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*Assessment of Combined  
Active/Reserve  
Recruiting Programs*

*Richard Buddin, Carole E. Roan*

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**Arroyo Center**

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*Richard Buddin, Carole E. Roan*

*Prepared for the  
United States Army*

*MR-504-A*

**Arroyo Center**

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## PREFACE

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In 1989, the U.S. Army introduced an experimental recruiting program called the 2+2+4 option that required a commitment to serve in the active Army and, at the completion of active-duty service, to affiliate with a Selected Reserve unit. Participants in the program served a short (two-year) active-duty tour, and contingent upon their joining the Selected Reserves, were eligible for post-service educational benefits. The Army believed that the 2+2+4 program would help attract high-quality young people during difficult recruiting periods and help channel trained, experienced personnel into the reserve forces.

RAND has played an extensive role in the development and analysis of the 2+2+4 program. Earlier reports have described the experimental design of the program, evaluated its enlistment effects (Buddin and Polich, 1990), and examined the effects of the program on active-duty recruiting (Buddin, 1991). This report reviews the earlier findings and provides preliminary estimates of the longer-term effects of the program, including active-duty outcomes (attrition and reenlistment) and the transition of program participants into the reserve forces. The study also examines the training implications for the Total Force arising from the program's shorter term length and different incentives to join the Selected Reserves.

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James T. Quinlivan is Vice President for the Army Research Division and the Director of the Arroyo Center. Those interested in further information about the Arroyo Center should contact his office directly:

James T. Quinlivan  
RAND  
1700 Main Street  
P.O. Box 2138  
Santa Monica, CA 90407-2138

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## SUMMARY

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### THE 2+2+4 RECRUITING PROGRAM

This report presents preliminary results on the long-term effects of an experimental Army program that links active and reserve tours. The program, called the 2+2+4 recruiting option, requires new entrants to serve two years in the active component (AC), followed by two years in a selected reserve component (RC) unit, and then four years in the Individual Ready Reserve. It is offered to high-quality recruits who serve in selected skills, and provides Army College Fund (ACF) benefits, which support enlistees' post-service education, to those participants who fulfill their reserve obligation.

The 2+2+4 program serves dual purposes: It helps the AC attract high-quality personnel during difficult recruiting periods, and it channels trained, experienced personnel into the RC as they leave the AC. The RC relies on many such "prior-service" personnel, but the pool is shrinking as the AC drawdown continues.

The 2+2+4 option was originally tested in a controlled experiment conducted from July 1989 through September 1990. Previous RAND analyses of the experiment showed that the program significantly increased high-quality enlistments into the AC and also increased enlistments into hard-to-fill occupations (Buddin, 1991). However, longer-term effects could not be estimated until the test cohort had completed active service. This report describes analyses of those longer-term phenomena, including program effects on active-duty career length and transition into the RC.

## RESULTS

The results indicate that 2+2+4 program participants had lower first-term attrition and reenlistment rates than other high-quality recruits. Therefore, the share of the 2+2+4 accession cohort available to the RC was larger than it would have been under traditional recruiting programs. Among 2+2+4 participants, 54 percent completed their initial tours and left the AC, compared with 45 percent for other high-quality recruits.

Furthermore, the RC affiliation rate for those soldiers leaving the AC was outstanding: 80 percent of 2+2+4 participants joined the RC, compared with only 43 percent of participants in other programs. This sharp increase of 37 percentage points is consistent with earlier research that suggested that affiliation rates among 2+2+4 participants would be high (Buddin and Kirin, 1994), but the increase was even larger than expected.<sup>1</sup> The reasons for the difference are being explored in ongoing analysis. At this point we suspect that the program attracts individuals with a strong interest in post-service schooling, and that program participants join an RC unit to maintain their eligibility for the ACF benefit. It is also possible, however, that many who accept a joint AC-RC tour have a preexisting interest in the RC. A two-year term and subsequent reserve service outside of the 2+2+4 program would not provide ACF benefits. Thus, any individual with interest at the time of enlistment in both a two-year tour and possible later reserve service would be best off joining the 2+2+4 program.

The 2+2+4 program also helped the RC by increasing the rate at which prior-service personnel entered an RC job that matched their AC training. Among the 2+2+4 cohort, 79 percent entered matching RC jobs, compared with 67 percent for other high-quality personnel. With more military occupational specialty (MOS)-qualified soldiers, RC units can deploy more quickly, as fewer soldiers will need to be retrained or replaced after mobilization.

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<sup>1</sup>All 2+2+4 participants are obligated to join a Selected Reserve unit, but we did not expect an affiliation rate of 100 percent because the RC has limited authority to enforce this obligation. The RC does have the authority to withhold the extra ACF benefit for 2+2+4 participants who do not join an RC unit.

Although the 2+2+4 program reduced RC training requirements, it created an extra training requirement for the AC. Because participants in the 2+2+4 program serve shorter terms, the AC must cycle more personnel through its system to generate equivalent AC person-years of service. Therefore, with any increase in the number of two-year tours, the AC must train more personnel. At the same time, however, shorter terms increase the pool of potential reservists. Total training requirements thus represent a balancing between the increase in active training required and the decrease in reserve training required. Our preliminary results show that, on net, the Total Force trains fewer personnel under the 2+2+4 program than under existing programs.

We conclude that the 2+2+4 program is a promising recruiting option for channeling experienced, trained personnel into the RC. The program helps AC recruiting and provides substantial downstream benefits for the RC. Our results do not justify a global shift toward joint AC-RC tours, but they do provide strong evidence that a modest-sized program like 2+2+4 should be one of the Army's recruiting options.

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**INTRODUCTION**

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The Army reserve components (RC) face a shortage of trained, experienced personnel. Linking active to reserve tours may help narrow this gap by channeling prior-service personnel into the RC. If the tours entail shorter active-duty obligations, then joint tours can also ease active component (AC) recruiting difficulties, and they can attract a broader spectrum of young adults. This report presents preliminary results of an experimental Army program, called the 2+2+4 recruiting option, which encourages such linked active/reserve tours.

