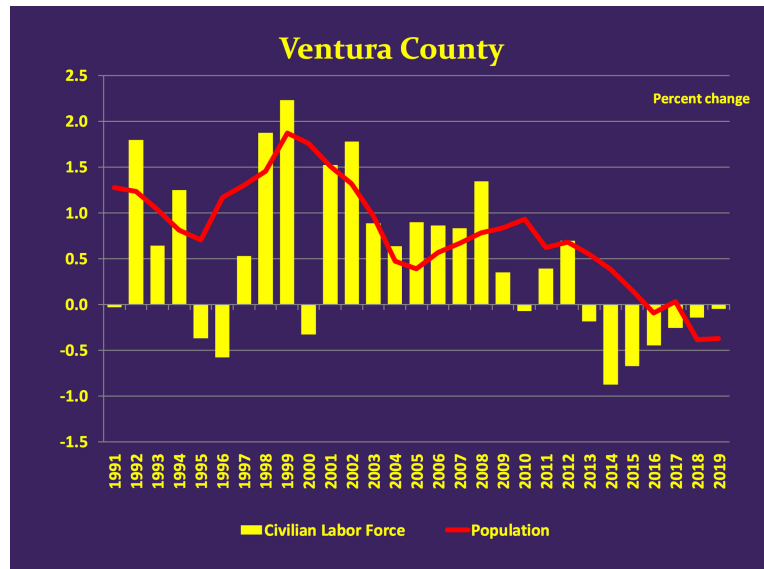


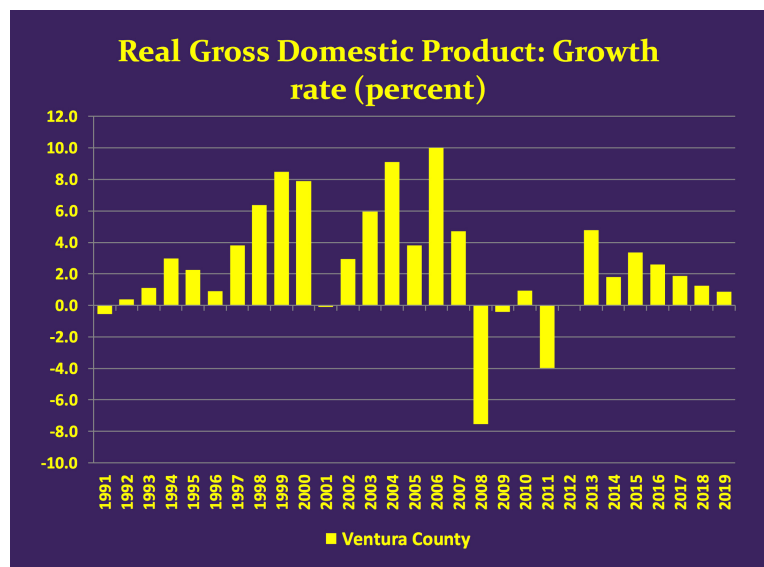
State of Ventura County's Economy (Pre-COVID)

Even before the onset of the coronavirus pandemic, the government-mandated shutdowns which began in March and the extraordinary collapse of economic activity that followed, Ventura County was experiencing a prolonged period of economic weakness.



Source: California Employment Development Department and Department of Finance

Early signs of weakness appeared in 2013, when a sustained decline in the size of the County's labor force began. The County's labor force contracted in each of seven consecutive years. Not surprisingly, the County's economic growth slowed dramatically over the same period, from a post-Great Recession high of 4.8 percent in 2013 to less than 1.0 percent in 2019. Ventura County's weakness is especially noteworthy compared to robust growth enjoyed in the San Fernando Valley, immediately to the east, and in the broader state economy, growth which consistently outpaces that of the nation.

