

# CBO

## Analysis of the Long-Term Costs of the Administration's Goals for the Military



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## Notes

Unless otherwise indicated, all years are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end.

Dollar amounts are expressed in 2018 dollars, adjusted for inflation with the Congressional Budget Office's projection of the gross domestic product price index and expressed as total obligational authority (TOA), the term the Department of Defense (DoD) uses to identify the funding available for its programs. TOA differs from budget authority most notably in its adjustment for the timing of rescissions and lapses of prior-year budget authority. In recent years, the difference between TOA and discretionary budget authority in DoD's budget request for the coming year has generally been \$1 billion or less.

Numbers in the text and tables may not match totals because of rounding.

On the cover, clockwise from top left: Soldiers assigned to the 3d U.S. Infantry Regiment (The Old Guard) providing support for a wreath-laying ceremony at Arlington National Cemetery (U.S. Army photo by Sergeant George Huley); the color guard for the guided-missile destroyer USS Dewey (DDG 105) standing at parade rest before a Los Angeles Dodgers baseball game (U.S. Navy photo by Mass Communication Specialist 1st Class Derek Stroop); the Air Force Honor Guard Drill Team performing at the Air Force Memorial in Arlington, Virginia (U.S. Air Force photo by Andy Morataya); and the Marine Corps' Silent Drill Platoon performing during a joint ceremony with the Fort Henry Guard at Kingston, Ontario, Canada (U.S. Marine Corps photo by Corporal Skye Davis).

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# Analysis of the Long-Term Costs of the Administration's Goals for the Military

## Summary

This report describes the Congressional Budget Office's analysis of the costs and budgetary consequences through 2027 of the current Administration's goals for increasing the readiness, size, and capabilities of the military. The report draws from the fiscal year 2018 budget request submitted by the Department of Defense (DoD) and from other official documents, including Congressional testimony presented by DoD officials.

The 2018 budget request calls for \$640 billion in funding for the department. Of that total, \$575 billion would fund base-budget activities (such as day-to-day military and civilian operations and developing and procuring weapon systems) and \$65 billion would fund overseas contingency operations (OCO, mostly for the conflicts in Afghanistan and in Iraq and Syria).<sup>1</sup> The base-budget funding request is 3 percent more than the amount that would have been requested for 2018 under the Obama Administration's final Future Years Defense Program, the 2017 FYDP, after adjusting for inflation.

For the years after 2018, CBO estimates, the Administration's goals for the military would result in steady increases in costs so that by 2027, the base budget (in 2018 dollars) would reach \$688 billion, more than 20 percent larger than peak spending during the 1980s (see Figure 1). Several factors would contribute to the rising costs after 2018, including the following:

- The number of people serving in the armed forces would increase by about 237,000 (or about 10 percent), CBO estimates;

1. On November 6, 2017, the Administration requested an additional \$1.2 billion in funding for OCO to support higher troop levels in Afghanistan. It also requested \$4.7 billion in emergency funding for DoD, mostly for enhanced missile defenses to counter North Korea. Because that request was for emergency funding and would not affect the base-budget funding for 2018, CBO did not include it in its projection of base-budget spending beyond 2018.

- The Navy would increase its fleet to 355 battle force ships (nearly 30 percent more than are currently in the fleet); and
- Purchases of new weapons would increase, as would spending for research on future weapons.

Costs also would rise because growth in expenses for military personnel and for operation and maintenance (O&M) would continue to outpace inflation, CBO anticipates.

If the new Administration's goals for increasing the readiness, size, and capabilities of the military were pursued, cumulative costs would be \$683 billion (or 12 percent) higher from 2018 through 2027 than costs of the Obama Administration's final budget plan for those same years, according to CBO's projections (see Table 1).<sup>2</sup> About half of that difference (\$342 billion) would result from implementing the Trump Administration's goals for expanding the size of the military after 2018. The other half of that difference would accrue primarily because more spending is planned for readiness and for research and development than was included in the Obama Administration's final budget plan and because the current plan starts at a higher end strength than would have been the case under the 2017 FYDP. Specifically, the new Administration's request calls for 2.130 million military personnel in 2018, whereas the Obama Administration's final plan called for 2.074 million military personnel in that year.

