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### Manufacturing Index Reaches Highest Level Since the Fourth Quarter of 2005

Anderson Center for Economic Research

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## Manufacturing Index Reaches Highest Level Since the Fourth Quarter of 2005

### Comments

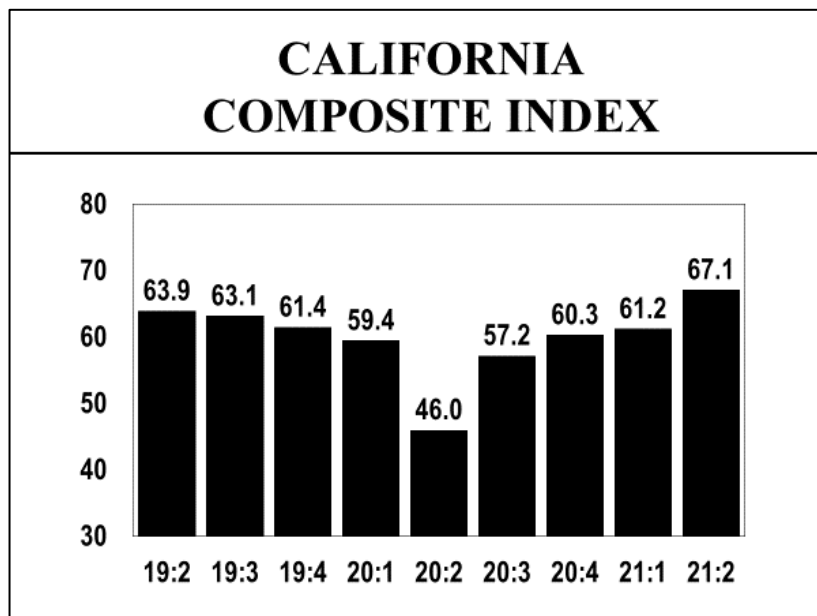
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## PRESS RELEASE

### MANUFACTURING INDEX REACHES HIGHEST LEVEL SINCE THE FOURTH QUARTER OF 2005

ORANGE, CA — Based on a survey of purchasing managers, the California Composite Index, measuring overall manufacturing activity in the state, increased from 61.2 in the first quarter to 67.1 in the second quarter. This indicates that the manufacturing sector is expected to grow at a faster rate in the second quarter. “The recovery of the manufacturing sector in California from the devastation of COVID-19 will be complete in the second quarter of this year. This recovery will come sooner than the recovery of the services sector,” said Dr. Raymond Sfeir, director of the purchasing managers’ survey. Production, new orders, commodity prices, inventories of purchased materials and employment are expected to increase in the second quarter. Moreover, supplier deliveries are expected to slow even further due to increased demand for materials.



## California Manufacturing at a Glance

Composite Index	67.1	Increasing at a higher rate
Production	69.3	Increasing at a higher rate
Inventories of purchased materials	61.7	Increasing at a higher rate
Commodity prices	89.5	Rising at a higher rate
Supplier deliveries	71.2	Slowing at a higher rate
New orders	67.5	Increasing at a higher rate
Employment	61.9	Increasing at a higher rate

### Performance by Industry Group

The index for the **non-durable goods industries** increased from 59.4 in the first quarter to 69.6 in the second quarter, indicating an expansion in these industries in the second quarter. Production, inventories of purchased materials, new orders and employment are expected to increase at a higher rate in the second quarter. The commodity price index has reached an extremely high level of 93.1. Supplier deliveries are expected to be slowing at a much higher rate with an index of 75.7.

The **high-tech industries** include the following: Computer & Electronic Products, and Aerospace Products & Parts. The high-tech industries currently employ about 357,500 employees, amounting to 28.8% of total manufacturing employment in the state. The index for the high-tech industries decreased from 64.6 in the first quarter to 62.0 in the second quarter, indicating a lower growth rate in the second quarter compared to the first quarter. Production and inventories of purchased materials are expected to grow at a lower rate. Commodity prices are expected to rise at a higher rate.

The index for the **durable goods industries other than high-tech** increased from 60.6 in the first quarter to 69.5 in the second quarter, indicating a higher growth rate in these industries. Production, inventories of purchased materials, commodity prices, new orders and employment are expected to increase at a higher rate in the second quarter.

