MILITARY COMPENSATION: REQUIREMENTS, TRENDS AND OPTIONS

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Thinking Smarter About Defense

Center for Strategic and Budgetary Assessments

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by

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Executive Summary

The effectiveness of the US military depends critically on its ability to attract and retain quality military personnel. As demonstrated by its performance in recent conflicts, the quality of the US military is today very high. Maintaining such a force in the future must be a central goal of US defense planning. Attracting and retaining sufficient numbers of personnel, with the right talents, skills and levels of experience, will require providing competitive compensation packages. This means not only providing adequate levels of compensation, but providing the right mix of pay and other benefits, and providing them through a flexible and adaptive personnel management structure.

Future challenges to recruitment and retention cannot be met effectively by simply spending more on military compensation, those dollars must also be spent more efficiently. Failure to direct future increases in pay and benefits in a way that targets those individuals the military most needs could lead to the worst of both worlds: Much higher levels of spending on military compensation, and an inability to meet the Services personnel requirements.

Overview of Military Compensation

Total compensation for the average active duty service member currently amounts to about $106,000 a year. Structurally, this compensation differs substantially from the pay and benefits typically provided for civilian workers. Compared to civilian compensation, military compensation is heavily skewed towards non-cash, and especially non-cash deferred, benefits. Military compensation includes a wide variety of different elements, funded through a number of different Department of Defense (DoD) and other government agency accounts.

- Cash compensation includes basic pay, the basic allowance for housing, the basic allowance for subsistence, and the federal tax advantage. Taken together, these four elements—officially known as Regular Military Compensation (RMC)—plus bonuses and other special pays and incentives, account for about 44 percent of military compensation for the average active duty service member.

- Non-Cash benefits include health care for military personnel and their families, and military retirees and their dependents, military retirement pay, military housing (for personnel and dependents living on-base), veterans and other benefits. Combined, non-cash benefits account for about 56 percent of military compensation for the average active duty service member.

Trends in Military Compensation

Compensation for military personnel has increased substantially over the past decade-and-a-half, and especially since the late 1990s. These increases are due to a variety of changes instituted in the last two years of the Clinton Administration, or initiated, reinforced, or expanded under the Bush Administration. Estimating precisely how much military compensation has increased is difficult because of the wide variety of different elements included in that compensation, as well as data limitations. Based on the best available evidence, however, it appears that:

- Overall compensation per active duty service member (exclusive of Veterans' benefits) grew by about $22,000 (fiscal year 2005 dollars), or 33 percent in real (inflation-adjusted) terms, between 1999 and 2005.

- More than half of this $22,000 increase (58 percent) was allocated to improvements in non-cash benefits, especially deferred benefits for military retirees. Improvements in retiree benefits (e.g., the introduction of the Tricare For Life program and increases in pension payments) accounted for about three-quarters of the increase in non-cash benefits (and 43 percent of the overall increase in compensation) provided over the past six years.

- Cash compensation for active duty service members increased by some 25 percent between 1999 and 2005. Raises in basic pay and the basic allowance for housing accounted for almost all of this growth.

- Across-the-board increases accounted for about 90 percent of the growth in cash and non-cash benefits that occurred between 1999 and 2005. Targeted increases directed at particular classes of personnel (e.g., those with special skills or in particular occupations) accounted for only some 10 percent of the growth in compensation.

ADEQUACY OF MILITARY COMPENSATION

It is difficult to compare the salaries of military personnel and civilian workers. Unlike most civilian workers, military personnel frequently are deployed overseas away from their families, for extended periods of time, and are sometimes asked to risk their lives in the service of their country. Comparing compensation levels is also made difficult by the fact that military personnel receive greater non-cash benefits than civilian workers generally receive. Notwithstanding the complexities inherent in comparing military and civilian pay, however, the best available evidence suggests that active duty military personnel are, overall, adequately compensated (this report does not examine the adequacy of current compensation levels for Reserve and National Guard personnel) .

- The most important indication that overall compensation levels for active duty personnel are adequate is that the Services have, in recent years, generally been able to meet their recruitment and retention goals. But this conclusion is also supported by various analyses that have attempted to compare military and civilian pay levels adjusted for demographic differences.

- Adjusted for age, education and occupation, it appears that military pay levels grew at roughly the same rate in the 1980s and 1990s as the salaries of similar civilian workers in the private sector.

- According to an analysis by the Congressional Budget Office (CBO), in 1997, the average active duty service member received higher pay than 75 percent of all civilian workers of the same age and educational level. Moreover, based on an analysis of changes in military and civilian pay over the 1997-2005 period, it seems likely that the pay of military personnel, relative to comparable civilian workers, has improved in the years since then.

- In terms of compensation, the real problem for the Services does not appear to be that too little money is available, or that overall compensation levels are too low, but that its current personnel system and pay structure does not allow the Services to sufficiently differentiate pay levels among military personnel who differ in terms of skills, occupation and other characteristics. As a result, they have consistently experienced retention shortfalls among certain classes of military personnel and particular occupational specialties.

EFFICIENCY OF CURRENT SYSTEM

In general, research indicates that improvements in compensation that provide relatively immediate and easily recognized benefits (such as increases in pay), and especially those that are targeted to the classes of individuals the Services most need to keep, and reward performance, rather than time in service, are the most cost effective.

By contrast, increases in compensation that focus on non-cash benefits and especially non-cash benefits that are deferred until service members retire from the military, tend to be less cost effective. Despite these findings, as noted above, most of the increase in military compensation provided in recent years has been provided in an across-the-board fashion, and directed to improvements in non-cash, and especially non-cash deferred, benefits.

Making greater use of cash compensation and relatively less use of non-cash, and particularly non-cash deferred, compensation, would likely improve the cost-effectiveness of the Services' recruitment and retention efforts. However, such a shift in compensation, by itself, could fall well short of what may be needed if the Services are to effectively meet their personnel requirements in the future. Successfully meeting these requirements will require that DoD make a number of other changes, some of which may involve a fundamental restructuring of its current personnel management system. Among other things, an effectively transformed military personnel system would:

- Make greater use of targeted pay raises, rather than across-the-board increases;

- Allow greater differentiation in compensation among different occupational specialties, whether through further pay table reform or expanded use of bonuses and other special pays;

- Provide enhanced financial incentives, including retirement benefits, for military personnel who opt to remain in the military for less than 20 years;

- Allow the Services to make use of separation pays and other incentives to encourage some mid-career personnel to leave the military before reaching the 20-year mark, and to encourage others to remain in the military for more than 20 years; and

- Shift, over time, to a retirement system that (in structure if not necessarily in benefit levels) is more in line with those in the private sector and the non-military public sector.

Whatever changes are ultimately decided upon, great care will have to be taken to ensure that they are implemented in a way that treats fairly those military personnel who have come to rely upon—and in many cases have made career decisions based upon—the military's current personnel compensation policies and management system.

In addition to making changes consistent with the above recommendations, DoD should consider including all forms of military compensation in a single appropriations title. Currently, funding for various elements of military compensation is provided through a number of different appropriations titles, and substantial portions of that funding are not readily identifiable (e.g., funding for installation-based benefits). As a result, policymakers within DoD, Congress and elsewhere tend to underestimate the cost of military personnel. This may lead to inefficient decisions concerning the allocation of resources within the DoD budget.

IMPACT OF MILITARY PERSONNEL COSTS ON OTHER DEFENSE PRIORITIES

Quality people are widely recognized as being the most important determinant of military effectiveness. But they are not the only determinants of success. Other considerations, such as access to modern weapons and other equipment, rigorous operational training, and efficient maintenance and repair of equipment and facilities, are also of critical importance. Since at least the late 1990s, concerns have emerged that growth in military compensation costs may undermine the ability of the US military to adequately fund these other critical requirements.

- Exclusive of costs associated with the ongoing military operations in Iraq, Afghanistan and elsewhere, DoD's FY 2005 budget provides about $139 billion for various types of military compensation. In addition, the Veterans Affairs (VA) budget for FY 2005 includes some $67 billion in benefits for military personnel, their dependents and survivors. DoD funding for military compensation appears likely increase to an average of some $165-75 billion a year over the FY 2006-22 period.

- In order for DoD to be able to fully afford its current long-term plan in all its key aspects—military pay and benefits, readiness and related activities, and modernization—its overall budget (excluding war costs) would have to be increased from today's level of about $400 billion to an average of $470-510 billion. Additional funding would also have to be provided to cover the cost of any military operations US forces might be engaged in over the next two decades.

- If the DoD topline cannot be sustained at the levels that would be needed to fully cover the cost of implementing DoD's longterm plans, those plans will have to be scaled back. History suggests that that weapons modernization, and weapons procurement in particular, are probably the most likely areas to be scaled back—at least in the near term.

- The need to ensure that sufficient funding is available for weapons procurement in coming decades provides a further reason why various steps should be taken to improve the Services' approach to military compensation. Even a modest rationalization of military pay and benefits could yield significant savings.

- Over the long run, the only way to prevent military compensation costs from overwhelming the rest of the DoD budget may be to make reductions in the number of military personnel. Viewed from a long-term perspective, DoD's past modernization efforts have often been financed in part by cuts in the size of the military. In the case of the Air Force and the Navy, significant tradeoffs may be possible in the near term. Over the longer run, it may even be possible to make some reductions in the size of the Army.

Introduction

The past several years have shown how critically dependent the effectiveness of the US military is on its ability to attract and retain quality military personnel. Since 1999, US servicemen and women have fought in three major military operations, in Kosovo, Afghanistan and Iraq. They have performed effectively and courageously in each of these operations. The war in Afghanistan, and particularly the war in Iraq, have proven especially stressful for military personnel. Today, the United States has some 150,000 troops deployed in Iraq and 20,000 troops deployed in Afghanistan, including not only active duty personnel, but large numbers of Reserve and National Guard personnel.[1] Although the number of military personnel stationed in these countries, and the level of fighting in these conflicts, will hopefully decline in coming years, it is likely that US troops, and especially US Army personnel, will remain relatively heavily deployed and engaged around the world for the foreseeable future.

In this strategic environment, it will be critical that the US military maintain the ability to recruit and retain the high quality people it needs. In recent years, Congress and both Democratic and Republican administrations have poured large sums of money into the

[1] These estimates reflect troop levels as of December 2004. Eric Shmidt, "Rumsfeld Sees Iraqi Pullout Within 4 Years," The New York Times, December 7, 2004, at www.nytimes.com/2004/12/07/international/middleeast/07r umsfeld.html.

Services' personnel-related accounts. Proponents of these increases argue that they have been necessary both to ensure that military personnel are compensated at a level that is fair and competitive with the salaries and benefits received by civilian workers, and to ensure that the Services can meet their recruitment and retention goals at a time when the country is asking much more of its men and woman in uniform than it typically has in the past.

Others argue that, while some recent initiatives to increase military pay and benefits have been appropriate, even perhaps critical, in some cases money has been directed into benefits that are likely to do little to help the Services meet their personnel requirements in either the near term or over the long run. Similar debates exist over a range of proposals pending in Congress to further expand military pay and benefits. There is also substantial debate over whether, and if so how, the US military's personnel system—rather than simply compensation levels—should be changed.

In a world of unlimited resources, choosing the most cost-effective mix of military personnel pay and benefits would be unimportant. But in the real world, doing so is critical. In fiscal year (FY) 2005, the Department of Defense (DoD) is projected to spend about $139 billion on military pay and benefits (unless otherwise noted, all cost or funding figures in this report are expressed in FY 2005 dollars). These costs account for some 35 percent of DoD's regular annual budget (i.e., DoD's budget exclusive of the costs of ongoing military operations in Iraq, Afghanistan and elsewhere). This is far more than DoD spends on either weapons development ($70 billion in FY 2005) or procurement ($78 billion in FY 2005). In addition, the Department of Veterans Affairs (VA) is projected to provide another $67 billion in benefits to former military personnel, their dependents and survivors.

If funding for military pay and benefits were to continue to grow as rapidly in the future as it has in recent years, it seems likely that such funding would crowd out increases currently projected for weapons programs. Nor does simply adding more funding to DoD's overall budget appear to be a feasible solution over the long term, given pressures on the defense budget topline, as well as other government spending, generated by large federal budget deficits and the retirement of the "baby boomer" generation beginning before the end of the decade.

This report examines the US military's personnel compensation levels and policies, and attempts to provide some answers to policymakers concerning how the US military might be able to meet, affordably and effectively, its personnel requirements in coming years. It focuses on compensation issues related to *active duty* military personnel. This report does not specifically discuss compensation or personnel policies affecting National Guard and Reserve personnel. This does not reflect any notion that reserve personnel compensation issues are less important. Rather, it reflects a decision to limit the scope of the report to manageable proportions, and to focus on that portion of DoD's personnel budget that accounts for the lion's share of its personnel costs.[2]

Organization of Report

This report is organized into six chapters. The first chapter provides an overview of military compensation. Compared to most civilian workers, military personnel are compensated through a much more complex set of cash and non-cash benefits. The first chapter describes the different elements that make up military compensation, and provides basic data on the level of compensation received by military personnel today.

The second chapter discusses trends in military personnel pay and benefits. It focuses especially on the past half-decade—a period during which personnel costs have grown significantly, and a wide range of efforts have been made to improve pay and benefits. It provides a summary of each of the major compensation-related changes that have been implemented in recent years, as well as the costs associated with those changes.

The third chapter focuses on the question of whether military personnel are adequately compensated. It compares levels and trends in military pay and benefits with compensation levels and trends

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[2] For a discussion of the compensation system for National Guard and Reserve personnel and options for improving that system, see Glenn A. Gotz, "Restructuring Reserve Compensation," in Cindy Williams, ed., *Filling the Ranks: Transforming the US Military Personnel System* (Cambridge, MA: MIT Press, 2004), pp.167-88.

among civilian workers. It also examines military recruitment and retention data and trends for evidence as to whether compensation levels are sufficient.

Chapter Four contains a discussion and analysis of the most important and costly changes to military compensation that have been made in recent years. In particular, it provides an assessment of the helpfulness and cost-effectiveness of the various pay raises and changes to military retiree benefits that have been implemented since the late 1990s.

Chapter Five includes a brief description of the military's existing personnel management system and considers the extent to which that system may need to be transformed if the Services are to be able to recruit and retain the people they will need in the future. It focuses especially on the question of whether changes in that system could be made that would allow the military to simultaneously both improve the quality of its personnel and reduce, or at least hold down, people-related cost growth.

Chapter Six discusses military personnel costs in the context of the overall US defense budget. Among other things, it examines trends in the share of the defense budget allocated to personnel costs, and the impact of cost-growth in this area on other DoD programs and priorities. In particular, it considers the extent to which rising military personnel costs may threaten the Service's ability, in coming years, to transform and modernize their forces. The potential for new weapons systems and other equipment to substitute for military personnel is also briefly discussed in this chapter.

I. Overview of Military Compensation

Setting military compensation levels is one of the most critical national security-related decisions made by the president and Congress each year. The ability to recruit and retain high quality military personnel is dependent on a wide variety of factors, not simply compensation levels. But the level of compensation provided to service members is clearly is one of the key determinants of success or failure in recruitment and retention efforts. Total compensation for the average active duty service member currently (2005) amounts to about $106,000 a year.

Military compensation includes a wide variety of different elements. The DoD budget consists of six major budget titles, one of which is “military personnel.” Despite its name, however, this title does not include all of the funding provided for military compensation and benefits. Other funding for military personnel benefits is provided through DoD’s operations and maintenance (O&M) and family housing budget titles. Not all funding related to pay and benefits is even found in the DoD budget. Funding for veterans benefits is provided through the VA budget. Table 1 shows military compensation for the average active duty service member broken down into its major components.

Although most discussions of military compensation tend to focus on “basic pay,” this is only one element of overall compensation for military personnel. And it accounts for less than one-third of the total value of compensation for the average active duty service member. Military personnel receive a number of different forms of cash compensation, as well as a wide variety of different non-cash benefits.

Table 1: Military Compensation for the Average Active Duty Service Member, 2005

Type	Amount	% of Total Compensation
Cash	**$47,000**	**44%**
Non-Cash		
Retirement Pay	$10,000	9%
Installation-Based Benefits	$13,000	12%
Health Care (DoD and VA)	$29,000	28%
Other DoD Benefits	$3,000	2%
Other Veterans' Benefits	$5,000	5%
Subtotal	**$59,000**	**56%**
Total*	**$106,000**	**100%**

* Total does not add due to rounding.

