HIGH-RISK SERIES

Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others

Statement of Gene L. Dodaro
Comptroller General of the United States
Highlights of GAO-17-375T, a statement before the Committee on Oversight and Government Reform, House of Representatives

Why GAO Did This Study

The federal government is one of the world’s largest and most complex entities: about $3.9 trillion in outlays in fiscal year 2016 funded a broad array of programs and operations. GAO’s high-risk program identifies government operations with greater vulnerabilities to fraud, waste, abuse, and mismanagement or the need for transformation to address economy, efficiency, or effectiveness challenges.

This biennial update describes the status of high-risk areas listed in 2015 and actions that are still needed to assure further progress, and identifies new high-risk areas needing attention by Congress and the executive branch. Solutions to high-risk problems potentially save billions of dollars, improve service to the public, and strengthen government performance and accountability.

GAO uses five criteria to assess progress in addressing high-risk areas: (1) leadership commitment, (2) agency capacity, (3) an action plan, (4) monitoring efforts, and (5) demonstrated progress.

What GAO Recommends

This report contains GAO’s views on progress made and what remains to be done to bring about lasting solutions for each high-risk area. Perseverance by the executive branch in implementing GAO’s recommended solutions and continued oversight and action by Congress are essential to achieving greater progress.

View GAO-17-375T. For more information, contact J. Christopher Mihm at (202) 512-6806 or mihmj@gao.gov.

February 2017

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Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others

What GAO Found

Since GAO’s last high-risk update, many of the 32 high-risk areas on the 2015 list have shown solid progress. Twenty-three high-risk areas, or two-thirds of all the areas, have met or partially met all five criteria for removal from the High-Risk List; 15 of these areas fully met at least one criterion. Progress has been possible through the concerted efforts of Congress and leadership and staff in agencies. For example, Congress enacted over a dozen laws since GAO’s last report in February 2015 to help address high-risk issues.

GAO removed 1 high-risk area on managing terrorism-related information, because significant progress had been made to strengthen how intelligence on terrorism, homeland security, and law enforcement is shared among federal, state, local, tribal, international, and private sector partners. Sufficient progress was made to remove segments of 2 areas related to supply chain management at the Department of Defense (DOD) and gaps in geostationary weather satellite data.

Two high-risk areas expanded—DOD’s polar-orbiting weather satellites and the Department of the Interior’s restructuring of offshore oil and gas oversight. Several other areas need substantive attention including VA health care, DOD financial management, ensuring the security of federal information systems and cyber critical infrastructure, resolving the federal role in housing finance, and improving the management of IT acquisitions and operations.

GAO is adding 3 areas to the High-Risk List, bringing the total to 34:

- **Management of Federal Programs That Serve Tribes and Their Members.** GAO has reported that federal agencies, including the Department of the Interior’s Bureaus of Indian Education and Indian Affairs and the Department of Health and Human Services’ Indian Health Service, have ineffectively administered Indian education and health care programs and inefficiently developed Indian energy resources. Thirty-nine of 41 GAO recommendations on this issue remain unimplemented.

- **U.S. Government’s Environmental Liabilities.** In fiscal year 2016 this liability was estimated at $447 billion (up from $212 billion in 1997). The Department of Energy is responsible for 83 percent of these liabilities and DOD for 14 percent. Agencies spend billions each year on environmental cleanup efforts but the estimated environmental liability continues to rise. Since 1994, GAO has made at least 28 recommendations related to this area; 13 are unimplemented.

- **The 2020 Decennial Census.** The cost of the census has been escalating over the last several decennials; the 2010 Census was the costliest U.S. Census in history at about $12.3 billion, about 31 percent more than the 2000 Census (in 2020 dollars). The U.S. Census Bureau (Bureau) plans to implement several innovations—including IT systems—for the 2020 Census. Successfully implementing these innovations, along with other challenges, risk the Bureau’s ability to conduct a cost-effective census. Since 2014, GAO has made 30 recommendations related to this area; however, only 6 have been fully implemented.
## GAO's 2017 High-Risk List

### Strengthening the Foundation for Efficiency and Effectiveness
- Strategic Human Capital Management
- Managing Federal Real Property
- Funding the Nation's Surface Transportation System
- Modernizing the U.S. Financial Regulatory System and the Federal Role in Housing Finance
- Restructuring the U.S. Postal Service to Achieve Sustainable Financial Viability
- Management of Federal Oil and Gas Resources
- Limiting the Federal Government’s Fiscal Exposure by Better Managing Climate Change Risks
- Improving the Management of IT Acquisitions and Operations
- Improving Federal Programs that Serve Tribes and Their Members (new)
- 2020 Decennial Census (new)
- U.S. Government’s Environmental Liabilities (new)

### Transforming DOD Program Management
- DOD Supply Chain Management
- DOD Weapon Systems Acquisition
- DOD Financial Management
- DOD Business Systems Modernization
- DOD Support Infrastructure Management
- DOD Approach to Business Transformation

### Ensuring Public Safety and Security
- Ensuring the Security of Federal Information Systems and Cyber Critical Infrastructure and Protecting the Privacy of Personally Identifiable Information
- Strengthening Department of Homeland Security Management Functions
- Ensuring the Effective Protection of Technologies Critical to U.S. National Security Interests
- Improving Federal Oversight of Food Safety
- Protecting Public Health through Enhanced Oversight of Medical Products
- Transforming EPA’s Processes for Assessing and Controlling Toxic Chemicals
- Mitigating Gaps in Weather Satellite Data

### Managing Federal Contracting More Effectively
- DOE’s Contract Management for the National Nuclear Security Administration and Office of Environmental Management
- NASA Acquisition Management
- DOD Contract Management

### Assessing the Efficiency and Effectiveness of Tax Law Administration
- Enforcement of Tax Laws

### Modernizing and Safeguarding Insurance and Benefit Programs
- Medicare Program
- Medicaid Program
- Improving and Modernizing Federal Disability Programs
- Pension Benefit Guaranty Corporation Insurance Programs
- National Flood Insurance Program
- Managing Risks and Improving VA Health Care

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*Legislation is likely to be necessary in order to effectively address this area.*
Chairman Chaffetz, Ranking Member Cummings and Members of the Committee:

Since the early 1990s, our high-risk program has focused attention on government operations with greater vulnerabilities to fraud, waste, abuse, and mismanagement or that are in need of transformation to address economy, efficiency, or effectiveness challenges. This effort, supported by the Senate Committee on Homeland Security and Governmental Affairs and by the House of Representatives Committee on Oversight and Government Reform, has brought much-needed attention to problems impeding effective government and costing billions of dollars each year.

To help improve these high-risk operations, we have made hundreds of recommendations. Executive agencies either have addressed or are addressing many of them and, as a result, progress is being made in a number of areas. Congress also continues to take important actions. For example, Congress enacted over a dozen laws since our last report in February 2015 to help make progress on high-risk issues. Progress in high-risk areas over the past decade (fiscal year 2007 through fiscal year 2016) resulted in financial benefits totaling approximately $240 billion or an average of about $24 billion per year.¹

Our 2017 high-risk update, which is being released today, describes (1) progress made addressing high-risk areas and the reasons for that progress, and (2) actions that are still needed to assure further progress. It also identifies three new high-risk areas, which include the management of federal programs that serve tribes and their members, the federal government’s environmental liabilities, and the 2020 Census.²

¹Financial benefits are based on actions taken in response to our work, such as reducing government expenditures, increasing revenues, or reallocating funds to other areas.

Agencies can show progress by addressing our five criteria for removal from the list: leadership commitment, capacity, action plan, monitoring, and demonstrated progress.\(^3\) As shown in table 1, 23 high-risk areas, or two-thirds of all the areas, have met or partially met all five criteria for removal from our High-Risk List; 15 of these areas fully met at least one criterion. Compared with our last assessment, 11 high-risk areas showed progress in one or more of the five criteria. Two areas declined since 2015. These changes are indicated by the up and down arrows in table 1.

### Table 1: 2015 High-Risk Areas Rated Against Five Criteria for Removal from GAO’s High-Risk List

(↑ indicates one or more areas progressed; ↓ indicates one or more areas declined since 2015.)

<table>
<thead>
<tr>
<th>High-risk area</th>
<th>Change since 2015</th>
<th>Number of criteria Met</th>
<th>Partially met</th>
<th>Not met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing Effective Mechanisms for Sharing and Managing Terrorism-Related Information to Protect the Homeland</td>
<td>↑</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NASA Acquisition Management</td>
<td></td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Strengthening Department of Homeland Security Management Functions</td>
<td>↑</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Department of Defense (DOD) Supply Chain Management</td>
<td>↑</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Mitigating Gaps in Weather Satellite Data</td>
<td>↑</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Protecting Public Health through Enhanced Oversight of Medical Products</td>
<td>↓</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>DOD Contract Management</td>
<td></td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>DOD Weapon Systems Acquisition</td>
<td></td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Medicare Program(^3)</td>
<td></td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Enforcement of Tax Laws</td>
<td>↑</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Managing Federal Real Property</td>
<td>↑</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Transforming the Environmental Protection Agency’s (EPA) Processes for Assessing and Controlling Toxic Chemicals</td>
<td>↑</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Improving the Management of IT Acquisitions and Operations</td>
<td></td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Ensuring the Security of Federal Information Systems and Cyber Critical Infrastructure and Protecting the Privacy of Personally Identifiable Information</td>
<td></td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>DOD Approach to Business Transformation</td>
<td>↑</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Strategic Human Capital Management</td>
<td>↑</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>DOE’s Contract Management for the National Nuclear Security Administration and Office of Environmental Management</td>
<td>↑</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Management of Federal Oil and Gas Resources</td>
<td>↓</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>DOD Support Infrastructure Management</td>
<td></td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

\(^3\)Additional detail on our high-risk criteria and ratings is in appendix I of our report.
### Table: High-Risk Areas with Change in Criteria since 2015

<table>
<thead>
<tr>
<th>High-risk area</th>
<th>Change since 2015</th>
<th>Met</th>
<th>Partially met</th>
<th>Not met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring the Effective Protection of Technologies Critical to U.S. National Security Interests</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Improving and Modernizing Federal Disability Programs</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Modernizing the U.S. Financial Regulatory System and the Federal Role in Housing Finance</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>National Flood Insurance Program</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Restructuring the U.S. Postal Service to Achieve Sustainable Financial Viability</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Medicaid Program&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Limiting the Federal Government’s Fiscal Exposure by Better Managing Climate Change Risks</td>
<td>↑</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>DOD Business Systems Modernization</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DOD Financial Management</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Improving Federal Oversight of Food Safety</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Managing Risks and Improving VA Health Care</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Funding the Nation’s Surface Transportation System</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Pension Benefit Guaranty Corporation Insurance Programs</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

**Legend:** N/A = Not applicable.

**Source:** GAO | GAO-17-317

Notes: Two high-risk areas received a “not applicable” rating because addressing them primarily involves congressional action (Funding the Nation’s Surface Transportation System and Pension Benefit Guaranty Corporation Insurance Programs).

<sup>a</sup>Medicare and Medicaid programs only refer to the Improper Payments programs and we did not rate other elements of the Medicare and Medicaid programs.

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**High-Risk Areas Showing Progress**

Of the 11 high-risk areas showing progress between 2015 and 2017, sufficient progress was made in 1 area—Establishing Effective Mechanisms for Sharing and Managing Terrorism-Related Information to Protect the Homeland—to be removed from the list. In two other areas, enough progress was made that we removed a segment of the high-risk area—Mitigating Gaps in Weather Satellite Data and Department of Defense (DOD) Supply Chain Management. The other eight areas improved in at least one criterion rating by either moving from “not met” to “partially met” or from “partially met” to “met.”

