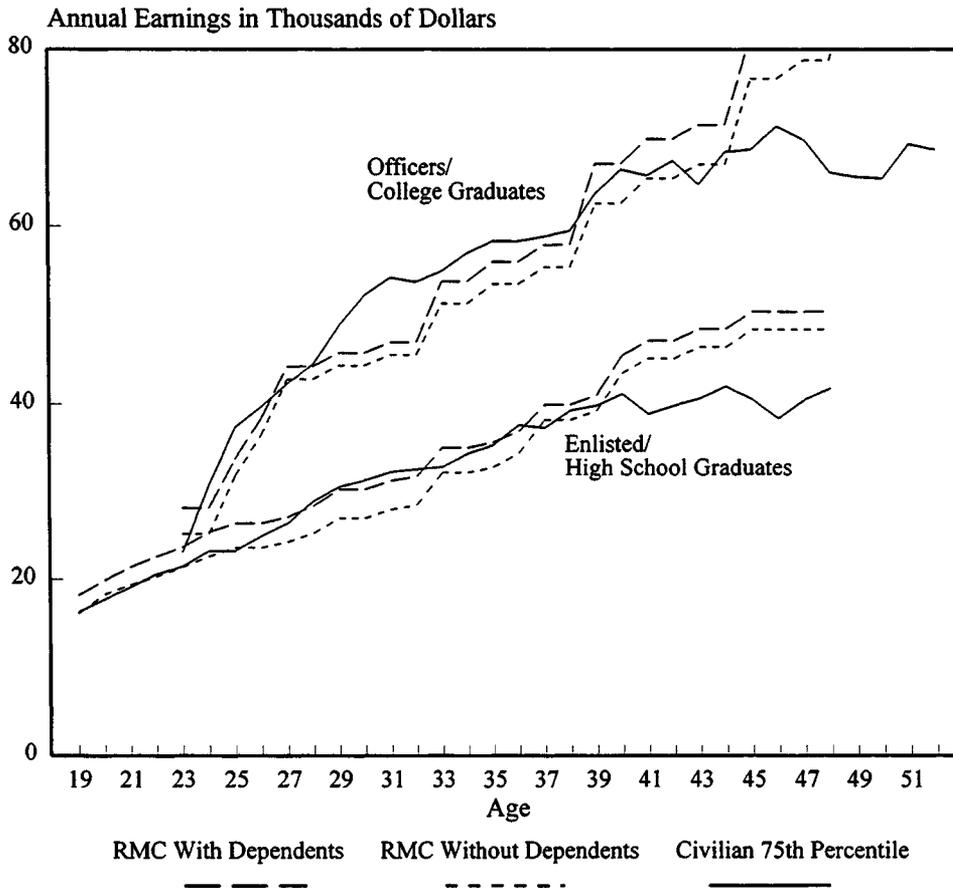


**FIGURE 3. PAY PROFILES OF TYPICAL OFFICER AND ENLISTED MILITARY MEMBERS COMPARED WITH 75TH PERCENTILE OF EARNINGS FOR MALE COLLEGE GRADUATES AND HIGH SCHOOL GRADUATES (Average, 1992-1993)**



**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.<sup>1</sup> 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

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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.<sup>2</sup>

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.<sup>3</sup> That is, at any given year of service the method distributes the total of future receipts among the years

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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.<sup>4</sup>

#### CURRENT AND PAST DIFFERENTIALS BETWEEN PAY GRADES

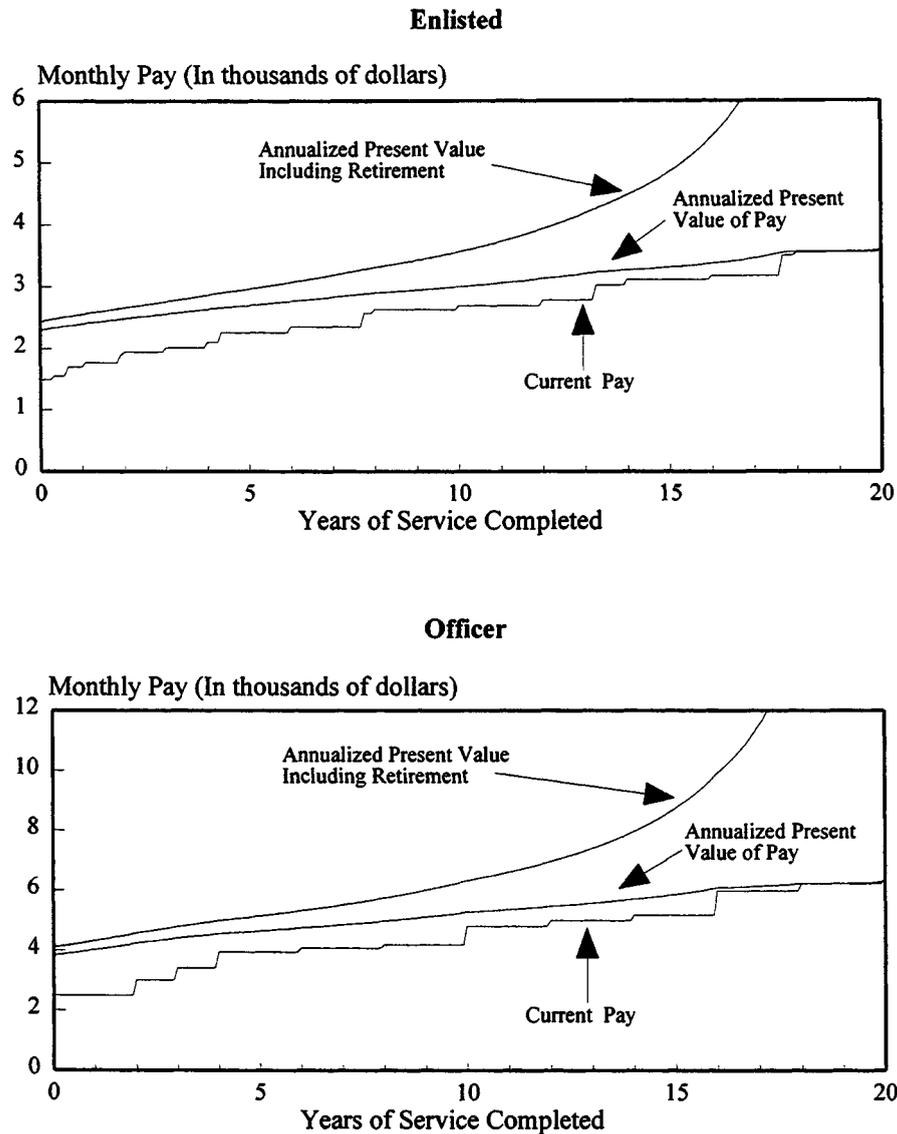
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Impressions of pay compression in the military have probably been shaped by one event more than any other: the changes of November 1971 that increased the pay of junior enlisted people in anticipation of the ending of conscription the following year. 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."<sup>5</sup>

