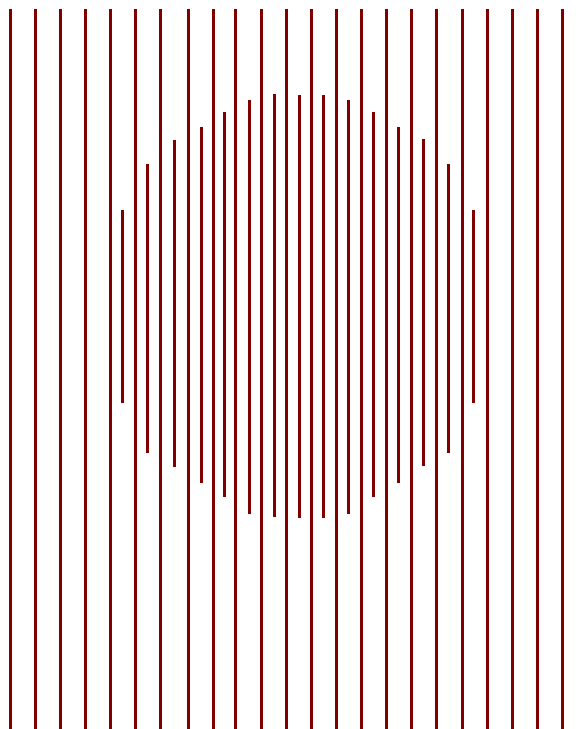


CBO PAPERS

**MILITARY PAY
AND THE
REWARDS FOR PERFORMANCE**

December 1995



CONGRESSIONAL BUDGET OFFICE

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**CONGRESSIONAL BUDGET OFFICE
SECOND AND D STREETS, S.W.
WASHINGTON, D.C. 20515**

PREFACE

The pay and benefits of military personnel account for roughly one-third of the defense budget. In the military, as in any organization, an important purpose of the pay system is to encourage good people to pursue a career in the organization and to work hard and perform well. The military rewards performance through promotions to successive ranks and the greater pay that goes with higher rank. Some observers have argued, however, that the rewards are inadequate.

This paper is one product of a study requested by the Chairman of the Subcommittee on Personnel of the Senate Committee on Armed Services. The paper examines the case for changing the military table of basic pay to increase the monetary incentives for service members to work hard and perform well. A forthcoming Congressional Budget Office (CBO) study will focus on the mechanisms through which military pay and allowances are regularly adjusted. In keeping with CBO's mandate to provide objective analysis, this paper makes no recommendations.

Richard L. Fernandez of CBO's National Security Division prepared this paper under the general supervision of Neil M. Singer and Cindy Williams. Ellen Breslin Davidson, Deborah Clay-Mendez, Mark Musell, and Ralph Smith, all of CBO, provided thoughtful comments on an earlier draft. CBO colleagues Shaun Black and Sheila Roquitte gave valuable assistance. The author also gratefully acknowledges the help of the staff of the Directorate for Compensation in the Office of the Assistant Secretary of Defense (Force Management Policy) and of Robert Emmerichs, director of the Eighth Quadrennial Review of Military Compensation.

Sherwood Kohn edited the manuscript, and Christian Spoor provided editorial assistance. Judith Cromwell prepared the paper for publication.

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Director

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CHAPTER I

INTRODUCTION

Higher pay can be an important incentive for workers to perform well, both in civilian employment and in the military. Members of the military receive increases in their compensation by many means—through annual across-the-board raises and periodic longevity increases, for accepting hazardous or arduous duties, even for getting married—but only the raises linked to promotion from one military rank to the next are direct rewards for performance. Private-sector employers, in contrast, may offer bonuses, merit raises, and other incentives.

Various observers have complained that the military pay system may not provide sufficient incentives for members to perform well. Among their concerns are:

- The pay system places too much emphasis on longevity and too little on promotions.
- Pay does not sufficiently differentiate between people promoted at average times and those promoted rapidly or slowly.
- Pay is too compressed; that is, the difference in pay between junior and senior personnel is too small.
- The underlying structure of the military pay system cannot adequately reward performance, requiring a thorough overhaul.

The case for changing the monetary incentives for military personnel to work hard and perform well seems to rest more on impressions and theoretical arguments than on specific evidence of poor performance. The various commissions and policy analysts who have examined military pay generally have not attempted to answer the underlying question: Are there problems of inadequate performance that could be addressed by changes in the pay system? Although individual commanders may know which of their people are performing to the best of their ability and which are not, that information does not make its way to pay analysts in any usable form. Thus, this paper also does not answer that difficult question.

The paper does, however, examine the arguments for changing the military pay system to improve the rewards for performance, exploring a number of ways of looking at incentives and focusing particularly on the work of the Seventh Quad-

renial Review of Military Compensation (7th QRMC).¹ The 7th QRMC accepted the bases for the first two concerns—too much emphasis on longevity and insufficient differentiation based on promotion rate—but rejected the need for a thorough overhaul. It recommended changes that would increase the role of promotions in determining service members' pay and reduce the role of longevity, reflecting a view that those factors measure the pay system's rewards for performance.

Most discussions of the monetary rewards for performance in the military focus on the role of military basic pay, although that is only one of several components of a service member's total compensation. The basic pay table sets out pay levels depending on the member's pay grade (determined by military rank) and on the number of years that he or she has served in the military. Thus, the table defines both the raises that members receive upon promotion and their raises for longevity, which generally come after every two years of service. All members also receive allowances for food and housing, either as part of their regular paychecks or in the form of mess-hall meals and government-provided quarters. Because the housing allowances depend on a member's rank, although not on years of service, they also provide a pay raise when the member is promoted.

In addition to the direct elements of pay, members of the military receive two indirect monetary benefits. The first is the so-called tax advantage that results because the allowances for food and housing are not subject to federal income tax. That advantage increases in value as a member progresses through the ranks. Second, military retired pay extends the potential reward from all pay raises. That becomes particularly important as members near 20 years of service, at which time they become eligible to retire.

PROMOTIONS PROVIDE THE ONLY MONETARY REWARD

The military's reliance on promotions as the sole source of monetary rewards for good performance causes certain problems for anyone seeking to increase performance incentives. First, the pay system can differentiate among people performing at different levels only insofar as those levels are reflected in appreciably different speeds of promotion. Second, the promotion system is designed to fill openings at succeeding levels of responsibility and to select those most able to perform at those levels, rather than to reward performance.

1. In 1966, the Congress required the Department of Defense to conduct periodic studies of the military pay system, the seventh of which was completed in 1992.

The promotion system for officers offers few sharp pay differences among them through much of their careers, based on notional patterns of promotion developed by the 7th QRMC. Those patterns describe the timing of promotion for officers who are advanced slowly, with average speed, and quickly. (Promotion patterns vary among the services and over time, but the Defense Officer Personnel Management Act, passed in 1980, attempts to ensure some degree of uniformity.) In an officer's career, the first two promotions occur in lockstep at about two and four years of service. Almost all officers receive those promotions. It is not until an officer has served about 10 years—halfway to possible retirement—that an exceptional person can expect an early promotion, and then the typical pattern, according to the 7th QRMC, is advancement only one year ahead of his or her peers. Sharp differences in pay among officers with the same time in the military do not really show up until appreciable numbers do not receive the next promotion but are permitted to remain in the service. That phenomenon occurs at about 16 years of service, when officers are promoted to lieutenant colonel or Navy commander (grade O-5), and again at about 22 years, when officers are promoted to colonel or Navy captain (O-6).

Among enlisted personnel, by contrast, variations in the timing of promotions—and hence pay—are much greater than among officers. The Army offers the most extreme example; a person might reach the rank of staff sergeant (E-6) after as few as four and one-half years of service or as many as 13 years or more.

As with any performance rewards, military promotions only provide incentives if the links between performance and promotions are clear. In the officer ranks, in particular, that may not always be the case. Officers who receive the “correct” set of assignments, including appropriate command responsibilities and professional education, seem to have better chances of being promoted than those who do not. Although some observers may criticize this system as “ticket punching,” the rationale is presumably that the individual's potential for future performance in more demanding positions is dependent on his or her past experience. Whatever the reason, if there is an element of chance in whether a member receives the correct assignments, the effort (and ability) of individuals will only partly determine whether they are promoted.

As service members look forward to a possible promotion, performance incentives may be weak if past events can affect members' chances of advancement. For example, officers who graduated from a service academy may be seen by others as being unduly favored. A very different sort of example comes from the services' tendencies to regard certain kinds of mistakes as “career ending,” meaning that the member can expect no further promotion. In both cases, a lessened chance of promotion translates into a lower expected monetary reward for hard work.

Maintaining performance as the chances for promotion lessen is a potential problem for a system that provides monetary rewards for performance solely through promotions. A typical service member's chances of promotion to successive ranks decline naturally as he or she progresses through a career. As economists Beth J. Asch and John T. Warner emphasize in a recent theoretical study, that decline may mean that pay differentials between succeeding grades must increase to compensate.² Differentials designed around average promotion probabilities, however, can do little to motivate people who believe that their own chances of another promotion are much worse than average. That may be a particular problem in the later stages of some members' careers, especially in light of the strong incentive that personnel have to complete 20 years of service and qualify for retirement benefits even if their future promotion and earnings prospects in the military are poor.

SUMMARY

Pay is not the only factor that may motivate members of the military to excel. Higher rank in the military confers a degree of status and privilege that has few counterparts in civilian employment. The military personnel system also discourages poor performance through an "up-or-out" system, which discharges people who are not promoted to successive ranks within set periods.

A common approach to examining the monetary incentives for performance in the military is to compare the increases in basic pay that stem from promotions with those that come from longevity. By that measure, the current basic pay table appears to reward promotion weakly in comparison with longevity. The 7th QRMC recommended changes to the pay table that were designed to shift the balance. The panel did not, however, include allowances in its comparisons. Doing so sharply lessens the appearance of longevity outweighing promotions in determining military pay levels.

Perhaps more important than the emphasis on promotion rather than longevity is how successful the military pay system is in giving more to people who are promoted rapidly than to those promoted at average rates, and more to people who progress normally than to those who lag behind. By that measure, the current pay system seems moderately successful, at least in the enlisted ranks, where "rapid" and "slow" have real meaning. Officer promotions occur nearly in lockstep, so the pay system does not effectively distinguish among officers until they reach the higher ranks, where the chances of promotion begin to decline. At that point, the military

2. Beth J. Asch and John T. Warner, *A Theory of Military Compensation and Personnel Policy*, MR-439-OSD (Santa Monica, Calif.: RAND, 1994).

retirement system adds a further monetary incentive by, in effect, extending the period during which the officer enjoys the higher pay associated with a promotion.

If the pay system does not provide sufficient performance incentives, perhaps the differentials between people at successive pay grades are too small—that is, military pay could be too compressed. Comparisons with average earnings in the civilian economy seem to suggest that compression should not be a problem, but various pitfalls lessen the usefulness of that common comparison. Impressions that military pay is too compressed have probably been shaped, to a great extent, by the changes in pay differentials that were made in the early 1970s in anticipation of the end of conscription. From a longer perspective, however, it is apparent that for the most part those changes merely offset years of stagnation in the pay of new recruits.

Proposals for changing the military pay system to improve incentives for performance range from the modest to the radical. One option is to make no change at all, because the evidence that the current pay system does not adequately reward performance is at best indirect and because any change would involve some cost and disruption. A second possibility is to work within the structure of the current system, as the 7th QRMC recommended in its proposal to tie more of pay to promotion raises and less to longevity increases. Significantly enlarging the pay differentials among people promoted at different speeds, however, probably requires a more thorough overhaul than the 7th QRMC proposed. A pay table that based longevity increases on a member's time in a pay grade, rather than time in the service, could result in greater differentials. Further increasing the monetary incentives for excellence could require introducing means in addition to promotions for recognizing merit, such as linking longevity increases to some measure of an individual's performance. Generating such a measure, however, could prove difficult.

How well the military pay system encourages hard work and good performance is not just an issue for academics and commissions. The pay and benefits of military members account for roughly 30 percent of the defense budget, and active-duty members make up more than one-third of all federal employees. If the pay system was not efficiently achieving its goals, taxpayer dollars would be wasted in as real a sense as if the services were buying weapons they did not need or keeping open bases with no missions.

CHAPTER II

THE STRUCTURE OF MILITARY PAY

The pay of a member of the military consists of at least four components. All members receive basic pay, the amount of which depends on the member's pay grade—based on military rank—and on the number of years that he or she has served. Pay grades range from E-1, for a new enlisted recruit, to O-10, for the highest ranking generals and admirals (see Table 1). All members also receive two basic allowances, for quarters (BAQ) and for subsistence (BAS), although for many members those payments are made in kind, as government-supplied housing or mess-hall meals. The amount of the BAQ increases with rank (but not with years of service) whereas the BAS is paid at one rate for all officers and another rate for enlisted personnel. Members stationed in the United States who receive BAQ are also eligible for the variable housing allowance (VHA), which varies with local housing costs. The payment rates for both BAQ and VHA are higher for members with dependents than for single members. Finally, members receive an implicit payment—generally called the federal “tax advantage”—because the allowances are not subject to federal income tax.

