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Long-Term Implications of the 2012 Future Years Defense Program

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Long-Term Implications of the 2012 Future Years Defense Program

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Notes

Unless otherwise indicated, all years referred to in this study are federal fiscal years (which run from October 1 to September 30), all costs are expressed in 2012 dollars of total obligational authority, and all growth rates are measured in real terms (above the rate of inflation).

Numbers in the text and tables may not add up to totals because of rounding.

On the cover—
Top left: A U.S. Army soldier and his military working dog jump off the ramp of a CH-47 Chinook helicopter during water training over the Gulf of Mexico, March 2011. *Photo by Technical Sergeant Manuel J. Martinez, U.S. Air Force*.

Top right: An aircraft director guides an F/A-18C Hornet onto a catapult aboard the aircraft carrier USS *Harry S. Truman* in the Atlantic Ocean, February 2011. *Photo by Petty Officer 2nd Class Kilho Park, U.S. Navy.*

Bottom left: A Marine takes part in a mass casualty evacuation exercise during the Enhanced Mojave Viper training evolution aboard Marine Corps Base 29 Palms, California, May 2011. *Photo by Corporal James W. Clark, U.S. Marine Corps*.

Bottom right: An Air Force staff sergeant posts security June 3, 2011, at Kandahar Airfield, Afghanistan. *Photo by Senior Airman Willard E. Grande II, U.S. Air Force.*

Preface

This Congressional Budget Office (CBO) study, prepared at the request of the Senate Committee on the Budget, projects the costs of the Department of Defense's plan for national defense for the years 2012 to 2030. The study is the latest in an annual series that CBO has published for the past eight years. In particular, it updates the projections contained in CBO's *Long-Term Implications of the Fiscal Year 2011 Defense Budget*, published in February 2011. In keeping with CBO's mandate to provide objective, impartial analysis, this study makes no recommendations. A future CBO study will examine the implications that possible constraints on defense budgets might have for the future size, composition, and capabilities of the military services.

Adam Talaber, Daniel Frisk, and David Arthur of CBO's National Security Division coordinated the preparation of this study under the supervision of David E. Mosher and Matthew S. Goldberg. Michael Bennett, Alec Johnson, Bernard Kempinski, Eric J. Labs, Frances Lussier, Christopher Murphy, and Allison Percy of the National Security Division contributed to the analysis. Kent Christensen, Raymond Hall, David Newman, Dawn Sauter Regan, Matthew Schmit, and Jason Wheelock of CBO's Defense, International Affairs, and Veterans' Affairs Cost Estimates Unit, under the supervision of Sarah Jennings, also contributed to the study. Todd Harrison of the Center for Strategic and Budgetary Assessments provided review comments. (The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.)

Sherry Snyder edited the study, and Loretta Lettner and Kate Kelly proofread it. Maureen Costantino designed the cover, and Jeanine Rees prepared the study for publication. Monte Ruffin produced the printed copies, and Linda Schimmel handled the print distribution. The study is available on CBO's Web site (www.cbo.gov).

Douglas W. Elmendorf
Director

June 2011

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Summary

In most years, the Department of Defense (DoD) provides a five- or six-year plan, called the Future Years Defense Program (FYDP), associated with the budget that it submits to the Congress. Because decisions made in the near term can have consequences for the defense budget well beyond that period, the Congressional Budget Office (CBO) has examined the programs and plans contained in DoD's FYDP and projected their budgetary impact in subsequent years. For this analysis, CBO used the FYDP provided to the Congress in April 2011, which covers fiscal years 2012 to 2016. CBO's projections span the years 2012 to 2030.

CBO's Projections

In February 2011, DoD requested an appropriation of $671 billion for 2012.[1] Of that amount, $554 billion was to fund the "base" programs that constitute the department's normal activities, such as the development and procurement of weapon systems and day-to-day operations of the military and civilian workforce. The remaining $118 billion was requested to pay for overseas contingency operations—the wars in Afghanistan and Iraq and other military activities elsewhere. CBO focused its analysis on the base budget because it reflects DoD's future plans for manning, training, and equipping the military.

CBO has projected the costs of DoD's plans for its base budget (reflected in the FYDP, along with other long-term plans released by the department) by using factors that are consistent with the department's recent experience. CBO's analysis yields these conclusions:

- To execute its base-budget plans for the period covered by the 2012 FYDP, DoD would need appropriations totaling about $206 billion (or 8 percent) more over those five years than if funding was held at the 2011 level of $536 billion. Over the 10 years from 2012 to 2021, DoD would need a total of $597 billion (or 11 percent) more than if funding was held at the 2011 level.

- DoD's base budget would grow at a real (inflation-adjusted) average annual rate of 1.8 percent from 2012 to 2016 and by 0.5 percent from 2016 to 2030. At those rates, DoD's base budget would rise from $554 billion in 2012 to $594 billion in 2016 and to $642 billion in 2030.

- The primary cause of long-term growth in DoD's budget from 2012 to 2030 would be rising costs for operation and support (O&S), which would account for nearly all of the increase. In particular, CBO projects significant increases in the costs for military and civilian compensation, military health care, and various operation and maintenance activities. O&S costs would grow steadily throughout the projection period, from $350 billion in 2012 to $459 billion in 2030, a growth rate of 1.5 percent per year.

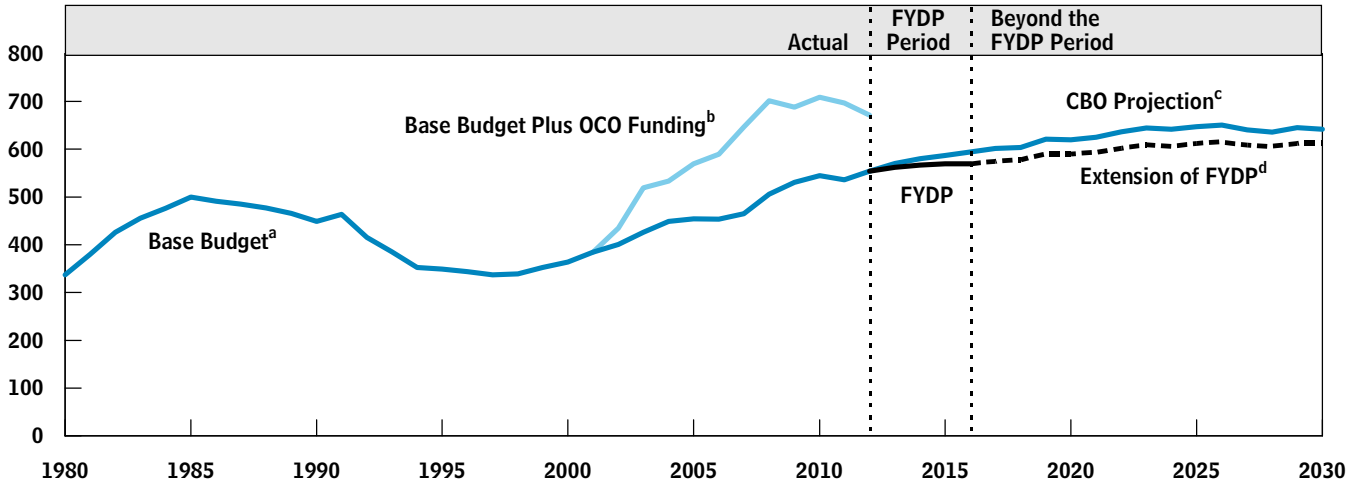
- That large contribution of operation and support costs to long-term budget growth is a change from the years before the wars in Afghanistan and Iraq, when sharp growth in anticipated requirements to replace and modernize weapon systems (the so-called bow wave) was the primary factor underlying projected budget growth beyond the years covered by the FYDP. In CBO's current projections, acquisition costs (the costs of developing and procuring weapon systems) would grow steadily from $189 billion in 2012 to a peak of $217 billion in 2019 (an increase of about 14 percent) before decreasing and leveling off—albeit with year-to-year variations—at an average of about $197 billion per year through 2030.

1. Unless otherwise stated, all costs are expressed as fiscal year 2012 dollars, and all growth rates are measured in real terms (above the rate of inflation).

Summary Figure 1.

Costs of DoD's Plans

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Base-budget data include supplemental and emergency funding before 2002.

b. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

c. The CBO projection of the base budget incorporates costs that are consistent with DoD's recent experience.

d. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

Comparison with Projections Incorporating DoD's Estimates

CBO compared its projection (referred to in this study as "the CBO projection") with DoD's estimate of the costs of the FYDP (for the 2012–2016 period) and with an "extension of the FYDP" (for the 2017–2030 period). The latter projection is based on DoD's estimates of costs if they are available for years beyond 2016 (for some weapon systems, for instance) and on costs consistent with the broader U.S. economy if such estimates are not available (for pay and medical costs, for instance).

By DoD's estimates, executing its plans for 2012 to 2016 would require real increases in funding of about 0.7 percent annually (excluding supplemental and emergency funding for overseas contingency operations). Over the five-year period, that growth rate would result in costs that were $142 billion (or 5 percent) greater than the amount of DoD's budget if it was held at the 2011 level.

In most cost categories, the CBO projection is higher than the FYDP and the extension of the FYDP. For instance, health care costs for DoD have grown faster than they have in the broader economy, and the costs of developing and buying weapons have historically been, on average, 20 percent to 30 percent higher than DoD's initial estimates. The CBO projection—which, starting with 2013, includes estimates of those costs that reflect historical trends—indicates how rapidly defense budgets would have to grow to execute DoD's plans under the assumption that the department's costs continue to grow as they have in the past.

CBO's projection of the total cost of the FYDP through 2016—at $2,885 billion—is $64 billion (or about 2 percent) higher than the department's estimate (see Summary Figure 1). Compared with the FYDP and the extension of the FYDP, annual costs under the CBO projection would be about $25 billion (or 4 percent) higher in 2016, at the end of the FYDP period; $31 billion (4 percent) higher at the end of 10 years; and about $29 billion (5 percent) higher by 2030, at the end of the projection period. Much of the difference derives from CBO's judgment that recent trends in the costs of military health care, weapon systems, and other support activities are likely to persist. Although the costs of DoD's base budget would increase under CBO's projections, that increase would not be as rapid as CBO's current estimates of the future growth of the economy, so costs would decline as a share of GDP.

CBO's projections should not be viewed as predictions of future defense spending; rather, they are estimates of the costs of executing DoD's current plans. The degree to which the plans laid out by DoD are executed in the future will depend on the funding that will be provided in an era of increasing pressure on the federal budget as a whole and on the success of ongoing efforts to curb cost growth for such items as medical care and advanced weapon systems.

CHAPTER

1

CBO's Projections of the Cost of DoD's Plans

The nation's fiscal pressures are likely to increase scrutiny of the Department of Defense's (DoD's) budget in the coming years. Although funding decisions will generally be made on an annual basis, near-term decisions about issues such as pay raises, weapon systems, and health benefits for retirees can have effects on the composition and costs of the nation's armed forces that last many years into the future.

One basis for assessing the implications of DoD's budget proposals is its Future Years Defense Program (FYDP), which the department issues in conjunction with its annual budget request. The FYDP is a detailed description of DoD's plans for national defense and their associated costs over the next several years. The latest FYDP at the time the Congressional Budget Office (CBO) prepared this study was issued in April 2011 and covers the years 2012 to 2016.

Although DoD publishes information about longer-term plans for some activities, such as shipbuilding and aircraft procurement, details about most activities beyond the FYDP period are unspecified. To gain a more complete picture of the funding that may be needed for defense plans over the longer term, CBO has projected the costs of DoD's defense plans over the next 19 years, through 2030. This study presents the results of those projections.

DoD's Budget Proposal for 2012

CBO's projections and the FYDP both begin with DoD's proposed budget for 2012, in which the department requested a total of $671 billion (see Table 1-1). That request can be separated into two parts:

- $554 billion for DoD's "base" programs, which constitute the normal activities of the department, including the development and procurement of weapon systems and day-to-day operations of the military and related civilian workforce, and
- $118 billion for overseas contingency operations (OCO) to pay for the wars in Afghanistan and Iraq and other military activities elsewhere. Depending on how those conflicts progress, a supplemental request to support them may be forthcoming in 2012.

CBO's analysis focuses on DoD's base budget, which reflects the department's future plans for manning, training, and equipping the military, excluding funding for overseas contingency operations. Those operations have accounted for a significant fraction of DoD's total spending over the past 10 years, but future spending for such operations will depend on how conditions evolve in Afghanistan and Iraq and on whether new contingencies arise elsewhere.

The request for the base budget in 2012 is 3.4 percent higher than the amount that the Congress appropriated for it in 2011, after adjusting for inflation. Nearly all of DoD's base budget is contained in six primary appropriation categories. In its analysis of future funding needs, CBO organized those appropriation categories into three groups: operation and support, acquisition, and infrastructure.

Operation and support (O&S) is focused on the normal activities of DoD and includes appropriations for operation and maintenance (O&M) and military personnel. O&M appropriations fund the day-to-day operations of the military, the training of military units, the majority of costs of the military's health care program, and compensation for most DoD civilian employees. O&M represents the largest portion, or nearly 37 percent, of the request for the base budget in 2012, followed by military personnel (about 26 percent). Military personnel accounts fund compensation for uniformed service members, including pay, housing and food allowances, and related activities, such as moving service members and their families.

Table 1-1.

CBO Projection of Costs of DoD's Plans in Selected Years

(Billions of 2012 dollars)

			FYDP Period		Beyond the FYDP Period		
	2001	2011	Budget Request, 2012	2016	2021	2030	Average, 2012–2030
				Base Budget			
Operation and Support							
Operation and maintenance[a]	145	200	207	226	248	284	248
Military personnel	100	139	143	144	155	175	156
Subtotal	245	339	350	370	403	459	404
Acquisition							
Procurement	77	104	113	140	140	110	132
Research, development, test, and evaluation	52	76	76	69	69	58	68
Subtotal	129	180	189	210	208	168	200
Infrastructure							
Military construction	7	15	13	12	13	13	13
Family housing	5	2	2	2	2	2	2
Subtotal	11	17	15	14	14	14	14
Total Base Budget	**385**	**536**	**554**	**594**	**625**	**642**	**618**
			Supplemental and Emergency Funding for Overseas Contingency Operations				
Total OCO Funding	**n.a.**	**160**	**118**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
				Total			
Total DoD Budget	**385**	**696**	**671**	**n.a.**	**n.a.**	**n.a.**	**n.a.**

Source: Congressional Budget Office.

Notes: The CBO projection incorporates costs that are consistent with the Department of Defense's (DoD's) recent experience.

FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which DoD's plans are fully specified; OCO = overseas contingency operations; n.a. = not applicable.

a. For this analysis, CBO folded appropriations for most revolving funds (such as the one for the Defense Commissary Agency) into the appropriation for operation and maintenance. The exception is accounts in the National Defense Sealift Fund that are used to purchase ships, which CBO treated as procurement.

Acquisition includes procurement and research, development, test, and evaluation (RDT&E). Procurement accounts fund the purchase of new weapon systems and other major equipment and upgrades to existing weapon systems. RDT&E accounts pay for the development of technology and weapons. Procurement represented about 20 percent of the request for the base budget in 2012; and RDT&E, about 14 percent.

Infrastructure focuses on construction at DoD facilities. The military construction and family housing accounts fund the construction of buildings and housing on military installations and together make up 3 percent of the request for the base budget.

CBO's Approach for the Projections

This study provides CBO's independent projections of the costs of implementing DoD's plans for operation and support, acquisition, and infrastructure contained in the

Table 1-2.

Cost Assumptions for Two Projections of DoD's Plans

	CBO Projection (2012 to 2030)	Extension of FYDP[a] (2017 to 2030)
Military Pay	ECI	ECI
Civilian Pay	No increase in 2012; ECI after 2012	ECI[b]
Military Health Care	Until 2019, tracks DoD's recent experience; after 2019, slowly approaches growth rates for health care nationally	Tracks growth rates for health care nationally
Operating Forces	DoD's estimates through 2016; after 2016, costs other than those for pay and health care grow at the long-standing historical rate	Costs other than those for pay and health care grow at the long-standing historical rate
Acquisition	Historical average cost growth	DoD's estimates with no cost growth
Military Construction and Family Housing	DoD's estimates through 2016; no real (inflation-adjusted) growth beyond 2016	No real growth

Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; ECI = employment cost index (the Bureau of Labor Statistics' index for wages and salaries in the private sector).

a. The extension of the FYDP uses the cost estimates provided in the Future Years Defense Program through 2016.

b. Civilian pay would increase with the ECI starting in 2017, but from a lower level than in CBO's projection because of smaller projected pay raises during the 2014–2016 period.

