

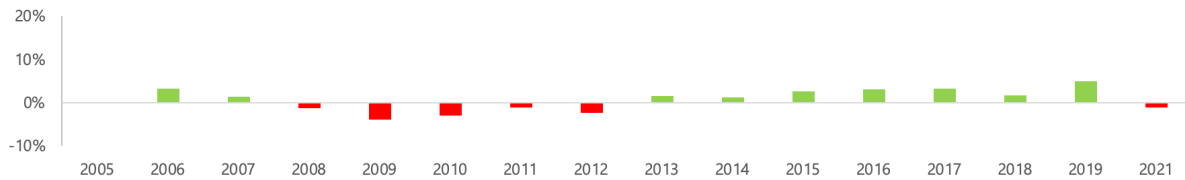
at both the county and SCAG region levels, though they both remain well below ,levels from a decade ago.

**Exhibit OC-2 Real Median Household Income in Orange County Compared to the SCAG Region, 2005-2021**

*Thousands of constant 2022 dollars*

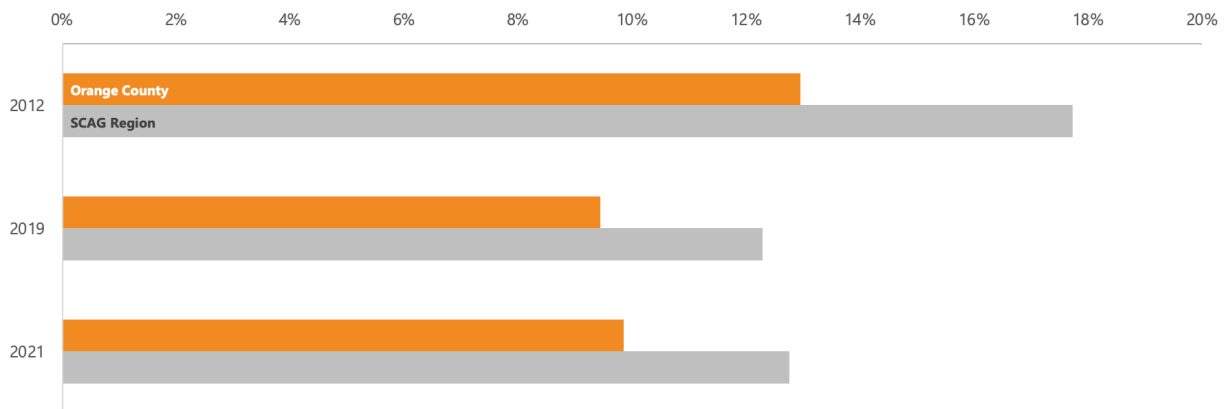


*Annual percent change in real household income in Orange*



Source: Bureau of the Census, American Community Survey 1-Year Samples for 200-2019 and 2021.

### Exhibit OC-3 Percent of Population in Poverty in Orange County and the SCAG Region, 2012, 2019 and 2021



Source: U.S. Census Bureau. (2022). 2012, 2019, and 2021 American Community Survey 1-year Samples, Table S1701.

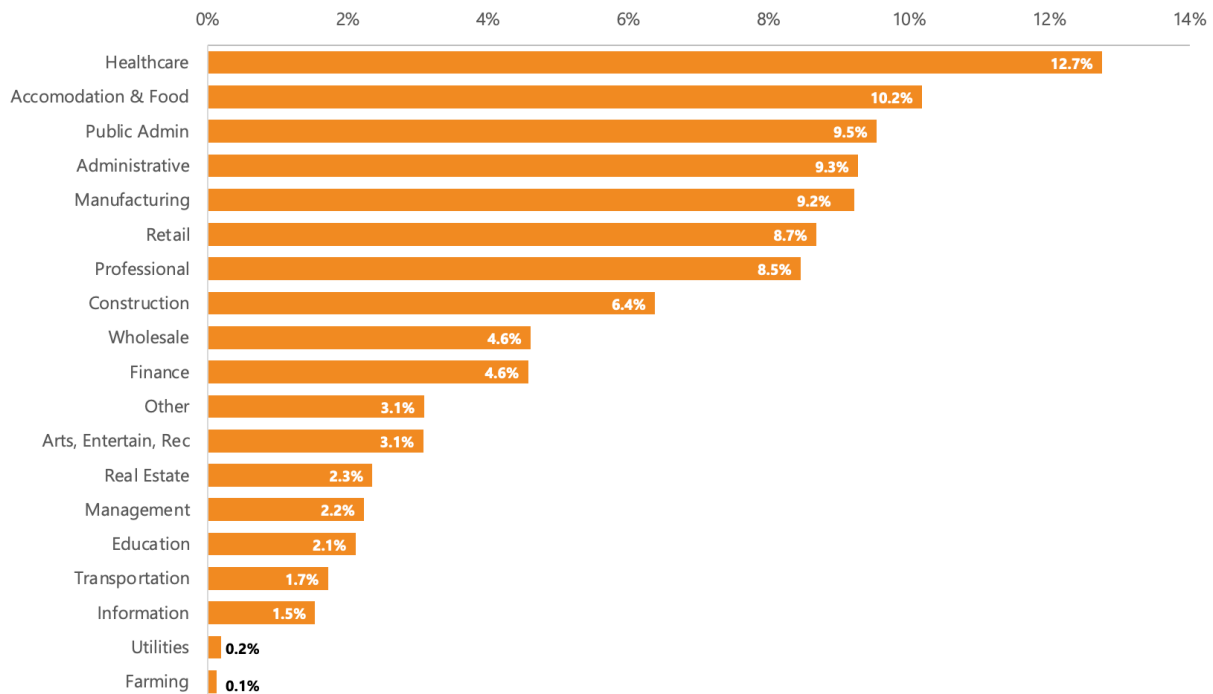
Orange County's highest paying occupational groups include Management, Computer and Mathematical, and Legal. Overall, Orange County occupations typically enjoy significantly higher wages compared to other counties in the region and the state.

## EMPLOYMENT

After peaking at 1.6 million in 2019, Orange County's labor force fell precipitously during the pandemic, bottoming out at 1.5 million in 2021. While labor force participation has recovered to 1.6 million in 2022, it remains slightly below pre-pandemic highs. County unemployment followed similar trends, rising from a historic low of 2.8 percent in 2019 to 9 percent in 2020. Orange County's annual unemployment rate fell to 3.1 percent in 2022, the lowest in the SCAG region and well below the state average of 4.2 percent, and stands at 2.7 percent as of September 2022, the latest month for which data is available.

On an annual basis, Orange County's largest industries include Healthcare, Accommodation and Food Services, Public Administration, Administrative Support and Waste Management, and Manufacturing. Over the past twenty years, Healthcare's share of total county employment increased from 7.5 percent to 12.7 percent, the largest growth of any industry. Manufacturing, Retail, and Government all shrank as a percentage of total Orange County employment over the same period. Despite this decline, Manufacturing, especially Advanced Manufacturing such as Medical Devices, is still a key OC economic driver due to high multiplier effects and significant contribution to GDP.



**Exhibit OC-4 Percent of Total Employment by Sector in Orange County in 2022**

Source: California Employment Development Department (EDD), Employment by Industry Data (annual), retrieved from <https://labormarketinfo.edd.ca.gov/data/employment-by-industry.html>; 2022 annualized based on previous 12 months.

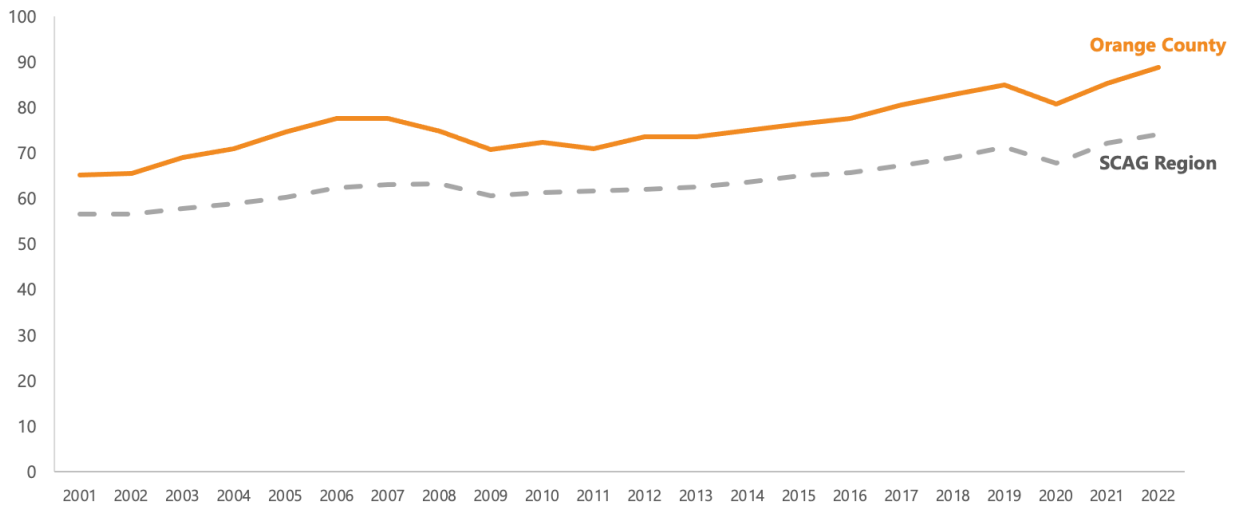
The industries with the greatest employment growth over the past year include Leisure and Hospitality (+25,800), Educational and Health Services (+14,600), and Professional and Business Services (+14,500). Only two industries saw employment declines between September 2021 and September 2022: Financial Activities (-3,300) and Government (-1,200).

**PRODUCTIVITY**

Orange County's per capita GDP reached a record high of \$85,330 in 2021, an increase of 5.6 percent over the previous year which is the highest in the SCAG region (SCAG regional average is \$72,200).

### Exhibit OC-5 Per Capita Gross Domestic Product (GDP) in Orange County, 2001-2022

Thousands of 2022 U.S. dollars



Annual percent change in per capita GDP in Orange County

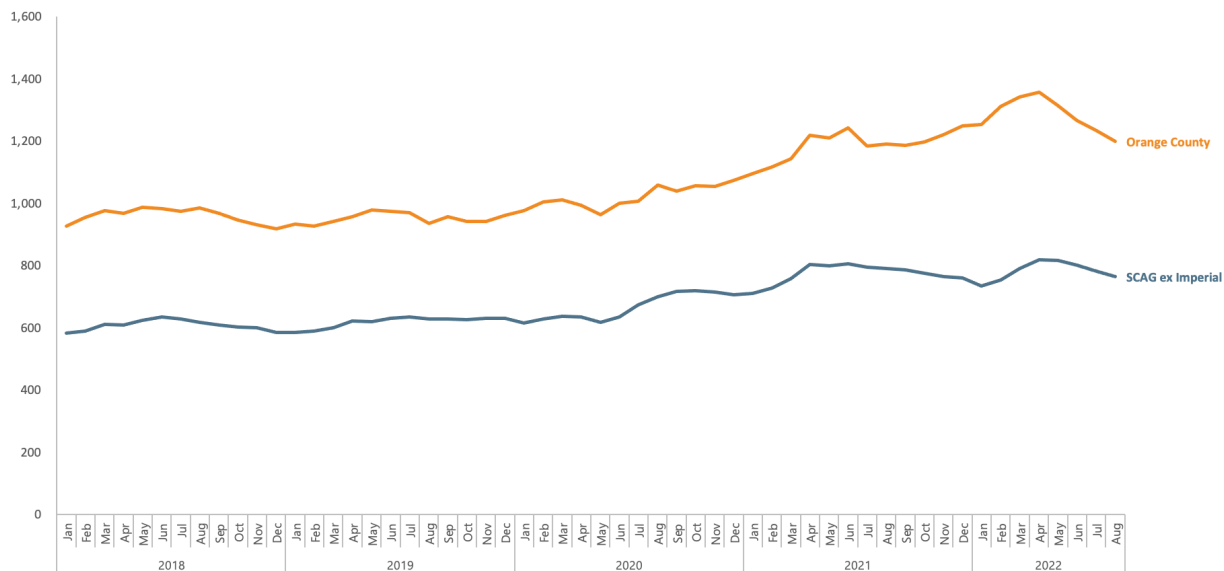


Based on REMI Transight model. Data for 2001-2021 are actuals from the Bureau of Economic Analysis. GDP for 2021- 2022 forecasted using REMI model.