The term regular military compensation (RMC) refers to the combination of basic pay, BAQ and BAS, VHA (or its overseas equivalent), and the federal tax advantage (see Box 1).¹ RMC provides a basis for a member to compare his or her military pay with that offered by civilian employers, exclusive of fringe benefits such as health insurance, retirement benefits, and employer-subsidized day care or, in the case of the military, shopping in commissaries. The average RMC for groups of members also provides a convenient way to compare pay within the military—for example, to compare the pay of a private with that of a sergeant.²

-
1. Separate allowances apply to members stationed overseas. The housing component of the overseas allowances, called the overseas housing allowance or the station housing allowance, is part of the RMC of members stationed overseas. In calculations of the average RMC of members, however, average VHA rates often replace the overseas housing allowance—see, for example, Department of Defense, *Selected Military Compensation Tables January 1995 Pay Rates*. This paper generally ignores the overseas allowances, focusing on the situation of typical members stationed in the United States.
 2. Taking averages for groups requires placing a value on quarters that the government provides. For members with dependents, the calculations of RMC in this paper include the average rate of VHA for members who receive quarters allowances in cash—the prevalence of waiting lists for government quarters suggests that married members value those quarters at least as much as the combined BAQ and VHA they give up. Single members, however—especially junior enlisted members—often do not have the choice of living off-post. Thus, the calculations of RMC for junior members without dependents do not attribute VHA to the large number who receive quarters allowances in kind.

TABLE 1. PAY GRADES AND CORRESPONDING MILITARY RANKS, BY SERVICE

Pay Grade	Army	Navy	Marine Corps	Air Force
Commissioned Officers				
O-10	General	Admiral	General	General
O-9	Lieutenant General	Vice Admiral	Lieutenant General	Lieutenant General
O-8	Major General	Rear Admiral (Upper Half)	Major General	Major General
O-7	Brigadier General	Rear Admiral (Lower Half)	Brigadier General	Brigadier General
O-6	Colonel	Captain	Colonel	Colonel
O-5	Lieutenant Colonel	Commander	Lieutenant Colonel	Lieutenant Colonel
O-4	Major	Lieutenant Commander	Major	Major
O-3	Captain	Lieutenant	Captain	Captain
O-2	First Lieutenant	Lieutenant Junior Grade	First Lieutenant	First Lieutenant
O-1	Second Lieutenant	Ensign	Second Lieutenant	Second Lieutenant
Warrant Officers				
W-5	Chief Warrant Officer	n.a.	Chief Warrant Officer	n.a.
W-4	Chief Warrant Officer	Chief Warrant Officer	Chief Warrant Officer	n.a.
W-3	Chief Warrant Officer	Chief Warrant Officer	Chief Warrant Officer	n.a.
W-2	Chief Warrant Officer	Chief Warrant Officer	Chief Warrant Officer	n.a.
W-1	Warrant Officer	n.a.	n.a.	n.a.
Enlisted Personnel				
E-9	Command Sergeant Major/Sergeant Major	Master Chief Petty Officer	Sergeant Major/Master Gunnery Sergeant	Chief Master Sergeant
E-8	First Sergeant/Master Sergeant	Senior Chief Petty Officer	First Sergeant/Master Sergeant	Senior Master Sergeant
E-7	Sergeant First Class/Platoon Sergeant	Chief Petty Officer	Gunnery Sergeant	Master Sergeant
E-6	Staff Sergeant	Petty Officer First Class	Staff Sergeant	Technical Sergeant
E-5	Sergeant	Petty Officer Second Class	Sergeant	Staff Sergeant
E-4	Corporal/Specialist 4	Petty Officer Third Class	Corporal	Sergeant/Senior Airman
E-3	Private First Class	Seaman	Lance Corporal	Airman First Class
E-2	Private	Seaman Apprentice	Private First Class	Airman
E-1	Private	Seaman Recruit	Private	Airman Basic

SOURCE: Department of Defense.

NOTE: n.a. = not applicable.

BOX 1.
ALLOWANCES AND REGULAR MILITARY COMPENSATION

The military services have traditionally fed and housed their members either directly or, where that was not possible or desirable, by paying cash allowances. The current “basic” allowances—for quarters (BAQ) and subsistence (BAS)—were established by the Career Compensation Act of 1949. In 1974, the Congress defined regular military compensation (RMC) as including both basic pay and basic allowances as well as the tax advantage that members receive because the allowances are not subject to federal income tax. That action formalized the understanding, already prevalent, that for purposes of comparison with pay in the civilian economy, military compensation must include the allowances that all members receive either in cash or in kind. Thus, BAS and BAQ, which began as reimbursements for expenses that the government was not able to cover directly, have become part of military pay. In effect, cash allowances are viewed as the norm, to be forfeited when members live in government quarters or eat in government messes (enlisted and officer subsistence allowances are treated differently).

When the Congress established the variable housing allowance (VHA) in 1980, it redefined RMC to include both this new payment and the housing component of the existing overseas station allowance. The services pay VHA to members stationed in areas of the United States where housing costs exceed the BAQ by a certain amount—the overseas housing allowance covers the full housing costs, up to a limit, of members stationed outside the United States.

The rates at which BAQ and VHA are paid depend both on a member’s pay grade and on whether he or she has dependents, but not on the number of years that the person has served in the military. The combined payments rise with pay grade and are greater for members who have dependents than for single members. The totals do not rise as fast with pay grade, however, as does basic pay.

The subsistence allowance does not differ by pay grade, except that the rate for officers is different from that for enlisted personnel. All officers receive BAS at the rate (in 1995) of \$146.16 a month and must pay for any meals eaten in government messes. The enlisted BAS has three forms, the most common being that paid to members who are authorized to mess separately or who are on leave. The rate for that form is \$6.98 a day, or about \$212 a month. Roughly two-thirds of enlisted personnel receive the allowance in cash rather than in kind. Single enlisted members in the lower pay grades, who generally are expected to live in government quarters, typically are not paid the allowance in cash, nor are those on sea or field duty because they are fed by the government.

Calculations of the tax advantage, unless they are made by the individual involved, are necessarily approximations. The tax advantage depends on the person’s marginal tax rate, which depends in turn on many factors that an outside observer—the Department of Defense (DoD), for example—cannot readily measure. The calculations that DoD reports assume that members and their families have no income other than military pay and that they take the standard deduction.

In addition to the components of RMC, members of the military may receive a variety of special pays based on their duties or occupational specialties. Examples include hostile fire pay, flight pay, selective reenlistment bonuses, and special pay for health professionals. Although one or more of these pays may constitute a large part of some members' compensation—health professionals in particular—in total they cost less than just the cash component of BAS. This paper ignores the special pays because it focuses on incentives common to all military specialties. For certain specific occupations, however, consideration of the pays would be an important part of an analysis of compensation.³

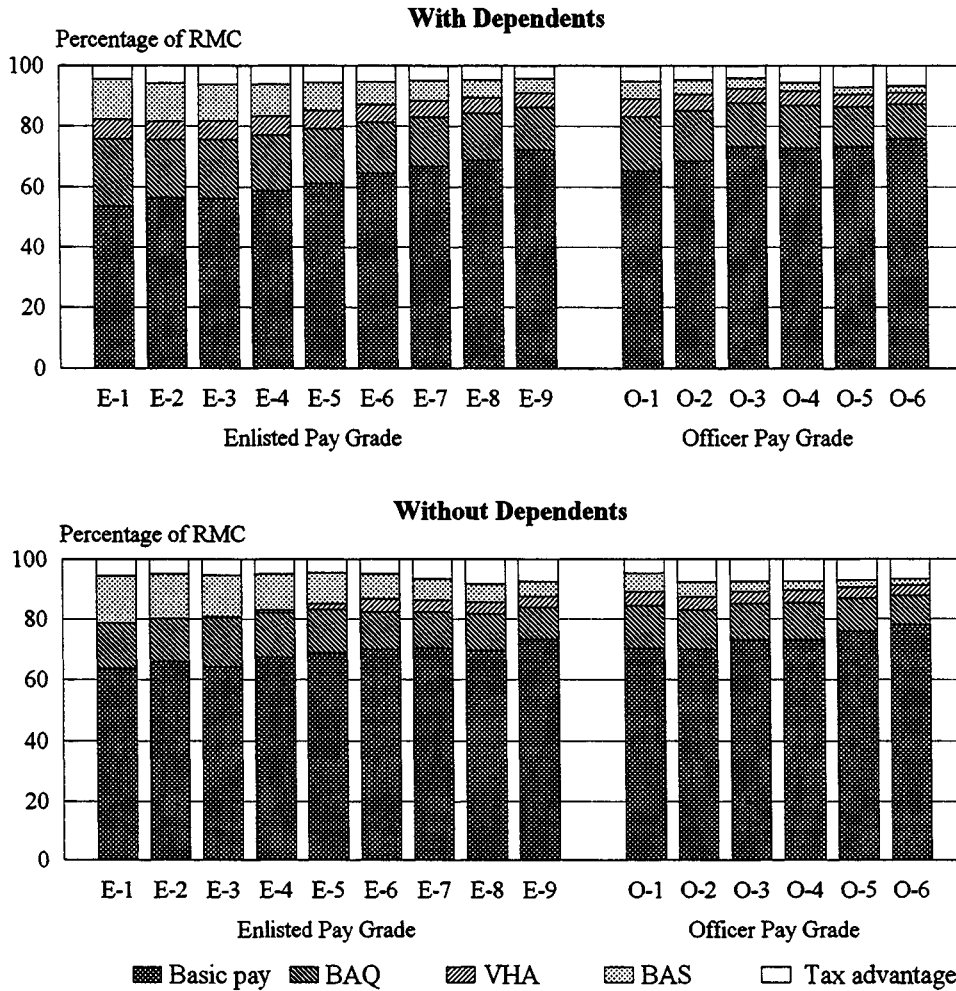
Basic pay is the largest and most visible component of regular military compensation. For typical married members in midcareer, basic pay accounts for roughly three-quarters of an officer's compensation and just under two-thirds of an enlisted member's earnings (see Figure 1). A new recruit with a family could receive barely half of his or her compensation in basic pay, but reaching the grade of E-5 (generally, at four to six years of service) would push that fraction above 60 percent. The next largest component, the basic allowance for quarters, accounts for 10 percent to 20 percent of RMC—less than 15 percent for most single members. A majority of married members receive BAQ (and VHA) in cash, but for almost all single enlisted personnel in the lower ranks the payment of housing allowances is only implicit because they must live in government quarters. The basic allowance for subsistence makes up a sizable portion of RMC for very junior members, but the share of BAS in total compensation falls rapidly as a member progresses through the ranks because the rate at which BAS is paid does not change. Finally, the tax advantage, which ranges from about 5 percent to 8 percent of RMC, is generally invisible to the member.

Although it is not part of a member's current compensation, military retired pay can make up a substantial part of lifetime earnings and have important effects on members' career choices. The military retirement system is "cliff-vested" at 20 years of service; that is, members receive nothing unless they complete 20 years, which is also the minimum number of years at which they may retire.⁴ Under the system applicable to members who entered before September 8, 1980, a person retiring after completing 20 years receives a monthly payment equal to one-half of his or her final basic pay. For each additional year of service, the fraction of final pay increases by

3. See, for example, Congressional Budget Office, "Pilot Retention Bonuses in the Air Force," CBO Memorandum (June 1995). For a complete catalog of the special pays, see Department of Defense, *Military Compensation Background Papers*, 4th ed. (November 1991). Recommendations for changes are included in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

4. In 1992, the Congress enacted a provision permitting the services to offer early retirement to members with as few as 15 years of service, at reduced levels of retired pay. That program, which was intended to assist the department in making personnel reductions, is scheduled to expire on October 1, 1999.

FIGURE 1. COMPONENTS OF 1995 REGULAR MILITARY COMPENSATION FOR TYPICAL MEMBERS WITH AND WITHOUT DEPENDENTS, BY PAY GRADE (In percent)



SOURCE: Congressional Budget Office and Department of Defense, *Selected Military Compensation Tables January 1995 Pay Rates*.

NOTES: RMC = regular military compensation; BAQ = basic allowance for quarters; VHA = variable housing allowance; BAS = basic allowance for subsistence. Tax advantage refers to the implicit payment because the allowances are not subject to federal income tax.

Pay distributions are for members who have the median years of service for the pay grade. Median years are derived from 1990 data to avoid being affected by the large personnel reductions of later years.

Allowances are attributed to all members regardless of whether they are received in cash or in kind, with one exception: no VHA is attributed to enlisted members below the grade of E-6 who do not have dependents and are living in government quarters. VHA amounts for all other members are the average amounts, by pay grade, paid to eligible members.

2.5 percentage points, up to a maximum of 75 percent (30 years or more). Changes made in the system in 1980 and 1986 reduced the value of retired pay, but retained the basic feature that retired pay is calculated as a percentage of basic pay.

Although all of the components of military compensation play a role in determining the monetary rewards for performance, the basic pay table is generally the focus of attempts to change those rewards. The table sets out the pay level for each member, based on his or her pay grade—determined by military rank—and years of military service (see Figure 2). Enlisted pay grades range from E-1, for a new recruit, to E-9; officer grades range from O-1 (second lieutenant or ensign) to O-10 (four-star general or admiral). Promotions are rewarded with both an immediate raise in pay and larger increases for subsequent longevity. Members who perform well enough to be retained but not to receive continued promotions eventually stop receiving longevity increases. Separate lines in the basic pay table define the pay of officers who served four years or more in the enlisted ranks. Without those lines, such officers might suffer a pay cut when they were commissioned and would quickly pass the last longevity increase for their grade.

The general structure of the pay table is essentially the same as that established by the Career Compensation Act of 1949. Changes in the table over the years altered relative pay levels within it, but because some of those changes were offsetting, today's table is remarkably similar to the 1949 version, although the current table reflects the substantial inflation since 1949.

