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Analysis of the FY 2017 Defense Budget

AUTHOR

Todd Harrison

A Report of the
CSIS INTERNATIONAL
SECURITY PROGRAM'S
DEFENSE OUTLOOK
SERIES



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| Acknowledgments

Late in 2015 CSIS initiated an annual series of studies on the dynamics and linkages of strategy, budgets, forces, and acquisition. The series can be found at <http://defense360.csis.org/>. As part of this series, this report examines the trends, issues, and opportunities in the FY 2017 defense budget. Mark Cancian is simultaneously publishing a paper on the force structure implications of the budget request.

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1 | Summary of Defense-Related Funding

The Obama administration's FY 2017 budget—the eighth and final budget submitted by the administration—requests a total of \$619.5 billion in funding for national defense. This includes \$523.9B in the base Department of Defense (DoD) discretionary budget, \$7.9 billion in mandatory DoD funding, and \$58.8 billion in supplemental funding for Overseas Contingency Operations (OCO). It also includes \$20.5 billion for atomic energy programs and \$8.4 billion in other defense-related activities funded outside of the DoD budget but still within the total national defense section of the budget.

Beyond the national defense budget, the request includes defense-related funding in several other areas: \$179.2 billion in veterans benefits and services funded primarily through the Department of Veterans Affairs; \$83.4 billion in amortization payments for unfunded liabilities in the military retirement and military retiree healthcare trust funds paid by the Treasury; and \$22.8 billion in tax expenditures for military and veterans pay and benefits not subject to federal taxes. Including these costs, total defense-related expenses in the FY 2017 request sum to \$905 billion, or 21 percent of the total federal budget.

Table 1: Summary of Defense-Related Funding in the FY 2017 Request

<i>(All figures in then-year dollars)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
DoD (base discretionary)	\$521.7B	\$523.9B	\$556.7B	\$564.8B	\$570.4B	\$585.2B
DoD (base mandatory)	\$6.8B	\$7.9B	\$8.0B	\$8.0B	\$7.8B	\$7.9B
DoD (OCO)	\$58.6B	\$58.8B				
Atomic Energy Defense Activities	\$20.0B	\$20.5B	\$19.6B	\$20.2B	\$20.6B	\$21.1B
Other Defense-Related Activities	\$8.3B	\$8.4B	\$9.9B	\$9.3B	\$9.4B	\$9.6B
Veterans Benefits and Services	\$164.4B	\$179.2B	\$183.4B	\$194.7B	\$203.2B	\$211.7B
Amortization of Unfunded Liabilities	\$82.6B	\$83.4B	\$85.5B	\$88.5B	\$91.6B	\$94.8B
Tax Expenditures	\$23.1B	\$22.8B	\$23.4B	\$24.3B	\$25.3B	\$26.3B
<i>Total Defense-Related</i>	<i>\$885.5B</i>	<i>\$904.8B</i>	<i>\$886.5B</i>	<i>\$909.8B</i>	<i>\$928.3B</i>	<i>\$956.7B</i>

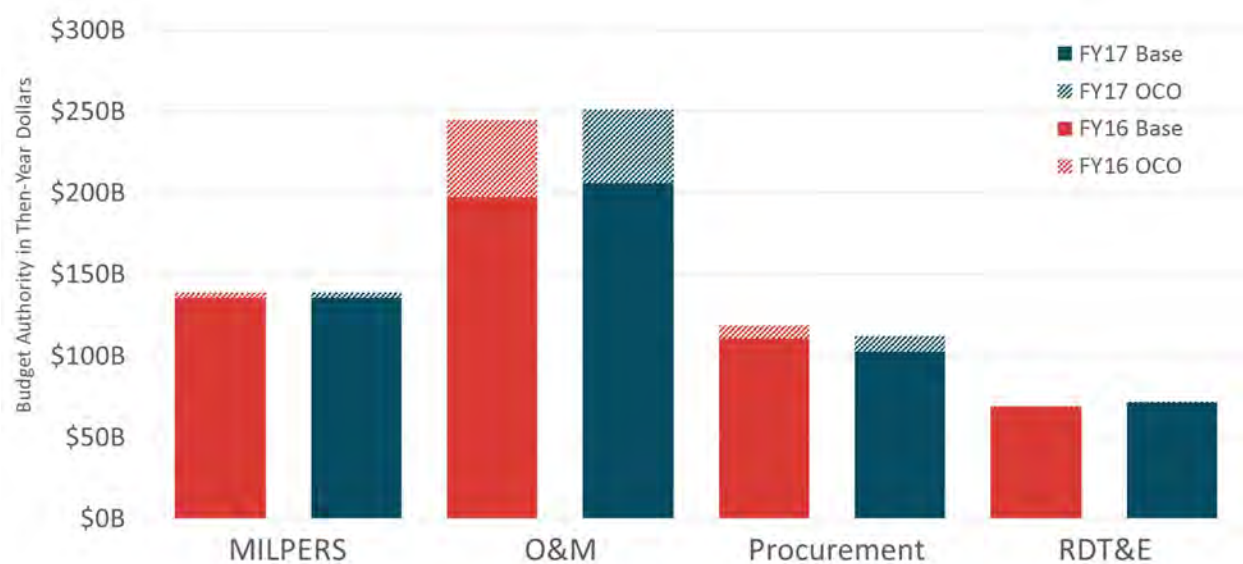
This report analyzes the FY 2017 defense budget request looking at trends in the budget, differences from previous requests, and key issues for policymakers as they consider the budget and begin looking to the next administration. The first chapter provides an overview of the request, including each of the items mentioned above, and looks at historical trends in the overall level of defense spending from different perspectives. The second chapter focuses exclusively on the DoD portion of the budget request, providing an in-depth look at the major accounts within the budget and each of the Services' budgets. The final chapter explores overall trends and issues in the defense budget, highlighting the strategic choices made (and not made) in the FY 2017 request.

Base DoD Budget

The FY 2017 base DoD budget request is \$523.9 billion in discretionary funding, which is slightly more than Congress enacted in FY 2016 but a decline of 1.3 percent when adjusted for inflation.¹ This level of funding is consistent with the Budget Control Act of 2011 (BCA) budget caps as amended by the Bipartisan Budget Act of 2015 (BBA 2015). The budget also includes \$7.9 billion in mandatory funding for DoD, which primarily funds the concurrent receipt of military retirement pay for personnel who also qualify for a veterans disability pension.

When compared to the FY 2016 enacted level of funding, the FY 2017 request makes a few notable shifts in how funding is allocated. It increases funding for operation and maintenance (O&M) and research, development, test, and evaluation (RDT&E), reduces procurement funding, and holds military personnel (MILPERS) accounts roughly steady when compared to FY 2016, as shown in Figure 1.

Figure 1: Comparison of FY 2016 Enacted and FY 2017 Requested Funding by Title

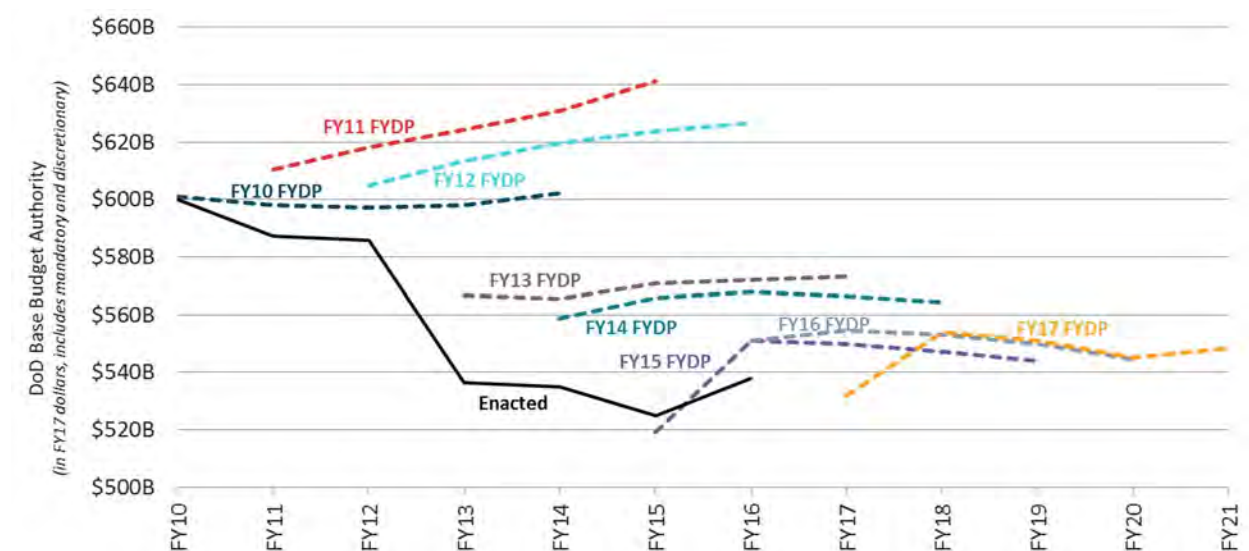


The five-year projection included with the budget request, known in DoD as the future years defense program (FYDP), is fairly consistent with the past two budget requests. It projects that DoD's base budget will grow from FY 2017 to FY 2018 by 4.2 percent in real terms and then remain relatively flat through FY 2021. The recent stability in FYDP projections follows a period of significant changes in the annual requests from FY 2010 to FY 2014, as shown in Figure 2. The FY 2011 FYDP, for example, projected that DoD's base budget (including discretionary and mandatory funding) would reach \$620 billion

¹ All adjustments for inflation in this report use OMB's Chained GDP Price Index as published in Table 10-1 of the FY 2017 Budget Request, <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2017/assets/hist10z1.xls>.

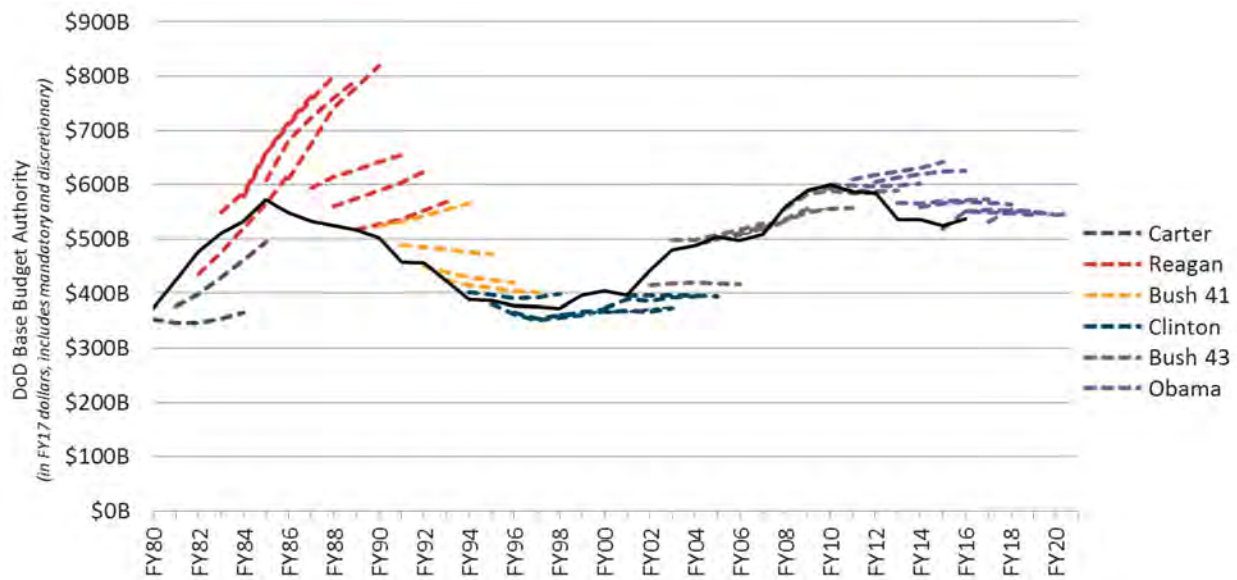
in Y 2015 (\$641 billion in FY 2017 dollars), but the actual level of funding enacted for FY 2015 was \$113 billion less—an 18 percent reduction from the FY 2011 FYDP projection.

Figure 2: Comparison of DoD FYDP Projections in the FY 2010 to FY 2017 Budget Requests



The fluctuations in DoD’s FYDP over the past eight years are not unusual. As shown in Figure 3, the FYDP has traditionally been a lagging indicator of the budget’s trajectory, particularly during drawdowns. In the previous defense drawdown that started in FY 1986, for example, the Defense Department submitted plans in its budget requests projecting future growth year after year, even as the budget was declining. DoD did not begin planning for a declining budget until the FY 1991 request— six years after the drawdown began and the second budget request submitted by the George H. W. Bush administration. Even this request, however, did not fully anticipate how much the budget would decline through the mid-1990s. The current drawdown appears to be following a similar pattern. The FYDP is ultimately an expression of administration policy, not a predictor of the future. Rather than showing what the budget level is likely to be in future, the FYDP indicates the level of funding DoD estimates it will need for the force size and capabilities it is planning.

Figure 3: FYDP Budget Projections versus Enacted Budget



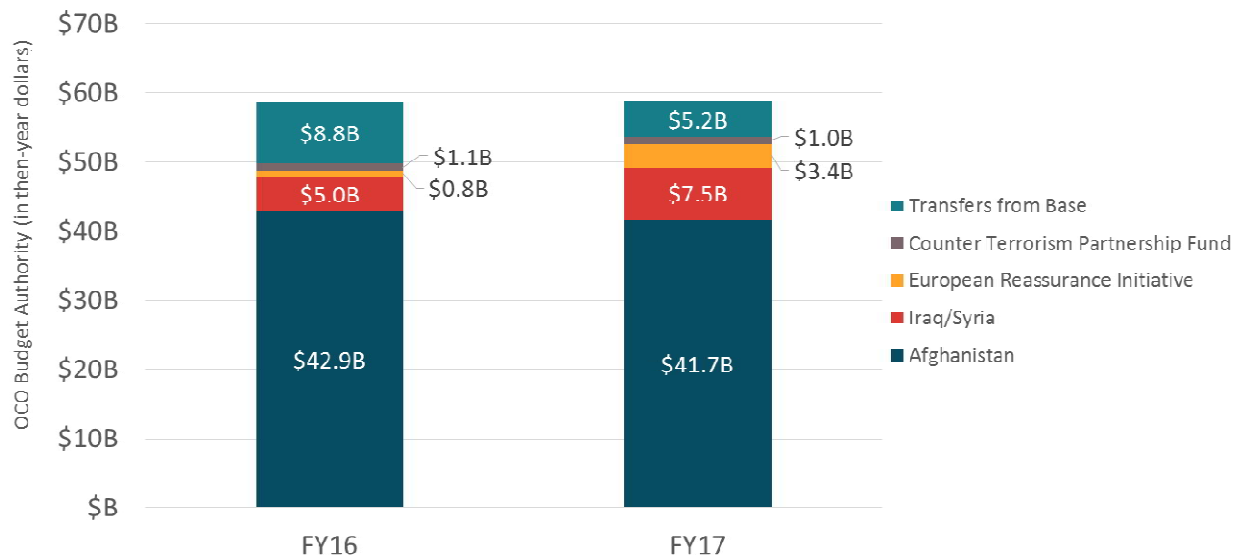
Overseas Contingency Operations Budget

The request also includes \$58.8 billion in supplemental OCO funding, the same level Congress enacted for FY 2016. Because OCO funding does not count toward the BCA budget caps, it has become a convenient tool for Congress and DoD to add defense funding without breaching the budget caps.² The FY 2017 OCO request includes \$41.7 billion for Operation Freedom's Sentinel (OFS) in Afghanistan, \$7.5 billion for Operation Inherent Resolve (OIR) and related missions in Iraq and Syria, \$3.4 billion for the European Reassurance Initiative (ERI), and \$1.0 billion in the Counter Terrorism Partnerships Fund, as shown in Figure 4. The remaining \$5.2 billion in the OCO request is explicitly used for base budget requirements.³

² The BCA stipulates that the budget caps are automatically increased by the amount of supplemental war-related funding enacted by Congress, which effectively means that OCO funding does not count toward the budget caps.

