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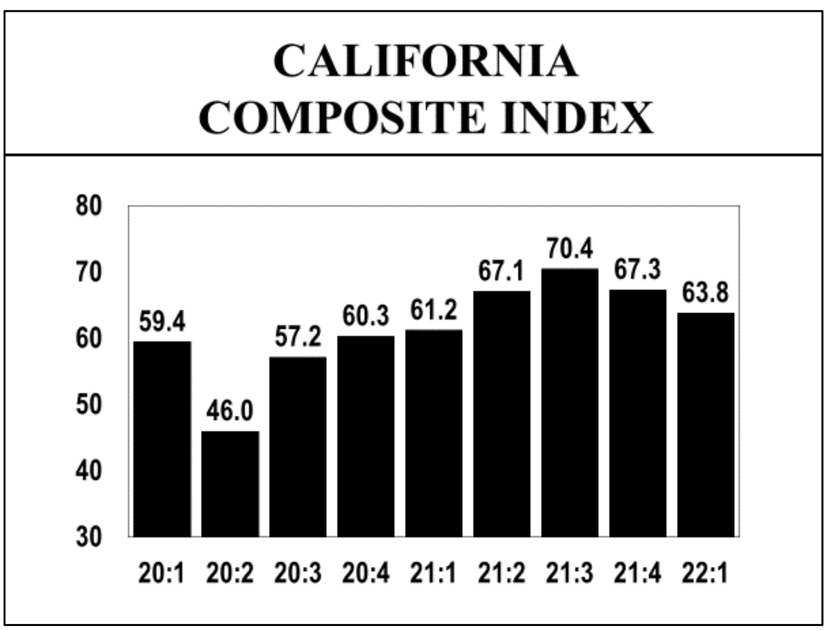
PRESS RELEASE

CALIFORNIA'S MANUFACTURING SECTOR GROWS FOR THE SEVENTH CONSECUTIVE QUARTER

ORANGE, CA — Based on a survey of purchasing managers, the California Composite Index, measuring overall manufacturing activity in the state, decreased from 67.3 in the fourth quarter of 2021 to 63.8 in the first quarter of 2022, indicating that the manufacturing sector is expected to grow at a slower rate in the first quarter of this year. "The purchasing managers report that supply chain issues and higher input costs are negatively affecting the growth rate of the California manufacturing sector in the first quarter of 2022," said Dr. Raymond Sfeir, director of the purchasing managers' survey. Expressing their frustration, one purchasing manager wrote "The port congestion is terrible, and pricing is at a point of being criminal". Production, new orders, and employment are expected to grow at a lower rate in the first quarter. Inventories of purchased materials are expected to increase at a higher rate. Lead time to receive raw materials is reaching six months in some industries. It is very difficult to find qualified workers. Outsourcing costs are increasing as well. Cancelled orders are not uncommon.



California Manufacturing at a Glance

Composite Index	63.8	Increasing at a lower rate
Production	62.2	Increasing at a lower rate
Inventories of purchased materials	65.1	Increasing at a higher rate
Commodity prices	89.7	Rising at the same rate
Supplier deliveries	75.2	Slowing at a lower rate
New orders	62.2	Increasing at a lower rate
Employment	59.6	Increasing at a lower rate

Performance by Industry Group

The index for the **non-durable goods industries** decreased from 68.8 in the fourth quarter of 2021 to 62.1 in the first quarter of 2022, indicating an expansion in these industries but at a lower rate. Production, new orders and employment are expected to grow at a lower rate. Inventories of purchased materials and commodity prices, on the other hand, are expected to grow at a higher rate. Supplier deliveries are expected to be slowing 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 365,200 employees, amounting to 28.6% of total manufacturing employment in the state. The index for the high-tech industries decreased from 67.5 in the fourth quarter of 2021 to 64.6 in the first quarter of 2022, indicating a lower growth rate in the first quarter. Production, commodity prices, new orders and employment are expected to grow at a lower rate. Inventories of purchased materials are expected to grow at a higher rate. Supplier deliveries are expected to be slowing at a lower rate.

The index for the **durable goods industries other than high-tech** decreased from 65.9 in the fourth quarter of 2021 to 65.0 in the first quarter of 2022, indicating a lower growth rate in these industries. Production is expected to grow at a higher rate. Inventories of purchased materials, commodity prices, new orders and employment are expected to grow at a lower rate in the first quarter. Supplier deliveries are expected to be slowing at the same rate.

