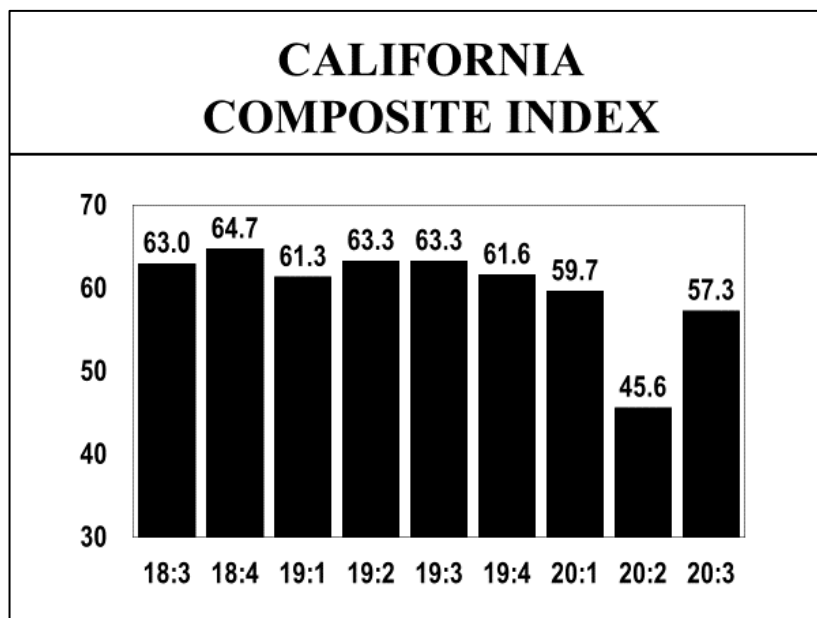


## PRESS RELEASE

### THE CALIFORNIA MANUFACTURING SECTOR RECUPERATES

ORANGE, CA — Based on a survey of purchasing managers, the California Composite Index, measuring overall manufacturing activity in the state, increased from 45.6 in the second quarter to 57.3 in the third quarter. This indicates that the sector is expected to recover from the devastating effects of COVID-19. “The virus has caused major disruptions in employment and production in the manufacturing sector in the second quarter of this year. The purchasing managers, though, expect a recovery in the third quarter in the sector, that will extend to all three industry groups: high-tech, other durable goods, and non-durable goods,” said Dr. Raymond Sfeir, director of the purchasing managers’ survey. Production, new orders and prices are expected to increase, but employment is not expected to improve compared to the end of the second quarter. Supplier deliveries are expected to slow at a lower rate. Unlike previous recessions where recovery took a long time to be established, this recovery is steeper, showing a V shape.



## California Manufacturing at a Glance

Composite Index	57.3	Increasing
Production	60.1	Increasing
Inventories of purchased materials	52.3	Increasing
Commodity prices	65.2	Rising at a higher rate
Supplier deliveries	59.6	Slowing at a lower rate
New orders	59.7	Increasing
Employment	50.0	No change from end of second quarter

### Performance by Industry Group

The index for the **non-durable goods industries** increased from 46.1 in the second quarter to 56.9 in the third quarter, indicating an expansion in these industries in the third quarter. Production, inventories of purchased materials, and new orders are expected to increase in the third quarter. Commodity prices are expected to rise at a higher rate and employment is expected to decrease at a lower rate.

The **high-tech industries** include the following: Computer & Electronic Products, and Aerospace Products & Parts. The high-tech industries currently employ about 351,400 employees, amounting to 29.4% of total manufacturing employment in the state. The number of employees stood at 366,000 in March 2020. The index for the high-tech industries increased from 44.8 in the second quarter to 59.4 in the third quarter, indicating an expansion in these industries. Production, inventories of purchased materials, new orders and employment are expected to increase in the third quarter. Commodity prices are expected to rise at a higher rate, and supplier deliveries are expected to slow at a lower rate.

The index for the **durable goods industries other than high-tech** increased from 45.8 in the second quarter to 56.0 in the third quarter, indicating an expansion in these industries. Production and new orders are expected to increase in the third quarter. Commodity prices are expected to rise at a higher rate and supplier deliveries are expected to slow at a lower rate as well. Employment is expected to decrease marginally.