³ Office of the Under Secretary of Defense (Comptroller), *Defense Budget Overview: United States Department of Defense Fiscal Year 2017 Budget Request* (Washington, DC: DoD, February 2006), 7-1.

Figure 4: Comparison of OCO Funding by Activity in FY 2016 and FY 2017



The fraction of the OCO request explicitly identified as being used for the base budget, however, does not tell the entire story. Since it became clear that the BCA budget caps would not be repealed, both DoD and Congress have migrated costs from the base budget to the OCO budget. New activities that have emerged since then, such as operations against the Islamic State in Iraq and Syria and the European Reassurance Initiative, have also been funded in OCO. The guidelines for what constitutes appropriate use of OCO funding are set by OMB, and the most recent update occurred in 2010 before the BCA was enacted.⁴ These guidelines are not binding in any way on Congress, and they are only enforceable within the executive branch to the extent that OMB is able to police DoD's use of OCO.

While congressional transfers from base to OCO have been somewhat explicit in the appropriations bills, DoD's base-to-OCO transfers are not as transparent. These transfers appear to have largely occurred within funds DoD identifies as related to operations in Afghanistan. When analyzing DoD's reported costs for operations in Afghanistan and the average number of troops deployed in each associated year, as shown in Figure 5, two distinct trend lines emerge. The data for FY 2005 to FY 2013, shown in blue, reveals a consistent relationship between the cost of operations and the size of the deployed force.⁵ During this period, the variable cost per service member averaged \$1.2 million annually with fixed costs (i.e., costs that do not vary with the number of deployed service members) of roughly \$7 billion annually, as indicated by the y-axis intercept of the trend line. The existence of fixed costs is not surprising because some war-related costs, such

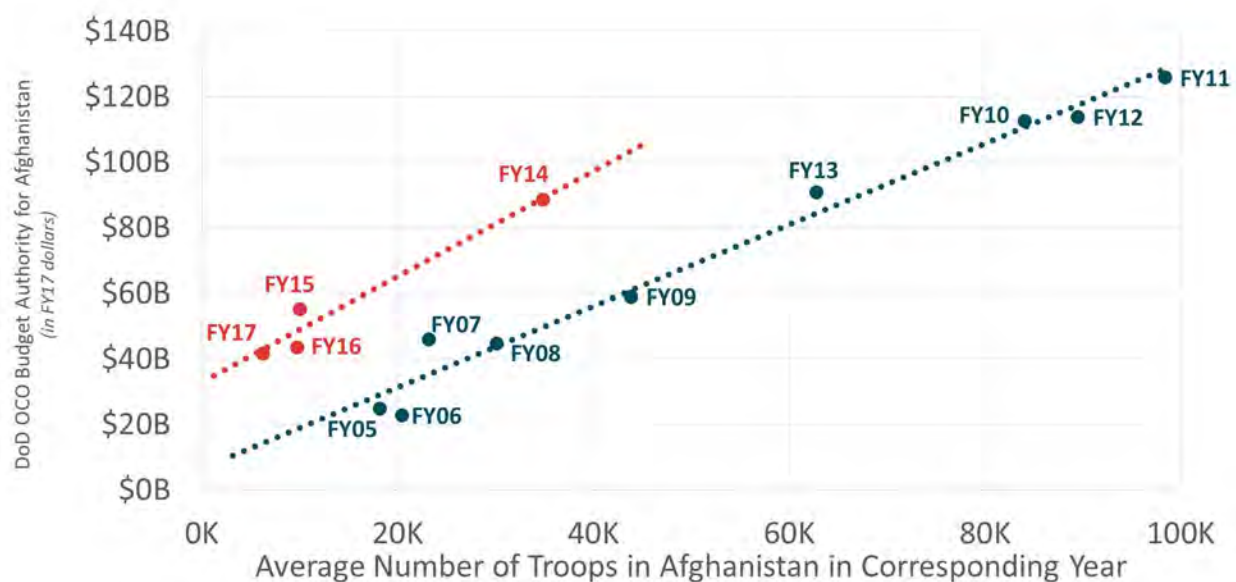
⁴ Letter from Steve Kosiak, Associate Director of the Office of Management and Budget, to Robert Hale, Under Secretary of Defense (Comptroller), September 9, 2010, <http://asafm.army.mil/Documents/OfficeDocuments/Budget/Guidances/omb-gd.pdf>.

⁵ Force level data for Afghanistan is not available for FY 2003 and FY 2004.

as support for Afghan forces and ongoing intelligence operations, should not vary with the number of U.S. forces deployed.

From FY 2014 to present, however, costs have scaled according to a separate trend line, shown in red. The cost per service member is now averaging \$1.6 million annually, similar to before, but the fixed costs are significantly higher at roughly \$32 billion annually. In other words, \$32 billion of the \$42 billion in Afghanistan-related funding for FY 2017 does not appear to vary with the number of troops in Afghanistan. For comparison, the level of funding requested in FY 2017 for Afghanistan (\$42 billion) is slightly less than the level enacted for FY 2008 (\$45 billion in FY 2017 dollars), but the force level at that time was nearly five times as large as the 6,200 average force level projected for FY 2017. The increase of \$25 billion in “fixed” costs since FY 2014 suggests that DoD has moved items previously funded in the base budget to the OCO request for Afghanistan. DoD implicitly acknowledged this fact in last year’s budget request by proposing to migrate “enduring costs currently funded in the OCO budget to the base budget.”⁶ The FY 2017 request does not include this proposal.

Figure 5: Funding for Afghanistan versus the Number of Service Members Deployed



Other National Defense Funding

The national defense section of the budget, known as the 050 budget function, also includes funding for defense activities in other government agencies. The FY 2017 request includes \$20.5 billion of non-DoD funding for atomic energy programs, primarily through the Department of Energy. Within the budget for atomic energy programs, the National Nuclear Security Administration (NNSA) receives the largest amount, some

⁶ Office of the Under Secretary of Defense (Comptroller), *Defense Budget Overview: United States Department of Defense Fiscal Year 2016 Budget Request* (Washington, DC: DoD, February 2015), 7-9.

\$12.9 billion. NNSA's budget is used for nuclear-related defense activities, including the maintenance and modernization of the nation's nuclear arsenal; nuclear nonproliferation activities; and the development, production, and maintenance of nuclear reactors for the Navy's fleet of nuclear-powered aircraft carriers and submarines. An additional \$6.2 billion is budgeted for environmental cleanup from prior nuclear weapons activities, \$1.1 billion for nuclear workers' compensation programs, and \$0.3 billion for other activities.

The request also contains \$8.4 billion in funding for defense-related activities in other agencies. This includes \$5.0 billion for defense-related activities in the Federal Bureau of Investigation (FBI), such as bomb forensics, and \$1.9 billion for the Department of Homeland Security support to DoD, specifically to the U.S. Coast Guard, Federal Emergency Management Agency (FEMA), and the National Protection and Programs Directorate. It also includes \$0.5 billion for the Intelligence Community Management Account and \$0.5 billion for the Central Intelligence Agency Retirement and Disability System Fund.

Comparison to Budget Control Act Budget Caps

The BCA budget caps for defense apply to the total base discretionary national defense budget. When supplemental OCO funding and mandatory funding are excluded, the total national defense budget in the FY 2017 request comes to \$551.1 billion. This level of funding is equal to the BCA budget caps as revised by the BBA 2015 budget deal, and would therefore not trigger sequestration if enacted as proposed. However, the projected level of national defense funding exceeds the BCA budget caps by a cumulative \$113 billion from FY 2018 to FY 2021, as shown in Figure 6. If future budgets are enacted at these levels without also revising the budget caps, it will trigger sequestration each year and automatically cut the level of funding to the level of the budget caps.

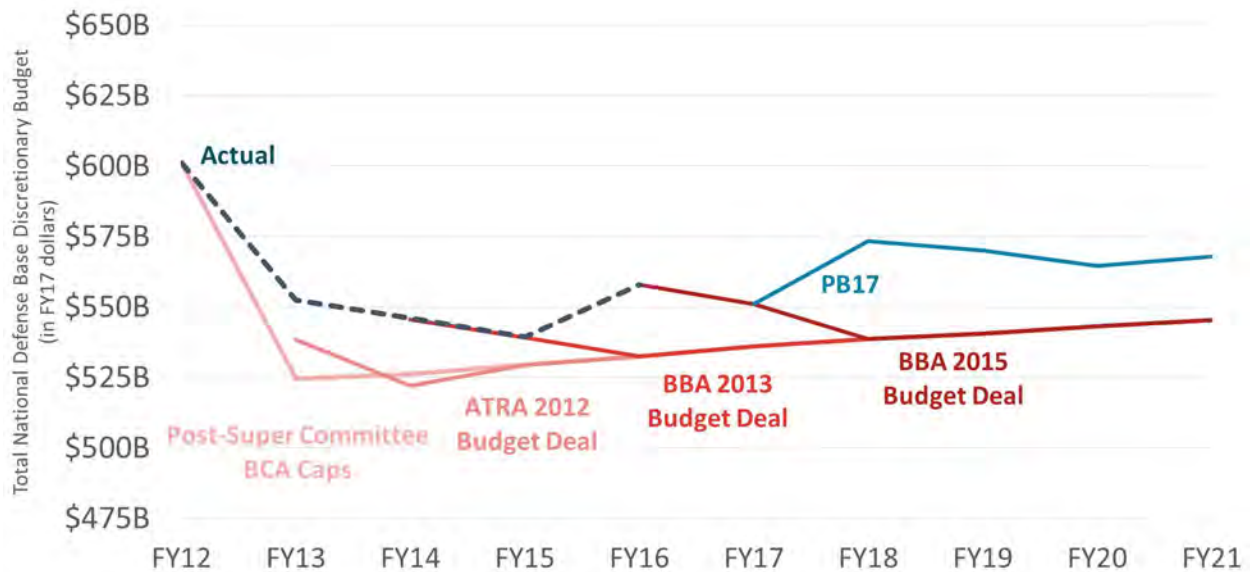
In submitting a FYDP that exceeds the budget caps, the administration is implicitly assuming that budget deals will be reached in the future (beyond the tenure of this administration) that will raise or eliminate the budget caps. This assumption is (arguably) realistic considering that the budget caps have been modified from their original level three times since they were enacted. The first adjustment to the budget caps was in January 2013 with the passage of the American Taxpayer Relief Act (ATRA). This act raised the defense budget cap by roughly \$13 billion for FY 2013.⁷ Following the 16-day government shutdown in October 2013, Congress passed the Bipartisan Budget Act of 2013 (BBA 2013). This two-year budget deal increased the budget caps for defense by \$22 billion in FY 2014 and \$9 billion in FY 2015, and Congress complied with the levels in this deal for both years.⁸ Following the surprise resignation of House Speaker John

⁷ U.S. Congress, Senate Committee on Finance, *Summary of Provisions in the American Taxpayer Relief Act of 2012*, 20, <http://www.finance.senate.gov/legislation/download/?id=1d20ea4a-bf7e-41f5-9fb9-94ff6a721016>.

⁸ U.S. Congress, House Committee on Budget, *Summary of the Bipartisan Budget Act of 2013*, December 10, 2013, 1, <http://budget.house.gov/uploadedfiles/bba2013summary.pdf>.

Boehner in October 2015, Congress passed the BBA 2015 budget deal. Similar to the BBA 2013, this two-year deal increases the defense budget caps by \$25 billion in FY 2016 and \$15 billion in FY 2017. Unlike BBA 2013 and ATRA, the BBA 2015 budget deal explicitly includes OCO funding, effectively boosting the defense budget by another \$8 billion in FY 2016.⁹

Figure 6: Base Discretionary National Defense Budget Request Compared to BCA Budget Caps as Amended



A major point of disagreement in the budget debate so far this year has been the interpretation of the BBA 2015 deal as it pertains to OCO funding in FY 2017. The deal stipulates that the level of OCO funding for FY 2017 should be at least as much as was enacted in FY 2016, although it did not include an enforcement mechanism for this. Some Republicans argue that the intent was to use OCO funding to offset the reduction in the base national defense budget compared to what was previously projected.¹⁰ The FY 2016 request projected a total base discretionary national defense budget of \$573 billion in FY 2017 and the House Budget Resolution projected \$574 billion, but the BBA 2015 deal only allows \$551 billion. The \$23 billion difference between the House Budget Resolution and the BBA 2015 level of funding, they argue, should be included in the \$59 billion OCO request for DoD, leaving approximately \$36 billion for actual OCO expenses. Their position is that any additional funding DoD requests for war-related activities above \$36 billion should be accommodated by increasing the OCO request above the level stipulated in the deal, which is not prohibited by the BBA 2015. The administration, on the other hand, argues that it is keeping to the terms of the deal by requesting \$59 billion in OCO funding for DoD, of which \$5.2 billion is expressly noted as being for base budget

⁹ U.S. Congress, House Committee on Budget. *Summary of the Bipartisan Budget Act of 2015*, 1–2, <http://docs.house.gov/meetings/RU/RU00/CPRT-114-RU00-D001.pdf>.

¹⁰ Letter from House Armed Services Committee Chairman to House Budget Committee Chairman Tom Price on February 5, 2016, <http://breakingdefense.com/2016/02/hasc-chair-signals-push-for-more-oco-funding/>.

activities, and that increasing DoD's OCO request beyond \$59 billion would not be consistent with the overall budget agreement.

The BBA 2015 budget deal and the defense budget debate in Congress so far this session have made clear that the distinction between base and OCO funding has largely become meaningless. The FY 2017 OCO request, for example, includes \$5.2 billion explicitly marked for base budget activities and an estimated \$25 billion in additional base budget funding labeled as being for Operational Freedom's Sentinel. This means that roughly half of the OCO budget is being used for base budget activities—that is, funding that is not the incremental cost of ongoing military operations. Both Congress and DoD have increasingly treated OCO funding as a safety relief valve for the base budget, using it to fund activities that cannot fit within the base budget caps. While this is not prohibited by law, it circumvents the regular appropriations process and the intended use of supplemental funding to cover costs that could not be anticipated during the normal budget development process. Moreover, it overstates how much the base budget has been reduced since the BCA was enacted.

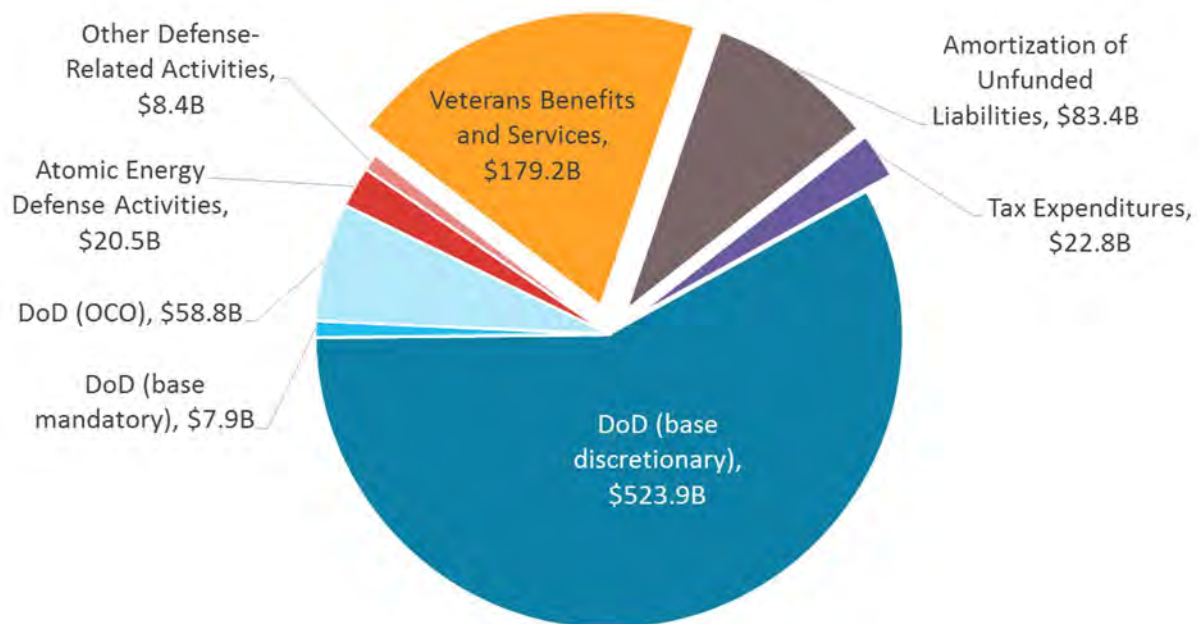
Other Defense-Related Funding

Beyond the national defense budget, the request also includes defense-related funding in other government agencies. As shown in Figure 7, other defense-related expenditures outside of the national defense budget total \$285 billion in FY 2017. The administration requests \$179.2 billion for veterans' benefits and services, a real increase of 7.1 percent above the FY 2016 level of funding. Of this total, \$75.3 billion is discretionary funding and falls under the nondefense side of the budget for the purposes of the BCA budget caps. The remaining \$103.8 billion is mandatory funding, meaning it does not require an annual appropriation by Congress and does not count toward the BCA budget caps. The fastest-growing area within veterans' benefits and services is education, training, and rehabilitation, which grows by 12.4 percent in real terms from FY 2016 to 2017 and includes benefits such as the Post-9/11 GI Bill. The largest share of the veterans' budget (\$86.9 billion) is for income security, which grows by 9.8 percent in real terms. Under the Obama administration, total funding for veterans' benefits and services has grown by 63 percent, adjusting for inflation, from FY 2009 to the FY 2017 request, and funding is projected to continue growing to \$212 billion annually by FY 2021.

