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Military Pay: Key Questions and Answers

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Summary

From the earliest days of the republic, the federal government has compensated members of the Armed Forces for their services. While the original pay structure was fairly simple, over time a more complex system of compensation has evolved. The current military compensation system includes cash payments such as basic pay, special and incentive pays, and various allowances. Servicemembers also receive noncash benefits such as health care and access to commissaries and recreational facilities, and may eventually qualify for deferred compensation in the form of retired pay and other retirement benefits. This report provides an overview of military compensation generally, but focuses on cash compensation for current servicemembers.

Since the advent of the all-volunteer force in 1973, Congress has used military compensation to improve recruiting, retention, and the overall quality of the force. Congressional interest in sustaining the all-volunteer force during a time of sustained combat operations led to substantial increases in compensation in the decade following the September 11 attacks. More recently, concerns over government spending have generated congressional and executive branch interest in slowing the rate of growth in military compensation. Recent initiatives in this regard have included presidentially directed increases in basic pay below the rate of increase for the Employment Cost Index (ECI) for 2014-2016 and statutory authority for the Department of Defense (DOD) to reduce Basic Allowance for Housing (BAH) payments by 1% of the national average monthly housing cost per year from 2015 to 2019 (for a maximum reduction of 5% under the national monthly average housing cost).

Some have raised concerns about the impact of personnel costs on the overall defense budget, arguing that they decrease the amount of funds available for modernizing equipment and sustaining readiness. Others argue that robust compensation is essential to maintaining a high-quality force that is vigorous, well-trained, experienced, and able to function effectively in austere and volatile environments. The availability of funding to prosecute wars in Iraq and Afghanistan mitigated the pressure to trade off personnel, readiness, and equipment costs, but the current budgetary environment appears to have brought these trade-offs to the fore again.

DOD spends about $100,000-$110,000 per year to compensate the average active duty servicemember—to include cash, benefits, and contributions to retirement programs—although some estimates of compensation costs are substantially higher. However, gross compensation figures do not tell the full story, as military compensation *relative to* civilian compensation is a key factor in an individual's decision to join or stay in the military. Thus, the issue of comparability between military and civilian pay is an often-discussed topic. Some analysts and advocacy groups have argued that a substantial "pay gap" has existed for decades—with military personnel earning less than their civilian counterparts—although they generally concede that this gap is fairly small today. Others argue that the methodology behind this "pay gap" is flawed and does not provide a suitable estimate of pay comparability. Still others believe that military personnel, in general, are better compensated than their civilian counterparts. The Department of Defense takes a different approach to pay comparability. The 9th Quadrennial Review of Military Compensation (QRMC), published in 2002, argued that compensation for servicemembers should be around the 70th percentile of wages for civilian employees with similar education and experience. However, according to the 11th QRMC, published in 2012, it had reached the 83% level for officers and the 90% level for enlisted personnel. On January 29, 2015, the congressionally established Military Compensation and Retirement Modernization Commission delivered its final report to Congress. It included a variety of recommendations for restructuring military compensation, most notably with regard to the military retirement and health care system, but it did not recommend substantially altering the elements of cash compensation on which this report focuses.

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Introduction

The military compensation system is complex and includes an array of cash compensation elements, noncash compensation (benefits), deferred compensation (retirement pay, Thrift Savings Plan, retiree health care, and other retirement benefits), and tax advantages. This report focuses primarily on the cash compensation provided to members of the active component Armed Forces.[1] Other CRS reports cover military retirement and health care.[2]

This report uses a question and answer format to highlight key aspects of the military compensation system and to address topics of recurring congressional interest, including the following:

- Compensation elements and rates.
- Statutory formulas for increasing compensation elements.
- Historical increases in basic pay.
- Comparability with civilian pay.
- Additional compensation for those serving in Iraq or Afghanistan.

Key Questions and Answers

1. How Are Military Personnel Compensated?

There are three main ways in which military personnel are compensated: cash compensation, noncash compensation, and deferred compensation.

- **Cash compensation** takes a variety of forms and includes basic pay, housing and subsistence allowances, enlistment bonuses, skill proficiency pay, and additional pay for particularly demanding or dangerous duty.
- **Noncash compensation** includes various benefits such as medical and dental care, government-provided housing, educational benefits, space-available travel on military aircraft, and access to subsidized grocery stores (commissaries), retail stores (exchanges), and child care centers.[3]
- The main elements of **deferred compensation** are retired pay and retiree health care, but commissary and exchange access, space-available travel, and other benefits are also part of this. Servicemembers may also participate in the Thrift

[1] Unless otherwise specified, the terms "member of the Armed Forces" or "servicemember" in this report refer to members of the active component. Members of the reserve component receive nearly identical compensation when they are ordered to active duty for over 30 days, but are compensated somewhat differently when on active duty for 30 days or less, and much differently when not on active duty. For more information on reserve component compensation see CRS Report RL30802, *Reserve Component Personnel Issues: Questions and Answers*, by Lawrence Kapp and Barbara Salazar Torreon.

[2] See CRS Report RL34751, *Military Retirement: Background and Recent Developments*, by Kristy N. Kamarck, and CRS Report RL33537, *Military Medical Care: Questions and Answers*, by Don J. Jansen.

[3] The subsidies vary in type and amount. For example, the commissary system receives about $1.3 billion to $1.4 billion in appropriated funds per year. Exchanges do not receive appropriated funds. However, DOD does provide exchanges with certain free services, including building maintenance, transportation of goods overseas, and utilities at overseas stores.

Savings Plan (TSP),[4] although until 2018 they generally did not receive matching contributions from the government.[5] However, recent changes to the military retirement system made matching contributions to the Thrift Savings Plan a key component of many servicemembers' deferred compensation starting in 2018.[6]

The basic compensation package provided to all servicemembers includes basic pay, a housing allowance (or government-provided housing), a subsistence allowance (or government-provided meals), free medical and dental care for servicemembers, free or low-cost medical and dental care for dependents, paid annual leave, and certain other benefits. **Table 1** summarizes the main elements of compensation provided to all servicemembers. Servicemembers may also receive additional cash compensation based on their occupational specialty, duty assignment, and other factors.

2. What Is Regular Military Compensation (RMC)? How Much Do Servicemembers Receive in RMC?

When people talk about military pay, they are often only referring to *basic pay*. Although basic pay is usually the largest component of cash compensation that a servicemember receives, there are other types of military pay that increase it significantly. There are tax benefits as well. *Regular Military Compensation* is a statutorily defined measure of the cash or in-kind compensation elements that all servicemembers receive every payday. It is widely used as a basic measure of military cash compensation levels and for comparisons with civilian salary levels.

Regular Military Compensation (RMC)

RMC, as defined in law, is "the total of the following elements that a member of the uniformed services accrues or receives, directly or indirectly, in cash or in kind every payday: basic pay, basic allowance for housing, basic allowance for subsistence, and federal tax advantage accruing to the aforementioned allowances because they are not subject to federal income tax."[7] Though military compensation is structured much differently than civilian compensation, making comparison difficult, RMC provides a more complete understanding of the cash compensation provided to all servicemembers. Therefore, it is usually preferred over simple basic pay when comparing military with civilian compensation, analyzing the standards of living of military personnel, or studying military compensation trends over time.

[4] The TSP is a defined contribution retirement plan similar to the 401(k) plans provided by many employers in the private sector.

[5] 37 U.S.C. 211(d) has authorized TSP matching contributions as a retention incentive since 1999, and as a recruiting incentive since 2006.

[6] For more information on these changes, see CRS Report RL34751, *Military Retirement: Background and Recent Developments*, by Kristy N. Kamarck.

[7] Statutory definition contained in 37 U.S.C. 101(25).