### Comments by the Purchasing Managers

The COVID-19 environment has created a good/bad market situation for us. Our institutional/food service/commercial business has been significantly negatively impacted. However, our retail market segments have increased to at least equal losses in other segments and in some cases resulted in greater business overall. (Food)

Seasonal ice business. Q1<Q2<Q3>Q4>Q1 even during a pandemic. (Beverage & Tobacco Products)

Our OEM manufacturing has stayed steady. The portion of business related to travel and entertainment decreased by about 70%. However, we are starting to see those businesses open and some orders returning. I believe this will return slower than expected. (Textile Mill Products)

Productive employment will be higher next quarter, but payroll will be the same since we used PPP funds to continue to pay all employees full time. (Paper)

COVID-19 is still affecting our business. In the banking industry we have seen a 50% decline in the paper and banking supplies portion of our business as more virtual means are being utilized during this time. (Printing & Related Support Activities)

We were fortunate as a manufacturer of personal care products that we were able to remain "Essential" by producing hand sanitizer. However, sales from our global brands that are tied to brick and mortar retail distribution channels are down over 70%. Our raw material supply chain was relatively unaffected by COVID-19, but our clients' packaging that are primarily manufactured in China, were shut down. We started noticing packaging delays in December 2019 coming out of China, but did not know the real reason until February 2020 with the rest of the world. This made for a terrible first quarter. No packaging, no shipment of orders. Our largest clients have pushed out and reduced orders for Q2 & Q3 based upon market uncertainty. We anticipate repercussions through at least Q2 2021 if not through all of next year. Thank you for all you do and stay safe out there. (Chemicals)

Being that one of the products we manufacture (Police Nightsticks) is an important part of law enforcement we have seen an explosion in orders received internationally. Bittersweet, as it is great for us but sad that the world is in such turmoil. (Wood Products)

The virus has slowed the economy significantly. The next quarter will be a critical one for many companies. If the government doesn't balance the economy with the safety of the people, we could be in for a tough recovery which may do more harm than the virus from this point forward. (Plastics & Rubber Products)

Contracts that were put on hold due to COVID-19 are now moving forward. The design centers (such as Home Depot, Lowes, Dixieline, etc.) have opened their home improvement section for new business now. Due to the release of existing contracts and new business, we are already seeing an upward swing. We kept our employees working in other areas of the company knowing that the downturn would once again move forward - glad we did. We need them all; and it kept us out of a bind needing to hire! (Nonmetallic Mineral Products)

We anticipate some projects that were put on hold due to the pandemic will start to be released for construction. It all depends on whether there is a relapse in the virus. (Primary Metals)

We're still slow and hope that getting back to work will improve manufacturing and the economy as a whole. I don't personally see much of a turnaround, as a job shop, until late this year or early next year. I hope we can outlast this and stay open and essential. (Fabricated Metal Products)

We have not actually had it so bad. As a supporter of essential businesses, we have not missed a day of work. We did see a small downturn but not as bad as expected. Everything flattened out fairly quickly and now things are starting to open back up. We did have one major government contract that helped. (Machinery)

COVID-19 is really doing a number on our UPS, FedEx deliveries. Response and hold times are very long and frustrating. (Computer & Electronic Products)

