

## Why GAO Did This Study

A global semiconductor shortage that began in 2020 has since affected multiple U.S. industries. Beyond having an immediate economic impact, the shortage has exposed long-term risks in the semiconductor supply chain. Further, U.S. policymakers have expressed concerns about the nation's declining share of global production. Accordingly, the U.S. Senate and House of Representatives have both passed bills aimed at incentivizing construction of new semiconductor manufacturing facilities in the U.S.

This report summarizes the views of selected experts on policy options to reduce semiconductor supply chain risks and help mitigate future shortages in the U.S.

GAO conducted a literature review and compiled a list of potential policy options across multiple areas of federal activity. GAO then selected and interviewed 17 experts, including industry executives, government officials, and knowledgeable representatives from academia and nonprofits. In the interviews, GAO asked the experts about their views on which of the policy options had the greatest potential to mitigate supply chain risks.

View [GAO-22-105923](#). For more information, contact Candice Wright, (202) 512-6888, [wrightc@gao.gov](mailto:wrightc@gao.gov)

# SEMICONDUCTOR SUPPLY CHAIN

## Policy Considerations from Selected Experts for Reducing Risks and Mitigating Shortages

## What GAO Found

Experts interviewed by GAO shared their views on policy options in several areas that could reduce semiconductor supply chain risks (see figure). Across these areas, workforce development was the one area where all 17 experts GAO interviewed agreed on the need to take action. At the same time, the experts generally emphasized the value of implementing policies in each of these areas and said that no single policy option would be sufficient. Instead, the experts recommended implementing a variety of policy options, such as addressing immigration reform and improving supply chain monitoring.

### Federal Actions that Could Reduce Semiconductor Supply Chain Risks



Source: GAO analysis of expert interviews (information). raimundas/stock.adobe.com (images). | GAO-22-105923

The experts GAO spoke with discussed the need for identifying federal priorities and improving interagency collaboration in implementing policies to mitigate semiconductor supply chain risks. Examples of policy priorities that experts discussed related to semiconductor supply chain risks include national security, economic competitiveness, and increased resilience. Experts stated that identifying the most appropriate policy option depends on the federal priority. For example, one expert said the extent to which increasing semiconductor production in the U.S. is important depends on whether national security is the policy priority. Geographic diversity, including production outside the U.S., might be desirable if economic competitiveness of U.S.-headquartered companies or increased supply chain resilience are priorities. Additionally, experts noted that multiple federal agencies have activities related to semiconductor supply chains and described ways in which improved coordination among agencies would allow the U.S. to act more strategically. For example, one expert said that agencies working on semiconductor issues should identify current activities as well as the need for additional action.