



June 2017

DEPARTMENT OF DEFENSE

Actions Needed to Address Five Key Mission Challenges

Accessible Version

GAO Highlights

Highlights of [GAO-17-369](#), a report to congressional addressees

Why GAO Did This Study

The United States faces a complex national security environment, to include strategic challenges presented by traditional state actors and destabilizing nonstate actors, such as the Islamic State of Iraq and Syria. Recognizing these challenges, DOD has emphasized the importance of providing forces that are capable of performing a full range of missions. GAO has issued hundreds of reports that bring greater attention to areas where DOD can strengthen its operations to more efficiently and effectively meet its mission.

This report identifies (1) key challenges affecting DOD's ability to accomplish its mission, progress made on these challenges, and work remaining; and (2) factors that have affected DOD's ability to address these key challenges. This report builds on GAO's past work with an emphasis on reports issued since 2011. GAO also analyzed DOD information on recent actions taken in response to GAO's prior work.

What GAO Recommends

GAO has made approximately 3,100 recommendations to DOD since 2006. Of these, about 1,037 remain open, including 78 priority recommendations that, if implemented, could significantly improve DOD's operations. In commenting on this report, DOD stated that although the report made no new recommendations, the department stands by its responses and concurrence to taking the requisite actions needed to address all previous recommendations.

View [GAO-17-369](#). For more information, contact Cathleen A. Berrick at (202) 512-3404 or berrickc@gao.gov.

June 2017

DEPARTMENT OF DEFENSE

Actions Needed to Address Five Key Mission Challenges

What GAO Found

The Department of Defense (DOD) faces five key challenges that significantly affect the department's ability to accomplish its mission. These include the need to (1) rebalance forces and rebuild readiness; (2) mitigate threats to cyberspace and expand cyber capabilities; (3) control the escalating costs of programs, such as certain weapon systems acquisitions and military health care, and better manage its finances; (4) strategically manage its human capital; and (5) achieve greater efficiencies in defense business operations. DOD has demonstrated progress addressing challenges, but significant work remains. Specifically:

Rebalance forces and rebuild readiness: The military services today are generally smaller and less combat ready than they have been in many years, and each military service has been forced to cut critical needs in areas such as training, maintenance, and modernization due to budgetary constraints, according to DOD. Officials said that the result of the current state of readiness is that military forces are not strong enough to protect vital U.S. national security interests from worldwide threats. DOD has pursued plans to strengthen military capabilities, but must take key actions to rebalance, rebuild, and modernize the capabilities of U.S. military forces. For example, DOD needs to take further steps to meet the demands of geographic commanders and examine whether there are opportunities to reduce the high demand on special operations forces. DOD also needs to provide decision makers with complete and accurate budget and cost information to make well-informed decisions on weapon systems modernization investments and mitigate potential risks to certain modernization initiatives, including regarding the F-35 aircraft—a program on which DOD plans to spend over \$1 trillion to operate and sustain over its life cycle. The military services have plans underway to rebuild readiness for portions of their military forces, but these initiatives are at risk without more comprehensive planning and an approach to measure progress in attaining goals (see table). Since 2011, GAO has directed 39 recommendations to DOD in this area, of which 35 remain open, including 5 priority recommendations.

Summary of Readiness Challenges Faced by the Military Services

Military service	Summary of readiness challenges
Army	Ground force readiness has improved in recent years but the Army has reported that gaps remain against other nation-states. GAO has found that readiness goals and timelines are not clear for all portions of the military force, especially for the reserve component.
Air Force	Readiness has steadily declined due to continuous operations and a smaller inventory of aircraft. The Air Force is seeking to balance near-term readiness recovery with the need to modernize its aging aviation fleet. The Air Force has stated its readiness goals will take a decade to achieve, and are predicated on a slowing of operations and consistent funding.
Navy	The fleet has experienced increasing maintenance challenges as a high pace of operations has continued and maintenance has been deferred. Readiness recovery for the Navy is premised on the

Military service Summary of readiness challenges

adherence to deployment and maintenance schedules, but GAO has found that the Navy has had difficulty completing maintenance on time.

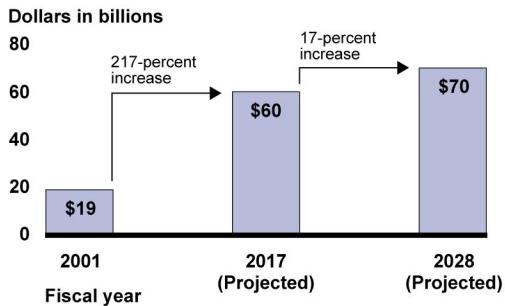
Marine Corps Ground force readiness has improved in recent years but acute readiness problems exist in aviation units. The Marine Corps has established specific strategies and metrics to achieve readiness goals for certain but not all force communities.

Source: GAO analysis of Department of Defense (DOD) documentation and GAO's previously issued work. | GAO-17-369

Mitigate threats to cyberspace and expand cyber capabilities: In February 2016, the Director of National Intelligence identified cyber threats as first among strategic threats to the United States, surpassing terrorism. According to the 2016 Federal Information Security Management Act report, more than 30,000 data security incidents compromised federal information systems during fiscal year 2016, 16 of which were categorized as major incidents. DOD has become increasingly reliant on the Internet and other networks, which are central to its military operations and enable essential services. At the same time, the vulnerability of its cyber networks has grown significantly, due in part to the increase in the severity of cyber attacks. DOD has made progress in developing a cyber strategy to defend its networks and protect the nation from cyber attacks, but needs to take additional actions to improve its planning for the continuity of operations in a degraded cyber environment, such as providing defense organizations with guidance and training to practice responses during exercises. DOD also needs to take further action to strengthen its insider threat awareness program to address the increased risk of the unauthorized disclosure of classified information from defense information systems and to improve the visibility and oversight of the cyber capabilities of all National Guard units, such as computer network defense teams that could be used during a cyber incident. Since 2011, GAO has directed 33 recommendations to DOD in unclassified and sensitive but unclassified reports, of which 14 remain open, including 5 priority recommendations.

Control escalating costs and manage finances: DOD's \$580 billion fiscal year 2016 budget accounts for nearly half of the federal government's discretionary spending, and DOD's costs are growing. DOD plans to invest \$574 billion to develop and acquire 78 major acquisition programs through fielding, such as the F-35 and the Littoral Combat Ship, while annual military health care costs are expected to increase from about \$60 billion in fiscal year 2017 to about \$70 billion by fiscal year 2028. Further, DOD remains one of the few federal entities that cannot demonstrate an ability to accurately account for and reliably report its spending or assets. DOD has undertaken a series of reform initiatives to control costs and improve its financial management, but needs to more consistently implement leading acquisition practices to manage the costs of its weapon systems. DOD also needs to better address improper payments to control rising costs in the military health system, which has experienced a 217 percent increase in costs since 2001 (see fig.). Further, DOD should take steps to identify underutilized space in its facilities to reduce its reliance on costly leased facilities. Finally, DOD needs to remediate financial management deficiencies, which prevent it from producing auditable financial statements and result in inadequate financial and other information available to DOD to manage its operations. Since 2011, GAO has directed 79 recommendations to DOD in this area, of which 72 remain open, including 52 priority recommendations.

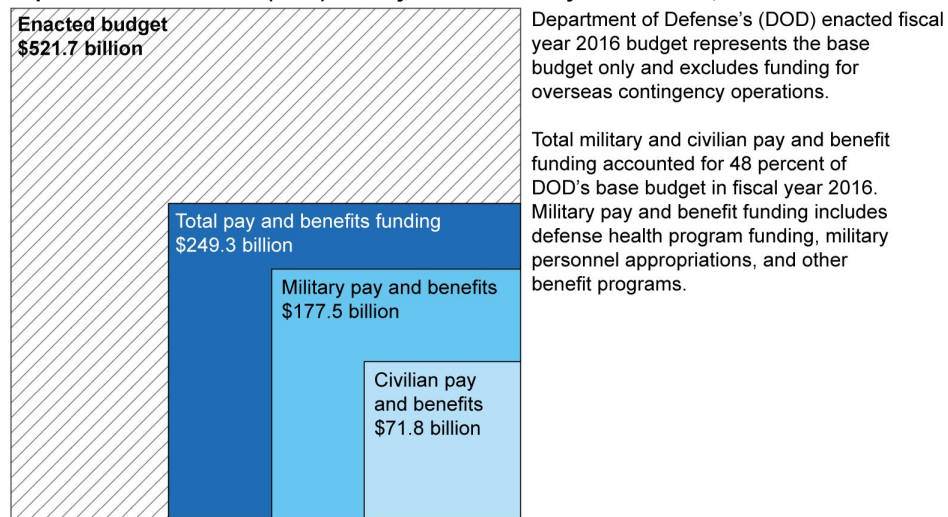
Military Health System Costs, Fiscal Years 2001 through 2028 (Projected)



Source: GAO analysis of Department of Defense (DOD) and Congressional Budget Office projections. | GAO-17-369

Strategically manage human capital: DOD estimates that it will spend nearly \$180 billion in fiscal year 2017 on pay and benefits for its military personnel and about \$70 billion for its civilian employees. Taken together, funding for military and civilian pay and benefits represents nearly 50 percent of DOD’s budget in fiscal year 2016 (see fig.). DOD also estimates that it spent about \$115 billion on certain contractor-provided services in fiscal year 2015, although we have raised questions regarding the reliability of DOD’s information on its contractor workforce. Current budget and long-term fiscal pressures on the department increase the importance of strategically managing DOD’s human capital. DOD has taken steps to develop better information about the skill sets possessed and needed within the department’s military, civilian, and contractor workforces, but needs to take further actions to complete a workforce mix assessment, improve the methodology for estimating workforce costs, and address skill gaps in critical workforces. DOD should also establish a comprehensive compensation strategy for its military personnel to help achieve its recruiting and retention goals, including a cost-effective approach for managing the \$3.4 billion the department spent in fiscal year 2015 on special and incentive pays for active-duty service members. Since 2011, GAO has directed 67 recommendations to DOD in this area, of which 64 remain open.

Department of Defense’s (DOD) Military and Civilian Pay and Benefits, Fiscal Year 2016



Source: GAO analysis of Department of Defense budget data. | GAO-17-369

Achieve greater efficiencies in defense business operations: DOD spends billions of dollars each year acquiring business systems and contractor-provided services to support the warfighter. In 2014 alone, DOD obligated \$85 billion on three types of contractor-provided services—including an amount obligated for knowledge-based and research and development services that was more than double what the department spent to purchase aircraft, land vehicles, and ships. DOD has emphasized the need to improve its business practices and reduce overhead and free up resources for higher priorities, but needs to take additional actions to drive business transformation efforts, implement management controls

for its business systems investments, and develop guidance to manage the acquisition of contracted services. DOD also needs to improve the reliability of its data to enable it to properly size its headquarters organizations, which have experienced significant growth; to accomplish missions; and identify potential cost savings. Since 2011, GAO has directed 49 recommendations to DOD in this area, of which 38 remain open, including 8 priority recommendations.

GAO's prior work identified four cross-cutting factors that have affected DOD's ability to address the department's key challenges. Specifically:

- Lack of sustained leadership involvement:** More than 9 years after Congress designated the Deputy Secretary of Defense as the Chief Management Officer and created the Deputy Chief Management Officer position to provide leadership over the department's business functions, all of DOD's business areas remain on our High-Risk List—areas that are vulnerable to waste, fraud, or mismanagement (see fig.). In December 2016, Congress established a separate Chief Management Officer position from the Deputy Secretary of Defense and replaced the Under Secretary of Defense for Acquisition, Technology, and Logistics with two new Under Secretary positions to further address DOD's leadership challenges. These new positions provide an opportunity to enhance DOD's leadership focus on DOD's key challenges, but DOD will need to clearly define the key responsibilities and authorities for these positions to help ensure that they can effectively drive transformation efforts.

Department of Defense's (DOD) High-Risk Areas, Years on the High-Risk List, and Status of DOD's Efforts to Address Five Criteria for Removal



Source: GAO February 2017 High-Risk Update. | GAO-17-369

- Misalignment between programs and resources and budgets:** The federal government faces an unsustainable long-term fiscal path, and the Congress and the new administration will need to consider difficult policy choices in the short term regarding federal spending. However, since 2005, GAO has reported that DOD's approach to planning and budgeting often results in a mismatch between the department's programs and available resources. As a result, DOD faces significant affordability challenges for some of its major acquisition programs that have unsustainable cost estimates and that will vie for significant funding commitments.
- Ineffective strategic planning and performance monitoring:** GAO has reported since 2005 on strategic planning and performance monitoring challenges that have affected the efficiency and effectiveness of DOD's operations, both at the strategic readiness level and across all of DOD's major business areas—including contract management, financial management, and supply chain management. DOD has missed opportunities to hold officials accountable for progress made toward meeting goals and milestones, make timely and well-informed actions to address identified challenges, and encourage continuous improvements in performance across its major business functions.

- **Ineffective management control system:** DOD has not addressed long-standing challenges in implementing an effective management control system to improve accountability and effectively and efficiently achieve its mission. DOD does not have quality information on costs related to mission critical programs, such as weapon systems, and the department is unable to effectively assess the affordability of the programs that support them. Since 2005, GAO has reported on internal control deficiencies with DOD's financial management that have contributed to inconsistent and sometimes unreliable reports to Congress on weapon system operating and support costs, among other areas. This inconsistent and unreliable reporting limits the visibility that Congress needs to effectively oversee defense programs, and impairs its ability to make cost-effective choices.

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Abbreviations

ALIS	Autonomic Logistics Information System
CMO	Chief Management Officer
DCMO	Deputy Chief Management Officer
DHA	Defense Health Agency
DOD	Department of Defense
DOE	Department of Energy
IPA	Independent public accountants
NATO	North Atlantic Treaty Organization
OCO	Overseas contingency operations
OMB	Office of Management and Budget

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June 13, 2017

Congressional Addressees

The United States faces a complex and uncertain national security environment to include threats presented by traditional state actors, as well as destabilizing actions by nonstate actors such as al-Qaida and the Islamic State of Iraq and Syria. Since 2001, the Department of Defense (DOD) has been heavily engaged in the Middle East and Afghanistan conducting counter terrorism operations and building the capacity of partner nation security forces. DOD is simultaneously facing other strategic challenges, such as countering Russian and Iranian aggression and protecting our allies and partners in these regions, remaining ready on the Korean peninsula in the face of North Korea's provocations, maintaining regional stability in the Asia-Pacific region amid tensions in the South China Sea, conducting a global campaign against terrorists and other violent extremist organizations, and protecting the department's mission-critical networks from cyber attacks.¹ Recognizing these challenges, DOD has emphasized the importance of providing agile, flexible, and operationally ready forces that are capable of performing a full range of potential missions, and implementing defense institutional reforms to more efficiently and effectively manage its operations and free up resources for higher priorities.

The national security environment is further complicated by a myriad of other influences that pose potential obstacles to DOD's ability to effectively and efficiently conduct its operations. For instance, our January 2017 report on the nation's fiscal health outlined the current fiscal condition of the federal government and its future fiscal path, and demonstrated that the federal government is highly leveraged in debt by historical norms and is on an unsustainable long-term fiscal path caused by a structural imbalance between revenue and spending.² We concluded that addressing this imbalance would require significant changes in fiscal policy that will place budgetary strains on the federal government,

¹Department of Defense, *2017 Defense Posture Statement: Taking the Long View, Investing for the Future* (Washington, D.C.: February 2016).

²GAO, *The Nation's Fiscal Health: Action Is Needed to Address the Federal Government's Fiscal Future*, [GAO-17-237SP](#) (Washington, D.C.: Jan. 17, 2017).

including DOD, which accounts for approximately half of the federal government's discretionary spending.³ DOD has also faced budget uncertainty—including across-the-board spending reductions in fiscal year 2013, known as sequestration, and a federal government shutdown in October 2013, and will have to adapt to potentially shifting priorities from the new administration and Congress.⁴ DOD has stated that it cannot implement the national defense strategy under the budget caps set by the Budget Control Act of 2011.⁵ Within this fiscal environment, the President is proposing a \$54 billion increase to DOD's budget for fiscal year 2018. Even if this increase is approved, however, DOD will still face significant affordability challenges as it works to rebuild the readiness of its forces while simultaneously modernizing to meet future threats.

Further, DOD has remained engaged with the North Atlantic Treaty Organization (NATO) to make continued progress on shared interests and to deter and defend against Russian aggression in Europe, and has secured a NATO commitment to set concrete goals for defense spending on specified alliance priorities. However, continuing fiscal problems in some European countries may contribute to political instability, which may affect DOD's efforts to strengthen partnerships with NATO allies and partners. Additionally, climate risks to environmental and economic systems—including agriculture, infrastructure, ecosystems, and human

³"Discretionary spending" refers to outlays from budget authority that are provided in and controlled by appropriation acts, in contrast to mandatory spending, such as that for Social Security, Medicare, or other entitlement programs, which is provided for in law other than appropriation acts. In fiscal year 2016, total discretionary spending was \$1.2 trillion, of which \$584 billion was spent on defense. See Congressional Budget Office, *The Federal Budget in 2017* (Washington, D.C.: February 2017).

⁴In August 2011, Congress and the President enacted the Budget Control Act of 2011 (BCA), Pub. L. No. 112-25 (2011) amending the Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA), Pub. L. No. 99-177 (1985). Among other things, the BCA imposed discretionary spending limits for fiscal years 2012 through 2021 to reduce projected spending by about \$1 trillion. The BCA also established the Joint Select Committee on Deficit Reduction (Joint Committee), which was tasked with proposing legislation to reduce the deficit by an additional \$1.2 trillion or more through fiscal year 2021. The Joint Committee was directed to report its proposal by December 2, 2011, and Congress and the President were to enact legislation by January 15, 2012. The Joint Committee did not report a proposal, and Congress and the President did not enact legislation. This failure triggered the sequestration process in section 251A of BBEDCA, as amended, known as the "Joint Committee sequestration." As required, the President ordered a sequestration of discretionary and direct spending on March 1, 2013—5 months into fiscal year 2013.

⁵In January 2017, the President directed DOD to develop a new national military strategy and conduct a nuclear posture review.

health—present a security challenge for DOD, such as the growing threat of increased natural disasters, refugee flows, and conflicts over basic resources such as food and water.

As the largest agency in the federal government, DOD's mission is to provide the military forces needed to deter conflict, fight and win wars if needed, and protect the security of the United States. The department is supported by key business operations that are intended to help facilitate its warfighting mission. These key business operations include numerous systems and processes related to the management of contracts, finances, the supply chain, support infrastructure, and weapon systems acquisition, and are inextricably linked to the readiness and capabilities of the U.S. military forces. We and others have highlighted key areas where DOD can strengthen its operations. Since 1990, for example, we have maintained a High-Risk List to call attention to agencies and program areas that are vulnerable to fraud, waste, abuse, and mismanagement, or are in need of broad-based transformation. Our High-Risk program has served to identify and help resolve serious weaknesses in areas that involve substantial resources and provide critical services to the public. DOD currently bears responsibility in whole or in part, for half (17 of 34) of the areas we have designated as high risk—7 of which DOD manages and 10 of which DOD shares management responsibilities with other federal agencies.⁶ Figure 1 shows when the 7 areas were added to the High-Risk List and DOD's status in addressing the five criteria for removal from the list—leadership commitment, capacity, action plan, monitoring, and demonstrated progress.⁷ Some progress in addressing these high-risk areas has been possible through concerted efforts of the Congress, DOD, and Office of Management and Budget leadership, but significant work remains.

⁶GAO, *High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, [GAO-17-317](#) (Washington, D.C.: Feb. 15, 2017). Agencies must meet the following five criteria to be removed from our High-Risk List: (1) a strong commitment to and top leadership support for addressing problems; (2) the capacity to address problems; (3) a corrective action plan; (4) a program to monitor corrective measures; and (5) demonstrated progress in implementing corrective measures.

⁷We added DOD's personnel security clearance program to our high-risk list in 2005 and removed it in 2011.

Figure 1: Department of Defense’s (DOD) High-Risk Areas, Years Added to the High-Risk List, and Status of DOD’s Efforts to Address Five Criteria for Removal



Source: GAO February 2017 High-Risk Update. | GAO-17-369

Note: Agencies must meet the following five criteria to be removed from GAO’s High-Risk List: (1) a strong commitment to, and top leadership support for, addressing problems; (2) the capacity to address problems; (3) a corrective-action plan; (4) a program to monitor corrective measures; and (5) demonstrated progress in implementing corrective measures. “Met” means actions have been taken that meet the criterion and that there are no significant actions that need to be taken to further address this criterion. “Partially met” means some, but not all, necessary actions have been taken to meet the criterion. “Not met” means few, if any, actions have been taken toward meeting the criterion.