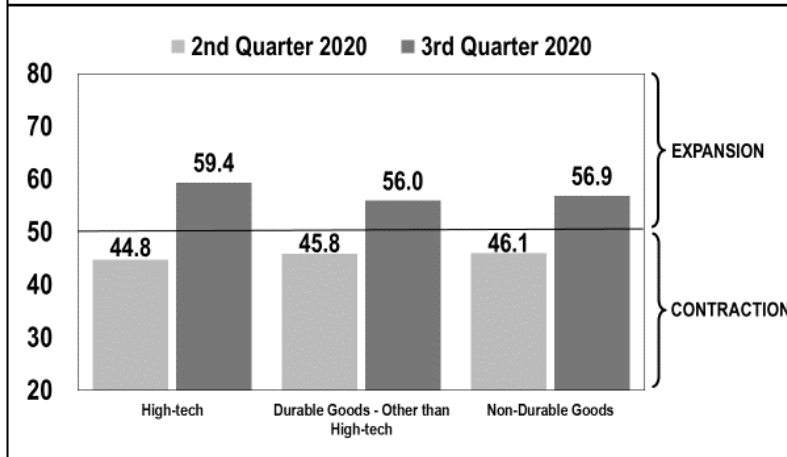
Like many businesses, ours was negatively affected by the COVID-19 shutdown. We supply the construction industry which was shut down almost 100% in Northern California but to a lesser degree in Southern California. Business is coming back as the economy is reopened but not as quickly as we expected. We expect some long-term damage due to job cancellations but at this point it is hard to theorize on the long-term damage. (Electrical Equipment, Appliance & Components)

In the home furnishings sector, we are seeing some good initial activity after reopening... tough to say of that will continue, it really depends on any additional waves of the current pandemic. We have returned to full capacity and are hiring, so that is definitely a good sign. (Furniture & Related Products)

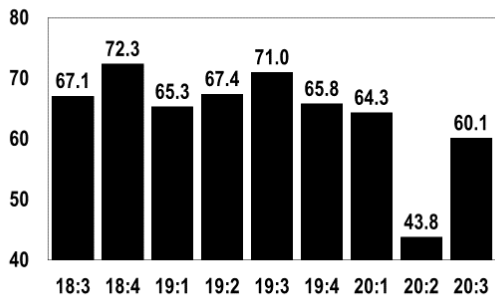
I think our economy is going to be in trouble for at least a few years, the government's decision to close the economy for COVID-19 has put many businesses under and we're just beginning to see the effects of their bad decision. We're having a hard time getting some parts and prices are on the rise once again.... (Miscellaneous)

Covid19 has affected all aspects, so company is slow to recall employees to match the slow pace of new orders. California workman's compensation new laws discourage employers from calling back workers. We have idiots in Sacramento. (Aerospace Products & Parts)

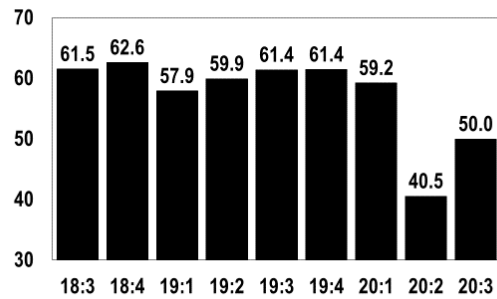
## INDICES FOR INDUSTRY GROUPS



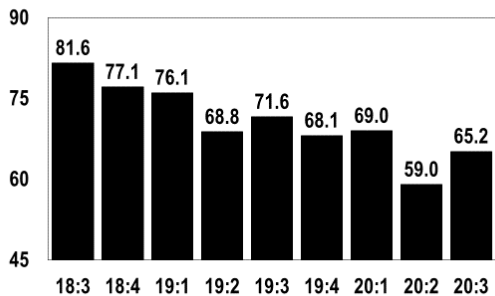
### PRODUCTION INDEX



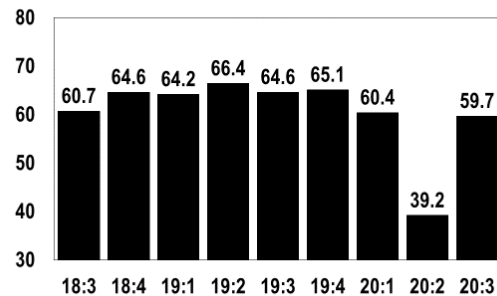
### EMPLOYMENT INDEX



### COMMODITY PRICE INDEX



### NEW ORDERS INDEX



## **Background and Methodology**

The Institute for Supply Management (ISM) conducts a monthly national survey of purchasing managers and publishes the survey results in its *Report on Business*. Such a survey is not available for the state of California. Given the size of our state, and the major role its manufacturing sector plays in the national economy, the A. Gary Anderson Center for Economic Research at Chapman University launched a quarterly survey of California purchasing managers starting in the third quarter of 2002. Similar to the ISM survey, our survey tracks changes in production, employment, new orders, inventories of purchased materials, commodity prices and supplier deliveries. A seasonally adjusted index is computed for each variable except for commodity prices for which no seasonal adjustment is made. Unlike the national survey that tracks the performance of the manufacturing sector in the previous month, the Anderson Center's survey asks the participants to evaluate the expected performance in the coming quarter.