Source: CSBA based on DoD and CBO data.

CASH VERSUS NON-CASH COMPENSATION

Structurally, compensation for military personnel differs substantially from compensation for civilian workers. The greatest difference is in the amount of compensation for military personnel that is provided in the form of non-cash and deferred compensation. Non-cash compensation accounts for about 56 percent of total compensation for active duty military personnel (see Table 1 above).[3] By comparison,

[3] For 2002, the Congressional Budget Office estimated that non-cash compensation accounted for an average of 57 percent of total compensation per active duty service member. Carla Tighe Murray, "Military Compensation: Balancing Cash and Non-Cash Benefits," Congressional Budget Office (CBO)

non-cash benefits typically account for only 20-35 percent of total compensation for civilian workers.[4]

Not only is military compensation heavily skewed toward non-cash compensation, this non-cash compensation is heavily skewed toward deferred benefits. About one-third of non-cash compensation for military personnel is allocated to benefits that can be taken advantage of immediately. This includes health care for active duty military personnel and their dependents, installation-based benefits, like subsidized groceries and other goods available at military commissaries and exchanges, and on-base housing and childcare. By comparison, some two-thirds of non-cash benefits are deferred. That is, they are not available until after the service member leaves active service. These deferred benefits include military pensions, health care for retirees, and veteran's benefits.

This chapter provides a brief description of the various elements that make up total military compensation, including both cash and non-cash forms of compensation.

Cash Compensation

In 1974, Congress formally defined regular military compensation (RMC) as consisting of four elements. The first three are provided through cash payments, while the fourth element is an implicit rather than actual cash payment. For 2005, RMC amounts to about $42,000 a year for the average active duty service member, and accounts for more than 90 percent of total cash compensation.

Basic Pay: This is the largest component of cash compensation received by military personnel. Today, it accounts for about 72 percent of RMC for the average service member. Basic pay levels vary depending on rank or pay grade, and years of service. In determining basic pay levels, all of the Services use the same common pay table. For 2005, basic pay averages some $30,000 per active duty service

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Issue Brief, January 16, 2004, p. 1. The 56 percent estimate for 2005 was derived by the author using a combination of data included in DoD's FY 2005 budget request and this CBO Issue Brief.

[4] Ibid., p. 4.

member. Table 2 shows basic pay levels, as well as RMC, for a range of different military personnel of different pay grades and years of experience. Basic pay, like the salaries of civilian workers, is fully taxable.

Table 2. Annual Basic Pay and RMC for Selected Military Personnel, 2005

Pay Grade	E-1	E-5	E-8	O-1	O-3	O-5
Rank (Army)	Private	Sgt	MSG	2 Lt	Captain	Lt Colonel
Years of Service	1	8	20	1	8	20
Basic Pay	$14,822	$27,956	$47,391	$28,124	$55,041	$81,517
RMC*	$31,000	$47,000	$70,000	$45,000	$78,000	$115,000

* Author's estimates. Assumes individual is married but has no children.

Source: CSBA based on DoD data.

Basic Allowance for Housing: This is the second largest component of RMC. It accounts for some 18 percent of RMC. About one-third of military personnel stationed in the United States live on bases, the other two-thirds own or rent homes off-base. Those who live on military bases receive their housing free-of-charge. Those who live off-base are provided a cash payment intended to fully cover their housing costs. The size of the BAH is determined by the service member's pay grade, local housing costs, and whether the service member has dependents. The BAH is not subject to federal income tax. For 2005, the average active duty service member will receive a housing allowance of about $8,000.

Basic Allowance for Subsistence: The basic allowance for subsistence (BAS) is paid to service members to help defray the cost of food. The BAS accounts for about 5 percent of RMC. Enlisted personnel receive the BAS when they do not have access to government dining facilities. All officers receive the allowance. Like the housing allowance, the BAS is not taxable.

Federal Tax Advantage: This component of RMC represents the additional amount of federal taxes the service member would have to pay were the BAH and the BAS taxable. This benefit is implicit, rather than an actual cash payment. It nevertheless represents a real benefit. The federal tax advantage accounts for an average of about 5 percent of RMC.

In combining the four elements discussed above under the RMC designation, Congress in part hoped to make it easier for military personnel to compare military compensation levels with compensation provided for civilians in the private sector. However, RMC does not account for all cash compensation. Specifically, it does not include special and incentive pays.

Special and Incentive Pays

In addition to RMC, the Services make use of a wide variety of special and incentive pays to attract and retain military personnel. These include enlistment and re-enlistment bonuses, special pays for personnel in certain occupations, and special pays for military personnel serving away from home for extended periods, or in hostile environments. Altogether, these special and incentive pays typically account for a relatively small share of military compensation—generally under 10 percent of cash compensation (and a much smaller share of total compensation).[5] However, they can substantially boost compensation in some cases. Occupations that receive special pays include pilots, nuclear propulsion officers, and medical and dental officers. Other special pays include hazardous duty incentive pay, hostile duty/imminent danger pay, career sea pay, and submarine duty pay. Altogether the military provides some 50 different special and incentive pays.

[5] In 1999, RMC (which does not include special and incentive pays) accounted for an average of 91-96 percent of total cash compensation for active duty military personnel in the four Services. Beth J. Asch, James R. Hosek, and Craig W. Martin, "A Look at Cash Compensation for Active Duty Military Personnel," RAND, 2002, p. 6, Table S.1.

Non-Cash Compensation

Non-cash benefits for military personnel include retirement pay, installation-based benefits, health care, and veterans' benefits. Although non-cash benefits are also provided to most civilian workers, they typically account for a far smaller share of overall compensation than they do in the case of military personnel.

Retirement Pay

Retirement pay is one of the most costly non-cash benefits provided to military personnel. The military's retirement system differs greatly from that generally found in the private sector, or among civilian federal employees. Under the military's retirement system, active duty service members become eligible for military pensions only if they serve 20 or more years. Those who do remain for 20 years can retire and immediately begin receiving a pension equivalent to 50 percent of their basic pay at the time of retirement.[6] Those who stay for less than 20 years receive no pension payments. Only about 15-20 percent of those who join the military stay for 20 or more years, and thus ever receive military pensions. Officers make up a disproportionate share of the retiree population. Some 30-40 percent of officers stay in the military until they are eligible for retirement, while only 10-15 percent of enlisted personnel do so.

Military retirement costs are funded on an accrual basis. This means that each year the Services set aside a certain amount of money to fund the *future* retirement costs of *current* military personnel.[7] For FY 2005, the military retirement accrual amounts to an average of about $10,000 per active duty service member. This accrual accounts

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[6] The pension level is generally based on the service member's basic pay during the highest three-year period.

[7] Under an accrual system, DoD is charged, upfront, the cost of future benefits payable to currently serving military personnel. By contrast, under a cash system, rather than reflecting the cost of future benefits to currently active personnel, DoD would be charged the cost of current benefits provided to personnel no longer serving in the military. Accrual payments are paid by DoD into a special, interest-bearing fund. Monies required to pay the cost of retirement benefits are paid out of this fund.

for about 9 percent of total military compensation for the average active duty service member.[8]

Health Care

By far the largest non-cash benefit provided to military personnel is health care. The military health care system, known as TRICARE, provides benefits not only to active duty personnel, but to the dependents of active duty service members, as well as to military retirees and their dependents. Altogether, some 10.4 million individuals are currently eligible to receive health care benefits from the military. This includes about 1.4 million active duty service members, 1.8 million family members of active duty service members, 1.9 million military retirees, and 3.4 million retiree family members, survivors and other beneficiaries.

The military operates a network of some 75 hospitals and 460 clinics located both in the United and overseas.[9] Active duty personnel generally must receive their care at these military treatment facilities. Family members of active duty personnel, and retirees and dependents not yet eligible for Medicare can choose to get their medical care through one of three different options: TRICARE Prime, a network of civilian health care providers similar to a health maintenance organization (HMO); TRICARE Standard, a fee-for-service plan like Blue Cross Blue Shield, in which beneficiaries can choose their own health care providers and are reimbursed for a portion of the costs they incur, after paying copayments and deductibles; and TRICARE Extra, which is similar to a civilian preferred provider organization.[10]

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[8] DoD shifted to accrual accounting for military retirement pay in 1985. Prior to 1985, DoD's budget included funding to cover the cost of retirement pay for *current* military retirees, a cash system.

[9] DoD, *Operations and Maintenance Overview, FY 2005*, February 2004, p. 50.

[10] For a discussion of the military's health care system and health care-related spending, see, Alison Percy, *Growth in Medical Spending by the Department of Defense* (Washington, DC: CBO, September 2003), p. 25.

Military retirees age 65 and over are eligible for the TRICARE For Life program. Under this program, these retirees are provided full health benefits, with TRICARE acting as a “second payer” covering any medical costs not covered by Medicare. These retirees are also eligible for the TRICARE Senior Pharmacy program. This program allows Medicare-eligible military retirees to receive prescription medications at military treatment facilities either for free or for a modest copayment. In addition, these military retirees are eligible to receive care at military treatment facilities on a space-available basis.

Health care funding currently averages about $29,000 a year per active duty service member. About $18,000 of this funding is provided by DoD. This includes some $5,000 in accrual funding paid out of the Services’ military personnel accounts into DoD’s Medicare Eligible Retiree Health Care Fund. Money in this fund is intended to cover the future TRICARE for Life costs of those current military personnel who will eventually become eligible for the program, as well as costs associated with providing these individuals with care at military treatment facilities once they reach 65 years of age. CSBA estimates that, on average, another $7,000 per service member is required to cover the cost of providing health care to active duty service members and their dependents. In addition, CSBA estimates that the Services would need to set aside some $5,000 annually per active duty service member to cover the future health care costs of current military personnel who will eventually retire—for the period between retirement (e.g. after 20 years of service) and age 65 (when their health care costs will be covered by the Medicare Eligible Retiree Health Care Fund). In other words, were DoD to fund the cost of providing health care for military retirees under 65 years of age on an accrual basis, CSBA estimates that those costs would amount to about $5,000 per active duty service member in 2005. Although DoD does not currently fund these costs on an accrual basis, estimating them on this basis provides a more accurate sense of the full cost of military personnel today, since it recognizes the cost of future liabilities associated with those personnel.

In addition to these DoD health care costs, spending on veterans' health care benefits (discussed in greater detail later in this chapter) amounts to some $12,000 a year per active duty service member.[11]

Installation-Based Benefits

In addition to health care, the DoD provides a broad range of other non-cash benefits to service members, dependents and retirees at military bases and other facilities. Among the most costly installation-based benefits is on-base housing. For FY 2005, Congress provided about $4 billion for family housing. The Services provide on-base housing for about one-third of military personnel stationed in the United States. In 2004, DoD owned some 169,000 family housing units and leased another 15,000 units.[12]

Another significant installation-based benefit involves the large network of grocery stores (commissaries) and general retail stores (exchanges), that DoD operates on military bases. Both active duty and retired military personnel have access to these stores. Military exchanges operate retail stores that provide a wide range of consumer goods and service at below market prices. They include everything from gas stations and computer stores to fast-food restaurants, liquor stores and home office-supply stores. These commissaries and exchanges have combined annual sales of about $15 billion a year.[13] To help finance these facilities Congress appropriates about $1 billion

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[11] CBO estimates that veteran's health benefits amounted to about $11,000 (FY 2002 dollars) per active duty service member in 2002. Murray, "Military Compensation: Balancing Cash and Non-Cash Benefits," p. 2. This equates to about $12,000 in FY 2005 dollars.

[12] For a discussion of military family housing, see the General Accounting Office (GAO), *Military Housing: Further Improvements Needed in Requirements Determinations and Program Review* (Washington, DC: GAO, May 2004); and Deborah Clay-Mendez, *Military Housing in the United States* (Washington, DC: CBO, September 2003).

[13] For a discussion of DoD's commissary and exchange activities, see, Deborah Clay-Mendez, *The Costs and Benefits of Retail Activities at Military Bases* (Washington, DC: CBO, October 1997).

annually for military commissaries,[14] while DoD provides military exchanges with some $400 million a year in free services.[15]

Other important installation-based benefits include on-base schools for military dependents and day care centers. DoD operates a network of schools for elementary and high school students, as well as day care centers. DoD spending on installation-based benefits averages some $13,000 a year per active duty service member.[16]

Veterans' Benefits

Veterans' benefits consist of a wide range of different types of assistance provided to military personnel after they have left active service. These consist of a variety of different health, disability, educational and other benefits. By far the largest shares of this funding are allocated to veterans health and disability benefits. It is important to understand that most military *veterans* are not military *retiree*s. All personnel who leave active military service are veterans. But only those military personnel who leave after at least 20 years of service are considered retirees and are thus eligible for military pensions and military retiree health benefits. Since, as noted earlier, only about one-third of military officers and 10-15 percent of enlisted personnel stay the 20 years needed to retire, there are far more veterans than military retirees.

Another important difference between military retirement and veterans' benefits is that the former are generally funded through the DoD budget, while the latter are funded through the budget of the VA. For FY 2005, the administration requested a total of about $67 billion

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[14] CBO, *Budget Options* (Washington, DC: CBO, March 2003), p. 48.

[15] Ibid., p. 47.

[16] CBO estimated that installation-based benefits amounted to about $12,000 (FY 2002 dollars) per active duty service member in 2002. Murray, "Military Compensation: Balancing Cash and Noncash Benefits," p. 2. This equates to about $13,000 in FY 2005 dollars.

for the VA. This includes about $29 billion provided through discretionary appropriations and $39 billion in mandatory spending.[17]

Today there are some 25 million veterans in the United States. Veterans are eligible for a number of different health care benefits. The FY 2005 budget includes some $30 billion for VA health programs. This funding is used to administer a large health care infrastructure that includes 158 hospitals, 840 ambulatory care and community-based clinics, 133 nursing homes, and 206 community-based outpatient clinics.[18] Until 1986, VA health care efforts were focused primarily on treating and rehabilitating veterans for service-connected injuries, and providing hospital care for low-income veterans. However, in 1986 higher-income veterans were also made eligible for some health benefits on a space-available basis.[19] In 2003, the VA treated a total of some 5 million patients.[20]

On an accrual basis, CSBA estimates that funding for veterans' health benefits amounts to some $12,000 per active duty service member.[21] This is the amount of money that would have to be set aside each year for each active duty service members to fully cover the cost of the health care related VA benefits they are likely, in the future, to receive as veterans.

Veterans' disability payments account for most of the remaining VA budget. Veteran disability benefits include both payments made to living veterans who have suffered impairment of earning power due to service-connected disabilities, and benefits paid to survivors (e.g., spouses and children) of service members who either died while on active duty or died as a result of disabilities incurred while on active

[17] OMB, *FY 2005 Budget of the US Government* (Washington, DC: Government Printing Office, 2004), p. 290.

[18] Ibid., p. 281.

[19] Department of Veterans Affairs, FY 2005 Congressional Submission, p. 3B-7.

[20] Ibid.

[21] Murray, "Military Compensation: Balancing Cash and Non-Cash Benefits," p. 3. Veterans benefits are not actually funded on an accrual basis. This figure represents CBO's estimate (converted by CSBA into 2005 dollars) of the amount of money that would be required annually were they funded on such a basis.

duty. The FY 2005 budget includes about $29 billion for VA disability compensation benefits.[22] This funding will be used to provide disability compensation to some 2.6 million veterans, 328,000 survivors and over 1,000 children.[23]

Other benefits provided to veterans through the VA budget include educational benefits (e.g., the Montgomery GI Bill), vocational training and employment, and housing assistance. Altogether, the FY 2005 budget includes about $8 billion to cover these other VA programs and activities, as well as departmental administrative costs. CBO has estimated that, on an accrual basis, funding requirements for veterans' *non-health* benefits (including VA disability, education, training, and housing benefits) amount to about $5,000 per year for each active duty service member.[24]

Other DoD Benefits

Other benefits received by military personnel include the value of DoD's contributions to Social Security and Medicare's Hospital Insurance program fund. These programs function essentially the same for military personnel as they do for civilian workers. As in the case of civilian workers, payment of the payroll taxes that are used to

[22] Department of Veterans Affairs, FY 2005 Congressional Submission, p. 3A-3.

[23] Ibid.

[24] Murray, "Military Compensation: Balancing Cash and Non-Cash Benefits," p. 2.

support Social Security and Medicare are split between employee and employer.[25] CSBA estimates that DoD's share of these costs, plus the costs of some other miscellaneous benefits, amounts to about $3,000 per year for each active duty service member.

