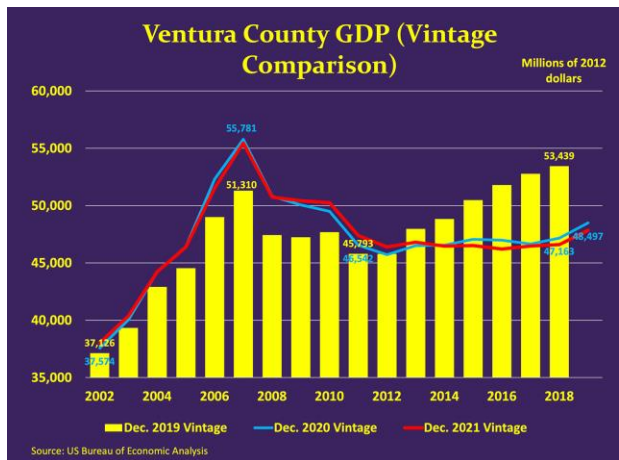


Matthew Fienup
March 6, 2022

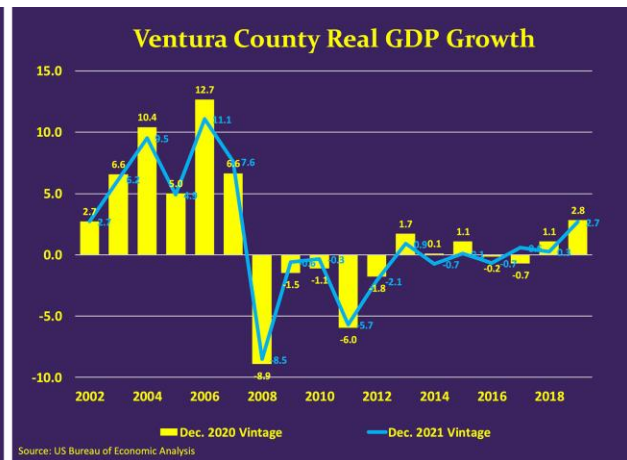
Revised Economic History of the County

Even before the onset of the coronavirus pandemic, Ventura County was experiencing a prolonged period of economic weakness. Revised data indicate that the County’s pre-pandemic weakness was longer and more severe than we understood one year ago. In mid-December 2020, shortly after the release of last year’s vintage of this report, the U.S. Bureau of Economic Analysis (BEA) released its annual county GDP data set. The 2020 release included the BEA’s preliminary estimate of Ventura County’s 2019 GDP as well as revisions to the County’s historical GDP data.

The revisions to Ventura County’s economic history are substantial. Economic growth since 2007 is much slower than previously understood, and the size of the County’s economy in recent years is much smaller than previously measured.



Source: US Bureau of Economic Analysis



Source: US Bureau of Economic Analysis

Whereas previous estimates indicated that the County’s economy grew by \$2.1 billion from 2007 to 2018, the revised estimates indicate that the County’s economy *shrank* by \$8.8 billion during that time. This is a 16 percent decline in total economic activity. The drop represents an astonishing \$26,600 per worker or \$10,500 per person. The BEA’s previous estimates indicated that the 2007 to 2018 compound annual growth rate for Ventura County GDP was 0.4 percent, a period of anemic but sustained growth. The new data indicate that it was not a period of growth, but instead a period of economic contraction. Ventura County’s economy contracted by a compound annual rate of 1.6 percent over the 11-year period.