Comments by the Purchasing Managers

Costs continue to be much higher but appear to be starting to level out. Grains commodities are very high. Beef & Chicken continue to be very high. Labor is still very tight and we are having to pay $2+ over minimum wage to retain and attract workers. Frozen freight is still very challenging at very high prices and many dropped loads and stranded freight trying to get to the end user. (Food)

This is one of the most challenging quarters I have ever experienced in my 30 plus years of supply chain management. (Beverage & Tobacco Products)

I just received an email from a Vendor in Hangzhou City, Zhejiang Province saying that due to recent cases of COVID they have been closed for a week. That they were not sure what orders they could ship before closing for Lunar New Year. It never stops.... (Textile Mill Products)

The port delays continue to have a negative impact on the garment industry. Container deliveries have not improved and airing finished goods and raw materials are extremely costly and the warehouse's handling all of the air freight seem overwhelmed. Customers are writing new orders and the demand for product is there, but logistics are the industries Achille’s heel. (Apparel)

We are cyclical thus the next quarter is our slowest. Business will be choppy. We will be stronger year over year and expect the second half of the year to drive nicely. Looking for 20% growth this calendar year. (Paper)

Distribution of necessary materials has been difficult this quarter, and the costs increased due to fuel costs and lower availability of raw materials. (Printing & Related Support Activities)

Things are improving on all fronts. Still challenged to find good people in many jobs. Suppliers are delivering more, faster. Problem now is that we have loaded up on inventory, in fear of the next shortage. AP is much higher than normal. Perhaps this is the "new normal?" (Chemicals)

While some commodity prices have started to stabilize, persistent labor shortages, historically highly energy prices, and supply chain disruptions continue to drive up the cost of doing business and hinder the post-pandemic recovery. (Plastics & Rubber Products)

Supply chain still slow but material is getting to us just slower than we like. Overall we have adjusted for this and our customers know to order as early as possible. We are thriving in chaos!! (Wood Products)

We continue to increase employee compensation month by month in order to keep at our current levels. Propane used in production shop has gone up 50 percent this year. Freight costs out of California through the roof. (Nonmetallic Mineral Products)

We are still seen supply chain shortages and also increases every month. We hope that with 2022 our new contracts with our suppliers can met the demand that is needed. We have had some luck finding new employees. We hope that this will also continue in 2022. We don't see a slow down with orders coming in. We are experiencing customers falling behind on payments. (Primary Metals)

Many problems in manufacturing today. We can't find qualified workers. Materials are becoming harder to get. Insurance is too expensive. Our outsourcing costs are increasing faster than inflation - i.e. plating, painting and silk-screening costs. (Fabricated Metal Products)

We continue to have supply line issues. Our electronic distributors are out of the ICs we need for production. The IC Semiconductor Manufactures are not ramping up 24/7 so inventory is drying up. We are paying 10x-20x more on the black market for these IC components. Stainless Steel #304 inventory is low and many of our metal fabricators are shipping 6-8wks later than initially forecasted. (Machinery)

This is a mixed bag...the orders keep coming but the supplies and components keep getting pushed out (electronic assembly). I shake my head daily at the different PO confirmations that come back. One vendor quoted 2099 on a component. Yea, I know, they don't know what else to say. I think the only thing keeping our doors open is faith. (Computer & Electronic Products)

We have seen a slowdown in price increases from manufacturers. Yes we are still getting them but the pace has slowed. We see steel prices leveling out but copper continuing to rise. (Electrical Equipment, Appliance & Components)