Table 1. Major Compensation Elements Provided to All Active Duty Personnel

Name	Statutory Authority	Purpose[a]	Description
Basic Pay	37 U.S.C. 203-205, 1009	"Basic pay is the primary means of compensating members of the armed forces for their service to the country. Except during periods of unauthorized absence, excess leave, and confinement after an enlistment has expired, every member is entitled to basic pay while on active duty. Basic pay is paid to individual members on a regular basis; the amount of basic pay to which a particular member is entitled depends on the member's pay grade and length of service."	Provided to all servicemembers. Rate of payment varies based on rank and years of service. See 2018 Basic Pay Rates: https://www.dfas.mil/dam/jcr:ccc8e348-187d-4bff-9e39-b113ad7fa67d/MilPayTable2018_4.pdf
Government-provided housing or Basic Allowance for Housing (BAH) or Overseas Housing Allowance (OHA)	37 U.S.C. 403	BAH and OHA "provide a cash allowance to military personnel not provided with government quarters adequate for themselves and their dependents to enable such personnel to obtain civilian housing as a substitute."	The government provides housing to many servicemembers and their families, but the large majority live off-post in the civilian housing market and receive BAH or OHA. Servicemembers based in the United States and not provided with government housing receive BAH; those based outside the United States receive OHA. Rates vary based on servicemember's rank, location, and whether or not the servicemember has dependents (see footnote 8 for the definition of "dependent"). See 2018 Basic Allowance for Housing Rates: http://www.defensetravel.dod.mil/site/bahCalc.cfm. See 2018 Overseas Housing Allowance Rates.: http://www.defensetravel.dod.mil/site/ohaCalc.cfm
Government-provided meals or Basic Allowance for Subsistence (BAS)	37 U.S.C. 402	BAS "provide[s] a cash allowance to members of the armed forces to defray a portion of the cost of subsistence, such allowance being payable to all enlisted and officer personnel, with variations to account for the unavailability of adequate messing facilities at some duty stations."	All servicemembers receive BAS except in limited circumstances when they are required to eat government-provided meals (e.g., enlisted personnel in basic training). The BAS rate varies based on officer or enlisted status; enlisted receive higher BAS than do officers. For 2018, the BAS rate is $254.39 per month for officers and $369.39 for enlisted.

Name	Statutory Authority	Purpose[a]	Description
Medical and Dental Care	10 U.S.C. 1071-1110	"To make medical care available to members of the uniformed services and their dependents in order to help ensure the availability of physically acceptable and experienced personnel in time of national emergency; to provide incentives for armed forces personnel to undertake military service and remain in that service for a full career; and to provide military physicians and dentists exposure to the total spectrum of demographically diverse morbidity necessary to support professional training programs and ensure professional satisfaction for a medical service career."	All servicemembers and their family members are eligible for medical care under the TRICARE system. This system provides free medical and dental care to the servicemember, and free or low-cost medical and dental care to the servicemember's dependents. For more information on this benefit, see CRS Report RL33537, *Military Medical Care: Questions and Answers*, by Don J. Jansen.
Annual Leave	10 U.S.C. 701, 704; 37 U.S.C. 501	"To authorize members of the uniformed services to take a specified number of days of leave of absence, or vacation, for rest and relaxation away from their respective duty stations; to allow the accumulation for later use of earned leave that cannot be currently used because of military, or other, exigencies; and to authorize cash payments as reimbursement for accrued leave remaining unused at the expiration of a member's term of service."	All servicemembers are entitled to 30 days of annual leave per year (includes leave taken on weekends, holidays, or other regular days off). Typically, a maximum of 60 days may be accrued, although under certain circumstances up to 120 days may be accrued. Leave in excess of the allowable limit is forfeited at the end of the fiscal year. Under limited circumstances, servicemembers may receive a cash payment in lieu of their unused leave (see 37 U.S.C. 501).
Life Insurance	38 U.S.C. 1965-1980	"To make life insurance available to members of the uniformed services at a reasonable cost."	Servicemembers' Group Life Insurance (SGLI) is available to all servicemembers, though they may opt to not purchase it. Provides up to $400,000 in life insurance coverage and $100,000 traumatic injury coverage for the servicemember; up to $100,000 in coverage for spouse is also available. Servicemembers normally pay the costs for this coverage, but the government reimburses the premiums for those serving in an assignment outside the United States or its possessions in support of a contingency operation in an area that "has been designated a combat zone" or "is in direct support of an area that has been designated a combat zone" (37 U.S.C. 437). See current SGLI rates: http://benefits.va.gov/insurance/sgli.asp

Name	Statutory Authority	Purpose[a]	Description
Commissary	10 U.S.C. 2481-85; 10 U.S.C. 1061-64	"To allow items of convenience and necessity—especially items of subsistence—to be made available for purchase by military personnel at convenient locations and reasonable prices."	Subsidized grocery stores on military bases around the world. The Defense Commissary Agency estimates average savings of about 30% compared to commercial stores, though the savings would be less if compared only to discount chains.
Exchange	10 U.S.C. 2481	"As a military resale and category C revenue-producing morale, welfare, and recreation (MWR) activity, the armed services exchanges have the dual mission of providing authorized patrons with articles of merchandise and services and generating nonappropriated fund (NAF) earnings."	Retail stores (furniture, electronics, clothing, jewelry, etc.) on military bases around the world. They do not receive direct subsidies like commissaries, but do receive some indirect subsidies in the form of waived or reduced costs for utilities, rent, and base services.

Source: Congressional Research Service compilation from statutory authorities, *Military Compensation Background Papers*, government websites, and other data.

a. All entries in the "Purpose" column are taken verbatim from *Military Compensation Background Papers*, 7th Edition, 2011.

Basic Pay

For most servicemembers, basic pay is the largest element of the compensation they receive in their paycheck and typically accounts for about two-thirds of an individual's RMC. All members of the Armed Forces receive basic pay, although the amount varies by pay grade (rank) and years of service (also called longevity). **Table 2** provides illustrative examples of basic pay rates.

Housing

All servicemembers are entitled to either government-provided housing or a housing allowance, known as basic allowance for housing (BAH) for those living within the United States or Overseas Housing Allowance (OHA) for those living outside of the United States. Roughly one-third of servicemembers receive government-provided housing (in the form of barracks, dormitories, ship berthing, or government-owned family housing), with the remainder receiving BAH or OHA to offset the costs of the housing they rent or purchase in the civilian economy. The proportion of civilian housing costs covered by housing allowances has varied over time. See the section entitled "Basic Allowance for Housing: Increases Are Linked to Increases in Housing Costs" later in this report for more information on this topic.

The amount of BAH a servicemember receives is based on three factors: paygrade (rank), geographic location, and whether the servicemember has dependents.[8] Paygrade and dependency status are used to determine the type of accommodation—or "housing profile"—that would be appropriate for the servicemember (for example, one-bedroom apartment, two-bedroom townhouse, or three-bedroom single family home). Geographic location is used to determine the median costs[9] associated with each of these housing profiles. The median costs of these housing profiles are the basis for BAH rates, with some additional adjustments made on the basis of paygrade (that is, an E-7 without dependents will receive more than an E-6 without dependents, even though the appropriate housing profile for both of them is "two bedroom apartment"). As a result of this methodology, BAH rates are much higher in some areas than others, but servicemembers of similar paygrade and dependents status should be able to pay for roughly comparable housing regardless of their duty location.[10] BAH rates are paid to the servicemember at the specified rate, regardless of the actual housing expenses incurred. **Table 2** provides illustrative examples of how much BAH servicemembers receive annually.

OHA is also based on paygrade, geographic location, and whether the servicemember has dependents, but the manner in which it is calculated is significantly different than BAH.[11] OHA is

[8] A dependent is defined to include a spouse, unmarried children under 21 (or older in some circumstances), certain parents dependent on the servicemembers, and certain individuals placed in the legal custody of the servicemember. See 37 U.S.C. 401 for the complete definition. Note that for the purposes of BAH rates, no distinction is made between a servicemember with one dependent and a servicemember with multiple dependents. The only distinction is whether or not the servicemember has dependents.

[9] Prior to 2015, BAH rates factored in the average costs of rental housing rates, utilities, and renter's insurance in a wide array of housing markets. DOD eliminated the cost of renter's insurance from the calculation in 2015.

[10] For a more detailed description of how BAH rates are calculated, see the Department of Defense's BAH Primer, available here: http://www.defensetravel.dod.mil/Docs/perdiem/BAH-Primer.pdf. For a complete listing of BAH rates, see these tables: http://www.defensetravel.dod.mil/site/pdcFiles.cfm?dir=/Allowances/BAH/PDF/.

[11] "The BAH rate is based on median housing costs and is paid independently of a member's actual housing costs. It is paid for housing in the U.S. OHA is a cost reimbursement based allowance. The authority depends on other elements that factor in such as sharers, utilities, and owner vs. renter. OHA is paid for housing outside the U.S. The member is reimbursed actual rental costs [not to exceed] the maximum OHA rate for each locality and grade. The maximum OHA rates are established based on members' actual rental costs in those locations." Joint Travel Regulations, Chapter 10,

paid based on the servicemember's reported actual housing expenses, up to a maximum amount that varies by location, plus an allowance for utilities. The amount is reduced if the servicemember resides with one or more "sharers."[12] There is also a fixed one-time allowance to cover certain move-in expenses (such as real estate agents' fees, phone and utility connections, and security improvements).