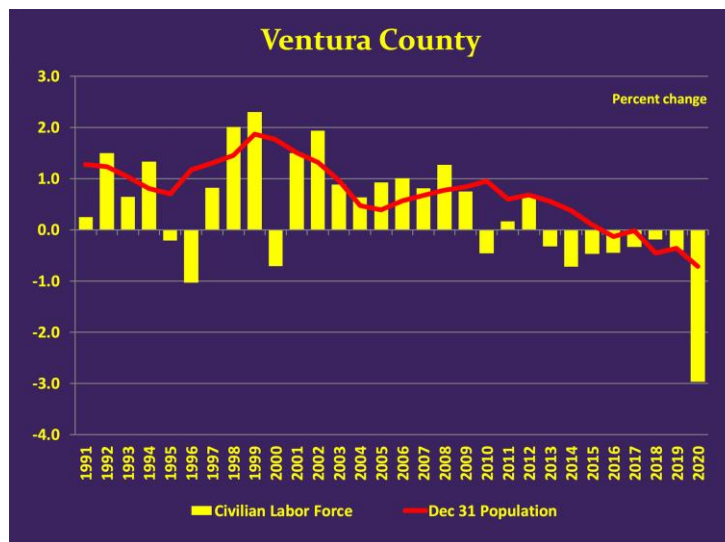
The BEA’s revisions bring Ventura County GDP data in line with other key economic indicators which, as documented in previous reports, already indicated poor economic health. Three

important measures of economic vitality are population growth, domestic migration, and civilian labor force growth. Each of these measures already indicated a sustained period of economic weakness, going back to at least 2013. According to CA Department of Finance data, Ventura County's population declined in every year from 2016 onward and currently sits at a level similar to the County's population at the start of 2012. Net domestic migration has been negative for eleven consecutive years. And the County's civilian labor force contracted in seven consecutive years prior to the onset of the pandemic.

Stepping back from the details of the revised estimates, the data revisions that have impacted Ventura County GDP are large. In fact, these revisions alter our understanding of the County's recent economic history. As such, it is natural to feel misled or even betrayed by earlier estimates. One way to make sense of this is to take a broad view and to consider a wide range of different measures of economic performance, such as net migration, population and labor force growth, as noted above. Another is to realize that focusing on the economic growth rate in one particular year, or another, might not be helpful. Instead, we should look at what the data reveal over larger spans of time, such as three, five, or even ten years. This is what we attempt to do in this report.

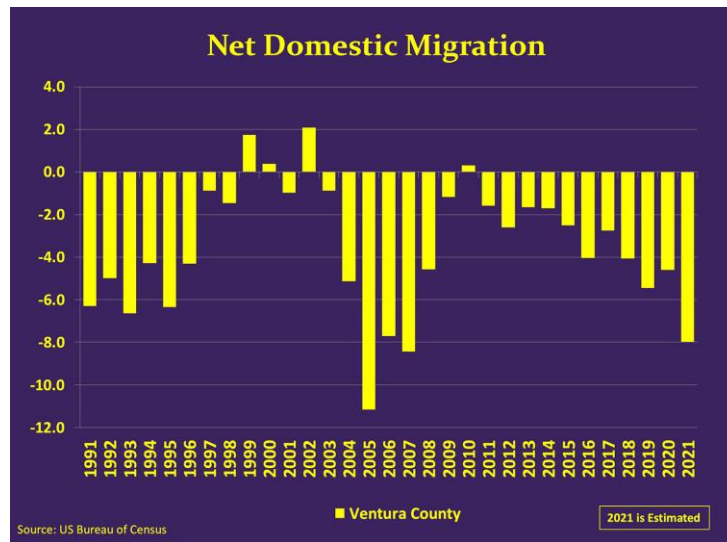
State of Ventura County's Economy & COVID-19 Impacts

The leading indicators of Ventura County's economic weakness turn out to have been labor force growth and net domestic migration. The size of the County's labor force peaked in 2009, during the Great Recession. After wavering for a couple of years, the size of the labor force began a sustained decline. The County's labor force contracted in every single year from 2012 until 2019. The number of people living in Ventura County who are actively working or seeking work has declined by a shocking 23,200 people since 2009, a decrease of more than 5 percent.



Source: CA Employment Development Department, Department of Finance

Whereas previous estimates indicated that the County’s economy grew by \$2.1 billion from 2007 to 2018, the revised estimates indicate that the County’s economy *shrank* by \$8.8 billion during that time. This is a 16 percent decline in total economic activity. The drop represents an astonishing \$26,600 per worker or \$10,500 per person. The BEA’s previous estimates indicated that the 2007 to 2018 compound annual growth rate for Ventura County GDP was 0.4 percent, a period of anemic but sustained growth. The new data indicate that it was not a period of growth, but instead a period of economic contraction. Ventura County’s economy contracted by a compound annual rate of 1.6 percent over the 11-year period.



