
Summary

In recent years, the Department of Defense (DoD) has typically spent more than \$400 billion a year on operation and support (O&S) of military units. The O&S budget covers the costs associated with the day-to-day running of units. Those costs include pay and benefits for military personnel, compensation for most of DoD's civilian employees, health care costs for military and civilian personnel, and the daily expenses of operating a unit, such as equipment maintenance, training, and support contractors. The O&S budget makes up about 60 percent of DoD's total "base" budget, which is the defense budget excluding additional funds provided specifically for wartime operations. (The rest of DoD's base budget is spent on acquiring weapon systems and constructing buildings and other infrastructure.)

The size and complexity of the U.S. armed forces can make it difficult to determine how the O&S budget is distributed among units. In this report, the Congressional Budget Office analyzes the structure and cost of the military from the perspective of major combat units. Those units include Army brigades, Navy aircraft carrier strike groups, Marine Corps task forces, and Air Force squadrons.

Working from DoD's budget plan for the 2021–2025 period, CBO allocates most of the O&S budget and all of DoD's military personnel among major combat units—and their associated support units and overhead activities—to provide a clearer picture of the size and cost of the major elements of the military's force structure. Such information can help policymakers evaluate proposals to change the structure or budget of the armed forces.

By themselves, major combat units account for roughly one-quarter of DoD's operation and support costs and contain about one-third of DoD's military personnel, CBO estimates. Most of the rest of DoD's O&S costs and military personnel are associated either with units that support major combat units (such as by providing transportation and maintenance) or with overhead activities necessary for manning, equipping, and training combat and support units (such as recruiting and

basic training). In this analysis, the costs and military personnel of support units and overhead activities are integral parts of what CBO considers a "fully supported" major combat unit. In addition, the total operating cost associated with a major combat unit includes a share of the costs of "defensewide" activities that serve DoD as a whole (such as health care, payroll services, and telecommunications services).

As an example of the difference between a combat unit by itself and a fully supported combat unit, CBO estimates that an armored brigade in the Army's active component (as opposed to the Army National Guard or Reserve) has about 4,040 military personnel assigned to it. That number rises to about 16,330 military personnel if it includes the units that support the armored brigade and the brigade's proportional share of overhead activities that support DoD and the Army (see Table S-1).

The picture is similar for costs. By itself, an armored brigade in the active Army costs \$690 million a year to operate, including compensation for its military personnel. Those operating costs rise to about \$3,160 million a year if the costs of support units and overhead activities are included. Similar patterns apply to major combat units in the Navy, the Marine Corps, the Air Force, and the Space Force.

What Are the Major Elements of the Military's Force Structure?

At its highest level of organization, DoD contains three military departments—the Departments of the Army, Navy, and Air Force. Each of those departments is a civilian organization headed by a civilian Secretary. Together, the departments are responsible for overseeing and managing the five military services: The Department of the Army manages the Army, the Department of the Navy manages the Navy and the Marine Corps, and the Department of the Air Force manages the Air Force and the new Space Force. Those five services are military organizations, headed by a military Chief, that report administratively to their relevant military department. The departments carry out all budgetary functions for their services, including budget requests and spending.

Table S-1.

Number, Size, and Costs of Selected U.S. Forces, 2021 to 2025

	Number of Units in 2021	Military Personnel per Unit		Annual Cost per Unit (Millions of 2021 dollars)	
		Direct	Total	Direct	Total
Department of the Army					
Active-Component Armored Brigade Combat Team	12	4,040	16,330	690	3,160
Active-Component Stryker Brigade Combat Team	7	4,680	16,670	600	3,060
Active-Component Infantry Brigade Combat Team	13	4,560	15,910	580	2,920
Department of the Navy					
Aircraft Carrier	11	3,360	6,600	620	1,470
Carrier Air Wing	9	1,750	4,880	440	1,140
Arleigh Burke Class Destroyer (DDG-51)	72	350	710	80	180
Attack Submarine	53	200	400	100	190
Amphibious Ship	33	750	1,480	160	360
Active-Component Marine Corps Infantry Battalion	24	1,900	6,320	200	990
Department of the Air Force					
F-16 Fighter Aircraft Squadron ^a	41	420	1,260	80	270
B-1B Bomber Aircraft Squadron ^a	3	1,360	4,790	450	1,200
C-17 Cargo Aircraft Squadron ^a	16	500	1,510	110	330
KC-135 Tanker Aircraft Squadron ^a	28	560	1,920	140	430
MQ-9 "Reaper" Unmanned Aerial System Squadron ^a	23	380	1,020	70	220

Data source: Congressional Budget Office, using data from the Department of Defense's 2021 budget request.