### Comments by the Purchasing Managers

Transportation continues to be the biggest issue. 1. Delays at the port of Long Beach continue, due to port congestion. Container ships are held up in port for 2 - 6 weeks longer than normal. 2. Obtaining outbound transportation from Southern California to out of state markets continues to be an issue, with capacity constraints an issue, plus pricing that is 50% or more higher than YAG. (Food)

Commodity prices such as polypropylene, PET, corrugated are skyrocketing right now. (Beverage & Tobacco Products)

We are facing higher yarn prices / raw material prices in both China and India. That combined with the exchange rate is forcing price increases. Domestic factory production is below expectations. We continue to struggle with finding / hiring employees. As a result, we are well below anticipated daily / weekly / monthly production goals. Ouch!!! (Textile Mill Products)

Apparel and textile commodity prices have increased and expected to continue to increase in the next quarter. Ocean Transportation costs are starting to level off after 4 quarters of increases. Delivery is expected to improve slightly as port conditions which have been negatively impacted for the past 3 quarters are expected to start to ease toward the end of the quarter. (Apparel)

Our top customer has moved to Nevada due to California labor rates and taxes, and is expected to reduce their orders to us 60-100%. Also, no one wants to work lately. Hiring is problematic. (Paper)

Resin and paper costs have risen significantly. Shortages in resin have caused manufacturing delays. (Printing & Related Support Activities)

Despite ongoing programs to manage costs across our global supply chain and to minimize their impact on our customers, sustained upward pressure in contract manufacturing key areas has outstripped our ability to fully absorb those costs, so we too will have to pass along price increases to our customers. We expect that this will have an effect on consumer pricing at the retail level and cosmetic and personal care end users will see higher prices moving forward this year. (Chemicals)

Rapidly rising commodity prices coupled with persistent labor shortages continues to provide headwinds to an otherwise robust economic environment. (Plastics & Rubber Products)

Lumber and plywood mills are running 2-3 weeks behind normal delivery times with tight supply of raw materials. Imported plywood also has long lead times. Trucks and containers shipping also very tight with extended lead times. (Wood Products)

Materials are harder to get (some USA manufacturers are no longer producing at full capacity which is causing longer lead times and an influx in material costs almost weekly). Freight costs have also gone through the roof with longer delivery times. This is definitely going to hurt us this quarter. The future is unknown. (Non-metallic Mineral products)

As steel producers are ramping back up, we believe prices will plateau sometime this summer and may eventually begin to return to normal late summer to early fall. However, due to so many projects being shelved or put on hold over the last 9 months, sell prices, and therefore margins, have dropped as companies struggle to create backlog. This downward pressure on sell prices, coupled with high material costs creates a difficult market similar to what we saw at the beginning of the Great Recession. It is our belief that this will be a short-lived situation, maybe only lasting to 4Q 2021. (Primary Metals)

Customers that closed or drastically slowed down for COVID are opening up and ordering with rapid demand for lost time. We have ramped up our hiring and still see ourselves working overtime for several months to catch up with the unexpected new demand. (Fabricated Metal Products)

COVID-19 vaccine distribution will have impact on our manufacturing group as well as suppliers and subcontractors. Any shift in COVID restrictions will also impact throughput. Medical and Defense/Firearms markets remain strong. (Machinery)

Generally, it seems that on presidential election cycles, orders slow until the election is over. Things generally pick up after elections and that's what we're seeing. Orders picking up for us (electronic contract manufacturing). Pretty much across the board but in particular in the medical area. Last year (2020) was a mess. I expect a surge in orders this next quarter even over the present quarter as, hopefully, the Coronavirus settles down and folks get into normalcy. (Computer & Electronic Products)

We were holding off on purchases, as inventories were high in summer/fall and sales sluggish, but sales momentum over past quarter is making us feel bullish. Along with a generally upbeat outlook for latter half of 2021, we anticipate ordering more and building up inventory next quarter. (Electrical Equipment, Appliance & Components)