**BACKGROUND**

The RC has two major problems in staffing its units. First, RC units normally have vacancies, and second, available personnel are often not employed in the skill for which they are trained. Because of these problems, many units are not ready to deploy, meaning mobilized units require substantial retraining and personnel reassignment<sup>1</sup> prior to deployment. These staffing problems are pervasive across units, so that even early deploying units are short of personnel with training in their assigned occupational skill (Buddin and Grissmer, 1994).

One way to ease these reserve staffing problems is to increase the influx of prior-service personnel into the RC. Historically, prior-service

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<sup>1</sup>“Cross-leveling” is used by the RC to reassign individuals from one unit to another at mobilization. Individual unit members who are not qualified in their assigned occupations are replaced by qualified individuals from other units.

personnel have played a critical role in the reserve components. When a prior-service soldier is placed in a local reserve unit, the unit avoids the costs incurred from recruiting and training a non-prior-service soldier. If a prior-service soldier's job matches his or her active-duty skill, then advanced skill training costs are saved as well. In addition to savings from reduced training requirements, the RC benefits from the full-time Army experience that the prior-service soldier brings to the RC. This experience is best realized when prior-service personnel are matched with their active-duty occupation, but even unmatched personnel have a valuable working knowledge of military operations and procedures that may be difficult to replicate through part-time reserve experience.

A recent congressional initiative recognized the importance of having prior-service personnel in the RC and mandated a specific prior-service content goal for the Army National Guard. Title XI—The Army National Guard Readiness Improvement Act—requires that the Army National Guard maintain a prior-service content of 50 percent of enlisted members and 65 percent of officers by 1997 (Grissmer et al. 1994).<sup>2</sup> Similar prior-service content goals are likely to be extended to the other reserve components as well, so it is important that the Army develop a clear understanding of policies and procedures that might facilitate the movement of prior-active-service personnel into the RC.

## **THE RELATIONSHIP BETWEEN AC POLICIES AND STRUCTURE AND RC STAFFING**

AC structure and personnel policies are fundamental factors affecting RC staffing. The Navy, Marine Corps, and Air Force have fewer problems filling RC units than the Army, primarily because these services have much larger ratios of AC to RC personnel. Historically, the active/reserve ratio for these other services is three or four AC soldiers to one RC soldier, compared with a ratio of one to one for the Army. This factor alone was an important reason why the Army RC

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<sup>2</sup>An important provision of the legislation was the definition of prior active service as two years of active experience. In the past, the RC has sometimes labeled members as "prior service" if they join a RC unit and have previous RC experience. Here, we will confine our discussion of prior-service personnel to the congressional definition.

has had much lower prior-service content than the other components.

The military drawdown has complicated the reserve staffing problems for the Army, because the reduction in the Army AC has been much larger than that in the RC. The current plans project that the post-drawdown force will leave the RC about 25 percent larger than the AC. This reduction in the pool of prior-service personnel available to the RC will exacerbate existing Army problems in filling the RC.

Given the importance of prior-service personnel to the RC, it is prudent to consider the implications of AC policies for the RC. RC considerations should not override AC planning, but AC decisions should be viewed in a Total Force context. For example, shorter active-duty tours would increase the pool of personnel available to the RC, and this RC benefit should be weighed in evaluating the term structure of the AC. Similarly, the AC might consider special AC job priority for some geographic areas where returning AC soldiers could be placed in comparable local RC jobs.

One explicit method for drawing prior-service personnel into the reserves is a formal program that links AC and RC service obligations. A prototype for such a joint tour is the 2+2+4 enlistment option that was developed and tested by RAND and the Army. The program required a two-year active-duty obligation, a two-year Selected Reserve obligation, and a four-year commitment to the Individual Ready Reserve (IRR) to complete the individual's Military Service Obligation (MSO). The active-duty commitment is two years plus training time, however, so the actual period of service is about 29 months. The program allows individuals to accept a short active-duty commitment (compared with the typical four-year enlistment) in exchange for a commitment to join a Selected Reserve unit.

## **PURPOSE AND STRUCTURE OF THIS REPORT**

We focus on the 2+2+4 program as an example of how joint active/reserve tours might affect the Total Force. We will begin by explaining the origins of the 2+2+4 experiment and summarizing the active-duty enlistment effects of the program. These effects were documented in a RAND study that was delivered to the Army, Office

of the Secretary of Defense (OSD), and Congress in 1991 (Buddin, 1991). This report, however, principally concerns post-enlistment effects of the program. First, we examine the implications of the program for the AC, and then we turn to the program's effects on the RC. Finally, we examine the Total Force implications of the program in terms of the training and recruiting ramifications of the 2+2+4 program for the AC and RC as a whole.

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**THE 2+2+4 PROGRAM**

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**HISTORY OF THE PROGRAM**

The 2+2+4 program was developed in response to OSD and congressional concerns about the cost-effectiveness of the Army's two-year enlistment program—not in response to RC staffing concerns. In the mid-1980s, two-year enlistees were typically offered Army College Fund (ACF) benefits that would supplement the educational benefits available to all accessions under the GI Bill. Policymakers became concerned about whether the Army was receiving sufficient returns on the training investments in two-year enlistees, particularly for those in noncombat jobs with relatively long training times. OSD decided to restrict two-year enlistments to combat skills, and Congress subsequently passed legislation restricting two-year ACF offerings to combat skills.

The Army believed that the two-year noncombat option with ACF had appealed to a special class of individuals who wanted college money and a short term but who were unwilling to serve in a combat position. In early 1989, the Army had difficulty in meeting its high-quality<sup>1</sup> enlistment objectives and pressed for the development of a new program that would reinstate a two-year noncombat ACF option and address the cost-effectiveness issues raised in the earlier debate. RAND and the Army developed the 2+2+4 program as a new enlistment option; it was designed to enhance the returns to a two-year active-duty tour by requiring the soldier to serve two additional years

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<sup>1</sup>The military services define "high-quality" individuals as those who are high school diploma graduates and who score in the top half of the Armed Services Qualification Test (AFQT).

in a Selected Reserve unit. A further refinement of the program was that the ACF benefit was paid only upon service in the RC, so the extra enlistment incentive was explicitly tied to RC participation.<sup>2</sup> ACF benefit payments begin upon affiliation with the reserves, and are meted out monthly over a three-year period, provided the reserve service continues and the two-year obligation is fulfilled.

