

**NAM MANUFACTURERS' OUTLOOK SURVEY**  
**SECOND QUARTER 2022**  
 JUNE 15, 2022

<p><b>Percentage of Respondents Positive About Their Own Company's Outlook</b></p> <p style="text-align: center;"><b>82.6%</b> <i>(March: 88.8%)</i></p> <p>Small Manufacturers: <b>72.5%</b> <i>(March: 80.3%)</i></p> <p>Medium-Sized Manufacturers: <b>85.5%</b> <i>(March: 91.2%)</i></p> <p>Large Manufacturers: <b>84.8%</b> <i>(March: 87.8%)</i></p>	<p><b>Overall Facts About the Survey</b></p> <p>Number of Responses: 333 In the Field: May 17–31, 2022</p> <p>Small Manufacturers: 69 responses (20.7%) Medium-Sized Manufacturers: 159 responses (47.7%) Large Manufacturers: 105 responses (31.5%)</p> <hr/> <p><b>NAM Manufacturing Outlook Index<sup>1</sup></b></p> <p style="text-align: center;"><b>55.0</b> <i>(March: 59.2)</i></p>
<p><b>Expected Growth Rate for <u>SALES</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 4.6%</b> <i>(March: ↑ 6.1%)</i></p>	<p><b>Expected Growth Rate for <u>PRODUCTION</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 4.3%</b> <i>(March: ↑ 5.6%)</i></p>
<p><b>Expected Growth Rate for <u>FULL-TIME EMPLOYMENT</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 2.9%</b> <i>(March: ↑ 3.7%)</i></p>	<p><b>Expected Growth Rate for <u>EMPLOYEE WAGES</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 3.8%</b> <i>(March: ↑ 3.9% – Record High)</i></p>
<p><b>Expected Growth Rate for <u>CAPITAL INVESTMENTS</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 2.6%</b> <i>(March: ↑ 3.8% – Highest Since 2018:2)</i></p>	<p><b>Expected Growth Rate for <u>EXPORTS</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 0.7%</b> <i>(March: ↑ 1.1%)</i></p>
<p><b>Expected Growth Rate for <u>PRICES OF COMPANY'S PRODUCTS</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 5.9%</b> <i>(March: ↑ 6.1% – Record High)</i></p>	<p><b>Expected Growth Rate for <u>RAW MATERIAL PRICES AND OTHER INPUT COSTS</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 6.9%</b> <i>(March: ↑ 7.1%)</i></p>
<p><b>Expected Growth Rate for <u>INVENTORIES</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 1.3%</b> <i>(March: ↑ 2.4%)</i></p>	<p><b>Expected Growth Rate for <u>HEALTH INSURANCE COSTS</u> Over the Next 12 Months</b></p> <p style="text-align: center;"><b>↑ 7.8%</b> <i>(March: ↑ 7.9)</i></p>

<sup>1</sup> 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 75.2%, with a standard deviation of 14.9%. An index reading of 40 would be consistent with one standard deviation below the mean (60.2% positive), and an index reading of 60 would be one standard deviation above the mean (90.1% positive). As such, the index helps to normalize the outlook data to put them into a historical context.

## Summary

Manufacturing activity has remained quite resilient over the past year despite a multitude of challenges. Demand has held solid—perhaps surprisingly so—even with supply chain disruptions, workforce shortages, soaring costs, COVID-19 and geopolitical uncertainties. Indeed, manufacturing production has experienced strong growth over the past three months, rebounding from omicron and supply chain issues at year’s end, with 4.6% growth since the start of the pandemic. Factory orders, manufacturing construction activity and consumer spending have also jumped mightily over the past year, with pent-up demand and solid spending helping to prop up growth.

In addition, the labor market remains tight. Manufacturers have added 213,000 workers through the first five months of 2022 and are on track to reach pre-pandemic levels of employment in the next couple months, being just shy by 17,000. In addition, the average hourly earnings for manufacturing production workers have jumped 5.5% year-over-year, pulling back marginally from the fastest pace since 1982 in both March and April (5.7%). At the same time, there were nearly 1 million job openings in the sector in April, a new record, and manufacturing leaders struggle to find enough workers to meet the strong demand they face in the marketplace.

Manufacturers also face significant downside risks in the outlook. The war in Ukraine continues with no obvious end in sight, increasing pricing pressures and potentially tipping Europe into a downturn. COVID-19-related closures and restrictions have slowed growth in China, temporarily halting production and further stressing already-strained supply chain bottlenecks. In addition, consumers and businesses openly worry about a recession next year, largely on concerns that the Federal Reserve might not be able to achieve the “soft landing” that it is seeking—cooling the economy too much as it tackles the worst inflation in 40 years. While a recession is not inevitable—and we continue to forecast growth for 2022 and 2023—the risk of a downturn has increased significantly.

With that as context, the NAM conducted the Manufacturers’ Outlook Survey for the second quarter of 2022 from May 17 to 31, and 82.6% of respondents felt either somewhat or very positive about their company outlook, down from 88.8% in the first quarter (Figures 1 and 2). It was the weakest reading since the fourth quarter of 2020 but remained solid overall. Indeed, it was the sixth consecutive quarter with the business outlook exceeding 80%. The NAM Manufacturing Outlook Index measured 55.0 in the second quarter, down from 59.2 in the first quarter (Figure 3).

Small manufacturers (those with fewer than 50 employees) remained less upbeat in their outlook, with 72.5% positive, than their medium (50 to 499 employees) and large (500 or more employees) manufacturing counterparts, which were 85.5% and 84.8%, respectively (Figure 3). Their expected growth rates for sales, production, employment and capital spending were also significantly lower than their larger peers. Most notably, capital spending expectations for small manufacturers was nearly flat (up 0.4% over the next 12 months), as opposed to 3.2% growth for medium-sized and large firms.

In addition, 59.3% of manufacturing leaders believed inflationary pressures would make a recession more likely in the next 12 months. With soaring prices in focus, both for consumers and businesses, the Federal Open Market Committee is taking extraordinary actions to cool inflationary pressures in the U.S. economy, including aggressive rate hikes and reducing the size of the Federal Reserve’s balance sheet. Respondents were asked if they believe the Federal Reserve could avert a recession in 2022 or 2023. More than 52% felt that the Fed could not prevent a recession over that time—not achieving the “soft landing” that it is seeking—but 36.3% were uncertain (Figure 4).

For the past two years, manufacturers were asked about production, employment and capital spending in the current quarter relative to the previous one (Figure 5 and the following table). This information can be expressed as purchasing managers' indices. The data were consistent with softer—but still strong—growth in manufacturing activity in the second quarter relative to the first quarter. For instance, the percentage reporting higher production eased from 54.2% in the first quarter to 51.1% in the second quarter, with similar trends for employment (down from 42.3% to 41.4%) and capital spending (down from 34.2% to 34.0%).

	Previous PMI	Second Quarter 2022 Relative to First Quarter 2022			
		Higher	No Change	Lower	PMI
<b>Production</b>	71.1	51.1%	36.2%	12.8%	<b>69.1</b>
<b>Employment</b>	68.5	41.4%	49.2%	9.4%	<b>66.0</b>
<b>Capital Spending</b>	62.5	34.0%	58.7%	7.2%	<b>63.4</b>

Manufacturers expect full-time employment to rise 2.9% on average over the next 12 months (Figure 6). This was the slowest pace of growth since the first quarter of 2021, pulling back from March's near-record pace (3.7%). Nonetheless, respondents also anticipate employee wages rising over the next year at 3.8% on average, not far from the 3.9% rate of growth in the prior survey, which was the fastest pace in the survey's history, which dates to the fourth quarter of 1997 (Figure 7).

Meanwhile, manufacturers expect raw material costs to rise 6.9% (Figure 8), inching down from 7.1% in the first quarter but remaining highly elevated. This figure has decelerated from the record 7.5% reading recorded one year ago. Manufacturing companies forecast 5.9% growth in prices for their products over the next 12 months, slipping a bit from March's record inflation rate (6.1%).

Along those lines, increased raw material costs topped the list of primary business challenges in the second quarter (Figure 9), cited by 90.1% of respondents. Three-quarters of manufacturers felt inflationary pressures were worse today than six months ago, with 53.7% noting that higher prices were making it harder to compete and remain profitable. For firms that have had to raise prices, the top sources of inflation were increased raw material prices (97.2%), freight and transportation costs (83.9%), wages and salaries (79.5%) and energy costs (55.9%), with 49.4% also citing a shortage of available workers (Figure 10).

On the list of primary business challenges, supply chain challenges were not far behind inflation as a top concern, cited by 85.5% of respondents. Once again, those completing the survey were asked when they expect supply chain disruptions to abate. Just 14.6% anticipate these disruptions improving by the end of 2022, with 53.1% expecting some abatement in 2023 (Figure 11). As such, more respondents expect supply chain issues to drag on longer than in the previous two surveys. For instance, in the previous survey in March, 40.4% expected supply chain issues would improve in the second half of 2022, with 32.5% predicting some relief from these bottlenecks in the first half of 2023.