In order to have one single indicator for the performance of the state manufacturing sector, the Anderson Center has developed a Composite Index that is a weighted average of the underlying indices. A value of 50 for the Composite Index shows a general expansion of the manufacturing economy of the state and a value below 50 shows a decline. The industries are classified according to the North American Industry Classification System (NAICS).

**Detailed Results of the Survey of  
California Purchasing Managers' Expectations  
for the Third Quarter of 2020**

In its attempt to present you with a better delivery of the survey results, the A. Gary Anderson Center for Economic Research has calculated an index for every variable in the survey. The "% Better," is added to half of the "% Same," after which a seasonal factor is used to get a seasonally adjusted index for each variable (except commodity prices). A value over 50 for an index indicates growth and a value below 50 indicates a decline. If for example the index increases from 55 to 59, we say that the growth rate is higher than the previous quarter because 59 is bigger than 55. If the index remains at 55, we say that the growth rate remains the same as the previous quarter. If the index decreases from 55 to 52, we say that we still have growth but that the growth rate is lower than the previous quarter because 52 is smaller than 55. Each industry in the manufacturing sector is represented in the survey based on its employment share of total manufacturing employment in the state.

**Production:** The seasonally adjusted index for production is expected to increase from 43.8 in the second quarter to 60.1 in the third quarter, indicating that production, unlike the second quarter, is expected to increase in the third quarter. Production is expected to increase most rapidly in the following industries: Food; Textile Mill Products; Paper; Printing & Related Support Activities; Chemicals; Wood Products; Nonmetallic Mineral Products; Primary Metals; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; (other than Aerospace Products & Parts); Aerospace Products & Parts; Furniture & Related Products; and Miscellaneous. The Apparel industry reported an expected decrease in production.

<b>Production</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
3 <sup>rd</sup> Quarter of 2020	42.7	37.4	19.9	22.9	60.1
2 <sup>nd</sup> Quarter of 2020	30.5	32.5	37.0	-6.5	43.8
1 <sup>st</sup> Quarter of 2020	43.1	40.0	16.9	26.2	64.3
4 <sup>th</sup> Quarter of 2019	41.2	40.4	18.4	22.8	65.8

**Inventories of Purchased Materials:** The seasonally adjusted index for inventories of purchased materials is expected to increase from 43.9 in the second quarter to 52.3 in the third quarter, indicating that inventories are expected to increase in the third quarter. Inventories of purchased materials are expected to increase most rapidly in the following industries: Food; Paper; Printing & Related Support Activities; Chemicals; Nonmetallic Mineral Products; Primary Metals; and Computer & Electronic Products. Inventories of purchased materials are expected to decrease most rapidly in the following industries: Beverage & Tobacco Products; Textile Mill Products; Apparel; Fabricated Metal Products; and Transportation Equipment (other than Aerospace Products & Parts).

<b>Inventories of Purchased Materials</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
3 <sup>rd</sup> Quarter of 2020	34.8	38.7	26.5	8.3	52.3
2 <sup>nd</sup> Quarter of 2020	25.9	40.4	33.8	-7.9	43.9
1 <sup>st</sup> Quarter of 2020	34.5	43.2	22.3	12.2	57.3
4 <sup>th</sup> Quarter of 2019	29.9	46.9	23.2	6.7	56.7

**Commodity Prices:** The seasonally unadjusted index for commodity prices is expected to increase from 59.0 in the second quarter to 65.2 in the third quarter, indicating that commodity prices are expected to rise at a higher rate in the third quarter of this year. Commodity prices are expected to increase most rapidly in the following industries: Food; Textile Mill Products; Paper; Printing & Related Support Activities; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Aerospace Products & Parts; Furniture & Related Products; and Miscellaneous. The Transportation Equipment industry (other than Aerospace Products & Parts) reported an expected decrease in commodity prices.