Source: US Bureau of the Census

Net domestic migration, the difference between the number of people who move to Ventura County from somewhere else within the United States and the number who leave for another domestic location, was negative in 18 of the past 19 years. The net exodus of people has been accelerating since 2011. Over the past two years alone, 12,600 more people left the County for somewhere else in the United States than came to Ventura County. We have long regarded net domestic flows as an important indicator of relative economic opportunity. When economic opportunity is relatively high in a region, net domestic flows are positive. When it is relatively low, these flows reverse.

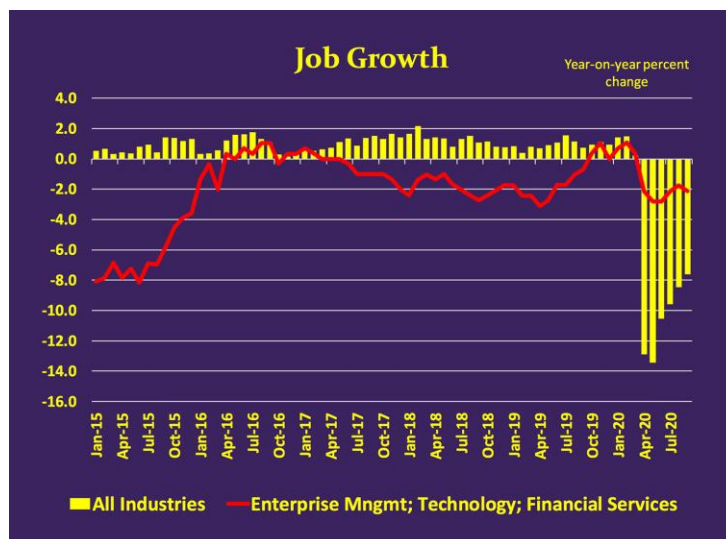
A fundamental question that we asked a year ago about the impact of the COVID-19 pandemic is whether the pandemic-induced flight of people from dense urban areas like neighboring Los Angeles might make Ventura County relatively more attractive and might actually reverse the net outflow of people from the County. Unfortunately, the net outflow remained high through 2020 and 2021.

Whereas net domestic migration data proved to be an early warning sign, negative population growth represents a late-stage manifestation of the region's economic weakness. The accelerating net-exodus of people from Ventura County finally overwhelmed natural population growth and positive net international migration in 2016, tipping overall population growth negative for the first time. The County's population declined in every year from 2016 onward, with the rate of decline generally increasing over time.

There are now 14,000 fewer people in Ventura County than at the peak of the County's population in early 2016, a decline of nearly 2 percent. The geographic distribution of population losses is widespread. Of the 10 incorporated cities in Ventura County, seven have a current population level that is below the city's peak population. Only the cities of Fillmore, Port Hueneme and Camarillo have enjoyed small gains. The largest losses are concentrated in the City of Ventura whose population is down 3.6 percent from its peak in 2016. The population of the City of Thousand Oaks is down 2.9 percent from its peak in 2015.

In a previous report, we conceded that natural disasters may have played a role in the County's population decline. We noted at that time that the County's earliest population losses appeared to be concentrated in the cities of Ventura and Thousand Oaks, cities who suffered the worst impacts of the Thomas or Woolsey fires. Revisions to population data now reveal that population losses arrived in these cities at least two years prior to the devastating wildfires, and population losses were already more widespread than these two cities.

Even as Ventura County's population and labor force have contracted, net job growth has been positive in every year since 2011, with the exception of the pandemic-impacted year 2020. Even so, jobs data paint a picture of general economic weakness. The number of jobs in low paying sectors, such as Leisure & Hospitality and Education & Health Services, are increasing, while the number of jobs in high paying sectors, which support Ventura County's high cost of living, have experienced large declines. Management of Enterprises, Information & Technology, and Finance & Insurance, the three highest paying sectors have seen especially large losses. As we have noted in previous reports, because most new jobs in Ventura County do not pay wages sufficient to support homeownership in the County, each new job represents an additional commuter on the region's freeways. Commuting to work in Ventura County from another, lower-cost community beyond the County line is a way of life for many.



