
**TAKING CARE OF PEOPLE: THE FUTURE
OF ARMY PERSONNEL**
Susan Hosek

People are our most important asset. The physical, material, mental,
and spiritual well being of our soldiers, families, and civilians
are inextricably linked to our readiness.

—Gen. John M. Keane, Vice Chief of Staff, U.S. Army (Keane, 2001).

The quotation above echoes numerous statements by various senior military and civilian leaders on the importance of personnel for all of the U.S. military services. The U.S. Army, in particular, requires a steady flow of high-quality personnel to operate its equipment, maintain its complex machinery, and ensure its capacity to respond rapidly to a wide variety of contingencies around the world. Reflecting their importance, the cost of paying the Pentagon's military and civilian employees is its single biggest cost—roughly \$130 billion annually. While the enormous cost and importance of U.S. Army personnel has long been recognized and extolled, the issue has recently received even more attention, stemming from the increasing difficulty that all of the services have had in recent years in meeting their goals for recruitment.

In FY 1998, the Navy fell short of its recruitment goal by nearly 12 percent. In FY 1999, the Army missed its goal of 74,500 recruits by 6,291, an 8 percent shortfall, while for the first time since the creation of the all-volunteer force in 1973, the Air Force also missed its goal, by about 5 percent. Only the Marine Corps, with its relatively small size and particular ethos, was immune from a recruitment shortfall. At the same time, the services reported that their efforts to retain personnel had experienced similar difficulties, particularly in certain key technical areas, such as maintenance crews (Asch and Hosek, 2000). While recruitment and retention goals have been met more recently, wider demographic and labor market trends are still troubling. Surveys show that the fraction of high school seniors with some propensity to join the military declined 15 percent over the decade of the 1990s (Orvis and Asch, 2001). Subsequently, the decline appears to have ended.

These trends are developing at a time when the world security environment has prompted the U.S. political leadership to adopt fairly radical changes in the national security strategy and to make ever more frequent use of the U.S. military and, in particular, the U.S. Army's unique capabilities to apply force rapidly and precisely. Over the past decade, Army personnel have met a series of contingencies, each presenting new challenges that differ markedly from the conventional war they trained for and pursued so successfully in the Persian Gulf. Future contingencies may resemble Somalia, Bosnia, and Afghanistan in some aspects, but they will undoubtedly present other new and unexpected challenges. Bruce Nardulli, in Chapter Three of this report, concludes that these contingencies will likely become more frequent and occur in dangerous, difficult, and unpleasant environments.

The Army has responded to the challenge of the new security environment and the requirements in the national security strategy with a fairly radical program of transformation that will inevitably place new demands on its personnel. Soldiers will have to learn how to use new equipment and employ more flexible tactics. Officers and noncommissioned officers (NCOs) must be able to adjust to unexpected situations. A fast tempo will almost certainly continue, if not accelerate, and soldiers will face numerous uncertainties.

These factors have led some observers to see a crisis in personnel that threatens readiness, morale, and even the viability of the Army's transformation program.¹ Implicit in this view is the idea that Army transformation will make that crisis worse. This chapter will demonstrate that the severity of that crisis is overstated. The Army has already begun to reverse some of the trends described through various innovative programs. Nonetheless, adjusting to demographic changes, to the new security environment, and to the new personnel demands of a transformed force will necessitate permanent changes in personnel management. Many of these changes, such as those involving assignment and deployment policies and reshaping the training system, are already under study or being implemented. Other, more sweeping changes will occur if the Army alters its approach to unit manning and deployment, as the Secretary of the Army is urging.

However, while these efforts are important, the lesson of recent years is that personnel management is analogous to taking an antibiotic: Feeling better should not lead one to stop taking the medicine. In the mid- to late 1990s, an unusually strong civilian economy reminded us that even a downsized defense establishment needs to tend to its recruiting structure or face potentially serious shortfalls. With renewed effort and added resources, many downward

¹See, for example, Suro (2000) and Blazar (1999).

trends were reversed at the end of the decade. While no personnel crisis is evident today, recent experience makes clear that competitive compensation, as well as effective personnel management and support, must be nurtured if they are to be sustained. Taking care of the Army's people will require continual efforts to identify changing personnel needs and to develop cost-effective programs for meeting those needs.

Unfortunately, those efforts are likely to be impeded by a lack of understanding of precisely which policies most influence the Army's ability to recruit and retain effective personnel. In particular, this chapter identifies four key issues in the Army personnel management system in which policy is hindered by unanswered questions. First, the chapter looks at what the Army needs to know to recruit not just the necessary numbers of personnel or even the highest-quality personnel but also the "right" personnel. Next, the chapter describes the known effects of deployment on personnel and assesses the possible impact of moving the Army away from the system of individual replacements toward a policy that would cause cohorts of soldiers to join and leave military units together. Third, it examines how the Army can make its personnel training system more appropriate and cost-effective. Finally, it examines how trends in compensation and family life in the Army might affect the ability of the Army to attract and retain personnel. These are far from the only relevant issues in the Army personnel management system, but they are all areas that will be affected by the demographic and geopolitical trends mentioned above and in which they are critical uncertainties.

RECRUITING THE RIGHT TALENT

To maximize performance and minimize costs, the Army wants to recruit the "right" talent, not the "best" talent. Recruiting youth whose aptitudes substantially exceed those needed to perform Army jobs well increases recruiting costs. This may be offset by lower training costs, but retention will likely suffer if soldiers are bored or uninterested. We have ample evidence from earlier years that underqualified recruits lead to inadequate performance. Our knowledge about the relationship between aptitude and experience and individual or team performance has not been translated into the requirements for personnel quality and experience. Research has also generated knowledge about how to cost-effectively recruit high-quality youth. However, steadily increasing college enrollment and shifting demographic trends present new challenges to recruiters.