## HOUSING

### Exhibit OC-6 Real Median Home Prices for Single-Family Detached Homes in Orange County and SCAG (except Imperial)

Thousands of 2022\$



Source: California Association of Realtors, Median Prices of Existing Detached Homes.

Housing affordability remains a concern at the national, state and regional level, and certainly is for Orange County in particular. As seen above, Orange County home prices have almost doubled over the past decade and have remained substantially higher than those in any other SCAG county. Wage and income growth has not kept pace. Only 24 percent of first-time homebuyers have the minimum qualifying income to afford an entry-level home.

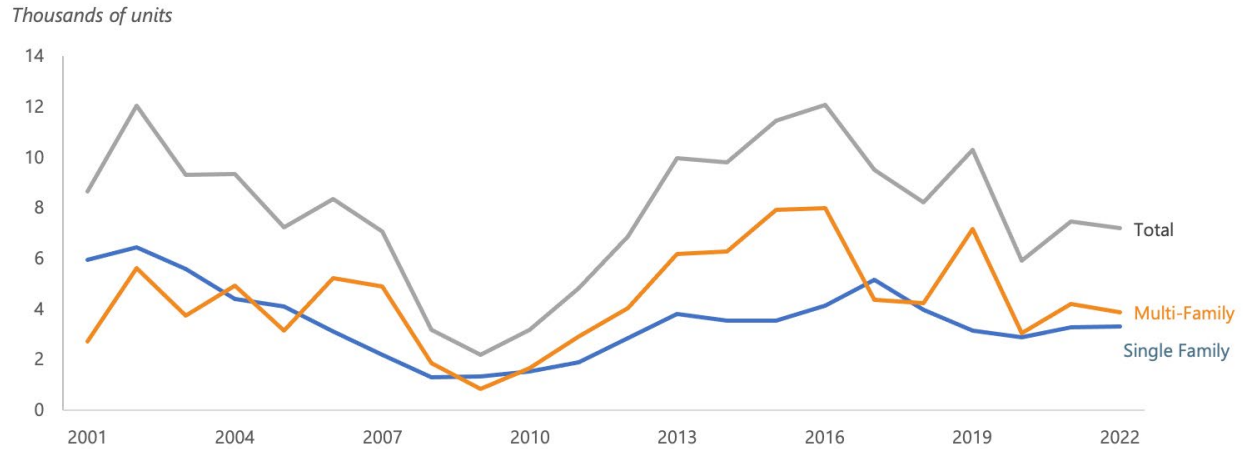
Orange County’s median home price reached a record high of \$1,3 million in April 2022 but has since begun to decline each month, likely due to increasing mortgage rates due to the Federal Reserve’s interest rate increases. It had fallen to \$1,2 million as of September 2022, which remains \$238,500 above pre-pandemic prices.

Rental prices also continue to rise in Orange County as a direct result of high home prices. The Department of Housing and Urban Development predicts that Orange County’s median monthly rent will soon reach \$2,087 for a studio apartment, \$2,733 for a two-bedroom apartment and up to \$4,030 for a four-bedroom unit. These recent housing cost increases — coupled with the slight decrease in real wages — have substantial impacts on households. As noted earlier, one observed release valve for high housing cost burden is out-migration. The impacts in Orange County can be particularly asymmetrical — moving out of the county is costly. Despite high median wages countywide, Orange County’s largest city — Santa Ana — has the fifth highest household overcrowding rate in California of 28 percent. High housing cost

can also delay family formation and contributes broadly to Southern California’s homelessness crisis.

The county’s high home and rental prices are exacerbated by a chronic lack of new housing supply. Orange County has issued only 7,183 building permits so far in 2022. 54 percent of these permits were for multi-family units, while 46 percent were for single-family units.

**Exhibit OC-7 New Residential Units from Building Permits Issued in Orange County, 2001-2022**



Notes: Computed from CIRB Building Permits data. Counts for 2022 are annualized based on historical monthly CIRB data.

**ECONOMIC OUTLOOK FOR ORANGE COUNTY**

Due to a variety of national and international uncertainties, such as the war in Ukraine, and inflation, 2023 will likely be a challenging year in terms of global economic growth and outlook. While Orange County remains well positioned to weather an economic downturn thanks to its diverse industry clusters and well-educated workforce, affordability concerns in terms of cost-of-living, primarily housing related, continue to weigh on the county and could have significant consequences unless addressed. Moreover, these consequences spill over to the surrounding counties that support Orange County’s commuter labor force.

In September 2022, Governor Newsom signed SB-6 and AB-2011, legislation aimed at dramatically increasing new housing supply by streamlining the local and state level review and entitlement processes. This may support more and faster housing production, but additional work is needed at both the state, regional and county levels to meet the county’s housing production goals. Ensuring residents of all income levels can both work and live in Orange County remains a major priority going forward.

Overall, the Orange County economy continues to perform well compared to both surrounding SCAG counties and peer regions across the nation. As with the Great Recession of 2008 and COVID-19 recession, Orange County is better positioned than most to weather and then rebound from any potential economic downturn. This economic resilience is mainly due to a highly skilled workforce, small-medium sized business environment that encourages entrepreneurship and innovation, emerging industry clusters such as Life Sciences (Medical

Device, Biotech, IT and Advanced Transportation (EVs and hydrogen), as well as multi-billion-dollar investments in major new developments, such as DisneylandForward and OCVibe, and infrastructure investments in transportation and water.

## Outlook: Riverside & San Bernardino Counties

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*This chapter was written by Manfred Keil, Robert Kleinheinz and Fernando Lozano, Inland Empire Economic Partnership, Riverside.*

By geographic area, the Inland Empire is the largest region in Southern California. Consisting of Riverside County and San Bernardino County, the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (MSA) is the second most populous MSA in the SCAG region and the twelfth largest nationally, with a population of 4.6 million. The region's linkages to the rest of Southern California are strong: approximately one-third of its labor force commutes to other parts of Southern California. Moreover, large numbers of households have moved from the coastal areas (Los Angeles County, Orange County and San Diego County) to the Inland Empire in pursuit of more affordable housing.

### OVERVIEW: STATE OF THE ECONOMY FOR RIVERSIDE & SAN BERNARDINO COUNTIES

Unemployment rates in the Inland Empire are currently at historically low levels, driven primarily by the extraordinary success of the logistics industry since the COVID-19 pandemic downturn in early 2020. This is also one factor behind the growth of the region's labor force and employment returning faster to pre-recession levels (February 2020) than other areas in Southern California.

Employment growth was made possible by increases in the Inland Empire's population and labor force. Despite a decline in population for the SCAG region from 2021 to 2022, Riverside and San Bernardino Counties together added over 16,000 residents and its labor force continued to grow. Payroll employment also exceeded previous peaks. Finally, home prices increased over the year, with smaller gains later in 2022 as affordability fell, although home sales experienced sharp declines as interest rates increased during the year.

The outlook for the Inland Empire depends in large part on the direction of the national economy in 2023. At the macroeconomic level, consumption patterns have shifted since the worst days of the pandemic, with households now increasingly consuming services relative to goods. This has implications for goods movement in the Inland Empire. With the logistics industry serving as the Inland Empire's main economic engine, a pullback in durable goods consumption will slow the pace of growth in the region's economy.

There are concerns about the trajectory of the regional economy in the long run. While large in terms of population and overall GDP, the region lags significantly in terms of per capita GDP, which is the most general measure of wellbeing for the region's residents. In addition, the labor force is not well equipped for the coming changes in the economy due to robotics and automation because educational achievement is relatively low. Even as the region continues to rely on the logistics sector to excel its economy, it must look to other industries for long-term growth, both in terms of quality jobs and added-value output. To achieve this, improving the educational attainment levels of the workforce must be a primary focus.

## ECONOMIC INDICATORS

### DEMOGRAPHICS & SOCIOECONOMICS

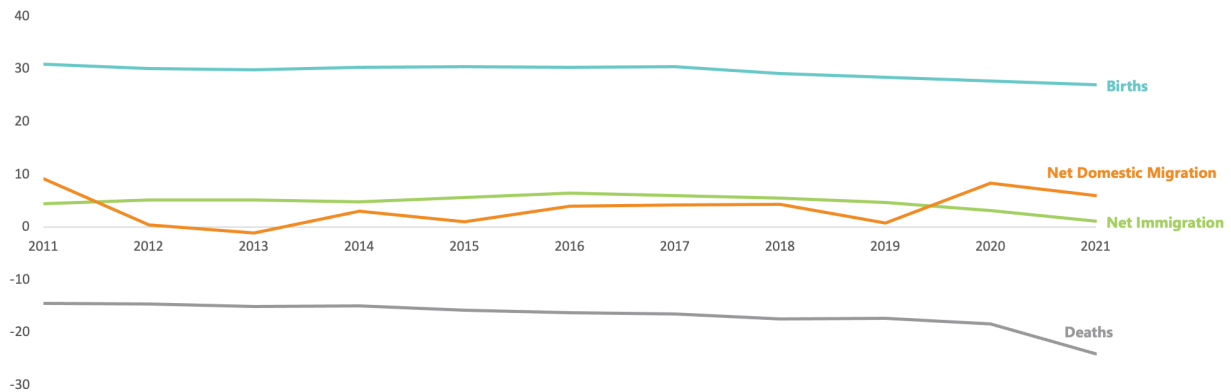
The Inland Empire has experienced consistent population growth over the last decade, although growth slowed during the pandemic. Population increased by 16,250 from 2021 to 2022, more than double the 7,100 gained in 2021, but well below the yearly gains it saw over the pre-pandemic period from 2015 to 2019. Riverside County accounted for about two-thirds of the gain in 2022 (almost 11,000) with San Bernardino County adding 5,300. The growth experience is similar to that of the rest of the SCAG region.

In both counties, the natural increase in population, which has been edging down in recent years, fell sharply in 2020 and 2021. While still positive (births exceeding deaths), the number of births per year fell, while the number of deaths increased as a result of the COVID-19 pandemic. However, there was a notable increase in net domestic migration, which meant that net migration held up and contributed to the increase in population

**Exhibit IE-1 Components of Population Change in Riverside & San Bernardino Counties, 2011-2021**

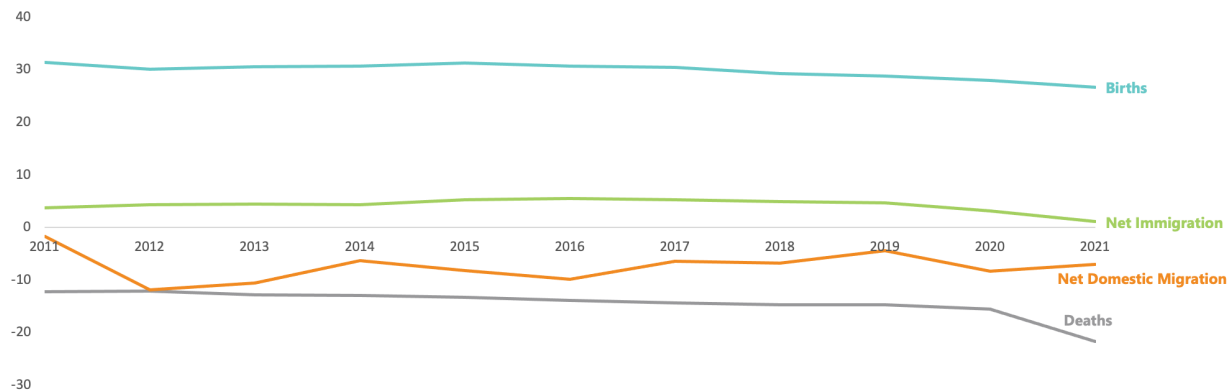
Components of Population Change in Riverside County, 2011 to 2021

*Change in Population (Thousands)*



Components of Population Change in San Bernardino County, 2011 to 2021

*Change in Population (Thousands)*



Source: State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year — July 1, 2010–2021, December 2021

The Inland Empire has a slightly younger population than its coastal neighbors. The median age of Riverside County residents was 36.6 years old and 34.3 years old for San Bernardino County residents, both somewhat lower than in Los Angeles County (37.8 years old) and Orange County (39.4 years old), and on par with San Diego County (36.5 years old).

