**Percentage of Respondents Positive About Their Own Company’s Outlook**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Since</th>
<th>March (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>90.1%</td>
<td>Highest</td>
<td>90.0%</td>
</tr>
<tr>
<td>Small Manufacturers</td>
<td>80.2%</td>
<td>Highest</td>
<td>78.4%</td>
</tr>
<tr>
<td>Medium-Sized Manufacturers</td>
<td>91.1%</td>
<td>Highest</td>
<td>90.0%</td>
</tr>
<tr>
<td>Large Manufacturers</td>
<td>96.5%</td>
<td>Record High</td>
<td>90.7%</td>
</tr>
</tbody>
</table>

**Overall Facts About the Survey**

- **Number of Responses:** 495
- **In the Field:** May 19 – June 2, 2021
- **Small Manufacturers:** 116 responses (23.4%)
- **Medium-Sized Manufacturers:** 237 responses (47.9%)
- **Large Manufacturers:** 142 responses (28.7%)

**NAM Manufacturing Outlook Index**

- **Index:** 60.3
- **March:** 58.6 – Revised

**Expected Growth Rates**

<table>
<thead>
<tr>
<th>Category</th>
<th>Growth Rate</th>
<th>Since</th>
<th>March (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>↑ 6.1%</td>
<td>Record High</td>
<td>4.9%</td>
</tr>
<tr>
<td>Production</td>
<td>↑ 5.9%</td>
<td>Record High</td>
<td>4.9%</td>
</tr>
<tr>
<td>Full-Time Employment</td>
<td>↑ 3.7%</td>
<td>Record High</td>
<td>2.7%</td>
</tr>
<tr>
<td>Capital Investments</td>
<td>↑ 3.3%</td>
<td>Highest</td>
<td>2.7%</td>
</tr>
<tr>
<td>Prices of Company’s Products</td>
<td>↑ 5.6%</td>
<td>Record High</td>
<td>3.9%</td>
</tr>
<tr>
<td>Exports</td>
<td>↑ 1.2%</td>
<td>Highest</td>
<td>1.1%</td>
</tr>
<tr>
<td>Inventories</td>
<td>↑ 2.8%</td>
<td>Record High</td>
<td>1.1%</td>
</tr>
<tr>
<td>Health Insurance Costs</td>
<td>↑ 7.6%</td>
<td>Highest</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

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1 The NAM Manufacturing Outlook Index data series is revised each quarter to reflect the mean and standard deviation of the historical data, dating back to the fourth quarter of 1997. Currently, the historical mean for those with positive responses in their outlook is 74.7%, with a standard deviation of 15.0%. An index reading of 40 would be consistent with one standard deviation below the mean (59.7% positive), and an index reading of 60 would be one standard deviation above the mean (89.7% positive). As such, the index helps to normalize the outlook data to put them into a historical context.
Summary

These are extraordinary times. Manufacturing activity plummeted sharply as businesses grappled with the COVID-19 pandemic and the global recession in the spring of 2020, but the sector has bounced back sharply since then. Now manufacturing production is likely to exceed pre-pandemic levels in the third quarter of 2021, with robust sales buoyed by pent-up demand, fiscal and monetary stimulus and economic recoveries in markets around the world.

While manufacturing remains a bright spot in the economy, there have also been significant supply chain disruptions in the marketplace as firms have struggled to keep up with demand. In the most recent Institute for Supply Management® report, supplier deliveries were the slowest since April 1974, with indices for the backlog of orders and customer inventories notching unfortunate new records. In addition, prices rose at the fastest rate since July 2008. In addition, firms continue to note challenges with finding talent, and yet, manufacturing job openings have soared to new record levels.

With that as context, the Manufacturers’ Outlook Survey for the second quarter of 2021 was conducted from May 19 to June 2, and 90.1% of respondents felt either somewhat or very positive about their company outlook (Figures 1 and 2). It was the fourth straight quarterly increase in optimism in the survey, with the outlook bouncing back from the 33.9% reading one year ago, which was the worst since the Great Recession. More importantly, this suggests that manufacturers had the strongest outlook in nearly three years, since the third quarter of 2018, and manufacturers are predicting the highest levels of production, sales and job growth in Outlook Survey history.