At the request of the Army, RAND designed a test to assess the effects of the 2+2+4 program on Army enlistments. OSD and congressional program managers reviewed the new 2+2+4 option and test design. Congress then enacted legislation authorizing the Army to offer the 2+2+4 option on an experimental basis for a test period running from July 1989 through September 1990.

Analysis of the RC effects of the 2+2+4 program has been slow in coming for two reasons. First, most recruits entered the Army under the Delayed Entry Program (DEP), which allows individuals to postpone active-duty service for up to 12 months following their enlistment contract (commitment to join). As a result, some 2+2+4 program participants did not actually start active-duty service until the fall of 1991. Second, the effects of the 2+2+4 experiment on the RC could not be measured until participants had completed their two-year active-duty obligation and had a chance to affiliate with a reserve unit, which for the bulk of participants was sometime in 1993.

### **SPECIAL CHARACTERISTICS OF THE 2+2+4 PROGRAM**

In addition to the main provisions of the 2+2+4 program, the new option had several features that are important for understanding the experiment. First, the program was a modest-sized option. In 1989, the Army's recruiting goal was about 115,000 enlistment contracts, and about 5000 contracts were made available under the new 2+2+4 option. Second, the program, like all ACF offerings, was available only to high-quality personnel. Third, the 2+2+4 option was not of-

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<sup>2</sup>In 1989, the Army had the legal authority to offer two-year enlistments without ACF, but the Army did not believe that this option would sell and seldom offered it. Under the 2+2+4 option, an individual who chooses not to join a Selected Reserve unit would be ineligible for ACF monies, but he/she would receive GI Bill benefits based on active-duty service. Thus, in the absence of reserve service, the 2+2+4 program simply reverts to a two-year enlistment without ACF.

ferred on a *carte blanche* basis for noncombat jobs. Rather, it was offered in a small number of noncombat jobs that were hard to fill in the AC, had short training times, and had a large number of RC vacancies spread across the country. In short, the jobs were picked to enhance the program benefits to the AC and subsequently the RC. Finally, RAND research had documented that many prior-service accessions to the RC were not matched to their AC jobs. A special provision of the 2+2+4 program requires that participants accept an RC position in their AC job if an opening exists in the local area. The intent of this provision was to test whether extra leverage on individual's job decisions would improve RC match rates.

The 2+2+4 program represented a modest adjustment in the package of benefits offered to incoming recruits. Before the program, ACF benefits were available with a two-year enlistment only in combat skills. Under the program, ACF was extended to two-year enlistments in noncombat skills. A unique feature of the 2+2+4 program is that ACF entitlement was tied directly to RC service.<sup>3</sup> Table 1 illustrates the benefits provided under the different programs.

The experimental design is detailed in an earlier report (Buddin, 1990), so we will provide only an overview here.

**Table 1**  
**ACF Benefits Available to Applicants**  
**(amounts in addition to GI Bill)**

Term of Service	ACF Program-Eligible Skills	
	Combat	Noncombat
4 years	\$14,400	\$14,400
3 years	12,000	12,000
2 years	8,000	0
2 years (2+2+4 program)		8,000 <sup>a</sup>

<sup>a</sup>To receive ACF benefit in a noncombat skill, the recruit must serve an additional two years in a Selected Reserve unit.

<sup>3</sup>These amounts reflect the choices available to recruits at the time of the experiment, but the amounts were adjusted upward in 1993. The new legislation also indexes both ACF and GI Bill benefits to the Consumer Price Index.

We wanted to determine both whether the enlistment option expanded the market for high-quality recruits and how the option altered the enlistment choices of recruits who might have joined in the absence of the new option. We knew, for example, that the new program would allow some recruits to switch from three- or four-year ACF options to the 2+2+4 program. This diversion, or “buydown,” from longer to shorter terms could mitigate the effects of the market expansion, so it was important for the experiment to isolate market expansion effects as well as more subtle effects like the buydown.

The country was divided among three types of test cells based on geographic areas served by Army recruiting battalions. Figure 1 depicts the location of the cells. First, one group of battalions constituted a control group in which the 2+2+4 program was not offered and enlistment options were the same as before the experiment. The second group of battalions offered the new option to all high-quality recruits. These full-implementation cells provided data for estimation of market expansion effects. Finally, the third group of battalions offered the program to a randomly selected portion of the high-quality recruits who applied to the Army. These

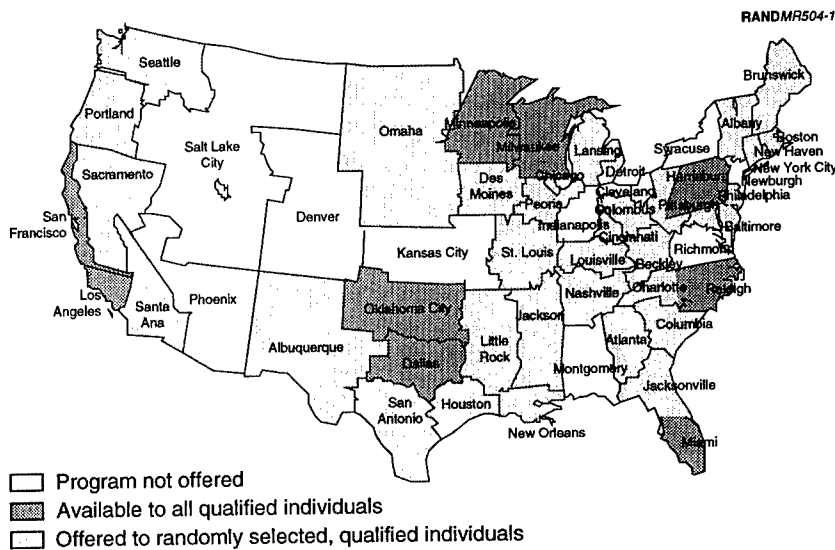


Figure 1—Location of Experimental Test Cells

test cells were used to measure 2+2+4 buydown effects and the success of the experiment in channeling recruits into hard-to-fill noncombat jobs.

