United States Government Accountability Office

Report to Congressional Committees

July 2022

DEFENSE INDUSTRIAL BASE

DOD Should Take Actions to Strengthen Its Risk Mitigation Approach

Accessible Version

GAO-22-104154

GAO Highlights

Highlights of GAO-22-104154, a report to congressional committees

July 2022

DEFENSE INDUSTRIAL BASE

DOD Should Take Actions to Strengthen Its Risk Mitigation Approach

Why GAO Did This Study

A healthy defense industrial base that provides the capacity and capability to produce advanced weapon systems is critical to maintaining U.S. national security objectives. The U.S. industrial base currently consists of over 200,000 companies. Mitigating risks—such as reliance on foreign and single-source suppliers—is essential for DOD to avoid supply disruptions and ensure that the industrial base can meet current and future needs.

Since 2017, the White House has issued executive orders directing DOD and other agencies to assess risks to the defense industrial base and high priority supply chains such as semiconductors.

Congress also directed DOD to develop an analytical framework for mitigating risks and included a provision for GAO to review DOD's efforts. This report assesses (1) DOD's strategy for mitigating industrial base risks, and (2) the extent to which DOD is monitoring and reporting on its progress in mitigating risks. GAO analyzed DOD policies and reports and interviewed DOD officials.

What GAO Recommends

GAO is making six recommendations, including that DOD develop a consolidated and comprehensive strategy to mitigate industrial base risks; develop and use enterprise-wide performance measures to monitor the aggregate effectiveness of its efforts; and report on its progress in mitigating risks. DOD generally concurred with the recommendations and identified some actions to address them.

View GAO-22-104154. For more information, contact W. William Russell at (202) 512-4841 or RussellW@gao.gov.

What GAO Found

The Department of Defense's (DOD) Industrial Base Policy office does not yet have a consolidated and comprehensive strategy to mitigate risks to the industrial base—the companies that develop and manufacture technologies and weapon systems for DOD. The office is using a combination of four previously issued reports that were created for other requirements because it devoted its resources to completing other priorities. Collectively, the reports do not include several elements GAO has previously identified that would help DOD achieve results, evaluate progress, and ensure accountability (see figure).

Elements Not Fully Addressed in DOD's Industrial Base Strategy

Source: GAO-04-408T and GAO analysis of Department of Defense (DOD) documents. | GAO-22-104154

Accessible Data for Elements Not Fully Addressed in DOD's Industrial Base Strategy

Category One	Category Two	Category Three	Category Four
• All strategy goals • All milestones • Performance measures	Where all resources should be targeted	Information on which organizations are responsible for mitigating specific risks	Implementation plans

DOD must update its industrial base strategy following the submission of the next National Security Strategy Report, which is expected to be issued later in 2022. By including all elements in a consolidated strategy, DOD could better ensure that all appropriate organizations are working toward the same priorities, promoting supply chain resiliency, and supporting national security objectives.

DOD is carrying out numerous efforts to mitigate risks to the industrial base. This includes more than $1 billion in reported efforts under Navy submarine and destroyer programs and $125 million to sustain a domestic microelectronics manufacturer. However, DOD has limited insight into the effectiveness of these efforts and how much progress it has made addressing risks. For example:

- The Industrial Base Policy office and military services have not established enterprise-wide performance measures to monitor the aggregate effectiveness of DOD's mitigation efforts.
- DOD's annual Industrial Capabilities Reports do not include information about the progress the department has made in mitigating risks.

GAO's prior work on enterprise risk management establishes that agencies should monitor and report on the status and effectiveness of their risk mitigation

efforts. Without key monitoring and reporting information, DOD and Congress do not have sufficient information to help determine whether industrial base risks have been mitigated and what additional resources or actions may be needed.

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Abbreviations

DOD	Department of Defense
ERM	Enterprise Risk Management
OMB	Office of Management and Budget

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July 7, 2022

Congressional Committees

Each year, the Department of Defense (DOD) spends billions of dollars acquiring and sustaining weapon systems to ensure that it can meet U.S. national security objectives and maintain military superiority. A critical element of U.S. power is a healthy defense industrial base–that is, one that has secure supply chains and skilled workers that are able to develop and produce new technologies and advanced weapon systems. Currently, the U.S. defense industrial base consists of over 200,000 companies that provide the capacity and capability to produce advanced weapon systems. Supporting a vibrant domestic manufacturing sector and resilient supply chains is a national priority and key to ensuring that DOD has access to industrial capabilities to meet current and future needs.

However, for decades, DOD has reported on complex challenges that the defense industrial base is experiencing that necessitate continued and accelerated focus. These challenges include relying on foreign and single-source suppliers for critical materials, replacing obsolete parts on weapon systems that could be in operation for decades, and protecting weapon systems from cybersecurity threats, among others.

The U.S. has also lost significant domestic manufacturing capacity over the past several decades that threatens the resilience of the defense supply chain. For example, DOD reported that capacity and competition in the shipbuilding sector declined significantly over the past 50 years, with 14 shipyards that built Navy ships closing. Three other shipyards also exited the defense industry, and just one new shipyard opened—leaving only seven shipyards owned by four prime contractors. Similarly, for the semiconductor sector, DOD determined that from 1990 to 2019, domestic semiconductor production capacity decreased from 37 to 12 percent of the global total manufacturing market, while Asia controls nearly 80 percent of the outsourced aspects of semiconductor production.[1] Industry groups have also reported on the declining health of

[1]Department of Defense, *Fiscal Year 2020 Industrial Capabilities Report to Congress* (Washington, D.C.: January 2021).

the defense industrial base, specifically with DOD's supply chain and production capacity and surge readiness—areas that are critical to U.S. national security interests.[2]

Over the past 5 years, the White House issued executive orders aimed at improving DOD's ability to identify and navigate supply chain disruptions, such as with semiconductors.[3] Congress also enacted legislation, including section 845 of the National Defense Authorization Act for Fiscal Year 2020 that directs DOD to develop a comprehensive analytical framework for risk mitigation across the acquisition process.[4] The act includes a provision for us to assess DOD's efforts to mitigate defense industrial base risks. This report assesses (1) DOD's strategy for mitigating defense industrial base risks, and (2) the extent to which DOD is monitoring and reporting on its progress in mitigating risks.

To assess DOD's strategy for mitigating defense industrial base risks, we compared information in documents that DOD identified as its strategy to desirable characteristics for a national strategy that we identified in prior work.[5] We also reviewed key legislation, statutes, and executive orders related to mitigating defense industrial base risks and interviewed officials from the Office of the Assistant Secretary of Defense for Industrial Base Policy (Industrial Base Policy).

To assess the extent to which DOD is monitoring and reporting its progress in mitigating risks, we reviewed relevant DOD policies, guidance, and charters to identify what requirements, if any, existed for DOD organizations to monitor and report the outcomes and progress of its risk mitigation efforts. To understand monitoring efforts, we reviewed examples of project documentation from fiscal years 2018 to 2021 from department-wide investment programs to identify how DOD monitors the

[2]National Defense Industrial Association, *Vital Signs 2022, the Health and Readiness of the Defense Industrial Base* (Arlington, Va.: February 2022). Center for Strategic and International Studies, *Mapping the National Security Industrial Base: Policy Shaping Issues* (Washington, D.C.: May 2021).

[3]Exec. Order No. 14017, America's Supply Chains, 86 Fed. Reg. 11849 (Mar. 1, 2021). Department of Defense, Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States: Report to President Donald J. Trump by the Interagency Task Force in Fulfillment of Executive Order 13806 (Washington, D.C.: September 2018).

[4]Pub. L. No. 116-92, § 845 (2019).

[5]GAO, *Combating Terrorism: Evaluation of Selected Characteristics in National Strategies Related to Terrorism*, GAO-04-408T (Washington, D.C.: Feb. 2004).

effectiveness of industrial base projects individually and collectively. To understand DOD's reporting efforts, we reviewed DOD's annual Industrial Capabilities Reports for fiscal years 2018 through 2020 and the statute governing these reports, section 4814 of title 10, U.S. Code. We selected two of 16 defense industrial base sectors—shipbuilding and microelectronics—as case studies for detailed analysis. We also interviewed officials from the Office of Industrial Base Policy, military services, and DOD-wide industrial base investment programs. A more detailed description of our scope and methodology assessment is included in appendix I.

We conducted this performance audit from March 2020 to July 2022 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The U.S. defense industrial base includes a combination of people, technology, institutions, technological know-how, and facilities used to design, develop, manufacture, and maintain the weapons needed to meet U.S. national security objectives. The defense industrial base can be divided into several tiers: top tiers that include prime contractors and major subcontractors, and lower tiers that include suppliers of parts, electronic components, and raw materials.

DOD determined that a healthy and robust defense industrial base is essential to meeting U.S. national security objectives. Accordingly, risks to the industrial base—any event or condition that may disrupt or degrade DOD supplier capabilities or capacity needed to equip or sustain military forces now and in the future—are seen as threats to U.S. national security. To address these risks, DOD has spent billions of dollars to implement mitigation efforts. Recently, for example, the ongoing COVID-19 pandemic highlighted vulnerabilities in the defense industrial base, primarily in the aviation, space, shipbuilding, and microelectronics sectors. We reported that DOD planned to use $687 million in Defense Production Act Title III funding, appropriated by Congress in the CARES Act, to address risks and offset the financial distress in the defense

industrial base.[6] In one instance, DOD reported awarding a project valued at nearly $30 million to sustain and expand the continued operations of the only domestic manufacturer of neodymium iron boron rare earth magnets, which are crucial components in many DOD aircraft, submarines, and missiles.

DOD Organizations Involved with Industrial Base Risk Mitigation Efforts

The Assistant Secretary of Defense for Industrial Base Policy is DOD's principal advisor within the department for issues affecting the industrial base across the DOD enterprise.[7] Among other things, the Industrial Base Policy office conducts DOD-wide industrial base risk assessments, coordinates certain industrial base investments, and reports annually on assessments of the defense industrial base and associated risks and mitigation efforts. The office incorporates inputs from other DOD organizations, including the military services, Defense Logistics Agency, department-wide investment programs, and industrial base forums to perform its responsibilities.

DOD often relies on the military service acquisition executives, system commands, and program offices to execute risk mitigation efforts. Within the departments, the service acquisition executives implement risk mitigation efforts across their respective enterprises. These senior officials include the Assistant Secretary of the Air Force for Acquisition, Technology and Logistics for Air Force and Space Force programs; the Assistant Secretary of the Army for Acquisition, Logistics, and Technology for Army programs; and the Assistant Secretary of the Navy for Research, Development, and Acquisition for Navy and U.S. Marine Corps programs.

[6]The CARES Act provided DOD $1 billion specifically for Defense Production Act purchases to prevent, prepare for, and respond to COVID-19, domestically or internationally. Pub. L. No. 116-136. (2020). The Defense Production Act, enacted in 1950, facilitates the supply and timely delivery of products, materials, and services to military and civilian agencies during times of peace as well as in times of war.