The NAM Manufacturing Outlook Index measured 60.3 in the second quarter, up from 58.6 in the first quarter (Figure 3). As such, it suggests that optimism in the outlook in the second quarter was just over one standard deviation from the historical average (74.7%)—a very robust reading.

For the past four reports, manufacturers were asked about production, employment and capital spending in the current quarter relative to the previous one (Figure 4 and the following table). This information can be expressed as purchasing managers’ indices.

<table>
<thead>
<tr>
<th></th>
<th>Second Quarter 2021 Relative to First Quarter 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Higher</td>
</tr>
<tr>
<td>Production</td>
<td>62.9%</td>
</tr>
<tr>
<td>Employment</td>
<td>46.5%</td>
</tr>
<tr>
<td>Capital Spending</td>
<td>39.0%</td>
</tr>
</tbody>
</table>

Respondents were asked when they expect revenues to return to pre-pandemic levels. Encouragingly, 48.5% said that their revenues had recovered by the end of the first quarter of 2021 (Figure 5). Three-quarters of manufacturers completing this survey anticipate that their revenues will be back to pre-pandemic levels by the end of 2021, with 88.7% saying the same thing by the end of 2022.

Rising raw material costs once again topped the list of primary business challenges in the first quarter (Figure 6), cited by 86.6% of respondents. In addition, manufacturers predict 7.5% growth on average for input costs over the next 12 months, the fastest pace since the question was added to the survey in the second quarter of 2018. Respondents expect product prices to rise 5.6% on average between now and this time next year, a new record in the more than 23 years that this survey has existed.
In addition to rising costs, other top worries in the second quarter include the inability to attract and retain a quality workforce (77.5%), supply chain challenges (71.3%), transportation and logistics costs (60.1%) and rising health care and insurance costs (50.4%).

With supply chain and logistics challenges in mind, manufacturers were asked about their company’s current challenges (Figure 7). More than 84% said that higher input prices were their top concern right now, followed by workforce challenges (79.0%), delays in input deliveries (69.1%), logistics challenges (68.7%), the lack of availability of inputs (59.5%) and bottlenecks at the ports (59.0%). Speaking of ports, 59.5% of respondents said that the delayed delivery of imported parts or components needed for production was their greatest challenge as it relates to international ocean shipping and their business.

In a special question, manufacturing respondents were asked how they were coping with sharply higher input costs (Figure 8), with 34.5% passing most or all of these costs and 56.6% passing some of those additional costs to the consumer. At the same time, 54.5% said that they had needed to reduce their profit margins. On the topic of suppliers, 45.5% of those completing the survey were reevaluating suppliers where possible, and 39.3% were attempting to negotiate better rates where possible.

With companies continuing to cite immediate workforce and absenteeism challenges, business leaders were asked about possible strategies that might address this problem (Figure 9). The top choices included increased funding for on-the-job training (53.9%), investments in apprenticeships (49.1%) and childcare availability and universal pre-kindergarten programs (47.9%). In terms of long-term solutions to address workforce recruitment and retention challenges (Figure 10), manufacturers suggest that job training programs for in-demand skills (75.1%) and funding for new and existing apprenticeship programs (58.6%) are the most crucial.

Nearly 81% of manufacturers offer paid and unpaid leave at or above levels mandated by federal and state governments, and one in four cited workforce shortages or manpower as a reason their companies cannot offer more leave.

With tax rates a frequent topic of conversation, 86.3% of respondents say that their company would find it more difficult to expand their workforce, invest in new equipment or expand facilities if the tax burden on income from manufacturing activities was increased. Overall, manufacturers have benefited from lower tax burdens from the Tax Cuts and Jobs Act of 2017. In a special question (Figure 11), respondents said that tax reform helped them to raise wages (63.4%), hire more workers (51.9%), expand their facilities (41.8%), increase worker benefits (41.8%), increase research and development (37.0%) and bring back production (20.1%).