Source: CA Employment Development Department

The combination of negative net migration, a shrinking labor force, declining population, and unfavorable compositional changes to the County's workforce mean that Ventura County's economy was chronically weak even as the California and U.S. economies were experiencing sustained economic expansion. It is our general belief that strong economies are able to withstand unexpected shocks better than weak ones. Because of the weakness that characterized Ventura County in the years leading up to the COVID-19 Pandemic, we expect Ventura County to be especially hard hit.

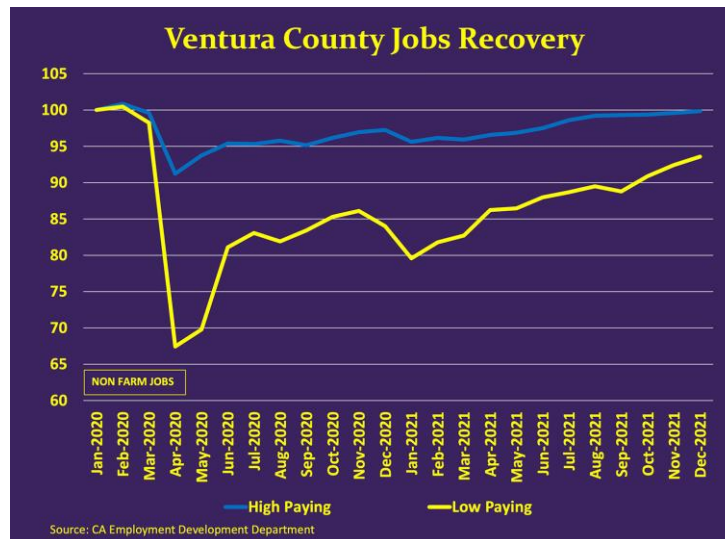
The pre-pandemic peak of economic activity was February 2020, when there were 339,500 jobs across all industries in Ventura County. Government-mandated shutdowns caused an unprecedented contraction. By April, Ventura County's job market had lost 45,200 jobs, a loss of more than 13 percent of all jobs. At the same time, the County's Labor Force contracted by nearly 19,000, more than 40 percent of the number of jobs lost.

The headline unemployment rate, which only counts those who are actively working or seeking work, has proven to be a poor indicator of the region's economic health. Unemployment in Ventura County peaked in April 2020, at a reported rate of 14.5 percent. Adjusting the unemployment rate by counting those workers who were pushed out of the labor market by government-mandated shutdowns produces a much higher, and we believe more accurate, picture of the labor market. Using the February 2020 labor force participation rate, we estimate that Ventura County's true unemployment rate peaked in April at more than 18 percent. Making a similar adjustment increases the most recent month's unemployment figure from 4.2 to 6.2 percent. We believe this indicates that there is still a way to go before Ventura County's labor market can claim to have recovered.

Ventura County's Job Market			<i>Peak to Trough</i>		<i>Peak to Present</i>	
<i>not seasonally adjusted data</i>	Dec-21		Feb 2020 - Apr 2020	Feb 2020 - Apr 2020	Feb 2020 - Dec 2021	Feb 2020 - Dec 2021
<i>Sectors</i>	<i>Thousands</i>	<i>Change-thousands</i>		<i>Percent change</i>	<i>Change-thousands</i>	<i>Percent change</i>
Agriculture & Resource Extraction	22.6	3.6	14.9	-1.5	-6.2	
Construction & Manufacturing	44.4	-5.0	-11.1	-0.6	-1.3	
Trade, Transportation & Warehousing	19.6	-1.4	-7.2	0.2	1.0	
Technology & White Collar	64.7	-6.0	-9.1	-0.9	-1.4	
Retail, Leisure & Personal Services	80.2	-28.3	-32.9	-5.9	-6.9	
Education & Health Services	49.5	-4.9	-9.6	-1.8	-3.5	
Government	45.8	-3.2	-6.7	-2.2	-4.6	
Total All Industries	326.8	-45.2	-13.3	-12.7	-3.7	

Source: CA Employment Development Department

By now, it is well known that the impacts of the pandemic are not evenly distributed across the labor market. Jobs in Retail, Leisure & Hospitality, and Personal Services, the lowest paying sectors in Ventura County with a pre-pandemic average annual salary of just \$31,000, dropped by a collective 32.9 percent. Jobs in these sectors have grown by 38.8 percent since the low point in April but are still down nearly 7 percent from the pre-pandemic level.