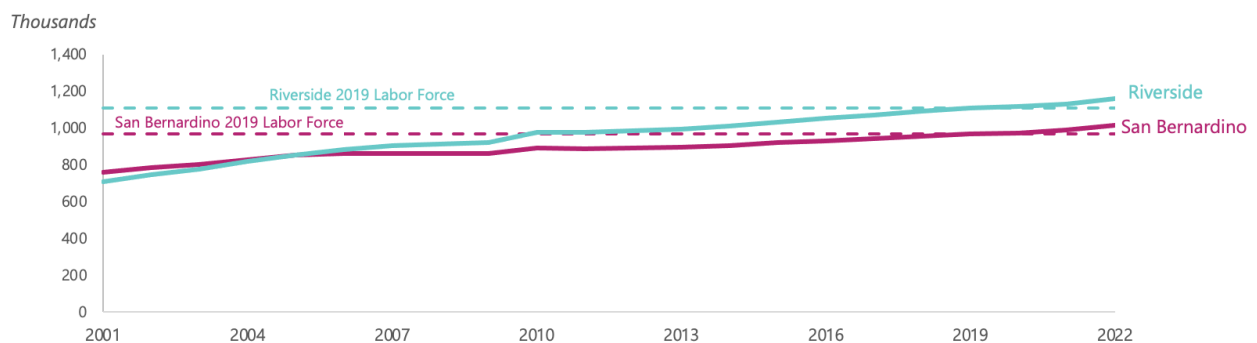
The Hispanic/Latino share of the population continues to rise in both counties, similar to the SCAG region as a whole. From 2010 to 2020, the portion of Latinos in Riverside County increased from 46 percent to 50 percent and from 49 percent to 54 percent in San Bernardino County, both with larger increases than in the SCAG region (45 percent to 47 percent). The share of Non-Hispanic Whites fell from 40 percent to one-third in Riverside County, and from 33 percent to 26 percent in San Bernardino County, the latter roughly in line with the SCAG region overall.

As the region recovered from the pandemic downturn, real household income increased, with Riverside County experiencing a 1.8 percent gain from \$82,900 in 2019 to \$84,300 in 2021, and San Bernardino County's real income rising 4 percent from \$76,800 to \$79,900 over the same period. However, poverty rates changed little, holding steady at 13 percent in San Bernardino while rising from 11 percent to 12 percent in Riverside County.

## EMPLOYMENT

The labor force for the region's two counties has seen steady, strong growth in recent years (**Exhibit B1**). At the beginning of the period, the labor force in Riverside County was roughly 52,000 lower than San Bernardino County. By 2005, Riverside County passed San Bernardino County, and, for 2022, the difference has grown to almost 145,000. Having increased by 47.5 percent between 2001 and 2022, labor force growth in the Inland Empire far outpaced both the SCAG region overall (13.3 percent) and the state (12.5 percent) (**Exhibit IE-3**). Moreover, the Inland Empire labor force now exceeds pre-pandemic levels of 2019 by 4.6 percent. By contrast, the labor force in the SCAG region and the state are one percent below their 2019 levels.

**Exhibit IE-2 Labor Force in Riverside & San Bernardino, 2001-2022**



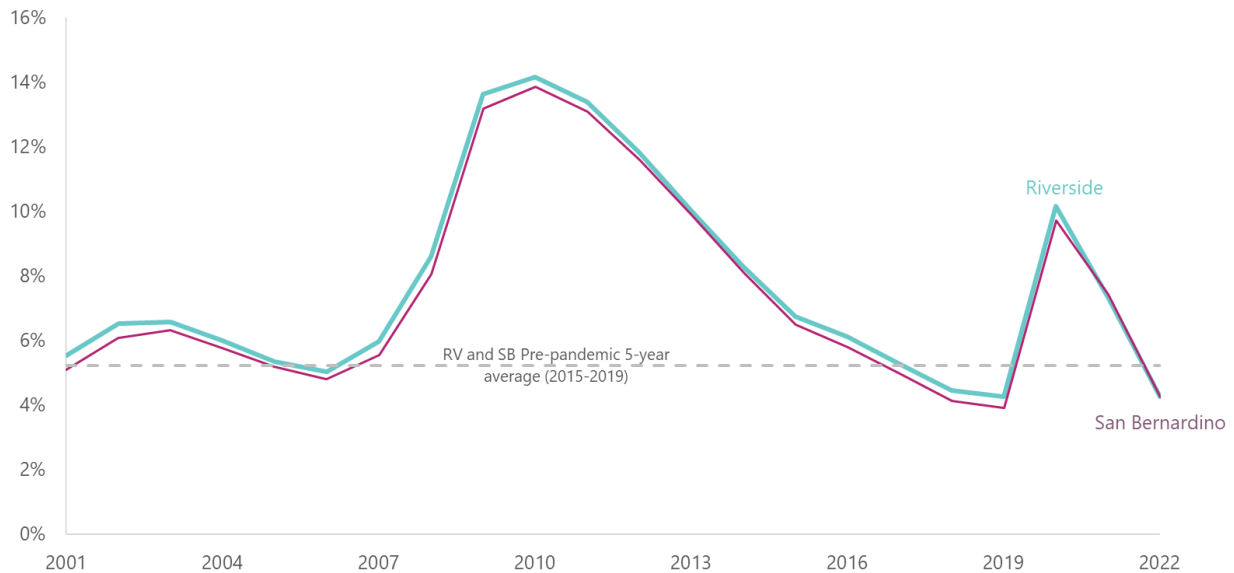
Source: California Employment Development Department (EDD), Employment by Industry Data (annual), September 2022. Count for 2022 estimated based on data through September 2022.



**Exhibit IE-3 Labor Growth 2001 to 2022, Percent of Labor Force Recovered from 2019 Peak, Various Areas**

Geographic Area	Percent Growth since 2001	Labor Force Relative to 2019
California	12.5 percent	-0.9 percent
SCAG	13.3 percent	-1.0 percent
Rest of California	11.8 percent	-0.8 percent
Inland Empire	47.5 percent	4.6 percent
Riverside County	63.1 percent	4.5 percent
San Bernardino County	33.0 percent	4.7 percent

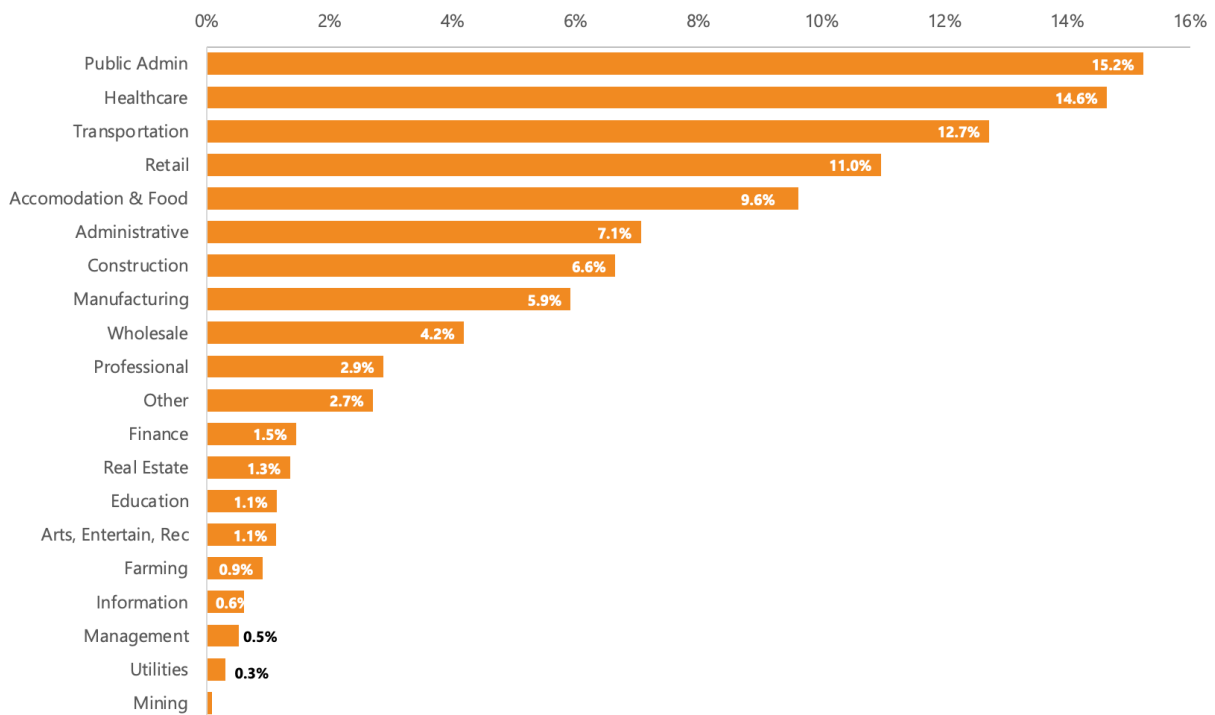
As seen in **Exhibit IE-4**, the unemployment rates for Riverside County, San Bernardino County and the Inland Empire on average generally move quite closely together (0.2 percentage points or less), with Riverside County occasionally slightly higher. There are three recessionary periods contained in the timespan, during which the unemployment rates rose. Because the Inland Empire Counties were at the epicenter of the burst of the housing bubble in 2007, unemployment rates were much higher than elsewhere during the Great Recession and its aftermath (2008-2009).

**Exhibit IE-4 Unemployment Rate (%) in Riverside & San Bernardino Counties, 2001-2022**

Source: California Employment Development Department (EDD), Employment by Industry Data (monthly), September 2022.

The region is known for its “First In - Last Out” characteristic when it comes to national recession. Part of the explanation can be found through the idea that unemployment rates are measured by residency, and that commuters have relatively lower human capital than workers who can afford to live and work in the coastal areas; hence, they are laid off first and re-hired last.