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**One High-Risk Designation Removed**

We removed the area of Establishing Effective Mechanisms for Sharing and Managing Terrorism-Related Information to Protect the Homeland from the High-Risk List because the Program Manager for the Information Sharing Environment (ISE) and key departments and agencies have made significant progress to strengthen how intelligence on terrorism, homeland security, and law enforcement, as well as other information...
(collectively referred to in this section as terrorism-related information), is shared among federal, state, local, tribal, international, and private sector partners. As a result, the Program Manager and key stakeholders have met all five criteria for addressing our high-risk designation, and we are removing this issue from our High-Risk List. While this progress is commendable, it does not mean the government has eliminated all risk associated with sharing terrorism-related information. It remains imperative that the Program Manager and key departments and agencies continue their efforts to advance and sustain ISE. Continued oversight and attention is also warranted given the issue’s direct relevance to homeland security as well as the constant evolution of terrorist threats and changing technology.

The Program Manager, the individual responsible for planning, overseeing, and managing ISE, along with the key departments and agencies—the Departments of Homeland Security (DHS), Justice (DOJ), State (State), and Defense (DOD), and the Office of the Director of National Intelligence (ODNI)—are critical to implementing and sustaining ISE. Following the terrorist attacks of 2001, Congress and the executive branch took numerous actions aimed explicitly at establishing a range of new measures to strengthen the nation’s ability to identify, detect, and deter terrorism-related activities. For example, ISE was established in accordance with the Intelligence Reform and Terrorism Prevention Act of 2004 (Intelligence Reform Act) to facilitate the sharing of terrorism-related information. Figure 1 depicts the relationship between the various stakeholders and disciplines involved with the sharing and safeguarding of terrorism-related information through ISE.

4The Office of the Program Manager for ISE is situated within and funded through amounts appropriated to ODNI. Additional departments and agencies also participate in ISE, including Air Force Intelligence, Surveillance, and Reconnaissance; Central Intelligence Agency; the Departments of Commerce, Energy, Health and Human Services, the Interior, Transportation, and the Treasury; National Counterterrorism Center; National Geospatial-Intelligence Agency; and National Reconnaissance Office.

The Program Manager and key departments and agencies met the leadership commitment and capacity criteria in 2015, and have subsequently sustained efforts in both these areas. For example, the Program Manager clearly articulated a vision for ISE that reflects the government’s terrorism-related information sharing priorities. Key departments and agencies also continued to allocate resources to operations that improve information sharing, including developing better technical capabilities.

The Program Manager and key departments and agencies also developed, generally agreed upon, and executed the 2013 Strategic Implementation Plan (Implementation Plan), which includes the overall strategy and more specific planning steps to achieve ISE. Further, they have demonstrated that various information-sharing initiatives are being used across multiple agencies as well as state, local, and private-sector stakeholders. For example, the project manager has developed a comprehensive framework for managing enterprise architecture to help share and integrate terrorism-related information among multiple
stakeholders in ISE.\textsuperscript{6} Specifically, the Project Interoperability initiative includes technical resources and other guidance that promote greater information system compatibility and performance.\textsuperscript{7} Furthermore, the key departments and agencies have applied the concepts of the Project Interoperability Initiative to improve mission operations by better linking different law enforcement databases and facilitating better geospatial analysis, among other things.

In addition, the Program Manager and key departments and agencies have continued to devise and implement ways to measure the effect of ISE on information sharing to address terrorist and other threats to the homeland. They developed performance metrics for specific information-sharing initiatives (e.g., fusion centers) used by various stakeholders to receive and share information. The Program Manager and key departments and agencies have also documented mission-specific accomplishments (e.g., related to maritime domain awareness) where the Program Manager helped connect previously incompatible information systems. The Program Manager has also partnered with DHS to create an Information Sharing Measure Development Pilot that intends to better measure the effectiveness of information sharing across all levels of ISE.

Further, the Program Manager and key departments and agencies have used the Implementation Plan to track progress, address challenges, and substantially achieve the objectives in the National Strategy for

\textsuperscript{6}An enterprise architecture, or modernization blueprint, is intended to provide a clear and comprehensive picture of an entity, whether it is an organization (e.g., federal department or agency) or a functional or mission area that cuts across more than one organization (e.g., financial management). This picture consists of snapshots of the enterprise’s current and target operational and technological environments, and contains a road map for transitioning from the current to the target environment.

\textsuperscript{7}Project Interoperability refers to a collection of policies and guidance related to information interoperability. Information interoperability is the ability to share and use information in a consistent, efficient way across multiple organizations and IT systems to accomplish operational missions. From a technical perspective, interoperability is developed in part by using common technical standards and definitions to manage information.
Information Sharing and Safeguarding. The Implementation Plan contains 16 priority objectives, and by the end of fiscal year 2016, 13 of the 16 priority objectives were completed. The Program Manager transferred the remaining three objectives, which were all underway, to other entities with the appropriate technical expertise to continue implementation through fiscal year 2019.

In our 2013 high-risk update, we listed nine action items that were critical for moving ISE forward. In that report, we determined that two of those action items—demonstrating that the leadership structure has the needed authority to leverage participating departments, and updating the vision for ISE—had been completed. In our 2015 update, we determined that the Program Manager and key departments had achieved four of the seven remaining action items—demonstrating that departments are defining incremental costs and funding; continuing to identify technological capabilities and services that can be shared collaboratively; demonstrating that initiatives within individual departments are, or will be, leveraged to benefit all stakeholders; and demonstrating that stakeholders generally agree with the strategy, plans, time frames, responsibilities, and activities for substantially achieving ISE.

For the 2017 update, we determined that the remaining three action items have been completed: establishing an enterprise architecture management capability; demonstrating that the federal government can show, or is more fully developing a set of metrics to measure, the extent to which sharing has improved under ISE; and demonstrating that established milestones and time frames are being used as baselines to track and monitor progress. Achieving all nine action items has, in effect, addressed our high-risk criteria.

While this demonstrates significant and important progress, sharing terrorism-related information remains a constantly evolving work in progress that requires continued effort and attention from the Program

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8Office of the Program Manager for the Information Sharing Environment, Strategic Implementation Plan for the National Strategy for Information Sharing and Safeguarding (Washington, D.C.: December 2013). In December 2012, the President signed the National Strategy for Information Sharing and Safeguarding, which provides guidance on implementing policies, standards, and technologies that promote secure and responsible national security information sharing. This document builds on the 2010 National Security Strategy and the 2007 National Strategy for Information Sharing. The December 2012 national strategy identifies priority objectives, which have been incorporated into the Implementation Plan.
Manager, departments, and agencies. Although no longer a high-risk issue, sharing terrorism-related information remains an area with some risk, and continues to be vitally important to homeland security, requiring ongoing oversight as well as continuous improvement to identify and respond to changing threats and technology. Table 2 summarizes the Program Manager’s and key departments’ and agencies’ progress in achieving the action items.

Table 2: Status of Action Items Required to Remove Terrorism-Related Information Sharing from GAO’s High-Risk List

<table>
<thead>
<tr>
<th>Action items</th>
<th>Action item status</th>
<th>High-risk category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate that the Information Sharing and Access Interagency Policy Committee has needed authority, is leveraging participating departments, and is producing results.</td>
<td>Met&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Leadership Commitment</td>
</tr>
<tr>
<td>Update the vision for ISE—the information sharing capabilities and procedures that need to be in place to help ensure terrorism-related information is accessible and identifiable to relevant federal, state, local, private, and foreign partners.</td>
<td>Met&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Leadership Commitment</td>
</tr>
<tr>
<td>Demonstrate that departments are defining incremental costs and funding needed to complete the responsibilities and activities which substantially achieve ISE.</td>
<td>Met&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Capacity to resolve risk</td>
</tr>
<tr>
<td>Continue to identify technological capabilities and services that can be shared collaboratively within and across ISE, consistent with a federated architecture approach.</td>
<td>Met&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Capacity to resolve risk</td>
</tr>
<tr>
<td>Demonstrate that initiatives within individual departments are, or will be, leveraged to benefit all relevant federal, state, local, and private security stakeholders participating in ISE.</td>
<td>Met&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Action plans that provide corrective measures</td>
</tr>
<tr>
<td>Establish an enterprise architecture management capability and demonstrate that it will be used to guide selection of projects for substantially achieving ISE.</td>
<td>Met</td>
<td>Action plans that provide corrective measures</td>
</tr>
<tr>
<td>Demonstrate that stakeholders generally agree with the strategy, plans, time frames, their responsibilities, and their activities for substantially achieving ISE.</td>
<td>Met&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Action plans that provide corrective measures</td>
</tr>
<tr>
<td>Demonstrate that the federal government can show the extent to which sharing has improved under ISE, or can show it has actions underway to more fully develop a set of metrics and processes to measure results achieved, both from individual projects and activities, as well as from the overall ISE.</td>
<td>Met</td>
<td>Monitor and validate the effectiveness of corrective measures</td>
</tr>
<tr>
<td>Demonstrate that established milestones and time frames are being used as baselines to track and monitor progress on individual projects and in substantially achieving the overall ISE.</td>
<td>Met</td>
<td>Demonstrated Progress</td>
</tr>
</tbody>
</table>

Source: GAO analysis of Office of the Program Manager for the Information Sharing Environment and key department documents, interviews, and prior GAO reports. | GAO-17-317

<sup>a</sup>We determined that these action items were complete in our 2013 high-risk update.
<sup>b</sup>We determined that these action items were complete in our 2015 high-risk update.

As we have with areas previously removed from the High-Risk List, we will continue to monitor this area, as appropriate, to ensure that the improvements we have noted are sustained. If significant problems again arise, we will consider reapplying the high-risk designation.
In the 2 years since our last high-risk update, sufficient progress has been made in two areas—DOD Supply Chain Management and Mitigating Gaps in Weather Satellite Data—that we are narrowing their scope.

**DOD Supply Chain Management**

DOD manages about 4.9 million secondary inventory items, such as spare parts, with a reported value of approximately $91 billion as of September 2015. Since 1990, DOD’s inventory management has been included on our High-Risk List due to the accumulation of excess inventory and weaknesses in demand forecasting for spare parts. In addition to DOD’s inventory management, the supply chain management high-risk area focuses on materiel distribution and asset visibility within DOD. Based on DOD’s leadership commitment and demonstrated progress to address weaknesses since 2010, we are removing the inventory management component from the supply chain management high-risk area. Specifically, DOD has taken the following actions:

- Implemented a congressionally mandated inventory management corrective action plan and institutionalized a performance management framework, including regular performance reviews and standardized metrics. DOD has also developed and begun implementing a follow-on improvement plan.\(^9\)

- Reduced the percentage and value of its “on-order excess inventory” (i.e., items already purchased that may be excess due to subsequent changes in requirements) and “on-hand excess inventory” (i.e., items categorized for potential reuse or disposal). DOD’s data show that the proportion of on-order excess inventory to the total amount of on-order inventory decreased from 9.5 percent at the end of fiscal year 2009 to 7 percent at the end of fiscal year 2015, the most recent fiscal year for which data are available. During these years, the value of on-

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\(^9\)The National Defense Authorization Act for Fiscal Year 2010 required the Secretary of Defense to submit to congressional defense committees a comprehensive plan for improving the inventory management systems of the military departments, and Defense Logistics Agency with the objective of reducing the acquisition and storage of secondary inventory that is excess to requirements. Pub. L. No. 111-84 § 328 (2009).
order excess inventory also decreased from $1.3 billion to $701 million. DOD’s data show that the proportion of on-hand excess inventory to the total amount of on-hand inventory dropped from 9.4 percent at the end of fiscal year 2009 to 7.3 percent at the end of fiscal year 2015. The value of on-hand excess inventory also decreased during these years from $8.8 billion to $6.8 billion.