Much of the economic recovery hinges on increased vaccination rates and a return to normalcy. More than 85% of manufacturers said that they were encouraging their workers to get vaccinated. In addition, the American Rescue Plan makes tax credits available for small and medium-sized manufacturers that provide paid time off to get the COVID-19 vaccine. Of those eligible, 62.1% said that their company would take advantage of such a tax credit.

Some other trends regarding predicted growth rates over the next 12 months (Figure 12):

- **Sales:** Respondents expect sales to rise 6.1% over the next 12 months, a record high. Nearly 84% of manufacturers predict that sales will increase over the next four quarters, with 69.0% feeling that orders will rise 5.0% or more. Firm size mattered in the data. Medium-sized and large
manufacturers anticipate sales rising 6.5%, whereas small firms forecast increases of 4.6%. Smaller manufacturers also had the lowest outlook overall, with 80.2% positive about their company’s outlook versus 96.5% for the largest manufacturers, a new record.

- **Production:** Respondents expect production to increase 5.9% over the next 12 months, the highest since the question was added to the survey in the second quarter of 2015. Almost 83% forecast output to rise over the coming months, with 5.9% seeing declining production. Medium and large manufacturers felt the most optimistic, anticipating 6.3% growth in production over the next 12 months. In contrast, small businesses expect output to rise 4.6%.

- **Full-Time Employment:** Respondents expect full-time employment to rise 3.7% over the next 12 months, the highest rate in the survey’s history. More than 70% anticipate more full-time hiring over the next year, with 38.2% predicting employment growth of 5% or more. Just 5.3% expect employment reductions. Medium-sized manufacturers felt the most upbeat in their hiring plans, predicting 4.0% growth over the next 12 months. In contrast, small and large firms expect employment to rise 3.1% and 3.7%, respectively.

- **Employee Wages:** Respondents anticipate employee wages (excluding nonwage compensation, such as benefits) to rise 3.3% over the next 12 months, up from 2.5% in the previous survey and the strongest figure in 21 years. More than 69% see wages rising 3% or more, with 24.5% predicting an increase of up to 3%.

- **Capital Investments:** Capital spending expectations were the strongest in nearly three years, with respondents anticipating an average increase of 3.3% over the next 12 months, up from 2.7% in the first quarter. In this survey, almost 55% expect additional capital spending in the next year, with 37.3% predicting no change and 8.1% forecasting reduced capital expenditures. By firm size, small, medium and large manufacturers see capital spending increasing 1.8%, 3.3% and 4.5%, respectively.

- **Exports:** Respondents expect exports to increase 1.2% over the next 12 months, inching up from 1.1% in the previous survey and the best reading in three years. Nearly 38% anticipate higher exports in the next year, with 56.4% seeing no changes. Large manufacturers forecasted export growth of 1.7% over the next year, with small and medium-sized firms predicting 1.1% growth on average.

- **Inventories:** Respondents anticipate 2.8% growth in inventories over the next 12 months, jumping from 1.1% in the prior survey and a record high. Almost 53% of manufacturers expect increased inventories over the next year, with 10.7% expecting decreases and 36.6% seeing no changes.

- **Health Insurance Costs:** Manufacturers predict health insurance costs will rise 7.6% over the next 12 months, up from 7.2% in the previous survey and the fastest pace in three years. In the latest figures, nearly 74% expect costs to increase 5% or more, including three in ten seeing costs rising 10% or more.
Figure 1: Manufacturing Business Outlook by Quarter, 1997–2021
(Recessions Are Highlighted with Gray Shading)

Note: Percentage of respondents who characterized the current business outlook as somewhat or very positive. The National Bureau of Economic Research has said that the recession began in February 2020, but it has not yet dated the end point.