The research related to quality and recruiting supports two recommendations:

- Determine the requirement for quality of personnel (measured by education and aptitude) as well as number of personnel.

- Attract high-quality youth to all military occupations by aggressively pursuing new markets, including individuals with some college and competitive college degrees and Hispanics and other growing ethnic groups.

Studies that have carefully explored the relationship between personnel quality and performance have consistently shown that enlisted performance increases with aptitude and experience (Winkler, 1999). In the absence of information about performance requirements, however, it is difficult to know when personnel quality is high enough. For many years, recruiters have been asked to meet a minimum goal of 60 percent “high quality” in the enlisted force—defined as high school graduates whose aptitude is measured in the top half of the distribution. This goal arises from experience rather than systematic study, and, without much more information, most policymakers simply prefer more quality to less. After the Cold War, recruit quality soared when accessions were cut severely during the drawdown, whereas recruiting resources were sustained at old levels well into FY 1992. Quality fell when recruiting resources were cut below the levels needed to sustain the downsized force (Figure 10.1). A concerted effort to strengthen recruiting, with an assist from the economy, has restored quality to the 60 percent goal. The all-volunteer Army has learned how to recruit and undoubtedly will be able to update its knowledge to meet new conditions. First, though, it must learn what quality it needs in the enlisted force.

Even less is known about the relationship between measures of quality and performance in the officer ranks. Research on Navy officers has shown that

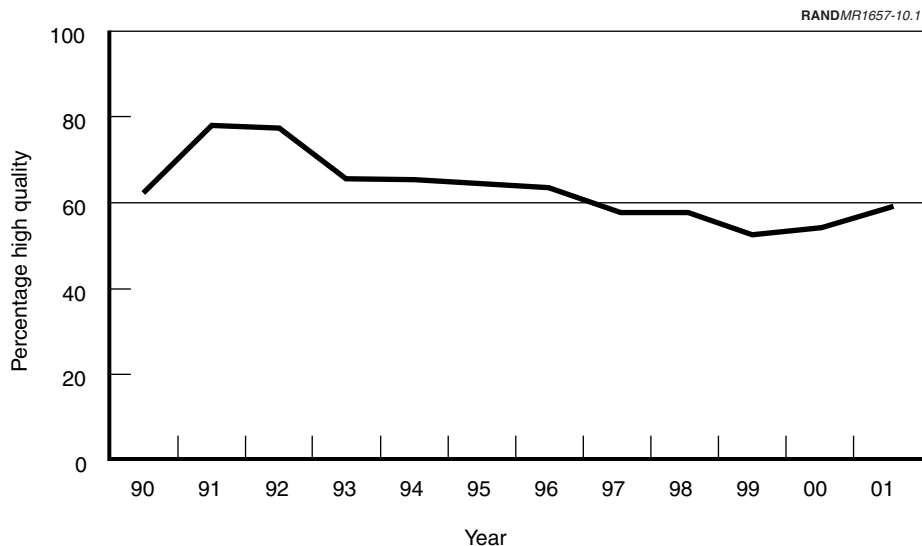
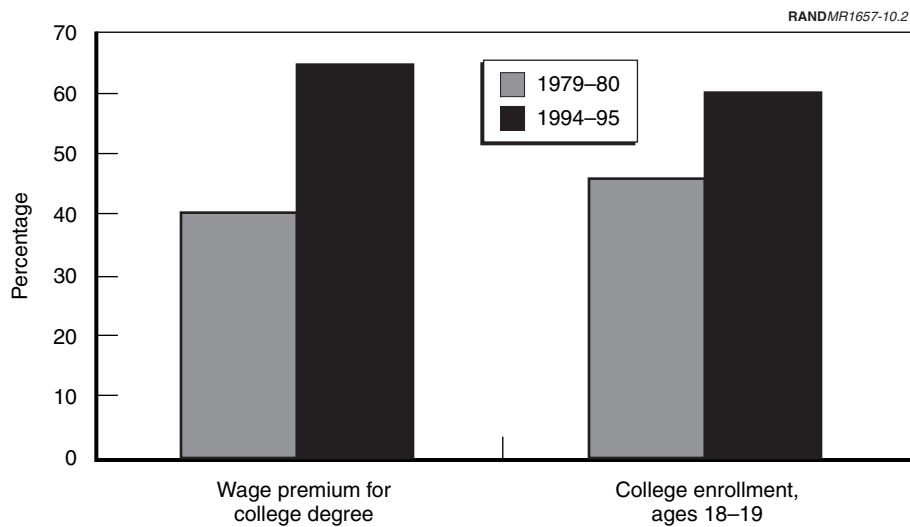


Figure 10.1—Post–Cold War Recruiting

officers who graduated from more-selective colleges and had higher grade point averages obtained higher performance ratings in midcareer and were more likely to be promoted to O-4 (Office of the Under Secretary of Defense, 1999). Again, we can measure correlations between measures of ability and performance, but we cannot readily determine the requisite level of quality in different occupations or overall.

If high levels of aptitude and performance should become more critical in the future than they have been in the past, more research will be needed to understand the trade-off between personnel and quality across and within military occupations. This research poses significant methodological challenges and will require a major investment in time and resources. For the present, simple goals and anecdotal evidence must guide recruiting objectives.

Although the Army lacks the specific evidence-based quality targets for judging recruiting effectiveness, some concern is warranted because the prime recruiting market has shrunk steadily over the past 20 years as more young adults pursue post secondary education. Figure 10.2 shows the increases in the wage premium paid for a college degree, measured as a percentage of the wage paid for a high school degree, and in college enrollment. Interestingly, the premium for only some college is relatively small, so those who enter college presumably aspire to a four-year degree, although quite a few take 10 years or more to finish (Hosek and Sharp, 2001). As one would expect, those who enter college have



SOURCE: Asch et al., 1999.