[7]Congress created the position of the Assistant Secretary of Defense for Industrial Base Policy in January 2020, which replaced the Deputy Assistant Secretary of Defense for Industrial Policy. William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116-283, § 903 (2021). DOD established the position and an office to support it in February 2022. The Office of the Assistant Secretary of Defense for Industrial Base Policy is part of the Undersecretary of Defense for Acquisition and Sustainment organization.

Generally though, it is DOD's practice to delegate risk mitigation activities to the lowest level possible—the program offices—as these offices are the most knowledgeable about the changing risks and must address them to help meet cost, schedule, and performance goals. DOD policy instructs program offices to incorporate industrial base analysis into their acquisition planning, which includes identifying risks and potential mitigation efforts.[8] Recently, we reported that nearly half of 59 DOD acquisition programs that we surveyed identified that they were tracking industrial base risks, with some programs reporting that those risks contributed to cost and schedule challenges.[9] However, nearly half of the programs tracking industrial base risks reported that they did not plan for an industrial base assessment.

According to DOD officials we interviewed for this current review, system commands and program offices typically elevate industrial base risks to their military service acquisition executive office or the Industrial Base Policy office if a risk affects multiple programs or military services, or if additional funding is needed to mitigate the risks. Officials from the military services said they identified shared risks through informal communication with other service officials or through industrial base working groups.

DOD leverages various forums and working groups——comprised of officials from Industrial Base Policy, the military services, and other DOD organizations——to exchange industrial base information, prioritize risks, and decide on mitigation efforts, among other things. For example:

- The Industrial Base Council is DOD's executive level forum. The council assesses risks, prioritizes efforts, leverages DOD-wide mitigation efforts, and develops defense policy to address critical risks. For example, the council approved the use of CARES Act funding for projects to mitigate defense industrial base risks associated with the COVID-19 pandemic. Established in October 2015, the council is chaired by the Under Secretary of Defense for Acquisition and Sustainment and consists of 12 voting members and 14 advisory members from various DOD organizations engaged in

[8]Department of Defense, *DOD Instruction 5000.85, Major Capability Acquisition* (Aug. 6, 2020) (Incorporating Change 1, Nov. 4, 2021).

[9]GAO, *Weapon Systems Annual Assessment: Challenges to Fielding Capabilities Faster Persist*, GAO-22-105230 (Washington, D.C.: June 8, 2022).

acquisitions, sustainment, technology development, contracting, and operations.

- The Joint Industrial Base Working Group is DOD's primary mechanism for exchanging information about industrial base matters across the department. The working group is co-chaired by staff from the Industrial Base Policy office and the Defense Contract Management Agency and receives information from dozens of other working groups focused on specific industrial base sectors. It was established in December 2019 and is tasked with maintaining a repository of industrial base data and assessments, encouraging the use of standard analytical approaches across DOD, recommending priority areas for risk mitigation, and monitoring risk management actions, among other things. When necessary, this working group elevates risks—identified by its DOD-wide representatives—to the Industrial Base Council.
- The Supply Chain Resiliency Working Group was established in August 2021 to develop new tools and processes to address long-term barriers currently limiting DOD's supply chain visibility, resiliency assessments, and mitigation efforts.[10] This working group is tasked with developing a methodology for supply chain visibility over a 2-year period. Among other things, the working group plans to identify DOD's current analytical capabilities, propose and test a framework to quantify enterprise resiliency, and develop a supply chain resiliency strategy and implementation plan.

DOD also administers three department-wide investment programs within the Office of the Secretary of Defense to help mitigate risks——Defense Production Act Title III, Industrial Base Analysis and Sustainment, and Manufacturing Technology. DOD reported receiving $2.3 billion for these programs from fiscal years 2018 to 2021 and funded 134 risk mitigation projects. According to DOD officials, each investment program has its own focus for mitigating risks.

- **Defense Production Act Title III:** focuses on projects that establish, expand, maintain, or restore domestic production capacity for critical components and technologies.

[10]Under Secretary of Defense for Acquisition and Sustainment memorandum, *Supply Chain Resiliency Working Group* (Aug. 30, 2021).

- **Industrial Base Analysis and Sustainment:** seeks to maintain or improve the health of essential parts of the defense industry by addressing critical capability.
- **Manufacturing Technology:** strives to anticipate and close gaps in manufacturing capabilities.

Executive Orders and Congressional Mandates Related to Mitigating Defense Industrial Base Risks

Over the past several years, the White House and Congress directed DOD to take steps to improve its ability to oversee the industrial base and mitigate risks. Table 1 provides a description of key executive orders and legislation that we considered as part of this review.

Table 1: Key Executive Orders and Legislative Mandates Related to the Defense Industrial Base

Executive orders and legislative mandates	Effective date	Description
Executive Order 13806	July 2017	Directed the Department of Defense (DOD) to conduct a whole-of-government effort to assess risks, identify impacts, and propose recommendations in support of a healthy manufacturing and defense industrial base.
Executive Order 14017	February 2021	Directed DOD to lead a 100-day review to identify supply chain risks for critical minerals and other identified strategic materials, and to make policy recommendations to address the risks. Also directed DOD to submit a report on defense industrial base supply chains that updates DOD's Executive Order 13806 report and builds on DOD's annual Industrial Capabilities Report.
Section 2501 of title 10, U.S. Code[a]	Various	Requires DOD to develop a National Security Strategy for the National Technology and Industrial Base that includes a prioritized assessment of risks and challenges to the defense industrial base to achieving national security objectives.
Section 2504 of title 10, U.S. Code[b]	Various	Requires DOD to annually report on assessments of the U.S. defense industrial base, including mitigation strategies necessary to address gaps or vulnerabilities in the industrial base.
Section 845 of the National Defense Authorization Act for Fiscal Year 2020[c]	December 2019	Directed DOD to create an analytical framework for mitigating risk across the acquisition process and to streamline and digitize its approach for identifying and mitigating industrial base risks. Also required DOD to provide Congress with an implementation plan and schedule for carrying out the framework within 90 days of the enactment of the act.

Source: GAO analysis of executive orders and legislative provisions. | GAO-22-104154

[a]Section 2501 of title 10, U.S. Code, was renumbered as section 4811 of title 10, U.S. Code.

[b]Section 2504 of title 10, U.S. Code, was renumbered as section 4814 of title 10, U.S. Code.

[c]Pub. L. No. 116-92, § 845 (2019).

In addition, DOD provides various defense industrial base reports to Congress, including the Combined Resource and Policy Strategy to Address U.S. Defense Industrial Base Vulnerabilities and an Annual Report on the Unfunded Priorities of the National Technology and Industrial Base.[11]

Assessment of Defense Industrial Base Risks

In response to Executive Order 13806 on strengthening the U.S. defense industrial base, DOD issued a report in September 2018 in which it assessed its industrial base risks. In the Executive Order, the President noted that the health of the manufacturing and defense industrial base—which is essential to U.S. economic strength and national security—had been weakened by the loss of more than 60,000 American factories and companies and almost 5 million manufacturing jobs since 2000.[12] The President directed DOD, in coordination with other federal agencies, to assess the manufacturing capacity, defense industrial base, and supply chain resiliency of the U.S. and make recommendations to strengthen the industrial base.

In its report, DOD identified nearly 300 risks, including 35 priority risks, across 16 defense industrial base sectors.[13] DOD officials stated it was the first time since World War II that DOD assessed these risks from an enterprise-wide, strategic perspective. The report identified five root causes shaping industrial base-wide trends and causing a deterioration in U.S. capabilities, as well as 10 risk types resulting from the root causes that contribute to DOD supply chain insecurity.[14] Figure 1 describes the

[11]Senate Report 116-103 directed DOD to submit to the congressional defense committees the combined resource and policy strategy to address U.S. defense industrial base vulnerabilities. Section 4815 of title 10, U.S. Code, requires DOD to identify priorities to address gaps and vulnerabilities in the defense industrial base not funded in the President's Budget.

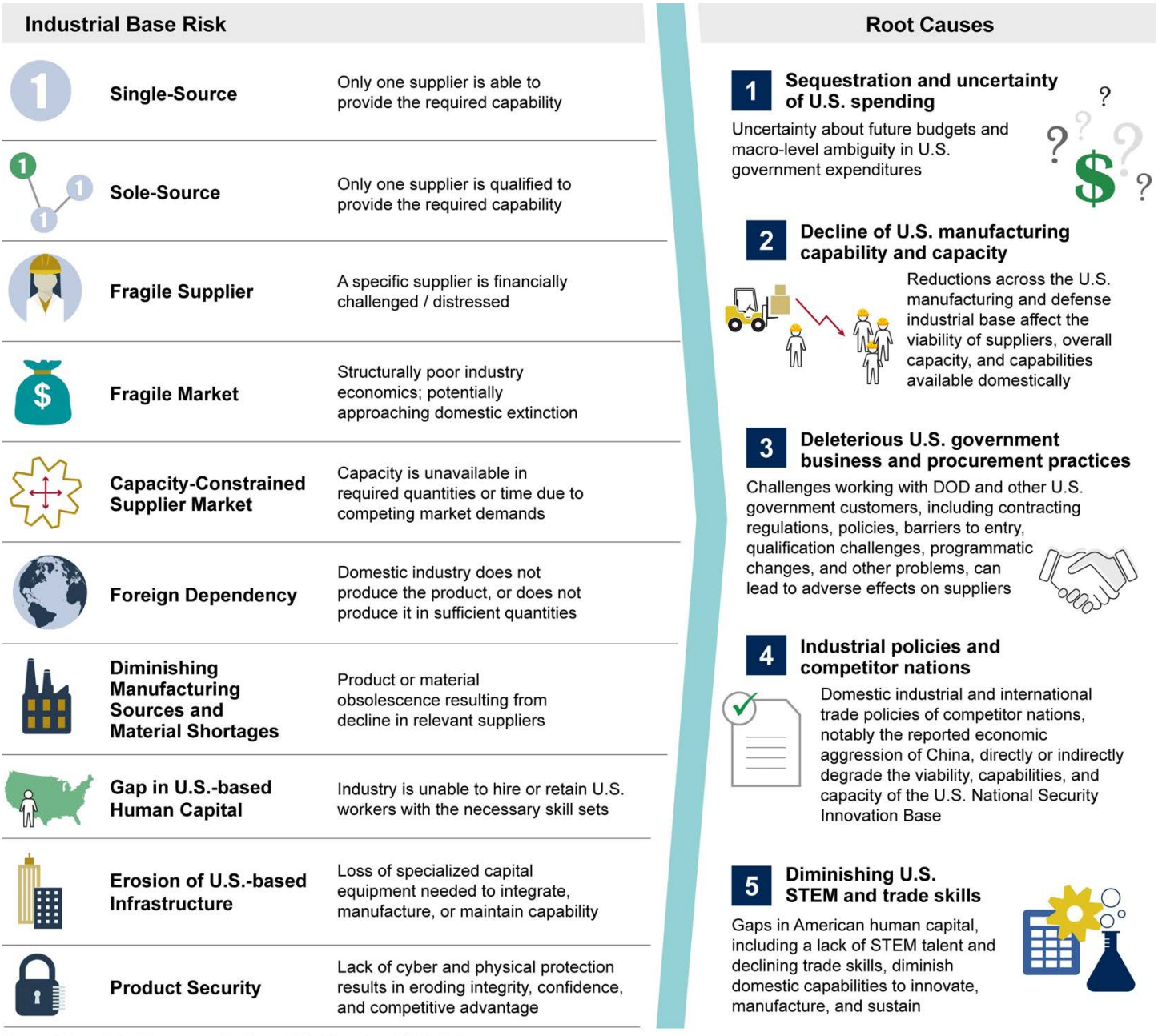
[12]Exec. Order No. 13806, *Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States,* 82 Fed. Reg. 34597 (July 26, 2017).