Figure 2: Manufacturing Business Outlook by Quarter, 2019–2021

Note: Percentage of respondents who characterized the current business outlook as somewhat or very positive.
Figure 3: NAM Manufacturing Outlook Index, 2019–2021

Figure 4: Change in Manufacturing Activity in Second Quarter 2021 Relative to First Quarter 2021
Figure 5: When Firms Expect Revenues to Return to Pre-COVID-19 Levels

<table>
<thead>
<tr>
<th>Back to Pre-COVID-19 Levels of Revenue by the End of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1:2021: 48.5%</td>
</tr>
<tr>
<td>2021: 75.3%</td>
</tr>
<tr>
<td>2022: 88.7%</td>
</tr>
</tbody>
</table>

- 48.5% have already returned to normal levels (prior to the current quarter)
- 9.7% expect to return in the second quarter of 2021
- 9.3% expect to return in the third quarter of 2021
- 7.7% expect to return in the fourth quarter of 2021
- 9.3% expect to return in the first half of 2022
- 4.1% expect to return in the second half of 2022
- 5.3% expect to return at some later date
- 6.1% are uncertain when revenues will return to pre-COVID-19 levels

Figure 6: Primary Current Business Challenges, Second Quarter 2021

- Increased raw material costs: 86.6%
- Attracting and retaining a quality workforce: 77.5%
- Supply chain challenges: 71.3%
- Transportation and logistics costs: 60.1%
- Rising health care/insurance costs: 50.4%
- Unfavorable business climate (e.g., taxes, regulations): 44.7%
- Trade uncertainties: 23.9%
- Weaker domestic economy and sales for our products: 14.4%
- Other: 11.9%
- Weaker global growth and slower export sales: 9.7%
- Strengthened U.S. dollar relative to other currencies: 7.7%
- Challenges with access to capital or other forms of financing: 2.6%

Note: Respondents were able to check more than one response; therefore, responses exceed 100%.
Figure 7: Manufacturing Challenges in Light of Supply Chain and Logistics Concerns

- Higher input prices: 84.5%
- Workforce challenges: 79.0%
- Delays in input deliveries: 69.1%
- Logistics challenges: 68.7%
- Lack of availability of inputs: 59.5%
- Bottlenecks at the ports: 59.0%
- Inconsistent data from siloed/disparate mgt. systems: 16.8%
- Other: 2.9%

Note: Respondents were able to check more than one response; therefore, responses exceed 100%.

Figure 8: How Manufacturers Have Reacted to Sharp Increases in Costs

- Passing some of the additional costs onto the consumer: 56.6%
- Reducing profit margins: 54.5%
- Reevaluating suppliers where possible: 45.5%
- Negotiating better rates where possible: 39.3%
- Passing most or all the additional costs onto the consumer: 34.5%
- Other (please specify): 3.7%
- None of the above: 0.8%

Note: Respondents were able to check more than one response; therefore, responses exceed 100%.
Figure 9: Mitigation Strategies to Address Manufacturers’ Immediate Workforce and Absenteeism Challenges

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding for on-the-job training</td>
<td>53.9%</td>
</tr>
<tr>
<td>Investments in apprenticeships</td>
<td>49.1%</td>
</tr>
<tr>
<td>Childcare availability and universal pre-K programs</td>
<td>47.9%</td>
</tr>
<tr>
<td>Flexible work schedules</td>
<td>26.8%</td>
</tr>
<tr>
<td>Other</td>
<td>18.6%</td>
</tr>
<tr>
<td>Free community college</td>
<td>6.2%</td>
</tr>
<tr>
<td>Paid family leave</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

Note: Respondents were able to check more than one response; therefore, responses exceed 100%.

