

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL
YEAR 2018

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JULY 11, 2017.—Committed to the Committee of the Whole House on the State of
the Union and ordered to be printed

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Mr. THORNBERRY, from the Committee on Armed Services,
submitted the following

SUPPLEMENTAL REPORT

[To accompany H.R. 2810]

[Including cost estimate of the Congressional Budget Office]

This supplemental report shows the cost estimate of the Congressional Budget Office with respect to the bill (H.R. 2810), as reported, which was not included in part 1 of the report submitted by the Committee on Armed Services on July 6, 2017 (H. Rept. 115-200, pt. 1).

CONGRESSIONAL BUDGET OFFICE ESTIMATE

In compliance with clause 3(c)(3) of rule XIII of the House of Representatives, the cost estimate prepared by the Congressional Budget Office and submitted pursuant to section 402 of the Congressional Budget Act of 1974 is as follows:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, July 10, 2017.

Hon. MAC THORNBERRY,
*Chairman, Committee on Armed Services,
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2810, the National Defense Authorization Act for Fiscal Year 2018.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is David Newman.

Sincerely,

KEITH HALL.

Enclosure.

H.R. 2810—National Defense Authorization Act for Fiscal Year 2018

Summary: H.R. 2810 would authorize appropriations totaling an estimated \$689 billion for the military functions of the Department of Defense (DoD), for certain activities of the Department of Energy (DOE), and for other purposes. In addition, the bill would prescribe personnel strengths for each active-duty and selected-reserve component of the U.S. Armed Forces. CBO estimates that appropriation of the authorized amounts would result in outlays of \$669 billion over the 2018–2022 period.

If the total amount authorized for 2018 was appropriated, \$613.8 billion would count against that year’s defense cap set in the Budget Control Act (BCA), as amended; \$0.6 billion would count against the nondefense cap for 2018; and \$74.6 billion designated for overseas contingency operations would not be constrained by caps.

The bill also contains provisions that would affect the costs of defense programs funded through discretionary appropriations in 2019 and future years. Those provisions mainly would affect force structure, compensation and benefits, the military health system, and various procurement programs. CBO has analyzed the costs of a select number of those provisions and estimates that they would, on a net basis, increase the cost of those programs relative to current law by about \$80 billion over the 2019–2022 period. The net costs of those provisions in 2019 and beyond are not included in the total amount of outlays mentioned above because funding for those activities would be covered by specific authorizations in future years.

Several provisions of H.R. 2810 would have insignificant effects on direct spending and revenues over the 2018–2027 period, primarily as a result of changes to military health care benefits, allowing DoD to dispose of property and use the proceeds from those transactions, and adding a specified offense under the military justice system. CBO estimates that in total the direct spending and revenue effects of enacting the bill would not be significant over the 2018–2027 period. Because enacting the bill would affect direct spending and revenues, pay-as-you-go procedures apply.

CBO estimates that enacting H.R. 2810 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

H.R. 2810 contains intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). CBO estimates that the aggregate cost of the mandates would fall below the annual thresholds established in UMRA for intergovernmental and private-sector mandates (\$78 million and \$156 million respectively in 2017, adjusted annually for inflation).

Estimated cost to the Federal Government: The estimated budgetary effects of H.R. 2810 are shown in Table 1. Almost all of the \$689 billion authorized by the bill would be for activities within budget function 050 (national defense).

Some authorizations, however, fall within other budget functions, including, \$278 million for the Maritime Administration in function 400 (transportation); \$127 million for the Small Business Administration in function 370 (commerce and housing credit); \$124 million

for the Department of the Interior in function 800 (general government); \$116 million for a medical facility demonstration fund in function 700 (veterans benefits and services); \$64 million for the Armed Forces Retirement Home in function 600 (income security); and \$5 million for the Naval Petroleum Reserves in function 270 (energy).

Basis of estimate: For this estimate, CBO assumes that H.R. 2810 will be enacted near the start of fiscal year 2018 and that the authorized and that estimated amounts will be appropriated near the beginning of each fiscal year.

Spending Subject to Appropriation

For 2018, the bill would authorize an estimated \$688.9 billion, primarily for defense programs. Nearly all of that amount (\$688.6 billion) would be specifically authorized by the bill (see Table 2). The remaining \$0.3 billion largely reflects CBO's estimate of the amount not specifically authorized by the bill that would be necessary to fund certain accrual payments required under current law.