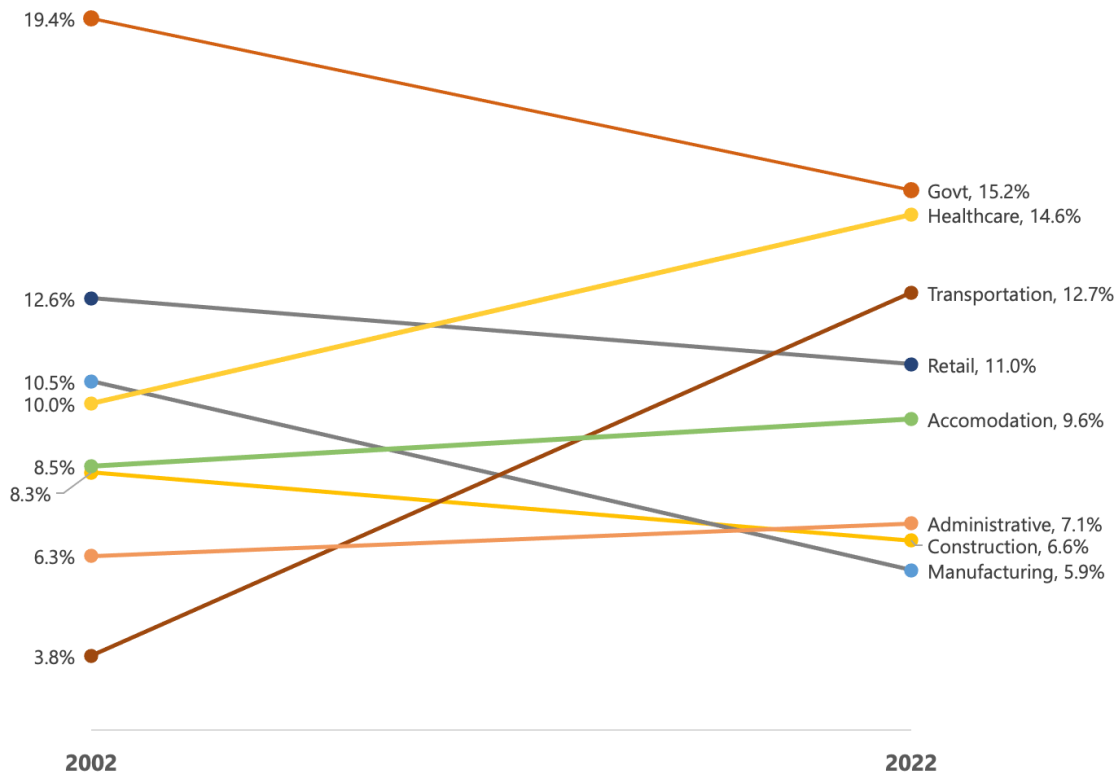
**Exhibit IE-5** displays the industrial composition of the Inland Empire. There were more than 1,650,000 payroll jobs in 2022. Note that this does not include the commuters to the coastal areas. The Logistics sector (Transportation, Warehousing, Wholesale Trade) has the highest employment share (17 percent), followed by Public Administration (15.4 percent), Health Care and Social Services (14.8 percent) and Retail Trade (11.1 percent). Together, these four sectors employ almost 60 percent of all workers in the region.

**Exhibit IE-5 Percent of Total Employment by Sector in Inland Empire in 2022**

Source: California Employment Development Department (EDD), Employment by Industry Data (annual), retrieved from <https://labormarketinfo.edd.ca.gov/data/employment-by-industry.html>; 2022 annualized based on previous 12 months.

**Exhibit IE-6** shows the change in the industrial composition that some of the industrial sectors in the Inland Empire have undergone over the last 20 years. There has been an astounding increase in Transportation and Warehousing from 4 percent to 13 percent (if Wholesale Trade is added to Transportation, then the resulting Logistics Sector would exceed Health Care and be the largest in 2022). Health Care also saw a sizable increase, while sectors with the largest percentage decline were higher paying sectors such as Government, Manufacturing and Construction. Retail Sales are on a declining trend that will continue.

**Exhibit IE-6 Change in Industrial Sector Share of Employment in the Inland Empire Between 2002 and 2022**



Notes: Based on EDD Employment by Industry table. Industrial sectors are categorized by 2-digit NAICS codes. Sectors with less than 5 percent of jobs in 2022 are not shown in chart.

The long-term increase in employment in the Logistics sector is even more apparent in recent history. Clearly there had been changes in retail spending habits by individuals, but these became more pronounced during the COVID-19 pandemic. As such, Logistics industry employment in the region is 28 percent higher compared to February 2020, having added more jobs to the industry than the other 56 counties combined.

### PRODUCTIVITY

The most general measure of economic wellbeing of a region is per capita GDP. Many other quality of life variables, such as life expectancy and availability of medical doctors per person, correlate with this measure. **Exhibit IE-7** plots this measure for both counties of the Inland Empire and, for comparison purposes, for the Rest of California (ROC) and the United States.

Several features stand out. While San Bernardino County has a slightly smaller labor force, per capita GDP is consistently higher than in Riverside County. This gap persists over the period shown and even increases visibly with the onset of the Great Recession. More striking is the comparison of per capita GDP relative to the nation and the state, where the shortfall is significant. In 2001, GDP per capita in Riverside County and San Bernardino County were 64 percent and 69 percent of U.S. per capita GDP, respectively. When compared to the Rest of California, the ratios are worse: 52 percent and 56 percent. Note that this is close to half of the

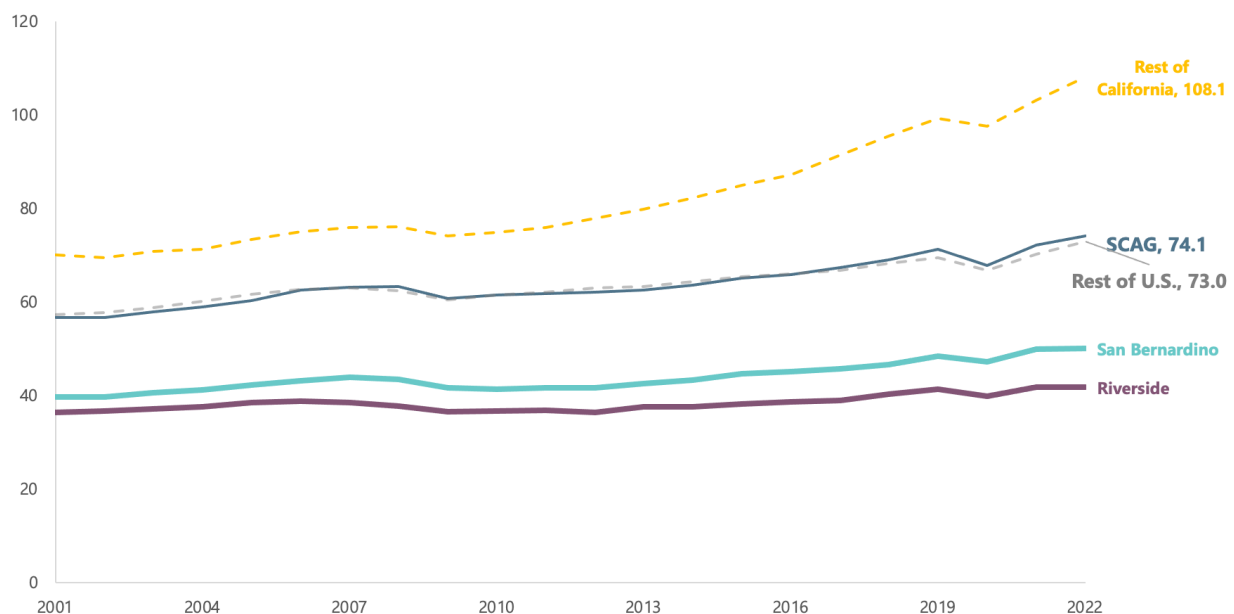
value for the state. That is, per capita GDP in both Inland Empire counties is consistently lower than both the rest of the US and the rest of California.

Moreover, by 2022, Riverside County's position had deteriorated to a per capita GDP of only 59 percent of the U.S. level and 40 percent of California. San Bernardino County was at least able to improve to 71 percent of the U.S. level, but still fell to 48 percent of the rest of California level.

These numbers are alarming, especially given the success of the Logistics Industry. They imply that the impressive job growth in the Inland Empire since 2001 resulted in numerous jobs, but they tend to be relatively lower paying jobs compared to other parts of the state and nation. This explains, in part, why such a large number of workers prefer to commute into the coastal areas, despite the heavy cost involved in terms of time lost on the road. It also explains why the Inland Empire's per capita GDP has sunk to a rank of 340 out of 386 MSAs, despite being the twelfth largest by population count.

#### Exhibit IE-7 Per Capita Gross Domestic Product in Riverside & San Bernardino, 2001-2022

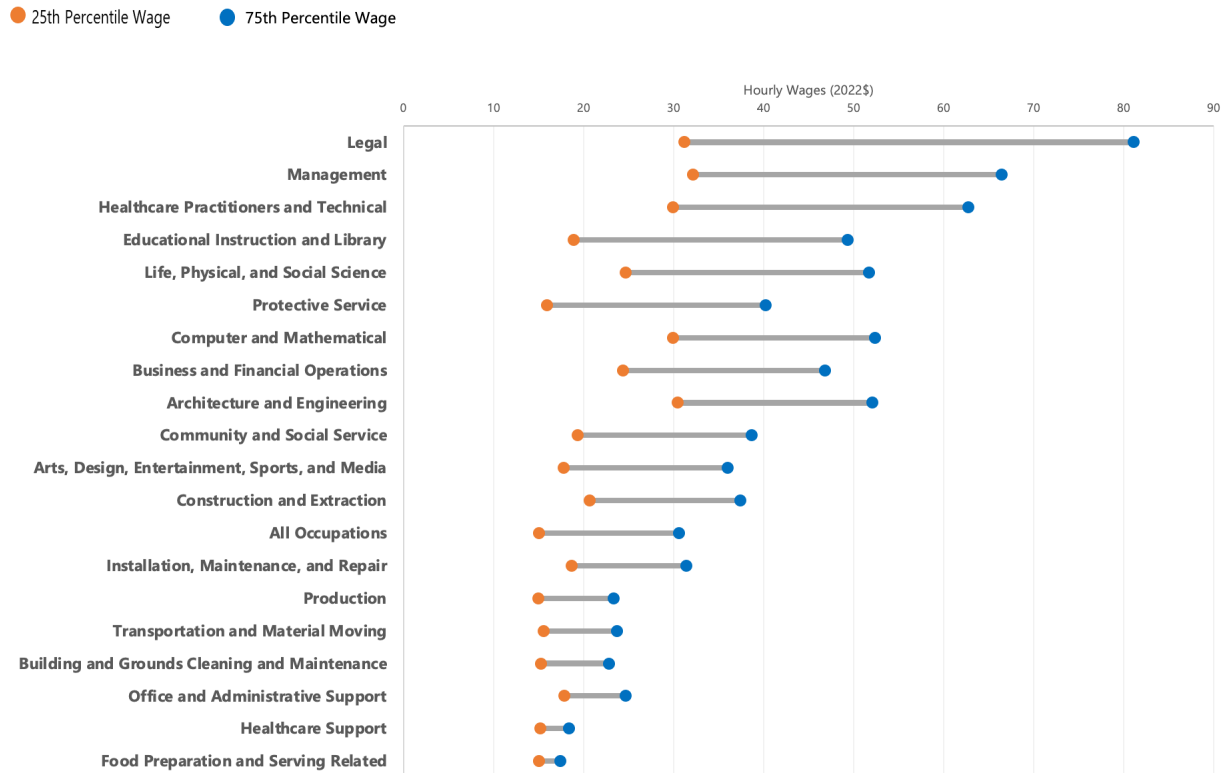
Thousands of 2022 U.S. dollars



Based on REMI Transight model. Data for 2001-2021 are actuals from the Bureau of Economic Analysis. Data for 2022 is forecasted by REMI.

Exhibit IE-8 displays the hourly wages by occupation for the various occupations in the Inland Empire. What stands out is the relatively low paying range of jobs in the Transportation and Material Moving occupations, a sector in which the Inland Empire has excelled in over the last decade. When compared to other regions, the median wage is almost \$5 below the California average.