FIGURE 2. TABLE OF MILITARY BASIC PAY

MONTHLY BASIC PAY EFFECTIVE 1 JANUARY 1995

Pay Grade	YEARS OF SERVICE															
	Under 2	2	3	4	6	8	10	12	14	16	18	20	22	24	26	
Commissioned Officers																
O-10	6978.30	7223.70	7223.70	7223.70	7223.70	7501.20	7501.20	7916.70	7916.70	8482.80	8482.80	9016.80	9016.80	9016.80	9016.80	9016.80
O-9	6184.50	6346.50	6481.80	6481.80	6481.80	6646.50	6646.50	6923.10	6923.10	7501.20	7501.20	7916.70	7916.70	7916.70	7916.70	8482.80
O-8	5601.60	5769.60	5906.40	5906.40	5906.40	6346.50	6346.50	6646.50	6646.50	6923.10	6923.10	7501.20	7501.20	7501.20	7501.20	7686.00
O-7	4654.50	4971.00	4971.00	4971.00	4971.00	5193.90	5193.90	5494.80	5494.80	5769.60	5769.60	6346.50	6346.50	6346.50	6346.50	6783.00
O-6	3449.70	3790.20	4038.60	4038.60	4038.60	4038.60	4038.60	4038.60	4038.60	4176.00	4176.00	4836.30	4836.30	4836.30	4836.30	5680.80
O-5	2759.10	3239.70	3463.80	3463.80	3463.80	3588.50	3588.50	3760.80	3760.80	4012.80	4012.80	4560.00	4560.00	4560.00	4560.00	5193.90
O-4	2325.60	2832.00	3021.00	3021.00	3021.00	3212.70	3212.70	3432.00	3432.00	3624.90	3624.90	3996.70	3996.70	3996.70	3996.70	4682.70
O-3	2161.20	2416.50	2583.30	2583.30	2583.30	2994.90	2994.90	3270.30	3270.30	3516.30	3516.30	3516.30	3516.30	3516.30	3516.30	4065.50
O-2	1884.60	2058.00	2472.90	2472.90	2472.90	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80
O-1	1636.20	1703.10	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00
Commissioned Officers with Over 4 Years Active Service as Enlisted Members																
O-3	0.00	0.00	0.00	0.00	0.00	3102.30	3270.30	3432.00	3568.50	3568.50	3568.50	3568.50	3568.50	3568.50	3568.50	3568.50
O-2	0.00	0.00	0.00	0.00	0.00	2858.10	2994.90	3102.30	3432.00	3568.50	3568.50	3568.50	3568.50	3568.50	3568.50	3568.50
O-1	0.00	0.00	0.00	0.00	0.00	2556.00	2608.80	2691.60	2832.00	2940.60	3021.00	3021.00	3021.00	3021.00	3021.00	3021.00
Warrant Officers																
W-5	2202.00	2362.50	2362.50	2416.50	2526.30	2637.60	2748.30	2940.60	3077.10	3185.10	3270.30	3270.30	3270.30	3270.30	3270.30	3270.30
W-4	2001.30	2170.80	2170.80	2199.00	2224.50	2387.40	2526.30	2608.80	2691.60	2772.00	2858.10	2909.70	2909.70	2909.70	2909.70	2909.70
W-3	1752.90	1896.30	1896.30	1951.50	2058.00	2170.80	2233.30	2335.80	2416.50	2501.40	2583.30	2664.60	2664.60	2664.60	2664.60	2664.60
W-1	1460.10	1674.30	1674.30	1814.10	1896.30	1977.60	2058.00	2143.20	2224.50	2307.30	2387.40	2472.90	2472.90	2472.90	2472.90	2472.90
Enlisted Members																
E-9	1499.70	1619.10	1678.80	1737.90	1797.00	2148.00	2209.80	2268.00	2678.40	2739.90	2801.40	2855.70	2855.70	2855.70	2855.70	2855.70
E-8	1290.30	1406.40	1464.90	1527.30	1584.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60
E-7	1132.20	1232.40	1292.40	1348.50	1437.30	1495.80	1554.90	1612.20	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60
E-6	1056.00	1115.40	1181.10	1272.00	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40
E-5	995.10	1049.70	1091.40	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60
E-4	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60
E-3	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40
E-2	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20
E-1	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20
E-1 <4mo.	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20	790.20

SOURCE: Reproduced from Department of Defense, *Selected Military Compensation Tables January 1995 Pay Rates*, p. A2.

CHAPTER III

PERFORMANCE INCENTIVES OUTSIDE THE PAY SYSTEM

Pay is only one of the inducements for members of the military to excel and seek promotion. Higher rank confers status and privilege as well as higher pay. Failure to be promoted, in contrast, can exact a severe penalty: separation from the military. Those features of the military may compensate for monetary incentives that some see as too weak.

STATUS AND PRIVILEGE AS PERFORMANCE INCENTIVES

Higher positions in any organization convey some measure of privilege, standing, and authority over subordinates. In the military, such features extend beyond the immediate workplace and are reenforced by the visible insignia of rank. Members are assigned on-post housing based on rank, for example, with officers' housing in different areas than that of enlisted members. Within those broad categories, members are further grouped by rank, and the higher-ranking groups are assigned to different and better housing areas than the groups of more junior members. The authority that a person of higher rank can exercise applies not only to that person's assigned subordinates, as in the civilian world, but to anyone of lower rank, and there is no truly off-duty time when a junior member is not bound to obey any lawful order of a superior. Deference to superiors is expected, most notably in the form of the salute that members render to any superior officer. Finally, there is the ultimate authority—and responsibility—that goes with command in the military, whether it is a lieutenant leading a platoon of 40 men into combat when only 25 years old, a naval officer commanding a warship before he or she reaches 40, or a theater commander directing the actions of hundreds of thousands.

Do unique factors of status and privilege imply a different role for direct pay in the military than in the civilian world? In particular, can they compensate for monetary incentives that may be too weak by themselves? Those questions cannot readily be answered, but some indications appear in the behavior of military officers. In their decisions to stay in the military or to leave, officers appear to be remarkably unaffected by changes in their pay compared with private-sector pay levels. This seeming indifference is reflected in the small number of studies of officers' pay responsiveness, in sharp contrast to the host of such studies for enlisted personnel. Once they are eligible to retire, officers seem much more reluctant to leave than enlisted personnel; indeed, the military retirement system began as a means of separating officers who were no longer fit for duty. One possible explanation for the

behavior of officers is that the military pays its officers much more than they could command in the civilian economy; another is that higher-ranking officers enjoy a standing within their community that has few parallels in civilian employment.

UP-OR-OUT RULES AS PERFORMANCE INCENTIVES

When officers are promoted from O-3 (captain or Navy lieutenant) to O-4 at 10 to 12 years of service, they receive raises of about 5 percent in basic pay. That may seem a rather small increment for a first promotion in more than six years, too little to make officers work hard over that period. But if they are not promoted, those officers will be forced to leave the military, forgoing both future military pay (including longevity increases) and military retirement benefits. That may be why junior officers continue to seek promotion despite what the 7th QRMC thought were inadequate pay incentives.

All of the services enforce up-or-out rules—limitations on the total years of service that a member may have without being promoted to the next grade (the “high year of tenure” for the current grade). Uniform rules throughout the services are specified for officers in the Defense Officer Personnel Management Act (DOPMA), which reflects the uniform promotion practices that it also imposes (see Table 2). The services' rules for enlisted personnel vary, reflecting their differing promotion practices.

Up-or-out rules can replace direct pay incentives in encouraging good performance. Even if the pay table for officers offered no raises at all tied to the early promotions, incentives for performance would be strong because the military separates from service an officer who is not promoted through the ranks to major or lieutenant commander (grade O-4).¹ The less restrictive high years of tenure in the enlisted ranks do less to affect incentives, however, which means that pay increases must play a more important role. As shown in Chapters IV and V, the current pay table rewards enlisted promotion more than it does that of officers.

Despite their importance in encouraging service members to strive for certain promotions, up-or-out rules have two limitations. First, they cannot raise good performance to excellent. A member who is motivated merely by the desire to remain in the military may not expend the extra effort required to become a strong candidate for early promotion. Second, the services do not impose high years of tenure as members approach retirement eligibility. A promotion to O-4 (at 10 to 12

1. Raises at the promotion to grade O-2, which occurs at two years of service, and to grade O-3 (at about four years) provide essentially no incentive for performance because almost all officers receive these promotions. That is ironic because those promotions play a substantial role in the calculation of promotion versus longevity raises over an officer's career (see Chapter IV).

TABLE 2. SERVICE HIGH YEARS OF TENURE AND AVERAGE TIMES AT PROMOTION, BY PAY GRADE

	O-1/ E-1	O-2/ E-2	O-3/ E-3	O-4/ E-4	O-5/ E-5	O-6/ E-6	O-7/ E-7	O-8/ E-8
High Year of Tenure^a								
Officer	n.a.	n.a.	14	20	28	30	n.a.	n.a.
Enlisted								
Army	n.a.	n.a.	n.a.	8	13	20	24	27
Navy	n.a.	n.a.	n.a.	10	20	23	26	28
Marine Corps	n.a.	n.a.	n.a.	8	13	20	22	27
Air Force	n.a.	n.a.	n.a.	10	20	20	23	26
Average Years at Promotion from Grade^b								
Officer	2.0	4.0	10.0	16.0	22.0	26.3	28.1	30.0
Enlisted								
Army	0.7	1.1	1.9	4.3	7.8	13.3	17.6	20.6
Navy	0.6	1.3	2.2	3.7	7.8	12.0	16.6	19.6
Marine Corps	0.6	1.1	2.9	5.3	9.5	13.9	18.0	21.8
Air Force	0.5	1.3	3.1	6.8	11.9	15.3	18.5	21.7

SOURCE: Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTE: n.a. = not applicable.

- a. High years of tenure for enlisted personnel are as of 1991. Some of the services have reduced high years for certain grades during the personnel reductions of the 1990s. Higher limits may apply to enlisted personnel on promotion lists.
- b. Average times at promotion for officers through grade O-5 are the midpoints of ranges specified in the Defense Officer Personnel Management Act. Actual times have been somewhat later in recent years.

years of service) generally guarantees that an officer will be allowed to complete 20 years of service. In the enlisted ranks, the Navy and Air Force permit people who reach grade E-5 to complete 20 years, whereas the Army and Marine Corps require grade E-6. Enlistees typically reach those grades before they complete 10 years of service.

CHAPTER IV

PROMOTION VERSUS LONGEVITY IN THE PAY SYSTEM

Officers who advance to successive grades at the usual times will find, over the course of a 20-year career, that their four promotions will have added a total of roughly \$1,200 to their monthly basic pay (based on the 1995 pay table). Over the same career length, 11 longevity increases will have increased those officers' pay by about \$1,900, or more than 60 percent of the total. Personnel rising through the enlisted ranks will typically be promoted more often, but will still find that only about half of the dollar amount of their total raises will have come from promotions.

The Seventh Quadrennial Review of Military Compensation saw in data such as those clear evidence that promotions count for too little and longevity for too much. The group accepted as an axiom that raises arising from promotions should be larger and those accruing from mere longevity should be smaller, noting that:

Basic pay is the principal vehicle for linking compensation to military performance measured by rank. However, ad hoc changes over the past forty years have distorted this linkage so that years of service weigh more heavily than promotion as a determinant of pay. As a result, the distinction between pays of different grades at similar years of service is, in some cases, too small to provide a clear reward for promotion.¹

The 7th QRMC recommended a new table of basic pay that places greater emphasis on promotions in determining the basic pay that a member receives over the course of a military career. The group ignored the role of allowances, however, which may have led it to overstate the apparent problem in the pay system. Housing allowances contribute to the raises that come from promotions but not to those from longevity.

MEASURING THE PAY EFFECTS OF PROMOTION AND LONGEVITY

There are many ways to compare the effects of promotion and longevity on a service member's pay. The numbers cited above reflect the simplest method: attribute each raise either to promotion or to longevity and total each group. The 7th QRMC used an alternative method that may provide greater analytic insight: for each raise, add

1. Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992), p. 5.

up the stream of future payments for an entire military career. Table 3 illustrates these two methods using data for the first 20 years of a typical officer career, based on the 1995 pay table. As the calculations suggest, the two methods generally yield similar results for the share of total raises attributed to promotions. To facilitate comparisons with the 7th QRMC's results, the calculations throughout this chapter use that group's career-pay method.

Both methods ignore a major contributor to rising pay over the course of a military career: annual across-the-board raises. Those raises, sometimes erroneously called cost-of-living raises, roughly maintain the competitive position of the military as an employer. For the typical officer whose pay growth is depicted in Table 3, across-the-board raises would probably play a more important role in determining his or her pay at the end of the 20 years than either promotion or longevity raises—possibly more than the two combined. Nonetheless, across-the-board raises do not belong in the comparison because they have nothing to do with the structure of the pay table or an individual's progress through a military career.

TABLE 3. ALTERNATIVE METHODS FOR COMPARING RAISES ATTRIBUTABLE TO PROMOTION AND LONGEVITY DURING THE FIRST 20 YEARS OF A TYPICAL OFFICER'S CAREER (Basic pay only, in dollars)

Years of Service	Grade Promoted To ^a	Raises (Per year)		Years Received	Total from Raise	
		Promotion ^a	Longevity		Promotion ^a	Longevity
2	O-2	4,259	803	18	76,658	14,450
3			4,979	17		84,640
4	O-3	3,625	997	16	58,003	15,955
6			1,642	14		22,982
8			1,289	12		15,466
10	O-4	1,940	2,016	10	19,404	20,160
12			2,315	8		18,518
14			1,984	6		11,902
16	O-5	4,277	1,998	4	17,107	7,992
18			2,963	2		5,926
20			1,663	0		0
Total		14,101	22,648		171,173	217,991
Percentage of All Raises		38.4	61.6		44.0	56.0

SOURCE: Congressional Budget Office.