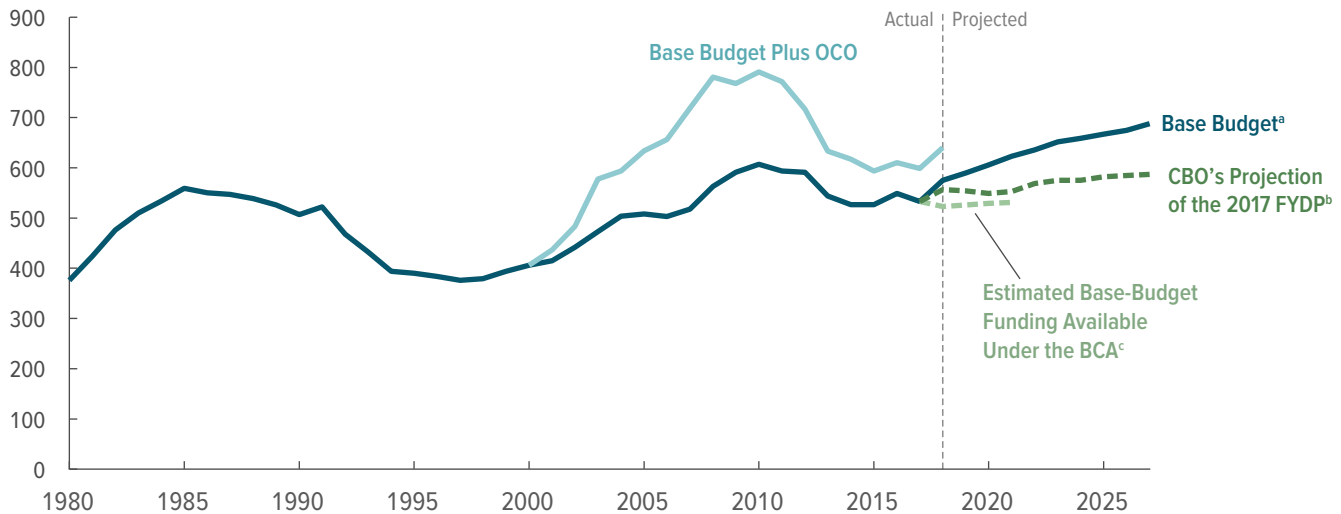
National defense funding for the 2018–2021 period is subject to caps set by the Budget Control Act of 2011 (BCA). If DoD's costs grow in accordance with CBO's projection and the costs of agencies other than DoD that are funded in the national defense budget grow at the

2. See Congressional Budget Office, *An Analysis of the Obama Administration's Final Future Years Defense Program* (April 2017), [www.cbo.gov/publication/52450](http://www.cbo.gov/publication/52450).

Figure 1.

### Funding for DoD's Activities and Projected Costs of the Administration's Goals for the Military

Billions of 2018 Dollars



Source: Congressional Budget Office.

Base-budget data include supplemental and emergency funding appropriated before 2001. For 2001 to 2018, supplemental and emergency OCO funding is shown separately from the base-budget data. After 2018, no OCO funding is shown.

BCA = Budget Control Act of 2011; DoD = Department of Defense; FYDP = Future Years Defense Program; OCO = overseas contingency operations.

- CBO's projection of DoD's costs under the Administration's 2018 goals is based on DoD's fiscal year 2018 budget request and other documents, including Congressional testimony presented by DoD officials.
- The 2017 FYDP was the Obama Administration's final defense plan, which covered the 2017–2021 period. CBO projected the costs under that plan through 2027.
- The estimate reflects 95 percent of the total funding available for national defense under the BCA's caps for 2019 through 2021—the same fraction allocated to DoD in the Administration's budget request for 2018. (The other 5 percent was allocated to the Department of Energy's nuclear weapons activities and to a host of smaller defense-related activities in other departments and agencies.)

rate of inflation, total national defense costs for 2018 through 2021 would exceed the BCA caps by \$295 billion, CBO estimates.

CBO did not attempt to project OCO costs because of uncertainty concerning current conflicts and the possibility of new ones. OCO costs are not constrained by the BCA.

#### How Did CBO Identify Plans That Would Meet the Administration's Goals?

CBO usually bases its projections of defense costs on the FYDP that is prepared each year in conjunction with DoD's budget request. That plan describes changes in force structure, outlines schedules for anticipated major purchases of weapons, and provides estimates of costs for the ensuing five years. This year, as is typical when a new Administration takes office, a five-year plan was

not available. As a result, the precise details of the new Administration's plans for DoD will not be known until DoD's 2019 budget request and the 2019 FYDP are released. CBO therefore has based the projections detailed in this report on a plan that is consistent with goals reflected in DoD's 2018 budget request and in other official Administration documents and Congressional testimony.

At the direction of the President, DoD is currently developing a National Defense Strategy (NDS).<sup>3</sup> According to a memorandum from the Secretary of Defense, "The NDS will include a new force sizing construct, which will inform our targets for force structure growth. It will

3. See White House, Office of the Press Secretary, "Presidential Memorandum on Rebuilding the U.S. Armed Forces" (press release, January 27, 2017), <https://go.usa.gov/xRhwA>.

Table 1.

### Ten-Year Projections of Costs Under the Administration's Goals for the Military and the 2017 FYDP

Billions of 2018 Dollars

	<b>Total, 2018–2027</b>
Administration's Goals in 2018 <sup>a</sup>	6,370
2017 FYDP <sup>b</sup>	5,687
<b>Difference</b>	<b>683</b>

Source: Congressional Budget Office.

DoD = Department of Defense; FYDP = Future Years Defense Program.

- a. Based on DoD's fiscal year 2018 budget request and other documents, including Congressional testimony presented by DoD officials.
- b. The 2017 FYDP was the Obama Administration's final defense plan, which covered the 2017–2021 period. CBO projected the costs under that plan through 2027.

also determine an approach to enhancing the lethality of the joint force against high-end competitors and the effectiveness of our military against a broad spectrum of potential threats. The [fiscal year] 2019–2023 Defense Program will follow, containing ramps that grow the force quickly but responsibly, and [make] critical investments in advanced capabilities.”<sup>4</sup>

That memorandum suggests three areas of focus for DoD's planning:

- Increase funding to improve the readiness of the current force;
- Increase the size of the military; and
- Replace current weapon systems with new, more modern systems.

With its 2018 request, DoD has moved to increase funding for near-term readiness and advanced weapons research and development. CBO's projections incorporate an assumption that those increases would endure.