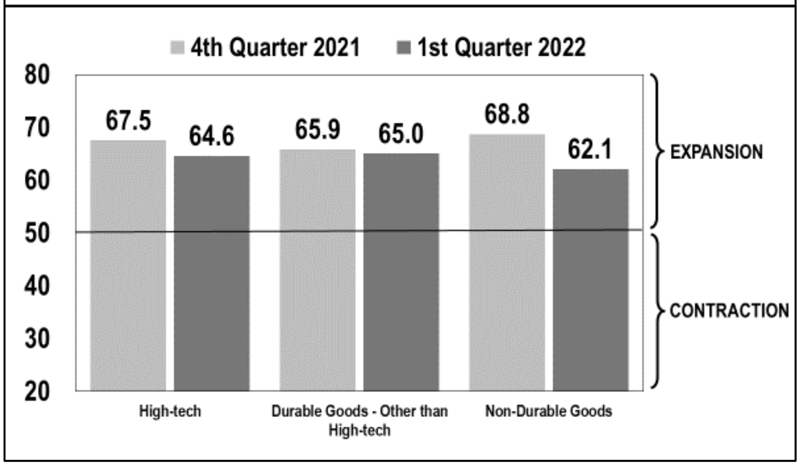
We are encountering many supply chain issues spanning across several industries (aerospace). To counteract, we have increased inventories of our critical items in advance to minimize possible delays - so far, this has been pretty effective. (Transportation Equipment)

Raw Materials and Labor continue to be a problem for us and other manufacturers in our industry. Most furniture manufacturers I talk to are taking twice as long to ship orders. Raw materials are more expensive... and not always available. The disruption in the supply chain is not helping, many vendors we talk to have components stuck in the water. (Furniture & Related Products)

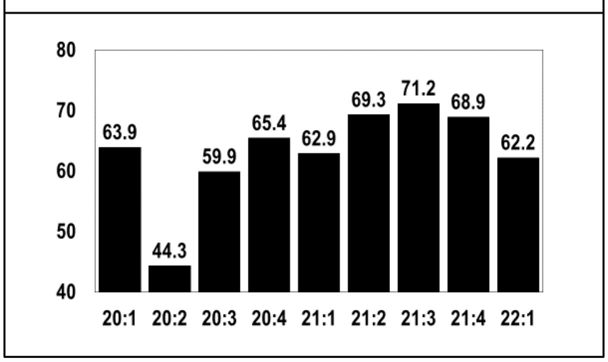
…We have made sure that suppliers are paid on time with a reason to make us a priority customer. There has been a lot of attention on creative scheduling of purchases and raw material storage and deliveries. We have made a decision to invest heavier in our company and improve infrastructure and our internal accounting and ordering systems so as to better understand production costs and inventory on hand…We have adjusted and focused job descriptions and responsibilities rather than add employees in the short term. Our current staff is known as the "legacy employees" with more of connection to the long term and the health of the company as a means to personal growth and security. (Miscellaneous)

We have doubled production staff. Vendors are raising prices 10% - 15% at a time. Some vendors will tell us pricing only when material ships (not in offer). Demand still appears quite strong, even with elevated prices. (Aerospace Products & Parts)