- Implemented numerous actions to improve demand forecasting and began tracking department-wide forecasting accuracy metrics in 2013, resulting in forecast accuracy improving from 46.7 percent in fiscal year 2013 to 57.4 percent in fiscal year 2015, the latest fiscal year for which complete data are available.

- Implemented 42 of our recommendations since 2006 and is taking actions to implement an additional 13 recommendations, which are focused generally on reassessing inventory goals, improving collaborative forecasting, and making changes to information technology (IT) systems used to manage inventory.

Additional information on DOD Supply Chain Management is provided on page 248 of the report.

**Mitigating Gaps in Weather Satellite Data**

The United States relies on two complementary types of satellite systems for weather observations and forecasts: (1) polar-orbiting satellites that provide a global perspective every morning and afternoon, and (2) geostationary satellites that maintain a fixed view of the United States. Both types of systems are critical to weather forecasters, climatologists, and the military, who map and monitor changes in weather, climate, the oceans, and the environment. Federal agencies are planning or executing major satellite acquisition programs to replace existing polar and geostationary satellite systems that are nearing or beyond the end of their expected life spans. The Department of Commerce’s National Oceanic and Atmospheric Administration (NOAA) is responsible for the polar satellite program that crosses the equator in the afternoon and for the nation’s geostationary weather satellite program; DOD is responsible for the polar satellite program that crosses the equator in the early morning orbit.

Over the last several years, we have reported on the potential for a gap in satellite data between the time that the current satellites are expected to reach the end of their lifespans and the time when the next satellites are expected to be in orbit and operational. We added this area to our High-Risk List in 2013. According to NOAA program officials, a satellite data
gap would result in less accurate and timely weather forecasts and warnings of extreme events—such as hurricanes, storm surges, and floods. Such degraded forecasts and warnings would endanger lives, property, and our nation’s critical infrastructures. Similarly, according to DOD officials, a gap in space-based weather monitoring capabilities could affect the planning, execution, and sustainment of U.S. military operations around the world. In our prior high-risk updates, we reported on NOAA’s efforts to mitigate the risk of a gap in its polar and geostationary satellite programs.

With strong congressional support and oversight, NOAA has made significant progress in its efforts to mitigate the potential for gaps in weather satellite data on its geostationary weather satellite program. Specifically, the agency demonstrated strong leadership commitment to mitigating potential gaps in geostationary satellite data by revising and improving its gap mitigation/contingency plans. Previously, in December 2014, we reported on shortfalls in the satellite program’s gap mitigation/contingency plans and made recommendations to NOAA to address these shortfalls. For example, we noted that the plan did not sufficiently address

- strategies for preventing a launch delay,
- timelines and triggers to prevent a launch delay, and
- whether any of its mitigation strategies would meet minimum performance levels.

NOAA agreed with these recommendations and released a new version of its geostationary satellite contingency plan in February 2015 that addressed the recommendations, thereby meeting the criterion for having an action plan.

We rated capacity as partially met in our 2015 report due to concerns about NOAA’s ability to complete critical testing activities because it was already conducting testing on a round-the-clock, accelerated schedule. Since then, NOAA adjusted its launch schedule to allow time to complete critical integration and testing activities. In doing so, the agency demonstrated that it met the capacity criterion.

NOAA has also met the criterion for demonstrating progress by mitigating schedule risks and successfully launching the satellite. In September 2013, we reported that the agency had weaknesses in its schedule-management practices on its core ground system and spacecraft. We made recommendations to address those weaknesses, which included sequencing all activities, ensuring there are adequate resources for the activities, and analyzing schedule risks. NOAA agreed with the recommendations and the Geostationary Operational Environmental Satellite-R series (GOES-R) program improved its schedule management practices. By early 2016, the program had improved the links between remaining activities on the spacecraft schedule, included needed schedule logic for a greater number of activities on the ground schedule, and included indications on the ground schedule that the results of a schedule risk analysis were used in calculating its durations. In addition, the program successfully launched the GOES-R satellite in November 2016.

Oversight by Congress has been instrumental in reducing the risk of geostationary weather satellite gaps. For example, Subcommittees of the House Science, Space, and Technology Committee held multiple hearings to provide oversight of the satellite acquisition and the risk of gaps in satellite coverage.

As a result, the agency now has a robust constellation of operational and backup satellites in orbit and has made significant progress in addressing the risk of a gap in geostationary data coverage. Accordingly, there is sufficient progress to remove this segment from the high-risk area.11

Additional information on Mitigating Gaps in Weather Satellite Data is provided on pages 19 and 430 of the high-risk report.

Below are selected examples of areas where progress has been made.

- **Strengthening Department of Homeland Security Management Functions.** The Department of Homeland Security (DHS) continues to strengthen and integrate its management functions and progressed from partially met to met for the monitoring criterion. Since our 2015 high-risk update, DHS has strengthened its monitoring efforts for financial system modernization programs by entering into a contract

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11While we removed this segment from the High-Risk List, we added another segment in this area—DOD’s Polar-Orbiting Weather Satellites. See page 19 of this statement.
for independent verification and validation services to help ensure that
the modernization projects meet key requirements. These programs
are key to effectively supporting the department's financial
management operations.

Additionally, DHS continued to meet the criteria for leadership
commitment and a corrective action plan. DHS's top leadership has
demonstrated exemplary support and a continued focus on
addressing the department's management challenges by, among
other things, issuing 10 updated versions of DHS's initial January

reinforces this focus with the inclusion of a mandate that the DHS
Under Secretary for Management report to us every 6 months to
demonstrate measurable, sustainable progress made in implementing
DHS's corrective action plans to address the high-risk area until we
submit written notification of the area's removal from the High-Risk
List to the appropriate congressional committees.12 Similar provisions
were included in the DHS Headquarters Reform and Improvement Act
of 2015,13 the DHS Accountability Act of 2016,14 and the DHS Reform
and Improvement Act.15 Additional information on this high-risk area
is provided on page 354 of the report.

• **Strategic Human Capital Management.** This area progressed from
  partially met to met on leadership commitment. The Office of
  Personnel Management (OPM), agencies, and Congress have taken
  actions to improve efforts to address mission critical skills gaps.
  Specifically, OPM has demonstrated leadership commitment by
  publishing revisions to its human capital regulations in December
  2016 that require agencies to, among other things, implement human
  capital policies and programs that address and monitor government-
  wide and agency-specific skills gaps. This initiative has increased the
  likelihood that skills gaps with the greatest operational effect will be
  addressed in future efforts.

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14S. 2976, 114th Cong. § 101(b) (as reported by S. Comm. on Homeland Sec. and Gov't Affairs, June 28, 2016).
At the same time, Congress has provided agencies with authorities and flexibilities to manage the federal workforce and make the federal government a more accountable employer. For example, Congress included a provision in the National Defense Authorization Act for Fiscal Year 2016 to extend the probationary period for newly-hired civilian DOD employees from 1 to 2 years.\(^{16}\) This action is consistent with our 2015 reporting that better use of probationary periods gives agencies the ability to ensure an employee’s skills are a good fit for all critical areas of a particular job. Additional information on this high-risk area is provided on page 61 of the report.

**• Transforming the Environmental Protection Agency’s Processes for Assessing and Controlling Toxic Chemicals.** Overall, this high-risk area progressed from not met to partially met on two criteria—capacity and demonstrated progress—and continued to partially meet the criterion for monitoring due to progress in one program area. The Environmental Protection Agency’s (EPA) ability to effectively implement its mission of protecting public health and the environment is critically dependent on assessing the risks posed by chemicals in a credible and timely manner. EPA assesses these risks under a variety of actions, including the Integrated Risk Information System (IRIS) program and EPA’s Toxic Substances Control Act (TSCA) program. The IRIS program has made some progress on the capacity, monitoring, and demonstrated progress criteria. In terms of IRIS capacity, EPA has partially met this criterion by finalizing a Multi-Year Agenda to better assess how many people and resources should be dedicated to the IRIS program. In terms of IRIS monitoring, EPA has met this criterion in part by using a Chemical Assessment Advisory Committee to review IRIS assessments, among other actions. In terms of IRIS demonstrated progress, EPA has partially met this criterion as of January 2017 by issuing five assessments since fiscal year 2015.

The Frank R. Lautenberg Chemical Safety for the 21st Century Act amended TSCA and was enacted on June 22, 2016.\(^{17}\) Passing TSCA reform may facilitate EPA’s effort to improve its processes for assessing and controlling toxic chemicals in the years ahead. The new law provides EPA with greater authority and the ability to take actions that could help EPA implement its mission of protecting


human health and the environment. EPA officials stated that the agency is better positioned to take action to require chemical companies to report chemical toxicity and exposure data. Officials also stated that the new law gives the agency additional authorities, including the authority to require companies to develop new information relating to a chemical as necessary for prioritization and risk evaluation.

Using both new and previously existing TSCA authorities should enhance the agency’s ability to gather new information as necessary to evaluate hazard and exposure risks. Continued leadership commitment from EPA officials and Congress will be needed to fully implement reforms. Additional work will also be needed to issue a workload analysis to demonstrate capacity, complete a corrective action plan, and demonstrate progress implementing the new legislation. Additional information on this high-risk area is provided on page 417 of the report.

- **Managing Federal Real Property.** The federal government continued to meet the criteria for leadership commitment, now partially meets the criterion for demonstrated progress, and made some progress in each of the other high-risk criteria. The Office of Management and Budget (OMB) issued the National Strategy for the Efficient Use of Real Property (National Strategy) on March 25, 2015, which directs Chief Financial Officer (CFO) Act agencies to take actions to reduce the size of the federal real property portfolio, as we recommended in 2012. In addition, in December 2016, two real property reform bills were enacted that could address the long-standing problem of federal excess and underutilized property. The Federal Assets Sale and Transfer Act of 2016 may help address stakeholder influence by establishing an independent board to identify and recommend five high-value civilian federal buildings for disposal within 180 days after the board members are appointed, as well as develop recommendations to dispose and redevelop federal civilian real properties.\(^{18}\)

Additionally, the Federal Property Management Reform Act of 2016 codified the Federal Real Property Council (FRPC) for the purpose of ensuring efficient and effective real property management while reducing costs to the federal government.\(^{19}\) FRPC is required to

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establish a real property management plan template, which must include performance measures, and strategies and government-wide goals to reduce surplus property or to achieve better utilization of underutilized property. In addition, federal agencies are required to annually provide FRPC a report on all excess and underutilized property, and identify leased space that is not fully used or occupied.

In addressing our 2016 recommendation to improve the reliability of real property data, GSA conducted an in-depth survey that focused on key real property data elements maintained in the Federal Real Property Profile, formed a working group of CFO Act agencies to analyze the survey results and reach consensus on reforms, and issued a memorandum to CFO Act agencies designed to improve the consistency and quality of real property data. The Federal Protective Service, which protects about 9,500 federal facilities, implemented our recommendation aimed at improving physical security by issuing a plan that identifies goals and describes resources that support its risk management approach. In addition, the Interagency Security Committee, a DHS-chaired organization, issued new guidance intended to make the most effective use of physical security resources. Additional information on this high-risk area is provided on page 77 of the report.