Source: CA Employment Development Department

Meanwhile, jobs in the highest paying sectors fared very differently. Jobs in Construction & Manufacturing, with a pre-pandemic average salary of \$69,500, declined by only 11.1 percent. They have subsequently increased 11.0 percent and are only 1.3 percent below the pre-pandemic peak. Similarly, Technology & White Collar jobs, with a pre-pandemic salary of \$86,800, declined by only 9.1 percent. They have increased 8.6 percent and are now only 1.4 percent below the pre-pandemic

peak. Jobs in Trade, Transportation & Warehousing, with a pre-pandemic average salary of \$77,300, declined by 7.2 percent but have recovered such that they are now one percent above the pre-pandemic level. This contrast between low- and high-paying sectors reveals that the COVID-19 pandemic and the resulting impacts to the economy represent a tale of two recessions. And the months since the April 2020 trough of economic activity also represent a tale of two recoveries. Ventura County residents working in high paying sectors of the economy, which generally support remote working arrangements, saw significantly smaller impacts of the pandemic and the various government responses. They have also recovered more thoroughly. Meanwhile the economic impacts to low-wage segments have been deeper and far more enduring.

Industries and Occupations

Ventura County's labor market has been undergoing a long-term compositional transformation that began prior to the Financial Crisis and Great Recession. Net jobs have been created in lower-paying sectors, while high-paying sectors have been flat or declining. From December 2007 to December 2019, jobs in Durables Goods Manufacturing, Information & Technology and Financial Activities were all down double-digits, with Financial Activities seeing a decline of nearly 30 percent. Meanwhile, jobs in Education & Health Services and Leisure & Hospitality grew by 53 and 19 percent respectively.

The fact that high-paying sectors such as Manufacturing and Finance were spared the worst impacts of the pandemic and have seen nearly full recovery means that the situation in these sectors is similar to that which prevailed prior to pandemic. We anticipate a continued retreat of these jobs from the County, but the pace does not seem to have changed appreciably as a result of the past 18 months' economic displacement. In contrast, Information & Technology is sector that provides cause for worry. While jobs in this sector declined 10 percent from the Great Recession to the start of the pandemic, jobs are now down 29 percent relative to the pre-Great Recession level. We will be watching this sector with particular interest as Ventura County's recovery from the COVID-19 pandemic proceeds in the months ahead. A failure of these jobs to return to pre-pandemic levels would result in a downward revision to our outlook for the County's economy.

The two fastest growing sectors since the Great Recession, Education & Health Services and Leisure & Hospitality were seriously impacted by the pandemic and have not seen subsequent recovery. Whereas jobs in Education & Healthcare had increased by 53.3 percent between the Great Recession and the December 2019 pre-pandemic peak, the sector is now up only 48.2 percent since the Great Recession. Leisure & Hospitality is even more striking. The number of jobs in Leisure & Hospitality increased 19.4 percent from the Great Recession to December 2019. The pandemic has eliminated so many of these jobs that the number of jobs in this sector is now up only 6.5 percent

from the Great Recession. In other words, two-thirds of the gains in this industry have been wiped out.