Figure 2 traces the flow of personnel from the active to the reserve components. Our discussion will track the flow of personnel from enlistment through the first term to the Selected Reserve unit. By now, most 2+2+4 participants have had sufficient time to complete their two-year active-duty commitment. As a result, we are able to examine whether their first term was successful and whether those leaving the AC affiliate with the Selected Reserves. Sufficient time has not elapsed, however, to determine whether those 2+2+4 participants who join the RC will complete their two-year Selected Reserve obligation.

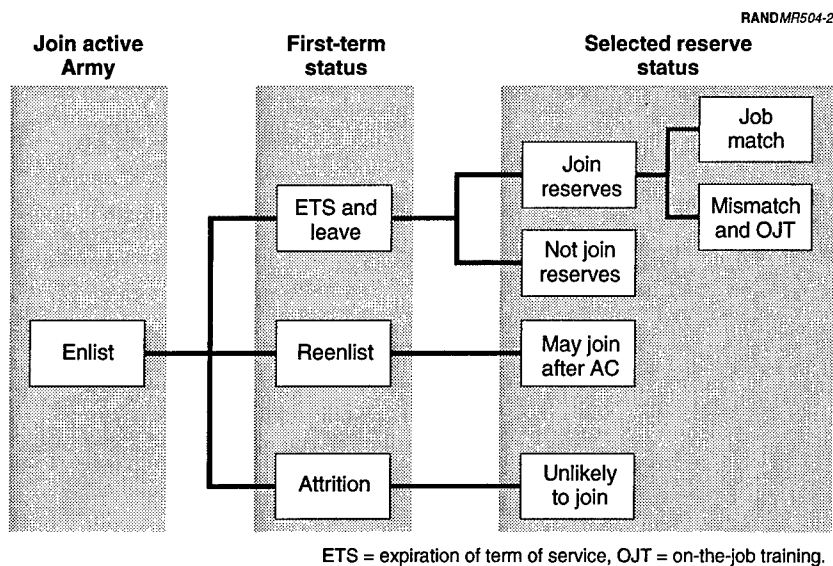


Figure 2—Flow from Active to Reserve Components

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**ENLISTMENT EFFECTS OF THE 2+2+4 PROGRAM**

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The 2+2+4 program successfully met its original goals for the AC—to expand enlistment and to fill job vacancies. At the outset, we were uncertain whether individuals would accept the reserve commitment, but the joint AC/RC program proved to be a popular option. Our statistical analysis of enlistments in the control and experimental groups showed that the program produced a 3.2 percent increase in high-quality enlistments. This market expansion, however, included the less desirable effect that some individuals, who would otherwise have enlisted for longer terms, chose a two-year enlistment under the experimental program. After accounting for this shift from longer to shorter terms (mostly three-year enlistees shifting to the 29-month commitment under the 2+2+4 program), we found that the experiment increased obligated active-duty person-years by about 2 percent. The program was also a successful tool for channeling new recruits into the hard-to-fill AC jobs that were selected for the program. We found that enlistments in these selected program-eligible skills rose by 16 percent.

The 3.2 percent market expansion under the 2+2+4 experiment was impressive for such a small program offered at a time when recruits already had several options for receiving ACF monies. Earlier enlistment incentive programs were available to a larger share of new accessions than the 2+2+4 program. Table 2 shows that the educational benefits and bonus experiments offered extra incentives for 57 and 30 percent of the high-quality jobs available at the time of the experiment. The 2+2+4 program was available for a much smaller set of high-quality jobs and was offered at a time when extensive educational benefit and bonus programs were already available in the

**Table 2**  
**Scope of Enlistment Experiments and Market Expansion**

Test Program (Year of Experiment)	Percent of High-Quality Positions for Which the Option Was Available	Market Expansion (percent)
Educational benefits (1981)	57	8.9
Enlistment bonus (1982-1984)	30	4.9
2+2+4 (1989-1990)	20	3.2

Army. If we compare the market expansion effects of alternative programs, we see that the 2+2+4 program had a market expansion effect quite similar to that of the educational benefits and enlistment bonus experiments after adjusting for the size of the alternative programs.<sup>1</sup> This result supports the Army assertion that a special class of individuals will enlist under a two-year ACF program in a noncombat job.

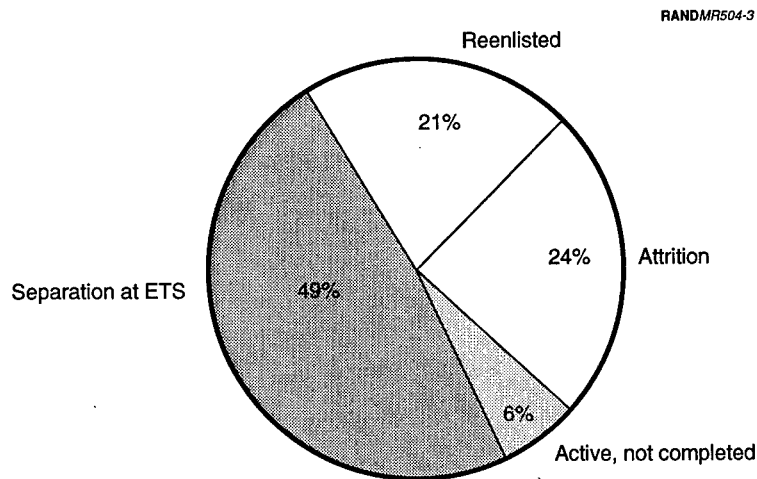
<sup>1</sup>These comparisons are meant to provide perspective on the size of the 2+2+4 market expansion. The comparisons should not be exaggerated, however, since the experiments were conducted in different time periods and applied to different ranges of skills.