4. See James N. Mattis, Secretary of Defense, “Implementation Guidance for Budget Directives in the National Security Presidential Memorandum on Rebuilding the U.S. Armed Forces” (memorandum, January 31, 2017), <https://go.usa.gov/xRhjf> (PDF, 1.3 MB).

To project costs in other areas, CBO worked from a plan that would meet goals it has identified in DoD's various statements.

CBO based its estimate of larger forces on testimony that was presented before the Senate Committee on Armed Services by the vice chiefs of the services in February 2017.<sup>5</sup> Those officials indicated the amount of growth over time that DoD believes would be required for each service branch to meet current demands and potential future threats:

- The Army's force would increase to 1.2 million soldiers, including the active component, Reserve, and National Guard (the authorized number in 2017 was 1.018 million);
- The Navy would increase the number of battle force ships from the current 279 to 355;
- The Marine Corps' force size would increase to 194,000 in the active component to fill the current 32 battalions (the authorized number in 2017 was 185,000) and the Corps would add 4 more battalions; and
- The Air Force would increase the active component to 350,000 personnel to fill the current force structure (the authorized number in 2017 was 321,000) and it would increase the fighter force from 55 to 60 squadrons.

CBO's projections incorporate an assumption that the new NDS will call for the force levels that were articulated by the vice chiefs. In addition, CBO estimated that adding four Marine battalions would require 3,600 people (for a total of 197,600) and adding five Air Force fighter squadrons would require 3,000 people (for a total of 353,000).

CBO's projections incorporate growth in the number of service members that is consistent with current recruiting capacity and retention patterns. Under that plan, by 2022, the Marine Corps and Air Force would reach the goals described by their vice chiefs. The Army would reach its goal for the active component by 2022, but

5. See Subcommittee on Readiness and Management Support of the Senate Committee on Armed Services, “Current Readiness of U.S. Forces” (February 8, 2017), <https://go.usa.gov/xRhe9>.

Table 2.

**CBO's Projections of the Administration's Goals for Military End Strength**

Thousands of Service Members

	2017		2018	CBO's Projections <sup>a</sup>		Projected Change in Personnel, 2018 to 2027	
	Requested	Authorized	Requested	2022	2027	Number	Percent
<b>Army</b>							
Active component	460	476	476	540	540	64	13
Reserve	195	199	199	216	238	39	20
National Guard	335	343	343	373	410	67	20
<b>Navy</b>							
Active component	323	324	328	344	354	26	8
Reserve	58	58	59	59	59	0	0
<b>Marine Corps</b>							
Active component	182	185	185	198	198	13	7
Reserve	39	39	39	39	39	0	0
<b>Air Force</b>							
Active component	317	321	325	353	353	28	9
Reserve	69	69	70	70	70	0	0
National Guard	106	106	107	107	107	0	0
<b>DoD Totals</b>							
Active component	1,282	1,306	1,314	1,435	1,445	131	10
Reserve	361	365	366	384	405	39	11
National Guard	441	449	450	479	517	67	15
<b>Total Force</b>	<b>2,083</b>	<b>2,119</b>	<b>2,130</b>	<b>2,298</b>	<b>2,367</b>	<b>237</b>	<b>11</b>

Source: Congressional Budget Office.

Based on DoD's fiscal year 2018 budget request and other documents, including Congressional testimony presented by DoD officials. DoD measures the size of its force in terms of end strength—the number of military personnel on the rolls as of the final day of a fiscal year.

DoD = Department of Defense.

a. CBO's projections incorporate the assumption that the active Army, Marine Corps, and Air Force would reach their end strength goals no later than 2027. CBO projected that the Army Reserve and the National Guard would reach their end strength goals by 2028. The Navy's growth would be slower, matching the rate at which it could build ships and add them to the fleet. As a result, CBO projects that the Navy would not reach its final end strength goal until 2037.

growth in the Army National Guard and Army Reserve would continue until 2028 (see Table 2).

The growth of the Navy's fleet would be limited by shipyard capacity, reaching about 330 ships by 2027 and meeting the 355-ship goal in 2037. CBO's estimates of the other characteristics of an acquisition plan that could meet DoD's objectives are described in the next section.

### What Are the Projected Costs of Pursuing the Administration's Goals for DoD?

CBO's projections began with an examination of DoD's estimates of costs and force structure (that is, the number

of major combat units, such as infantry brigades, battle force ships, and aircraft squadrons) for 2018. As much as possible, CBO's extension of DoD's 2018 request to the years 2019 through 2027 is based on costs that underlie the 2018 request, along with policies articulated in official documents and testimony, current laws regarding military compensation, and the long-term acquisition plans that DoD publishes in its selected acquisition reports and other official documents (such as the Navy's 30-year shipbuilding plan). If no DoD estimates of costs were available, CBO based its projections on prices and compensation trends in the general economy (see Table 3).



Table 3.

**Assumptions Underlying CBO's Projections of DoD's Costs After 2018**

Cost Assumptions for the Projection	
Military Pay	Increases at the rate projected for growth in the ECI
Civilian Pay	Increases at the rate projected for growth in the ECI
Military Health Care	Costs increase at the rate projected for growth in health care spending nationwide
Operation and Maintenance	Costs other than those for civilian pay and military health care increase at the historical average rate for operation and maintenance per service member
Procurement	Costs increase according to DoD's schedules and estimates (if available) or CBO's estimates based on previous programs
RDT&E	Costs for basic research, advanced component development, and management support increase with inflation; other increases are based on DoD's estimates (if available) or on CBO's estimates based on previous programs
Military Construction	Costs rise to DoD's historical average in 2019 and then increase at the rate projected for national growth in construction costs
Family Housing	Costs rise to DoD's historical average in 2019 and then increase at the rate projected for national growth in housing costs

Source: Congressional Budget Office.