TABLE 1. BUDGETARY EFFECTS OF H.R. 2810, THE NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2018^a

	By fiscal year, in millions of dollars—					
	2018	2019	2020	2021	2022	2018–2022
INCREASES IN SPENDING SUBJECT TO APPROPRIATION						
Authorization Levels for Appropriations Subject to the BCA Caps:						
Defense:						
Specified Authorizations for the Departments of Defense and Energy:						
Authorization Level ^b	613,457	0	0	0	0	613,457
Estimated Outlays	364,876	142,742	53,242	24,885	10,342	596,087
Estimated Authorization for Additional Accrual Payments ^c :						
Estimated Authorization Level ...	296	0	0	0	0	296
Estimated Outlays	296	0	0	0	0	296
Nondefense:						
Specified Authorizations for Various Departments and Agencies ^{b, d} :						
Authorization Level	609	22	22	22	0	674
Estimated Outlays	456	99	59	44	5	663
Estimated Authorizations for Various Departments and Agencies ^e :						
Estimated Authorization Level ...	13	24	4	4	4	50
Estimated Outlays	10	22	7	4	4	47
Subtotal						
Estimated Authorization Level	614,375	46	26	26	4	614,477
Estimated Outlays	365,638	142,863	53,308	24,934	10,351	597,093
Specified Authorizations for Defense Appropriations not Subject to the BCA Caps						
Authorization Level ^{b, f}	74,560	0	0	0	0	74,560
Estimated Outlays	39,695	19,090	7,661	3,542	1,686	71,674
Total						
Estimated Authorization Level	688,934	46	26	26	4	689,037
Estimated Outlays	405,333	161,953	60,969	28,476	12,037	668,767

Notes: Except as discussed in footnotes c and e below, the authorization levels in this table reflect amounts that would be specifically authorized by the bill (as reflected in Table 2). Some provisions in the bill also would affect the costs of defense programs in 2019 and future years; estimates for a select number of those provisions are shown in Table 3, but are not included above because specified authorizations in future NDAs would reflect funding for those activities.

Numbers may not add to totals because of rounding; BCA = Budget Control Act; MERHCF = Medicare-Eligible Retirement Health Care Fund; NDAA = National Defense Authorization Act; SBA = Small Business Administration.

^a In addition to increasing spending subject to appropriation, the bill would have an insignificant effect on direct spending and revenues over the 2018–2028 period.

^b Amounts that would be specifically authorized by the bill.

^c CBO's estimate of the added cost of certain accrual payments to the MERHCF required under current law but not fully reflected in the amounts specifically authorized by sections 421 and 1505 of the bill.

^d Authorizations for the Maritime Administration (\$278 million), the Compact for Free Association with Palau (\$124 million), the Department of Veterans Affairs (\$116 million), the SBA Women's Business Center Program (\$87 million over the 2018–2021 period), the Armed Forces Retirement Home (\$64 million) and the Naval Petroleum Reserves (\$5 million).

^e Authorizations reflect the cost of extending certain benefits, in section 1108, to federal civilian workers who perform official duties in a combat zone and are employed by departments and agencies other than the Department of Defense (\$10 million in 2019). Also included are costs to the SBA from sections 1701, 1703, and 1721 (\$40 million over the 2018–2022 period). Other provisions in title XVII would result in costs to the SBA; however, due to time constraints CBO was not able to complete an estimate for those provisions.

^f Authorizations of appropriations that would be designated for Overseas Contingency Operations. Under the bill, \$64,566 million would be authorized for contingency costs related to military operations and related activities in Afghanistan, Iraq and elsewhere, while another \$9,994 million would be authorized for costs of 'base requirements' not directly related to those missions.

TABLE 2. SPECIFIED AUTHORIZATIONS OF APPROPRIATIONS IN H.R. 2810

	By fiscal year, in millions of dollars—					
	2018	2019	2020	2021	2022	2018–2022
Specified Authorization Levels for Appropriations						
Subject to the BCA Caps:						
Defense:						
Military Personnel^a:						
Authorization Level	141,870	0	0	0	0	141,870
Estimated Outlays	131,886	8,078	182	38	0	140,184
Operation and Maintenance:						
Authorization Level	226,229	0	0	0	0	226,229
Estimated Outlays	150,490	54,146	11,769	3,336	1,295	221,036
Procurement:						
Authorization Level	128,823	0	0	0	0	128,823
Estimated Outlays	24,963	40,440	31,138	16,791	7,256	120,588
Research and Development:						
Authorization Level	84,038	0	0	0	0	84,038
Estimated Outlays	41,202	31,757	6,222	2,968	909	83,058
Military Construction and Family Housing:						
Authorization Level	9,585	0	0	0	0	9,585
Estimated Outlays	816	2,164	2,714	1,759	886	8,339
Revolving Funds:						
Authorization Level	2,108	0	0	0	0	2,108
Estimated Outlays	1,726	314	43	15	8	2,106
General Transfer Authority:						
Authorization Level	0	0	0	0	0	0
Estimated Outlays	125	–50	–38	–25	–12	0
Subtotal, Department of Defense:						
Authorization Level	592,654	0	0	0	0	592,654
Estimated Outlays	351,208	136,849	52,030	24,882	10,342	575,311
Atomic Energy Defense Activities:						
Authorization Level ^b	20,803	0	0	0	0	20,803
Estimated Outlays	13,668	5,893	1,212	3	0	20,776
Subtotal, Defense:						
Authorization Level	613,457	0	0	0	0	613,457
Estimated Outlays	364,876	142,742	53,242	24,885	10,342	596,087
Nondefense						
Department of Veterans Affairs and Other Departments and Agencies:						
Authorization Level ^c	609	22	22	22	0	674
Estimated Outlays	456	99	59	44	5	663
Subtotal (subject to caps):						
Authorization Level	614,066	22	22	22	0	614,131
Estimated Outlays	365,332	142,841	53,301	24,929	10,347	596,750
Specified Authorization Levels for Defense Appropriations not Subject to the BCA Caps^d:						
Military Personnel^a:						
Authorization Level ^e	5,124	0	0	0	0	5,124
Estimated Outlays	4,746	306	7	1	0	5,060
Operation and Maintenance:						
Authorization Level ^e	48,653	0	0	0	0	48,653
Estimated Outlays	30,130	12,574	3,342	941	381	47,368