[13]*Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States (Report to President Donald J. Trump by the Interagency Task Force in Fulfillment of Executive Order 13806).* We refer to this as the Department of Defense's 2018 assessment throughout this report.

[14]The five root causes refer to the challenges that affect the capabilities of the manufacturing and defense industrial base and threaten DOD's ability to be ready for the fight tonight, and to retool for great power competition. The 10 risk types are a product of the root causes, each of which contribute to insecurity in DOD's supply chain.

five root causes and 10 risk types, which DOD continues to use to identify and assess risks.

Figure 1: Department of Defense-Identified Industrial Base Risk Types and Root Causes



Source: GAO analysis of Department of Defense (DOD) information. | GAO-22-104154

Accessible Data for Figure 1: Department of Defense-Identified Industrial Base Risk Types and Root Causes

Industrial Base Risk	Industrial Base Risk Information	Root Causes
Single-Source	Only one supplier is able to provide the required capability	1. Sequestration and uncertainty of U.S. spending: Uncertainty about future budgets and macro-level ambiguity in U.S. government expenditures
Sole-Source	Only one supplier is qualified to provide the required capability	2. Decline of U.S. manufacturing capability and capacity: Reductions across the U.S. manufacturing and defense industrial base affect the viability of suppliers, overall capacity, and capabilities available domestically
Fragile Supplier	A specific supplier is financially challenged / distressed	3. Deleterious U.S. government business and procurement practices: Challenges working with DOD and other U.S. government customers, including contracting regulations, policies, barriers to entry, qualification challenges, programmatic changes, and other problems, can lead to adverse effects on suppliers
Fragile Market	Structurally poor industry economics; potentially approaching domestic extinction	4. Industrial policies and competitor nations: Domestic industrial and international trade policies of competitor nations, notably the reported economic aggression of China, directly or indirectly degrade the viability, capabilities, and capacity of the U.S. National Security Innovation Base
Capacity-Constrained Supplier Market	Capacity is unavailable in required quantities or time due to competing market demands	5. Diminishing U.S. STEM and trade skills: Gaps in American human capital, including a lack of STEM talent and declining trade skills, diminish domestic capabilities to innovate, manufacture, and sustain
Foreign Dependency	Domestic industry does not produce the product, or does not produce it in sufficient quantities	na
Diminishing Manufacturing Sources and Material Shortages	Product or material obsolescence resulting from decline in relevant suppliers	na
Gap in U.S.-based Human Capital	Industry is unable to hire or retain U.S. workers with the necessary skill sets	na
Erosion of U.S.-based Infrastructure	Loss of specialized capital equipment needed to integrate, manufacture, or maintain capability	na
Product Security	Lack of cyber and physical protection results in eroding integrity, confidence, and competitive advantage	na

Assessments of Key Supply Chains

In June 2021 and February 2022, DOD and other federal agencies issued industrial base assessments in response to Executive Order 14017 on strengthening America's supply chains. In the Executive Order, the

President noted that the U.S. needs resilient, diverse, and secure supply chains to ensure its economic prosperity and national security.[15] Further, these supply chains face significant threats, including cyberattacks, geopolitical and economic competition, and pandemics. To improve U.S. supply chains, the President directed DOD and other federal agencies to conduct a series of assessments on four key supply chains and make recommendations to strengthen their resilience. The supply chains included: (1) critical minerals and materials; (2) semiconductor manufacturing and advanced packaging; (3) large capacity batteries; and (4) pharmaceuticals and active pharmaceutical ingredients. DOD was also required to update its 2018 assessment.

In response to the Executive Order, DOD and other agencies issued 100-day assessments on the four supply chains in June 2021.[16] DOD was designated the lead agency for the critical minerals and materials review and participated in the other three supply chain reviews that were led by the Departments of Commerce, Energy, and Health and Human Services, respectively.

In February 2022, DOD also issued a report to update its 2018 assessment.[17] Instead of assessing industrial base risks for all 16 defense sectors as it did for its 2018 assessment, DOD assessed and made recommendations to mitigate risks associated with five defense supply chains—(1) microelectronics; (2) castings and forgings; (3) kinetic capabilities; (4) energy storage; and (5) strategic and critical materials. It also assessed and made recommendations related to four strategic enablers—workforce, cyber posture, small business, and manufacturing. According to the report, the supply chains and strategic enablers align to DOD's operational priorities and were selected through ongoing supply chain analysis across the department, interagency, and White House.

[15]Exec. Order No. 14017, *America's Supply Chains*, 86 Fed. Reg. 11849 (Mar. 1, 2021).

[16]White House Report, *Building Resilient Supply Chains, Revitalizing American Manufacturing, And Fostering Broad-Based Growth:100-Day Reviews under Executive Order 14017* (Washington, D.C.: June 2021).

[17]*Securing Defense-Critical Supply Chains: An action plan developed in response to President Biden's Executive Order 14017* (February 2022). We refer to this as the 2022 assessment of key defense supply chains throughout this report.

Analytical Framework for Risk Mitigation

In the Conference Report accompanying Section 845 of the National Defense Authorization Act for Fiscal Year 2020, conferees observed that DOD was not appropriately considering certain risks to the defense industrial base, such as risks related to cybersecurity, company ownership, and supplier fragility.[18] Conferees further noted that even in cases where DOD made an industrial base risk a priority, its existing acquisition processes and procedures did not support timely or effective risk mitigation. Congress directed DOD to develop an analytical framework for industrial base risk mitigation across the acquisition process. DOD was also required to issue an implementation plan and schedule for developing the analytical framework by March 2020.[19]

As of March 2022, Industrial Base Policy officials stated that DOD had not yet issued the implementation plan and schedule for developing an analytical framework for mitigating industrial base risks across the acquisition process. The Joint Explanatory Statement to accompany the National Defense Authorization Act for Fiscal Year 2022 directed DOD to provide a briefing on the framework implementation to the congressional defense committees by June 1, 2022.

Enterprise Risk Management

To help federal leaders manage their complex missions, the Office of Management and Budget (OMB) issued an update to OMB Circular A-123 in July 2016. The circular requires federal agencies to implement an enterprise risk management capability that is coordinated with their strategic planning and review processes.[20] By doing so, agencies can improve mission delivery, reduce costs, and focus corrective actions toward key risks.

According to the circular, enterprise risk management is an effective agency-wide approach for addressing risks because organizations consider the combined impact of internal and external risks as an interrelated portfolio, rather than addressing risks only within silos.

[18]Conference Report to Accompany the National Defense Authorization Act for Fiscal Year 2020, H.R. Rep. No. 116-333 (Dec. 9, 2019).

[19]Pub. L. No. 116-92, § 845 (2019).

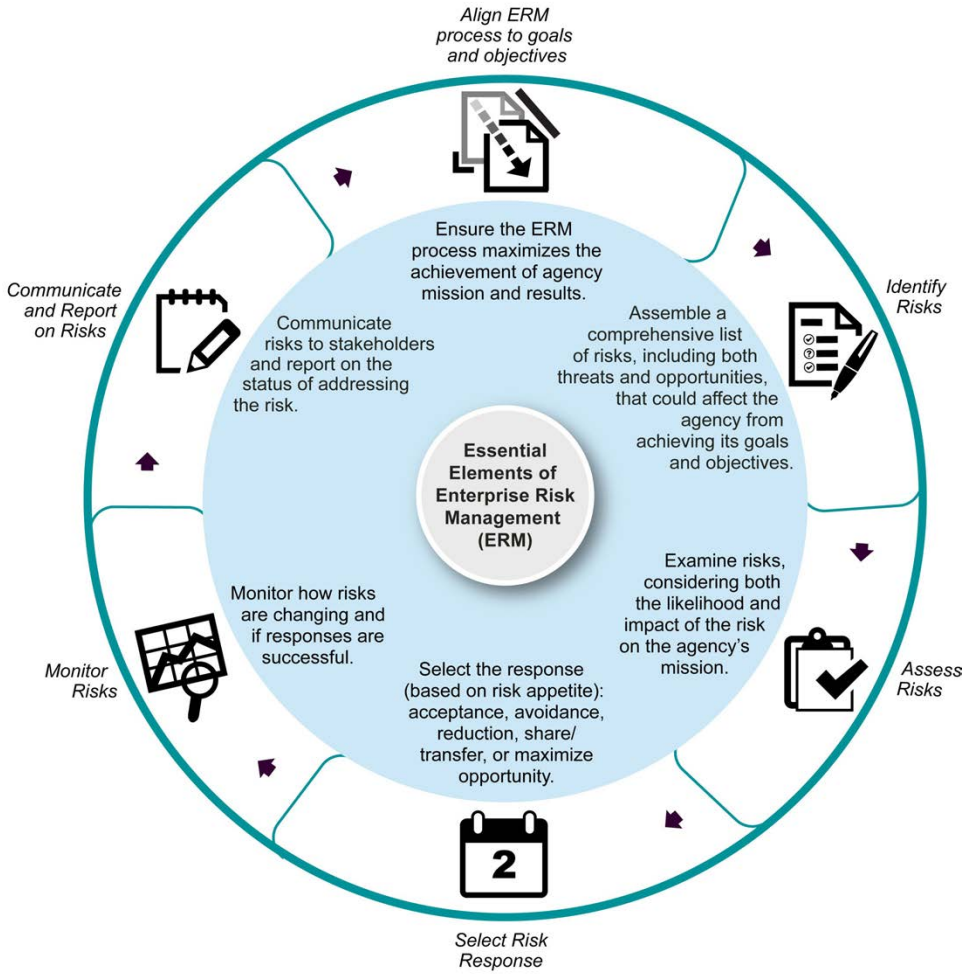
[20]Office of Management and Budget, *Management's Responsibility for Enterprise Risk Management and Internal Control*, Circular No. A-123 (July 15, 2016).

Enterprise risk management also addresses other internal control topics such as setting strategy, governance, communicating with stakeholders, and measuring performance. The principles of enterprise risk management apply to all levels of an organization and across all functions—such as to organizations and activities that manage defense industrial base risks.