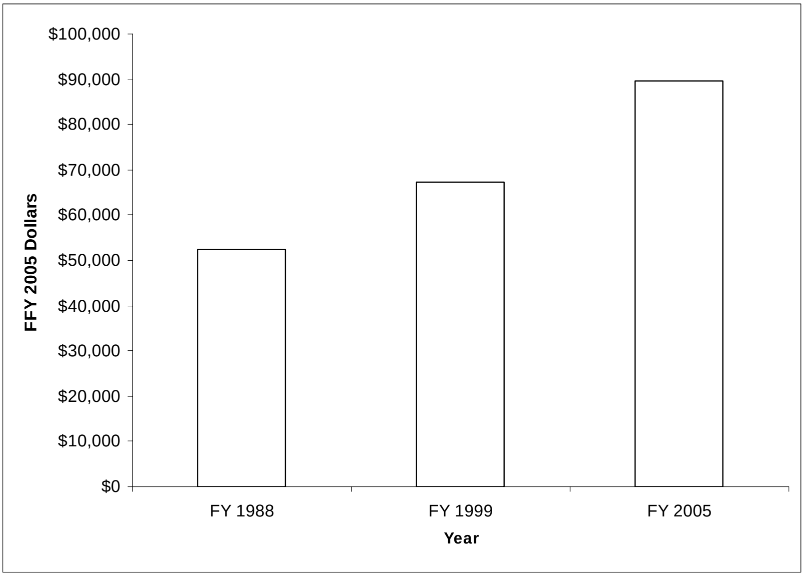
[25] There are three different parts of the Social Security system: the old-age and survivors insurance program (OASI), the disability insurance program (DI), and Medicare Part A hospital insurance (HI). The total OASDI portion of the FICA tax is equal to 12.4 percent of the first $90,000 of wages and the HI tax is equal to 2.9 percent of total wages. The tax is shared by employees and their employers with each paying half of the total percentage.

II. Trends in Military Compensation

Compensation for military personnel has increased substantially, especially since the late 1990s. Determining precisely how much spending on military compensation has increased is difficult because, as discussed in the previous chapter, there are so many different elements included in that compensation, and in some cases consistent historical data upon which to base trends does not exist. That said, three things, at least, are clear. First, overall military compensation levels have increased significantly, especially since the late 1990s; second, much of this increase has been in the form of non-cash benefits, and especially non-cash, deferred benefits for retirees; and third, all but a small fraction of the increase has been provided on an across-the-board basis, rather than targeted to particular individuals or classes of individuals.

Figure 1 provides an estimate—based on the best available data—of how compensation for the average active duty service member has changed since the late 1980s for those components of military compensation funded through DoD's budget (i.e., excluding veterans' benefits). These elements today account for about 85 percent of the average active duty service member's compensation. By this measure, military personnel compensation increased by a total of about 70 percent between 1988 and 2005 in real (inflation-adjusted) terms (unless otherwise noted, all funding or cost changes noted in this analysis are expressed in real terms). The fastest period of growth was between 1999 and 2005, during which time DoD's compensation costs for active duty personnel grew by about 33 percent. This increase was due to a variety of changes instituted in the last two years of the Clinton Administration, or initiated, reinforced or expanded under the Bush Administration.

Figure 1: Military Compensation (excluding Veterans' Benefits) for the Average Active Duty Service Member, 1988, 1999 and 2005



Source: CSBA based on DoD, CBO and other data.

Between 1988 and 1999, military compensation, exclusive of veterans' benefits, grew from about $52,000 to $67,000 for the average active duty service member. Between 1999 and 2005, it grew to about $90,000, an increase of about $22,000 in six years. Table 3 shows a break down of that increase by different types of compensation. Among other things, it shows that more than half the increase (58 percent) was provided in the form of non-cash compensation and some three-quarters of that increase was in the form of deferred benefits. Retiree pay and health benefits represented 43 percent of the total increase.

In addition to being heavily weighted toward non-cash benefits, and especially benefits for military retirees, the growth in compensation over the past five years has been heavily weighted toward across-the-board, rather than targeted increases. Raises in basic pay accounted for about 28 percent of the total increase in compensation between 1999 and 2005. About four-fifths of that increase was provided through across-the-board raises and only one-fifth through targeted pay raises aimed at particular classes of individuals (i.e., pay table reform). Other pays and allowances, which include special and incentive pays, accounted for only 3 percent of the increase in compensation. Thus, altogether, it appears that targeted improvements in compensation have accounted for only perhaps 10 percent of the total increase in compensation provided since 1999.

The discussion below details the major changes in military compensation that have occurred since the late 1980s, focusing especially on the period since the late 1990s.

BASIC PAY

Military pay has been increased substantially in recent years. These increases have come in the form of both across-the-board increases, which are provided to all military personnel, no matter what their rank, Service or occupation, and through increases targeted to particular classes of individuals. In reviewing these increases, it is also important to understand that military personnel receive additional pay raises throughout their career for additional years of service and as they are promoted.

Across-the-Board Pay Raises. In the FY 2000 defense authorization act, Congress specified that future across-the-board military pay raises would be set at half a percentage point (0.5 percent) above the employment cost index (ECI) through FY 2006. The ECI, discussed in more detail in the next chapter, is a broad measure of private sector wage growth.

Military Pay Table Reform. As noted earlier, the Services share a common pay table that is used to determine basic pay levels. In 2000, the Clinton Administration recommended a major revision of the military's pay table to increase the reward for performance (measured by rank) relative to longevity (years of service). This effort was designed especially to help with the retention of mid-level personnel.

These targeted raises substantially boosted the pay of some personnel, well above the increases provided through across-the-the board pay raises. And in no cases did this pay table reform result in reductions in pay. These changes were approved by Congress, and since then targeted changes in the military's pay table have been included in most annual defense authorization acts.

As noted earlier, across-the-board pay raises appear to have absorbed about 80 percent of the funding provided for pay raises over the past six years, with 20 percent going to pay table reform. Taken together, since 1999, these two forms of pay raises have boosted basic pay for the average active duty service member by about 21 percent.

Special and Incentive Pays

CSBA estimates that spending on special and incentive pays, including, for example, enlistment and re-enlistment bonuses, increased by about 17 percent per active duty service member between 1999 and 2005.[26]

Housing

As noted earlier, about one-third of military personnel stationed in the United States live on military bases, while the other two-thirds of military personnel and their families live in off-base housing. Significant efforts have been made to improve military housing benefits in recent years. BAH funding, which pays for off-base housing, grew by about 66 percent per active duty service member between 1999 and 2005. This increase reflects the impact primarily of two factors.

[26] This includes special and incentive pays, and allowances, funded through the regular annual appropriations act. It does not include special pays, such as hazardous duty pay, related to military operations in Iraq and Afghanistan, which are funded through separate appropriations (e.g., emergency supplemental appropriations).

One important factor has been elimination of out-of-pocket expenses for military personnel living in off-base housing**.** Historically, military personnel living off-base were provided with a housing allowance sufficient to cover an average of 80 percent of their housing costs. In 2000, the Clinton Administration announced a plan to eliminate all out-of-pocket expenses for off-base housing over five years. Under that plan, out-of-pocket expenses for off-base housing were to be cut by 4 percentage points in FY 2001, and gradually reduced further until they would be eliminated entirely in FY 2005. With the FY 2005 budget request, the Bush Administration completed the implementation of this plan.[27] The other main driver of the large increase in BAH spending over the past six years has been the general rise in housing costs, which the BAH rate provided to service members tracks.[28]

Military Health Care

Between FY 1988 and FY 2003, total funding for military health care grew from about $15 billion to $28 billion.[29] Over that same time

[27] The BAH rate is set based on local housing costs, family size and rank. The rate is intended to be sufficient to fully cover a service member's reasonable housing costs, adjusted for these factors. If a service member selects off-base housing that is of a higher standard than assumed in this calculation, and thus more costly, she or he must pay the difference. On the other hand, if a service member's housing costs are lower than the BAH rate, she or he keeps the difference.

[28] A small part of the growth in BAH spending per active duty service member stems from the fact that the number of personnel who receive the BAH has grown by about 10 percent since 1999, as a result of DoD's housing privatization initiative. Under this initiative, publicly-owned on-base housing is being replaced by privately -owned on-base housing. While publicly-owned on-base housing is provided as an in-kind benefit to military personnel (and funded through the Services' Family Housing accounts), military personnel living on-base in privately-owned housing units pay rent, just like personnel living off-base. Thus, one effect of DoD's housing privatization initiative has been to increase the number of military personnel receiving the BAH. In turn, since, in this analysis, for each form of compensation spending per active duty service member is calculated by dividing total funding by the military's total active duty end strength (rather than by the total number of personnel receiving the benefit), this change has the effect of increasing average spending on BAH per active duty service member.

[29] Percy, vii. CSBA has converted these estimates into FY 2005 dollars.

period, health care spending per active duty service member has tripled. The rate of growth has been especially great since FY 2000. This increase in military health care spending has a number of sources.

Most of this growth has been caused by the same factors that have affected increases in health care spending for civilian workers. Those factors include costs associated with the introduction of new technologies, changes in treatment standards and changes in utilization rates. According to CBO, per capita health care spending per active duty service members tripled between 1988 and 2003,[30] and more than half of that growth (56 percent) reflected growth in the general rate of inflation for health care.[31]

Another 25 percent of this cost growth was caused by changes in the beneficiary population.[32] As a result of the drawdown in the size of the military that occurred after the end of the Cold War, the number of active duty personnel in the US military declined from some 2.2 million to 1.4 million between 1988 and 2003. However, over that same period, the number of military retirees increased from some 1.6 million to 2 million. Since military retirees tend to incur greater health care expenses than younger active duty personnel, the effect of this change in the mix of beneficiaries has been to increase per capita costs.

The provision of new or expanded health care benefits has also contributed to increases in DoD's health care budget. Most of these benefit improvements were instituted in 2000 or later. These benefits include:

- **TRICARE Senior Pharmacy**. As described earlier, under this program, introduced in 2001, Medicare-eligible military retirees are able to receive prescription medications at military treatment facilities either for free of for a modest copayment.

- **TRICARE For Life.** Prior to FY 2001, military retirees were ineligible for the military's TRICARE health plan once they

[30] Ibid., p. 1.

[31] Ibid., p. 4.

[32] Ibid.

reached 65 years of age, and became eligible for Medicare. But in the FY 2001 defense authorization act, Congress created the TRICARE For Life program. As noted earlier, under this program, TRICARE acts as a "second payer," covering any medical costs not covered by Medicare.

- **TRICARE Prime Remote Expanded**. Prior to 2002, active duty personnel who lived and worked more than 50 miles from a military treatment facility were eligible for a special program called TRICARE Prime Remote. This program was originally designed to provide an alternative form of TRICARE Prime (DoD's managed care option) for military personnel working at remote locations, through the use of a network of civilian providers. In 2002 TRICARE Prime Remote was expanded to also cover family members of active duty personnel living far from military treatment facilities. And in 2003 eligibility was expanded to cover the families of reserve personnel who had been activated.

- **Elimination of Copayments for TRICARE Prime**. In the FY 2001 defense authorization act, Congress eliminated copayments for personnel and family members enrolled in TRICARE Prime.

By far the most costly of these new or expanded benefits is the TRICARE For Life program. This program increased DoD's health care costs by some $3 billion a year. According to CBO, the expansion of military health care benefits accounted for about one-third of the cost growth in military spending per service member between FY 1988 and FY 2003.[33]

Partially offsetting the various sources of cost growth in military health care noted above are a number of changes that have resulted in cost savings over the past decade-and-a-half. These include savings due to the closure of a large number of military treatment facilities. As part of the drawdown in military forces that occurred at the end of the Cold War, the number of military hospitals was reduced by one-third.[34] In addition, DoD achieved some savings through the

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[33] Ibid., p. 8.

[34] General Accounting Office (GAO), *Defense Health Care: Observations on Proposed Benefit Expansion and Overcoming TRICARE Obstacles*, March 15, 2000, p. 3.

introduction of some managed care initiatives in the TRICARE Prime program. Because of these and other savings, CBO estimates that, on *net*, expanded military health benefits have accounted for only about 3 percent of the total increase in military health care that occurred between FY 1988 and FY 2003. Finally, the introduction of accrual accounting for the TRICARE For Life program is responsible for about 18 percent of the increase in health care spending that occurred over this period.[35]

Table 3 shows CSBA's estimate of how much the cost of various military health care activities have grown since 1999. This estimate breaks down health care spending per active duty service member into the same three components discussed in Chapter 1: health care for active duty service members and their dependents; the health care accrual for the Tricare For Life program; and the health care accrual for military retirees under 65 years of age.[36] By far the greatest growth has been in the health care accrual for military retirees age 65 years and over. CSBA estimates that the cost of this accrual has more than tripled since 1999.[37] By comparison, CSBA estimates that the cost of providing health care to active duty service members and their dependents, and the accrual costs of providing health care to military retirees under 65 have grown by some 50 percent. The cost of the full package of health care benefits DoD provides (including all three of these elements) has grown by nearly 90 percent per active duty service member over the past six years.

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[35] Percy, p. 4.

[36] As noted earlier, DoD does not currently fund the cost of providing health care to military retirees and their dependents under 65 on an accrual basis. This estimate was derived based on CSBA's estimate of what those costs would be today and would have been in 1999 if DoD were to fund these benefits on an accrual basis.

[37] DoD did not start funding the cost of providing health care to military retirees 65 years of age and over, and their dependents, on an accrual basis until 2003. This estimate was derived by comparing spending on this accrual in 2005 with CSBA's estimate of the accrual costs of providing this care in 1999. The cost growth is due two factors. First and foremost, the addition of the Tricare For Life program and cost increases associated with that program. And second, cost increases associated with providing health care to these retirees at military treatment facilities (this care was provided by DoD in 1999 and prior years, but was not funded on accrual basis until 2003).

Table 3: Changes in Military Compensation for Average Active Duty Military Personnel, 1999-2005 (excluding VA Benefits) (in FY 2005 Dollars)

Type of Compensation	Dollar Increase	Share of Increase	% Real Change
Cash			
Basic Pay	$5,300	24%	21%
Housing Allowance	$3,100	14%	66%
Subsistence Allowance	$0	0%	0%
Tax Advantage	$200	1%	12%
Other Pays and Allowances	$600	3%	17%
Total Cash	**$9,300**	**42%**	**25%**
Non-Cash			
Immediate Benefits			
Installation-Based Benefits	$1,000	5%	9%
Active Duty Health Care	$2,500	11%	50%
Subtotal	$3,500	16%	21%
Deferred Benefits			
Social Security and Other	$100	0%	3%
Retiree Benefits			
Retirement Pay Accrual	$3,600	16%	59%
Health Care Accrual for Retirees 65+	$4,200	19%	355%
Health Care Accrual for Retirees under 65	$1,700	8%	50%
Subtotal	$9,400	43%	89%
Subtotal	**$9,500**	**43%**	**72%**
Total Non-Cash	**$13,000**	**58%**	**44%**
Total Cash and Non-Cash Compensation	**$22,200**	**100%**	**33%**

Sources: CSBA estimates based on DoD, CBO and other data.

Retiree Benefits

A major focus of efforts to improve military compensation since the late 1990s has been to increase the benefits received by military retirees. In addition to the TRICARE Senior Pharmacy and TRICARE For Life programs discussed above, military pension and disability benefits for retirees have also been expanded in recent years.

Repeal of REDUX. In the FY 2000 defense authorization act, Congress repealed the REDUX retirement measure, enacted in 1986. Under REDUX, military personnel who joined the military after July 31, 1986 could retire after 20 years of service at 40 percent of basic pay, rather than the 50 percent level that applied to those entering service prior to that date. The repeal of this measure means that all military personnel can now retire at 50 percent of basic pay after 20 years.[38]

Concurrent Receipt. Until recently, veterans who received military pensions (i.e., veterans who had remained in service for 20 or more years and thus were eligible to receive retirement pay) could not be provided with both their full pensions from DoD and full disability benefits from the VA. Instead of allowing “concurrent receipt” of both benefits, military retirees had their pensions reduced to offset the value of any disability benefits they also received—though, since the disability benefits, unlike pension payments, are not taxable, the reduction in retirement pay was actually somewhat less than the value of the disability payments.