2012 FYDP, which spans the years 2012 to 2016. Extrapolating from those plans, CBO also projects costs through 2030. In making its projections, CBO relied on the number of military personnel, acquisition plans, and policies spelled out in the 2012 FYDP and the long-term acquisition plans that DoD publishes in other official documents, such as the Navy's 30-year shipbuilding plan and DoD's 30-year aviation plan and Selected Acquisition Reports.[1] CBO made two projections of the costs of DoD's plans:

- The "CBO projection," which is based on CBO's estimates of future costs, and
- The "extension of the FYDP," which incorporates the department's estimates to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

Specifically, the CBO projection begins with DoD's plans and applies CBO's estimates of the costs of those plans through 2030 (see Table 1-2 for the assumptions CBO used in its estimates). The CBO projection was developed using cost factors and growth rates that are consistent with DoD's recent experience but not necessarily with its official cost assumptions or with cost trends in the broader economy.

For the extension of the FYDP, CBO starts with DoD's cost estimates for 2012 through 2016 and projects the costs of DoD's plans through 2030 using the department's estimates of longer-term costs if they are available (for some major weapon systems, for instance) or costs that are consistent with the broader U.S. economy if such estimates are not available (for pay and medical costs, for instance).

1. If a weapon system reaches the end of its service life before the end of the projection period (in 2030) and DoD has not planned a replacement system, CBO assumes that the department will develop and purchase a new system to replace the aging one. DoD has not published plans for minor programs extending beyond the FYDP. CBO estimated costs for those programs on the basis of historical correlations between funding for major and minor programs.

For most categories, costs in the CBO projection are higher than the costs estimated by DoD in the FYDP and the costs estimated using the assumptions for the extension of the FYDP. For instance, health care costs for DoD have grown faster than they have in the broader economy, and the costs of developing and buying weapons have historically been, on average, 20 percent to 30 percent higher than DoD's initial estimates. The CBO projection—which, starting with 2013, includes estimates of those costs that reflect historical trends—indicates how rapidly defense budgets would have to grow to execute DoD's plans under the assumption that the department's costs continue to grow as they have in the past.

The two sets of projections should not be viewed as predictions of future defense spending; rather, they are estimates of the costs of executing DoD's current plans. Defense plans can be affected by unpredictable changes in the international security environment, Congressional decisions, and other factors that could result in substantial departures from current intentions. One such factor is that DoD and the Congress frequently respond to higher-than-expected costs by changing acquisition plans—by, for example, delaying or reducing purchases of weapon systems or canceling systems outright. Another factor that has taken on prominence is the increasing pressure on the federal budget as a whole. Indeed, in anticipation of that pressure, Secretary of Defense Robert Gates announced in January 2011 that DoD would trim the plans presented in the 2011 budget by a total of $78 billion (or about 3 percent) between 2012 and 2016 in recognition of the fiscal environment (a decrease that is reflected in the 2012 FYDP). Also, the President announced that he would seek an additional $400 billion in savings from national security funding over the next 12 years. If those savings were realized, they could reduce the costs of DoD's future plans.

Projections of Overall Costs

The detailed projections describe the costs of DoD's base budget over two spans: the period from 2012 to 2016 covered by the Future Years Defense Program, and the period from 2017 to 2030. Because the size of overseas contingency operations in the future is uncertain, costs for them are projected only as illustrative totals and are not broken out by budget category.

Costs for the Base Budget from 2012 to 2016

According to the CBO projection, which uses prices that are consistent with DoD's historical experience, the annual costs of carrying out DoD's plans for the FYDP would reach $594 billion by 2016, an 11 percent increase over the base budget in 2011. Total costs for the 2012–2016 period would be about $206 billion (or 8 percent) more than if funding was kept at the 2011 level of $536 billion (see Figure 1-1).[2] That projection translates to annual increases in defense budgets that average 1.8 percent between 2012 and 2016.

By contrast, the FYDP anticipates that carrying out current plans will require DoD's base budget to grow at an average annual rate of about 0.7 percent between 2012 and 2016, reaching $569 billion by 2016, a 6 percent increase over the base budget in 2011. The difference between the CBO projection and DoD's estimates for the FYDP is about 2 percent, or about $64 billion, over the five-year period (see Table 1-3). Most of that difference results from CBO's higher estimates of the costs to develop and procure new weapon systems and to provide health care to service members and retirees and their families.

Costs for the Base Budget Beyond the FYDP Period

According to the CBO projection of DoD's plans, costs would rise from $594 billion in 2016 to $625 billion in 2021 and to $642 billion in 2030—reflecting an average increase of about 0.6 percent per year from 2016 to 2030 (see Table 1-1 on page 2). Most of the increase is attributable to projected real (inflation-adjusted) increases in the costs of operation and maintenance and real increases in the costs of pay and benefits for military service members (see Figure 1-2 on page 7). In particular:

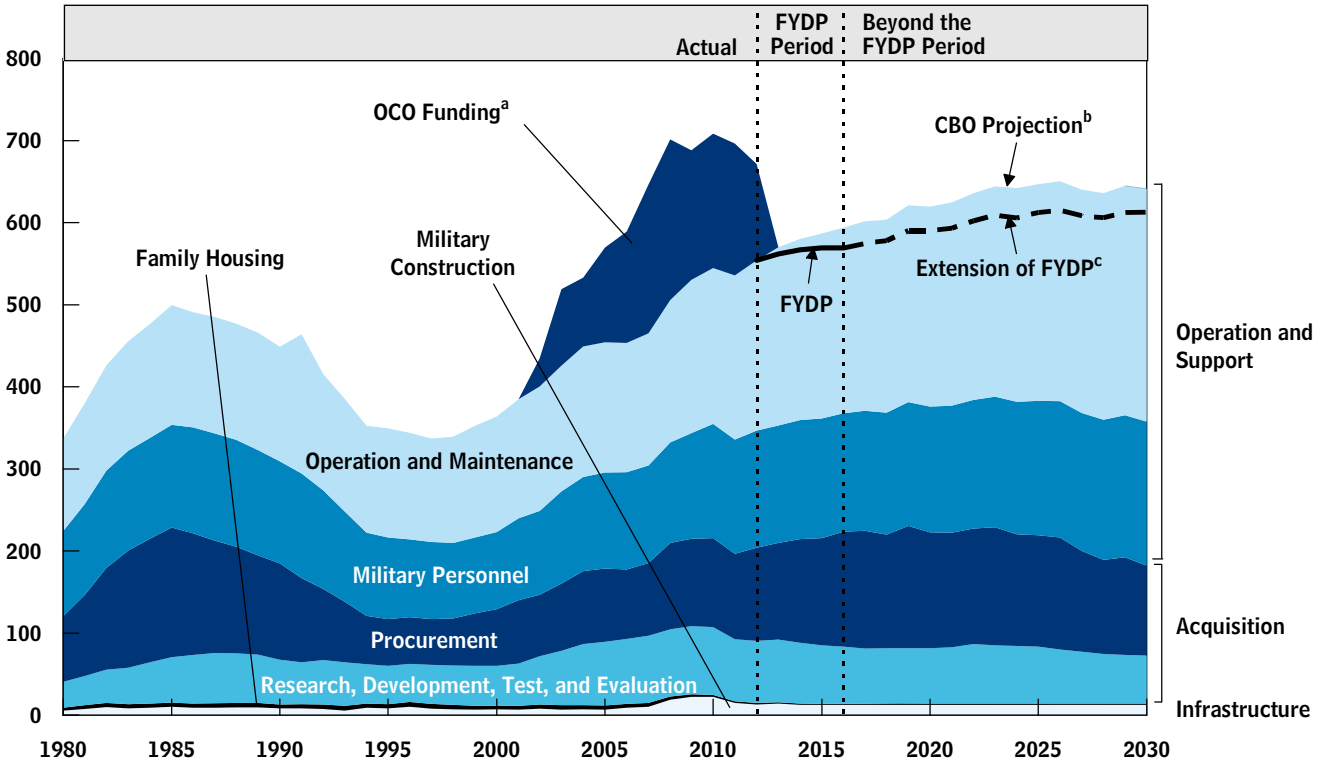
- After rising by 2.2 percent per year between 2012 and 2016, the cost of O&M is projected to grow by 1.6 percent per year from 2017 to 2030. Most of that growth is attributable to the rising costs of medical care, but increases in the costs of pay and benefits

2. All costs in this study are expressed in fiscal year 2012 dollars of total obligational authority (TOA) unless noted otherwise. TOA differs from budget authority in that it excludes the effects of some receipts, permanent spending in some trust funds and other accounts, and some payments to the Military Retirement Fund. In recent years, the difference between TOA and budget authority in the DoD budget has been relatively small, generally $2 billion or less.

Figure 1-1.

Costs of DoD's Plans, by Appropriation Category

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: Base-budget data include supplemental and emergency funding before 2002.

FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which Department of Defense's (DoD's) plans are fully specified.

a. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

b. Each category shows the CBO projection of the base budget from 2012 to 2030. That projection incorporates costs that are consistent with DoD's recent experience.

c. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

for civilian workers and of maintaining the aging equipment in the current inventory and the more sophisticated equipment that will replace today's systems also contribute.

- After barely growing during the FYDP period (because of planned reductions in the number of military personnel), the annual appropriation for military personnel would increase by about 1.4 percent per year from 2017 to 2030.
- After a fairly rapid increase over the next six years, the costs of developing and purchasing new weapon systems (and upgrading older systems) under DoD's current plans would be fairly steady from 2017 to 2030—albeit with annual variations—at a level that is about 13 percent higher than that in 2011. Beyond 2030, acquisition costs could rise again depending on the decisions that are made about how to equip forces in the distant future.

Table 1-3.

Comparison of the CBO Projection of DoD's Future Years Defense Program and DoD's Own Projection

(Billions of 2012 dollars)

		FYDP Period					
	2011	Budget Request, 2012	2013	2014	2015	2016	Total, 2012-2016
CBO Projection	536	554	570	580	587	594	2,885
DoD's 2012 FYDP	536	554	562	567	569	569	2,821
Difference Between the CBO Projection and DoD's FYDP	0	0	8	13	18	25	64

Source: Congressional Budget Office.

Notes: The CBO projection incorporates costs that are consistent with the Department of Defense's (DoD's) recent experience.

FYDP = Future Years Defense Program.

Projected costs would rise more slowly under the extension of the FYDP than under the CBO projection—at an average rate of 0.5 percent a year from 2016 to 2030, reaching $613 billion at the end of that period, or about $29 billion less than the amount in the CBO projection (see the dashed line in Figure 1-1 on page 5). That lower growth is attributable primarily to lower estimates of medical costs, most of which are reflected in the operation and maintenance account, and procurement costs.

Costs for the Base Budget in a Broader Context

CBO's analysis is intended to highlight the budgetary implications of DoD's plans embodied in the 2012 FYDP, particularly after 2016; it is not an analysis of affordability or requirements for defense. When assessing the affordability of the defense budget, some analysts consider the fiscal picture overall, including the size of the deficit and the funding needed for other claims on the federal budget, such as Social Security, Medicare, and interest on the public debt. Others look at affordability in terms of the share of the U.S. economy (as measured by gross domestic product, or GDP) that is allocated to defense.

Although the costs of DoD's base budget would increase under the CBO projection, that increase would not be as rapid as CBO's current estimates of the future growth of the economy, so costs would decline as a share of GDP (see Figure 1-3). Historically, that share fell from an average of 6.0 percent in the 1980s to 3.8 percent in the 1990s. Including supplemental and emergency funding, DoD's costs as a share of GDP rose above 4.0 percent after 2007, to 4.8 percent in 2011. According to the CBO projection, defense funding in the base budget under DoD's plans would decline to 3.0 percent of GDP by 2021 and to 2.6 percent by 2030. All else being equal, any future funding for overseas contingency operations would increase the share of GDP spent on defense.

A number of groups have released plans in recent months that focus on reducing the deficit and have recommended cuts in defense spending over the next five years and, in some cases, for a much longer period. Many of those plans suggest freezing the total base budget for defense at some specified amount (such as the 2010 or 2011 funding) or limiting future growth in the base budget to some specified rate (such as the rate of inflation in the broader economy).[3] For example, a majority of the members of the National Commission on Fiscal Responsibility and Reform (the Fiscal Commission), a bipartisan group created by the President, endorsed a plan that would cut all security spending (which includes the base defense budget as well as spending on nuclear weapons, homeland security, veterans, and international affairs) to its 2008 level (in inflation-adjusted terms) by 2013.

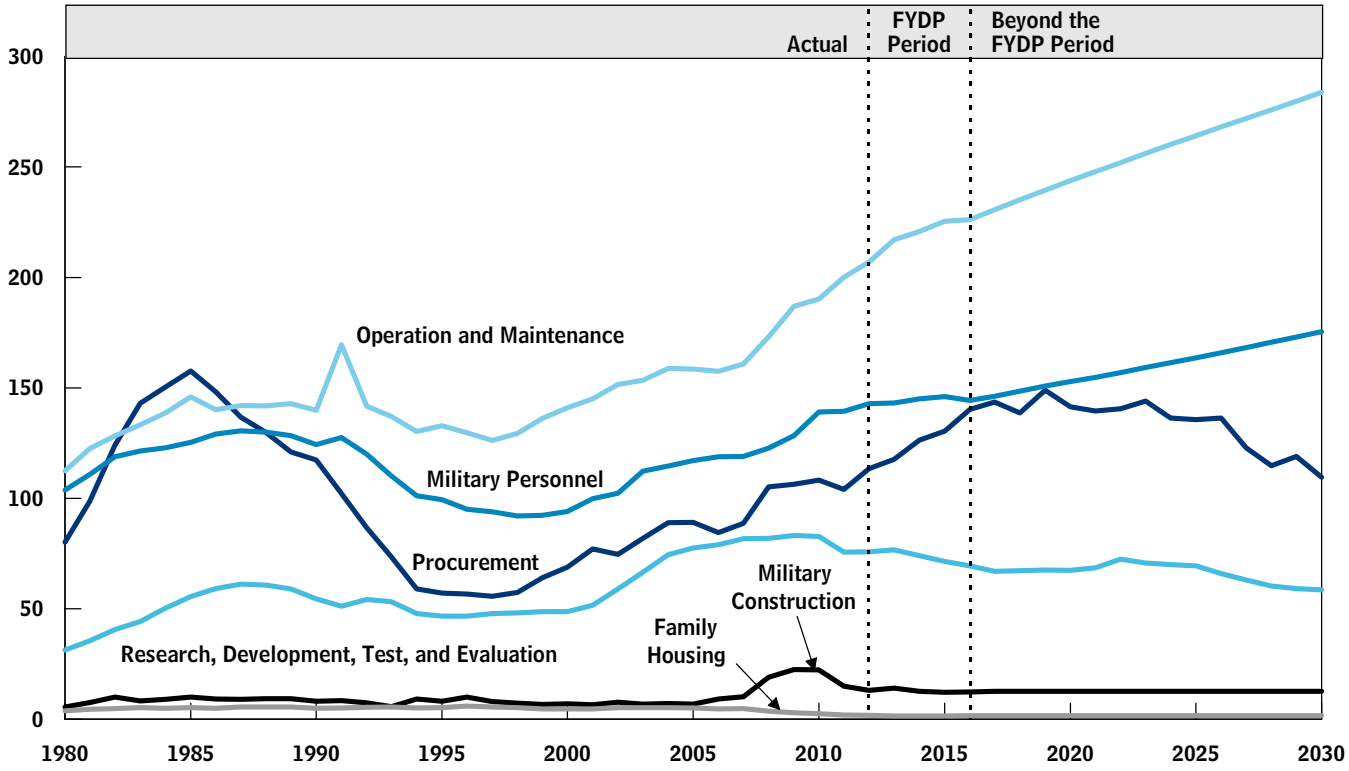
Although not as prominent in recent public discussions, other plans have suggested holding the base budget for

3. For a summary of the provisions of various plans, see Committee for a Responsible Federal Budget, "Summary Table of Fiscal Plans," http://crfb.org/sites/default/files/CRFB_Summary_Table_of_Fiscal_Plans.pdf.

Figure 1-2.

CBO Projection of Base-Budget Costs of DoD's Plans, by Type of Spending

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: Base-budget data include supplemental and emergency funding before 2002.

FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

defense constant at some fraction of GDP. Many such plans envision an immediate increase in defense spending, generally followed by higher rates of growth for the defense budget in the future than those reflected in the FYDP (because most projections of GDP growth are higher than the growth in DoD's budget anticipated in the FYDP).[4]

Another way to examine the costs of DoD's plans is to compare them with CBO's baseline, which shows what appropriations and spending would be if appropriations in future years were equal to the 2011 funding adjusted to reflect anticipated inflation and growth in the cost of labor (as measured by the employment cost index, the Bureau of Labor Statistics' index for wages and salaries in the private sector). The CBO projection of DoD's plans is $437 billion (or 8 percent) above CBO's baseline (in 2012 dollars, adjusted for the 2011 appropriations and excluding overseas contingency operations) over the 2012–2021 period (see the appendix).

