ECONOMIC AND BUDGET ISSUE BRIEF

CBO

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AUGUST 15, 2007

Assessing Pay and Benefits for Military Personnel

Summary

Are members of the U.S. military paid enough? The answer depends in part on the measure used to assess military compensation. In terms of basic cash pay, enlisted personnel fall in the middle of the earnings distribution for civilian workers of similar ages and education levels. With the military's cash allowances for food and housing included (as well as the tax advantage that service members receive because those allowances are tax-exempt), enlisted personnel earn more than at least 75 percent of comparable civilians, the Congressional Budget Office (CBO) estimates. Members of the military also receive more-extensive benefits than most civilian workers do.

Those types of comparisons can give a sense of whether service members are being offered a competitive compensation package. But such comparisons are complicated by the fact that job conditions in the military are very different—and sometimes much more hazardous—than those in the civilian sector.

Pay comparisons are more meaningful when viewed in the context of the military's ability to recruit and retain an experienced, well-qualified force. Overall, the Department of Defense (DoD) has met its goals for recruiting and retaining active-duty personnel in recent years, although at times the Army has faced significant challenges in achieving its targets, particularly for certain high-demand occupations.

How Much Do Service Members Earn?

All military personnel on active duty receive regular military compensation (RMC). About 60 percent of RMC consists of basic pay, which depends on a service member's rank and years of service. The rest of RMC consists of cash allowances for food and housing and the tax advantage that arises because those allowances are not subject to federal income taxes. In calendar year 2006, regular military compensation ranged from $29,700 for a single enlisted member in the lowest pay grade (E-1) to $85,900 for a single person in the highest enlisted grade (E-9).[1] Personnel with dependents receive higher compensation: For an enlisted member with a spouse and two children, RMC ranged from $32,800 in grade E-1 to $89,600 in grade E-9 last year (see Table 1).

Besides regular military compensation, the services offer more than 60 kinds of "special pays" (additions to monthly cash income) for personnel in certain situations, as well as bonuses for enlisting or reenlisting. Some special pays or bonuses are targeted toward personnel who are in specific occupations (such as aviator, medical specialist, submarine crewman, or linguist) or who perform hazardous duties (such as explosives demolition or crash-site investigation). In the Army, reenlistment bonuses averaged about $15,000 per person in 2006, and a small number of senior sergeants in the special forces (who were eligible to retire) received bonuses as high as $150,000.

Other types of special pays are linked to deployment or combat. In 2006, service members with dependents who served away from their families for at least 30 days in a row received a family-separation allowance of $250 per month. Personnel who served in Iraq or Afghanistan could earn an additional $325 a month in imminent-danger pay and hardship-duty pay. Personnel whose tours in the Iraq theater were involuntarily extended beyond 12 months received an extra $200 per month in hardship-duty pay and $800 per month in assignment-incentive pay last year. (Some personnel who voluntarily extended their tours in Iraq or Afghanistan beyond

1. This issue brief focuses specifically on enlisted personnel, who make up 83 percent of the U.S. military.

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Table 1.

Estimated Average Compensation for Enlisted Personnel in 2006, by Pay Grade and Family Status

(Dollars)

	Pay Grade								
	E-1	E-2	E-3	E-4	E-5	E-6	E-7	E-8	E-9
Typical Age	18	19	20	22	25	31	37	40	44
Average Years of Experience	<2	<2	<2	3	6	12	18	21	25
Compensation for Single Enlisted Member (High school graduate)									
Cash	29,700	32,000	32,900	37,200	45,000	54,000	63,400	72,400	85,900
Noncash and deferred cash	25,300	26,900	27,600	31,200	35,600	41,800	48,500	54,300	64,900
Total	**54,900**	**58,900**	**60,500**	**68,400**	**80,600**	**95,700**	**111,900**	**126,600**	**150,700**
Compensation for Married Enlisted Member (High school graduate with working spouse, two children)[a]									
Cash	32,800	34,700	36,300	40,400	47,200	56,800	65,200	72,800	89,600
Noncash and deferred cash	37,300	38,900	39,700	49,200	53,700	59,800	64,800	70,200	81,100
Total	**70,100**	**73,600**	**76,000**	**89,700**	**100,900**	**116,600**	**130,000**	**143,000**	**170,700**

Source: Congressional Budget Office based on data from the Department of Defense.