In 2016, we updated our risk management framework to (1) reflect changes to OMB Circular A-123; (2) identify essential elements of federal enterprise risk management; and (3) incorporate recent federal experience and agencies' good practices for enterprise risk management.[21] In our updated framework, we identified six essential elements of enterprise risk management, as shown in figure 2.

[21]GAO, *Enterprise Risk Management: Selected Agencies' Experiences Illustrate Good Practices in Managing Risks,* GAO-17-63 (Washington, D.C.: Dec. 1, 2016).

Figure 2: Essential Elements of Federal Government Enterprise Risk Management



Source: GAO. | GAO-22-104154

We also noted that it is not possible to eliminate all risks, but agencies can better plan for and manage them by using enterprise risk management. This forward-looking risk management approach can assist federal leaders in anticipating and managing risks, as well as considering how multiple risks can present even greater challenges and opportunities when examined as a whole.

DOD Lacks Strategic Direction for Its Industrial Base Risk Mitigation Efforts

DOD does not yet have a consolidated and comprehensive strategy to guide its industrial base risk mitigation efforts. While DOD identified and prioritized its risks in a strategy, it has not identified elements such as milestones, performance measures, resources, responsible organizations, and implementation plans for mitigating the risks. The Industrial Base Policy office, which provides strategic direction, devoted limited resources to developing a strategy due to competing priorities and workforce issues. It also experienced significant turnover of senior leadership.

DOD's Current Industrial Base Mitigation Strategy Does Not Include Key Information to Support Implementation

DOD is required to develop a National Security Strategy for the National Technology and Industrial Base, including a prioritized assessment of risks and challenges to the defense industrial base.[22] However, DOD does not yet have a consolidated and comprehensive strategy to mitigate risks. Our prior work has shown that strategic planning is the foundation for defining what an agency seeks to accomplish, identifying the strategies it will use to achieve desired results, and determining how well it will succeed in reaching results-oriented goals and achieving objectives. Combined with effective leadership, strategic planning that results in a consolidated and comprehensive strategy enables decision makers to better guide program efforts and determine if these efforts are achieving the desired results.[23]

In March 2021, the department reported to Congress that it was using four previously developed reports and assessments to satisfy the requirements of a strategy. According to Industrial Base Policy officials, DOD used existing documents for the strategy because it prioritized its resources on other efforts. The assessments and reports were issued between September 2018 and January 2021 to meet other specific

[22]10 U.S.C. § 4811. The National Technology and Industrial Base comprises of the United States, Canada, the United Kingdom, and Australia.

[23]GAO, *Defense Logistics: A Completed Comprehensive Strategy Is Needed to Guide DOD's In-Transit Visibility Efforts*, GAO-13-201 (Washington, D.C.: February 2013).

executive orders, congressional mandates, and statutory requirements. Table 2 provides a list of the four documents and each of their original requirements.

Table 2: Documents That Comprise DOD's 2021 Industrial Base Strategy

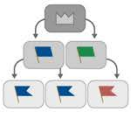
Reports and Assessments	Issue Date	Source of Work
Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States	September 2018	Executive Order 13806 directed DOD to conduct a whole-of-government effort to assess risks, identify impacts, and propose recommendations in support of a healthy manufacturing and defense industrial base.
The Combined Resource and Policy Strategy to Address U.S. Defense Industrial Base Vulnerabilities	July 2020	Senate Report 116-103 directed DOD to submit to the congressional defense committees the combined resource and policy strategy to address U.S. defense industrial base vulnerabilities.
Annual Report on the Unfunded Priorities of the National Technology and Industrial Base	September 2020	Section 2504a of title 10, U.S. Code (later moved to section 4815 of title 10, U.S. Code) required DOD to identify priorities to address gaps and vulnerabilities in the defense industrial base not funded in the President's Budget.
The Fiscal Year 2020 Industrial Capabilities Report to Congress	January 2021	Section 2504 of title 10, U.S. Code (later moved to section 4814 of title 10, U.S. Code) required DOD to annually identify gaps or vulnerabilities in, and assessments of, the U.S. defense industrial base.

Source: Department of Defense (DOD) reports. | GAO-22-104154

We analyzed these four documents to determine the extent to which the documents, individually or collectively, include elements of a set of six desirable characteristics we previously identified that agencies should consider when developing a national strategy.[24] The desirable characteristics cover actions an agency should consider from conception to implementation of a strategy to help it achieve results, evaluate progress, and ensure accountability. As shown in figure 3, we found that the strategy fully incorporates elements of two characteristics, but is missing elements in the other four characteristics, which limits its usefulness in guiding DOD's risk mitigation efforts.

[24]GAO-04-408T.

Figure 3: Elements of Desirable Characteristics Not Included in the Department of Defense Industrial Base Strategy

Desirable characteristics for a national strategy	Elements addressed	Elements not addressed
 The purpose of the strategy, and the scope and methodology used	• Purpose • Scope • Methodology	None
 The problems the strategy intends to address and an assessment of threats and vulnerabilities	• Problems • Risk assessment	None
 The goals of the strategy, priorities, milestones, and performance measures to gauge results	• Some goals • Some milestones • Priorities	• All strategy goals • All milestones • Performance measures
 Resources and investments needed and where they should be targeted	• Potential resources and investments needed for some industrial base sectors • Where some resources should be targeted	• Sources and types of resources and investments needed for all efforts, including an overall cost estimate • Where all resources should be targeted
 Roles of organizations responsible for implementing the strategy and how they will coordinate efforts	• General description of organizations that are implementing the strategy, their roles, and mechanisms for coordinating efforts	• Information on which organizations are responsible for mitigating specific risks
 Relationship and integration of the strategy to other strategies (relevant documents), and implementation plans	• How the strategy relates to other strategies	• Implementation plans

Source: GAO-04-408T and GAO analysis of Department of Defense documents. | GAO-22-104154

Accessible Data for Figure 3: Elements of Desirable Characteristics Not Included in the Department of Defense Industrial Base Strategy

Desirable characteristics for a national strategy	Elements addressed	Elements not addressed
The purpose of the strategy, and the scope and methodology used	• Purpose • Scope • Methodology	None
The problems the strategy intends to address and an assessment of threats and vulnerabilities	• Problems • Risk assessment	None
The goals of the strategy, priorities, milestones, and performance measures to gauge results	• Some goals • Some milestones • Priorities	• All strategy goals • All Milestones • Performance measures
Resources and investments needed and where they should be targeted	• Potential resources and investments needed for some industrial base sectors • Where some resources should be targeted	• Sources and types of resources and investments needed for all efforts, including an overall cost estimate • Where all resources should be targeted
Roles of organizations responsible for implementing the strategy and how they will coordinate efforts	General description of organizations that are implementing the strategy, their roles, and mechanisms for coordinating efforts.	Information on which organizations are responsible for mitigating specific risks
Relationship and integration of the strategy to other strategies (relevant documents), and implementation plans	How the strategy relates to other strategies	Implementation plans

Source: GAO-04-408T and GAO analysis | GAO-22-104154

DOD's 2018 assessment—in response to Executive Order 13806——was the primary document that addressed most of the elements DOD included in its strategy. For example, the 2018 assessment fully addressed two characteristics by (1) describing DOD's approach for evaluating and categorizing risks, and (2) identifying nearly 300 risks in its 16 industrial base sectors, including 35 priority risks.[25] The assessment also identified the key organizations that oversee risk mitigation efforts, which partially addressed another desirable characteristic.

The content of the other three documents provided limited additional information that would address the elements of a national strategy. For example:

[25]According to Industrial Base Policy officials, priority risks evolve over time, and some of the 35 risks identified in the 13806 report may have been mitigated and are no longer a priority.

- The Combined Resource and Policy Strategy provides an overview of the key organizations that oversee risk mitigation efforts and how they are to coordinate with each other.
- The Unfunded Priorities report identified the unfunded projects and investments needed in the defense sectors to address some priority risk areas as of September 2020. This report listed a number of unfunded, high priority items identified because of the COVID-19 pandemic. For strategic planning purposes, this type of information would be useful when combined with other resource data to determine total resource needs.
- The Fiscal Year 2020 annual Industrial Capabilities Report provides examples of mitigation efforts DOD is pursuing to address supply chain gaps and vulnerabilities. It also identified the key organizations that oversee risk mitigation efforts.

The documents collectively do not include other elements that are key to developing a comprehensive strategy, such as identifying

- implementation plans that provide specific details to guide efforts;
- performance measures to gauge progress and results;
- the overall resources required to mitigate the risks and where to target them; and
- the organizations responsible for leading each mitigation effort.

Moreover, since the strategy is dispersed among several documents instead of consolidated in one, its effectiveness as a planning tool for implementing organizations and for informing Congress about the pace, costs, and intended results of risk mitigation efforts is limited.

DOD is required to submit a defense industrial base strategy within 180 days after the date of submission of the National Security Strategy Report, which is required under section 108 of the National Security Act of 1947 and is expected to be issued later in 2022.[26] In its March 2021 report to Congress, DOD stated that its next strategy would be included in a consolidated document. However, in April 2022, an Industrial Base Policy official told us that it was too soon to determine if the department would develop a consolidated strategy or continue to rely on multiple documents. Further, the Industrial Base Policy office had not determined what information the next strategy will contain; therefore, it is too early to

[26]10 U.S.C. § 4811.

tell if all elements of the desirable characteristics that we identified will be included.

By including all elements of the desirable characteristics—the purpose, risks, milestones, performance measures, required resources, responsible organizations, and implementation plan for mitigating industrial base risks—in a consolidated strategy, DOD could better ensure the likelihood of successful implementation. Without including comprehensive information in a consolidated document, DOD cannot ensure that all appropriate DOD organizations are working toward the same priorities, promoting supply chain resiliency, and supporting national security objectives.

Industrial Base Policy Office Identified Resource Challenges and Experienced Leadership Turnover

According to Industrial Base Policy officials, DOD did not develop a consolidated strategy because it prioritized its resources on completing other efforts—such as the 2018 and 2022 assessments and annual Industrial Capabilities Reports—and supporting the procurement of medical supplies for the COVID-19 pandemic. The office also experienced significant turnover of senior leadership.

Industrial Base Policy officials stated that the office has insufficient resources to handle and oversee all assigned responsibilities in a timely manner. Officials stated that as a result, the office is behind schedule in developing the Section 845 analytical framework and implementation plan that was due in March 2020. Although the office can contract for short-term support services based on its budget allocation, an Industrial Base Policy official said its current workforce, which included 51 government employees and 148 contractors as of March 2022, is not enough to keep up with the growing workload. The official also stated that high levels of senior leadership turnover also resulted in constantly shifting priorities and resources for the office. For example, the official stated that there has been considerable turnover in the Deputy Assistant Secretary of Defense position, as nine officials held that senior leadership position between 2018 and 2022.

