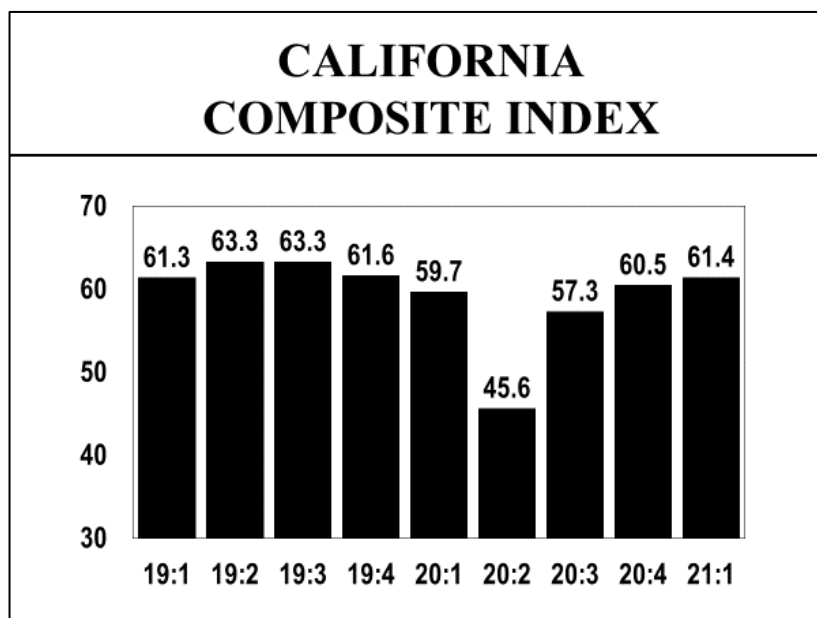


PRESS RELEASE

PURCHASING MANAGERS IN MANUFACTURING REMAIN OPTIMISTIC ABOUT THE SECTOR

ORANGE, CA — Based on a survey of purchasing managers, the California Composite Index, measuring overall manufacturing activity in the state, increased from 60.5 in the fourth quarter of 2020 to 61.4 in the first quarter of 2021. This indicates that the manufacturing sector continues on a path of growth in spite of the heightened state of COVID-19 infections nationwide and in California in particular. “The California manufacturing sector will continue to grow in the first quarter of 2021, reaching nearly the same level of 61.6 that it had in the fourth quarter of 2019. The recovery that was forecast for the fourth quarter of 2020 in our last report did take place as evidenced by the increase in employment in the sector,” said Dr. Raymond Sfeir, director of the purchasing managers’ survey. Production, new orders, and employment are expected to increase in the first quarter. Moreover, commodity prices are expected to rise at the highest level since the third quarter of 2018.



California Manufacturing at a Glance

Composite Index	61.4	Increasing at a higher rate
Production	63.3	Increasing at a lower rate
Inventories of purchased materials	57.6	Increasing at a higher rate
Commodity prices	81.5	Rising at a higher rate
Supplier deliveries	69.8	Slowing at a higher rate
New orders	60.8	Increasing at the same rate
Employment	56.2	Increasing at a higher rate

Performance by Industry Group

The index for the **non-durable goods industries** decreased from 60.1 in the fourth quarter of 2020 to 59.6 in the first quarter of 2021, indicating an expansion in these industries in the first quarter. Production, inventories of purchased materials, new orders and employment are expected to increase at a lower rate in the first quarter. Commodity prices are expected to increase at the highest rate of the last ten years. Supplier deliveries are expected to be slowing at a much higher rate.

The **high-tech industries** include the following: Computer & Electronic Products, and Aerospace Products & Parts. The high-tech industries currently employ about 357,900 employees, amounting to 29.3% of total manufacturing employment in the state. The index for the high-tech industries decreased from 66.0 in the fourth quarter 2020 to 64.8 in the first quarter of 2021, indicating an expansion in these industries. Production, inventories of purchased materials and new orders are expected to increase at a lower rate in the first quarter. Commodity prices and employment are expected to increase at a higher rate. Suppliers deliveries are expected to be slower.