Table 2. Average Regular Military Compensation for Selected Paygrades

(2018 Data/assumes BAH and BAS instead of government quarters and meals)

Pay Grade	Rank	Average Annual Basic Pay	Average Annual Housing Allowance	Average Annual Subsistence Allowance	Estimated Average Annual Federal Tax Advantage	Average Annual RMC
E-1	Private (Army and Marine Corps) Seaman Recruit (Navy) Airman Basic (Air Force)	$18,812	$14,321	$4,433	$2,570	$40,136
E-5	Sergeant (Army and Marine Corps) Petty Officer Second Class (Navy) Staff Sergeant (Air Force)	$35,169	$19,019	$4,433	$4,802	$63,423
E-8	Master Sergeant or First Sergeant (Army and Marine Corps) Senior Chief Petty Officer (Navy) Senior Master Sergeant or First Sergeant (Air Force)	$63,095	$23,579	$4,433	$4,136	$95,243
O-1	Second Lieutenant (Army, Air Force and Marine Corps) Ensign (Navy)	$38,890	$17,563	$3,053	$4,105	$63,611
O-4	Major (Army, Air Force and Marine Corps) Lieutenant Commander (Navy)	$89,866	$27,691	$3,053	$7,526	$128,135
O-6	Colonel (Army, Air Force and Marine Corps) Captain (Navy)	$131,887	$32,039	$3,053	$10,012	$176,991

Source: Department of Defense, Selected Military Compensation Tables, 1 January 2018, B3, available here: http://militarypay.defense.gov/Portals/107/Documents/Reports/GreenBook_2018.pdf. Estimated average annual federal tax advantage "is the additional income military personnel would have to earn in order to receive their current take home pay, if their allowances were taxable. Federal income tax is computed using the standard

Part A, paragraph 10002A, http://www.defensetravel.dod.mil/Docs/perdiem/JTR.pdf.

[12] "Sharers" include other servicemembers authorized OHA, federal civilian employees authorized a Living Quarters Allowance or Cost of Living Allowance, and other persons (excluding the servicemembers dependents) who contribute towards the payment of rent, mortgage, and/or utilities. Those involved in a sharing arrangement have their proportional rent shares determined by dividing the total rent for the dwelling by the number of sharers. See Joint Travel Regulations, Chapter 10, paragraph 10000A, and Appendix K, Part 2, paragraph (c)(3): http://www.defensetravel.dod.mil/Docs/perdiem/JTR.pdf.

deduction and 2011 tax rates including the earned income tax credit." Selected Military Compensation Tables, page A1. Actual annual tax advantage of servicemembers will vary based on their unique tax situation.

Notes: BAH = Basic Allowance for Housing; BAS = Basic Allowance for Subsistence; RMC = Regular Military Compensation.

Food

Nearly all servicemembers receive a monthly payment to defray their personal food costs.[13] This is known as basic allowance for subsistence (BAS). BAS is provided at a flat rate: In 2018, enlisted personnel receive $369.39 a month, while officers receive $254.39 a month.[14] There have been calls in the past to merge BAS with basic pay to reduce the complexity of military compensation and the need for BAS computations each year.

Federal Tax Advantage

Certain types of military compensation are not subject to federal income tax, thus generating a tax benefit for servicemembers. The various types of military pay—basic pay, special pay, and incentive pay—are considered part of gross income and are usually subject to federal income tax.[15] Military allowances, on the other hand, are generally not considered part of gross income and are not subject to federal income tax; nor are the various in-kind benefits of the military—for example, government housing, health care, fitness centers, and subsidized grocery stores.[16, 17]

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[13] Those who do not receive BAS—for example, enlisted personnel in basic training—receive government-provided meals. Historically, enlisted personnel did not receive BAS except in specific circumstances; rather, they were normally provided free meals in government dining facilities. This changed in 2002. Enlisted personnel now receive BAS except in limited circumstances. However, if a servicemember receiving BAS elects to eat in a government dining facility, he or she must pay for the meal. There are also circumstances, such as sea duty and field duty, in which a servicemember may be required to receive government meals and pay for them (essentially forfeiting their BAS in exchange for government provided meals). For more information on this topic, see the Department of Defense Financial Management Regulation, Volume 7A, Chapter 25, available here: http://comptroller.defense.gov/Portals/45/documents/fmr/current/07a/07a_25.pdf.

[14] Enlisted personnel receive a higher BAS than officers. Historically, the federal government always provided enlisted personnel with meals or a cash allowance to purchase suitable meals, but it did not always take that position with officers; sometimes they were given a subsistence allowance, sometimes they were expected to pay for their own meals out of their regular pay. Enlisted BAS, then, has historically been intended to cover the full cost of meals for the servicemember; officer BAS has not.

[15] These types of pay are exempt from federal taxation if earned in a combat zone by enlisted personnel and warrant officers; for officers, these types of pay are exempt from federal taxation up to the maximum amount of enlisted basic pay plus the amount of imminent danger pay.

[16] This exemption, which reflects the long-standing exclusion of certain military benefits from gross income, was codified in the Internal Revenue Code (26 U.S.C. 134) by the Tax Reform Act of 1986 (P.L. 99-514). For a detailed discussion on these topics, see the Military Compensation Background Papers, 7th edition, pages 197-206 and 873-883, available here: http://www.loc.gov/rr/frd/pdf-files/Military_Comp-2011.pdf. Table 2 of this IRS publication is also helpful: http://www.irs.gov/pub/irs-pdf/p3.pdf. The exception to the general nontaxability of allowances is the CONUS Cost of Living Allowance (COLA), since it was created after the 1986 Tax Reform Act.

[17] 26 U.S.C. 134 reads, *in part*, as follows:

§ 134. Certain military benefits.

(a) General rule. Gross income shall not include any qualified military benefit.

(b) Qualified military benefit. For purposes of this section--

(1) In general. The term "qualified military benefit" means any allowance or in-kind benefit (other than personal use of a vehicle) which--

(A) is received by any member or former member of the uniformed services of the United States or any dependent of such member by reason of such member's status or service as a member of such uniformed services, and

RMC considers only the federal income tax advantage provided by the exemption of BAH and BAS from gross income. The precise value of the federal tax advantage for an individual servicemember will vary depending on his or her unique tax situation.

Compensation Elements Not Included in RMC

RMC *does not* include the full array of compensation elements (e.g., special pays and bonuses, reimbursements, educational assistance, deferred compensation, or any estimate of the cash value of nonmonetary benefits such as health care, child care, recreational facilities, commissaries, and exchanges). As the value of these forms of compensation can be very substantial, RMC should not be considered a measure of *total* military compensation.

3. How Are Each Year's Increases in Basic Pay, BAH, and BAS Computed?

Mentions of the "military pay raise" are almost always references to the annual increase in basic pay. The statutory formula for calculating each year's pay raise is discussed below, but basic pay is only one element of RMC. BAH and BAS are also subject to periodic adjustment, although they typically do not receive as much attention as increases in basic pay.

Basic Pay: Increases Are Linked to Increases in the Employment Cost Index (ECI)

Section 1009 of Title 37 provides a permanent formula for an automatic annual increase in basic pay that is indexed to the annual increase in the Employment Cost Index (ECI) for "wages and salaries, private industry workers." For 2000-2006, the law required the military raise to be equal to the ECI increase plus an additional one half percentage point (i.e., if the ECI annual increase were to be 3.0%, the military raise would be 3.5%). For 2007 and onward, the law required the raise be equal to the ECI, although Congress continued to enact increases above the ECI through 2010.