Because of worries about slowing U.S. and global growth over the next couple of years, nearly 28% of respondents said they had either reduced their company's outlook for sales growth or for capital spending plans. Almost 17% had slowed their plans for hiring. Yet, it is also notable that 45.3% said that

concern about slower economic growth had not impacted their plans for sales, hiring or capital spending.

In addition to inflation and supply chain issues, other top challenges in the second quarter include the inability to attract and retain a quality workforce (80.7%), transportation and logistics costs (73.2%) and rising health care and insurance costs (52.7%).

On the topic of workforce, 65.1% of respondents said their company was experiencing more separations (including quits and retirements) in recent months than in past years, with nearly one-third suggesting they were not. Retention is a problem, especially in the early months of an employee's career at a manufacturing company, with 24.4% of manufacturers suggesting that the highest separations occurred within two months of the start date (Figure 12). Nearly 53% noted retention challenges for those workers who have been at the company for less than one year.

Nearly 78% of respondents said the most difficult skills to fill in 2022 and beyond were for manufacturing and production roles (Figure 13). Other skills clusters that were the most challenging to hire were in maintenance, repair and installation (41.7%), engineering (40.8%), industry knowledge (36.1%), supply chain and logistics (19.0%) and robotics and other disruptive technologies knowledge (18.1%). With such dramatic skills shortages, 64.7% of manufacturers say their existing workforce has had to work more, likely with increased overtime (Figure 14). Other tactics that have been used include creating or expanding internal training programs (58.1%), encouraging possible retirees to stay longer in their roles (50.6%), collaborating with educational institutions on skills certification programs (50.0%) and utilizing temporary staffing services (48.8%).

With the Russian invasion of Ukraine in mind, 86.5% of manufacturers would be interested in employing Ukrainian refugees who are living in their communities and available to work.

Congress is considering legislation to bolster manufacturing competitiveness with China. More than 88% of respondents said it was important for the federal government to take steps to support the domestic manufacturing sector in the face of increased global competition for industrial investment, with nearly 58% saying "very important" and 30.7% saying "somewhat important."

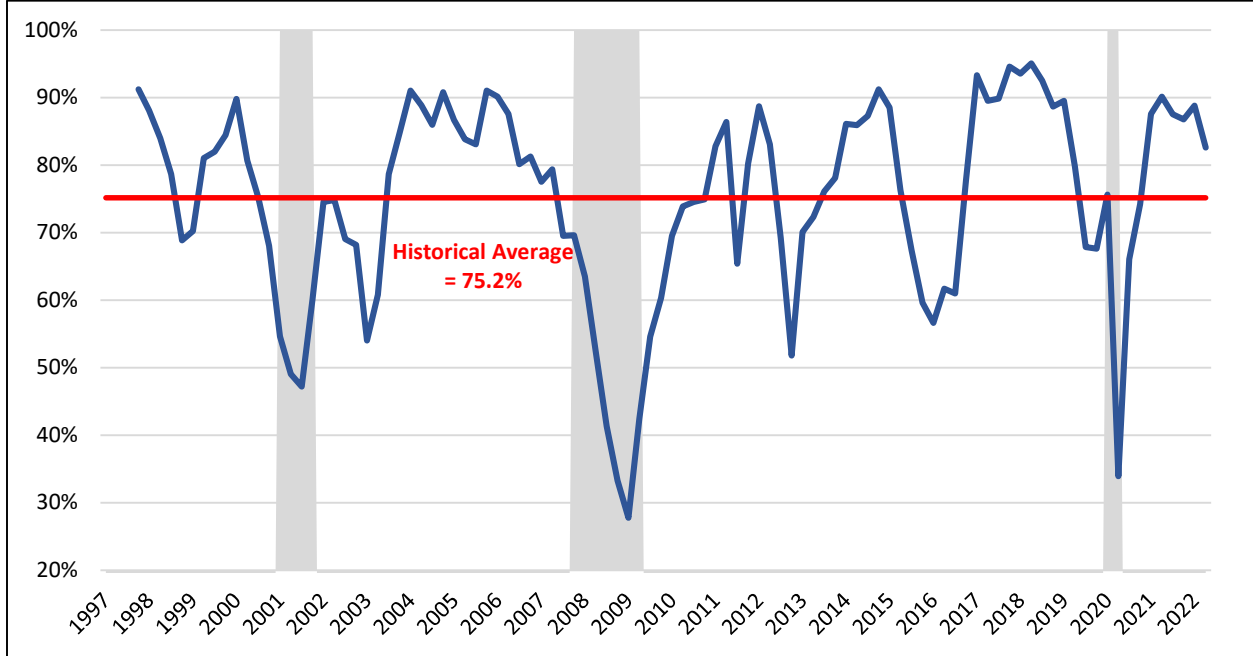
When asked about what aspects of the China competition legislation were most important for supporting manufacturing activity, the top choices were addressing port congestion and competition issues in ocean shipping (70.9%), eliminating ill-conceived labor provisions that facilitate unionization campaigns (61.3%), strengthening U.S. leadership in energy innovation and competitiveness (58.2%), funding to increase domestic semiconductor production capacity (57.9%), investments to support the critical minerals supply chain (55.7%) and ensuring the tax code provides a full deduction for research expenses (48.3%), among others (Figure 15).

With Congress considering legislation that would increase taxes on income from manufacturing activities, 88.5% of respondents said 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 increased.

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

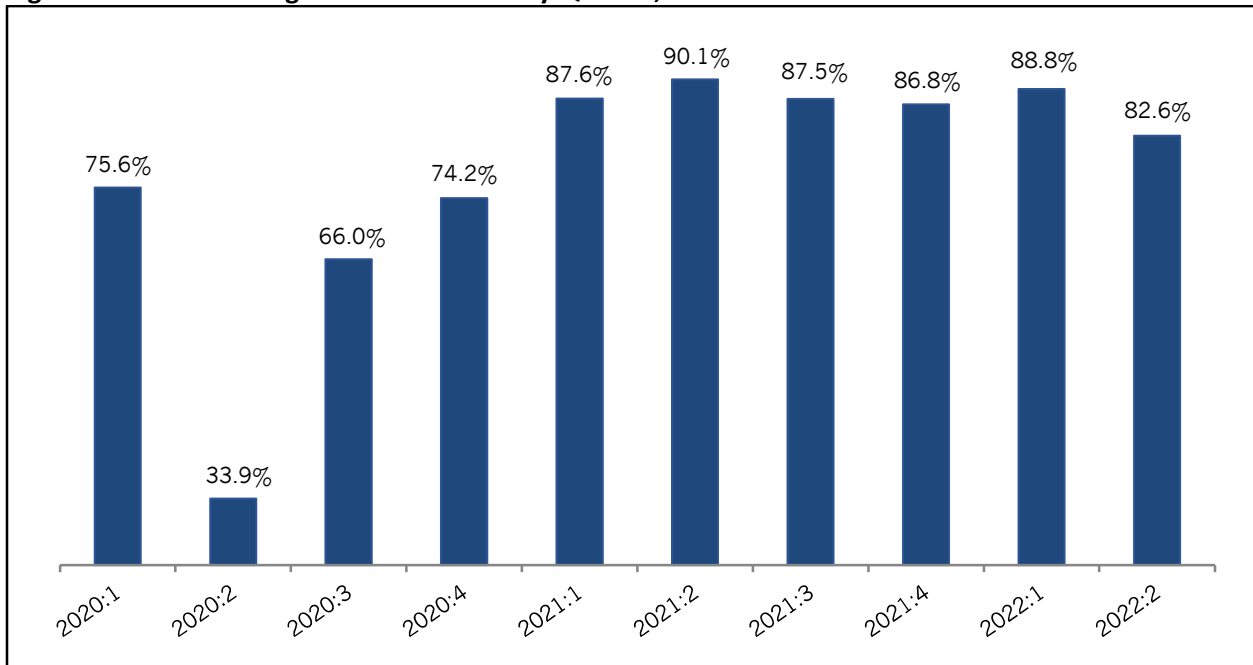
- **Sales:** Respondents expect sales to rise 4.6% over the next 12 months, down from 6.1% in the first quarter and the slowest pace since the fourth quarter of 2020. It remains a solid figure, however. Almost 72% of manufacturers predict sales will increase over the next four quarters, with 56% feeling orders will rise 5% or more. Firm size mattered in the data. Medium and large manufacturers anticipate sales rising 5.1%, whereas small firms forecast increases of 2.8%.
- **Production:** Respondents expect production to increase 4.3% over the next 12 months, down from 5.6% in the previous survey and also a six-quarter low. Nearly 72% forecast output to rise over the coming months, with 9.0% seeing declining production. Medium and large manufacturers felt the most optimistic, anticipating 4.8% growth in production over the next 12 months. In contrast, small businesses expect output to rise 2.6%.
- **Full-Time Employment:** Respondents expect full-time employment to rise 2.9% over the next 12 months, down from 3.7% in the first quarter. Sixty percent anticipate more full-time hiring over the next year, with 29.1% predicting employment growth of 5% or more. Just 6.6% expect employment reductions. Medium-sized and large manufacturers felt the most upbeat in their hiring plans, predicting 3.2% growth over the next 12 months. In contrast, small firms expect employment to rise 1.7%.
- **Employee Wages:** Respondents anticipate employee wages (excluding nonwage compensation, such as benefits) to rise 3.8% over the next 12 months, just below the 3.9% pace in the first quarter, which was the fastest rate in the survey's history (Figure 6). Overall, 31.6% see wages rising by more than 5%, with 81.3% predicting an increase of at least 3%. The expected wage increases were larger for medium manufacturers, up 4.1% over the next year, with small and large firms predicting 3.2% and 3.7%, respectively.
- **Capital Investments:** Respondents expect capital spending to rise 2.6% over the next 12 months, down from 3.8% in the previous survey, which was the best pace since the second quarter of 2018. In this survey, 47.6% expect additional capital spending in the next year, with 38.0% predicting no change and 14.5% forecasting reduced capital expenditures. By firm size, medium and large manufacturers see capital spending increasing 3.2% over the next year, but the smallest firms predict growth of just 0.4%. For small manufacturers, 31.9% forecast capital expenditure growth over the next 12 months, with 43.5% seeing no change and 24.6% predicting declines.
- **Exports:** Respondents expect exports to increase 0.7% over the next 12 months, down from 1.1% in the previous survey. Overall, 30.0% anticipate higher exports in the next year, with 59.0% seeing no changes.
- **Inventories:** Respondents anticipate 1.3% growth in inventories over the next 12 months, down from 2.4% in the first quarter and increasing for the seventh straight quarter. Forty-one percent of manufacturers expect increased inventories over the next year, with 23.2% predicting decreases and 35.8% seeing no changes.
- **Health Insurance Costs:** Manufacturers predict health insurance costs will rise 7.8% over the next 12 months, edging down from 7.9% in the first quarter. In the latest figures, nearly 74% expect costs to increase 5% or more, including 33.9% seeing costs rising 10% or more.