**Exhibit IE-8 Wages by Occupation in the Inland Empire: 25<sup>th</sup> to 75<sup>th</sup> Percentiles (2022 Q1)**



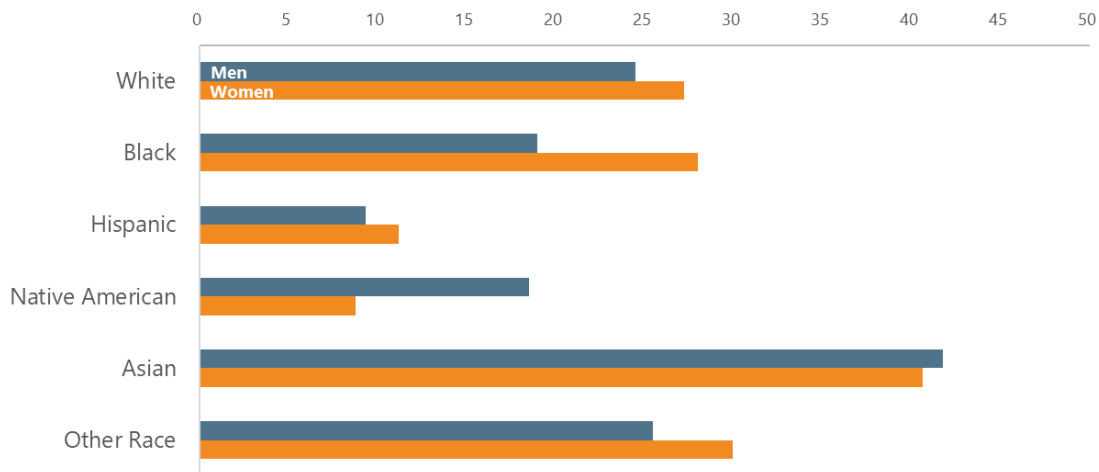
Source: EDD, Occupational Employment and Wage Statistics (OEWS) Survey (2022 1st Quarter).

Exhibit IE-9 shows the percentage of prime-age workers with at least a bachelor's degree in Riverside and San Bernardino Counties. Both counties display similar percentages for the various race categories. However, the percentage with at least a higher university degree is significantly below that of the SCAG region and the Rest of California. For example, roughly 43 percent of Whites have at least a Bachelor's degree in the SCAG region and in the Rest of California, while only roughly 25 percent do in the Inland Empire counties.

### Exhibit IE-9 Percent of Prime-age Workers with at Least a Bachelor’s Degree in the Inland Empire

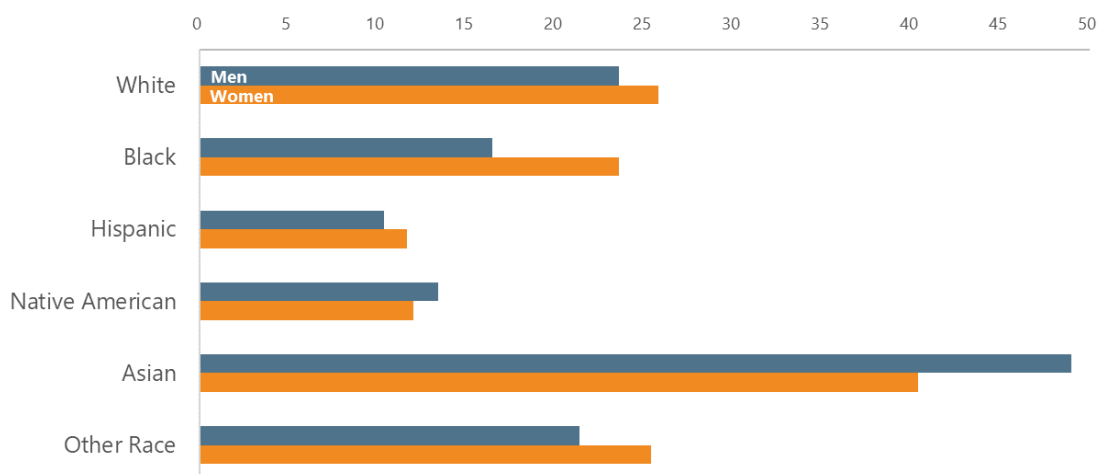
#### Riverside County

*Percent of Prime-Age Workers*



#### San Bernardino County

*Percent of Prime-Age Workers*



Source: 2016-2020 ACS PUMS 5-Year Sample

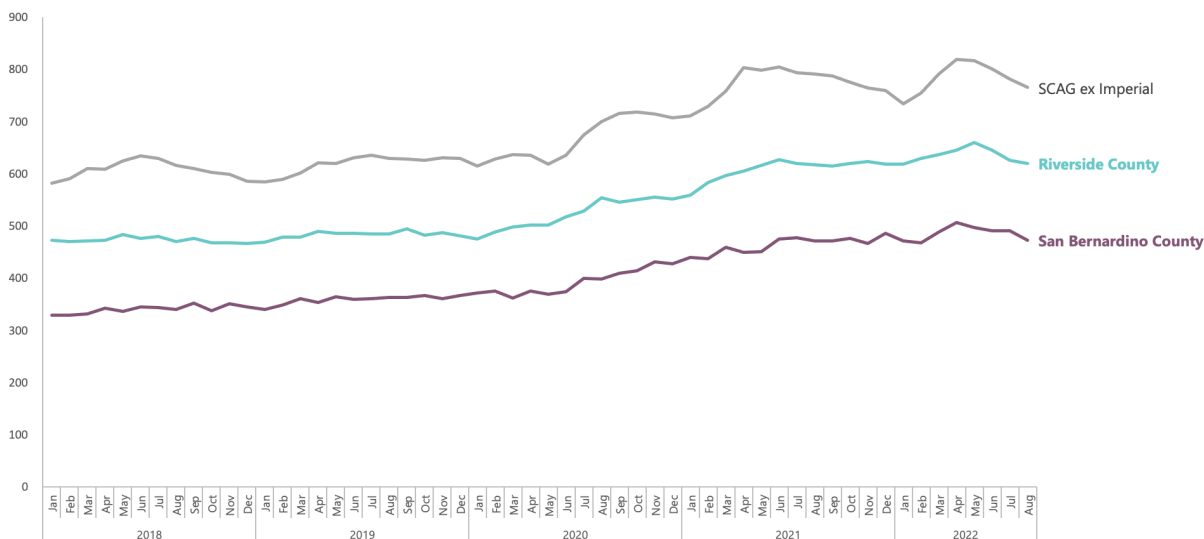
## HOUSING

As home prices and mortgage interest rates rose over the past year, affordability fell in the Inland Empire. The real median price of a home hit record highs during the Spring of 2022, at \$660,000 in Riverside County and \$507,000 in San Bernardino County. Home prices fell since then as interest rates ratcheted higher. Based on the California Association of Realtors Housing Affordability Index (HAI), the share of households that could afford the median priced home in

Riverside County fell sharply from 28 percent in the first quarter of 2022 to 21 percent in the second quarter. In San Bernardino County, affordability fell from 39 percent to 30 percent over the same period. By comparison, the HAI was 38 percent nationally in the second quarter of this year.

### Exhibit IE-10 Real Median Home Prices for Single-Family Detached Homes in Riverside & San Bernardino Counties

Thousands of 2022\$



Source: California Association of Realtors, Median Prices of Existing Detached Homes.

Renters did not escape increases over this time. Based on Zillow’s Observed Rent Index, Inland Empire rents rose by an average of 15 percent year-to-year, with Zillow reporting an average rent of \$2,650 in September 2022, compared to a national average of close to \$2,100.

High home prices and rents are the result of chronic underbuilding over many years. New construction offered little relief. While building permits in the Inland Empire were higher in recent years, they did not stave off price and rent increases. Total permits rose 27 percent from 15,000 in 2021 to 19,000 in 2022, with most of the permits in Riverside County (12,000 in 2022). While the increase was impressive, permit counts remain well below the levels seen prior to the Great Recession, when a significant share of the state’s new homes were constructed in the Inland Empire.

There is a low likelihood of an increase in permits during 2023 given the current interest rate environment and concerns about the overall economy. That said, latent demand for units will remain. Individuals in the large millennial generation will be in their prime years for household formation and home buying over the next decade and will drive housing fundamentals going forward.



## DISCUSSION & FINAL THOUGHTS

When looking at the COVID-19 pandemic downturn and its aftermath, the Inland Empire region bucked its historical pattern of being first in and last out of economic downturns. Not being “first in” was simply the result of the government mandated shutdown starting in March 2020. Therefore, what is more impressive is the relatively fast recovery of the region. This achievement is largely due to the prominent Logistics Sector in the regional economy, which thrived during the worst months of the pandemic and thereafter.

Over the long-run, Logistics will likely go through a transformation as advances in automation and artificial intelligence displace workers. This means that the industry may continue to thrive, but it may not support the same number of workers as it presently does. In turn, the region must look to other industries as sources of employment and output growth.

More generally, while large in terms of population and overall GDP, the region lags in terms of per capita GDP, which reflects the economic well-being of the region’s residents. The region has achieved high employment growth over the last 20 years at the cost of generating some environmental costs, including increased traffic at warehouses, emissions from trucking and the expansion of warehouse space in very close proximity to residential neighborhoods. There will be further costs from the expansion of the Logistics Sector if the result of the expansion means that there will be less industrial space available in the future for industries, which are able to add more value to the economy per square foot.

As the region pursues other sources of growth, it must necessarily strive for improved educational attainment levels among its workforce to ensure it is capable of meeting the needs of the 21st Century economy. Moreover, it must grow and attract industries and firms that employ these individuals, perhaps enabling those individuals to work locally rather than endure long commutes. As discussed in detail in the Imperial County outlook, the Inland Empire’s potential in green energy development and jobs is one potential bright spot. Higher value-added firms will not move into the area if they cannot find a better qualified labor force. There is a real danger of complacency at this point because elected officials may simply look at the employment success without considering the cost at which this was achieved.

# Outlook: Ventura County

## OVERVIEW: STATE OF THE VENTURA COUNTY ECONOMY

Though the county economy has recovered from the COVID-19 pandemic recession of 2020, the principal issue indicative of many coastal counties in the state is the struggle to fill thousands of open jobs. Total employment has not yet returned to pre-pandemic levels. The looming recession will have an impact on the labor market in 2023, the extent to which is largely unknown until more evidence becomes available. But the real estate and retail sectors will be vulnerable to downsizing.

The economy of Ventura County is the most sluggish in the SCAG region, in terms of job growth, new housing, and consumer spending on retail goods and services. The combination of these factors manifest in county gross domestic product per capita. The county therefore lacks the momentum to overcome the potential drag of a decline of global demand, a global recession, the persistence of inflation, continued drought in California or the lack of labor force reinforcements.

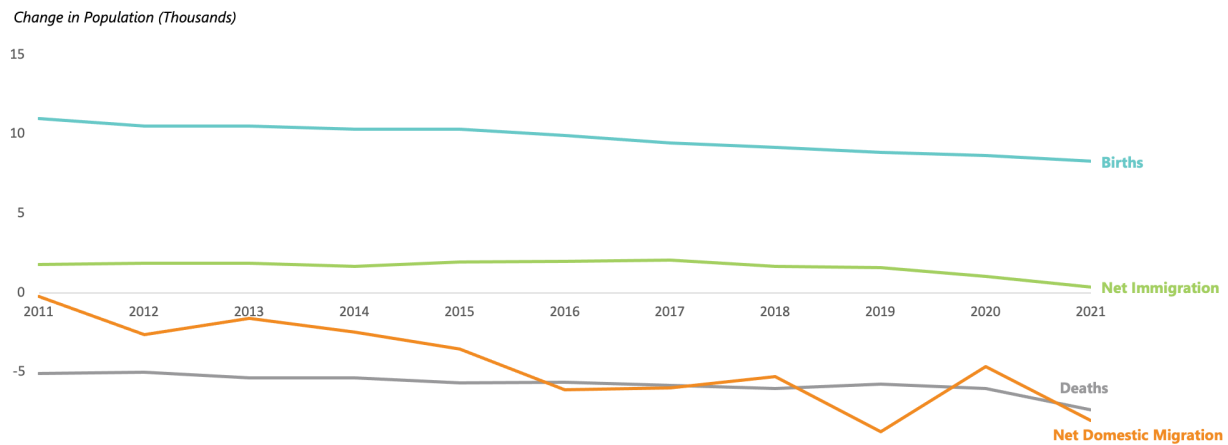
## ECONOMIC INDICATORS

### DEMOGRAPHICS & SOCIOECONOMICS

#### Population

Total population in Ventura County peaked in 2016 and has been in a gradual though steady decline since. Both components of the population — the natural increase and net in-migration — have been declining for nearly a decade. Currently, the natural increase, or births minus deaths, still contribute positively to population, but those gains are more than offset by progressively larger outflows of net resident migrants.