We have issued hundreds of reports and made approximately 3,100 recommendations to DOD since 2006, which, if implemented, could strengthen DOD’s accountability, programs, and services.⁸ However, DOD lags behind the rest of the government in implementing our recommendations. In our 2016 *Performance and Accountability Report*, we reported that on a government-wide basis, 77 percent of our recommendations had been implemented.⁹ In comparison, DOD implemented about 69 percent of our recommendations since 2006, with approximately 1,037 recommendations remaining open.¹⁰ Further, since August 2015 we have identified priority recommendations that we believe

⁸For the purposes of this report, we reviewed our prior work issued since 2011. We have issued numerous reports and made additional recommendations to improve DOD’s operations outside of this time period.

⁹GAO, *Performance and Accountability Report, Fiscal Year 2016*, [GAO-17-1SP](#) (Washington, D.C.: Nov. 15, 2016). Experience has shown that it takes time for some recommendations to be implemented. For this reason, we measure the percentage rate of recommendations implemented made 4 years prior to a given fiscal year (e.g., the fiscal year 2015 implementation rate is the percentage of recommendations made in fiscal year 2011 products that were implemented by the end of fiscal year 2015). The government-wide implementation rate over the past 4 years is the percentage cited in this report.

¹⁰This number does not include recommendations that are classified or all recommendations designated Controlled Unclassified Information, which we track separately.

could significantly improve DOD's operations. DOD has made progress in some areas and has addressed 14 of these priority recommendations, but 78 remain open.¹¹ For example, the department has taken a series of actions to better protect critical DOD information that is processed, stored, or transits on an information system that is owned by, or operated by or for, contractors, including those within the defense industrial base. However, DOD has not addressed other priority recommendations, including collecting reliable information on the costs associated with its headquarters functions, which could facilitate the identification of opportunities for consolidation or elimination of positions, as we recommended in 2016. In appendix 1, we list examples of actions that DOD needs to take to address our 78 open priority recommendations to the department.

We are also statutorily mandated to identify and report annually to Congress on federal programs, agencies, offices, and initiatives—either within departments or government-wide—that have duplicative goals or activities. These annual reports also identify additional opportunities to achieve greater efficiencies and effectiveness by means of cost savings and enhanced revenue collection. In our 2011 through 2017 annual reports, we directed 168 recommended actions to DOD in areas such as personnel and logistics, weapon systems, and health care, in response to which DOD has taken some action that has resulted in cost savings and other benefits. For example, consistent with our recommendation, the Army did not introduce a new family of camouflage uniforms into its inventory, resulting in a cost avoidance of about \$4.2 billion over 5 years.¹² However, DOD has not taken actions in other areas that, if addressed, would yield significant financial and other benefits. For example, we reported that DOD could identify procurement inefficiencies and opportunities to consolidate purchases for the over \$1 billion it spends annually leasing commercial satellite communication networks if it

¹¹This number includes new priority recommendations that we identified in June 2017.

¹²GAO, *2016 Annual Report: Additional Opportunities to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits*, [GAO-16-375SP](#) (Washington, D.C.: Apr. 13, 2016). Consistent with our recommendation, a provision in the National Defense Authorization Act for Fiscal Year 2014 established as policy that the Secretary of Defense shall eliminate the development and fielding of service-specific combat and camouflage utility uniforms in order to adopt and field a common uniform or family of uniforms to be used by all service members. Subject to certain exceptions, the provision prohibits military departments from adopting new pattern designs or uniform fabrics unless they will be adopted by all services or the military department adopts a uniform already in use by another service. (Pub. L. No. 113-66, § 352 (a), (b) (2013)).

enforced its current policy and conducted an analysis of its spending in this area. DOD agreed, but has not fully addressed these recommendations.¹³

This report identifies key challenges affecting DOD's ability to accomplish the department's mission, progress made, and work remaining to address these challenges; and factors that have affected DOD's ability to address these key challenges. It also describes actions DOD has taken to implement our recommendations most relevant to the key challenges and identifies recommendations in these areas that we believe the department should give high priority to addressing. We initiated work to prepare this report under the Comptroller General's authority to address issues of broad interest to the Congress, with an emphasis on longer-range, crosscutting, and transformational issues. This report builds on our past work—97 percent of which is requested by the Congress or required by law—to provide policy makers with a comprehensive compendium of DOD's challenges that require sustained leadership commitment and attention.

To determine the key challenges and factors affecting DOD's ability to execute its mission, we collected and analyzed DOD strategy documents that were issued between 2011 and 2016.¹⁴ We analyzed the frequency with which priorities and associated challenges appeared across the strategy documents to determine the extent to which similar priorities and associated challenges are identified within and across the documents. Specifically, we identified the priorities and associated challenges DOD described as essential to completing its mission. We then assessed the frequency, depth, and context with which each priority and associated challenge we identified was cited in DOD documents. We also reviewed

¹³For additional information, see GAO, *Defense Satellite Communications: DOD Needs Additional Information to Improve Procurements*, [GAO-15-459](#) (Washington, D.C.: July 17, 2015).

¹⁴The list of documents analyzed included the following: *National Military Strategy of the United States of America* (Washington, D.C.: June 2015); *National Security Strategy* (Washington, D.C.: February 2015); *United States Department of Defense, Agency Strategic Plan, Fiscal Years 2015-2018, Version 2.0* (Washington, D.C.: April 2016); *2017 Defense Posture Statement: Taking the Long View, Investing in the Future* (Washington, D.C.: February 2016); *Fiscal Year 2017 Budget Request, Defense Budget Overview* (Washington, D.C.: February 2016); *Agency Strategic Plan, Fiscal Years 2015-2018, Version 1.0* (Washington, D.C.: May 2015); *Fiscal Year 2016 Budget Request Overview* (Washington, D.C.: February 2015); *Quadrennial Defense Review* (Washington, D.C.: March 2014); and *Strategic Management Plan: The Business of Defense, FY 2014-FY2015* (Washington, D.C.: July 2013).

our prior work issued within the past 5 years to determine the extent to which GAO had previously identified similar priorities and challenges. Further, we also drew on the collective knowledge of our subject matter experts and compared our assessment of DOD's priorities and challenges with GAO's institutional knowledge. We took further steps to corroborate our analysis, to include incorporating feedback from DOD on the priorities and challenges we identified, and reviewing the DOD Inspector General's list of management challenges for 2016.¹⁵

We determined what progress, if any, DOD had made addressing the key challenges by examining DOD's strategies and senior leadership statements. We compared this information with our previously issued work as well as with related recommendations made within the past 5 years, including our high-risk; duplication, overlap, and fragmentation; and key issues products.¹⁶ Specifically, we reviewed our prior work to determine the extent to which DOD had implemented recommendations we made related to our assessment of the identified priorities and challenges. We further assessed the status of the priority recommendations we made to DOD—recommendations that we believe the department should give a high priority to addressing, based on the subject matter knowledge of our staff. We also identified factors affecting DOD's ability to make additional progress in addressing the key challenges by reviewing the causes of issues we identified in our relevant work issued since 2011. Specifically, we reviewed our prior work going back 5 years and determined factors affecting DOD's progress in each challenge area. We list this prior work in appendix II.

We conducted this performance audit from June 2016 to June 2017 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹⁵Inspector General of the Department of Defense, *Management Challenges Fiscal Year 2016* (December 2016).

¹⁶We identified a set of key issues across the federal government that require greater management attention. Each key issue has a web page on our website, <http://www.gao.gov> that provides information about our work on these issues and highlights our most relevant reports.

DOD Has Made Progress Addressing Key Challenges in Accomplishing Its Mission, but Significant Work Remains

DOD faces five key challenges that significantly affect the department's ability to accomplish its mission—specifically the need for DOD to (1) rebalance forces and rebuild readiness in an evolving global security environment; (2) mitigate threats in cyberspace and expand cyber capabilities; (3) control the escalating costs of programs, such as certain weapon systems acquisitions and military health care, and manage its finances; (4) strategically manage its human capital; and (5) achieve greater efficiencies in defense business operations. DOD has demonstrated progress addressing each of these challenges, but significant work remains.

Rebalance Forces and Rebuild Readiness in an Evolving Global Security Environment

The military services are generally smaller and less combat ready today than they have been in many years, and each military service has been forced to cut critical needs in areas such as training, maintenance, and modernization due to budget constraints, according to DOD.¹⁷ Officials said that the result of the current state of readiness is that military forces are not strong enough to protect vital U.S. national security interests from worldwide threats. After more than a decade combatting violent extremists and conducting contingency operations in Afghanistan, Iraq, and most recently Syria, DOD has prioritized the rebalancing of its forces in recent budget requests to build and sustain the capabilities necessary to prevail across a full range of potential contingencies. However, DOD has acknowledged that unrelenting demands from geographic commanders for particular types of forces are disrupting manning, training, and equipping cycles. As a result, the military departments remain hard pressed to sustain meeting high levels of operational demands while concurrently rebuilding readiness. See table 1 for a summary of readiness challenges faced by the military services.

¹⁷Office of the Under Secretary of Defense (Comptroller) Chief Financial Officer, *Request for Additional FY 2017 Appropriations* (Washington, D.C.: Mar 16, 2017).

Table 1: Summary of Readiness Challenges Faced by the Military Services

Military service	Summary of readiness challenges
Army	Ground force readiness improved in recent years but the Army has reported that gaps remain against nation-states. For example, the Army reports that two thirds of its initial critical formations—units needed at the outset of a major conflict—are at acceptable levels of readiness, but it cautions that it risks consuming readiness as fast as the service can build it given current demands.
Air Force	Readiness has steadily declined due to continuous operations and a smaller inventory of aircraft. The Air Force reports that its overall readiness stands at historically low levels with less than 50 percent of forces at acceptable readiness levels and shortages of over 1,500 pilots and 3,400 aircraft maintainers. The Air Force is seeking to balance near-term readiness recovery with the need to modernize its aging fleet.
Navy	The fleet has experienced increasing maintenance challenges as a high pace of operations has continued and maintenance has been deferred. Readiness recovery for the Navy is premised on the adherence to deployment and maintenance schedules. However, GAO reported that from 2011 through 2014, only 28 percent of scheduled maintenance was completed on time and just 11 percent for carriers. The Navy recently reported that one of its attack submarines—the <i>USS Albany</i> —was delayed by over 4 years in getting out of the shipyard and an aircraft carrier—the <i>USS George H.W. Bush</i> —came out of its last maintenance period nearly 5 months late.
Marine Corps	Ground force readiness has improved markedly in recent years but acute readiness problems exist in aviation units. According to the Marine Corps, as of February 2017, approximately 80 percent of aviation units lack the minimum number of ready aircraft for training and they are significantly short of ready aircraft for wartime requirements.

Source: GAO analysis of Department of Defense (DOD) documentation and GAO's previously issued work. | GAO-17-369

DOD has sought to rebalance and rebuild the readiness of its forces while also meeting emerging geopolitical challenges that threaten U.S. national security interests and regional stability, such as Russian aggression in Europe and North Korea's provocative threats in the Asia-Pacific. However, the demand for military forces has created significant gaps in training and maintenance and reduced the margin of error in responding to a shifting security environment. To execute the defense strategy, DOD must balance the risks and costs of preparing for current conflicts and traditional threats with the need to modernize its capabilities and adapt for future ones. As DOD rebuilds and modernizes its forces, it must make difficult affordability choices related to upgrading its aging equipment and weapon systems, while simultaneously sustaining legacy systems and force structure that are needed to meet current operational needs. Our work has found that DOD must address several key challenges to rebalance and modernize the capabilities of U.S. military forces, and rebuild these forces to an even higher level of readiness.

DOD has taken some positive steps to rebalance and rebuild the capabilities of its forces to provide a responsive and versatile military that can meet global needs across the full spectrum of operations. For example, DOD increased and maintained the size of its special operations forces—who are specially organized, trained, and equipped to

conduct operations in hostile or politically sensitive environments—even as the department reduced the size of conventional military forces. DOD also invested resources to organize and train conventional military forces to be ready to respond to intense and stressful combat operations in the future, and also engage with and strengthen partner nation security forces to meet current operational needs. DOD further pursued modernization plans, including the “third offset strategy,” a set of initiatives aimed at strengthening the military services’ competitive edge, maintaining DOD’s capabilities, and offsetting the technological advances of U.S. foes. For example, DOD and the Air Force have prioritized investing in the stealthy, fifth-generation fighter capability by modernizing the F-22 and buying the F-35 aircraft. DOD, along with the Department of Energy (DOE), is also undertaking an extensive, multifaceted, and costly effort to sustain and modernize the nation’s nuclear weapon stockpile, infrastructure, delivery systems, and nuclear command and control systems that DOD and DOE estimate will cost around \$320 billion over the next decade.¹⁸ DOD has also stated that rebuilding readiness is the department’s top priority, and the military services have plans underway to rebuild the readiness for portions of their respective forces. DOD has made progress in these areas, but substantial work remains for DOD in rebalancing its forces and rebuilding readiness.

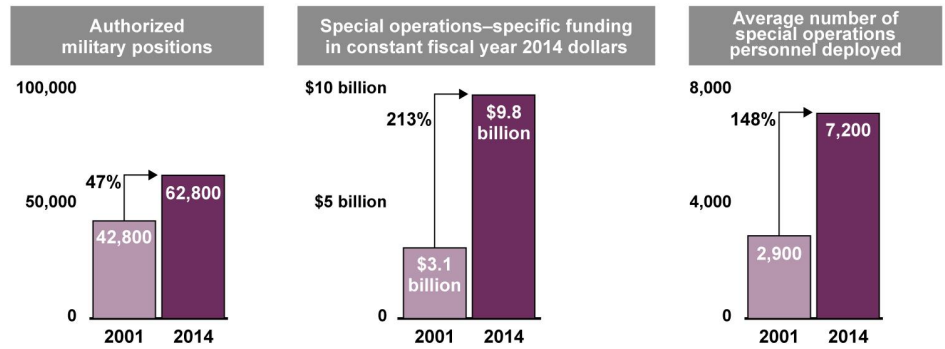
The following sections identify our assessment of remaining work, including additional actions that DOD should take to make further progress.

Rebalancing forces: DOD has not fully assessed whether opportunities exist to meet the demands of its geographic commanders and minimize the negative readiness impacts of operational deployments on certain forces. For example, despite an increase in resources and a sustained high deployment level for special operations forces, DOD has not taken steps to examine whether additional opportunities exist to reduce the high demand on these forces by sharing some of their responsibilities with conventional forces. We reported in July 2015 that between fiscal years 2001 and 2014, the average number of special operations personnel deployed increased by nearly 150 percent, and that DOD expected this

¹⁸GAO, *Nuclear Weapons Sustainment: Improvements Made to Budget Estimates Report, but Opportunities Remain to Further Enhance Transparency*, [GAO-16-23](#) (Washington, D.C.: Dec. 10, 2015).

high pace of deployments to continue (see fig. 2).¹⁹ However, we reported that DOD had not recently evaluated whether some activities conducted by special operations forces could be conducted by conventional forces. In 2003, DOD determined that there were opportunities to share the burden between special operations and conventional forces, including for certain counterdrug missions and foreign conventional force training. In our July 2015 report, we found that special operations forces have continued to perform some activities that could be conducted by conventional forces, such as noncombatant evacuation missions.

Figure 2: Increase in Authorized Military Positions Compared with Increase in Special Operations Funding and Average Number of Special Operations Personnel Deployed, Fiscal Years 2001 and 2014



Source: GAO analysis of Department of Defense and U.S. Special Operations Command data. | GAO-17-369

We also identified areas where DOD and the military services have not determined whether plans to rebalance the capabilities of U.S. military forces will meet the needs of global commanders. For example, we reported in September 2016 that the Air Force has not comprehensively reassessed the assumptions underlying the annual training requirements for its combat aircrews since 2012.²⁰ We raised questions as to whether the assumptions used by the Air Force about the total annual live-fly sortie requirements by aircraft, the criteria for designating aircrews as experienced or inexperienced, and the mix between live and simulator training account for current and emerging training needs. In August 2015, we also reported that while the Army and the Marine Corps have been

¹⁹GAO, *Special Operations Forces: Opportunities Exist to Improve Transparency of Funding and Assess Potential to Lessen Some Deployments*, GAO-15-571 (Washington, D.C.: July 16, 2015).

²⁰GAO, *Air Force Training, Further Analysis and Planning Needed to Improve Effectiveness*, GAO-16-864 (Washington, D.C.: Sept. 19, 2016).

able to fill requests for advise and assist missions in Afghanistan (i.e. missions intended to engage with and strengthen partner nation security forces), their approaches affected the overall readiness levels of affected units.²¹ For example, we found that staffing advisor teams required brigades to deploy a significant portion of their leadership and expertise for the advisor mission resulting in a degradation of brigade readiness. Recognizing that the advising team structure can negatively impact readiness, the Army announced in February 2017 that it was creating Security Force Assistance Brigades in fiscal year 2018 to minimize the overall readiness impact to the service. However, it is unclear if this initiative will provide combatant commanders with the capabilities needed to accomplish their missions while minimizing the readiness impact on the Army.

Weapon systems modernization: DOD expects to invest \$951 billion through fiscal year 2021 to help research, develop, test, evaluate and procure modern technology and capabilities for the military, including more than \$14 billion annually over the next decade to procure the F-35 aircraft. DOD also plans to recapitalize the three legs of the nuclear triad,²² among other modernization investments. Nuclear delivery systems are aging, including the bombs and warheads they carry, and in some cases are being deployed long beyond their intended service lives. For example, the Minuteman III ballistic missile, which was first deployed in 1970, is expected to stay in service through 2030 through successive modernization efforts. However, DOD has not ensured that decision makers have complete and accurate budget and cost information to make well-informed decisions on investments in weapon system upgrades and new technologies, or developed plans to address potential risks to certain modernization initiatives. We reported in September 2014 that it is unclear whether DOD's operating and support cost estimates for the F-35 program, DOD's most expensive weapon system, reflect the most likely costs that the program will incur. With operating and support estimates

²¹See GAO, *Overseas Contingency Operations: Observations on the Use of Force Management Levels in Afghanistan, Iraq, and Syria*, [GAO-17-246T](#) (Washington, D.C.: Dec. 1, 2016) and *Security Force Assistance: More Detailed Planning and Improved Access to Information Needed to Guide Efforts of Advisor Teams in Afghanistan*, [GAO-13-381](#) (Washington, D.C.: Apr. 30, 2013).

²²The United States maintains nuclear weapons that rely on three delivery systems, referred to as the nuclear triad. The three components include strategic nuclear weapons that are delivered by intercontinental ballistic missiles, submarine-launched ballistic missiles, and heavy bombers.

totaling around \$1 trillion over a 56-year life cycle, we found that although the estimates were comprehensive, weaknesses existed with respect to a few of the assumptions, such as spare part replacement rates and depot maintenance, and that the estimates did not include necessary analyses that would make them reliable.²³

Furthermore, in April 2016 we reported that DOD had not developed credible and accurate cost estimates associated with the F-35's central logistics system, the Autonomic Logistics Information System (ALIS).²⁴ ALIS, a complex system supporting operations, mission planning, supply chain management, maintenance, and other processes, has estimated costs of approximately \$16.7 billion over its 56-year life cycle. However, we found that the estimate is not fully credible and complete since DOD has not performed uncertainty and sensitivity analyses as part of its cost-estimating process. Similarly, in December 2015 we reported that, when reporting these costs to Congress, DOD had not thoroughly documented the methodologies and comparative information for its nuclear modernization cost estimates, such as the 22-percent increase in the intercontinental ballistic missile estimate, a difference of approximately \$2.5 billion.²⁵

We also reported in August 2016 that DOD and the Air Force did not have complete and quality information on the full implications of the divestment of the A-10 aircraft, including gaps that could be created by divestment and mitigation options.²⁶ DOD and the Air Force have prioritized investing in the next generation of multirole fighter aircraft while placing a lower priority on older, less capable aircraft such as the A-10, and the Air Force plans to retire its legacy aircraft, such as the F-16, in the coming years (see fig. 3). The Air Force is taking a number of steps to try to mitigate any potential negative impacts from its proposed A-10 divestments, but it has not established clear requirements for the missions the A-10

²³GAO, *F-35 Sustainment: Need for Affordable Strategy, Greater Attention to Risks, and Improved Cost Estimates*, [GAO-14-778](#) (Washington, D.C.: Sept. 23, 2014).

