



### A. Gary Anderson Center for Economic Research

**For Release:**

April 8, 2014

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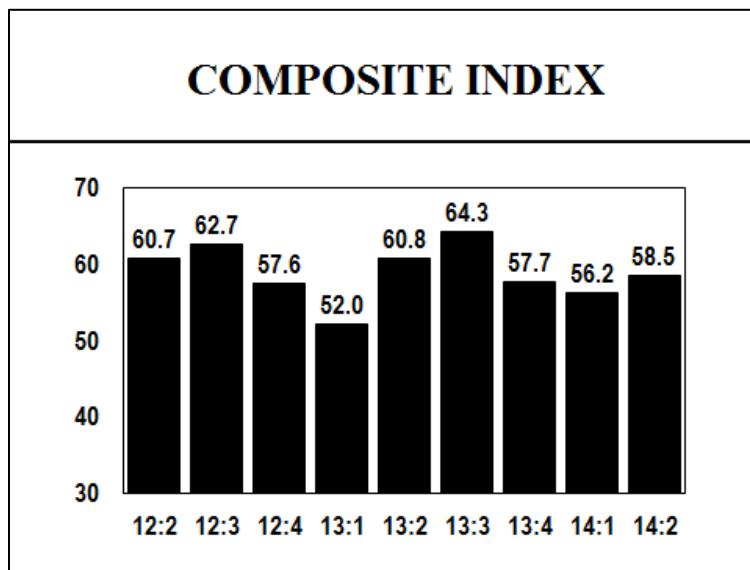
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## MANUFACTURING ECONOMY IMPROVES

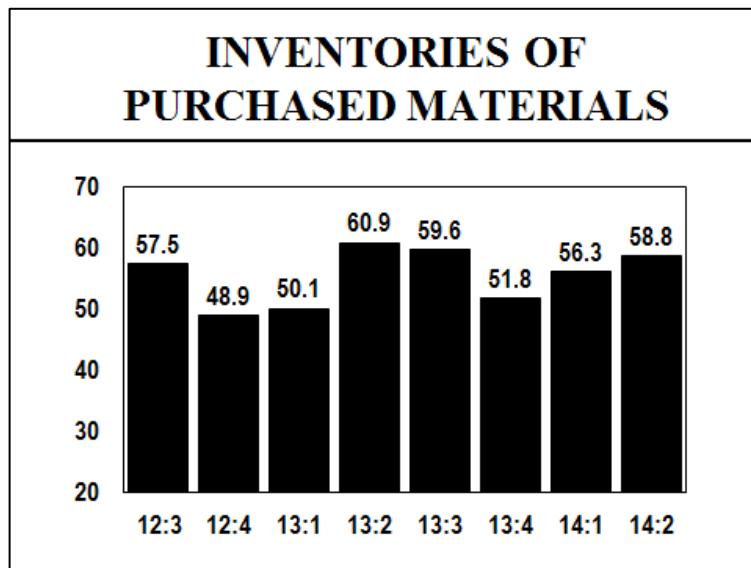
ORANGE, CA — According to a survey of purchasing managers, the California manufacturing economy is expected to show slightly higher growth in the second quarter of 2014. The Composite Index, measuring overall manufacturing activity, increased from 56.2 in the first quarter of 2014 to 58.5 in the second quarter, indicating a pick-up in the sector's growth rate. Production and new orders are expected to grow at a higher rate, while employment is expected to rise at a slightly lower rate compared to the first quarter. The purchasing managers also expect commodity prices to inch up at a slightly higher rate in the second quarter compared to the first quarter of 2014.