In the FY 2003 defense authorization act, Congress approved a limited measure that allowed some retirees with combat-related disabilities to receive disability benefits without an offset in their retirement pay. And in the FY 2005 defense authorization act Congress expanded this measure to permit concurrent receipt of both benefits in all cases where retirees had service-connected disabilities rated as 50 percent or greater.

Survivor Benefits Plan (SBP). In the FY 2005 defense authorization act, Congress expanded the level of benefits provided to the survivors of deceased military retirees. Prior to this change,

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[38] Since REDUX was repealed only 13 years after it was enacted, no military personnel ever reach retirement age under that system.

benefits for surviving dependents were reduced at age 62, to account for the fact that survivors then became eligible for Social Security. Under the new legislation, SBP payments will be increased from 35 percent of retired pay to 55 percent, with the raise phased in over a period of years.

As a result of these changes, as well as the substantial increases in basic pay provided over the past six years, CSBA estimates that the cost of the military retirement accrual has grown by nearly 60 percent per active duty service member since 1999. The greatest contributors to this growth have been the repeal of REDUX and the large pay raises implemented over the past six years, followed by the elimination of the prohibition against concurrent receipt of military retirement pay and veteran's benefits for some retirees, and finally, the expansion of SBP benefits.[39]

Installation-Based Based Benefits

As noted earlier, DoD provides a wide range of benefits on military bases, including family housing, military commissaries and exchanges, dependent schools and day care. According to CBO, the value of installation-based benefits grew by some 48 percent per active duty service member between FY 1988 and FY 2002.[40] Child care and family housing are among the areas that have received significant increases. Between FY 1988 and FY 2005, funding for family housing grew by some $1,000 per active duty service member, from about $2,100 to some $3,100. Efforts to improve family housing have included, since 1996, the use of private developers to build and operate new housing on military bases. Overall, CSBA estimates that

[39] Increases in basic pay affect the cost of the retirement accrual because size of the pension payments made to military retirees is a function of the individual's pay level during her or his years in service (generally the average of the three highest paid years).

[40] Murray, "Military Compensation: Balancing Cash and Noncash Benefits," p. 3.

spending on installation–based benefits increased by about 9 percent between 1999 and 2005.[41]

[41] CBO estimates that funding for installation-based benefits grew by 48 percent, or an average of 2.8 annually, between 1988 and 2002. Ibid., p. 3. It is assumed in this analysis that spending on installation-based benefits grew at this rate between 1999 and 2002, in particular, and then increased at the rate of inflation (i.e., stayed flat in real terms).

III. Is Military Compensation Adequate?

Over the years, advocates of higher military pay have frequently argued that military pay lags substantially behind pay for civilian workers. In practice, it is very difficult to compare the salaries for military personnel and civilian workers. Military personnel often work under very different conditions and in very different environments than do civilian workers. Military personnel frequently are deployed overseas, often away from their families, for extended periods of time. Most critically, unlike most civilian workers, military personnel are sometimes asked to risk their lives in the service of their country. Comparing compensation levels is also made difficult by the fact that military personnel receive greater non-cash benefits than civilian workers generally receive. Notwithstanding the complexities inherent in comparing military and civilian pay, however, the best available evidence suggests that military personnel are, overall, adequately compensated.

The most important indication that overall compensation levels are adequate is that the Services have, in recent years, generally been able to meet their recruitment and retention goals. But this conclusion is also supported by various analyses that have attempted to compare military and civilian pay levels adjusted for differences in demographics. These analyses indicate that, overall, military personnel are relatively highly compensated.

In 1999, the Joint Chiefs of Staff (JCS) and others pointed to a purported 13 percent pay gap to back arguments in favor of providing a large pay raise for military personnel and changing the military retirement system to provide more generous benefits than would have been provided under then-current law. However, this gap was not based on a comparison of military and civilian pay *levels*. Instead, the figure reflected a comparison of rates of *change* in military pay and pay in the overall civilian workforce since 1982. The measure was thus of little value in helping to determine whether military personnel were adequately compensated. That said, since this notion of a pay gap has been raised so often in past debates over military compensation, it is worth briefly discussing.

The pay gap cited by the JCS and others was based on a comparison of military pay raises with changes in the ECI—a measure of wage growth in the overall civilian economy—over the 1982-97 period. As an indicator of trends in relative pay, this measure suffered from (and continues to suffer from) several flaws. One problem is with the starting point for the comparison. If different starting points—either earlier or later—were used, the size of the gap in 1997 would have been substantially smaller. For example, if the starting point had been 1980, rather than 1982, the gap in 1997 would have been under 6 percent, while a starting point of 1988 would have yielded a gap of under 2 percent in 1997. Using a starting point of 1982 produces the largest possible gap. But, as the Congressional Budget Office (CBO) has noted, "there is no sound analytic basis for starting the comparison in 1982 rather than earlier or later."[42]

Another reason to question the usefulness of this measure is that, historically, it has not tracked particularly well with changes in recruitment and retention rates. If this purported pay gap provided an accurate measure of relative pay, one would have expected recruitment and retention rates to have suffered greatly during the 1980s, the period of greatest growth in the size of the purported pay gap. But, instead, recruitment and retention rates generally improved over most of this period. Between 1982 and 1987, when the pay gap grew to 9 percent, the number of high-quality recruits increased by

[42] Richard Fernandez, *What Does the Military "Pay Gap" Mean?* (Washington, DC: CBO, June 1999), p. 13.

about one-third.[43] Similarly, over these same years, all of the Services experienced improvements in retention.[44] Moreover, while the purported pay gap held steady at relatively high levels (9-13 percent) from the late 1980s through the decade of the 1990s, it was not until the very end of the 1990s that the Services began to experience any significant problems with overall recruitment and retention rates.

Still another serious problem with the purported pay gap is that it does not take into account differences in the demographics of the military and civilian workforces. Military personnel tend, on average, to be much younger and less educated than civilian workers. Only about 10 percent of US military personnel are over 40 years old, and a majority of military personnel are under 30.[45] By comparison, the median age of workers in the civilian labor force is 41 years.[46] Likewise, military personnel tend to be less highly educated. Most enlisted military personnel have only a high school degree. The vast majority of officers have college degrees, but they make up only about 15 percent of military personnel. In the civilian economy, since 1982, average pay for older workers and those with college degrees has risen faster than has been the case for younger, less educated workers.[47] The fact that military pay grew more slowly than it did for the overall civilian workforce, thus, is not necessarily an indication that military pay grew too slowly to remain competitive.

In order to correct for the demographic differences between the military and civilian workforces, RAND constructed an index called the Defense Employment Cost Index (DECI). The DECI attempts to measure changes in pay for a subset of the civilian population that closely resembles the military workforce in terms of age, education and occupation. By this measure there was no pay gap, at least

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[43] Ibid., p. 11.

[44] Ibid., p. 17.

[45] Ibid., p. 16.

[46] "Aging of the American Workforce: Trends, Opportunities, and Challenges," slide 6, at www.state.tn.us/labor-wfd/forms/J Welsh.pps#259,6,The U.S. Workforce is Aging.

[47] Fernandez, p. 16.

through 1994, when the last data was published.[48]

Although the DECI appears to be a much better tool for considering the adequacy of military pay than the flawed and overly simplistic ECI-based approach used by the JCS and others to support increases in military compensation, it too remains critically flawed. This is because, like the ECI, the DECI only provides insights into how much military pay has changed relative to civilian pay over a specified period of time. It does not measure, or even attempt to measure, differences in pay levels. In a 1999 study, CBO provided such an assessment. What it found was that military personnel are relatively well paid compared to male civilian workers of similar age and education. In fact, the study concluded that, in the case of both enlisted personnel and officers, military pay (defined as RMC in the CBO analysis) falls at about the 75 percentile of pay among comparable civilian workers.[49]

In other words, the average active duty service member of a given age and educational background receives greater pay than 75 percent of all civilian workers of the same age and educational level. The CBO analysis was based on 1997 data. It appears likely that, if anything, the pay of military personnel relative to comparable civilian workers has improved in the years since then. As noted earlier, military personnel have received a series of relatively large pay raises since the late 1990s. Between 1997 and 2005, average military pay increased by about 25 percent (42 percent in nominal terms). By comparison, the ECI grew by 14 percent (30 percent in nominal terms) over this same period. Moreover, during these years non-cash benefits to military personnel also grew substantially.

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[48] Cindy Williams, Assistant Director, National Security Division, CBO, statement before the Subcommittee on Personnel, Committee on Armed Services, March 16, 1995, pp. 10-11.

[49] Fernandez, p. xi.

MILITARY VERSUS CIVILIAN HEALTH CARE BENEFITS

As noted earlier, by far the most costly non-cash benefits provided to military personnel are health care benefits. Comparing military health care benefits with civilian health care benefits is difficult for a variety of reasons, including differences in demographics and types of coverage. Nevertheless, it seems clear both that DoD spends more per capita on health care than is true in the private sector, and that military health care benefits have improved relative to the private sector in recent years.

As discussed earlier in this chapter, the best available data indicates that, adjusted for age and education level, military personnel generally receive higher cash compensation than their civilian peers. And, according to CBO, medical spending per dollar of cash compensation is far higher for military personnel than it is for either federal civilian workers, or private sector workers. In 2002, almost 50 cents was spent on medical care per dollar of cash compensation for military personnel.[50] By comparison, the figure was only about 15 percent in the case of civilian federal workers, and 10 percent for private sector employees.

Moreover, while military health care benefits have generally improved in recent years, they have, in many respects deteriorated for civilian workers. The percentage of private sector employers offering health insurance coverage to current workers fell from 90 percent to 76 percent between 1988 and 1997. Similarly, the number of companies that provide health benefits to retired workers has fallen from about 20 percent in 1997 to 11 percent today. The number of companies requiring workers to pay a share of health insurance premiums has also increased. In 1988, for example, in the case of single-person coverage, 56 percent of companies providing health insurance paid the entire premium. By 1997 this had fallen to 31 percent. Likewise, while copayments and deductibles have been generally reduced or eliminated for military beneficiaries, these costs have increased for most civilian workers.[51]

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[50] Percy, p. 10.

[51] Ibid., pp. 8-9.

The fact that military personnel generally appear to receive better health care coverage than civilian workers, and that this coverage has improved in recent years relative to the private sector, would seem to lend further support to the notion that military personnel are adequately compensated.

TRENDS IN RECRUITMENT AND RETENTION

At the end of the day, the most important indicator of whether military personnel are adequately compensated is whether the Services are able to recruit and retain the number of quality people they need to effectively perform their peacetime and wartime missions. Level of compensation, including both cash and non-cash benefits, is only one of many factors that influences the decisions of individuals to join or stay in the military. But it is clearly an important factor. Whatever analytical studies suggest about the comparability of military and civilian pay levels, significant problems in recruitment and retention would provide important evidence that military pay may be too low. On the other hand, if the Services are able to effectively meet their recruitment and retention goals this would provide strong evidence that compensation levels are adequate. Recent trends in recruitment and retention appear to indicate that, overall, military compensation levels are, indeed, adequate.

Taken as a whole, the quality of personnel in the US military—a critical element in the readiness of US forces—is very high today. As noted earlier, military recruitment and retention trends improved in the 1980s and the Services were able to recruit and retain quality personnel throughout most of the 1990s. Some of the Services fell short of meeting their active duty recruitment and retention goals several years ago. The Army, Navy and Air Force each failed to meet their recruitment goals once or twice over the 1999-2000 period, and several of the Services failed to meet their overall retention goals in one or more years during the 1999-2001 period. The high operational tempo experienced over the past few years as a result of US military operations in Afghanistan, Iraq and elsewhere, has also raised concerns that the Services, particularly the Army, might now suffer substantial shortfalls in recruitment and, especially, retention.

However, the most recent data indicates that the Services' efforts to attract and retain quality personnel have continued to be successful.

All four Services have been able to meet or exceed their active duty recruitment goals since 2000. Moreover, they have also been able to keep their quality standards relatively high. Continuing a trend that began in the 1980s, in recent years over 90 percent of the Services' recruits have been high school graduates and over 65 percent have scored above average on the Armed Forces Qualification Test (AFQT). Recent trends in active duty retention also appear to be generally positive. In 2004, each of the Services met or exceeded most of their retention goals for active duty forces.[52] Whether these trends will remain positive in coming years, especially in the case of the Army, if the US forces remain heavily engaged in Iraq and Afghanistan, is of course a critical (and presently unanswerable) question.

The fact that, overall, active duty military personnel appear to be better compensated than most of their peers in the civilian economy, suggests that the military needs to pay a premium to attract and retain quality military personnel. That is, some amount of higher compensation is needed to offset the sacrifices inherent in a military career and lifestyle. On the other hand, the fact that the US military has generally been able to meet its active duty recruitment and retention goals suggests that the magnitude of the premium currently being paid is probably sufficient.

PROBLEM AREAS

In terms of compensation, the real problem for the Services does not appear to be that too little money is available, or that overall compensation levels are too low, but that its current personnel system and pay structure does not allow the Services to sufficiently differentiate pay levels among military personnel who differ in terms of skills and occupations. By contrast, in the private sector and (to a lesser extent) the non-military public sector, compensation levels can

[52] Lawrence Kapp, "Recruiting and Retention Data for Active Duty Enlisted Personnel (FY 2004)," Congressional Research Service Memorandum, November 28, 2004, pp. 1-3.

vary substantially—and sometimes dramatically—among workers in different occupational specialties.

As discussed earlier, the military's pay table determines basic pay levels based on rank and years of service. Basic pay levels do not vary by occupational specialty, except to the degree that promotion and longevity vary by occupational specialty. Neither does one's occupational specialty in any way affect the vast majority of other cash and non-cash benefits provided to military personnel. The only elements of military compensation that provide a means of differentiating among different occupational specialties are special and incentive pays. However, such pays, on average, account for less than 10 percent of cash compensation for military personnel (and a far smaller percentage of *total* compensation).[53]

Special and incentive pays tend to be quite small or, if large, available to only a relatively small number of Service members. For example, in 1999, between 12 and 26 percent of enlisted personnel received hostile fire pay, but those who did receive such pay were provided an average of only $433-633. This amounted to, at most, a few percent of total cash compensation.[54] At the other extreme, in 1999, the Army's medical officer retention program paid out average bonuses of $36,260. But only 1 percent of Army officers were eligible for the bonus.[55]

Comparative data on cash compensation for different occupational specialties confirms the limited flexibility currently provided by the use of special and incentive pays. With a few exceptions (e.g., aviators, medical and nuclear-trained personnel), the data shows that—despite some targeting of special and incentive

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[53] In 1999, RMC accounted for an average of 91-96 of total cash compensation for active duty military personnel in the four Services. Beth J. Asch, James R. Hosek, and Craig W. Martin, "A Look at Cash Compensation for Active Duty Military Personnel," RAND, 2002, p. 6, Table S.1. Moreover, not all special and incentive pays are allocated based on differences in occupational specialties. For example, such pays are also provided to military personnel serving away from home for extended periods, or in hostile environments.

[54] Asch et al, "A Look at Cash Compensation for Active Duty Military Personnel," p. 7.

[55] Ibid.

pays—the Services provide very similar career and pay opportunities to military personnel, regardless of occupation.[56]

It is sometimes argued that because the current system provides a great deal of internal equity—rewarding military personnel based primarily on their rank and years of service, whatever their occupation—it fosters greater cohesion than would otherwise be the case. However, the cost of the current approach is high.

The military's limited ability to vary compensation, based on occupation, means that it is often incapable of efficiently responding to changes in supply and demand among different occupations. As a result, compared to civilian counterparts in the same occupational specialties, some military personnel are substantially under-compensated (those with skills that are in high demand in the private sector) and others are overcompensated (those with skills that are *not* in high demand). The lack of flexibility in adjusting military compensation to better reflect differences in skills and occupations may go far to explain why the Services have had difficulty retaining personnel in a variety of specialties, even at times when overall retention rates have been relatively high.

[56] Ibid., p. 33.

IV. Are Current Military Compensation and Personnel Management Polices Efficient?

This chapter considers in more detail some of the issues and trends described earlier in this report, and discusses the appropriateness and cost-effectiveness of current compensation policies and recent changes in those policies. It also briefly describes the military's broader personnel management system, and discusses a number of proposed changes to that system which might improve the Services' ability to recruit and retain quality personnel.