NOTE: Rounded numbers may produce sums that do not correspond to the totals shown.

a. Blanks appear for years of service in which no promotion takes place.

Because both methods deal with pay raises, they also ignore the member's starting pay. Adding starting pay (\$19,634) to the sum of promotion and longevity raises would yield the member's pay level at the end of the illustrative career (\$56,383). Multiplying the starting pay level by 20 (total career length) and adding the result to the sum of promotion and longevity totals from the QRMC method would yield the member's total career basic pay (\$781,852).

Comparisons of raises from promotion and longevity need not be limited to entire careers. As the discussion of up-or-out rules suggested, certain periods within a career may be particularly important: for example, the period between an officer's promotion to major or lieutenant commander (grade O-4) at 10 or 11 years of service and eligibility for retirement at 20 years. Making the comparison for that period would simply involve totaling the raises for years 12 through 20. Alternatively, one might want to examine only the raises during the first 5 or 10 years of service, when members may be deciding whether to pursue a full military career.

The two methods for comparing the effects of promotion and longevity that are illustrated in Table 3, which share a focus on raises, do not exhaust the possible approaches. Both ignore the impact that promotions can have on subsequent longevity increases, which generally—though not always—are larger in higher pay grades. For an extreme example, consider the case of an Air Force staff sergeant (E-5), who, under current up-or-out rules, is permitted to complete a 20-year career. Without another promotion, he or she will stop receiving longevity increases after 14 years of service. With a promotion will come two additional longevity increases, at 16 and 18 years of service. Should those increases, then, be attributed to the promotion? Unfortunately, applying such an analytic approach is very difficult.

Do service members look at specific pay raises to determine how well hard work is rewarded, rather than checking the longer-term effects of promotions on earnings? The former approach seems short-sighted, but gathering all of the information required for a longer view might not be easy. Some oddities in the current table of basic pay also may encourage a focus on raises. The single largest raise that an officer receives over the first 20 years of a career, for example, is the longevity increase that comes when he or she completes three years of service. An enlistee who is promoted to sergeant (E-5) before completing six years of service will receive a smaller raise at that point than either his last or his next longevity increase. For some members, or perhaps even many members, the perceptions that are created by the pattern of their raises may be more important than the actual effect of promotions on pay.

THE CURRENT PAY TABLE COMPARED WITH THE 7TH QRMC ALTERNATIVE

The current pay table appears to reward promotion and longevity about equally for enlisted personnel but not for officers (see Table 4). During a 20-year career, about 48 percent of an enlisted member's gain in total earnings from basic pay—over what starting pay alone would have provided—comes from promotions and the remaining 52 percent comes from longevity increases. Over the second half of that career (10 years to 20 years), or over the period after the initial enlistment tour (4 years to 20 years), promotions typically account for slightly more than half of the gain in total earnings. By contrast, for a typical officer, promotions account for well under half of the amount of total basic pay coming from raises; in the later periods, promotions account for less than 30 percent.² Those later periods probably provide a better indication of the importance of officer promotions because the first two officer promotions—at two and four years of service—are so nearly automatic that the pay raises associated with them could easily be described as longevity increases.

Some of the difference between officers and enlisted members in the relative importance of promotions and longevity may derive from the structure of the pay table, but an important contributor is the less frequent promotions of officers, particularly in the later years of their careers. A typical enlisted member may receive six or seven promotions over a 20-year career, with two of them in the last 10 years. Officers, however, generally receive only four promotions in 20 years, and only one in the last 8 to 10 years.

The 7th QRMC's proposed pay table would increase the size of promotion raises and reduce the size of longevity increases. For enlisted personnel, the table would add 7 percentage points to the share of promotions in total pay increases over a 20-year career. For officers, the table would add more than 10 percentage points. Perhaps more important, the proposed table would have its greatest effect on officer pay in the periods from 4 to 20 years of service and from 10 to 20 years of service, where the current table rewards promotion much less than longevity.

2. The representative officer discussed here receives successive promotions at 2, 4, 10, and 16 years of service, the middles of the ranges under the guidelines of the Defense Officer Personnel Management Act (DOPMA). The actual timings of promotions have tended to be somewhat later in recent years. Using actual timings to make the comparisons of promotion versus longevity would have little effect as long as the years of service being examined were adjusted so as to exclude the same promotions. That is, instead of 4 to 20 years, examine 4.5 to 20 years to exclude the promotion to O-3.

TABLE 4. INCREASES IN TOTAL BASIC PAY ATTRIBUTABLE TO PROMOTIONS, OVER SELECTED PERIODS OF TYPICAL CAREERS, COMPARED WITH INCREASES FROM PROMOTIONS AND LONGEVITY COMBINED (In percent)

Pay Table	Years of Service		
	0 to 20	4 to 20	10 to 20
Enlisted			
Current	48.3	51.9	52.8
7th QRMC Proposal	55.2	58.5	61.1
Officer			
Current	43.9	26.2	27.8
7th QRMC Proposal	54.5	40.4	41.8

SOURCE: Congressional Budget Office. Promotion timings are based on data in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTE: Excludes annual across-the-board raises. The numbers reported here differ somewhat from those reported by the 7th QRMC for a given pay table and career length. The calculations are based on months of service; the 7th QRMC apparently used whole years. Another source of difference may be the way in which longevity and promotion raises that occur in the same period are treated. In general, at a given year of service the longevity raise is larger in the higher pay grade. Thus, calculating the longevity raise first, and then the promotion raise, attributes more to promotion and less to longevity than if the calculations were performed in the opposite order. The calculations consistently use the former method; the report of the 7th QRMC does not explain how it resolved the ambiguity.

ACCOUNTING FOR ALLOWANCES

Focusing exclusively on basic pay creates a misleading impression of the relative rewards for promotion and longevity under the current pay system. Housing allowances—or their in-kind equivalents—increase when members are promoted but do not depend on years of service. Thus, accounting for allowances increases the apparent reward for promotion (see Table 5). Including all of regular military compensation (RMC), which incorporates both housing and subsistence allowances and the tax advantage that accrues because those allowances are not subject to federal income tax, raises the share of promotions in total pay increases under the current pay table to well over half for both officers and enlisted personnel.

Based on total RMC, the current pay table already provides the same rewards for promotion that the 7th QRMC sought to achieve with a new table (compare the “Current” lines in Table 5 with the “7th QRMC Proposal” lines in Table 4). That is, if the QRMC panel thought that promotions ought to account for about 55 percent of pay increases during a 20-year career, it should have been satisfied with the

TABLE 5. INCREASES IN TOTAL REGULAR MILITARY COMPENSATION ATTRIBUTABLE TO PROMOTIONS, OVER SELECTED PERIODS OF TYPICAL CAREERS, COMPARED WITH INCREASES FROM PROMOTIONS AND LONGEVITY COMBINED (In percent)

Pay Table	Years of Service		
	0 to 20	4 to 20	10 to 20
Enlisted			
Current	59.7	62.9	59.0
7th QRMC Proposal	65.1	68.2	66.4
Officer			
Current	54.5	44.9	41.1
7th QRMC Proposal	62.9	53.3	54.1

SOURCE: Congressional Budget Office. Promotion timings are based on data in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTE: Excludes annual across-the-board raises. Regular military compensation includes basic pay, basic allowance for subsistence, basic allowance for quarters, variable housing allowance, and the tax advantage that accrues because the allowances are not subject to federal income tax. Allowances are assumed to be paid in cash rather than in kind and are calculated at the with-dependents rates. Data shown for the 7th QRMC table include current (1995) allowances, and the table was inflated to 1995 pay levels.

existing pay and allowances.³ Of course, accounting for allowances raises the apparent reward for promotion under the QRMC's proposed table as well, but presumably there is some point at which the role of longevity becomes too small. The proposed table would attach nearly two-thirds of total pay increases to promotions.

How should promotion and longevity weigh in determining pay? The 7th QRMC acknowledged that "a critic might argue that there is no *right* balance," but judged that "the basic pay table ought to reward promotion at a minimum *more than* the current 50/50 ratio relative to longevity."⁴ Viewed in relation to that standard, the current pay system—basic pay and allowances—would seem to be adequate.

3. The report of the 7th QRMC does not explain why the panel chose to examine the pay table in isolation rather than with allowances incorporated, except to note: "As the largest and most visible element of cash compensation, the basic pay table therefore should provide the member a stable and predictable basis for his or her career decisions." Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation—Basic Pay: A Strategy for Rewarding Promotion over Longevity*, Major Topical Summary 2 (August 1992), p. 2-1.

4. *Ibid.*, p. 3-3.

chapter, it seems to ask the wrong question; more important than the relative effects of promotion and longevity is whether the system pays people who are promoted rapidly much more than those who are promoted slowly. Second, longevity raises are closely tied to the promotion process. In every grade, longevity raises cease after some point, generally based on the time at which typical members would be promoted from that grade. In addition, if longevity raises are larger in absolute terms in the higher pay grades—as is generally the case with the current pay table—then a portion of those raises might more appropriately be attributed to promotion. Unfortunately, there is no satisfying way to make that attribution, so the most that can be said is that available comparisons of the effects of promotion and longevity on earnings are probably somewhat misleading.

CHAPTER V

PAY AND THE SPEED OF PROMOTION

The approach of the Seventh Quadrennial Review of Military Compensation in examining the rewards for performance under alternative pay tables may not be the most appropriate. The promotion-versus-longevity comparison suggests that members ask themselves, "Over the course of my career, how much of my increase in pay will come automatically and how much because I work hard for promotion?" A more reasonable question would be, "If I work hard and rise rapidly, will I be paid much more than if I take it easy?" That is, does the pay system reward those who are promoted ahead of their peers and penalize those who are promoted more slowly or who fail to be promoted after some point? Among the criteria that the 7th QRMC listed for judging a proposed pay table, the first (and presumably most important) was that it should provide such pay differences. In its analysis, however, the group focused on promotion and longevity comparisons.

FAST VERSUS SLOW PROMOTION

Measured against the standard of rewarding rapid promotion, neither the current pay table nor the 7th QRMC's alternative seems very impressive (see Table 6). Under either pay table, "fast-track" enlisted personnel receive about 9 percent more in total regular military compensation over a 20-year career than their counterparts who are promoted at the average time for each grade. For officers, the variation in timing of promotions is so small that the pay system can offer very little monetary reward for rapid promotion. The penalties for slow promotion are somewhat greater than the rewards for rapid promotion, reflecting the assumption that people promoted slowly cannot expect to advance beyond the grade of E-6 in the enlisted ranks and O-4 in the officer ranks. That effect of lost promotions is most evident for 10 to 20 years of service.

The pay table proposed by the 7th QRMC offers scant improvement over the current table in rewarding rapid promotion.¹ This may mean that the disruption and costs involved in changing to the 7th QRMC's pay table may not be worth the gain. It may also indicate that the comparison of promotion and longevity raises, the

1. The 7th QRMC reported the changes in career pay for enlisted personnel promoted at fast, slow, and average rates that would come from their proposed pay table, and calculated but did not report them for officers. The enlisted results show barely discernible differences. The QRMC also calculated retention effects, which are small but not inconsequential. Unfortunately, the retention results may have been affected by the slight increase in average pay under the QRMC's proposed table, which apparently arose as modifications were made to the original cost-neutral proposal.

primary measure used by the QRMC, does not provide an adequate guide to how well the pay system rewards performance.

Neither the current pay table nor the table proposed by the 7th QRMC offers much scope for increasing the pay differentials among people promoted slowly, at average rates, or rapidly. Those differentials are determined, for the most part, by the variation in promotion timing among the groups and by the differences in average pay levels between pay grades. To have a major effect on the monetary incentives provided by the pay system as it is currently structured would require either enlarging intergrade pay differences or speeding up the promotions of superior performers. By accepting the current structure, the 7th QRMC limited its ability to effect significant change.

TABLE 6. DIFFERENCE IN TOTAL REGULAR MILITARY COMPENSATION FOR SLOW AND FAST PROMOTION COMPARED WITH AVERAGE PROMOTION TIMING (In percent)

Pay Table	0 to 20 Years of Service		10 to 20 Years of Service	
	Slow Promotion	Fast Promotion	Slow Promotion	Fast Promotion
Enlisted				
Current	-9.8	8.6	-11.2	9.3
7th QRMC Proposal	-10.3	8.7	-11.7	9.8
Officer				
Current	-3.7	1.0	-6.2	0.9
7th QRMC Proposal	-4.1	1.5	-6.8	1.3

SOURCE: Congressional Budget Office. Promotion timings are based on data in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTES: Regular military compensation consists of basic pay, basic allowance for subsistence, basic allowance for quarters, variable housing allowance, and the tax advantage that accrues because the allowances are not subject to federal income tax. Allowances are at the with-dependents rate. Data shown for the 7th QRMC table include current (1995) allowances.

Timing data for the slow-promotion results were modified to reflect no promotion beyond grades E-6 and O-4. Enlisted timing is for the Army; officer timing for average promotion is based on guidelines under the Defense Officer Personnel Management Act.

The data are based on total pay over the indicated periods rather than present values at the start of each period, as might seem more appropriate. Discounting the pay streams reduces the rewards for rapid promotion (or the penalties for slow promotion) very slightly and has virtually no effect on the comparison of the two pay tables.