DoD = Department of Defense; ECI = employment cost index for wages and salaries in the private sector, as reported by the Bureau of Labor Statistics; RDT&E = research, development, test, and evaluation.

Nearly all of DoD's base-budget funding is provided in seven appropriation titles: O&M; military personnel; procurement; research, development, test, and evaluation (RDT&E); military construction; family housing; and revolving and management funds. In analyzing the Administration's goals for DoD, CBO organized those seven appropriations into three broader categories according to the types of activities they fund: operation and support (O&S), acquisition, and infrastructure. CBO projects that costs will increase for all three.

### Operation and Support

O&S funding is the sum of appropriations for military personnel, O&M, and revolving and management funds. O&S appropriations are used to compensate all uniformed (and most civilian) personnel in the Department of Defense, to pay most costs of the military's health care program, and to fund most day-to-day military operations.

**The 2018 Budget Request for O&S.** For 2018, DoD requested \$368 billion in base-budget funding for O&S: \$142 billion for military personnel and \$226 billion for

O&M, or nearly two-thirds of the request for DoD's base budget. (In this report, CBO includes the relatively small amounts appropriated for revolving and management funds in the O&M appropriation because they involve similar activities.) The amount requested in the base budget for O&S in 2018 was \$11 billion more than the amount planned for 2018 in the 2017 FYDP (after adjusting for inflation)—an increase of 3 percent. In addition, of the \$65 billion requested for OCO in 2018, \$53 billion was for O&S.

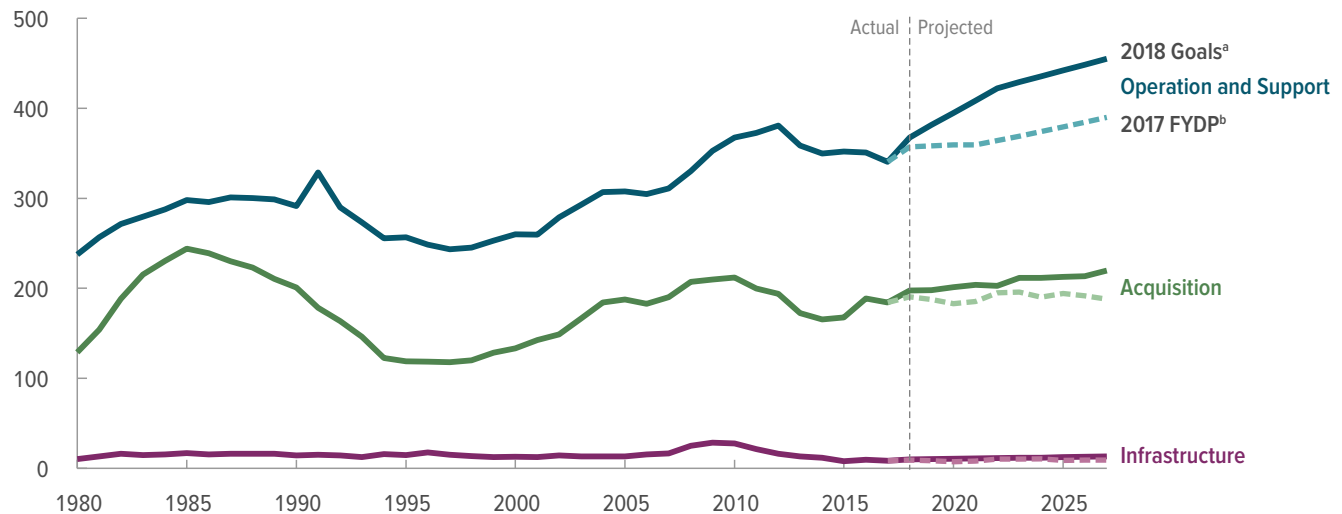
**Projections of O&S Costs Through 2027.** Beyond 2018, CBO's projections of the costs for O&S are based on the current Administration's stated goals for the size of the military, projections of economywide factors such as labor force costs, and historical trends in O&M costs per active-duty service member.

CBO's analysis indicates that after 2018, O&S costs in DoD's base budget would increase at an average annual rate of 2.4 percent above the rate of inflation, to reach \$455 billion in 2027 (see Figure 2). Much of the growth in O&S costs over the next 10 years would result from

Figure 2.

### Operation and Support, Acquisition, and Infrastructure Costs in DoD's Base Budget Under CBO's Projections of the Administration's Goals for the Military

Billions of 2018 Dollars



Source: Congressional Budget Office.

Operation and support includes military personnel, operation and maintenance, and revolving and management funds; acquisition includes procurement and research, development, test, and evaluation; and infrastructure includes military construction and family housing.

DoD = Department of Defense; FYDP = Future Years Defense Program.

a. Based on DoD's fiscal year 2018 budget request and other documents, including Congressional testimony presented by DoD officials.

b. The 2017 FYDP was the Obama Administration's final defense plan, which covered the 2017–2021 period. CBO projected the costs under that plan through 2027.

the increase in force size described above, including an increase of 237,000 active-duty and reserve personnel above the number requested for 2018.