TABLE 2. SPECIFIED AUTHORIZATIONS OF APPROPRIATIONS IN H.R. 2810—Continued

	By fiscal year, in millions of dollars—					
	2018	2019	2020	2021	2022	2018–2022
Procurement:						
Authorization Level ^e	17,963	0	0	0	0	17,963
Estimated Outlays	3,730	5,180	3,936	2,442	1,239	16,527
Research and Development:						
Authorization Level ^e	2,085	0	0	0	0	2,085
Estimated Outlays	946	843	174	71	23	2,057
Military Construction:						
Authorization Level	637	0	0	0	0	637
Estimated Outlays	11	192	213	99	49	564
Working Capital Funds:						
Authorization Level	99	0	0	0	0	99
Estimated Outlays	69	20	8	1	0	98
Special Transfer Authority:						
Authorization Level	0	0	0	0	0	0
Estimated Outlays	63	–25	–19	–13	–6	0
Subtotal (not subject to caps):						
Authorization Level	74,560	0	0	0	0	74,560
Estimated Outlays	39,695	19,090	7,661	3,542	1,686	71,674
Total Specified Authorizations:						
Authorization Level	688,626	22	22	22	0	688,691
Estimated Outlays	405,027	161,931	60,962	28,471	12,033	668,424

Notes: This table reflects the authorizations of appropriations explicitly stated in the bill in specified amounts. Various provisions of the bill also would authorize activities and provide authorities that would affect costs in 2019 and in future years. Because the bill would not specifically authorize appropriations to cover those costs, they are not reflected in this table. Rather, Table 3 contains the estimated costs of some of those provisions.

^aNumbers may not add up to totals because of rounding. BCA = Budget Control Act; SBA = Small Business Administration. The authorizations of appropriations for military personnel in sections 421 and 1505 include \$7,849 million for accrual payments to the Medicare-Eligible Retiree Health Care Fund. CBO estimates, however, that amount understates—by \$296 million—the amount required for those payments; thus \$296 million has been added to the estimated cost of the bill, as reflected in Table 1.

^bPrimarily for atomic energy defense activities of the Department of Energy. Authorizations for the Maritime Administration (\$278 million), the Compact for Free Association with Palau (\$124 million), the Department of Veterans Affairs (\$116 million), the Armed Forces Retirement Home (\$64 million), and the Naval Petroleum Reserves (\$5 million), plus authorizations of \$87 million over the 2018–2021 period for the SBA Women’s Business Center Program. The authorized amount for the Maritime Administration does not include the \$300 million specified in the bill for payments to shipping companies under the Maritime Security Program because that amount is already authorized under current law for 2018.

^cUnder H.R. 2810, funding provided for 2018 pursuant to the authorizations in title XV would not be subject to the BCA cap on defense appropriations for that year. Most authorizations in title XV are for costs related to overseas contingency operations (OCO)—primarily the costs of military operations and related activities in Afghanistan, Iraq, and elsewhere in the world; under the bill, however, some authorizations in that title would cover costs not directly related to OCO (see footnote e).

^dAuthorized levels in title XV would not be subject to the 2018 BCA cap on defense appropriations because they would be designated for overseas contingency operations (OCO). However, of the \$74,560 million designated for OCO, the following amounts would be used—according to the bill—for “base requirements”, that is, requirements not directly related to the costs contingency operations in Afghanistan, Iraq, and elsewhere in the world: military personnel (\$1,062 million); operation and maintenance (\$2,107 million); procurement (\$6,047 million); and research and development (\$779 million).