As noted earlier in this report, non-cash compensation, and especially deferred non-cash benefits, account for a far larger share of overall compensation for military personnel than they do for most civilian workers. While non-cash benefits account for about 56 percent of military compensation, they account for only 20-35 percent of compensation for the average civilian worker. Likewise, non-cash compensation has accounted for more than half of the increase in compensation provided to active duty service members since 1999.

Providing some forms of non-cash compensation to military personnel is clearly necessary, and it may well make sense to provide military personnel with a higher proportion of their compensation in the form of non-cash benefits than is generally the case in the private sector. The question is whether current policies represent the most appropriate and cost-effective mix and weighting of cash and non-cash benefits.

In general, research indicates that improvements in compensation that provide relatively immediate and easily recognized benefits (such as increases in pay), especially those that are targeted to the classes of individuals the Services most need to keep, and reward performance, rather than time in service, are the most cost-effective. By contrast, increases in compensation that focus on non-cash benefits and especially non-cash benefits that are deferred until service members leave the military, tend to be less cost-effective. Despite these findings, much of the increase in military compensation provided in recent years has been directed to improvements in non-cash, and especially non-cash deferred, benefits.

CASE FOR NON-CASH BENEFITS

Advocates of the military's current compensation policies make a number of arguments for why putting so much money into non-cash benefits makes sense. They argue that the range of non-cash benefits provided by the military helps the Services in at least four ways.[57]

Promotes Military Readiness

In both a broad and indirect sense, and in some cases in a narrow and direct sense, certain forms of non-cash compensation received by military personnel may help maintain high levels of military readiness. An example of a non-cash benefit that might help with military readiness would be physical fitness centers located on military bases. Making such facilities available free-of-charge is likely to encourage military personnel to exercise more frequently than would be the case if they had to pay membership fees like civilian workers at private

[57] The discussion of the relative benefits of non-cash and cash compensation included in this chapter draws heavily from Murray "Military Compensation: Balancing Cash and Non-Cash Benefits"; and Carla Murray, "Transforming In-Kind Compensation and Benefits," in Cindy Williams, ed., *Filling the Ranks: Transforming the US Military Retirement System* (MIT Press: Cambridge, MA, 2004), pp.189-212.

gyms. And a more physically fit military is likely to be more effective at combat and other skills. Likewise, the provision of educational assistance may increase the likelihood that the Services will attract and retain personnel that are highly motivated to learn new skills.[58] This is a less direct benefit, but perhaps an important one for a military that is becoming increasingly dependent on sophisticated information and other technology.

At a much broader level, the fact that military personnel enjoy a range of non-cash benefits, such as family housing, dependent schools, day care centers, and other installation-based benefits, may generate a greater sense of community among military personnel and their families, as well as cohesion among military personnel, than would otherwise be the case.[59] Although in this case the connection to military readiness is relatively indirect, it may nevertheless be important.

Ensures Quality of Life

Another argument in favor of non-cash benefits is that they help ensure that all military personnel and their families enjoy certain benefits typically associated with a good quality of life. This results from the fact that DoD and the Services provide a range of non-cash benefits, such as family housing, and because they set standards for many such benefits. For example, DoD sets standards for on-base housing that specify the number of children per bedroom.[60] DoD day care centers also must meet much higher standards than do most day care centers in the private sector.[61]

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[58] Murray "Military Compensation: Balancing Cash and Non-Cash Benefits," p 4.

[59] Deborah Clay-Mendez, *Military Family Housing in the United States* (Washington, DC: CBO, September 1993), p. xii.

[60] Murray, "Transforming In-Kind Compensation and Benefits," p. 195.

[61] Some 96 percent of DoD child care centers are accredited, compared to only about 8 percent of private child care centers, Murray, "Military Compensation: Balancing Cash and Non-Cash Benefits," p. 5.

Provides a Stable form of Compensation

The perception among military personnel that non-cash benefits are more stable than cash benefits may also make such benefits more highly valued. Strong political constituencies have formed around many non-cash benefits, such as commissary and exchanges, military pensions and health care. Historically, these constituencies, made up of military personnel, families and retirees, have proven highly effective at protecting non-cash benefits from cuts and, in recent years, substantially expanding various non-cash benefits. Because of this degree of political protection, military personnel may place higher confidence in the permanence and stability of these benefits than they do in the case of military pay raises and other forms of cash compensation, the value of which may be more likely to vary from year to year.

Costs Less

A final argument in favor of non-cash benefits is that they can sometimes reduce costs. Generally, economists argue that cash compensation makes more sense than non-cash compensation because, in the former case, employees are free to decide the kind of benefits they wish to purchase, while in the latter case those choices are essentially made for them. This lack of choice makes spending on non-cash benefits less efficient. There are, however, some instances in which non-cash benefits can be economically efficient.

One such instance is where an employer can purchase a benefit for a group of employees more cheaply—per person—than individual employees would be able to purchase the benefit on their own. The most obvious example of this is health care coverage. Because an employer can pool health risk among employees, and reduce overhead costs, most workers are better off with employer-sponsored health insurance than they would be with individual policies. The fact that non-cash benefits provided by the military are generally non-taxable also may make them relatively more economically efficient than cash benefits.[62]

[62] Murray, "Transforming In-Kind Compensation and Benefits," p. 195.

In addition, non-cash benefits may be more economically efficient to the extent that they create a "gift effect." The notion of a gift effect is that providing some non-cash benefits, such as recreation facilities on military bases, may generate a level of good will among recipients out of proportion to the cost of providing the benefits.[63]

CASE FOR FOCUSING MORE ON CASH BENEFITS

Notwithstanding the above arguments in favor of non-cash compensation, the best available evidence suggests that DoD's current approach to military pay and benefits is probably too heavily tilted toward such compensation, especially non-cash deferred benefits. Non-cash compensation suffers from a number of serious shortcomings. One problem with using non-cash benefits as an effective tool for recruitment and retention is that the value of non-cash benefits is often not easily, or accurately, recognized by employees. Another problem is that, by restricting the ability of employees to choose how to spend their compensation, non-cash benefits may provide less value to workers than would an equivalent amount of cash benefit. Finally, while the current system's heavy focus on non-cash compensation may have been appropriate in the past, various changes in the military's mission, requirements and makeup may have made it less appropriate for today's, and perhaps more importantly, tomorrow's military.

Easily Recognized Value

The most visible form of compensation for military personnel is pay and, to a lesser extent, other forms of cash compensation. Because this compensation is provided in the same form (cash) as is the lion's share of compensation for civilian workers, it is easy for military personnel to recognize the value of that compensation. It is much more difficult for military personnel to recognize the value of non-cash benefits.

[63] George Akerlof, "Labor Contracts as Partial Gift Exchange," *The Quarterly Journal of Economics*, Vol. 97, No. 4 (November 1982), pp. 543-569, cited in ibid, p. 196.

Because different elements of military compensation are funded through a variety of different budget titles and accounts, even DoD policymakers and members of Congress lack a full understanding of and appreciation for the cost and value of military compensation. Under these circumstances, it would be surprising if military personnel were able to gauge accurately the value of the non-cash benefits they received.

Unfortunately, there is good reason to believe that military personnel substantially discount the value of non-cash benefits and tend to focus on cash compensation when comparing themselves with civilian workers. According to one study, most employees in the private sector believe that their non-cash benefits packages are worth only about 70 percent of what they actually cost their employers to provide.[64] Since non-cash compensation accounts for a far larger share of compensation for military personnel than it does for civilian workers, focusing primarily on cash compensation may leave military personnel believing that they are under-compensated compared to their civilian counterparts. This, in turn, may reduce the ability of the military to recruit and retain quality personnel.

Military personnel are especially likely to discount the value of *deferred* non-cash compensation. One study found that most military personnel had an average discount rate of at least 18 percent. This means that for the average service member, compared to a dollar provided today, a dollar provided next year was perceived to be worth only about 85 cents and a dollar provided 20 years down the road was perceived to be worth only some 4 cents.[65]

Greater Choice

As noted earlier, another shortcoming of non-cash benefits is that such benefits restrict the choice of employees. In the case of cash compensation, workers are able to choose how to spend their

[64] Edward E. Lawler, III, *Rewarding Excellence: Pay Strategies for the New Economy* (San Francisco, CA: Jossey-Bass, 2000), p. 99.

[65] John T. Warner and Saul Pleeter, "The Personnal Discount Rate: Evidence from Military Downsizing," *American Economic Review*, Vol. 91, No. 1 (2001), pp. 33-53.

compensation. Thus, although there may be some exceptions, providing cash compensation rather than non-cash benefits generally allows employees to better maximize the value of their compensation. This limitation of non-cash benefits is made even more problematic by the fact that many such benefits are not targeted to the individuals most likely to value them. For example, installation-based benefits, such as commissaries and exchanges, child care centers, and fitness centers, are generally located on military bases without regard to whether equivalent commercial facilities are available off-base within the local community. Yet such installation-based benefits are likely to be far more highly valued by personnel and families living in isolated areas than those stationed within or near major urban areas.

Greater Consistency with Current Requirements

Advocates of shifting the military personnel system away from non-cash benefits to a system more heavily weighted toward pay and other forms of cash compensation also argue that the current system lacks the flexibility needed to effectively manage personnel requirements in today's strategic environment, especially given various demographic and other trends. One reason for this is that it is generally easier to target cash compensation to particular classes of individuals in the military than it is to target non-cash benefits. Since, as discussed earlier, the Services' recruitment and retention problems tend to be focused on particular classes of personnel, including those with skills that are in high demand in the civilian economy, the ability to target increases in compensation is important if overall cost growth in military compensation levels is to be effectively controlled.

The current system's focus on non-cash benefits may also be inconsistent with efforts to transition to a more expeditionary military and one more dependent on reserve personnel. Many non-cash benefits are provided through facilities found on large fixed bases. As active duty military personnel are more frequently deployed away from such bases, they will be less able to take advantage of those benefits than was true in the past. Likewise, reserve personnel and their families, who frequently reside in communities distant from major military bases, may be poorly positioned to take advantage of many non-cash benefits even after they are mobilized.[66]

EVALUATING THE COST-EFFECTIVENESS OF RECENT CHANGES IN MILITARY COMPENSATION

The above discussion raises serious questions about the cost-effectiveness of some of the changes in military compensation instituted since the late 1980s, and especially the late 1990s. As noted in Chapter Two, more than half of the additional funding provided for military compensation in recent years has gone towards improving non-cash benefits, and especially non-cash deferred benefits. Among the most costly of these changes have been a number of measures directed at providing more generous benefits to military retirees, particularly, the repeal of REDUX and the enactment of the TRICARE For Life program.

A case could be (and was) made for both of these changes on equity grounds. Advocates of repealing REDUX (the Military Retirement Reform Act of 1986) argued that it was unfair because those covered by the REDUX retirement system would be provided with less generous pensions if they retired after 20 years than other military retirees (those who entered service on or before July 31, 1986).[67] For their part, advocates of the TRICARE For Life program argued that military retirees had been promised access to health care for their lifetimes and that this access had materially deteriorated in the 1990s, due—among other things—to the closure of many military hospitals and other treatment facilities as part of the post-Cold War drawdown.

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[66] Murray, "Transforming In-Kind Compensation and Benefits," p. 199.

[67] As noted earlier, under REDUX, military personnel were eligible to retire after 20 years of service at 40 percent of basic pay. By contrast, under prior law (and, after the repeal of REDUX, current law) military personnel were eligible to retire after 20 years at 50 percent of basic pay.

However, as means of improving military recruitment and retention, these changes were probably not very cost-effective. As noted earlier, military personnel, like civilian workers, tend to discount heavily the value of dollars projected to be provided in future years. And, in any case, only about one-in-five of those who join the military remain in service for the 20 years needed to qualify for retirement benefits, further reducing the strength of retirement benefits as a lever for improving recruitment and retention.

The limited extent to which retirement pay typically affects decisions to join or remain in the military was suggested by a 1999 CBO study. In that study, which was based on a statistical comparison of retention rates among a group of military personnel covered by REDUX and another similar group of military personnel covered under the previous retirement system, CBO found that REDUX had not caused any significant exodus of mid-career personnel.[68] Similarly, a 2000 study by the Government Accountability Office (GAO)[69] noted that concerns about health care benefits for military retirees appeared to have little impact on retention decisions. Specifically, the study cited a 1999 DoD survey of military personnel in which only 3 percent of respondents indicated that the quality of retiree health care was a top concern.[70]

Moreover, in both case, the changes were made quickly—under considerable political pressure—with little consideration given to whether more cost-effective options for improving retiree benefits might be found. In the case of REDUX, those advocating its repeal ignored the fact that it had been enacted not simply to save money, but because it was believed that the new system would actually help the Services retain the quality personnel they needed. REDUX was enacted in 1986, in part, because it was widely believed, at the time,

[68] Statement of Christopher Jehn, Assistant Director, National Security, CBO, on Military Pay and Benefits, before the Subcommittee on Military Personnel of the House Armed Services Committee, February 25, 1999, p. 4.

[69] Formerly the General Accounting Office.

[70] Statement of Stephen P. Backhus, Director, Veterans' Affairs and Military Health Care Issues, Health, Education, and Human Services Division, GAO, "Defense Health Care: Observations on Proposed Benefit Expansion and Overcoming TRICARE Obstacles," before the Subcommittee on Military Personnel, House Armed Services Committee, March 15, 2000, p. 13.

that providing 50 percent benefits after only 20 years of service was harming the Services' ability to retain personnel *beyond* 20 years. By reducing the size of military pensions to 40 percent of basic pay after 20 years, but allowing personnel to increase the amount they would receive by 3.5 percentage points annually for every year beyond 20 years that they remained in Service, it was believed that REDUX would encourage more personnel to stay for up to 30 years.[71]

Concerns about the negative impact on retention of providing such generous benefits after 20 years of service were long-standing. Between 1947 and 1986, seven major study groups, appointed by the executive branch or Congress, considered possible changes to the retirement system. The recommendations of these groups differed in many respects. But every one of the seven groups recommended that the immediate retirement benefits received by military personnel leaving after 20 years of service be reduced to less than 50 percent of basic pay, as a means of encouraging personnel to stay longer.[72] Thus, REDUX was repealed against the better judgment of decades of experience.

Worse yet, perhaps, there were substantial opportunity costs associated with the repeal of REDUX. Advocates of its repeal claimed that such a change was needed to maintain equity between military personnel who joined before and after REDUX was enacted in 1986. However, a greater inequity may be that while military personnel who remain in service for 20 years receive a substantial pension, those who leave service after less than 20 years of service (accounting for some 80 percent of those who join the military) receive no pension at all.

Rather than enhancing the pensions of those with 20 years of service, the additional funding associated with the repeal of REDUX

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[71] By comparison, under the prior system and current system, the value of military personnel pensions increases at 2.5 percentage points each year after 20 years of service. Because of the accelerated rate at which retirement benefits were accumulated after 20 years of service, under REDUX military personnel would have been able to retire after 30 years of service with the same benefits (75 percent of basic pay) as they could prior to REDUX or under the current system.

[72] Steven M. Kosiak, "Military Compensation and Retirement Issues," testimony before the Subcommittee on Military Personnel of the House Armed Services Committee, February 25, 1999, p. 3.

could have been used to help defray the cost of providing at least some modest retirement benefits for those who serve for less than 20 years. One such option would have been to provide military personnel with a retirement system similar to the Thrift Savings Plan (TSP) that exists for civilian federal workers. Under TSP, the federal government matches contributions (up to a maximum of 5 percent of salary) made by employees into a tax-deferred savings plan.[73]

In short, even if it is assumed that retirement pay should, indeed, have been improved in the late 1990s, whether on equity or other grounds, it is far from clear that repealing REDUX was a prudent—let alone the most prudent—option for doing so. Similarly, in the case of the TRICARE For Life program, there may have been other options that would have addressed the legitimate concerns of military retirees concerning their access to health care, but have better controlled costs.

Increases in Cash Compensation

By comparison, the various improvements in cash compensation implemented in recent years have probably had a more positive impact on military recruitment and retention efforts. As noted earlier, most research indicates that cash payments made upfront are more effective tools for recruitment and retention than non-cash benefits, and especially deferred non-cash benefits. That said, not all cash benefits are likely to prove equally cost-effective.