Costs for Overseas Contingency Operations

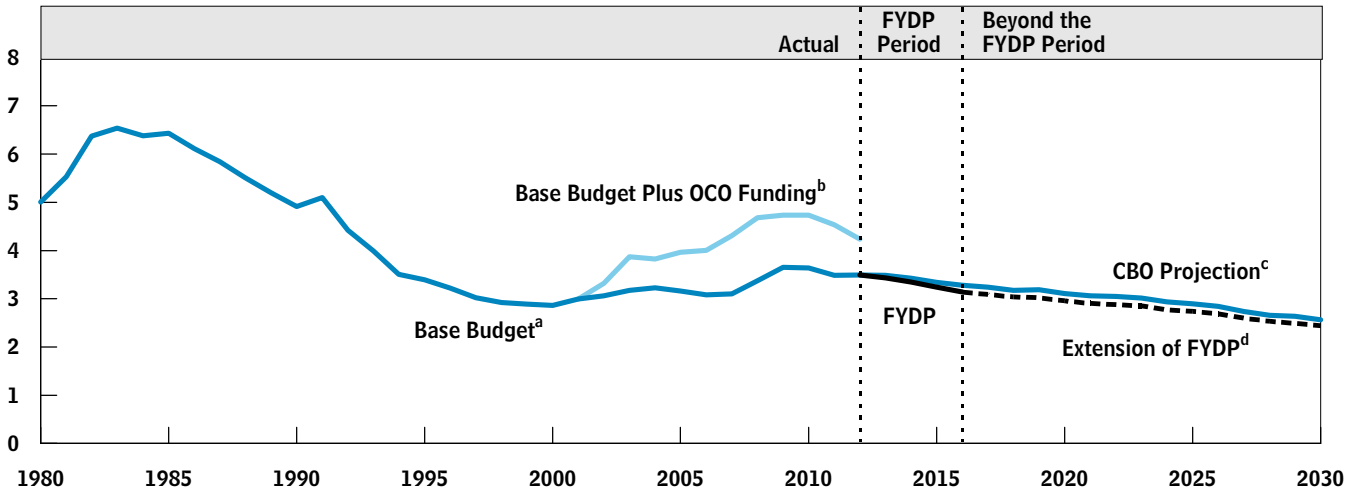
Operations in Afghanistan and Iraq are continuing, and those overseas operations, along with any others, will increase costs above CBO's projections for DoD's base budget. From 2002 to 2011, DoD's appropriations for overseas contingency operations totaled $1.3 trillion (in 2012 dollars), an average of about $132 billion per year, or about 22 percent of the department's total spending. Although DoD has requested $118 billion for those purposes for 2012 and the operations will continue after this

4. For representative examples of such plans, see Mackenzie Eaglen, ed., *Four Percent for Freedom: The Need to Invest More in Defense—Selected Writings,* Special Report 18 (Washington, D.C.: Heritage Foundation, September 25, 2007).

Figure 1-3.

Costs of DoD's Plans as a Share of Economic Output

(Percentage of gross domestic product)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Base-budget data include supplemental and emergency funding before 2002.

b. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

c. The CBO projection of the base budget incorporates costs that are consistent with DoD's recent experience.

d. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

year, the FYDP does not include estimates of the funding that might be needed to support overseas contingency operations beyond 2012. Moreover, DoD could ask for more funding for 2012 than it has already requested.

The funding needed in the future for overseas contingency operations will depend on how political and military conditions evolve in the coming years. As an illustrative example, if today's contingency force was drawn down to 45,000 troops by 2015 and was then maintained at that number through 2030, contingency operations would add a total of $200 billion to the base budget from 2013 to 2016 and an average of $30 billion per year thereafter, CBO estimates (see Figure 1-4).[5] That number of troops would be significantly lower than the number deployed in 2011 but about three to four times the average number deployed between 1991 and 2001.[6]

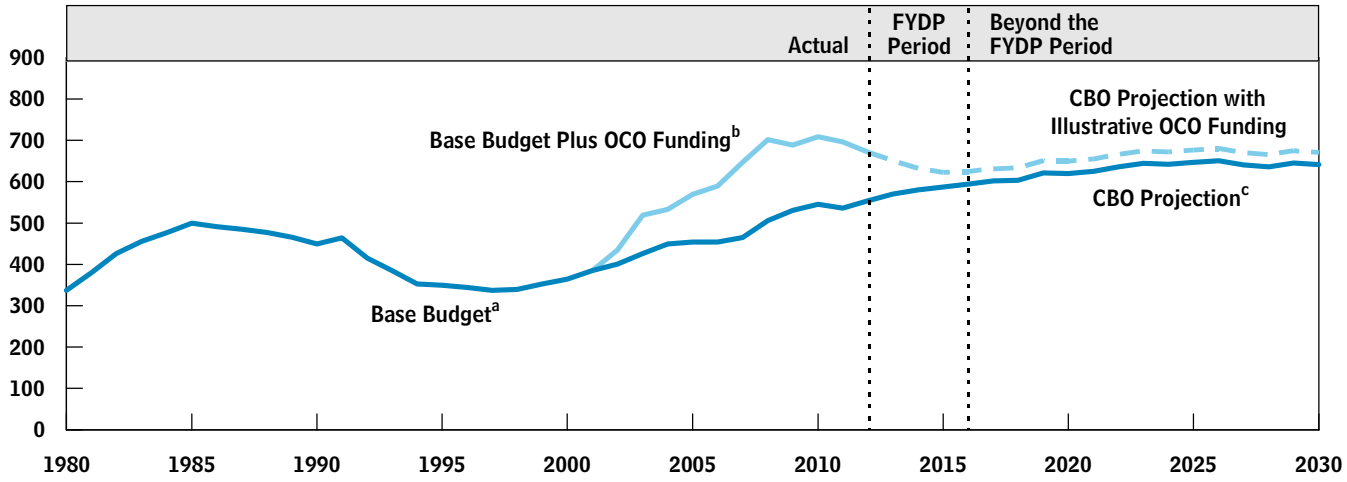
5. That scenario for contingency operations is the same as one of the policy alternatives presented in Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2011 to 2021* (January 2011), Table 3-9. The force levels referred to exclude U.S. military personnel who are permanently based overseas (in locations such as South Korea or Okinawa, Japan) but are not engaged in contingency operations. That scenario is not inconsistent with the President's announced plans for drawing down U.S. forces in Afghanistan.

6. At the end of calendar year 2010, DoD reported 85,600 military personnel deployed in and around Afghanistan and 103,700 personnel deployed in and around Iraq. See Department of Defense, *Active Duty Military Personnel Strengths by Regional Area and by Country (309A)*, http://siadapp.dmdc.osd.mil/personnel/MILITARY/history/hst1012.pdf (December 31, 2010).

Figure 1-4.

Costs of DoD's Plans Including Overseas Contingency Operations

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Base-budget data include supplemental and emergency funding before 2002.

b. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

The base budget plus OCO funding includes actual funding for the base budget plus supplemental and emergency funding for 2002 to 2011 (the solid portion of the line). For 2012 to 2030 (the dashed portion of the line), it includes CBO's projection of base-budget costs plus the OCO funding requested for 2012 and an illustrative example of OCO funding for 2013 to 2030 (under an assumption that the number of deployed troops decreases to 45,000 by 2015 and remains at that level thereafter).

c. The CBO projection of the base budget incorporates costs that are consistent with DoD's recent experience.

CHAPTER

2

Projections of Operation and Support Costs

For 2012, the Administration requested $350 billion for operation and support—the sum of the appropriations for operation and maintenance, military personnel, and the Department of Defense's revolving funds, such as the one for the Defense Commissary Agency.[1] That sum represents 63 percent of DoD's total request (excluding funding for overseas contingency operations). According to the Congressional Budget Office projection of DoD's plans, costs would reach about $370 billion by 2016 (see Figure 2-1). After that, under an assumption that the numbers of major combat units (Army divisions, Navy ships, Air Force squadrons, and so forth) and personnel remain the same as those in 2016, costs for O&S would rise steadily, to more than $459 billion by 2030, representing annual growth of about 1.5 percent. At that rate, O&S costs would be about 35 percent higher in 2030 than in 2011 and would account for about 71 percent of DoD's total budget.

Under DoD's plans, the number of military personnel, and thus the cost of paying them, will be changing through 2016. In its budget request for 2012, the Army plans to fund its permanent end strength (the number of personnel in the active force at the end of the calendar year) of 547,400 active soldiers in its base budget and to use its OCO budget to continue funding a temporary increase in the size of the force above that base number; that temporary increase would decline from 22,000 to 14,600 by the end of 2012. In addition, the Army plans to begin reducing its permanent end strength by a two-year total of 27,000 in 2015 and 2016. The Marine Corps plans to maintain its current end strength of 202,100 Marines through 2014 and then reduce it by 20,000 Marines by 2016, at which time U.S. involvement in Afghanistan is anticipated to have decreased. The total number of active military personnel (not including reserve and National Guard personnel serving on active duty) would decline from 1.43 million at the beginning of 2012 to 1.36 million by the end of 2016, a drop of about 5 percent.

According to DoD's estimates in the 2012 Future Years Defense Program, total funding for O&S would rise to $363 billion in 2016, about $7 billion (or 2 percent) less than CBO projects. The net difference stems primarily from CBO's assumption of higher growth in the cost of providing medical care to military personnel and their families and its assumption of higher pay raises for DoD's civilian employees (equal to the pay raise for military personnel) from 2014 to the end of the projection period. In the extension of the FYDP, O&S costs would reach $442 billion in 2030, 4 percent less than the CBO projection.

CBO's calculations of the future O&S costs of DoD's plans consist of three components:

- Compensation (that is, pay, cash benefits, and accrual payments for retirement benefits) for military personnel and DoD's civilian employees,
- Medical care for active-duty and retired military personnel and their families, and
- All other categories of operation and maintenance costs (such as fuel and spare parts).

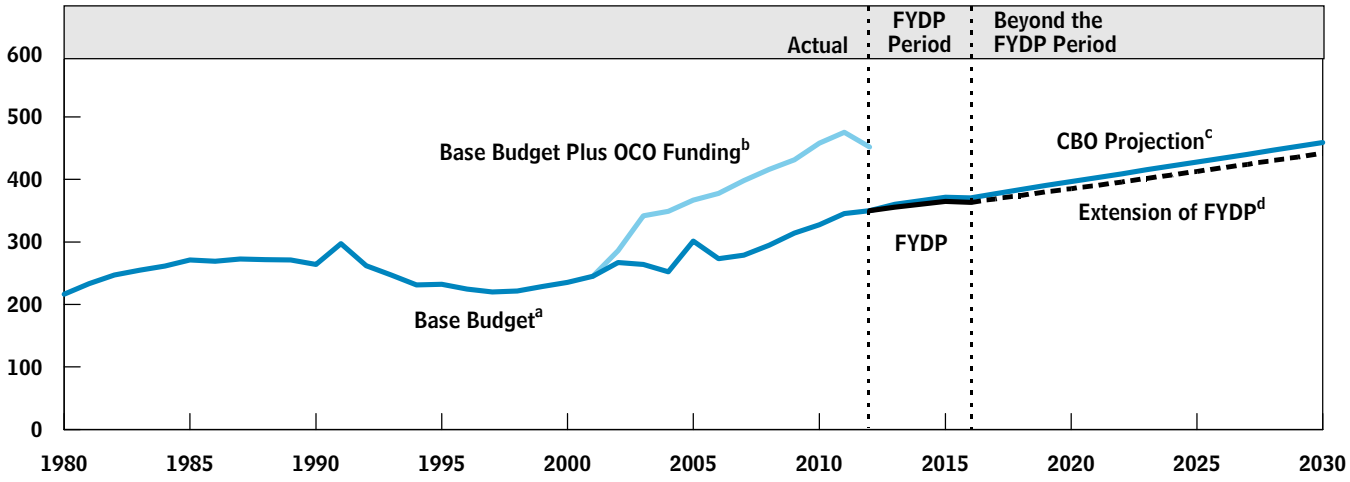
Compensation constituted the largest of the three components in the 2012 budget request, accounting for more than half of the requested appropriation for O&S

1. For this analysis, CBO folded appropriations for most revolving funds into the appropriation for operation and maintenance. The exception is accounts in the National Defense Sealift Fund that are used to purchase ships, which CBO treated as procurement.

Figure 2-1.

Costs of DoD's Operation and Support Plans

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Base-budget data include supplemental and emergency funding before 2002.

b. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

c. The CBO projection of the base budget incorporates costs that are consistent with DoD's recent experience.

d. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

(see Table 2-1). Funding for compensation comes from the appropriations for military personnel and for O&M.

Medical care for military personnel, military retirees, and their families is also funded from both the military personnel and O&M appropriation accounts. Although that component is smaller than compensation, under the CBO projection it would experience a faster growth rate through 2030.

The third component contains the O&M costs to purchase myriad items ranging from office supplies to aircraft fuel (although it excludes major items such as ships, tanks, and aircraft, which are purchased from the procurement accounts) and to purchase services, including the costs of contracts to maintain facilities, prepare food, repair weapon systems, operate information systems, and conduct many other activities.

CBO estimated costs for the first two components (compensation and medical benefits) in a "bottom-up" manner by combining estimates of underlying populations, physical quantities (such as numbers of prescriptions filled), and various factors relating to cost and price. However, such estimates were not possible for the third component of O&S costs because of the wide array of items and services purchased with those funds. Consequently, for other factors that affect O&M, CBO used DoD's estimates through 2016 as a starting point and projected costs from 2017 to 2030 on the basis of DoD's historical experience. (See Box 2-1 for a discussion of how O&M, including compensation for most of DoD's civilian employees and the bulk of the costs of the military's health care program, has grown over the years.)

Pay, Cash Benefits, and Accrual Payments for Retirement Benefits

Pay and cash benefits for military service members include compensation such as basic pay, reenlistment bonuses, and housing allowances. In addition, DoD's appropriation for military personnel is charged for

Table 2-1.

CBO Projection of Operation and Support Costs in DoD's Base Budget, 2012 and 2016

(Billions of 2012 dollars)

	2012	2016
Military Personnel		
Military personnel in the MHS	8	9
TRICARE for Life accrual payments	11	12
Other military personnel	124	124
Total, Military Personnel	**143**	**144**
Operation and Maintenance		
Civilian personnel		
Civilian personnel in the MHS	5	5
Other civilian personnel	53	56
Subtotal	58	61
Other O&M		
Other O&M in the MHS	27	34
Other O&M outside the MHS[a]	122	132
Subtotal	149	165
Total, Operation and Maintenance	**207**	**226**
Total, Operation and Support	**350**	**370**
Memorandum:		
Military Health System		
Military personnel in the MHS	8	9
TRICARE for Life accrual payments	11	12
Civilian personnel in the MHS	5	5
Other O&M in the MHS	27	34
Total, Military Health System[b]	**51**	**59**
Compensation[c]		
Military personnel	143	144
Civilian personnel	58	61
Total, Compensation[d]	**201**	**205**

Source: Congressional Budget Office.

Notes: The CBO projection of the base budget incorporates costs that are consistent with the Department of Defense's (DoD's) recent experience.

MHS = Military Health System; O&M = operation and maintenance.

a. For this analysis, CBO folded appropriations for most revolving funds (such as the one for the Defense Commissary Agency) into the appropriation for operation and maintenance. The exception is accounts in the National Defense Sealift Fund that are used to purchase ships, which CBO treated as procurement.

b. Data do not include MHS spending in accounts other than operation and support.

c. Compensation consists of pay, cash benefits, and accrual payments for retirement benefits.

d. Data do not include compensation for civilian personnel who are funded in accounts other than operation and support.

Box 2-1.

The Context for the Projected Growth of Spending for Operation and Maintenance

In the Congressional Budget Office (CBO) projection, how does growth of operation and maintenance (O&M) spending compare with historical experience? After normalizing O&M spending for the overall size of the armed forces (measured by the number of active-duty uniformed personnel), CBO analyzed actual O&M costs, including those for civilian personnel and military medical care, from 1980 to 2011. The result was a year-by-year measure of the Department of Defense's (DoD's) average cost to support each active-duty service member.

From 1980 to 2001, the last year before the onset of major operations in Afghanistan and Iraq, that cost grew steadily (see the figure). From $55,000 per active-duty service member in 1980, that cost grew at a rate of about $2,200 a year and deviated little from that trend during the period despite some significant changes, including the defense buildup of the 1980s and the reduction in forces at the end of the Cold War. By 2001, the O&M cost per capita had nearly doubled, reaching $105,000 per active-duty service member.

The overseas operations that began after 2001 caused rapid growth in O&M costs, which were funded largely through supplemental and emergency appropriations and not through the base budget. O&M funding per active-duty service member quickly departed from the historical trend as a result of the cost of conducting major operations on the other side of the world, the exceptional wear and tear on equipment in combat, and the large number of reserve and National Guard personnel deployed. (Those personnel are not included in the denominator in calculating costs per *active-duty* service member, but their support nevertheless contributes costs to the numerator.) By 2010, the O&M cost per active-duty service member had doubled again, growing to $211,000, including costs for overseas contingency operations.