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**EFFECT OF THE 2+2+4 PROGRAM ON  
FIRST-TERM OUTCOMES**

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In this chapter, we compare the first-term enlistment outcomes of 2+2+4 participants with those of other high-quality recruits who entered the Army at the same time and assess whether observed differences are related to particular aspects of the 2+2+4 program. Our goal is to examine how the 2+2+4 program affected first-term outcomes such as attrition and reenlistment. At this point, most participants in the 2+2+4 recruiting program have had a chance to complete the active-duty portion of their enlistment contract. Figure 3



**Figure 3—Active-Duty Status of 2+2+4 Participants:  
Where Are They Now?**

shows the first-term status of the 5627 individuals who entered the Army as part of the 2+2+4 program. Only 365 individuals are in the Army but have not yet reached the end of their two-year active-duty obligation. Most program participants have successfully completed their first term and either separated or reenlisted. About 24 percent of 2+2+4 accessions have left the Army without successfully completing their initial two-year active-duty obligation.

The four main provisions of the program are the short term, the ACF benefit, the special noncombat jobs in the program, and the commitment for participants to join the RC and accept an assignment that matches their AC job. Previous research and intuition led us to expect that short terms would be associated with low attrition and reenlistment rates. When short-term length is the prime motivator for enlistment, individuals tend to complete their tour and leave the Army (Hogan et al., 1991; Buddin, 1981).

Earlier research has shown that ACF benefits are associated with lower attrition and lower reenlistment. Many ACF recipients serve primarily to earn their benefits, and then they leave to use them. The special linkage of ACF benefits to reserve service in the 2+2+4 program should lead to greater reserve participation, provided the departing AC soldiers plan on using the education benefits. The main leverage on reserve participation comes through the possible withholding of ACF monies, so this pressure will be most effective if the individuals have serious plans to attend school.

The special selection of jobs for the 2+2+4 experiment is likely to improve reserve affiliation and job match rates. We chose jobs in which a large number of reserve vacancies were foreseen. This factor alone should have helped RC outcomes. In our analysis, we will identify whether the RC benefits of the new program are related to the particular set of jobs chosen or if they are a more pervasive result of the experimental program.

Finally, the 2+2+4 program includes a formal commitment to join the RC and to accept a job that matches the individual's AC skill. We were not sure how much effect this "promise" would have on an individual's subsequent decision, because the Army had a limited ability to enforce the RC provisions of the contract except through

withholding ACF. Nonetheless, we expected that the obligation per se would have some influence on improving RC outcomes.

Figure 4 charts the patterns of attrition among high-quality enlistees of varying term lengths at six-month intervals throughout the term (6, 12, 18, and 24 months, and at the expiration of term of service (ETS)).<sup>1</sup> At each stage, three- and four-year-term enlistees had a higher rate of attrition than 2+2+4 enlistees (whose active-duty term is only two years). Attrition at ETS is higher for three- and four-year soldiers because they have an additional 12 or 24 months of service beyond the first two years. Attrition takes place during these additional months, which increases the cumulative attrition percentage at ETS.

The 2+2+4 attrition is lower than that of three- and four-year-term enlistees but, as Figure 5 shows, exactly follows the attrition pattern of other two-year enlistees. Since the attrition rate among ACF participants has historically been low, we expected that 2+2+4 attrition

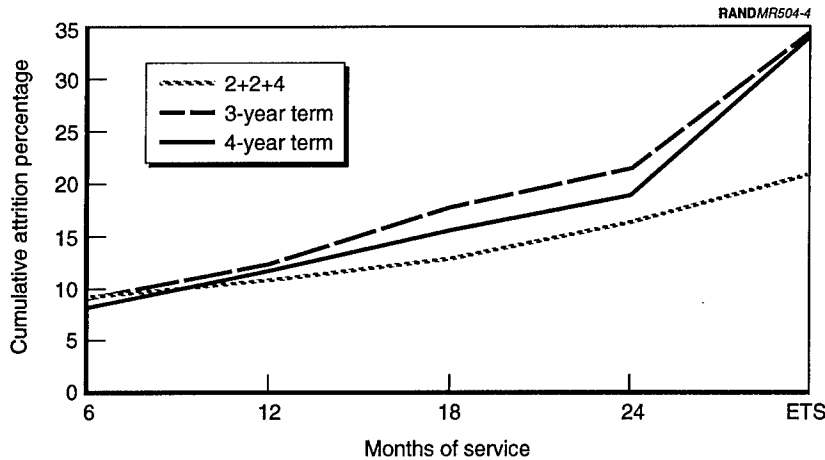


Figure 4—Attrition Comparisons for 2+2+4 with Three- and Four-Year Enlistees

<sup>1</sup>Attrition is defined as a loss after accession. Attrition does not include ETS, early release, or reenlistment.

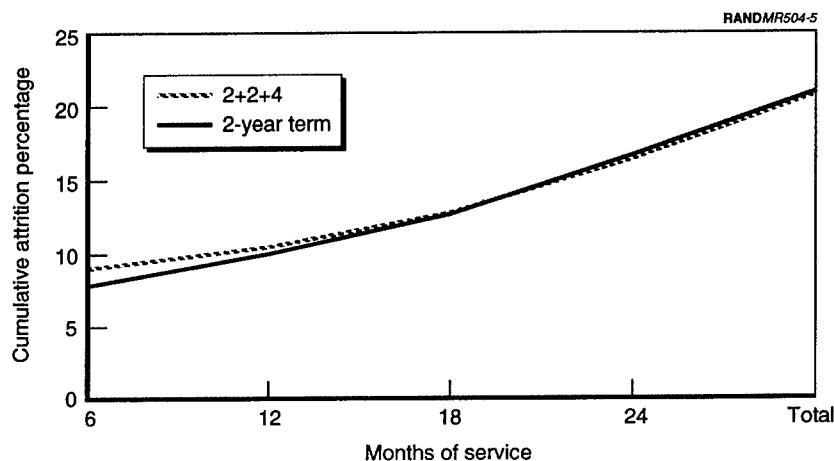


Figure 5—2+2+4 Attrition Compared with Two-Year Attrition

also might be low because participants receive ACF. However, the two-year-term effect seems to completely explain the pattern of attrition, and it does not appear that the ACF element of the program improves retention.<sup>2</sup>

We are also interested in whether 2+2+4 participants were more or less likely to reenlist at ETS than other recruits.<sup>3</sup> Reenlistment can have both positive and negative effects. On the one hand, a certain amount of reenlistment is beneficial for the AC. It helps the AC maintain a well-trained, experienced force, and it provides the source for career noncommissioned officers. On the other hand, higher reenlistment rates mean that there are fewer soldiers available to join the RC. Figure 6 indicates the 2+2+4 reenlistment rate is lower than the rate of reenlistment for longer-term soldiers but higher than the rate for all other two-year-term soldiers.