Under H.R. 2810, \$613.4 billion specifically authorized for defense programs would, if appropriated, be subject to the 2018 BCA cap for defense. Another \$74.6 billion specifically authorized for DoD—largely for costs related to overseas contingency operations—would not be subject to that cap. For nondefense programs, the bill would specifically authorize \$0.6 billion for several departments and agencies.

The total amount that would be specifically authorized for defense programs is an increase of \$62.3 billion (or 10 percent) compared to amounts appropriated for 2017. Procurement would receive the largest increase (\$23.2 billion, or 19 percent), followed by operation and maintenance (\$15.2 billion, or 6 percent), research and development (\$13.1 billion, or 18 percent), military personnel (\$7.5 billion, or 5 percent), and military construction and family housing (\$2.1 billion, or 25 percent). Authorized funding for all other categories combined would increase by \$1.2 billion (or 5 percent).

H.R. 2810 also contains provisions that would affect the cost of various discretionary programs in future years. Most of those provi-

sions would affect end strength (the size of the military forces at the end of a fiscal year), military compensation and benefits, the military health system, and authorities related to the acquisition of weapons systems. The estimated effects of some of those provisions are shown in Table 3 and discussed below. The following sections discuss how those provisions would affect the need for discretionary appropriations in future years.

Force Structure. The bill would affect the force structure of the various military services by setting end-strength levels for 2018 and modifying the minimum end-strength levels authorized in permanent law.

Under title IV, the authorized end strengths in 2018 for active-duty personnel and personnel in the selected reserves would total 1,324,000 and 829,900, respectively. Of those selected reservists, 78,626 would serve on active duty in support of the reserves. In total, active-duty end strength would increase by 18,100 and selected-reserve end strength would increase by 9,700 when compared with levels authorized under current law for 2018. The specified end-strength levels for each component of the armed forces are detailed below with CBO's estimates of the effects of those changes on DoD's personnel and operation and maintenance costs.

Active-Duty End Strengths. Compared with end strengths authorized under current law for 2018, section 401 would authorize increases in active-duty personnel for three of the four services: 10,000 more for the Army, 4,100 more for the Air Force, and 4,000 more for the Navy. The end strength authorized for the Marine Corps would remain unchanged at 185,000. CBO estimates that the net growth in active-duty personnel of 18,100 service members would cost \$12.3 billion over the 2018–2022 period, assuming appropriations are increased by that amount.

TABLE 3. ESTIMATED COSTS FOR SELECTED PROVISIONS IN H.R. 2810

	By fiscal year, in millions of dollars—					
	2018	2019	2020	2021	2022	2018–2022
FORCE STRUCTURE						
Active-Duty End Strengths	1,466	2,616	2,663	2,736	2,810	12,291
Selected-Reserve End Strengths	311	635	652	672	692	2,962
Reserve Technicians End Strengths	–13	–26	–26	–27	–28	–120
COMPENSATION AND BENEFITS						
Expiring Bonuses and Allowances	1,510	842	346	265	104	3,067
Higher Basic Allowance for Housing	155	55	0	0	0	210
Separate Moves for Military Families	10	20	21	22	22	95
Temporary Duty Per Diem Allowance	80	80	80	80	80	400
Civilian Voluntary Separation Incentive Pay	0	125	125	125	0	375
Civilian Benefits in a Combat Zone ^a	0	45	0	0	0	45
MILITARY HEALTH SYSTEM						
Overseas Hospitals	10	25	25	25	25	110
Transitional Health Benefits	8	8	9	9	10	44
Physical Exams	3	4	4	4	4	19
OTHER PROVISIONS						
Multiyear Procurement Contracts:						
Virginia Class Submarines	2,864	7,180	8,870	7,430	7,880	34,224
Arleigh Burke Destroyers	5,538	6,190	6,020	5,830	5,660	29,238
V-22 Osprey Aircraft	473	631	653	796	929	3,482

TABLE 3. ESTIMATED COSTS FOR SELECTED PROVISIONS IN H.R. 2810—Continued

	By fiscal year, in millions of dollars—					2018–2022
	2018	2019	2020	2021	2022	
Nuclear Refueling and Overhaul of the U.S. Nimitz Class Carriers	76	460	630	2,040	2,430	5,636

Notes: Amounts shown in this table for 2018 are included in the amounts that would be specifically authorized to be appropriated by the bill (as reflected in Table 2 and summarized in Table 1). Amounts shown in this table for 2019–2022 would not be specifically authorized by the bill (and therefore are not reflected in Tables 1 and 2); rather, those amounts would be covered by specified authorizations in future National Defense Authorization Acts.

Numbers may not add to totals because of rounding.