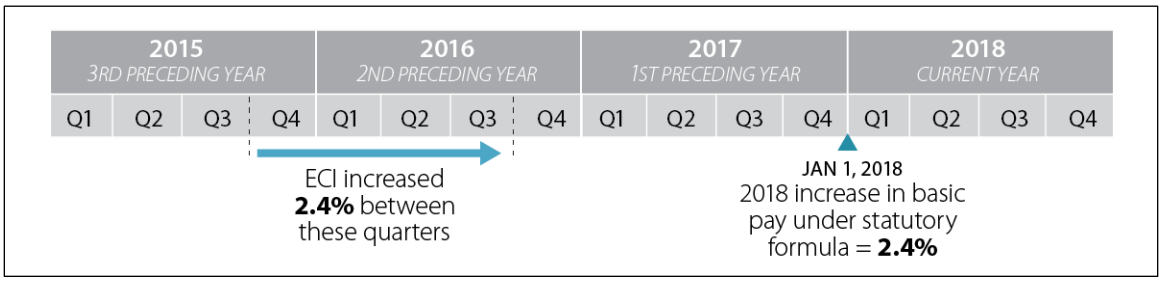
The automatic adjustment under 37 U.S.C. 1009 is tied to the increase in the ECI from the third quarter of the third preceding year to the third quarter of the second preceding year. For example, in the 12-month period between the quarter which ended in September 2015 and the quarter which ended in September 2016, the ECI increased by 2.4%. Hence the pay raise for 2018, as calculated by the statutory formula, was 2.4%. An illustration of how the formula operates is provided in **Figure 1**. This methodology results in a substantial lag between increases in the ECI and increases in basic pay; the lag appears to be related to the stages of the federal budget process.[18]

(B) was excludable from gross income on September 9, 1986, under any provision of law, regulation, or administrative practice which was in effect on such date (other than a provision of this title).

[18] In other words, the 2.4% increase described above informed the FY2018 budget request, which was being developed in the fall of 2016 and submitted to Congress in February of 2017. The FY2018 National Defense Authorization Act was enacted December 12, 2017, shortly before the day (January 1, 2018) that the 2018 pay raise would go into effect.

Figure 1. How Increases in Basic Pay are Calculated under the Statutory Formula

In accordance with 37 U.S.C. 1009(c)(1)



Source: Congressional Research Service.

However, under subsection (e) of this statute, the President can specify an alternative pay adjustment that supersedes the automatic adjustment. President Obama invoked this option with regard to the 2014-2016 pay raises. Additionally, Congress can pass legislation to specify the annual pay raise, which would supersede the automatic adjustment and/or any presidential adjustment if it were enacted.

Congress Has Frequently Waived the Automatic Adjustment and Specified the Amount of the Military Pay Raise, Although This Has Become Less Common In Recent Years

Despite the statutory formula, which could operate each year without any further action, Congress has frequently waived the automatic adjustment and legislated particular percentage increases. For the pay raises effective in fiscal years 1981-1982 and calendar years 1984-2010 and 2013,[19] Congress specified the increase that was to take effect in the annual defense authorization act. Congress specified no percentage increase for 1983, 2011, 2012, or 2014-2016,[20] thereby allowing the permanent formula or the presidential alternative adjustment to go into effect. In 2017 and 2018, Congress specified the pay raise in the annual defense authorization act. The statutory formula is important even when it does not go into effect, as it provides a benchmark around which alternatives are developed and debated.

Basic Allowance for Housing: Increases Are Linked to Increases in Housing Costs

Basic Allowance for Housing is paid to servicemembers living in the United States who do not choose or are not provided government quarters.[21] By law, the Secretary of Defense sets the BAH rates for localities, known as military housing areas (MHAs), throughout the United States.

[19] Increases in basic pay became effective at the start of the calendar year, rather than the fiscal year, in 1984.

[20] While not specifying a specific increase for 2015 and 2016, Congress did stipulate in law that for those years there would be no increase for general and flag officers (those in paygrades O-7 and above) For a listing of increases in basic pay since 1994, see the later section of this report entitled "4. What Have Been the Annual Percentage Increases in Basic Pay Over the Past 20 Years? What Were Each Year's Major Executive and Legislative Branch Proposals and Actions on the Annual Percentage Increase in Military Basic Pay?"

[21] Many servicemembers prefer to live off post and elect to receive BAH instead of government quarters; in other cases, there may not be a sufficient supply of government quarters to house all interested personnel. Those servicemembers living overseas and not provided with government quarters receive OHA. The adjustment mechanism for OHA is similar to that of BAH.

However, the law requires the Secretary to set the rates "based on the costs of adequate housing determined for the area" and ties this determination to "the costs of adequate housing for civilians with comparable income levels in the same area."[22] As increases in BAH are tied to increases in local housing costs, they are not affected by the annual percentage increase in the ECI. Thus, the average increase in BAH almost always differs from the increase in basic pay.

To determine the cost of adequate housing, DOD conducts an annual[23] survey of rental costs in each of the MHAs.[24] DOD employs a contractor to collect rental costs for various types of housing, including apartments, townhouses, and single-family units of varying bedroom sizes. Costs for utilities are also collected.[25] DOD uses these annual surveys to determine how much housing costs have increased or decreased in each MHA. If costs in a given MHA increase, it adjusts BAH rates for that locality upward accordingly at the start of the next calendar year. If costs in a given MHA decrease, it adjusts the BAH rates downward. However, in the case of a downward adjustment, a "save pay" provision on the BAH statute prevents the decrease from applying to individuals currently assigned to that locality: "So long as a member of a uniformed service retains uninterrupted eligibility to receive a basic allowance for housing within an area of the United States, the monthly amount of the allowance for the member may not be reduced as a result of changes in housing costs in the area or the promotion of the member."[26] Thus, only personnel newly assigned to the area receive the lower payment.

Congress has periodically changed the law with regard to the proportion of housing costs covered by BAH. In 1996, DOD estimated that BAH covered about 80% of housing costs.[27] Subsequent statutory changes raised BAH rates so that they covered 100% of the cost of adequate housing by 2005.[28] More recently, the FY2015 National Defense Authorization Act allowed the Secretary of Defense to reduce BAH payments by 1% of the national average monthly housing cost,[29] and the FY2016 National Defense Authorization Act extended this authority, authorizing an additional 1% reduction per year through 2019 (for a maximum reduction of 5% under the national monthly average housing cost).[30] DOD has indicated that a "save pay" provision, discussed above, will apply to these changes.[31]

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[22] 37 U.S.C. 403(b).

[23] There have been occasional proposals to survey the housing costs on which BAH is based more frequently than once a year. These proposals typically occur when housing costs or utility costs are rising rapidly.

[24] For more information on this process, see the Defense Travel Management Office's "A Primer on the Basic Allowance for Housing (BAH)," available here: http://www.defensetravel.dod.mil/Docs/perdiem/BAH-Primer.pdf.

[25] DOD eliminated the cost of renter's insurance from the calculation in 2015.

[26] 37 U.S.C. 403(b)(6). An analogous provision for OHA is provided in 37 U.S.C. 403(c)(2).

[27] "In creating the BAQ and the Variable Housing Allowance (VHA) [the predecessors to BAH], Congress intended to cover 85 percent of service members' housing costs. In reality though, housing allowances only covered approximately 80 percent of service members' total housing expenses in 1996. In an effort to close that gap, the Department funded a 3.0 percent increase in housing allowances in 1997, and Congress added an additional 1.6 percent. This will lower out-of-pocket housing costs to approximately 19% percent of a service member's total costs, the lowest percentage since before 1987." Testimony of Fred Pang, Assistant Secretary of Defense for Force Management Policy, before the House National Security Committee, Military Personnel Subcommittee, March 14, 1997.

[28] For more information on this topic, see Department of Defense, Military Compensation Background Papers, 7th edition, 2011, pp. 170-173, available here: http://www.loc.gov/rr/frd/pdf-files/Military_Comp-2011.pdf.

[29] Also, starting in 2015, the Department of Defense decided it would no longer consider renter's insurance in its BAH calculations. This change effectively reduced BAH rates by an additional 1%.

[30] P.L. 113-291, §604 and P.L. 114-92, §603.

[31] "An integral part of the Basic Allowance for Housing program is the provision of individual rate protection to all members. No matter what happens to measured housing costs – including the out-of-pocket cost sharing adjustment

Basic Allowance for Subsistence: Increases Are Linked to Increases in Food Costs

BAS is paid at a uniform rate to all eligible enlisted personnel, and at a uniform but lower rate for all eligible officers. By law, BAS is adjusted each year according to a formula that is linked to changes in food prices. The increase is identical to "the percentage increase in the monthly cost of a liberal food plan for a male in the United States who is between 20 and 50 years of age over the preceding fiscal year, as determined by the Secretary of Agriculture each October 1."[32] BAS rates increased 0.3% for 2018.