CBO projects that additional increases in O&S costs would be the result of real (inflation-adjusted) cost growth in compensation for service members and civilian employees, military health care, and other O&M functions. For example, CBO's projections incorporate an assumption that military pay raises would equal CBO's forecast of the growth from 2019 through 2027 in the employment cost index (ECI, a measure reported by the Bureau of Labor Statistics that tracks the change in compensation per employee hour worked). According to that forecast, the ECI would increase at an average rate of 1.1 percent above inflation, for a cumulative real increase of 11 percent by 2027.<sup>6</sup>

6. For a recent discussion of CBO's methods of projecting costs for the individual components of DoD's budget, including O&S, acquisition, and infrastructure, see Congressional Budget Office, *An Analysis of the Obama Administration's Final Future Years Defense Program* (April 2017), [www.cbo.gov/publication/52450](http://www.cbo.gov/publication/52450).

### Acquisition

Acquisition funding comprises the appropriations for procurement and RDT&E. That funding is used to develop and buy new weapon systems and other major equipment, upgrade the capabilities or extend the service life of existing weapon systems, and support research on future weapon systems.

**The 2018 Budget Request for Acquisition.** For 2018, DoD requested \$198 billion for acquisition in the base budget: \$115 billion for procurement and \$83 billion for RDT&E. That amounted to about one-third of the total request, excluding OCO funding. The amount requested in the base budget for acquisition in 2018 was \$7.3 billion (or 4 percent) more than the amount planned for 2018 in the 2017 FYDP, after adjusting for inflation. In addition, of the \$65 billion requested for OCO, \$11 billion was for acquisition—almost entirely for procurement.

**Projections of Acquisition Costs Through 2027.** For projections beyond 2018, CBO started with the five

years of acquisition cost data provided with DoD's 2018 budget request and then assumed that several changes would be made to meet DoD's new goals:<sup>7</sup>

- Increase the rate of shipbuilding for the Navy's fleet, to arrive at 355 ships in 20 years;<sup>8</sup>
- Increase purchases of the F-35A to allow the Air Force to field five additional fighter squadrons; and<sup>9</sup>
- Hold funding for basic and applied research and development at the 2018 amount (in real terms) to maintain support for developing more advanced weapon systems.

CBO's projections incorporate an assumption that additional Army brigades and Marine battalions could be equipped from existing stocks of weapons. If the Administration chooses to purchase more ground equipment as it increases the size of the force, those costs will exceed the amounts in CBO's estimates.

According to CBO's projections, DoD's acquisition costs would increase steadily after 2018 by an annual average of 1.2 percent above the rate of inflation, reaching \$220 billion in 2027 (see Figure 2). The increases in acquisition costs would result primarily from increases in procurement of major weapon systems, including some already planned that were independent of the new Administration's goals.

In the case of the Navy's ships, costs vary from year to year depending on how many and which types of ships are slated for purchase. CBO projects that the average annual cost from 2018 through 2027 would

7. The five-year acquisition data are based largely on the 2017 FYDP. They include updated schedules and revised costs for DoD's acquisition programs, but they do not fully reflect new policy goals, such as increasing the size of the armed forces or acquiring more advanced weaponry. CBO anticipates that the details of those more substantial changes and the effect they will have on total acquisition costs will be reflected in the 2019 FYDP.

8. The increase projected for each type of ship is based on the Navy's planned mix of ships in a 355-ship fleet. See Congressional Budget Office, *Costs of Building a 355-Ship Navy* (April 2017), [www.cbo.gov/publication/52632](http://www.cbo.gov/publication/52632).

9. Adding five squadrons would be accomplished through a combination of deferred retirement of older fighters and increased production of F-35As.

be \$28 billion, about \$8 billion more than the amount requested for 2018. About 80 percent of that difference would be related directly to the Navy's goal of increasing the fleet to 355 ships.

For the Air Force, increasing costs through 2027 would result primarily from existing plans to replace aging weapon systems that do not incorporate the Administration's goals for increasing the force size. Those plans include beginning production of new bombers, supersonic trainers, nuclear cruise missiles, and intercontinental ballistic missiles. The 2018 budget data also anticipate that DoD's annual purchases of F-35A fighters would continue to rise through 2022, independent of plans to increase the number of fighter squadrons. CBO's projections incorporate an additional increase in F-35 procurement—boosting the top production rate from 60 aircraft to 80 aircraft per year, for a total of 132 additional aircraft by 2027—to equip those new squadrons.

The increases that CBO projects for DoD's acquisition costs are based on purchase schedules for major weapon systems that are explicitly defined in documents, such as selected acquisition reports, or implicitly included in more general policy statements, such as those regarding the Air Force's new bomber and trainer. Acquisition costs would be higher if DoD's goals included a more aggressive procurement plan than that incorporated into CBO's estimate. For example, concerns about the threat posed by North Korean ballistic missiles could lead to significantly increased investment in missile defense systems.

### Infrastructure

The budget for infrastructure includes funds to build and renovate DoD's facilities. Appropriations for military construction and family housing cover the construction of buildings and some housing on military installations.

**The 2018 Budget Request for Infrastructure.** Together, appropriations for infrastructure totaled \$9.8 billion for 2018, or less than 2 percent of the base-budget request. That amount is \$575 million more than was indicated in the 2017 FYDP, after adjusting for inflation. DoD also requested \$638 million in OCO funding for military construction for 2018.