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).<sup>6</sup> 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.<sup>7</sup> 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

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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**

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### **POLICY OPTIONS**

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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.<sup>1</sup>

#### **RETAIN THE CURRENT PAY TABLE**

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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

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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.<sup>2</sup> If the proposed pay table was

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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.

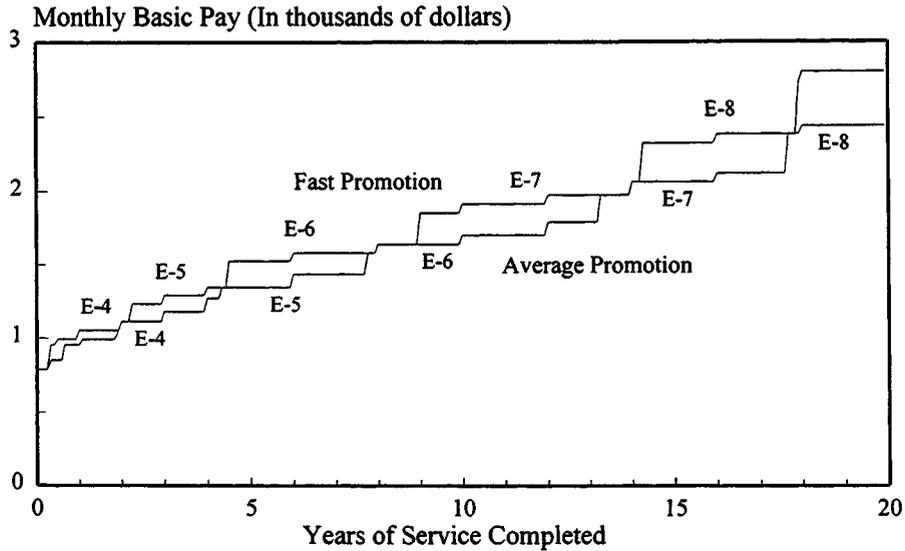
Several studies of the military compensation system have recommended a time-in-grade pay table, notably the Cordiner Commission (1957), the Gorham Commission (1962), and the Zwick Commission (1978), formally known as the President's Commission on Military Compensation.<sup>3</sup>

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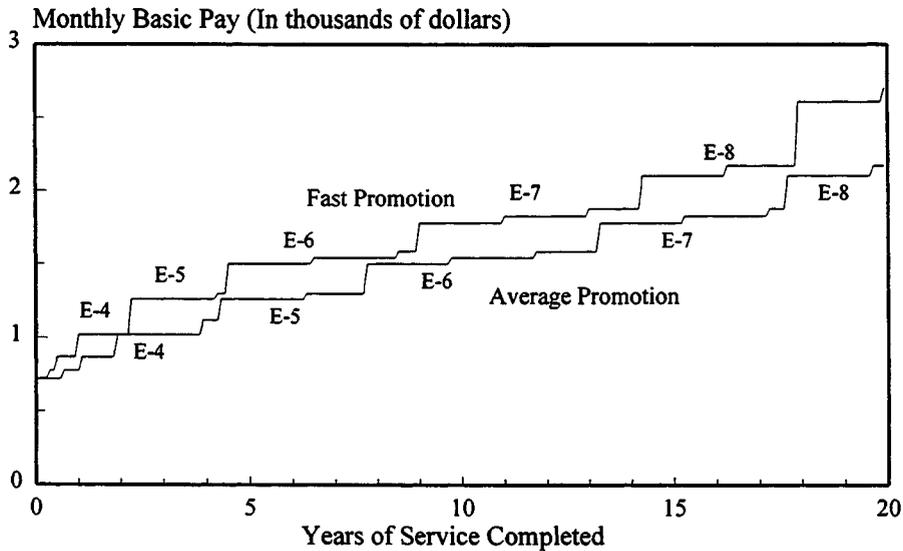
3. Summaries of the studies appear in Department of Defense, *Report of the Seventh Quadrennial Review of Military Compensation—Basic Pay: A Strategy for Rewarding Promotion over Longevity*, Major Topical Summary 2 (August 1992), pp. B-2 to B-3.

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."<sup>4</sup> 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

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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."<sup>5</sup> 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.

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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.<sup>6</sup> 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.”<sup>7</sup> 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.

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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.