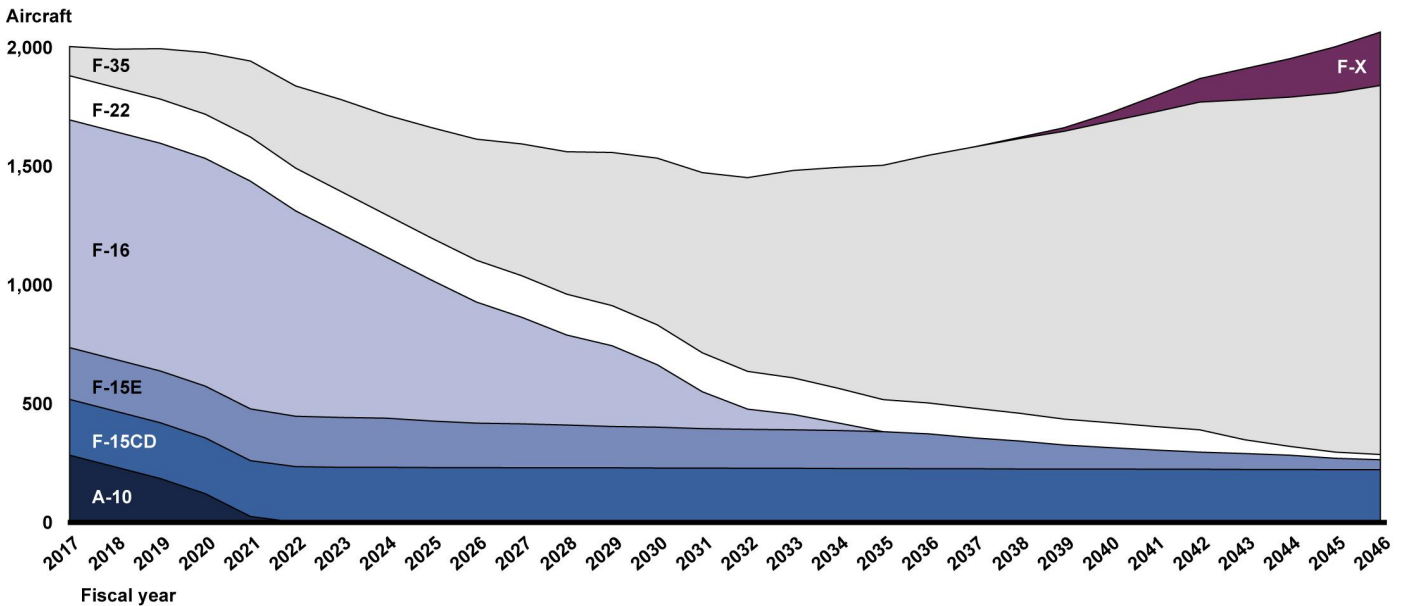
²⁴GAO, *F-35 Sustainment: DOD Needs a Plan to Address Risks Related to Its Central Logistics System*, [GAO-16-439](#) (Washington, D.C.: Apr. 14, 2016).

²⁵GAO, *Nuclear Weapons Sustainment: Improvements Made to Budget Estimates, but Opportunities Remain to Further Enhance Transparency*, [GAO-16-23](#) (Washington, D.C.: Dec. 10, 2015).

²⁶GAO, *Force Structure: Better Information Needed to Support A-10 and Other Future Divestment Decisions*, [GAO-16-816](#) (Washington, D.C.: Aug. 24, 2016).

performs, and in the absence of these requirements has not fully identified the capacity or capability gaps that could result from its divestment. For example, experts convened by the Air Force in 2015 concluded that A-10 divestiture creates a capability gap since the Air Force is losing a high-capacity and cost-efficient ability to kill armor, moving, and close-proximity targets in poor weather conditions. We therefore recommended that the Air Force develop quality information to inform its decision before again proposing divestment. DOD’s fiscal year 2018 budget request appears to align with this recommendation. The request fully funds the A-10 fleet and highlights this action as a key component of DOD’s efforts to address “force structure holes.” The request further notes that the Air Force is assessing a long-term strategy for the A-10 fleet.

Figure 3: Air Force Projections of the Air Force Aircraft Inventory, Fiscal Years 2017 through 2046



Source: Air Force. | GAO-17-369

Rebuilding readiness: DOD has reported that the military services face significant readiness challenges in protecting U.S. national security interests. According to DOD, budget cuts have led to undermanned units, diminished ammunition stockpiles, a broad lack of training, and equipment and facilities that are out of date or not properly maintained. As a result, the department faces persistently low readiness levels—with some forces at historically low levels—and has identified readiness rebuilding as a top priority. However, we reported in September 2016 that

the department's readiness rebuilding efforts are at risk without a comprehensive plan that includes critical planning elements, such as comprehensive strategies and resource levels needed to achieve identified goals, and an approach for measuring progress.²⁷ Specifically, we found that the military services' plans to address declines in readiness and capacity across the force do not contain key strategic planning elements, which would help position the military services to meet their readiness goals and support their rebuilding efforts. In addition, although DOD and the military services track readiness trends, the military services have not consistently established metrics or developed a method to evaluate progress in attaining readiness recovery goals.

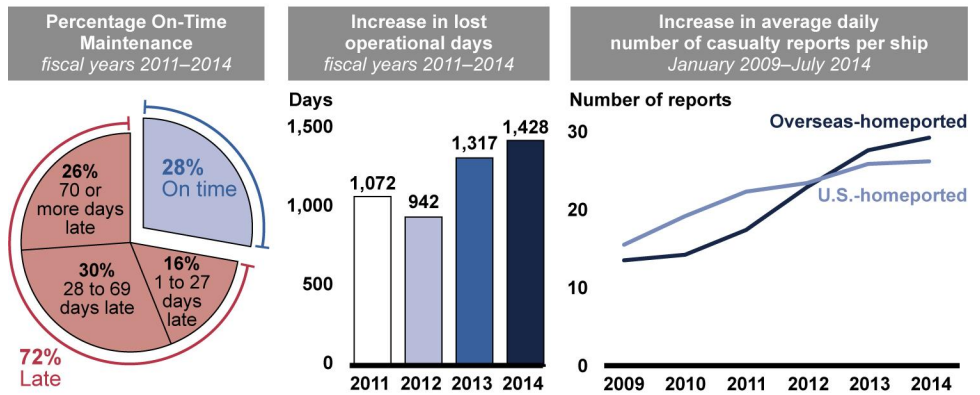
We also reported in May 2016 that the Navy's efforts to rebuild readiness and achieve employability and sustainability goals for the Navy's various classes of ships were at risk.²⁸ To meet operational demands over the past decade, the Navy has increased ship deployment lengths and has reduced or deferred ship maintenance. These decisions have reduced the predictability of ship deployments for sailors and for the ship repair industrial base. They have also resulted in declining ship conditions across the fleet and a worsening trend in overall ship readiness, and have increased the amount of time that ships require to complete maintenance in the shipyards. For example, we reported that the number of casualty reports—incidents of degraded or out-of-service equipment—nearly doubled for both U.S. homeported ships and overseas homeported ships from January 2009 through July 2014 (see fig. 4).²⁹ Increased maintenance periods, in turn, compress the time during which ships are available for training and operations, referred to as “employability.”

²⁷GAO, *Military Readiness: DOD's Readiness Rebuilding Efforts May Be at Risk without a Comprehensive Plan*, [GAO-16-841](#) (Washington, D.C.: Sept. 7, 2016).

²⁸GAO, *Military Readiness: Progress and Challenges in Implementing the Navy's Optimized Fleet Response Plan*, [GAO-16-466R](#) (Washington, D.C.: May 2, 2016).

²⁹GAO, *Navy Force Structure: Sustainable Plan and Comprehensive Assessment Needed to Mitigate Long-Term Risks to Ships Assigned to Overseas Homeports*, [GAO-15-329](#) (Washington, D.C.: May 29, 2015).

Figure 4: Indicators of Declining Ship Conditions and Materiel Readiness for Selected Navy Ships



Source: GAO analysis of Navy data. | GAO-17-369

Note: The analysis of the timing of maintenance and the analysis of lost operational days include surface combatant ships, and both analyses are for the fiscal years 2011 through 2014 time frame. The analysis of casualty reports per ship (i.e., incidents of degraded or out-of-service equipment) includes surface combatant and amphibious ships for the period January 2009 through July 2014.

To address these issues, the Navy began implementing a revised operational schedule in November 2014, which is intended to maximize employability while preserving maintenance and training, and restore operational and personnel tempos to acceptable levels. However, our analysis of Navy data for fiscal years 2011 through 2014 shows that prior to the implementation of the revised schedule, the majority of maintenance availabilities completed by both the public and private shipyards took more time than scheduled, thereby reducing the time during which ships were available for training and operations. As of May 2015, only a small portion of the fleet had entered the revised maintenance schedule, and as a result it is too early to assess its overall effectiveness. However, the first three aircraft carriers to enter the revised schedule have not completed maintenance tasks on time, a benchmark that is crucial to meeting the Navy’s employability goals. Further, any changes to assumptions the Navy made in formulating the revised schedule, including those related to available funding levels, force structure, or deployments, will further place achieving its goals at risk.

By determining the most appropriate forces and training to meet the demands of its combatant commanders, ensuring policy makers have information to make well-informed weapon system modernization choices, and developing a comprehensive plan to rebuild readiness with methods for evaluating outcomes, DOD and decision makers would be better positioned to evaluate whether U.S. military forces have the

capacity and capabilities to prevail across a full range of potential contingencies. Since 2011, we have directed 39 recommendations to DOD in this area, of which 35 remain open, including 5 priority recommendations. Table 2 highlights key actions DOD should take to help address the challenges in rebalancing forces, modernizing weapon systems, and rebuilding readiness in an evolving global security environment.

Table 2: Key Actions That the Department of Defense (DOD) Should Take to Help Rebalance Forces, Modernize Weapon Systems, and Rebuild Readiness in an Evolving Global Security Environment

Challenge/key actions needed	Challenge/key actions needed description
Rebalancing forces	DOD needs to determine the most appropriate forces and training needed to meet the demands of its combatant commands that minimize the negative impact of the length and frequency of deployments. Specifically, DOD should evaluate whether certain activities performed by special operations forces could be conducted by its conventional military forces; comprehensively reassess the assumptions that underpin Air Force aircrew training requirements; and determine whether plans for advise-and-assist missions are effective while minimizing any readiness impact. (See the following GAO reports: GAO-15-571 , GAO-16-864 , GAO-15-568 .)
Weapon systems modernization	DOD needs to ensure that policy makers have information to make well-informed weapon systems modernization choices. Specifically, DOD should provide thorough, complete, and accurate budget estimates and plans documenting gaps and risks for DOD's large weapon systems programs such as the F-35 and the nuclear enterprise. (See the following GAO reports: GAO-16-23 , GAO-16-439 , GAO-16-816 .)
Rebuilding readiness	DOD needs to develop a comprehensive plan to rebuild readiness and methods for evaluating the effectiveness of readiness recovery efforts. Specifically, DOD should develop a plan that includes readiness goals and a strategy for achieving the goals; metrics for measuring progress at specific milestones; identification of external factors that may impact recovery plans and potential mitigations; and plans for department-level oversight of military service readiness recovery plans. (See the following GAO report: GAO-16-841 .)

Source: GAO analysis of GAO's previously issued work. | GAO-17-369

Mitigate Threats in Cyberspace and Expand Cyber Capabilities

Cyber threats to U.S. national and economic security are increasing in frequency, scale, sophistication, and severity of impact. A 2016 Federal Information Security Management Act report noted that more than 30,000 data security incidents compromised federal information systems during fiscal year 2016—16 of which were categorized as major incidents that needed to be reported to Congress. In July 2015, a major cyber breach was reported at the Office of Personnel Management, which affected at least 21.5 million individuals and resulted in the release of personally identifiable information on federal contractors and employees, including

those at DOD.³⁰ Recognizing this strategic challenge, in February 2016 the Director of National Intelligence identified cyber threats as first among strategic threats to the United States, surpassing terrorism.³¹

DOD has become increasingly reliant on the Internet and other networks, which are central to the department's operations and enable essential services including logistics, budgeting, personnel, and policymaking. We have reported that the security of the federal government's cyber systems and data is vital to public confidence and to the nation's safety, prosperity, and well-being.³² However, the vulnerability of DOD's networks, along with those across the federal government has grown, and hostile actors have used cyberspace as an asymmetric capability to strike the U.S. homeland and interests.

DOD has acknowledged the need to coordinate cyber efforts and clarify roles and responsibilities for addressing domestic cyber incidents with the Department of Homeland Security—which has primary responsibility for the protection of critical cyber infrastructure within the United States—and has prioritized investments to expand its current cyber capabilities. Our work has found that DOD must address weaknesses in (1) its planning for the continuity of operations in a degraded cyber environment, (2) the protection of classified information and systems from insider threats, and (3) the visibility and oversight of its capabilities that could be used during a cyber incident.³³

DOD has made progress in developing cyber capabilities that are needed to simultaneously defend its networks, systems, and information; protect the nation from cyber attacks of significant consequence; and work with other departments and branches of the federal government to address cyber-related issues. In April 2015, DOD issued a cyber strategy to guide the development of the department's cyber forces and strengthen the

³⁰"Personally identifiable" information is information that is collected, maintained, and shared by both federal and nonfederal entities.

³¹James R. Clapper, Director of National Intelligence, *Statement for the Record on the Worldwide Threat Assessment of the U.S. Intelligence Community for the Senate Armed Services Committee* (Feb. 9, 2016).

³²[GAO-17-317](#).

³³We have also conducted reviews of DOD's cyber efforts that are not publicly available because the reports contain controlled unclassified or classified information. For the purposes of this report, we are using information from our unclassified work.

department's cyber defense and deterrence posture. A central aim of DOD's cyber strategy is to set specific goals and objectives to guide the development of the Cyber Mission Force and of DOD's wider cyber workforce to protect and defend U.S. national interests. DOD has also taken steps to improve its ability to provide support for state and local civil authorities to improve cybersecurity and contingency planning in response to a hostile attack on cyber infrastructure. For example, from 2013 through 2015, DOD conducted or participated in nine exercises that were designed to test cybersecurity policies for supporting civil authorities or to test the response to simulated attacks on cyber infrastructure owned by civil authorities. In addition, in response to our July 2015 report, DOD issued a memorandum directing the services and other defense agencies to develop plans identifying the goals, milestones, and resources needed to identify, register, and implement cybersecurity controls on DOD facility industrial control systems, which are computer-controlled systems that monitor and operate utilities infrastructure.³⁴ DOD has made progress in these areas, but substantial work remains for DOD to mitigate threats to cybersecurity and expand its cyber capabilities.

We discuss below our assessment of remaining work, including additional actions that DOD should take to make further progress.

Continuity of operations in a degraded cyber environment: DOD, along with the rest of the federal government, needs to take additional steps to protect its critical cyber capabilities and ensure continuity of operations. In February 2017, we reported that federal agencies, including DOD, have not fully developed and implemented complete strategies, policies, plans, and procedures for responding to cyber incidents and effectively overseeing response activities. Our work assessing DOD's cyber efforts found that DOD has not fully conducted the planning needed to maintain continuity of operations in a degraded cyber environment, which could affect DOD's ability to perform essential functions—such as combat operations and homeland defense. DOD has stated that expenditures on cyber capabilities have begun to provide a measurable return on investment and that the department is interdicting more threats than ever before, but the department also acknowledges that unauthorized intrusions of its networks still occur.

³⁴GAO, *Defense Infrastructure: Improvements in DOD Reporting and Cybersecurity Implementation Needed to Enhance Utility Resilience Planning*, [GAO-15-749](#) (Washington, D.C.: July 23, 2015).

The evolving array of cyber threats, along with the continuing threat of nuclear attacks and natural disasters, has underscored the need for DOD to further strengthen its planning for continuity of operations and the collection of relevant data to inform planning. Doing so would help ensure that the department can continue to perform its mission-essential functions even if its information systems and networks become unavailable, infiltrated, or destroyed, which can occur due to natural disasters (e.g., hurricanes), system or infrastructure failures, and by intentional or unintentional human-caused incidents. Since April 2014, we have been calling upon DOD to revise its guidance on continuity plans to describe the priority of continuity planning for cyber events or to provide additional guidance to DOD components on how to include accurate and complete data on information systems and networks necessary to perform mission-essential functions in continuity plans.³⁵ DOD also needs to provide its components with tools—such as guidance, training, and exercises—that both emphasize the need to conduct continuity exercises in a degraded cyber environment and assist DOD components in developing and practicing effective responses during continuity exercises. We further reported that DOD had not evaluated its approach to assigning tasks among its components that assures continuity of mission-essential functions or evaluated the readiness of its components to respond to an incident that degrades the cyber environment.

In July 2015, we reported that DOD does not have comprehensive and accurate utility disruption data.³⁶ Specifically, DOD's collection and reporting of utility disruption data is not comprehensive and contains inaccuracies because not all types and instances of utility disruptions have been reported and because there are inaccuracies in reporting of disruptions' duration and cost. Further, according to officials, DOD installations are not reporting all disruptions that meet the DOD criteria of commercial utility service disruptions lasting 8 hours or longer. This is likely due, in part, to military service guidance that differs from instructions for DOD's data collection template. As of March 2016, DOD has implemented steps to improve its data collection and validation process, but additional work remains.

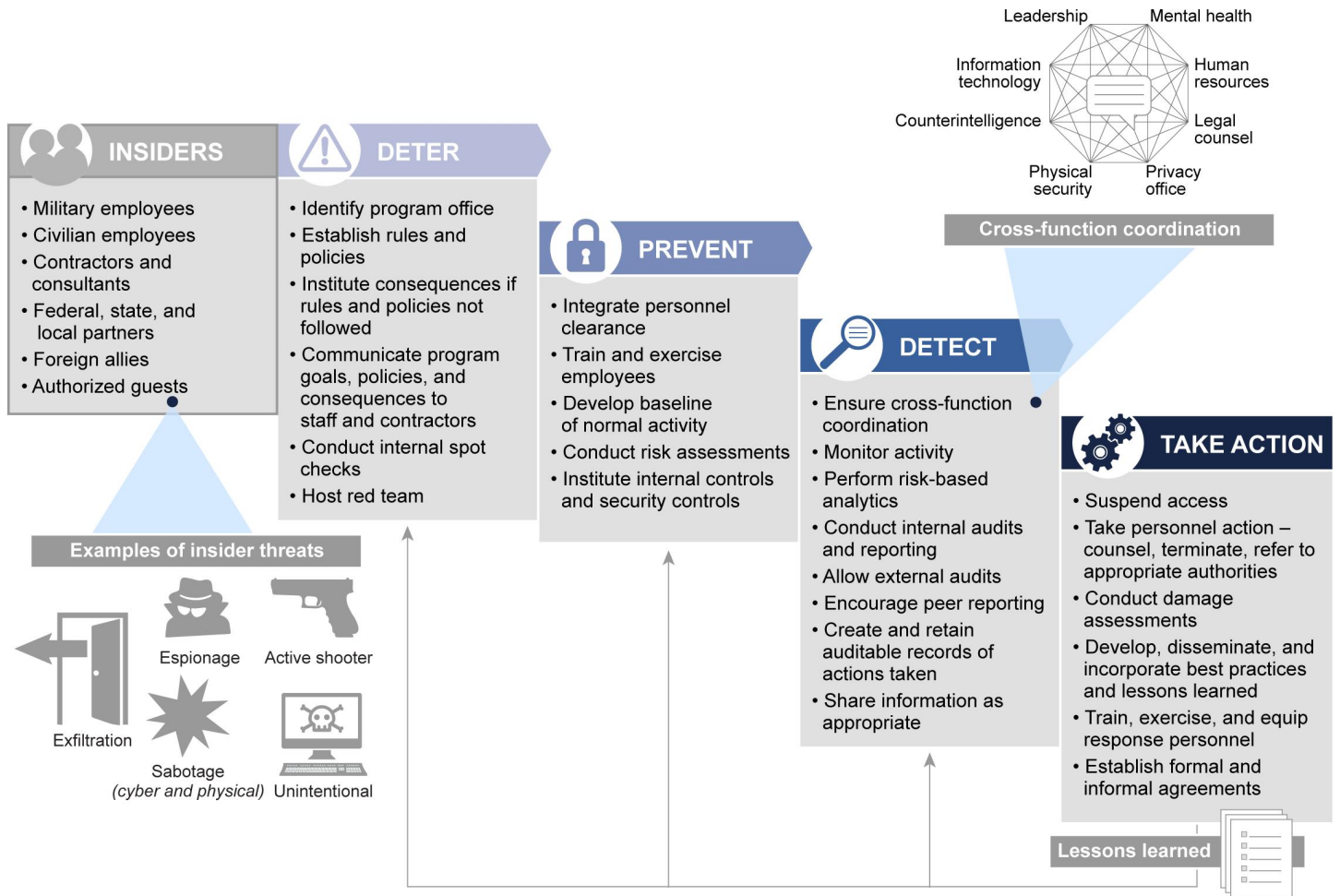
³⁵GAO, *Defense Cybersecurity: DOD Needs to Better Plan for Continuity of Operations in a Degraded Cyber Environment and Increase Oversight*, [GAO-14-404SU](#) (Washington, D.C.: Apr. 1, 2014). (For Official Use Only)

³⁶[GAO-15-749](#).