Notes: Cash pay is regular military compensation (basic pay, allowances for housing and subsistence, and the federal tax advantage that arises because those allowances are not taxed). Noncash and deferred cash pay include the accrued value of veterans' benefits and retirement benefits (pay and health care). Because veterans' benefits are not funded on an accrual basis, these estimates cannot be compared with amounts in federal budget documents for fiscal year 2006.

Any noncash benefits that these notional enlisted members would not use are excluded from the calculations. For example, if an enlisted member's compensation package includes a family-housing allowance, CBO does not also include a portion of the cost to build or maintain barracks (because most members would not receive both types of housing benefits at the same time). These calculations also exclude the cost of providing fitness centers, clubs, or other recreational activities.

a. The children are assumed to be enrolled in subsidized military child care or school-aged care.

12 months could also receive as much as $1,000 per month in assignment-incentive pay, depending on their skills and the length of their extension.) In addition, all income that enlisted personnel earn while serving in a combat zone—including special pays and bonuses—is exempt from federal income taxes.

Service members may receive only a few of the many special pays and bonuses over the course of a career. Yet those additions to compensation can significantly boost cash earnings. For instance, in 2006, the average enlisted soldier in the Army earned $41,700 in basic pay and housing and food allowances, but about $44,900 with special pays and bonuses included.

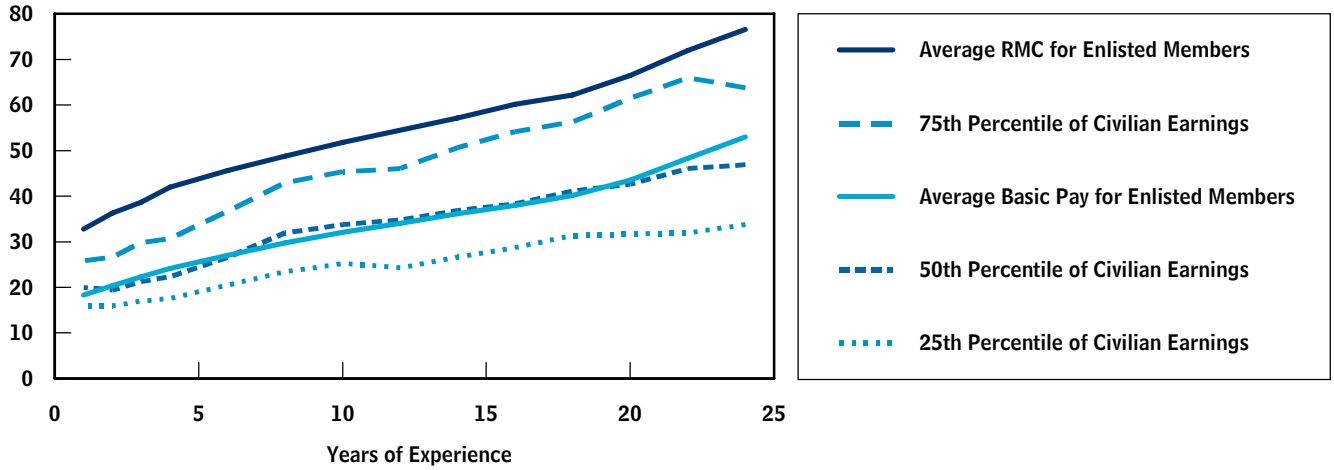
How Does Military Pay Compare with Civilian Pay?

Results of comparisons differ depending on how military compensation is defined and on what segment of the civilian population is used for the comparison. Although most enlisted personnel join the military soon after high school, they generally receive some college-level education while on active duty. (The share of enlisted personnel with at least one year of college education grew from 32 percent to 72 percent between 1985 and 2005, CBO estimates.) DoD has argued that military pay must compare favorably with the wages of college-educated civilians—rather than high school graduates—to keep

Figure 1.

Annual Earnings of Enlisted Personnel and of Civilian Workers with Some College Education, 2006

(Thousands of dollars)



Source: Congressional Budget Office based on data from the Department of Defense, the Department of Labor, and the Office of Personnel Management.

Notes: RMC = regular military compensation (basic pay, allowances for housing and subsistence, and the federal tax advantage that occurs because those allowances are not taxed).