Figure 10.2—Change in Wage Premium for College and College Enrollment

higher aptitude test scores. These statistics indicate that some young adults who once would have entered military service as a route to a better future may be turning to post secondary education instead.²

Despite these trends in higher education, the Army managed to meet its recruiting quality goal throughout most of the 1990s, even given the strong economy. At the end of the decade, however, the percentage of Army recruits who qualified as high-quality dipped below 60 percent as entry pay fell relative to civilian youth wages. Compensation is discussed later in this chapter, but it is important to note here that the competitiveness of military pay will depend on the opportunities for higher wages through higher education, not just on the generally stagnant wages of high school graduates.

One reason Army recruiting has remained as strong as it has in the face of a surging economy is undoubtedly the offer of a generous educational benefit for service, largely in the form of the Montgomery GI Bill and the Army College Fund. Nearly all enlists now choose to enroll in the GI Bill, and many earn college credits while on active duty. Nevertheless, a sizable “degree gap” emerges by age 30 between individuals who left military service and those who remained in service. Possible explanations include a smaller payoff to higher education in a military versus a civilian career and the difficulty of fitting higher education into a demanding military job. To remain competitive with civilian employers, the Army may need to offer more enlisted personnel the opportunity to gain a commission upon the completion of a four-year degree.

One obvious approach for accommodating higher education in enlisted service is to offer educational benefits before, instead of during or after, enlisted service. The Army’s College First program does just that. Current RAND research is evaluating this program for the Army.

So far, we have focused on enlisted recruiting. Officer commissioning sources include the U.S. Military Academy, the Reserve Officer Training Corps (ROTC), and Officer Candidate School. As a result of the post-Cold War drawdown, the percentage of officers entering the Army from the different sources has shifted. For example, the percentage from the Academy has grown. Another important change has been the growth in the fraction of ROTC graduates who had financial support during college. To the extent that military compensation and job characteristics compete well with civilian employment opportunities, the Army should be able to attract high-quality college graduates. To the extent that this is not the case, ROTC scholarships can be enhanced to compete for talented college students (similar to those attending West Point), although many may

²Asch, Kilburn, and Klerman (1999) provided a detailed analysis of the issues surrounding higher education and military recruiting.

not stay for a career. Given the challenges the Army is likely to face in the future, an officer corps capable of leadership and innovation should be a high priority.

Diversity in the enlisted and officer ranks has been an important objective for many years now. The nation is committed to ensuring that all racial and ethnic groups have an equal opportunity to serve and committed to a relatively representative military force. The 2000 census confirmed a dramatic change in the composition of the U.S. population, and the Army has begun to expand its outreach to rapidly growing groups, particularly Hispanics. Equally important will be the continuing efforts to ensure equal opportunity for men and women who serve.

Among the many recent studies of women and minorities are several conducted at RAND that document continuing challenges in this area (Hosek et al., 2001; Harrell and Miller, 1997; Harrell et al., 1999). One such challenge is promoting diversity in the special operations forces (Harrell et al., 1999), where African-Americans in particular are underrepresented. In this case, some of the qualifying skills (e.g., swimming proficiency) serve as barriers to entry, but lack of knowledge and discomfort in occupations dominated by soldiers from other races and ethnicity groups also appear to be important. Soldiers' occupational preferences and assignments should be monitored, and efforts to decrease disparities across occupations should continue. Another study of women and minority officers reached very similar conclusions about perceived barriers and noted that research in civilian settings described the same phenomena (Hosek et al., 2001).

MANAGING ASSIGNMENT AND DEPLOYMENT

As Figure 10.3 shows, 60 percent of enlisted personnel whose first term ended in 1999 had at least one episode of long (more than 30 days) or hostile deployment during the three-year period after training and before they completed their obligations.³ Approximately one-half of the personnel who had some deployment experienced some duty in a hostile zone. The average episode lasted 4.6 months for nonhostile and hostile deployments. Although comparable data are not available for earlier years, other evidence clearly shows what everyone in the Army already knows: Deployment is much more common than it was during the Cold War.

³The data cited are from Hosek and Totten (2002). Additional data are presented in Sortor and Polich (2001).

RANDMR1657-10.3

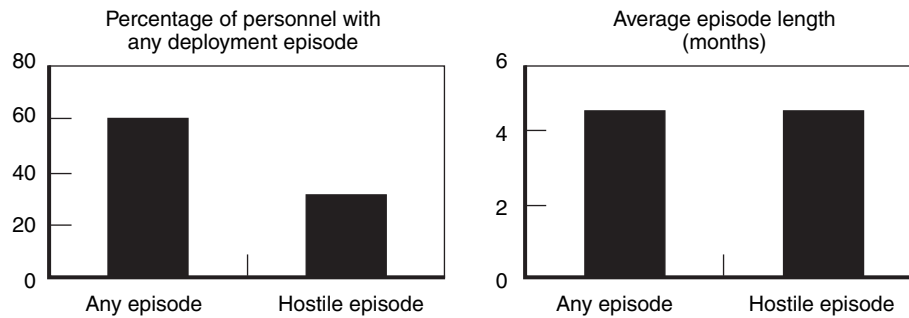


Figure 10.3—Frequency of Deployment in the Army During the Late 1990s

The Effect of Deployment on Retention

What has been much less clear is the effect of increased deployment on retention. Concern about the effects of deployment and other duty away from home on the quality of life for military personnel and their families grew as overseas involvement mushroomed in the 1990s. However, analysts quickly discovered that the data needed to inform this issue were not available. The first round of studies, while helpful as a general assessment, raise as many questions as they answer.

The results of these first studies are generally consistent. They find that, overall, reenlistment in the Army has been higher for personnel with some deployment experience than for personnel with none. However, reenlistment for those who have three or more deployments, compared with two deployments, is slightly lower, so more is not always better.