<b>Commodity Prices</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Index</b>
3 <sup>rd</sup> Quarter of 2020	36.9	56.7	6.5	30.4	65.2
2 <sup>nd</sup> Quarter of 2020	30.2	57.7	12.1	18.1	59.0
1 <sup>st</sup> Quarter of 2020	45.1	47.8	7.1	38.0	69.0
4 <sup>th</sup> Quarter of 2019	44.3	47.7	8.0	36.2	68.1

**Supplier Deliveries:** For this variable, an index value over 50 indicates slower deliveries, and an index value under 50 indicates faster deliveries. The seasonally adjusted index for supplier deliveries is expected to decrease from 68.1 in the second quarter to 59.6 in the third quarter, indicating that supplier deliveries are expected to be slower in the third quarter but at a lower rate. Supplier deliveries are expected to be slowest in the following industries: Food; Apparel; Printing & Related Support Activities; Plastics & Rubber Products; Wood Products; Primary Metals; Machinery; Computer & Electronic Products; Aerospace Products & Parts; Furniture & Related Products; and Miscellaneous. No industry reported an expectation of faster supplier deliveries.

<b>Supplier Deliveries</b>	<b>% Slower</b>	<b>% Same</b>	<b>% Faster</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
3 <sup>rd</sup> Quarter of 2020	30.7	57.4	11.9	18.8	59.6
2 <sup>nd</sup> Quarter of 2020	44.9	46.1	9.0	36.0	68.1
1 <sup>st</sup> Quarter of 2020	17.9	70.0	12.1	5.8	53.3
4 <sup>th</sup> Quarter of 2019	19.8	68.7	11.5	8.3	53.5



**New Orders:** The seasonally adjusted index for new orders is expected to leap from 39.2 in the second quarter to 59.7 in the third quarter, indicating that new orders are expected to increase in the third quarter. New orders are expected to increase most rapidly in the following industries: Food; Textile Mill Products; Paper; Printing & Related Support Activities; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Furniture & Related Products; and Miscellaneous. New orders are expected to decrease most rapidly in the following industries: Plastics & Rubber Products; and Fabricated Metal Products.

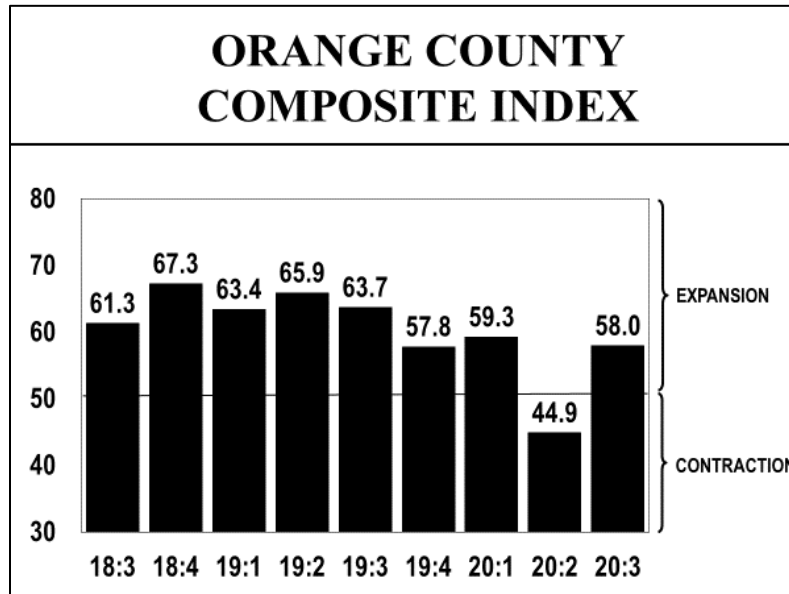
<b>New Orders</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
3 <sup>rd</sup> Quarter of 2020	44.8	31.0	24.1	20.7	59.7
2 <sup>nd</sup> Quarter of 2020	26.9	30.1	42.9	-16.0	39.2
1 <sup>st</sup> Quarter of 2020	42.1	35.2	22.7	19.4	60.4
4 <sup>th</sup> Quarter of 2019	40.7	40.3	18.9	21.8	65.1