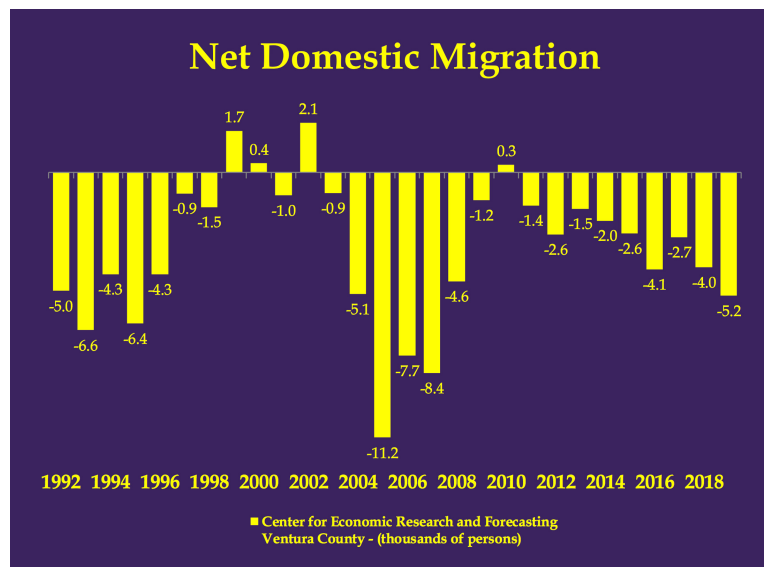


Sources: U.S. Bureau of Economic Analysis and CERF

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

In 2018, population losses were concentrated in the cities of Ventura, Santa Paula, Simi Valley, and Thousand Oaks – the four cities most impacted by the Thomas Fire in 2017 and the Woolsey Fire in 2018. In 2019, population losses spread to 3 additional cities across the County. In that year, Fillmore, Moorpark, Ojai, Ventura, Santa Paula, Simi Valley, and Thousand Oaks lost population. This represents a shocking and broad based decline.

One manifestation of Ventura County's economic weakness is Net Domestic Migration, which has been negative in Ventura County since 2011. The exodus of people has been accelerating, and in 2019 alone, 5,200 more people left the county for somewhere else in the United States than came to Ventura County.



Source: U.S. Bureau of Census

We have long believed that net domestic flows are a strong indicator of relative economic opportunity. When economic activity is relatively high in a region, net domestic flows are positive. When there is relatively greater opportunity outside of a region, these flows reverse. In Ventura County, net domestic migration proved to be a leading indicator of the weakness that is now seen across a range of variables.

As with Net Domestic Migration, Labor Force, Population and GDP growth, Ventura County jobs data also paint a picture of general economic weakness. Since the Financial Crisis and Great Recession, Ventura County's labor market has experienced a continuous compositional transformation. For going-on twelve years, jobs in high-paying sectors, especially goods producing sectors, have been in sustained decline. Jobs in these sectors have been moving out of the County and often out of the state in search of lower cost and more business-friendly environments. Meanwhile, jobs in low paying, service-oriented sectors have been on the rise.

During the twelve years between the Great Recession and the start of the pandemic, Manufacturing jobs declined by 12.3 percent. Jobs in Information & Technology declined 17.5 percent, and jobs in

Financial Activities declined 26.0 percent. At the same time, Leisure & Hospitality added 20.7 percent and Education & Health Services added an astonishing 50.0 percent. The considerable divide between low paying and high paying sectors has created an increasingly bi-modal distribution of incomes in Ventura County, as discussed in detail in last year's report. As noted last year, in 2019, Ventura County ranked number 96 out of the 100 largest metropolitan areas in the United States for economic prosperity, according to the Brookings Institution *Metro Monitor*.¹ Sustained compositional changes to the County's labor force have meant that the unique quality of life for which Ventura County is known has become accessible to fewer and fewer people.

Ventura County's Job Market						
	Most Recent		Changes During the Last Year		Changes Since the Great Recession	
<i>not seasonally adjusted data</i>	Feb-20		Feb 2019 to Feb 2020	Feb 2019 to Feb 2020	Feb 2008 to Feb 2020	Feb 2008 to Feb 2020
Sectors	Thousands		Change-thousands	Percent change	Change-thousands	Percent change
Agriculture/Ag Production Services	23.7		0.6	2.6	0.8	3.5
Natural Resources and Mining	0.9		0.0	0.0	-0.2	-18.2
Construction	17.2		0.9	5.5	0.1	0.6
Manufacturing	26.4		-0.1	-0.4	-3.7	-12.3
Wholesale Trade	13.3		0.3	2.3	0.4	3.1
Retail Trade	37.2		-1.3	-3.4	0.1	0.3
Transportation, Warehousing, & Utilities	6.4		0.1	1.6	0.0	0.0
Information & Technology	4.7		-0.2	-4.1	-1.0	-17.5
Financial Activities	15.9		0.0	0.0	-5.6	-26.0
Professional and Business Services	45.1		1.9	4.4	1.0	2.3
Educational and Health Services	50.4		1.2	2.4	16.8	50.0
Leisure and Hospitality	37.9		0.7	1.9	6.5	20.7
Personal, Repair, & Maintenance Services	9.6		0.1	1.1	-0.5	-5.0
Government	48.7		0.7	1.5	4.8	10.9
Total All Industries	337.4		4.9	1.5	19.5	6.1