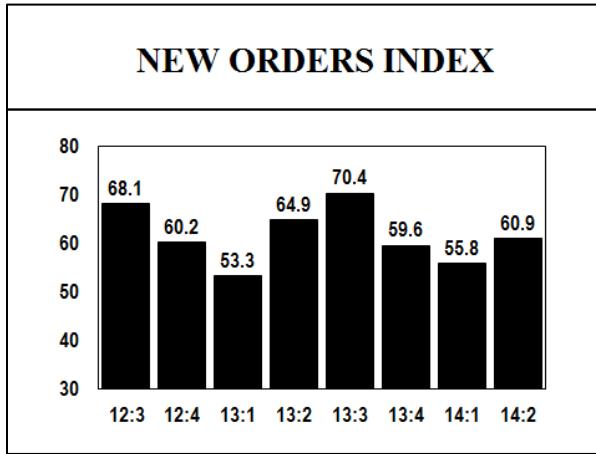
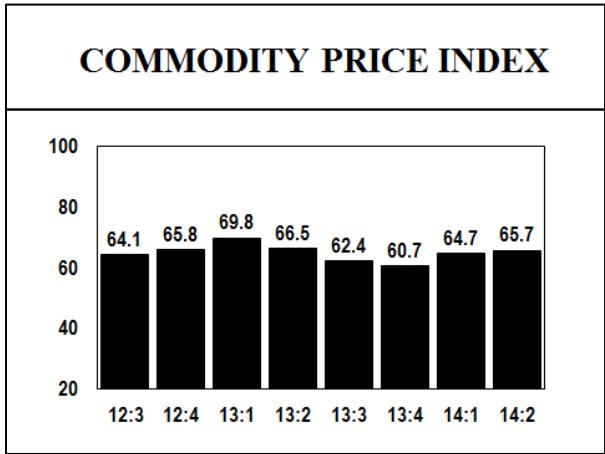
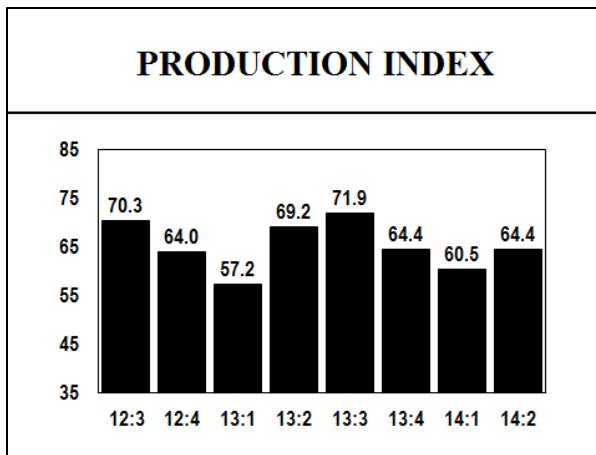
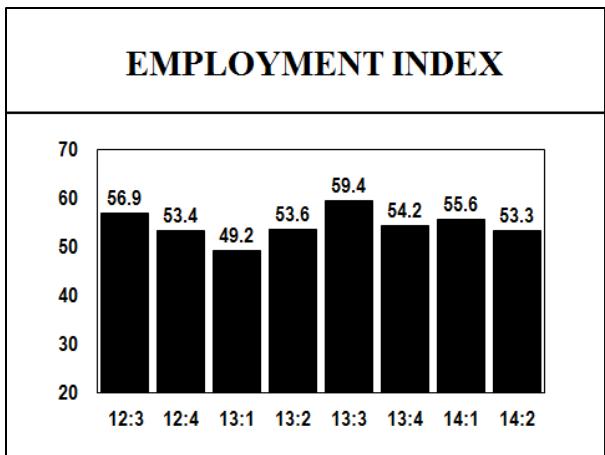


## Performance by Industry Group

The index for the **durable goods industries** registered 58.3 in the second quarter of 2014, indicating growth. The production index registered 64.3 indicating a high growth rate for durable goods. With an index registering 60.6, new orders are expected to grow at a lower rate compared to production. With an index registering 53.2, employment is expected to barely grow in the first quarter.

The index for the **non-durable goods industries** increased from 56.7 in the first quarter of 2014 to 58.2 in the second quarter, indicating a higher growth rate for this industry group. Production and new orders are expected to grow at a higher rate in the second quarter with employment languishing at minimal growth.





## 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. Except for commodity prices and inventories of purchased materials, a seasonally adjusted index is computed for each variable.

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 2014

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 60.5 in the first quarter to 64.4 in the second quarter, indicating that production is expected to increase at a faster rate in the second quarter. This is the twenty first consecutive quarter that the production index has been above 50. Production is expected to increase most rapidly in the following industries: Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Aerospace Products & Parts; Transportation Equipment; Furniture & Related Products; Miscellaneous; Food; Paper; Printing & Related Support Activities; Chemicals; and Plastics & Rubber Products. No industry reported an expected decrease in production.