**Figure 1: Manufacturing Business Outlook by Quarter, 1997–2022**  
*(Recessions Are Highlighted with Gray Shading)*



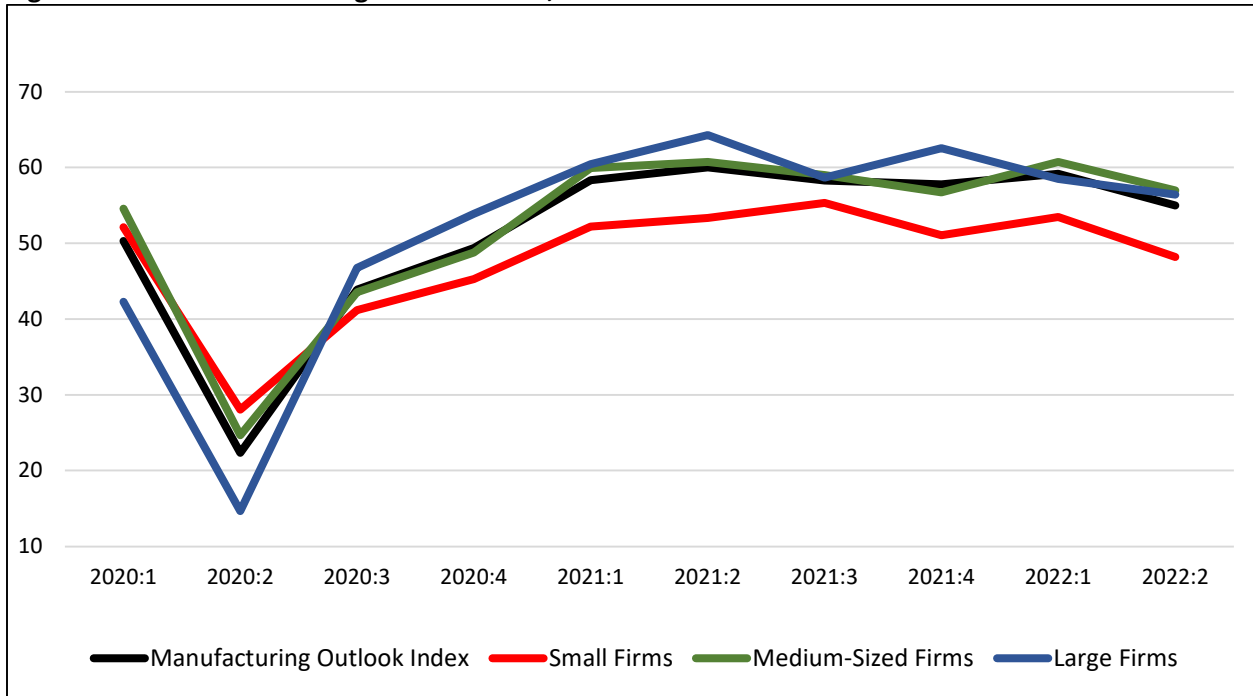
Note: Percentage of respondents who characterized the current business outlook as somewhat or very positive. Recessions are designated by the National Bureau of Economic Research.

**Figure 2: Manufacturing Business Outlook by Quarter, 2020–2022**

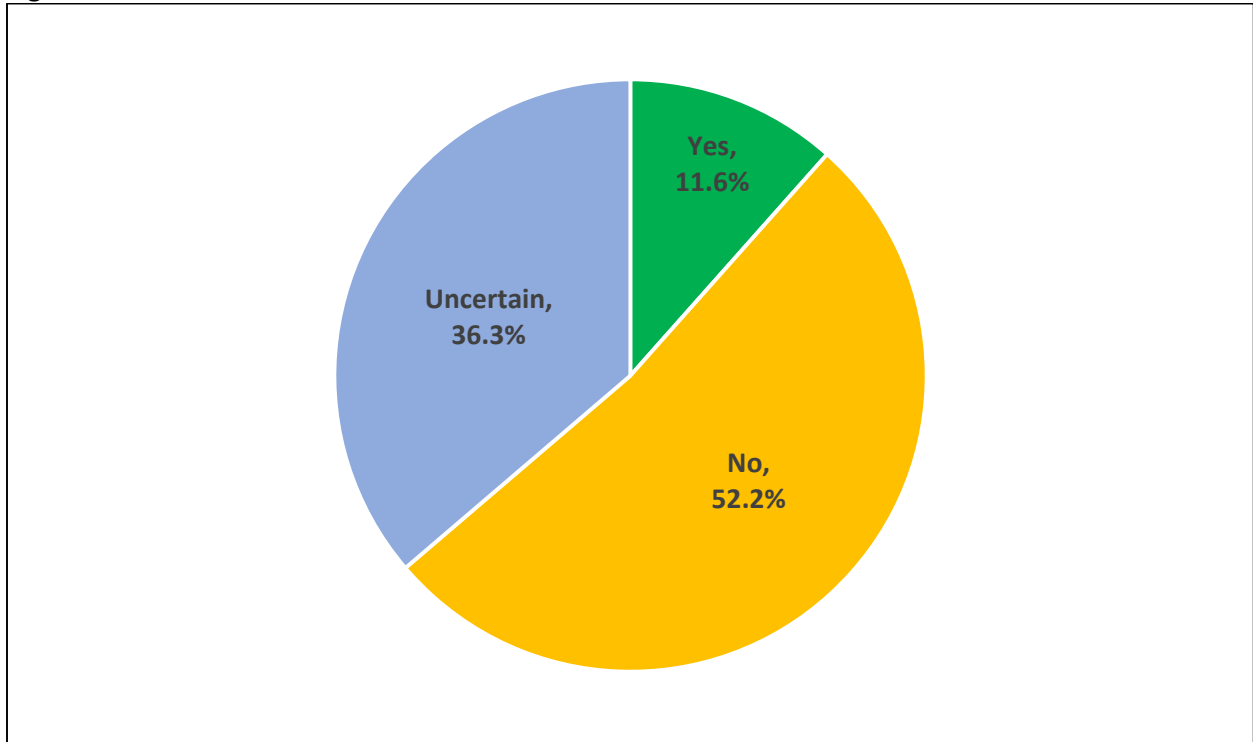


Note: Percentage of respondents who characterized the current business outlook as somewhat or very positive.