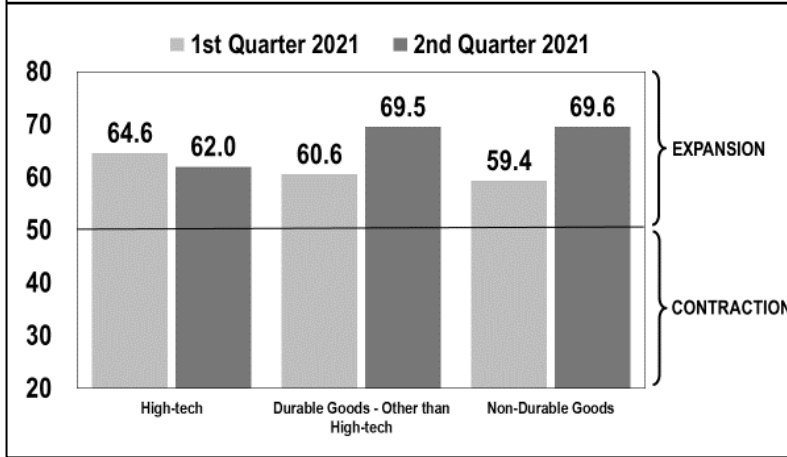
All commodity prices appear to be headed up in larger than expected percentages. Price changes are coming from every direction, polyethylene, copper, brass, steel, nickel, zinc and aluminum. These commodities are key components of our own production items and pass-through products we offer the LPG /propane gas industry across the Western United States, including California of course. (Transportation Equipment)

Raw material price increases are happening basically for all commodities from domestic and overseas suppliers. Ocean freight rates have increased 30% to 40% since January. It will be a very challenging year for purchasing department to use the negotiating power with vendors this year. (Furniture & Related Products)

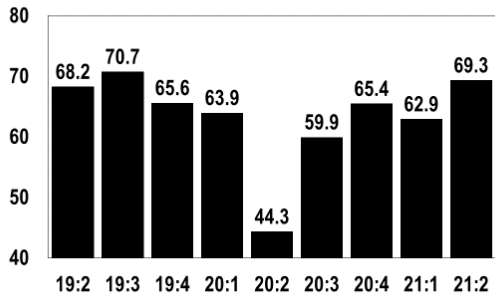
Our business is dependent on sections of the public opening up more, religious institutions, weddings and other social events. (Miscellaneous)

The surge is on. Customers are advising us to watch for 2-3 times as much business in CY2022. Raw material prices are high and going higher. Lead times are stretching; vendors are struggling to keep up. Texas freeze in February is still affecting any chemical-based raw materials. (Aerospace Products & Parts)

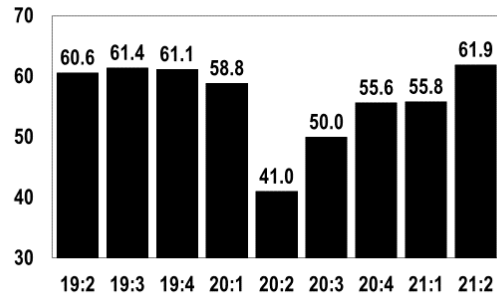
# INDICES FOR INDUSTRY GROUPS



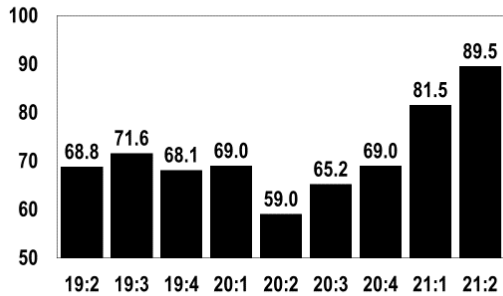
## PRODUCTION INDEX



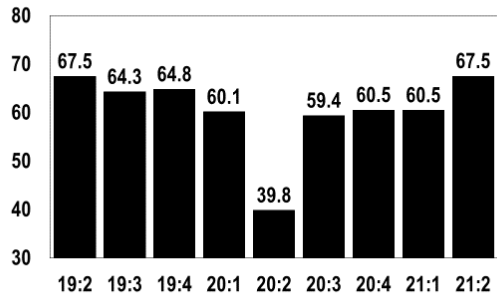
## EMPLOYMENT INDEX



## 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 Second 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 increase from 62.9 in the first quarter to 69.3 in the second quarter, indicating that production is expected to increase at a higher rate in the second quarter. This is the fourth 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; 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 production.