• **Enforcement of Tax Laws.** The Internal Revenue Service’s (IRS) continued efforts to enforce tax laws and address identity theft refund fraud (IDT) have resulted in the agency meeting one criterion for removal from the High-Risk List (leadership commitment) and partially meeting the remaining four criteria (capacity, action plan, monitoring, and demonstrating progress). IDT is a persistent and evolving threat that burdens legitimate taxpayers who are victims of the crime. It cost the U.S. Treasury an estimated minimum of $2.2 billion during the 2015 tax year.

Congress and IRS have taken steps to address this challenge. IRS has deployed new tools and increased resources dedicated to identifying and combating IDT refund fraud. In addition, the Consolidated Appropriations Act, 2016, amended the tax code to accelerate Wage and Tax Statement (W-2) filing deadlines to January 31.\(^\text{20}\) We had previously reported that the wage information that employers report on Form W-2 was not available to IRS until after it issues most refunds. With earlier access to W-2 wage data, IRS could

match such information to taxpayers’ returns and identify discrepancies before issuing billions of dollars of fraudulent IDT refunds. Such matching could also provide potential benefits for other IRS enforcement programs, such as preventing improper payments via the Earned Income Tax Credit. Additional information on this high-risk area is provided on page 500 of the report.

In addition to being instrumental in supporting progress in individual high-risk areas, Congress also has taken actions to enact various statutes that, if implemented effectively, will help foster progress on high-risk issues government-wide. These include the following:

- **Program Management Improvement Accountability Act:** Enacted in December 2016, the act seeks to improve program and project management in federal agencies. Among other things, the act requires the Deputy Director of the Office of Management and Budget (OMB) to adopt and oversee implementation of government-wide standards, policies, and guidelines for program and project management in executive agencies. The act also requires the Deputy Director to conduct portfolio reviews to address programs on our High-Risk List. It further creates a Program Management Policy Council to act as an interagency forum for improving practices related to program and project management. The Council is to review programs on the High-Risk List and make recommendations to the Deputy Director or designee. We are to review the effectiveness of key efforts under the act to improve federal program management.

- **Fraud Reduction and Data Analytics Act of 2015 (FRDA):** FRDA, enacted in June 2016, is intended to strengthen federal anti-fraud controls, while also addressing improper payments. FRDA requires OMB to use our Fraud Risk Framework to create guidelines for federal agencies to identify and assess fraud risks, and then design and implement control activities to prevent, detect, and respond to

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23It is important to note that while all fraud involving a federal payment is considered an improper payment, not all improper payments are fraud. However, minimizing fraud risks in federal agency programs can help reduce improper payments and enhance program integrity.
Agencies, as part of their annual financial reports beginning in fiscal year 2017, are further required to report on their fraud risks and their implementation of fraud reduction strategies, which should help Congress monitor agencies’ progress in addressing and reducing fraud risks. To aid federal agencies in better analyzing fraud risks, FRDA requires OMB to establish a working group tasked with developing a plan for the creation of an interagency library of data analytics and data sets to facilitate the detection of fraud and the recovery of improper payments. This working group and the library should help agencies to coordinate their fraud detection efforts and improve their ability to use data analytics to monitor databases for potential improper payments. The billions of dollars of improper payments are a central part of the Medicare Program, Medicaid Program, and Enforcement of Tax Laws (Earned Income Tax Credit) high-risk areas.

- **IT Acquisition Reform, Legislation known as the Federal Information Technology Acquisition Reform Act (FITARA):**

  FITARA, enacted in December 2014, was intended to improve how agencies acquire IT and enable Congress to monitor agencies’ progress and hold them accountable for reducing duplication and achieving cost savings. FITARA includes specific requirements related to seven areas: the federal data center consolidation initiative, enhanced transparency and improved risk management, agency Chief Information Officer authority enhancements, portfolio review, expansion of training and use of IT acquisition cadres, government-wide software purchasing, and maximizing the benefit of the federal strategic sourcing initiative. Effective implementation of FITARA is central to making progress in the Improving the Management of IT Acquisitions and Operations government-wide area we added to the High-Risk List in 2015.

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### High-Risk Areas Highlighted for Significant Attention

In the 2 years since the last high-risk update, two areas—Mitigating Gaps in Weather Satellite Data and Management of Federal Oil and Gas Resources—have expanded in scope because of emerging challenges related to these overall high-risk areas. In addition, while progress is needed across all high-risk areas, particular areas need significant attention.

#### Expanding High-Risk Area: Mitigating Gaps in DOD Weather Satellite Data

**DOD’s Polar-Orbiting Weather Satellites**

While NOAA has made significant progress, as described earlier, in its geostationary weather satellite program, DOD has made limited progress in meeting its requirements for the polar satellite program. In 2010, when the Executive Office of the President decided to disband a tri-agency polar weather satellite program, DOD was given responsibility for providing polar-orbiting weather satellite capabilities in the early morning orbit. This information is used to provide updated information for weather observations and models. However, the department was slow to develop plans to replace the existing satellites that provide this coverage. Because DOD delayed establishing plans for its next generation of weather satellites, there is a risk of a satellite data gap in the early morning orbit.

The last satellite that the department launched in 2014 called Defense Meteorological Satellite Program (DMSP)-19, stopped providing recorded data used in weather models in February 2016. A prior satellite, called DMSP-17, is now the primary satellite operating in the early morning orbit. However, this satellite, which was launched in 2006, is operating with limitations due to the age of its instruments. DOD had developed another satellite, called DMSP-20, but plans to launch that satellite were canceled after the department did not certify that it would launch the satellite by the end of calendar year 2016.

The department conducted a requirements review and analysis of alternatives from February 2012 through September 2014 to determine the best way forward for providing needed polar-orbiting satellite environmental capabilities in the early morning orbit. In October 2016, DOD approved plans for its next generation of weather satellites, called the Weather System Follow-on—Microwave program, which will meet the
department’s needs for satellite information on oceanic wind speed and direction to protect ships on the ocean’s surface. The department plans to launch a demonstration satellite in 2017 and to launch its first operational satellite developed under this program in 2022. However, DOD’s plans for the early morning orbit are not comprehensive.

The department did not thoroughly assess options for providing its two highest-priority capabilities, cloud descriptions and area-specific weather imagery. These capabilities were not addressed due to an incorrect assumption about the capabilities that would be provided by international partners. The Weather System Follow-on—Microwave program does not address these two highest-priority capabilities and the department has not yet determined its long-term plans for providing these capabilities. As a result, the department will need to continue to rely on the older DMSP-17 satellite until its new satellite becomes operational in 2022, and it establishes and implements plans to address the high-priority capabilities that the new satellite will not address. Given the age of the DMSP-17 satellite and uncertainty on how much longer it will last, the department could face a gap in critical satellite data.

In August 2016, DOD reported to Congress its near-term plans to address potential satellite data gaps. These plans include a greater reliance on international partner capabilities, exploring options to move a geostationary satellite over an affected region, and plans to explore options for acquiring and fielding new equipment, such as satellites and satellite components to provide the capabilities. In addition, the department anticipates that the demonstration satellite to be developed as a precursor to the Weather System Follow-on—Microwave program could help mitigate a potential gap by providing some useable data. However, these proposed solutions may not be available in time or be comprehensive enough to avoid near-term coverage gaps. Such a gap could negatively affect military operations that depend on weather data, such as long-range strike capabilities and aerial refueling.

DOD needs to demonstrate progress on its new Weather Satellite Follow-on—Microwave program and to establish and implement plans to address the high-priority capabilities that are not included in the program. Additional information on Mitigating Gaps in Weather Satellite Data is provided on page 430 of the high-risk report.
On April 20, 2010, the Deepwater Horizon drilling rig exploded in the Gulf of Mexico, resulting in 11 deaths, serious injuries, and the largest marine oil spill in U.S. history. In response, in May 2010, the Department of the Interior (Interior) first reorganized its offshore oil and gas management activities into separate offices for revenue collection, under the Office of Natural Resources Revenue, and energy development and regulatory oversight, under the Bureau of Ocean Energy Management, Regulation and Enforcement. Later, in October 2011, Interior further reorganized its energy development and regulatory oversight activities when it established two new bureaus to oversee offshore resources and operational compliance with environmental and safety requirements. The new Bureau of Ocean Energy Management (BOEM) is responsible for leasing and approving offshore development plans while the new Bureau of Safety and Environmental Enforcement (BSEE) is responsible for lease operations, safety, and enforcement.

In 2011, we added Interior’s management of federal oil and gas resources to the High-Risk List based on three concerns: (1) Interior did not have reasonable assurance that it was collecting its share of billions of dollars of revenue from federal oil and gas resources; (2) Interior continued to experience problems hiring, training, and retaining sufficient staff to oversee and manage federal oil and gas resources; and (3) Interior was engaged in restructuring its oil and gas program, which is inherently challenging, and there were questions about whether Interior had the capacity to reorganize while carrying out its range of responsibilities, especially in a constrained resource environment.

Immediately after reorganizing, Interior developed memorandums and standard operating procedures to define roles and responsibilities, and facilitate and formalize coordination between BOEM and BSEE. Interior also revised polices intended to improve its oversight of offshore oil and gas activities, such as new requirements designed to mitigate the risk of a subsea well blowout or spill. In 2013, we determined that progress had been made, because Interior had fundamentally completed reorganizing its oversight of offshore oil and gas activities. As a result, in 2013, we removed the reorganization segment from this high-risk area.
However, in February 2016, we reported that BSEE had undertaken various reform efforts since its creation in 2011, but had not fully addressed deficiencies in its investigative, environmental compliance, and enforcement capabilities identified by investigations after the Deepwater Horizon incident.

BSEE’s ongoing restructuring has made limited progress enhancing the bureau’s investigative capabilities. BSEE continues to use pre–Deepwater Horizon incident policies and procedures. Specifically, BSEE has not completed a policy outlining investigative responsibilities or updated procedures for investigating incidents—among the goals of BSEE’s restructuring, according to restructuring planning documents, and consistent with federal standards for internal control. The use of outdated investigative policies and procedures is a long-standing deficiency. Post–Deepwater Horizon incident investigations found that Interior’s policies and procedures did not require it to plan investigations, gather and document evidence, and ensure quality control, and determined that continuing to use them posed a risk to the effectiveness of bureau investigations. Without completing and updating its investigative policies and procedures, BSEE continues to face this risk.

BSEE’s ongoing restructuring of its environmental compliance program reverses actions taken to address post–Deepwater Horizon incident concerns, and risks weakening the bureau’s environmental compliance oversight capabilities. In 2011, in response to two post–Deepwater Horizon incident investigations that found that BSEE’s predecessor’s focus on oil and gas development might have been at the expense of protecting the environment, BSEE created an environmental oversight division with region-based staff reporting directly to the headquarters-based division chief instead of regional management. This reporting structure was to help ensure that environmental issues received appropriate weight and consideration within the bureau.

Under the restructuring, since February 2015, field-based environmental compliance staff again report to their regional directors. BSEE’s rationale for this action is unclear, as it was not documented or analyzed as part of the bureau’s restructuring planning. Under federal standards for internal control, management is to assess the risks posed by external and internal sources and decide what actions to take to mitigate them. Without assessing the risk of reversing its reporting structure, Interior cannot be sure that BSEE will have reasonable assurance that environmental issues are receiving the appropriate weight and consideration, as called for by post–Deepwater Horizon incident investigations.
When we reviewed BSEE’s environmental compliance program, we found that the interagency agreements between Interior and EPA designed to coordinate water quality monitoring under the National Pollutant Discharge Elimination System were decades old. According to BSEE annual environmental compliance activity reports, the agreements may not reflect the agency’s current resources and needs. For example, a 1989 agreement stipulates that Interior shall inspect no more than 50 facilities on behalf of EPA per year, and shall not conduct water sampling on behalf of EPA. Almost 30 years later, after numerous changes in drilling practices and technologies, it is unclear whether inspecting no more than 50 facilities per year is sufficient to monitor water quality.