Civilian data include reported 2005 earnings for male full-time nonagricultural workers, by age, inflated to 2006 using the employment cost index.

experienced personnel in the force. Specifically, DoD's goal has been to make RMC comparable with the 70th percentile of earnings for civilians who have some college education.

CBO estimates that in calendar year 2006, average basic pay for enlisted personnel closely matched the 50th percentile of estimated earnings for civilians with some college education (see Figure 1). With cash allowances and associated tax advantages included, RMC for the average enlisted member exceeded the 75th percentile of civilian earnings. Thus, CBO's analysis suggests that DoD has achieved its comparability goal.

Comparisons of military and civilian pay have some important limitations, however. First, working conditions can differ markedly between military and civilian jobs. For example, military personnel are generally expected to change locations every few years—in addition to deploying for specific operations—whereas most civilians can choose to remain in the same area throughout their career. Military personnel may work longer hours or in more hazardous conditions than civilians do, even if their type of occupation is the same. Job security, personal autonomy, group solidarity, and job satisfaction may differ as well. In general, one would expect compensation to be higher for jobs that have negative characteristics.

Second, pay comparisons may ignore the value of training and education. DoD generally tries to recruit capable young people with high school diplomas or some college education and then invests a significant amount of money in training them for military life and for their particular occupational specialty. Civilian employers, by contrast, generally hire people who have already been trained (although many workers receive valuable on-the-job training, and some receive tuition assistance). In addition, civilian employers are more likely to hire people at various levels of experience. Adding in the value of training and education would raise military compensation even higher relative to civilian compensation.

Third, differing career patterns in the military and civilian sectors complicate pay comparisons. Because the military "promotes from within," pay may need to be higher for new recruits than for civilians of similar ages and

education levels, as DoD tries to compete for the best pool of applicants from which to select the best career personnel. Also, data on average civilian compensation (such as those shown in Figure 1) include the pay of people who are successful in their civilian careers as well as the pay of people who are not. But in the military, the "up-or-out" promotion system means that the least successful personnel have generally left military service before reaching the more senior levels.

Is There a "Gap" Between Military and Civilian Pay Raises?

Each year, the President requests and the Congress authorizes a percentage raise in basic pay for service members. In an effort to boost military cash compensation, the across-the-board pay raise was set 0.5 percentage points higher than the increase in civilian wages—as measured by the employment cost index (ECI) for private-sector workers—from fiscal year 2000 through 2006.[2] Housing allowances and other elements of cash compensation were also increased. As a result, annual growth in regular military compensation for the active-duty enlisted force as a whole was more than 2.2 percentage points higher than the ECI, on average, between 2000 and 2006, CBO estimates.

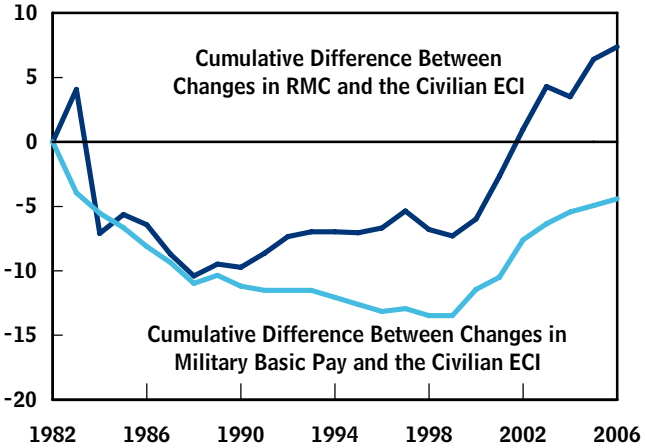
The cumulative difference between each year's basic-pay raise and the percentage increase in the ECI is commonly referred to as the military "pay gap." That measure has been the focus of many policy discussions about the adequacy of military compensation, although the measure itself is controversial.

Some analysts argue that "equality" between military and civilian pay was achieved in 1982, after two years of relatively large raises in military basic pay. As a result, pay-gap calculations generally begin with that year. During the rest of the 1980s, increases in basic pay lagged behind increases in the ECI, and the cumulative pay gap widened. More recently, the greater-than-ECI increases in basic pay have narrowed that gap, bringing basic pay within 4.4 percent of parity with the ECI by 2006 (see Figure 2).