Protect classified information and systems from insider threat: Since 2010, the United States has suffered grave damage to national security and an increased risk to the lives of U.S. citizens due to the unauthorized disclosures of classified information by individuals with authorized access to defense information systems. In June 2015, we reported that DOD had taken action to implement minimum standards established by the National Insider Threat Task Force.³⁷ For example, the seven DOD components we assessed had begun to provide insider threat awareness training to all personnel with security clearances. However, DOD had not addressed all tasks associated with the minimum standard; had not analyzed gaps or incorporated risk assessments into the program; and had not consistently incorporated all of the key elements associated with an insider threat framework that we developed synthesizing information from a White House report, an executive order, DOD guidance and reports, national security systems guidance, and leading practices recommended by the National Insider Threat Task Force (see fig. 5).

³⁷GAO, *DOD Should Strengthen Management and Guidance to Protect Classified Information and Systems*, [GAO-15-544](#) (Washington, D.C.: June 2, 2015).

Figure 5: Our Framework of Key Elements to Incorporate at Each Phase of the Department of Defense’s (DOD) Insider Threat Programs



Source: GAO analysis of Department of Defense (DOD), U.S. government, and private-sector guidance and reports. | GAO-17-369

Visibility of cyber capabilities: We reported in September 2016 that DOD may be limited in responding to a cyber attack in a timely manner because it does not have visibility into all of its domestic capabilities that could be used in the event of a cyber incident.³⁸ Specifically, DOD has not maintained a database that would allow the department to fully and quickly identify existing cyber capabilities of all National Guard cyber

³⁸GAO, *Defense Civil Support: DOD Needs to Identify National Guard’s Cyber Capabilities and Address Challenges in Its Exercises*, GAO-16-574 (Washington, D.C.: Sept. 6, 2016).

units, as required by law.³⁹ We reported that National Guard Bureau officials had identified two systems that the bureau traditionally uses to identify National Guard capabilities—the Defense Readiness Reporting System⁴⁰ and the Joint Information Exchange Environment⁴¹—but acknowledged that neither of these systems could be used to fully or quickly identify National Guard cyber capabilities. We found examples of three types of cyber capabilities in National Guard units—communications directorates, computer network defense teams, and cyber units—that DOD may be unaware of if requested to support civil authorities during a cyber incident. This is because some National Guard capabilities were established to support state and local governments and do not have a federal mission and, therefore, would not be reported in the Defense Readiness Reporting System. Further, the amount of time required to query other systems may not be feasible during a cyber incident, which could impede DOD from using the full range of its capabilities.

By improving the planning for cyber operations and the visibility and oversight of department-wide cyber capabilities, DOD would be better positioned to ensure that it maintains critical mission continuity; safeguards classified information and systems; and quickly responds to a cyber incident. Since 2011, we have directed 33 recommendations to DOD in unclassified and sensitive but unclassified reports, of which 14 remain open, including 5 priority recommendations. Table 3 highlights key actions DOD should take to help address challenges it faces in mitigating threats to cyberspace and in expanding cyber capabilities.

³⁹DOD is required to maintain a database of emergency response capabilities that includes (1) the types of emergency response capabilities that each state's National Guard, as reported by states, may be able to provide in response to a domestic natural or manmade disaster, both to their home states and under state-to-state mutual assistance agreements; and (2) the types of emergency response capabilities and an identification of the units that DOD may be able to provide during national emergencies. Pub. L. No. 109-364, §1406(1) (2006) and codified at 10 U.S.C. § 113 (note).

⁴⁰DOD uses the Defense Readiness Reporting System to assess the ability of units and joint forces to fight and meet the demands of the national security strategy and captures organizational capabilities to perform a wider variety of missions and mission-essential tasks.

⁴¹The Joint Information Exchange Environment is the National Guard's system of record to facilitate information sharing and collaboration within the National Guard, to coordinate requests for assistance, and to identify specific National Guard capabilities to support a request for assistance.

Table 3: Key Actions That the Department of Defense (DOD) Should Take to Help Mitigate Threats to Cyberspace and in Expanding Cyber Capabilities

Challenge/key actions needed	Challenge/key actions needed description
Continuity of operations in a degraded cyber environment	DOD needs to improve the planning and data related to the department’s ability to maintain continuity in a degraded cyber environment. Specifically, DOD should fully implement the government-wide and DOD cyber security strategy and provide its components with tools—such as official guidance, training, and exercises—that both emphasize the need to conduct continuity exercises in a degraded cyber environment and assist in developing and practicing effective responses during continuity exercises. DOD should also improve the effectiveness of its process for collecting and reporting utilities disruption data. (See the following GAO reports: GAO-14-404SU , GAO-15-749 .)
Protection of classified information and systems from insider threat	DOD needs to develop and strengthen its insider threat programs. Specifically, DOD should issue guidance to help DOD officials identify actions, such as the key elements included in the GAO Insider Threat Framework, to enhance DOD’s insider threat programs. (See the following GAO report: GAO-15-544 .)
Visibility of cyber capabilities	DOD needs to ensure that it has full visibility into all of the department’s available cyber capabilities. Specifically, DOD should develop and maintain a database that identifies all National Guard cyber capabilities to include the types of cyber-related emergency response capabilities. (See the following GAO report: GAO-16-574 .)

Source: GAO analysis of GAO’s previously issued work. | GAO-17-369

Control Escalating Costs and Manage Finances

DOD’s \$580 billion fiscal year 2016 budget accounts for nearly half of the federal government’s discretionary spending, and DOD’s costs are growing. For example, DOD plans to invest \$574 billion in future funding to develop and acquire major acquisition programs, and the department’s annual military health care costs are expected to increase from about \$60 billion in fiscal year 2017 to about \$70 billion by fiscal year 2028. DOD also maintains a substantial inventory of infrastructure, owning over 70 percent of the federal government’s physical assets, with a reported replacement value of about \$880 billion. Senior leaders have acknowledged the need for the department to effectively manage the resources entrusted to it. However, DOD is one of the few federal agencies that cannot accurately account for and report its spending or assets.

Like the rest of the federal government, DOD’s budget has been affected by policies that are intended to correct the imbalance between spending and revenue. For example, the Budget Control Act of 2011 imposed an \$800 billion reduction in planned spending for DOD from fiscal years 2012

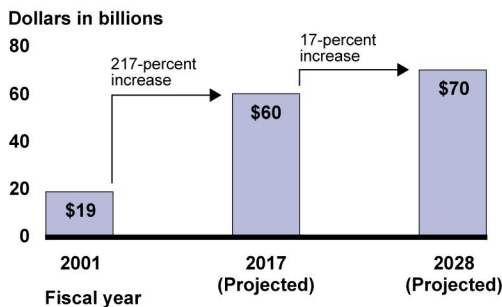
through 2021.⁴² Given these constrained budgetary resources and DOD's recognition that there are opportunities to be more efficient in the department's operations, the department has undertaken a series of reform initiatives to control costs for programs that make up a significant portion of DOD's budget and improve DOD's financial management operations. At the same time, DOD is pursuing new technologies and is investing significant resources to develop and procure a portfolio of 78 major defense acquisition programs. However, DOD has experienced cost and schedule overruns that expose its procurement budgets to unnecessary risk.

In addition, DOD's military health system must ensure access to quality health care for service members and their families, but it has experienced a more than two-fold increase in costs in fiscal years 2001 through 2017, and DOD has likely underestimated its improper payments for health care services.⁴³ Further, total military health system costs are expected to increase from about \$60 billion in fiscal year 2017 to a projected \$70 billion annually by fiscal year 2028 (see fig. 6).

⁴²The Bipartisan Budget Act of 2013 extended the budget caps and sequestration through 2023. As a result of funding reductions from the Budget Control Act of 2011, the Bipartisan Budget Act of 2013 and other actions, DOD estimates reductions in planned defense spending from fiscal years 2012 through 2021 will exceed \$1 trillion dollars. DOD, *Estimated Impacts of Sequestration-Level Funding* (Apr. 3, 2014).

⁴³The military health system provides health care to 9.4 million eligible service members and their families, military retirees and their families, and dependent survivors. It is comprised of the Defense Health Program, health care accrual for retirees, as well as certain other costs.

Figure 6: Military Health System Costs, Fiscal Years 2001 through 2028 (Projected)



Source: GAO analysis of Department of Defense (DOD) and Congressional Budget Office projections. | GAO-17-369

Note: The military health system provides health care to 9.4 million eligible service members and their families, military retirees and their families, and dependent survivors. It is comprised of the Defense Health Program, health care accrual for retirees, as well as certain other costs.

DOD also manages installations worldwide to support military readiness, consisting of about 562,000 facilities, but has maintained excess infrastructure relative to the department’s force structure needs.⁴⁴ DOD has expressed a commitment to holding itself accountable for the funding it receives and is taking actions to allow for an annual financial statement audit, but it continues to remain one of the few federal entities that cannot demonstrate an ability to accurately account for and reliably report on its spending or assets. Our work has found that DOD must address these and other weaknesses to control costs as it faces a period of constrained budgetary resources and fiscal uncertainty.

Since 2010, DOD has implemented a series of Better Buying Power initiatives that outline steps the department is taking across its weapon system acquisition portfolio to reduce cost and schedule overruns and achieve better capability and performance results for the warfighter.⁴⁵ These initiatives include setting and enforcing affordability constraints, implementing “should cost” management to control contract costs, and

⁴⁴Department of Defense, *Base Structure Report – Fiscal Year 2015 Baseline* (Sept. 30, 2014).

⁴⁵Office of the Under Secretary of Defense, Acquisition, Technology, and Logistics Memorandum: *Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending* (Sept. 14, 2010); Office of the Under Secretary of Defense, Acquisition, Technology, and Logistics Memorandum: *Implementation Directive for Better Buying Power – Obtaining Greater Efficiency and Productivity in Defense Spending* (Nov. 3, 2010); Department of Defense Instruction 5000.02, *Operation of the Defense Acquisition System* (Jan.7, 2015) (incorporating change 2, effective Feb. 2, 2017).

eliminating redundancies within portfolios, among others. In implementing these initiatives, DOD has achieved better acquisition outcomes in some programs, including collectively reducing the total cost estimate for 14 programs that began systems development during this period by over \$580 million since their first full estimates.

DOD has also taken steps to modernize the military health system and control health care costs. After decades of incremental alterations to its health care programs, DOD created the Defense Health Agency (DHA) in 2013 to provide administrative governance for a more cost-effective and integrated military health system. DHA has implemented various initiatives, such as consolidating shared medical services; eliminating redundant processes; coordinating resources; and matching personnel, infrastructure, and funding to missions and populations in demand. DOD has also taken steps to control costs for its support infrastructure. For example, DOD consolidated some of its base support services and reported a net reduction of 7.7 million square feet of support infrastructure in fiscal year 2013, which represented about 75 percent of the federal government's total reduction under a government-wide initiative.⁴⁶ DOD also established financial improvement and audit readiness guidance, implemented training programs to help build a skilled financial management workforce, and developed corrective action plans to track the remediation of audit issues.⁴⁷ However, DOD continues to identify the need for sufficient numbers of qualified and experienced personnel as a challenge to achieving its goals of financial improvement and audit readiness. DOD has made progress in these areas, but substantial work remains for DOD to further control costs and manage its finances.

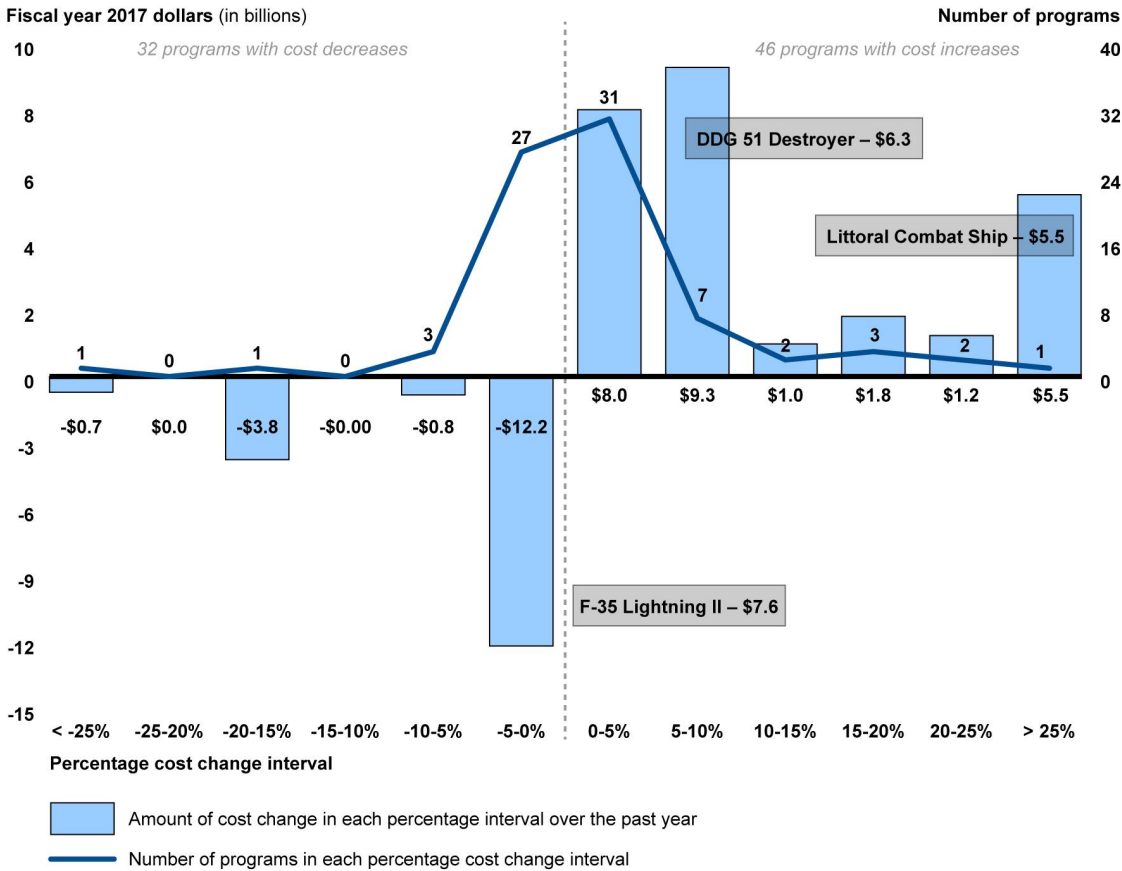
The following sections identify our assessment of remaining work, including additional actions that DOD should take to make further progress.

⁴⁶The *Freeze the Footprint* implementation memorandum issued by the Office of Management and Budget in 2012 required agencies to develop and submit plans describing the agency's overall approach in managing its real property usage and spending.

⁴⁷Congress mandated in the National Defense Authorization Act for Fiscal Year 2010 that DOD develop and maintain a plan that includes specific actions to be taken and costs associated with (1) correcting the financial management deficiencies that impair DOD's ability to prepare complete, reliable, and timely financial management information, and (2) ensuring that DOD's financial statements are validated as ready for audit not later than September 30, 2017. Pub. L. No. 111-84, § 1003(a), 123 Stat. 2190, 2439-40 (Oct. 28, 2009), codified at 10 U.S.C. § 2222 note.

Weapon system acquisition: This portfolio of 78 major defense acquisition programs will require roughly a quarter of DOD’s development and procurement funding over the next 5 years. Currently, DOD’s total investment in these major defense acquisition programs is estimated at \$1.5 trillion, of which \$574 billion is for future funding. However, over the past year, we reported that a majority of DOD’s 78 major programs (46 out of the 78 programs) had experienced a cost increase, as shown in figure 7.⁴⁸

Figure 7: Distribution of the 1-Year Change in Total Acquisition Costs within the Fiscal Year 2016 Portfolio of Major Weapon System Programs



Source: GAO analysis of Department of Defense data. | GAO-17-369

⁴⁸GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs*, GAO-17-333SP (Washington, D.C.: Mar. 30, 2017).

We have reported that DOD could achieve significant cost savings by consistently employing acquisition best practices in its weapon systems programs, such as early systems engineering, analyzing alternatives, managing changes in system requirements, and applying prototyping early in development testing.⁴⁹ While DOD has made progress in decreasing the amount of cost growth realized in its portfolio of major acquisition programs, it has not uniformly implemented acquisition best practices and reforms across the portfolio, which has resulted in some programs that realized significant cost growth and delays in delivering needed capabilities.

We have also found that new acquisition programs started each year at DOD fulfill only some of the best practices intended to achieve a level of knowledge that would demonstrate that the program is capable of meeting its performance requirements and cost and schedule commitments. Specifically, in March 2017 we found that most of the programs we assessed were not fully following a knowledge-based acquisition approach.⁵⁰ Further, only one of the four programs that began or planned to begin system development during the fiscal year 2016 assessment period demonstrated a total match between resources and requirements (see fig. 8). The remaining 41 programs we reviewed implemented knowledge-based leading practices to varying degrees.

⁴⁹See, for example, GAO, *Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue*, [GAO-11-318SP](#) (Washington, D.C.: Mar. 1, 2011).

⁵⁰[GAO-17-333SP](#).

Figure 8: Implementation of Knowledge-Based Practices for New Acquisition Programs at System Development Start

Knowledge-based practices at system development start	Columbia Class SSBN	F-15 EPAWSS	IFPC Inc 2-1 Block 1	PAR	●	○	---
Demonstrate all critical technologies are very close to final form, fit, and function within a relevant environment (TRL 6)	○	●	---	---	23	11	7
Demonstrate all critical technologies are in form, fit, and function within an operational environment (TRL 7)	○	○	---	---	3	29	9
Complete system functional review and system requirements review before system development start	○	●	●	○	15	25	1
Completed preliminary design review before system development start	●	●	●	○	19	21	1
Constrain system development phase to 6 years or less	---	●	●	---	27	6	8

● Practice implemented
 ○ Practice not implemented
 --- Practice not applicable or information not available per the program office response

Columbia Class SSBN = Columbia Class Ballistic Missile Submarine
 F-15 EPAWSS = F-15 Eagle Passive/Active Warning Survivability System
 IFPC Inc 2-1 Block 1= Indirect Fire Protection Capability Increment 2-Intercept Block 1
 PAR = Presidential Aircraft Recaptalization

Source: GAO analysis of Department of Defense data. | GAO-17-369

We further reported that some programs have progressed through the acquisition cycle without the appropriate levels of knowledge at key junctions, which is of particular concern for programs that entered the system development phase before satisfying knowledge-based best practices. For example, DOD faces technical, design, and production challenges for some of its large programs, such as the CVN 78 aircraft carrier, which has experienced an almost 23-percent increase in program costs since construction was authorized in fiscal year 2008—from \$10.5 billion to \$12.9 billion. In an effort to meet required installation dates aboard the CVN 78, the Navy elected to produce some of these systems prior to demonstrating their maturity, which introduces the risk of late and costly design changes and rework. In addition, progress in constructing the CVN 78 was overshadowed by inefficient out-of-sequence work, driven largely by material shortfalls, engineering challenges, and delays in developing and installing critical technology systems.