**Figure 3: NAM Manufacturing Outlook Index, 2020–2022**

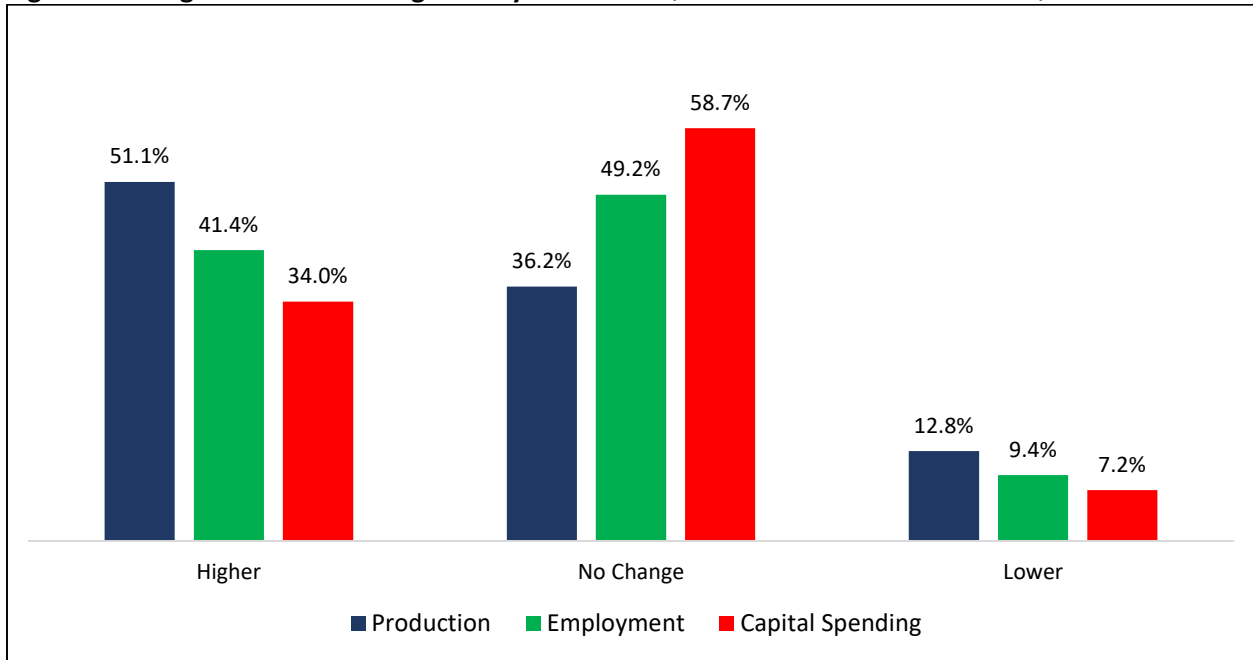


**Figure 4: “Do You Think That the Federal Reserve Will Be Able to Avert a Recession in 2022 or 2023?”**

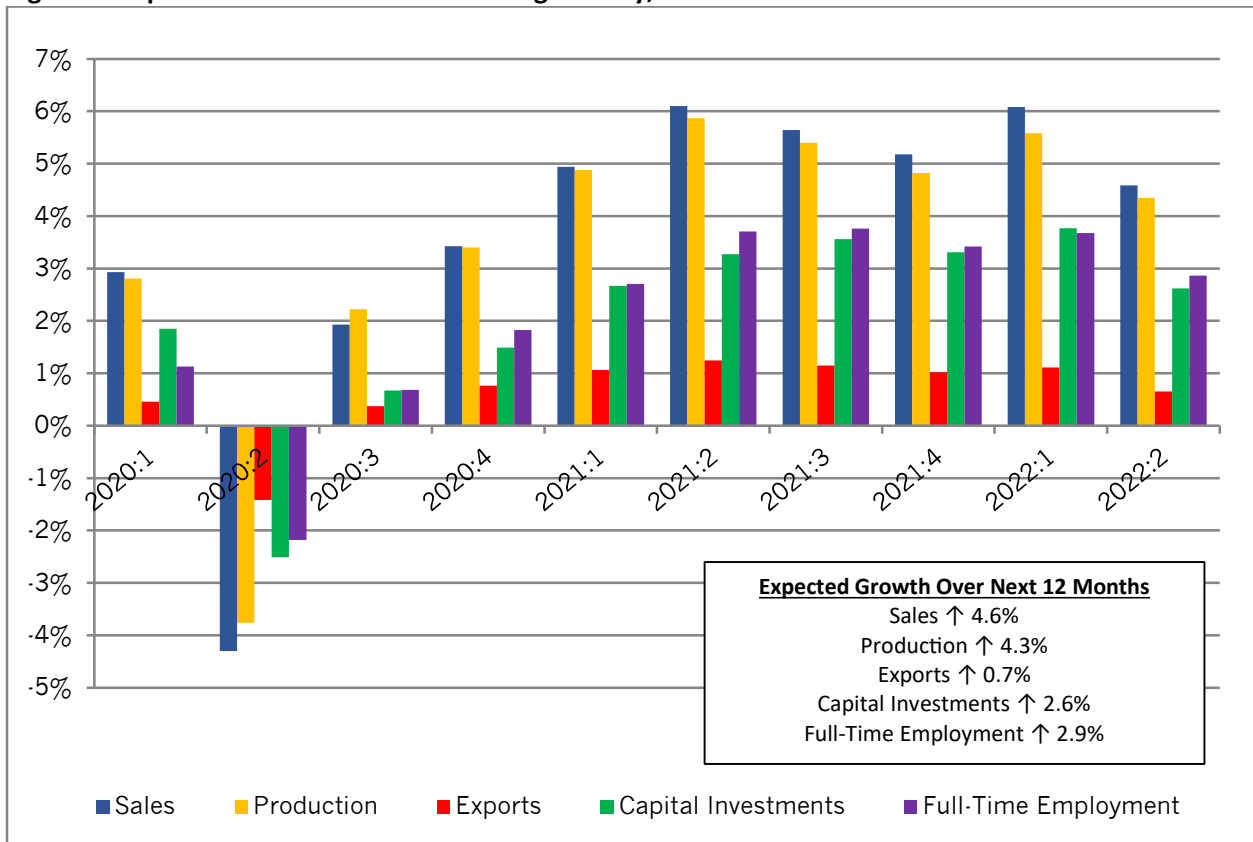


*Note: Total exceeds 100% due to rounding.*

**Figure 5: Change in Manufacturing Activity in Second Quarter 2022 Relative to First Quarter 2022**



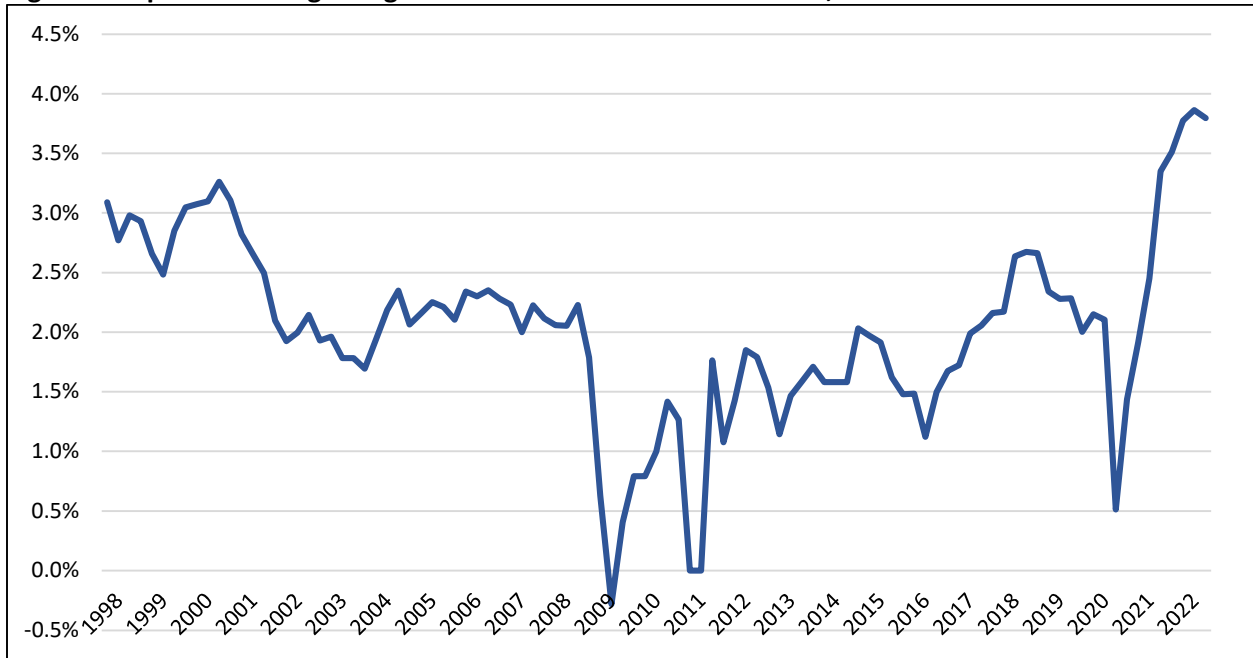
**Figure 6: Expected Growth of Manufacturing Activity, 2020–2022**