Figure 2.

Differences Between Military and Private-Sector Pay Raises Since 1982

(Percent)



Source: Congressional Budget Office based on data from the Department of Defense and the Department of Labor.

Notes: RMC = regular military compensation (basic pay, allowances for housing and subsistence, and the federal tax advantage that occurs because those allowances are not taxed); ECI = employment cost index.

These comparisons exclude the military's special pays, bonuses, and noncash benefits.

As a basis for evaluating compensation, however, the gap between increases in military and civilian pay has some significant drawbacks. First, the ECI is based on a survey that covers a broad sample of civilian workers. On average, those workers are older than military personnel and more likely to have a college degree. That matters because, in recent decades, the pay of college-educated workers has grown faster than that of high school graduates in the civilian sector, and the pay of older civilian workers has generally grown faster than that of younger workers. The military primarily recruits young high school graduates, so pay raises that were smaller than the increase in the ECI would not necessarily hamper DoD's efforts to recruit new personnel.

Second, the pay gap measures changes in military and civilian pay over different periods because it mirrors the procedures for determining annual military pay raises. For example, in calculating the raise recommended in the

2. In several of those years, additional targeted raises were given to people in particular pay grades. The version of the National Defense Authorization Act for Fiscal Year 2008 that the House of Representatives passed in May (H.R. 1585) would again make the annual across-the-board pay raise 0.5 percentage points higher than the ECI for 2008 through 2012.

President's budget for 2007, DoD used the change in the ECI from September 2004 to September 2005. The President's 2007 budget was submitted to the Congress in February 2006. Thus, policy decisions about the 2007 basic-pay raise were not informed by changes in civilian pay during 2006 (at least to the extent that those decisions were based on the President's budget request).

Finally, the pay-gap calculation focuses on one part of military compensation—basic pay—and ignores changes in other parts. Substituting increases in a broader measure of cash compensation, such as RMC, alters the difference between military and civilian pay. In 2000, lawmakers authorized a restructuring of military housing allowances to eliminate the out-of-pocket expenses typically paid by service members (which had averaged about 20 percent of housing costs). As a result, housing allowances have grown, as have the tax advantages that come from their not being taxed. With housing and food allowances and those tax advantages added to basic pay, increases in regular military compensation outpaced increases in the ECI beginning in 2000, and the pay gap became a pay surplus after 2002 (see Figure 2).

How Do Benefits Compare?

Cash earnings (regular military compensation, special pays, and bonuses) make up only about half of service members' total compensation. The rest is divided almost equally between noncash compensation that service members and their families can use immediately (such as medical care, subsidized groceries, and child care) and the accrued cost of deferred benefits. Military personnel who leave the service in good standing are eligible for a variety of veterans' benefits, which can include Montgomery GI Bill education programs, disability compensation, home loans, and health care provided by the Department of Veterans Affairs (VA). Service members who retire after at least 20 years on active duty receive an immediate lifetime annuity as well as health care for themselves and their eligible dependents.

Researchers estimate that military personnel receive a much larger share of their total compensation in the form of noncash and deferred benefits (45 percent to 60 percent) than government employees or people who work for large private companies do (typically about one-third). Both the military and many large private employers provide retirement benefits, health insurance, life insurance, and paid time off. But service members also have access to benefits that are not routinely offered in the private sector—such as free or low-cost health care, on-base housing, schools and child care for their children, and discount shopping at commissaries and exchanges.

With the largest of those benefits included (health care for service members and their families, subsidized groceries and child care, the accrued cost of retirement pay, and the estimated accrued cost of retiree health care and veterans' benefits), total annual compensation for a single enlisted member in calendar year 2006 ranged from $54,900 in grade E-1 to $150,700 in grade E-9 (see Table 1). For a married enlisted member with two children, total compensation ranged from $70,100 to $170,700 per year.

How Much Does the Government Spend on Military Compensation?