Military health care: Military health care costs constituted about 6 percent of DOD’s total budget in fiscal years 1994 and 2000, but have grown considerably by about 217 percent in fiscal years 2000 and 2017. As noted above, DOD created DHA in 2013 to create a more cost-effective and integrated military health system. DHA provides

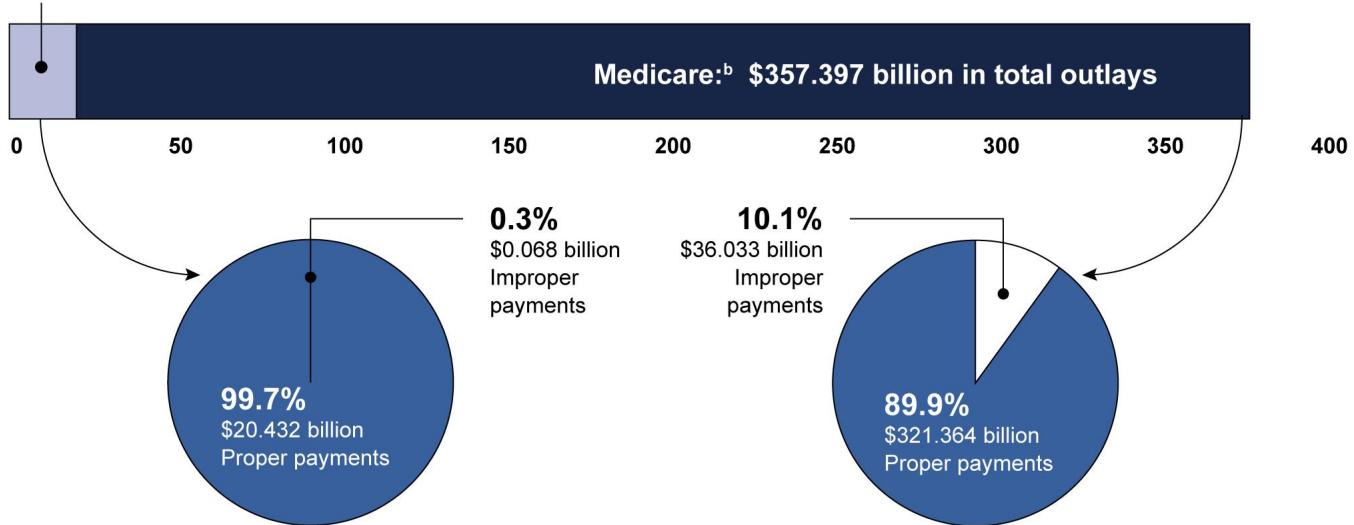
administrative support for the services' respective medical programs and combines common "shared" services in certain areas to achieve cost savings. However, DOD has not established key processes for monitoring improper payments or fully implemented DHA reforms, which include limited efforts to modernize the military health system and reduce health care costs.

In February 2015, we reported that DOD has not developed a comprehensive methodology to monitor improper payments to control costs in the military health care plan (i.e., TRICARE). We reported that in its fiscal year 2015 agency financial report, DOD reported spending about \$19.7 billion on the purchased care option of TRICARE, yet reported improper payments of only about \$158 million, an error rate of 0.8 percent, compared with Medicare's error rate of 12 percent. This considerable disparity raises questions about the accuracy of the methodology for calculating TRICARE improper payments.⁵¹ In our February 2015 report, we found that TRICARE's methodology for estimating improper payments for fiscal year 2013 was less comprehensive than the measurement methodology used to estimate Medicare improper payments because TRICARE's methodology does not comprehensively capture errors that occur at the provider level or errors that can only be identified through an examination of underlying medical record documentation. As a result, for fiscal year 2013, there were significant differences in the improper payment rate for TRICARE and Medicare (see fig. 9).

⁵¹In May 2017, DOD officials noted that our report only reviewed DOD's administrative claims review program, which is a less inclusive evaluation of DOD's military health improper payments review program. Officials noted that there are multiple components of DOD's improper payment report programs, including an Improper Payment Evaluation Branch consisting of the administrative claims reviews, a Clinical Operations Directorate, involving clinical peer reviews; and the TRICARE Operations Directorate involved in the development of benefit policy and management of TRICARE Managed Care Support contract functions. Our report assessed how DOD was measuring the error rate for its official improper payment estimate. In our recommendation, we noted that once DOD implemented a more comprehensive improper payment methodology, it should consider developing more robust corrective action plans that address underlying causes of improper payments, such as those determined by medical record reviews. For more information, see GAO, *Improper Payments: TRICARE Measurement and Reduction Efforts Could Benefit from Adopting Medical Record Reviews*, [GAO-15-269](#) (Washington, D.C.: Feb. 18, 2015).

Figure 9: TRICARE and Medicare Outlays and Estimated Improper Payments, Fiscal Year 2013

TRICARE:^a \$20.5 billion in total outlays



Source: GAO analysis of Department of Defense and Department of Health and Human Services' fiscal year 2013 agency financial reports. | GAO-17-369

Notes: The TRICARE and Medicare improper payment estimates represent payments from the prior fiscal year. Fiscal year 2013 estimates were the most recently available at the time we conducted our analysis.

^aTRICARE outlays and improper payment estimates include payments made through the TRICARE purchased care system. DOD refers to TRICARE purchased care payments as “military health benefits” in its agency financial reports.

^bMedicare outlays and improper payment estimates are for the Medicare fee-for-service program.

With respect to DHA, we reported in September 2015 (nearly 2 years after DHA’s creation) that DOD had not fully implemented key processes—including developing personnel requirements, identifying cost savings, and establishing performance measures—to monitor the department’s implementation of DHA reforms.⁵² More specifically, we reported in 2013 that DOD had not developed DHA staffing requirements to monitor the effect of possible personnel growth and the composition of its workforce. In the absence of such requirements, the military services questioned the accuracy of the estimated \$46.5 million in annual personnel savings on which DOD had, in part, based its decision to

⁵²See GAO, *Defense Health Care Reform: Actions Needed to Help Ensure Defense Health Agency Maintains Implementation Progress*, [GAO-15-759](#) (Washington, D.C.: Sept. 10, 2015).

establish DHA.⁵³ We further reported that DOD's cost estimates for DHA were unclear and missing key details. For example, although DOD had developed a business case analysis approach to help achieve cost savings and has applied this approach to eight of its ten shared service areas, it has not developed these analyses for the remaining two areas of shared services—(1) public health and (2) medical education and training. We also reported that DOD did not have comprehensive performance measures and quantifiable targets to assess progress in achieving DHA's cost-savings goals, and that opportunities existed to reduce health care costs by millions of dollars by completing, implementing, and monitoring comprehensive plans for each of its approved health care initiatives. For example, in 2012, we reported that DOD had calculated that it would save \$300 million by meeting one of its health care initiative cost growth targets related to clinical and business practices, such as purchased care reimbursements.⁵⁴

Defense support infrastructure: DOD has not effectively and efficiently managed its portfolio of facilities or controlled the costs of maintaining excess support infrastructure relative to its force structure needs. DOD's most recent Base Realignment and Closure round occurred in 2005 and, according to DOD officials, was the largest to date. DOD officials noted in May 2017 some reasons for cost overruns associated with the 2005 Base Realignment and Closure round, including, among others, higher costs for military construction materials and efforts to align DOD's infrastructure with military strategy. Our work on DOD's implementation of the 2005 Base Realignment and Closure round identified weaknesses that hampered DOD's ability to execute its responsibilities related to the cost and savings estimation process and efforts to measure performance.⁵⁵ In addition, we reported that DOD had underestimated specific infrastructure

⁵³GAO, *Defense Health Care Reform: Additional Implementation Details Would Increase Transparency of DOD's Plans and Enhance Accountability*, [GAO-14-49](#) (Washington, D.C.: Nov. 6, 2013).

⁵⁴GAO, *2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue*, [GAO-12-342SP](#) (Washington, D.C.: Feb. 28, 2012).

⁵⁵See GAO, *Military Base Realignments and Closures: More Guidance and Information Needed to Take Advantage of Opportunities to Consolidate Training*, [GAO-16-45](#) (Washington, D.C.: Feb. 18, 2016); *Defense Infrastructure: Improved Guidance Needed for Estimating Alternatively Financed Project Liabilities*, [GAO-13-337](#) (Washington, D.C.: Apr. 13, 2013); and *Military Bases: Opportunities Exist to Improve Future Base Realignment and Closure Rounds*, [GAO-13-149](#) (Washington, D.C.: Mar. 7, 2013).

requirements in the model that it used to estimate expected costs and savings from implementing closures and realignments under the Base Realignment and Closure process.⁵⁶ Specifically, DOD did not fully identify requirements for military construction, relocating military personnel and equipment, and information technology when entering these costs into its model, which resulted in inaccurate cost estimates. We reported that the primary reason costs increased for the 2005 Base Realignment and Closure round was higher-than-anticipated military construction costs—an increase of 86 percent from \$13.2 billion originally estimated to \$24.5 billion after implementation ended in 2011.

In addition, DOD can improve the accuracy and completeness of its facilities utilization and leasing information to more effectively manage the department's portfolio of facilities and control the costs of maintaining excess support infrastructure relative to its force structure needs.⁵⁷ In February 2017 we reported that DOD had utilization data on about 97 percent of its facilities as of September 2015—the most recent data available—increasing from 53 percent as of September 2013. However, we reported that, of the facilities that have a utilization rating of 100, 24 percent had either no inspection date or had most recently been inspected prior to September 30, 1999, which calls into question the accuracy of these data.⁵⁸ We also reported in March 2016 that DOD did not always assess the use of available space resulting from planned force reductions at its installations or systematically identified the availability of underutilized space prior to entering into lease agreements.⁵⁹

Financial management: Long-standing internal control deficiencies have adversely affected the economy, efficiency, and effectiveness of DOD's operations. 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 regarding its mission and operations. Among other issues, DOD's financial management problems

⁵⁶[GAO-13-149](#).

⁵⁷See GAO, *Defense Infrastructure: DOD Needs to Improve Its Efforts to Identify Unutilized and Underutilized Facilities*, [GAO-14-538](#) (Washington, D.C.: Sept. 9, 2014); and *Defense Infrastructure: More Accurate Data Would Allow DOD to Improve the Tracking, Management, and Security of Its Leased Facilities*, [GAO-16-101](#) (Washington, D.C.: Mar. 15, 2016).

⁵⁸[GAO-17-317](#).

⁵⁹[GAO-16-101](#).

have contributed to (1) inconsistent and sometimes unreliable reports to Congress on weapon system operating and support costs, limiting the visibility that Congress needs to effectively oversee weapon system programs and (2) an impaired ability to make cost-effective choices, such as deciding whether to outsource specific activities or how to improve efficiency through technology.

In January 2017, we reported that DOD's financial management problems have continued to significantly impede our ability to render an opinion on the federal government's consolidated financial statements and have prevented DOD from producing auditable department-wide financial statements.⁶⁰ For example, DOD's reported inventory, buildings, and other property and equipment represent 75 percent of the federal government's reported physical assets as of September 30, 2016. However, DOD cannot demonstrate that it accurately and completely accounted for all of these assets, including their location and condition. DOD also reported fiscal year 2015 procurement obligations that represent over 60 percent of the federal government's equity. However, DOD lacks effective systems, processes, and controls related to its procurement activity, including contract pay.

We also identified several long-standing and interrelated deficiencies that have hindered DOD's financial management activities.⁶¹ For example, DOD leadership has not assured that DOD's components adhere to audit readiness plans and guidance. As a result, components lack the necessary leadership, processes, systems, and controls to improve financial management operations and audit readiness. DOD also has not assured that the military services enhance their policies and procedures for developing audit corrective action plans and improve processes for identifying, tracking, and remediating financial management-related audit findings and recommendations. We further reported that DOD needs to continue to (1) develop and deploy enterprise resource planning systems as a critical component of its financial improvement and audit readiness

⁶⁰GAO, *Financial Audit: Fiscal Years 2016 and 2015 Consolidated Financial Statements of the U.S. Government*, [GAO-17-283R](#) (Washington, D.C.: Jan. 12, 2017).

⁶¹See GAO, *DOD Financial Management: Significant Efforts Still Needed for Remediating Audit Readiness Deficiencies*, [GAO-17-85](#) (Washington, D.C.: Feb. 9, 2017); *DOD Financial Management: Improvements Needed in the Navy's Audit Readiness Efforts for Fund Balance with Treasury*, [GAO-16-47](#) (Washington, D.C.: Aug. 19, 2016); and *DOD Financial Management: Greater Visibility Needed to Better Assess Audit Readiness for Property, Plant, and Equipment*, [GAO-16-383](#) (Washington, D.C.: May 26, 2016).

strategy and (2) design manual work-arounds for older systems to satisfy audit requirements and improve data used for day-to-day decision making.⁶² We also reported in February 2017 that all three of the independent public accountants (IPA) contracted to audit the fiscal year 2015 Schedules of Budgetary Activity (Budgetary Schedule) of the Army, the Air Force, and the Navy issued disclaimers, meaning that the IPAs were unable to complete their work or issue an opinion because they lacked sufficient evidence to support the amounts presented. These IPAs also identified material weaknesses in internal control and collectively issued over 700 findings and recommendations. These weaknesses included the military services' inability to, among other things, reasonably assure that the Budgetary Schedules reflected all of the relevant financial transactions that occurred and that documentation was available to support such transactions. As a result of these financial management issues, DOD expects the department-wide financial statement audit planned for fiscal year 2018 to result in significant audit findings and a disclaimer of opinion. In addition, DOD reported that it anticipates receiving disclaimers of opinion on its full financial statements for several years, but emphasized that being subject to audit will help the department make progress.

By consistently applying weapon system acquisition best practices, managing improper payments associated with military health care, comprehensively implementing military health care reforms, more effectively managing its portfolio of support infrastructure, and addressing long-standing financial management deficiencies, DOD would be better positioned to identify opportunities to direct its resources to its highest priorities. Since 2011, we have directed 79 recommendations to DOD in this area, of which 72 remain open, including 52 priority recommendations. Table 4 highlights key actions DOD should take to help address the challenges it faces in controlling costs and managing finances.

⁶²An enterprise resource planning system is an automated system using commercial off-the-shelf software consisting of multiple, integrated functional modules that perform a variety of business-related tasks, such as general ledger accounting, payroll, and supply-chain management.

Table 4: Key Actions That the Department of Defense (DOD) Should Take to Help Address the Challenges It Faces in Controlling Escalating Costs and Managing Finances

Challenges/key actions needed	Challenges/key actions needed description
Weapon systems acquisition	DOD needs to fully implement best practices to effectively manage escalating weapon systems costs across its \$1.5 trillion portfolio. Specifically, DOD should consistently implement knowledge-based acquisition practices that relate to testing critical technologies before system development and performing critical system reviews at the appropriate juncture. (See the following GAO report: GAO-17-333SP .)
Military health care	DOD needs to fully implement key processes to monitor improper payments and the implementation of DHA. Specifically, DOD should develop a comprehensive methodology to monitor improper payments to control the costs of military health care, and develop personnel requirements, identify cost savings opportunities, and establish performance measures for its DHA reforms. (See the following GAO reports: GAO-15-759 , GAO-15-269 .)
Defense support infrastructure	DOD needs to ensure that it has accurate and complete information to effectively manage its portfolio of facilities and identify opportunities to reduce costs for excess support infrastructure relative to its force structure needs. Specifically, DOD should assess the utilization of its property and ensure that it uses accurate and complete information to better identify potential areas to reduce and consolidate its infrastructure. (See the following GAO reports: GAO-14-538 , GAO-16-101 .)
Financial management	DOD needs to implement financial management process improvements to address deficiencies with the department's financial management operations. Specifically, DOD should fully implement a process to monitor and address corrective actions reported during audits, and the military services should improve processes for tracking and monitoring financial management-related audit findings and recommendations. (See the following GAO reports: GAO-17-317 , GAO-16-383 , GAO-15-463 , GAO-17-85 .)

Source: GAO analysis of GAO's previously issued work. | GAO-17-369

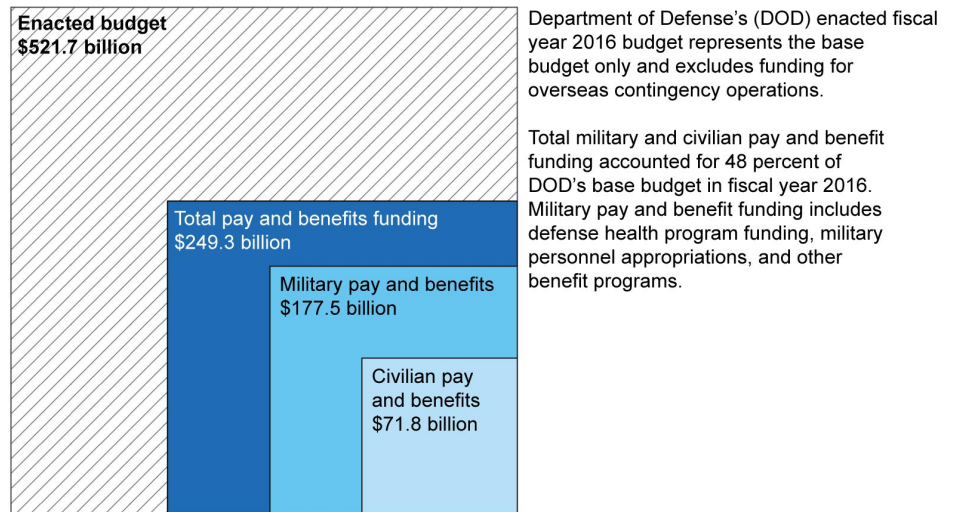
Strategically Manage Human Capital

DOD is one of the nation's largest employers, managing a total workforce of about 2.1 million active-duty and reserve military personnel and approximately 769,000 civilian personnel. DOD estimates that it will spend nearly \$180 billion in fiscal year 2017 on pay and benefits for military personnel and about \$70 billion for its civilian employees. Taken together, funding for military and civilian pay and benefits represented nearly 50 percent of DOD's budget in fiscal year 2016 (see fig. 10). DOD is also supported by about 561,000 contractor personnel, who help maintain weapon systems; support base operations; and provide information technology, management, and administrative support, among other responsibilities.⁶³ DOD estimates that it spent about \$115 billion on its contractor workforce in fiscal year 2015, although we have raised

⁶³This represents the total estimate of contractor full-time equivalents in fiscal year 2015.

questions regarding the reliability of the department’s information on this workforce.

Figure 10: The Department of Defense’s (DOD) Funding for Military and Civilian Pay and Benefits, Fiscal Year 2016



Source: GAO analysis of Department of Defense budget data. | GAO-17-369

As with other large organizations, DOD must compete for talent in the 21st Century, and recruit, develop, promote, and retain a skilled and diverse workforce of service members and civilians. However, DOD, as other federal agencies, faces mission-critical skill gaps that pose a risk to national security and impede the department from cost-effectively serving the public and achieving results. For example, the need for some skill sets, such as cyber, intelligence, maintenance, engineering, disability evaluation, and auditing has increased while the need for other skill sets may decrease over time. Moreover, the changing nature of federal work and a potential wave of employee retirements could produce gaps in leadership and institutional knowledge, which may aggravate the problems created by existing skill gaps.

Current budget and long-term fiscal pressures on the department only increase the importance of strategically managing human capital. DOD has recognized that efficient human capital management is imperative because personnel costs will likely drive many of the department’s future strategic decisions, and that it must incur compensation costs that are effective in helping it achieve its recruiting and retention goals. Our work has found that DOD must address several weaknesses to determine its appropriate workforce mix and costs, address critical skill gaps, and

develop an effective military compensation strategy as it attempts to strategically manage its military and civilian workforces and contracted support.⁶⁴

DOD has begun to implement a significant phase of its civilian workforce performance management system, called “New Beginnings,” which aims to create a department-wide civilian workforce performance management process, and has taken steps to develop better information and data about the size, capabilities, and skills possessed and needed within its total workforce. For example, in June 2014 DOD incorporated some results-oriented performance measures into its civilian workforce plan, and in June 2016 issued guidance that established a common structure for managing and evaluating workforce competency gaps for developing its future strategic workforce plans. In an effort to address critical skill gaps in its cybersecurity workforce, DOD updated its cybersecurity workforce plan in 2014 to include a description of the strategies it plans to employ to address gaps in human capital approaches and critical skills and competencies.

DOD has also taken steps to evaluate the effectiveness of specific pay, retirement, health care, and quality of life benefits included in military compensation, and proposed a range of options to reduce military compensation costs, such as limiting the amount of the annual pay raise and implementing increases in enrollment fees, deductibles, and co-pays for TRICARE participants. DOD has also begun a study to determine the appropriate mix of pay and benefits to use in making comparisons with private-sector compensation, and is developing a more comprehensive methodology for making these comparisons. DOD has made progress in these areas, but substantial work remains for the department in managing its human capital.

The following sections identify our assessment of remaining work, including additional actions that DOD could take to make further progress.

Workforce mix and costs: Since 2004 we have reported on challenges DOD faces in developing a strategic workforce plan that would enable the

⁶⁴See, for example, GAO, *Human Capital: DOD Should Fully Develop Its Civilian Strategic Workforce Plan to Aid Decision Makers*, [GAO-14-565](#) (Washington, D.C.: July 9, 2014); *Defense Acquisition Workforce: Actions Needed to Guide Planning Efforts and Improve Workforce Capability*, [GAO-16-80](#) (Washington, D.C.: Dec. 14, 2015); and *Military Compensation: Additional Actions Are Needed to Better Manage Special and Incentive Pay Programs*, [GAO-17-39](#) (Washington, D.C.: Feb. 3, 2017).

department to make efficient and cost-effective human capital decisions. For example, we reported that DOD had not assessed the appropriate mix of military, civilian, and contractors to prioritize its investments and improve its overall workforce.⁶⁵ DOD noted in its strategic workforce plans that assessing this mix is a significant challenge, and that it planned to complete a workforce mix assessment in a future plan. However, the requirement to develop and submit its biennial strategic workforce plan was repealed in the National Defense Authorization Act for Fiscal Year 2017 and not replaced with another legislative requirement. DOD officials have stated that the department is engaged in internal workforce planning efforts to better align its workforce mix and costs.