At a more detailed level, research suggests that, as one might expect, soldiers react differently depending on the locations and conditions of deployments, as well as their durations. Moreover, the reenlistment effect varies based not only on the destination of the deployment but also on the origin. Deployment from permanent duty stations in Europe unambiguously increases reenlistment, whereas deployment from the United States only has a positive effect if it lasts less than three months. In contrast, longer deployments from Europe and any deployment from Asia reduce reenlistment. Because its units may well be deployed more often in the future in hostile and difficult situations, the Army must understand what makes deployment rewarding and design policies to improve the soldier's experience, wherever they deploy to, and to compensate those who draw the most unpleasant duty. This issue deserves an effort comparable to the effort devoted to recruiting.

The problem with all of these measures is that the effects of more frequent deployment on the Army personnel system extend well beyond taking soldiers away from home (Sortor and Polich, 2001). Deployments create additional work for those who are deployed and those not deployed during the planning, deployment, and recovery stages. They absorb the time of unit leaders and often require transfers of personnel to make sure deployed units are at full strength and necessitate additional training. The result is a ripple effect on personnel in both the units that deploy and the units that give up personnel and support the deployments.

Deployment on top of maintaining readiness for major theater war and sustaining individual warfighting skills is thought to generate stress throughout the Army. Staying home may not be easier in many instances than deploying. Unfortunately, meaningful measures of the effect of workload and work stress on retention are not available. A regular data collection effort, employing surveys and measures that are developed by experts and are valid and reliable, would be well worth the investment.

Managing Personnel and Unit Readiness

As operational deployments of Active Component units have become more frequent, turbulence of active-duty personnel has received increased attention. Even modest deployments can send ripple effects throughout the Army. Units marked for deployment must borrow qualified personnel from other units, increasing the need for predeployment training and creating turbulence in donor units. The situation is especially acute among NCOs. Deploying units find that as many as 40 percent of their personnel are not deployable, primarily because they recently returned from an unaccompanied tour, are scheduled for a required move, or anticipate release from active duty (Polich, Orvis, and Hix, 2000).

Continuing unit deployments, along with traditional requirements to replace individual soldiers returning from overseas and moving from U.S. tours of fixed duration, combine to raise the rates of personnel turbulence to levels that cause concern in many parts of the Army. Further, unit deployments conflict with the inherently individual nature of personnel and individual training policies. Typically, soldiers are recruited, enlisted, trained, assigned, promoted, moved, and separated as individuals rather than as units. Despite the unit deployments, the Army must continue to supply individual replacements to its non-deploying organizations both overseas and in the United States. The two policies place conflicting demands on the system.

Expecting that reducing turbulence would contribute to cohesion, which in turn would enhance unit readiness, the Army Secretary recently directed a re-

view of the Army's current policy of staffing its permanently stationed units through individual replacements (*Army Times*, 2002, p. 14). The Secretary has directed his staff to assess a policy that would cause cohorts of soldiers to join and leave military units together. Units permanently based in the United States would train to a specified level and then rotate for perhaps six months in Europe, Korea, and other locations around the world.

But the linkages among stability, cohesion, and readiness are not well understood. Cohesion is a complex, multifaceted concept and is not unambiguously beneficial to unit performance (Mitchell, 1982; Forsyth, 1990; MacCoun et al., 1993). Task cohesion can improve unit performance; social cohesion can diminish it. Further, there is evidence that unit performance may have a greater effect on cohesion than cohesion has on unit performance (Mullen and Cooper, 1994).

As with any policy change, a shift to unit manning carries with it not only potential benefits but potential downsides as well. Designing changes that improve stability, cohesion, and readiness without inducing undesirable consequences will be a challenging task, given the Army's complex personnel management system. Research implies that stability can enhance social cohesion, though not necessarily task cohesion, which is most likely to improve performance (MacCoun et al., 1993). However, maximizing stability could have downsides. For example, freezing soldiers in their jobs during a deployment contributes to stability of teams and small units and probably to the social cohesion of these teams and units. However, this policy would preclude a soldier promoted during the deployment from stepping into a more responsible, vacant position. Both the soldier and the unit forgo the benefits of having that soldier fill the position.

Unit manning also creates a force with much more variable readiness than is currently the case. Today, because of the individual replacement policy, replacements are constantly streaming into units. As a result, no unit is as ready as it would be if all its personnel remained for an extended period of time, as they would under a unit manning policy. But under unit manning, units just beginning to form a cohort are almost totally unready and units that have just given up their cohorts are totally unready. This concentrated unreadiness is the inevitable price the Army must pay to achieve higher stability in units that trained and deployed as one.

The Army has experimented with and abandoned unit manning and unit rotations in various forms several times since the 1950s. Typically, the Army has terminated the policies because they actually exacerbated some combination of the problems they were intended to ameliorate—unreadiness, cost, and personnel turbulence (U.S. GAO, 1993). This history suggests that many factors are

at work and that policy changes may fail unless those factors are more clearly understood.

Answers to the following questions should help the Army reach a well-reasoned policy with regard to unit manning and avoid earlier problems:

- What is the extent of the current readiness problem, and is it growing worse or improving? How does the problem vary across types of units, and why?
- What other policies, besides the individual replacement policy, contribute to the problem?
- Given that variants of the unit manning policy have failed in the past, what conditions are different this time, or what previously untried variation might make the policy more successful? Are there new problems that the unit manning policy might create in the current environment?
- What other policy options might be employed to solve the problem?
- How would the change in policy be implemented and monitored?

COST-EFFECTIVE TRAINING

The Army training establishment faces difficult challenges in the future as it supports Army transformation and the capability to respond to a complex and shifting threat. Future soldiers must be proficient enough in individual and team efforts to adapt to new and unanticipated situations. The resources available for training will be constrained by the investment needed for transformation. Thus, the future will need to build on the efforts of the recent past to restructure and modernize training. Initiatives to coordinate active and reserve training (Total Army School System) and exploit new technology (The Army Distance Learning Program) will form the foundation for future initiatives to instruct in new systems and tactics, at the individual and unit levels.