The large growth in O&M spending to support operations in Afghanistan and Iraq obscures another significant trend that developed during the war years—the rapid growth of O&M spending per active-duty service member in the base budget. That phenomenon is clearly illustrated in DoD's base-budget request for 2012 and its associated Future Years Defense Program (FYDP) through 2016: At $147,000 per active-duty service member in 2012, the cost is $23,000 (or 19 percent) above what the historical trend would indicate, which implies that spending would have to have grown by an average of more than $4,000 per year since 2001—almost double the historical rate. Furthermore, DoD expects that those costs in the base budget will grow at more than one and one-half times the historical (pre-2001) rate through the FYDP period, reaching $161,000 in 2016. (The 2011 FYDP anticipated similar growth.) That projected growth of O&M spending in the base budget is in marked contrast to the rate DoD projected in earlier FYDPs: In the 2009 FYDP, released in 2008, DoD anticipated that O&M costs and growth would remain close to those predicted by the historical trend.

Excluding costs for overseas contingency operations, costs per active-duty service member grow at a faster rate in the CBO projection than in the FYDP, reaching $167,000 per service member in 2016, an average annual increase of $5,000 from the estimated 2012 costs. Beyond 2016, O&M costs in the CBO projection grow more slowly than in the FYDP period. Reflecting recent experience, CBO projects cost growth per active-duty service member that is about 35 percent per year higher than the growth rate from 1980 to 2001. Furthermore, that growth is from a projected per capita cost in 2016 that is $34,000 (or 26 percent) higher than would have been predicted by the historical trend. In CBO's projection, O&M costs reach $209,000 per active-duty service member by 2030.

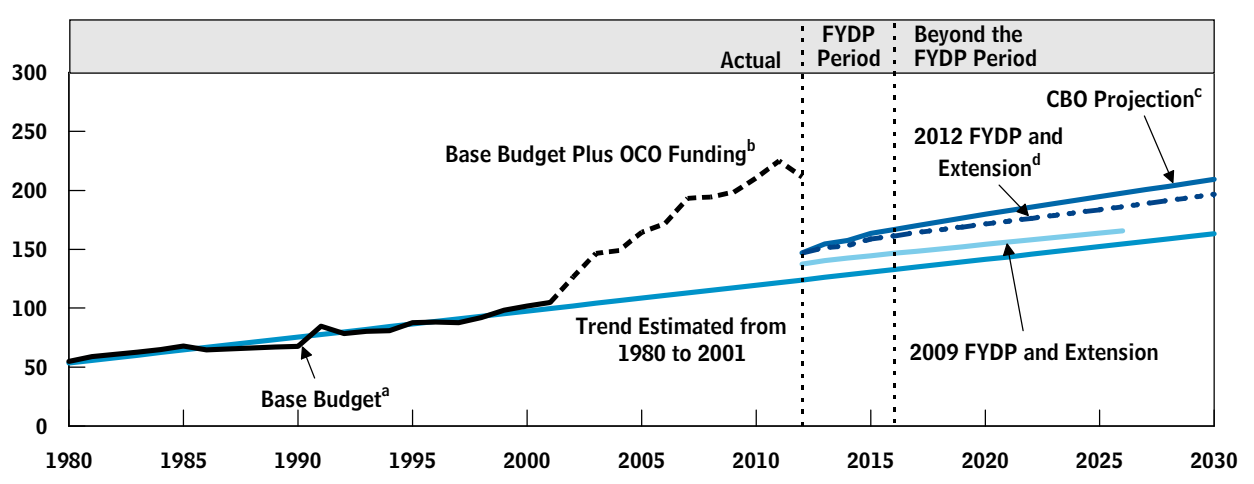
Continued

Box 2-1. **Continued**

The Context for the Projected Growth of Spending for Operation and Maintenance

Costs of Operation and Maintenance per Active-Duty Service Member

(Thousands of 2012 dollars)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Base-budget data include supplemental and emergency funding before 2002.

b. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

c. The CBO projection of the base budget incorporates costs that are consistent with DoD's recent experience.

d. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

accrual payments to the Military Retirement Fund, calculated to provide a balance in the fund that is adequate to pay retirement benefits in the future to personnel who are currently service members. (Health care benefits available to service members and their families through the military medical system are considered separately in the next section.)

The Administration's 2012 budget request includes $201 billion in O&S funding for pay and cash benefits for DoD's military personnel and most of its civilian employees (see Table 2-1 on page 13).[2] About $143 billion of that total is in the military personnel appropriation to support DoD's approximately 1.4 million active-duty service members (plus reserve and National Guard members as necessary), and an additional $58 billion is in the O&M appropriation to compensate most of the department's 784,000 full-time-equivalent civilian workers. According to the CBO projection of

2. Compensation for some civilian employees—about $12 billion in 2012—is paid from other appropriations. For instance, some civilians in military laboratories are paid from the appropriation for research, development, test, and evaluation, and some civilians are paid from the appropriation for procurement. See the "Green Book," namely, Department of Defense, *National Defense Budget Estimates for FY 2012*, http://comptroller.defense.gov/defbudget/fy2012/FY12_Green_Book.pdf (March 2011), Tables 6-1, 6-2, and 7-5.

DoD's plans, costs of pay and benefits in O&S would rise to $205 billion by 2016, representing a cumulative increase of about 2 percent over the five-year period, and to $250 billion by 2030, an average increase of 1.4 percent per year over the 2016–2030 period.

CBO's projections of real growth in military compensation are based on current law, which indexes the annual increase in basic military pay to the percentage increase in the Bureau of Labor Statistics' employment cost index (ECI) for wages and salaries in private industry.[3] The ECI grew more rapidly than the gross domestic product deflator (a measure of the growth rate of the prices of all final goods and services produced in the economy) in all years but three from 1981 to 2011. CBO projects that the same pattern will continue between 2012 and 2016 and that growth of the ECI will exceed growth of the GDP deflator by an average of 1.1 percentage points per year.[4] After 2016, CBO projects, the ECI will continue to grow faster than the GDP deflator—by 1.5 percentage points per year—through 2030.

In enacting annual defense authorizations and appropriations, lawmakers often grant a military pay raise that is greater than the one already specified in law. Ten of the last 11 annual pay raises were an extra half a percentage point above the ECI as part of ongoing efforts to eliminate a perceived "pay gap" between military compensation and compensation in the private sector. Whether such a gap exists and how to measure its magnitude is a matter of some debate.[5] The Ike Skelton National Defense Authorization Act for Fiscal Year 2011 (Public Law 111-383) broke with recent practice and did not authorize a military pay raise in excess of the ECI.

CBO assumes in both the CBO projection and the extension of the FYDP, as does DoD in its plans, that military pay increases will keep pace with the ECI annually through 2016; CBO then extends that assumption to 2030. In its projection, CBO freezes civilian pay for calendar year 2012 at the 2010 level, which is consistent with the two-year freeze ending in 2012 that has already been enacted.[6] DoD assumes in the FYDP that the annual pay raise for federal civilian employees will fall below the percentage increase in basic military pay during the 2014–2016 period. However, consistent with recent history, CBO assumes instead that pay raises for DoD's civilian employees will keep pace with those for military personnel (and, therefore, the ECI) in every year after 2012.[7]

Military Health System

The TRICARE program provides health care for the military's uniformed personnel and retirees and for their eligible family members and survivors. Altogether, more than 9 million people are eligible to seek subsidized care from military treatment facilities, from regional networks of civilian providers under contract with TRICARE, or from other civilian providers.[8] DoD also manages TRICARE for Life, a program that supplements Medicare for beneficiaries who are eligible for both Medicare and the military health benefit. DoD's plans for 2012 included $51 billion for military health care, or about 9 percent of the requested budget for all activities in

3. Section 602 of the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136, 117 Stat. 1498, codified at 37 U.S.C. 1009, Adjustments of monthly basic pay).

4. See Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2011 to 2021* (January 2011).

5. Congressional Budget Office, *Evaluating Military Compensation* (June 2007), and statement of Carla Tighe Murray, Senior Analyst, Congressional Budget Office, before the Subcommittee on Personnel, Senate Committee on Armed Services, *Evaluating Military Compensation* (April 28, 2010).

6. Section 1(b) of the Continuing Appropriations and Surface Transportation Extensions Act, 2011, P.L. 111-322, 124 Stat. 3518.

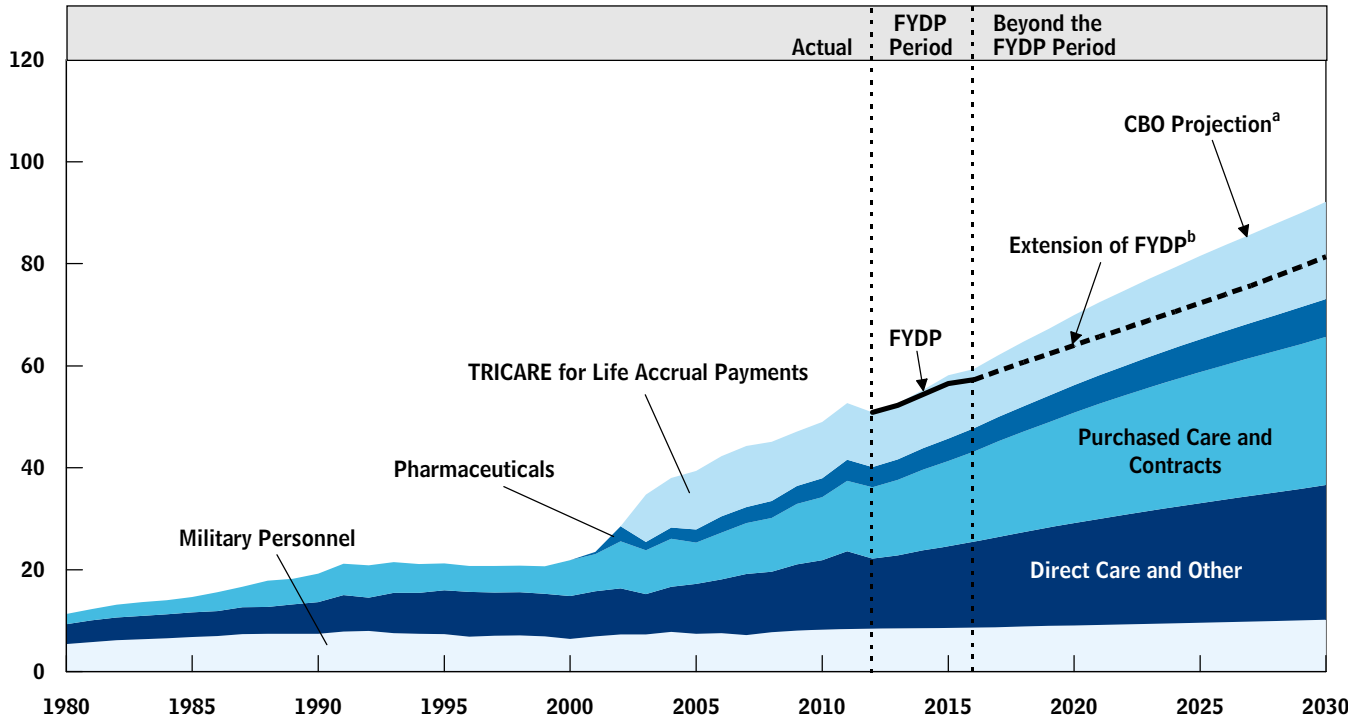
7. CBO compared the annual pay raises that the two groups were granted between 1984 and 2011. In the case of the military pay raises, CBO included the across-the-board pay raises as well as the average increases across the force in years in which pay raises contained additional amounts targeted toward particular grades or seniority levels. In the case of the civil service pay raises, CBO included the across-the-board pay raises as well as the average increases in locality pay. In those 28 years, the military pay raises were larger in 10 instances, the civil service pay raises were larger in 2 instances, and the raises were equal in the remaining 16 instances.

8. Most care received at military treatment facilities is provided free of charge, although some patients are charged a small copayment for inpatient care. Some cost sharing is required of many beneficiaries seeking care from civilian providers under contract with TRICARE, although such costs vary by type of beneficiary. Care received outside the networks of civilian providers under contract is subject to higher cost-sharing requirements.

Figure 2-2.

Costs of DoD's Plans for Its Military Health System

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: Supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, is included for 2011 and earlier but not for later years.

Before 2001, pharmaceutical costs were not separately identifiable but were embedded in the costs of two categories: "Purchased Care and Contracts" and "Direct Care and Other." In 2001 and later years, most pharmaceutical costs are separately identifiable, but some of those costs may be embedded in the category "TRICARE for Life Accrual Payments."

The amounts shown for the Future Years Defense Program (FYDP) and the extension of the FYDP are the totals for all categories.

FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Each category shows the CBO projection of the base budget from 2012 to 2030. That projection incorporates costs that are consistent with DoD's recent experience.

b. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

DoD's base budget.[9] According to the CBO projection, the costs of DoD's plans for its military health care system would reach $59 billion by 2016 (see Figure 2-2). (That projected amount reflects average annual growth of 3.9 percent over the FYDP period, compared with the 3.0 percent in DoD's projections.) By 2030, the costs in the CBO projection would grow to $92 billion, nearly double the amount requested in 2012. (That growth would amount to an average annual increase of 3.2 percent over the 2016–2030 period.)

9. That total includes $8 billion for the pay and benefits of military personnel and $5 billion for DoD civilians who work in the military health system, both of which have been included in the totals for pay and benefits shown in Table 2-1 on page 13. An additional $11 billion covers accrual payments for TRICARE for Life. The cost of the military health system, excluding military and civilian pay and accrual payments for TRICARE for Life, would be $27 billion in 2012.

The CBO projection of DoD's medical costs comprises five categories:

- *Pharmaceuticals* covers purchases of medicines dispensed at military medical facilities, at pharmacies inside and outside DoD's network, and through DoD's mail-order pharmacy program.
- *Purchased Care and Contracts* covers medical care delivered to military beneficiaries by providers in the private sector, both inside and outside the network.
- *Direct Care and Other* funds the operation of military medical facilities and other activities. It includes pay and benefits for civilian personnel assigned to work in those facilities but excludes the pay and benefits of military personnel counted in the following category.[10]
- *Military Personnel* funds pay and benefits for uniformed personnel assigned to work in the military health care system.
- *Accrual Payments for TRICARE for Life* covers funds deducted from DoD's appropriation and credited to the Medicare-Eligible Retiree Health Care Fund. Outlays from that fund are used to reimburse military treatment facilities for care provided to military retirees and their family members who are also eligible for Medicare and to cover most of the out-of-pocket costs those beneficiaries would otherwise incur when seeking care from private-sector providers.[11]

CBO projects medical costs through 2030 (other than the costs of uniformed military personnel) on the basis of the growth rates observed in the military health system from 2006 to 2010.[12] CBO focused on the growth of costs per TRICARE user rather than per eligible beneficiary. Some TRICARE beneficiaries also have other health insurance and do not use TRICARE or rely on it for only some of their care. That is particularly true for military retirees and their dependents and the dependents of reservists and National Guard members deployed in overseas contingency operations. CBO employed data provided by DoD to estimate the number of TRICARE users each year and used that figure to estimate per capita costs in the recent past and to project those costs into the future.[13]

For most categories, historical growth rates in the military health system have been significantly higher than the corresponding rates in the national economy.[14] For example, pharmaceutical spending per user in DoD's system grew at an average rate of 2.2 percent per year from 2006 to 2010, compared with the national average of 1.2 percent

10. Activities in this category include various administrative and training activities and military-specific requirements such as the aeromedical evacuation system.

11. DoD makes payments into the accrual fund for service members while they are on active duty. The benefits are not received, however, until a service member retires from the military and reaches the age at which he or she (or his or her qualified family member—typically a spouse, widow, or widower) becomes eligible for Medicare.

12. CBO used the five most recent years of spending as the basis for its projections because they best reflect the TRICARE benefit as it is currently structured. Policy changes in the late 1990s and early 2000s enhanced the TRICARE benefit, and the very low out-of-pocket expenses in the program became increasingly attractive to family members of active-duty personnel and to retirees and their families. The resulting influx of people making use of the benefit has slowed in recent years, although DoD projects continued (but smaller) increases throughout the FYDP period. In addition, changes in the way funding is tracked in the FYDP make it difficult to create fully comparable cost categories in earlier years.

13. In past years, CBO calculated growth rates on the basis of the number of eligible TRICARE beneficiaries. That approach had the effect of mixing two key sources of cost growth—the growth in the percentage of eligible beneficiaries who were using the TRICARE benefit and the growth in costs per user. Using more detailed data that it received from DoD, CBO has changed its methodology to separately project costs per user in each spending category (pharmaceuticals, purchased care, and so on) and users per eligible beneficiary in each category of beneficiaries (active-duty personnel, active-duty dependents, retirees, and so on). Although there has been relatively little change in the number of users per eligible beneficiary for most types of beneficiaries, the percentage of users among retirees and dependents who are not yet eligible for Medicare is rising: It was 75 percent in 2006 and is expected to reach 85 percent in 2012.