4. What Have Been the Annual Percentage Increases in Basic Pay Over the Past 20 Years? What Were Each Year's Major Executive and Legislative Branch Proposals and Actions on the Annual Percentage Increase in Military Basic Pay?

The following subsections itemize action on the basic pay increase going back to 1997. *Unless otherwise noted, all increases were proposed to be effective on January 1 of the year indicated in bold.* The public law number for each year's National Defense Authorization Act is included at the end of each section below, even for those years in which there was no statutory language relevant to the pay raise.

For a table that summarizes recent increases in basic pay, see CRS In Focus IF10260, *Defense Primer: Military Pay Raise*, by Lawrence Kapp.

2018. *Statutory Formula: 2.4%. Administration request: 2.1%.* Section 601 of the House-passed version of the FY2018 National Defense Authorization Act (NDAA) required the statutory formula increase (2.4%) to go into effect, "notwithstanding any determination made by the President under subsection (e) of such section with respect to an alternative pay adjustment...." Section 601 of the Senate-passed version of the FY2018 NDAA waived the automatic increase in basic pay under the statutory formula of 37 U.S.C. §1009, and set the pay raise at 2.1%. On August 31, 2017, President Trump sent a letter to congressional leaders invoking his authority under 37 U.S.C. 1009(e) to set the pay raise at 2.1%. However, Section 601 of the enacted version of the FY2018 NDAA (P.L. 115-91) specified the statutory formula increase (2.4%) would go into effect, superseding the President's alternative adjustment. Therefore, basic pay for all servicemembers increased by 2.4% on January 1, 2018. *Final increase: 2.4% across-the-board. (P.L. 115-91).*

2017. *Statutory Formula: 2.1%. Administration request: 1.6%.* Section 601 of the House version of the FY2017 NDAA (H.R. 4909) required the statutory formula increase (2.1%) to go into effect, "notwithstanding any determination made by the President under subsection (e) of such section with respect to an alternative pay adjustment...." Section 601 of the Senate version of the FY2017 NDAA (S. 2943) waived the automatic increase in basic pay under the statutory formula of 37 U.S.C. §1009, and set the pay raise at 1.6%. On August 31, 2016, the President sent a letter to congressional leaders invoking his authority under 37 U.S.C. 1009(e) to set the pay raise at

noted above, an individual member who maintains uninterrupted Basic Allowance for Housing eligibility in a given location will not see his/her Basic Allowance for Housing rate decrease. This ensures that members who have made long-term commitments in the form of a lease or contract are not penalized if the area's housing costs decrease." DOD News Release, "DoD Releases 2016 Basic Allowance for Housing Rates," available here: http://www.defense.gov/News/News-Releases/News-Release-View/Article/636341/dod-releases-2016-basic-allowance-for-housing-rates.

[32] 37 U.S.C. 402(b)(1)(B).

1.6%. However, Section 601 of the final version of the FY2017 NDAA set the pay raise at 2.1%, and President Obama signed this bill into law on December 23, 2016. This statutory adjustment supplanted the President's alternative pay adjustment. Therefore, basic pay for all servicemembers increased by 2.1% on January 1, 2017. *Final increase: 2.1% across-the-board. (P.L. 114-328).*

2016. *Statutory Formula: 2.3%. Administration request: 1.3%.* The House version of the FY2016 NDAA (H.R. 1735) contained no provision to specify the rate of increase in basic pay, although the report accompanying it stated that the committee supported a 2.3% increase. The Senate version (H.R. 1735) contained a provision that waived the automatic adjustment of 37 U.S.C. §1009 and set the pay increase at 1.3%, but excluded generals and admirals. On August 28, the President exercised his authority to specify an alternative adjustment, setting the increase at 1.3%. No general pay raise provision was included in the final version of the NDAA, thereby leaving in place the 1.3% increase specified by President Obama. However, Section 601 of the FY2016 NDAA prevented the pay increase from applying to generals and admirals. *Final increase: 1.3% across-the-board, excluding generals and admirals. (P.L. 114-92).*

2015. *Statutory Formula: 1.8%. Administration request: 1.0%.* The House version of the FY2015 NDAA contained no statutory provision to specify the rate of increase in basic pay, although the report accompanying it stated that the committee supported a 1.8% increase; it also included a provision to prevent general and flag officers from receiving any increase in basic pay in 2015. The Senate committee-reported version contained a provision waiving the automatic adjustment of 37 U.S.C. 1009 and setting the pay increase at 1.0% for servicemembers, but excluded generals and admirals. On August 29, President Obama sent a letter to Congress invoking 37 U.S.C. 1009(e) to set the pay raise for 2015 at 1.0%. No general pay raise provision was included in the final version of the NDAA, thereby leaving in place the 1.0% increase specified by President Obama. However, Section 601 of the FY2015 NDAA prevented the pay increase from applying to generals and admirals. *Final increase: 1% across-the-board, excluding generals and admirals. (P.L. 113-291).*

2014. *Statutory Formula: 1.8%. Administration request: 1.0%.* The House version of the FY2014 NDAA contained no provision to specify the rate of increase in basic pay, while the Senate committee-reported bill specified an increase of 1.0%. On August 30, President Obama sent a letter to Congress invoking 37 U.S.C. 1009(e) to set the pay raise for 2014 at 1.0%. No provision included in the final version of the NDAA, thereby leaving in place the 1.0% increase specified by the President. *Final increase: 1% across-the-board. (P.L. 113-66).*

2013. *Statutory Formula: 1.7%. Administration request: 1.7%.* The House version of the FY2013 NDAA supported a 1.7% across-the-board pay raise. The Senate bill contained no statutory language. The final bill specified a 1.7% increase. *Final increase: 1.7% across-the-board. (P.L. 112-239).*

2012. *Statutory Formula: 1.6%. Administration request: 1.6%.* The House version of the FY2012 NDAA supported a 1.6% across-the-board pay raise, equal to the ECI. Both the Senate-reported bill and the final version were silent on the pay raise issue. As a result, the statutory formula became operative with an automatic January 1, 2012, across-the-board raise equal to 1.6%. *Final increase: 1.6% across-the-board. (P.L. 112-81).*

2011. *Statutory formula:* 1.4%. *Administration request:* 1.4%. The House version of the FY2011 NDAA supported a 1.9% across-the-board pay raise, 0.5% above the ECI. Both the Senate-reported bill and the final bill were silent on the pay raise issue. As a result, the statutory formula became operative with an automatic across-the-board raise of 1.4%; equal to the ECI. *Final increase: 1.4% across-the-board. (P.L. 111-383).*

2010. *Statutory formula:* 2.9%. *Administration request:* 2.9%. The FY2010 NDAA specified a 3.4% increase. *Final increase: 3.4% across-the-board. (P.L. 111-84).*

2009. *Statutory formula:* 3.4%. *Administration request:* 3.4%. The FY2009 NDAA specified a 3.9% increase. *Final increase: 3.9% across-the-board. (P.L. 110-417).*

2008. *Statutory formula:* 3.0%. *Administration request:* 3.0% across-the-board. The presidential veto of the initial FY2008 NDAA resulted in a 3.0% pay raise taking effect on January 1, 2008 (statutory formula). The final version of the NDAA, signed into law on January 28, specified that basic pay be increased by 3.5% retroactive to January 1. *Final increase: 3.5% across-the-board. (P.L. 110-181).*

2007. *Statutory formula:* 2.2%. The statutory formula for 2007 was based solely on the ECI and not a rate 0.5% higher than the ECI that had been specified for 2000-2006. *Administration request:* 2.2%. The NDAA specified a minimum 2.2% increase, with greater increases for certain pay cells.[33] *Final increase: 2.2% across-the-board but with an additional April 1, 2007, targeted pay raise that would be as high as 8.3% for some warrant officers and range from 2.5% for E-5s to 5.5% for E-9s.*[34] *(P.L. 109-364).*

2006. *Statutory formula:* 3.1%. *Administration request:* 3.1% across-the-board. The NDAA specified a 3.1% increase. *Final increase: 3.1% across-the-board. (P.L. 109-163).*

2005. *Statutory formula:* 3.5%. *Administration request:* 3.5%. The NDAA specified a 3.5% increase. *Final increase*: *3.5% across-the-board. (P.L. 108-375).*