Recent legislation created the position of the Assistant Secretary of Defense for Industrial Base Policy, which will replace the position of the

Deputy Assistant Secretary of Defense for Industrial Policy.[27] Conferees to the legislation noted that the newly created office was intended to help DOD with the significantly increasing workload of the office due to the pandemic and associated efforts to support the defense industrial base and expand its industrial capacity, among other things. Industrial Base Policy officials stated that elevating the position will help prioritize industrial base issues within the department and provide much needed stability in the position. Further, officials said the elevated position may also help the office compete internally for additional resources. As DOD works through its challenges and assumes new leadership, it will be important for the department to have a consolidated and comprehensive strategy to guide its risk mitigation efforts now and in the future.

DOD Has Limited Insight into Its Progress Mitigating Industrial Base Risks

Various DOD organizations monitor the results of individual risk mitigation efforts they fund, but the Office of Industrial Base Policy and the military services do not have performance measures that would allow them to monitor the aggregate effectiveness of the billions of dollars spent on these mitigation efforts. This shortfall in enterprise-wide monitoring, in turn, has limited DOD's ability to report on its progress toward mitigating industrial base risks.

DOD Does Not Monitor the Aggregate Effectiveness of Its Efforts to Mitigate Risks

DOD has limited enterprise-wide insight into its progress addressing industrial base risks because it does not monitor the aggregate effectiveness of numerous, ongoing risk mitigation efforts. Instead, Industrial Base Policy and military service officials stated that lower-level organizations, such as systems commands, program offices, and DOD-wide investment programs, monitor their individual mitigation efforts to determine if they have been completed and achieved intended outcomes. For example, these organizations may monitor the qualification of new suppliers for projects mitigating sole-source risks, the installation of new equipment and production lines for projects mitigating domestic

[27]William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116-283, § 903 (2021).

production constraints, or the creation of training programs for projects mitigating workforce risks.

The charter for DOD's Industrial Base Council states that the Industrial Base Policy office, the military services, and other stakeholder organizations are responsible for monitoring industrial base risk mitigation efforts carried out across the DOD enterprise and providing aggregate assessments of the industrial base. According to DOD officials, within this context, the military services are responsible for mitigating and monitoring the industrial base risks within their respective service enterprises. They then work with the Industrial Base Policy office and other stakeholders to mitigate risks that extend across the DOD enterprise or require substantial funding to address.

However, Industrial Base Policy officials stated that their office does not currently monitor how much progress, if any, has been made in addressing industrial base risks across the department as risk mitigation efforts are carried out. Army, Air Force, Navy, and Marine Corps officials similarly stated that they do not monitor service-wide progress in addressing their respective industrial base risks. These officials indicated that monitoring information currently available within their military service does not provide them with robust information about how their service-wide risks changed over time based on their mitigation efforts.

In our prior work, we found that when agencies conduct enterprise risk management activities such as these, they should monitor how risks change and if risk mitigation efforts are successful.[28] To do so effectively, we found it is a good practice for agencies to establish enterprise-wide performance measures that indicate the aggregate effect of mitigation efforts and any corresponding progress in addressing risks. Agencies can then determine if they successfully addressed risks or if additional mitigation efforts are necessary.

We found that the Industrial Base Policy office and the military services are not able to conduct enterprise-wide monitoring because they have not established performance measures against which the aggregate effectiveness of implemented mitigation efforts can be assessed. In particular, Industrial Base Policy officials stated that their office does not have DOD-wide performance measures that they can use to monitor progress in addressing industrial base risks across the department as mitigation efforts are carried out. Officials from the Air Force, Army, Navy,

[28]GAO-17-63.

and Marine Corps similarly stated that they do not have service-wide performance measures against which they can monitor progress in addressing their military service's respective risks. Figure 4 describes examples of gaps in enterprise-wide monitoring that have limited DOD's insights into the effectiveness of billions of dollars spent on mitigation efforts.

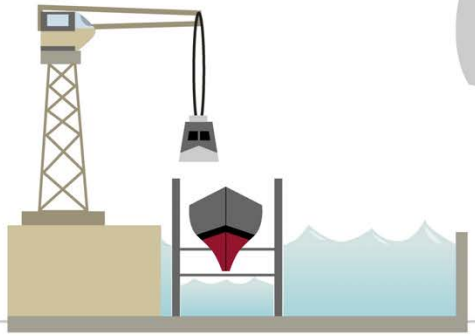
Figure 4: Examples of Department of Defense (DOD) Risk Mitigation Efforts and Monitoring Gaps, Fiscal Years 2018-2022

Shipbuilding sector

The Navy and other DOD organizations have implemented numerous mitigation efforts to help address risks in the shipbuilding sector, For example,

- → Submarine and destroyer programs have budgeted nearly $900 million and $130 million, respectively, to address existing suppliers' capacity and workforce risks and to develop additional supply sources.
- → DOD reported using $236 million in CARES Act Defense Production Act Title III funding to address fragile Navy suppliers' financial risks, which were exacerbated by the COVID-19 pandemic.
- → DOD officials reported that the Navy has used $28 million in Industrial Base Analysis and Sustainment Program funding to develop training partnership programs since 2019 to address workforce risks.

In fiscal years 2019 and 2020, DOD started describing the risks in the shipbuilding sector as remaining "stable" or "steady," although it did not describe how it made this determination. According to Navy officials, their military service does not have enterprise-wide performance measures to monitor progress in addressing risks.



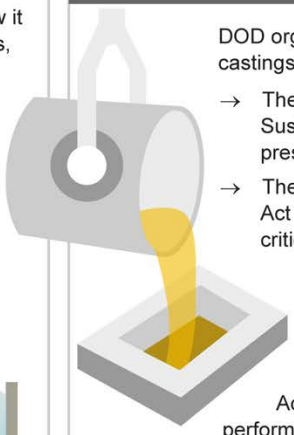
Microelectronics sector

Various DOD organizations have implemented efforts on their own and in coordination with other federal agencies to mitigate microelectronics sector risks. For example,

- → DOD reported using $125 million in Defense Production Act Title III funding since fiscal year 2021 to sustain a domestic microelectronics manufacturer.
- → In fiscal year 2022, the Air Force reported using $885 million to make a lifetime buy of certain microelectronics components because manufacturing lines were closing.
- → DOD is coordinating with the Department of Commerce and other federal agencies to implement government-wide efforts—potentially costing up to $52 billion—to incentivize domestic production of semiconductors for microelectronics.

According to DOD officials, DOD does not have enterprise-wide performance measures to monitor progress in addressing risks.

Castings and forging supply chain



DOD organizations have implemented efforts to mitigate risks in the castings and forgings supply chain.[a] For example,

- → The Navy reported working with the Industrial Base Analysis and Sustainment program in fiscal year 2018 to invest $5.5 million to preserve casting capabilities at a key shipbuilding supplier.
- → The Army reported using $15.7 million from the Defense Production Act Title III program to modernize the production capabilities of a critical castings supplier in fiscal year 2019.

In 2021, the Industrial Base Policy office identified this supply chain as a DOD-wide priority focus area after determining that several organizations across DOD were experiencing similar risks and needed to coordinate their mitigation efforts.

According to DOD officials, DOD does not have enterprise-wide performance measures to monitor progress in addressing risks.

Source: GAO analysis of Department of Defense information. | GAO-22-104154

Accessible Data for Figure 4: Examples of Department of Defense (DOD) Risk Mitigation Efforts and Monitoring Gaps, Fiscal Years 2018-2022

Category	Category Information
Shipbuilding sector	The Navy and other DOD organizations have implemented numerous mitigation efforts to help address risks in the shipbuilding sector, For example, Submarine and destroyer programs have budgeted nearly $900 million and $130 million, respectively, to address existing suppliers' capacity and workforce risks and to develop additional supply sources. DOD reported using $236 million in CARES Act Defense Production Act Title III funding to address fragile Navy suppliers' financial risks, which were exacerbated by the COVID-19 pandemic. DOD officials reported that the Navy has used $28 million in Industrial Base Analysis and Sustainment Program funding to develop training partnership programs since 2019 to address workforce risks. In fiscal years 2019 and 2020, DOD started describing the risks in the shipbuilding sector as remaining "stable" or "steady," although it did not describe how it made this determination. According to Navy officials, their military service does not have enterprise-wide performance measures to monitor progress in addressing risks.
Microelectronics sector	Various DOD organizations have implemented efforts on their own and in coordination with other federal agencies to mitigate microelectronics sector risks. For example, DOD reported using $125 million in Defense Production Act Title III funding since fiscal year 2021 to sustain a domestic microelectronics manufacturer. In fiscal year 2022, the Air Force reported using $885 million to make a lifetime buy of certain microelectronics components because manufacturing lines were closing. DOD is coordinating with the Department of Commerce and other federal agencies to implement government-wide efforts—potentially costing up to $52 billion—to incentivize domestic production of semiconductors for microelectronics. According to DOD officials, DOD does not have enterprise-wide performance measures to monitor progress in addressing risks.
Castings and forging supply chain	DOD organizations have implemented efforts to mitigate risks in the castings and forgings supply chain.a For example, The Navy reported working with the Industrial Base Analysis and Sustainment program in fiscal year 2018 to invest $5.5 million to preserve casting capabilities at a key shipbuilding supplier. The Army reported using $15.7 million from the Defense Production Act Title III program to modernize the production capabilities of a critical castings supplier in fiscal year 2019. In 2021, the Industrial Base Policy office identified this supply chain as a DOD-wide priority focus area after determining that several organizations across DOD were experiencing similar risks and needed to coordinate their mitigation efforts. According to DOD officials, DOD does not have enterprise-wide performance measures to monitor progress in addressing risks.

[a]Cast and forged parts are metal parts used in the development, procurement and sustainment of all major defense systems, such as ships, aircraft, ground combat vehicles, missiles, guns, and ammunition. Casting is the process used to create complex parts by pouring molten or high-temperature metal or composites into a mold. Forging is the process used to develop metal parts by pounding, pressing, or squeezing metals under great pressure.

Officials from the Industrial Base Policy office and the military services generally recognize the need to improve enterprise-wide monitoring of DOD's progress in mitigating risks, and they identified new initiatives that may help their monitoring efforts going forward. For example, the Navy created a Shipbuilding Industrial Base Task Force in 2020, in part to coordinate mitigation efforts across the Navy's shipbuilding enterprise. DOD also created a Defense Microelectronics Cross-Functional Team and a castings and forgings working group in 2021 to coordinate numerous efforts in those supply chains. DOD officials stated that all of these groups are attempting to improve enterprise-wide management of industrial base risks in their areas of responsibility, but it is too soon to determine what changes will be made to DOD's monitoring practices in those areas.

Officials from Industrial Base Policy and each military service also stated that there are initiatives to improve DOD's industrial base data. Officials said such data initiatives are needed because neither Industrial Base Policy nor the military services have centralized databases to collect, integrate, and share data on defense industrial base risks and mitigation efforts. As a result, officials stated that they have not been able to efficiently access and integrate all of the data they would need for enterprise-wide monitoring efforts. Examples of ongoing data initiatives include:

- The Industrial Base Policy office is leading a Supply Chain Resiliency Working Group to catalog available DOD industrial base data, identify data gaps, standardize data collection, and develop proposals to integrate disparate data sources into a centralized database.
- Air Force officials stated they are developing a new industrial base risk register that would integrate information on supply chain vendors, risks, and mitigation efforts from several existing data sources. According to Air Force officials, their goal is to better identify industrial base risks that affect multiple Air Force acquisition programs and share information about ongoing mitigation efforts across their military service.