Figure 10: Mitigation Strategies to Address Manufacturers’ Long-Term Recruitment and Workforce Retention Challenges

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job training programs for in-demand skills</td>
<td>75.1%</td>
</tr>
<tr>
<td>Funding for new and existing apprenticeship programs</td>
<td>58.6%</td>
</tr>
<tr>
<td>More labs in schools</td>
<td>18.2%</td>
</tr>
<tr>
<td>None of the above</td>
<td>15.7%</td>
</tr>
<tr>
<td>Increased training for teachers</td>
<td>14.0%</td>
</tr>
<tr>
<td>Free community college</td>
<td>9.9%</td>
</tr>
<tr>
<td>Other</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

Note: Respondents were able to check more than one response; therefore, responses exceed 100%.
Figure 11: Lower Tax Burdens from Tax Reform Made It Easier to Do the Following

<table>
<thead>
<tr>
<th>Action</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise wages</td>
<td>63.4%</td>
</tr>
<tr>
<td>Hire more workers</td>
<td>51.9%</td>
</tr>
<tr>
<td>Expand your facility</td>
<td>41.8%</td>
</tr>
<tr>
<td>Increase worker benefits</td>
<td>41.8%</td>
</tr>
<tr>
<td>Increase R&amp;D</td>
<td>37.0%</td>
</tr>
<tr>
<td>Bring back production</td>
<td>20.1%</td>
</tr>
<tr>
<td>None of the above</td>
<td>19.5%</td>
</tr>
<tr>
<td>Other</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Note: Respondents were able to check more than one response; therefore, responses exceed 100%.

Figure 12: Expected Growth of Manufacturing Activity, 2019–2021

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Exports</th>
<th>Capital Investments</th>
<th>Full-Time Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019:1</td>
<td>6.1%</td>
<td>1.2%</td>
<td>3.3%</td>
<td>3.7%</td>
</tr>
<tr>
<td>2019:2</td>
<td>5.0%</td>
<td>1.1%</td>
<td>2.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td>2019:3</td>
<td>4.9%</td>
<td>1.0%</td>
<td>2.7%</td>
<td>2.5%</td>
</tr>
<tr>
<td>2019:4</td>
<td>4.7%</td>
<td>0.9%</td>
<td>2.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>2020:1</td>
<td>4.6%</td>
<td>0.8%</td>
<td>2.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>2020:2</td>
<td>4.5%</td>
<td>0.7%</td>
<td>2.2%</td>
<td>1.9%</td>
</tr>
<tr>
<td>2020:3</td>
<td>4.4%</td>
<td>0.6%</td>
<td>2.1%</td>
<td>1.8%</td>
</tr>
<tr>
<td>2020:4</td>
<td>4.3%</td>
<td>0.5%</td>
<td>2.0%</td>
<td>1.7%</td>
</tr>
<tr>
<td>2021:1</td>
<td>4.2%</td>
<td>0.4%</td>
<td>1.9%</td>
<td>1.6%</td>
</tr>
<tr>
<td>2021:2</td>
<td>4.1%</td>
<td>0.3%</td>
<td>1.8%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Note: Expected growth rates are annual averages.
Survey Responses

1. How would you characterize the business outlook for your firm right now?
   a. Very positive – 39.19%
   b. Somewhat positive – 50.91%
   c. Somewhat negative – 8.28%
   d. Very negative – 1.62%

   \textit{Percentage that is either somewhat or very positive in their outlook} = 90.10\%

2. Over the next year, what do you expect to happen with your company’s overall sales?
   a. Increase more than 10 percent – 34.82%
   b. Increase 5 to 10 percent – 34.21%
   c. Increase up to 5 percent – 14.57%
   d. Stay about the same – 10.32%
   e. Decrease up to 5 percent – 3.24%
   f. Decrease 5 to 10 percent – 2.02%
   g. Decrease more than 10 percent – 0.81%

   \textit{Average expected increase in sales consistent with these responses} = 6.10\%