Source: CA Employment Development Department

The twelve months leading up to the pandemic were relatively quiet with little to report in terms of job gains and losses. Information & Technology was the weakest sector, losing 4 percent (about 200 jobs). Retail Trade was the second weakest sector, down 3.4 percent.

Construction was a bright spot. During the twelve months prior to the pandemic, Construction added nearly a thousand jobs, or 5.5 percent. For the first time since the Great Recession, Construction reached the number of jobs achieved during the peak of the housing bubble. That is to say, the losses endured in this sector in Ventura County during the Great Recession had finally recovered, after 12 years.

Ventura County's COVID-19 Impacts

The pre-COVID-19 peak of economic activity in Ventura County was February 2020. At that time, there were 337,400 jobs across all industries. Government mandated shutdowns caused an unprecedented contraction. By May, Ventura County's job market had lost 41,800 jobs across all industries, a loss of more than 12 percent.

¹ <https://www.brookings.edu/research/metro-monitor-2019/>

One unique aspect of the government-mandated shutdown is that individuals who were displaced from work very often could not actively seek other employment. The quarantine kept displaced workers on the sidelines. In this way, the loss of jobs was accompanied by a sudden contraction in the County's labor force. Between February and May, the County's Labor Force contracted by more than 19,000 individuals, equal to 45 percent of the jobs lost.

As a result of this rapid labor force decline, the unemployment rate, which only counts those actively working or seeking work, has become a poor indicator of labor market health. Consider that, at the same time that 12 percent of all jobs were lost, the unemployment rate in Ventura County increased by only ten percentage points. The official unemployment rate climbed from 3.7 percent to 13.7 percent. In fact, the percentage of workers impacted by the shutdown was significantly higher.

In order to account for the rapid contraction of the County's labor force, we calculate an *adjusted* Unemployment Rate. To do this, we simply use Ventura County's higher pre-pandemic Labor Force Participation rate, rather than the lower one which resulted from the government mandated shutdown. In doing so, we make the assumption that everyone who lost a job on account of the shutdown is still in the labor force. Reinserting them into the labor force produces an adjusted unemployment rate equal to 17.2 percent for Ventura County in May.

Unemployment Rate Calculator

	Feb	May	May (recalc)	Sep	Sep (recalc)
United States					
LFPR	63.4	60.8	63.4	61.4	63.4
Unemployment Rate	3.5	13.3	16.7 +3.0	7.9	10.6
Ventura County					
LFPR	50.0	47.9	50.0	48.0	50.0
Unemployment Rate	3.7	13.5	17.6 +3.0	8.4	12.1

Sources: U.S. Census, BLS, CA EDD

Unfortunately, there is a second issue confounding unemployment rate calculations during the COVID-19 recession in Ventura County and around the nation. According to the Bureau of Labor Statistics (BLS), the survey instrument used to calculate the unemployment rate exhibited a large measurement error during the early and middle part of the shutdown. The BLS noted in its May Employment Situation Report that many people in the survey who had been furloughed or laid off were self reporting that they were still employed. The BLS estimates that the size of the measurement error in May was a full three percentage points. Assuming that this estimate is correct, Ventura County's unemployment rate in May was likely three percentage points higher than the adjusted rate discussed above. This pushes May's adjusted unemployment rate above 20 percent in Ventura County. This is an astounding figure. It is also consistent with other data from the Department of Labor which tracks the number of people receiving unemployment benefits and other forms of government assistance. Although astounding, we believe that this is a reasonable

estimate of extraordinary displacement of the County's labor force that resulted from the pandemic shutdown in Ventura County.

Clearly this is a historic and life-changing economic event that we are living through. Ventura County will experience the consequences for many years to come.