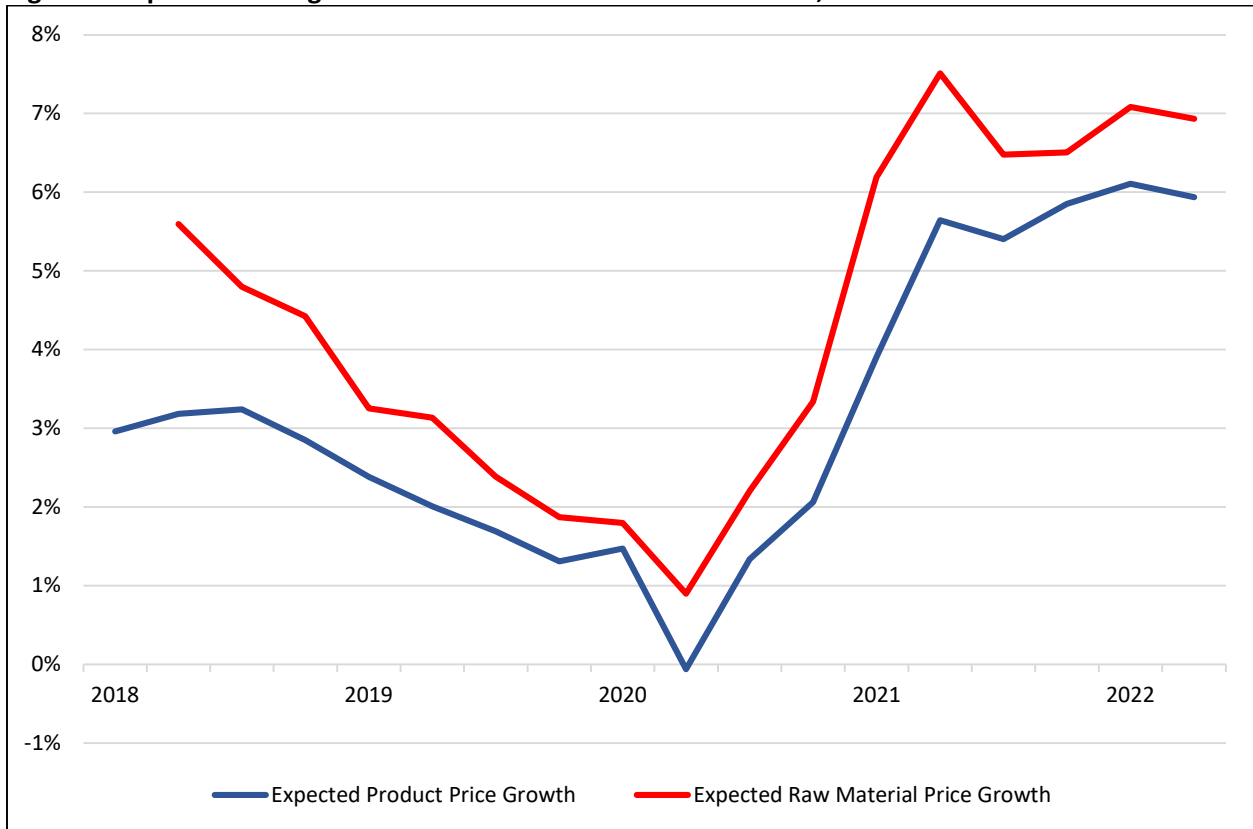
Note: Expected growth rates are annual averages.



**Figure 7: Expected Average Wage Growth Over the Next 12 Months, 1998–2022**

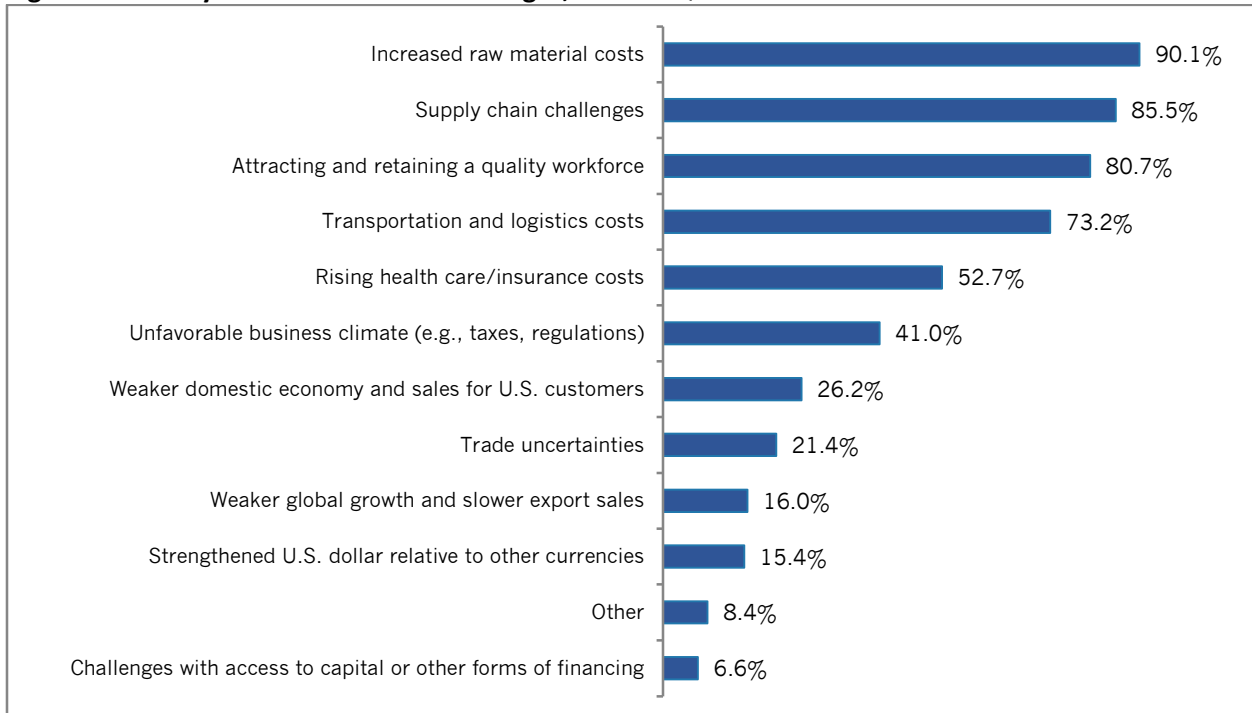


**Figure 8: Expected Average Price Growth Over the Next 12 Months, 2018–2022**



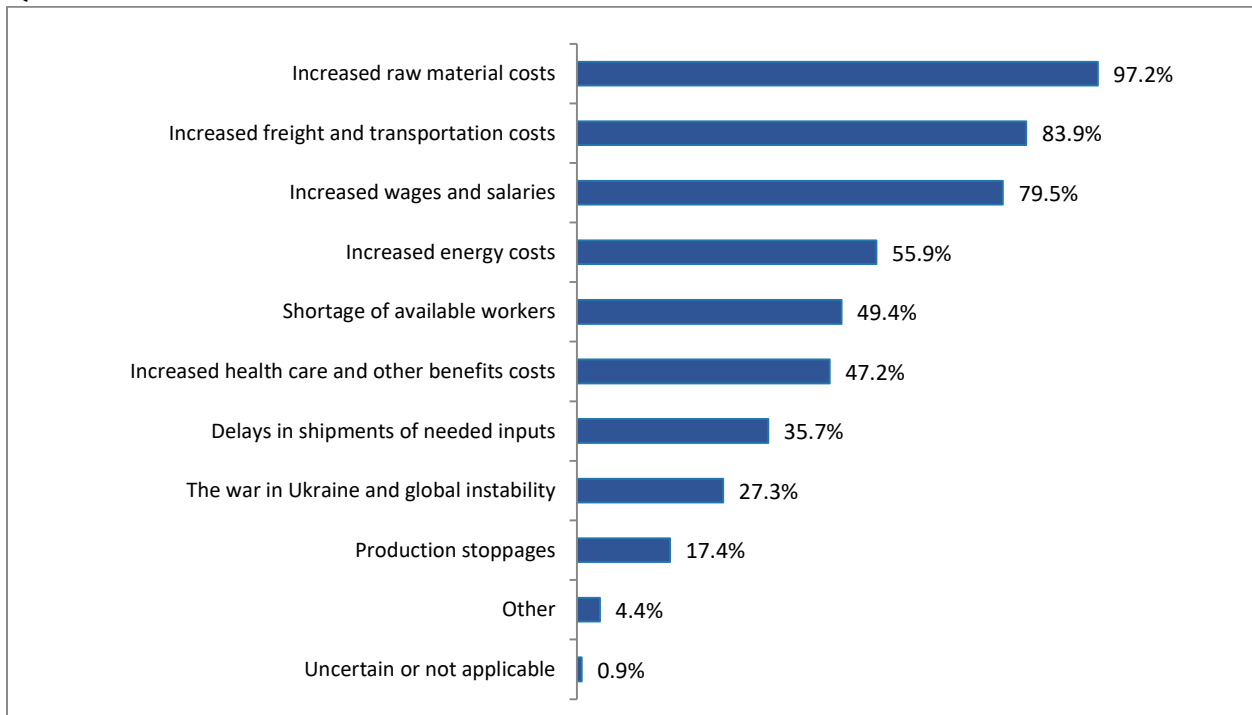
Note: Expected growth rates are annual averages. Expected raw material price growth data begin in Q2:2018.