"Direct" personnel and costs are associated with a major combat unit. "Total" personnel and costs also include the "indirect" personnel and costs associated with units that support the major combat unit and the "overhead" personnel and costs associated with the major combat unit's share of administrative or overhead activities. For more information, see Chapter 1. The personnel and cost numbers shown here are rounded to the nearest 10 personnel or \$10 million; more detailed information is presented in Appendixes A and B.

a. Notional squadrons of 12 aircraft (actual squadrons vary in size).

Each of the military departments provides different kinds of forces. The composition, functions, capabilities, and costs of the departments' major combat units are often difficult to determine from budget documents and from the various reports that the military provides to the Congress. Even harder to discern are the critical roles that support units play in making major combat units function effectively and the costs of supporting each type of combat unit. This report serves as a primer that describes how each department is organized into major combat units, what each type of unit does, how those units have been used in past conflicts, and how much the units cost to operate and support.

In addition to the military departments, DoD includes a number of smaller organizations that provide services or specialized capabilities to the entire military. Those defensewide organizations report directly to the Secretary of Defense rather than to one of the military

departments. Some, such as the Defense Finance and Accounting Service, provide administrative services to DoD as a whole. Others, such as Special Operations Command, provide coordination and leadership for a function that is distributed among several services.

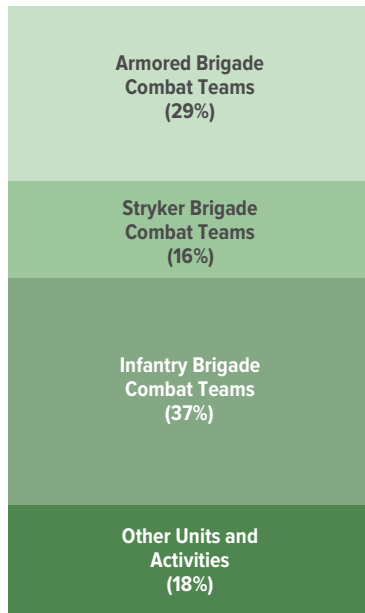
In this analysis, CBO treats some of the costs of defensewide organizations as part of the cost of a military unit. Because the military departments rely on services and activities funded from defensewide budget accounts, the total cost to operate and sustain all of a department's units is larger than the department's requested O&S budget.

Department of the Army

According to its 2021 budget request, DoD plans to spend an average of about \$129 billion per year (in 2021 dollars) over the 2021–2025 period to operate and support Army units. The total O&S cost of those units

Figure S-1.

Distribution of Average Operation and Support Funding for the Department of the Army's Units, 2021 to 2025



Data source: Congressional Budget Office, using data from the Department of Defense's 2021 budget request.

includes an additional \$17 billion per year from defense-wide accounts, CBO estimates.

The main units that the Army provides to the U.S. military are brigade combat teams (BCTs), large formations that officially contain about 4,000 to 4,700 soldiers.¹ Those units come in three major types: armored BCTs, Stryker BCTs, and infantry BCTs. All three types are similar in size; they differ primarily in how many wheeled or tracked vehicles are assigned to them. All BCTs are versatile ground combat units, capable of performing a wide variety of missions, and all rely on many support units assigned to them from higher-level commands. When deployed, a BCT can expect to be

1. Those personnel numbers are based on the Army's Table of Organization and Equipment, which serves as an official template for different types of Army units. In practice, units do not always conform to their templates for a variety of reasons. As a result, the personnel numbers for BCTs shown in Table S-1 on page 2—which are based on DoD's 2021 budget request—are smaller than the personnel numbers in the Army's Table of Organization and Equipment.

supported by almost twice as many personnel in support units as it has in its own unit. BCTs account for over 80 percent of O&S funding for the Department of the Army's units (see Figure S-1).