The Military Retirement Fund is used to make pension payments to qualifying military retirees and their survivors. Since its inception, the trust fund has maintained an unfunded liability, primarily due to retirement benefits earned by service members before the fund was created and retroactive changes to retirement benefits after the fund was created. To pay down this unfunded liability, the U.S. Treasury makes annual amortization payments into the fund that are not included in DoD's budget. These payments total \$81.5 billion in FY 2017 and are projected to grow to \$92.7 billion by FY 2021. The Treasury maintains a similar trust fund to pay for the TRICARE for Life benefit that covers Medicare-eligible military retirees. Because the benefit was made retroactive

to include retirees that served prior to its enactment in 2001, this fund also began with an unfunded liability. The annual Treasury payment to cover this unfunded liability is \$1.9 billion in FY 2017.

Figure 7: Total Defense-Related Funding in the FY 2017 Request Is \$905 Billion



The federal budget also includes tax expenditures, which are lost revenue to the Treasury due to exemptions and exceptions in the tax code. Military personnel, for example, do not pay federal taxes on allowances for housing and subsistence or on pay when deployed in a qualifying combat zone. Veterans' benefits also receive special treatment in the tax code, with exemptions for disability compensation, pensions, and GI bill educational benefits. Tax expenditures for military personnel and veterans' benefits total \$13.2 billion and \$9.6 billion, respectively, for FY 2017. By FY 2021, these tax expenditures are expected to grow to \$15.0 billion for military personnel and \$11.4 billion for veterans' benefits.

How Much Is Enough?

The perennial debate over the defense budget is often about how much funding is required to meet the nation's security needs, a concept best summarized in the title of Enthoven and Smith's 1971 book, *How Much Is Enough?* Defining the nation's security needs and determining what forces and capabilities are sufficient to meet these needs is no small task. Moreover, there is not always a clear consensus about the nation's security needs or the proper mix of forces and capabilities to meet those needs. Alternative concepts of operation, for example, can use different forces and capabilities to meet the same strategic objectives. Thus, the debate often turns into how much was enough in the past?

Three approaches are commonly used to compare the current level of defense spending to historical levels: defense spending in inflation-adjusted dollars, defense spending as a percentage of total federal spending, and defense spending as a percentage of gross domestic product (GDP). The latter two methods are often used to make the case that the current level of spending is low by historical standards, and the former is often used to show that defense spending remains relatively high by historical standards. All three methods are shown here because each serves a different purpose, and together they provide a more complete understanding of the current level of defense spending. Outlays are used in this section of the report for consistency (rather than budget authority) because outlays provide a more direct comparison to GDP.

Adjusting the defense budget for inflation can be controversial. The measure of inflation used (i.e., the deflator) has a significant effect on the result, particularly the farther back in time one looks. OMB uses the chained GDP price index, which is a broad measure of inflation in the overall economy. Unlike the rest of the federal government, DoD uses its own metric for inflation when reporting historical budget data. While DoD's unique deflator accounts for differences in the products and services DoD buys, the most significant difference is how it accounts for labor costs. DoD's deflator counts some of the cost growth in military and civilian compensation as inflation. This difference primarily affects the MILPERS and O&M accounts that fund military and civilian compensation. Because the defense deflator effectively masks some of the growth in personnel costs, this report uses the GDP deflator throughout unless otherwise noted.

Figure 8: Total National Defense Outlays FY 1945 to FY 2017 Adjusted for Inflation

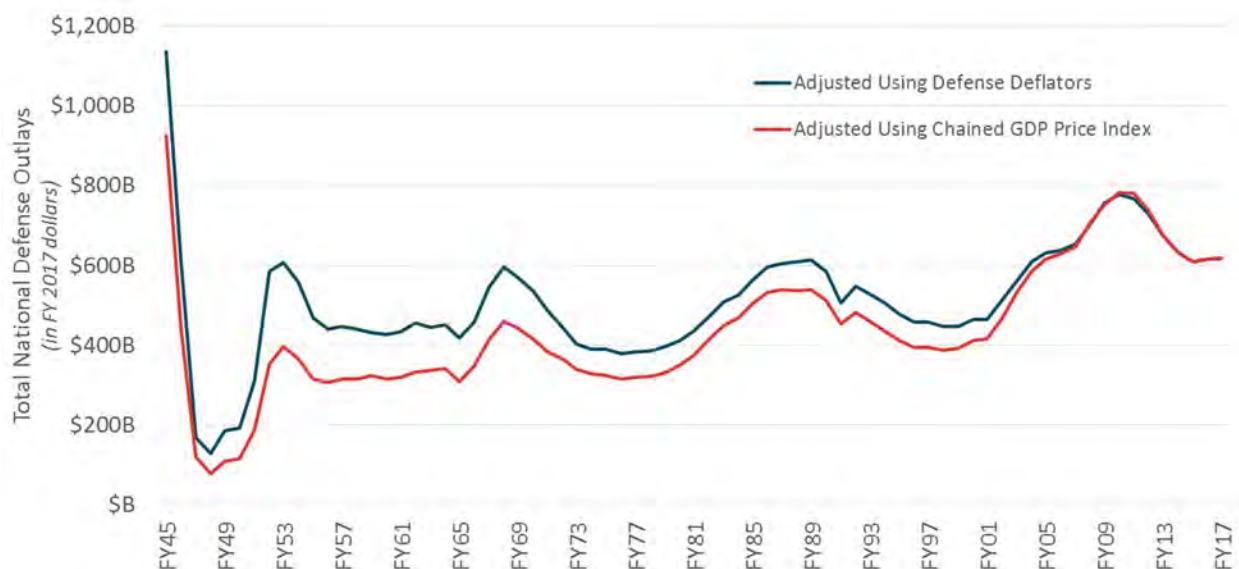
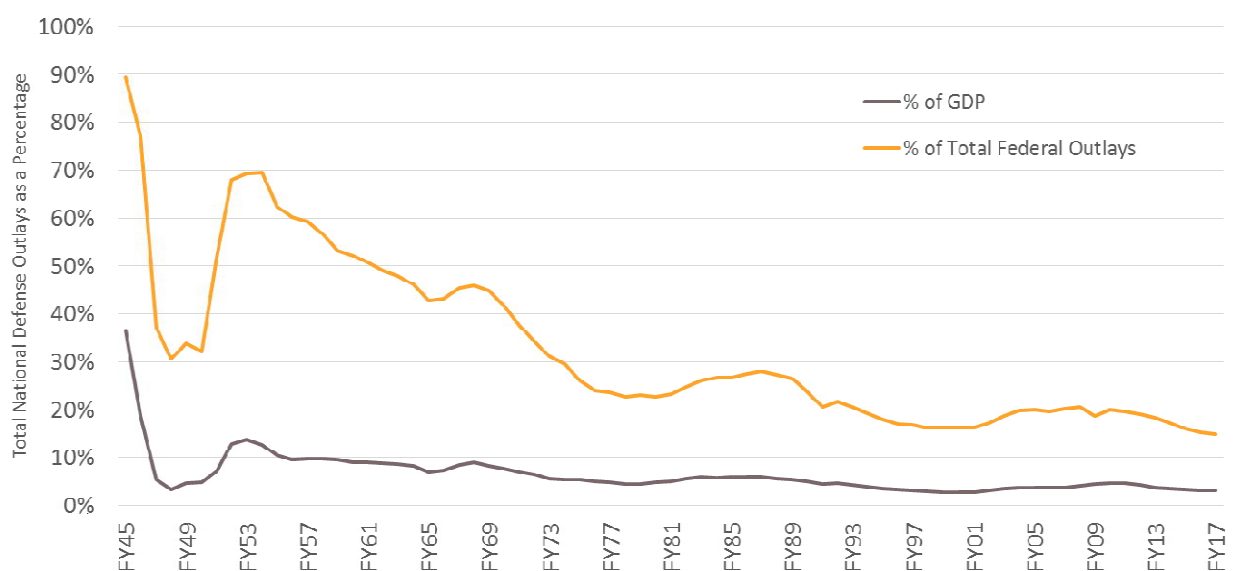


Figure 8 shows total national defense outlays adjusted for inflation using both the GDP price index and defense deflators. The difference between the two lines widens the farther into the past one looks, but the overall trends in the defense budget hold true regardless of how one accounts for inflation. The level of defense spending now,

including OCO funding, remains at or near the peak of the Reagan buildup in the 1980s and the previous peaks during the Korean and Vietnam Wars. By this measure, defense spending remains at a high level relative to the post–World War II average of \$435 billion (using the GDP deflator) or \$507 billion (using the defense deflator).

However, when viewed either as a percentage of the total federal budget or as a percentage of GDP, as shown in Figure 9, current defense spending is at a relatively low level by historical standards. Total national defense outlays in FY 2017 are projected to be 15 percent of total federal spending and 3.2 percent of GDP. This compares to a post–World War II average of 31 percent of federal spending and 5.9 percent of GDP.

Figure 9: Total National Defense Spending as a Percentage of GDP and the Federal Budget



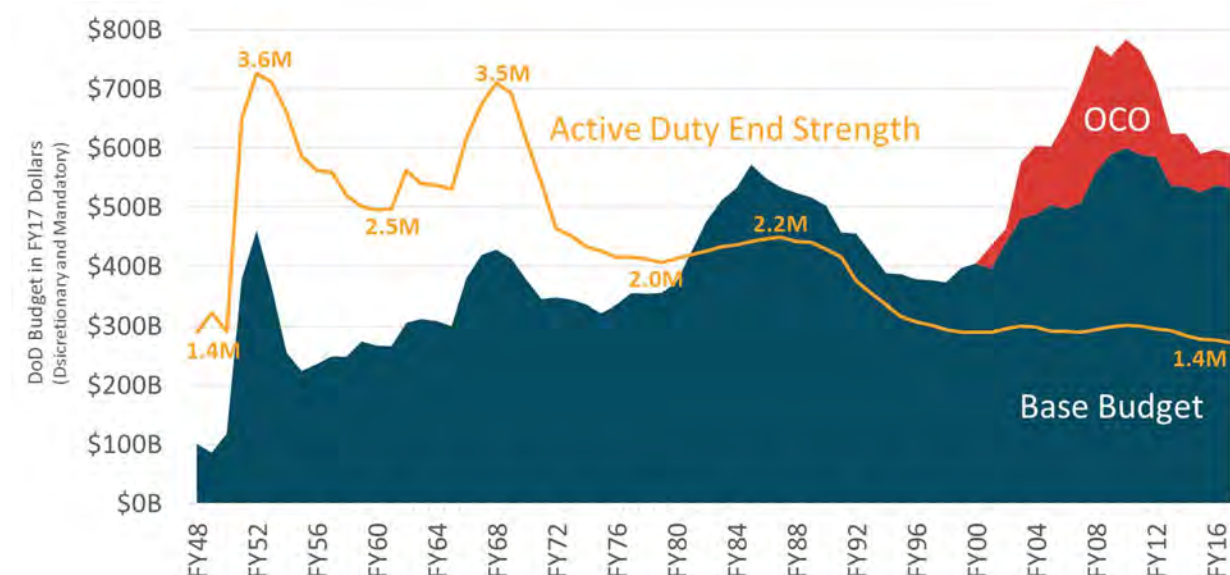
The apparent discrepancy between the defense budget being at a relatively high level in inflation-adjusted dollars but not as percentage of total federal spending or GDP is due primarily to growth in the overall federal budget and the economy. In periods when the federal budget and GDP grow faster than the defense budget, the percentage of each going to defense declines even though the defense budget may be growing in real terms. Therefore, the lower level of defense spending as a percentage of the federal budget and GDP currently observed does not mean the United States is spending less on defense. Rather, it merely indicates that a proportionately smaller share of the economy and the overall federal budget is being used for defense than in the past.

2 | Trends and Changes in DoD's Request

DoD's portion of the overall defense-related budget directly supports the forces and capabilities of the U.S. military. In the past, DoD's budget rose and fell in sync with changes in the size of the force. During the Korean War, for example, the defense budget grew by more than fivefold in just three years, and the size of the force swelled to 3.6 million in active service. In the Vietnam War, a similar budget and force structure cycle occurred, both peaking at slightly below the highs reached in the Korea War. Following Vietnam, Congress ended the draft and the U.S. military transitioned to an all-volunteer force. This meant that DoD would have to offer a more competitive compensation package to recruit volunteers into the junior ranks for positions that had previously been filled by draftees and draft-induced volunteers.

In the Reagan buildup of the early-1980s, the relationship between the size of the budget and the size of the force began to change. While the budget grew by 78 percent in real terms from the trough of FY 1975 to the peak of FY 1985, much of the increase was used to modernize DoD's inventory of equipment. The size of the force, as measured in active end strength, increased only slightly from 2.0 million to 2.2 million. At the end of the Cold War, the size of the force declined gradually to 1.4 million—the lowest level since the end of World War II—and the budget declined by 35 percent in real terms.

Figure 10: DoD Budget Authority and Active End Strength, FY 1948 to FY 2017



The Post-9/11 budget cycle is fundamentally different because the base budget grew to roughly the same level (adjusting for inflation) as the peak of the Reagan buildup, yet the size of the force did not grow appreciably. The Army and Marine Corps added some

100,000 personnel to support deployments to Iraq and Afghanistan in the late-2000s, but these increases were largely offset by cuts in Navy and Air Force personnel levels.¹¹ Despite the force not growing during the buildup, when the budget began to decline from its FY 2010 peak, end strength began to decline as well. By nearly every measure of force structure—the number of brigades, aircraft, ships and subs, marine battalions, and end strength—the force of FY 2017 is smaller than when the buildup began. Yet this smaller force consumes a budget more than 50 percent larger in real terms than before 9/11. The military is spending more for a smaller force.

While the capabilities of the force may be improving—a subjective assertion that is difficult to test—size still matters for many types of military operations, ranging from peacetime presence missions that reassure allies and deter aggression to counterinsurgency and stabilization operations that require large forces over long periods of time. The twin challenges in the current budget environment are: 1) to arrest the drivers of cost growth and 2) to find more effective ways of operating with a smaller force. This chapter takes a deeper look inside the DoD budget to identify the major sources of cost growth in the DoD budget and analyze the FY 2017 request in terms of how it would alter, continue, or disrupt current budget trends.

