

March 2017

Results from the March *Manufacturing Business Outlook Survey* suggest that regional manufacturing activity continued to expand. The diffusion index for general activity fell from its high reading in February, but the survey's other broad indicators for new orders, shipments, and employment all improved or were steady this month. Price pressures also picked up, according to reporting firms. The survey's future indicators continued to improve and reflect a broadening base of optimism about future growth in manufacturing.

### Current Indicators Suggest Expansion Continues

The index for current manufacturing activity in the region decreased from a reading of 43.3 in February to 32.8 this month. The index has been positive for eight consecutive months and remains at a relatively high reading (see Chart 1). Forty-four percent of the firms indicated increases in activity in March, while 11 percent reported decreases. The current new orders and shipments indexes increased, rising 1 point and 4 points, respectively. Both the delivery times and unfilled orders indexes were positive for the fifth consecutive month, suggesting longer delivery times and an increase in unfilled orders.

Firms reported an increase in manufacturing employment and work hours this month. The percentage of firms reporting an increase in employment (25 percent) exceeded the percentage reporting a decrease (8 percent). The current employment index improved 6 points, its fourth consecutive positive reading. Firms also reported an increase in work hours this month: The average workweek index, which increased 5 points, has been positive for five consecutive months.

### Price Pressures Pick Up

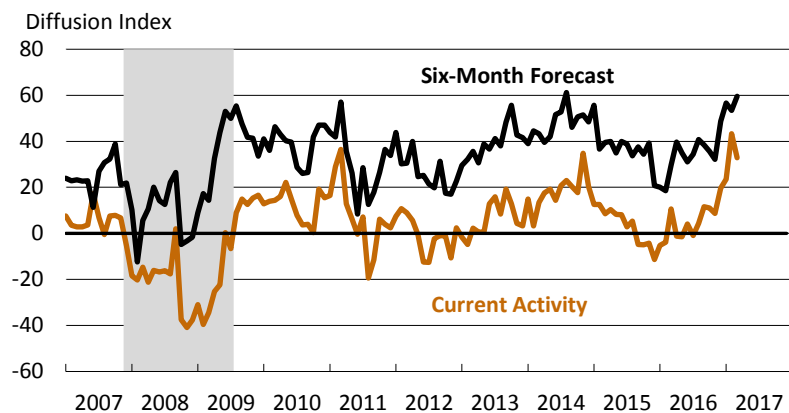
The survey's diffusion indexes for prices remained positive and increased from their readings in February. On the cost side, 41 percent of the firms reported increases in the prices paid for inputs; no firms reported paying lower prices. The prices paid index moved 11 points higher to 40.7, its highest reading since May 2011 (see Chart 2). With respect to prices received for firms' own manufactured goods, 25 percent of the firms reported higher prices, and 4 percent reported lower prices. The prices received index increased 10 points.

### Most Future Indicators Reflect Continued Optimism

The diffusion index for future general activity increased from 53.5 to 59.5 and is now at its highest reading since August 2014

**Chart 1. Current and Future General Activity Indexes**

January 2007 to March 2017



Note: The diffusion index is computed as the percentage of respondents indicating an increase minus the percentage indicating a decrease; the data are seasonally adjusted.

(see Chart 1). Sixty-six percent of the manufacturers expect increases in activity over the next six months, while only 7 percent expect declines. The indexes for future new orders and shipments also moved up, increasing 10 points and 3 points, respectively. Firms also marked up their forecasts for employment increases. The future employment diffusion index increased 10 points to 38.5. One-half of the firms expect to increase employment over the next six months. Nearly 36 percent expect increases in work hours. Firms were also more optimistic about capital spending this month: The future capital spending diffusion index rose 12 points.

### Firms Perceive Skills Mismatch and Report Unfilled Positions

In special questions this month, firms were asked about problems filling key positions with special labor skill requirements (see Special Questions on page 3). Firms were asked generally about worker shortages, any perceived mismatch between skill requirements and labor supply, and how they were dealing with such skills shortages. More than 60 percent of the firms reported labor shortages, while a higher percentage (68 percent) indicated skills mismatch between requirements and available labor. These percentages were notably higher than the responses the last time the questions were asked in May 2014. More than 47 percent of the surveyed firms also reported that they had positions that have remained vacant for more than 90 days, an increase from the 33

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The April 2017 *Manufacturing Business Outlook Survey* will be released on April 20, 2017, at 8:30 a.m. ET.

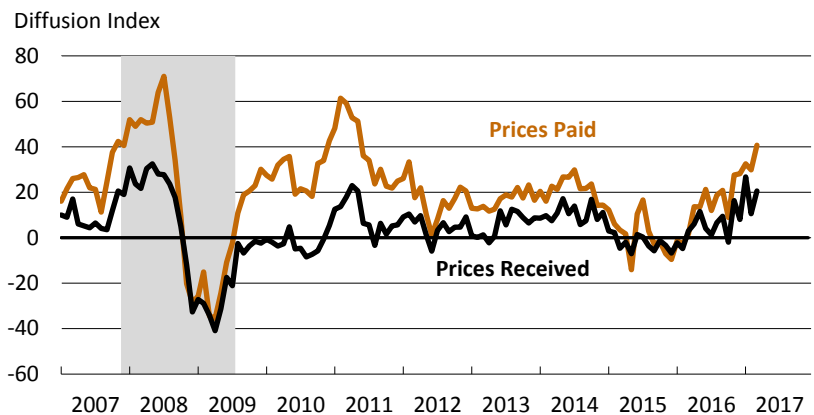


percent that reported vacancies in 2014. Nearly 45 percent of the firms reported that the skills associated with most of their key job openings required some college/technical training; 35 percent indicated that the key positions required only high school diplomas; and only 12 percent indicated that a college degree was required. Increasing recruitment efforts and providing additional training to existing staff were the most frequently cited actions to deal with the cited skills shortages. Nearly 46 percent of the firms reported increasing wages to address the skills shortage problem.