We also reported in September 2013 that DOD had opportunities to improve its methodology for estimating workforce costs.⁶⁶ For example, DOD has not followed our leading practices for cost estimation and it likely underestimated certain costs, such as those for training, which prevents the department from making cost-effective comparisons and decisions regarding the use of its military, civilian, and contractor workforces. We further reported in December 2015 that DOD has not fully developed and implemented a plan to achieve savings for its civilian and contractor workforces, consistent with congressional direction.⁶⁷

We further found that civilian full-time equivalents by themselves may not be reliable measures of the cost of the civilian personnel workforce. For example, our analysis shows that from fiscal years 2012 through 2016,

⁶⁵See GAO, *Human Capital: DOD Needs Complete Assessments to Improve Future Civilian Strategic Workforce Plans*, [GAO-12-1014](#) (Washington, D.C.: Sept. 27, 2012); *Human Capital: Additional Steps Needed to Help Determine the Right Size and Composition of DOD's Total Workforce*, [GAO-13-470](#) (Washington, D.C.: May 29, 2013); and *Human Capital: DOD Should Fully Develop Its Civilian Strategic Workforce Plan to Aid Decision Makers*, [GAO-14-565](#) (Washington, D.C.: July 9, 2014).

⁶⁶GAO, *Human Capital: Opportunities Exist to Further Improve DOD's Methodology for Estimating the Costs of Its Workforces*, [GAO-13-792](#) (Washington, D.C.: Sept. 25, 2013).

⁶⁷We reported that DOD's September 2014 and February 2015 reports did not fully address most statutory requirements identified in section 955 of the National Defense Authorization Act for Fiscal Year 2013. Specifically, DOD partially addressed three statutory requirements and did not address three statutory requirements. For example, DOD's reports also do not include information that demonstrates that savings goals are being achieved for the civilian and contractor workforces. The reports do not provide savings for the civilian workforce but instead outline planned reductions in full-time equivalent positions. For more information, see GAO, *Civilian and Contractor Workforces: Complete Information Needed to Assess DOD's Progress for Reductions and Associated Savings*, [GAO-16-172](#) (Washington, D.C.: Dec. 23, 2015).

civilian full-time equivalents declined by 3.3 percent, but civilian personnel costs declined by only 0.9 percent, adjusted for inflation. As a result, reductions to civilian full-time equivalents may not achieve commensurate savings, and larger full-time equivalent reductions may be required in order for DOD to meet mandated savings requirements for the civilian and contractor workforces.

Critical skill gaps: DOD has not taken sufficient actions to strengthen the management of certain mission-critical workforces. For example, in December 2015 we reported that DOD had developed a five-phased process, including surveys of its employees, to assess the skills of its acquisition workforce and to identify and close skill gaps.⁶⁸ DOD completed competency assessments for 12 of its 13 career fields and is developing new training classes to address some skill gaps. However, DOD has not determined the extent to which workforce skill gaps identified in initial career field competency assessments have been addressed and what workforce skill gaps currently exist. Further, DOD has not established time frames for when career fields should conduct another round of competency assessments to assess progress toward addressing previously identified gaps and to identify emerging needs. The department's November 2016 acquisition workforce strategic plan identified that career field competency assessments should be conducted a minimum of every 5 years, but it is too soon to tell whether DOD will conduct these assessments as recommended in the plan.

DOD also has not addressed certain personnel challenges resulting from the increased demand for its unmanned aerial systems. In 2014, we reported that the Air Force did not accurately identify the crew ratios needed to meet requirements for its unmanned aerial systems pilots or establish the effective mix of personnel to satisfy its pilot shortages, including evaluating the use of military enlisted and federal civilian personnel to help address pilot needs.⁶⁹ In January 2017, we further reported that the Air Force and the Army had not resolved key challenges in managing these pilots or tailored their human capital strategies to

⁶⁸[GAO-16-80](#).

⁶⁹GAO, *Air Force: Actions Needed to Strengthen Management of Unmanned Aerial System Pilots*, [GAO-14-316](#) (Washington, D.C.: Apr. 10, 2014).

address pilot gaps, to include evaluating the extent to which federal civilians could be used as pilots.⁷⁰

Military compensation: Since 2011, we have reported that DOD has not completed the steps necessary to develop a more comprehensive compensation strategy that could improve the ability of the department to recruit and retain a highly qualified force to carry out its mission while minimizing unnecessary costs.⁷¹ DOD has taken some steps to evaluate the effectiveness of specific pay and benefits included in military compensation, as we suggested in March 2011, but has not comprehensively assessed the effectiveness of its mix of pays and benefits and used the results to develop a compensation strategy. For example, the department is implementing changes to the military retirement system that will provide eligible service members who have at least 2 but fewer than 20 years of service when departing the military with a portable retirement benefit.⁷² A DOD official stated in January 2017 that the department has also completed a study to review how military compensation compares to private sector compensation, among other efforts.

However, as of March 2017, DOD had not completed an assessment of the effectiveness of all types of military pay and benefits, or identified opportunities to achieve long-term cost avoidance by addressing in a compensation strategy the types of compensation that are effective and by not incurring costs for compensation that may not be effective to help it achieve its recruiting and retention goals. For example, in November 2015, we reported that special and incentive pays were not always being used to fill military occupational specialties that were consistently below authorized levels for the Army and the Army National Guard, and that incentives were being used sometimes for military occupational specialties that were consistently above approved levels.⁷³ We further reported in February 2017 that DOD has not effectively managed special

⁷⁰GAO, *Unmanned Aerial Systems: Air Force and Army Should Improve Strategic Human Capital Planning for Pilot Workforces*, [GAO-17-53](#) (Washington, D.C.: Jan. 31, 2017).

⁷¹[GAO-11-318SP](#).

⁷²Prior to this change, the military retirement system generally provided no retirement benefit to service members who departed before the completion of 20 years of service.

⁷³GAO, *Military Recruiting: Army National Guard Needs to Continue Monitoring, Collect Better Data, and Assess Incentives Programs*, [GAO-16-36](#) (Washington, D.C.: Nov. 17, 2015).

and incentive pays for its active-duty service members—which totaled more than \$3.4 billion in fiscal year 2015.⁷⁴ In May 2017, DOD officials noted that Army's Career Satisfaction Program is one example of the services using non-monetary pay incentives to improve retention. However, we found that while DOD and the military services have occasionally offered service members non-monetary incentives, they do not routinely assess whether nonmonetary incentives could be used as less costly approaches to addressing retention challenges, and that DOD's guidance for special and incentive pay does not explicitly incorporate personnel performance into eligibility criteria for retention bonuses as a way to foster top talent and improve program results. We also found that the military services were not consistently applying key principles of effective human capital management to its special and incentive pay programs for three high-skill occupations (nuclear propulsion, aviation, and cybersecurity) that reflect a range of characteristics of such programs and are associated with missions deemed critical by the department. In May 2017, DOD officials stated that DOD applies some human capital principles in its management of military compensation programs, noting that DOD's review of the programs showed that they met or partially met 98 percent of the criteria for effective human capital management. However, we believe that more fully implementing such principles to include more precisely targeting its bonuses to occupations in critical need, and using these pays to foster its top talent, would help to ensure that DOD's resources are optimized for the greatest return on investment.

By comprehensively assessing its workforce mix and costs, strengthening the management of critical skill gaps, and establishing a cost-effective military compensation strategy, DOD would be better positioned to determine and maintain the most effective and efficient mix of military and civilian personnel and contractor support. Table 5 highlights key actions DOD should take to help address the challenges it faces to strategically

⁷⁴We use the term "special and incentive pays" to refer to special pays, incentive pays, and bonuses authorized in chapter 5 of Title 37 of the U.S. Code. Collectively, DOD uses its special and incentive pay programs to compensate and incentivize servicemembers for occupations that are dangerous, less desirable, or require special skills and training for which higher compensation is available in the civilian labor market. Since fiscal year 2005, DOD's obligations for these pays have fluctuated as its end strength has fluctuated. These pays rose from \$5.8 billion in fiscal year 2005 to \$7.1 billion in fiscal year 2008, and then decreased to \$3.4 billion in fiscal year 2015. For more information, see GAO, *Military Compensation: Additional Actions Are Needed to Better Manage Special and Incentive Pay Programs*, [GAO-17-39](#) (Washington, D.C.: Feb. 3, 2017).

manage its human capital. Since 2011, we have directed 67 recommendations to DOD in this area, of which 64 remain open.

Table 5: Key Actions That the Department of Defense (DOD) Should Take to Help Address Challenges to Strategically Manage Human Capital

Challenges/key actions needed	Challenges/key actions needed description
Workforce mix and costs	DOD needs to assess the appropriate workforce mix and more accurately estimate workforce costs. Specifically, DOD should determine the appropriate mix of the military and civilian and contractor workforce in its strategic workforce plan and improve its cost estimation methodology for these workforces to help make cost-effective comparisons. (See the following GAO reports: GAO-12-1014 , GAO-13-470 , GAO-14-565 , GAO-13-792 , GAO-16-172 , GAO-17-128 .)
Critical skill gaps	DOD needs to update its plans and strategies to manage its critical acquisition workforce and unmanned aerial system pilots that address career goals, workforce mix, and critical shortages. For example, DOD should identify the crew ratios needed to meet requirements for its unmanned aerial system pilots and establish the effective mix of personnel to satisfy its pilot shortages (See the following GAO reports: GAO-12-747R , GAO-12-1014 , GAO-13-470 , GAO-14-565 , GAO-13-792 , GAO-16-80 , GAO-14-316 , GAO-17-53 .)
Military compensation	DOD needs to establish a cost-effective compensation strategy to help achieve its recruiting and retention goals. Specifically, DOD should address in a compensation strategy what types of compensation are effective and routinely assess whether nonmonetary incentives could be used as less costly approaches for addressing retention challenges. (See the following GAO reports: GAO-11-318SP , GAO-17-39 .)

Source: GAO analysis of GAO's previously issued work. | GAO-17-369

Achieve Greater Efficiencies in Defense Business Operations

DOD spends billions of dollars each year acquiring business systems and contractor-provided services that provide fundamental support to the warfighter in the areas of health care; logistics; personnel; and financial management, among other areas. In fiscal year 2014 alone, DOD obligated \$85 billion to its three largest types of contractor-provided services: knowledge-based, facility-related, and research and development services. This amount is more than double the amount that DOD obligated to purchase aircraft, land vehicles, and ships. DOD senior leaders have prioritized defense institutional reform, and have emphasized the need to improve business practices and reduce overhead as a means to achieve greater efficiencies and free up resources for higher priorities.

However, problems in DOD's management of the department's business functions continue to negatively affect the ability of DOD to satisfy its mission. In 2005, we designated DOD's business transformation efforts—those intended to increase the efficiency and effectiveness of what we

identified as DOD's core business functions—as high risk because DOD did not have integrated planning or sustained oversight of its business processes.⁷⁵ We have also designated DOD's efforts to modernize and consolidate the department's business systems, contract management, financial management, and weapon systems acquisition as high risk because of planning and leadership challenges.

Congressional direction and personnel growth in headquarters organizations have led DOD to pursue several personnel reduction initiatives to achieve efficiencies since 2014. However, DOD has faced obstacles accounting for the resources devoted to its multiple layers of headquarters activities because of complex and overlapping relationships among them, incomplete data, and unclear personnel requirements. Our work has found that DOD must address several weaknesses to successfully implement its business transformation efforts, manage investments to modernize business systems, manage the acquisition of services, and properly size the department's headquarters organizations to accomplish assigned missions.

DOD established new governance forums, issued new plans to guide its business transformation efforts, and established or clarified roles and responsibilities for senior positions related to its business functions. In 2012, DOD established the Defense Business Council as a senior-level governance forum to oversee its core business functions. The Defense Business Council has recently begun conducting high-level performance reviews to assess progress in achieving department-wide goals and objectives in DOD's Agency Strategic Plan, which is intended to be a department-wide performance plan for assessing progress across DOD's business areas. The Defense Business Council has also started to identify opportunities to gain efficiencies across DOD's headquarters offices and defense agencies. For example, in March 2017, senior DOD officials stated that DOD had implemented a new initiative to review how it accounts for costs across its business functions.⁷⁶ DOD and the military

⁷⁵GAO, *High-Risk Series: An Update*, [GAO-05-207](#) (Washington, D.C.: January 2005). DOD characterizes its core business functions as follows: financial management, acquisitions, defense security enterprise, installations and environment, logistics, human resources and health care management, security cooperation, and enterprise information technology infrastructure.

⁷⁶According to senior DOD officials, the initiative will focus initially on improvements in cost accounting practices for the real property, information technology, and medical business functions, but will be expanded to all of DOD's business functions over a 3-year period.

departments have also established roles and responsibilities for senior business transformation positions, such as Chief Management Officers (CMOs) and Deputy CMOs (DCMOs). DOD has further taken other steps to avoid potential overlap and duplication and gain efficiencies in its business systems investments. For example, DOD established an authoritative data source for defense business system certification funding and improved the data it uses to manage business systems acquisition.

Senior DOD leadership also remains committed to addressing its contract management challenges, and since 2015 has made significant progress in addressing operational contract support issues, such as incorporating operational contract support considerations into operational plans. DOD has also established a framework to define its major headquarters activities, a key step needed to track resources for these organizations and identify opportunities to consolidate or eliminate certain positions to achieve the department's goals to reduce its headquarters resources. DOD has made progress in all of these areas, but substantial work remains to strengthen its business operations and achieve efficiencies.

The following sections identify our assessment of remaining work, including additional actions that DOD should take to make further progress.

Business transformation: DOD has not conducted effective performance reviews needed to ensure accountability for achieving results for its business transformation initiatives, or established a department-wide performance plan to monitor progress. Although the Office of the DCMO has recently begun to hold performance reviews to assess progress in achieving department-wide strategic goals and objectives, the reviews have not held business function leaders accountable in part because military department performance information was not included in the scope of the reviews. In July 2015, the Office of the DCMO issued the DOD Agency Strategic Plan, which according to DOD is a plan that establishes goals and priorities to manage its major business operations. However, the plan does not identify specific initiatives to improve DOD's business transformation efforts, identify the systems and processes needed to address business transformation matters, or identify how progress will be assessed. In addition, while the Agency Strategic Plan is intended to apply to the entire department, we reported that the military departments had a limited role in the development of the plan. Further, the military departments have not

aligned their respective plans with the Agency Strategic Plan, or used the Agency Strategic Plan to monitor their business functions.⁷⁷

Business system modernization: DOD has developed an enterprise architecture—a blueprint for DOD’s business system modernization efforts that is intended to guide and constrain the implementation of business systems; however, the current version is missing important content associated with achieving the department’s goal of using the architecture to guide, constrain, and enable interoperable business systems. In addition, the department has not fully defined and established management controls and plans to more effectively and efficiently manage its business system investments, which totaled approximately \$10 billion in fiscal year 2015. DOD officials stated in May 2017 that the department has used its business enterprise architecture for at least the past three investment review cycles to help identify duplicate investments. In addition, officials have provided examples of benefits attributed, at least in part, to the department’s enterprise architecture. For example, according to officials with the Office of the DCMO, two proposed defense business systems were not approved due, in part, to architecture reviews that revealed that the requested capabilities were already available in other systems. In addition, DOD officials stated in May 2017 that the architecture informed a decision to investigate potential duplication and overlap and opportunities to develop shared services among fourth estate and financial management systems.⁷⁸ However, the department has not yet demonstrated that it is actively and consistently using such assessments of potential duplication and overlap to eliminate duplicative systems. In January 2017, the department issued a plan to improve the usefulness of its business architecture. However, the department’s effort to complete its federated business architecture remains a work in progress. In addition, DOD needs to take steps to ensure that, among other things, documents submitted as part of the business system investment management process include critical information for conducting all assessments, such as information about cost in

⁷⁷GAO, *Defense Business Transformation: DOD Should Improve Its Planning with and Performance Monitoring of the Military Departments*, [GAO-17-9](#) (Washington, D.C.: Dec. 7, 2016).

⁷⁸DOD defines the fourth estate as DOD organizations, other than the military services, that have DOD manpower resources. These organizations include the Office of the Secretary of Defense; the defense agencies; DOD field activities; the Office of the DOD Inspector General; the Joint Staff; and the combatant commands.

relationship to return on investment.⁷⁹ We also reported in February 2017 that DOD had not yet established an action plan (or plans) highlighting how it intends to, among other things, improve its business system investment management process or improve its business system acquisition outcomes.⁸⁰

Services acquisition: DOD has not fully developed guidance and plans needed to strategically manage its acquisition of services to determine what the department is buying today and what it intends to buy in the future, or provide the Congress with visibility into its planned spending for contracted services. Specifically, we reported in February 2017 that, while DOD issued new guidance in January 2016 for acquiring services, DOD lacks an action plan to enable it to assess progress in achieving its goals of more effectively managing services acquisition, and efforts to identify goals and associated metrics are in the early stages of development.⁸¹ We also reported in February 2016 that, while data on future service acquisitions are generally maintained by DOD program offices, DOD and military department guidance do not require that the data be specifically identified in DOD's budget forecasts, and DOD's January 2016 instruction does not clearly identify what level of detail should be collected, leaving DOD at risk of developing inconsistent data between the military departments.⁸²

Headquarters management: Our body of work on DOD's headquarters reduction initiatives found that department-wide efforts to improve the efficiency of headquarters organizations and identify related costs savings may not be fully implemented or may not result in meaningful savings. In February 2012, we reported that DOD could recognize cost avoidance and save billions of dollars by reviewing and identifying further opportunities for consolidating or reducing the size of headquarters organizations.⁸³ In a 2015 review of its six business processes, which included savings opportunities beyond headquarters reductions, the

⁷⁹GAO, *DOD Business Systems Modernization: Additional Actions Needed to Achieve Intended Outcomes*, [GAO-15-627](#) (Washington, D.C.: July 16, 2015).

⁸⁰[GAO-17-317](#).

⁸¹[GAO-17-317](#).

⁸²GAO, *DOD Service Acquisition: Improved Use of Available Data Needed to Better Manage and Forecast Service Contract Requirements*, [GAO-16-119](#). (Washington, D.C.: Feb. 18, 2016).

⁸³[GAO-12-342SP](#).

Defense Business Board identified between \$62 billion and \$84 billion in potential cumulative savings opportunities for fiscal years 2016 through 2020 that could be achieved through civilian personnel attrition and retirements to occur without replacements over the next 5 years and by improving core processes such as reducing excessive organizational layers, among other factors.⁸⁴

However, we reported that DOD has not had a clear or accurate accounting of headquarters' resources, including contractors, to use as a starting point to track headquarters reduction initiatives.⁸⁵ We further reported that DOD has not periodically reviewed the size and structure of these organizations, such as the geographic combatant commands, and that personnel management systems have not consistently identified and tracked assigned personnel.⁸⁶ We also found that DOD headquarters organizations have neither systematically determined their workforce requirements nor established procedures to periodically reassess these requirements, as outlined in DOD and other guidance, limiting DOD's ability to identify efficiencies and limit headquarters growth in these organizations.⁸⁷ In 2016, DOD established a revised definition for "major headquarters activities," but the one department-wide data set that identifies military and civilian positions by specific DOD headquarters

⁸⁴In addition, in February 2015, the Defense Business Board, using preliminary data from a DOD efficiency review known as the Core Business Process Review, presented advisory recommendations to the Secretary of Defense, stating that its recommendations would result in potential savings of between \$75 billion and \$150 billion in the next 5 years. Among these were best practices and recommendations aimed at optimizing contracts, reviewing organizational structures to reduce areas of complexity and redundancy, implementing the consolidation of data centers, and identifying skills gaps. See Defense Business Board, *Report to the Secretary of Defense: Transforming Department of Defense's Core Business Processes for Revolutionary Change* (Feb. 9, 2015).

⁸⁵GAO, *Defense Headquarters: DOD Needs to Reevaluate Its Approach for Managing Resources Devoted to the Functional Combatant Commands*, [GAO-14-439](#) (Washington, D.C.: June 26, 2014).

⁸⁶GAO, *Defense Headquarters: DOD Needs to Periodically Review and Improve Visibility of Combatant Commands' Resources*, [GAO-13-293](#) (Washington, D.C.: May 15, 2013).