RAND research, conducted throughout the 1990s, points to three strategies for improving individual-training performance while reducing resources (Arroyo Center, 2001):

- Integrate active and reserve training institutions.
- Leverage new technologies: Expand the use of new computer-based technologies in the classroom and for “flexible” distance learning.
- Increase the use of the private sector.

Integrating active-duty and reserve training could be accomplished through a “hub and spoke” system, in which the Active Component school would serve as

the hub, while schools run by the Reserve Component would form the spokes. Soldiers in both components would train at the school nearest to their unit. Analysis of this concept, conducted for maintenance occupations, projected savings in travel costs of 15 to 47 percent, depending on how specialized the course offerings are. In addition, soldiers would spend less time away from home, some training facilities could be closed, and the declining workload in Active Component facilities would free manpower for other purposes. Finally, an integrated training system should facilitate consistency in training across components and the integration of active and reserve units in operations.

Various RAND studies of computer-assisted instructional technology indicate that it could also generate significant savings by cutting course time and substituting for some hands-on training on real equipment (Winkler, 1995). These studies investigated training for tank crewmen and cannon fire direction. Other research suggests, however, that a mix of computer-assisted and hands-on training would be best for ensuring proficiency. Provided that the most cost-effective methods are used, distance learning appears especially promising for reclassification training and cross-training to relieve occupational shortfalls and for leadership development of NCOs and officers. These training needs are growing in importance with Army transformation (Arroyo Center, 2001).

Throughout the Department of Defense in recent years, activities once performed by military or civilian personnel have been turned over to the private sector. In this vein, Army schools have contracted out such tasks as course development and base operations. To explore private-sector opportunities fully will require reconsideration of the structure of Army training leading to a strategic plan for reengineering the system, including both classroom and support activities. This would be a major effort, involving careful tests of new concepts. The research done at RAND and elsewhere points to the possibility of significant improvements in efficiency and performance, but much remains to be done to fully understand the potential opportunities in this area.

COMPENSATING AND SUPPORTING SOLDIERS AND FAMILIES

Compensation is one of the keys to recruiting and retaining soldiers who can meet the challenges of Army transformation and the continued high pace of activity. Responding to evidence of a military “pay gap” and the heavy demands on personnel after the Cold War ended, the Department of Defense and Congress have focused on compensation in recent years. Since FY 2000, this has led to increases in the annual military pay adjustments and additional targeted increases for career personnel. The Ninth Quadrennial Review of Military Compensation (QRMC), recently released, has concluded that further targeted increases are needed. This QRMC also concluded that some new and innova-

tive compensation elements might be needed in the future to provide sufficient flexibility in shaping the force. Future compensation must accomplish the following:

- Pay must remain comparable to the earnings opportunities in the civilian sector for those the military wishes to attract and keep. Growing civilian earnings disparity may make the single pay table concept untenable.
- Compensation must be evaluated in a family context that considers how Army service affects spouse employment and earnings.
- Most specific to the Army, policymakers must take into account how the structure of pay and benefits will reflect evolving utilization of the Reserve Component of part-time soldiers and the relationship of the reserve to active service.

Pay Comparability

Taking into account some significant trends in civilian earnings, the picture of military-civilian pay comparability is a complex one. Extensive RAND research has identified new methods for measuring comparability, showing that the widespread belief in an across-the-board pay gap is overly simplistic.

The standard measure of military-civilian pay comparability—comparing the rate of growth in base pay with the Employment Cost Index (ECI)—shows that military pay failed to keep pace with civilian pay throughout the 1980s and into the 1990s. The RAND research refined this standard comparability measure to reflect the composition of military personnel and to consider different subgroups—e.g., enlisted personnel versus officers and junior versus senior ranks (Hosek and Sharp, 2001).

Figure 10.4 compares the growth in military pay for all enlisted and all officer personnel with the growth in pay for civilian workers with the same characteristics (e.g., age, education). The bars show, for each year, the difference in the percentage growth in military pay and civilian pay from 1982 to that year. For example, the pay growth for enlisted personnel from 1982 to 1990 was almost equal to the pay growth for comparable civilian workers, but a pay gap of 15 percentage points had opened for officers. By 2002, enlisted pay had grown more rapidly than comparable civilian pay and the officer pay gap had grown. The recent military pay increases have been higher than the increases in civilian pay, so the positive gap for enlisted personnel is projected to increase between now and 2010 and the negative gap for officers is projected to narrow.