14. CBO derived its estimates for the growth of national spending for pharmaceuticals, purchased care, and direct care between 2013 and 2019 from the projections for pharmaceuticals, hospital care, and physician and clinical services in *National Health Expenditure Projections, 2009–2019,* published by the Centers for Medicare and Medicaid Services, www.cms.hhs.gov/NationalHealthExpendData/downloads/proj2009.pdf. CBO assumed that growth in national spending would slow after 2019, eventually reaching a rate in 2034 that was 1 percentage point higher than the growth of per capita GDP.

per year. DoD's spending per user for purchased care and direct care grew by 5.9 percent and 4.8 percent per year, respectively, compared with national average growth of 1.7 percent per year for comparable categories in the broader economy.[15]

Using that recent experience, CBO projected that DoD's medical expenditures would equal the amount requested by the Administration in 2012. According to the CBO projection of DoD's plans, growth rates of DoD's spending per user for pharmaceuticals, purchased care, and direct care would exceed projected cost growth per user for similar services in the rest of the economy. Initially, in 2013, they would exceed the national rates by the same differential observed for 2006 to 2010. After 2013, by CBO's assumption, cost growth per user would gradually decrease in each category to the national rate over the next 15 years and continue to grow at that rate thereafter. For the 2012–2030 period, the average annual growth rates per user would be 4.1 percent for pharmaceuticals, 4.7 percent for purchased care, and 4.3 percent for direct care.[16]

Low out-of-pocket expenses for TRICARE beneficiaries (many of whose copayments, deductibles, and maximum out-of-pocket payments have remained unchanged or have been lowered since the mid-1990s), combined with the increased costs of alternative sources of coverage for military retirees and their dependents, make the TRICARE program relatively more attractive each year. Those factors increase the likelihood that military retirees and their dependents will choose to rely on the program rather than participate in health care plans provided by civilian employers.[17] In addition, low out-of-pocket costs contribute to utilization rates for both inpatient and outpatient care that are significantly higher for TRICARE beneficiaries than for their civilian counterparts.[18]

15. In nominal terms (including the effects of inflation), the average annual growth rates that DoD experienced between 2006 and 2010 were 4.0 percent for pharmaceuticals, 7.9 percent for purchased care, and 6.8 percent for direct care, compared with nominal national rates of 3.1 percent for pharmaceuticals and 3.5 percent for hospital care and physician and clinical services.

16. In nominal terms, CBO projects average annual growth rates for the 2012–2030 period of 6.0 percent for pharmaceuticals, 6.6 percent for purchased care, and 6.2 percent for direct care.

According to the CBO projection of DoD's plans, pay increases for uniformed medical personnel account for only a small portion—about 4 percent—of the overall growth in medical costs between 2012 and 2030; they follow the same trend as those for other military personnel.

For the accrual payments for TRICARE for Life, CBO assumed that DoD's contributions to the fund would grow at about 4.6 percent annually in real terms between 2012 and 2016 and then at 4.2 percent from 2017 to 2019 (derived from DoD's actuarial estimate of 6.25 percent in nominal terms). After that point, CBO assumed, the growth in those accrual payments would eventually slow, reaching a rate equal to 1 percentage point above the growth of GDP per capita by 2034. As a result, under the CBO projection, accrual payments for TRICARE for Life per service member would rise at an average real rate of 3.3 percent per year from 2012 to 2030 (5.3 percent in nominal terms).

Other Operation and Maintenance Costs

The remainder of O&S spending is for the portions of operation and maintenance other than pay and cash compensation for civilian personnel and for the military medical system. In both the CBO projection and the extension of the FYDP, other O&M costs increase from $122 billion in 2012 to $132 billion in 2016 and to $153 billion in 2030.

17. In 2001, 49 percent of military retirees and their dependents had signed up for other health insurance, but by 2010 that figure had dropped to 27 percent. See Department of Defense, *Evaluation of the TRICARE Program: Fiscal Year 2011 Report to Congress* (February 28, 2011), p. 78.

18. DoD found that enrollees in TRICARE Prime (a managed care program that covers more than half of the people eligible for TRICARE and offers the lowest out-of-pocket costs) used various services at a higher rate than did comparable civilian enrollees in HMOs (health maintenance organizations). Specifically, the rates for inpatient services were 84 percent higher; for outpatient services, 51 percent higher; and for prescription drugs, 27 percent higher. (The comparison data on civilians were adjusted to match the age and sex distribution of the beneficiary population enrolled in TRICARE Prime.) See Department of Defense, *Evaluation of the TRICARE Program,* pp. 62, 68, and 73.

Because myriad functions contribute to the remaining O&M costs, it was not practical for CBO to build an estimate from the bottom up—that is, developing estimates for all of the various components involved and summing those estimates—as was the case for the estimates of pay and military health care. Instead, CBO used a "top-down" methodology to project other O&M costs. Specifically, CBO relied on the FYDP through 2016 and used historical information on growth in other O&M costs (that is, excluding costs for pay and military health care) per active-duty service member to project subsequent costs.

After removing costs for civilian pay and the military medical system, CBO found that the remaining O&M costs grew at about $1,200 per year per active-duty service member from 1980 to 2001; CBO used that rate of increase for its projections from 2016 to 2030. The historical growth in those remaining O&M costs could be caused by a number of factors. For example, new weapon systems tend to be more costly to operate because they are more complex and technically sophisticated than are the earlier generations. In addition, aging weapon systems tend to be more costly to operate and maintain, particularly as they approach the end of their service life or as they are upgraded to extend their service life. Finally, DoD may be hiring contractors to provide services and functions that may not have existed in earlier years.

CHAPTER

3

Projections of Acquisition Costs

Acquisition costs encompass the costs to develop and purchase weapon systems and other major equipment and to make modifications to upgrade the capabilities or extend the service life of weapon systems. They are the sum of the appropriations for procurement and for research, development, test, and evaluation. For 2012, the Administration requested $189 billion for acquisition, 34 percent of its total request for the Department of Defense (excluding funding for overseas contingency operations).

In the Congressional Budget Office projection, the costs to implement DoD's plans for acquisition over the next five years, as defined in the 2012 Future Years Defense Program, rise to $210 billion by 2016, or about 17 percent above the 2011 level (see Figure 3-1). Subsequently, according to the CBO projection, force structure would remain relatively unchanged after the reductions planned through 2016, but DoD would continue to develop new weapon systems that are more advanced than the systems they replace. Acquisition costs would increase to $217 billion in 2019 as the department simultaneously modernized many of the systems that were purchased during the 1980s but would be reaching the end of their service life. As that wave of modernization activity recedes, the costs of DoD's acquisition plans would follow a generally decreasing trend after 2019, dropping below the 2011 cost by 2028. Beyond the projection period, acquisition costs could rise again depending on future decisions about how to equip the military.

In comparison, acquisition costs as projected in the extension of the FYDP would remain fairly steady, rising to $192 billion by 2016, 7 percent above the amount in 2011. From 2017 to 2030, those costs would be about 10 percent lower than under the CBO projection, primarily because of differences in estimates of the costs of new weapon systems. Specifically, costs for weapon systems that are not yet in production at a full rate are typically higher under the CBO projection than under the extension of the FYDP because the CBO projection incorporates DoD's historical experience with cost growth during the development of weapon systems.[1]

The Administration may request some additional acquisition funding to continue supporting the overseas contingency operations in Afghanistan and Iraq. For 2002 to 2011, approximately $310 billion in OCO funds has been appropriated for acquisition. Those funds have been used for a variety of purposes, including replacing equipment destroyed in battle and purchasing new types of equipment, especially mine-resistant vehicles. For 2012, $15.4 billion of the $118 billion requested for the Afghanistan and Iraq conflicts was for acquisition: $15 billion for procurement and about $400 million for RDT&E. The acquisition funding requested for overseas contingency operations in the future (including a possible additional supplemental request for 2012) will depend on how those conflicts progress. This report does not address those costs.

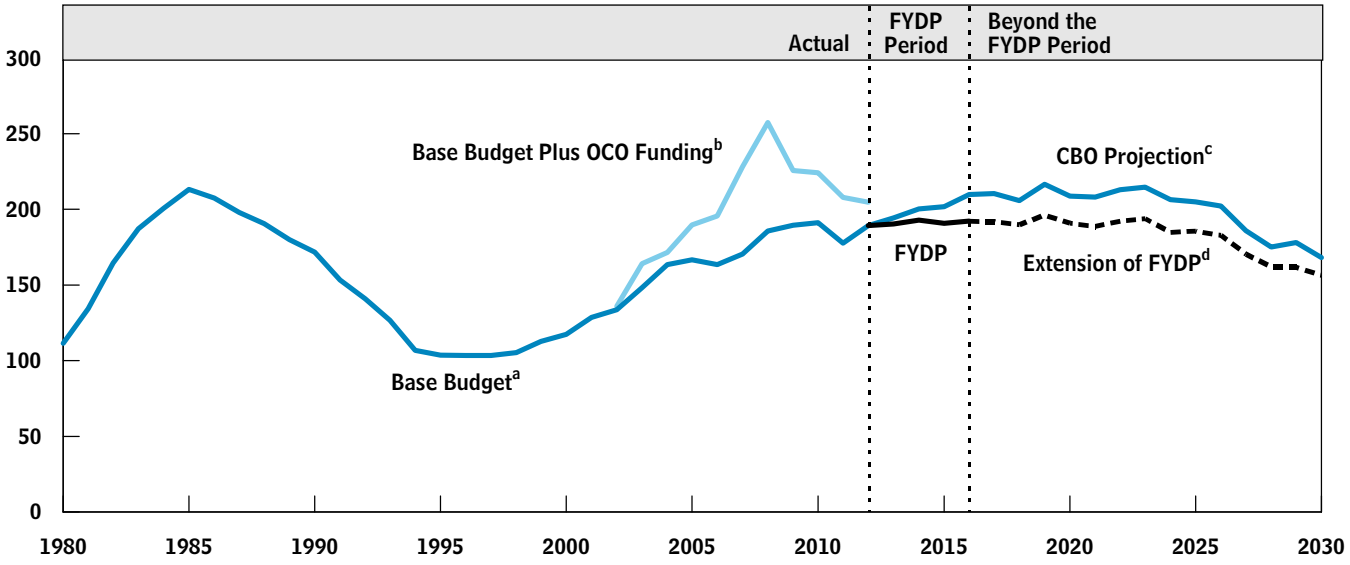
To project the costs of DoD's acquisition plans, CBO tracked the RDT&E and procurement funding for more than 190 weapon systems or major upgrades to existing systems. Some of those systems are in or nearing production (for example, the Air Force's KC-46 tanker), and some are in the early planning stages (for example, the

1. Historical analysis of DoD's acquisition programs indicates that costs have grown substantially relative to initial estimates. See Mark V. Arena and others, *Historical Cost Growth of Completed Weapon System Programs,* TR343-AF (prepared by RAND for the United States Air Force, 2006), www.rand.org/pubs/technical_reports/2006/RAND_TR343.pdf; and Obaid Younossi and others, *Is Weapon System Cost Growth Increasing? A Quantitative Assessment of Completed and Ongoing Programs,* MG-588-AF (prepared by RAND for the United States Air Force, 2007), www.rand.org/pubs/monographs/2007/RAND_MG588.pdf.

Figure 3-1.

Costs of DoD's Acquisition Plans

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Base-budget data include supplemental and emergency funding before 2002.

b. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

c. The CBO projection of the base budget incorporates costs that are consistent with DoD's recent experience.

d. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

new combat vehicle planned for the Army). Others (a replacement for the Navy's F/A-18E/F fighter, for instance) are not based on specific plans but have been identified by CBO either as systems that would be necessary to maintain weapon inventories as existing systems reach the end of their service life and need to be replaced, or as systems that would provide new capabilities to meet goals described in the services' policy statements.

The following sections describe details of the more significant systems in DoD's acquisition plans and CBO's estimates of the costs of those plans for each of the military departments—the Army, the Navy (including the Marine Corps), and the Air Force—and for the parts of DoD outside the military services, including the Missile Defense Agency (see Figure 3-2).

The Army

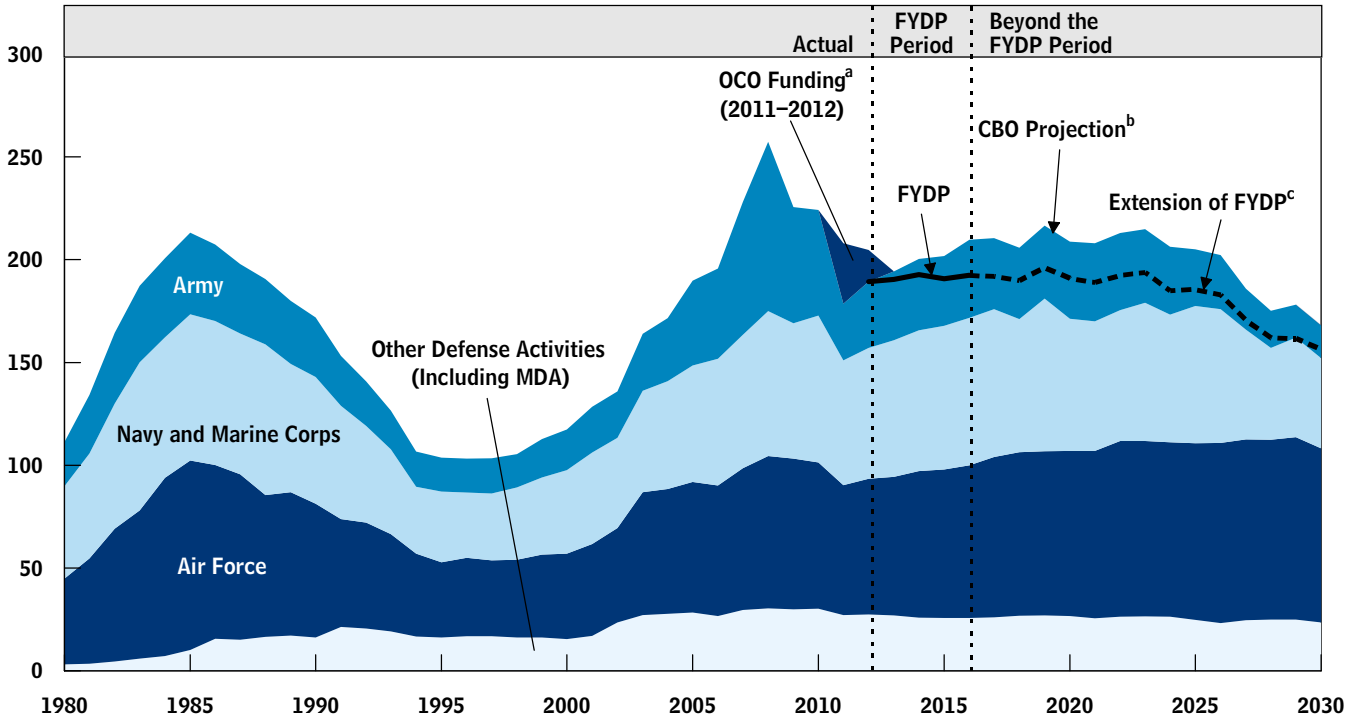
The Administration's 2012 request for acquisition funding for the Department of the Army includes $32 billion for the base budget plus an additional $5 billion for overseas contingency operations. According to the CBO projection of DoD's plans, acquisition costs for the Army's base budget would remain fairly steady through 2024, averaging about $35 billion per year, before tailing off in later years (see Figure 3-3). That projection is about 19 percent higher than the costs estimated in the extension of the FYDP for that period.

For its projections of acquisition costs for the Army, CBO tracked programs in five categories of major systems: ground combat vehicles and trucks; command, control,

Figure 3-2.

Costs of DoD's Acquisition Plans, by Category

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: The amounts shown for the Future Years Defense Program (FYDP) and the extension of the FYDP are the totals for all categories.

FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified;

MDA = Missile Defense Agency.

a. Supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, is included for 2012 and earlier but not in later years. The amount shown for OCO funding for 2011 has been appropriated but was not included in the 2012 FYDP; funding for 2012 has been requested but has not been appropriated.

b. Each category shows the CBO projection of the base budget from 2012 to 2030. That projection incorporates costs that are consistent with DoD's recent experience.

c. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems; aircraft; missile defense systems; and missiles and munitions.[2]

Ground Combat Vehicles and Trucks

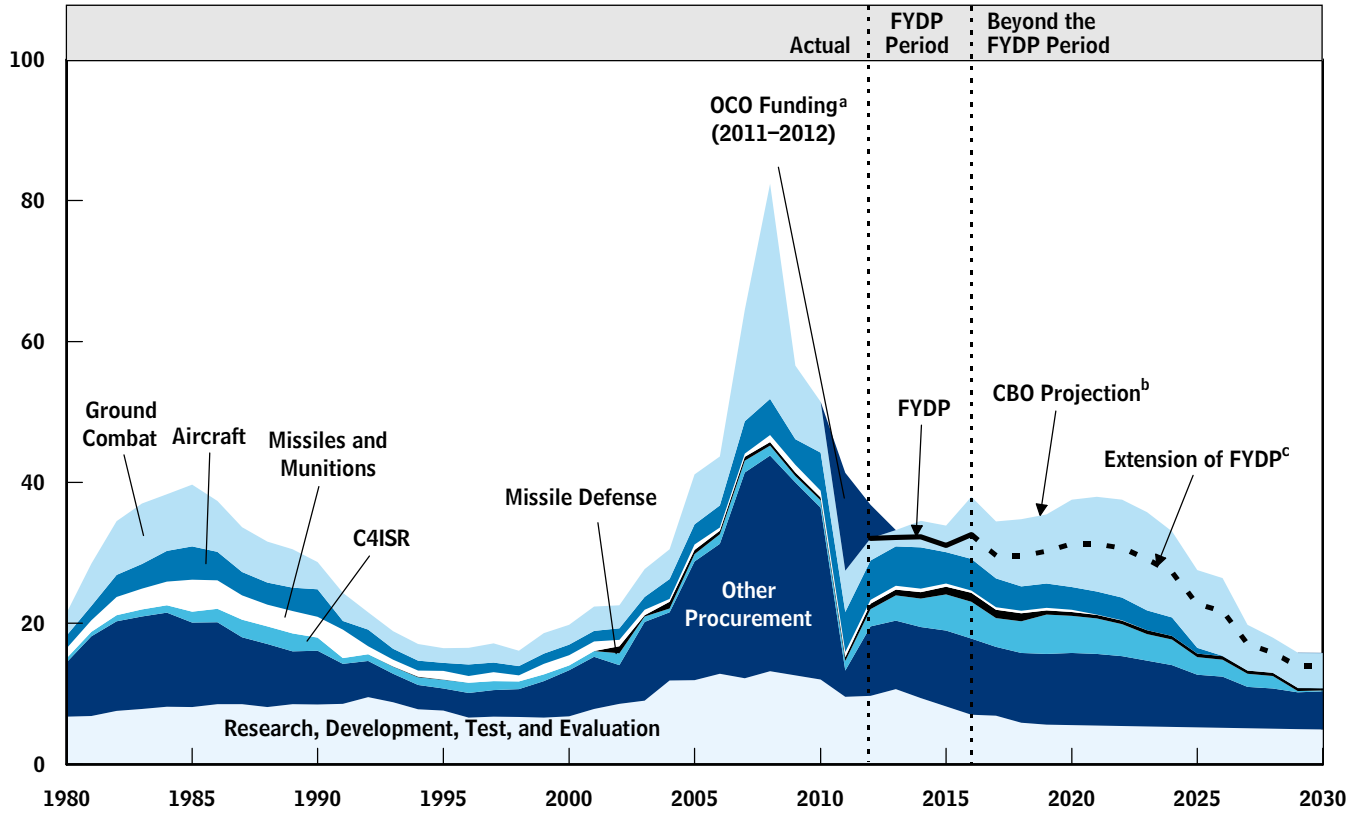
The Army's plans include upgrades to many combat vehicles—including Stryker vehicles, Abrams tanks, Bradley fighting vehicles, and self-propelled 155-millimeter howitzers—throughout the entire projection period. The plans also include the purchase of two new types of combat vehicles, the ground combat vehicle (GCV) and the armored multipurpose vehicle (AMPV). The Army intends to use the GCVs, which would be entirely new vehicles, to replace the infantry carrier version of the Bradley fighting vehicles in its

2. CBO's estimates of acquisition costs for major weapon systems do not match those in the services' major procurement categories because CBO has focused on a subset of the programs contained in those categories. CBO has included the other programs in those categories under "Other Procurement."

Figure 3-3.

Costs of the Army's Acquisition Plans

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: The amounts shown for the Future Years Defense Program (FYDP) and the extension of the FYDP are the totals for all categories.

FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified; C4ISR = command, control, communications, computers, intelligence, surveillance, and reconnaissance.

a. Supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, is included for 2012 and earlier but not in later years. The amount shown for OCO funding for 2011 has been appropriated but was not included in the 2012 FYDP; funding for 2012 has been requested but has not been appropriated.

b. Each category shows the CBO projection of the base budget from 2012 to 2030. That projection incorporates costs that are consistent with the DoD's recent experience.

c. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

combat brigades. The AMPVs, which will be based on existing vehicles, will replace the various versions of the M113 armored personnel carriers in the Army's combat brigades.[3] Procurement funding for the new GCVs would begin in 2015, and purchases of at least 100 vehicles per year would begin in 2018. Purchases of AMPVs are scheduled to begin in 2014.

In addition, the Army intends to upgrade its light, medium, and heavy tactical vehicles (trucks). The Army's

3. The AMPV will be fielded in various versions, many of which will be based on modifications of existing Bradley fighting vehicles. According to current plans, the ambulance version of the AMPV will be based on the Caiman Mine Resistant Armor Protected (MRAP) vehicle.

plans include the purchase of the joint light tactical vehicle, a truck that is being developed by the Army and the Marine Corps and is expected to be safer and more fuel-efficient than the Army's current light vehicle, the high-mobility multipurpose wheeled vehicle (HMMWV). The Army plans to use the new vehicle to replace about one-third of the roughly 150,000 HMMWVs in its inventory and to rebuild some of its existing HMMWVs rather than replace them with the new vehicle. The Army also plans to purchase new medium tactical vehicles and extend the service life of its medium and heavy trucks.

C4ISR Systems

The Army's C4ISR systems include those designed to enable Army units to communicate and share data. Two of the larger programs in this category are for new advanced radios known as the Joint Tactical Radio System (JTRS) and the Warfighter Information Network (WIN-T) data-networking system. The Army is scheduled to buy almost 300,000 new radios through the JTRS program by 2028; the three increments of the WIN-T program will provide increasingly sophisticated networking hardware and software between 2012 and 2030.[4]

Aircraft

The Army's plans for aviation programs include both rotary-wing and unmanned aircraft. Those plans include completing purchases of UH-72A Lakota light-utility helicopters, which are replacing the remaining UH-1H Hueys and OH-58C Kiowas. The Army is also exploring options for procuring Armed Scout Helicopters to replace today's fleet of OH-58D Kiowa Warriors and the canceled Armed Reconnaissance Helicopter. In both of its projections, CBO assumed that procurement of that new helicopter would begin in 2016. In addition, the Army's plans include programs to upgrade and extend past 2028 the service life of the Army's Apache, Blackhawk, and Chinook helicopters. The projections also include plans to purchase several types of unmanned aircraft, including the MQ-1C Grey Eagle, which is similar to the Predator aircraft flown by the Air Force.

4. In the spring of 2011, after the 2012 budget and 2012 FYDP were released, the Army announced that it was reducing the number of JTRS radios that it planned to buy. CBO's analysis does not reflect that change.

Missile Defense

The Army's plans include purchases of equipment to defend against ballistic missiles. In recent years, the Army has planned to buy two systems: the Patriot Air and Missile Defense System, which includes the Patriot Advanced Capability-3 (PAC-3) missile, and the Patriot/Medium Extended Air Defense System (MEADS) Combined Aggregate Program, which was intended to be a follow-on to the Patriot system. However, in February 2011, DoD announced that the Army would not purchase MEADS but instead would terminate the program by 2014 after completing a limited development effort. Current plans continue to include procurement of the Patriot Missile Segment Enhancement interceptor, which is compatible with Patriot and MEADS and performs better than the PAC-3 missile, in the same quantities that had been anticipated before the MEADS program was terminated. The Army now plans to upgrade other components of the existing Patriot systems as well.

The Navy and the Marine Corps

The 2012 budget request contains $64 billion for acquisition in the base budget for the Department of the Navy, which includes the Navy and the Marine Corps, and an additional $2.7 billion for overseas contingency operations. According to the CBO projection of DoD's plans, acquisition costs for the Navy and the Marine Corps would rise to $72 billion by 2016, primarily because of planned purchases of ships and aircraft, compared with $67 billion in the FYDP (see Figure 3-4).

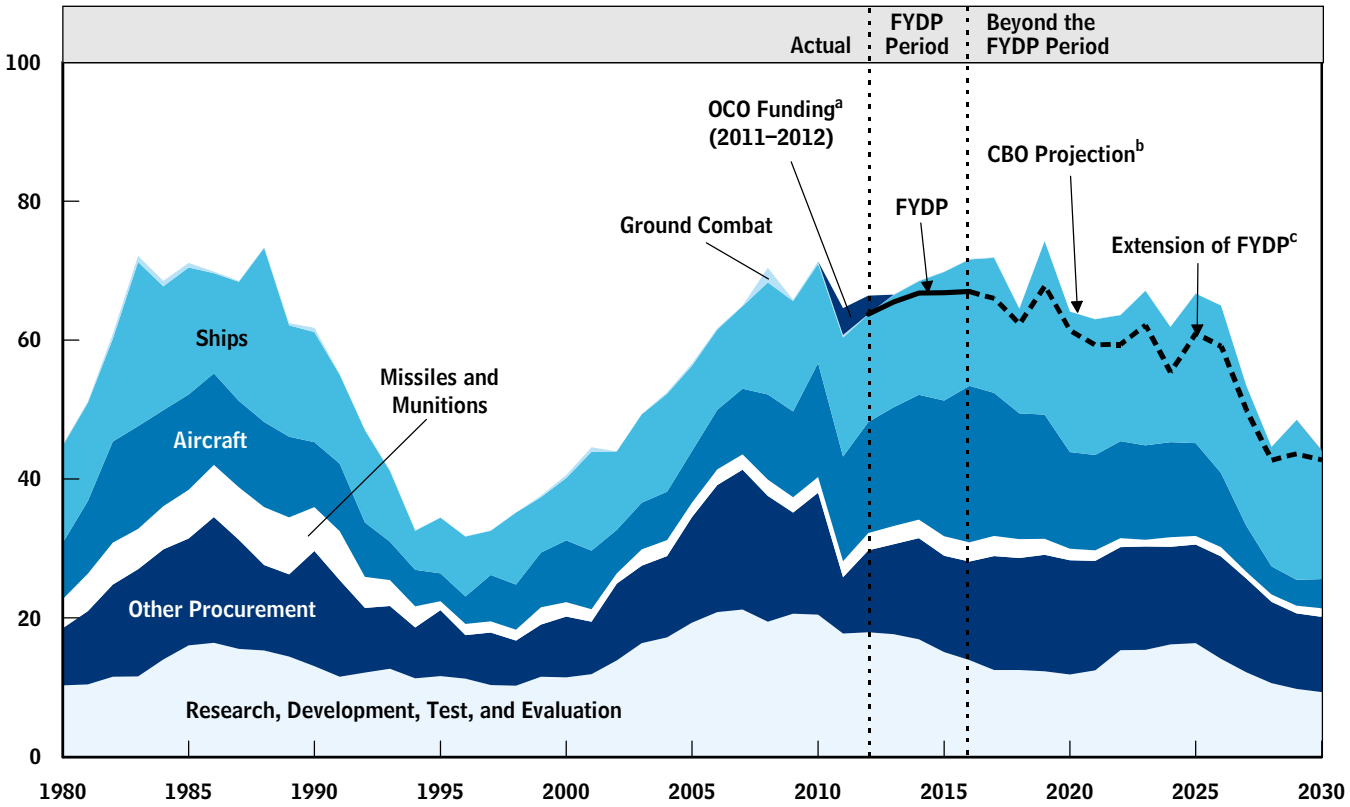
Beyond the FYDP period, according to CBO's projection, the Navy and the Marine Corps' acquisition plans would cost an average of about $61 billion per year, about 8 percent higher than the costs estimated in the extension of the FYDP. Although that average is about the same as the amount requested in 2012, the timing of purchases would result in substantially higher costs in the years just beyond the FYDP period (an average of $70 billion per year for 2017 to 2019), followed by lower costs thereafter.

In analyzing acquisition costs for the Navy and the Marine Corps, CBO tracked programs in four categories of major systems: ships, aircraft, ground combat vehicles (trucks and armored vehicles for the Marine Corps), and missiles and munitions.

Figure 3-4.

Costs of the Navy and the Marine Corps' Acquisition Plans

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: The amounts shown for the Future Years Defense Program (FYDP) and the extension of the FYDP are the totals for all categories.

FYDP period = 2012 to 2016, the years for which Department of Defense's (DoD's) plans are fully specified.

a. Supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, is included for 2012 and earlier but not in later years. The amount shown for OCO funding for 2011 has been appropriated but was not included in the 2012 FYDP; funding for 2012 has been requested but has not been appropriated.

b. Each category shows the CBO projection of the base budget from 2012 to 2030. That projection incorporates costs that are consistent with DoD's recent experience.

c. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

Ships

The Navy requested $15 billion for ship construction and major modifications in 2012. The Navy's current plans reflect the goal of expanding the fleet from today's 287 ships to a fleet numbering more than 320 ships. According to the CBO projection, those plans would cost an average of $19 billion per year between 2012 and 2030, about $1.4 billion per year more than estimated in the extension of the FYDP.[5]

Surface Combatants. The planned increase in the Navy's fleet is primarily in the surface combatant force, which currently consists of 110 cruisers, destroyers, frigates, and littoral combat ships (LCSs). By 2030, the surface combatant fleet would grow to 128 ships under the Navy's plans—including 50 LCSs, which are smaller and faster than any of today's other surface combatants.

The Navy's plans for the surface combatant force changed little between the submission of the 2011 budget and the promulgation of the 2012 budget plans. The most significant change is that the Navy increased its inventory objective for cruisers and destroyers to 94, compared with 88 ships under recent budgets. It currently has 83 cruisers and destroyers in the fleet. The Navy is continuing with its plan to build new DDG-51 destroyers and will begin purchasing substantially upgraded DDG-51 destroyers in 2016. By 2031, the Navy plans to have bought 24 of those ships. The Navy's plans would allow the service to achieve its inventory objective of 94 surface combatants between 2019 and 2024, but after that period the number of cruisers and destroyers would decline, to 82 by 2029.

With respect to small surface combatants (comprising frigates and LCSs), the Navy plans to build two versions of the LCS through at least 2015. The Navy previously planned to select one of two competing designs but has opted to continue both versions. Slow annual procurement rates remain in place, and so the last LCS would not be purchased until 2031.

5. CBO's extension of the FYDP is, for Navy shipbuilding, based on the Navy's explicit 30-year shipbuilding plans and associated cost estimates. The CBO projection is based on the same plans, but with CBO's estimates of costs. For more details, see Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2012 Shipbuilding Plan* (June 2011).

Submarines. The Navy's plans would lead to a smaller submarine force. Although the Navy's stated goal is to have 48 attack submarines (SSNs) through the projection period, its plans for procurement would meet that goal through 2023 but not thereafter. The Navy intends to replace the 14 ballistic missile submarines (SSBNs) of the Ohio class that are in service today with 12 new submarines starting in 2019. According to the Navy's plans, none of the four guided-missile submarines (SSGNs) that are scheduled for retirement will be replaced.

Amphibious and Maritime Prepositioning Ships. The Navy's plans call for a force of 33 amphibious ships, including 11 large-deck amphibious assault ships. Under those plans, the Navy's purchases would include four amphibious assault ships through 2016. The projections also incorporate the Navy's plans to begin replacing the 12 dock landing ships in today's force, 7 of which would be purchased by the end of the projection period.

Aircraft Carriers. The Navy's plans include a future carrier force of 11 large-deck ships, all of which would be nuclear powered. The Navy ordered the first of its new class of aircraft carriers, the USS *Gerald R. Ford* (CVN-78), in 2008, and plans call for the Navy to order a new ship of that class every five years thereafter. In addition, plans would provide for the refueling and overhaul of 6 of today's Nimitz class carriers (including continued funding for the ongoing refueling and overhaul of the USS *Theodore Roosevelt*) over the projection period. The plans call for maintaining a fleet of 11 aircraft carriers for all but three years of the projection period; the fleet would briefly drop to 10 aircraft carriers from 2013, when the USS *Enterprise* would be retired, to 2015, when the USS *Gerald R. Ford* would enter the fleet.

Aircraft

The Department of the Navy's aviation programs include Navy and Marine Corps aircraft and aircraft-related weapon systems. For 2012, the Administration requested about $16 billion to procure more than 225 new aircraft. According to the CBO projection, the Navy's plans for aircraft would cost an average of about $14 billion per year between 2012 and 2030. Average annual funding would be considerably higher in the earlier years of the projection period—nearly $19 billion per year from 2012 to 2019—because of simultaneous purchases of several types of fixed- and rotary-wing aircraft. Once the production of those aircraft was completed, average funding

would drop to about $10 billion per year for 2020 through the end of the projection period. The decrease after 2019 contributes to the overall drop in acquisition costs in the later years of the projection period. In the absence of future changes in the number of aircraft operated by the Navy and the Marine Corps, costs can be expected to increase again beyond CBO's projection period as aircraft that are relatively new today will need to be replaced.