Department of the Navy

According to its 2021 budget request, DoD plans to spend an average of about \$126 billion per year over the 2021–2025 period to operate and support Navy and Marine Corps units. The total O&S cost of those units includes an additional \$11 billion per year from defense-wide accounts, CBO estimates.

The Navy's primary units are various kinds of battle force ships: aircraft carriers, surface combatants (cruisers, destroyers, and some smaller ships), attack submarines, and amphibious ships. Each type of ship is specialized for particular missions—such as carrying attack aircraft or a task force of marines—and the types differ greatly in size and cost. Battle force ships are relatively self-contained when they are deployed. They receive support from some other units, however, including logistics ships that refuel and rearm them while they are under way, maritime patrol aircraft that scout for them, and minesweeper squadrons that clear their path of sea mines. Among Navy units (as opposed to Marine Corps units), aircraft carriers and their associated air wings account for the largest single share of O&S funding, receiving 20 percent of appropriations for the Department of the Navy's units (see Figure S-2).

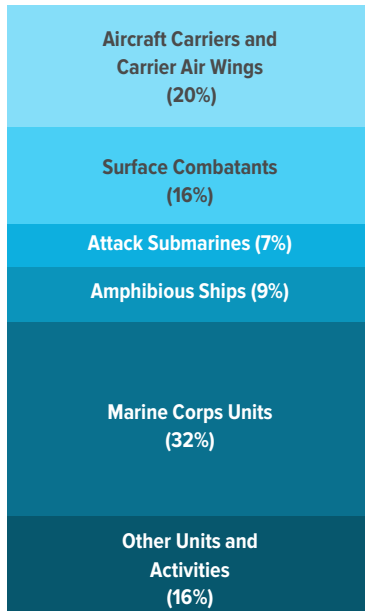
The Marine Corps' main units are Marine air-ground task forces—integrated combinations of ground combat units, air combat units, and support units. (Those support units are tailored to specific operations, rather than being standardized units, as in the other services.) Different kinds of task forces are distinguished primarily by the size of their ground combat forces, from the small Marine expeditionary units carried on Navy amphibious ships up to the large Marine expeditionary forces that engaged in combat operations in Iraq in 1991 and 2003. Marine Corps units account for the largest single share—32 percent—of O&S funding for the Department of the Navy's units (see Figure S-2).

Department of the Air Force

According to its 2021 budget request, DoD plans to spend an average of about \$111 billion per year over the 2021–2025 period to operate and support Air Force and Space Force units. The total O&S cost of those units

Figure S-2.

Distribution of Average Operation and Support Funding for the Department of the Navy's Units, 2021 to 2025



Data source: Congressional Budget Office, using data from the Department of Defense's 2021 budget request.

includes an additional \$9 billion per year from defense-wide accounts, CBO estimates.

The majority of Air Force units consist of squadrons of different types of fixed-wing aircraft that perform a variety of missions. They include short-range tactical aircraft (for engaging in air-to-air combat with other aircraft or for striking targets on the ground), long-range bombers, airlifters (for transporting cargo and personnel), tankers (for refueling other aircraft in flight), and unmanned aerial systems (also known as drones). Short-range tactical aviation squadrons account for the largest single share—35 percent—of O&S funding for the Department of the Air Force's units (see Figure S-3).

The Space Force, a new service established in 2019, is largely being created by shifting existing Air Force units with space-related missions to the Space Force. Most of those units are responsible for activities, such as launching and operating satellites, that are done from central locations rather than from a specific theater of operations. The Space Force will have some deployable units,

however. Those units will mainly provide in-theater support for satellite communications and help deployed troops use space assets, such as satellite imagery, and jamming technology.

Defensewide Activities

DoD's defensewide organizations perform specific functions outside the structure of the military departments and services. Most of those organizations—such as DoD's military health care system—provide centralized forms of support that assist each service. But a few defensewide organizations—such as Special Operations Command, which organizes units from the different services' special-operations forces into an integrated force—provide distinct military capabilities to the nation. In all, defensewide organizations and activities account for about \$48 billion per year of the O&S funding that DoD requested for the 2021–2025 period in its 2021 budget.

What Does This Analysis Indicate About the Budgetary Effects of Altering the Force Structure?