3. Over the next year, what do you expect to happen with your company’s overall production levels?
   a. Increase more than 10 percent – 32.46%
   b. Increase 5 to 10 percent – 33.27%
   c. Increase up to 5 percent – 16.94%
   d. Stay about the same – 11.49%
   e. Decrease up to 5 percent – 3.23%
   f. Decrease 5 to 10 percent – 1.81%
   g. Decrease more than 10 percent – 0.81%

   \textit{Average expected increase in production consistent with these responses} = 5.87\%

4. Over the next year, what do you expect to happen with the level of exports from your company?
   a. Increase more than 5 percent – 15.84%
   b. Increase 3 to 5 percent – 12.35%
   c. Increase up to 3 percent – 9.67%
   d. Stay about the same – 56.38%
   e. Decrease up to 3 percent – 2.26%
   f. Decrease 3 to 5 percent – 2.06%
   g. Decrease more than 5 percent – 1.44%

   \textit{Average expected increase in exports consistent with these responses} = 1.24\%

5. Over the next year, what do you expect to happen with prices on your company’s overall product line?
   a. Increase more than 10 percent – 23.12%
   b. Increase 5 to 10 percent – 36.31%
   c. Increase up to 5 percent – 29.82%
   d. Stay about the same – 8.11%
   e. Decrease up to 5 percent – 1.42%
   f. Decrease 5 to 10 percent – 0.81%
   g. Decrease more than 10 percent – 0.41%
**Average expected increase in product prices consistent with these responses = 5.64%**

6. Over the next year, what do you expect to happen with raw material prices and other input costs?
   - a. Increase more than 10 percent – 43.00%
   - b. Increase 5 to 10 percent – 40.37%
   - c. Increase up to 5 percent – 12.37%
   - d. Stay about the same – 2.43%
   - e. Decrease up to 5 percent – 0.61%
   - f. Decrease 5 to 10 percent – 0.41%
   - g. Decrease more than 10 percent – 0.81%

   **Average expected increase in raw material prices consistent with these responses = 7.51%**

7. Over the next year, what are your company’s capital investment plans?
   - a. Increase more than 10 percent – 21.86%
   - b. Increase 5 to 10 percent – 15.99%
   - c. Increase up to 5 percent – 16.80%
   - d. Stay about the same – 37.25%
   - e. Decrease up to 5 percent – 3.24%
   - f. Decrease 5 to 10 percent – 1.42%
   - g. Decrease more than 10 percent – 3.44%

   **Average expected increase in capital investments consistent with these responses = 3.27%**

8. Over the next year, what are your inventory plans?
   - a. Increase more than 10 percent – 14.95%
   - b. Increase 5 to 10 percent – 17.98%
   - c. Increase up to 5 percent – 19.80%
   - d. Stay about the same – 36.57%
   - e. Decrease up to 5 percent – 5.86%
   - f. Decrease 5 to 10 percent – 2.83%
   - g. Decrease more than 10 percent – 2.02%

   **Average expected increase in inventories consistent with these responses = 2.78%**

9. Over the next year, what do you expect in terms of full-time employment in your company?
   - a. Increase more than 10 percent – 11.79%
   - b. Increase 5 to 10 percent – 26.42%
   - c. Increase up to 5 percent – 32.11%
   - d. Stay about the same – 24.39%
   - e. Decrease up to 5 percent – 3.05%
   - f. Decrease 5 to 10 percent – 1.63%
   - g. Decrease more than 10 percent – 0.61%

   **Average expected increase in full-time employment consistent with these responses = 3.70%**

10. Over the next year, what do you expect to happen to employee wages (excluding nonwage compensation, such as benefits) in your company?
    - a. Increase more than 5 percent – 22.06%
    - b. Increase 3 to 5 percent – 46.96%
    - c. Increase up to 3 percent – 24.49%
    - d. Stay about the same – 6.48%
    - e. Decrease up to 3 percent – none
f. Decrease 3 to 5 percent – none

g. Decrease more than 5 percent – none

*Average expected increase in employee wages consistent with these responses = 3.35%*