The index for the **durable goods industries other than high-tech** increased from 56.7 in the fourth quarter of 2020 to 60.8 in the first quarter of 2021, indicating an expansion in these industries. Production, inventories of purchased materials, commodity prices, new orders and employment are expected to increase at a higher rate in the first quarter. Supplier deliveries are expected to be slowing at a higher rate.

Comments by the Purchasing Managers

COVID is slowing our production output while our orders are increasing. We have had various production shut downs and reduced capacity due to sending people home for 14 days when exposed to a COVID case. Our labor costs are skyrocketing due to paying people to self-quarantine multiple times due to close contact and not having any output from those people. We are shorting a lot of orders due to not being able to produce more. The conditions are horrible right now!!!! (Food)

The COVID crisis is causing supplies for bulk beverages, containers, corrugated, etc. to reach all time high levels of demand, and increased prices as a result. (Beverage & Tobacco Products)

This is hard. COVID is impacting our domestic work force. We have enough business in hand to work extra shifts / hire more employees. But until the current surge slows that will simply not happen. Delivery is much slower as Lunar New Year approaches. (Textile Mill Products)

One of the biggest challenges that we face as an importer is the total shambles that the worldwide logistics (ocean and air freight from the countries of origin) is experiencing. Not only are deliveries delayed, sometimes by a matter of 2-3 weeks (affecting our deliveries to our customers), but the cost of shipping is up to 1.5x more expensive than last quarter and 3.5x more expensive than the same time year over year. (Apparel)

California's continuous red tape is stifling businesses all around us, but we are essential and chugging through. (Paper)

Very bad. I am at a new company. The company I was with had to close. No relief in sight. Hope it improves ... (Printing & Related Support Activities)

I believe the pandemic is affecting lots of businesses. (Petroleum and Coal Products)

There is a price increase wave going on across the board in all industries that is affecting our already hurting manufacturing operation due to the Boeing and COVID-19 crises. (Chemicals)

Lack of labor, from general to skilled, rapidly rising commodity prices, COVID-19 related cost increases, and an inconsistent freight market continues to provide headwinds to a full recovery. (Plastics & Rubber Products)

Continued political/social unrest will certainly affect the first half of 2021 as it has in 2020. Our business almost doubled this year as a result of supplying public safety agencies needed product to help maintain law and order. (Wood Products)

We are a distributor of tooling solutions for the stone, tile, concrete, masonry industries. With new housing starts strong and remodeling also very prevalent, demand is extremely strong and only supply is constraining us right now. (Nonmetallic Mineral Products)

Our business is construction - residential. Things slow down in the first quarter of the year, typically our slowest of the 4 quarters, then things are expected to pick up in the second quarter. We are expecting good overall results in 2021 based on the Chapman forecast that I heard yesterday. Thanks. (Primary Metals)

We're very lucky to be considered an essential company. We're a sheet metal and CNC machining job shop with customers in the healthcare business, DOD etc., that are all essential and need our services. Looking forward we see a continuation of business similar to the past and with minimal improvement until a vaccine is distributed to everyone. (Fabricated Metal Products)

Issues at the port are becoming very disruptive to our ability to get raw materials and slowing down production. It is getting close to a critical point. If these issues cannot improve soon, our production will slow down. (Machinery)

I do not see a lot of capital equipment purchases in the automotive - electronics - aerospace industries. Most of the expenditures I am seeing is for parts, trying to keep older equipment operating. (Computer & Electronic Products)

Typical post-new year's slowdown. We did see China orders pick up in Oct-Dec quarter, but they usually slow down during CNY, so we expect our orders to suppliers will slow as well. And we finally made adjustments to cut staff after a very slow second half of 2020. (Electrical Equipment, Appliance & Components)