Personnel

Nearly half of the DoD budget is used for military and civilian compensation costs. The FY 2017 request includes \$188.9 billion in military personnel-related costs for 1,281,900 active and 801,200 guard and reserve personnel. It also includes \$80.8 billion for 763,975 civilian full time equivalents (FTEs), some 619 of which are funded in the OCO budget.¹² Contractors are also a significant part of DoD's workforce, particularly service support contractors, but contractor personnel levels and compensation are not set by statute. DoD has only recently begun to collect reliable data on the numbers of contractors and the services they perform. For these reasons, contractor personnel are not included in this section of the report.

Military Personnel

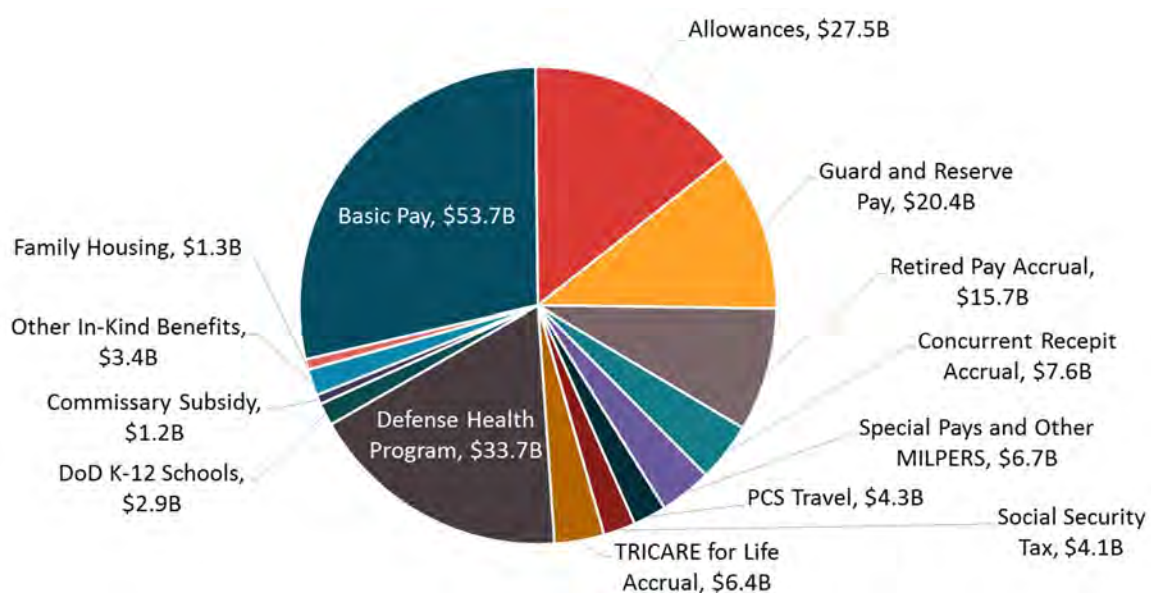
Most of the military personnel-related funding in the DoD budget is in MILPERS accounts. Total MILPERS funding in the request is \$146.4 billion, which includes \$7.6 billion in mandatory funding and \$3.6 billion in OCO funding. MILPERS accounts fund basic pay, allowances for housing and subsistence, accrual payments to the military retirement fund, and other forms of cash, in-kind, and deferred compensation. Beyond MILPERS accounts, the budget also requests \$1.3 billion for Family Housing, \$33.7 billion for military healthcare through the Defense Health Program, \$2.9 billion for DoD-operated K-12 schools, \$1.2 billion in subsidies for the Commissary system, and \$3.4

¹¹ Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY 2017* (Washington, DC: DoD, February 2016), 259–60.

¹² Office of the Under Secretary of Defense (Comptroller), *Operation and Maintenance Overview: Fiscal Year 2017 Budget Estimates* (Washington, DC: DoD, February 2006), 294–5.

billion for other in-kind benefits such as childcare.¹³ As shown in Figure 11, more than 53 percent of DoD’s military personnel-related funding is used for noncash and deferred compensation. In comparison, noncash and deferred compensation account for only 20 percent of total compensation costs in the private sector, meaning DoD’s compensation system is weighted more heavily toward healthcare and retirement benefits than private sector compensation.¹⁴

Figure 11: Military Personnel-Related Costs in the FY 2017 DoD Budget Request



The request proposes a number of policy changes that affect military personnel costs. It continues the Army’s planned reduction in active component forces, funding an end strength of 460,000 in FY 2017 and 450,000 each year thereafter. The Marine Corps and Air Force hold their end strengths steady at the current level of 182,000 and 317,000, respectively, throughout the FYDP. However, the Air Force submitted an unfunded request after the budget was released to increase its end strength to 321,000 in FY 2017. The Navy proposes cutting its active end strength by 1.3 percent to 322,900 in FY 2017 and averaging 323,300 for the remainder of the FYDP.

Beyond the size of the force, the request also proposes several changes to pay and benefits that would reduce costs. It includes a 1.6 percent across-the-board increase for basic pay, which is less than the 2.1 percent increase in the Employment Cost Index (ECI) pay raises are normally intended to track.¹⁵ This would save a modest \$0.3 billion in FY 2017, but when combined with projected lower pay raises throughout the FYDP it would

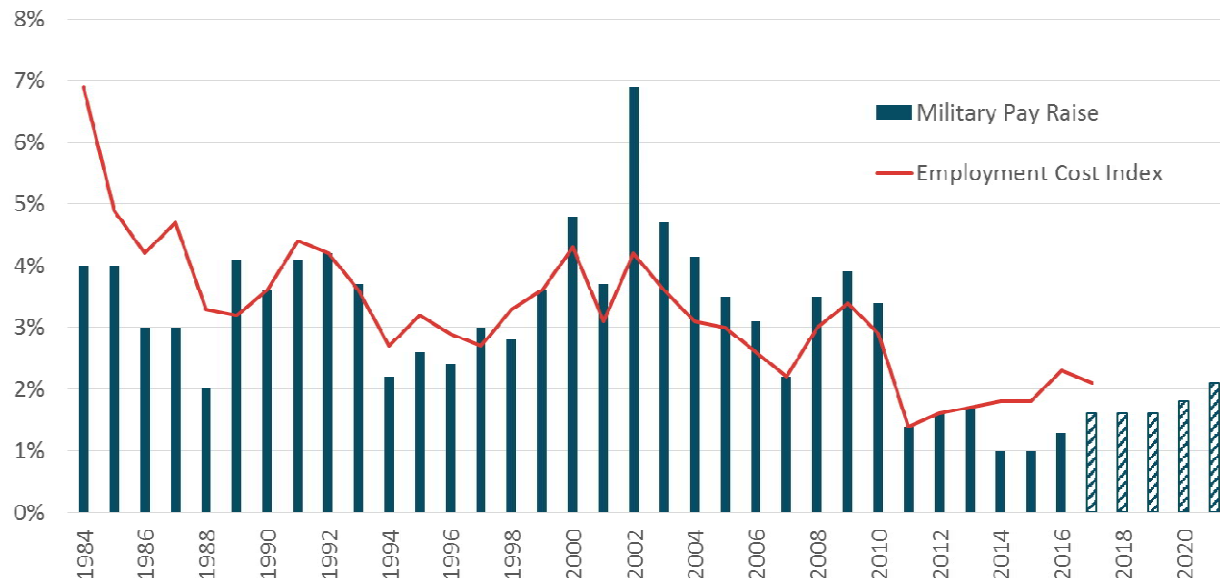
¹³ Office of the Under Secretary of Defense (Comptroller), *Defense Budget Overview: United States Department of Defense Fiscal Year 2017 Budget Request*, 6-2.

¹⁴ Bureau of Labor Statistics, “Employer Costs for Employee Compensation,” news release, March 10, 2016.

¹⁵ Pay raises are compared to the ECI for private industry workers for the 12-month period ending in September for the year before the budget is submitted (two years before to the fiscal year of the budget). Thus, the FY 2017 pay raise is compared to the ECI for September 2015.

save a cumulative \$2.2 billion over the next five years. This comes after three straight years of pay raises below the ECI, as shown in Figure 12.¹⁶ Between FY 2000 and FY 2010, however, Congress enacted pay raises above the ECI for 10 out of 11 years. Since FY 1984, pay raises have averaged 0.07 percent less than the ECI.

Figure 12: Comparison of Military Pay Raises and the ECI, FY 1984 to FY 2021



One of the fastest-growing areas of military personnel-related costs during the 2000s was healthcare. In recent years, Congress allowed some changes to the military healthcare system to increase cost sharing and improve efficiency within the system. These enacted changes now save approximately \$5.4 billion annually in the DoD budget.¹⁷ In January 2015, the Military Compensation and Retirement Modernization Commission (MCRMC) recommended a set of sweeping healthcare reforms in its final report to Congress. These reforms were intended to address dissatisfaction with care at Military Treatment Facilities (MTFs) by giving dependents and military retirees a healthcare allowance that could be used to buy private-sector insurance plans on a federal exchange similar to the system used by federal civilian employees. This change would move retirees and dependents out of the MTFs and into private-sector care. The Commission’s proposal would have saved an estimated \$6.7 billion annually once fully implemented, with the savings coming primarily from increased cost sharing for military retirees.¹⁸

¹⁶ Data derived from Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY 2017* (Washington, DC: DoD, February 2016), 73–74; and U.S. Bureau of Labor Statistics, *Employment Cost Index Historical Listing—Volume V* (Washington, DC: GPO, January 2016), 39.

¹⁷ Office of the Under Secretary of Defense (Comptroller), *Defense Budget Overview: United States Department of Defense Fiscal Year 2017 Budget Request*, 6–10.

¹⁸ Alphonso Maldon et al., *Report of the Military Compensation and Retirement Modernization Commission: Final Report* (Washington, DC: GPO, January 2015), 261–2.

The proposed healthcare reform in DoD's request would go in the opposite direction recommended by the Commission, encouraging greater use of MTFs by dependents and retirees. It would accomplish this in part by increasing copays to drive patients to the lowest marginal cost care option, which tends to be the MTFs because of their high fixed costs and relative underutilization in some areas. DoD's proposal would also increase pharmacy copays and create an annual fee for new enrollees in the TRICARE for Life benefit (a Medicare supplemental insurance plan available only to Medicare-eligible military retirees and their dependents). DoD's healthcare reform proposals would save a total of \$0.5 billion in FY 2017 and \$6.9 billion over the next five years.¹⁹

In the FY 2016 National Defense Authorization Act (NDAA), Congress created a new hybrid retirement system for the military with both defined-benefit and defined-contribution components. This change was originally proposed by the MCRMC in January 2015, and DoD declined to endorse this proposal saying it needed further study.²⁰ The old military retirement system was a defined-benefit plan that paid 50 percent of a service member's basic pay after 20 years of service, beginning immediately upon retirement. For each additional year of service, the pension payment increased by 2.5 percent. More than 80 percent of service members, however, leave before reaching 20 years and therefore received no retirement benefits for their service. Citing this discrepancy and the limited recruiting and retention incentive that a 20-year cliff vesting system provides for junior service members, members of the MCRMC recommended transitioning to a hybrid retirement system.

The plan (as enacted by Congress) would reduce the retirement pension payment to 40 percent after 20 years of service with an additional 2.0 percent for each year of service beyond that. In exchange for this reduction in the defined-benefit plan, Congress created a new defined-contribution plan for services member with at least two years of service. Under this new plan DoD will automatically contribute a sum equal to 1 percent of basic pay and up to an additional 4 percent in matching contributions for a maximum government contribution of 5 percent. Service members will also receive a one-time continuation bonus after 12 years of service. The new plan applies only to people entering service after January 1, 2018, and current service members with less than 12 years of service who opt into the new system. All other service members will remain under the old retirement system. Under the new system, every person who serves in the military for at least two years will leave with some retirement savings and those who stay 20 years or longer will leave with both a pension and a 401k-like retirement savings account.

DoD's budget request proposes modifying the newly enacted retirement plan in several ways that would cost \$0.4 billion more in FY 2017 but save \$1.9 billion over the FYDP. It

¹⁹ Office of the Under Secretary of Defense (Comptroller), *Defense Budget Overview: United States Department of Defense Fiscal Year 2017 Budget Request*, 6-6.

²⁰ Jim Garamone, "Obama Sends Pay, Retirement Commission Recommendations to Congress," *DoD News*, Defense Media Activity, May 1, 2015.

seeks greater flexibility in allocating continuation pay at 12 years of service, and it proposes increasing the government's matching contribution to 5 percent in the new retirement savings plan (versus 4 percent as currently provided in law). DoD also proposes delaying the start of matching contributions until a service member has completed four years of service (rather than two) and extending matching contributions past the limit of 26 years of service in existing law. Roughly 40 percent of people who join the military leave within four years, generally when their first enlistment expires. Under DoD's proposed changes, these service members would receive no retirement benefits. The net effect of the proposed changes is to shift benefits in favor of senior service members, particularly senior officers who are more likely to stay past 26 years. These changes appear to directly conflict with the stated goals of the MCRMC recommendation to transition to a hybrid retirement system.

More than a year ago Secretary of Defense Carter announced a new initiative to reform the military and civilian personnel system known as Force of the Future. In November 2015 and January 2016 he announced two "tranches" of reforms as part of this effort. The first tranche focused on increasing internships and corporate exchange programs and improving DoD's personnel analytics. The second tranche focused on family-friendly initiatives, such as expanding maternity / paternity leave, extending childcare operating hours, and starting a pilot program to provide egg and sperm cryopreservation services. Because these initiatives are relatively minor changes to the personnel and compensation system, the budget impact is minimal and all of the costs are being covered using existing resources.²¹ Expanding maternity / paternity leave, for example, would only have a significant budget impact if overall end strength is increased to backfill personnel using this leave. When the Navy expanded maternity leave from 6 to 18 weeks in 2015 (more than Force of the Future would now allow), it did not appear to have a significant impact on end-strength requirements or the budget.²²

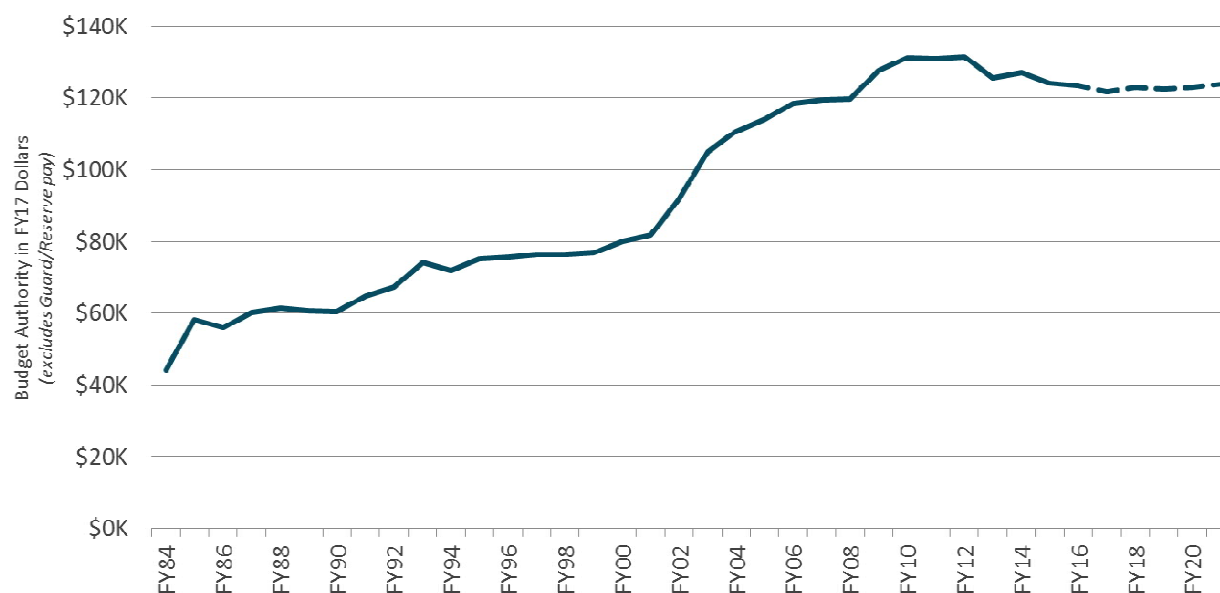
The renewed impetus for military personnel reform over the past several years is due in part to the growing cost of military personnel. Military personnel-related costs have held steady at roughly one-third of the DoD budget for nearly three decades. But as the budget grew in the 2000s and the size of the force did not, the average cost per service member climbed. As shown in Figure 13, the average cost per service member was growing above inflation for decades, but growth accelerated after 9/11. Lower pay raises, reductions in the housing allowance, and changes to TRICARE have flattened the cost curve since FY 2012, and the recent change to the retirement system will reduce costs in the future. With the additional changes proposed in the FY 2017 request, the cost per active service member would remain at roughly current levels through FY 2021 (shown in the dash portion of the line). Importantly, the costs shown in Figure 13 only include items paid from DoD's budget; it does not include the \$285 billion in additional military personnel-related costs outside the DoD budget summarized in the previous chapter, specifically

²¹ Office of the Under Secretary of Defense (Comptroller), *Defense Budget Overview: United States Department of Defense Fiscal Year 2017 Budget Request*, 6-9.