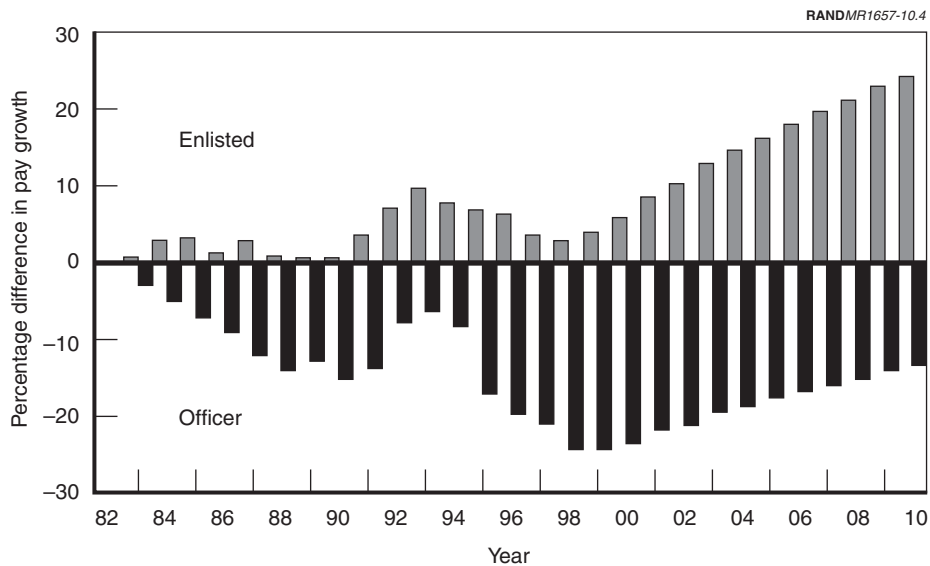


Figure 10.4—Enlisted and Officer Military-Civilian Pay Gap Over Time

As we discussed earlier, the earnings of college-educated workers have increased over time relative to the earnings of high school graduates. Like their civilian counterparts, enlisted personnel now accumulate more college credits during their years of service than was formerly the case, and quite a few complete a four-year degree. Because the structure of the military pay table has changed relatively little over time, it has not kept up with the earnings opportunities of an increasingly well-educated force, particularly for midgrade enlisted personnel and junior officers (Office of the Under Secretary of Defense for Personnel and Readiness, 2002). An earlier analysis, focusing on the Army, also raised doubts about the competitiveness of an enlisted career in light of higher wages for college-educated civilian workers (Hosek and Sharp, 2001).

Recently, a combination of higher civilian unemployment and higher military pay has alleviated some of the concerns about pay, but care must be taken to sustain compensation into the future.

Retaining Families

Over time, voluntary service has led to a more senior and career-oriented Army. In 1973, 40 percent of the enlisted force were past their first term, but that percentage rose steadily and reached 60 percent in the mid-1990s (Kirby and Thie, 1996). In the Army, average length of service increased during the same period from under 5.5 to 7.5 years.

Today's Army increasingly is made up of families. About half of the enlisted personnel considering whether to reenlist after the first term are married. By the end of the second term, this fraction is closer to three-quarters. Marriage rates in the military overall are higher than in the civilian sector (Wardynski, 2000). Military personnel marry and have children earlier. Therefore, compensation and personnel support must be considered in a family context, and several recent studies have taken the first steps in this direction.⁴

For many years, researchers studying the civilian population have noted that married workers take their spouse's employment situation into account in making job decisions. As the labor force participation rate of women and the contribution of wives' earnings to family income have grown, fewer husbands base their decisions solely on their own earnings opportunities. For years, the labor force participation rate of military wives also rose, but it remained lower than the rate in the civilian population. Today, more than 70 percent of military wives have paying jobs and a military-civilian difference remains only for college-educated wives. More than half of the mothers of preschool children now work (Figure 10.5).

There are reasons to anticipate that Army spouses—male and female—may find it difficult to work as much or earn as much as their civilian counterparts. Their location is often determined by the needs of the Army without consideration of employment opportunities, increases in deployment and associated heavy duty leave them with a larger share of family responsibilities, and frequent moves lead to frequent job changes. Until recently, little was known about spouse earnings, and research on the consequences for retention has yet to be done.

A RAND study of female military spouse employment and earnings (Hosek et al., 2001) showed that over a long period (1987–1999), military wives earned on average \$10,241 per year, whereas their civilian counterparts earned \$15,884. Military wives are less likely to work, and even employed military wives work fewer weeks and slightly fewer hours in a week than their civilian counterparts.

The study was also able to evaluate some commonly held beliefs about military spouses' employment opportunities. First, military personnel whose spouses have a stronger interest in the labor market and better opportunities may be less likely to remain in service. This hypothesis implies that wives of career

⁴Some have pointed to the benefits offered to married personnel as an explanation for the higher marriage rate. Other plausible explanations include assignment far from home, which undoubtedly encourages young soldiers to marry rather than face long separations, and release from barrack living once soldiers are married. We cannot tell whether fewer personnel would be married if differential housing allowances did not exist or if junior enlisted personnel were allowed to live in their own apartments.

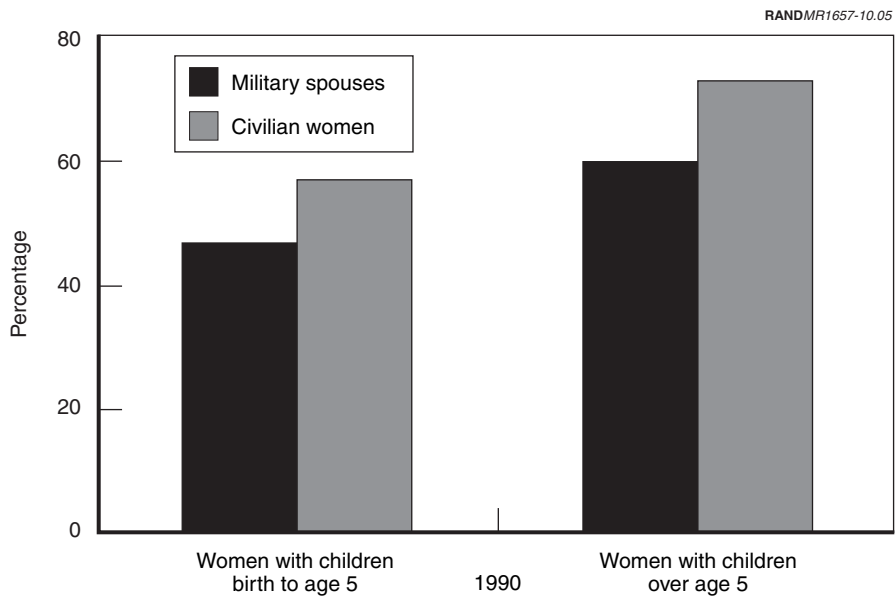


Figure 10.5—Percentage of Mothers Who Work: Military Spouses Versus Civilian Women

military personnel would be expected to have a weaker attachment to the labor force and lower earnings. The evidence is consistent with this hypothesis. Second, as expected, the analysis shows that the frequent moves experienced in the military exact a toll on military wives' earnings. However, a third hypothesis—that military spouses face more restricted employment opportunities because more of them reside in rural areas—is not supported by the evidence. Further research will be needed to understand military spouse employment opportunities and their impact on retention.