Ventura County's Job Market		<i>Great Recession to PreCovid Peak</i>		<i>Great Recession to Present</i>	
<i>not seasonally adjusted data</i>	Dec-21	Dec 2007 to Dec 2019	Dec 2007 to Dec 2019	Dec 2007 to Dec 2021	Dec 2007 to Dec 2021
<i>Sectors</i>	<i>Thousands</i>	<i>Change-thousands</i>	<i>Percent change</i>	<i>Change-thousands</i>	<i>Percent change</i>
Agriculture/Ag Production Services	22.6	0.4	1.9	1.3	6.1
Natural Resources and Mining	1.0	-0.1	-9.1	-0.1	-9.1
Construction	16.8	-0.6	-3.4	-1.1	-6.1
Durable Goods Manufacturing	18.6	-4.1	-17.4	-5.0	-21.2
Non-Durable Goods Manufacturing	8.0	0.8	12.1	1.4	21.2
Wholesale Trade	12.9	0.1	0.8	-0.1	-0.8
Retail Trade	37.2	0.3	0.7	-2.9	-7.2
Transportation, Warehousing, & Utilities	6.7	0.0	0.0	0.1	1.5
Information & Technology	4.1	-0.6	-10.3	-1.7	-29.3
Financial Activities	15.7	-6.1	-27.6	-6.4	-29.0
Professional and Business Services	44.9	0.7	1.6	0.1	0.2
Educational and Health Services	49.5	17.8	53.3	16.1	48.2
Leisure and Hospitality	34.6	6.3	19.4	2.1	6.5
Personal, Repair, & Maintenance Services	8.4	-0.4	-4.0	-1.7	-16.8
Government	45.8	4.0	9.1	2.0	4.6
Total All Industries	326.8	18.5	5.7	4.1	1.3

Source: CA Employment Development Department

As we consider the years ahead, it may be worth remembering that Ventura County was the last county in Southern California to recover the number of jobs lost during the Great Recession. In fact, it was not until 2016, fully seven years after the end of the Great Recession, that the County finally reached that long-sought milestone. Given the County's pre-existing weakness, we expect the recovery from the pandemic recession to also be slower than the recoveries in neighboring counties. We also expect that the compositional transformation that Ventura County underwent during the 10 years following the Great Recession will continue. That is, jobs in high-paying sectors will continue their slow decline while jobs in low paying, service-oriented sectors will eventually recover and then continue to rise.

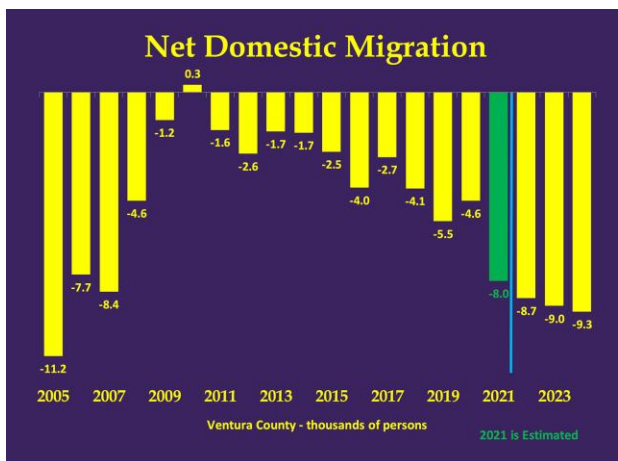
As noted in previous reports, this compositional change has important implications. First, it underscores the fact that labor productivity is declining in Ventura County. As a result, jobs growth will continue to exceed GDP growth. In fact, jobs growth is likely to continue to be positive even in a regime of declining economic output. Few places in California or the nation exhibit this pattern. Its presence implies stagnant per capita income growth, slowing economic mobility for Ventura County residents and continued economic weakness.