^aThis provision also would increase costs in 2019 for departments and agencies other than the Department of Defense by an estimated \$10 million. Those costs are included in Table 1 under “Estimated Authorizations for Various Departments and Agencies.”

Selected-Reserve End Strengths. Sections 411 and 412 would authorize the end strengths for reserve components, including those who serve on active duty in support of the reserves. Under this bill, five of the six reserve components would experience increases in end strength: 4,000 more for the Army Guard, 3,000 more for the Army Reserve, 1,000 more for the Navy Reserve, 900 more for the Air Guard, and 800 more for the Air Force Reserve. End strength for the Marine Corps Reserve would stay the same. As part of those changes, the number of full-time reservists who serve on active duty in support of the reserves would grow by 2,275. CBO estimates that, on net, implementing those provisions would increase costs for selected reservists by \$3.0 billion over the 2018–2022 period.

Reserve Technicians End Strengths. Section 413 sets the end-strength for dual-status military technicians, who are federal civilian personnel required to maintain membership in a selected-reserve component as a condition of their employment. On net, section 413 would reduce the number of dual status technicians by 254. CBO estimates a decrease in costs for civilian salaries and expenses from fewer dual status positions of \$120 million over the 2018–2022 period. (Changing the number of dual status technicians would not change the number of part-time reservists established in section 411, discussed above. Thus, the only budget effects would be the reduction in civilian compensation.)

Compensation and Benefits. H.R. 2810 contains several provisions that would affect compensation and benefits for uniformed personnel and civilian employees of DoD. The bill would specifically authorize regular appropriations of \$141.9 billion for the costs of military pay and allowances in 2018. For related costs resulting from overseas contingency operations (primarily in Afghanistan), the bill would authorize the appropriation of an additional \$5.1 billion for 2018.

Expiring Bonuses and Allowances. Sections 611 through 615 would extend for another year DoD’s authority to enter agreements to pay certain bonuses and allowances to military personnel. The authority to enter into such agreements is currently scheduled to expire on December 31, 2017. Some bonuses are paid in a lump sum, while others are paid in annual or monthly installments over a period of obligated service. Based on DoD’s budget submission for fiscal year 2018, CBO estimates that extending that authority for one year would cost \$3.1 billion over the 2018–2022 period.

Higher Basic Allowance for Housing. Section 602 would delay by one year a planned reduction in the housing allowance paid to service members residing in housing constructed under the Military

Housing Privatization Initiative (MHPI). Basic allowance for housing (BAH) is based on the average cost of specific types of housing in the areas around members' assigned duty stations within the United States. Under current law, DoD is authorized to reduce the portion of housing costs covered by BAH by up to 4 percent in 2018—a 1 percent increase from the 3 percent reduction authorized for 2017. That reduction will affect all service members receiving BAH: those who live in MHPI housing (usually on base) and those who live in housing in the private market (usually off base). Under section 602, the additional 1 percent reduction in BAH that would affect new rates in January 2018 would not occur. The authority to further reduce BAH would resume in 2019 and affect rates in January of that year. CBO estimates that the one year delay in the reduction of BAH, if applied only to service members living in MHPI housing, would cost roughly \$50 million in 2018 and \$20 million in the first three months of 2019.

However, DoD reports that calculating and processing two sets of BAH rates—one for those residing in MHPI housing without the 1 percent additional reduction in BAH and one for those living in private-sector homes with the 1 percent additional reduction—would be difficult to implement, especially by January 2018. Also, DoD is not in favor of paying different BAH amounts dependent upon whether service members live on or off base. Based on DoD's concerns, CBO expects that DoD would likely apply the delayed reduction in BAH under this section to all recipients of BAH, not just those living in MHPI housing. Thus, CBO estimates that delaying the reduction in BAH until 2019 would cost \$155 million in 2018 and \$55 million in 2019.

Separate Moves for Military Families. Section 603 would authorize higher housing allowances for certain service members during a relocation period that would cover the six months preceding and following the date that a member is ordered to report to a new duty station. During that period, members whose families move before or after the member's reporting date would receive BAH for whichever military housing area would be higher—the BAH rate for the prior duty location or the rate for the new duty location—for the period that the family would live separately, up to six months. Members would be eligible for this benefit if the separate moves assisted the family in matters related to schooling, employment, or health care. Based on an analysis of information from DoD, CBO estimates that about 13,000 families a year would receive an incremental BAH payment of roughly \$500 a month for three months. On that basis, CBO estimates that providing the higher BAH to those service members would cost \$95 million over the 2018–2022 period.