Army personnel, and their families, pay other prices because of the demands of service, but they also benefit in myriad ways. Quality of military life was raised as a major policy issue in the 1990s, and budgets for the programs that support personnel and families were increased. More new housing has been built in recent years, although the stock of military housing still lags in quality behind civilian housing (Buddin et al., 1999). The Department of Defense operates the largest and possibly the best employer day-care system in the country, at considerable cost (Zellman and Gates, 2002). TRICARE, the military health plan, has improved in responsiveness and added benefits throughout the past decade. The countless other programs include a number of innovative efforts to support deployed personnel and their families. These programs aim to sustain the quality of life for those serving their country and to enhance retention

and personnel readiness. Because of shortcomings in data and appropriate evaluation methods, too little is known about how cost-effective the numerous programs are in meeting either purpose (Buddin, 1998).

Assuming that the demands on Army personnel and budgetary constraints continue unabated, the modest investment needed to learn more about the most pressing needs of soldiers and the cost-effectiveness of different approaches for meeting those needs would be well worthwhile. For example, a significant number of junior enlisted personnel face serious financial problems. The problem is more prevalent in the Army, especially among those who are deployed or work longer hours, than it is among similar young adults in civilian life (Buddin and Do, 2002), even if one controls for income. Indeed, junior personnel with higher incomes fare no better than those with lower incomes, suggesting that higher pay is not a solution. Formal counseling programs, which many of these young soldiers appear to need, are less widely used than the extent of the problem suggests they should be. As with other key programs, the Army should systematically evaluate the various approaches being used in different locations and induce greater participation by junior personnel, perhaps through outreach to their units.

Compensation and Support in the Reserve Components

The Army relies heavily on its Reserve Components for force structure, and the use of Guard and Reserve units has increased to support overseas deployments and, during the last year, increased further as the nation has responded to the September 11 attacks.

Reserve compensation was the subject of the sixth QRMC more than a decade ago. The ninth QRMC included reserve compensation in its broader review of military compensation, recommending consideration of several changes in special pays related to deployment and overseas duty. As members of the Guard and Reserve spend more time on active duty, disparities in compensation and support—already apparent in some respects (e.g., basic allowance for housing)—will become more problematic. Rationalizing compensation and support for the full-time force and the part-time force is best done before the perception of “unfairness” grows.

Providing benefits and other support for reservists is complicated by movement between active and inactive status, by the growing number of reservists who routinely contribute well over the minimum days, and by geographic dispersion. Below are just some of the issues that need to be addressed to transform the Reserve Components from a Cold War standby force into a regularly employed contingent workforce.

The problems of leaving full-time civilian jobs for extended call-up are obvious, but solutions remain to be worked out. As the level of reserve participation has increased, some members might make a career of contingent reserve duty, or commit to considerable participation for an extended period of time, if an appropriate compensation package were available.

Switching from civilian to military health plans upon activation, and then back to the civilian plans again, places an added burden on family members. Many of them live in areas where the military TRICARE plan is not well-developed. Further, the 2000 Survey of Reserve Component Personnel indicated that almost 30 percent of enlisted members have no civilian insurance. Further, reservists who contribute on a more regular basis get no additional benefit. Congress expressed concern and asked for information about reserve health benefits in reporting out the FY 2002 defense authorization. Other benefits and support programs face similar challenges.

CONCLUSION

A great deal of political will and a fair amount of money are available for improving the U.S. Army's personnel management system. These resources cannot guarantee an efficient and effective personnel system without a deeper understanding of the likely effects of various alternative policies.

The greatest unknown comes in understanding how deployments should affect personnel policies. The complex effects of more frequent deployments on recruitment and retention remain highly uncertain. It is thus extremely difficult to predict how an increased operational tempo associated with, for example, an increased number of antiterrorist missions will affect Army readiness. Given this uncertainty, initiatives to, for example, move from a policy of individual replacements to one of unit manning must be thoroughly evaluated before they are implemented.

In terms of recruitment, the Army needs to better understand the level of quality required, overall and in each of the various occupations, to be able to fill those positions with personnel who are neither over- or underqualified. Educational benefits will also be important to successful recruiting, but programs that provide education before Army service should be investigated further. On the question of training, a great deal of progress has been made, but important questions remain about the potential of new learning technologies and privatizing various aspects of Army training.

Understanding of the politically contentious issue of compensation would be improved if there were less focus on the gross comparability of military pay with the civilian sector. Instead, more research needs to be done on understanding

how the compensation of specific occupational specialties compares with their civilian equivalents, on how military pay and benefits affect overall family income, and on how the structure of compensation affects retention and the relationship between the Army's Active Component and Reserve Component.

Finally, ensuring that soldiers are not overburdened, units have ready personnel, and soldiers are adequately compensated will be insufficient to meet the demands of a transformed Army and future uncertain threats. In the future force, leaders may need to command more diverse and versatile units. As the Army reshapes its forces to meet the requirements of the new security environment and the new national security strategy, it will field legacy units, interim units reshaped from these legacy units, and entirely new kinds of units. At this early stage, it is unclear whether this highly variegated force structure should be manned by individuals who specialize in only one of these unit types or whether many will be asked to master more than one type. Either way, both officers and senior enlisted personnel will need different and productive educational and operational experiences. Yet, a recent study concluded that the tactical foundation of recent infantry and armor officers declined in the 1990s as junior officers spent less time in field training and platoon leadership (Leed, 2002). Anticipating what learning and experience will be required and how to provide them will be difficult at best, and continuing assessment and refinement will probably be needed in these important areas.