2004. *Statutory formula:* 3.7%. *Administration request:* Average 4.1%; minimum 2.0%; maximum of 6.5%. The NDAA specified a 3.7% minimum increase, with greater increases for certain pay cells. *Final increase: 3.7% minimum, 4.15% average, 6.25% maximum for some senior NCOs (P.L. 108-136).*

2003. *Statutory formula:* 4.1%. *Administration request:* minimum 4.1%; average 4.8%; between 5.0% and 6.5% for some mid-level and senior noncommissioned officers, warrant officers, and mid-level commissioned officers. The NDAA specified increases identical to the Administration request. *Final increase: Identical to the Administration request (P.L. 107-314).*

2002. *Statutory formula:* 4.6%. *Administration request:* numerous figures for the "Administration request" were mentioned in the pay raise debate, depending on when and which agency produced the figures. In general, however, they all proposed increases of at least 5% and no more than 15% (the latter applying only to a very few individuals), depending on pay grade and years of service; the average increase was 6.9%. The NDAA specified a 5% minimum increase, with greater increases for certain pay cells. *Final increase: Between 5 and 10%, depending on pay grade and years of service (P.L. 107-107).*[35]

2001. *Statutory formula:* 3.7%. *Administration request*: 3.7%. The FY2001 NDAA specified a 3.7% minimum increase of 3.7%, with greater increases for certain pay cells. The NDAA specified a 3.7% minimum increase, with greater increases for certain pay cells. *Final increase: 3.7% across-the-board, effective January 1, 2001, plus additional raises of between 1.0 and 5.5% for mid-grade officer and enlisted personnel, to be effective July 1, 2001 (P.L. 106-398).*

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[33] The basic pay table is made up of various pay cells for specified combinations of pay grade and years of service.

[34] Maze, Rick, "DoD seeks targeted raises of up to 8.3 percent," *Army Times*, March 20, 2005.

[35] The 2002 increase remains the largest across-the-board percentage raises since that of FY1982, which took effect on October 1, 1981. The latter was a 14.3% across-the-board raise, which followed an 11.7% raise the previous year, FY1981, resulting in a two-year raise of almost 28%. This was principally in response to the high inflation of the late 1970s.

2000. *Statutory formula:* 4.8% (based on the change to the statutory formula; the original statutory formula would have led to a proposed raise of 3.8%). *Administration request:* 4.4% on January 1, 2000, plus increases averaging an additional 1.4% for mid-grade officer and enlisted personnel, effective July 1, 2000. The NDAA specified a 4.8% minimum increase, with greater increases for certain pay cells. *Final increase: 4.8% on January 1, 2000, plus increases averaging an additional 1.4% for mid-grade officer and enlisted personnel, effective July 1, 2000 (P.L. 106-65).*

1999. *Statutory formula*: 3.1%. *Administration request*: 3.6%. The House approved 3.6%, or whatever percentage increase was approved for federal GS civilians, whichever was higher. The Senate approved 3.6%. The final version accepted the House provision. *Final increase*: *3.6%, as GS civilians also received 3.6% (P.L. 105-261).*

1998. *Statutory formula*: 2.8%. *Administration request*: 2.8%. The final versions of the NDAA both provided for a 2.8% increase. *Final increase*: *2.8% (P.L. 105-85).*

5. What Is an "Adequate" Level of Military Pay?

Since the end of the draft in 1973, the "adequacy" of military pay has tended to become an issue for Congress if it appears that

- the military services are having trouble recruiting enough new personnel, or keeping sufficient career personnel, of requisite quality; or
- the standard of living of career personnel is perceived to be less fair or equitable than that of demographically comparable civilians (in terms of age, education, skills, responsibilities, and similar criteria).

The first issue is an economic inevitability in some periods. In the absence of a draft, the services must compete in the labor market for new enlistees and—a fact often overlooked—have always had to compete in the labor market to retain the more experienced individuals who make up the career force.[36] When unemployment is low, employment opportunities in the civilian world abound and military recruiting is more difficult. When unemployment is high, military service becomes a more attractive alternative, and military recruiting is easier.

From 2010-2017, recruiting and retention in the Armed forces were quite strong, hence weakening the case for compensation increases based on competition with the civilian economy and generating discussion of possible compensation cuts and/or restructuring. However, the strong recruiting and retention results in those years were due in part to a civilian economy still recovering from recession and to force reductions in the Air Force, Marine Corps, and Army, which generated lower recruiting and retention goals. With increased end-strength authorized for all four Services in 2018, some recruiting and retention goals have increased and thereby become more difficult to achieve.[37] The state of the economy could also have a significant impact on meeting these goals.[38]

[36] Unlike civilian enterprises, the military services generally do not recruit mid- or senior-level personnel from outside the existing military workforce. Rather, they rely on promotions from within to fill these positions.

[37] For example, in April the Army announced it was reducing its recruiting goal from 80,000 to 76,500.

[38] If military personnel strength levels are increased, the Services will need to recruit and/or retain more personnel than at present. Meeting these requirements could be made more difficult due to increased competition from civilian employers should a more robust economy develop. Other factors that could affect recruiting and retention include the level of resources allocated to recruiting and retention and attitudes about military career prospects and job satisfaction. For more information on the recruiting and retention issues of the 1990s, see CRS Report RL31297, *Recruiting and Retention in the Active Component Military: Are There Problems?*, by Lawrence Kapp.

The second situation is frequently stated in moral or ethical terms. Proponents of this viewpoint argue that, even if quantitative indexes of recruiting and retention appear to be satisfactory, the crucial character of the military's mission of national defense, and its acceptance of the professional ethic that places mission accomplishment above survival, demands certain enhanced levels of compensation. However, the compensation increases that occurred in the 2000s have led many analysts to conclude that military compensation is currently quite robust in comparison to civilian counterparts.

6. Is There a "Pay Gap" Between Military and Civilian Pay? Do Military Personnel Make More or Less Than Their Civilian Counterparts?

The issue of a military-civilian "pay gap" raises several additional questions

- How can the existence of a gap be determined and the gap be measured?
- Is there a gap and, if so, are civilians or military personnel being paid more? How much more?
- If there is a gap, does that in itself require action?

A wide range of studies over the past several decades have attempted to compare military and civilian (both federal civil service and private sector) compensation. In general, the markedly different ways in which civilian public and private sector compensation and benefit systems are structured, compared to those of the Armed forces, make it difficult to validate any generalizations about whether there is a "gap" between military and civilian pay.[39]

Measuring and Confirming a "Gap"

It is difficult to find a common index or indicator to compare the dollar values of military and civilian compensation. First, military compensation includes numerous separate components, whose receiving population and taxability vary widely. Which of these, if any, should be included in a military-civilian pay comparison? Furthermore, total military compensation includes a wide range of noncash benefits—health care, commissary access, recreational facilities—as well as a unique deferred compensation package. Few civilians work in organizations where analogous benefits are provided. Attempts to facilitate a comparison by assigning a cash value to noncash benefits almost always founder on the large number of debatable assumptions that must be made to generate such an estimate.

Second, it is also difficult to establish a comparison between military ranks and pay grades on the one hand and civilian jobs on the other. The range of knowledge, supervision, and professional judgment required of military personnel and civilians performing similar duties in a standard

[39] Some advocates for federal civil servants argue that federal civilian pay lags behind private sector pay, which in turn leads some people to infer that military pay lags behind private sector pay (given the past linkage between civil service and military basic pay percentage increases). A separate debate, more common about a decade ago, was over "pay parity" between the percentage increases in military basic pay and federal civil service pay. The issue has been whether the civil service should get a percentage raise identical to that of the military, or whether the military should get a higher raise because of (1) the much greater degree of danger and hardship military service entails, compared to most civilian employment, especially in time of war, and (2) the need to cope with actual or forestall potential military recruiting and retention problems.

peacetime industrial or office milieu may be roughly equivalent. However, when the same military member's job in the field and in combat is concerned, comparisons become difficult.

