

Global Supply Chains in Chaos

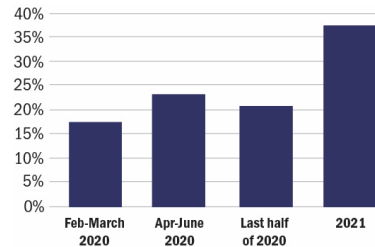
What NFPA Members Told Us About Their Pandemic Experience

It's no secret that supply chains have been disrupted during this global pandemic. Manufacturers have been scrambling to meet either unusually high demand or a huge drop in demand, and business has changed in other ways, too

NFPA, together with the Reshoring Institute, surveyed 85 NFPA members across the country to gauge how they handled issues during the pandemic and how they are planning for the future. The survey uncovered remarkable insights into strategy, best practices, and areas of risk. Here are the results of the survey.



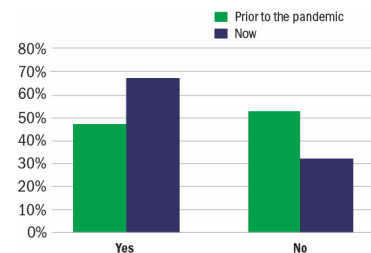
When did you start seeing issues with supply chain/suppliers



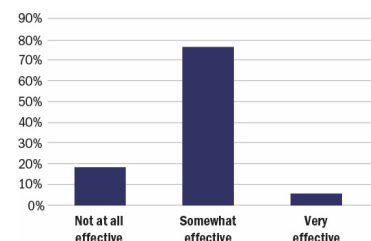
"Persistent logistics delays actually started in December, 2019"

Over 40% of the respondents began to have supply chain issues in the first half of 2020.

Did you have a disaster/business continuity plan in place before the pandemic? How effective in mitigating supply chain problems was the plan?

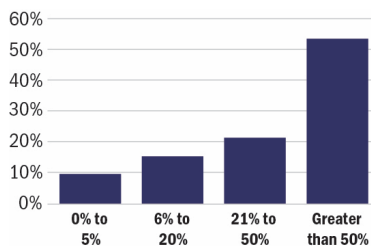


"Prior to the pandemic, our plans did not account for global disruption for such an extended period."



We asked companies if they had a disaster plan in place pre-pandemic to address these global supply chain issues and 53% said no. 68% of respondents said that their plan was only somewhat effective or not effective at all.

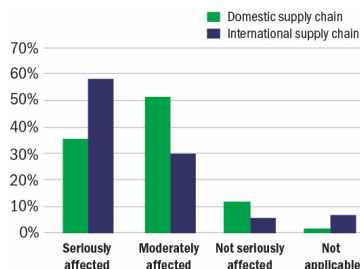
What percent of your suppliers are domestic?



"We don't import much directly, but the disfunction in international supply chains drives disfunction in domestic supply chains."

When the pandemic started, many respondents were sourcing parts and raw materials overseas and were seriously affected by global supply chain problems.

To what extent was your company affected by domestic and international supply chain problems?

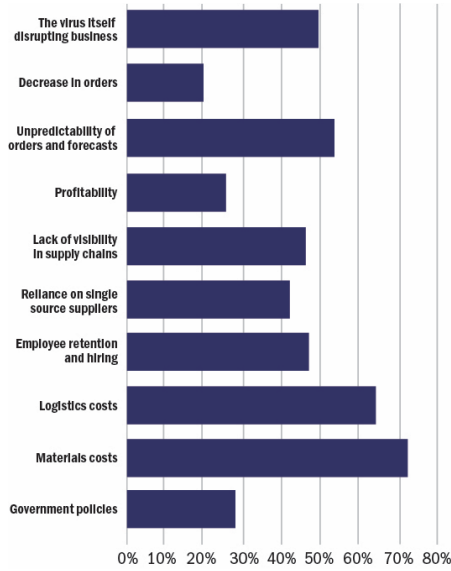


"We've experienced an additional 60-90 days lead time on 30% of products"

The data shows that when a company uses a domestic supplier there was smoother sailing for those organizations. Of 84 responses 58% said their international supply chains were seriously affected during the pandemic.

Which of the following had a major impact on your business?