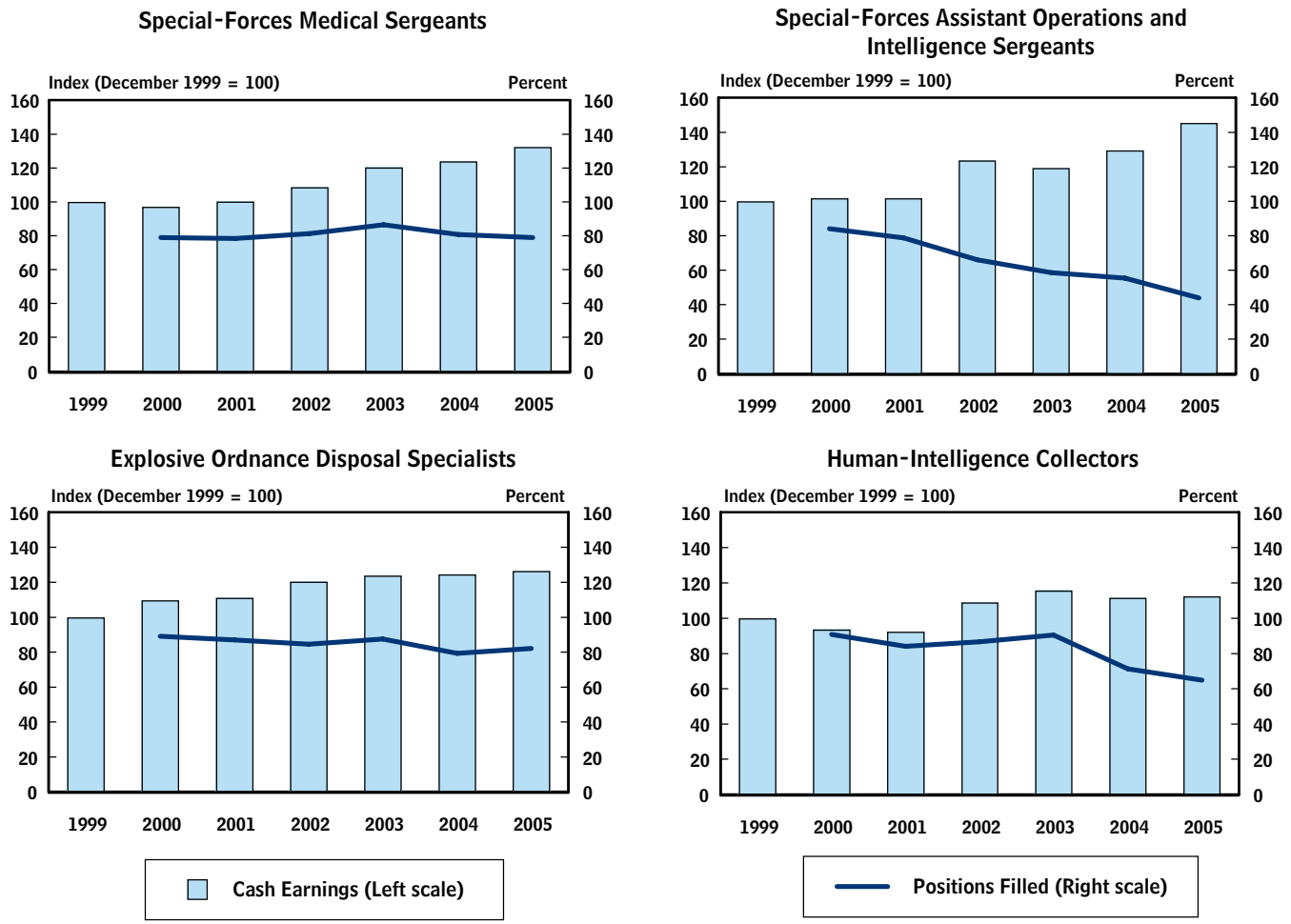
Total military compensation is difficult to measure because it includes many components spread among different agencies and appropriations. Most—though not all—military compensation is funded through the services' military personnel appropriation accounts. Those accounts totaled $123 billion in fiscal year 2005, or about $90,000 per active-duty service member (including officers).[3] Various studies from this decade, which included additional personnel costs, have estimated total annual compensation per active-duty member at $90,000 to $138,000 in 2005 dollars. Given an active-duty force of almost 1.4 million personnel in 2005, those estimates suggest that the total annual cost of military compensation was as much as $193 billion.