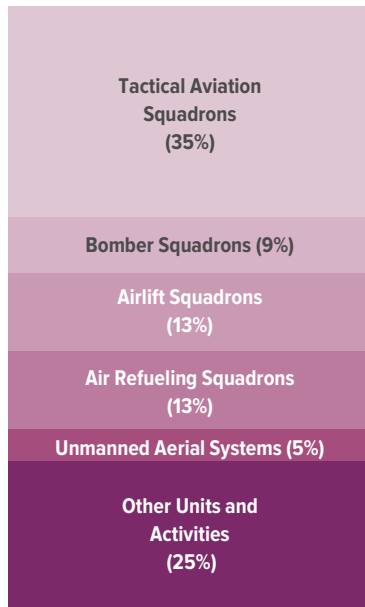
This report breaks down DoD's total number of military personnel and total operation and support budget and ascribes almost all personnel and O&S costs to major combat units according to three categories:

- Direct personnel and O&S costs—for a major combat unit itself;
- Indirect personnel and O&S costs—for the deployable units that support the major combat unit; and
- Overhead personnel and O&S costs—for the administrative functions within a service or DoD that are necessary to field the major combat unit and its supporting units.

CBO's numbers are based on information in DoD's latest five-year budget plan, the Future Years Defense Program for the 2021–2025 period. Thus, to the extent that DoD has overestimated or underestimated the funding needed to operate its forces, the estimates in this report will reflect that. The only O&S costs not divided among major combat units in this analysis are health care costs for current military retirees and their families, because those costs represent a major expense that DoD could not alter in the near term through future policy decisions.

Figure S-3.

Distribution of Average Operation and Support Funding for the Department of the Air Force's Units, 2021 to 2025



Data source: Congressional Budget Office, using data from the Department of Defense's 2021 budget request.

If DoD or lawmakers decided to eliminate a major combat unit from DoD's plans, the savings might not be as large as CBO's estimate of the total O&S costs for that type of unit. DoD would achieve savings from the support units associated with a combat unit only if it also eliminated those units. And DoD would achieve savings in overhead functions only if it trimmed those activities to reflect the smaller force. In addition, some overhead activities, such as operating bases, might take several years to cut, which would delay the full savings. For related reasons, if policymakers decided instead to add a major combat unit to the military's force structure, the costs might not be as large as CBO's estimate of the O&S costs for that type of unit, at least in the near term.

The estimates of O&S costs for combat units presented in this report do not include the costs of developing and acquiring new weapon systems. Thus, if DoD or lawmakers chose to eliminate a major combat unit and

stopped purchasing the weapon systems intended to equip that unit, the savings would be larger than CBO's estimate of the costs to operate and sustain the unit. Similarly, if policymakers chose to add a major combat unit and to purchase weapon systems to equip that unit, the total additional costs would be larger than CBO's estimate of the corresponding O&S costs.

How Is This Report Organized?

This primer is designed to be a reference work rather than a linear narrative. Chapter 1 describes CBO's conceptual approach to analyzing the military's force structure and costs. The following three chapters discuss the particular organizational structures and roles of the Departments of the Army, Navy, and Air Force. All of a department's major types of combat units have their own entries, which discuss the size, cost, function, advantages, disadvantages, and past use of that type of unit. The final chapter includes similar entries for some major defensewide organizations, such as Special Operations Command and the military's health care system. Each chapter also focuses on some special topics that are important for understanding the military's force structure, such as the integration of different types of units or the military's ability to conduct certain kinds of operations.

The structure of this report means that readers who are interested in a specific topic—such as the organization of the Marine Corps or the costs of an Air Force bomber squadron—can go straight to the relevant section after reading Chapter 1.

To accompany this report, CBO has updated its Interactive Force Structure Tool, which allows users to view the same information about the type, numbers, and costs of major elements of the force structure. The tool also lets users experiment with alternative force structures by seeing how changes to the numbers of units or the size of defensewide activities would affect the military's personnel and costs.² In the future, the interactive tool will also allow users to specify a dollar target for reducing or increasing DoD's budget and see the effects of that target on DoD's forces.

2. See Congressional Budget Office, "CBO's Interactive Force Structure Tool" (May 2021), www.cbo.gov/publication/54351.