<sup>2</sup>In related analysis, we found that ACF participants had lower attrition than that of nonparticipants for three- and four-year enlistees.

<sup>3</sup>Extensions are not considered reenlistments. Individuals who extend their first term of service are coded as still in their first term unless separation, attrition, or reenlistment at the end of the extended term occurs.

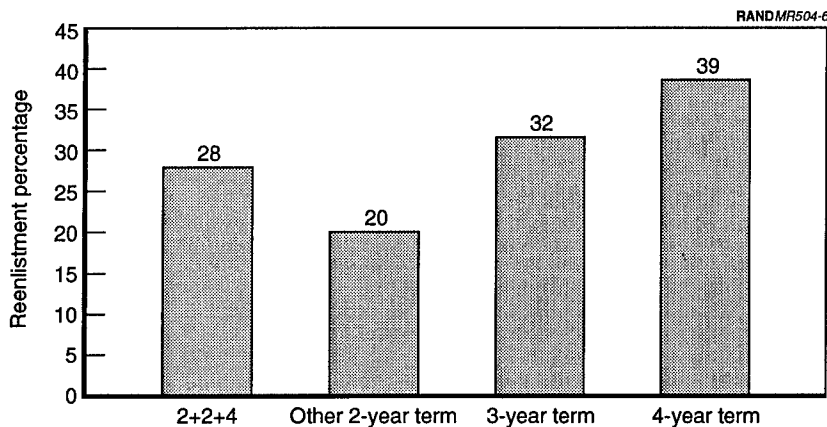
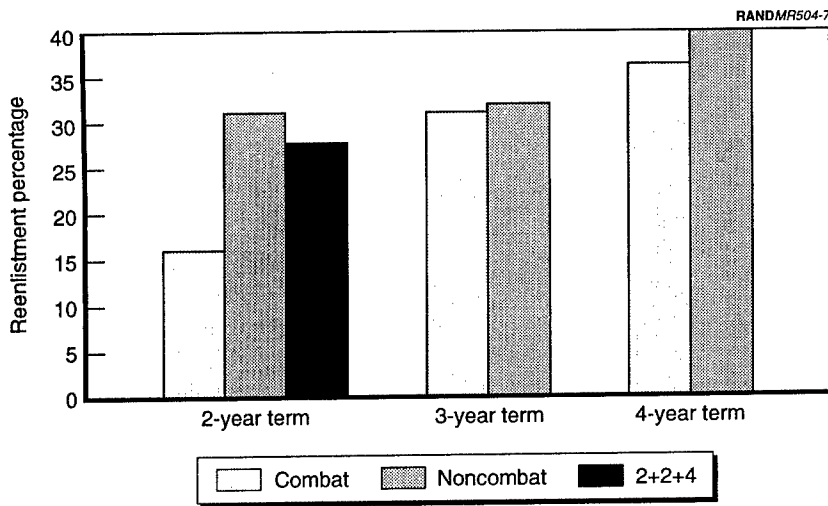


Figure 6—Reenlistment Rates by Term as a Percentage of Accessions Reaching ETS

The noncombat nature of the 2+2+4 job is a significant factor in explaining why 2+2+4 reenlistment is greater than the average for all other two-year enlistees. Noncombat soldiers are typically more likely to reenlist than their combat counterparts. Figure 7 compares reenlistment rates for soldiers in combat and noncombat specialties for three different terms. As is evident, the 2+2+4 rate approximates that of two-year, noncombat soldiers.

The gap between the reenlistment rate for two-year combat and noncombat soldiers reflects a combat/noncombat differential as well as a substantial ACF effect. Three- and four-year enlistments are a mixture of ACF and non-ACF packages in both combat and noncombat jobs, but the three two-year groups in Figure 7 are much more well defined. Two-year combat accessions are almost exclusively ACF; two-year noncombat positions outside the 2+2+4 program are exclusively non-ACF (a two-year noncombat option without ACF was made available throughout the country as part of the experiment);<sup>4</sup>

<sup>4</sup>Prior to the 2+2+4 experiment, the Army had the authority to offer two-year enlistments in noncombat jobs without ACF benefits. The Army was not using this option at the time of the experiment, but the option was offered in the same set of skills as the 2+2+4 program during the experimental period. Buddin (1991) shows that the two-

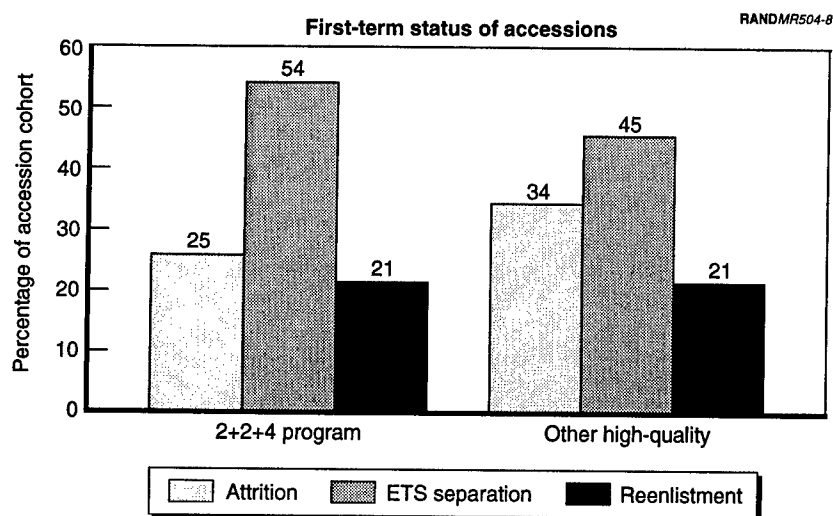


**Figure 7—Reenlistment Rates for Combat and Noncombat Enlistees as a Percentage of Accessions Reaching ETS**

and the 2+2+4 group is exclusively noncombat with ACF. The results for two-year enlistees show that the ACF reduces the reenlistment rate. The reenlistment rate for the 2+2+4 group is a balance between the positive effect of noncombat jobs on reenlistment and the negative effect of ACF on reenlistment.