Ventura County's Job Market					
<i>not seasonally adjusted data</i>	<u>Feb 2020</u>	<u>Sep 2020</u>	Peak to Trough		Trough to Present
<u>Sectors</u>	<i>Thousands</i>	<i>Thousands</i>	<u>Feb 2020 - May 2020</u>	<u>Feb 2020 - May 2020</u>	<u>May 2020 - Sep 2020</u> <u>May 2020 - Sep 2020</u>
			<i>Change-thousands</i>	<i>Percent Change</i>	<i>Change-thousands</i> <i>Percent Change</i>
Agriculture & Resource Extraction	24.6	21.7	-0.3	-1.2	-2.6 -10.7
Construction & Manufacturing	43.6	42.0	-1.8	-4.1	0.2 0.5
Trade, Transportation & Warehousing	19.7	18.1	-2.6	-13.2	1.0 5.8
Technology & White Collar	116.1	111.7	-8.6	-7.4	4.2 3.9
Retail, Leisure & Personal Services	84.7	72.1	-23.4	-27.6	10.8 17.6
Government	48.7	42.6	-5.1	-10.5	-1.0 -2.3
Total All Industries	337.4	308.2	-41.8	-12.4	12.6 4.3
<i>Source: US Bureau of Labor Statistics</i>					

The impacts of the pandemic are not evenly distributed across job sectors or income groups.

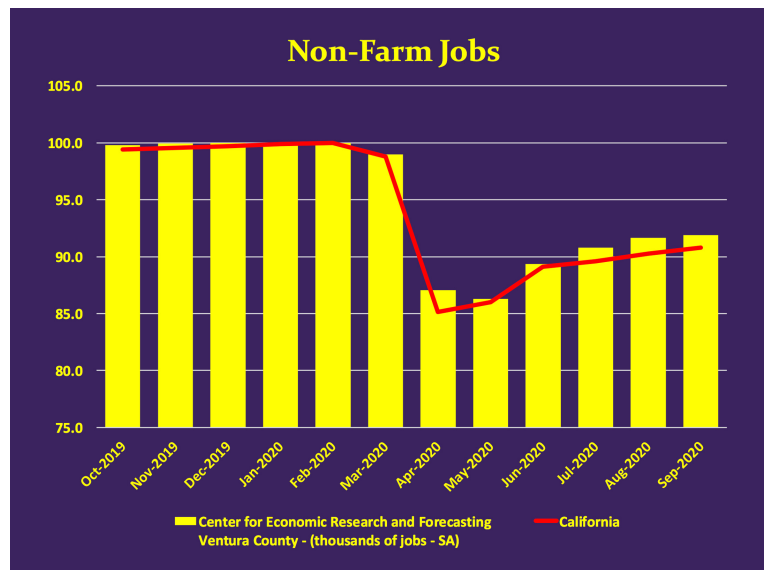
Jobs in Retail, Leisure & Hospitality, and Personal Services, together the lowest paying sectors in Ventura County, dropped by a collective 27.6 percent between February and May. More than a quarter of all jobs were lost in these sectors in just 3 months. Jobs in these same sectors grew by 17.6 percent from the trough of the recession in May through September, but this still leaves these sectors down nearly 15 percent from the pre-pandemic level.

Meanwhile jobs in the highest paying group of sectors, including Information & Technology, Financial Activities and Management Services, declined by only 7.4 percent from the pre-recession peak to their lowest point in May. Jobs in these sectors have subsequently increased by 3.9 percent and now sit just 3.8 percent below the pre-pandemic level.

High paying and high value added jobs are much more likely to support remote working arrangements. As such, employees in the high paying sectors are more likely to be still working. Because the impacts of the pandemic and resulting shutdowns are felt disproportionately among economically vulnerable members of the economy, we expect that the distributional changes already happening in pre-pandemic Ventura County will accelerate. In the years ahead, income inequality will increase even more rapidly than before. And upward economic mobility will likely slow.

Despite this dire outlook, it is important to note that the contraction of economic activity in Ventura County and the resulting loss of jobs is relatively smaller in magnitude than in either neighboring Los Angeles County or the state of California. Jobs in these geographies declined by 15.5 and 14.5 percent, respectively. Unfortunately, the fact that Ventura County lost relatively fewer jobs is in part the result of Ventura County being a weaker, less dynamic economy prior to the pandemic. As discussed in the previous section. Ventura County was experiencing economic decline for a number

of years, at the same time that neighboring geographies were enjoying fairly robust growth. That is to say, Ventura County had significantly less far to fall than its relatively strong neighbors.