**Figure 9: Primary Current Business Challenges, Second Quarter 2022**



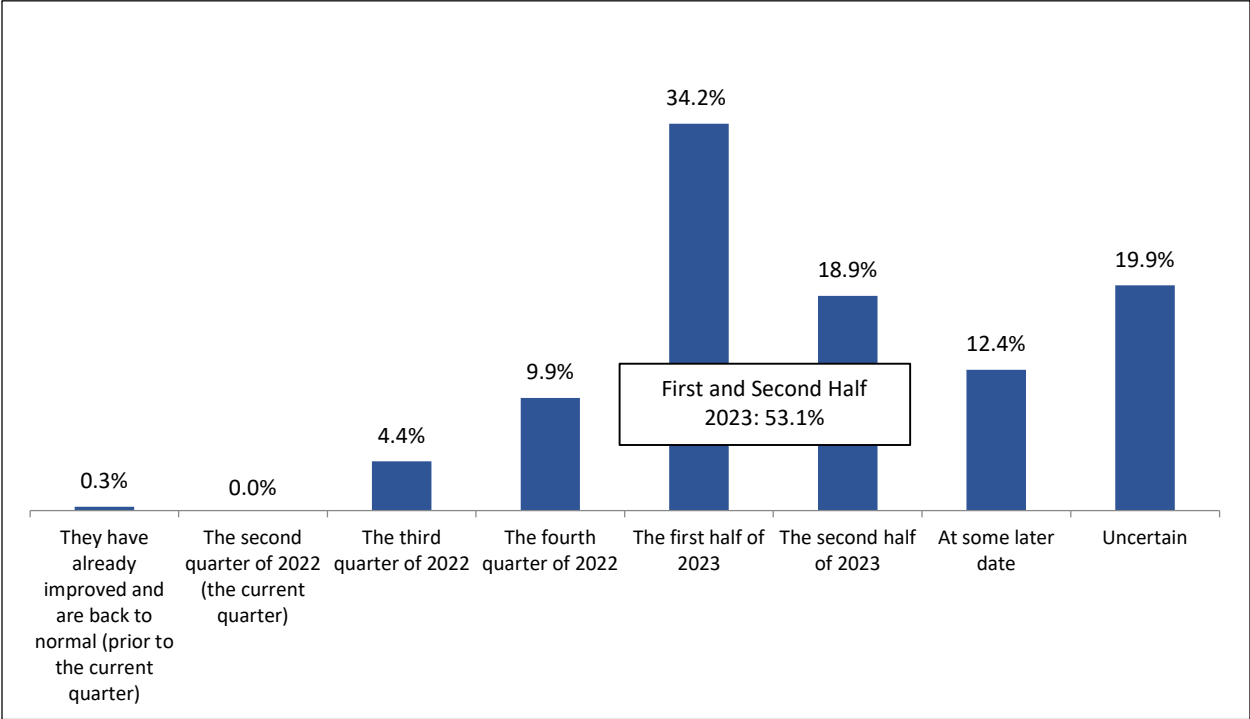
*Note: Respondents were able to check more than one response; therefore, responses exceed 100%.*

**Figure 10: What Has Driven Inflation for Manufacturers for Firms Raising Product Prices, Second Quarter 2022**

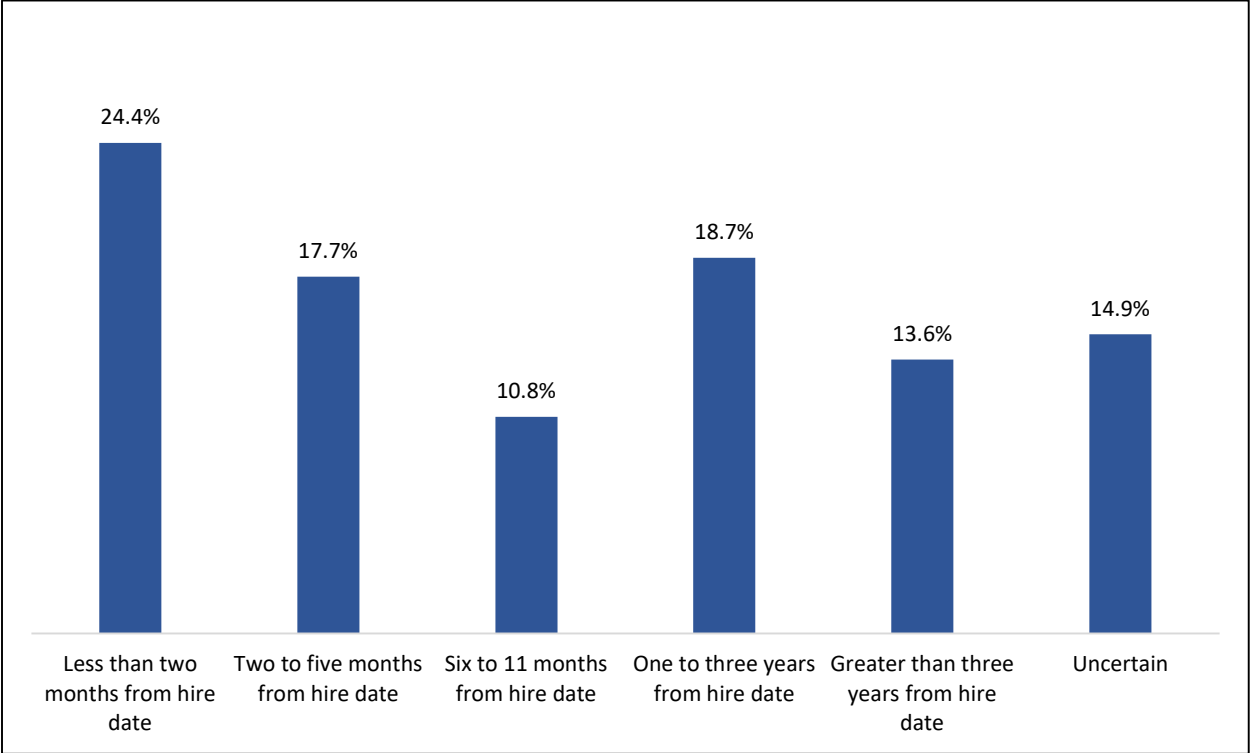


*Note: Respondents were able to check more than one response; therefore, responses exceed 100%.*