²² Department of the Navy, "SECNAV Announces New Maternity Leave Policy," press release, July 2, 2015.

veterans' benefits and services (including the post-9/11 GI Bill), tax exemptions, and unfunded liabilities in the retirement funds.

Figure 13: Average Cost to DoD per Active Service Member, FY 1984 to FY 2021



Civilian Personnel

The FY 2017 request includes \$80.8 billion in pay and benefits for DoD civilian employees, the vast majority of which is funded through O&M accounts. The number of civilian FTEs declines by less than 1 percent to 763,975 in FY 2017. Congress has paid close attention in recent years to the size of the civilian workforce, particularly in the major DoD headquarters staffs in the Office of the Secretary of Defense, the Joint Staff, and each of the Services, but these staffs comprise only 4.1 percent of the total DoD civilian workforce (31,455 FTEs).²³

Since the end of World War II, the size of the civilian workforce has generally scaled with the size of the active component, averaging a ratio of 0.50 DoD civilians for each active service member. However, this ratio has not held true in recent years. The size of the civilian workforce grew in the late 2000s due in part to efforts aimed at revitalizing the acquisition workforce, and since FY 2011 the size of the active military has declined. As a result, the ratio of civilians to active military personnel is now 0.60, the highest it has been at any point since the end of World War II.

The cost of DoD civilians has not increased at the same pace as military personnel-related costs. This is due mainly to civilian healthcare and retirement benefits, which did not increase as quickly as military benefits. In addition, while DoD civilians received sustained pay raises above the ECI for most years in the 2000s, as shown in Figure 14, they have received raises less than the ECI for the past seven years—including three

²³ Office of the Under Secretary of Defense (Comptroller), *Operation and Maintenance Overview: Fiscal Year 2017 Budget Estimates*, 219.

years in a row with no raise at all. As a result, growth in the average cost per DoD civilian employee did not accelerate in the 2000s as it did for military personnel, and costs have remained relatively flat since FY 2011, as shown in Figure 15.

Figure 14: Comparison of DoD Civilian Pay Raises and the ECI, FY 1984 to FY 2021

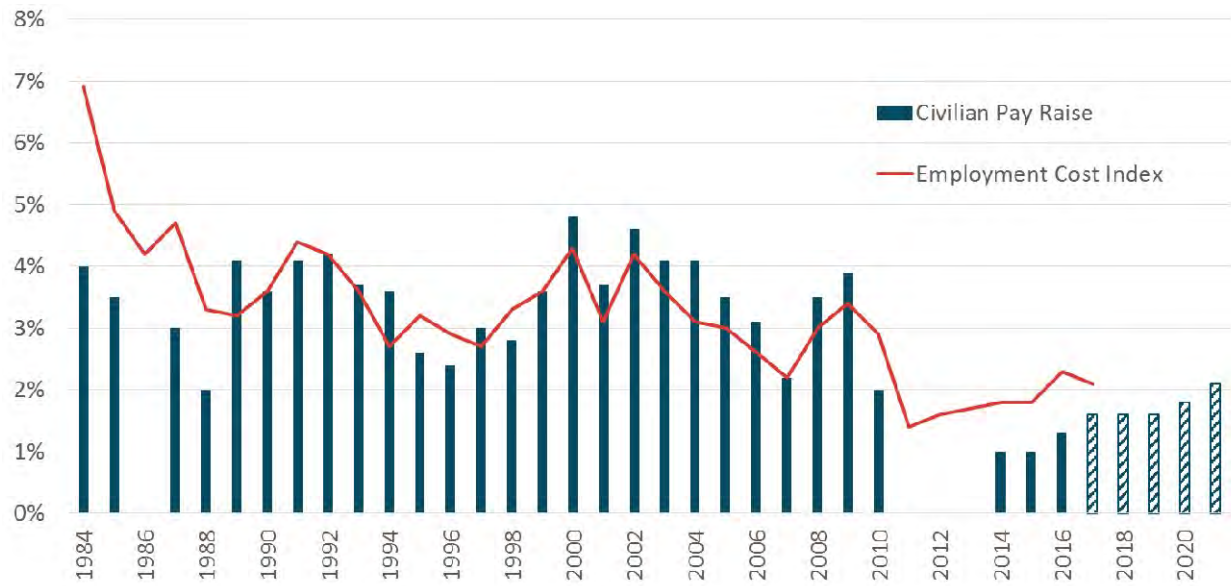
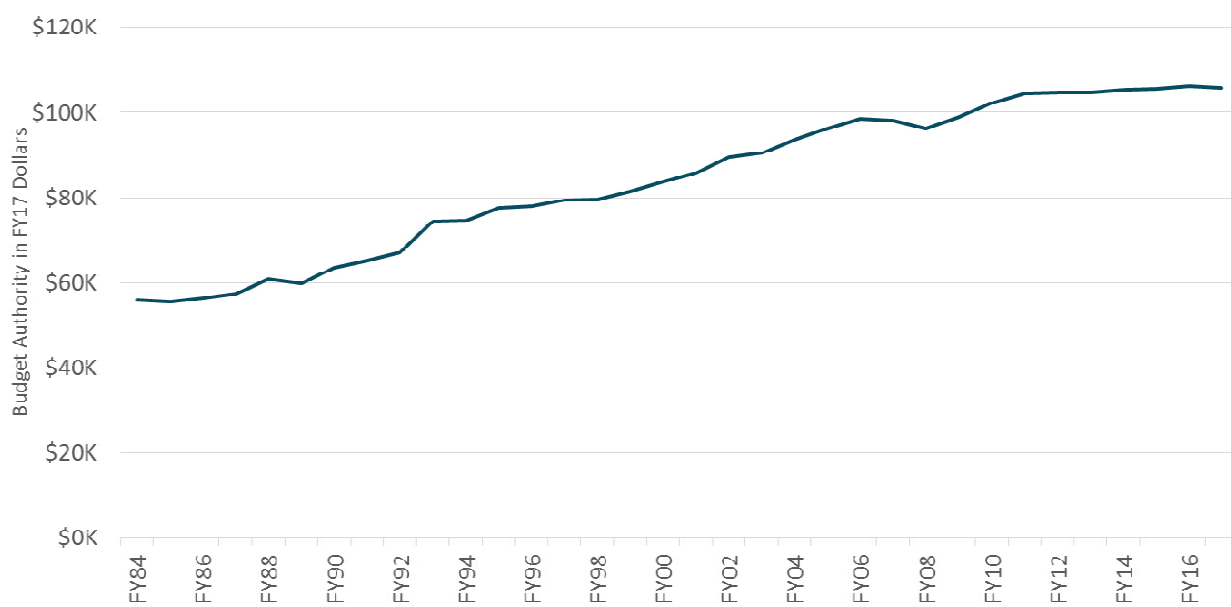


Figure 15: Average Cost per DoD Civilian, FY 1984 to FY 2017

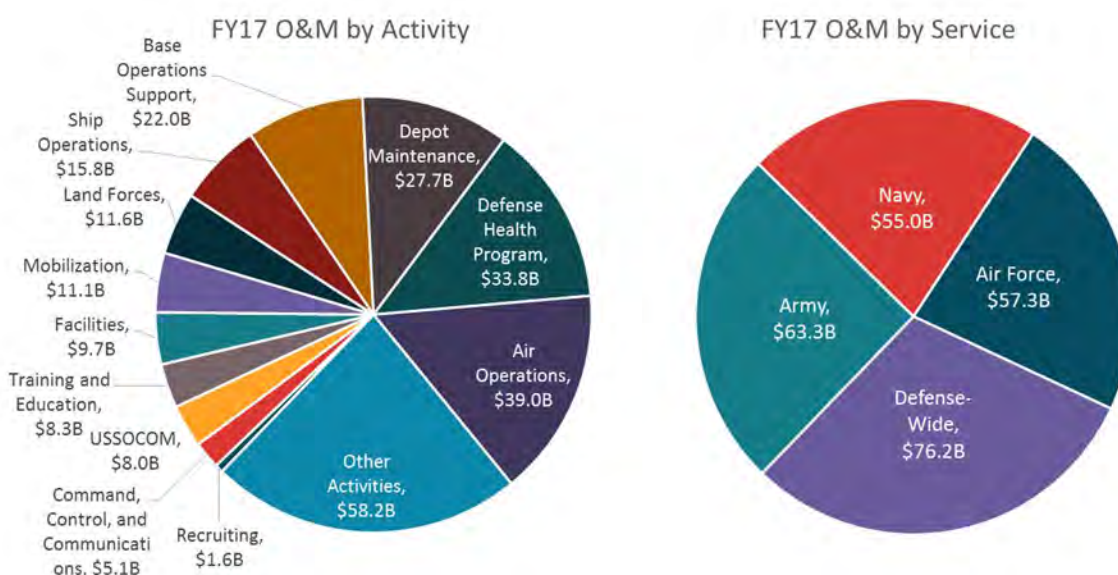


Operation and Maintenance

The budget requests a total of \$251.9 billion in O&M funding for FY 2017, including \$205.9 billion in base discretionary funding, \$0.9 billion in mandatory funding, and \$45.0

billion in OCO funding.²⁴ The largest share of O&M funding is in defense-wide accounts, as show in Figure 16, which includes \$33.8 billion for the Defense Health Program (discussed in the previous section) and \$15.7 billion for classified programs. Other defense-wide O&M funding is used to support the various defense agencies, such as the Defense Contract Management Agency, Defense Information Systems Agency, and the DoD Education Activity for K-12 schools. The majority of each of the Services' O&M budgets are for operating forces, which funds core readiness activities, such as training, peacetime operations, and equipment maintenance.

Figure 16: O&M Discretionary, Mandatory, and OCO Budget Authority in the FY 2017 Request



Base budget O&M funding is 2.4 percent higher in FY 2017 than the level enacted for FY 2016. Despite this increase, the Services report that they remain short of their target level of funding in many areas. The Air Force's base O&M budget, for example, funds depot maintenance at 75 percent of the target level, facilities sustainment at 78 percent, and cyber operations at 77 percent.²⁵ The OPTEMPO for Army active ground forces is funded at 63 percent of the target, depot maintenance at 65 percent, and facility sustainment at 70 percent.²⁶ Navy and Marine Corps depot maintenance is funded at 79 percent and 69 percent of their respective targets, and facilities sustainment is funded at 70 percent and 74 percent, respectively.²⁷ Importantly, these figures do not include the \$45.0 billion in OCO funding requested, which will be used to fund many of the reported shortfalls.

²⁴ Some of the personnel costs discussed in the previous section are funded through O&M accounts, such as the Defense Health Program for military healthcare and the majority (but not all) of the pay and benefits for DoD civilian personnel.

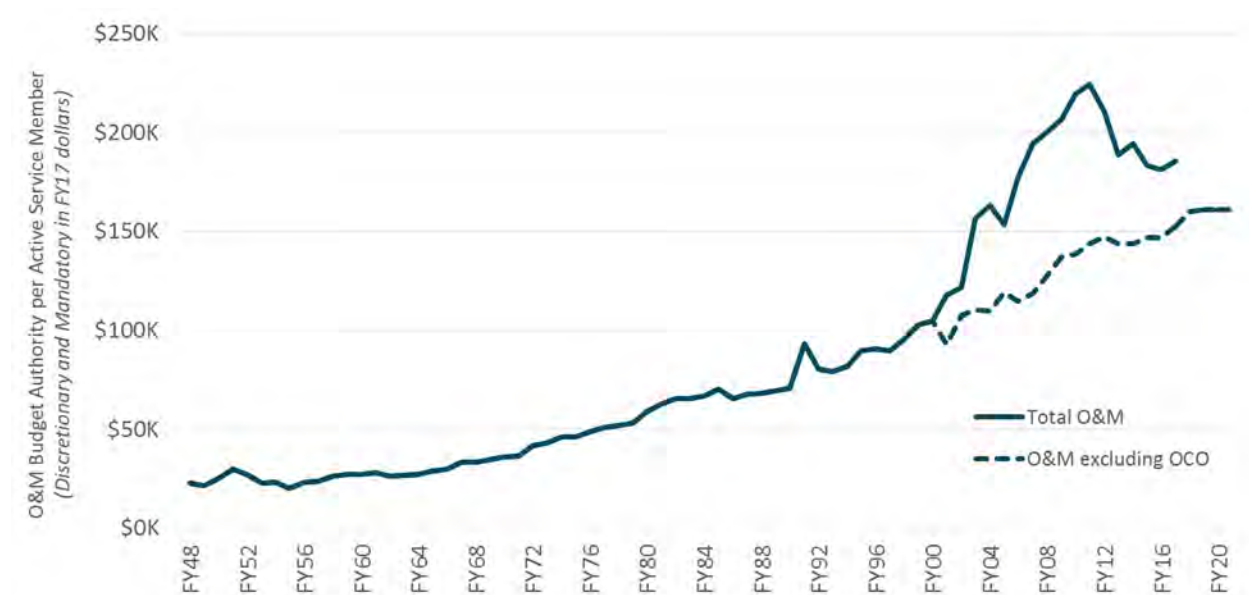
²⁵ Office of the Under Secretary of Defense (Comptroller), *Operation and Maintenance Overview: Fiscal Year 2017 Budget Estimates*, 33.

²⁶ *Ibid.*, 85, 119, 143.

²⁷ *Ibid.*, 117, 143.

The FYDP included with the request projects that base budget O&M funding will increase by 4.3 percent in FY 2018 and then remain relatively flat through FY 2021, adjusting for inflation. Historically, O&M funding has grown faster than inflation when normalized for changes in the size of the force. As shown in Figure 17, O&M per active service member grew at a relatively steady compound annual growth rate of 3.0 percent above inflation from FY 1948 to FY 2000. Total O&M per service member grew at a much faster rate after 9/11 due to the many contractors, activated Guard and Reserve forces, and additional O&M expenses from operations in Iraq and Afghanistan. Base budget O&M per service member, however, continued growing at 2.9 percent above inflation from FY 2000 to FY 2012. From FY 2012 to FY 2017, O&M per active service member has only grown at an annual rate of 0.7 percent, due in part to last-minute budget reductions (as occurred when sequestration was triggered in FY 2013) and base budget O&M being transferred into the OCO budget.

Figure 17: O&M Funding per Active Service Member, FY 1948 to FY 2021



The flat level of O&M on a per person basis projected in the out years of the FYDP (FY 2018 to FY 2021) suggests that DoD is not planning to fund O&M in the base budget at the level needed to fully meet the shortfalls listed above (i.e., at 100 percent of the target levels). Given historic trends, O&M funding would need to grow at about 3 percent above inflation just to hold steady in terms of maintenance and sustainment needs being met, thus a flat projection indicates that a higher level of shortfalls in O&M are planned for future years. Alternatively, the Department could be assuming in its FYDP projection that OCO funding will continue to supplement base budget O&M needs in the future, perhaps to a greater extent than it already does.