We reported on previous DOD attempts to create a centralized industrial base database and identified its challenges to doing so, such as workforce issues and integrating disparate data sources. We made two recommendations to improve DOD's industrial base data efforts, one of

which DOD is still working to implement.[29] According to Industrial Base Policy and military service officials, their data initiatives continue to face a number challenges, which they said need to be addressed in order to successfully implement them. For example, officials stated that they need to secure funding for these efforts, gain access to disparate data sources, standardize the data, and ensure their workforce is able to access and analyze the data, among other things. Given these challenges, officials noted that it could take several years to improve DOD's industrial base data.

DOD's efforts to create working groups and improve its industrial base data, however, will not be enough to enable the department to monitor its progress in mitigating industrial base risks. Until the Industrial Base Policy office and the military services establish performance measures to monitor the aggregate effectiveness of implemented risk mitigation efforts, they will continue to have limited insight into DOD's progress in mitigating industrial base risks. Further, DOD will continue to be at risk of investing billions of dollars in risk mitigation efforts without an accurate understanding of whether these investments successfully addressed risks or what additional actions and resources may be needed.

Annual Industrial Capabilities Reports Do Not Identify DOD's Progress in Mitigating Industrial Base Risks

DOD issues annual Industrial Capabilities Reports on the defense industrial base, but the reports do not include DOD's progress in mitigating its industrial base risks. DOD is required to annually provide Congress a summary of its recent industrial base assessments and risks, and describe necessary mitigation efforts, among other things.[30] According to DOD officials, these reports are DOD's primary department-

[29]GAO, *Defense Industrial Base: Integrating Existing Supplier Data and Addressing Workforce Challenges Could Improve Risk Analysis*, GAO-18-435 (Washington, D.C.: June 13, 2018). In our 2018 report, we made two recommendations to DOD to: (1) determine a solution to make better use of existing lower-tier supplier information from program offices, and (2) identify the appropriate workforce mix with the requisite skills and capabilities needed to collect and analyze business-sensitive proprietary data. As of April 2022, DOD has taken action to implement the second recommendation, but has not yet implemented the first recommendation. We are continuing to monitor DOD's efforts to address our recommendation.

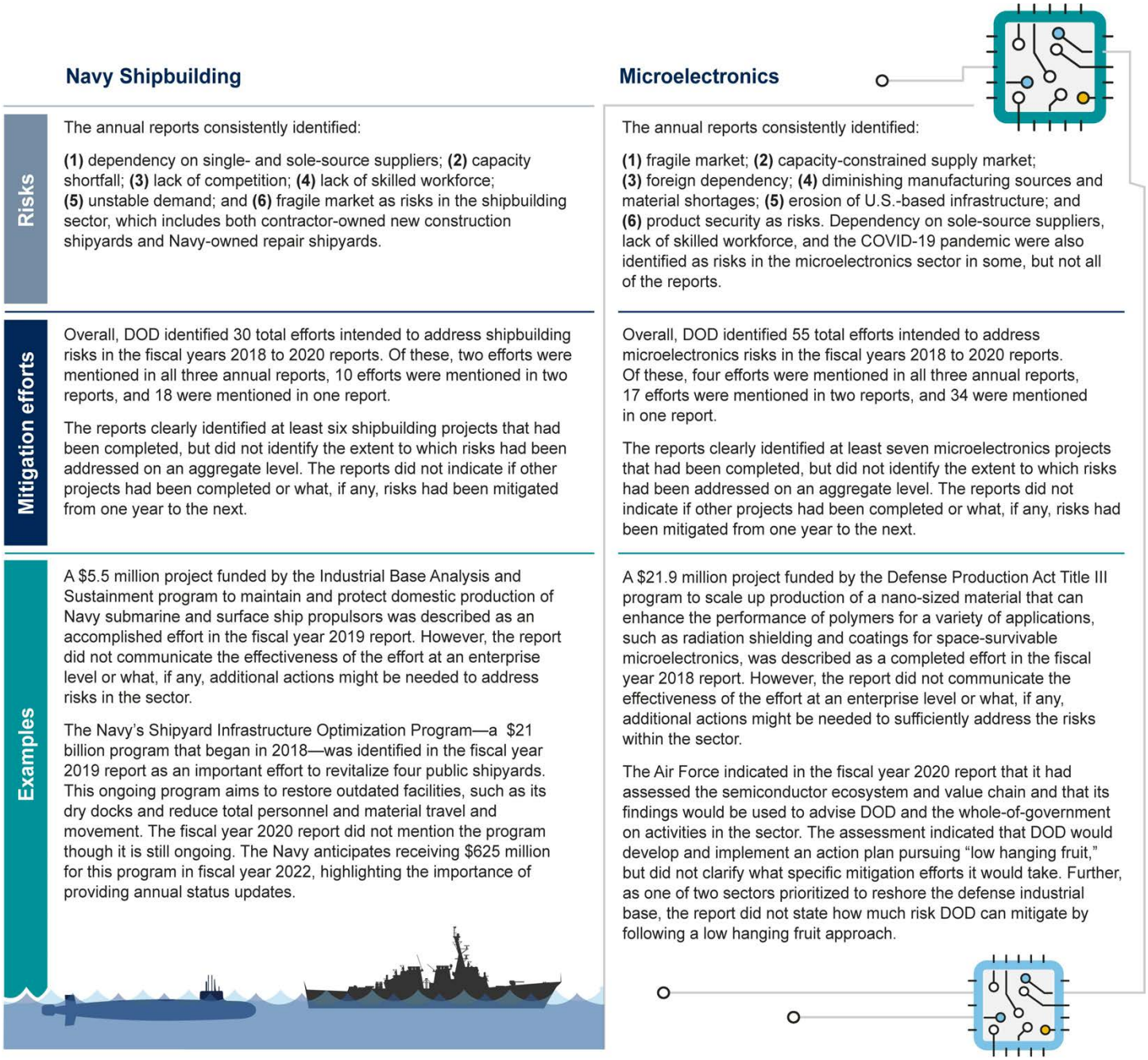
[30]10 U.S.C. § 4814.

wide reporting tool for spotlighting industrial base risks and the mitigation efforts for addressing risks.

We reviewed DOD's annual Industrial Capabilities Reports for fiscal years 2018 through 2020 and found that each report contained over 100 pages of information. For example, the reports included summary assessments of defense industrial base sectors, examples of mitigation efforts, and projects funded by DOD-wide investment programs. We also found that generally the focus of the annual reports changed over time. For example, the fiscal years 2018 and 2019 annual reports included the status of some mitigation efforts identified in DOD's 2018 assessment. The fiscal year 2020 report shifted to discussing new assessments prompted by the COVID-19 pandemic. Industrial Base Policy officials said the focus of the fiscal year 2021 report will shift to highlighting information on the five supply chains identified in DOD's 2022 assessment of industrial base risks and a few other selected supply chains.

As part of our analysis, we examined information included in the fiscal years 2018 to 2020 Industrial Capabilities Reports about microelectronics and shipbuilding—sectors that DOD identified as priority areas—to assess the extent to which DOD reported on its progress for mitigating risks in these sectors. In both cases, DOD did not report on the status of most mitigation efforts or the extent to which sector risks were mitigated over this period. Figure 5 provides additional details of our analysis.

Figure 5: Selected Examples of Risk Mitigation Information in the Department of Defense's (DOD) Annual Industrial Capabilities Reports, Fiscal Years 2018-2020



Source: GAO analysis of the Department of Defense's Fiscal Year 2018-2020 Industrial Capabilities Reports. | GAO-22-104154

Accessible Data for Figure 5: Selected Examples of Risk Mitigation Information in the Department of Defense's (DOD) Annual Industrial Capabilities Reports, Fiscal Years 2018-2020

	Navy Shipbuilding	Microelectronics
Risks	The annual reports consistently identified: (1) dependency on single- and sole-source suppliers; (2) capacity shortfall; (3) lack of competition; (4) lack of skilled workforce; (5) unstable demand, and (6) fragile market as risks in the shipbuilding sector, which includes both contractor-owned new construction shipyards and Navy-owned repair shipyards.	The annual reports consistently identified: (1) fragile market; (2) capacity-constrained supply market;(3) foreign dependency; (4) diminishing manufacturing sources and material shortages; (5) erosion of U.S.-based infrastructure; and (6) product security as risks. Dependency on sole source suppliers, lack of skilled workforce, and the COVID-19 pandemic were also identified as risks in the microelectronics sector in some, but not all of the reports.
Mitigation efforts	Overall, DOD identified 30 total efforts intended to address shipbuilding risks in the fiscal years 2018 to 2020 reports. Of these, two efforts were mentioned in all three annual reports, 10 efforts were mentioned in two reports, and 18 were mentioned in one report. The reports clearly identified at least six shipbuilding projects that had been completed, but did not identify the extent to which risks had been addressed on an aggregate level. The reports did not indicate if other projects had been completed or what, if any risks had been mitigated from one year to the next.	Overall, DOD identified 55 total efforts intended to address microelectronics risks in the fiscal years 2018 to 2020 reports. Of these, four efforts were mentioned in all three annual reports, 17 efforts were mentioned in two reports, and 34 were mentioned in one report. The reports clearly identified at least seven microelectronics projects that had been completed, but did not identify the extent to which risks had been addressed on an aggregate level. The reports did not indicate if other projects had been completed or what, if any risks had been mitigated from one year to the next.

	Navy Shipbuilding	Microelectronics
Examples	A $5.5 million project funded by the Industrial Base Analysis and Sustainment program to maintain and protect domestic production of Navy submarine and surface ship propulsors was described as an accomplished effort in the fiscal year 2019 report. However, the report did not communicate the effectiveness of the effort at an enterprise level or what, if any, additional actions might be needed to address risks in the sector. The Navy's Shipyard Infrastructure Optimization Program—a $21 billion program that began in 2018—was identified in the fiscal year 2019 report as an important effort to revitalize four public shipyards. This ongoing program aims to restore outdated facilities, such as its dry docks and reduce total personnel and material travel and movement. The fiscal year 2020 report did not mention the program though it is still ongoing. The Navy anticipates receiving $625 million for this program in fiscal year 2022, highlighting the importance of providing annual status updates.	A $21.9 million project funded by the Defense Production Act Title III program to scale up production of a nano-sized material that can enhance the performance of polymers for a variety of applications, such as radiation shielding and coatings for space-survivable microelectronics, was described as a completed effort in the fiscal year 2018 report. However, the report did not communicate the effectiveness of the effort at an enterprise level or what, if any, additional actions might be needed to sufficiently address the risks within the sector. The Air Force indicated in the fiscal year 2020 report that it had assessed the semiconductor ecosystem and value chain and that its findings would be used to advise DOD and the whole-of-government on activities in the sector. The assessment indicated that DOD would develop and implement an action plan pursuing "low hanging fruit," but did not clarify what specific mitigation efforts it would take. Further, as one of two sectors prioritized to reshore the defense industrial base, the report did not state how much risk DOD can mitigate by following a "low hanging fruit" approach.