Temporary Duty Per Diem Allowance. Section 604 would prohibit DoD from reducing per diem rates based on the duration of temporary duty assignments for service members and DoD civilian employees. The per diem allowance compensates travelers for the daily cost of lodging, meals, and incidental expenses. The section would repeal the per diem policy that the Secretary of Defense implemented on November 1, 2014, to pay a lower per diem rate for long-term temporary duty assignments in one location. Under the policy, the per diem allowance for travel lasting between 31 and 180 days is 75 percent of the locality rate; for trips lasting more

than 180 days the rate is 55 percent. The section also would reverse similar per diem policies established by the Services, which are specific to travel for contingency operations. According to DoD, those two policies have reduced annual payments for per diem compensation by about \$60 million and \$20 million, respectively. Based on that information, CBO estimates that implementing section 604 would cost \$400 million over the 2018–2022 period.

Civilian Voluntary Separation Incentive Pay. Section 1102 would extend DoD’s authority to increase the amount of lump-sum payments that DoD can offer to civilian employees to entice them to separate voluntarily; that amount would increase from the previous ceiling of \$25,000 to \$40,000 for an additional three years. The authority to pay up to \$40,000 is currently scheduled to expire on September 30, 2018. On the basis of information from DoD, CBO estimates that about 5,900 DoD civilian employees would receive voluntary separation incentive payments (VSIP) of \$40,000 on average starting in 2019. CBO estimates that under current law 75 percent of those civilian employees will take VSIP at the lower capped amount of \$25,000. Thus, the incremental cost to DoD for those 4,400 employees would be \$15,000. CBO expects that the remaining 1,500 employees would not take VSIP at the lower rate and thus DoD would face the full cost of \$40,000 for those employees. On that basis, CBO estimates that temporarily raising the cap on VSIP to \$40,000 would cost \$375 million over the 2018–2022 period.

Civilian Benefits in a Combat Zone. Section 1108 would extend for one year the authority to grant certain benefits to federal civilian employees who perform official duty in a combat zone. Those benefits, which expire under current law on September 30, 2018, include death gratuities, paid leave and travel for one trip home, and up to three leave periods per year for rest and recuperation. On the basis of information from DoD and the Office of Personnel Management, CBO estimates that about 2,400 civilian employees of DoD and 500 employees of other federal agencies will work in a designated combat zone in 2019 and, under this provision, would receive an average benefit that would cost about \$18,900 a year. Thus, CBO estimates that in 2019, section 1108 would increase the costs of civilian employees of DoD by \$45 million and of other federal employees by \$10 million.

Military Health System. Title VII would make several changes to health benefits for members of the armed forces. In total, those changes would increase costs for health care by about \$170 million over the 2018–2022 period, CBO estimates.

Overseas Hospitals. Section 712 would prevent all military hospitals that are overseas from reducing the types of inpatient services that they currently provide. The immediate effect of this provision would be to prevent the planned reorganization and downsizing of several military hospitals in Italy, which is scheduled to be completed as early as 2019. Based on an analysis of information from DoD, CBO estimates the planned reorganization will save DoD about \$25 million per year. Therefore, implementing section 712 would cost \$110 million over the 2018–2022 period.

Transitional Health Benefits. Section 503 would expand health care benefits for reserve members who are involuntarily activated to perform support work. Those members would be allowed to re-

ceive full TRICARE benefits in the six months before and after being activated. Based on an analysis of information from DoD, CBO estimates that about 2,000 reserve members are activated each year using the authority referenced by the bill. The annual cost for a household that uses the TRICARE health benefit is currently about \$12,000 per year. However, many reserve members have access to other health insurance and would not use the full benefit, so the incremental cost to the government for the additional households covered by section 503 would be about \$4,000. In total, CBO estimates that implementing section 503 would cost about \$44 million over the 2018–2022 period.

Physical Exams. Section 701 would allow certain members separating from a reserve component to receive a voluntary physical exam. To be eligible for the physical, the member must have served at least 30 days on active duty in support of a contingency operation in the two years prior to separation. Based on an analysis of data from DoD, CBO estimates that about 6,400 separating reserve members would be eligible for the physical authorized by this section. Take-up rates for voluntary medical exams vary, but given that the members would receive orders for the physical and could get paid for their time, CBO estimates that about 50 percent of the eligible population would volunteer for a separation physical. CBO further estimates that the cost of each exam would be about \$1,000, which includes the cost of the medical procedures that would most likely be part of the exam, as well as the cost of a day's worth of pay and benefits for those who volunteer to have the physical. In total, implementing section 701 would cost about \$19 million over the 2018–2022 period, CBO estimates.