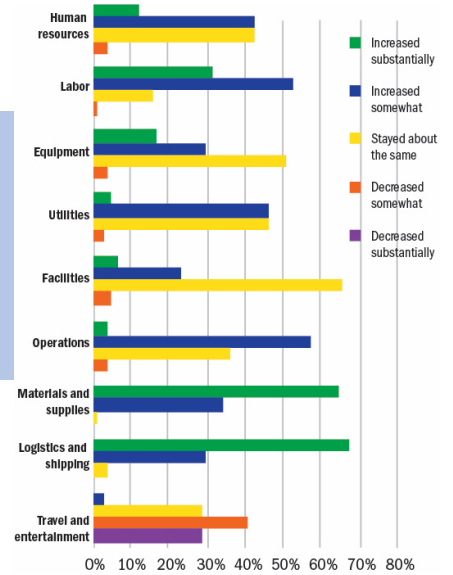
“Our past due invoices from suppliers are 10x what they have ever been.”



During the pandemic, 71% of respondents indicated that materials cost increased and that had a major impact. Logistics cost increases were also a major concern with 63%. The unpredictability of orders and employee retention were also significant factors.

Relative to sales, did your spending increase or decrease over the past year?

“Adding inventory and the use of air freight greatly increased our costs”

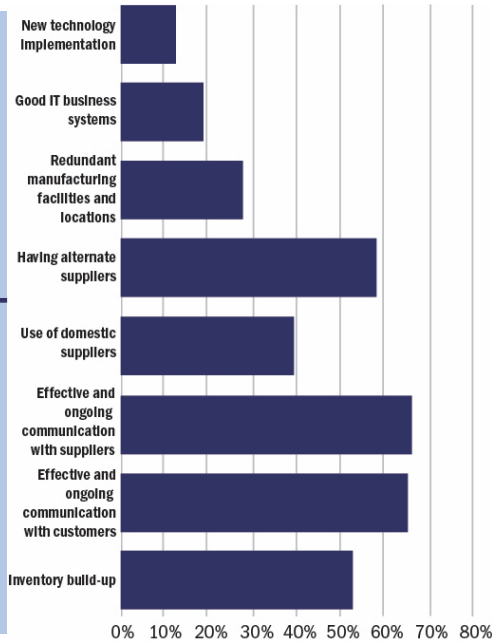


Decreased spending on travel ranked at the top. Spending increased significantly on materials and logistics, and somewhat on labor.

What worked well for your business in managing supply chain difficulties?

“We had a team meeting every day to address component issues that directly affect our ability to ship to customers on time.”

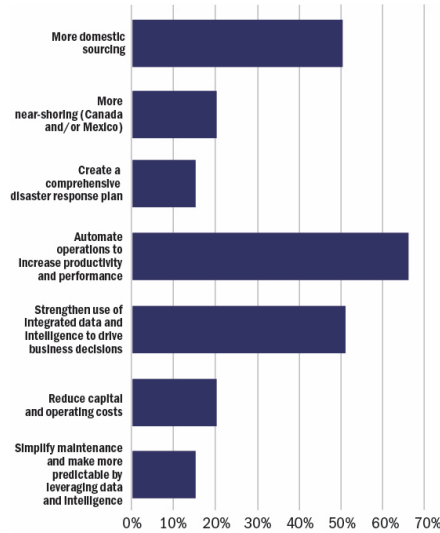
“We introduced redundancy for suppliers of critical components, authorized air shipments, and increased inventory of critical components.”



The use of alternate and domestic suppliers was a successful strategy, with 67% of respondents indicating that effective supplier communication was important and worked well. 66% said that communicating with customers was also very important.

Which of the following are in your plans for the near future?

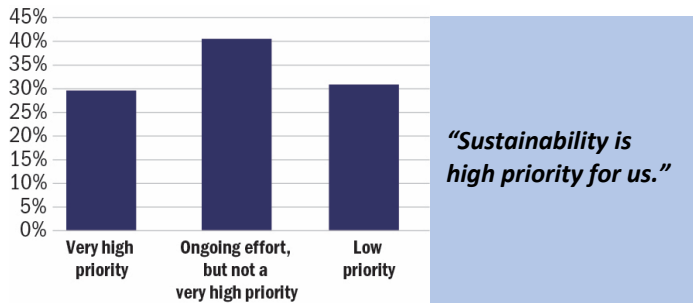
“We are planning on expanding USA manufacturing to reduce offshore production.”



Once the facts of the pandemic were revealed, we asked the respondents what they intended to do next? 66% said they intended to implement more automation to improve productivity and performance. 51% said they intended to strengthen the use of data and intelligence to drive business decisions. These two key strategies are likely to increase the need for investment capital.