Production	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
2 <sup>nd</sup> Quarter of 2014	50.6	34.7	14.7	35.9	64.4
1 <sup>st</sup> Quarter of 2014	46.2	36.5	17.3	28.9	60.5
4 <sup>th</sup> Quarter of 2013	40.5	39.1	20.4	20.1	64.4
3 <sup>rd</sup> Quarter of 2013	47.8	40.2	11.9	35.9	71.9

**Inventories of Purchased Materials:** The seasonally unadjusted index for inventories of purchased materials is expected to increase from 56.3 in the first quarter to 58.8 in the second quarter, indicating that manufacturers are expected to be holding more inventories of purchased materials in the second quarter. Inventories of purchased materials are expected to increase most rapidly in the following industries: Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Aerospace Products & Parts; Transportation Equipment; Miscellaneous; Printing & Related Support Activities; Chemicals; and Plastics & Rubber Products. No industry reported an expected decrease in inventories of purchased materials.

Inventories of Purchased Materials	% Higher	% Same	% Lower	Net	Index
2 <sup>nd</sup> Quarter of 2014	38.4	40.8	20.8	17.6	58.8
1 <sup>st</sup> Quarter of 2014	34.6	43.4	22.1	12.5	56.3
4 <sup>th</sup> Quarter of 2013	27.5	48.6	23.9	3.6	51.8
3 <sup>rd</sup> Quarter of 2013	36.3	46.6	17.1	19.2	59.6

**Commodity Prices:** The seasonally unadjusted index for commodity prices is expected to increase from 64.7 in the first quarter to 65.7 in the second quarter, indicating that commodity prices are expected to increase at a faster rate in the second quarter of this year. Commodity prices are expected to increase most rapidly in the following industries: Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Aerospace Products & Parts; Transportation Equipment; Furniture & Related Products; Miscellaneous; Food; Textile Mill Products; Paper; Printing & Related Support Activities; Chemicals; and Plastics & Rubber Products. No industry reported an expected decrease in commodity prices.

Commodity Prices	% Higher	% Same	% Lower	Net	Index
2 <sup>nd</sup> Quarter of 2014	36.6	58.2	5.2	31.4	65.7
1 <sup>st</sup> Quarter of 2014	35.3	58.8	6.0	29.3	64.7
4 <sup>th</sup> Quarter of 2013	27.9	65.8	6.4	21.5	60.7
3 <sup>rd</sup> Quarter of 2013	32.8	59.1	8.1	24.7	62.4

**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 show a very slight decrease from 50.7 in the first quarter to 50.5 in the second quarter, indicating that supplier deliveries are expected to be at practically the same speed as in the first quarter due to the closeness of the index to the no growth level of 50. Supplier deliveries are expected to be slowest in the following industries: Wood Products; Fabricated Metal Products; Electrical Equipment, Appliance & Components; Aerospace Products & Parts; Furniture & Related Products; Miscellaneous; and Food. The Primary Metals industry reported expected faster supplier deliveries in the second quarter.

Supplier Deliveries	% Slower	% Same	% Faster	Net	Seasonally Adjusted Index
2 <sup>nd</sup> Quarter of 2014	13.6	75.8	10.6	2.9	50.5
1 <sup>st</sup> Quarter of 2014	14.5	73.4	12.1	2.4	50.7
4 <sup>th</sup> Quarter of 2013	10.7	76.9	12.4	-1.7	51.2
3 <sup>rd</sup> Quarter of 2013	11.2	76.9	11.9	-0.8	49.1

**New Orders:** The seasonally adjusted index for new orders is expected to increase from 55.8 in the first quarter to 60.9 in the second quarter, indicating that new orders are expected to increase at a faster pace in the second quarter. New orders are expected to increase most rapidly in the following industries: Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Computer & Electronic Products; Electrical Equipment, Appliance & Components; Aerospace Products & Parts; Transportation Equipment; Furniture & Related Products; Miscellaneous; Paper; Printing & Related Support Activities; Chemicals; and Plastics & Rubber Products. No industry reported an expected decrease in new orders.

New Orders	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
2 <sup>nd</sup> Quarter of 2014	48.2	32.5	19.31	28.9	60.9
1 <sup>st</sup> Quarter of 2014	44.7	31.6	23.7	21.0	55.8
4 <sup>th</sup> Quarter of 2013	39.1	32.3	28.7	10.4	59.4
3 <sup>rd</sup> Quarter of 2013	47.2	36.8	16.0	31.2	70.4