Hyperbaric Oxygen Therapy. Section 703 would authorize DoD to provide hyperbaric oxygen therapy (HBOT) to service members with post-traumatic stress disorder (PTSD) or traumatic brain injuries (TBI). If DoD chose to offer this treatment, the costs could be significant. Based on an analysis of information from DoD, CBO estimates the annual cost to staff and operate HBOT equipment would be about \$1 million per facility. If multiplied by each of the approximately 50 military treatment facilities that could house such equipment, the costs could be as high as \$50 million per year. However, based on information from DoD and a review of recent studies, CBO expects that DoD would not choose to offer this treatment for PTSD and TBI.¹

Other Provisions

Multiyear Procurement Contracts. The bill would authorize the Navy to enter multiyear procurement contracts for four major programs. Multiyear procurement is a special contracting method authorized in current law that permits the government to enter into contracts covering acquisitions for more than one year but not more than five years, even though the total funds required for all years are not appropriated at the time the contracts are awarded.

- Section 124 would authorize the Navy to enter a multiyear contract to purchase up to 13 Virginia-class submarines beginning

¹For a summary of some of the studies that looked at HBOT for the treatment of PTSD and TBI see Government Accountability Office, *Defense Health Care: Research on Hyperbaric Oxygen Therapy to Treat Traumatic Brain Injury and Post-Traumatic Stress Disorder*, GAO-16-154 (December 2015), <http://www.gao.gov/assets/680/674334.pdf>.

in 2019 and to make advance purchases of equipment for those vessels beginning in 2018. On the basis of information from the Navy, CBO estimates that under that authority the Navy would purchase 10 submarines over the 2019–2022 period and that those submarines would cost about \$34 billion over the 2018–2022 period. (The remaining three submarines would be purchased in 2023 at a cost of roughly \$9 billion.) Currently, the Navy is constructing Virginia-class submarines under a multiyear contract, but that authority will expire in 2018. (The Navy estimates that buying the submarines under a multiyear contract lowers costs by about \$300 million for each submarine when compared to five annual contracts.)

- Section 125 would authorize the Navy to enter a multiyear contract to purchase up to 15 Arleigh Burke-class destroyers beginning in 2018. On the basis of information from the Navy, CBO estimates that under that authority the Navy would purchase 15 destroyers over the 2018–2022 period and that those ships would cost about \$29 billion. Currently, the Navy is buying those destroyers at a rate of two ships a year under a multiyear contract, but that authority will expire at the end of 2017. (The Navy estimates that buying the destroyers under a multiyear contract lowers costs by about \$200 million a ship when compared to single year purchases.)

- Section 128 would authorize the Navy to enter a multiyear contract beginning in fiscal year 2018 to purchase V–22 Osprey aircraft. The V–22 is a tiltrotor aircraft that can take off and land vertically and is capable of carrying personnel and equipment. On the basis of information from the Navy, CBO estimates that under such a contract the service would buy 65 of those aircraft over the 2018–2024 period. The contract would cost \$3.5 billion over the 2018–2022 period and a total of \$5.7 billion through 2024. (The service estimates that a single multiyear contract would cost about \$600 million less than five annual contracts.)

- Section 123 would authorize the Navy to enter a multiyear contract for up to six polar icebreaking vessels on behalf of the Coast Guard. The Congress appropriated \$150 million in 2017 for the design of the first new icebreaker. The Coast Guard plans to award a contract for that effort in 2019 and expects construction of the vessel to begin after 2020 once the detailed designs are substantially complete. The Coast Guard’s preliminary estimate for the cost of a new icebreaker is about \$1 billion. Construction of the first vessel would take approximately three years. Because multiyear procurement contracts are typically not awarded until several production lots have been completed, CBO does not expect that the Coast Guard will use the multiyear-contract authority in section 123 until after 2022.

Nuclear Refueling and Overhaul of the U.S.S. Nimitz Class Carriers. Section 121 would authorize the Navy to conduct nuclear refueling and overhauls of the remaining Nimitz class carriers. The bill also would allow the Navy to fund the refueling and overhauls over several years (incremental funding). The Navy deploys 10 Nimitz class carriers (CVN–68 through CVN–77). The lead ship of the class was commissioned in 1975 and the last ship was commissioned in 2009. The carriers have a service life of about 50 years and are capable of operating for nearly 25 years without refueling

the nuclear reactor cores. The first four carriers have already undergone a nuclear refueling and are back in the fleet. The Congress authorized the Navy to conduct a nuclear refueling for the CVN-72 in the 2012 defense bill and for the CVN-73 in the 2016 defense bill. Based on an analysis of information provided by the Navy, CBO expects that funding would be needed in the 2018–2022 period for refueling and overhauling the CVN-74 and CVN-75. Funding for the CVN-76 and CVN-77 would be needed after 2022. CBO estimates that implementing section 121 would cost \$5.6 billion over the 2018–2022 period. In addition, roughly \$5 billion would be needed in years after 2022 to complete the nuclear refueling of the CVN-75.

Direct Spending and Revenues

Several provisions in H.R. 2810 would have effects on direct spending or revenues, but those effects would be insignificant, generally because very few people would be affected or because the proposal would allow the spending of new receipts so that the net effect would be small.