In Figure 8, we combine the data on attrition and reenlistment to estimate the pool of potential reservists generated from a cohort of accessions. We compare first-term outcomes between 2+2+4 accessions and those for a composite group representing all other high-quality accessions at the time of the experiment. This composite summarizes alternative programs that might have been used to replace recruits attracted by the 2+2+4 option. Among other high-quality recruits, most have enlisted for four-year terms (57 percent), 38 percent are in combat skills, and 33 percent receive ACF monies.

year option without ACF was popular in the control cells, but individuals in the test cells overwhelmingly preferred the 2+2+4 option to the two-year option without ACF in noncombat skills.



**Figure 8—Percentage of 2+2+4 Accession Cohort Reaching ETS Compared with Other High-Quality Enlistees**

The results show that attrition among 2+2+4 participants is less than the average attrition for all other high-quality soldiers by about 9 percentage points. Thus, out of 100 accessions to the 2+2+4 program, 75 will make it to first-term ETS. In contrast, 100 accessions to traditional terms will generate only 66 soldiers who successfully complete the first term.

Of the 75 2+2+4 soldiers who reach ETS, on average 21 will reenlist, and the remaining 54 will separate from the active force. These 54 are available to join the reserves. From the group of all other enlistees, 45 of the 65 who make it to first-term ETS will separate and 21 will reenlist. Reenlistment as a percentage of accessions is comparable between the 2+2+4 and other high-quality groups, but reenlistment as a percentage of those reaching ETS is smaller for those in 2+2+4 than for others. Thus, more 2+2+4 soldiers reach first-term ETS, and of those, fewer reenlist. So comparably sized accession cohorts generate a larger pool of potential reservists under 2+2+4 than under a traditional enlistment scheme.

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**RESERVE OUTCOMES AND TOTAL FORCE  
IMPLICATIONS OF THE 2+2+4 PROGRAM**

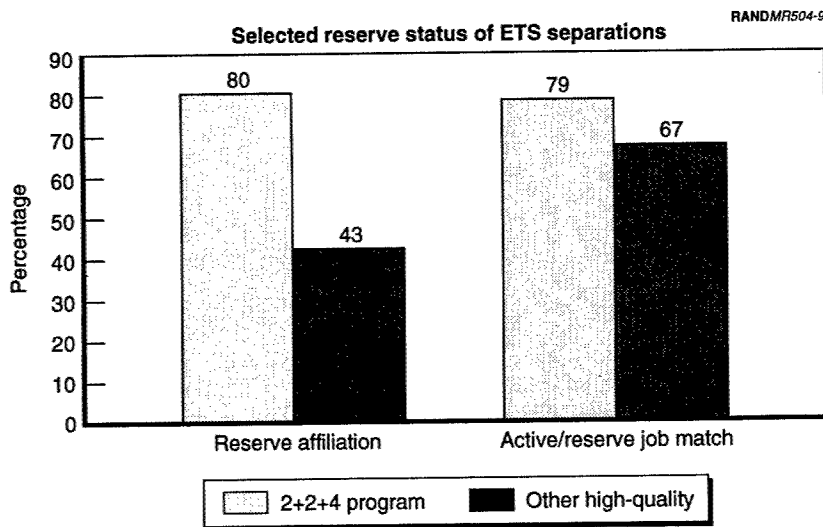
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We have examined the enlistment effects of the 2+2+4 program and looked at the attrition and reenlistment behavior of program participants relative to that of traditional recruits. We will next examine the reserve outcomes from the 2+2+4 program and the implications of those outcomes for the Total Force. The last part of this chapter describes what further steps are necessary to more fully analyze the results of the program.

Figure 9 shows both the affiliation and job match percentages for 2+2+4 participants and compares them with those of other high-quality recruits. The reserve affiliation rate for those who separate at the first-term ETS from the 2+2+4 program is outstanding—80 percent of 2+2+4 participants join the reserves as compared with only 43 percent of all others who depart at the end of the first term. The 2+2+4 program thus garners a substantial 37 percentage point increase in reserve affiliations.

### **RESERVE OUTCOMES**

Prior-service reservists will be drawn largely from the pool of soldiers who successfully complete one term and then separate. It is this pool of potential reservists that we are interested in. While it is possible for soldiers to separate during their active tenure and subsequently join the reserves, it is highly unlikely. Attrition renders many ineligible for further military service. Also, some of those who reenlist at the end of a first term may reach ETS after a second term and then affiliate with the reserves. However, because most reserve



**Figure 9—Effect of 2+2+4 Program on RC Affiliation and Job Match**

openings are at junior ranks, soldiers with two active tours find job placement in the reserves difficult.

Thus, we examine those soldiers who separate at first-term ETS to see how many actually join the reserves, as is required under their contract, and we will determine how many of those have the same reserve job they had in the active component. Questions about how long 2+2+4 participants stay in the reserves and whether they change reserve units or reserve jobs are important but unanswerable at this point because not enough time has elapsed to observe them throughout their reserve tour. Figure 10 shows that most 2+2+4 participants left the active component in late 1992 or early 1993, so they have completed only a part of their reserve obligation.