### Summary

Responses to the March *Manufacturing Business Outlook Survey* suggest growth for the region's manufacturing sector. All the broad indicators remained at positive readings with most indicators improving from their February readings. Increased price pressures were also in evidence this month. Indicators reflecting firms' expectations for the next six months remained at high levels and showed continued improvement, suggesting expectations of continued growth in the manufacturing sector. ■

**Chart 2. Current Prices Paid and Prices Received Indexes**  
January 2007 to March 2017



Note: The diffusion index is computed as the percentage of respondents indicating an increase minus the percentage indicating a decrease; the data are seasonally adjusted.

MANUFACTURING BUSINESS OUTLOOK SURVEY March 2017	March vs. February					Six Months from Now vs. March				
	Previous Diffusion Index	Increase	No Change	Decrease	Diffusion Index	Previous Diffusion Index	Increase	No Change	Decrease	Diffusion Index
What is your evaluation of the level of general business activity?	<b>43.3</b>	44.0	40.3	11.2	<b>32.8</b>	<b>53.5</b>	66.0	23.4	6.6	<b>59.5</b>
Company Business Indicators										
New Orders	<b>38.0</b>	53.4	31.9	14.8	<b>38.6</b>	<b>51.5</b>	69.6	20.0	8.7	<b>61.0</b>
Shipments	<b>28.6</b>	47.0	36.9	14.1	<b>32.9</b>	<b>51.7</b>	63.2	26.1	8.4	<b>54.8</b>
Unfilled Orders	<b>10.7</b>	24.4	63.6	10.0	<b>14.4</b>	<b>19.5</b>	29.9	55.4	13.2	<b>16.7</b>
Delivery Times	<b>4.1</b>	11.2	82.1	6.7	<b>4.5</b>	<b>11.5</b>	17.5	70.9	9.8	<b>7.7</b>
Inventories	<b>-4.7</b>	25.5	60.7	13.7	<b>11.8</b>	<b>14.1</b>	30.5	52.9	14.2	<b>16.3</b>
Prices Paid	<b>29.9</b>	40.7	59.3	0.0	<b>40.7</b>	<b>51.1</b>	57.9	37.7	2.2	<b>55.7</b>
Prices Received	<b>10.6</b>	25.0	70.3	4.4	<b>20.6</b>	<b>23.5</b>	46.7	44.3	6.5	<b>40.2</b>
Number of Employees	<b>11.1</b>	25.1	66.2	7.6	<b>17.5</b>	<b>28.5</b>	50.0	36.6	11.5	<b>38.5</b>
Average Employee Workweek	<b>13.6</b>	24.0	69.0	5.5	<b>18.5</b>	<b>19.9</b>	35.6	45.9	13.7	<b>21.9</b>
Capital Expenditures	--	--	--	--	--	<b>22.1</b>	39.3	49.7	4.8	<b>34.5</b>

**NOTES:**  
(1) Diffusion indexes represent the percentage indicating an increase minus the percentage indicating a decrease.  
(2) All data are seasonally adjusted.  
(3) Percentages may not sum to 100 percent because of rounding, omission by respondents, or both.  
(4) Survey results reflect data received through March 13, 2017.



<b>Special Questions (March 2017)</b>		
<b>1. Has your firm experienced any significant labor shortages or mismatch between labor skill requirements and the labor supply?*</b>		
	<b>2017</b>	<b>2014</b>
Labor shortages	<b>60.3</b>	32.9
Skills mismatch	<b>67.6</b>	45.7
Job vacancies remaining more than three months	<b>47.1</b>	32.8
<b>2. Rank the following categories of skills shortages in terms of their current economic importance to your firm. (Percentage of firms reporting the category in its top three rankings)*</b>		
Skills in the use of production machines or tools	<b>91.2</b>	76.2
Specific plant and systems operator skills	<b>64.9</b>	61.9
Supervisory, management, or administrative skills	<b>49.1</b>	47.6
Basic skills (reading, writing, math)	<b>35.1</b>	42.9
Computer skills	<b>24.6</b>	31.0
English language skills	<b>8.8</b>	31.0
Other	<b>5.3</b>	9.5
<b>3. What skill requirements are associated with the majority of your key job openings?</b>		
College plus	<b>12.3</b>	7.6
Some college/technical school	<b>44.6</b>	53.0
High school only	<b>35.4</b>	33.3
Less than high school	<b>7.7</b>	6.1
<b>4. What actions has your firm taken to address skills shortages? (Check as many actions as apply.)*</b>		
Increase recruitment efforts	<b>77.9</b>	65.7
Provide additional training to existing staff	<b>54.4</b>	55.7
Increase wages	<b>45.6</b>	34.3
Expand recruitment outside of the region	<b>29.4</b>	25.7
Partner with educational institution to align curriculum with talent needs	<b>29.4</b>	38.6
Increase recruitment incentives	<b>20.6</b>	17.1
Increase benefits	<b>11.8</b>	7.1
Decrease production	<b>7.4</b>	4.3
Implement phased retirement program to retain older workers	<b>8.8</b>	-
Other	<b>8.8</b>	4.3
<i>Note: All figures are shown as percentages.</i>		
<i>*Percentages will not add to 100 percent because more than one response could be selected.</i>		