**Exhibit VN-1 Components of Population Change in Ventura County, 2011 to 2021**



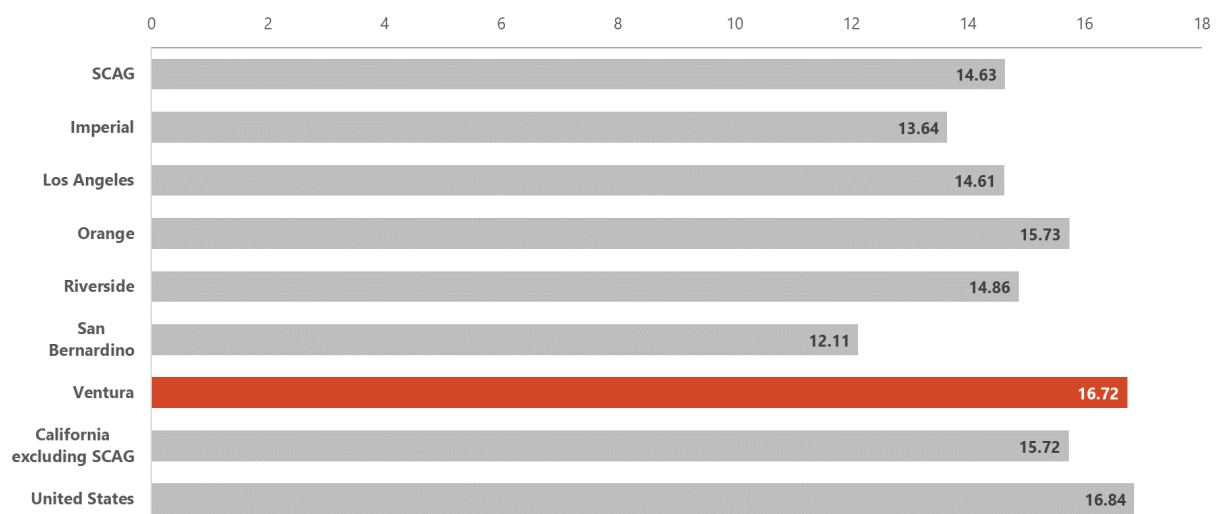
Source: State of California, Department of Finance, E-2. California County Population Estimates and Components of Change by Year — July 1, 2010–2021, December 2021

A principal reason for the accelerating out-migration of resident populations is the slow rate of job creation in the county over the last 10 years, and lack of housing choices and affordability up to now. This is not unique to Ventura County. Populations are declining in most coastal counties, with housing cost a significant driver, from San Diego to Mendocino Counties.

Ventura County has lost 1.5 percent of its population since 2016. The decline in population is assumed to be a contributing factor to the slow recovery of the labor force and total job restoration to pre-pandemic levels. There are no changes occurring in Ventura County that would suggest this trend will reverse.

Even if net migration was to remain constant at the current annual 5-year average, the fact that the age distribution in the county is expanding faster within the older populations will, without a reversal in net migration, ensure that the natural increase continues to decline, adding further downward pressure on an already declining population. Currently, Ventura County has the largest percentage of its population age 65 or older among all Southern California counties.

**Exhibit VN-2 Percent of Population Age 65 & Older, 2021**



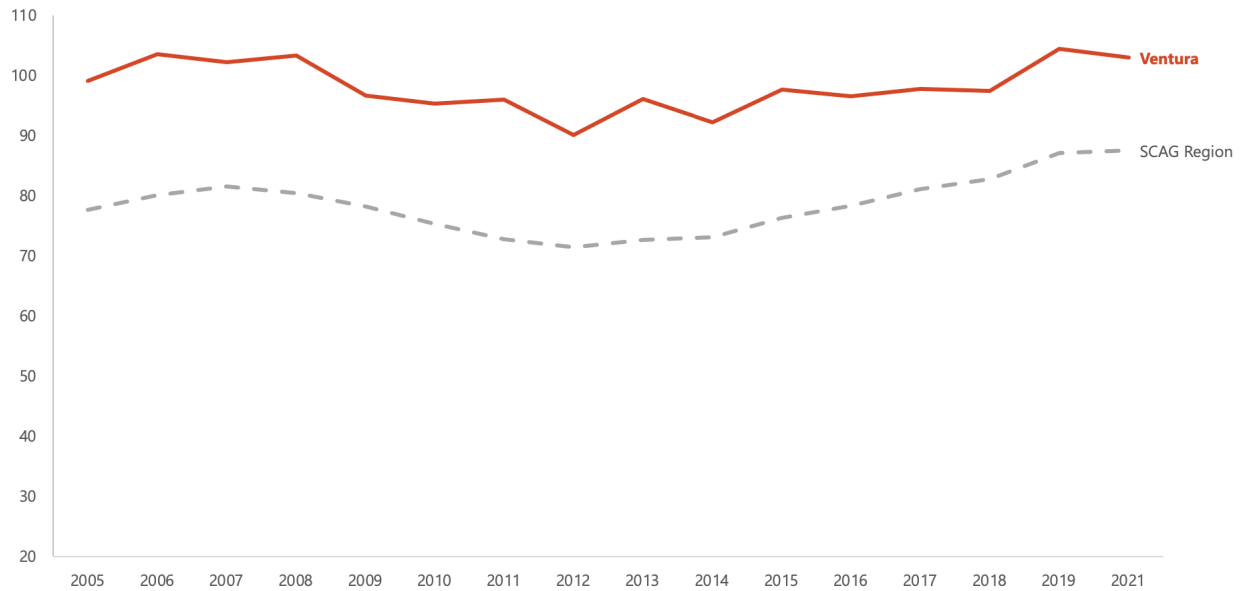
Notes: Chart report data from American Community Survey 1-year samples for 2021, Table B01001.

## Income & Poverty

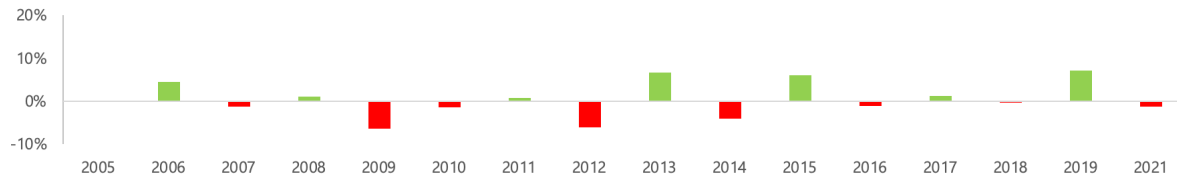
Median household income in Ventura County is among the highest in the state. Adjusted for inflation, median household incomes are now declining, as shown in **Exhibit VN-3**. This decrease in real household income reflects lagging growth in nominal wages and accelerating inflation, which is estimated at 7.9 percent for the year in Southern California.

### Exhibit VN-3 Real Median Household Income in Ventura Compared to the SCAG Region, 2005-2021

Thousands of constant 2022 dollars



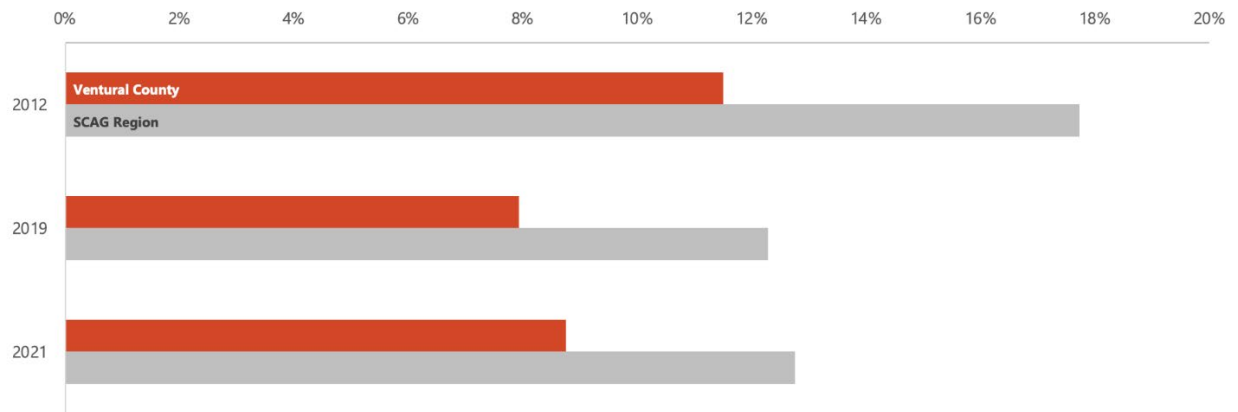
Annual percent change in real household income in Ventura



Source: Bureau of the Census, American Community Survey 1-Year Samples for 200-2019 and 2021.

Poverty rates in Ventura County remain the lowest among counties in the SCAG region. The percent of the population estimated below the U.S. Federal Poverty threshold is 8.8 percent. The average for the U.S. is 12.8 percent, and for California, 12.3 percent. The Ventura County poverty rate for the entire population is the lowest among counties composing the SCAG region. Principal reasons are that Ventura County has an older population and the county has a higher median household income.

**Exhibit VN-4 Percent of Population in Poverty in Ventura County & SCAG Region, 2012, 2019 & 2021**

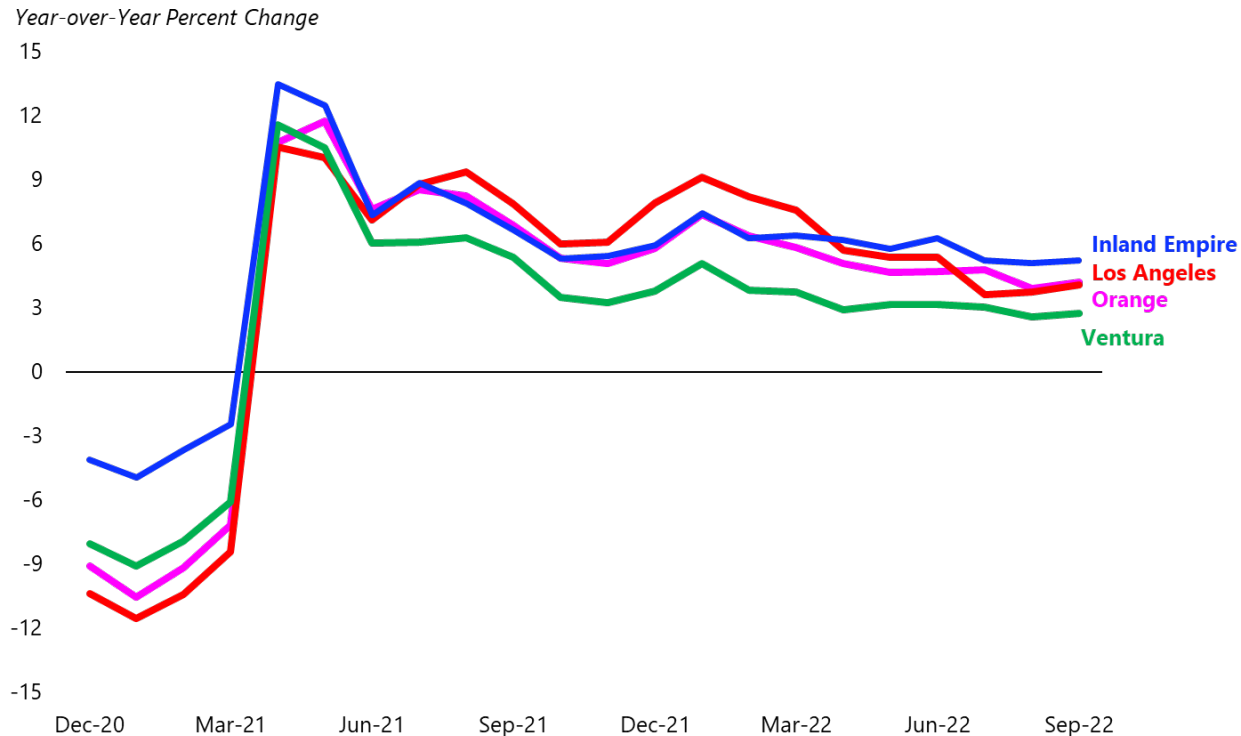


Source: U.S. Census Bureau. (2022). 2012, 2019, and 2021 American Community Survey 1-year Samples, Table S1701.