Source: GAO analysis of the Department of Defense's Fiscal Year 2018-2020 Industrial Capabilities Reports. | GAO-22-104154

Our prior work on enterprise risk management establishes that when agencies communicate risks with internal and external stakeholders and incorporate their feedback, they are better able to identify and manage risks.[31] Reporting information on results informs stakeholders about the status of identified risks and the progress of associated mitigation efforts. It also assures them that agency leaders are managing the risks effectively. Further, agencies increase transparency and accountability to Congress and taxpayers regarding their actions. Our past work also found it is a good practice for agencies to communicate risk information through a dedicated risk management report, such as the annual Industrial Capabilities Report used by DOD. However, as described in figure 5,

[31]GAO-17-63.

DOD has not consistently communicated information about its progress in mitigating risks in its annual Industrial Capabilities Reports.

According to Industrial Base Policy officials, DOD has not included information about its progress in mitigating risks in the annual Industrial Capabilities Reports for a few reasons. First, they stated that because the reports are publicly available, DOD is limited in the amount of detail it can report on sensitive mitigation efforts or multiyear progress. However, GAO's enterprise risk management framework takes into consideration increased concerns about sharing sensitive information or risk responses. Specifically, agencies can alleviate concerns by establishing safeguards, such as communicating information only to appropriate parties, encrypting data, authorizing users' levels of rights and privileges, and providing information on a need-to-know basis. For example, DOD previously used non-publicly available appendixes in the annual Industrial Capabilities Reports to provide Congress additional sensitive information related to projects funded by DOD-wide investment programs and assessments by various DOD organizations.

Second, officials said that DOD does not currently have the information it needs to report on its progress in mitigating industrial base risks. As discussed earlier, Industrial Base Policy and the military services do not have performance measures to help them monitor the aggregate effect of mitigation efforts carried out across DOD. Air Force officials described the information in the annual reports as qualitative assessments based on professional judgement instead of measurable quantitative metrics. Industrial Base Policy officials stated that they develop the annual Industrial Capabilities Reports by compiling information from various DOD organizations, but do not analyze the information on an aggregate level to communicate DOD's progress in mitigating risks.

Industrial Base Policy officials stated that they plan to improve the usefulness of the department's annual reports by identifying specific and actionable recommendations to address its industrial base risks. However, these officials told us they have yet to determine whether DOD would provide updates on the implementation of such recommendations in its future reports. Until DOD ensures its industrial base reports communicate its progress in mitigating industrial base risks, Congress and DOD will continue to have incomplete information about the extent to which defense industrial base risks have been mitigated and what additional actions or resources may be needed to better manage risks.

Conclusions

DOD recognizes the importance of maintaining a healthy industrial base to support U.S. national security goals and is well versed at identifying risks. However, the Industrial Base Policy office has struggled to provide the leadership and strategic vision needed to mitigate risks, some of which have been known for decades, such as in the shipbuilding and microelectronics sectors. DOD's current industrial base strategy, spread out over four different reports, does not contain some desirable characteristics that our prior work shows are essential for guiding the investment of billions of dollars to mitigate risks, including an implementation plan. By addressing in a single document all desirable characteristics of a national strategy—the purpose, risks, milestones, performance measures, required resources, responsible organizations, and implementation plan for mitigating risks—DOD can better ensure its organizations are working toward the same priorities, promoting supply chain resiliency, and ensuring the industrial base supports national security objectives.

Congress and other stakeholders have limited insight on how effectively DOD used the billions of dollars it spent on risk mitigation efforts since fiscal year 2018. This is because the Industrial Base Policy office and the military services have not developed performance measures to gauge their enterprise-wide progress or consistently reported on DOD's efforts through the annual Industrial Capabilities Report. DOD acknowledged these shortcomings and is working on ways to consolidate available data in its various information systems that could facilitate better monitoring and reporting. Such data efforts could be helpful but are years away from completion. Until DOD makes improvements to its monitoring and reporting practices, it will continue to be at risk of investing billions of dollars in mitigation efforts without an accurate understanding of how successful these efforts are in addressing industrial base risks or what additional actions and resources may be needed.

Recommendations for Executive Action

We are making the following six recommendations to DOD:

The Secretary of Defense should ensure that the National Technology and Industrial Base strategy is in a consolidated document and

comprehensive, such as by including required resources and an implementation plan. (Recommendation 1)

The Secretary of Defense should ensure that the Assistant Secretary of Defense for Industrial Base Policy, in coordination with the Industrial Base Council, develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for DOD-wide industrial base risks. (Recommendation 2)

The Secretary of the Air Force should ensure that the Assistant Secretary of the Air Force for Acquisition, Technology and Logistics develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for Air Force and Space Force industrial base risks. (Recommendation 3)

The Secretary of the Army should ensure that the Assistant Secretary of the Army for Acquisition, Logistics, and Technology develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for Army industrial base risks. (Recommendation 4)

The Secretary of the Navy should ensure that the Assistant Secretary of the Navy for Research, Development, and Acquisition develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for Navy and Marine Corps industrial base risks. (Recommendation 5)

The Secretary of Defense should ensure that DOD reports its progress toward mitigating industrial base risks. For example, this information could be included in DOD's annual Industrial Capabilities Reports, which already include sector risk assessments. (Recommendation 6)

Agency Comments

We provided DOD a draft of this product for review and comment. In its written comments, reproduced in appendix II, DOD and the military services concurred with five recommendations. DOD stated that it is aware of the need for performance measures to monitor the aggregate effectiveness of mitigation efforts for DOD-wide industrial base risks and that it is actively developing metrics aligned to the five focus areas in the Executive Order 14017 report. The Navy also stated that it is working to establish measures to track industrial base supply efforts within the

military service. Further, DOD plans to identify the best way to report progress based on the metrics and performance measures.

DOD partially concurred with recommendation 1. DOD stated that it agrees with the importance of a comprehensive National Technology and Industrial Base strategy that includes (among other things) resourcing and an implementation plan. With the reorganization of Industrial Base Policy, DOD also plans for more routine and consolidated reports to streamline responses to existing reporting requirements. Particularly, DOD stated that it will evaluate ways to streamline similar reports that cover aspects of the National Technology and Industrial Base strategy into other industrial base analytical products for a cohesive picture of the problem and strategy. DOD noted, however, that a separate strategy document is not necessary as information is already provided in other existing required reports and would unnecessarily divert limited resources. As DOD works to make its strategy more comprehensive and cohesive, we will monitor its efforts to implement the recommendation.

We are sending copies of this report to the appropriate congressional committees and the Secretary of Defense, Secretaries of the Air Force, Army, and Navy as well as Assistant Secretary of Defense for Industrial Base Policy. In addition, the report is available at no charge on the GAO website at https://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-4841 or russellw@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

W. William Russell
Director, Contracting and National Security Acquisitions

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Appendix I: Objectives, Scope, and Methodology

The National Defense Authorization Act for Fiscal Year 2020 included a provision that directed GAO to review the Department of Defense's (DOD) efforts to establish an analytical framework for defense industrial base risk mitigation across the acquisition process. At the time of this review, DOD had not issued this analytical framework. This review assesses: (1) DOD's strategy for mitigating defense industrial base risks, and (2) the extent to which DOD is monitoring and reporting on its progress in mitigating risks.

To address both of these objectives, we collected information on DOD's defense industrial base risks, and the general process for identifying, prioritizing, and mitigating risks. In support of this effort, we reviewed key DOD industrial base assessments and reports issued since fiscal year 2018, including annual Industrial Capabilities Reports and DOD's reports in response to Executive Order 13806 (*Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States*) and Executive Order 14017 (*America's Supply Chains*).

We also conducted interviews with officials across DOD who have a role in managing and mitigating defense industrial base risks. This included officials from the Office of Industrial Base Policy; the military services (Air Force, Army, Navy, and Marine Corps); the DOD-wide industrial base investment programs (Defense Production Act Title III program, Industrial Base Analysis and Sustainment program, and Manufacturing and Technology program); and other stakeholder organizations.

To assess DOD's strategy for mitigating defense industrial base risks, we reviewed four documents that DOD identified as its defense industrial base strategy in a March 2021 report to Congress. The reports and industrial base assessments include:

- Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States: Report to President Donald J. Trump by the Interagency Task Force in Fulfillment of Executive Order 13806 (September 2018);

- Combined Resource and Policy Strategy to Address U.S. Defense Industrial Base Vulnerabilities (July 2020);
- Report on the Unfunded Priorities of the National Technology and Industrial Base (September 2020); and
- The Fiscal Year 2020 Industrial Capabilities Report to Congress (January 2021).

We analyzed the four documents as DOD's strategy and compared them to the desirable characteristics of effective national strategies that we previously reported that agencies should consider in their strategic plans. The previous report identified examples of elements that comprise these desirable characteristics to aid responsible parties in further developing and implementing the strategies—and to enhance their usefulness in resource and policy decisions and to better assure accountability. For our purposes, we reviewed and adapted elements that were relevant to our assessment of DOD's risk mitigation strategy. Table 3 describes the desirable characteristics and the elements we used in our review.

Table 3: Six Desirable Characteristics of Effective National Strategies

Desirable Characteristic	Brief description	Elements
Purpose, scope, and methodology	Addresses why the strategy was produced, the scope of its coverage, and the process by which it was developed.	• Statement of broad or narrow purpose, as appropriate. • What major functions, mission areas, or activities it covers. • Impetus for strategy, e.g., statutory requirement or event. • Process to produce strategy.
Problem definition and risk assessment	Addresses the particular national problems and threats the strategy is directed toward.	• Discussion or definition of problems, their causes, and operating environment. • Risk assessment, including an analysis of threats and vulnerabilities.
Goals, subordinate objectives, activities, and performance measures	Addresses what the strategy is trying to achieve, steps to achieve those results, as well as the priorities, milestones, and performance measures to gauge results.	• Overall results desired, i.e., end-state. • Priorities, milestones, and outcome-related performance measures.
Resources, investments, and risk management	Addresses what the strategy will cost, the sources and types of resources and investments needed, and where resources and investments should be targeted based on balancing risk reductions with costs.	• Resources and investments associated with the strategy. • Types of resources required.
Organizational roles, responsibilities, and coordination	Addresses who will be implementing the strategy, what their roles will be compared to others, and mechanisms for them to coordinate their efforts.	• Roles and responsibilities of specific federal agencies, departments, or offices. • Lead, support, and partner roles and responsibilities. • Specific processes for coordination and collaboration.