**Employment:** The seasonally adjusted index for employment is expected to increase from 40.5 in the second quarter to 50.0 in the third quarter, indicating that employment in manufacturing is not expected to change in the third quarter compared to the end of the second quarter. Employment is expected to increase most rapidly in the following industries: Food; Textile Mill Products; Paper; Nonmetallic Mineral Products; and Primary Metals. Employment is expected to decrease most rapidly in the following industries: Apparel; Plastics & Rubber Products; and Fabricated Metal Products.

<b>Employment</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
3 <sup>rd</sup> Quarter of 2020	20.5	61.5	18.1	2.4	50.0
2 <sup>nd</sup> Quarter of 2020	13.1	57.2	29.7	-16.6	40.5
1 <sup>st</sup> Quarter of 2020	30.4	56.2	13.4	17.0	59.2
4 <sup>th</sup> Quarter of 2019	32.3	53.3	14.3	18.0	61.4

## Orange County's Manufacturing Survey

The Orange County manufacturing sector's Composite Index increased from 44.9 in the second quarter to 58.0 in the third quarter, indicating that the county's manufacturing economy is expected to expand in the third quarter. The expansion is at a slightly higher rate compared to California's.



The seasonally adjusted index for production increased from 40.5 in the second quarter to 58.5 in the third quarter, indicating that production is expected to increase in the third quarter. The seasonally adjusted index for new orders leaped from 38.4 in the second quarter to 60.0 in the third quarter, indicating that new orders are expected to increase in the third quarter. The employment index also increased from 37.4 to 53.1 indicating an increase in employment in the third quarter.

The index for the **non-durable goods industries** increased from 45.8 in the second quarter to 56.6 in the third quarter, indicating that these industries are expected to expand in the third quarter. The index for production increased from 37.5 in the second quarter to 61.1 in the third quarter, indicating that production will increase in the third quarter. The index for the **high-tech industries** increased from 44.0 in the second quarter to 58.6 in the third quarter, indicating that these industries are expected to expand in the third quarter. Production, new orders and employment are expected to increase in the third quarter. The index for the **durable goods industries other than high-tech** increased from 44.8 in the second quarter to 58.1 in the third quarter, indicating that, similar to the other industries, the durable goods industries other than high-tech are expected to expand in the third quarter. Production, new orders, and employment are expected to increase in the third quarter. Commodity prices for all three industry groups are expected to rise at a higher rate compared to the second quarter. Supplier deliveries for all three industry groups are expected to slow in the third quarter but at a lower rate.

## **ABOUT THE ANDERSON CENTER FOR ECONOMIC RESEARCH**

The A. Gary Anderson Center for Economic Research (ACER) was established in 1979 to provide data, facilities and support in order to encourage the faculty and students at Chapman University to engage in economic and business research of high quality, and to disseminate the results of this research to the community.

## **ANNUAL SCHEDULE OF CONFERENCES AND PRESS RELEASES**

### **JANUARY**

- › Economic Forecast Conferences for the Inland Empire
- › California Purchasing Managers Survey
- › Orange County Consumer Sentiment Survey
- › California Consumer Sentiment Survey

### **APRIL**

- › California Purchasing Managers Survey
- › Orange County Consumer Sentiment Survey
- › California Consumer Sentiment Survey

### **JUNE**

- › Economic Forecast Update Conference for the U.S, California and Orange County

### **JULY**

- › California Purchasing Managers Survey
- › Orange County Consumer Sentiment Survey
- › California Consumer Sentiment Survey

### **OCTOBER**

- › California Purchasing Managers Survey
- › Orange County Consumer Sentiment Survey
- › California Consumer Sentiment Survey

### **DECEMBER**

- › Economic Forecast Conference for the U.S., California and Orange County