RETIRED PAY AND THE REWARDS FOR PROMOTION

The military retirement system significantly increases the monetary incentive for service members to seek a final promotion in the years before they retire, potentially affecting their performance well before that promotion. The retirement system effectively lengthens the period during which a member will be rewarded for a promotion, adding to the reward, both absolutely and as a percentage of lifetime earnings including retired pay. Because the service time required for retirement is only 20 years, and retired pay begins as soon as the member leaves the military, retired pay can provide a significant monetary incentive for members to work hard (and to remain in the military) through a major part of their careers.

The effect of retired pay on promotion incentives can be illustrated by the situation facing typical officer and enlisted members who have just completed their 10th year of service, at which point the effects of the up-or-out system begin to wane. The officer will have just been promoted to major or lieutenant commander (O-4), under the guidelines of the Defense Officer Personnel Management Act, and may be promoted once more, at about 16 years of service, before becoming eligible for retirement. The enlisted member will have recently been promoted to E-6 and can hope for a further promotion at about 14 years of service. (He or she may hope to reach grade E-8 before completing 20 years, but this analysis ignores that possibility.) Neither would face mandatory separation before 20 years of service under the current up-or-out rules of any of the services. Note, finally, that this example is different from the slow-versus-normal paths of promotion examined above because it isolates the effect of a single promotion.

The last promotion would add about \$35,000 to the total earnings of a typical officer during the period from 10 to 20 years of service and about \$21,000 to the earnings of an enlisted member. Discounting those increments to the 10-year point to reflect people's preference for current rather than future income results in estimates of about \$14,000 for the officer and \$10,000 for the enlisted member, or 3.7 percent and 4.7 percent of total discounted earnings, respectively (see Table 7).² That is, the officer would accept an immediate payment of \$14,000 at 10 years of service in lieu of an assured promotion six years later, considering only earnings during the next 10 years and ignoring such factors as status, job assignments, and possible future promotions if he or she stayed beyond 20 years of service.

2. The discounting is important in this case because retired pay does not begin until 10 years later and continues for such a long period. The figures are based on a 12 percent real discount rate, which is in the range of estimated rates developed for the examination of the military retirement system by the 5th QRM. See Matthew Black, "Personal Discount Rates: Estimates for the Military Population," in Department of Defense, *Fifth Quadrennial Review of Military Compensation*, vol. IB, *Supporting Appendixes to Uniformed Services Retirement System* (January 1984), Appendix I.

TABLE 7. PRESENT DISCOUNTED VALUE OF FUTURE REGULAR MILITARY COMPENSATION AND RETIRED PAY AT 10 YEARS OF SERVICE WITH AND WITHOUT SUBSEQUENT PROMOTION (In thousands of dollars)

	Enlisted			Officer		
	RMC	Retired Pay	Total	RMC	Retired Pay	Total
With Promotion	213	36	249	381	76	457
Without Promotion	203	31	234	367	66	433
Difference (In percent)	-4.7	-12.4	-5.8	-3.7	-13.5	-5.3

SOURCE: Congressional Budget Office.

NOTES: RMC = regular military compensation.

Enlisted member is an E-6 with possible promotion at 13 years, 10 months of service. Officer is an O-4 with possible promotion at 16 years.

All amounts are discounted at a real rate of 12 percent and assume the member retires after 20 years of service.

Retired pay totals are expected present values, based on average death rates for enlisted and officer retirees. The probability of death before retirement is assumed to be zero.

The promotion would add about \$10,000 to the discounted present value of the officer's retired pay (again discounted to the 10-year point) and about \$4,500 to the present value of retired pay for the enlisted member.³ Those increases are much larger as a percentage of total retired pay than are the percentage increases in regular military compensation. The difference in retired pay between pay grades is felt throughout the retirement period, but the difference in RMC applies only to the post-promotion portion of the period from 10 to 20 years of service.

Adding retired pay to current RMC increases the effect of the last promotion. For the typical officer, the promotion raises lifetime earnings from military service by 5.3 percent, an increase of nearly one-half over the effect of the promotion on RMC alone. The increase for the enlisted member is more modest because the proportional size of the promotion raise is smaller than for the officer and because basic pay, on which retired pay is based, makes up a smaller fraction of RMC for an enlisted member.

Is the combined reward of military pay and retirement benefits sufficient to induce the typical member at midcareer to seek another promotion? That question

3. The absolute amount contributed by retired pay may seem small in comparison with 10 years of RMC. In part, this is a result of discounting; a payment 10 years in the future is diminished in value by two-thirds when discounted at a 12 percent rate, and retired pay only *begins* after 10 years. In addition, the amount of retired pay that a member who leaves after 20 years receives, although 50 percent of his or her final basic pay, is less than 40 percent of final RMC.

cannot be answered without a much more thorough analysis. Still, for someone at the 10-year point, the discounted return amounts to more than five months' pay and allowances—even more if members do not discount future income so heavily.

CHAPTER VI

IS MILITARY PAY TOO COMPRESSED?

Some observers of the military pay system have complained that the pay profile—the pattern followed by a member's pay over the course of a military career—is too flat. That is, they worry that pay does not rise fast enough as a member gains experience and progresses through the ranks.

If the pay system does not provide sufficient performance incentives, pay compression could certainly be one reason for the lack. Other things being equal, the differences in pay between successive grades strictly limit the importance that promotions can have in determining pay, either in comparison with longevity or between people promoted at different speeds. Pay compression could also be to blame if the services were able to attract well-qualified people but could not retain them. Pay growth that is too slow over the span of a typical career could lead good people to seek higher pay in the civilian sector.

Although performance and retention are the appropriate indicators of whether pay compression is a problem, compression is often looked at directly. That reflects the difficulty both of measuring performance and of assessing the desirability of any substantial changes in incentives for retention. Different services have different retention goals, so there may be no best pattern of pay over a military career. In addition, the desirability of most large changes from the current pattern is hard to assess, as models of retention behavior deal only with marginal changes and the services are accustomed to thinking of their current retention rates as at least roughly correct.

Lacking any direct measure of performance or clear evidence of inappropriate retention, observers of the military pay system who worry about pay compression commonly resort to comparisons of current military pay with pay either in the civilian sector or in the military at some time in the past.

MILITARY AND CIVILIAN PAY PROFILES

Comparisons of military and civilian pay profiles can indicate generally whether the structure of the military pay table and associated allowances is roughly appropriate. They cannot, however, support any firm conclusions because there are good reasons—discussed below—that pay growth in the military should be either slower or faster than for apparently comparable workers in the civilian economy. Such

comparisons also cannot justify judgments about the general adequacy of military pay—those judgments must involve an assessment of how well military pay serves the needs of the services.

The growth in pay that a typical member of the military would experience over the course of a career is roughly comparable to the pattern of earnings by age for similarly educated workers in the civilian economy whose earnings are at the 75th percentile for their education group (see Figure 3). The most notable divergences occur late in a military career, when the services promote to grade O-6 in the officer ranks (roughly age 45) and to E-9 (age 40) in the enlisted ranks. Relatively few members achieve those grades.

For officers, whose promotions are infrequent, the growth in pay is somewhat erratic. Officers' pay rises at about the same rate as that of their civilian counterparts during the early years of service, then languishes for six years or more as they wait for their promotion to major or lieutenant commander (shown in Figure 3 at 10 years of service—about age 33—but often one or two years later). As they reach eligibility for retirement at about age 43, officers who have been promoted to lieutenant colonel or commander are again being paid at about the 75th percentile for civilian college graduates.

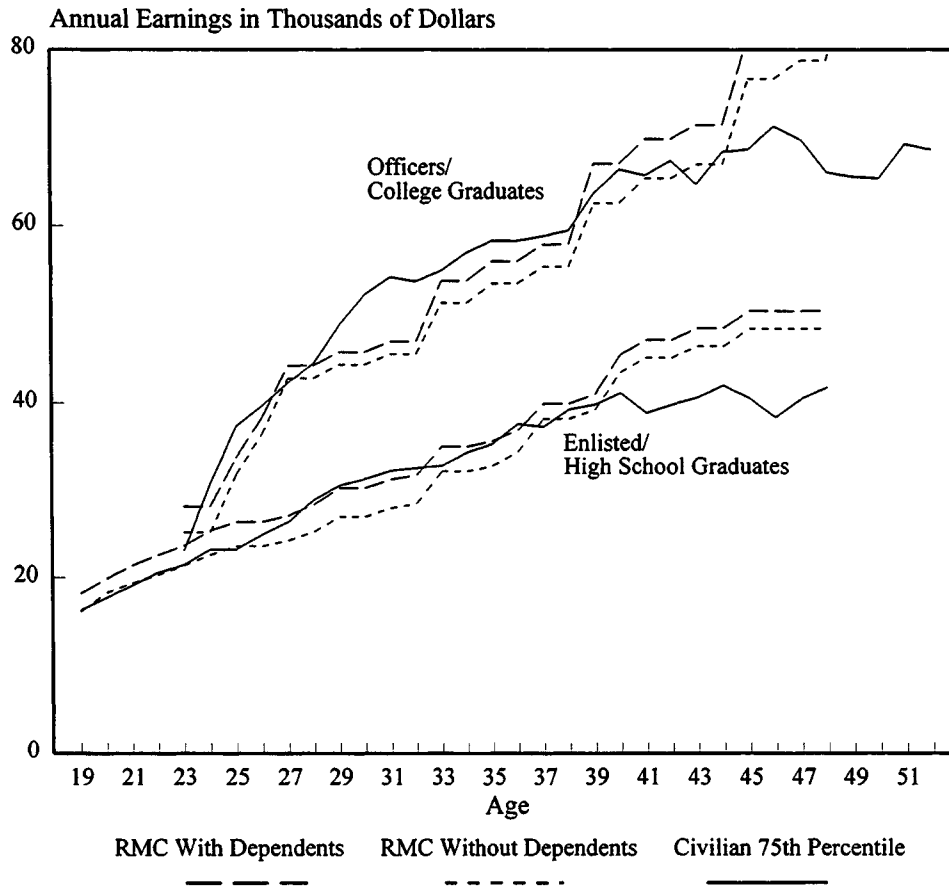
The pay profiles of typical enlisted personnel and their civilian counterparts correspond closely. Enlisted pay rises somewhat more slowly in the early years of service than the pay of high school graduates in the civilian economy, but for those who are promoted to grade E-7 (shown in Figure 3 at about 14 years of service—age 33) that difference is erased.

One important limitation of the earnings comparisons deserves note. The profiles of civilian earnings only approximate what people at any given age can expect, on average, in the future. The civilian data come from a cross section of workers' earnings in 1992 and 1993. The earnings of any specific age group of those workers may be affected by factors that a younger group will not face at that age. For example, the earnings of workers in their 30s and 40s may be depressed because they belong to the large baby-boom cohorts; hence, younger workers might reasonably expect faster growth of earnings than the cross-sectional profiles indicate.

Faster or Slower Pay Growth May Be Appropriate

Two factors support the argument for a military pay profile that differs substantially from that of comparably educated workers in the civilian economy, although the factors operate in opposite directions. On the one hand, relatively high entry pay (and thus a flat profile in the following years) may be necessary to attract the

FIGURE 3. PAY PROFILES OF TYPICAL OFFICER AND ENLISTED MILITARY MEMBERS COMPARED WITH 75TH PERCENTILE OF EARNINGS FOR MALE COLLEGE GRADUATES AND HIGH SCHOOL GRADUATES (Average, 1992-1993)



SOURCE: Congressional Budget Office and Bureau of Labor Statistics, Current Population Survey, March 1993 and March 1994. Promotion timings for military members are based on data in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTES: RMC = regular military compensation, consisting of basic pay, basic allowance for subsistence, basic allowance for quarters, variable housing allowance, and the tax advantage that personnel receive because the allowances are not subject to federal income tax.

The category of high school graduates excludes people with some college; that of college graduates includes all people with at least a bachelor's degree.

All data are averages of earnings in 1992 and 1993. Additionally, civilian data have been smoothed by taking moving averages over three years of age. Civilian data reflect the 75th percentile of earnings at each age and exclude fringe benefits.

numbers of well-qualified recruits that the services must have in order to fill their career positions. On the other hand, a steep profile would be consistent with increasing selectivity on the part of the services as they promote to higher grades, and such a profile could be necessary to induce continued competition for promotions. In addition to those factors, the military retirement system (discussed below) skews the pay profile sharply upward in the years approaching retirement.

In order to provide a sufficiently rich pool of people from whom to select their career personnel—rich both in numbers and in quality—the services may have to offer pay levels at the entry point that appear high in relation to pay levels in the civilian sector and to those of more senior military personnel. The military, unlike civilian employers, generally does not hire qualified leaders and managers in the middle of their careers; all such people come from among those who entered years earlier as junior enlistees or officers. (Certain professional fields, such as military medicine, are exceptions.) Thus, the pay of new recruits and junior officers may well exceed the value of their contribution to military capability and attract people who appear overqualified for their initial positions. A relatively flat pay profile thereafter is one way to pay for high compensation at the entry point. If the skills that people acquire in the military are not readily transferrable to civilian employment, that flat profile can also be efficient because the military need not compensate members for their improved skills in order to prevent them from leaving.