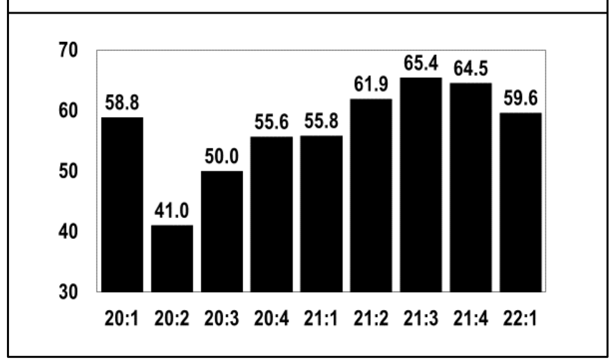
INDICES FOR INDUSTRY GROUPS



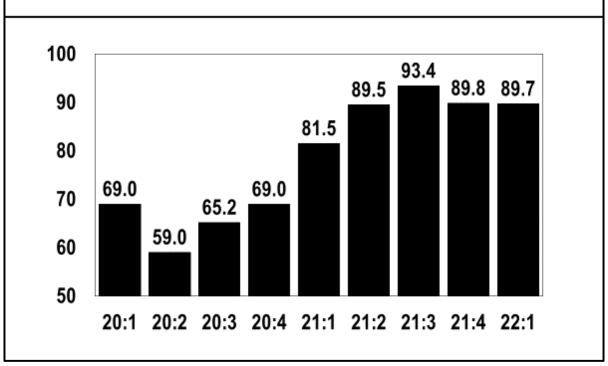
PRODUCTION INDEX



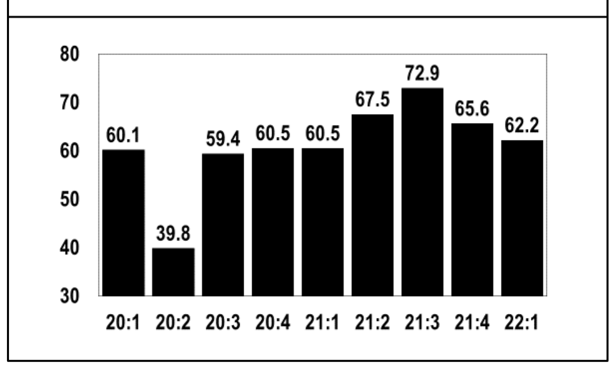
EMPLOYMENT INDEX



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 2022

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 68.9 in the fourth quarter of 2021 to 62.2 in the first quarter of 2022, indicating that production is expected to increase at a lower rate in the first quarter. This is the seventh consecutive quarter that the production index has been above 50. Production is expected to increase most rapidly in the following industries: Apparel; Paper; Printing & Related Support Activities; Chemicals; Plastics & Rubber 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. Production is expected to decrease most rapidly in the following industries: Beverage & Tobacco; and Nonmetallic Mineral Products.

Production	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1st Quarter of 2022	41.1	40.6	18.3	22.8	62.2
4th Quarter of 2021	46.4	36.2	17.4	29.1	68.9
3rd Quarter of 2021	55.0	35.9	9.0	46.0	71.2
2nd Quarter of 2021	55.4	35.4	9.2	46.2	69.3

Inventories of Purchased Materials: The seasonally adjusted index for inventories of purchased materials is expected to increase from 61.7 in the fourth quarter of 2021 to 65.1 in the first quarter of 2022, 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: Food; Paper; Chemicals; Plastics & Rubber 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. Inventories of purchased materials are expected to decrease most rapidly in the following industries: Textile Mill Products; Apparel; and Nonmetallic Mineral Products.

Inventories of Purchased Materials	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1st Quarter of 2022	45.5	37.2	17.4	28.1	65.1
4th Quarter of 2021	41.1	33.9	24.9	16.2	61.7
3rd Quarter of 2021	44.7	38.1	17.2	27.5	61.4
2nd Quarter of 2021	43.1	42.2	14.8	28.3	61.7

Commodity Prices: The seasonally unadjusted index for commodity prices is expected to barely decrease from 89.8 in the fourth quarter of 2021 to 89.7 in the first quarter of 2022, indicating that commodity prices are expected to rise at practically the same rate as in the fourth 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; 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
1st Quarter of 2022	84.0	11.4	4.6	79.4	89.7
4th Quarter of 2021	83.7	12.2	4.1	79.7	89.8
3rd Quarter of 2021	89.3	8.2	2.5	86.9	93.4
2nd Quarter of 2021	80.0	19.0	1.0	79.0	89.5

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 77.9 in the fourth quarter of 2021 to 75.2 in the first quarter of 2022, indicating that supplier deliveries are expected to be slower at a slower rate in the first 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; 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 expectation of faster supplier deliveries.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Seasonally Adjusted Index
1st Quarter of 2022	54.0	40.5	5.5	48.6	75.2
4th Quarter of 2021	61.1	35.2	3.7	57.5	77.9
3rd Quarter of 2021	55.6	38.9	5.5	50.1	75.5
2nd Quarter of 2021	50.2	43.1	6.8	43.4	71.2

New Orders: The seasonally adjusted index for new orders is expected to decrease from 65.6 in the fourth quarter of 2021 to 62.2 in the first quarter of 2022, indicating that new orders are expected to increase at a lower rate in the first quarter. New orders 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; Aerospace Products & Parts; and Miscellaneous. The Beverage & Tobacco industry reported an expected decrease in new orders.