- Section 523 would create a new specified offense under the military justice system that would provide a more effective and efficient means for DoD to prosecute individuals who wrongfully broadcast or distribute intimate visual images; any penalties collected under this provision would be classified as revenues.

- Section 721 would extend the authority for DoD to carry out a pilot program whereby retail pharmacies could buy prescription drugs at DoD's lowest cost for those drugs through 2019. DoD has not used the current authority to implement such a pilot program and, based on information from DoD, CBO expects that there is a very low probability that DoD would use the extended authority.

- Section 722 would require DoD to carry out a pilot program to provide counseling and assistance to TRICARE beneficiaries with complex medical conditions. The pilot program could affect the cost of health benefits for retirees of the Coast Guard, Public Health Service, and the National Oceanic and Atmospheric Administration, and their dependents; those benefits are paid from mandatory appropriations.

- Section 1062 would delay by nine months (from January 2020 to October 2020) the time when H-2B nonimmigrant (or temporary) workers hired in Guam or the Northern Marianas begin to count against the nationwide cap on H-2B workers. Thus, the provision would result in more aliens receiving H-2B status and working in one of the 50 states or Washington, D.C., where they can receive emergency Medicaid benefits and health-insurance subsidies under the Affordable Care Act, if they otherwise qualify.

- Section 1222 would extend DoD's authority to accept and spend contributions from foreign governments to assist the military and security forces of, or associated with, the government of Iraq to counter threats posed by the Islamic State of Iraq and the Levant.

- Section 1276 would extend DoD's authority to accept and spend contributions from Australia, Canada, New Zealand, and the United Kingdom to operate a joint security cooperation program with those countries.

- Section 2824 would authorize the Army to sell certain real property near U.S. Army Natick Soldier Systems Center and use the proceeds to build new housing at that installation.
- Section 2862 would authorize the Chief Operating Officer of the Armed Forces Retirement Home to lease out underused property at the home. Such property can currently be leased out by the Secretary of Defense. Those leases would increase offsetting receipts to the Armed Forces Retirement Home Trust Fund, which are recorded as reductions in direct spending. Additionally, some leases include in-kind consideration such as the construction of new facilities that could result in mandatory obligations to make payments in subsequent years. Those obligations are treated as an increase in direct spending. CBO expects enacting section 2862 would accelerate the process for new leases but would not increase the total number of leases that would be approved over the 2018–2027 period.

Pay-As-You-Go considerations: The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. CBO estimates that in total enacting the bill would have an insignificant effect on net direct spending and revenues over the 2018–2027 period.

Increase in long-term direct spending and deficits: CBO estimates that enacting H.R. 2810 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

Intergovernmental and private-sector impact: H.R. 2810 contains intergovernmental and private-sector mandates as defined in UMRA. CBO estimates that the aggregate cost of the mandates on public and private entities would fall below the annual thresholds established in UMRA for intergovernmental and private-sector mandates (\$78 million and \$156 million respectively in 2017, adjusted annually for inflation).

Increasing the End Strength of Active-Duty Forces

Section 401 would increase the costs of complying with existing intergovernmental and private-sector mandates by increasing the number of service members on active-duty by about 20,000 relative to currently authorized levels. Those additional service members would be eligible for existing protections under the Servicemembers Civil Relief Act (SCRA). Protections under SCRA require public and private entities to grant active-duty personnel various allowances for business and tax transactions and court procedures.

For example, SCRA allows service members to maintain a single state of residence for paying state and local personal income taxes and to request deferrals for certain state and local fees. CBO estimates that the additional cost of those mandates on state and local governments would be small.

SCRA also requires creditors to charge no more than 6 percent interest rate on service members' loan obligations when the acquisition of such obligations predates active-duty service, and it allows courts to temporarily stay certain civil proceedings, such as evictions, foreclosures, and repossessions. The act also precludes the use of a service member's personal assets to satisfy the member's trade or business liability while he or she is in military service.

Under the bill, the number of active-duty service members covered by SCRA would increase by less than 2 percent, CBO estimates. Service members' utilization of the various provisions of the SCRA depends on a number of uncertain factors, including how often and how long they are deployed. However, the increase in the number of active-duty service members covered by SCRA would be small, so CBO estimates that the incremental cost of compliance for private entities also would be small relative to the annual threshold for the private sector.

Exclusion

CBO has determined that section 573 of H.R. 2810 is excluded from review for mandates under UMRA. That section would allow service members to vote in federal, state, and local elections in the state where they are stationed for military orders instead of in their state of permanent residence. UMRA excludes from the application of that act any legislative provisions that enforce the constitutional rights of individuals. Because section 573 would protect the rights of individuals to vote, CBO has not reviewed it for inter-governmental or private-sector mandates.

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