11. Over the next year, what do you expect to happen to health insurance costs for your company?

   a. Increase 15.0 percent or more – 7.54%
   b. Increase 10.0 to 14.9 percent – 22.40%
   c. Increase 5.0 to 9.9 percent – 43.79%
   d. Increase less than 5.0 percent – 17.52%
   e. No change – 4.48%
   f. Decrease less than 5.0 percent – 0.41%
   g. Decrease 5.0 percent or more – 0.61%
   h. Uncertain – 3.26%

*Average expected increase in health insurance costs consistent with these responses = 7.61%*

12. What are the biggest challenges you are facing right now? (Check all that apply.)

   a. Weaker domestic economy and sales for our products to U.S. customers – 14.37%
   b. Weaker global growth and slower export sales – 9.72%
   c. Trade uncertainties (e.g., actual or proposed tariffs, trade negotiation uncertainty) – 23.89%
   d. Strengthened U.S. dollar relative to other currencies – 7.69%
   e. Challenges with access to capital or other forms of financing – 2.63%
   f. Unfavorable business climate (e.g., taxes, regulations) – 44.74%
   g. Increased raw material costs – 86.64%
   h. Rising health care/insurance costs – 50.40%
   i. Transportation and logistics costs – 60.12%
   j. Supply chain challenges – 71.26%
   k. Attracting and retaining a quality workforce – 77.53%
   l. Other – 11.94%

13. What is your company’s primary industrial classification?

   a. Chemicals – 7.10%
   b. Computer and electronic products – 2.23%
   c. Electrical equipment and appliances – 5.27%
   d. Fabricated metal products – 28.40%
   e. Food manufacturing – 3.04%
   f. Furniture and related products – 1.22%
   g. Machinery – 11.97%
   h. Nonmetallic mineral products – 2.43%
   i. Paper and paper products – 3.04%
   j. Petroleum and coal products – 1.01%
   k. Plastics and rubber products – 5.88%
   l. Primary metals – 2.84%
   m. Transportation equipment – 4.26%
   n. Wood products – 2.64%
   o. Other – 18.66%
14. How would you characterize production in the second quarter relative to the first quarter?
   a. Higher – 62.93%
   b. No change – 28.92%
   c. Lower – 8.15%

   Production Purchasing Managers’ Index = 77.39

15. How would you characterize employment in the second quarter relative to the first quarter?
   a. Higher – 46.50%
   b. No change – 45.40%
   c. Lower – 8.10%

   Employment Purchasing Managers’ Index = 69.17

16. How would you characterize capital spending in the second quarter relative to the first quarter?
   a. Higher – 38.98%
   b. No change – 53.88%
   c. Lower – 7.14%

   Capital Spending Purchasing Managers’ Index = 65.92

17. What is your firm size (e.g., the parent company, not your establishment)?
   a. Fewer than 50 employees – 23.23%
   b. 50 to 499 employees – 48.08%
   c. 500 or more employees – 28.69%
   d. Uncertain – none

18. When do you expect your firm’s revenues to return to normal (pre-COVID-19) levels?
   a. They have already returned to normal levels (prior to the current quarter) – 48.48%
   b. The second quarter of 2021 (the current quarter) – 9.74%
   c. The third quarter of 2021 – 9.33%
   d. The fourth quarter of 2021 – 7.71%
   e. The first half of 2022 – 9.33%
   f. The second half of 2022 – 4.06%
   g. At some later date – 5.27%
   h. Uncertain – 6.09%

SPECIAL QUESTIONS

19. If the tax burden on income from manufacturing activities increased, would your company find it more
difficult to expand its workforce, invest in new equipment or expand facilities?
   a. Yes – 86.25%
   b. No – 13.75%

20. Has tax reform’s lower tax burden made it easier for you to do any of the following? (Select all that
    apply.)
   a. Hire more workers – 51.88%
   b. Raise wages – 63.39%
   c. Increase worker benefits – 41.84%
   d. Expand your facility – 41.84%
   e. Increase R&D – 37.03%
   f. Bring back production – 20.08%
   g. None of the above – 19.46%
21. Would passage of a major infrastructure bill positively impact your company’s business plans and outlook?
   a. Yes – 52.10%
   b. No – 47.90%