Third, generally speaking, the conditions of military service are frequently much more arduous than those of civilian employment, even in peacetime, for families as well as military personnel themselves. This aspect of military service is sometimes cited as a rationale for military compensation being at a higher level than it otherwise might be. On the other hand, the military services all mention travel and adventure in exotic places as a positive reason for enlistment and/or a military career, so it may be misleading to automatically assume that this is always a liability. Thus, it can be difficult to make direct comparisons between military and civilian occupations. As noted by the Congressional Budget Office:[40]

> Comparing compensation in the military and civilian sectors can be problematic. One obvious limitation is that such comparisons cannot easily account for different job characteristics. Many military jobs are more hazardous, require frequent moves, and are less flexible than civilian jobs in the same field. Members of the armed forces are subject to military discipline, are considered to be on duty at all times, and are unable to resign, change jobs at will or negotiate pay. Military personnel also receive extensive training, paid for by the government. Family support programs are generally more available in the military compared with civilian employers. Intangible rewards, such as a shared sense of purpose, may be higher among military personnel as well. Quantifying those elements among military and civilian personnel is extremely difficult.

Fourth, differing methodologies for calculating compensation can yield different results. For example, comparing the percentage increase in pay over different time periods can produce widely varying rates of increase. Likewise, when indexes of compensation include different elements (for example, basic pay versus RMC), the results will typically diverge as well.

Finally, the level of specificity used in a pay comparison can lead to differing results, especially when the comparison is between private sector and federal pay, both civil service and military. For instance, Army colonels may, according to some indexes, be paid roughly as much as federal civil service GS-15s, or as much as private sector managers with certain responsibilities. However, if the pay comparisons focus on those occupational specialties that are highly paid in the private sector—health care, information technology, and some other scientific and engineering skills are examples—the comparison may not be as favorable. Other common subcategories for comparison—such as age, gender, years in the labor force, and educational levels—can also produce differing results.

Estimates of a Military-Civilian Pay Gap

Various comparisons of military and civilian compensation exist which illustrate a gap that favors civilian pay levels, refute the existence of such a gap, or show that the pay gap favors the military. Some of these reports lack precision in identifying what aspects of military pay were compared with civilian pay, which indexes were used to make the comparison, or the length of time covered by the comparison. One estimate, which indicates there is a pay gap in favor of civilians, asserts that rough pay parity existed between civilian and military personnel in 1982, but that increases since then in military basic pay have generally not kept up with increases in civilian pay (as measured by the ECI). As a result, a pay gap of about 13% in 1999 was gradually eliminated by 2011 due to above-ECI increases in basic pay. It reappeared in 2014 and stood at 2.6% in 2016.[41]

[40] "Evaluating Military Compensation", Congressional Budget Office, June, 2007, p. 2.

[41] See, for example, the pay gap charts published by the Military Officers Association in " "Another Year of Pay Caps,"

However, using the same starting date (1982) but considering RMC rather than just basic pay, the Congressional Budget Office (CBO) came to a much different conclusion in 2010. In congressional testimony, a CBO analyst answered the question "Is there a 'gap' between civilian and military pay raises over the past few decades," as follows:

> The answer depends on how narrowly military cash pay is defined. One common method of comparison is to calculate the cumulative difference between increases in military and civilian pay using military basic pay, a narrow measure of cash compensation that does not include, for example, tax-free allowances for housing and food. Applying that method would indicate that cumulatively, civilian pay rose by about 2 percent more than military pay between 1982 and the beginning of 2010. But that measure does not encompass the full scope of military cash compensation. Using a broader measure that includes cash allowances for housing and food indicates that the cumulative increase in military compensation has exceeded the cumulative increase in private-sector wages and salaries by 11 percent since 1982. That comparison excludes the value of noncash and deferred benefits, which would probably add to the cumulative difference, because benefits such as military health care have expanded more rapidly than corresponding benefits in the private sector.[42]

Another approach to estimating a pay gap attempts to compare actual compensation levels of military personnel to civilians with similar education and experience, rather than comparing rates of compensation increase over time. For example, the 9th Quadrennial Review of Military Compensation (QRMC), published in 2002, compared the RMC of junior enlisted to the earnings of civilian high school graduates, middle grade NCOs with civilians with some college education, and senior enlisted personnel with civilians who are college graduates. It compared the RMC of officers to the earnings of civilians with bachelors or advanced degrees in professional or managerial occupations. Based on a separate body of research, it argued that "pay at around the 70th percentile of comparably educated civilians has been necessary to enable the military to recruit and retain the quantity and quality of personnel it requires"[43] and pointed out those groups of military personnel that fell short of this compensation goal. Congress approved several rounds of pay table reform to address situations where servicemembers fell below the 70% mark. Additionally, general increases in basic pay higher than the rate of increase in the ECI (2000-2010) and the elimination of "out-of-pocket" housing expenses by 2005 pushed servicemember RMC up substantially in relation to civilian compensation. According to the 11th QRMC, by 2009 military compensation had substantially exceeded this goal:

> In 2009, average RMC for enlisted members exceeded the median wage for civilians in each relevant comparison group—those with a high school diploma, those with some college, and those with an associate's degree. Average RMC for the enlisted force corresponded to the 90th percentile of wages for civilians from the combined comparison groups. For officers, average RMC exceeded wages for civilians with a bachelor's or graduate-level degree. Average RMC for the officer force corresponded to the 83rd percentile of wages for the combined civilian comparison groups.[44]

Military Officer's Association, February 5, 2016, available here: http://www.moaa.org/Content/Take-Action/Top-Issues/Currently-Serving/Another-Year-of-Pay-Caps.aspx.

[42] Statement of Carla Tighe Murray, Senior Analyst for Military Compensation and Health Care, before the Subcommittee on Personnel Committee on Armed Services, U.S. Senate, "Evaluating Military Compensation," April 28, 2010, p. 2, available here: http://www.cbo.gov/sites/default/files/04-28-MilitaryPay.pdf.

[43] Department of Defense, 9th Quadrennial Review of Military Compensation, March 2002, p. xxiii, available here: http://militarypay.defense.gov/Portals/3/Documents/Reports/9th_QRMC_Report_Volumes_I_-_V.pdf.

[44] Department of Defense, 11th Quadrennial Review of Military Compensation, June 2012, p. xvii, available here: http://militarypay.defense.gov/Portals/3/Documents/Reports/11th_QRMC_Main_Report_FINAL.pdf?ver=2016-11-06-160559-590.

Since that time, Congress and the executive branch have made efforts to slow the growth of military compensation. Recent initiatives have included presidentially directed increases in basic pay below the ECI for 2014-2016 and statutory authority for DOD to reduce BAH payments by 1% of the national average monthly housing cost per year from 2015 to 2019 (for a maximum reduction of 5% of the national monthly average housing cost).

If There Is a Pay Gap, Does It Matter?

Some have suggested that the emphasis on a pay gap, whether real or not, is an inappropriate guide to arriving at sound policy. They argue that the key issue is, or should be, not *comparability* of military and civilian compensation, but the *competitiveness* of the former. Absent a draft, the Armed forces must compete in the labor market for new enlisted and officer personnel. The career force by definition has always been a "volunteer force," and thus has always had to compete with civilian opportunities, real or perceived. Given these facts, some ask what difference it makes whether military pay is much lower, the same, or higher than that of civilians? If the services are having recruiting difficulties, then pay increases might be appropriate, even if the existing "gap" favors the military. Conversely, if military compensation is lower than equivalent civilian pay, and if the services are doing well in recruiting and retaining sufficient numbers of qualified personnel, then there might be no reason to raise military pay.

The 11th QRMC voiced similar sentiments when it argued:

> A comparison between military and civilian wages does not, by itself, determine if military pay is at the optimal level. As previously noted, other factors are also at play including: recruiting and retention experiences and outlook; unemployment in the civilian economy; political factors, such as a wartime environment or risk of war; and the expected frequency and duration of overseas deployments. But the relative standing of military compensation provides context to help make decisions about RMC and other elements of the compensation system, such as those studied by the QRMC.[45]

7. What Additional Benefits Are Available for Military Personnel Serving in Iraq and Afghanistan?

Members of the Armed forces serving in Iraq or Afghanistan are entitled to various additional forms of compensation, described below. Those serving in nearby countries are often eligible as well.

Hostile Fire/Imminent Danger Pay

Military personnel serving in Iraq or Afghanistan are eligible for Hostile Fire Pay (HFP) or Imminent Danger Pay (IDP).[46] HFP is paid at the rate of $225 per month; IDP is paid at an equivalent rate, but on a daily basis ($7.50 per day).[47] The purpose of this pay is to compensate

[45] Department of Defense, 11th Quadrennial Review of Military Compensation, June 2012, p. xvii, available here: http://militarypay.defense.gov/Portals/3/Documents/Reports/11th_QRMC_Main_Report_FINAL.pdf?ver=2016-11-06-160559-590.