### Projection of Infrastructure Costs Through 2027.

Under CBO's projections, infrastructure costs in DoD's

base budget would rise to above \$10 billion in 2019 and then increase at a rate of about 3 percent per year to reach \$13 billion in 2027. Although substantial on a percentage basis, that rise would contribute only slightly to the overall increase in DoD's costs because infrastructure accounts for a small portion of DoD's total budget.

The increase that CBO projects for infrastructure costs for the 2019–2027 period arises from two factors. First, DoD requested less funding for military construction for 2018 than it has historically (after adjusting for the size of the force). CBO's projections incorporate the assumption that infrastructure funding would return to historical levels in 2019 to avert deterioration of DoD's facilities. Second, the projections anticipate that construction costs will increase at a rate equal to that for the real cost of construction projects in the general economy, a rate that is higher than the projected rate of inflation. CBO did not include the potential effects of a new round of the base realignment and closure process.

### Costs to Increase the Size of the Force, by Service

Under CBO's projections of the current Administration's goals, about \$50 billion of the \$113 billion increase in annual costs (from \$575 billion in 2018 to \$688 billion in 2027) results from projected increases in the size of U.S. forces. The largest rise is for the Army, which accounts for \$22 billion of that increase (see Table 4). The increase in the size of the Navy, with significant costs for shipbuilding, accounts for the second-largest portion, with annual costs climbing by about \$17 billion over the period.<sup>10</sup> Increases in the size of the Marine Corps and Air Force would add about \$3 billion and \$8 billion, respectively, to DoD's annual costs. Cumulatively, the Administration's goals to increase the size of the force would add \$342 billion (or 6 percent) to DoD's costs over the 2019–2027 period, CBO estimates.

### How Do CBO's Projections Compare With the 2017 FYDP and Other Proposed Plans?

The role of the military in national security policy serves as the basis for determining the size and characteristics of the force. Those in favor of a more limited role for military forces might propose significantly reduced spending for defense. Conversely, those in favor of a larger role

for the military might propose significant expansions in defense spending. Although the Administration's 2018 goals call for increasing the capacity and capability of the military, there is little indication that there will be a fundamental change in how the military will be asked to support national security policy. CBO therefore limited its comparisons to proposed plans that are generally consistent with the role of the military in the recent past. CBO projects that the costs of meeting DoD's 2018 goals would exceed those it projected for the Obama Administration's final defense plan (the 2017 FYDP) but would be somewhat lower than the costs of other plans that have been advanced over the past several years.

### Comparison With the Obama Administration's Final Defense Plan

CBO projects that the cumulative costs of meeting DoD's 2018 goals through 2027 would be \$683 billion (or 12 percent) higher than it projected for costs under the 2017 FYDP for the same period. The difference of about \$18 billion in base-budget costs between the two plans for 2018 would increase to \$101 billion by 2027.

**Changes in O&S Costs.** A cumulative difference of \$489 billion (or 13 percent) in O&S costs accounts for more than two-thirds of the total difference between CBO's projections of the new Administration's goals and its projections for the 2017 FYDP. Substantial changes in DoD's goals and policies—those concerning the size of the force, military pay, and readiness—generated most of that difference. Most of the difference between the cumulative O&S costs of the two projections would result from increases in the size of the force. The rest would be the result of higher pay and increased funding to improve readiness.

*Size of the Force.* The 2017 FYDP called for a force of 2.074 million service members in 2018, dropping to 2.073 million in 2027 under CBO's projection of that plan. The current request calls for 2.130 million service members in 2018, and CBO projects an increase to 2.367 million service members by 2027 to meet the Administration's 2018 goals. That force would have 294,000 more service members than CBO's projection for 2027 under the 2017 FYDP, an increase of 14 percent. The costs of that larger force would mostly affect O&S appropriations.

10. Under CBO's current projections, the Navy would not reach 355 ships by 2027; therefore, its costs would continue to grow after 2027. See Congressional Budget Office, *Costs of Building a 355-Ship Navy* (April 2017), [www.cbo.gov/publication/52632](http://www.cbo.gov/publication/52632).

Table 4.

### CBO's Projections of the Differences in Costs in Selected Years That Would Result From Increasing the Size of the Force After 2018 to Meet the Administration's Goals

Billions of 2018 Dollars

	2019	2021	2023	2025	2027	Total, 2019–2027
Army	4.1	13.4	19.3	20.8	22.3	148.5
Navy	5.1	8.7	14.3	14.0	16.8	104.5
Marine Corps	0.7	2.2	3.1	3.2	3.3	23.4
Air Force	1.6	7.4	9.1	9.1	7.7	65.8
<b>Total</b>	<b>11.5</b>	<b>31.8</b>	<b>45.8</b>	<b>47.1</b>	<b>50.1</b>	<b>342.2</b>

Source: Congressional Budget Office.

Based on DoD's fiscal year 2018 budget request and other documents, including Congressional testimony presented by DoD officials. Differences are relative to a force with an end strength as identified in DoD's 2018 budget request. End strength is the number of military personnel on the rolls as of the final day of a fiscal year.

DoD = Department of Defense.

*Military Pay.* Under current law, unless the President or lawmakers take action, military basic pay is adjusted on the basis of growth in the ECI for private-sector wages and salaries. Hence, CBO's projections for the Administration's goals for 2018 include a military pay raise that would increase annually with the ECI. The 2017 FYDP specified a rate for 2018 through 2021 that was less than the increase in the ECI.