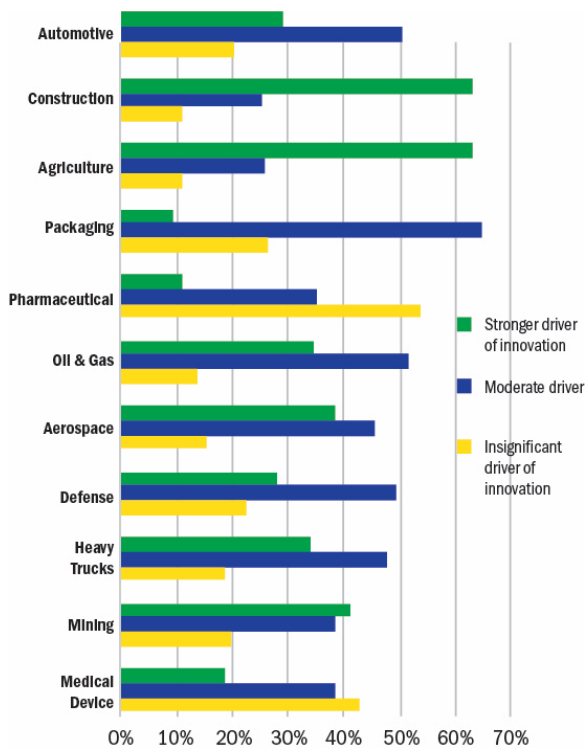
Across many surveys of American manufacturers, as is the case in this survey, American companies are steadily increasing their domestic sourcing of raw materials and parts and actively considering reshoring. This strategy mitigates risk and shortens supply chains.

How important is sustainability/environmental impact to your company's strategic plans?



Environmental impact is on most company's executive agendas. 69% of respondents indicated that environmental and sustainability were on the agenda and were an ongoing effort or very high priority. This is an area that is likely to be subject to increasing attention and spending.

To what extent do the following industries drive innovation in fluid power?



Driving innovation is a key strategy in NFPA member companies. We asked which industries are frontrunners in driving innovation and are likely to drive continuous development and improvement at NFPA member companies. Construction, Agriculture, Aerospace, and Mining ranked the highest.

WHAT CAN WE CONCLUDE?

When the pandemic began, most of the NFPA respondents were sourcing a high percentage of their parts, raw materials, and products overseas, and were subsequently severely affected by global supply chain problems. Supply chain issues increased steadily through 2020 and 2021, resulting in companies sourcing more in the U.S.

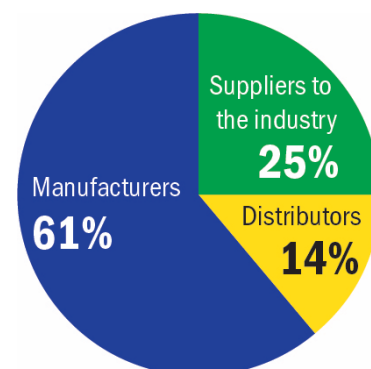
Less than 50% of the respondents had a disaster or business continuity plan in place, and of those plans, most were not effective in addressing the kinds of issues the pandemic presented.

Rising costs and unpredictability of supply and demand made it difficult to operate as usual. For the first time, risk in global supply chains became equal to or more important than cost. To mitigate these risks, respondents developed alternate domestic suppliers and emphasized effective and ongoing communications with suppliers and customers. They also built-up inventory to avoid shortages.

Developing new suppliers, introducing automation, and increasing inventory levels mean higher capital investment and the need for more working capital. Finding and developing new suppliers that are cost-competitive is not a trivial task and often takes 12-18 months.

The need for flexible business continuity and disaster planning has become even more evident. These plans must be able to address a variety of disasters and be responsive in all situations. Early warning signs of impending problems must be heeded and strategic alternatives created. Plans should be tested and continuously improved. While every disaster cannot be planned for in advance, a strong response framework can make a significant difference in how a business survives.

Responding companies by type



ABOUT THE AUTHORS



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Michael Gherman is a senior at the University of Kentucky pursuing a Bachelor of Business Administration with a double major in Management and Marketing. He recently completed a business study abroad program in Florence, Italy, and is passionate about international travel.



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ABOUT THE NATIONAL FLUID POWER ASSOCIATION

NFPA, the National Fluid Power Association, is a nonprofit organization and a community where fluid power industry partners collaborate to advance fluid power technology, strengthen the industry, and foster members' success.

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ABOUT THE RESHORING INSTITUTE

The Reshoring Institute is a non-profit and non-partisan organization providing information, research, and consulting services for companies that are reshoring or expanding their sourcing and manufacturing in America. This includes domestic supplier selection, factory site selection, total cost of ownership (TCO), trade compliance, MADE in USA labeling, podcasts, case studies, and white papers.

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