[46] 37 U.S.C. 351 (previously 37 U.S.C. 310). Under 37 U.S.C. 351, HFP and IDP are types of hazardous duty pay. By law, the maximum amount of HFP is $450 per month and the maximum amount of IDP is $250 per month. However, these figures are caps; DOD has discretion to offer lesser amounts. See DOD Instruction 1340.09, *Hazardous Duty Pay*, January 26, 2018, http://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/134009p.PDF?ver=2018-01-30-123041-040.

[47] Servicemembers exposed to a hostile fire event receive the full $225 for the month in which the hostile fire event

servicemembers for physical danger. An individual can collect either Hostile Fire Pay or Imminent Danger Pay, not both simultaneously. Iraq and Afghanistan are designated imminent danger locations; any servicemember in these locations is entitled to IDP by virtue of their presence. Certain areas surrounding these countries were formerly designated as imminent danger locations, but DOD revoked this designation in 2014.[48] For a list of all imminent danger locations, see the DOD Financial Management Regulations.[49]

Hardship Duty Pay

Military personnel serving for over 30 days in Iraq, Afghanistan, and certain surrounding countries are eligible for Hardship Duty Pay (HDP).[50] HDP is compensation for the exceptional demands of certain duty. In the case of Iraq and Afghanistan, it is compensation for the austere conditions of the location. The rate for HDP in Iraq and Afghanistan is $100 per month.[51]

Family Separation Allowance

Military personnel serving in Iraq, Afghanistan, and surrounding areas may be eligible for Family Separation Allowance (FSA).[52] FSA provides a special pay for those servicemembers *with dependents* who are separated from their families for more than 30 days. The purpose of this pay is to "partially reimburse, on average, members of the uniformed services involuntarily separated from their dependents for the reasonable amount of extra expenses that result from such separation...."[53] To be eligible for this allowance, U.S. military personnel must be separated from their dependents for 30 continuous days or more; but once the 30-day threshold has been reached, the allowance is applied retroactively to the first day of separation. The authorizing statute for FSA sets the rate at $250 per month.

Per Diem for Incidental Expenses

Military personnel using military facilities and serving in Iraq and Afghanistan receive per diem equivalent to $105 per month to cover incidental expenses. The rate is the same for all personnel.

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occurs. Those not exposed to hostile fire, but serving in an IDP location, receive IDP on a daily basis (i.e., $7.50 per day).

[48] For example, DOD ended the imminent danger designation for Kuwait, Bahrain, Oman, Qatar, Saudi Arabia, United Arab Emirates, Kyrgyzstan, Tajikistan, Uzbekistan, and certain nearby bodies of water on May 31, 2014.

[49] DOD FMR, Chapter 10, Figure 10-1, available at: http://comptroller.defense.gov/Portals/45/documents/fmr/Volume_07a.pdf.

[50] 37 U.S.C. 351 (previously 37 U.S.C. 305). By law, the maximum amount of HDP is $1,500 per month. However, this figure is a cap; DOD has discretion to offer lesser amounts. DOD Instruction 1340.26, *Assignment and Special Duty Pays*, September 25, 2017, http://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/134026p.pdf?ver=2017-09-25-112849-877.

[51] For a complete listing of HDP locations, see Chapter 17, Figure 17-1 of this document: http://comptroller.defense.gov/Portals/45/documents/fmr/Volume_07a.pdf.

[52] 37 U.S.C. 427. See also DOD Financial Management Regulation, Volume 7A, Chapter 27, http://comptroller.defense.gov/Portals/45/documents/fmr/Volume_07a.pdf.

[53] Department of Defense, *Military Compensation Background Papers*, 7th Edition, November 2011, p. 823, available here: http://www.loc.gov/rr/frd/pdf-files/Military_Comp-2011.pdf.

Combat Zone Tax Exclusion

One of the more generous benefits for many of those serving in Iraq or Afghanistan, and certain surrounding areas,[54] is the "combat zone tax exclusion."[55] Military personnel serving in direct support of operations in these combat zones are also eligible for the combat zone tax exclusion, as are those "hospitalized as a result of wounds, disease, or injury incurred while serving in a combat zone."[56] For enlisted personnel and warrant officers, this means that all compensation for active military service in a combat zone is free of federal income tax. For commissioned officers, their compensation is free of federal income tax up to the maximum amount of enlisted basic pay plus any imminent danger pay received. While this benefit applies only to federal income tax, almost all states have provisions extending the benefit to their state income tax as well.

In addition, military personnel who qualify for a reenlistment or retention bonus while stationed in a combat zone do not have to pay federal income tax on the bonus (though commissioned officers are still subject to the cap mentioned above).[57] The amounts involved can be substantial, often in the tens of thousands of dollars, and occasionally over $100,000.[58]

Savings Deposit Program

Another benefit available to those deployed to a combat zone[59] is eligibility for the Savings Deposit Program. This program allows servicemembers to earn a guaranteed rate of 10% interest on deposits of up to $10,000, which must have been earned in the designated areas. The deposit is normally returned to the servicemember, with interest, within 90 days after he or she leaves the eligible region, although earlier withdrawals can sometimes be made for emergency reasons.

8. What Benefits Are Available to the Survivors of Military Personnel Killed in Iraq or Afghanistan?

Currently, the survivors (typically, spouses and children) of military personnel who die on active duty, whether serving in combat zones or not, are eligible for a number of monetary and other benefits. These generally include the following:

- A death gratuity of $100,000, payable within a few days of the death to assist families in dealing with immediate expenses.

[54] For a listing of areas that qualify for the combat zone tax exclusion, see http://www.irs.gov/uac/Combat-Zones.

[55] 26 U.S.C. 112.

[56] 26 U.S.C. 112; note that the hospitalization provision expires two years after the termination of combat activities in the designated combat zone.

[57] See DOD Financial Management Regulation, Volume 7A, Chapter 44, Table 44-1, Rule 5: "a bonus entitlement (including installments)" is considered not taxable "if earned (reenlists, extends, signs agreement) in a month during which combat zone or qualified hazardous duty area exclusion applies, regardless if the act of earning the bonus takes place before entering or after returning from the combat zone or qualified hazardous duty area."

[58] Reenlistment or retention bonuses of $100,000 or more are unusual, but they do occur. For example, in 2008, certain special forces soldiers were eligible for a critical skills retention bonus of $150,000 upon reenlisting for six years. See this article: http://www.stripes.com/news/150-000-bonus-offered-for-some-special-forces-1.75636.

[59] For a listing of areas that qualify for the combat zone tax exclusion, see http://www.irs.gov/uac/Combat-Zones. For more information on the Savings Deposit Program, see DOD Financial Regulation, Volume 7A, Chapter 51, http://comptroller.defense.gov/Portals/45/documents/fmr/archive/07aarch/07a_51.pdf.

- Servicemembers' Group Life Insurance (SGLI)[60] of up to $400,000.[61]
- Disbursement of unpaid pay and allowances.
- One year of government housing or BAH.
- Three years of TRICARE coverage at the active duty dependent rate, followed by coverage at the retiree dependent rate (children remain covered as active duty family members until age 21).
- Commissary and Exchange access.
- Burial expenses.
- One or more survivor benefit annuities (Social Security Survivor Benefits, DOD Survivor Benefit Plan, and/or Veterans Affairs Dependency and Indemnity Compensation; receipt of more than one annuity may require offsets between the annuities).

Note, however, that each type of benefit described above has its own eligibility criteria. Survivors may, or may not, qualify for a given benefit based on their unique circumstances. For more detailed information on who qualifies for a given benefit, see the Department of Defense's *A Survivor's Guide to Benefits*.[62]

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[60] All servicemembers are automatically enrolled in this benefit, which is paid for by a $28 per month deduction from their pay. Members may opt out or reduce coverage.

[61] The death gratuity and the SGLI maximum amount were raised substantially by the FY2005 Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief (P.L. 109-13). The death gratuity was raised from $12,420 to $100,000; and the maximum SGLI coverage was raised from $250,000 to $400,000. The 2006 NDAA applied the $100,000 death gratuity to all active-duty deaths (not just those that were combat-related) and made the payments retroactive to October 7, 2001.

[62] Available here: http://www.militaryonesource.mil/survivorsguide. For the earlier legislative history of some of these benefits, see Office of the Secretary of Defense, *Military Compensation Background Papers*. 11th Edition, 2011.