



A worker assembles Apple's Mac Pros at the Flextronics computer manufacturing facility in Austin, Texas. As state economies move into the next chapter of recovery, some legislatures are convening manufacturing stakeholders to address supply chain and workforce challenges.

MANDEL NGAN/AFP VIA GETTY IMAGES

Manufacturing Our Way into the Future

BY EMILY MAHER

Over the course of the COVID-19 pandemic, the resiliency of U.S. manufacturers has been on full display. In the face of tremendous demand shifts, manufacturers anchored public health and economic recovery efforts. Manufacturing workers in many states were deemed [essential](#), allowing them to provide critical supplies and services when most of the economy was shut down. The extreme challenges of the pandemic, like workforce safety, supply chain troubles, and changes in demand, put pressure on manufacturers to innovate, propelling new wave technology and indispensable networks.

Yet despite being a pillar for recovery, manufacturing was not immune from the pandemic's disruption. After making great strides following the Great Recession in output and rebuilding a skilled workforce, the manufacturing industry saw its unemployment rate reach [13.2%](#) in April 2020, higher than any point during the Great Recession.

Unemployment rates have somewhat recovered. However, the manufacturing workforce is still missing approximately [400,000 employees](#) that it had prior to the pandemic. In contrast, the sector attained pre-pandemic gross domestic product output level by the [fourth quarter of 2020](#). Other challenges, such as the [growing federal trade deficit](#), signal the need to prioritize policies around finding domestic sources of critical materials and strengthening domestic supply chains.

As the nation enters a new phase of post-pandemic growth, manufacturers are rebounding and rebuilding operations. Federal and state policymakers are legislating strategies to support and strengthen manufacturers so businesses can weather interruptions and ensure the sector thrives into the future. Concerns about supply chain disruptions mean that manufacturers are more concerned about diversifying their suppliers, so they have greater resilience if one company is hit by natural or human-made disasters. Increases

Did You Know?

- The [Hollings Manufacturing Extension Partnership's \(MEP\) Supplier Scouting service](#) identifies and connects domestic manufacturing sources with supply chains of large companies and government agencies.
- At least five states have a manufacturing caucus.
- For every \$1,381 of federal investment into the [MEP network](#), one manufacturing job is created or retained.

in the digitization of manufacturing combined with more incidents of ransomware attacks mean that executives are turning their attention to ways to mitigate risks and improve cybersecurity. Despite the overall reduction in employment, manufacturers point to worker shortage in certain skill occupations as impeding growth and job creation.

State Action

Several states acted to bolster manufacturing in the 2020-2021 legislative session.

■ Planning for Resiliency

As state economies move into the next chapter of recovery, some legislatures are convening manufacturing stakeholders to address supply chain and workforce challenges.

In **New York**, [Assembly Bill 952](#) directed the commissioners of agriculture and economic development to partner with the state's land grant university system to produce a report on improving the resiliency of the farm and food supply logistics. The report plans to address food shortages, food waste and inability to get farm goods to the market due to the pandemic.

With the goal of doubling the state's manufacturing employment base, small businesses, and the number of women and minority-owned manufacturing businesses in the next 10 years, Washington passed the [Economic Strength Through Manufacturing Act](#). The act asks the department of commerce to create a biennium report on the state of manufacturing to identify progress or challenges in the sector, including developing recommendations for a manufacturing workforce pipeline. The act also creates a manufacturing cluster acceleration subaccount to support manufacturers in various activities, including diversifying their supply chain.

The legislature in **Maine** formed a public-private partnership group to develop proposals and initiatives to promote new models of manufacturing education and employment in the state. In **Maryland** a working group was established to study the transformation of manufacturing in the state's emerging digital economy.

The **Florida** Legislature created a new [Manufacturing & Supply Chain Caucus](#), to increase jobs and productivity in the sector. Florida joins states like **Connecticut**, **Massachusetts**, **New Jersey**, and **Pennsylvania** that have dedicated chamber or joint legislative caucuses to support research and policy developments in manufacturing.

■ Workforce Training and Job Creation

Many states are reinvesting in workforce training and job creation initiatives to develop skills and fill employment gaps left by economic shutdowns.

Massachusetts utilized \$2 million to invest in workforce training for manufacturers by purchasing a standardized virtual training program. The state also enacted [legislation](#) providing matching grants to help reach goals outlined in the [advanced manufacturing collaborative](#).

West Virginia created a high technology jobs tax credit for manufacturing businesses engaged in activities like autonomous motor vehicle production, robotics, and biotech. **Alabama** expanded job credits for minority and women owned pharmaceutical and medical research, development and manufacturing businesses.

Federal Action

President Biden's administration has taken several executive steps to support the [Hollings Manufacturing Extension Partnership](#) (MEP) operated by the National Institute of Standards and Technology (NIST). The MEP federal program consists of a national network of 51 MEP Centers, 1,400 advisors and 385 service locations.

President Biden issued [Executive Order 140005](#), "Ensuring the Future is Made in All of America by All American Workers," which calls on MEP's [Supplier Scouting](#) service to tap into small and medium sized domestic manufacturers capabilities and capacities to identify critical supplies and perform qualification and capacity assessment.

The [American Rescue Plan Act of 2021](#) (ARP), a \$1.9 trillion stimulus package, was signed into law by President Biden on March 11. The ARP is the latest stimulus package to combat the COVID-19 pandemic. The act provides various funding initiatives to boost manufacturing, including for payroll support programs for aviation manufacturers and to strengthen vaccine and food and agricultural supply chains. The ARP also appropriated \$150 million to the National Institute of Standards and Technology (NIST) for pandemic response projects.

U.S. manufacturing is at the forefront of the president's FY 2022 budget, which prioritizes infrastructure investment. The budget emphasizes using NIST and MEP to create jobs and economic growth today and into the future. MEP investment is nearly doubled.

Despite the unprecedented challenges and uncertainty to manufacturing's workforce, supply chains, and productivity brought on by the pandemic, manufacturers are [optimistic about the future](#). Both state and federal government investment is likely to pay off with collaborative industry engagement, workforce preparation and secure supply chains, ensuring strong manufacturing growth beyond the pandemic.

Additional Resources

- [The National Institute of Standards and Technology Hollings Manufacturing Extension Partnership](#)
- [Manufacturers Outlook Survey: First Quarter 2021](#), The National Association of Manufacturers
- [Manufacturing Our Way Into the Future](#), NCSL Webinar

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