**EMPLOYMENT**

The decade long struggle by Ventura County to maintain economic growth on par with other counties in the SCAG region is exemplified by a comparison of job growth over time. Since 2012, the Ventura County labor market has lagged all other county labor markets in Southern California.

### Exhibit VN-5 Job Growth by County



A closer look at the most recent history since the COVID-19 pandemic recession indicates a continuation of relatively weak job growth in Ventura County (through September 2022).

The largest obstacle to growth unique to Ventura County is the Save Our Agricultural Resources (SOAR) initiative.<sup>10</sup> SOAR protects the County's agricultural resources by restricting growth. SOAR was renewed in 2016 and will remain in place until 2050. SOAR impacts the county's ability to develop and grow, unless creative workarounds can be explored and implemented to ensure a trajectory of growth that supports future job opportunities.

The unemployment rate, now at a scant 3.3 percent, does not suggest any labor demand issue in the county. Moreover, as of September 2022, more than 17,000 open job positions remain unfilled in Ventura County.<sup>11</sup>

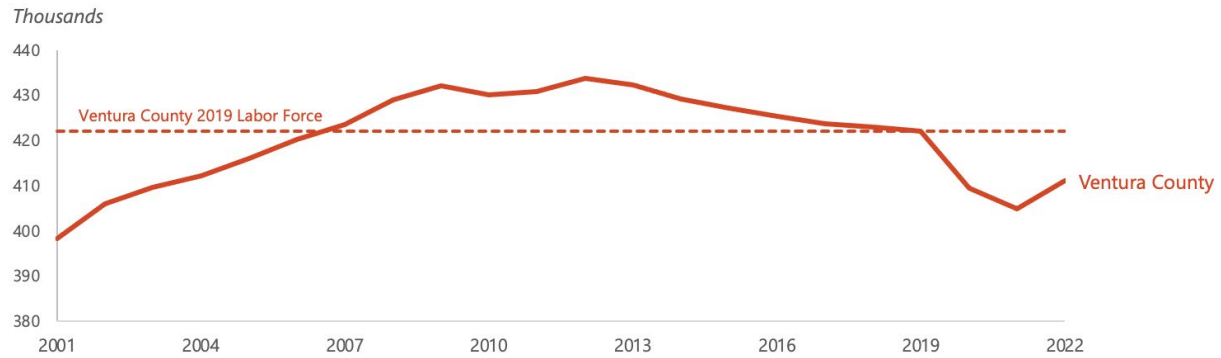
The labor force — the total of all residents that either are working or want to work — has not fully recovered since plunging by 66,000 people during the 2020 recession. To date, 13,000

<sup>10</sup> SOAR stands for Save Our Agricultural Resources. A series of public referendums were adopted by the cities and the County of Ventura between 1996 and 2004 which restricted the ability of municipalities to expand their spheres of influence, effectively limiting larger scale developments that frequently require annexation, especially housing.

<sup>11</sup> See Recent Job Ads, Oxnard-Thousand Oaks-Ventura MSA, September 2022, Labor Market Information Division, EDD, at [https://www.labormarketinfo.edd.ca.gov/data/help-wanted-online\(hwol\)/online-job-ads-data.html](https://www.labormarketinfo.edd.ca.gov/data/help-wanted-online(hwol)/online-job-ads-data.html)

labor force participants have not returned, or 3 percent of the original labor force, which has frustrated company expansions and limited potential growth of output in the region.

### Exhibit VN-6 Labor Force in Ventura County, 2001-2022



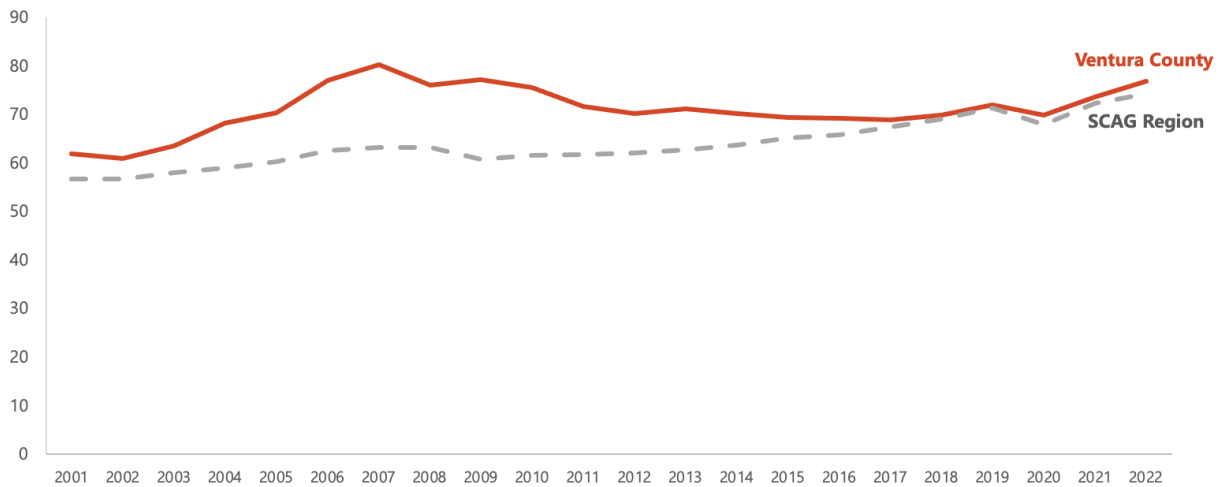
Source: California Employment Development Department (EDD), Employment by Industry Data (annual), September 2022. Count for 2022 estimated based on data through September 2022.

## PRODUCTIVITY

GDpT on a per capita basis increased in 2021, part of an upward trajectory since 2018 that was interrupted momentarily in 2020 by the COVID-19 pandemic recession.

**Exhibit VN-7 Per Capita Gross Domestic Product (GDP) in Ventura County, 2001-2022**

Thousands of 2022 U.S. dollars



Annual percent change in per capita GDP in Ventura County

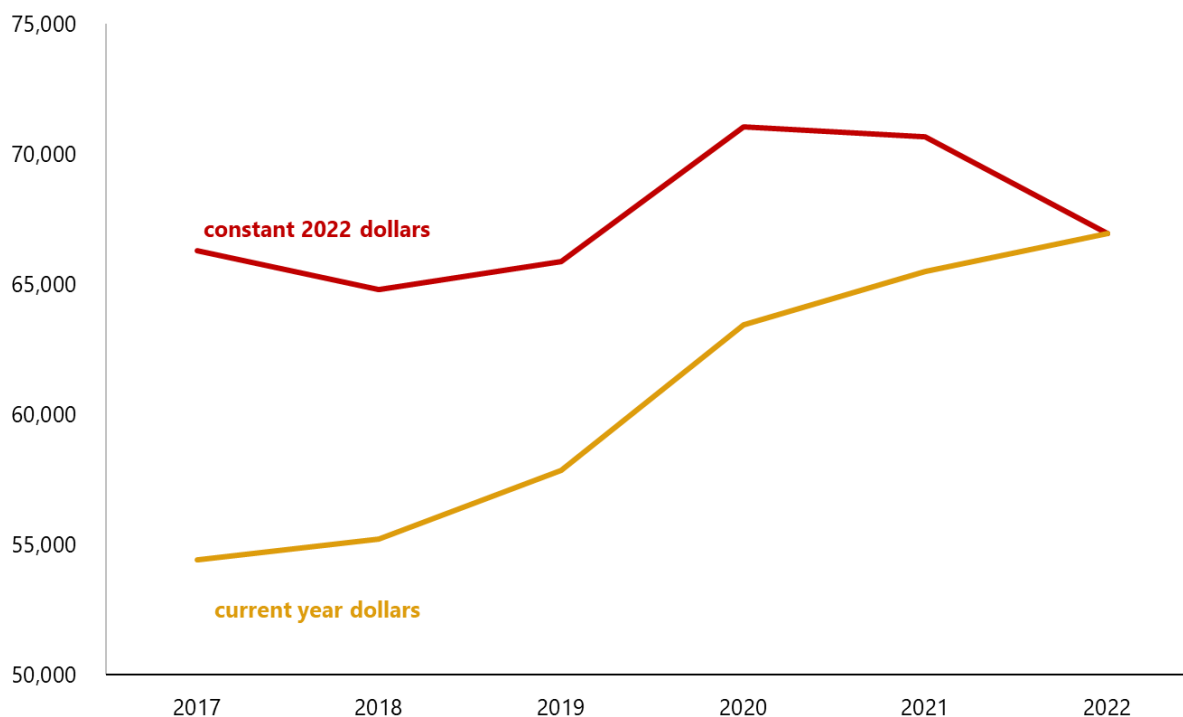


Based on REMI Transight model. Data for 2001-2021 are actuals from the Bureau of Economic Analysis. GDP for 2021- 2022 forecasted using REMI model.

GDP per capita is now at the highest level in a decade. The long period of stagnant growth that has characterized the Ventura County economy reversed in 2019 with the creation of higher paying jobs, the impressive improvement in average wages for all jobs, and the response by consumers after the lifting of COVID-19 restrictions with a significant jump in spending.

Average wages and salaries have been rising sharply since 2017, jumping 16.6 percent in the 3-year period to 2020. Average wages then increased another 5.5 percent in 2022, but because of the surge in the general level of prices that began in 2021, inflation adjusted wages have declined. This year estimated real wages have plunged 5.3 percent.



**Exhibit VN-8 Average Wage & Salary in Ventura County, 2017-2022***Constant 2022 dollars per worker*

QCEW Census of Employment and Wages.

The decline in real wages is indicative of the general economy of the SCAG region, California and the nation. Inflation is forecast to moderate in 2023, but not quickly enough to reach the Federal Reserve’s target rate through most of 2023.<sup>12</sup> Consequently, there is a rising probability that both spending and incomes adjusted for inflation will continue to contract in 2023.

The strengthening of the Ventura County economy since 2019 is now vulnerable to recession or, minimally, to a loss in long delayed momentum because the national and state economies face impending recession in 2023.

A strength of Ventura County’s economy is the myriad significant economic activities. The workforce is distributed across the range of labor market sectors, including professional business services, healthcare, leisure and hospitality, and state and local government. The distribution of employment in these critical industries is indicative of the broader SCAG region. Ventura County does not lack sector representation, providing the regional economy with balance over economic cycles.

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<sup>12</sup> UCLA Anderson Forecast, “The September 2022 Economic Forecast,” page Nation-31

Then there are three large economic sectors that are not necessarily common to other surrounding counties. These include a commercial seaport, a large naval base and a thriving agricultural sector.

### **Naval Base – Ventura County**

Since 1940, the base has been an anti-aircraft training center, missile test facility, and support providing facility for Navy air, sea and shore operations. It is the largest employer in the county, with 17,320 military, Department of Defense civilian and contractor personnel.

### **Port Hueneme**

The commercial port receives automobiles, general cargos, agricultural products, regional fish and liquid bulk products. Its exports include local agricultural products such as lemons and avocados, and general cargo products.

Cargo values at the port are soaring this year, rising 29 percent year-to-date through September, versus a year ago. Total trade value is \$10.4 billion year-to-date, the highest value of volume on record. Imports make up 90 percent of the total cargo flow, dominated by automobiles.