Military personnel have received substantial annual across-the-board pay increases each year since the late 1990s. As result of 1999 legislation, military personnel were promised annual across-the-board increases equal to the ECI plus 0.5 percent through at least 2006. Because retention problems tend to be limited to particular classes of personnel, such as service members in certain occupations or age cohorts, across-the-board increases—which apply to all military personnel equally—tend to be relatively inefficient tools for meeting personnel requirements. Such increases accounted for about four-fifths of the increase in basic pay provided since 1999.

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[73] TSP is similar to 401(k) plans used in the private sector.

Probably more effective than the across-the-board increases in pay implemented since the late 1990s have been the various efforts made to reform the military's pay table, begun in 2000, and the provision of greater funding for bonuses and other special pays. It is difficult to measure the precise impact of DoD's changes to the military's pay table. It is likely, however, that these changes—by increasing the extent to which military personnel are rewarded for performance (measured by rank) relative to longevity (years in service)—have helped improve the ability of the Services not only to retain personnel, but to retain the quality personnel they most want and need to retain. Unfortunately, only about one-fifth of the increase in basic pay provided over the 1999-2005 period was allocated to pay table reform.

Even more appropriate, as a means of effectively addressing recruitment and retention concerns, may have been the increased levels of funding provided in recent years for bonuses and other special pays. These can be more effective than across-the-board pay increases, or even pay table reform, because such benefits can be directed towards the specific occupational categories or other classes of individuals the Services are most concerned about attracting. Increases in funding for special and incentive pays has accounted for only about 3 percent of the increase in active duty compensation provided since 1999.

It is difficult to determine how large an impact these various increases in cash compensation implemented in recent years have had on the Services recruitment and retention efforts. It seems likely that some money could have been saved, at little or no cost in terms of personnel quality, had a greater share of the increased cash benefits provided over these years been targeted to the most critical classes of personnel, rather than to across-the-board increases. However, it seems reasonable to conclude that taken together these improvements in pay and other cash benefits may have gone far toward stemming the modest recruitment and retention problems experienced around the year 2000. It also seems reasonable to conclude that absent some of these improvements, the much higher personnel tempo that has affected military personnel, and Army personnel in particular, since the terrorist attacks of September 11, 2001, may have had a substantially greater impact on recruitment and retention than it has had to date.

Military Personnel Management Structure

Making greater use of cash compensation and relatively less use of non-cash, and particularly non-cash deferred, compensation, would likely improve the cost-effectiveness of the Services' recruitment and retention efforts. However, such a shift in compensation, by itself, could fall well short of what may be needed if the Services are to meet effectively their personnel requirements in the future. Much research indicates that successfully meeting these requirements will require that DoD make a number of other changes, some of which may involve a fundamental restructuring of its current personnel management system.

A full discussion of how the military's personnel management structure—which involves far more than simply military compensation—might be transformed to make it better able to meet future requirements is beyond the scope of this report. However, it is worth noting some of the more important changes that have been proposed in recent years.

Businesses are increasingly emphasizing *external* equity and competitiveness over internal equity.[74] External equity means ensuring that workers are compensated at levels that fairly reflect what their skills would be worth on the open market.[75] This trend is driven in part by a growing divergence between pay levels for different occupations in the private sector.[76] Given this trend, the large number of occupational specialties in the military, and the growing importance to the military of many occupations with counterparts in the private sector, the Services will likely be able to meet their future personnel requirements only if they adopt an approach that allows for substantially greater differentiation in compensation levels among various occupational specialties than does the current system.

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[74] Thomas M. Strawn, "The War for Talent in the Private Sector," in Cindy Williams, ed., *Filling the Ranks: Transforming the Military Personnel System* (Cambridge, MA: MIT Press, 2004), p. 72.

[75] By contrast, *internal* equity focuses on maintaining perceived fairness in pay among employees within the same company, whatever their skills or occupations.

[76] Strawn, p. 72.

One option would be to make greater use of enlistment and re-enlistment bonuses to attract and retain military personnel with critical skills. A more fundamental shift, advocated by some, would be for the military to adopt a comprehensive skill-based pay system, which would include new pay tables that would determine pay levels based not only on rank and longevity, but also occupational specialty.[77] In this case, however, care would have to be taken to ensure that the new pay tables could—and would—be adjusted over time to reflect changes in supply and demand for various occupations.[78]

Another concern relates to the fact that the current military personnel system is essentially a closed system. In contrast to private sector practices, with a few exceptions (e.g., doctors), DoD does not permit lateral entry into the Services. Instead, to meet staffing requirements, it must draw—almost exclusively—upon personnel recruited into the military soon after high school or college. Some have proposed that the military make more extensive use of lateral entry, and allow the Services to hire mid-career personnel to fill a wide range of occupations.[79]

Proposals have also been made to allow for greater variation in what constitutes a military career, both in terms of the amount of time spent in particular assignments and jobs, and years of service. Under the current system, military personnel face an "up or out" situation. The more quickly they are promoted, the more rapidly their basic pay increases. Moreover, if they do not progress quickly enough through

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[77] See, for example, Donald J. Cymrot and Michael L. Hansen, "Overhauling Careers and Compensation," in Cindy Williams, ed., *Filling the Ranks: Transforming the Military Personnel System* (Cambridge, MA: MIT Press, 2004), pp. 128-129; and Martha E. Koopman and Heidi L.W. Golding, "Optimal Manning and Technological Change," CNA Research Memorandum 99-59, July 1999.

[78] Historically, bonuses have often been reduced after the Service's have reached their recruitment and retention goals. By contrast, compensation levels set in the basic pay table have never been reduced in nominal terms. Paul F. Hogan, "Overview of the Current Personnel and Compensation System," in Cindy Williams, ed., *Filling the Ranks: Transforming the Military Personnel System* (Cambridge, MA: MIT Press, 2004).

[79] For a discussion of the potential advantages and disadvantages of lateral entry, see RAND, "Evaluating Options For Expanding Lateral Entry into Enlisted Military Occupations," National Defense Research Institute Research Brief, www.rand.org/publications/RB/RB7562/RB7562.pdf.

the promotion process, they are forced out of the military. Since military personnel must generally change jobs when they are promoted (for example, moving from a technical position to a supervisory position), this system greatly limits the ability of the Services to benefit from the increased productivity that typically accrues to more experienced workers. One proposal to get around this problem is to adopt broadband pay structures, as the private sector increasingly has done.[80] Such a structure would allow the military to reward top performers through pay raises, without having to promote them and move them to new jobs.

Accepting greater variation in the length of careers in the military could also help the Services better meet their personnel requirements. As noted earlier, under the current system, active military personnel become eligible for pensions after 20 years of service, and may begin receiving their pensions as soon as they leave the military. By contrast, military personnel who remain in active service for anything less than 20 years receive no retirement pay.

This system creates an incentive for personnel to either leave the military after only one or two enlistment terms (two thirds of enlistees stay for only a single term), or to leave after 20 years. It discourages personnel from staying for anything in between (e.g., 10-15 years), since such personnel would have committed a significant portion of their working life to the military, but would leave service having accumulated no retirement benefits. Likewise, since they can begin receiving their pensions immediately upon leaving the military, the current systems creates a strong incentive for those with 20 years of experience to leave as soon as they reach the 20-year mark.

The military's retirement system differs dramatically from that generally found in the private sector. Some 59 percent of private sector workers are covered by some type of retirement plan.[81] Most of these plans consist of defined contribution plans, like 401(k)s, into which employees can contribute tax-deferred savings that are typically matched by employer contributions equivalent to 3-6 percent of

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[80] Under such a system, the Services could provide various levels of pay (with a certain range) to personnel with the same rank and years of service.

[81] "Benefits: Many Come Up Short," *CNN/Money*, November 10, 2004, money.cnn.com/2004/11/09/pf/benefits.

salary. Typically, workers become eligible to participate in these plans within 3-5 years of being hired.[82]

A number of critics have proposed that the military adopt a defined contribution plan that military personnel would become fully vested in after 3-5 years.[83] This step would improve the ability of the Services to compete with the private sector, by allowing them to attract and retain some personnel who might be interested in an extended military career, but one lasting less than 20 years. In 2000, Congress enacted a measure that allowed military personnel to contribute up to 7 percent of their pay to the TSP (the 401(k)-type plan provided for civilian federal employees). However, this measure did not mandate a matching contribution by the Services.[84]

Another management tool that could help the Services increase their flexibility in the management of military personnel would be greater use of selective separation payments. The current military retirement system creates a strong incentive for military personnel who have reached 10-12 years of service to stay in the military for the 20 years needed to qualify for retirement benefits.[85] This pull of retirement benefits makes it more difficult for the Services to manage their requirements for personnel with 10-20 years of experience. The Services are reluctant to involuntarily separate from service all but the poorest performers in this group out of concern that involuntary separations at this point in their careers (as they approach the 20-year mark) would be widely viewed as unfair and opportunistic—and would thus harm morale. Through the provision of separation benefits, such as lump sum payments or annuities, the Services would be able to

[82] "The Perfect 401(k)," CNN/Money, February 13, 2002, money.cnn.com/2002/02/13/retirement/perfect_401k.

[83] See, for example, *The Defense Science Board Task Force on Human Resources Strategy* (Washington, DC: Defense Science Board, February 2000), p. 75; and Beth Asch, Richard Johnson and John T. Warner, *Reforming the Military Retirement System* (Santa Monica, CA: RAND, 1998).

[84] The law does provide the Services with the option of matching the contributions of military personnel in certain critical specialties.

[85] Mark E. Gebicke, Director, Military Operations and Capabilities, National Security and International Affairs Division, GAO, "Military Retirement: Proposed Changes Warrant Careful Analysis," Testimony before the Subcommittee on Military Personnel or the House Armed Services Committee, February 25, 1999, p. 12.

encourage some personnel in these cohorts (e.g., those with skills in which they had excess capacity) to voluntarily leave the military before reaching the 20-year mark.

Various measures have also been suggested that would improve the Services ability to retain some military personnel for *more* than 20 years. Historically, youth and vigor have been critical attributes of military forces. However, increasingly military capabilities are coming to rest more on experience and technical prowess, enhancing the value to the Services of more senior personnel. As discussed earlier in this report, the REDUX retirement system (repealed in 1999) was designed in part to improve incentives for military personnel to remain in the military for more than 20 years. Other proposals include offering bonuses and other financial incentives to personnel who remain in the military for 20-40 years.

In addition to changing the military's pay and retirement systems, a number of proposals have been made to change the way in which DoD and the Services provide service members with various non-cash benefits. One option would be to convert some of these benefits, such as family housing, commissary privileges, and child care, to cash benefits. Another option would be to adopt a "cafeteria plan," similar to that offered by many businesses. In this case, military personnel would be allowed to choose between different in-kind benefits, or between taking in-kind benefits or cash. Still another option would be for DoD to take steps to improve the efficiency with which some in-kind benefits are provided to military personnel by placing the government owned entities that often provide such benefits on a more equal footing with private contractors, and perhaps forcing them to compete with such contractors.[86]

GUIDELINES FOR CHANGE

If the US military is to continue in coming decades to recruit and retain the quality personnel it needs, it may need to make some significant changes in the way it compensates and manages its

[86] For a detailed discussion of these options, see Murray, "Transforming In-Kind Compensation and Benefits," pp. 204-11.

personnel. These changes are necessary not only—nor even perhaps primarily—because the current system is less cost-effective than it could be, and may prove unaffordable over the long term. More than that, these changes are needed to ensure that the Services will indeed be able to attract and retain the kind of quality people they will need in coming years.

The US military's personnel system has changed remarkably little since the late 1940s, when many of the rules governing the structure of military pay, retirement and other benefits, were established. Even the adjustments made during the transition from a conscript military to an all volunteer force beginning in 1973, did not fundamentally alter the structure created at the end of World War II.

However, the past 50 years have witnessed significant changes in economic, cultural demographic and other critical aspects of American life. Among other things, the gap between the pay of college and non-college educated workers has increased, military spouses are now far more likely to work outside the home, and individual's expectations about careers and professions have changed.[87]

Just as importantly, the missions, capabilities and personnel requirements of the US military have changed as a result of changes in the geopolitical environment, technology and other factors. To name but a few of these trends: the military's capabilities have become increasingly dependent on advanced information and other technologies; fewer personnel are stationed overseas with their families; the military has become more expeditionary in nature; and the military has become more dependent, for some missions, on reserve personnel.

The goal of the various proposals described in this chapter is to transform the US military's compensation and related management practices to better reflect the changes that have occurred over the past half century, and are likely to occur in coming years—both in the civilian world and the national security field. The failure to substantially modify the current approach to military personnel compensation and management will likely prove very costly not only in budgetary terms, but in terms of military capabilities as well. This is

[87] Williams, *Filling the Ranks*, p. 10.

because without such changes the Services could well fall short in their efforts to recruit and retain the kinds of high-quality personnel they need.

In modifying the military's current personnel compensation and management structure, policymakers will need to carefully weigh the strengths and weaknesses of the various proposals discussed in this report, as well as other proposals, for improving that structure. Notwithstanding the criticisms noted in this chapter, the current system has some important, positive attributes. For example, the simplicity and stability of the current pay table makes service members confident that they can relatively accurately forecast their future earnings, during the course of their careers.[88] Conversely, some of the proposed changes outlined in this chapter may have serious limitations and shortcomings. For instance, substantially expanding the Services use of lateral entry for military personnel might create personnel management problems if such personnel (who would lack military command experience) were promoted to positions with significant command authority.[89]

Not all of the proposed changes discussed here may, upon closer examination, prove wise or cost-effective. Policymakers will also need to make sure that those options that are selected complement each other (and do not work at cross-purposes) such that they create a coherent package of reforms.

Recommending precisely how the military's personnel compensation and management system should be altered to make it more affordable and better suited to the requirements of the 21st Century is beyond the scope of this report. Drawing upon the above discussion of the current system's problems and various options for improving that system, however, it is possible to set out some general

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[88] For a discussion of some of the strengths of the current system, see, Beth Asch and James Hosek, *Looking to the Future: What Does Transformation Mean for Military Manpower and Personnel Policy* (Santa Monica, CA: RAND, June 2004), pp. 17-19.

[89] A skilled recruit from the private sector might work fine in a technical position, but it is less clear that such a person—lacking the experience gained in a traditional military career—would have the skills needed for effectively commanding other military personnel. Cymrot and Hansen, p. 128.

guidelines for how the system should changed. Among other things, an effectively transformed military personnel system would:

- Make relatively greater use of cash compensation as a means of rewarding military personnel, and less use of non-cash compensation, especially deferred non-cash compensation;

- Make greater use of targeted pay raises, rather than across-the-board increases;

- Allow greater differentiation in compensation among different occupational specialties, whether through further pay table reform or expanded use of bonuses and other special pays;

- Provide enhanced financial incentives, including retirement benefits, for military personnel who opt to remain in the military for less than 20 years;

- Allow the Services to make use of separation pays and other incentives to encourage some mid-career personnel to leave the military before reaching the 20-year mark, and to encourage others to remain in the military for more than 20 years; and

- Shift, over time, to a retirement system that (in structure if not necessarily in benefit levels) is more in line with those in the private sector and the non-military public sector.

Whatever changes are ultimately decided upon, great care will have to be taken to ensure that they are implemented in a way that treats fairly those military personnel who have come to rely upon—and in many cases have made career decisions based upon—the military's current personnel compensation policies and management system.

In many cases, it will likely be appropriate to "grandfather" benefits, so that the changes will affect only new military personnel, or to give current military personnel the option of being covered under either the old or the new system. It will probably also make sense to implement some of the changes gradually over a period of years, rather than quickly and comprehensively.[90] Lastly, great care will need

[90] The potential importance of implementing some reforms gradually can be seen in the case of the REDUX retirement system, enacted as a reform of the

to be taken to fully and clearly explain any pending benefit changes, including the rationale for the changes, to military personnel, their families and military retirees.

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retirement system in 1986 and repealed in 1999. Under REDUX, military personnel retiring with 20 years of service in 2006 and beyond were to receive benefits equivalent to 40 percent of basic pay, rather than 50 percent. This change may have been more readily accepted among military personnel and others had the reduction in retirement benefits it mandated been applied gradually (e.g., cutting benefits to 49 percent of basic pay for those retiring in 2006, to 48 percent for those retiring in 2007, and so on, until in 2016 the benefit would have declined to 40 percent of basic pay).

V. Impact of Military Personnel Costs on Other Defense Priorities

Quality people are widely recognized as being the most important determinant of military effectiveness. But they are not the only determinants of success. Other considerations, such as access to modern weapons and other equipment, rigorous operational training, and efficient maintenance and repair of equipment and facilities, are also critical to military effectiveness. Since at least the late 1990s, concerns have emerged that growth in military compensation costs may undermine the ability of the US military to adequately fund these other critical requirements.