*Readiness.* The Administration's 2018 request calls for slightly higher O&M funding per service member than the 2017 FYDP, in an effort to improve readiness. CBO's projection incorporates the assumption that this higher amount for 2018 would be the starting point from which future growth in O&M would accrue.

**Changes in Acquisition Costs.** The difference in acquisition costs between the two projections is \$171 billion (or 9 percent) over the 10-year projection period, about one-third the amount of the change for O&S as measured in dollars and slightly less on a percentage basis. Increased appropriations for RDT&E and for procurement, in part associated with the Administration's goal of expanding the force, each account for about half of the total difference in acquisition costs.

**Changes in Infrastructure Costs.** Cumulative infrastructure costs would be about \$23 billion (or 25 percent) higher through 2027 under CBO's projections

of the Administration's goals than they were in CBO's projections for the 2017 FYDP. Although DoD's request for 2018 includes increased funding for upkeep of facilities, much of the cumulative difference between the two projections results from CBO's assumption for this year's projection that infrastructure costs would rise to their historical average after 2018. The 2017 FYDP specified lower costs through 2021, and CBO's projection for that plan beyond 2021 included infrastructure spending at historical amounts.

#### Comparisons With Other Plans That Would Maintain the Military's Current Role in National Security Policy

Although CBO projects that DoD's goals for 2018 would be more expensive to accomplish than those in the 2017 FYDP, some other plans proposed in the past several years that were based on a similar role for the military would have cost more. For example, the cumulative costs for 2018 through 2022 (the years that would have been covered by a 2018 FYDP) are about \$260 billion lower than CBO's projections for 2018 through 2022 under the 2012 FYDP, the last FYDP prepared before the BCA was enacted.

However, constrained by limits set in the BCA, subsequent Future Years Defense Programs adopted scaled-back goals that lowered costs, although they did not envision a greatly different role for the military. CBO's

projection of DoD's costs for 2018 through 2022 under the 2014 FYDP was less than that for the 2012 FYDP and about the same as its projection of the costs of attaining DoD's 2018 goals.

Although the Administration has not provided full details of its goals beyond 2018, the Secretary of Defense and Chairman of the Joint Chiefs of Staff indicated in Congressional testimony their anticipation that meeting the Administration's goals for DoD will require increases in budgets averaging 3 percent to 5 percent annually (in real terms) for at least the next five years.<sup>11</sup> Costs under CBO's projection would be slightly below that range, averaging about 2.5 percent annually through 2022. An average annual growth of 3 percent to 5 percent in real terms would result in cumulative costs over the next five years that are roughly \$20 billion to \$150 billion more, respectively, than CBO's projection (see Table 5). That difference could be the result of DoD's expectation that it will increase the size of the military or purchase new weapon systems at faster rates than those anticipated in CBO's projection.

The 2018 National Defense Authorization Act (NDAA; H.R. 2810) passed by the Congress in November 2017 calls for \$605 billion in funding for DoD's base budget, substantially more than the Administration requested. The act also includes \$66 billion for OCO expenses, about the same amount the Administration requested in May 2017.<sup>12</sup> As with the Administration's request, the funding authorized by that act would exceed the BCA's 2018 cap for national defense.

The 2018 NDAA authorizes 2018 end strengths (the number of military personnel on the rolls as of the final day of that fiscal year) for the Army and the Marines that are higher by 8,500 people and 1,000 people, respectively, than the Administration requested. Although the NDAA does not provide funding or end strength details for later years, some members of both the House and

the Senate Armed Services Committees have expressed strong support for further increases in end strength.<sup>13</sup>

### **How Do the Projected Costs of the Administration's Goals for DoD Compare With the Caps Set by the Budget Control Act?**

The Budget Control Act of 2011 established caps on discretionary appropriations—including those for national defense—through 2021.<sup>14</sup> However, the caps do not constrain appropriations designated for OCO or for emergency requirements for defense or for other areas, such as relief after a natural disaster. The BCA's limits have been increased three times since 2011: by the American Taxpayer Relief Act of 2012, the Bipartisan Budget Act of 2013, and most recently the Bipartisan Budget Act of 2015. Taken together, those actions eased the constraints on funding each year from 2013 to 2017 but left intact the limits for 2018 through 2021.

Under the terms of the BCA, if lawmakers provide defense appropriations within the BCA's limits on funding for national defense, no sequestration (the cancellation of budgetary resources after they have been appropriated) would occur for base-budget or OCO funding. However, if lawmakers appropriate more in any year for national defense (excluding OCO or emergency funding) than the BCA allows, sequestration would take effect in an amount equal to the overage (that is, the difference between the appropriated amounts and the BCA's limit in that year). Sequestered funding for OCO would also then contribute to reducing the overage.

The President's 2018 request included \$603 billion in discretionary national defense funding, of which

11. See House Committee on Armed Services, "The Fiscal Year 2018 National Defense Authorization Budget Request From the Department of Defense" (June 12, 2017), <https://go.usa.gov/xn3ME>.

12. In November 2017, the Administration submitted a request for an additional \$6 billion in funding for OCO and other purposes for 2018.