Fighter Aircraft. Plans for naval fighter aircraft, which account for slightly more than half of all aircraft funding, call for three more years of procurement of F/A-18E/F multirole fighters and EA-18G electronic warfare aircraft, including an increase of 41 E/Fs relative to 2011 plans in order to compensate for delays in production of the F-35 Joint Strike Fighter. Although plans still call for a total of 680 F-35s by 2027—340 F-35B short takeoff/vertical landing aircraft and 340 F-35C carrier-based aircraft—those delays have resulted in 124 fewer planned F-35 purchases over the FYDP period than were anticipated in the 2011 plan.[6] Both the CBO projection and the extension of the FYDP reflect CBO's assumption that the Navy will begin developing a new fighter to replace F/A-18E/Fs that are expected to reach the end of their service life after 2025. Projected costs for that new fighter are primarily for research and development beginning in 2016; initial production would begin in 2026.[7]

Other Fixed-Wing Aircraft. In addition to fighters, the Navy plans to purchase the following types of carrier- and land-based fixed-wing aircraft:

- Carrier-based unmanned combat air vehicles capable of conducting surveillance, reconnaissance, or strike missions;[8]
- A new version of the carrier-based E-2 Hawkeye airborne early-warning aircraft;
- A new land-based patrol aircraft, the P-8A Poseidon, which is based on a Boeing 737 airframe and will replace the P-3C Orion; and
- An unmanned broad-area maritime surveillance aircraft that will be a modified version of the Air Force's Global Hawk high-altitude unmanned aerial vehicle.

Tilt-Rotor and Rotary-Wing Aircraft. The Navy's plans include purchases of MH-60R/S helicopters and MQ-8A Firescout unmanned helicopters. The Navy is also evaluating options for a "VXX" aircraft to replace the current "Marine One" Presidential transport helicopters. CBO's analysis reflects the assumption that the new program would begin delivering replacements for Marine One in about 2014.

The Marine Corps' plans also call for replacing or upgrading nearly every component of its tilt-rotor and rotary-wing forces. The Marine Corps is replacing its CH-46E medium-lift helicopters with MV-22 Osprey tilt-rotor aircraft and is modernizing its fleets of UH-1N light-utility helicopters and AH-1W attack helicopters with a mix of new and remanufactured aircraft. In addition, the Marine Corps intends to modernize its fleet of heavy-lift CH-53E helicopters with an upgraded version, the CH-53K.

Ground Combat Vehicles

The Marine Corps' plans for ground combat vehicles in the 2012 FYDP changed substantially from those in the 2011 budget. The 2011 plan for procuring new expeditionary fighting vehicles, which were intended to replace today's amphibious assault vehicles, was canceled. As a short-term measure, the Marine Corps will extend the service life of existing amphibious assault vehicles and accelerate procurement of the Marine personnel carrier. (In the longer term, the Navy will develop and purchase a new amphibious combat vehicle, but the capabilities and quantity of that new vehicle have not yet been determined and its costs are therefore not included in CBO's projections.) The Marine Corps also plans to participate in the Army's program to buy joint light tactical vehicles beginning in 2014.

6. The Marine Corps will operate all of the F-35Bs and 80 of the F-35Cs.

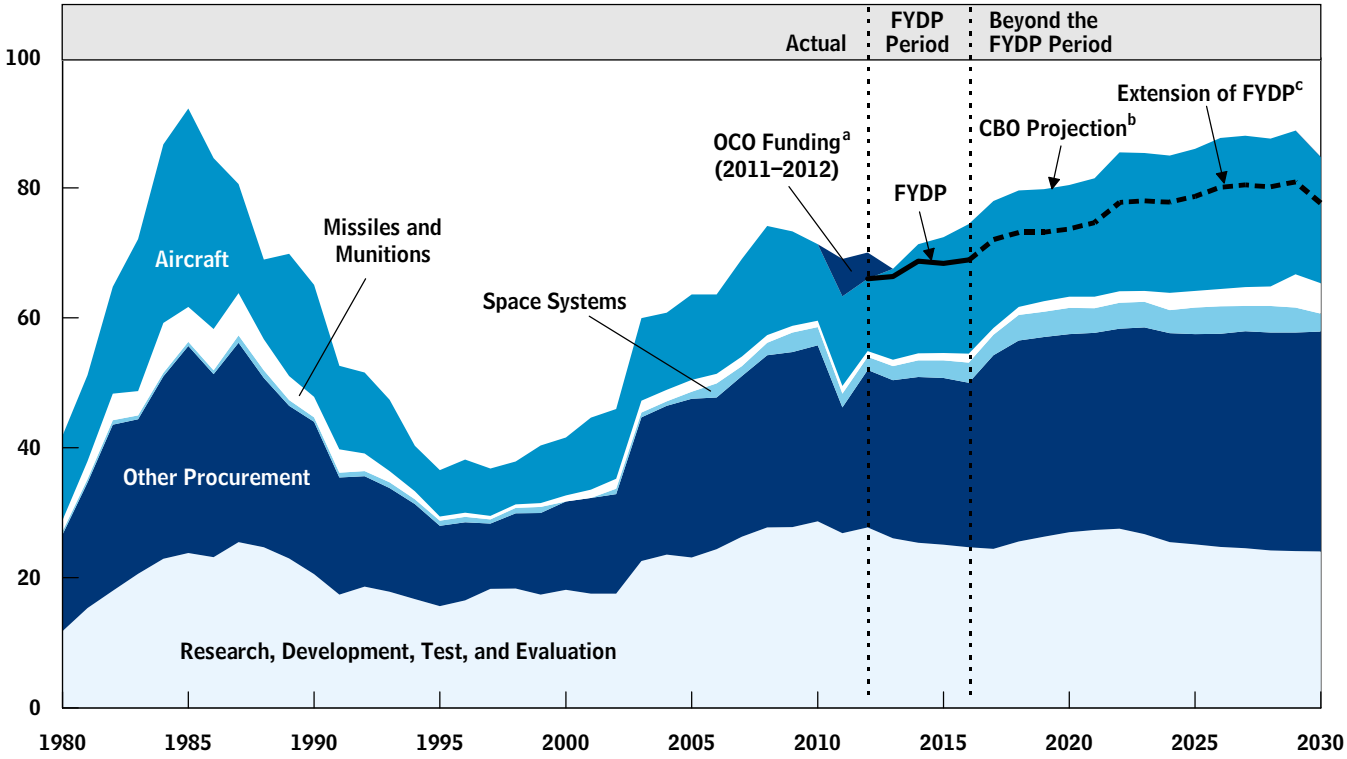
7. Instead of developing a new aircraft, the Navy might opt to purchase additional F-35Cs. That course of action would result in lower RDT&E costs than are reflected in CBO's analysis.

8. As part of the Unmanned Combat Air System Carrier Demonstration program, the Navy is developing the technologies necessary to field such aircraft. CBO's analysis reflects the assumption that the effort will be successful and that the Navy will opt to purchase a limited number of unmanned combat aircraft—about 100 by 2028—for its carrier air wings.

Figure 3-5.

Costs of the Air Force's Acquisition Plans

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: The amounts shown for the Future Years Defense Program (FYDP) and the extension of the FYDP are the totals for all categories.

FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, is included for 2012 and earlier but not in later years. The amount shown for OCO funding for 2011 has been appropriated but was not included in the 2012 FYDP; funding for 2012 has been requested but has not been appropriated.

b. Each category shows the CBO projection of the base budget from 2012 to 2030. That projection incorporates costs that are consistent with DoD's experience.

c. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

Missiles and Munitions

The category of missiles and munitions comprises air-launched weapons (including air-to-air and air-to-ground missiles) and ship-launched weapons (including defensive surface-to-air missiles, land-attack missiles, and torpedoes). Notable among those weapons is a substantial number of the Tactical Tomahawk cruise missiles for attacking land targets and the air-launched Joint Standoff Weapon, also for attacking ground targets.

The Air Force

The Air Force has requested $66 billion for acquisition in its 2012 budget. According to the CBO projection of DoD's plans, those costs would average $70 billion per year during the FYDP period (to 2016), about $3 billion higher than the average indicated in the FYDP (see Figure 3-5). Beyond the FYDP period, according to CBO's projection, the Air Force's acquisition plans would cost an average of about $84 billion per year, about 9 percent higher than the costs estimated in the extension of

the FYDP. Year-to-year funding would steadily increase to a peak of almost $89 billion in 2029.

For its projections of acquisition costs for the Air Force, CBO tracked programs in three categories of major systems: aircraft, missiles and munitions, and space systems.

Aircraft

The Air Force's plans include purchases of new aircraft and major modifications to existing aircraft. According to the CBO projection, the plans for acquiring aircraft would cost an average of about $19 billion per year from 2012 to 2030. About half of those costs would be to develop and purchase the F-35A Joint Strike Fighter and the KC-46A replacement for the KC-135 airborne tanker. CBO's analysis for the F-35A is based on the program's December 2010 Selected Acquisition Report. Both the CBO projection and the extension of the FYDP reflect CBO's assumption that the first KC-46A aircraft will be procured in 2013 and that procurement will increase to 15 aircraft per year.[9] Other significant elements of DoD's acquisition plans for the Air Force's aircraft include the following:

- A replacement combat search-and-rescue (CSAR) rotorcraft: Because DoD canceled the CSAR-X program in 2009, the Air Force is purchasing a limited number of modified H-60 Blackhawk helicopters to meet immediate needs. In its longer-term acquisition strategy, the Air Force envisions replacing the current fleet with new aircraft based on an existing design but modified for the CSAR mission.

- Increases in the number of medium- and high-altitude unmanned aerial vehicles: The 2012 FYDP and the Air Force's longer-term plans include funding for 240 more MQ-9 Reapers and 24 more of the larger RQ-4B Global Hawks.[10] Those purchases are consistent with DoD's goal to increase the number of continuous orbits that unmanned aircraft can sustain. CBO's analysis also reflects the assumption that, after production of the Reaper has ended, the Air Force would begin procuring a next-generation reconnaissance and strike unmanned aircraft that would be better suited for operations in defended airspace than is the Reaper.

- A new long-range bomber program: The Air Force is currently reviewing performance requirements and available technologies in anticipation of developing a new bomber to be fielded sometime after 2020. The 2012 FYDP indicates steadily increasing annual funding for development of that system; CBO's analysis reflects the assumption that development efforts would continue beyond the FYDP and that procurement of a new long-range strike aircraft would begin in 2021.

- An advanced theater transport aircraft: The Air Force has been exploring performance requirements for a new aircraft that would be used to move troops and equipment within a theater of operations. Although the type of aircraft has not been determined, the capability to take off and land vertically or in short distances will probably be a desired characteristic. CBO's analysis reflects the assumption that significant development work for this aircraft would begin within the next five years and that initial procurement would begin in 2022.

The rising costs in the final few years of the CBO projection are increasingly due to the development and procurement of the long-range bombers and theater transport aircraft.

Missiles and Munitions

The category of missiles and munitions includes systems that range from air-to-air weapons to intercontinental ballistic missiles (ICBMs). Plans include upgrades to existing Minuteman III ICBMs to keep them in service until 2030. CBO's projections include the assumption that a new ICBM would be developed to replace the Minuteman III. Air-to-surface weapons in this category include the Joint Air-to-Surface Standoff Missile, the Joint Direct Attack Munition, and the Small-Diameter Bomb. Plans also include the Joint Dual-Role Air Dominance Missile, the specific characteristics of which are being developed.

9. At 15 aircraft per year, the planned purchases of the 179 tankers would be completed in about 2025. For the remaining years of the projection, CBO assumed that the Air Force would continue to purchase 15 tankers per year at costs similar to those for the KC-46A, although the Air Force could opt to select a different type of aircraft instead.

10. Congressional Budget Office, *Policy Options for Unmanned Aircraft Systems* (June 2011).

Space Systems

The category of space systems consists mainly of satellites and the space-launch systems used to put them into orbit. In the proposed 2012 budget, the Air Force has changed the acquisition strategy for satellites and space-launch systems.

The proposed Evolutionary Acquisition for Space Efficiency, or EASE, approach for satellite programs features blocks of satellites purchased at prenegotiated prices combined with ongoing technology development for follow-on systems. Procurement budgets for those programs would be smoothed by spreading the cost over multiple years. The Air Force has requested about $50 million in 2012 to begin procurement of two Advanced Extremely-High Frequency Satellites, which would be followed by appropriations totaling about $2.3 billion over the 2013–2017 period to complete the purchase. Plans call for a similar approach to begin in 2013 for the Space-Based Infrared System-High satellites. For this projection, CBO has assumed that the Air Force will continue to use the EASE strategy to develop and field follow-on versions of those satellites when needed and will apply it to other satellite programs, such as Wideband Global SATCOM, when that approach is appropriate.

The Air Force has also revamped its approach to procuring the Evolved Expendable Launch Vehicle (EELV) for launching satellites. In past years, EELV purchases were tied to specific satellite launches, whereby a booster was procured for a given satellite two years before the expected launch. In an effort intended to lower the EELV's unit cost and provide a more stable market for the industrial base, the Air Force has proposed to begin purchasing a fixed number of EELVs without assigning them to specific satellites in advance. The Air Force has proposed purchasing four EELVs per year in 2012 and 2013, to be followed by five each year for the 2014–2016 period. In its projections, CBO has assumed that EELV purchases will continue at five per year beyond the FYDP; for comparison, in its projections based on the proposed 2011 budget, CBO anticipated that EELV purchases over the same period would range between two and six per year, averaging about four per year. Despite the intent of the new approach to acquiring EELVs, costs have grown by about 50 percent. As a result, CBO's projection of EELV costs beyond the FYDP period include an increase of about $900 million per year relative to its projection based on last year's proposed budget.

Other Defense Activities, Including Those of the Missile Defense Agency

In addition to funding for the Departments of the Army, Navy, and Air Force, DoD's budget provides funding for organizations that oversee the department and for specialized agencies that perform advanced research, develop missile defenses, oversee special operations, and manage financial and information systems. CBO assumed that costs for defense organizations other than the Missile Defense Agency (MDA) would remain constant over the course of its projection at about $18 billion, the 2016 costs indicated in the FYDP (see Figure 3-6).

The 2012 budget request for MDA was $8.4 billion for acquisition ($6.6 billion for RDT&E and about $1.8 billion for procurement) and about $200 million for operation and maintenance.[11] This section deals only with the acquisition portion of the budget; the O&M portion is included in the analysis of defensewide O&M discussed earlier. According to the CBO projection of DoD's plans, MDA's acquisition costs would average $7.9 billion annually from 2012 to 2030. For the 2013–2015 period, MDA's planned budget totals would be about $700 million per year lower than had been called for in the plans accompanying the 2011 budget request. (The reduction was spread among the RDT&E portion of several programs.) CBO projects that a similar reduction relative to last year's projection will continue beyond the FYDP.

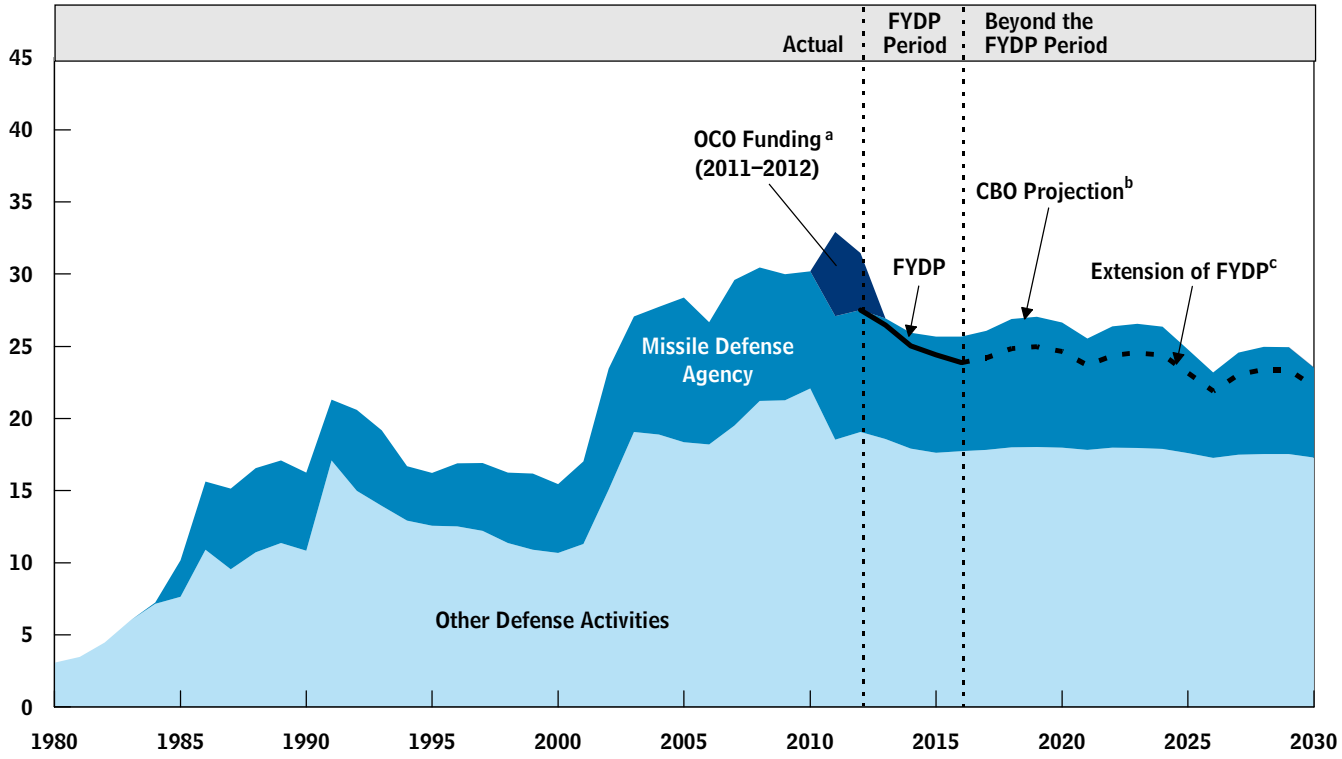
The largest change to the overall DoD budget for missile defense programs comes from the decision to forgo procurement of the Medium Extended Air Defense System, a program administered by the Army. Because DoD is halting MEADS after completing limited development and is instead concentrating on upgrading the interceptor, radar, and supporting systems of the Patriot Air and Missile Defense System, CBO estimates that the overall DoD budget for missile defense would be an average of

11. Since its inception, MDA has managed research, development, and testing of DoD's missile defense programs as components in the Ballistic Missile Defense System (BMDS). In September 2009, MDA's responsibilities were broadened to include procuring and fielding those systems in the context of the BMDS Life Cycle Management Process.