**Figure 11: When Firms Expect Supply Chain Disruptions to Abate**

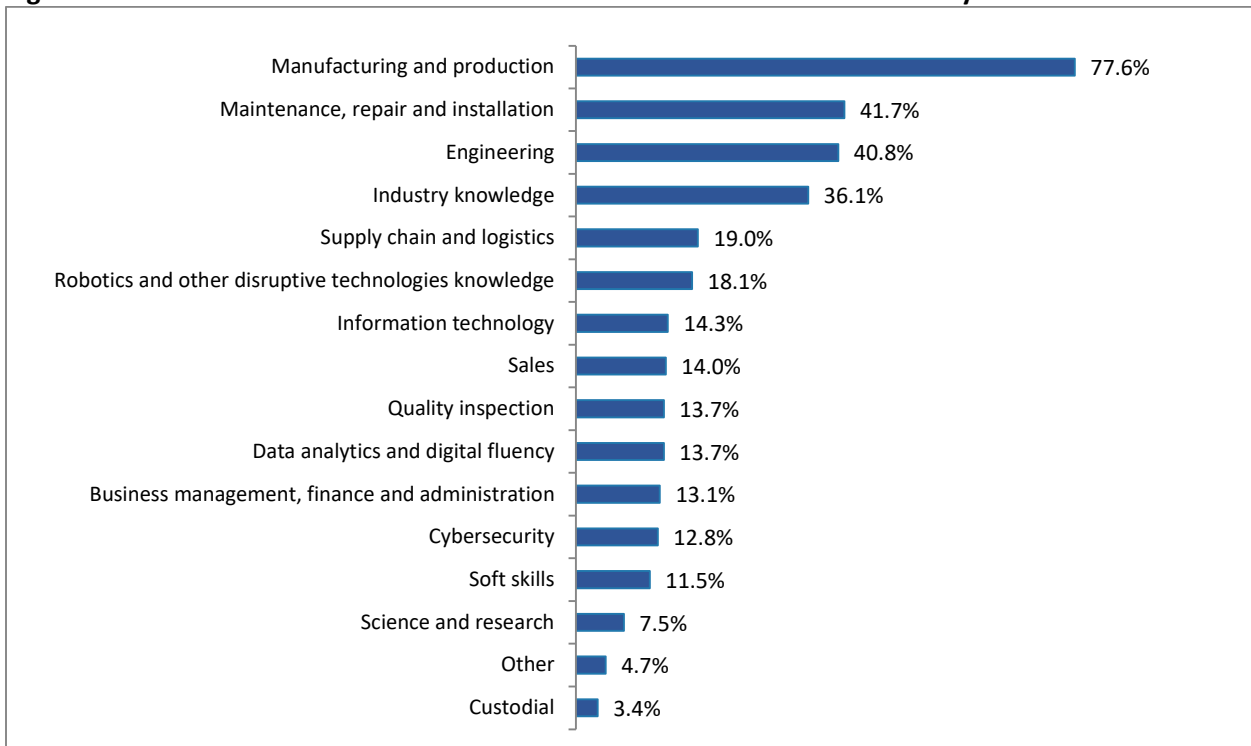


**Figure 12: Employee Groups by Seniority Seeing the Most Separations**



*Note: Total exceeds 100% due to rounding.*

**Figure 13: Most Difficult Skills Clusters for Manufacturers to Fill in 2022 and Beyond**



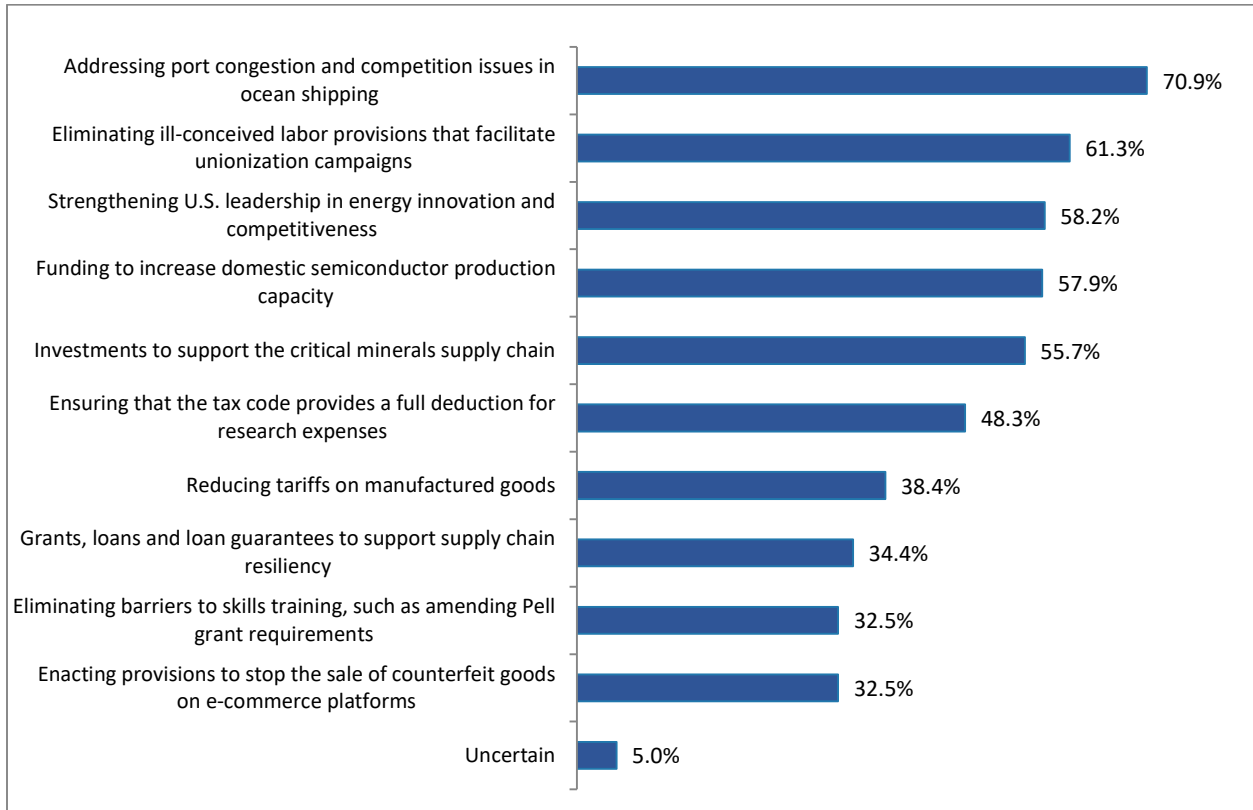
*Note: Respondents were able to check more than one response; therefore, responses exceed 100%.*

**Figure 14: How Manufacturers Are Addressing the Skills Shortage at Their Companies**



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

**Figure 15: Aspects of the China Competition Legislation That Are Important to Supporting Manufacturers**



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

## Survey Responses

1. How would you characterize the business outlook for your firm right now?
  - a. Very positive – 23.42%
  - b. Somewhat positive – 59.16%
  - c. Somewhat negative – 16.22%
  - d. Very negative – 1.20%

*Percentage that is either somewhat or very positive in their outlook = 82.58%*

2. Over the next year, what do you expect to happen with your company's overall sales?
  - a. Increase more than 10 percent – 23.19%
  - b. Increase 5 to 10 percent – 32.83%
  - c. Increase up to 5 percent – 15.96%
  - d. Stay about the same – 17.47%
  - e. Decrease up to 5 percent – 4.82%
  - f. Decrease 5 to 10 percent – 3.92%
  - g. Decrease more than 10 percent – 1.81%

*Average expected increase in sales consistent with these responses = 4.58%*

3. Over the next year, what do you expect to happen with your company's overall production levels?
  - a. Increase more than 10 percent – 19.22%
  - b. Increase 5 to 10 percent – 32.73%
  - c. Increase up to 5 percent – 19.22%
  - d. Stay about the same – 19.82%
  - e. Decrease up to 5 percent – 3.90%
  - f. Decrease 5 to 10 percent – 3.90%
  - g. Decrease more than 10 percent – 1.20%

*Average expected increase in production consistent with these responses = 4.35%*

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 – 8.87%
  - b. Increase 3 to 5 percent – 11.01%
  - c. Increase up to 3 percent – 10.09%
  - d. Stay about the same – 59.02%
  - e. Decrease up to 3 percent – 3.67%
  - f. Decrease 3 to 5 percent – 4.28%
  - g. Decrease more than 5 percent – 3.06%

*Average expected increase in exports consistent with these responses = 0.66%*

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 – 21.39%
  - b. Increase 5 to 10 percent – 44.28%
  - c. Increase up to 5 percent – 22.29%
  - d. Stay about the same – 9.94%
  - e. Decrease up to 5 percent – 1.51%
  - f. Decrease 5 to 10 percent – 0.60%
  - g. Decrease more than 10 percent – none

*Average expected increase in product prices consistent with these responses = 5.94%*

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 – 41.09%
  - b. Increase 5 to 10 percent – 35.95%
  - c. Increase up to 5 percent – 14.20%
  - d. Stay about the same – 4.23%
  - e. Decrease up to 5 percent – 2.42%
  - f. Decrease 5 to 10 percent – 1.81%
  - g. Decrease more than 10 percent – 0.30%

*Average expected increase in raw material prices consistent with these responses = 6.93%*

7. Over the next year, what are your company's capital investment plans?
  - a. Increase more than 10 percent – 22.59%
  - b. Increase 5 to 10 percent – 12.95%
  - c. Increase up to 5 percent – 12.05%
  - d. Stay about the same – 37.95%
  - e. Decrease up to 5 percent – 6.63%
  - f. Decrease 5 to 10 percent – 1.51%
  - g. Decrease more than 10 percent – 6.33%

*Average expected increase in capital investments consistent with these responses = 2.62%*

8. Over the next year, what are your inventory plans?
  - a. Increase more than 10 percent – 11.75%
  - b. Increase 5 to 10 percent – 13.86%
  - c. Increase up to 5 percent – 15.36%
  - d. Stay about the same – 35.84%
  - e. Decrease up to 5 percent – 9.64%
  - f. Decrease 5 to 10 percent – 9.94%
  - g. Decrease more than 10 percent – 3.61%

*Average expected increase in inventories consistent with these responses = 1.25%*

9. Over the next year, what do you expect in terms of full-time employment in your company?
  - a. Increase more than 10 percent – 8.41%
  - b. Increase 5 to 10 percent – 20.72%
  - c. Increase up to 5 percent – 30.93%
  - d. Stay about the same – 33.33%
  - e. Decrease up to 5 percent – 4.20%
  - f. Decrease 5 to 10 percent – 1.50%
  - g. Decrease more than 10 percent – 0.90%

*Average expected increase in full-time employment consistent with these responses = 2.86%*

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 – 31.63%
  - b. Increase 3 to 5 percent – 49.70%
  - c. Increase up to 3 percent – 15.06%
  - d. Stay about the same – 3.61%
  - 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 = 3.80%*