Nevertheless, senior BSEE officials told us that the bureau has no plans to update its agreements with EPA, and some officials said that a previous headquarters-led effort to update the agreements was not completed because it did not sufficiently describe the bureau’s offshore oil and gas responsibilities. According to Standards for Internal Control in the Federal Government, as programs change and agencies strive to improve operational processes and adopt new technologies, management officials must continually assess and evaluate internal controls to ensure that control activities are effective and updated when necessary.

BSEE’s ongoing restructuring has made limited progress in enhancing its enforcement capabilities. In particular, BSEE has not developed procedures with criteria to guide how it uses enforcement tools—which are among the goals of BSEE’s restructuring, according to planning documents, and consistent with federal standards for internal control. BSEE restructuring plans state that the current lack of criteria causes BSEE to act inconsistently, which makes oil and gas industry operators uncertain about BSEE’s oversight approach and expectations. The absence of enforcement climate criteria is a long-standing deficiency. For example, post–Deepwater Horizon incident investigations recommended BSEE assess its enforcement tools and how to employ them to deter safety and environmental violations. Without developing procedures with defined criteria for taking enforcement actions, BSEE continues to face risks to the effectiveness of its enforcement capabilities.

To enhance Interior’s oversight of oil and gas development, we recommended in February 2016 that the Secretary of the Interior direct
the Director of BSEE to take the following nine actions as it continues to restructure.26

- To address risks to the effectiveness of BSEE’s investigations, environmental compliance, and enforcement capabilities, we recommended that BSEE complete policies outlining the responsibilities of investigations, environmental compliance, and enforcement programs, and update and develop procedures to guide them.

- To enhance its investigative capabilities, we recommended that BSEE
  - establish a capability to review investigation policy and collect and analyze incidents to identify trends in safety and environmental hazards;
  - develop a plan with milestones for implementing the case management system for investigations;
  - clearly communicate the purpose of BSEE’s investigations program to industry operators; and
  - clarify policies and procedures for assigning panel investigation membership and referring cases of suspected criminal wrongdoing to the Inspector General.

- To enhance its environmental compliance capabilities, we recommended that BSEE
  - conduct and document a risk analysis of the regional-based reporting structure of its Environmental Compliance Division, including actions to mitigate any identified risks;
  - coordinate with the Administrator of the Environmental Protection Agency to consider the relevance of existing interagency agreements for monitoring operator compliance with National Pollutant Discharge Elimination System permits on the Outer Continental Shelf and, if necessary, update agreements to reflect current oversight needs; and
  - develop a plan to address documented environmental oversight staffing needs.

To enhance its enforcement capabilities, we recommended that BSEE develop a mechanism to ensure that it reviews the maximum daily civil penalty and adjusts it to reflect changes in the Consumer Price Index within the time frames established by statute.

In its written comments, Interior agreed that additional reforms—such as documented policies and procedures—are needed to address offshore oil and gas oversight deficiencies, but Interior neither agreed nor disagreed with our specific recommendations. Additional information on Management of Federal Oil and Gas Resources is provided on page 136 of the high-risk report.

Managing Risks and Improving VA Health Care. Since we added Department of Veterans Affairs (VA) health care to our High-Risk List in 2015, VA has acknowledged the significant scope of the work that lies ahead in each of the five areas of concern we identified: (1) ambiguous policies and inconsistent processes; (2) inadequate oversight and accountability; (3) information technology (IT) challenges; (4) inadequate training for VA staff; and (5) unclear resource needs and allocation priorities. It is imperative that VA maintain strong leadership support, and as the new administration sets its priorities, VA will need to integrate those priorities with its high-risk related actions.

VA developed an action plan for addressing its high-risk designation, but the plan describes many planned outcomes with overly ambitious deadlines for completion. We are concerned about the lack of root cause analyses for most areas of concern, and the lack of clear metrics and needed resources for achieving stated outcomes. In addition, with the increased use of community care programs, it is imperative that VA’s action plan discuss the role of community care in decisions related to policies, oversight, IT, training, and resource needs.

Finally, to help address its high-risk designation, VA should continue to implement our recommendations, as well as recommendations from others. While VA’s leadership has increased its focus on implementing our recommendations in the last 2 years, additional work is needed. We made 66 VA health care-related recommendations in products issued since the VA health care high-risk designation in February 2015, for a total of 244 recommendations from January 1, 2010, through December 31, 2016. VA has implemented 122 (about 50 percent) of the 244 recommendations, but over 100 recommendations remain open as of December 31, 2016.
(with about 25 percent being open for 3 or more years). It is critical that VA implement our recommendations in a timely manner.

Additional information on Managing Risks and Improving VA Health Care is provided on page 627 of the report.

- **DOD Financial Management.** The effects of DOD’s financial management problems extend beyond financial reporting and negatively affect DOD’s ability to manage the department and make sound decisions on mission and operations. In addition, DOD remains one of the few federal entities that cannot demonstrate its ability to accurately account for and reliably report its spending or assets. DOD’s financial management problems continue as one of three major impediments preventing us from expressing an opinion on the consolidated financial statements of the federal government.

Sustained leadership commitment will be critical to DOD’s success in achieving financial accountability, and in providing reliable information for day-to-day management decision making as well as financial audit readiness. DOD needs to assure the sustained involvement of leadership at all levels of the department in addressing financial management reform and business transformation. In addition, further action is needed in the areas of capacity and action planning. Specifically, DOD needs to

- continue building a workforce with the level of training and experience needed to support and sustain sound financial management;

- continue to develop and deploy enterprise resource planning systems as a critical component of DOD’s financial improvement and audit readiness strategy, as well as strengthen automated controls or design manual workarounds for the remaining legacy systems to satisfy audit requirements and improve data used for day-to-day decision making; and

- effectively implement its Financial Improvement and Audit Readiness Plan and related guidance to focus on strengthening processes, controls, and systems to improve the accuracy, reliability, and reporting for its priority areas, including budgetary information and mission-critical assets.

Further, DOD needs to monitor and assess the progress the department is making to remediate its internal control deficiencies. DOD should (1) require the military services to improve their policies and procedures for monitoring their corrective action plans for financial management-related findings and recommendations, and (2) improve its process for monitoring the military services’ audit
remediation efforts by preparing a consolidated management summary that provides a comprehensive picture of the status of corrective actions throughout the department. DOD is continuing to work toward undergoing a full financial statement audit by fiscal year 2018; however, it expects to receive disclaimers of opinion on its financial statements for a number of years.

A lack of comprehensive information on the corrective action plans limits the ability of DOD and Congress to evaluate DOD’s progress toward achieving audit readiness, especially given the short amount of time remaining before DOD is required to undergo an audit of the department-wide financial statements for fiscal year 2018. Being able to demonstrate progress in remediating its financial management deficiencies will be useful as the department works toward implementing lasting financial management reform to ensure that it can generate reliable, useful, and timely information for financial reporting as well as for decision making and effective operations. Moreover, stronger financial management would show DOD’s accountability for funds and would help it operate more efficiently.

Additional information on DOD Financial Management is provided on page 280 of the high-risk report.

- **Modernizing the U.S. Financial Regulatory System and the Federal Role in Housing Finance.** Resolving the role of the federal government in housing finance will require leadership commitment and action by Congress and the administration. The federal government has directly or indirectly supported more than two-thirds of the value of new mortgage originations in the single-family housing market since the beginning of the 2007-2009 financial crisis.²⁷ Mortgages with federal support include those backed by Fannie Mae and Freddie Mac, two large government-sponsored enterprises (the enterprises). Out of concern that their deteriorating financial condition threatened the stability of financial markets, the Federal Housing Finance Agency (FHFA) placed the enterprises into federal conservatorship in 2008, creating an explicit fiscal exposure for the federal government. As of September 2016, the Department of the Treasury (Treasury) had provided about $187.5 billion in funds as capital support to the enterprises, with an additional $258.1 billion available to the enterprises should they need further assistance. In accordance with the terms of agreements with Treasury, the

²⁷This figure is based on data from Inside Mortgage Finance.
enterprises had paid dividends to Treasury totaling about $250.5 billion through September 2016.

More than 8 years after entering conservatorship, the enterprises’ futures remain uncertain and billions of federal dollars remain at risk. The enterprises have a reduced capacity to absorb future losses due to a capital reserve amount that falls to $0 by 2018. Without a capital reserve, any quarterly losses—including those due to market fluctuations and not necessarily to economic conditions—would require the enterprises to draw additional funds from Treasury. Additionally, prolonged conservatorships and a change in leadership at FHFA could shift priorities for the conservatorships, which in turn could send mixed messages and create uncertainties for market participants and hinder the development of the broader secondary mortgage market. For this reason, we said in November 2016 that Congress should consider legislation establishing objectives for the future federal role in housing finance, including the structure of the enterprises, and a transition plan to a reformed housing finance system that enables the enterprises to exit conservatorship.28

The federal government also supports mortgages through insurance or guarantee programs, the largest of which is administered by the Department of Housing and Urban Development’s Federal Housing Administration (FHA). During the financial crisis, FHA served its traditional role of helping to stabilize the housing market, but also experienced financial difficulties from which it only recently recovered. Maintaining FHA’s long-term financial health and defining its future role also will be critical to any effort to overhaul the housing finance system.

We previously recommended that Congress or FHA specify the economic conditions that FHA’s Mutual Mortgage Insurance Fund would be expected to withstand without requiring supplemental funds. As evidenced by the $1.68 billion FHA received in 2013, the current 2 percent capital requirement for FHA’s fund may not always be adequate to avoid the need for supplemental funds under severe stress scenarios. Implementing our recommendation would be an important step not only in addressing FHA’s long-term financial viability, but also in clarifying FHA’s role.

Additional information on Modernizing the U.S. Financial Regulatory System and the Federal Role in Housing Finance is provided on page 107 of the report.

- **Pension Benefit Guaranty Corporation Insurance Programs.** The Pension Benefit Guaranty Corporation (PBGC) is responsible for insuring the defined benefit pension plans of nearly 40 million American workers and retirees who participate in nearly 24,000 private sector plans. PBGC faces an uncertain financial future due, in part, to a long-term decline in the number of traditional defined benefit plans and the collective financial risk of the many underfunded pension plans that PBGC insures. PBGC's financial portfolio is one of the largest of all federal government corporations and, at the end of fiscal year 2016, PBGC's net accumulated financial deficit was over $79 billion—having more than doubled since fiscal year 2013. PBGC has estimated that, without additional funding, its multiemployer insurance program will likely be exhausted by 2025 as a result of current and projected pension plan insolvencies. The agency’s single-employer insurance program is also at risk due to the continuing decline of traditional defined benefit pension plans, increased financial risk and reduced premium payments.

While Congress and PBGC have taken significant and positive steps to strengthen the agency over recent years, challenges related to PBGC’s funding and governance structure remain. Addressing the significant financial risk and governance challenges that PBGC faces requires additional congressional action. To improve the long-term financial stability of PBGC’s insurance programs, Congress should consider: (1) authorizing a redesign of PBGC’s single employer program premium structure to better align rates with sponsor risk; (2) adopting additional changes to PBGC’s governance structure—in particular, expanding the composition of its board of directors; (3) strengthening funding requirements for plan sponsors as appropriate given national economic conditions; (4) working with PBGC to develop a strategy for funding PBGC claims over the long term, as the defined benefit pension system continues to decline; and (5) enacting additional structural reforms to reinforce and stabilize the multiemployer system that balance the needs and potential sacrifices of contributing employers, participants and the federal government. Absent additional steps to improve PBGC’s finances, the long-term financial stability of the agency remains uncertain and the retirement benefits of millions of American workers and retirees could be at risk of dramatic reductions.
Additional information on Pension Benefit Guaranty Corporation Insurance Programs is provided on page 609 of the report.