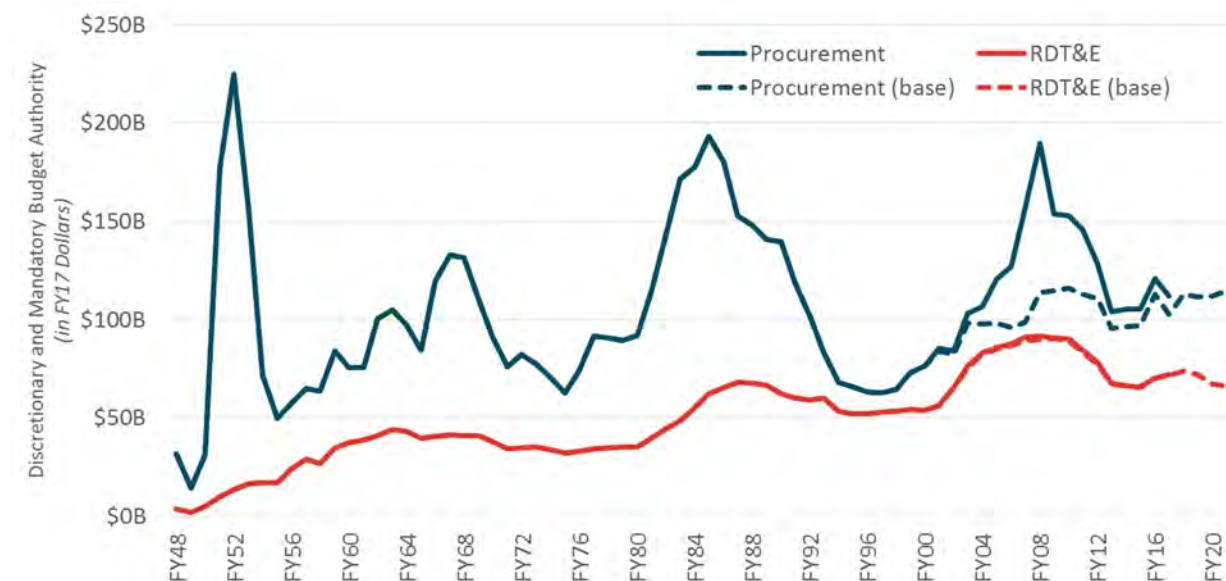
Acquisitions

One-third of the DoD budget request, \$184.4 billion, is for procurement and research, development, test, and evaluation (RDT&E). This includes \$9.5 billion in OCO funding for procurement and \$0.4 billion for RDT&E. Total acquisition funding in the FY 2017 request is 3.8 percent less in real terms from the level enacted in FY 2016, in part to accommodate the lower level of funding agreed to in the BBA 2015 budget deal. Procurement funding generally supports the purchase of weapon systems that have already been developed and are in production, while RDT&E funding is generally used to pay for basic and applied research, technology and component development, and system development.

Historical Trends

While total acquisition funding has varied with cycles in the overall DoD budget in the past, procurement and RDT&E have followed distinctly different patterns. As shown in Figure 18, procurement funding has been highly cyclic, often exaggerating trends in the overall DoD budget. In the Reagan buildup of the 1980s, for example, procurement funding rose by more than 200 percent, adjusting for inflation, from its low in FY 1975 to the peak in FY 1985. During the drawdown, procurement funding declining by 68 percent in real terms through the 1990s to roughly the same level it started at in FY 1975.

Figure 18: Procurement and RDT&E Budget Authority, FY 1948 to FY 2021



In the most recent buildup, procurement funding increased again by more than 200 percent from the low in FY 1997 to the peak in FY 2008. However, more than half of this increase was due to war-related procurements, particularly the crash effort to field Mine Resistant Ambush Protected (MRAP) vehicles in FY 2008. From FY 2008 to FY 2013, the procurement budget declined by 45 percent mostly due to reductions in war-related acquisitions. Since then, the procurement budget has swung in the other direction,

increasing by nearly 15 percent in FY 2016. Procurement funding in FY 2017 is down \$6.7 billion (7.3 percent in real terms), but the FYDP projects that base budget funding for procurement will rise again by 10 percent in FY 2018 and remain at roughly that level through FY 2021.

In contrast, RDT&E funding has historically exhibited a distinctly different pattern of behavior. In each of the prior buildups shown in Figure 18, RDT&E funding rose, but in the drawdowns it declined more modestly and remained well above its prior low. In the Reagan buildup, for example, RDT&E more than doubled in real terms from FY 1975 to FY 1987, but in the drawdown it declined to a level that was still 61 percent higher than before the buildup began. In the most recent budget cycle, RDT&E peaked in FY 2008 at the highest level in inflation-adjusted dollars since the end of World War II. And unlike procurement funding, 2 percent or less of the annual RDT&E budget came from OCO during this budget cycle.

The long-term trend of rising RDT&E costs and highly cyclic procurement costs has meant that the composition of acquisition funding has shifted. The ratio of procurement to RDT&E funding—a broad measure of how much DoD spends buying weapons versus developing them—averaged 2.5:1 from the end of the Korean War through the end of the Cold War, as shown in Figure 19. Beginning in the 1990s, however, this ratio dropped significantly and has since averaged about 1.5:1 including OCO funding, or 1.1:1 if only base acquisition funding is considered. This indicates that since the end of the Cold War the Department has spent a greater share of acquisition funding on development and testing of new weapons and relatively less on buying these systems in quantity.

Figure 19: Ratio of Procurement to RDT&E Budget Authority, FY 1948 to FY 2021



In many ways this has been an unusual budget cycle for both procurement and RDT&E when compared to previous budget cycles. The decline in procurement funding has been

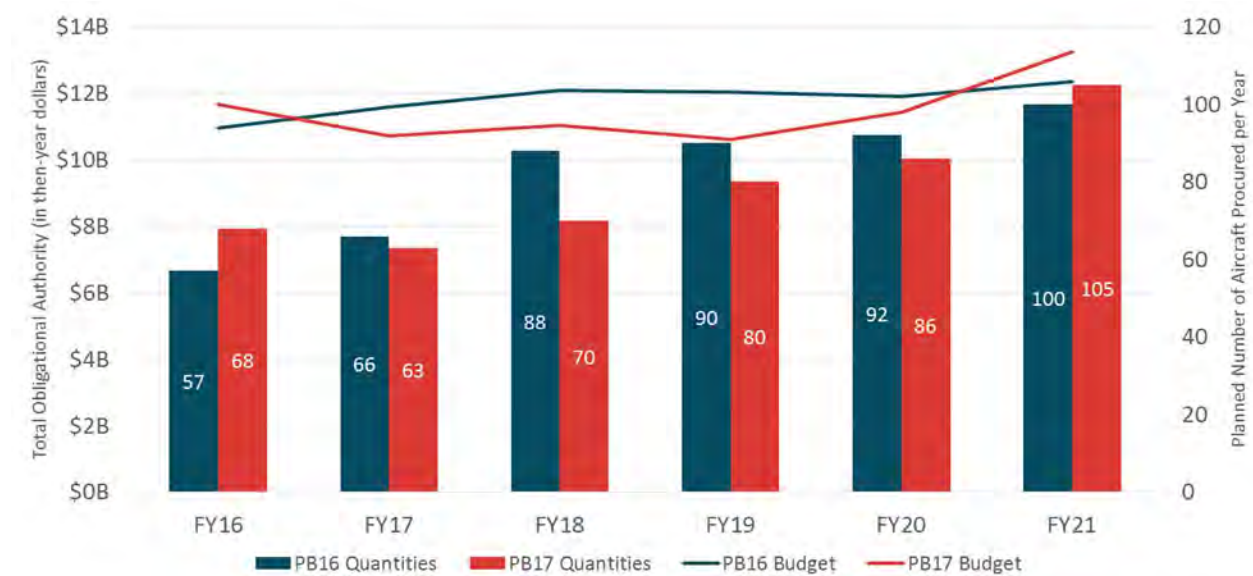
milder than in past budget cycles, especially in the base budget where procurement spending has fluctuated over the past several years and rebounded in FY 2016 to the same level as the peak of the buildup. On the other hand, the RDT&E budget has declined by more than in previous budget cycles, falling by 28 percent in real terms. Given these differences from previous budget cycles, the ratio of procurement to RDT&E is beginning to climb from the relatively low levels of the 1990s and 2000s. According to the projected levels of funding in the FYDP, the ratio of procurement to RDT&E will climb to 1.7:1 by FY 2021, the highest level (excluding OCO funding) since FY 1992.

Changes to Major Programs

The FY 2017 request does not make many significant changes to major acquisition programs. No major programs are terminated in the request, and many programs are funded at similar levels as projected in prior budget requests. However, to accommodate the topline level of funding in the BBA 2015 budget deal, some program are reduced or delayed. Below is a summary of some of the more significant changes and initiatives in the FY 2017 acquisition request.

F-35 Joint Strike Fighter: Following a year in which Congress added 11 F-35s to the FY 2016 budget, the FY 2017 request cuts a net of 32 aircraft from the plan over the FYDP. The Air Force loses 45 planes relative to what was projected for FY 2017 to FY 2021 in last year's budget, but the Navy and Marine Corps accelerate procurements by 13 aircraft over the same period. This change cuts \$0.9 billion from the FY 2017 budget and a net of \$3.0 billion over the FYDP.

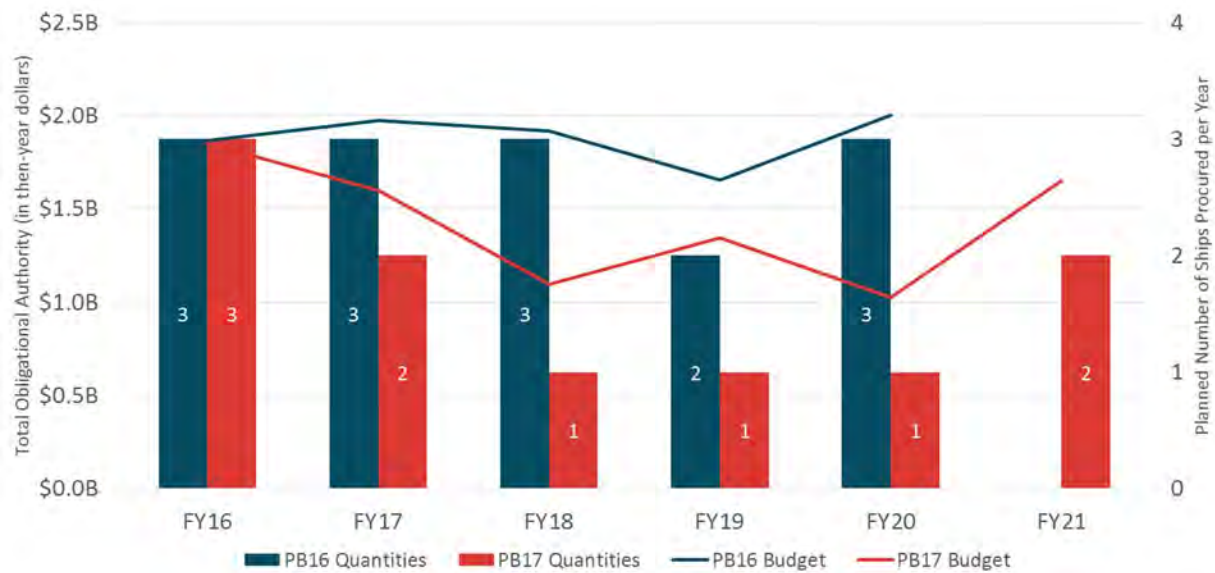
Figure 20: F-35 Funding and Quantities in the FY 2016 and FY 2017 Budget Requests



Littoral Combat Ship (LCS): The FY 2017 request curtails the LCS program, stopping at 40 ships instead of the 52 previously planned. The Navy had already planned to switch to a single variant of the ship beginning in FY 2019 for the last 20 ships. Under the new plan

this down select will still occur as planned, but instead of buying 20 of the single variant the Navy will buy only 8. This proposed change cuts \$0.4 billion from the FY 2017 budget and a total of \$2.5 billion from FY 2017 to FY 2020.²⁸

Figure 21: LCS Funding and Quantities in the FY 2016 and FY 2017 Budget Requests

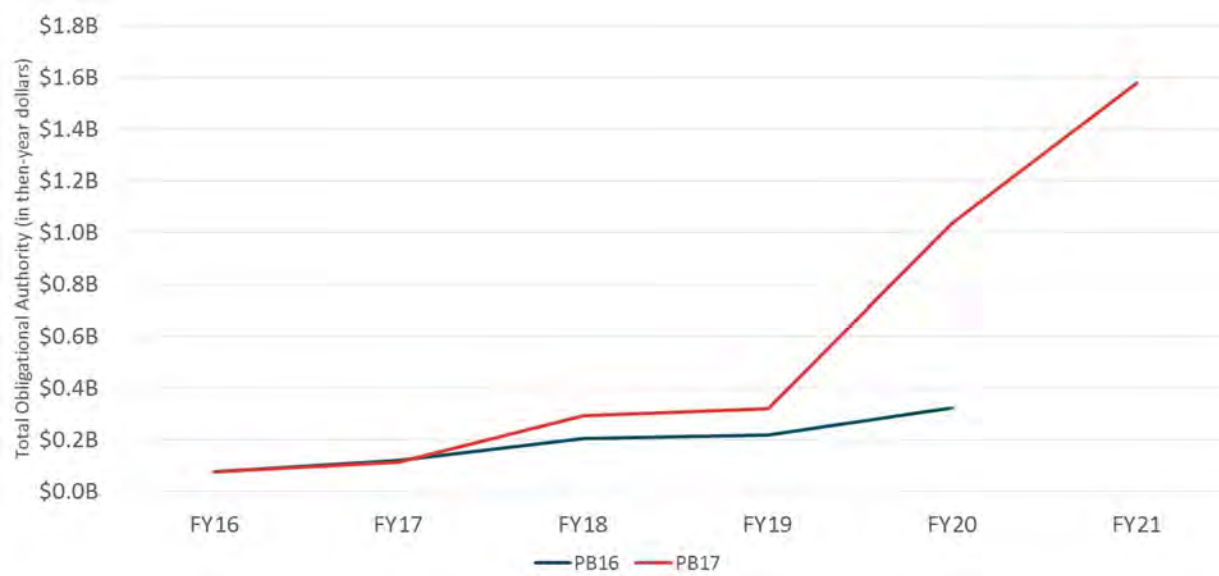


Ground-Based Strategic Deterrent (GBSD): The replacement program for the Minuteman III intercontinental ballistic missile, known as GBSD, is accelerated in the FY 2017. Relative to the funding projected in the FY 2016 request, which remained below \$0.4 billion through FY 2020, funding for GBSD ramps up significantly in the new budget to more than \$1.0 billion in FY 2020 and \$1.6 billion in FY 2021. The Air Force plans to begin fielding the new missile in FY 2028. Initial contracts for the technology maturation and risk reduction (TMRR) phase of the program are expected to be awarded in early FY 2017, and down select to a contract for the engineering and manufacturing development (EMD) phase of the program is expected to occur in FY 2020.²⁹

²⁸ LCS budget data for FY 2021 in the PB16 request is not available for comparison.

²⁹ U.S. Air Force, *FY 2017 Research, Development, Test, and Evaluation Budget Justification Book*, Vol. 2, 235–9.