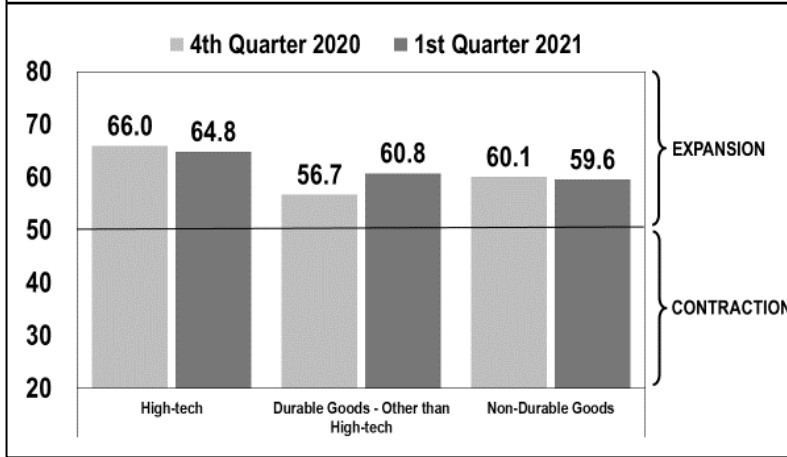
The obvious points of COVID-19 and presidential election process have and will continue to cast uncertainty on the rise of future growth in 2021. We have seen some growth in quarters 3 and 4 of 2020. As an up-fitter in the transportation industry we are deemed essential to support the infrastructure sector, aka critical manufacturing. Our business remains cautiously optimistic. Stay safe and be mindful please. (Transportation Equipment)

The furniture industry seems to be busy. Lead times are further out, some companies quoting 16 weeks.... when they were shipping in 10 weeks (pre pandemic). Raw material costs have risen and we are having to bring in additional inventory, to cover any potential shortages. (Furniture & Related Products)

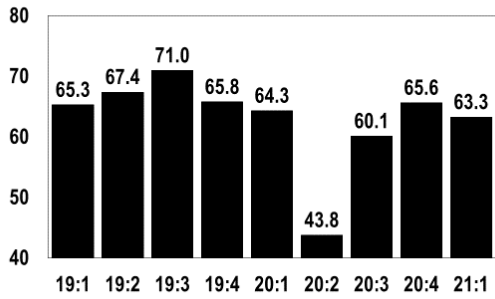
Defense aerospace (50% of our business) is stable to robust. Commercial aerospace (50% of our business) is weak and we expect it to remain weak until the excess inventory is purged from the Boeing supply chain. (Miscellaneous)

We are seeing a dramatic increase in quotation. With a 30% capture rate average we are expecting next quarter to have a substantial increase in new orders. (Aerospace Products & Parts)

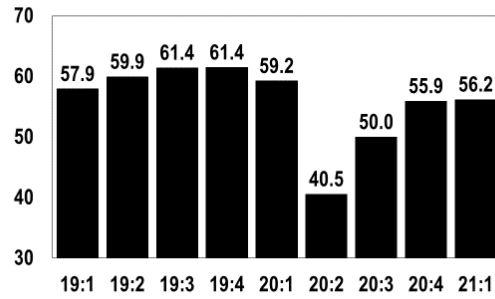
INDICES FOR INDUSTRY GROUPS



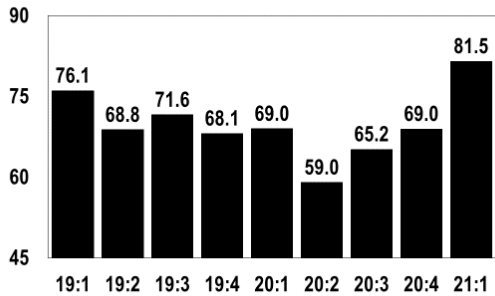
PRODUCTION INDEX



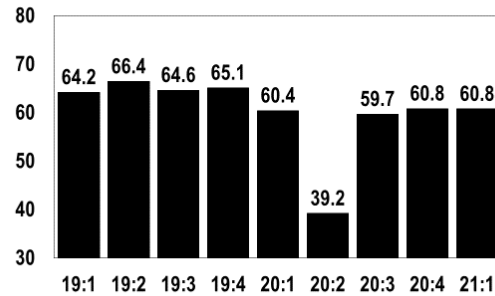
EMPLOYMENT INDEX



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 First Quarter of 2021**

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 decrease from 65.6 in the fourth quarter of 2020 to 63.3 in the first quarter of 2021, indicating that production is expected to increase at a lower rate in the first quarter. This is the third consecutive quarter that the production index has been above 50. Production is expected to increase most rapidly in the following industries: Food; Textile Mill Products; Paper; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Aerospace Products & Parts; and Miscellaneous. The Printing & Related Support Activities industry reported an expected decrease in production.