- **Ensuring the Security of Federal Information Systems and Cyber Critical Infrastructure and Protecting the Privacy of Personally Identifiable Information.** Federal agencies and our nation’s critical infrastructures—such as energy, transportation systems, communications, and financial services—are dependent on computerized (cyber) information systems and electronic data to carry out operations and to process, maintain, and report essential information. The security of these systems and data is vital to public confidence and the nation’s safety, prosperity, and well-being. However, safeguarding computer systems and data supporting the federal government and the nation’s critical infrastructure is a concern. We first designated information security as a government-wide high-risk area in 1997.

This high-risk area was expanded to include the protection of critical cyber infrastructure in 2003 and protecting the privacy of personally identifiable information (PII) in 2015. Ineffectively protecting cyber assets can facilitate security incidents and cyberattacks that disrupt critical operations; lead to inappropriate access to and disclosure, modification, or destruction of sensitive information; and threaten national security, economic well-being, and public health and safety. In addition, the increasing sophistication of hackers and others with malicious intent, and the extent to which both federal agencies and private companies collect sensitive information about individuals, have increased the risk of PII being exposed and compromised.

Over the past several years, we have made about 2,500 recommendations to agencies aimed at improving the security of federal systems and information. These recommendations would help agencies strengthen technical security controls over their computer networks and systems, fully implement aspects of their information security programs, and protect the privacy of PII held on their systems. As of October 2016, about 1,000 of our information security--

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29Critical infrastructure includes systems and assets so vital to the United States that incapacitating or destroying them would have a debilitating effect on national security. These critical infrastructures are grouped by the following industries or “sectors”: chemical; commercial facilities; communications; critical manufacturing; dams; defense industrial base; emergency services; energy; financial services; food and agriculture; government facilities; health care and public health; information technology; nuclear reactors, materials, and waste; transportation systems; and water and wastewater systems.
related recommendations had not been implemented. In addition, the federal government needs, among other things, to improve its abilities to detect, respond to, and mitigate cyber incidents; expand efforts to protect cyber critical infrastructure; and oversee the protection of PII, among other things.

Additional information on Ensuring the Security of Federal Information Systems and Cyber Critical Infrastructure and Protecting the Privacy of Personally Identifiable Information is provided on page 338 of the report.

### New High-Risk Areas

For 2017, we are adding three new areas to the High-Risk List.\(^{30}\)

#### Improving Federal Management of Programs That Serve Tribes and Their Members

We, along with inspectors general, special commissions, and others, have reported that federal agencies have ineffectively administered Indian education and health care programs, and inefficiently fulfilled their responsibilities for managing the development of Indian energy resources. In particular, we have found numerous challenges facing Interior’s Bureau of Indian Education (BIE) and Bureau of Indian Affairs (BIA)\(^ {31}\) and the Department of Health and Human Services’ (HHS) Indian Health Service (IHS) in administering education and health care services, which put the health and safety of American Indians served by these programs at risk. These challenges included poor conditions at BIE school facilities that endangered students, and inadequate oversight of health care that hindered IHS’s ability to ensure quality care to Indian communities. In addition, we have reported that BIA mismanages Indian energy resources held in trust and thereby limits opportunities for tribes and their members to use those resources to create economic benefits and improve the well-being of their communities.

Congress recently noted, “through treaties, statutes, and historical relations with Indian tribes, the United States has undertaken a unique trust responsibility to protect and support Indian tribes and Indians.”\(^ {32}\) In light of this unique trust responsibility and concerns about the federal

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\(^{30}\)To determine which federal government programs and functions should be designated high risk, we use our guidance document, Determining Performance and Accountability Challenges and High Risks, GAO-01-159SP.

\(^{31}\)Both of these bureaus are under the Office of the Assistant Secretary for Indian Affairs (Indian Affairs).

government ineffectively administering Indian education and health care programs and mismanaging Indian energy resources, we are adding these programs as a high-risk issue because they uniquely affect tribal nations and their members.

Federal agencies have performed poorly in the following broad areas: (1) oversight of federal activities; (2) collaboration and communication; (3) federal workforce planning; (4) equipment, technology, and infrastructure; and (5) federal agencies’ data. While federal agencies have taken some actions to address the 41 recommendations we made related to Indian programs, there are currently 39 that have yet to be fully resolved.

We plan to continue monitoring federal efforts in these areas. To this end, we have ongoing work focusing on accountability for safe schools and school construction, and tribal control of energy delivery, management, and resource development.

What Needs to Be Done

Education: We have identified weaknesses in how Indian Affairs oversees school safety and construction and in how it monitors the way schools use Interior funds. We have also found limited workforce planning in several key areas related to BIE schools. Moreover, aging BIE school facilities and equipment contribute to degraded and unsafe conditions for students and staff. Finally, a lack of internal controls and other weaknesses hinder Indian Affairs’ ability to collect complete and accurate information on the physical conditions of BIE schools.

In the past 3 years, we issued three reports on challenges with Indian Affairs’ management of BIE schools in which we made 13 recommendations. Eleven recommendations below remain open.

- To help ensure that BIE schools provide safe and healthy facilities for students and staff, we made four recommendations which remain open, including that Indian Affairs ensure the inspection information it collects on BIE schools is complete and accurate; develop a plan to build schools’ capacity to promptly address safety and health deficiencies; and consistently monitor whether BIE schools have established required safety committees.

- To help ensure that BIE conducts more effective oversight of school spending, we made four recommendations which remain open, including that Indian Affairs develop a workforce plan to ensure that BIE has the staff to effectively oversee school spending; put in place written procedures and a risk-based approach to guide BIE in
overseeing school spending; and improve information sharing to support the oversight of BIE school spending.

- To help ensure that Indian Affairs improves how it manages Indian education, we made five recommendations. Three recommendations remain open, including that Indian Affairs develop a strategic plan for BIE that includes goals and performance measures for how its offices are fulfilling their responsibilities to provide BIE with support; revise Indian Affairs’ strategic workforce plan to ensure that BIA regional offices have an appropriate number of staff with the right skills to support BIE schools in their regions; and develop and implement decision-making procedures for BIE to improve accountability for BIE schools.

**Health Care:** IHS provides inadequate oversight of health care, both of its federally operated facilities and through the Purchase Referred Care program (PRC). Other issues include ineffective collaboration—specifically, IHS does not require its area offices to inform IHS headquarters if they distribute funds to local PRC programs using different criteria than the PRC allocation formula suggested by headquarters. As a result, IHS may be unaware of additional funding variation across areas. We have also reported that IHS officials told us that an insufficient workforce was the biggest impediment to ensuring patients could access timely primary care.

In the past 6 years, we have made 12 recommendations related to Indian health care that remain open. Although IHS has taken several actions in response to our recommendations, such as improving the data collected for the PRC program and adopting Medicare-like rates for nonhospital services, much more needs to be done.

- To help ensure that Indian people receive quality health care, the Secretary of HHS should direct the Director of IHS to take the following two actions: (1) as part of implementing IHS’s quality framework, ensure that agency-wide standards for the quality of care provided in its federally operated facilities are developed, and systematically monitor facility performance in meeting these standards over time; and (2) develop contingency and succession plans for replacing key personnel, including area directors.

- To help ensure that timely primary care is available and accessible to Indians, IHS should: (1) develop and communicate specific agency-wide standards for wait times in federally-operated facilities, and (2) monitor patient wait times in federally-operated facilities and ensure that corrective actions are taken when standards are not met.
• To help ensure that IHS has meaningful information on the timeliness with which it issues purchase orders authorizing payment under the PRC program, and to improve the timeliness of payments to providers, we recommended that IHS: (1) modify IHS’s claims payment system to separately track IHS referrals and self-referrals, revise Government Performance and Results Act measures for the PRC program so that it distinguishes between these two types of referrals, and establish separate time frame targets for these referral types; and (2) better align PRC staffing levels and workloads by revising its current practices, where available, used to pay for PRC program staff. In addition, as HHS and IHS monitor the effect that new coverage options available to IHS beneficiaries through PPACA have on PRC funds, we recommend that IHS concurrently develop potential options to streamline requirements for program eligibility.

• To help ensure successful outreach efforts regarding PPACA coverage expansions, we recommended that IHS realign current resources and personnel to increase capacity to deal with enrollment in Medicaid and the exchanges, and prepare for increased billing to these payers.

• If payments for physician and other nonhospital services are capped, we recommended that IHS monitor patient access to these services.

• To help ensure a more equitable allocation of funds per capita across areas, we recommended that Congress consider requiring IHS to develop and use a new method for allocating PRC funds.

• To develop more accurate data for estimating the funds needed for the PRC program and improve IHS oversight, we recommended that IHS develop a written policy documenting how it evaluates the need for the PRC program, and disseminate it to area offices so they understand how unfunded services data are used to estimate overall program needs. We also recommended that IHS develop written guidance for PRC programs outlining a process to use when funds are depleted but recipients continue to need services.

**Energy:** We have reported on issues with BIA oversight of federal activities, such as the length of time it takes the agency to review energy-related documents. We also reported on challenges with collaboration—in particular, while working to form an Indian Energy Service Center, BIA did not coordinate with key regulatory agencies, including the Department of the Interior’s Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the Environmental Protection Agency. In addition, we found workforce planning issues at BIA contribute to management shortcomings that have hindered Indian energy development. Lastly, we found issues
with outdated and deteriorating equipment, technology, and infrastructure, as well as incomplete and inaccurate data.

In the past 2 years, we issued three reports on developing Indian energy resources in which we made 14 recommendations to BIA. All recommendations remain open.

- To help ensure BIA can verify ownership in a timely manner and identify resources available for development, we made two recommendations, including that Interior take steps to improve its geographic information system mapping capabilities.
- To help ensure BIA’s review process is efficient and transparent, we made two recommendations, including that Interior take steps to develop a documented process to track review and response times for energy-related documents that must be approved before tribes can develop energy resources.
- To help improve clarity of tribal energy resource agreement regulations, we recommended BIA provide additional guidance to tribes on provisions that tribes have identified to Interior as unclear.
- To help ensure that BIA streamlines the review and approval process for revenue-sharing agreements, we made three recommendations, including that Interior establish time frames for the review and approval of Indian revenue-sharing agreements for oil and gas, and establish a system for tracking and monitoring the review and approval process to determine whether time frames are met.
- To help improve efficiencies in the federal regulatory process, we made four recommendations, including that BIA take steps to coordinate with other regulatory agencies so the Service Center can serve as a single point of contact or lead agency to navigate the regulatory process.
- To help ensure that BIA has a workforce with the right skills, appropriately aligned to meet the agency’s goals and tribal priorities, we made two recommendations, including that BIA establish a documented process for assessing BIA’s workforce composition at agency offices.

**Congressional Actions Needed:** It is critical that Congress maintain its focus on improving the effectiveness with which federal agencies meet their responsibilities to serve tribes and their members. Since 2013, we testified at six hearings to address significant weaknesses we found in the federal management of programs that serve tribes and their members. Sustained congressional attention to these issues will highlight the
challenges discussed here and could facilitate federal actions to improve Indian education and health care programs, and the development of Indian energy resources.