REFERENCES

- Army Times*, "Secretary Pushes for Large-Scale Reform," September 16, 2002, p. 14.
- Arroyo Center, "Rebuilding the Schoolhouse: Making Army Training More Efficient and Effective," Santa Monica, Calif.: RAND, RB-3025-A, 2001.
- Asch, Beth, M. Rebecca Kilburn, and Jacob A. Klerman, *Attracting College-Bound Youth into the Military: Toward the Development of New Recruiting Policy Options*, Santa Monica, Calif.: RAND, MR-984-OSD, 1999.
- Asch, Beth, and James Hosek, "Military Compensation Trends and Policy Options," Santa Monica, Calif.: RAND, RB-7533, 2000.
- Blazar, Ernest, "Trouble Ahead," *Washington Times*, January 27, 1999, p. A6.
- Buddin, Richard, *Building a Personnel Support Agenda: Goals, Analysis Framework, and Data Requirements*, Santa Monica, Calif.: RAND, MR-916-OSD, 1998.

- Buddin, Richard, Carole R. Gresenz, Susan D. Hosek, Marc N. Elliott, and Jennifer Hawes-Dawson, *An Evaluation of Housing Options for Military Families*, Santa Monica, Calif.: RAND, MR-1020-OSD, 1999.
- Buddin, Richard, and D. Phuong Do, *Assessing the Personal Financial Problems of Junior Enlisted Personnel*, Santa Monica, Calif.: RAND, MR-1444-OSD, 2002.
- Forsyth, D., *Group Dynamics*, Needham Heights, Mass.: Allyn & Bacon, 1990.
- Harrell, Margaret C., and Laura L. Miller, *New Opportunities for Military Women: Effects upon Readiness, Cohesion, and Morale*, Santa Monica, Calif.: RAND, MR-896-OSD, 1997.
- Harrell, Margaret C., Sheila Nataraj Kirby, Jennifer Sloan, Clifford M. Graf, Christopher J. McKelvey, and Jerry M. Sollinger, *Barriers to Minority Participation in Special Operations Forces*, Santa Monica, Calif.: RAND, MR-1042-SOCOM, 1999.
- Hosek, James, and Mark Totten, *Serving Away from Home: How Deployments Influence Reenlistment*, Santa Monica, Calif.: RAND, MR-1594-OSD, 2002.
- Hosek, James, and Jennifer Sharp, *Keeping Military Pay Competitive: The Outlook for Civilian Wage Growth and Its Consequences*, Santa Monica, Calif.: RAND, IP-205, 2001.
- Hosek, Susan D., Peter Tiemeyer, M. Rebecca Kilburn, Debra A. Strong, Selika Ducksworth, and Reginald Ray, *Minority and Gender Differences in Officer Career Progression*, Santa Monica, Calif.: RAND, MR-1184-OSD, 2001.
- Keane, Gen. John M., "Prepared Testimony Before the Senate Armed Services Committee Readiness Subcommittee," July 11, 2001.
- Kirby, Sheila Nataraj, and Harry Thie, *Enlisted Personnel Management: A Historical Perspective*, Santa Monica, Calif.: RAND, MR-755-OSD, 1996.
- Leed, Maren, *Keeping the Warfighting Edge: An Empirical Analysis of Army Officers' Tactical Expertise*, Santa Monica, Calif.: RAND, MR-1378-A, 2002.
- MacCoun, R. et al., "What Is Known About Unit Cohesion and Military Performance," in B. D. Rostker et al., *Sexual Orientation and U.S. Military Personnel Policy: Options and Assessment*, Santa Monica, Calif.: RAND, MR-323-OSD, 1993.
- Mitchell, T. R., *People in Organizations: An Introduction to Organizational Behavior*, 2nd Edition, New York: McGraw-Hill, 1982.
- Mullen, Brian, and Carolyn Cooper, "The Relationship Between Group Cohesiveness and Performance: An Integration," *Psychological Bulletin*, Vol. 11, No. 2, 1994, pp. 210–227.

Office of the Under Secretary of Defense, Personnel and Readiness, *Career Progression of Minority and Women Officers*, August 1999.

_____, *Report of the Ninth Quadrennial Review of Military Compensation*, Volume 1, March 2002.

Orvis, Bruce, Herbert J. Shukiar, Laurie L. McDonald, Michael G. Mattock, M. Rebecca Kilburn, and Michael G. Shanley, *Ensuring Personnel Readiness in the Army Reserve Components*, Santa Monica, Calif.: RAND, MR-659-A, 1996.

Orvis, Bruce, and Beth Asch, *Military Recruiting: Trends, Outlook, and Implications*, MR-902-A/OSD, 2001.

Polich, J. Michael, Bruce Orvis, and W. Michael Hix, *Small Deployments, Big Problems*, Santa Monica, Calif.: RAND, IP-197, 2000.

Sortor, Ronald E., and J. Michael Polich, *Deployments and Army Personnel Tempo*, Santa Monica, Calif.: RAND, MR-1417-A, 2001.

Suro, Robert, "Captains' Exodus Has Army Fearing the Future," *Washington Post*, October 16, 2000, p. A2.

U.S. General Accounting Office (U.S. GAO), *Army Force Structure: Current System for Assigning Troops to Europe Has Advantages Over Alternatives*, GAO/NSIAD-94-42, November 1993.

Wardynski, Casey, *Military Compensation in the Age of Two-Income Households: Adding Spouses' Earnings to the Compensation Policy Mix*, Santa Monica, Calif.: RAND, RGSD-154, 2000.

Winkler, John D., "Improving Training at School and Work: Lessons from RAND Research on Army Individual Training," Santa Monica, Calif.: RAND, DB-144-A, 1995.

_____, "Are Smart Communicators Better? Soldier Aptitude and Team Performance," *Military Psychology*, Vol. 11, No. 4, October 1, 1999, pp. 405-422.

Zellman, Gail L., and Susan M. Gates, *Examining the Cost of Military Child Care*, Santa Monica, Calif.: RAND, MR-1415-OSD, 2002.