<b>Production</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
2 <sup>nd</sup> Quarter of 2021	55.4	35.4	9.2	46.2	69.3
1 <sup>st</sup> Quarter of 2021	41.2	41.8	17.0	24.2	62.9
4 <sup>th</sup> Quarter of 2020	43.3	36.0	20.7	22.5	65.4
3 <sup>rd</sup> Quarter of 2020	42.7	37.4	19.9	22.9	59.9

**Inventories of Purchased Materials:** The seasonally adjusted index for inventories of purchased materials is expected to increase from 57.3 in the first quarter to 61.7 in the second quarter, indicating that inventories are expected to increase at a higher rate in the second quarter. Inventories of purchased materials are expected to increase most rapidly in the following industries: Food; Apparel; 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); and Miscellaneous. The Textile Mills Products industry has reported an expected decrease in inventories of purchased materials.

<b>Inventories of Purchased Materials</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
2 <sup>nd</sup> Quarter of 2021	43.1	42.2	14.8	28.3	61.7
1 <sup>st</sup> Quarter of 2021	32.1	48.5	19.3	12.8	57.3
4 <sup>th</sup> Quarter of 2020	30.4	42.3	27.3	3.1	54.7
3 <sup>rd</sup> Quarter of 2020	34.8	38.7	26.5	8.3	52.2

**Commodity Prices:** The seasonally unadjusted index for commodity prices is expected to increase from 81.5 in the first quarter to 89.5 in the second quarter, indicating that commodity prices are expected to rise at a higher rate in the second quarter. Commodity prices are expected to increase most rapidly in the following industries: Food; Beverage & Tobacco; Textile Mill Products; Apparel; Paper; Printing & Related Support Activities; Petroleum & Coal Products; 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.

<b>Commodity Prices</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Index</b>
2 <sup>nd</sup> Quarter of 2021	80.0	19.0	1.0	79.0	89.5
1 <sup>st</sup> Quarter of 2021	67.1	28.9	4.0	63.1	81.5
4 <sup>th</sup> Quarter of 2020	43.2	51.5	5.3	37.9	69.0
3 <sup>rd</sup> Quarter of 2020	36.9	56.7	6.5	30.4	65.2

**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 70.1 in the first quarter to 71.2 in the second quarter, indicating that supplier deliveries are expected to be slower at a higher rate in the second quarter. Supplier deliveries are expected to be slowest in the following industries: Food; Beverage & Tobacco; Textile Mill Products; Paper; Printing & Related Support Activities; Chemicals; Plastics & Rubber Products; Wood Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Transportation Equipment (other than 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>
2 <sup>nd</sup> Quarter of 2021	50.2	43.1	6.8	43.4	71.2
1 <sup>st</sup> Quarter of 2021	47.0	44.4	8.5	38.5	70.1
4 <sup>th</sup> Quarter of 2020	37.9	52.0	10.1	27.9	63.3
3 <sup>rd</sup> Quarter of 2020	30.7	57.4	11.9	18.8	59.7

**New Orders:** The seasonally adjusted index for new orders is expected to increase from 60.5 in the first quarter to 67.5 in the second quarter, indicating that new orders are expected to increase at a higher rate in the second quarter. New orders are expected to increase most rapidly in the following industries: Food; Textile Mill Products; Paper; Printing & Related Support Activities; Petroleum & Coal Products; 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. No industry reported an expected decrease in new orders.