Desirable Characteristic	Brief description	Elements
Integration and implementation	Addresses how a national strategy relates to other strategies' goals, objectives, and activities, and to subordinate levels of government and their plans to implement the strategy.	• Integration with relevant documents from implementing organizations (vertical). • Implementation guidance.

Source: GAO-04-408T. | GAO-22-104154

We developed a summary analysis of the DOD documents to identify which elements of the characteristics the documents addressed or did not address. We also reviewed recent key legislation, statutes, and presidential directives related to mitigating defense industrial base risks.

In addition, we interviewed Industrial Base Policy officials on the challenges they experienced when developing the strategy and DOD's plans for developing a new strategy. DOD is required to submit a new strategy within 180 days after the date of submission of the national security strategy report, which is required under section 108 of the National Security Act of 1947 and is expected to be issued later in 2022.

To assess the extent to which DOD's monitoring practices provide insight into its progress addressing industrial base risks, we reviewed DOD policy, guidance, and charters to identify what requirements, if any, exist for DOD organizations to monitor the outcomes and effectiveness of risk mitigation efforts. For example, we reviewed the Industrial Base Council Charter to determine the role of the Office of Industrial Base Policy, the military services, and other stakeholders in monitoring industrial base risks and mitigation efforts across the DOD enterprise. We also reviewed DOD and military service policies for acquisition management and industrial base assessments to determine which officials have a role in monitoring industrial base risks and how such monitoring efforts are incorporated in the acquisition process, if at all. Additionally, we reviewed guidance for the DOD-wide industrial base investment programs and reviewed examples of project documentation from fiscal years 2018 to 2021 to identify how the programs monitor the outcomes of their projects.

To further understand how DOD officials monitor progress addressing industrial base risks, we interviewed officials from the Office of Industrial Base Policy, the military services, and the DOD-wide industrial base investment programs. Through these interviews, we collected information about current enterprise-wide (i.e., DOD-wide or service-wide) monitoring tools and processes, efforts to monitor the outcomes of individual mitigation efforts, and the use of performance indicators to facilitate monitoring. In addition, we identified examples of risk mitigation measures

from fiscal years 2018 to 2021 in DOD's annual Industrial Capabilities Reports and budget documents and discussed with DOD officials the extent to which current monitoring practices provide insight into the effectiveness of such efforts. We also discussed new DOD initiatives to improve monitoring of industrial base risk mitigation efforts and any challenges that could impede the implementation of these new efforts. Finally, to determine the extent to which DOD's approach to monitoring risk mitigation efforts reflects good practices, we compared DOD's monitoring practices to GAO's framework for enterprise risk management.[1]

To assess the extent to which DOD's reporting provides insight into its progress addressing industrial base risks, we reviewed DOD's annual Industrial Capabilities Reports for fiscal years 2018 through 2020 and the statute governing these reports.[2] According to Industrial Base Policy officials, the annual reports are DOD's primary mechanism for communicating industrial base risks.[3] We selected two industrial base sectors included in these reports—shipbuilding and microelectronics—as case studies for detailed analysis. We selected these specific sectors as case studies based on their identification by DOD in the fiscal year 2020 Industrial Capabilities Report as two priority areas in its efforts to reshore the defense industrial base and defense supply chains to the U.S. and its allies. These case studies provide illustrative examples of DOD's reporting on progress in addressing industrial base risks and are not generalizable to all sectors.

We analyzed the reports to determine the extent to which DOD identified priority risks in these sectors, proposed risk mitigation efforts, and described the status of these efforts and their effectiveness in mitigating risks over time.

We also interviewed officials from the Office of Industrial Base Policy, the military services, DOD-wide industrial base investment programs, and other DOD organizations, including the Shipbuilding Industrial Base Task Force and the Defense Microelectronics Cross-Functional Team. Through these interviews, we collected and analyzed information on DOD's current

[1]GAO, *Enterprise Risk Management: Selected Agencies' Experiences Illustrate Good Practices in Managing Risks,* GAO-17-63 (Washington, D.C.: Dec. 1, 2016).

[2]Formerly cited as 10 U.S.C. § 2504, now found at 10 U.S.C. § 4814.

[3]At the time of this review, DOD's Fiscal Year 2021 annual Industrial Capabilities Report had not been issued.

reporting practices, including which DOD organizations contribute to the annual Industrial Capabilities Reports and the type of information included in the reports. We also discussed new DOD initiatives to improve reporting of industrial base risk mitigation efforts, including proposals to change the formatting and content of the annual Industrial Capabilities Report to improve transparency, traceability, and utility. Finally, to determine the extent to which DOD's approach to risk mitigation reporting reflects good practices for enterprise risks management, we compared DOD's reporting practices to GAO's framework for enterprise risk management.

We conducted this performance audit from March 2020 to July 2022 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from the Department of Defense

ACQUISITION
AND SUSTAINMENT

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

Mr. W. William Russell
Director, Contracting and National Security Acquisitions
U.S. Government Accountability Office
441 G Street, NW
Washington DC 20548

Dear Mr. Russell:

This is the Department of Defense (DoD) response to the Government Accountability Office (GAO) Draft Report GAO-22-104154, "Defense Industrial Base: DOD Should Take Actions to Strengthen Its Risk Mitigation Approach," dated May 12, 2022 (GAO Code 104154).

The Department is providing the enclosed official written comments for inclusion in the report. DoD partially concurs with Recommendation 1 and concurs with Recommendations 2 and 6. The Departments of the Air Force, Army, and Navy concur with Recommendations 3, 4, and 5 respectively.

Sincerely,

NAJIEB-LOCKE.HALIMAH.A.1598514581 Digitally signed by NAJIEB-LOCKE.HALIMAH.A.1598514581 Date: 2022.06.22 11:10:46 -04'00'

Halimah Najieb-Locke
Deputy Assistant Secretary of Defense for
Industrial Base Resilience

Enclosure:
As stated

GAO DRAFT REPORT DATED MAY 12, 2022
GAO-22-104154 (GAO CODE 104154)

"DEFENSE INDUSTRIAL BASE: DOD Should Take Actions to Strengthen Its Risk Mitigation Approach"

DEPARTMENT OF DEFENSE COMMENTS TO THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The Secretary of Defense should ensure that the National Technology and Industrial Base strategy is in a consolidated document and comprehensive, such as including required resources and an implementation plan.

DoD RESPONSE: Partially concur.

DoD agrees with the importance of a comprehensive National Technology and Industrial Base (NTIB) strategy that includes (among other things) resourcing and an implementation plan. However, the Department does not believe it necessary to present that strategy in a separate document from our existing required reports. Every year, DoD responds to overlapping reporting requirements on the NTIB from the White House, Congress, and elsewhere, and those responses collectively and effectively outline the strategy. With the reorganization of Industrial Base Policy we are strengthening our analytical capabilities by expanding the analytic office, which will allow for more routine and consolidated reports to streamline responses to existing reporting requirements

In particular, the Executive Order (E.O.) one-year report, Securing Defense-Critical Supply Chains (released in February 2022) and the annual Industrial Capabilities Report (expected to be released in the summer of 2022) show our steps toward streamlining as together they present a cohesive, flexible, and responsive strategy to the constantly changing supply chain problem. The two reports describe the challenges in key sectors, offer strategic recommendations for mitigating those challenges, and provide a roadmap for implementing and tracking progress in building resilience in those areas. They examine the problem broadly and comprehensively, and they recommend solutions that are being implemented in coordination with U.S. Government, industrial, and international partners.

Similar reports cover other aspects of the Department's NTIB strategy and we will evaluate ways to streamline this information into other industrial base analytical products for a cohesive picture of the problem and strategy. DoD therefore believes that a separate NTIB strategy document would be duplicative and that the effort required to develop one would unnecessarily divert limited resources.

RECOMMENDATION 2: The Secretary of Defense should ensure that the Assistant Secretary of Defense for Industrial Base Policy, in coordination with the Industrial Base Council, develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for DOD-wide industrial base risk.

DoD RESPONSE: Concur. DoD is aware of the need for performance measures to monitor the aggregate effectiveness of mitigation efforts for DOD-wide industrial base risk. The E.O. 14017 report calls for improved internal supply chain visibility and data analysis. DoD is actively developing metrics aligned to the five focus areas in E.O. 14017 that will measure efforts to mitigate supply chain risk. DoD will continue to create and monitor these metrics to assess mitigation efforts over time.

RECOMMENDATION 3: The Secretary of the Air Force should ensure that the Assistant Secretary of the Air Force for Acquisition, Technology and Logistics develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for the Air Force and Space Force industrial base risks.

DoD RESPONSE: The Department of the Air Force concurs without comment.

RECOMMENDATION 4: The Secretary of the Army should ensure that the Assistant Secretary of the Army for Acquisition, Logistics, and Technology develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for the Army industrial base risks.

DoD RESPONSE: The Department of the Army concurs without comment.

RECOMMENDATION 5: The Secretary of the Navy should ensure that the Assistant Secretary of the Navy for Research, Development and Acquisition develops and uses performance measures to monitor the aggregate effectiveness of mitigation efforts for Navy and Marine Corp industrial base risks.

DoD RESPONSE: The Department of the Navy (DON) concurs. The ASN RD&A is working to establish Measures of Effectiveness (MOEs) to track industrial base supply efforts within the Department of the Navy while remaining aligned with OASD(IBP) initiatives.

RECOMMENDATION 6: The Secretary of Defense should ensure that DOD reports its progress toward mitigating industrial base risks. For example, this information could be included in DOD's Annual Industrial Capabilities Reports, which already include sector risk assessments.

2

DoD RESPONSE: Concur. As DoD develops metrics and performance measures to track mitigation efforts it will identify the best way to report on their progress.

Accessible Text for Appendix II: Comments from the Department of Defense

Mr. W. William Russell
Director, Contracting and National Security Acquisitions
U.S. Government Accountability Office
441 G Street, NW
Washington DC 20548

Dear Mr. Russell:

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Halimah Najieb-Locke
Deputy Assistant Secretary of Defense for
Industrial Base Resilience

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DEPARTMENT OF DEFENSE COMMENTS TO THE GAO RECOMMENDATIONS

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DoD RESPONSE: The Department of the Army concurs without comment.

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DoD RESPONSE: The Department of the Navy (DON) concurs. The ASN RD&A is working to establish Measures of Effectiveness (MOEs) to track industrial base supply efforts within the Department of the Navy while remaining aligned with OASD(IBP) initiatives.

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DoD RESPONSE: Concur. As DoD develops metrics and performance measures to track mitigation efforts it will identify the best way to report on their progress.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

W. William Russell, (202) 512-4841 or russellw@gao.gov

Staff Acknowledgments

In addition to the contact named above, Cheryl Andrew, Assistant Director; Sameena Ismailjee, Analyst-in-Charge; Christopher Allison; Lorraine Ettaro; Philip Farah; Lori Fields; Kurt Gurka; Stephanie Gustafson; Almir Hodzic; Heather Lemley; Timothy Moss; and Jillian Schofield made key contributions to this report.

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