Ventura County: Industry Data					
2020; 2019 to 2020					
not seasonally adjusted data	Employment (Jobs)	Average Salary (thousands of dollars)			
	2020	2019	2020	Change	% Change
AGRICULTURE, FORESTRY, FISHING & HUNTING	24,983	35.0	37.1	2.1	6.0
MINING	910	105.7	103.4	-2.3	-2.2
UTILITIES	861	124.7	144.9	20.1	16.1
CONSTRUCTION	16,674	63.8	66.8	3.0	4.7
MANUFACTURING-DURABLE	18,349	78.5	83.1	4.5	5.8
MANUFACTURING-NONDURABLE	7,265	58.7	59.4	0.7	1.1
WHOLESALE TRADE	12,601	84.4	87.1	2.7	3.2
RETAIL TRADE	34,758	36.5	39.0	2.4	6.6
TRANSPORTATION & WAREHOUSING	5,180	51.2	54.0	2.8	5.4
INFORMATION	3,899	78.3	101.6	23.4	29.9
FINANCE & INSURANCE	11,621	100.6	113.1	12.5	12.4
REAL ESTATE & RENTAL & LEASING	4,078	57.0	59.3	2.3	4.1
PROFESSIONAL, SCIENTIFIC, & TECHNICAL SERVICES	16,372	86.8	106.6	19.8	22.8
MANAGEMENT OF COMPANIES AND ENTERPRISES	7,899	193.1	189.7	-3.4	-1.8
ADMIN & SUPPORT & WASTE MGMT & REMEDIATION	18,006	45.4	47.4	2.0	4.4
EDUCATIONAL SERVICES	5,098	39.8	41.3	1.6	3.9
HEALTH CARE & SOCIAL ASSISTANCE	40,651	50.0	52.7	2.7	5.4
ARTS, ENTERTAINMENT, & RECREATION	3,744	29.5	36.9	7.4	25.1
ACCOMMODATION & FOOD SERVICES	26,467	22.7	23.6	0.9	4.0
PERSONAL, REPAIR, AND MAINTENANCE SERVICES	7,180	35.4	39.2	3.8	10.6
FEDERAL GOVT	7,767	94.2	95.6	1.4	1.5
STATE GOVT	2,137	63.8	68.6	4.8	7.6
LOCAL GOVT	32,791	64.4	71.8	7.4	11.4
ALL INDUSTRIES, TOTAL NUMBER OF JOBS	309,290				
AVERAGE SALARY, ALL INDUSTRIES		57.9	63.4	5.6	9.6
MEDIAN SALARY, ALL INDUSTRIES		63.8	66.8	3.0	4.7

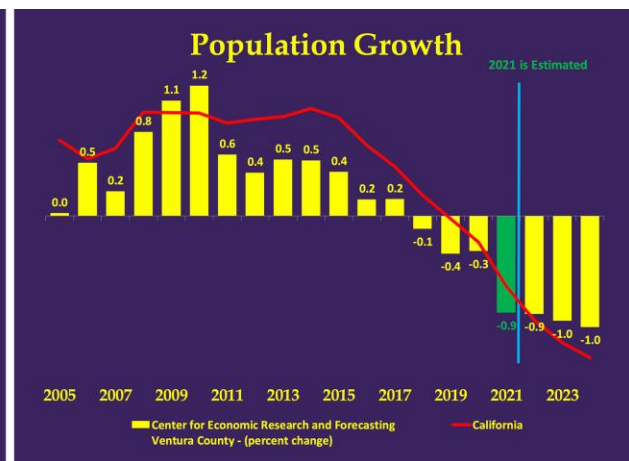
Source: California Employment Development Department (QCEW data program)

Ventura County's Forecast

The current CERF Ventura County economic forecast anticipates that, driven by the worsening net out-migration of people, the County's population will continue to shrink across the entire forecast horizon. Net domestic outflows from Ventura County are forecast to increase until the rate is nearly double that of the year prior to the pandemic. We anticipate a continuation of the County's population decline over the same period, at a rate slightly higher than recent years.