Figure 22: GBSD Funding in the FY 2016 and FY 2017 Budget Requests



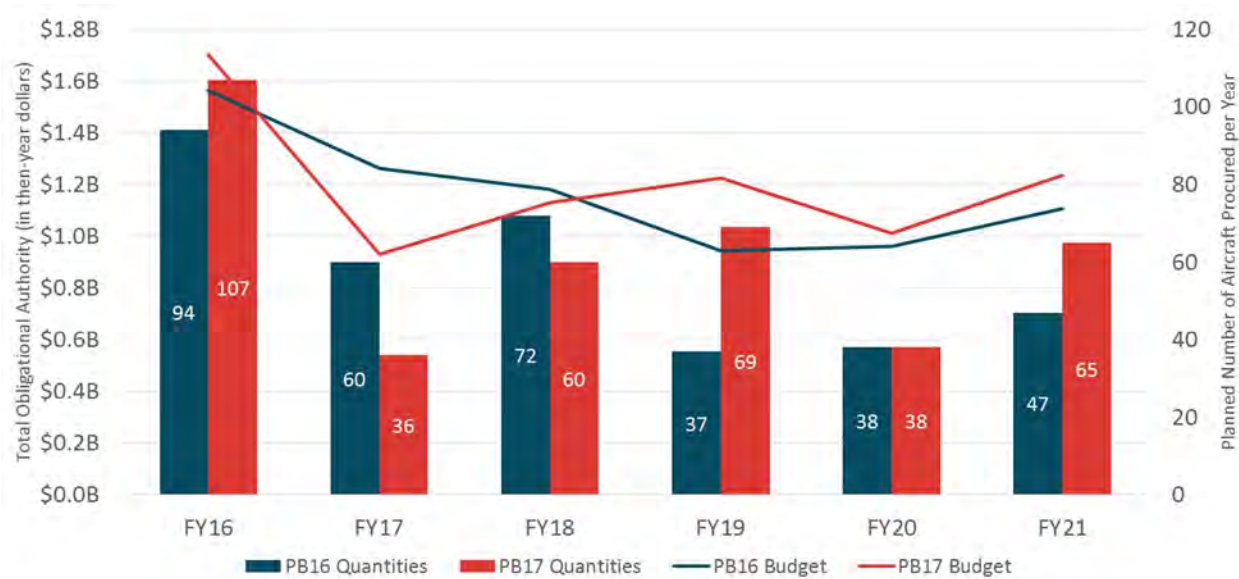
B-21 Long Range Strike - Bomber (LRS-B): In October 2015 the Air Force awarded the EMD contract for the new bomber to Northrop Grumman. The FY 2017 request slips RDT&E funding for the program by approximately one year due to delays in awarding the contract. The FYDP projects that RDT&E funding will rise to \$3.0 billion annually by FY 2021, compared to last year’s budget that projected an increase to \$3.8 billion in annual funding by FY 2020. The Air Force cites the contractor’s low bid on the cost-plus development contract as the chief reason for the reduction. This change reduces planned funding for FY 2017 to FY 2020 by \$3.5 billion relative to the FY 2016 projection.

Figure 23: LRS-B Funding in the FY 2016 and FY 2017 Budget Requests



UH-60M Blackhawk: The Army’s budget request slips the procurements of Blackhawk helicopters by cutting 24 in FY 2017 and 12 in FY 2018 but adding 32 in FY 2019 and 18 in FY 2021. The net effect is to increase total procurements by 14 over the FYDP relative to last year’s plan. The proposed changes would result in \$0.3 billion of savings in FY 2017 and a net increase \$0.1 billion in funding over the FYDP.

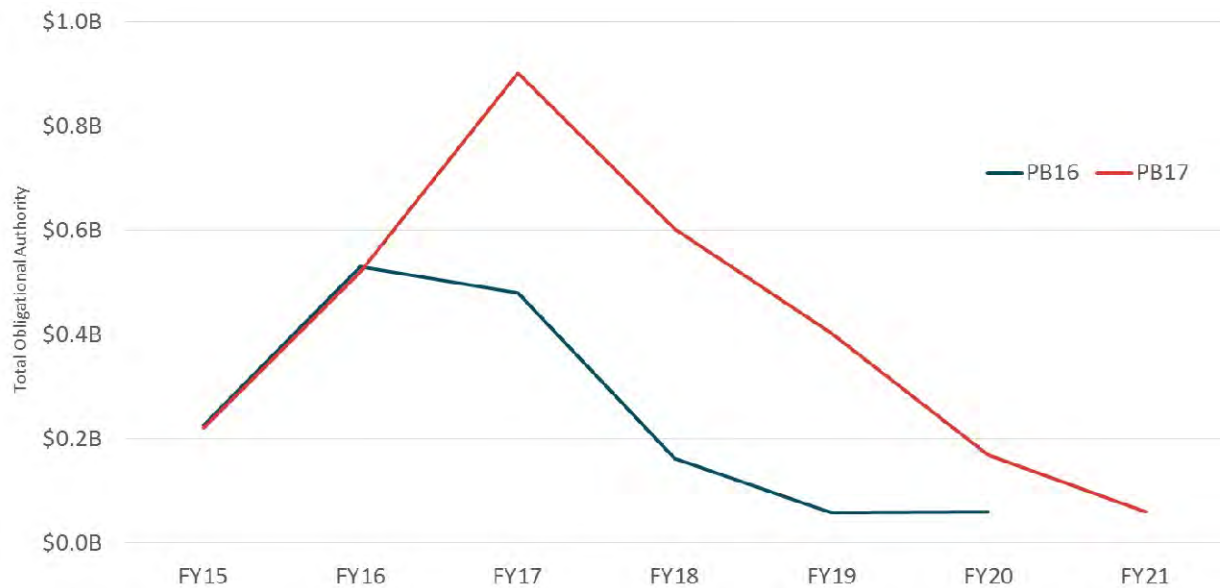
Figure 24: UH-60M Funding and Quantities in the FY 2016 and FY 2017 Budget Requests



Strategic Capabilities Office: In his preview speech for the FY 2017 budget request, Secretary of Defense Carter highlighted the Strategic Capabilities Office (SCO) and several of its ongoing projects.³⁰ Total SCO funding rises from \$0.5 billion in FY 2016 to \$0.9 billion in FY 2017, but the FYDP projection shows that funding declines in each year thereafter to less than \$59 million in FY 2021. While this is consistent with SCO’s stated mission of “getting stuff in the field quickly,” it also indicates that the program does not have a long-term funding plan. To fund any new initiatives SCO will essentially need to harvest money that has already been promised to other programs in the FYDP. The lack of long-term funding and the fact that SCO was created by Secretary Carter when he was deputy secretary in 2012 casts some doubt on the ability of this office to endure beyond the current administration and the projects already in progress.

³⁰ Secretary of Defense Ashton Carter, “Remarks Previewing the FY 2017 Defense Budget,” speech at the Economic Club of Washington, Washington, DC, February 2, 2016.

Figure 25: SCO Funding in the FY 2016 and FY 2017 Budget Requests



Military Construction

DoD manages 24.9 million acres of land and 2.2 billion square feet of buildings worldwide, roughly 85 percent of which is located in the United States. The estimated replacement value of DoD's real property portfolio of buildings, structures, and linear structures (such as roads, pipelines, and runways) is \$879 billion.³¹ To support the long-term maintenance and recapitalization of these facilities, the budget requests \$6.1 billion for military construction (MILCON) in FY 2017, some 13 percent less than enacted for FY 2016. MILCON accounts do not typically follow the overall budget cycle, as shown in Figure 26, and are instead influenced by long-term force structure decisions. For example, MILCON funding grew significantly beginning in FY 2006 due to the 2005 Base Realignment and Closure (BRAC). The 2005 BRAC was the most expensive BRAC to date, costing more than all previous BRACs combined. Now that the BRAC has been completed, MILCON funding has returned to slightly below the level experienced prior to the 2005 BRAC. The FYDP projects that MILCON funding will stay within the range of \$6 billion to \$8 billion over the next five years, including \$2.0 billion in MILCON funding split between FY 2020 and FY 2021 to begin a new round of base closures in FY 2019.³²

³¹ Office of the Deputy Undersecretary of Defense (Installations and Environment), *Base Structure Report Fiscal Year 2015 Baseline: A Summary of DoD's Real Property Inventory* (Washington, DC: DoD), 7.

³² Department of Defense, *DoD Base Realignment and Closure Executive Summary FY 2017 Budget Estimates* (Washington, DC: DoD, February 2016), 8.

Figure 26: MILCON Funding, FY 1948 to FY 2021



In March 2016, DoD submitted a report to Congress that attempts to quantify the amount of excess infrastructure. The report concluded that under current force structure plans in FY 2019 the Army will have 33 percent excess capacity, the Navy 7 percent, the Air Force 32 percent, and the Defense Logistics Agency 12 percent. Importantly, all figures are relative to the 1989 baseline, which assumes that at that time “facilities were properly sized at least in overall capacity.” As the report notes, there was likely excess capacity in 1989, and thus amount of excess capacity may be greater than reported.³³

Service Shares of the Budget

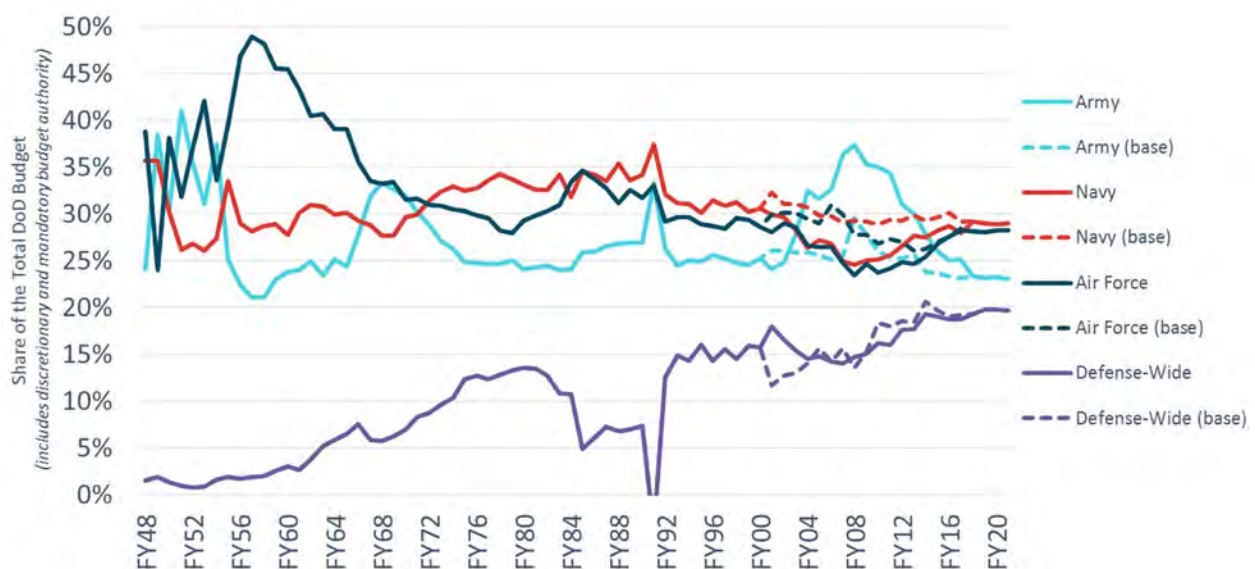
A common and oft-repeated myth within the defense community is that the DoD budget is divided roughly equally, with one-third of the budget going to each of the Services. This is not true, nor has it ever been true. In the FY 2017 request, 25.1 percent of the total budget (including OCO) goes to the Army, 27.9 percent to the Navy (which includes the Marine Corps), 28.3 percent to the Air Force, and 18.8 percent to defense-wide accounts that do not fall within the Services. These defense-wide accounts include funding for the Defense Health Program, OSD, and other defense agencies. If OCO funding is excluded, 23.1 percent of the base budget goes to the Army, 29.2 percent to the Navy, 28.4 percent to the Air Force, and 19.2 percent to defense-wide accounts. The Air Force’s share of the budget, however, includes \$34.2 billion in classified “pass through” funding that goes to other government agencies (\$3.6 billion of which is OCO funding). If this “pass through”

³³ See Department of Defense, Department of Defense Infrastructure Capacity (Washington, DC: DoD, March 2016).

funding is excluded, the Air Force’s share of the base budget is 22.6 percent, the smallest of any of the Services.³⁴

Not only do each of the Services receive different shares of the budget, the division of the budget has varied considerably over time. As shown in Figure 27, the Air Force at one time received nearly half of the DoD budget in the late 1950s as the military began to implement President Eisenhower’s “New Look” national security policy. Not surprisingly, the Army’s share of the budget has varied closely with U.S. involvement in major ground wars over the past seven decades. If OCO funding is excluded, the Navy has maintained the largest share of the budget since the end of the Vietnam War, with the exception of two years at the peak of the Reagan buildup. In recent years, the allocation of funds within the budget has begun to shift again. The Air Force has gained budget share, rising from a low of 26.1 percent of the base budget in FY 2013 to 28.4 percent in FY 2017. The Air Force’s gain appears to have come at the expense of the Army, which fell from 25.6 percent to 23.1 percent of the base budget over the same period (the Navy stayed between 29 and 30 percent during this period). The FYDP projects that the Services will remain at roughly their new shares of the base budget through FY 2021, but this could shift again when a new administration takes office if its defense strategy differs significantly from that of the Obama administration.

Figure 27: Services’ Shares of the DoD Budget, FY 1948 to FY 2021

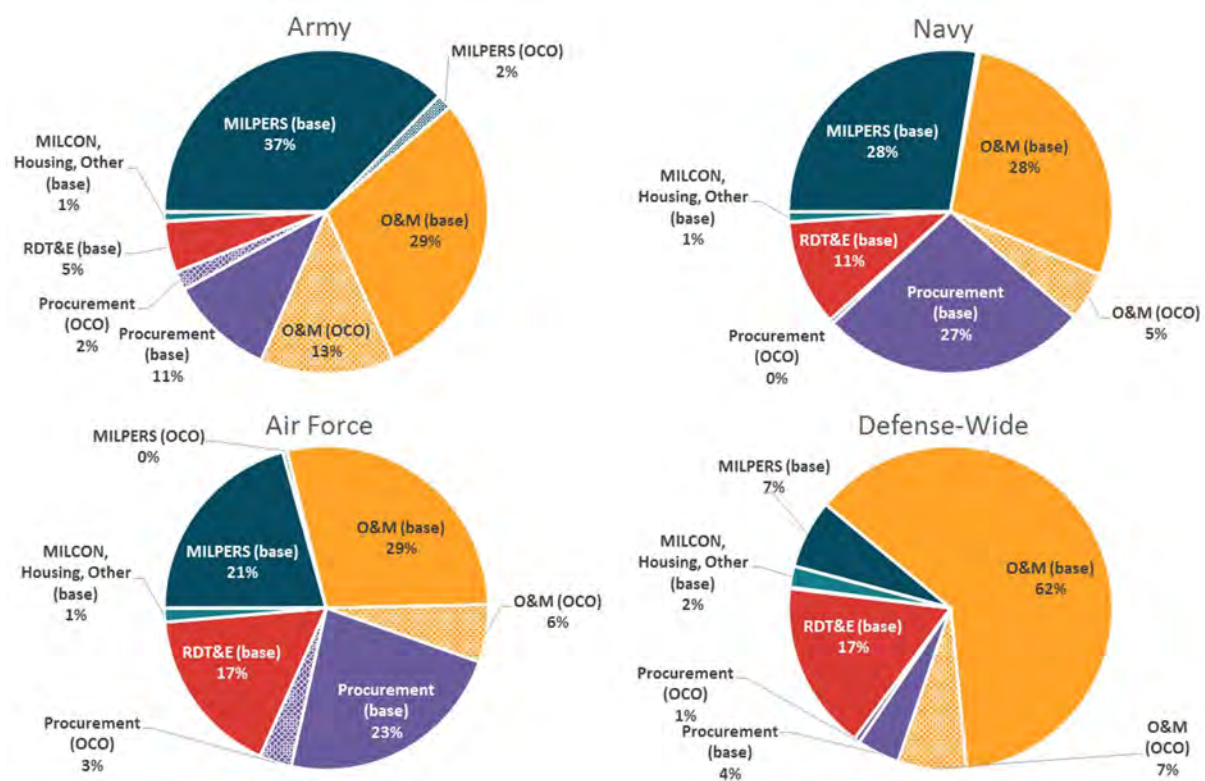


Looking within each of the Services’ budgets, the way funding is allocated differs significantly. As shown in Figure 28, the Army plans to spend 82 percent of its FY 2017 budget on MILPERS and O&M costs, compared to 61 percent in the Navy and Marine Corps and 55 percent in the Air Force. The Army is therefore more sensitive to increases in military and civilian personnel costs, which is particularly challenging for the Army

³⁴ For more details on Air Force pass-through funding, see U.S. Air Force, *Fiscal Year 2017 Budget Overview* (Washington, DC: DoD, February 2016).

because these costs are set by Department-wide policy and are not under the control of the Army. What the Army can control in terms of MIPERS and O&M costs is the size of its force and the level of readiness funding, and since FY 2013 the Army has scaled back in both areas. The Air Force and Navy are more platform-centric forces, and not surprisingly a greater share of their budgets are devoted to acquisition. The Air Force, for example, devotes 43 percent of its budget to procurement and RDT&E, and the Navy is not far behind at 38 percent. In comparison, only 17 percent of the Army's budget is allocated for acquisition costs. The Air Force and Navy's budgets are therefore more sensitive to changes in acquisition policies and priorities and are relatively less sensitive to changes in personnel policies.