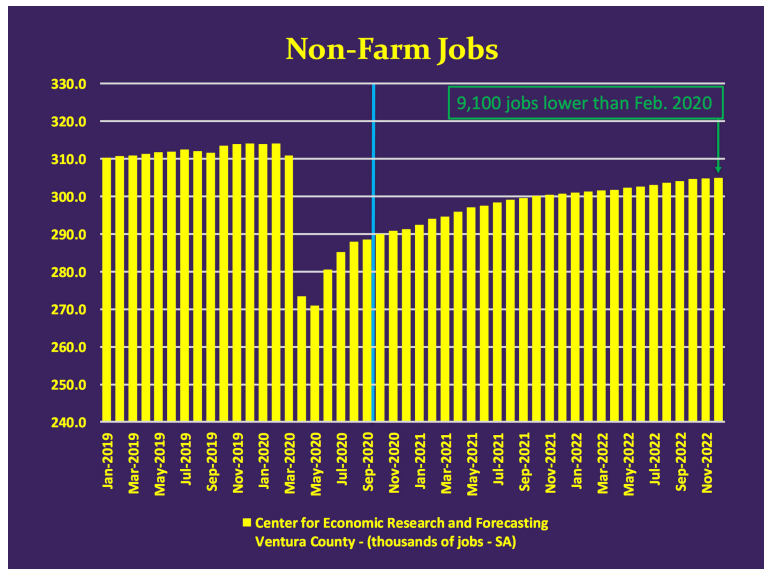


Thus far, Ventura County's recovery has proceeded relatively more quickly, if only slightly, than either neighboring Los Angeles County or the state of California. We attribute this in part to bold action by Ventura County policy makers who moved to open the County's economy as quickly and safely as possible. Given the strictures imposed by the state, County officials are to be commended. They deserve, and indeed will need, our earnest support in the months ahead as reopening proceeds, especially if disease transmission once again increases.

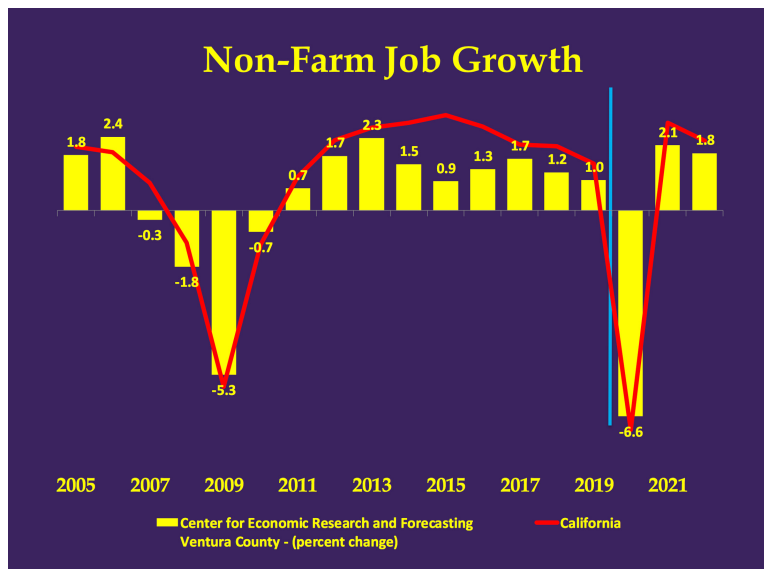
The swift and decisive closure of most of the County's economy during the early months of the pandemic slowed the disease, buying our communities critical time. The swift action of policy makers surely saved the lives of physically vulnerable people. But the disproportionate effects of government ordered shutdowns on economically vulnerable members of our community necessitate a different approach going forward. The region's economy simply can not afford another shutdown. Avoiding one, while protecting the most physically vulnerable among us, will be a complex and critically important task. We want to use this space here to implore our fellow community members to do their part to protect vulnerable people. This means following local regulations, practicing social distancing, and providing political support for policy makers, so that they can continue to do the right, if difficult and sometimes scary, thing and reopen the economy.

Ventura County's Forecast

The onset of the pandemic in early 2020 marks an important if ominous mile marker in Ventura County's history. The pandemic and resulting policy responses represent an unprecedented shock to an economy that was already chronically weak. Given this weakness, we believe that Ventura County faces a slow and prolonged recovery. Our current forecast anticipates that, at the end of 2022, the County will still be more than 9,000 jobs below the pre-pandemic peak.