22. Manufacturers continue to tell us that supply chain and logistics challenges are a major concern. Has your company been challenged by any of the following? (Select all that apply.)
   a. Workforce challenges – 78.99%
   b. Bottlenecks at the ports – 59.03%
   c. Logistics challenges – 68.70%
   d. Delays in input deliveries – 69.12%
   e. Higher input prices – 84.45%
   f. Lack of availability of inputs – 59.45%
   g. Inconsistent data from siloed or disparate supply chain management systems – 16.81%
   h. Other – 2.94%

23. If delays at American ports or issues related to international ocean shipping have affected your business, which has had the greatest impact?
   a. Delayed delivery of imported parts/components needed for production – 59.47%
   b. Inability to reliably locate export container space – 8.42%
   c. Increased export shipping costs – 8.95%
   d. Decreased income/loss of revenue from impacts to your delivery timelines – 16.05%
   e. Other – 7.11%

24. How is your company reacting to the sharp increase in costs seen in recent months? (Select all that apply.)
   a. Reducing profit margins – 54.47%
   b. Passing some of the additional costs onto the consumer – 56.55%
   c. Passing most or all the additional costs onto the consumer – 34.51%
   d. Negotiating better rates where possible – 39.29%
   e. Reevaluating suppliers where possible – 45.53%
   f. None of the above – 0.83%
   g. Other – 3.74%

25. Would your company’s immediate workforce and absenteeism challenges be mitigated by any of the following? (Select all that apply.)
   a. Childcare and universal pre-K programs – 47.89%
   b. Flexible work schedules – 26.80%
   c. Paid family leave – 6.20%
   d. Free community college – 6.20%
   e. Investments in apprenticeships – 49.13%
   f. Funding for on-the-job training – 53.85%
   g. Other – 18.61%

26. Would your company’s long-term recruitment and retention of a trained workforce be mitigated by any of the following? (Select all that apply.)
   a. More labs in schools – 18.24%
   b. Increased training for teachers – 13.95%
   c. Free community college – 9.87%
   d. Funding for new and existing apprenticeship programs – 58.58%
   e. Job training programs for in-demand skills – 75.11%
27. Does your company offer leave to employees outside of leave required under the Family and Medical Leave Act or a state paid or unpaid leave mandate(s)? (Select all that apply.)
   a. Yes, my company offers paid leave above and beyond legal mandates – 37.95%
   b. Yes, my company offers unpaid leave above and beyond legal mandates – 33.96%
   c. Yes, my company offers paid and unpaid leave but only at the levels required by state or federal law – 26.00%
   d. Yes, my company offers paid parental leave – 11.11%
   e. No, my company does not offer paid or unpaid leave – 13.00%
   f. Uncertain – 6.29%

28. Why does your company offer or not offer family or parental leave? (Select all that apply.)
   a. Yes, we offer leave as a tool to attract/retain talent – 30.24%
   b. Yes, we offer leave to support the communities in which we operate – 16.34%
   c. Yes, we offer leave to provide flexibility to employees – 39.74%
   d. Yes, we offer leave to support our workers’ families – 42.38%
   e. No, we do not offer leave above legal mandates because it is too costly – 23.62%
   f. No, we do not offer leave above legal mandates because of workforce/manpower reasons – 24.94%
   g. Please list another reason why your company may or may not offer family or medical leave – 4.86%

29. Are you encouraging your workers to get vaccinated?
   a. Yes – 85.44%
   b. No – 14.56%

30. For small and medium-sized manufacturers, the American Rescue Plan makes tax credits available for companies that provide paid time off to get the COVID-19 vaccine. Would your company take advantage of such a tax credit? (Responses were for only those eligible.)
   a. Yes – 62.13%
   b. No – 37.87%