⁸⁷GAO, *Defense Headquarters: DOD Needs to Reassess Personnel Requirements for the Office of the Secretary of Defense, Joint Staff, and Military Service Secretariats*, [GAO-15-10](#) (Washington, D.C.: Jan. 21, 2015).

functions contains unreliable data because DOD has not aligned these data with its revised definition.⁸⁸

By effectively monitoring department-wide business transformation efforts, establishing management controls for its business system investments, developing guidance to monitor service acquisitions, and improving the reliability of its headquarters data, DOD will be better positioned to identify opportunities to gain additional efficiencies in its business operations. Table 6 highlights key actions DOD should take to help achieve efficiencies across its defense business operations. Since 2011, we have directed 49 recommendations to DOD in this area, of which 38 recommendations remain open, including 8 priority recommendations.

⁸⁸GAO, *Defense Headquarters: Improved Data Needed to Better Identify Streamlining and Cost Savings Opportunities by Function*, [GAO-16-286](#) (Washington, D.C.: June 30, 2016).

Table 6: Key Actions That the Department of Defense (DOD) Should Take to Help Achieve Efficiencies in Its Business Operations

Challenges/key actions needed	Challenges/key actions needed description
Business transformation	DOD needs to effectively monitor business transformation efforts and demonstrate progress in implementing corrective measures to drive business transformation efforts. Specifically, DOD’s Deputy Chief Management Officer (DCMO) should conduct regular performance monitoring, fully develop a corrective action plan to track corrective measures, and demonstrate progress in achieving business transformation and efficiency goals. (See the following GAO reports: GAO-17-317 , GAO-17-9 .)
Business system modernization	DOD needs to fully define and establish management controls and develop adequate plans to manage its business systems investments. Specifically, DOD should consistently use the business enterprise architecture to eliminate duplicative systems, further define and establish management controls and plans to more effectively and efficiently manage its business systems investments, and take steps to improve its business system acquisition outcomes. (See the following GAO reports: GAO-17-317 , GAO-15-627 .)
Services acquisition	DOD needs to fully develop guidance to strategically manage its acquisition of services and provide Congress with increased visibility into spending for contracted services. Specifically, DOD should revise its programming guidance to collect information on how contracted services will be used to meet requirements beyond the budget year, and modify its approach for reporting contracted services in its budget exhibit to ensure that all projected requirements are included. (See the following GAO reports: GAO-17-317 , GAO-16-119 .)
Headquarters management	DOD needs to improve the reliability of data to identify headquarters cost savings opportunities. Specifically, DOD should align its data on positions that have headquarters-related DOD functions with the revised definition of DOD’s “major headquarters activities,” and collect information on costs associated with functions within headquarters organizations. (See the following GAO report: GAO-16-286 .)

Source: GAO analysis of GAO’s previously issued work. | GAO-17-369

Four Cross-Cutting Factors Have Affected DOD’s Ability to Address Key Mission Challenges

Our body of work at DOD has identified four cross-cutting factors that have affected DOD’s ability to address its key mission challenges: (1) the lack of sustained leadership involvement, (2) a misalignment between programs and budgets and resources, (3) ineffective strategic planning and performance monitoring, and (4) an ineffective management control system.

Lack of sustained leadership involvement: Sustained leadership involvement is critical to DOD’s success in addressing long-standing management challenges, implementing lasting department-wide reforms, and achieving greater accountability. Since 1990, we have reported on leadership challenges across the department. In 2007, we suggested to

Congress that it consider enacting legislation to establish a full-time CMO position at DOD with significant authority and experience and a sufficient term to provide focused and sustained leadership over the department's business functions. In 2008, Congress passed the National Defense Authorization Act for Fiscal Year 2008, which designated the Deputy Secretary of Defense as the CMO and created the DCMO position, which differed from our recommendation that DOD create a separate full-time CMO position as an Executive Level II position that reports directly to Secretary of Defense.⁸⁹ Since 2008, DOD has made some progress in sustaining leadership over its business functions, including developing specific roles and responsibilities for the CMO and DCMO and establishing a senior-level governance forum co-chaired by the DCMO and the DOD Chief Information Officer to oversee the department's business functions. However, DOD has had challenges retaining individuals in some of its top leadership positions, and significant work remains to address long-standing challenges in the management of DOD's business functions (see fig. 11).

Figure 11: Turnover in Chief Management Officer (CMO) and Deputy Chief Management Office (DCMO) Positions since 2010



Source: GAO analysis of Department of Defense (DOD) and military department information. | GAO-17-369

Nine years after the creation of the CMO and DCMO positions, all of DOD's business functions remain on our High-Risk List. For example, with respect to financial management, in 2005 we reported that DOD had not established a framework to oversee and integrate financial management improvement efforts, such as developing remediation plans and accountability mechanisms to ensure progress and lasting financial

⁸⁹Pub. L. No. 110-181, § 904 (2008).

management reform. In February 2017 we further reported that DOD had not reasonably assured that its components had effective leadership and processes in place to substantially improve DOD's financial management operations and audit readiness.⁹⁰ Consequently, although DOD leadership has shown a commitment to financial management reform and established associated plans and guidance, we have seen little tangible evidence of progress in achieving significant financial management reforms. Regarding business system modernization, we reported in 2005 that DOD leadership had not ensured that these investments were effectively implementing acquisition best practices so that each investment might deliver the expected benefits and capabilities on time and within budget. We further reported in February 2017 that the DCMO and other DOD stakeholders did not yet have the full range of management controls in place needed to effectively oversee these investments.⁹¹

Congress has remained concerned about DOD's leadership challenges and, in the National Defense Authorization Act for Fiscal Year 2017, established a new CMO position and replaced the Under Secretary of Defense for Acquisition, Technology, and Logistics with the Under Secretary of Defense for Research and Engineering and the Under Secretary of Defense for Acquisition and Sustainment.⁹² These new positions provide an opportunity to enhance the department's leadership focus on its key mission challenges, but DOD will need to clearly define key responsibilities and authorities to help ensure that these positions can effectively drive transformation efforts. For example, section 901 of the National Defense Authorization Act for Fiscal Year 2017 requires the CMO to have extensive experience managing large or complex organizations, and to establish policies on and supervise all of the department's business operations. In addition, the provision requires the CMO to have the authority to direct the Secretaries of the military departments and the heads of all other DOD organizations with regard to

⁹⁰[GAO-17-317](#).

⁹¹[GAO-17-317](#).

⁹²Pub. L. No. 114-328, § 901 (2016) created a new Chief Management Officer position with broad responsibilities and duties related to DOD's business operations. The statute also established the Under Secretary of Defense for Research and Engineering to serve as DOD's Chief Technology Officer and principal advisor to the Secretary of Defense on all research, engineering, and technology development activities, and the Under Secretary of Defense for Acquisition and Sustainment to serve as the Chief Acquisition and Sustainment Officer with the mission to deliver and sustain timely, cost-effective capabilities for the armed forces. The new positions are to be effective February 1, 2018.

business operations. This provision further requires that the Secretary of Defense conduct a review of DOD leadership positions and subordinate organizations, and define relationships, including the placement of the CMO within the department, to inform how the position will be implemented. Our prior work has found that a CMO position similar to the one set forth in the provision may help DOD address its challenges in implementing business transformation and other efforts, and provide focused and sustained leadership over them. However, the provision does not specify how the CMO will carry out its authority, what the CMO's precedence in the department will be, what the CMO's executive schedule level will be, and how long the term of service for the position will be.

The new Under Secretary for Research and Engineering will have responsibility for technological development and testing, while the Under Secretary for Acquisition and Sustainment will have responsibility for acquiring and sustaining DOD's capabilities and overseeing the modernization of nuclear forces and the development of capabilities to counter weapons of mass destruction. We have reported on the potential benefits of separating technology development from system development for acquisition programs, but the National Defense Authorization Act for Fiscal Year 2017 did not contain any provisions for DOD to realign its acquisition process along these lines. Further, in considering the cumulative effect of these changes, it is unclear whether the newly established acquisition Under Secretary positions will have adequate authority to address long-standing issues in holding the military departments and service acquisition executives accountable for major defense acquisition programs before they start and for their execution once they begin. We will continue to assess the department's leadership commitment to addressing DOD's key mission challenges, and we will also assess the impact of these new positions.⁹³

Misalignment between programs and resources and budgets: In January 2017, we reported that the federal government faces an unsustainable long-term fiscal path and that the Congress and the new administration will need to consider difficult policy choices in the short

⁹³Section 911 of the National Defense Authorization Act for Fiscal Year 2017 also directed the Secretary of Defense to develop an organizational strategy, through the use cross-functional teams, to improve collaboration and integration as well as effectiveness and efficiency in achieving critical objectives and outputs across the department. We are required to assess and report to Congress actions taken to implement this strategy.

term regarding federal spending.⁹⁴ However, since 2005, we have reported that DOD's approach to planning and budgeting often results in a mismatch between the department's programs and available resources.⁹⁵ For example, while we have found that DOD has reported some progress in implementing acquisition reforms to control program costs for its weapon systems, we have reported that DOD has inconsistently implemented knowledge-based acquisition leading practices to estimate costs for its \$1.5 trillion portfolio of large weapon systems.⁹⁶ Because DOD does not routinely identify accurate and realistic resource needs, unexpected growth in some of its major acquisition programs—including the F-35, AIM-9X Block II Air-to-Air Missile, and MQ-8 Fire Scout—will affect numerous programs that simultaneously vie for significant funding commitments. In addition, we have reported that the Missile Defense Agency, which has spent approximately \$90 billion since 2002, has been unable to fully estimate all life-cycle costs and stabilize acquisition funding baselines in order to assess affordability over time, which has affected DOD's ability to make investment and program decisions that align with the budget. Further straining DOD's budget is a proposed near-simultaneous recapitalization and modernization of all three legs of the nuclear triad, which DOD estimates will cost around \$270 billion over the next two decades.⁹⁷

Since 2001, DOD has increasingly relied on funding for overseas contingency operations (OCO) to pay for operating costs—those for day-to-day operations that are typically funded through the base budget—raising uncertainty as to whether over the long term the department can afford the forces and weapon systems and other programs it currently maintains.⁹⁸ We reported in January 2017 that the amount of OCO

⁹⁴See, for example, [GAO-17-237SP](#).

⁹⁵GAO, *21st Century Challenges: Reexamining the Base of the Federal Government*, [GAO-05-325SP](#) (Washington, D.C.: Feb. 1, 2005).

⁹⁶See, for example, [GAO-04-248](#), [GAO-17-333SP](#) and [GAO-15-290](#). See the *DOD Weapon Systems Acquisition* section for a discussion on challenges with aligning programs and budgets in the weapon systems portfolio.

⁹⁷Department of Defense, *Accomplishments (2009-2016) Taking the Long View, Investing for the Future, Secretary Ashton Carter Cabinet Exit Memo* (Washington, D.C.: Jan. 5, 2017).

⁹⁸DOD defines "contingency operations" as small-, medium-, or large-scale military operations, including support for peacekeeping operations, major humanitarian assistance efforts, noncombatant evacuation operations, and international disaster relief efforts. Since 2001, Congress has provided DOD with over \$1.6 trillion in appropriations for these operations.

appropriations DOD considers as nonwar related increased from about 4 percent in fiscal year 2010 to about 12 percent in fiscal year 2015, an increase that reflects DOD's expanding the use of OCO appropriations from contingency-related operations in Iraq and Afghanistan to other activities, such as efforts to deter Russia and reassure U.S. allies.⁹⁹ Senior DOD officials have acknowledged that costs funded by OCO appropriations are likely to endure after contingency operations have ceased. However, DOD has not developed a plan to transition enduring OCO-funded costs to the base budget, and senior level DOD officials maintain that DOD will be unable to make this transition until there is sufficient relief from the sequester-level discretionary budget caps established in the Budget Control Act of 2011. In January 2017, we recommended that DOD collaborate with the Office of Management and Budget to modify guidance on what costs should be included in OCO funding requests, and that DOD develop a complete and reliable estimate of its enduring OCO-funded costs and report those costs with its future base budget requests.

Ineffective strategic planning and performance monitoring: For more than a decade we have reported on strategic planning and performance monitoring challenges that have affected the efficiency and effectiveness of DOD's operations both at the strategic readiness level and across all of DOD's major business areas—including contract management, financial management, and supply chain management.¹⁰⁰ DOD has made some important progress in these areas, such as implementing a corrective action plan and demonstrating sustained progress on the management of its spare parts from 2010 through 2017. As a result, we removed the inventory management component of the supply chain management high-risk area—an issue that has been on our High-Risk List since 1990.¹⁰¹ However, more work remains. For example, in 2016 we reported that DOD may be unable to determine the effectiveness of the military departments' respective readiness recovery efforts or assess the departments' ability to meet the demands of the National Military Strategy because DOD has not used effective strategic planning practices—that is,

⁹⁹GAO, *Overseas Contingency Operations: OMB and DOD Should Revise the Criteria for Determining Eligible Costs and Identify the Costs Likely to Endure Long Term*, [GAO-17-68](#) (Washington, D.C.: Jan. 18, 2017).

¹⁰⁰For example, see [GAO-05-207](#) and *Military Readiness: New Reporting System Is Intended to Address Long-Standing Problems, but Better Planning Is Needed*, [GAO-03-456](#) (Washington, D.C.: Mar. 28, 2003).

¹⁰¹[GAO-17-317](#).

identified goals and metrics for measuring progress against the goals and evaluated performance and progress toward meeting the goals.¹⁰² We also reported that DOD had made progress in establishing an effective strategic plan to integrate business transformation efforts across DOD's major business areas, but that DOD continued to lack a strategic planning process that defined a role for the military departments in those efforts.¹⁰³

We have also reported that in its performance monitoring efforts DOD has missed opportunities to hold officials accountable for progress made toward DOD-identified goals and milestones, to make timely and well-informed actions to address identified challenges, and to encourage continuous improvements in performance across its major business functions. We reported in July 2015, for example, that DOD's performance monitoring practices have been inconsistent with government-wide requirements because DOD had not conducted performance reviews that were led by the CMO or other top agency leaders at least once a quarter to review progress on all agency priority goals, which cover many of DOD's major business functions, or to discuss at-risk goals and improvement strategies, among other issues.¹⁰⁴ We also reported that DOD's ability to make further progress in the business systems modernization and financial management business areas have been hindered by limitations in its performance monitoring. For example, DOD has not developed an action plan to monitor progress in making business system improvements and has not obtained complete, detailed information on all corrective action plans from the military services to fully monitor and assess DOD's progress in resolving its financial management deficiencies.

Ineffective management control system: A critical component of an effective management control system is the use of quality information to inform day-to-day decision making.¹⁰⁵ However, we have also reported since 2011 that DOD does not have quality information on costs related to mission critical programs, the department's headquarters functions, and

¹⁰² [GAO-16-841](#).

¹⁰³ [GAO-17-9](#).

¹⁰⁴ GAO, *Managing for Results: Agencies Report Positive Effects of Data-Driven Reviews on Performance but Some Should Strengthen Practices*, [GAO-15-579](#) (Washington, D.C.: July 7, 2015).

¹⁰⁵ GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014).

the department's major business areas.¹⁰⁶ Without quality information regarding the costs associated with DOD's mission-critical weapon systems, for example, DOD will be unable to effectively assess the affordability of the programs that support them. Among other things, DOD will be unable to accurately estimate the cost to recapitalize the nuclear triad, to complete the acquisition and deployment of the F-35, and to evaluate gaps that could result from the divestment of the A-10. We also reported in 2016 that DOD does not have cost data associated with functions within headquarters organizations, including within its business areas, which is needed to facilitate the identification of opportunities for consolidation or elimination of positions across an organization.¹⁰⁷ Absent internal control systems needed to help ensure quality cost information, DOD's ability to provide meaningful information to Congress to inform future budget and funding decisions is hindered.

We have reported that DOD also faces long-standing challenges in implementing an effective management control system to improve accountability and effectively and efficiently achieve its mission. For example, since 2005 our body of work on DOD's financial management has found that DOD has been unable to receive an audit opinion on its financial statements because of its serious financial management problems, including material internal control weaknesses. DOD has begun to address our 2014 recommendation about internal control weaknesses, identifying internal controls as a critical capability in DOD's audit readiness guidance. However, as of April 2017, the Defense Finance and Accounting Service had not fully implemented the steps needed to address requirements in DOD's audit readiness guidance related to planning, testing, and implementing corrective actions. As a result, the Defense Finance and Accounting Service does not have assurance that its processes, systems, and controls can produce and maintain accurate, complete, and timely financial management information for the approximately \$200 billion in contract payments it annually processes on behalf of DOD components.¹⁰⁸ Implementing internal control steps, to include performing required testing of contract pay processes and documenting how previously identified internal control deficiencies have been addressed, can help ensure that DOD

¹⁰⁶[GAO-16-439](#).

¹⁰⁷[GAO-16-286](#).

¹⁰⁸GAO, *DOD Financial Management: The Defense Finance and Accounting Service Needs to Fully Implement Financial Improvements for Contract Pay*, [GAO-14-10](#) (Washington, D.C.: June 23, 2014).

implements, maintains, and sustains the necessary financial improvements to effectively carry out its contract pay mission.

Concluding Observations

DOD plays a critically important role in protecting the security of the United States while simultaneously working to maintain regional security and stability abroad. The department must fulfill this vital role while facing a complex and changing national security environment with unique and rapidly evolving threats. Although the United States' military strength is unparalleled across the globe, the department faces a myriad of influences that pose obstacles to its effectiveness and progress, including budgetary strains and uncertainty, and growing and evolving demands that challenge its ability to restore needed levels of readiness after more than a decade of war. At the same time, the department must be more efficient in managing the significant resources entrusted to it, including the billions of dollars invested in acquiring major weapon systems, as well as its vast and complex business operations supporting its warfighting mission. The department has made noteworthy progress addressing key challenges that affect its mission but significant work remains, and the department will need to continue to make difficult decisions regarding reaching an affordable balance between investments in current needs and new capabilities.

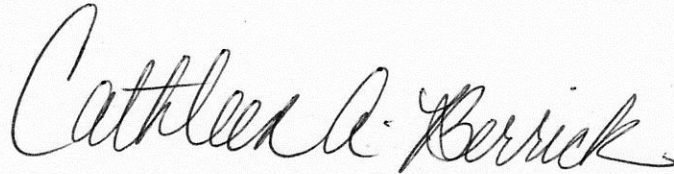
We have issued hundreds of reports and made thousands of recommendations to DOD to help position it to address its challenges. While DOD has taken action to implement many of them, it lags behind the rest of the federal government in implementing our recommendations, with 1,037 recommendations remaining open, including 78 priority recommendations that we believe require top leadership attention and that, if implemented, could result in significant financial savings and increased efficiencies. Implementing these recommendations would go a long way toward addressing the factors that have consistently affected DOD's ability to efficiently and effectively meet the department's mission, as well as position the department to make significant and sustained progress across its key challenges. The need for progress will be critical in an era of increased uncertainty both domestically and abroad, and must continue to be the department's top priority.

Agency Comments

We provided a draft of this report to DOD for comment. In its comments, reproduced in appendix III, DOD stated that although this report is a review of progress made of previous GAO audits and no new recommendations were issued, the department stands by its responses and concurrence to taking the requisite actions needed to address all previous recommendations. DOD also provided technical comments, which we incorporated into the report, as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, the Deputy Secretary of Defense, and the Deputy Chief Management Officer. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3404 or berrickc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix IV.