Among the additional costs of personnel are about $13 billion a year for current health care for active-duty service members and their families and roughly $4 billion in accrued liabilities for the projected medical costs of personnel who will have served until retirement but not yet reached the eligibility age for Medicare. Veterans' health care would cost another $10 billion a year if it was

3. Those numbers include the federal government's annual contributions to the Military Retirement Fund, which accrues the future costs of retirement pay for current service members, and to the Medicare-Eligible Retiree Health Care Fund, which accrues the future costs of supplementing health care coverage for military retirees and their families when they become eligible for Medicare.

Figure 3.

Pay Increases and Personnel Levels for Selected Army Enlisted Occupations With Shortages



Source: Congressional Budget Office based on data from the Department of Defense (adjusted for changes in wages for civilian occupations using data from the Department of Labor).

Note: Data are for December of each year. Cash earnings include all special pays, bonuses, and allowances but exclude tax advantages and noncash benefits.

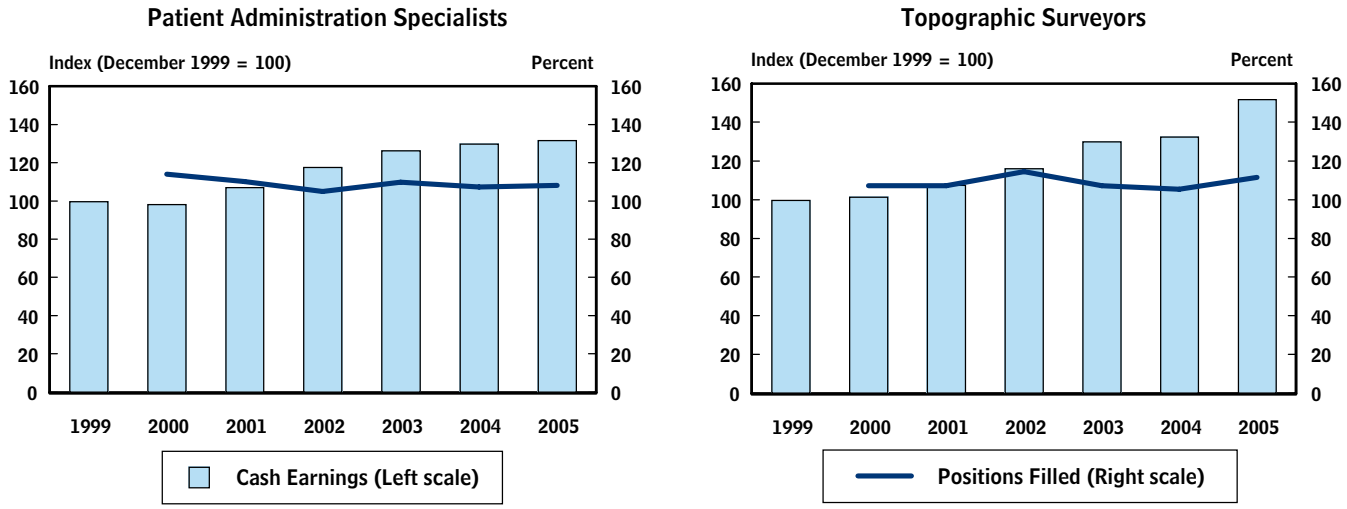
funded on an accrual basis, and other veterans' benefits would cost $12 billion on an accrual basis.[4]

Since the late 1990s, lawmakers have substantially increased benefits for military retirees. Recent policy initiatives include enhancing the military retirement system and expanding health care coverage for retirees and their families who are eligible for Medicare. The accruing cost of those two initiatives equals about $10.8 billion in fiscal year 2007, CBO estimates. In addition, surviving spouses who receive some of their late spouse's military retirement pay will no longer have that pay reduced when they become eligible for Social Security, and some disabled retirees will be allowed to receive both full military retirement pay and tax-free VA disability compensation. Those latter two new benefits have added $2.6 billion to the military personnel budget in 2007, CBO estimates.

4. Accrual estimates of veterans' benefits are based on data from Government Accountability Office, *Military Personnel: DoD Needs to Improve the Transparency and Reassess the Reasonableness, Appropriateness, Affordability, and Sustainability of Its Military Compensation System,* GAO-05-798 (July 2005). None of the estimates in this issue brief include the tax advantages that arise because veterans' benefits are not taxable.

Figure 4.