Pay in the military may have to rise more rapidly than pay in the civilian sector to motivate people to continue striving for promotions. Beth J. Asch and John T. Warner develop this point in a theoretical model of compensation in the military, noting that the raise that comes with each successive promotion must be larger than the previous one to make up for the declining chances of receiving successive promotions.¹ Although Asch and Warner do not draw the connection to average civilian earnings, the parallel is clear: civilian averages mix people who have been successful in their careers with those who have not, whereas the typical military pay profile reflects the services' increasing selectivity at each pay grade. This phenomenon is most apparent in the promotions to grades E-9 and O-6 (shown at ages 40 and 45, respectively, in Figure 3), which occur at ages where the earnings of workers in the civilian economy have begun to flatten out.

Measured against the Asch and Warner criterion that pay differentials should widen with each promotion, both the current pay table and the 7th QRMC's alternative show mixed results at best (see Table 8). In absolute terms, both tables show consistently growing differentials through the middle enlisted grades but little or no growth thereafter until grade E-9. The large differential at that point is

1. Beth J. Asch and John T. Warner, *A Theory of Military Compensation and Personnel Policy*, MR-439-OSD (Santa Monica, Calif.: RAND, 1994).

probably appropriate because few people achieve the grade and because the promotion typically occurs when members are eligible to retire. Differentials in the officer ranks generally do not grow, and in percentage terms the largest difference comes quite early in the officer's career (when up-or-out rules eliminate the need for large raises to encourage performance). Percentage differentials are fairly constant throughout the middle enlisted pay grades, particularly under the 7th QRMC's table. All of these differentials do not, however, include retired pay, which adds to the value of promotions (see Chapter V) and sharply steepens the typical pay profile (see below).

Civilian Pay Comparisons and the Adequacy of Military Pay

The comparisons of pay profiles above offer a tempting, but unwarranted, basis for assessing the overall adequacy of military pay. The finding that military personnel are paid at about the 75th percentile of workers in the civilian economy with similar educational backgrounds might be taken as an indication that military people are

TABLE 8. INCREASE IN MONTHLY EARNINGS OVER PREVIOUS PAY GRADE, AT MEDIAN YEARS OF SERVICE IN EACH GRADE, FOR 1995 PAY TABLE AND 7TH QRMC ALTERNATIVE

Pay Grade	Dollar Increase		Percentage Increase	
	1995 Table	QRMC Table	1995 Table	QRMC Table
E-2	177	83	12	6
E-3	61	169	4	11
E-4	223	257	13	15
E-5	329	298	17	15
E-6	417	386	19	17
E-7	382	389	15	15
E-8	373	423	12	14
E-9	747	702	22	21
O-2	486	484	20	20
O-3	1,053	862	37	29
O-4	794	1,056	20	28
O-5	1,059	945	22	19
O-6	989	995	17	17

SOURCE: Congressional Budget Office.

NOTE: Median years of service are based on personnel totals at the end of fiscal year 1990. Earnings include basic pay, basic allowance for subsistence, basic allowance for quarters, and variable housing allowance. Allowances are at the with-dependents rate.

overpaid. But that would ignore two crucial facts. First, the services may well be willing to pay for better-than-average people. Second, military and civilian employment differ in many respects; the services may have to pay people more than they could earn in the civilian economy to overcome the effects of such factors as strict discipline, limited freedom, and risk of life.

The Retirement System Steepens the Military Pay Profile

As members of the military near eligibility for retirement, the prospect of future retired pay adds a rapidly growing amount to the value of their compensation. Retired pay steepens the military pay profile; that is, it accelerates the growth in pay that a member experiences. That point is well understood, but it is often ignored when comparisons are made with civilian pay profiles. Indeed, retired pay contributes nearly as much to a member's total compensation at 15 years of service as his or her current military basic pay.

In deciding whether to stay in the military, a service member should compare the remaining lifetime returns under each alternative. Although a person choosing among civilian jobs would also, in theory, compare lifetime earnings, there is less need to look beyond current pay when one can move easily between jobs and in many cases take earlier retirement contributions along. The decision to leave the military and forgo military retirement benefits, however, generally cannot be reversed, so the member must consider the lifetime consequences of that choice. The returns from that decision, whatever it is, include not only current and future pay but also the value of nonmonetary factors such as working conditions and job security, as well as deferred benefits in the form of retired pay. Unless he or she is very unusual, the member will discount future receipts at a fairly high rate—some studies derive a figure of 10 percent to 12 percent—reflecting a preference for current over future consumption.²

Borrowing a technique from a popular model of retention decisions produces an “annualized” (average annual) version of present values that illustrates the one-year return from remaining in the military until retirement.³ That is, at any given year of service the method distributes the total of future receipts among the years

2. See Matthew Black, “Personal Discount Rates: Estimates for the Military Population,” in Department of Defense, *Fifth Quadrennial Review of Military Compensation*, vol. IB, *Supporting Appendixes to Uniformed Services Retirement System* (January 1984), Appendix I. For consistency, and to evaluate conservatively the value of retirement benefits, the estimates here use a discount rate of 12 percent. At lower discount rates, retired pay would contribute more to the total value of compensation.

3. The Annualized Cost of Leaving (ACOL) model, from which the method is derived, has been widely reported. See, for example, Department of Defense, *Fifth Quadrennial Review*, vol. IB, Appendix I. The annualized earnings reported here are ACOL values ignoring civilian earnings and based on a 20-year horizon.

remaining until retirement. Considering only active-duty regular military compensation (ignoring retired pay), the set of annualized present values resembles the pay profile from which it is derived, but it is generally higher because it incorporates the rise in pay that a person can expect in the future (see Figure 4).

Adding the annualized value of retired pay to military pay shows how sharply retired pay steepens the pay profile of service members as they near eligibility for retirement. At 10 years of service the prospect of retired pay can add 20 percent to the military pay figure that a member would use in comparing with civilian alternatives. By 15 years of service, retired pay adds nearly 50 percent. With one year to go before retirement at 20 years of service, a member would give up retired pay worth almost three times the final year's military pay if he or she decided to leave.⁴

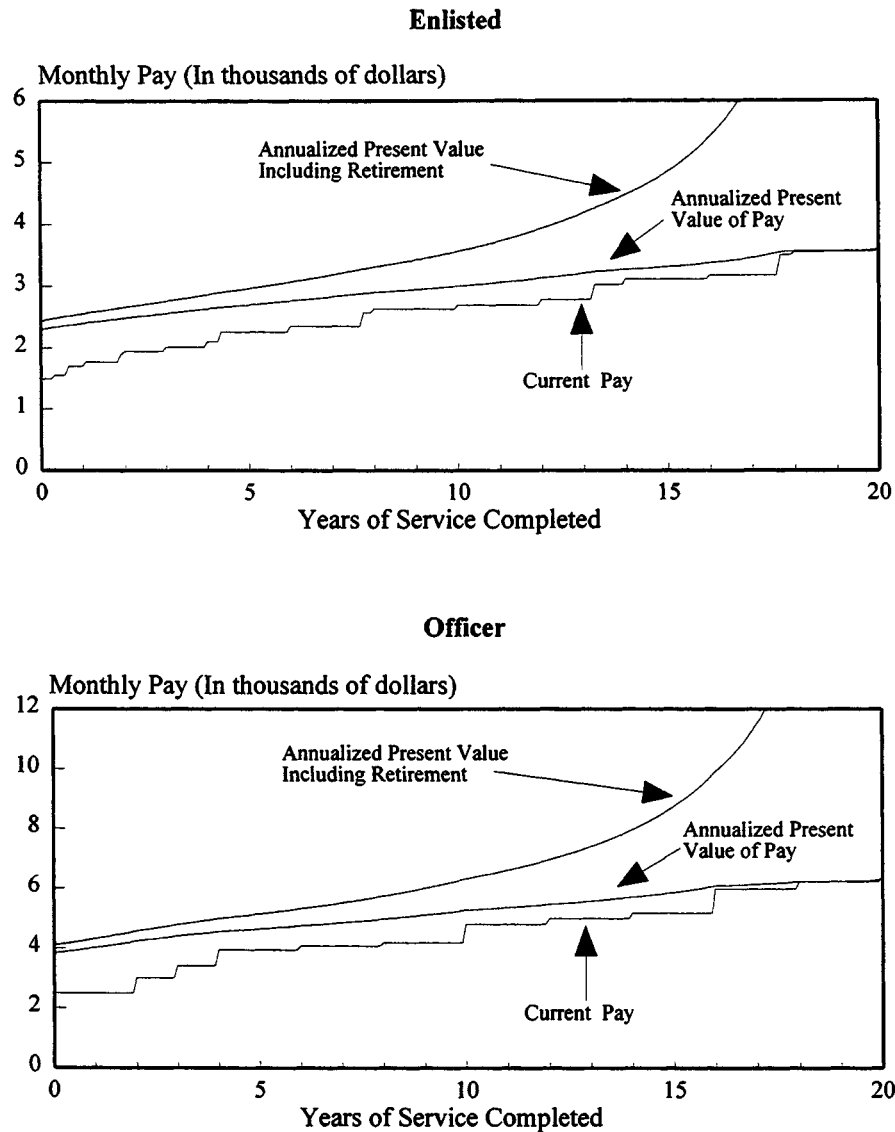
CURRENT AND PAST DIFFERENTIALS BETWEEN PAY GRADES

Impressions of pay compression in the military have probably been shaped by one event more than any other: the changes of November 1971 that increased the pay of junior enlisted people in anticipation of the ending of conscription the following year. The raise applied primarily to enlisted personnel with fewer than two years of service and to people in the two lowest officer grades. The pay of a new recruit rose by 87 percent, that of an E-2 doubled, and junior officers received 10 percent increases. Perhaps best reflecting the focus on those pay raises, Charles Moskos, the military sociologist, long argued for a steeper pay profile, complaining in 1983 that "a first sergeant in the draft era made five times the income of a PFC [E-3] compared to only twice that income today."⁵

A focus on the 1971 pay raise ignores several other changes over the years that also affected the pay profile. Those changes generally operated in the opposite direction, restoring the profile to a condition very similar to what it had been following the 1949 pay act. Two instances are particularly noteworthy. From 1952 to 1965, the pay of enlisted personnel with fewer than two years of service was frozen while more senior people received four raises totaling more than 40 percent. Ten years after the 1971 raise, when the Congress granted a "catch-up" raise averaging 14.3 percent, it raised pay in the three lowest enlisted grades by only 10.7 percent and increased pay in the three highest grades by 17 percent.

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4. The figure of three times a year's pay is much lower than one would find in a report of the Department of Defense actuary because individuals typically discount future benefits at higher rates than does the government.
 5. Charles C. Moskos, Jr., "The Marketplace All-Volunteer Force: A Critique," in William Bowman, Roger Little, and G. Thomas Sicilia, eds., *The All-Volunteer Force After a Decade: Retrospect and Prospect* (Washington, D.C.: Pergamon-Brassey's, 1986), p. 17.

FIGURE 4. ANNUALIZED PRESENT VALUE OF TYPICAL MILITARY EARNINGS, WITH AND WITHOUT RETIRED PAY, AND CURRENT PAY



SOURCE: Congressional Budget Office. Promotion timings are based on data in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTES: Annualized present values are based on the method of the Annualized Cost of Leaving model, excluding possible civilian earnings. Future receipts are discounted at a 12 percent real annual rate.

Pay includes basic pay, basic allowance for subsistence, basic allowance for quarters, variable housing allowance, and the tax advantage that accrues because the allowances are not subject to federal income tax. Allowances are at the with-dependents rate.

Enlisted promotion timing is for the Army. Officer timing is based on guidelines under the Defense Officer Personnel Management Act.

TABLE 9. BASIC PAY BY PAY GRADE, UNDER ALTERNATIVE PAY TABLES, IN RELATION TO THE PAY OF AN E-5 OR O-3 (In percent)

Pay Grade	Median Years of Service	Pay Table					
		1949	1958	1971	1981	1995	QRMC
E-1	1	49	40	63	59	55	54
E-2	1	51	41	70	67	67	59
E-3	2	59	47	73	69	69	69
E-4	4	77	76	85	82	82	84
E-5	8	100	100	100	100	100	100
E-6	13	127	126	125	125	125	122
E-7	17	155	150	147	148	148	145
E-8	20	a	171	169	170	170	171
E-9	25	a	210	208	209	217	215
O-1	2	63	51	55	55	55	60
O-2	3	77	66	69	69	69	74
O-3	7	100	100	100	100	100	100
O-4	14	125	125	121	121	121	131
O-5	20	154	164	152	152	152	160
O-6	24	188	207	184	183	183	192

SOURCE: Congressional Budget Office.

NOTE: Median years of service are based on personnel totals at the end of fiscal year 1990.

a. The pay grades of E-8 and E-9 were not introduced until 1958.

The Career Compensation Act of 1949 set the basic pay of a new recruit (E-1) at about one-half that of an E-5, based on the median years of service for people in each grade (see Table 9).⁶ Today, that fraction stands at 55 percent, although it reached that level by a circuitous route. The fraction had fallen to 40 percent by 1958, and fell further during the early 1960s, before being increased to 63 percent by the raise of 1971. The changes of 1981 cut the fraction to 59 percent. Finally, in 1984, the Congress reintroduced a separate pay rate for an E-1 with less than four months of service (which had been eliminated in 1971), reducing the fraction to its current level. The 7th QRMC proposed only a modest change.

6. The data on median years of service are based on personnel totals at the end of fiscal year 1990. Those data should be largely free of the temporary effects of the recent personnel reductions on promotion timing. Using a common set of median years for the various pay tables ensures a consistent comparison of the effects of the tables themselves on the pay profile. Because the comparison omits the effects of changes in average promotion timing, however, it may give a slightly misleading impression of the actual pay profiles when each of the pay tables was in effect. Comparable data on median years of service were not available for all of the pay tables examined. Data from 1948, however, suggest that promotions then came somewhat later than is true today. Accounting for that difference would tend to enlarge the inter-grade pay differentials shown in Table 9 for the 1949 pay table because the median years of service in the senior grades would be higher. The typical pay profile, however, would show slower growth in pay because of the longer time between promotions.