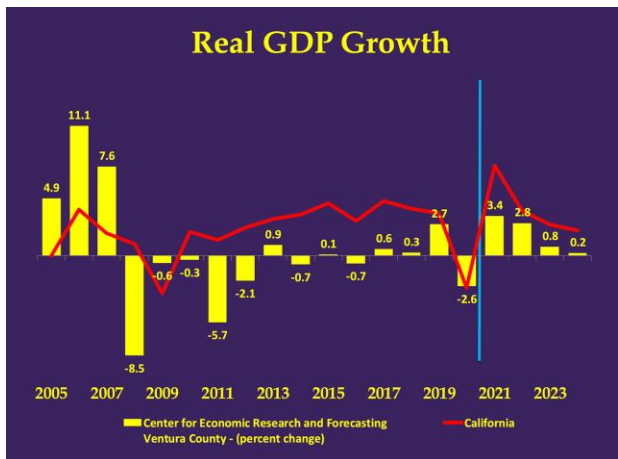
Source: US Bureau of the Census



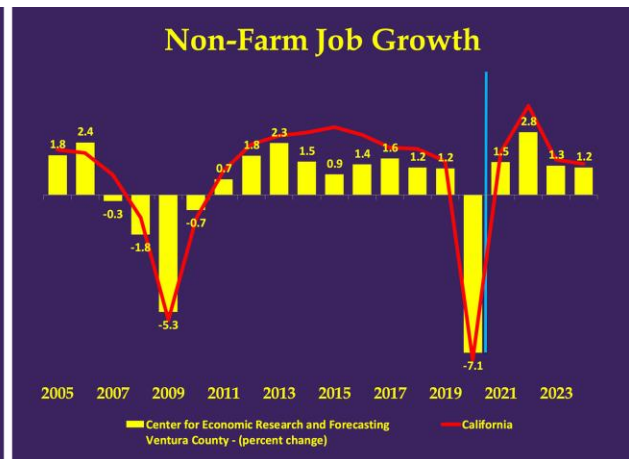
Source: US Bureau of the Census

The forecast anticipates a year of modest GDP growth in 2021, as the economy musters a relatively slow recovery from the depths of the pandemic recession. The forecasted growth rate of 3.4 percent represents what would have been a slow economic growth year in the decade of the 2000s. It also represents an anemic year of economic recovery compared to almost any other geography, including LA County, California and the Nation. We expect the San Fernando Valley, Ventura County’s nearest neighbor, to enjoy growth of 9 percent in 2021.

We anticipate that Ventura County’s economic growth will slow significantly in the years that follow, with a return to near-zero growth in 2024. With an accelerating net outmigration of people from the county and declining population, it is hard to imagine upside risk to this GDP forecast.



Source: US Bureau of Economic Analysis



Source: CA Employment Development Dept, US Bureau of Labor Stats

Jobs in high paying sectors of the economy will continue to decline. In particular, jobs that can be conducted somewhere else at lower cost will continue to be relocated outside of the County. Nearly two years into the remote working revolution that was thrust upon us during the pandemic, it is clear that many high paying jobs in Information & Technology and Management will be filled by former residents whose job is technically still located in Ventura County but who no longer live within our communities. The announcement by Amgen in May 2021 that they would not be requiring the overwhelming majority of its 5,500 Ventura County employees to return to campus to work was the bellwether in this regard. The advent of permanent work-from-home arrangements among leading Ventura County employers could have a devastating impact on the long-run economic growth outlook for the County. Employees who work from home can enjoy an immediate increase in standard of living by working from a home in another region altogether.

A countervailing factor in the economic outlook for Ventura County is the continued flight of urban professionals from Los Angeles. Thus far, Urban Flight appears to be real. We see evidence in the rapid demand-driven appreciation of single-family homes in Ventura County. At the same time, the

flow of people from Los Angeles has not yet been sufficient to turn either net migration or population growth from negative to positive. A slow and steady flow of urban expats could serve to continue driving up home prices in Ventura County without stanching the loss of workers or people. This would prove to be the worst of all outcomes.

Economic Growth			
	2022	2023	2024
	<i>Forecast</i>		
Ventura County	2.8	0.8	0.2
San Fernando Valley	4.4	3.4	2.8
Los Angeles Metro	3.4	2.1	1.4
California	3.8	2.7	2.1
United States	3.1	2.1	1.6

Source: CLU-CERF

Ventura County’s current economic situation is truly stunning considering the strong economic legacy of the County. The same County that gave birth to Amgen, the world’s largest independent biotechnology company, the county which is still home to Naval Base Ventura County and the Port of Hueneme (with their truly remarkable effort to address the global supply chain crisis), and the County which boasts some of the most valuable agricultural land in the United States if not the world, has already foregone a decade of economic growth and the considerable social and other benefits that flow from it.

A return to robust economic growth in Ventura County will require fundamental changes to the economic landscape. This must necessarily start with a determined effort to build more housing and a deliberate effort to be more business friendly and pro-growth.