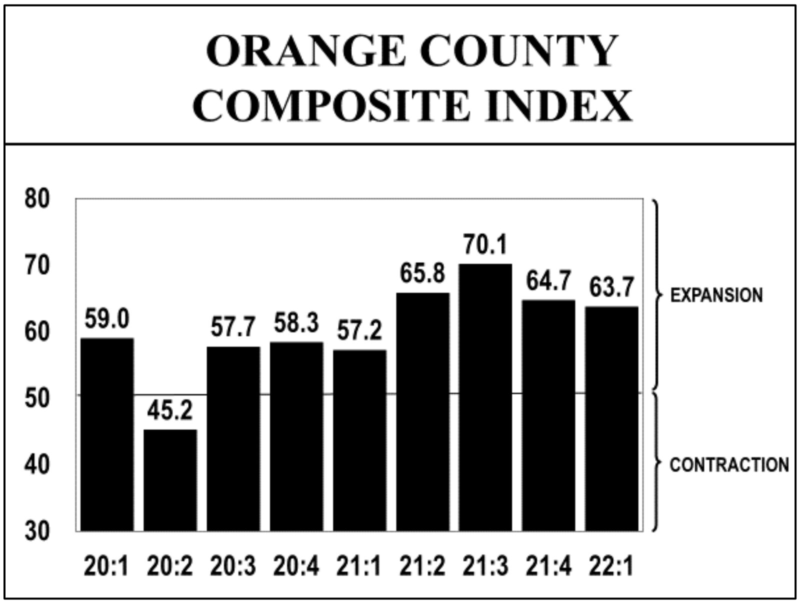
New Orders	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1st Quarter of 2022	38.0	47.4	14.6	23.5	62.2
4th Quarter of 2021	40.3	42.7	17.0	23.3	65.6
3rd Quarter of 2021	58.7	30.9	10.4	48.2	72.9
2nd Quarter of 2021	50.3	41.9	7.8	42.5	67.5

Employment: The seasonally adjusted index for employment is expected to decrease from 64.5 in the fourth quarter of 2021 to 59.6 in the first quarter of 2022, indicating that employment in manufacturing is expected to increase at a lower rate in the first quarter. Employment is expected to increase most rapidly in the following industries: Food; Paper; Chemicals; Plastics & Rubber 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. The Nonmetallic Mineral Products industry reported an expected decrease in employment.

Employment	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
1st Quarter of 2022	33.0	52.4	14.5	18.5	59.6
4th Quarter of 2021	34.4	55.7	10.0	24.4	64.5
3rd Quarter of 2021	43.2	47.5	9.3	33.9	65.4
2nd Quarter of 2021	31.7	62.6	5.7	25.9	61.9

Orange County's Manufacturing Survey

The Orange County manufacturing sector's Composite Index decreased from 64.7 in the fourth quarter of 2021 to 63.7 in the first quarter of 2022, indicating that the county's manufacturing economy is expected to expand at a lower rate in the first quarter of 2022.



The seasonally adjusted index for production decreased from 62.5 in the fourth quarter of 2021 to 60.7 in the first quarter of 2022, indicating that production is expected to increase at a lower rate in the first quarter. The seasonally adjusted index for new orders decreased from 63.6 to 60.5 indicating that new orders are expected to increase at a lower rate in the first quarter. The seasonally adjusted index for inventories of purchased materials increased from 59.2 to 63.6 indicating that inventories of purchased materials are expected to increase at a higher rate in the first quarter.

The index for the **non-durable goods industries** increased from 63.3 in the fourth quarter of 2021 to 64.3 in the first quarter of 2022, indicating that these industries are expected to expand at a higher rate in the first quarter. The index for production increased from 58.8 to 59.1, indicating that production is expected to increase at a higher rate in the first quarter. The index for the **high-tech industries** decreased from 71.2 to 68.5, indicating that these industries are expected to expand at a lower rate in the first quarter. The index for production decreased from 74.7 to 65.9 indicating that production is expected to increase at a lower rate. The index for new orders increased from 69.2 to 73.2 indicating that new orders are expected to increase at a higher rate. The index for the **durable goods industries other than high-tech** increased from 62.2 to 62.5 indicating that the durable goods industries other than high-tech are expected to expand at a slightly higher rate. The index for production increased from 58.4 to 60.8 indicating that production is expected to increase at a higher rate. The index for inventories of purchased materials increased from 53.6 to 63.6 indicating that inventories of purchased materials are expected to increase at a much higher rate in the first quarter.

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
APRIL	• California Purchasing Managers Survey
JUNE	• Economic Forecast Update Conference for the U.S, California and Orange County
JULY	• California Purchasing Managers Survey
OCTOBER	• California Purchasing Managers Survey
DECEMBER	• Economic Forecast Conference for the U.S., California and Orange County