This chapter discusses military personnel costs in the context of the overall US defense budget. It examines trends in the share of the defense budget allocated to personnel compensation, and the impact of cost-growth in this area on other DoD programs and priorities. It focuses, in particular, on the question of whether rising military personnel costs may, in coming years, threaten the Services' ability to transform and modernize their forces. It also briefly discusses the extent to which new weapons systems and other equipment may be able to substitute for military personnel in the future.

MILITARY COMPENSATION AND OTHER DEFENSE PROGRAMS AND ACTIVITIES

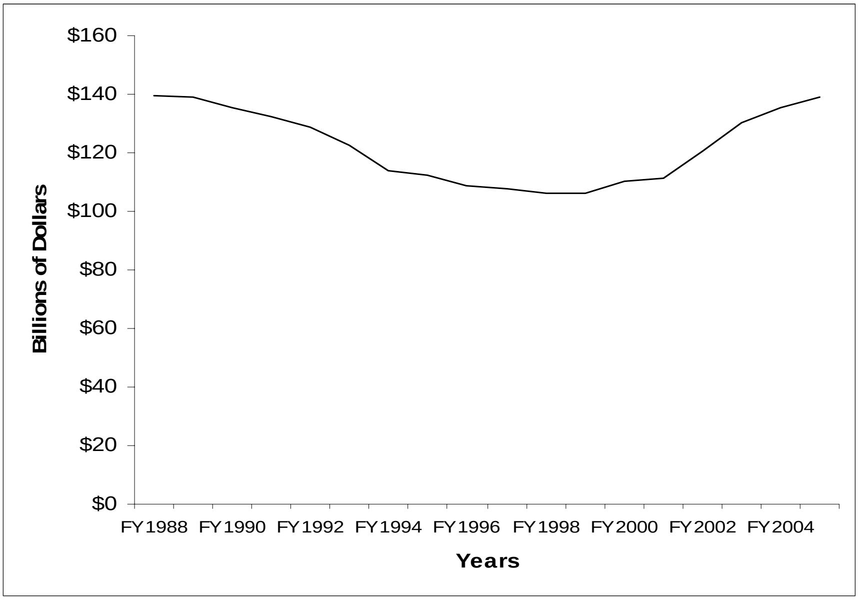
Exclusive of costs associated with the ongoing military operations in Iraq, Afghanistan and elsewhere, DoD's FY 2005 budget provides about $139 billion for various types of military compensation. In addition, the VA budget for FY 2005 includes some $67 billion in benefits for military personnel, their dependents and survivors.

The overall DoD budget for FY 2005 amounts to $402 billion, exclusive of war costs. At $139 billion, military compensation currently accounts for about 35 percent of the regular annual DoD budget.[91] By comparison, the FY 2005 defense budget contains $70 billion for the development new weapons and other equipment, and $78 billion for the procurement of new weapons and other equipment. Taken together, these two weapons acquisition accounts absorb some 37 percent of DoD's regular annual budget. The remaining $115 billion, or 29 percent, of DoD's budget is used to fund a range of activities—including pay and benefits for civilian DoD employees—related to the operations, maintenance and repair of military equipment and facilities, as well as training, transportation, supply and various infrastructure support functions. Thus, today, DoD's regular annual budget is relatively evenly divided among military personal, weapons acquisition, and readiness and other spending.

It is difficult to track precisely how the share of DoD's budget allocated to military compensation has changed over time. This is because military compensation costs are funded through a wide variety of different accounts and because available historical data on these costs suffers from some significant limitations. Nevertheless, it is possible to derive a rough estimate of trends in this area. Figure 2 provides such an estimate—based on the best available evidence—for the FY 1988-2005 period. Figure 3 shows how funding for military compensation has changed over those same years as a share of the overall DoD budget (excluding war costs).

[91] This figure includes compensation for both active and reserve military personnel, as well as funding to cover change of station cost and some other minor-personnel related costs.

Figure 2: Total DoD Funding for Military Compensation, FY 1988-2005 (in billion of FY 2005 dollars)

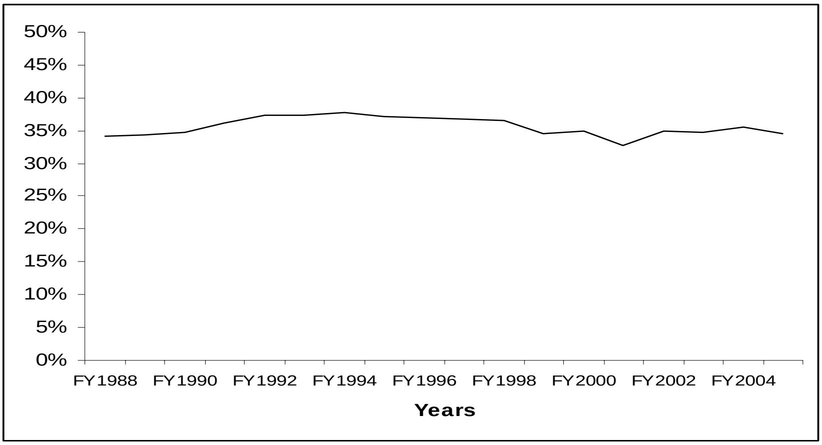


Source: CSBA based on DoD and CBO data.

What these graphs show is that overall DoD funding for military compensation has generally hovered in the $110 billion to $140 billion range for the past 20 years, and that the share of DoD funding allocated to these costs has also remained relatively constant, at around 35 percent. These patterns may seem inconsistent with the trend toward increased spending per service member discussed in Chapter Two. The explanation is that, although funding *per troop* increased, total end strength declined during much of this period. Active duty end strength fell from a total of some 2.174 million troops in 1987 (the peak of the 1980s) to 1.384 million troops by the end of 2000. Similarly, the number of reserve personnel dropped from 1.151 million in 1987 to about 865,000 in 2000.

A somewhat closer reading of Figures 2 and 3 reveals that although there has not been a clear upward trend in funding for military personnel over the course of the past decade-and-a-half (either in terms of total dollars or as a share of DoD funding), there has been a noticeable upward trend over the past half decade. As discussed in Chapter Two, beginning towards the end of the Clinton Administration a number of major changes were made to improve various elements of military compensation. Taken together, these changes caused military compensation, exclusive of veterans' benefits, to grow by about 24 percent between 1999 and 2005 for the average active duty service member. Since end strength reductions were completed in 2000, these increases in spending per troop led to an increase in overall DoD funding for military personnel over these years.

Figure 3: Total DoD Funding for Military Compensation as a Share of the Overall DoD Budget, FY 1986-2005



Source: CSBA based on DoD and CBO data.

FUTURE FUNDING REQUIREMENTS FOR MILITARY COMPENSATION

It is impossible to know with certainty the level of funding that will need to be provided for military pay and benefits in the future. It is, however, possible to make a rough estimate of likely funding requirements, based on different assumptions about cost growth in various elements of military compensation. For purposes of this analysis, it is useful to consider likely cost trends in four areas: military personnel appropriations, family housing appropriations, the defense health program, and installation-based and other DoD-funded benefits. (This analysis does not attempt to estimate future funding requirements for VA benefits.)

Military Personnel Appropriations: In a September 2004 report, CBO estimated that under the Bush Administration's current long-term plan, military personnel appropriations would grow at an average annual rate of about 1.7 percent between FY 2005 and FY 2022. This estimate is based on the assumption that DoD would implement the pay raises projected in DoD's February 2004 Future Years Defense Program (FYDP) for FY 2006-09 (averaging 3.4 percent in nominal terms), and that thereafter military pay raises would be set to match changes in the ECI.[92] It also assumes that funding for the military health care accrual, which is intended to cover the health care costs of military retirees and their dependents after they reach age 65 (i.e., the TRICARE For Life program), would increase at an average annual rate of about 4.3 percent—consistent with projections by DoD's actuaries.[93] Taken together, these increases in military personnel costs would increase the level of funding that the Services would be required to provide through their military personnel accounts from about $104 billion in FY 2005 to $138 billion in FY 2022.

Family Housing Appropriations: For the purposes of this analysis, it is assumed that funding for military family housing will need to be increased at the same rate in the future as funding in Services' military personnel accounts, roughly 1.7 percent annually. In this case, appropriations for family housing would have to be increased from about $4 billion today to some $6 billion in FY 2022.

Defense Health Program (DHP): Based on CBO data, it appears that, under the current plan, funding for those portions of military

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92 CBO, *The Long-Term Implications of Current Defense Plans: Summary Update for Fiscal Year 2005,* September 2004, p. 5. As noted earlier, the employment cost index (ECI) is a measure of compensation in the civilian economy.

93 CBO, "The Long-Term Implications of Current Defense Plans: Detailed Update for Fiscal Year 2005," Supplementary Briefing Slides, September 2004, p. 6. This rate of increase was derived by the author based on CBO data. Ibid., p. 8.

health care funded through the O&M budget (i.e., excluding the TRICARE For Life accrual funded through the Services' military personnel accounts) would grow at an average annual rate of about 3.5 percent annually over the FY 2005-22 period. This would raise the DHP budget from about $17.5 billion today to $32 billion in FY 2022.[94]

Installation-based and other DoD-funded benefits: It is assumed in this analysis that funding for installation-based benefits (exclusive of family housing, which is estimated separately above) and all other DoD-funded benefits (not included in any of the other preceding categories) would grow no faster than the rate of inflation through 2022. This means that funding in these two categories would remain at today's levels of roughly $13 billion and $3 billion, respectively, through FY 2022

If each of these assumptions were correct, total DoD funding for military compensation would be projected to grow from about $139 billion in FY 2005 to $189 billion in FY 2022. This works out to an average annual increase of 1.8 percent. If anything, it seems likely that this estimate is too low. It assumes that there will be no further expansion of benefits for active duty military personnel, military retirees, or reserve personnel. This may be unrealistic, given the experience of the past half decade, during which time military pay has grown substantially faster than the ECI and many non-cash benefits, such as health care, have been expanded. A number of proposals to further expand various military personnel benefits appear to have strong support among members of Congress. Moreover, some additional increases in compensation may be needed to help the Services meet their recruitment and retention goals if US military personnel remain heavily engaged in Iraq and elsewhere in the years to come.

As noted earlier, in 1999 Congress passed legislation mandating that military personnel receive pay raises set at half a percent above the ECI through FY 2006. If military pay were to grow at half a percent above the ECI over the FY 2007-22 period (rather than at the

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[94] This estimate was derived by the author based on CBO projections of cost growth in three different categories of military health care funding: pharmaceuticals, purchased care and contracts, and direct care and other. Ibid.

same rate as the ECI, as assumed above), funding in the Services' military personnel accounts would have to be increased by an additional $5 billion a year by FY 2022.

Another likely area of additional cost growth is military health care. CBO has identified a number of areas of cost risk related to military health care. Among other things, because of faster rates of growth in spending on pharmaceuticals, CBO projects that DoD's health care costs (exclusive of the accrual for the TRICARE For Life program) might well increase by some $11 billion more than assumed in its baseline projection. This implies that DHP funding would increase at an average annual rate of 5.3 percent (rather than 3.5 percent) over the FY 2005-22 period.[95]

Given the history of cost growth in installation-based benefits since the 1980s, the assumption that such spending would remain flat in coming years may also be unrealistic. If such funding were instead assumed to grow at even one percent a year, DoD's costs would be another $2 billion higher in FY 2022 than assumed above.[96]

Taken together, these areas of cost risk suggest that funding for military pay and benefits might exceed the baseline estimate described above by as much as $18 billion a year by FY 2022. This would bring total DoD funding related to military compensation to some $207 billion in FY 2022. Increases of this magnitude in military pay and benefits might make it extremely difficult for DoD to find sufficient funding to keep its forces at high states of readiness (e.g., in terms of equipment and facilities maintenance and repair, and training), or to execute its current modernization plans.

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[95] This estimates was derived by the author based on CBO data. Ibid., p. 8.

[96] Even this estimate may be conservative. Between FY 1988 and FY 2002, funding for installation-based benefits grow at an average annual rate of some 2.8 percent in real terms.

IMPACT OF FUNDING FOR MILITARY COMPENSATION ON OTHER DOD PRIORITIES

The affordability to DoD and the Services of these projected increases in funding for military pay and benefits will depend in large part on what happens to the DoD topline in the future. If overall funding for DoD were to remain at essentially today's level, over the coming decades, the share of the DoD budget absorbed by military compensation would grow dramatically.

As noted earlier, at about $139 billion, funding for various forms of military compensation accounts for about 35 percent of the FY 2005 DoD budget, exclusive of war costs. If DoD's overall budget were to remain at roughly $400 billion a year, by FY 2022 funding for military compensation would account for nearly half of DoD's budget—assuming the cost of pay and benefits grew only at the 1.8 percent rate indicated for the baseline case described above. If these costs grew at the higher rate suggested in the high-risk case, funding for military compensation would account for some 52 percent of the overall DoD budget by FY 2022.

On average, over the FY 2006-22 period, DoD would need to spend some $165 billion on military compensation in the baseline case, and $175 billion in the high-risk case. Funding for military compensation would account for, respectively, an average of about 41 percent and 44 percent of the overall DoD budget over these years. In either of these cases, the amount of funding remaining after covering the bill for military pay and benefits would be far less than would be needed to keep readiness levels high and implement DoD's current modernization plans. In the baseline case, an average of only about $235 billion would be available between FY 2006 and FY 2022 to pay for these other priorities. In the high-risk case, only some $225 billion would be available.

By contrast, keeping readiness levels high and implementing DoD's current modernization plans, would require far more than $225-235 billion a year over the long run. As noted earlier, DoD's FY 2005 budget includes about $115 billion for the operations, maintenance and repair of military equipment and facilities, training, transportation and various infrastructure support functions. In the future, given the projected aging of many of the aircraft and other weapons systems in the Services inventories, and other factors, it seems likely that substantially more funding will be required to keep readiness levels high. A reasonable—and, if anything, probably optimistic—estimate would be that funding for these activities would have to be increased at an average annual rate of 1.2 percent a year.[97] This means that DoD would need to spend some $140 billion on readiness-related activities in FY 2022, and an average of nearly $130 billion a year on these activities over the FY 2006-22 period.

In the context of an overall DoD budget of $400 billion, providing $165-175 billion for military compensation and $130 billion for readiness and related activities would leave only $95-105 billion available to implement DoD's modernization plans. This level of funding would be at best less than two-thirds of what would actually be required to execute those plans.

Current plans call for DoD to greatly expand its procurement of new weapons systems and other equipment in coming years. DoD's February 2004 FYDP projected that procurement funding would be increased from about $75 billion in FY 2005 to $106 billion in FY 2009. Estimates provided by CBO indicate that implementing the administration's current modernization plan would require increasing procurement funding to an average of roughly $120 billion annually over the FY 2010-22 period, even assuming the Services were successful in meeting their cost goals for new weapons programs.[98] This suggests that implementing DoD's current modernization plans would require providing an average of at least $115 billion annually for weapons procurement over the FY 2006-22 period.

Over these same years, CBO estimates that to implement its modernization plans DoD would need to spend an average of at least $60 billion a year on research and development (R&D) activities. Taken together, these estimates indicate that DoD would need to spend an average of about $175 billion annually on acquisition

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[97] This would be about one half the rate at which O&M funding per troop has increased historically.

[98] This estimate was derived from CBO data. See, CBO, "The Long-Term Implications of Current Defense Plans: Detailed Update for Fiscal Year 2005," Supplementary Briefing Slides, September 2004, p. 9.

programs (procurement and R&D) over the FY 2006-22 period to implement its current modernization plans. However, in the context of a $400 billion topline, assuming DoD first fully funded its projected requirements for military compensation and readiness, it would have only some $95-105 billion available to cover the cost of its modernization plans.

If instead of being held constant at today's level of about $400 billion, funding for DoD were increased to $445 billion in FY 2009, as projected in the current FYDP, and kept at that level through FY 2022, DoD's funding crunch would be eased, but hardly eliminated. In that case, the amount of funding available for modernization programs would be increased by $45 billion annually to an average of $140-150 billion a year. This would still be $25-35 billion short of the $175 billion a year that would be needed to fully execute those plans.