Production	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1 st Quarter of 2021	41.2	41.8	17.0	24.2	63.3
4 th Quarter of 2020	43.3	36.0	20.7	22.5	65.6
3 rd Quarter of 2020	42.7	37.4	19.9	22.9	60.1
2 nd Quarter of 2020	30.5	32.5	37.0	-6.5	43.8

Inventories of Purchased Materials: The seasonally adjusted index for inventories of purchased materials is expected to increase from 54.8 in the fourth quarter of 2020 to 57.6 in the first quarter of 2021, indicating that inventories are expected to increase at a higher rate in the first quarter. Inventories of purchased materials are expected to increase most rapidly in the following industries: Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; and Miscellaneous. The Printing & Related Support Activities industry has reported an expected decrease in inventories of purchased materials.

Inventories of Purchased Materials	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1 st Quarter of 2021	32.1	48.5	19.3	12.8	57.6
4 th Quarter of 2020	30.4	42.3	27.3	3.1	54.8
3 rd Quarter of 2020	34.8	38.7	26.5	8.3	52.3
2 nd Quarter of 2020	25.9	40.4	33.8	-7.9	43.9

Commodity Prices: The seasonally unadjusted index for commodity prices is expected to leap from 69.0 in the fourth quarter of 2020 to 81.5 in the first quarter of 2021, indicating that commodity prices are expected to rise at a higher rate in the first quarter of this year. Commodity prices are expected to increase most rapidly in the following industries: Food; Textile Mill Products; Apparel; Paper; Printing & Related Support Activities; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; Furniture & Related Products; and Miscellaneous. No industry reported an expected decrease in commodity prices.

Commodity Prices	% Higher	% Same	% Lower	Net	Index
1 st Quarter of 2021	67.1	28.9	4.0	63.1	81.5
4 th Quarter of 2020	43.2	51.5	5.3	37.9	69.0
3 rd Quarter of 2020	36.9	56.7	6.5	30.4	65.2
2 nd Quarter of 2020	30.2	57.7	12.1	18.1	59.0

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 increase from 63.2 in the fourth quarter of 2020 to 69.8 in the first quarter of 2021, indicating that supplier deliveries are expected to be slowing at a faster rate in the first quarter. Supplier deliveries are expected to be slowest in the following industries: Food; Beverage & Tobacco; Textile Mill Products; Apparel; Paper; Printing & Related Support Activities; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; Furniture & Related Products; and Miscellaneous. No industry reported an expectation of faster supplier deliveries.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Seasonally Adjusted Index
1 st Quarter of 2021	47.0	44.4	8.5	38.5	69.8
4 th Quarter of 2020	37.9	52.0	10.1	27.9	63.2
3 rd Quarter of 2020	30.7	57.4	11.9	18.8	59.6
2 nd Quarter of 2020	44.9	46.1	9.0	36.0	68.1

New Orders: The seasonally adjusted index for new orders is expected to remain at the same level in the first quarter of 2021 as it was in the fourth quarter of 2020, indicating that new orders are expected to increase at the same rate in the first quarter. New orders are expected to increase most rapidly in the following industries: Food; Paper; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; and Miscellaneous. The Printing & Related Support Activities industry reported an expected decrease in new orders.