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 – 10.00%
  - b. Increase 10.0 to 14.9 percent – 23.94%
  - c. Increase 5.0 to 9.9 percent – 39.70%
  - d. Increase less than 5.0 percent – 16.97%
  - e. No change – 4.24%
  - f. Decrease less than 5.0 percent – 1.82%
  - g. Decrease 5.0 percent or more – none
  - h. Uncertain – 3.33%

*Average expected increase in health insurance costs consistent with these responses = 7.85%*

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 – 26.20%
  - b. Weaker global growth and slower export sales – 15.96%
  - c. Trade uncertainties (e.g., actual or proposed tariffs, trade negotiation uncertainty) – 21.39%
  - d. Strengthened U.S. dollar relative to other currencies – 15.36%
  - e. Challenges with access to capital or other forms of financing – 6.63%
  - f. Unfavorable business climate (e.g., taxes, regulations) – 40.96%
  - g. Increased raw material costs – 90.06%
  - h. Rising health care/insurance costs – 52.71%
  - i. Transportation and logistics costs – 73.19%
  - j. Supply chain challenges – 85.54%
  - k. Attracting and retaining a quality workforce – 80.72%
  - l. Other – 8.43%

13. What is your company's primary industrial classification?
- a. Chemicals – 7.81%
  - b. Computer and electronic products – 3.30%
  - c. Electrical equipment and appliances – 5.11%
  - d. Fabricated metal products – 26.43%
  - e. Food manufacturing – 2.10%
  - f. Furniture and related products – 1.50%
  - g. Machinery – 15.32%
  - h. Nonmetallic mineral products – 2.10%
  - i. Paper and paper products – 1.80%
  - j. Petroleum and coal products – 0.60%
  - k. Plastics and rubber products – 5.11%
  - l. Primary metals – 3.60%
  - m. Transportation equipment – 4.80%
  - n. Wood products – 1.80%
  - o. Other – 18.62%

14. What is your firm size (e.g., the parent company, not your establishment)?
- a. Fewer than 50 employees – 20.48%
  - b. 50 to 499 employees – 47.89%
  - c. 500 or more employees – 31.63%
  - d. Uncertain – none



15. How would you characterize **production** in the second quarter relative to the first quarter?
- a. Higher – 51.06%
  - b. No change – 36.17%
  - c. Lower – 12.77%

*Production Purchasing Managers' Index = 69.15*

16. How would you characterize **employment** in the second quarter relative to the first quarter?
- a. Higher – 41.39%
  - b. No change – 49.24%
  - c. Lower – 9.37%

*Employment Purchasing Managers' Index = 66.01*

17. How would you characterize **capital spending** in the second quarter relative to the first quarter?
- a. Higher – 34.04%
  - b. No change – 58.73%
  - c. Lower – 7.23%

*Capital Spending Purchasing Managers' Index = 63.41*

### **SPECIAL QUESTIONS**

18. When do you expect that supply chain disruptions will abate?
- a. They have already improved and are back to normal (prior to the current quarter) – 0.31%
  - b. The second quarter of 2022 (the current quarter) – none
  - c. The third quarter of 2022 – 4.35%
  - d. The fourth quarter of 2022 – 9.94%
  - e. The first half of 2023 – 34.16%
  - f. The second half of 2023 – 18.94%
  - g. At some later date – 12.42%
  - h. Uncertain – 19.88%
19. Which statements best describe your company's views of inflation? (Select all that apply.)
- a. Inflationary pressures make it harder to compete and to remain profitable – 53.70%
  - b. Inflationary pressures make a recession likely in the next 12 months – 59.26%
  - c. Inflationary pressures are worse today than six months ago – 75.31%
  - d. Inflationary pressures are about the same today as six months ago – 9.26%
  - e. Inflationary pressures have improved somewhat today relative to six months ago – 2.47%
  - f. Other – 3.40%
  - g. Uncertain – 3.40%
20. If you have increased prices, what has driven this inflation? (Select all that apply.)
- a. Increased raw material costs – 97.20%
  - b. Delays in shipments of needed inputs – 35.71%
  - c. Increased freight and transportation costs – 83.85%
  - d. Increased energy costs – 55.90%
  - e. Shortage of available workers – 49.38%
  - f. Increased wages and salaries – 79.50%
  - g. Increased health care and other benefits costs – 47.20%
  - h. The war in Ukraine and global instability – 27.33%

- i. Production stoppages – 17.39%
  - j. Other – 4.35%
  - k. Uncertain or not applicable – 0.93%
21. The Federal Open Market Committee is taking extraordinary actions to cool inflationary pressures in the U.S. economy, including rate hikes and reducing the size of its balance sheet. Do you think that the Federal Reserve will be able to avert a recession in 2022 or 2023?
- a. Yes – 11.56%
  - b. No – 52.19%
  - c. Uncertain – 36.25%
22. Because of worries about slowing U.S. and global economic growth over the next couple years, my company has done the following: (Select all that apply.)
- a. Reduced our company’s outlook for sales growth – 27.95%
  - b. Slowed our plans for hiring – 16.77%
  - c. Slowed our plans for capital spending – 27.95%
  - d. Not impacted our outlook for sales, hiring or capital spending – 45.34%
  - e. Uncertain – 10.87%
23. Congress is considering legislation to bolster manufacturing competitiveness with China. How important is it that the federal government take steps to support the domestic manufacturing sector in the face of increased global competition for industrial investment?
- a. Very important – 57.89%
  - b. Somewhat important – 30.65%
  - c. Not very important – 4.64%
  - d. Not important at all – 3.10%
  - e. Uncertain – 3.72%
24. The China competition legislation being considered in Congress contains a number of policies. Which of the following are important to supporting manufacturers? (Select all that apply.)
- a. Funding to increase domestic semiconductor production capacity – 57.89%
  - b. Grants, loans and loan guarantees to support supply chain resiliency – 34.37%
  - c. Addressing port congestion and competition issues in ocean shipping – 70.90%
  - d. Enacting provisions to stop the sale of counterfeit goods on e-commerce platforms – 32.51%
  - e. Reducing tariffs on manufactured goods – 38.39%
  - f. Ensuring that the tax code provides a full deduction for research expenses – 48.30%
  - g. Strengthening U.S. leadership in energy innovation and competitiveness – 58.20%
  - h. Investments to support the critical minerals supply chain – 55.73%
  - i. Eliminating barriers to skills training, such as amending Pell grant requirements – 32.51%
  - j. Eliminating ill-conceived labor provisions that facilitate unionization campaigns – 61.30%
  - k. Uncertain – 4.95%
25. Regarding employee retention, is your company experiencing more separations (including quits and retirements) in recent months relative to past years?
- a. Yes – 65.11%
  - b. No – 32.71%
  - c. Uncertain – 2.18%
26. Regarding employee retention, which employee groups by seniority are seeing the most separations?
- a. Less than two months from hire date – 24.37%
  - b. Two to five months from hire date – 17.72%
  - c. Six to 11 months from hire date – 10.76%
  - d. One to three years from hire date – 18.67%

- e. Greater than three years from hire date – 13.61%
  - f. Uncertain – 14.87%
27. What are the types of skills that you see as the most difficult to fill for your company in 2022 and beyond? (Select all that apply.)
- a. Business management, finance and administration – 13.08%
  - b. Cybersecurity – 12.77%
  - c. Data analytics and digital fluency – 13.71%
  - d. Engineering – 40.81%
  - e. Industry knowledge – 36.14%
  - f. Information technology – 14.33%
  - g. Maintenance, repair and installation – 41.74%
  - h. Custodial – 3.43%
  - i. Manufacturing and production – 77.57%
  - j. Quality inspection – 13.71%
  - k. Robotics and other disruptive technologies knowledge – 18.07%
  - l. Sales – 14.02%
  - m. Science and research – 7.48%
  - n. Soft skills – 11.53%
  - o. Supply chain and logistics – 19.00%
  - p. Other – 4.67%
28. If you are unable to find the talent that you need, with open job postings that remain unfilled, how would you address the skills shortage? (Select all that apply.)
- a. Work existing workforce more – 64.69%
  - b. Create or expand internal training programs – 58.13%
  - c. Encourage possible retirees to stay longer in their roles – 50.63%
  - d. Collaborate with educational institutions on skills certification programs – 50.00%
  - e. Utilize temporary staffing services – 48.75%
  - f. Work with local employment office – 29.06%
  - g. Consider moving operations to another location – 17.50%
  - h. Utilize a nonimmigrant visa program – 12.19%
  - i. Other – 8.75%
  - j. Uncertain – 9.38%
29. If Ukrainian refugees are living in your community and available to work, would you be interested in employing them at your company?
- a. Yes – 86.48%
  - b. No – 1.57%
  - c. Uncertain – 11.95%
30. 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 – 88.47%
  - b. No – 11.53%