Comparing 1995 with 1949, the only obvious instances of pay compression lie within the junior enlisted pay grades from E-2 through E-4. The 7th QRMC's proposal would eliminate some of that, enlarging the differential between E-2 and E-3, but leave the rest essentially unchanged.⁷ Modest erosion in the relative pay of grade E-7, affected by the changes of 1958 and 1971, was effectively offset by the introduction of the two higher enlisted pay grades in 1958.

In the officer ranks, pay differentials have not changed markedly over the years. The 7th QRMC's proposal would raise pay more slowly in the early years and more rapidly later, compared with the current pay table.

Adding subsistence and housing allowances to the basic pay in each grade has only a modest effect on the apparent compression in pay over time, but a marked impact on the differentials between grades in every year (see Table 10). Within the enlisted ranks, the subsistence allowance is the same for all pay grades, and similarly within the officer ranks. That flattens the pay profile modestly. The quarters allowance, which makes a more important contribution to total military pay, rises less rapidly with pay grade than does basic pay. The net effect is that the total pay of a typical military member rises more slowly, in percentage terms, than does his or her basic pay alone.

The 5-to-1 ratio that sociologist Moskos cited between the pay of a first sergeant (E-7) and a private first class (E-3) is not evident in either table, but it is possible to find that ratio in the 1960s by carefully choosing years and pays. In 1964, after 12 years without a pay raise for junior enlisted personnel, an E-3 without dependents would have been paid \$99.37 per month before taxes, ignoring the value of his government quarters and meals in the mess hall. An E-7 with dependents receiving housing and subsistence allowances in cash would have been paid \$515.84. The ratio of 5.2 to 1 would seem to involve an apples-and-oranges comparison, but it does reflect the cash that each would have received on pay day.

One can find substantial pay compression in the series of changes in the pay table over the past 40 years, as Moskos did. Doing so, however, requires comparing years with very different recruiting conditions. In the 1950s and 1960s, conscription filled the ranks of the military without the need for levels of starting pay competitive with those in the private sector. Indeed, a new recruit was paid less than the federal minimum wage, based on a 40-hour work week. In today's volunteer environment, starting pay must be at least roughly competitive. Ending conscription did not, however, have any obvious effect on the appropriate pay of career military personnel. Thus, pay compression was inevitable when the draft was ended. What some

7. The pay table proposed by the 7th QRMC includes a new set of pay rates applicable to people in their first year of service and drops the separate rate for E-1s with fewer than four months of service.

observers describe as pay compression can in fact be seen as a correction of the artificially wide pay differences that were possible under the draft.

The rough match between current pay differentials and those of 1949 does not, of course, mean that the differentials are appropriate for today's military. It does indicate why some of the concerns that have been expressed about pay compression are probably overblown, being based on anomalous years in the past. Taking the further step of deriving optimal differentials, however, requires a much more difficult study of costs and benefits.

TABLE 10. BASIC PAY AND ALLOWANCES BY PAY GRADE, UNDER ALTERNATIVE PAY TABLES, IN RELATION TO THE PAY OF AN E-5 OR O-3 (In percent)

Pay Grade	Median Years of Service	Pay Table					
		1949	1958	1971	1981	1995	QRMC
E-1	1	60	52	69	66	64	64
E-2	1	61	53	74	72	72	68
E-3	2	66	57	76	76	75	75
E-4	4	77	84	87	85	85	87
E-5	8	100	100	100	100	100	100
E-6	13	117	117	119	119	119	117
E-7	17	134	133	136	137	136	135
E-8	20	a	147	154	155	153	154
E-9	25	a	172	183	183	187	185
O-1	2	70	60	60	60	61	65
O-2	3	82	73	74	73	73	77
O-3	7	100	100	100	100	100	100
O-4	14	121	122	118	120	120	128
O-5	20	145	153	145	147	147	153
O-6	24	169	185	171	173	173	179

SOURCE: Congressional Budget Office.

NOTE: Median years of service are based on personnel totals at the end of fiscal year 1990. Allowances include basic allowance for subsistence, basic allowance for quarters, and variable housing allowance. Allowances are at the with-dependents rate.

a. The pay grades of E-8 and E-9 were not introduced until 1958.

CHAPTER VII

POLICY OPTIONS

Despite numerous calls for change in the military pay system, its fundamental features have remained largely unaltered for almost 50 years. Many of the proposed changes have attempted to correct the system's assumed inability to motivate good performance adequately, or to strengthen incentives that may have been weakened by pay compression.

The Congressional Budget Office's examination of the ways in which the military rewards performance yields no firm conclusions. The common indicators of rewards within the pay system can only suggest where incentives might be inadequate. Evidence of actual problems would require a study of how people perform when faced by those incentives.

Options for modifying the current pay system cover a wide range of possibilities. At one extreme lies the option of leaving the current pay table unchanged. A second alternative is that of adopting the modest changes in the table that the Seventh Quadrennial Review of Military Compensation proposed. If the military personnel system requires greater rewards for performance, a new form of pay table may be necessary. Thus, a third option would be to adopt a form of pay table that bases longevity raises on a person's time in a pay grade rather than on total military service. That alternative has frequently been proposed. A fourth option is to consider a form suggested by Asch and Warner that would use some measure of individual performance to determine a portion of within-grade pay raises.¹

RETAIN THE CURRENT PAY TABLE

The most obvious argument for leaving the current pay table unchanged is simply that no one has demonstrated that members of the military are not sufficiently motivated to excel. In addition, changing the table could well be disruptive, might involve substantial transition costs, and would require legislative action.

Arguments for changing the table of basic pay generally rest on impressions derived solely from the pay system itself, on theoretical faults that may have no practical effect, or simply on the notion that hard work should be rewarded. Notably lacking from most arguments is a set of normative standards against which to

1. Beth J. Asch and John T. Warner, *A Theory of Military Compensation and Personnel Policy*, MR-439-OSD (Santa Monica, Calif.: RAND, 1994).

measure alternative pay tables. As noted in Chapter IV, for example, the 7th QRMC simply assumed that promotions should count for at least as much as longevity in determining pay over a typical career. The theoretical model that Asch and Warner developed suggests that pay differentials between successive grades should rise as members progress through the ranks in order to offset the declining probability of being promoted. That conclusion does not indicate, however, whether differentials should be widened in the higher grades or narrowed in the lower grades.

Any significant change in the pay table, or in the system of pay and allowances, would involve some disruption as members were forced to revise their expectations about the pay raises that they could expect. Some who had planned to leave the military would decide to stay, others who had planned to stay would decide to leave, and the services would have to adjust to changing patterns of retention. For modest changes in the pay table, such as those proposed by the 7th QRMC, the effects on retention would probably also be modest and fairly predictable. The larger effects that could result from a more substantial change, such as adopting a time-in-grade table (the third option), would be harder to predict with any certainty.

Changing to a new pay table would involve transition costs, even though the new table would almost certainly be designed to yield the same total costs of personnel for a given force. Transition costs would arise because some people would be paid less according to the new table than they had been under the old. At one extreme, those members could be forced to absorb the costs themselves; at the other extreme, the Congress could appropriate additional "save-pay" funds to make up the difference in pay until the affected members received promotion or longevity raises or decided to leave the military. Between those extremes, the costs could be spread among all members by delaying all or part of an annual pay raise to free up save-pay funds within a given personnel budget.

A major change in the pay table could affect personnel costs well into the future and raise difficult questions of equity. The one-year transition that the 7th QRMC recommended for its proposed table might not be feasible for a change affecting the basic structure of the pay table; as a result, transition costs could continue for several years. Long-term costs would be difficult to predict because they would be affected by the changed patterns of retention and the ways in which the services responded to those changes. Equity issues would arise because any change would affect the future earnings prospects of members. In the past, the Congress has apparently agreed with those who argue that the implicit contract between the government and the members of the military requires that changes in the military retirement system apply only to people who enter the military after the changes are enacted; similar concerns might arise over any proposal to make major changes in the pay system.

Changing the pay table would almost certainly require legislative action. The President has only limited authority, under title 37, section 1009 of the U.S. Code, to reallocate a portion of the annual pay raise among grade and year-of-service categories; no category may receive less than 75 percent of the raise it would get under an across-the-board raise. The authority to reallocate at all, however, is linked to the pay-adjustment mechanism of section 1009, which provides for an automatic raise for military personnel whenever one is granted to federal civilian workers. The Congress has bypassed that provision every year since 1982, electing instead to enact specific increases for basic pay, the basic allowance for subsistence, and the basic allowance for quarters. (The legislation setting out the increases of January 1, 1984, restored the reallocation authority for that raise.) Thus, the Congress would either have to grant specific authority for the Department of Defense to change the pay table or—what is perhaps more likely, given precedent—establish a specific new table through legislation.

Because changing the table of military basic pay could be costly and disruptive, finding evidence of significant incentive problems might be seen as a necessary precursor. Demonstrating that performance incentives need improving would not be easy, but neither should it be a hopeless task. Theoretical considerations can indicate specific places where monetary incentives are weak, such as in the years approaching retirement eligibility. Based on those indications, one possible approach might be to examine individual performance evaluations, or survey supervisors, for indications of slackening productivity at those points. Even if a rigorous appraisal was not possible, the examination or survey might provide more information about actual incentive problems than analysts have today.

The military pay system and its rewards for performance have remained essentially unchanged for so long that proposals for reform must be supported by clear evidence of problems in the current system if they are to attract the support needed to overcome the inevitable opposition. Any change is likely to work to the advantage of some members of the military, or of some of the services, at the expense of other members or services. The more far-reaching the reform, the more resistance it is apt to meet. If the case for change can be articulated only as a theory rather than as demonstrated behavior, marshaling enough support to achieve real change may be difficult.

ADOPT THE PAY TABLE PROPOSED BY THE 7TH QRMC

Although the proposal of the 7th QRMC might not substantially change the rewards for performance in the military, it would correct a series of ad hoc changes to the basic pay table. The current table contains some odd features that have no obvious rationale. In the table for officers, for example, the largest single raise that a typical

officer receives over the first 20 years of a career is the longevity increase after completing three years of service. (Larger raises can occur when promotion and longevity increases both appear for the first time in the same paycheck.) Raises when officers are promoted range from 21 percent (O-2) to 5 percent (O-4). For enlisted personnel, longevity increases follow no clear pattern. Successive increases for an E-6 in midcareer, for example, might be 3.6 percent, 3.7 percent, and 5.1 percent; an E-7 might see increases of 3.1 percent, 4.5 percent, and 2.8 percent. The proposed table presents a much more consistent pattern; successive longevity increases within a grade generally are the same dollar amount, and the raise at promotion to O-4 grows to about 12 percent.

The 7th QRMC focused its work on correcting a perceived imbalance between promotion and longevity as determinants of pay. What the panel perceived as an imbalance was largely created by changes made in the pay table during the 1950s and, for enlisted personnel, by the pay raise of 1971. The original 1949 table placed more emphasis on promotion than has any table since, including the table proposed by the QRMC. Under the current table, a service member who focused on the size of the raise in basic pay that he or she received for a promotion might conclude that the hard work involved in getting that promotion was not adequately rewarded.

By focusing on promotion versus longevity, and on basic pay only, the 7th QRMC limited what it could achieve in affecting other measures of the rewards for performance. A service member examining his or her postpromotion paycheck would see a raise in quarters allowances as well as in basic pay, an increase that would not accompany the regular longevity raises. The member might also realize that hard work could yield substantially higher career earnings even if that was not easily seen in any particular paycheck. Certainly he or she would know that some minimum level of performance is required just to remain in the military. Changing the pay system to truly improve the monetary incentives for members, therefore, may require more substantial change than the 7th QRMC proposed.

Probably the strongest argument against adopting the 7th QRMC's pay table is that opportunities for making significant changes in the military pay system do not come often. Relative pay levels within the pay table have been changed only once in the modern era of a volunteer military. Those changes, like the ones that preceded the ending of conscription, addressed specific recruiting or retention issues, not theoretical problems with unmeasured effects on behavior. The Congress has changed the military retirement system twice in the past 20 years, but one of those changes simply reduced benefits slightly across the board.² If the proposed pay table was

2. Major changes were enacted in 1980 and 1986. In addition, the Congress made three minor modifications in 1983.

adopted when more substantial change was actually needed, the more thorough reform might be harder to achieve later.

BASE LONGEVITY INCREASES ON TIME IN GRADE

The advantage of a time-in-grade pay table for rewarding performance is easy to see; people who are promoted ahead of their peers continue to receive higher pay even after those others catch up in terms of rank (see Figure 5). Under the current table, which grants longevity increases on certain anniversaries of a member's entry into the service, the career pay profiles of people promoted at different paces coincide at many places. That is, when someone catches up in rank he or she also catches up in pay. Based on promotion timing in the Army, for example, an enlisted member who is promoted at an average pace receives the same pay as his or her faster counterpart for a year or more when both are in grade E-6 (at about eight years of service), and again when both are E-7s. Under the illustrative time-in-grade table developed by the 7th QRMC, when the average member is promoted to grade E-6 he lags behind his faster counterpart by the amount of the longevity increase that the faster person received after two years in that grade, and falls further behind if that person receives another longevity increase before moving on to the next grade.