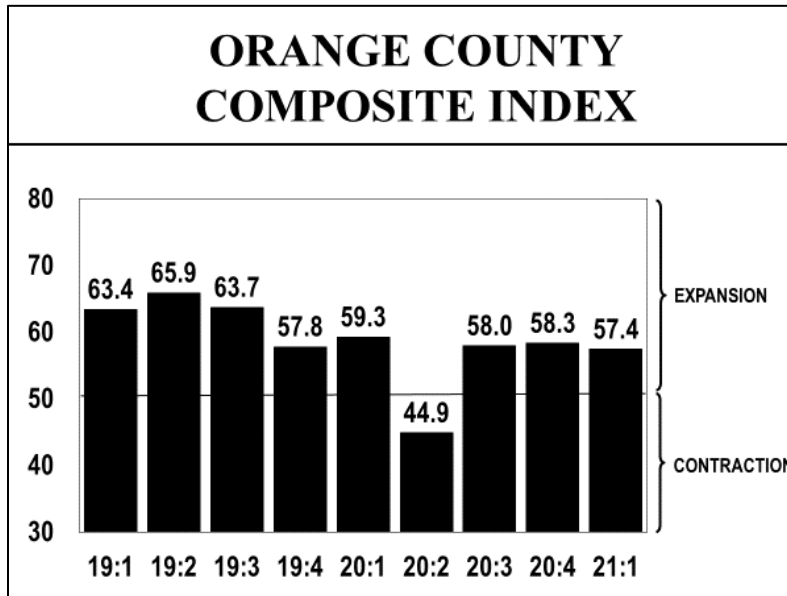
New Orders	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1 st Quarter of 2021	37.5	45.2	17.3	20.1	60.8
4 th Quarter of 2020	38.1	37.5	24.4	13.8	60.8
3 rd Quarter of 2020	44.8	31.0	24.1	20.7	59.7
2 nd Quarter of 2020	26.9	30.1	42.9	-16.0	39.2

Employment: The seasonally adjusted index for employment is expected to increase from 55.9 in the fourth quarter of 2020 to 56.2 in the first quarter of 2021, indicating that employment in manufacturing is expected to improve in the first quarter. Employment is expected to increase most rapidly in the following industries: Food; Apparel; Chemicals; Plastics & Rubber Products; Wood Products; Nonmetallic Mineral Products; Primary Metals; Machinery; Computer & Electronic Products; and Aerospace Products & Parts. The Printing & Related Support Activities industry reported an expected decrease in employment.

Employment	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1 st Quarter of 2021	22.9	65.1	12.0	11.0	56.2
4 th Quarter of 2020	23.4	60.5	16.1	7.3	55.9
3 rd Quarter of 2020	20.5	61.5	18.1	2.4	50.0
2 nd Quarter of 2020	13.1	57.2	29.7	-16.6	40.5

Orange County's Manufacturing Survey

The Orange County manufacturing sector's Composite Index decreased from 58.3 in the fourth quarter of 2020 to 57.4 in the first quarter of 2021, indicating that the county's manufacturing economy is expected to expand at a lower rate in the first quarter.



The seasonally adjusted index for production decreased from 61.9 in the fourth quarter of 2020 to 57.2 in the first quarter of 2021, indicating that production is expected to increase at a lower rate in the first quarter. The seasonally adjusted index for new orders is also expected to decrease from 58.7 to 52.4, indicating that new orders are expected to increase at a lower rate in the first quarter of 2021. The commodity price index is expected to increase substantially from 69.5 to 80.5 indicating a faster rise in prices in the first quarter of 2021.

The index for the **non-durable goods industries** decreased from 57.8 in the fourth quarter of 2020 to 50.7 in the first quarter of 2021, indicating that these industries are expected to expand at a lower rate in the first quarter of 2021. The index for production is expected to decrease from 59.4 to 46.4, indicating that production is expected decrease in the first quarter. Similarly, the index for new orders is expected to decrease from 58.1 to 43.9 indicating that new orders are expected to decrease in the first quarter. The index for the **high-tech industries** increased from 61.3 in the fourth quarter of 2020 to 63.1 in the first quarter, indicating that these industries are expected to expand at a higher rate in the first quarter. The index for production is expected to decrease from 76.8 to 69.9 indicating that production will increase at a lower rate in the first quarter. On the other hand, new orders and employment are expected to increase at a higher rate. The index for the **durable goods industries other than high-tech** increased from 56.8 in the fourth quarter of 2020 to 58.5 in the first quarter of 2021, indicating that the durable goods industries other than high-tech are expected to expand at a higher rate in the first quarter. Production is expected to increase at a higher rate in the first quarter, but new orders are expected to increase 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