### **Agriculture**

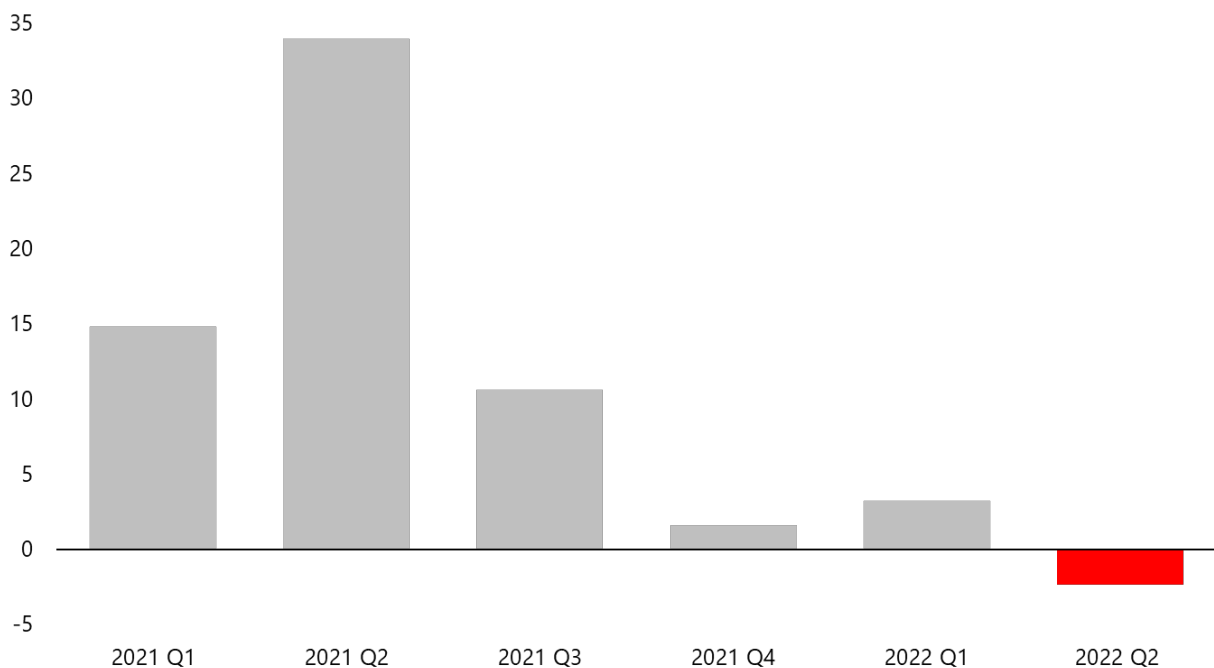
The estimated gross value of Ventura County agriculture was \$2.1 billion, an increase of 5 percent over the 2020 value. Strawberries are the top crop followed by lemons and nursery stock. The Oxnard Plain is one of the three largest and most important strawberry-producing regions in California, the other two being the Salinas Valley and the Santa Maria Valley. The farm sector constitutes a relatively large labor market with 23,000 workers as of September 2022. The agricultural workforce accounts for 7 percent of total employment in the county.

### **Retail Sales**

Spending in the region takes the form of consumer purchases of housing, vehicles, and all other retail goods and services. Taxable retail sales account for most consumer spending in the region, other than unprepared food typically purchased in a grocery store. Sales soared after pandemic restrictions were largely lifted in the spring of 2021. They have continued to increase every quarter since. However, adjusted for inflation, spending on retail goods and services have tumbled in 2022, with year-over-year negative growth in the second quarter of 2022. This same trend is generally being observed throughout the region.

## Exhibit VN 9 Change in Real Taxable Retail Sales in Ventura County, 1Q 2021-2Q 2022

*Year-Over-Year Percent Change*



California Department of Tax and Fee Administration

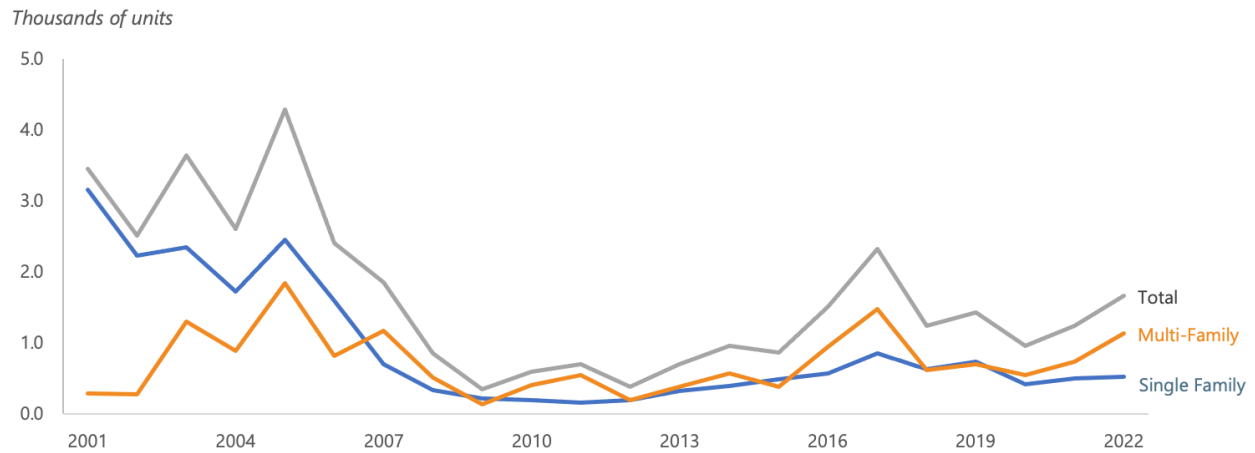
## HOUSING

New housing has been scarce over time in Ventura County, especially since the Great Recession. While 2021 and 2022 have represented a renaissance in home building for much of California, the uptick observed in Ventura County is disproportionately lower than other SCAG counties. When SOAR was first introduced to voters in the late 1990s, its goals were to limit housing and population growth. The lack of new housing in the county over time has impacted population growth and housing affordability, which have, in turn, impacted sources of economic growth.

Through the second quarter of 2022, housing affordability as measured by the California Association of Realtors fell to 15 percent in Ventura County.<sup>13</sup> The index has not been this low since late 2007.

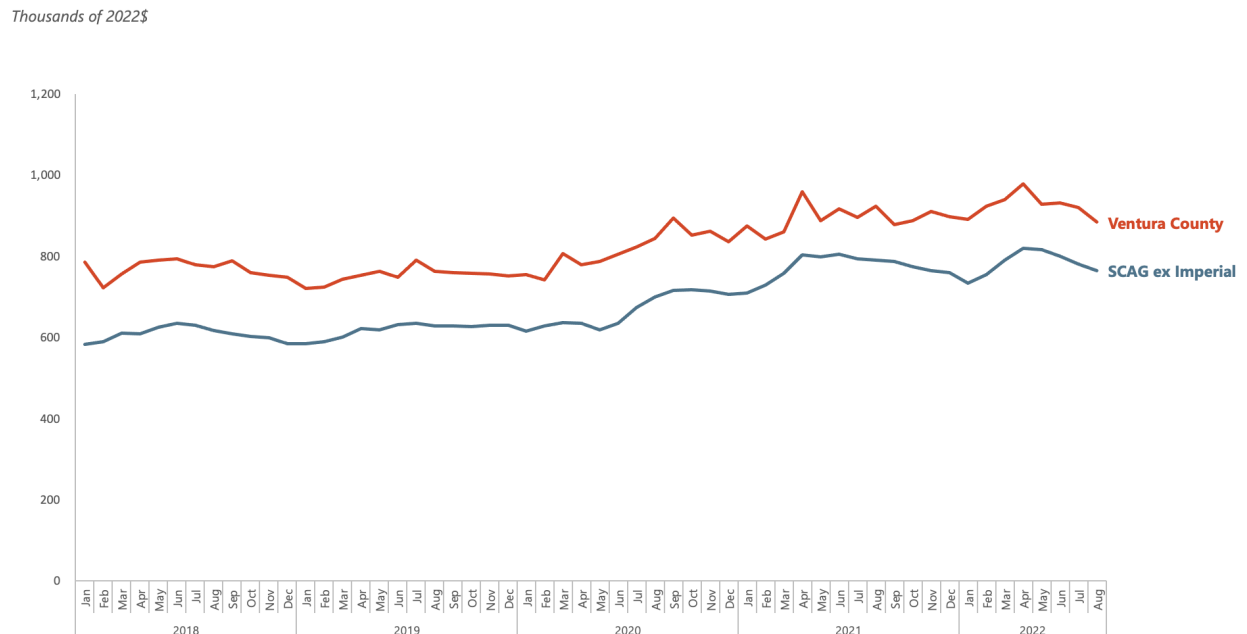
<sup>13</sup> The affordability index estimates the percentage of households in the County that can afford the median priced home in the County. The index is based on the current mortgage rate (to calculate the monthly mortgage payment), the median housing price, and the distribution of the population into household income strata.

### Exhibit VN-11 New Residential Units from Building Permits Issued in Ventura County, 2001-2022



Notes: Computed from CIRB Building Permits data. Counts for 2022 are annualized based on historical monthly CIRB data.

### Exhibit VN-12 Real Median Home Prices for Single-Family Detached Homes in Ventura County & SCAG (except Imperial)



Source: California Association of Realtors, Median Prices of Existing Detached Homes.

The concern over affordability cannot be overstated. While rising housing prices please homeowners, they deter entry of new workers and businesses into the county, a necessary dynamic for the healthy evolution of an expanding economy.

Since the spring of 2022, the median price of new housing has been easing, though the data does not yet clarify whether this is due to the mix of home sales or an actual decline in housing

values. Because of sluggish housing supply over the last several years, including this year, fundamental supply-demand forces do not suggest housing values will decline much amid a retrenchment in demand, unless this shift in demand is severe. Looking towards 2023, it is uncertain how much demand will become impacted by the impending recession.

The substitution of rental housing for purchase housing amid an environment of both rising home prices and rising mortgage rates have pushed apartment rental rates to their highest levels ever recorded, as of September 2022.

## **ECONOMIC OUTLOOK FOR VENTURA COUNTY**

Momentum within the county was rising before the COVID-19 pandemic but recently slowed again. The growth of jobs has lagged other Southern California counties for a decade; there is little likelihood that this condition will change, especially if the greater state and national economies weaken as expected in 2023.

Population growth has been negative for 5 consecutive years. The decline has impacted the resident labor force and Ventura County employers' ability to recruit workers. A weakening economy in 2023 will soften both the demand for workers and the need to raise wages to retain workers.

Persistent inflation in 2023 would deteriorate real household income and consumer spending further in the region. The likelihood of inflation remaining above the Federal Reserve's target through 2023 has moved higher because inflation to-date shows few compelling signs that it is abating.

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## SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

900 Wilshire Blvd., Ste. 1700, Los Angeles, CA 90017

Phone: (213) 236-1800 | [www.scag.ca.gov](http://www.scag.ca.gov)

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### Regional Offices

#### IMPERIAL COUNTY

1503 North Imperial Avenue, Suite 104

El Centro, CA 92243

Phone: (213) 236-1967

#### ORANGE COUNTY

OCTA Building

600 South Main Street, Suite 1233

Orange, CA 92863

Phone: (213) 236-1997

#### RIVERSIDE COUNTY

3403 10th Street, Suite 805

Riverside, CA 92501

Phone: (951) 784-1513

#### SAN BERNARDINO COUNTY

Santa Fe Depot

1170 West 3rd Street, Suite 140

San Bernardino, CA 92418

Phone: (213) 236-1925

#### VENTURA COUNTY

4001 Mission Oaks Blvd., Ste. L

Camarillo, CA 93012

Phone: (213) 236-1960