Moreover, substantially more than $175 billion annually might actually be needed to implement DoD's current modernization plans. Typically, next-generation weapon systems end up costing significantly more to acquire than projected by the Services. Based on historical rates of cost growth in major weapons acquisition programs, a more realistic estimate would be that fully executing DoD's current modernization plans would require average annual funding of some $205 billion over the FY 2006-22 period.[99] In this case, even if it were possible to sustain an overall DoD budget of $445 billion a year over the long run, the amount of funding available for weapons modernization would fall some $55-65 billion a year short of requirements.

In order for DoD to be able to fully afford its current long-term plan in all its key aspects—military pay and benefits, readiness and related activities, and modernization—DoD's overall budget (exclusive of war costs) would have to be increased from today's level of about $400 billion to an average of $470-510 billion over the FY 2006-22 period. This lower figure would be sufficient, assuming military compensation costs would need to be increased only at the rate assumed in the baseline case described earlier, and that DoD and the Services would be successful in meeting their cost goals for various new weapons programs. The higher figure would be required if

[99] Ibid.

military compensation costs were to grow more rapidly—consistent with the high-risk case discussed above—and weapons acquisition costs were similarly to increase more in line with historical experience. In either case, additional funding would have to be provided to cover the cost of any military operations US forces might be engaged in over the next two decades. In recent years, DoD has been provided as much as $65 billion annually to pay for such operations.

Pressures on the DoD Topline

While it is, of course, possible that such sustained growth in the DoD budget will indeed occur, it seems unlikely. In the aftermath of the terrorist attacks of September 11, 2001, defense spending has become a higher priority for most Americans, but it is still far from the only priority. Over the long term, the defense mission will have to compete with other priorities of the American public and political leadership. These goals include cutting taxes, reducing the federal debt, ensuring the health and durability of Social Security and Medicare, and providing greater resources for education, health research and other domestic programs.

The long-term federal budget picture has dramatically worsened over the past four years. In early 2001, CBO projected a 10-year surplus of about $5.6 trillion over the 2002-11 period.[100] By contrast, CBO's baseline estimate now projects *deficits* totaling $855 billion over the next decade (2006-15).[101] The dramatic change in the government's fiscal outlook has resulted from the enactment of large tax cuts, as well as a weak economy, the cost of military operations in Afghanistan and Iraq, and other factors.

Worse yet, this estimate almost certainly understates the magnitude of the fiscal problem facing the United States. As CBO acknowledges, its baseline projection makes a number of assumptions

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[100] CBO, *The Budget and Fiscal Outlook: Fiscal Years 2002-2011* (Washington, DC: CBO, January 2001), p. 2.

[101] CBO, *The Budget and Economic Outlook: An Update* (Washington, DC: CBO, January 2005), p. 8.

that may be unrealistic; for example, that tax cuts currently set to expire in 2010 will not be extended, defense and non-defense discretionary spending will grow only at the rate of inflation, and no more war costs will be incurred. Making more realistic assumptions about these factors could push likely deficit levels to some $4-5 trillion over the coming decade.[102]

As bad as the deficit picture appears to be for the coming decade, it is likely to worsen dramatically in the years after 2015. The reason deficits are projected to become so much worse is that members of the baby boomer generation will begin retiring around the end of this decade. This has enormous implications both for federal spending and revenue. Because of the retirement of the baby boomers, spending on Social Security and Medicare is projected to increase from about 6.9 percent of GDP in 2002 to 8.9 percent by 2020 and 12.1 percent by 2040.[103] Covering these costs will become ever more difficult as the ratio of working-to-retired Americans declines. Today, there are nearly five adult Americans 20-64 years of age for every American over 65. By 2020 the ratio will drop to less than four-to-one, and by 2030 it will fall to less that three-to-one.[104] As a result of these pressures, the Bush Administration's own budget documents project that the federal government will run deficits continuously over the next 50 years, and that the size of the deficit will grow from about 1 percent of gross domestic product (GDP) in 2014 to 1.7 percent in 2020, 5.0 percent in 2030, and 8.7 percent by 2040.[105] Others have projected that deficits

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[102] See, for example, Joint Statement issued by the Center for Budget and Policy Priorities (CBPP), the Committee for Economic Development, and the Concord Coalition, "Mid-Term and Long-Term Deficit Projections," September 29, 2003, and Ed McKelvey, "The Federal Deficit: a $5.5 Trillion Red Elephant," Goldman Sachs, September 9, 2003.

[103] CBO, "Social Security and the Federal Budget: The Necessity of Maintaining a Comprehensive Long-Range Perspective," August 1, 2002, p. 4.

[104] CBO, "The Looming Budgetary Impact of Society's Aging," July 3, 2002, p. 6.

[105] Office of Management and Budget (OMB), *Fiscal Year 2005 Budget of the US Government, Analytical Perspectives* (Washington, DC: US Government Printing Office, 2004), p. 191.

could increase to as much as 6.2 percent of GDP by 2020, 12.3 percent by 2030 and 21.1 percent by 2040.[106]

The generally bleak fiscal outlook outlined above does not, of course, *prove* that the administration's proposed funding increases for defense are not sustainable over the long run. These projections do, however, suggest that sustaining increases of the magnitude projected in the administration's current plan would be difficult, and would require making hard choices between defense and other important priorities over the coming decade and beyond. Boosting defense spending beyond even the levels projected under the current plan—to cover the various areas of cost growth projected in the base case, and especially the high-risk, estimate described above—would be still more difficult.

Scaling Back DoD's Plans

If the DoD topline cannot be sustained at the levels that would be needed to fully cover the cost of implementing DoD's longterm plans, those plans will have to be scaled back. In theory, there are a number of options that could be pursued. At the most basic level, decisions could be made to cut the appropriations for military personnel compensation, readiness-related activities, or modernization programs. In practice, weapons modernization, and weapons procurement in particular, are probably the most likely areas to be scaled back—at least in the near term.

Historically, funding for defense tends to move in a cyclical pattern. When the DoD topline increases funding for weapons acquisition, and especially procurement, tends to increase substantially. Conversely, when the defense topline begins to flatten out or fall, procurement funding is generally reduced more than funding in other DoD accounts. If, as the discussion above indicates, funding for defense is likely to grow more slowly in the future than it has in the recent past, or even begin to decline, historical experience would thus suggest that procurement programs are likely to be cut.

106 CBPP, p. 15.

The tendency to favor cuts in weapons procurement over cuts in other areas also seems consistent with patterns of the past decade. During much of the 1990s, projected future increases in funding for weapons procurement were deferred, with the funding instead being shifted into various military personnel and readiness related accounts to cover higher than anticipated cost growth in those areas.

One reason for this choice is that military personnel and readiness-related accounts are generally viewed as "must pay" bills. Failure to cover these costs can lead to relatively immediate declines in moral, troop quality, training, equipment maintenance and repair, and other factors that can affect the near-term effectiveness of military forces. By contrast, since two-to-five years typically passes between the time funding is provided for a new aircraft, ship or other weapon system and its delivery to the Services, the impact on military effectiveness of cuts in weapons procurement is generally less immediate. The tendency for military pay and benefits and readiness-related spending to take priority over weapons acquisition programs will likely be even greater in the future to the extent the US military remains heavily engaged in military operations in Iraq, Afghanistan and elsewhere.

Some scaling back of the Services' current modernization plans may well make sense. Those plans include the procurement of a wide range of new weapon systems, many of which cost two-to-three times more than the systems they are intended to replace. In some cases it may be more cost-effective to purchase new current-generation systems, rather than costly next-generation weapon systems. Among the most questionable next-generation programs may be the Services' plans to procure three new tactical fighters, whose total costs could exceed $300 billion over the next several decades. This is an area where the US military currently enjoys enormous superiority over any competitors. Moreover, this focus on relatively short-range tactical combat aircraft seems at odds with recent experience in Afghanistan, Iraq and elsewhere which suggest that, in the future, the US military may often have difficulty securing access to forward air bases.

Nonetheless, it is clear that the Services must spend more on weapons procurement over the next couple of decades than they have in the recent past. Through much of the 1990s, the Services spent relatively little on procurement. Nevertheless, because the Services bought large quantities of new weapon systems in the 1980s, and then in the 1990s cut the size of the force structure by about one-third—with the oldest equipment generally being retired first—the age of the Services' weapons inventory increased only modestly during these years. However, the buildup of the 1980s is now receding further into the past, and most of the planned force structure cuts were completed almost a decade ago. As a result, the average age of many major weapon systems is projected to increase substantially in coming years.

It may be possible to significantly reduce the cost of modernizing and transforming the US military by, for example, canceling a number of unnecessary new systems, and in some cases continuing to buy current-generation systems, rather than next-generation systems. But actually *reducing* the level of funding provided for weapons procurement (vice slowing the rate of growth in procurement funding projected in current plans) could significantly reduce the effectiveness of the US military over the long run.

The need to ensure that sufficient funding is available for weapons procurement in coming decades provides a further reason why steps such as those outlined at the end of Chapter Five should be taken to improve the Services' approach to military compensation. Even a modest rationalization of military pay and benefits could reap significant savings over the long run. The difference between the baseline estimate of future military compensation costs and the high-risk estimate of those costs, described earlier, amounts to an average of $10 billion a year over the FY 2006-22 period. Although $10 billion may not seem like an enormous amount of funding in the context of a $400 billion-plus defense budget, it could make a significant difference if added to DoD's procurement budget, which is currently running at about $78 billion a year. If taking some of the steps outlined in Chapter Five could help achieve an equivalent level of savings, they could provide a similar boost to weapons procurement.

SUBSTITUTING CAPITAL FOR PEOPLE

Over the long run, the only way to prevent military compensation costs from overwhelming the rest of the DoD budget may well be to make reductions in the number of military personnel. Viewed from a long-term perspective, DoD's past modernization efforts have often been financed in part by cuts in the size of the military. Indeed, over the past 50 years DoD has consistently decided that the best way to improve the overall capability of the US military is to adopt progressively more modern, but also smaller, forces. To be sure, this decision has not always been entirely conscious. Not surprisingly, DoD planners generally wish to replace old equipment with new (and typically much more costly) equipment on a one-for-one basis, and to retain existing force structure. However, when budget realities have forced them to choose, they have consistently chosen quality over quantity.

Although US defense spending experienced some fairly dramatic ups and downs during the Cold War, the overall trend was only modestly upward. Overall funding for defense increased at an average annual rate of just under 1 percent over the 1955–90 period. Conversely, over that same period, the number of active duty troops in the US military declined at an average annual rate of just over 1 percent. Illustrative of this general trend is the fact that in FY 1990, despite the fact that DoD's budget was some 30 percent higher than in FY 1955, the number of active duty troops in the US military had declined from 2.935 million to 2.070 million.

Although the US military was about 30 percent smaller in FY 1990 than in FY 1955, few (if any) would suggest that the US military that fought in Desert Storm was not at least several (and perhaps many) times more capable than the US military that existed in 1955. There is every reason to believe that this improvement was, in large measure, due to the decision (whether entirely conscious or not) to trade-off quantity for quality—that is, the decision to adopt a progressively smaller but more modern, better-equipped (as well as better educated and trained) military. Likewise, few would dispute the idea that today's military, although substantially smaller than the US military at the time of Desert Storm, is far more capable.

From the industrial revolution onward, a similar trend toward increased capitalization is, of course, precisely what has occurred in the civilian economy. Given past trends and the logic favoring increased capitalization in a modern industrialized country, it is almost certainly true that the US military should continue to make this tradeoff in the future—that is, that it should continue to become progressively more capital-intensive over time, even if that means sacrificing some force structure.[107]

How much it will be possible to substitute capital—in the form of advanced weapon systems—for people in the future will depend on, among other things, the manner and extent to which the US military's missions and capabilities evolve over time. So long as US ground forces remain heavily engaged in counterinsurgency and other labor-intensive missions—as they are in Iraq today—it will be difficult to contemplate reductions in the size of the Army. Indeed, it may be necessary to expand the size of US ground forces in the near term. However, in the case of the Air Force and the Navy, significant

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[107] Reducing the size of the military need not necessarily mean reducing force structure (e.g., the number of Army divisions, carrier battle groups, fighter wings). In some instances it might be possible and preferable to maintain the same force structure and instead reduce the number of personnel and weapon systems associated with each force structure element (e.g., maintain the same number of fighter wings, but assign fewer fighters to each wing). In other instances it might even be possible to maintain the same number of weapon systems, or even expand the number of systems, in the inventory, if those systems could be made to require significantly less labor to operate and support. In other words, in theory, increasing the capital-intensiveness of the military need not necessarily mean reducing its size as measured in terms of either number of weapon systems or force structure (vice personnel levels). An example of a development that *might*—because of lower O&S funding requirements—allow for such an expansion in numbers of systems, even while personnel levels are reduced, would be the replacement of manned aircraft with UAVs.

tradeoffs may be possible even in the near term. Both services are, in fact, projecting some reductions in personnel end strength over the next few years. As in the past, new aircraft and new ships may be so much more effective than their predecessors that high levels of effectiveness can be achieved with smaller force levels. Over the longer run, it may even be possible to make reductions in the size of the Army—though such reductions will clearly have to await a dramatic scaling back of requirements in Iraq, and even then only relatively limited reductions may be possible or prudent for some time.

Conclusion

There is no element more critical to the effectiveness of the US military than the men and woman who serve in uniform. As such, DoD and the Services need to place top priority on the goal of recruiting and retaining quality military personnel. Despite the strain the US military, and the Army in particular, is under today due to the war in Iraq and military operations in Afghanistan and elsewhere, the Services have generally remained successful in their recruitment and retention efforts.

In coming years, however, the Services may find it increasingly difficult to meet their manpower requirements in a way that is both affordable and effective—in terms of attracting and retaining sufficient numbers of personnel, with the right talents, skills and levels of experience—unless they make some significant changes in their compensation policies and personnel management structure.

Military compensation levels have been increased substantially since the late 1980s and especially the late 1990s, and they appear to be roughly adequate today. However, there is a significant disconnect between, on the one hand, the mix of pay and other benefits provided by the Services and, on the other hand, the kinds of compensation packages that may be best suited to meeting the Services' personnel requirements in the future.

One change that DoD should consider making is to include all forms of military compensation in a single appropriations title. Currently, funding for various elements of military compensation is provided through a number of different appropriations titles, and substantial portions of that funding are not readily identifiable. As a result, policymakers inside and outside of DoD tend to underestimate the cost of military personnel. This, in turn, may lead to inefficient resource allocation decisions within DoD—concerning, for example, the relative cost-effectiveness of maintaining force structure (e.g., personnel end strength), versus modernizing and transforming those forces.

Recommending precisely how the military's personnel compensation and management system should be altered to make it more affordable and better suited to the requirements of the 21st Century is beyond the scope of this report. Based on the analysis in this report, however, it seems clear that an effectively transformed military personnel system would:

- Make relatively greater use of cash compensation as a means of rewarding military personnel, and less use of non-cash compensation, especially deferred non-cash compensation;

- Make greater use of targeted pay raises, rather than across-the-board increases;

- Allow greater differentiation in compensation among different occupational specialties, whether through further pay table reform or expanded use of bonuses and other special pays;

- Provide enhanced financial incentives, including retirement benefits, for military personnel who opt to remain in the military for less than 20 years;

- Allow the Services to make use of separation pays and other incentives to encourage some mid-career personnel to leave the military before reaching the 20-year mark, and to encourage others to remain in the military for more than 20 years; and

- Shift, over time, to a retirement system that (in structure if not necessarily in benefit levels) is more in line with those in the private sector and the non-military public sector.108

As important as it is for DoD make some significant changes in its compensation policies and personnel management structure, it is equally critical that any changes be implemented in a way that treats fairly those military personnel, as well as retirees and other beneficiaries, who have come to rely upon—and in many cases have made career decisions based upon—the military's current system.

That said, the failure to implement changes in the current system over the near- or medium-term could cause significant problems for the US military. Indeed, the failure to direct future increases in pay and benefits in a way that better targets those individuals the military most needs, and allows for greater flexibility in personnel management and the definition of a military career, will likely lead to the worst of both worlds: Much higher levels of spending on military compensation, and an inability to meet the Services personnel requirements. In addition, this growth in compensation costs could crowd out funding for DoD's efforts to transform and modernize US forces.

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[108] For a more detailed discussion of possible ways of improving the US military's compensation system, see Cindy Williams, "Conclusions and Recommendations," in *Filling the Ranks*, pp. 303-31.