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The Honorable Jason Chaffetz
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House of Representatives

Appendix I: Actions That the Department of Defense (DOD) Needs to Take to Address Our 78 Priority Open Recommendations

Since August 2015, we have identified priority recommendations in letters to the Secretary of Defense—recommendations that we have made to the Department of Defense (DOD) that we believe the department should give a high priority to addressing. These priority recommendations are in the areas of acquisitions and contract management, readiness, headquarters management, health care, cybersecurity, information technology, financial management, and support infrastructure. In table 7, we identify examples of actions that we believe DOD should take to implement our priority recommendations in each of these areas. As of June 2017, 78 of these priority recommendations remained open. More specific information on our priority recommendations directed to DOD, including their status, can be found on the GAO web application, GAO Priorities for Policy Makers, which is available free of charge in the App Store® or Google Play.™

Appendix I: Actions That the Department of Defense (DOD) Needs to Take to Address Our 78 Priority Open Recommendations

Table 7: Examples of Actions by Area That the Department of Defense (DOD) Needs to Take to Address Our Priority Recommendations That Remain Open

Area	Examples of actions needed (report with priority recommendation)
Acquisitions and contract management	<ul style="list-style-type: none"> • Evaluate potential impacts of various funding and technical changes on F-35 procurement plans. (GAO-15-364) • Ensure that the Navy is procuring Littoral Combat Ships that meet its needs. (GAO-14-749) • Ensure that the Ford-class carrier program is supported by sound requirements and a comprehensive testing strategy that reduces technical risks. (GAO-13-396) • Improve the management and transparency of the U.S. missile defense approach in Europe. (GAO-13-432) • Ensure that senior leaders are better positioned to make informed contracting decisions. (GAO-16-119) • Improve department-wide strategic sourcing efforts to achieve significant cost savings. (GAO-12-919) • Improve DOD's lesson learned efforts through the collection of operational contract support issues. (GAO-15-243) • Further integrate operational contract support into the military services' planning. (GAO-13-212) • Improve DOD's efforts to vet foreign vendors. (GAO-16-105) • Ensure that major acquisition decisions are informed by sufficient cost, design, and capability knowledge. (GAO-16-356) • Advocate an independent assessment performed by the American Bureau of Shipping, or some other independent entity with relevant subject matter expertise to understand Littoral Combat Ship seaframe performance. (GAO-16-201) • Develop affordability constraints linked to the military services' budgets to determine the extent to which the military services can afford to operate and sustain the F-35 throughout its life cycle. (GAO-14-778)
Readiness	<ul style="list-style-type: none"> • Ensure that DOD has established a plan and oversight mechanisms for rebuilding the readiness of its forces. (GAO-16-841)
Headquarters management	<ul style="list-style-type: none"> • Collect reliable information on the costs associated with functions within headquarters organizations. (GAO-16-286) • Determine requirements to identify opportunities for a more efficient use of resources. (GAO-15-10) • Establish a baseline to improve the management of headquarters reduction efforts. (GAO-14-439) • Ensure that headquarters organizations are properly sized to meet assigned missions. (GAO-13-293) • Improve DOD's ability to identify how many headquarters personnel the department has, including contractors. (GAO-12-345)
Health care	<ul style="list-style-type: none"> • Better assess and address the full extent of improper payments in the TRICARE program. (GAO-15-269) • Provide decision makers with appropriate and more complete information on the continuing implementation, management, and oversight of the Defense Health Agency. (GAO-15-759)

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Area	Examples of actions needed (report with priority recommendation)
Cybersecurity	<ul style="list-style-type: none"> • Improve the planning and oversight of the department's ability to maintain continuity in a degraded cyber environment. (GAO-14-404SU) • Clarify roles and responsibilities of key DOD entities that may be called upon to support a cyber incident. (GAO-16-332)
Information technology	<ul style="list-style-type: none"> • Report all data center consolidation cost savings and avoidances. (GAO-14-713)
Financial management	<ul style="list-style-type: none"> • Complete the recommended Financial Improvement and Audit Readiness implementation efforts. (GAO-15-463) • Focus the Defense Finance and Accounting Service actions on three contract pay processes and related controls that have not yet been tested, and complete corrective actions on any identified deficiencies in these processes and controls. The related processes and controls are (1) Treasury reporting, (2) accounting and reconciliation, and (3) contract closeout and reconciliation. In addition, DOD needs to complete and appropriately document corrective actions on our remaining recommendations. (GAO-14-10) • Ensure that improper payment estimating and reporting and recovery audits fully comply with the Improper Payments Elimination and Recovery Act of 2010 and Office of Management and Budget requirements. (GAO-13-227) • Improve processes for tracking and monitoring financial management-related audit findings. (GAO-17-85)
Support infrastructure	<ul style="list-style-type: none"> • Better assess and identify available space on facilities to reduce the reliance on leased facilities. (GAO-16-101) • Improve information upon which to inform any future Base Realignment and Closure process decisions, and ensure goals are implemented and progress monitored. (GAO-13-149, GAO-13-337, GAO-16-45)

Source: GAO's analysis of GAO's previously issued work. | GAO-17-369

Appendix II: Our Work Related to the Department of Defense's Key Mission Challenges

Our work identified five key challenges that impact Department of Defense's (DOD) ability to accomplish its mission—specifically, the need for DOD to (1) rebalance forces and rebuild readiness in an evolving global security environment; (2) mitigate threats to cyberspace and expand cyber capabilities; (3) control the escalating costs of programs, such as certain weapon systems acquisitions and military health care, and manage its finances; (4) strategically manage its human capital; and (5) achieve greater efficiencies in defense business operations. We have listed related work completed since 2011 for each of these challenge areas below. Also listed below are our cross-cutting products, such as the high-risk; duplication, overlap, and fragmentation; and key issues products.

Challenge 1: Rebalance Forces and Rebuild Readiness in an Evolving Global Security Environment

Overseas Contingency Operations: OMB and DOD Should Revise the Criteria for Determining Eligible Costs and Identify the Costs Likely to Endure Long Term. [GAO-17-68](#). Washington, D.C.: January 18, 2017.

Air Force Training, Further Analysis and Planning Needed to Improve Effectiveness. [GAO-16-864](#). Washington, D.C.: September 19, 2016.

Military Readiness: DOD's Readiness Rebuilding Efforts May Be at Risk without a Comprehensive Plan. [GAO-16-841](#). Washington, D.C.: September 7, 2016.

Force Structure: Better Information Needed to Support Air Force A-10 and Other Future Divestment Decisions. [GAO-16-816](#). Washington, D.C.: August 24, 2016.

Military Readiness: Progress and Challenges in Implementing the Navy's Optimized Fleet Response Plan. [GAO-16-466R](#). Washington, D.C.: May 2, 2016.

F-35 Sustainment: DOD Needs a Plan to Address Risks Related to Its Central Logistics System. [GAO-16-439](#). Washington, D.C.: April 14, 2016.

Nuclear Weapons Sustainment: Improvements Made to Budget Estimates Report, but Opportunities Remain to Further Enhance Transparency. [GAO-16-23](#). Washington, D.C.: December 10, 2015.

Regionally Aligned Forces: DOD Could Enhance Army Brigades' Efforts in Africa by Improving Activity Coordination and Mission-Specific Preparation. [GAO-15-568](#). Washington, D.C.: August 26, 2015.

Nuclear Weapons Sustainment: Improvements Made to Budget Estimates, but Opportunities Exist to Further Enhance Transparency. [GAO-15-536](#). Washington, D.C.: July 31, 2015.

Special Operations Forces: Opportunities Exist to Improve Transparency of Funding and Assess Potential to Lessen Some Deployments. [GAO-15-571](#). Washington, D.C.: July 16, 2015.

Navy Force Structure: Sustainable Plan and Comprehensive Assessment Needed to Mitigate Long-Term Risks to Ships Assigned to Overseas Homeports. [GAO-15-329](#). Washington, D.C.: May 29, 2015.

F-35 Sustainment: Need for Affordable Strategy, Greater Attention to Risks, and Improved Cost Estimates. [GAO-14-778](#). Washington, D.C.: September 23, 2014.

Security Force Assistance: More Detailed Planning and Improved Access to Information Needed to Guide Efforts of Advisor Teams in Afghanistan. [GAO-13-381](#). Washington, D.C.: April 30, 2013.

Missile Defense: Opportunity to Refocus on Strengthening Acquisition Management. [GAO-13-432](#). Washington, D.C.: April 26, 2013.

Challenge 2: Mitigate Threats to Cyberspace and Expand Cyber Capabilities

Defense Civil Support: DOD Needs to Identify National Guard's Cyber Capabilities and Address Challenges in Its Exercises. [GAO-16-574](#). Washington, D.C.: September 6, 2016.

Civil Support: DOD Needs to Clarify Its Roles and Responsibilities for Defense Support of Civil Authorities during Cyber Incidents. [GAO-16-332](#). Washington, D.C.: April 4, 2016.

Defense Infrastructure: Improvements in DOD Reporting and Cybersecurity Implementation Needed to Enhance Utility Resilience Planning. [GAO-15-749](#). Washington, D.C.: July 23, 2015.

Insider Threats: DOD Should Strengthen Management and Guidance to Protect Classified Information and Systems. [GAO-15-544](#). Washington, D.C.: June 2, 2015.

Defense Cybersecurity: DOD Needs to Better Plan for Continuity of Operations in a Degraded Cyber Environment and Provide Increased Oversight. [GAO-14-404SU](#). Washington, D.C.: April 1, 2014. (For Official Use Only)

Challenge 3: Control Escalating Costs and Manage Finances

DOD Financial Management: Significant Efforts Still Needed for Remediating Audit Readiness Deficiencies. [GAO-17-85](#). Washington, D.C.: February 9, 2017.

Financial Audit: U.S. Government's Fiscal Years 2015 and 2016 Consolidated Financial Statements. [GAO-17-283R](#). Washington, D.C.: January 12, 2017.

Littoral Combat Ship and Frigate: Congress Faced with Critical Acquisition Decisions. [GAO-17-262T](#). Washington, D.C.: December 1, 2016.

DOD Financial Management: Improvements Needed in the Navy's Audit Readiness Efforts for Fund Balance with Treasury. [GAO-16-47](#). Washington, D.C.: August 19, 2016.

DOD Financial Management: Greater Visibility Needed to Better Assess Audit Readiness for Property, Plant, and Equipment. [GAO-16-383](#). Washington, D.C.: May 26, 2016.

Defense Infrastructure: More Accurate Data Would Allow DOD to Improve the Tracking, Management, and Security of Its Leased Facilities. [GAO-16-101](#). Washington, D.C.: March 15, 2016.

Military Base Realignments and Closures: More Guidance and Information Needed to Take Advantage of Opportunities to Consolidate Training. [GAO-16-45](#). Washington, D.C.: February 18, 2016.

DOD Financial Management: Continued Actions Needed to Address Congressional Committee Panel Recommendations. [GAO-15-463](#). Washington, D.C.: September 28, 2015.

Defense Health Care Reform: Actions Needed to Help Ensure Defense Health Agency Maintains Implementation Progress. [GAO-15-759](#). Washington, D.C.: September 10, 2015.

F-35 Joint Strike Fighter: Assessment Needed to Address Affordability Challenges. [GAO-15-364](#). Washington, D.C.: April, 14, 2015.

Improper Payments: TRICARE Measurement and Reduction Efforts Could Benefit from Adopting Medical Record Reviews. [GAO-15-269](#). Washington, D.C.: February 18, 2015.

Defense Infrastructure: DOD Needs to Improve Its Efforts to Identify Unutilized and Underutilized Facilities. [GAO-14-538](#). Washington, D.C.: September 8, 2014.

Defense Health Care Reform: Additional Implementation Details Would Increase Transparency of DOD's Plans to Enhance Accountability. [GAO-14-49](#). Washington, D.C.: November 6, 2013.

Ford Class Carriers: Lead Ship Testing and Reliability Shortfalls Will Limit Initial Fleet Capabilities. [GAO-13-396](#). Washington, D.C.: September 5, 2013.

Military Bases: DOD Has Processes to Comply with Statutory Requirements for Closing or Realigning Installations. [GAO-13-645](#). Washington, D.C.: June 27, 2013.

DOD Financial Management: Significant Improvements Needed in Efforts to Address Improper Payment Requirements. [GAO-13-227](#). Washington, D.C.: May 13, 2013.

Defense Infrastructure: Improved Guidance Needed for Estimating Alternatively Financed Project Liabilities. [GAO-13-337](#). Washington, D.C.: April 18, 2013.

Military Bases: Opportunities Exist to Improve Future Base Realignment and Closure Rounds. [GAO-13-149](#). Washington, D.C.: March 7, 2013.

Excess Facilities: DOD Needs More Complete Information and a Strategy to Guide Its Future Disposal Efforts. [GAO-11-814](#). Washington, D.C.: September 19, 2011.

Challenge 4: Strategically Manage Human Capital

Defense Acquisition Workforce: DOD Has Opportunities to Further Enhance Use and Management of Development Fund. [GAO-17-332](#). Washington, D.C.: March 28, 2017.

Military Compensation: Additional Actions Are Needed to Better Manage Special and Incentive Pay Programs. [GAO-17-39](#). Washington, D.C.: February 3, 2017.

Unmanned Aerial Systems: Air Force and Army Should Improve Strategic Human Capital Planning for Pilot Workforces. [GAO-17-53](#). Washington, D.C.: January 31, 2017.

DOD Inventory of Contracted Services: Timely Decisions and Further Actions Needed to Address Long-Standing Issues. [GAO-17-17](#). Washington, D.C.: October 31, 2016.

DOD Civilian and Contractor Workforces: Additional Cost Savings Data and Efficiencies Plan Are Needed. [GAO-17-128](#). Washington, D.C.: October 12, 2016.

Unmanned Aerial Systems: Further Actions Needed to Fully Address Air Force and Army Pilot Workforce Challenges. [GAO-16-527T](#). Washington, D.C.: March 16, 2016.

Civilian and Contractor Workforces: Complete Information Needed to Assess DOD's Progress for Reductions and Associated Savings. [GAO-16-172](#). Washington, D.C.: December 23, 2015.

Defense Acquisition Workforce: Actions Needed to Guide Planning Efforts and Improve Workforce Capability. [GAO-16-80](#). Washington, D.C.: December 14, 2015.

DOD Inventory of Contracted Services: Actions Needed to Help Ensure Inventory Data Are Complete and Accurate. [GAO-16-46](#). Washington, D.C.: November 18, 2015.

Military Recruiting: Army National Guard Needs to Continue Monitoring, Collect Better Data, and Assess Incentives Programs. [GAO-16-36](#). Washington D.C.: November 17, 2015.

Unmanned Aerial Systems: Actions Needed to Improve DOD Pilot Training. [GAO-15-461](#). Washington, D.C.: May 14, 2015.

Defense Contractors: Additional Actions Needed to Facilitate the Use of DOD's Inventory of Contracted Services. [GAO-15-88](#). Washington, D.C.: November 19, 2014.

Human Capital: DOD Should Fully Develop Its Civilian Strategic Workforce Plan to Aid Decision Makers. [GAO-14-565](#). Washington, D.C.: July 9, 2014.

Air Force: Actions Needed to Strengthen Management of Unmanned Aerial System Pilots. [GAO-14-316](#). Washington, D.C.: April 10, 2014.

Human Capital: Opportunities Exist to Further Improve DOD's Methodology for Estimating the Costs of Its Workforces. [GAO-13-792](#). Washington, D.C.: September 25, 2013.

Human Capital: Additional Steps Needed to Help Determine the Right Size and Composition of DOD's Total Workforce. [GAO-13-470](#). Washington, D.C.: May 29, 2013.

Human Capital: Critical Skills and Competency Assessments Should Help Guide DOD Civilian Workforce Decisions. [GAO-13-188](#). Washington, D.C.: January 17, 2013.

Human Capital: DOD Needs Complete Assessments to Improve Future Civilian Strategic Workforce Plans. [GAO-12-1014](#). Washington, D.C.: September 27, 2012.

Defense Acquisition Workforce: Improved Processes, Guidance, and Planning Needed to Enhance Use of Workforce Funds. [GAO-12-747R](#). Washington, D.C.: June 20, 2012.

Challenge 5: Achieve Efficiencies in Defense Business Operations

Defense Business Transformation: DOD Should Improve Its Planning with and Performance Monitoring of the Military Departments. [GAO-17-9](#). Washington, D.C.: December 7, 2016.

Defense Headquarters: Improved Data Needed to Better Identify Streamlining and Cost Savings Opportunities by Function. [GAO-16-286](#). Washington, D.C.: June 30, 2016.

DOD Major Automated Information Systems: Improvements Can Be Made in Reporting Critical Changes and Clarifying Leadership Responsibility. [GAO-16-336](#). Washington, D.C.: March 30, 2016.

DOD Service Acquisition: Improved Use of Available Data Needed to Better Manage and Forecast Service Contract Requirements. [GAO-16-119](#). Washington, D.C.: February 18, 2016.

Defense Satellite Communications: DOD Needs Additional Information to Improve Procurements. [GAO-15-459](#). Washington, D.C.: July 17, 2015.

DOD Business Systems Modernization: Additional Action Needed to Achieve Intended Outcomes. [GAO-15-627](#). Washington, D.C.: July 16, 2015.

Defense Headquarters: DOD Needs to Reassess Personnel Requirements for the Office of the Secretary of Defense, Joint Staff, and

Military Service Secretariats. [GAO-15-10](#). Washington, D.C.: January 21, 2015.

Defense Headquarters: DOD Needs to Reevaluate Its Approach for Managing Resources Devoted to the Functional Combatant Commands. [GAO-14-439](#). Washington, D.C.: June 26, 2014.

DOD Business Systems Modernization: Further Actions Needed to Address Challenges and Improve Accountability. [GAO-13-557](#). Washington, D.C.: May 17, 2013.

Defense Headquarters: DOD Needs to Periodically Review and Improve Visibility of Combatant Commands' Resources. [GAO-13-293](#). Washington, D.C.: May 15, 2013.

DOD Business Systems Modernization: Governance Mechanisms for Implementing Management Controls Need to Be Improved. [GAO-12-685](#). Washington, D.C.: June 1, 2012.

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Appendix III: Comments from the Department of Defense

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of Defense



DEPUTY CHIEF MANAGEMENT OFFICER
9010 DEFENSE PENTAGON
WASHINGTON, DC 20301-9010

May 25, 2017

Cathleen Berrick
Managing Director
Defense Capabilities and Management
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Berrick:

This is the Department of Defense response to the Government Accountability Office (GAO) draft report GAO-17-369, DEPARTMENT OF DEFENSE, "Actions Needed to Address Five Key Mission Challenges," dated June 1, 2017 (GAO Engagement 100915).

While this engagement was a review of progress made of previous GAO audits, and no new recommendations were issued, the Department stands by its responses and concurrence to taking the requisite actions needed to address all previous recommendations. The Department has and will continue to provide additional technical comments that we believe reflect progress made in areas cited for GAO consideration.

We look forward to continuing to work with the GAO as we make progress in these areas. Should you have any questions, please contact my Primary Action Officer for this engagement, Mr. Jesse Johnson at 571-372-8029 or jesse.b.johnson1.civ@mail.mil.

Sincerely,

TILLOTSON.DAVI
D.III.1109966815

Digitally signed by
TILLOTSON.DAVID.III.1109966815
DN: cn=US, ou=U.S. Government, ou=DoD,
ou=PKI, ou=OSD,
o=TILLOTSON.DAVID.III.1109966815
Date: 2017.05.25 12:22:52 -0400

David Tillotson III
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Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

Cathleen A. Berrick, (202) 512-3404 or berrickc@gao.gov

Staff Acknowledgments

In addition to the contact named above, Matt Ullengren (Assistant Director); Bonnie Anderson; Lori Atkinson; Jason Bair; Vincent Balloon; Thomas Baril; Tracy Barnes; Daniel Berg; Margaret Best; Arkelga Braxton; Penney Harwell Caramia; Angela Clowers; Kevin Copping; Alissa Czyz; Timothy DiNapoli; Debra Draper; Gary Engel; Brenda S. Farrell; Gayle Fischer; Gina Flacco; Paul Francis; Brent Helt; Gina Hoffman; Michael Holland; Charles Michael Johnson, Jr.; Mae Jones; Joseph Keener; Asif Khan; Joseph W. Kirschbaum; Brian Lepore; Michele Mackin; Ned Malone; Judith McCloskey; Jacqueline McColl; Valerie Melvin; Zina Dache Merritt; J. Christopher Mihm; Jamilah Moon; Elizabeth Morris; Marcus Oliver; John Pendleton; Natalia Pena; Richard Powelson; Erika Prochaska; William Reinsberg; James Reynolds; Cary B. Russell; Tina Won Sherman; Andrew Von Ah; Shana Wallace; Chris Watson; and Kristy Williams made key contributions to this report.

Appendix V: Accessible Data

Data Tables

Accessible Data for Department of Defense's (DOD) Military and Civilian Pay and Benefits, Fiscal Year 2016

- Department of Defense's (DOD) enacted fiscal year 2016 budget represents the base budget only and excludes funding for overseas contingency operations.
- Total military and civilian pay and benefit funding accounted for 48 percent of DOD's base budget in fiscal year 2016. Military pay and benefit funding includes defense health program funding, military personnel appropriations, and other benefit programs.
- Enacted budget \$521.7 billion
 - Total pay and benefits funding \$249.3 billion
 - Military pay and benefits \$177.5 billion
 - Civilian pay and benefits \$71.8 billion

Accessible Data for Figure 10: The Department of Defense's (DOD) Funding for Military and Civilian Pay and Benefits, Fiscal Year 201

- Department of Defense's (DOD) enacted fiscal year 2016 budget represents the base budget only and excludes funding for overseas contingency operations.
- Total military and civilian pay and benefit funding accounted for 48 percent of DOD's base budget in fiscal year 2016. Military pay and benefit funding includes defense health program funding, military personnel appropriations, and other benefit programs.
- Enacted budget \$521.7 billion
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- Civilian pay and benefits \$71.8 billion

Agency Comment Letter

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

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