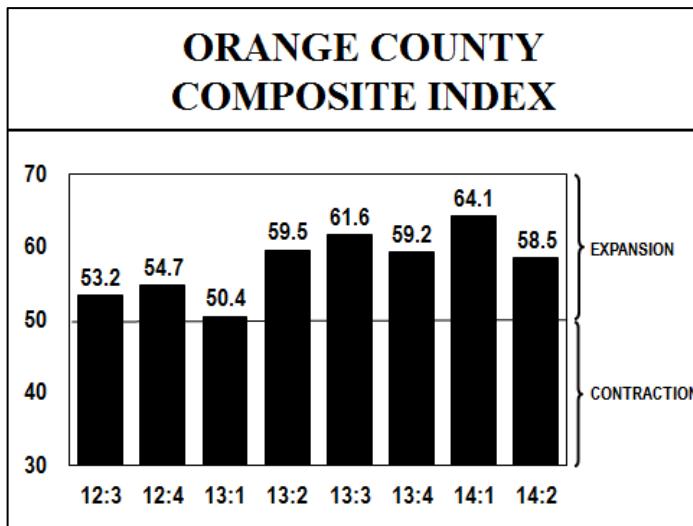
**Employment** The seasonally adjusted index for employment is expected to decrease from 55.6 in the first quarter to 53.3 in the second quarter, indicating that employment growth in manufacturing is expected to slow in the second quarter. Employment is expected to increase most rapidly in the following industries: Wood Products; Nonmetallic Mineral Products; Primary Metals; Fabricated Metal Products; Machinery; Electrical Equipment, Appliance & Components; Aerospace Products & Parts; Transportation Equipment; Furniture & Related Products; Miscellaneous; Food; Printing & Related Support Activities; and Plastics & Rubber Products. Employment is expected to decrease most rapidly in the following industries: Computer & Electronic Products; and Textile Mill Products.

Employment	% Higher	% Same	% Lower	Net	Seasonally Adjusted Index
2 <sup>nd</sup> Quarter of 2014	24.1	64.5	11.4	12.7	53.3
1 <sup>st</sup> Quarter of 2014	27.5	57.4	15.0	12.5	55.6
4 <sup>th</sup> Quarter of 2013	22.2	59.5	18.4	3.8	54.2
3 <sup>rd</sup> Quarter of 2013	26.1	63.5	10.5	15.7	59.4

**High-Tech Industries:** The high-tech industries include the following: Computer & Electronic Products, and Aerospace Products & Parts. The high-tech industries currently employ about 334,000 employees, amounting to 27% of total manufacturing employment in the state. The percent of purchasing managers reporting higher expected employment decreased from 32.6% of respondents in the first quarter to 17.6% in the second quarter, indicating that employment growth in the high-tech industries will slow down in the second quarter. Production and new orders are expected to grow at approximately the same rate in the second quarter compared to the first quarter.

## Orange County's Manufacturing Survey

The Composite Index for Orange County decreased from 64.1 in the first quarter to 58.5 in the second quarter, indicating that the county manufacturing economy is expected to grow at a slower rate in the second quarter of this year. With a California Composite index reading also at 58.5, the Orange County manufacturing economy is expected to grow at the same rate of growth compared to California's.



The seasonally adjusted index for production decreased from 68.7 in the first quarter to 62.1 in the second quarter, indicating that production is expected to grow at a slower rate in the second quarter compared to the first quarter. This is the twentieth consecutive quarter that the production index has been above 50. The seasonally adjusted index for new orders decreased from 68.1 in the first quarter to 62.7 in the second quarter indicating that new orders are expected to grow at a slower rate in the second quarter compared to the first quarter. The employment index also decreased, indicating slower growth in employment as well.

The index for the **durable goods industries** registered 56.8 indicating that the durable goods industries are expected to continue to grow in the second quarter. The index for the **non-durable goods industries** decreased from 64.7 in the first quarter to 62.9 in the second quarter indicating that growth in these industries will be lower in the second 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
- FEBRUARY**      › California Leading Employment Indicator
- MARCH**      › California Consumer Sentiment Survey
- APRIL**      › California Purchasing Managers Survey
- MAY**      › California Leading Employment Indicator
- JUNE**      › California Consumer Sentiment Survey
  - › Economic Forecast Update Conference for the U.S., California and Orange County
- JULY**      › California Purchasing Managers Survey
- AUGUST**      › California Leading Employment Indicator
- SEPTEMBER**      › California Consumer Sentiment Survey
- OCTOBER**      › California Purchasing Managers Survey
- NOVEMBER**      › California Leading Employment Indicator
  - › Economic Forecast Conference for the U.S., California and Orange County
- DECEMBER**      › California Consumer Sentiment Survey