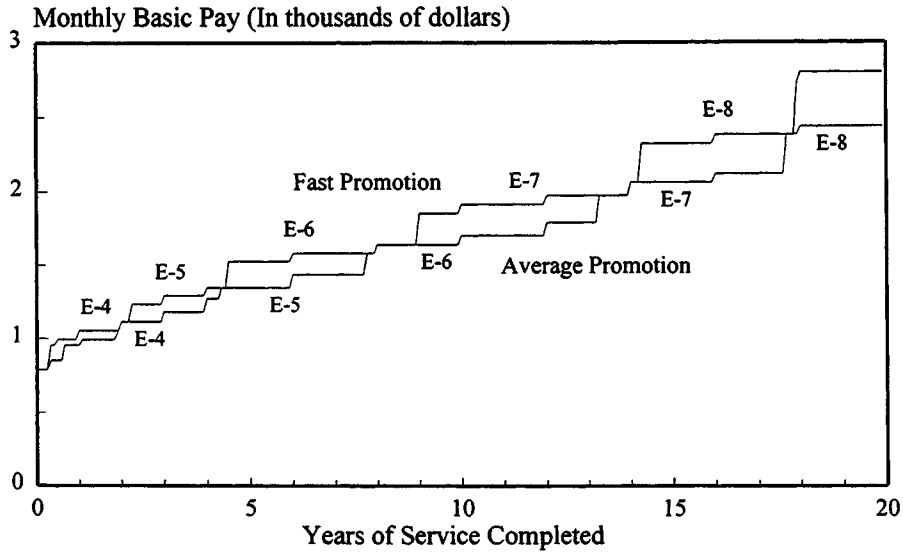
By largely eliminating the instances of people promoted at very different speeds receiving the same pay, a table based on time in grade can offer greater pay differences between people promoted rapidly, at average times, or slowly (see Table 11). Under the illustrative time-in-grade table, enlisted members promoted slowly would be penalized an additional 3.4 percent of regular military compensation over both a full 20-year career and the latter half of a career. People promoted quickly would gain 3 percent to 4 percent. Those changes are based on promotion timing in the Army, but there would be similar changes for the other services. The time-in-grade table would have little effect on the pay differentials for officers, however, because officers are promoted so nearly in lockstep.

Several studies of the military compensation system have recommended a time-in-grade pay table, notably the Cordiner Commission (1957), the Gorham Commission (1962), and the Zwick Commission (1978), formally known as the President's Commission on Military Compensation.³

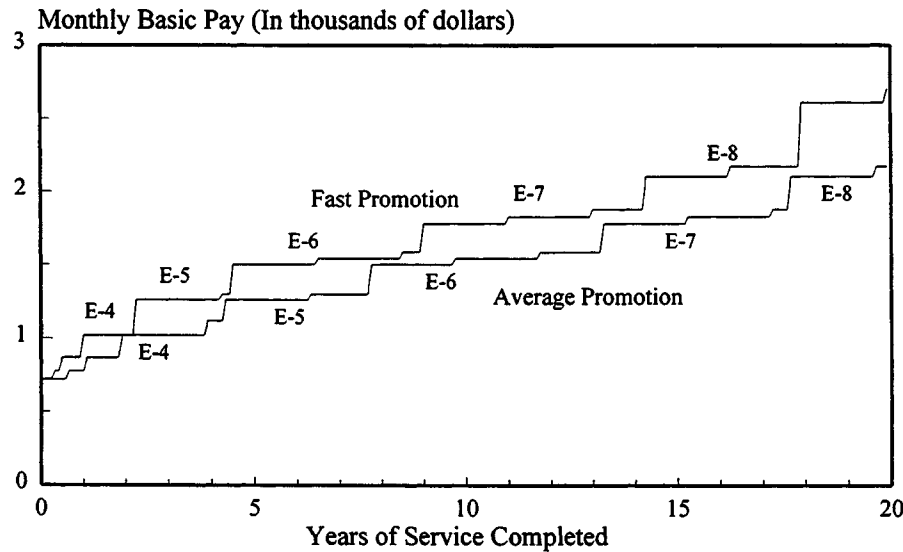
3. Summaries of the studies appear in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation—Basic Pay: A Strategy for Rewarding Promotion over Longevity*, Major Topical Summary 2 (August 1992), pp. B-2 to B-3.

FIGURE 5. PAY PROFILES FOR ENLISTED PERSONNEL WITH FAST AND AVERAGE PROMOTION TIMING, UNDER CURRENT PAY TABLE (TIME-IN-SERVICE) AND ILLUSTRATIVE TIME-IN-GRADE TABLE

Current Time-in-Service Table



Illustrative Time-in-Grade Table



SOURCE: Congressional Budget Office. Data on promotion timing and the illustrative time-in-grade table are from Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTE: Data on promotion timing are for the Army.

TABLE 11. DIFFERENCE IN TOTAL ENLISTED REGULAR MILITARY COMPENSATION FOR SLOW AND FAST PROMOTION COMPARED WITH AVERAGE PROMOTION TIMING, UNDER TIME-IN-SERVICE AND TIME-IN-GRADE PAY TABLES (In percent)

Pay Table	0 to 20 Years of Service		10 to 20 Years of Service	
	Slow Promotion	Fast Promotion	Slow Promotion	Fast Promotion
Time in Service				
Current	-9.8	8.6	-11.2	9.3
7th QRMC proposal	-10.3	8.7	-11.7	9.8
Time in Grade				
	-13.2	12.2	-14.6	12.8

SOURCE: Congressional Budget Office. Data on promotion timings and the time-in-grade table are from Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992).

NOTES: Regular military compensation consists of basic pay, basic allowance for subsistence, basic allowance for quarters, variable housing allowance, and the tax advantage that accrues because the allowances are not subject to federal income tax. Allowances are at the with-dependents rate. Data shown for the tables of the Seventh Quadrennial Review include current allowances. For the time-in-grade table, allowances were adjusted to correspond to the pay levels assumed by the 7th QRMC in developing the table.

Timing data are for the Army and for the slow-promotion results were modified to reflect no promotion beyond grade E-6.

A time-in-grade table could be expected to alter retention rates significantly both among and within the services. Assuming that a new table was designed not to change total personnel costs, those services that promoted more slowly would find themselves paying their people less, on average, than they do under the current system, and those services that promoted more rapidly would pay more. The differences are a natural consequence of the larger pay differentials shown in Table 11, which would apply among services just as they do among individuals within a given service. Lower average pay would tend to decrease retention in the slow-promoting services. Higher pay in the fast-promoting services would increase retention. Similarly, within a service those occupational specialties in which promotions came rapidly would tend to attract more people because of higher pay and those in which promotions were infrequent would tend to lose people. Finally, for those services and specialties that reflected performance in speed of promotion, a time-in-grade table could tend to improve the retention of better performers and discourage poorer performers from remaining in the military.

In general, one cannot characterize the overall retention effects of changing to a time-in-grade table as either good or bad without careful analysis. Falling retention rates for the Air Force, the service that promotes its enlisted people most slowly, would probably lead it to promote more rapidly in order to meet its

requirements for personnel in the higher grades. That would tend to reduce the average experience level within each pay grade. The Navy, in contrast, would probably gain experience because its more rapid promotions under the current pay table would mean improved retention under a time-in-grade table. A time-in-grade table would tend to equalize retention rates among and within the services, which the services that experience higher retention would probably regard as good and those that face lower retention would probably see as bad.

The 7th QRMC examined and rejected the time-in-grade table, arguing that it would create pay differences that were based not on individual merit or performance but merely on the speed of promotion in a person's service or occupational specialty. Such differences exist under the current system, however; a time-in-grade table would merely magnify them. The QRMC acknowledged that and even noted that the effects on retention could be desirable.

A final argument advanced against a time-in-grade pay table is that it would work against "the need for consistent recognition of rank across the services."⁴ Although exactly what "consistent recognition" means is not clear, the complaint assumes that the current pay system provides it. In fact, under the current system the average E-5 in the Air Force is actually paid more than the average E-5 in the Navy because an Air Force enlistee generally takes longer to reach the grade and so tends to have more years of service. A time-in-grade table would tend to reduce such differences; regardless of service, all new E-5s would be paid exactly the same.

Despite the apparent advantage of a time-in-grade pay table, several factors argue against a change. First, the table has been strongly opposed by some people in the past and probably would be again if it was proposed. Such opposition, whether well founded or not, could create a perception among service people that the new table was inequitable and therefore might affect morale or retention. Second, changing to a time-in-grade table would undoubtedly be disruptive and could involve substantial transition costs. A very lengthy transition might prove necessary. Third, where the QRMC found the most need to change the current pay table—in the officer ranks—a time-in-grade table would have little effect because officers are promoted so nearly in lockstep.

ESTABLISH PAY RAISES BASED ON PERFORMANCE

Pay raises within grades that are based on individual performance could strengthen the incentives for hard work. They could also diminish an undesirable incentive in the current pay and personnel-management systems: namely, for people who are

4. Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation* (August 21, 1992), p. 43.

good in their current jobs to seek promotion to a job for which they might not be well suited. Asch and Warner saw in performance-based raises a solution to the incentive problems of a pay profile that must be rather flat because of personnel-management considerations. Performance-based raises could absorb part or all of the increases now based on longevity, providing continued motivation even for people who have reached the highest grade they are likely to achieve. If the standards for such raises were sufficiently high, people who were better suited to the nature of work in their current grade could find that a promotion would actually decrease their pay in the long run. Performance-based pay, however, would face both practical and philosophical objections that might well prevent its institution.

Performance-based pay raises have precedent both in past military practices and in current civil service policies. From 1958 until 1985, the military services were authorized to grant "proficiency pay" to enlisted members who were "designated as possessing special proficiency in a military skill of the service concerned."⁵ When the Congress abolished the program in 1985, the Department of Defense was using proficiency pay to address shortages in specific occupational specialties. Until 1976, however, another form of proficiency pay rewarded personnel who exhibited outstanding performance even in specialties that were not experiencing shortages. Under both forms, proficiency pay was an addition to a member's regular pay, although the original authorization also permitted proficiency pay to consist of advancement to a higher pay grade without a corresponding change in military rank.

In the federal civil service, the system for white-collar workers allows agencies to grant step increases to exceptional workers as often as once each year. In general, those increases come at much longer intervals. The Performance Management and Recognition System, which applied to supervisors and managers in the three highest civil-service grades from 1984 to 1993, provided for merit-based annual bonuses based on workers' regular performance evaluations.

In the military, performance-based raises could take many forms. Asch and Warner seemed to envision making a portion of longevity raises contingent on a member's performance. A return to proficiency pay would also be possible, either as it was carried out or in the pay-grade form, although in the former case probably without the policy of authorizing the pay only for members in designated skills. A third option would be to allow accelerated longevity increases, which would overcome a problem that Asch and Warner saw in their system: namely, that the best performers might be promoted so rapidly that they would not be in any grade long enough to receive a performance-based raise.

5. Armed Forces Salary Increase Act of 1958, section 1(8), 72 Stat. 125.

In addition to their obvious role in encouraging hard work, performance-based raises could be designed to discourage members from seeking promotion to levels of responsibility for which they are ill suited. An excellent mechanic with poor administrative skills, for example, could receive larger raises by remaining in his or her current pay grade than by moving up to a supervisory position. Or an officer who was best at staff work could hope for high pay, if not promotion, without having to serve a tour in a command position. To achieve this purpose, the system might have to permit a good performer in one grade (or rank, if the pay-grade form of proficiency pay was used) to be paid more than a poor performer in a higher grade—that is, it would have to allow pay inversions, a feature of the current pay table that some observers have criticized.

The primary practical difficulty in carrying out a system of performance-based raises would be designing an evaluation system that actually recognized superior performance and achieved equity without unduly burdening the personnel-management system. Centralized decisionmaking—the approach that all four services use in selecting officers for promotion—probably would not be appropriate for making pay decisions for each member every one or two years; the less-centralized system used for enlisted promotions might be a more appropriate model. To prevent abuses, however, some means would have to be found to limit the discretion of the bodies making the pay decisions. A commander could not be allowed to decide, for example, that all of his or her people deserved the maximum raises.⁶ Ultimately, ensuring fairness—and the appearance of fairness—might prove very difficult.

Designing a pay-for-performance system carefully would be particularly important because such systems may not always achieve their goals. Reporting on the work of a committee of experts appointed to examine such systems, the National Research Council noted that “neither in the scientific literature nor in practice did it [the committee] find compelling evidence that pay-for-performance systems enhance productivity, despite considerable publicity to the contrary.”⁷ The committee recommended that federal policymakers consider decentralizing the design and application of new systems and urged that agencies conduct controlled pilot studies of the systems they design. Developing a usable system for the military, then, might require allowing differences between the services, and perhaps even within a service, which might be seen as inequitable.

6. Under the Performance Management and Recognition System, supervisors were constrained by a limit on the percentage of total payroll of all covered workers that could be awarded in bonuses. Over time, however, more and more workers received the maximum rating, which diminished the size of the average bonus.

7. National Research Council, 1991 publication announcement for *Pay for Performance: Evaluating Performance Appraisal and Merit Pay* (Washington, D.C.: National Academy Press, 1991).

Performance-based pay might also be opposed because of one unique feature of military personnel management: people are not free to choose their job assignments. A person assigned to a job in which she or he has little chance of excelling may already be penalized because the chances of promotion are reduced. Performance-based raises could add the further penalty of lower pay. Thus, to the practical difficulties would be added the philosophical objection that a person's pay should not depend on factors over which he or she has no control.