13. Early in 2017, for example, the Chairman of the Senate Armed Services Committee proposed a five-year plan to further increase the size and capability of the military. That plan included an increase of 85,000 military personnel by 2022. According to the plan's year-by-year funding targets, CBO estimates that DoD's cumulative costs for the 2018–2022 period would be about \$130 billion more than CBO has projected for the Administration's goals for the same period. The Chairman of the House Armed Services Committee later expressed support for such a plan. See John McCain, "Restoring American Power: SASC Chairman John McCain Releases Defense Budget White Paper" (press release, January 16, 2017), <https://go.usa.gov/xnaTA>.

14. Appropriations for accounts in budget function 050, national defense, include those for DoD, the Department of Energy's nuclear weapons activities, and a host of smaller defense-related activities in other departments and agencies.

**Table 5.**  
**Five-Year Costs of Alternative Defense Plans, 2018 to 2022**

Billions of 2018 Dollars

	<b>Total, 2018–2022</b>	<b>Amount Above the BCA Caps<sup>a</sup></b>
Range of DoD Estimates of the Costs of the Administration's 2018 Goals <sup>b</sup>	3,050 to 3,200	300 to 400
CBO's Projections of the Costs of the Administration's 2018 Goals <sup>c</sup>	3,030	295
CBO's Projections of the 2017 FYDP <sup>d</sup>	2,783	114

Source: Congressional Budget Office.

BCA = Budget Control Act of 2011; DoD = Department of Defense; FYDP = Future Years Defense Program.

- a. The estimated amount through 2021 (the final year capped under the BCA) by which funding for DoD and the other agencies funded by the national defense budget would exceed the BCA caps if costs for those other agencies grew at the rate of inflation.
- b. Estimated on the basis of DoD testimony. See House Committee on Armed Services, “The Fiscal Year 2018 National Defense Authorization Budget Request From the Department of Defense” (June 12, 2017), <https://go.usa.gov/xn3ME>.
- c. Based on DoD’s fiscal year 2018 budget request and other documents, including Congressional testimony presented by DoD officials.
- d. The 2017 FYDP was the Obama Administration’s final defense plan, which covered the 2017–2021 period. CBO projected the costs under that plan through 2027.

\$575 billion, or 95 percent, is for DoD’s base budget. The request exceeds the BCA’s cap of \$549 billion for national defense in 2018 by \$54 billion. If DoD’s costs grow in accordance with CBO’s projection and the costs of agencies other than DoD that are funded in the national defense budget grow at the rate of inflation, total national defense costs for 2018 through 2021 would exceed the BCA caps by \$295 billion. Avoiding sequestration would require amending the BCA to increase the caps, scaling back the goals of DoD (and possibly those of the other agencies funded by the national defense budget), or taking some combination of those actions.

### What Are the Costs for Overseas Contingency Operations?

Operation Freedom’s Sentinel in Afghanistan and Operation Inherent Resolve in Iraq and Syria are ongoing. Those and other possible operations could increase DoD’s costs. From 2001 to 2017, OCO appropriations totaled about \$2 trillion (in 2018 dollars), or nearly 20 percent of DoD’s total funding for the period.

The budget that DoD submitted in May 2017 requested \$65 billion for OCO, including \$31 billion for the operations, force protection, and associated in-theater support of deployed U.S. units. The rest was allocated to other overseas operations and related activities, such as repairing or replacing equipment, supporting coalition military forces, and conducting other counterterrorism operations. On November 6, 2017, the Administration requested an additional \$1.2 billion for OCO to support increased troop levels in Afghanistan.<sup>15</sup>

In the past, some OCO funding has been used to meet base-budget costs. Indeed, the Obama and Trump Administrations and the Congress acknowledged using OCO funding to cover base-budget costs in 2016 and 2017 under the Bipartisan Budget Act of 2015. It is unclear whether OCO funding will be used in the same way in 2018. The amount that DoD will request for OCO in the future also is unknown.

OCO funding is generally omitted from estimates of long-term defense costs because the amounts are often unpredictable, and the need for OCO funding is assumed to be temporary. Given the use of OCO funding over the past 17 years, however, CBO is now working to identify elements of that funding that should be considered part of the base budget. Unfortunately, currently available data are insufficient for CBO to include such estimates in this report.

15. At the same time, the Administration requested an additional \$4.7 billion in emergency funding for DoD for 2018: \$4.0 billion for missile defense enhancements to counter North Korea, and \$0.7 billion to repair damage suffered by the USS *Fitzgerald* and the USS *John S. McCain* in their collisions with commercial ships earlier in 2017. Because that request was for emergency funding and would not affect base-budget funding for 2018, CBO did not include it in its projections of base-budget spending beyond 2018.



## About This Document

This report was prepared at the request of the Chairman and Ranking Member of the Senate Committee on the Budget. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

David Arthur and Matthew Woodward coordinated the preparation of the report with guidance from David Mosher and Edward G. Keating. Elizabeth Bass, Michael Bennett, Bernard Kempinski, Eric Labs, and Adam Talaber contributed to the analysis. Sarah Jennings provided comments. Adebayo Adedeji fact-checked the manuscript.

Russell Rumbaugh, formerly of the Congressional Research Service, and Mackenzie Eaglen of the American Enterprise Institute provided reviews and comments. (The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.)

Jeffrey Kling and Robert Sunshine reviewed the report, Kate Kelly edited it, and Jorge Salazar prepared it for publication. An electronic version is available on CBO's website, [www.cbo.gov/publication/53350](http://www.cbo.gov/publication/53350).

A handwritten signature in black ink, appearing to read "Keith Hall".

Keith Hall  
Director  
December 2017