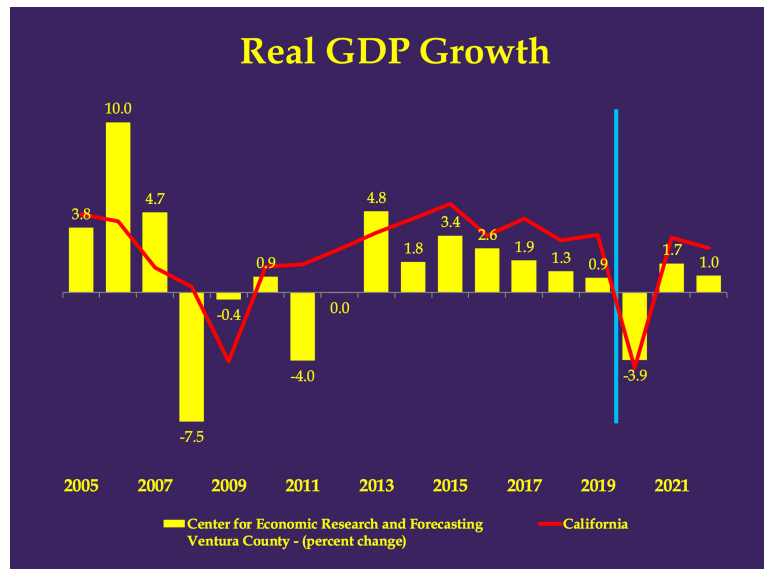


While Ventura County suffered job losses which were somewhat less severe than the state of California at large, we anticipate that job growth will be significantly slower than that of California in each of the next two years.



Sources: CA Department of Employment Development and CERF

We anticipate that GDP growth in Ventura County will also lag behind California's. In fact, we anticipate that the County's GDP growth will lag the state by an even larger margin than the County's jobs growth. This is simply a continuation of a well established pattern in Ventura County, whereby jobs growth exceeds GDP growth. This pattern has been one of the causes of the County's declining economic strength, and we do not believe that the pattern will end with the pandemic.



The COVID-19 recession is likely to accelerate the net exodus of people, the contraction of the labor force and the decline in population that were already underway in Ventura County. It will also likely strengthen the compositional transformation of the County. Jobs in high paying sectors of the economy will continue to decline, likely at a higher rate than before the pandemic. As before, jobs that can be conducted somewhere else at lower cost will be the most likely to leave. Jobs in non-tradable services, jobs which must be completed in proximity to the individuals paying for those services, will remain in the County and will continue to grow in number.

The primary upside risk to our forecast is the response of individuals to the pandemic in more densely populated and more strictly locked-down regions of the state, such as L.A. County. The open space and considerable environmental amenities of Ventura County surely look even more attractive during the pandemic, at least to those who can afford the cost of entry. Early evidence from the real estate sector in Ventura County indicates that Urban Flight is real, at least for the time being. The only question is how long this pressure from our more-urban neighbors will last. We expect to see evidence regarding this phenomenon's duration as more data arrives with home prices and listing times. Home price appreciation in the past 4 months has already pushed 2020 year-to-date price appreciation to 4.4 percent, considerably stronger than 2019.

The primary downside risk to our forecast is a second, full-scale government-mandated shutdown. Given how much more is known about the novel coronavirus and given how courageously County officials have moved to re-open the economy thus far, we hope that this downside risk is low in probability. We also find confidence in the quality of scientific research being done on the virus itself as well as on the various pandemic policy responses. Even without a vaccine, research by the Becker Friedman Institute at the University of Chicago indicates that "targeted closures can achieve

the same (health) policy goals at substantially lower economic losses.”² We cheer the Great Barrington Declaration³ and its advocacy by literally thousands of epidemiologists and other public health scientists for a policy of *Focused Protection* rather than complete lockdown.

We believe that these and related research point a way forward on Ventura County’s Road to Recovery. Given the quality of leadership at all levels of the County thus far during the crisis, we believe the downside risk is avoidable. Thus, we look forward to a brighter and more optimistic economic outlook in the year ahead.

² Birge, J., O. Candogan and Y. Feng. 2020. “Controlling Epidemic Spread: Reducing Economic Losses with Targeted Closures.” Becker Friedman Institute, University of Chicago. <https://bfi.uchicago.edu/working-paper/controlling-epidemic-spread-reducing-economic-losses-with-targeted-closures/>

³ <https://gbdeclaration.org>