See pages 200-219 of the high-risk report for additional details on what we found.

U.S. Government’s Environmental Liabilities

The federal government’s environmental liability has been growing for the past 20 years and is likely to continue to increase. For fiscal year 2016, the federal government’s estimated environmental liability was $447 billion—up from $212 billion for fiscal year 1997. However, this estimate does not reflect all of the future cleanup responsibilities facing federal agencies. Because of the lack of complete information and the often inconsistent approach to making cleanup decisions, federal agencies cannot always address their environmental liabilities in ways that maximize the reduction of health and safety risks to the public and the environment in a cost-effective manner.

The federal government is financially liable for cleaning up areas where federal activities have contaminated the environment. Various federal laws, agreements with states, and court decisions require the federal government to clean up environmental hazards at federal sites and facilities—such as nuclear weapons production facilities and military installations. Such sites are contaminated by many types of waste, much of which is highly hazardous.

Federal accounting standards require agencies responsible for cleaning up contamination to estimate future cleanup and waste disposal costs, and to report such costs in their annual financial statements as environmental liabilities. Per federal accounting standards, federal agencies’ environmental liability estimates are to include probable and reasonably estimable costs of cleanup work. Federal agencies’ environmental liability estimates do not include cost estimates for work for which reasonable estimates cannot currently be generated. Consequently, the ultimate cost of addressing the U.S. government’s environmental cleanup is likely greater than $447 billion. Federal

33We did not adjust environmental liability estimates for inflation because information about the amount of the liability applicable to each fiscal year was not available.
agencies’ approaches to addressing their environmental liabilities and cleaning up the contamination from past activities are often influenced by numerous site-specific factors, stakeholder agreements, and legal provisions.

We have also found that some agencies do not take a holistic, risk-informed approach to environmental cleanup that aligns limited funds with the greatest risks to human health and the environment. Since 1994, we have made at least 28 recommendations related to addressing the federal government’s environmental liability. These include 22 recommendations to the Departments of Energy (DOE) or Defense (DOD), 1 recommendation to OMB to consult with Congress on agencies’ environmental cleanup costs, and 4 recommendations to Congress to change the laws governing cleanup activities. Of these, 13 recommendations remain unimplemented. If implemented, these steps would improve the completeness and reliability of the estimated costs of future cleanup responsibilities, and lead to more risk-based management of the cleanup work.

What Needs to Be Done

Of the federal government’s estimated $447 billion environmental liability, DOE is responsible for by far the largest share of the liability, and DOD is responsible for the second largest share. The rest of the federal government makes up the remaining 3 percent of the liability with agencies such as the National Aeronautics and Space Administration (NASA) and the Departments of Transportation, Veteran’s Affairs, Agriculture (USDA), and Interior holding large liabilities (see figure 2).
Agencies spend billions each year on environmental cleanup efforts but the estimated environmental liability continues to rise. For example, despite billions spent on environmental cleanup, DOE’s environmental liability has roughly doubled from a low of $176 billion in fiscal year 1997 to the fiscal year 2016 estimate of $372 billion. In the last 6 years alone, DOE’s Office of Environmental Management (EM) has spent $35 billion, primarily to treat and dispose of nuclear and hazardous waste, and construct capital asset projects to treat the waste; however, EM’s portion of the environmental liability has grown over this same time period by over $90 billion, from $163 billion to $257 billion (see figure 3).
Progress in addressing the U.S. government’s environmental liabilities depends on how effectively federal departments and agencies set priorities, under increasingly restrictive budgets, that maximize the risk reduction and cost-effectiveness of cleanup approaches. As a first step, some departments and agencies may need to improve the completeness of information about long-term cleanup responsibilities and their associated costs so that decision makers, including Congress, can consider the full scope of the federal government’s cleanup obligations. As a next step, certain departments, such as DOE, may need to change how they establish cleanup priorities. For example, DOE’s current practice of negotiating agreements with individual sites without
considering other sites’ agreements or available resources may not ensure that limited resources will be allocated to reducing the greatest environmental risks, and costs will be minimized.

We have recommended actions to federal agencies that, if implemented, would improve the completeness and reliability of the estimated costs of future cleanup responsibilities, and lead to more risk-based management of the cleanup work. These recommendations include the following.

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<tr>
<th>Completeness of Environmental Liability Estimates</th>
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<tr>
<td>• In 1994, we recommended that Congress amend certain legislation to require agencies to report annually on progress in implementing plans for completing site inventories, estimates of the total costs to clean up their potential hazardous waste sites, and agencies’ progress toward completing their site inventories and on their latest estimates of total cleanup costs. We believe these recommendations are as relevant, if not more so, today.</td>
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<th>Reliability of Environmental Liability Estimates</th>
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<td>• In 2015, we recommended that USDA develop plans and procedures for completing its inventories of potentially contaminated sites. USDA disagreed with this recommendation. However, we continue to believe that USDA’s inventory of contaminated and potentially contaminated sites—in particular, abandoned mines, primarily on Forest Service land—is insufficient for effectively managing USDA’s overall cleanup program. Interior is also faced with an incomplete inventory of abandoned mines that it is working to improve.</td>
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<th>Risk-Based Decision Making</th>
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<td>• In 2006, we recommended that DOD develop, document, and implement a program for financial management review, assessment, and monitoring of the processes for estimating and reporting environmental liabilities. This recommendation has not been implemented.</td>
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• We have found in the past that DOE’s cleanup strategy is not risk based and should be re-evaluated. DOE’s decisions are often driven by local stakeholders and certain requirements in federal facilities agreements and consent decrees. In 1995, we recommended that DOE set national priorities for cleaning up its contaminated sites using data gathered during ongoing risk evaluations. This recommendation has not been implemented.

• In 2003, we recommended that DOE ask Congress to clarify its authority for designating certain waste with relatively low levels of radioactivity as waste incidental to reprocessing, and therefore not managed as high-level waste. In 2004, DOE received this specific
thereby allowing DOE to save billions of dollars in waste treatment costs. The law, however, excluded the Hanford Site.

- More recently, in 2015, we found that DOE is not comprehensively integrating risks posed by National Nuclear Security Administration’s (NNSA) nonoperational contaminated facilities with EM’s portfolio of cleanup work.\textsuperscript{35} By not integrating nonoperational facilities from NNSA, EM is not providing Congress with complete information about EM’s current and future cleanup obligations as Congress deliberates annually about appropriating funds for cleanup activities. We recommended that DOE integrate its lists of facilities prioritized for disposition with all NNSA facilities that meet EM’s transfer requirements, and that EM should include this integrated list as part of the Congressional Budget Justification for DOE. DOE neither agreed nor disagreed with this recommendation.

See pages 232-247 of the high-risk report for additional details on what we found.

2020 Decennial Census

One of the most important functions of the U.S. Census Bureau (Bureau) is conducting the decennial census of the U.S. population, which is mandated by the Constitution and provides vital data for the nation. This information is used to apportion the seats of the U.S. House of Representatives; realign the boundaries of the legislative districts of each state; allocate billions of dollars in federal financial assistance; and provide social, demographic, and economic profiles of the nation’s people to guide policy decisions at each level of government. A complete count of the nation’s population is an enormous challenge as the Bureau seeks to control the cost of the census while it implements several new innovations and manages the processes of acquiring and developing new and modified IT systems supporting them. Over the past 3 years, we have made 30 recommendations to help the Bureau design and implement a more cost-effective census for 2020; however, only 6 of them had been fully implemented as of January 2017.


\textsuperscript{35}NNSA has identified 83 contaminated facilities for potential transfer to EM for disposition over a 25-year period, 56 of which are currently nonoperational. NNSA is maintaining these facilities for future transfer to EM, but the condition of nonoperational facilities continues to degrade, resulting in increasing costs to NNSA to maintain them to prevent the spread of contamination.
The cost of the census, in terms of cost for counting each housing unit, has been escalating over the last several decennials. The 2010 Census was the costliest U.S. Census in history at about $12.3 billion, and was about 31 percent more costly than the $9.4 billion cost of the 2000 Census (in 2020 dollars). The average cost for counting a housing unit increased from about $16 in 1970 to around $92 in 2010 (in 2020 constant dollars). Meanwhile, the return of census questionnaires by mail (the primary mode of data collection) declined over this period from 78 percent in 1970 to 63 percent in 2010. Declining mail response rates—a key indicator of a cost-effective census—are significant and lead to higher costs. This is because the Bureau sends enumerators to each nonresponding household to obtain census data. As a result, nonresponse follow-up is the Bureau’s largest and most costly field operation. In many ways, the Bureau has had to invest substantially more resources each decade to match the results of prior enumerations.

The Bureau plans to implement several new innovations in its design of the 2020 Census. In response to our recommendations regarding past decennial efforts and other assessments, the Bureau has fundamentally reexamined its approach for conducting the 2020 Census. Its plan for 2020 includes four broad innovation areas that it believes will save it over $5 billion (2020 constant dollars) when compared to what it estimates conducting the census with traditional methods would cost. The Bureau’s innovations include (1) using the Internet as a self-response option, which the Bureau has never done on a large scale before; (2) verifying most addresses using “in-office” procedures and on-screen imagery rather than street-by-street field canvassing; (3) re-engineering data collection methods such as by relying on an automated case management system; and (4) in certain instances, replacing enumerator collection of data with administrative records (information already provided to federal and state governments as they administer other programs). These innovations show promise for a more cost-effective head count. However, they also introduce new risks, in part, because they include new procedures and technology that have not been used extensively in earlier decennials, if at all.

36The fiscal year 2020 constant dollar factors the Bureau used are derived from the Chained Price Index from “Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2020” table from the Fiscal Year 2016 Budget of the United States Government.
The Bureau is also managing the acquisition and development of new and modified IT systems, which add complexity to the design of the census. To help control census costs, the Bureau plans to significantly change the methods and technology it uses to count the population, such as offering an option for households to respond to the survey via the Internet or phone, providing mobile devices for field enumerators to collect survey data from households, and automating the management of field operations. This redesign relies on acquiring and developing many new and modified IT systems, which could add complexity to the design.

These cost risks, new innovations, and acquisition and development of IT systems for the 2020 Census, along with other challenges we have identified in recent years, raise serious concerns about the Bureau’s ability to conduct a cost-effective enumeration. Based on these concerns, we have concluded that the 2020 Census is a high-risk area and have added it to the High-Risk List in 2017.

What Needs to Be Done

To help the Bureau mitigate the risks associated with its fundamentally new and complex innovations for the 2020 Census, the commitment of top leadership is needed to ensure the Bureau’s management, culture, and business practices align with a cost-effective enumeration. For example, the Bureau needs to continue strategic workforce planning efforts to ensure it has the skills and competencies needed to support planning and executing the census. It must also rigorously test individual census-taking activities to provide information on their feasibility and performance, their potential for achieving desired results, and the extent to which they are able to function together under full operational conditions.37

We have recommended that the Bureau also ensure that its scheduling adheres to leading practices and be able to support a quantitative schedule risk assessment, such as by having all activities associated with the levels of resources and effort needed to complete them. The Bureau has stated that it has begun maturing project schedules to ensure that the logical relationships are in place and plans to conduct a quantitative risk assessment. We will continue to monitor the Bureau’s efforts.