Figure 3-6.

Costs of DoD's Acquisition Plans Other Than Those for the Military Services

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Notes: The amounts shown for the Future Years Defense Program (FYDP) and the extension of the FYDP are the totals for all categories.

FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, is included for 2012 and earlier but not in later years. The amount shown for OCO funding for 2011 has been appropriated but was not included in the 2012 FYDP; funding for 2012 has been requested but has not been appropriated.

b. Each category shows the CBO projection of the base budget from 2012 to 2030. That projection incorporates costs that are consistent with DoD's recent experience.

c. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

about $800 million less per year over the 2014–2028 period than anticipated in CBO's projection of the 2011 budget. If DoD pursued improvements to or replacements of the Patriot system beyond those described in the current budget documents, that estimate would change.

The plans for future missile defenses in CBO's analysis are derived from the Administration's policy statements and details provided by MDA and the military services. Significant aspects of those plans affecting CBO's analysis of future costs include the following:

- Continued fielding and improvement of the Ground-Based Midcourse Defense (GMD) system, including 26 operational interceptors at Fort Greely, Alaska, and 4 operational interceptors at Vandenberg Air Force Base in California.[12] MDA expects to award a contract in 2012 for developing and sustaining GMD that would extend beyond the FYDP. For these projections, CBO has assumed that the same level of effort would continue throughout the projection period.

- Continued emphasis on the Aegis missile defense system, which is the centerpiece of the Phased Adaptive Approach, a deployment strategy that will be applied in order to field defenses in Europe over the next decade. Specifics include purchasing more SM-3 interceptors, improving the SM-3's performance by developing several upgraded versions, improving the Aegis battle management system, and continuing to upgrade Navy ships to make them capable of defending against ballistic missiles. In addition to improving and expanding sea-based ballistic missile defense, plans include an effort to develop a ground-based version, designated "Aegis Ashore." Plans call for two Aegis Ashore sites to be established in Europe by 2018.

- Continued production and fielding of the Terminal High-Altitude Area Defense (THAAD) system and providing support to the Army as THAAD becomes an operational system. As of the spring of 2011, the Army had activated the first two THAAD batteries; the Army also plans to have a total of nine batteries available by about 2020.

- Development and fielding of a space-based system for tracking ballistic missiles and their warheads. Current plans call for the Precision Tracking and Surveillance System (PTSS)—a restructuring of the Space Tracking and Surveillance System that had been pursued in past years and that has launched two demonstration satellites—to consist of 6 to 12 satellites. MDA plans to launch 2 initial prototype satellites in about 2016 and to begin launching an operational constellation several years later. CBO's analysis reflects the assumption that MDA would deploy 9 operational satellites and that the initial launches would occur in 2018.

- Development and eventual fielding of an "early-intercept" capability to engage ballistic missiles before they have an opportunity to deploy decoys that make it more difficult to identify and destroy the missile's warhead. Plans for enabling early intercept include improved detection and tracking early in the threat missile's trajectory and interceptors capable of reaching and engaging the missile while it is still near its launch site. To that end, MDA has a program designated Airborne Infrared to develop missile-tracking sensors that would be fielded on forward-based airborne platforms. Tracking from those sensors would supplement early-trajectory tracking planned to be available from PTSS and from forward-based radars that MDA is currently purchasing. Upgraded versions of the Aegis-based SM-3 interceptors, particularly the SM-3 Block IIB version planned to be available in about 2020, are intended to be sufficiently fast and maneuverable to perform early-intercept engagements.

12. Ballistic missile defense programs are categorized by the portion of the incoming missile's trajectory that they target. Boost-phase defenses attempt to destroy hostile missiles while their rocket motors are still burning and before their warheads separate from their booster rockets. Midcourse-phase defenses attempt to destroy warheads after they separate from their boosters but before they reenter the Earth's atmosphere. Terminal-phase defenses attempt to destroy warheads after they have reentered the Earth's atmosphere and are relatively close to their intended targets.

CHAPTER

4

Projections of Military Construction and Family Housing Costs

Together, the military construction and family housing budgets that support the infrastructure of military bases make up a small fraction of the Department of Defense's costs. In the 2012 budget, the request for military construction was $13 billion, and the request for family housing was less than $2 billion.

Military Construction

Appropriations for military construction pay for the planning, design, construction, and major restoration of military facilities. Those appropriations also pay for the base realignment and closure (BRAC) process, including environmental assessments of sites designated for closure and construction projects needed to help consolidate personnel and units.

Excluding funding for BRAC, appropriations for military construction have averaged $8 billion annually since 1980. DoD's plans for 2012 to 2016, however, include funding for military construction averaging more than $12 billion a year. That higher amount is roughly consistent with dedicating enough funding to DoD facilities so that, on average, they will be fully replaced or recapitalized within 67 years.[1] In both the Congressional Budget Office projection and the extension of the Future Years Defense Program, military construction appropriations are estimated to continue at about $12 billion per year, excluding funding for BRAC.

DoD's military construction plans also include expenditures to pay for ongoing environmental and caretaking costs for properties closed as a result of BRAC. Funding to implement the 2005 round of BRAC, which has totaled $36 billion since 2006, will end in 2011.[2] Between 2012 and 2016, DoD's plans call for about $300 million annually to cover ongoing cleanup and maintenance costs for properties closed in all rounds of BRAC that have not yet been converted to other uses. Under both the CBO projection and the extension of the FYDP, those costs are estimated to remain at about $300 million per year.

Family Housing

Appropriations for family housing—which pay for the construction, operation, maintenance, and leasing of military family housing—have averaged $5 billion per year since 1980. Those appropriations have fallen sharply since 2007, however, because, under a DoD program to have private companies build and maintain that housing on bases, funding comes primarily from private financing that is not recorded in the federal budget. As a result, in both the CBO projection and the extension of the FYDP, appropriations for family housing are projected to remain between $1.5 billion and $1.7 billion throughout the projection period. Although the private financing reduces DoD's costs for building and operating family housing, it increases the government's costs for the basic allowance for housing that military personnel receive to rent those private housing units. Those housing allowances appear in military personnel costs in the operation and support budget.

1. According to DoD estimates using current construction costs, the current replacement value for all DoD buildings, structures, and linear structures (such as roads and pipelines) is over $800 billion. The recapitalization rate equals the replacement value for all military facilities divided by the annual funding for military construction. See Department of Defense, Office of the Deputy Undersecretary of Defense (Installations and Environment), *Base Structure Report: Fiscal Year 2010 Baseline (A Summary of DoD's Real Property Inventory)*, www.acq.osd.mil/ie/download/bsr/bsr2010baseline.pdf.

2. Legislation requires DoD to finish implementing the 2005 round of BRAC by September 15, 2011.

Appendix: Projections of the Department of Defense's Costs Compared with the Congressional Budget Office's Baseline

The Congressional Budget Office's (CBO's) projections of defense costs in this study differ from the projections of discretionary appropriations for defense contained in CBO's baseline. The two sets of projections were made for different purposes and use different assumptions. The projections in this study illustrate the costs of the Department of Defense's (DoD's) plans, as contained in its Future Years Defense Program (FYDP) for 2012 to 2016 and related planning documents. By contrast, CBO's baseline serves as a neutral benchmark for assessing how Congressional actions would raise or lower federal spending relative to that under current laws and policies.

According to the rules for constructing the baseline for discretionary spending, CBO tabulates the total amount appropriated for the fiscal year at the time the baseline is prepared and assumes that appropriations will be adjusted only to reflect anticipated inflation (as measured by specified indexes) and certain other factors. For defense, the baseline includes both regular appropriations and any supplemental and emergency appropriations that the Congress has made to fund conflicts or for other purposes at the time the baseline is published.[1] That method of calculation makes the entire 10-year baseline projection sensitive to supplemental and emergency appropriations made in the most recent year.

CBO published its most recent baseline in April 2011, before the full-year appropriations for fiscal year 2011 had been enacted.[2] For the purposes of this comparison, CBO has adjusted that baseline to reflect enacted appropriations.

For 2011, the Congress has appropriated $529 billion (in fiscal year 2011 dollars) for DoD's base budget, less than the Administration's request of $549 billion.[3] The Congress has also appropriated $159 billion (in fiscal year 2011 dollars) to fund the conflicts overseas, matching the Administration's request. The resulting CBO baseline (as adjusted) starts with budget authority of $699 billion for 2012 (including CBO's projection of $538 billion for regular defense appropriations in that year) and continues through 2021, rising only with estimates of real (inflation-adjusted) growth of wages (see the top panel of Table A-1). That calculation has the effect of retaining the cost of two sizable U.S. overseas operations over the 10-year projection period even though the United States

1. CBO constructs its baseline in accordance with the provisions set forth in the Balanced Budget and Emergency Deficit Control Act of 1985 and in the Congressional Budget and Impoundment Control Act of 1974. Although the provisions of the Deficit Control Act that pertain to the baseline expired at the end of September 2006, the agency generally continues to follow that law's specifications in preparing its baseline.

2. Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2012* (April 2011).

3. Department of Defense Appropriations Act, 2011; Division A of Public Law 112-10, 125 Stat. 38, 85–102.

Table A-1.

Costs of DoD's Plans Relative to CBO's March 2011 Baseline

(Billions of dollars)

	Future Years Defense Program									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
					2012 Dollars					
CBO Projection[a]	554	570	580	587	594	602	604	621	620	625
FYDP and Extension[b]	554	562	567	569	569	575	578	590	591	594
Adjusted CBO Baseline[c]										
With OCO funding	699	702	704	708	711	714	719	723	727	730
Without OCO funding	538	540	543	546	549	552	557	561	564	568
					Nominal Dollars					
CBO Projection[a]	554	579	599	616	635	656	671	704	716	737
FYDP and Extension[b]	554	570	585	597	608	621	639	656	683	696
Adjusted CBO Baseline[c]										
With OCO funding	699	712	727	742	759	779	799	820	840	861
Without OCO funding	538	549	561	573	587	602	619	636	653	670

Source: Congressional Budget Office.

Notes: FYDP = Future Years Defense Program; OCO = overseas contingency operations.

a. The CBO projection of the base budget incorporates costs that are consistent with the Department of Defense's (DoD's) recent experience.

b. For the extension of the FYDP (2017 to 2030), the costs of DoD's plans are projected using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

c. CBO's baseline is a neutral benchmark for assessing how particular Congressional actions would raise or lower federal spending over the next 10 years, relative to what would occur under current laws and policies. For discretionary spending, CBO's baseline projections reflect the assumption that the most recent year's budget authority (in this case, that for fiscal year 2011), including any supplemental appropriations, is provided in each future year, with adjustments for projected inflation (as measured by specified indexes) and other factors (such as growth of the cost of labor).

CBO published its most recent baseline in *An Analysis of the President's Budgetary Proposals for Fiscal Year 2012* (April 2011), before the full-year appropriations for fiscal year 2011 had been enacted. For this study, CBO has adjusted that baseline to reflect enacted appropriations.

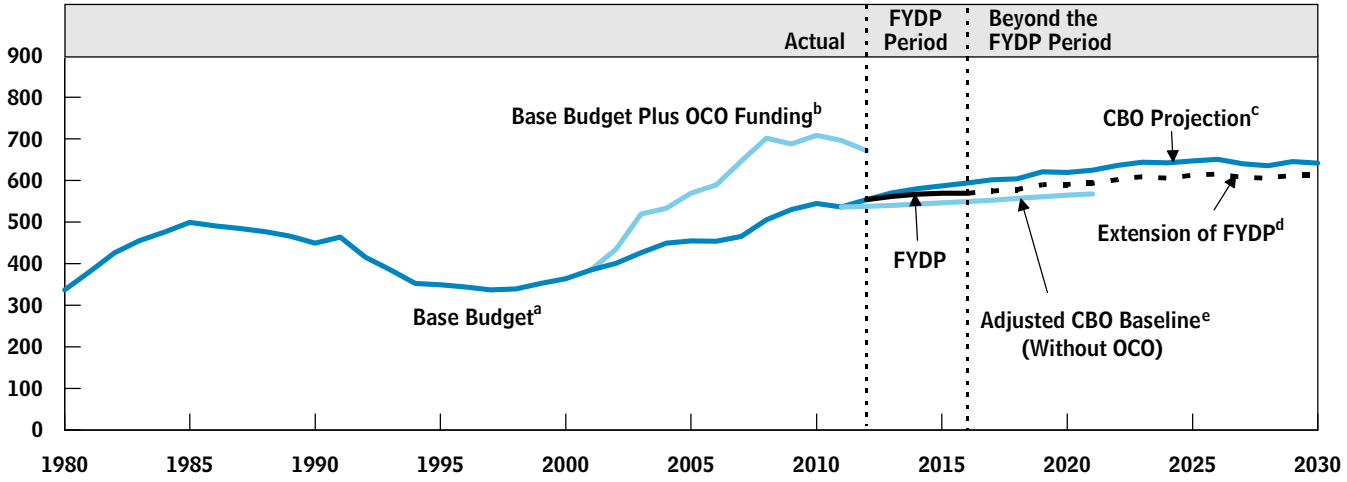
has withdrawn most of its forces from Iraq and is contemplating similar actions in Afghanistan.

For the purpose of comparing CBO's baseline with the projections for DoD's normal peacetime activities in this study, it is useful to exclude the costs of overseas contingency operations from the adjusted CBO baseline (see Figure A-1). In the CBO projection, the costs of DoD's plans would exceed the baseline (as adjusted, and without OCO funding) by $45 billion (or 8 percent) in 2016 and by $57 billion (or 10 percent) in 2021, expressed in 2012 dollars (see the top panel of Table A-1). From 2012 to 2021, DoD's plans would require a total of $437 billion more than that baseline.

Figure A-1.

Costs of DoD's Plans Relative to CBO's Baseline

(Billions of 2012 dollars)



Source: Congressional Budget Office.

Note: FYDP = Future Years Defense Program; FYDP period = 2012 to 2016, the years for which the Department of Defense's (DoD's) plans are fully specified.

a. Base-budget data include supplemental and emergency funding before 2002.

b. For 2002 to 2012, supplemental and emergency funding for overseas contingency operations (OCO), such as those in Afghanistan and Iraq, and for other purposes is shown separately from the base-budget data. The amount shown for 2012 has been requested but has not been appropriated.

c. The CBO projection of the base budget incorporates costs that are consistent with DoD's recent experience.

d. For the extension of the FYDP (2017 to 2030), CBO projects the costs of DoD's plans using the department's estimates of costs to the extent they are available and costs that are consistent with the broader U.S. economy if such estimates are not available.

e. CBO's baseline is a neutral benchmark for assessing how particular Congressional actions would raise or lower federal spending over the next 10 years, relative to what would occur under current laws and policies. For discretionary spending, CBO's baseline projections reflect the assumption that the most recent year's budget authority (in this case, that for fiscal year 2011), including any supplemental appropriations, is provided in each future year, with adjustments for projected inflation (as measured by specified indexes) and other factors (such as growth of the cost of labor). In this figure, the CBO baseline is shown with the effects of OCO funding removed.

CBO published its most recent baseline in *An Analysis of the President's Budgetary Proposals for Fiscal Year 2012* (April 2011), before the full-year appropriations for fiscal year 2011 had been enacted. For this study, CBO has adjusted that baseline to reflect enacted appropriations.