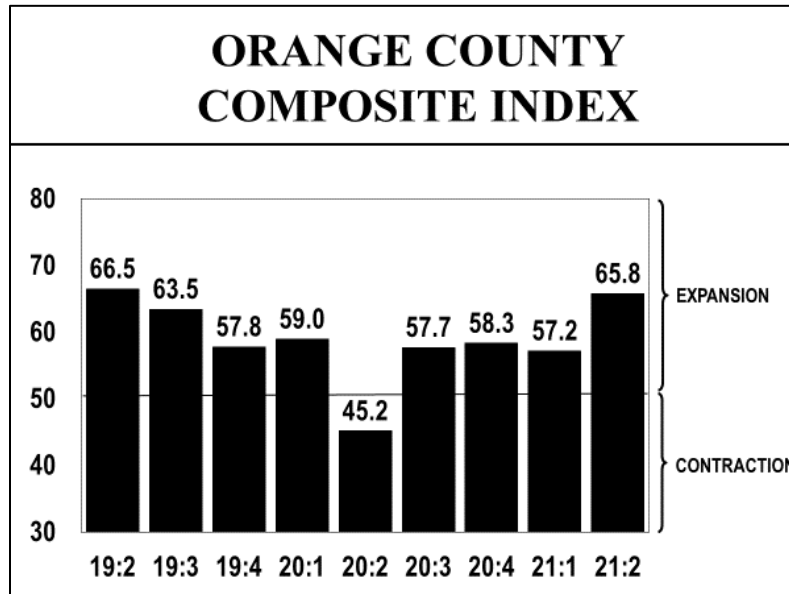
<b>New Orders</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
2 <sup>nd</sup> Quarter of 2021	50.3	41.9	7.8	42.5	67.5
1 <sup>st</sup> Quarter of 2021	37.5	45.2	17.3	20.1	60.5
4 <sup>th</sup> Quarter of 2020	38.1	37.5	24.4	13.8	60.5
3 <sup>rd</sup> Quarter of 2020	44.8	31.0	24.1	20.7	59.4

**Employment:** The seasonally adjusted index for employment is expected to increase from 55.8 in the first quarter to 61.9 in the second quarter, indicating that employment in manufacturing is expected to improve in the second quarter. Employment 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; Electrical Equipment, Appliance & Components; Transportation Equipment (other than Aerospace Products & Parts); Aerospace Products & Parts; and Miscellaneous. No industry reported an expected decrease in employment.

<b>Employment</b>	<b>% Higher</b>	<b>% Same</b>	<b>% Lower</b>	<b>Net</b>	<b>Seasonally Adjusted Index</b>
2 <sup>nd</sup> Quarter of 2021	31.7	62.6	5.7	25.9	61.9
1 <sup>st</sup> Quarter of 2021	22.9	65.1	12.0	11.0	55.8
4 <sup>th</sup> Quarter of 2020	23.4	60.5	16.1	7.3	55.6
3 <sup>rd</sup> Quarter of 2020	20.5	61.5	18.1	2.4	50.0

## Orange County's Manufacturing Survey

The Orange County manufacturing sector's Composite Index increased from 57.2 in the first quarter to 65.8 in the second quarter, indicating that the county's manufacturing economy is expected to expand at a higher rate in the second quarter.



The seasonally adjusted index for production increased from 56.7 in the first quarter to 65.8 in the second quarter, indicating that production is expected to increase at a higher rate in the second quarter. The seasonally adjusted index for new orders leaped from 52.1 to 68.8, indicating that new orders are expected to increase at a much higher rate in the second quarter. The commodity price index also increased from 80.5 to 84.3 indicating a faster rise in prices in the second quarter.

The index for the **non-durable goods industries** increased from 50.6 in the first quarter to 64.6 in the second quarter, indicating that these industries are expected to expand at a much higher rate in the second quarter. The index for production is expected to leap from 46.0 to 63.4, indicating that production is expected to increase substantially in the second quarter. The commodity price index is expected to increase from 86.4 to an extremely high 93.7 indicating much higher commodity prices in the second quarter. Similarly, the index for new orders is expected to increase from 43.7 to 64.3 indicating that new orders are expected to increase substantially in the second quarter. The index for the **high-tech industries** increased from 62.8 in the first quarter to 68.4 in the second quarter, indicating that these industries are expected to expand at a higher rate in the second quarter. The index for production is expected to increase modestly from 69.3 to 70.2 indicating that production will increase at a slightly higher rate in the second quarter. On the other hand, new orders are expected to increase at a much higher rate as the index increased from 63.9 to 76.5. The index for the **durable goods industries other than high-tech** increased from 58.3 in the first quarter to 65.5 in the second quarter, indicating that the durable goods industries other than high-tech are expected to expand at a higher rate in the second quarter. Production increased at a higher rate in the second quarter, but inventories of purchased materials 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