Pay Increases and Personnel Levels for Selected Army Enlisted Occupations Without Shortages



Source: Congressional Budget Office based on data from the Department of Defense (adjusted for changes in wages for civilian occupations using data from the Department of Labor).

Note: Data are for December of each year. Cash earnings include all special pays, bonuses, and allowances but exclude tax advantages and noncash benefits.

In all, the four expanded retirement benefits described above have increased DoD's military personnel spending by about 12 percent in 2007. Growth in those benefits is projected to account for 41 percent of the growth in military personnel spending between 2007 and 2024.[5] However, those policy changes will not benefit most of the personnel serving in the military today. Typically, only 15 percent of enlisted personnel and about half of officers serve long enough to qualify for military retirement benefits.

Is Military Compensation High Enough to Attract and Retain Personnel?

Some analysts have argued that recruiting and retention are the best measures of the adequacy of military pay, especially in wartime. Is compensation too low to induce people to join or remain in the military, particularly those who expect to serve in Iraq or Afghanistan?

Overall, DoD has met its goals for recruiting and retaining active-duty personnel in recent years. One reason may be that military compensation, both cash and noncash, compares favorably with civilian options. Both the Army and the Marine Corps—which have supplied the bulk of U.S. forces in Iraq and Afghanistan—have added bonuses and raised special pays for some occupational specialties in recent years. For example, the Army has quadrupled its annual budget for selective reenlistment bonuses since 2002. In most of those years, it has faced significant challenges with recruiting and retention, although it met its goals in 2006. The Marine Corps met its recruiting and retention goals each year from 2000 to 2006 (despite spending less on enlistment and reenlistment bonuses in 2005 than before the current operation in Iraq began).

On average, military compensation exceeds the 75th percentile of civilian compensation, CBO estimates. But the military has hundreds of occupations, each of which could be seen as its own small labor market. Are recent increases in compensation able to match supply with demand for particular skills or occupations?

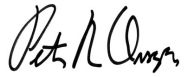
To address that question, CBO examined six jobs in the Army's enlisted force that have had persistent shortages

5. See Congressional Budget Office, *Long-Term Implications of Current Defense Plans: Summary Update for Fiscal Year 2007* (October 2006), p. 8.

or surpluses of personnel and assessed the changes in cash earnings for those jobs (including special pays, bonuses, and allowances). Of those occupations, four have experienced persistent personnel shortages: special-forces medical sergeants, special-forces assistant operations and intelligence sergeants, explosive ordnance disposal specialists, and human-intelligence collectors. (CBO looked at those jobs because, although they are relatively small specialties in the Army, they represent the types of skills used in recent operations.) Total cash earnings for those four specialties have risen since 1999, whether adjusted for inflation or for wage growth in comparable civilian occupations. Nevertheless, the percentage of authorized positions that have been filled has remained well below 100 percent—in some cases, falling to as low as 44 percent or 65 percent (see Figure 3 on page 6). Military personnel in two other occupations, patient administration specialists and topographic surveyors, have also seen their pay rise relative to that of their civilian counterparts, despite the fact that those occupations have persistently been at least 100 percent filled (see Figure 4 on page 7).

One conclusion from those data is that policies that seek to remedy a perceived "pay gap" by making overall military pay comparable with civilian pay play a limited role in resolving personnel shortages and surpluses in particular Army occupations. Although regular military compensation for the active-duty enlisted force as a whole grew by 24 percent (over and above inflation) between 2000 and 2007—and although average retention has generally been good—labor shortages or surpluses have continued for certain specialties. Comparing levels of, or annual changes in, military and civilian pay can be a reasonable rule of thumb for assessing the overall adequacy of military compensation. But the most important test of a compensation system is whether it enables DoD to recruit and retain the personnel it needs.

This brief, prepared by Carla Tighe Murray and Christian Howlett, is based on the recent Congressional Budget Office report *Evaluating Military Compensation* (June 2007). Related CBO publications include *Recruiting, Retention, and Future Levels of Military Personnel* (October 2006), *Educational Attainment and Compensation of Enlisted Personnel* (February 2004), *Military Compensation: Balancing Cash and Noncash Benefits* (January 16, 2004), and *What Does the Military "Pay Gap" Mean?* (June 1999), all of which are available at CBO's Web site: www.cbo.gov.



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