Figure 28: Services' FY 2017 Budget Requests by Title

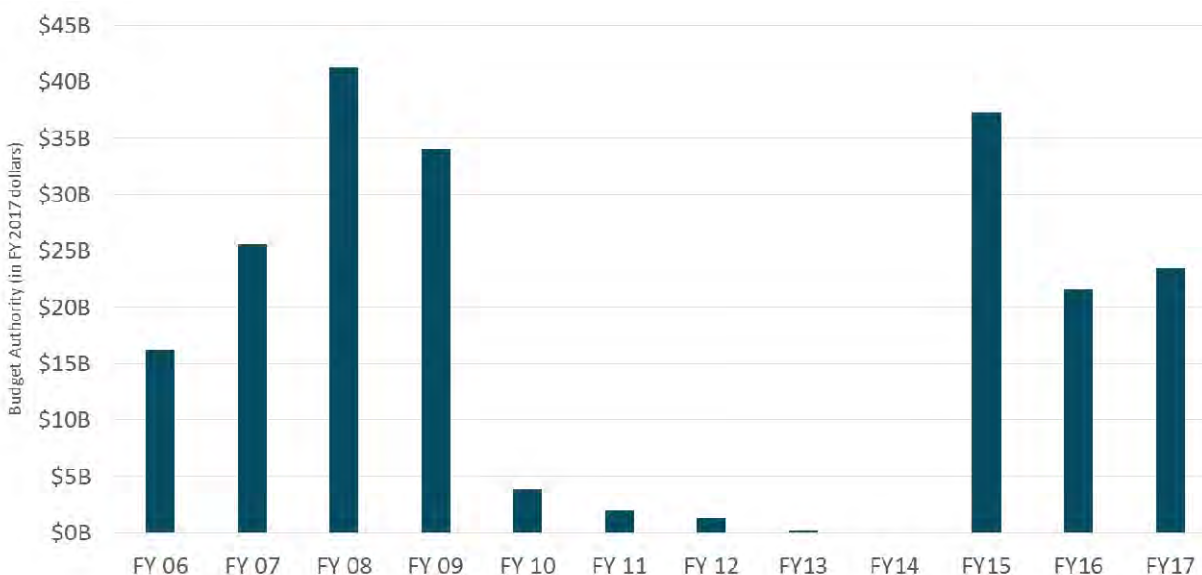


Another difference is that the Army is more dependent on OCO funding than the other Services, with 17 percent of its budget coming from OCO in the FY 2017 request. This compares to 6 percent for the Navy and 9 percent for the Air Force. Despite the fact that the total number of forces deployed to Iraq and Afghanistan is projected to fall by 26 percent from FY 2016 to FY 2017, the Army's dependence on OCO funding increases from 16 percent of its budget in FY 2016 to 17 percent in FY 2017. This suggests that the Army's budget may be highly leveraged on OCO funding for base budget expenses. Moreover, the Army's FYDP projection for O&M costs in FY 2018 to FY 2021 may assume that OCO funding will continue to be used to augment base budget expenses, making its FYDP projection artificially low.

Unfunded Priorities

Part of the annual ritual in the budget process is that Congress asks the Joint Chiefs and Combatant Commanders for lists of priority items not funded in the president's budget request. These unfunded priorities are used by Congress to determine if some of these items should be added to the budget, either by increasing the overall topline or by finding offsetting cuts. The amount of unfunded priorities submitted by military leaders has varied considerably over the past decade, as shown in Figure 29. In the final years of the Bush administration, the amount of unfunded priorities grew by more than 150 percent in real terms from FY 2006 to FY 2008, peaking at \$41 billion in FY 2017 dollars (or \$36 billion in then-year dollars). Beginning with the FY 2010 budget cycle, Secretary of Defense Gates required the Service Chiefs and Combatant Commanders to submit their unfunded priority lists to him for review before transmitting them to Congress. The amount of unfunded priorities dropped by an order of magnitude in FY 2010, and continued to decline under Secretary Panetta's tenure through the FY 2014 budget cycle. Beginning under Secretary Hagel in FY 2015, the unfunded priority lists came roaring back to their previous levels, a pattern that has continued under Secretary Carter.

Figure 29: Total Unfunded Priorities Submitted to Congress, FY 2006 to FY 2017



The unfunded priority lists for FY 2017 total \$23.5 billion. While Secretary Carter asked to review the lists before they were submitted to Congress, many of them leaked to Congress and the press before Carter reviewed them.³⁵ Once they were formally submitted to Congress, Secretary Carter explicitly disavowed the requests, saying in a

³⁵ Courtney Albion, "The Air Force's 'tough choices,'" *InsideDefense*, March 4, 2016.

letter to Congress, “Neither the Chairman nor I endorse any of these additional priorities given the spending limits created by the Bipartisan Budget Act of 2015.”³⁶

The largest request is from the Army (\$7.5 billion), followed by the Air Force (\$7.2 billion), the Navy (\$5.1 billion), and the Marine Corps (\$2.7 billion). The National Guard Bureau also requests \$0.8 billion in unfunded priorities, and the U.S. Special Operations Command requests \$155 million. The specific items requested range from an increase in end strength for the Air Force to buying back Blackhawk helicopters that were cut from the Army’s budget request. The Navy’s top unfunded priority, for example, is the procurement of 14 additional F/A-18E/F aircraft to mitigate its projected fighter shortfall. As in previous years, the unfunded priorities are likely to be used by Congress to determine what should be added to the DoD budget if additional funding becomes available through another budget deal or an increase in OCO above the requested level.

³⁶ Secretary of Defense Ashton Carter to The Honorable Senator John McCain, March 15, 2016, Office of the Secretary of Defense.

3 | Conclusions

The FY 2017 defense budget request is largely a continuation of the administration’s policies and priorities included in the past two requests. While some reductions were made in FY 2017 to conform to the level of the BBA 2015 budget deal, the out year projections in the FYDP remain in line with the previous two budgets. What has changed is senior leaders’ public statements about the threats driving the budget. In his preview of the budget request, Secretary Carter outlined five “challenges” that drove DoD’s planning and budget development process: 1) Russia, 2) China, 3) North Korea, 4) Iran, and 5) terrorism.³⁷ In subsequent statements, Carter and other senior leaders have consistently reiterated these threats in the same order. The inclusion of Russia at the top of the list is a noticeable change from the 2014 Quadrennial Defense Review and the 2012 Defense Strategic Guidance, which focused more on the Asia Pacific region and a resurgent China in particular.

Figure 30: Tradeoffs in the FY 2017 Request Relative to the FY 2016 Request

Service	Capability	Capacity	Readiness
Army	↓	↔	↑
Navy	↑	↓	↔
Air Force	↓	↑	↔
Marine Corps	↓	↔	↑

If threats drive defense strategy and strategy in turn drives the budget, shifts in the threat assessment should manifest themselves as tradeoffs in the budget among capability, capacity, and readiness. And as resources become more constrained, as is the case in FY 2017, these tradeoffs become more difficult. Figure 30 illustrates the author’s subjective assessment of the tradeoffs made in the FY 2017 request relative to the FY 2016 request. The Navy appears to shift resources in favor of more technologically advanced capabilities at the expense of capacity. For example, the Navy cuts funding in its request for the smaller, less expensive, and less capable Littoral Combat Ship and increases funding for larger, more expensive, and more capable destroyers and the expanded payload module for Virginia-class submarines. The Air Force seems to make the opposite tradeoff in its request by cutting the number of F-35A fighters it procures

³⁷ Secretary of Defense Ashton Carter, “Remarks Previewing the FY 2017 Defense Budget,” speech at the Economic Club of Washington, Washington, DC, February 2, 2016.

and keeping the legacy A-10 attack aircraft it had previously tried to retire. The Army and Marine Corps make a different set of tradeoffs in their requests, prioritizing the readiness of forces at the expense of new capabilities. For example, the Army cuts funding for helicopter modernization programs, such as the UH-60M Blackhawk, and the Marine Corps reduces the number of Joint Light Tactical Vehicles procured in FY 2017 by 77. Readiness improves in the FY 2017 request, particularly for the Army due to the quadrupling of the European Reassurance Initiative fund. This additional funding improves the readiness of U.S. ground forces in Europe by funding an additional brigade combat team in Europe and the pre-positioning of equipment so that another brigade could be deployed quickly if necessary.

Issues for the Next Administration

The FY 2017 request leaves many issues for the next administration to resolve. The primary budgetary issue for the next administration is the BCA budget caps, which remain at their original level for FY 2018 to FY 2021. The FYDP submitted with the request projects a level of national defense funding that is \$113 billion above the budget caps currently in effect. One of the first tasks for a new administration is to begin working on a budget deal to raise or eliminate the budget caps to a level commensurate with current defense strategy and plans. Alternatively, a new administration could revise its defense strategy to fit within the current budget caps, which would require some combination of cuts to capability, capacity, and readiness.

The next administration will also need to address the use of OCO funding for base budget activities. As noted in the first chapter, roughly half (\$30 billion) of the FY 2017 OCO request appears to be used for activities that were previously funded in the base budget, and some in Congress have proposed adding more OCO funding to supplement the base budget. The administration does not currently submit a FYDP projection for OCO funding, but the levels of funding projected in the base budget FYDP suggest that DoD is assuming continued use of OCO funding for base budget activities in the future. The out years of the base budget FYDP appear to be underfunded relative to the size of the force. This is particularly true in O&M accounts, which project little growth above inflation from FY 2018 to FY 2021. History has shown that O&M usually grows at an annual rate of roughly 3 percent above inflation when normalized for the size of the force.

Assuming the FYDP was built under the belief that OCO funding would continue to be used for the base budget at current levels, the total assumed OCO supplement for the base budget would be roughly \$120 billion for FY 2018 to FY 2021. Combined with the \$113 billion by which the base budget already exceeds the budget caps over this period, the total gap between the current defense program and the current budget caps is some \$233 billion. In other words, to afford the force projected in the FY 2017 budget, DoD will need approximately \$233 billion more than the BCA budget caps currently allow, whether through budget deals that raise the BCA caps or the continued use of OCO funding for base budget activities.

Beyond the current five-year planning horizon, the next administration will also need to address the looming modernization bow wave. According to previous analysis, funding for DoD's major acquisition programs will need to increase 23 percent in real terms from FY 2015 to the peak in FY 2022.³⁸ This bow wave is due to the alignment of many major modernization programs so that their peak years of funding occur just outside the five-year planning horizon in the early 2020s. The largest driver of the bow wave is Air Force aircraft modernization programs, particularly the F-35 fighter, B-21 bomber, and KC-46A aerial refueling tanker—the top three acquisition priorities of the Air Force. Because the peak of the bow wave occurs just outside the current FYDP, the FY 2017 request does not fully indicate how DoD plans to accommodate the anticipated increase in funding.

One of the tasks for the next administration is to determine how to fund or mitigate the modernization bow wave. The projected increase in funding for major acquisition programs could be accommodated by increasing the overall DoD budget, cutting other parts of the DoD budget (such as force structure and readiness), or cutting smaller acquisition programs. The new administration could also make tradeoffs among the major acquisition programs by slowing, delaying, or terminating lower-priority modernization programs to smooth the projected bow wave of funding. However, each of these options comes with political and strategic risks. While the FY 2017 request does not address the difficult tradeoffs required by the modernization bow wave, the next administration will not be able to avoid making such decisions.

As previously noted, the twin challenges in the current budget environment are: 1) to stem the drivers of cost growth to prevent further force structure reductions and 2) to find more effective ways of operating with a smaller force. To do this, the next administration will need to focus on reforming the personnel system for both military and civilian workers, reforming the acquisition system to keep pace with new technologies and threats, and working with Congress to find a path forward on base closures. While progress has been made in reforming both the military personnel system and defense acquisitions in recent years, much is left unfinished. The fact remains that the defense budget is 50 percent larger in real terms than before 9/11 for a force that is smaller by nearly every measure—a trend that cannot continue indefinitely.

To arrest this trend, the next administration will need to engage with Congress to continue reforming the military personnel system, including potential changes to the Defense Officer Personnel Management Act (DOPMA) and structural reforms to the military healthcare system and healthcare benefits for retirees and dependents. It will also need to explore reforms to the DoD civilian personnel system, which could include moving DoD civilian workers out of the General Schedule (GS) personnel system under Title 5 that covers other parts of the federal government to a new system under Title 10

³⁸ See Todd Harrison, *Defense Modernization Plans through the 2020s: Addressing the Bow Wave* (Washington, DC: CSIS, January 2016).

that would be uniquely structured for DoD.³⁹ In acquisitions, the challenge for the next administration is making sure reforms already in the pipeline are effectively implemented. It will also need to continue looking for opportunities to invest in technologies that enhance existing weapons or enable new capabilities that complicate the planning or impose costs on potential adversaries. DoD created the SCO to focus on these types of technologies, but the lack of sustained SCO funding throughout the FYDP suggests more work remains to be done. And while the administration again proposes another round of base closures in this year's request, Congress is not likely to act on it. The next administration will need to rethink its approach to base closures and consider more politically palatable alternatives—perhaps smaller packages of specific closures that reap incremental savings from “low hanging fruit” rather than an open-ended BRAC process.

If previous transitions are any indication, the FY 2018 defense budget request from a new administration may not differ significantly from the FY 2017 request and therefore may not address many of these issues. This is because the budget development process within the Pentagon begins more than a year before it is submitted to Congress. The current administration is already building the FY 2018 request, and in January 2017 it will hand over a fully formed budget to the new administration. In transition years, the budget request is usually submitted in April or May, giving the new team just three or four months to make changes, which tend to focus on high-profile or high-priority items. To make its first budget request more substantive, the transition teams should come prepared with packages of policy and reform proposals ready to be worked into the budget. In this respect, the work left unfinished by the Obama administration in its final budget request presents an opportunity for the next administration to reshape and refocus the Defense Department for the challenges that lie ahead.

³⁹ For a more detailed discussion of this option, see the Force of the Future Draft Proposals, <https://www.afge.org/?documentID=5067>.

| About the Author

Todd Harrison is the director of defense budget analysis and a senior fellow in the International Security Program at CSIS. He leads the Center's efforts to provide in-depth, nonpartisan research and analysis of defense funding issues and provides expert analysis on space security issues. Mr. Harrison joined CSIS from the Center for Strategic and Budgetary Assessments, where he was a senior fellow for defense budget studies. He has authored publications on trends in the overall defense budget, defense acquisitions, military compensation, military readiness, the cost of nuclear forces, military space systems, and the cost of the military operations in Iraq, Afghanistan, Syria, and Libya.

Mr. Harrison frequently contributes to print and broadcast media and has appeared on CNN, CNBC, NPR, Al Jazeera English, C-SPAN, PBS, and Fox News. He teaches classes on military space systems and the defense budget at the Johns Hopkins School of Advanced International Studies and a class on the defense budget at George Washington University's Elliott School of International Affairs. He is a term member of the Council on Foreign Relations and was named one of the Defense News 100 Most Influential People in U.S. Defense.

Mr. Harrison previously worked at Booz Allen Hamilton where he consulted for the Air Force on satellite communications systems and supported a variety of other clients evaluating the performance of acquisition programs. Prior to Booz Allen, he worked for AeroAstro Inc. developing advanced space systems and technologies and as a management consultant at Diamond Cluster International. Mr. Harrison served as a Captain in the U.S. Air Force Reserves from 1998 to 2003. He is a graduate of the Massachusetts Institute of Technology with both a B.S. and an M.S. in Aeronautics and Astronautics.

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