The Bureau must also improve its ability to manage, develop, and secure its IT systems. For example, the Bureau needs to prioritize its IT decisions and determine what information it needs in order to make those decisions. In addition, the Bureau needs to make key IT decisions for the 2020 Census in order to ensure they have enough time to have the production systems in place to support the end-to-end system test. To this end, we recommended the Bureau ensure that the methodologies for answering the Internet response rate and IT infrastructure research questions are determined and documented in time to inform key design decisions.\textsuperscript{38} Further, given the numerous and critical dependencies between the Census Enterprise Data Collection and Processing and 2020 Census programs, their parallel implementation tracks, and the 2020 Census’s immovable deadline, we recommended that the Bureau establish a comprehensive and integrated list of all interdependent risks facing the two programs, and clearly identify roles and responsibilities for managing this list.\textsuperscript{39} The Bureau stated that it plans to take actions to address our recommendations.

It is also critical for the Bureau to have better oversight and control over its cost estimation process and we have recommended that the Bureau ensure its cost estimate is consistent with our leading practices.\textsuperscript{40} For example, the Bureau will need to, among other practices, document all cost-influencing assumptions; describe estimating methodologies used for each cost element; ensure that variances between planned and actual cost are documented, explained, and reviewed; and include a comprehensive sensitivity analysis, so that it can better estimate costs. We also recommended that the Bureau implement and institutionalize processes or methods for ensuring control over how risk and uncertainty are accounted for and communicated within its cost estimation process. The Bureau agreed with our recommendations, and we are currently conducting a follow-up audit of the Bureau’s most recent cost estimate and will determine whether the Bureau has implemented them.

Sustained congressional oversight will be essential as well. In 2015 and 2016, congressional committees held five hearings focusing on the progress of the Bureau’s preparations for the decennial. Going forward,

\textsuperscript{38}GAO-15-225.

\textsuperscript{39}GAO-16-623.

\textsuperscript{40}GAO-16-628.
active oversight will be needed to ensure these efforts stay on track, the Bureau has needed resources, and Bureau officials are held accountable for implementing the enumeration as planned.

We will continue monitoring the Bureau’s efforts to conduct a cost-effective enumeration. To this end, we have ongoing work focusing on such topics as the Bureau’s updated lifecycle cost estimate and the readiness of IT systems for the 2018 End-to-End Test.

See pages 219–231 of the high-risk report for additional details on what we found.

Monitoring Previous High-Risk Areas

After we remove areas from the High-Risk List we continue to monitor them, as appropriate, to determine if the improvements we have noted are sustained and whether new issues emerge. If significant problems again arise, we will consider reapplying the high-risk designation. DOD’s Personnel Security Clearance Program is one former high-risk area that we continue to closely monitor in light of government-wide reform efforts.

Personnel Security Clearances

The Office of the Director of National Intelligence (ODNI) estimates that approximately 4.2 million federal government and contractor employees held or were eligible to hold a security clearance as of October 1, 2015. Personnel security clearances provide personnel with access to classified information, the unauthorized disclosure of which could, in certain circumstances, cause exceptionally grave damage to national security. High profile security incidents, such as the disclosure of classified programs and documents by a National Security Agency contractor and the OPM data breach of 21.5 million records, demonstrate the continued need for high quality background investigations and adjudications, strong oversight, and a secure IT process, which have been areas of long-standing challenges for the federal government.

41The Director of National Intelligence (DNI), in accordance with Executive Order 13467, is responsible, as the Security Executive Agent, for the development of policies and procedures governing the conduct of investigations and adjudications for eligibility for access to classified information and eligibility to hold a sensitive position. See Exec. Order No. 13,467, § 2.3(c), 73 Fed. Reg. 38,103 (June 30, 2008). (renumbered as section 2.5(e) in January 2017).
In 2005, we designated the DOD personnel security clearance program as a high-risk area because of delays in completing background investigations and adjudications. We continued the high-risk designation in the 2007 and 2009 updates to our High-Risk List because of issues with the quality of investigation and adjudication documentation and because delays in the timely processing of security clearances continued.\(^{42}\)

In our 2011 high-risk report, we removed DOD’s personnel security clearance program from the High-Risk List because DOD took actions to develop guidance to improve its adjudication process, develop and implement tools and metrics to assess quality of investigations and adjudications, and improve timeliness for processing clearances.\(^{43}\) We also noted that DOD continues to be a prominent player in the overall security clearance reform effort, which includes entities within the OMB, OPM, and ODNI that comprise the Performance Accountability Council (PAC) which oversees security clearance reform. The executive branch has also taken steps to monitor its security clearance reform efforts. The GPRA Modernization Act of 2010 requires OMB to report through a website—performance.gov—on long-term cross-agency priority goals, which are outcome-oriented goals covering a limited number of crosscutting policy areas, as well as goals to improve management across the federal government.\(^{44}\) Among the cross-agency priority goals, the executive branch identified security clearance reform as one of the key areas it is monitoring.

Since removing DOD’s personnel security clearance program from the High-Risk List, the government’s overall reform efforts that began after passage of the Intelligence Reform and Terrorism Prevention Act of 2004 have had mixed progress, and key reform efforts have not yet been implemented. In the aftermath of the June 2013 disclosure of classified documents by a former National Security Agency contractor and the September 2013 shooting at the Washington Navy Yard, OMB issued, in February 2014, the \textit{Suitability and Security Processes Review Report to}


\(^{43}\text{GAO, High-Risk Series: An Update, GAO-11-278 (Washington, D.C.: January 2011).}\)

\(^{44}\text{See also GAO, Performance.gov: Long-Term Strategy Needed to Improve Website Usability, GAO-16-693 (Washington, D.C.: Aug. 30, 2016).}\)
the President, a 120-day review of the government's processes for granting security clearances, among other things.

The 120-day review resulted in 37 recommendations, 65 percent of which have been implemented, as of October 2016, including the issuance of executive branch-wide quality assessment standards for investigations in January 2015. Additionally, the recommendations led to expanding DOD's ability to continuously evaluate the continued eligibility of cleared personnel. However, other recommendations from the 120-day review have not yet been implemented. For example, the reform effort is still trying to fully implement the revised background investigation standards issued in 2012 and improve data sharing between local, state, and federal entities.

In addition, the 120-day review further found that performance measures for investigative quality are neither standardized nor implemented consistently across the government, and that measuring and ensuring quality continues to be a challenge. The review contained three recommendations to address the development of quality metrics, but the PAC has only partially implemented those recommendations. We previously reported that the executive branch had developed some metrics to assess quality at different phases of the personnel security clearance process; however, those metrics had not been fully developed and implemented.45

The development of metrics to assess quality throughout the security clearance process has been a long-standing concern.46 Since the late 1990s we have emphasized the need to build and monitor quality throughout the personnel security clearance process.47 In 2009, we again

noted that clearly defined quality metrics can improve the security clearance process by enhancing oversight of the time required to process security clearances and the quality of the investigation and adjudicative decisions. We recommended that OMB provide Congress with results of metrics on comprehensive timeliness and the quality of investigations and adjudications.\textsuperscript{48} According to ODNI, in October 2016, ODNI began implementation of a Quality Assessment and Reporting Tool to document customer issues with background investigations. The tool will be used to report on the quality of 5 percent of each executive branch agency’s background investigations.

ODNI officials stated that they plan to develop metrics in the future as data are gathered from the tool, but did not identify a completion date for these metrics. Separately, the NDAA for Fiscal Year 2017, among other things, requires DOD to institute a program to collect and maintain data and metrics on the background investigation process, in the context of developing a system for performance of background investigations.\textsuperscript{49} The PAC’s effort to fully address the 120-day review and our recommendations on establishing metrics on the quality of investigations as well as DOD’s efforts to address the broader requirements in the NDAA for Fiscal Year 2017 remain open and will need to be a continued focus of the department moving forward in its effort to improve its management of the security clearance process.

Further, in response to the 2015 OPM data breach, the PAC completed a 90-day review which led to an executive order establishing the National Background Investigations Bureau, within OPM, to replace the Federal Investigative Services and transferred responsibility to develop, maintain and secure new IT systems for clearances to DOD.\textsuperscript{50} Additionally, the Executive Order made DOD a full principal member of the PAC.\textsuperscript{51} The Executive Order also directed the PAC to review authorities, roles, and responsibilities, including submitting recommendations related to revising,

\textsuperscript{48}GAO-09-400.
\textsuperscript{51}See Exec. Order No. 13,741, § 1(e), 81 Fed. Reg. at 68,289–90.
as appropriate, executive orders pertaining to security clearances. This effort is ongoing.

In addition to addressing the quality of security clearances and other goals and recommendations outlined in the 120-day and 90-day reviews and the government’s cross-agency priority goals, the PAC has the added challenge of addressing recent changes that may result from the NDAA for Fiscal Year 2017. Specifically, section 951 of the act requires the Secretary of Defense to develop an implementation plan for the Defense Security Service to conduct background investigations for certain DOD personnel—presently conducted by OPM—after October 1, 2017. The Secretary of Defense must submit the plan to the congressional defense committees by August 1, 2017. It also requires the Secretary of Defense and Director of OPM to develop a plan by October 1, 2017, to transfer investigative personnel and contracted resources to DOD in proportion to the workload if the plan for DOD to conduct the background investigations were implemented. It is unknown if these potential changes will impact recent clearance reform efforts.

Given the history and inherent challenges of reforming the government-wide security clearance process, coupled with recent amendments to a governing Executive Order and potential changes arising from the NDAA for Fiscal Year 2017, we will continue reviewing critical functions for personnel security clearance reform and monitor the government’s implementation of key reform efforts. We have ongoing work assessing progress being made on the overall security clearance reform effort and in implementing a continuous evaluation process, a key reform effort considered important to improving the timeliness and quality of

53 Specifically, the implementation plan would cover background investigations for DOD personnel whose investigations are adjudicated by the DOD Consolidated Adjudication Facility. See Pub. L. No. 114-328, § 951(a). According to the Consolidated Adjudication Facility, its mission is to determine security clearance eligibility of non-intelligence agency DOD personnel, with a customer base including all military service members, military applicants, civilian employees, and consultants affiliated with DOD.
54 See id.
55 Continuous evaluation refers to a vetting process to review the background of an individual who has been determined to be eligible for access to classified information or to hold a sensitive position at any time during the period of eligibility. It leverages a set of automated record checks and business rules to assist in the on-going assessment of continued eligibility. Exec. Order No. 13,764, § 3(e) (Jan. 17, 2017).
investigations. We anticipate issuing a report on the status of the government’s continuous evaluation process in the fall of 2017. Additionally, we have previously reported on the importance of securing federal IT systems and anticipate issuing a report in early 2017 that examines IT security at OPM and efforts to secure these types of critical systems.\textsuperscript{56} Continued progress in reforming personnel security clearances is essential in helping to ensure a federal workforce entrusted to protect U.S. government information and property, promote a safe and secure work environment, and enhance the U.S. government’s risk management approach.

The high-risk assessment continues to be a top priority and we will maintain our emphasis on identifying high-risk issues across government and on providing insights and sustained attention to help address them, by working collaboratively with Congress, agency leaders, and OMB. As part of this effort, with the new administration and Congress in 2017 we hope to continue to participate in regular meetings with the incoming OMB Deputy Director for Management and with top agency officials to discuss progress in addressing high-risk areas. Such efforts have been critical for the progress that has been made.

This high-risk update is intended to help inform the oversight agenda for the 115th Congress and to guide efforts of the administration and agencies to improve government performance and reduce waste and risks.

Thank you, Chairman Chaffetz, Ranking Member Cummings, and Members of the Committee. This concludes my testimony. I would be pleased to answer any questions.

For further information on this testimony, please contact J. Christopher Mihm at mihmj@gao.gov or (202) 512-6806. Contact points for the individual high-risk areas are listed in the report and on our high-risk website. Contact points for our Congressional Relations and Public Affairs offices may be found on the last page of this statement.