Of those joining the RC, the 2+2+4 reservists are more likely to enter a reserve job that uses the active-duty skill in which they were trained. The job match rate is 79 percent for the 2+2+4 group compared with 67 percent for the other high-quality group. Not only does the AC/RC job match imply that the RC is more likely to be deployment-ready, but it also reduces the investment the RC must make in train-

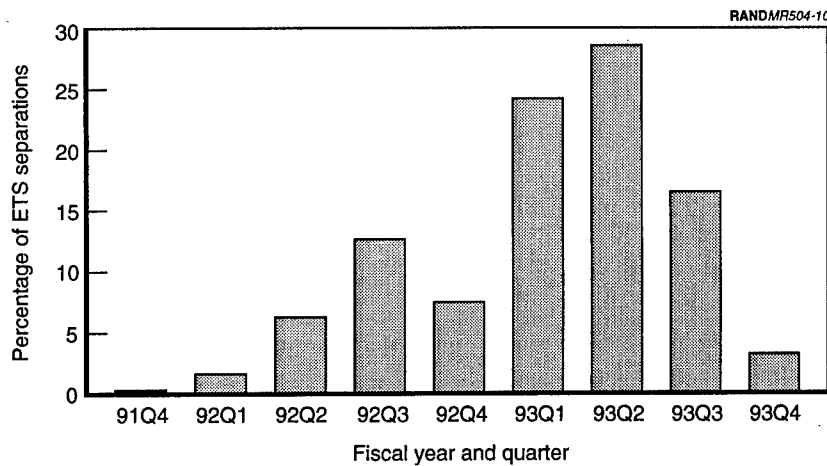


Figure 10—Timing of ETS Losses for 2+2+4 Participants

ing. Any prior-service reservist, compared with a non-prior-service reservist, saves the RC basic-training dollars; but, in addition, a prior-service reservist serving in his or her job skill saves the RC skill-training dollars as well.

What explains reserve affiliations among 2+2+4 participants? Part of the high affiliation rate can be explained by a term effect. Figure 11 indicates two-year-term soldiers are somewhat more likely to join the reserves than are three- and four-year-term soldiers. This might be because soldiers who serve a shorter term are less “tired” of the Army and may still want to keep a part of their Army life alive. Still, the boost to reserve affiliation from the two-year element of the 2+2+4 program is not enough to explain the wide affiliation differential between those in the 2+2+4 program and others. In addition, the 2+2+4 affiliation rate cannot be explained by any job skill effect. Members of both combat and noncombat job skill groups appear equally likely to join the reserves.

We hypothesize that certain unique aspects of the 2+2+4 program must account for the affiliation rate differential. In particular, the program stipulates that soldiers must serve their reserve obligation to receive the ACF benefit. We expect that if this link of schooling

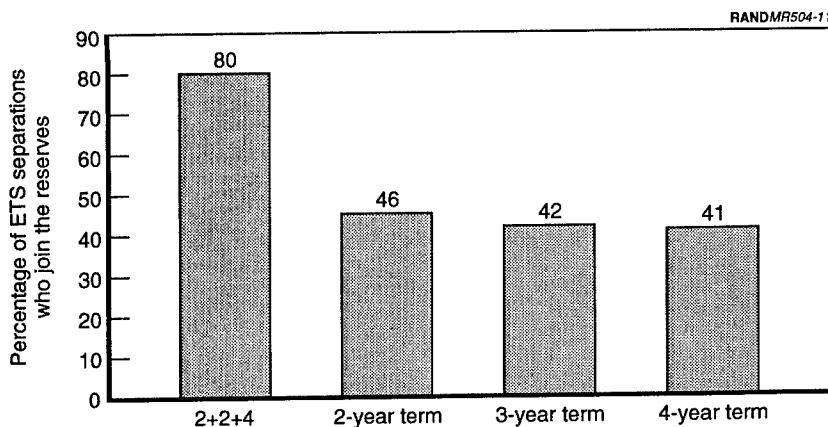


Figure 11—RC Affiliation Rates by Term

money to reserve participation is truly what is driving the high affiliation rate, then many of the reservists should be using their GI Bill and ACF monies. This issue is currently under investigation.

Self-selection might also explain some of the affiliation differential. Those who signed up for a joint AC/RC tour may have had a preexisting interest in joining the reserves. If a reserve tour did not appeal to an applicant, he or she could have signed up for a standard two-year active tour instead. Finally, 2+2+4 enlistees made a commitment at the time of enlistment to serve both the two-year active and the two-year reserve tours. The promise to do so may be a morally binding one for some, though the extent to which this is true is difficult to measure.

Job match rates for 2+2+4 reservists are higher than rates for other prior-service reservists. Two elements of the 2+2+4 program design are important in explaining this. First, the skills chosen as 2+2+4 eligible were those in which the reserves had vacancies. Thus, 2+2+4 participants should have found an AC/RC job match relatively easy to find. Second, the program stipulated that 2+2+4 soldiers must accept an RC job in a matching skill if one were available. Other prior-service reservists may have more opportunity to choose a new job in the RC, which decreases the likelihood of job match. Finally, 2+2+4

participants leave at a lower grade than longer-term soldiers because of the shorter time they spend in active-duty service. RC units have the most vacancies in lower job ranks, facilitating the placement of those in 2+2+4 (and other two-year-term soldiers).

One potential drawback of having the reserves manned by 2+2+4 participants and other two-year prior-service soldiers is that these soldiers have little or no leadership experience, which three- and four-year-term soldiers do have. We will discuss this issue more fully in the next chapter.

The two driving forces behind the 2+2+4 job match rate are the short-term nature of the AC tour and the noncombat nature of the job skill. Two-year, noncombat, non-ACF positions in the same skills as in the 2+2+4 program were made available at the same time as the 2+2+4 program. Figure 12 shows that the job match rate for reservists who served an active-duty tour under these terms closely compares with the job match rates of 2+2+4 soldiers, confirming the strong two-year and noncombat influences.

**TOTAL FORCE IMPLICATIONS**

We now turn to the Total Force implications of the 2+2+4 program. Figure 13 compares the reserve implications of 100 accessions under

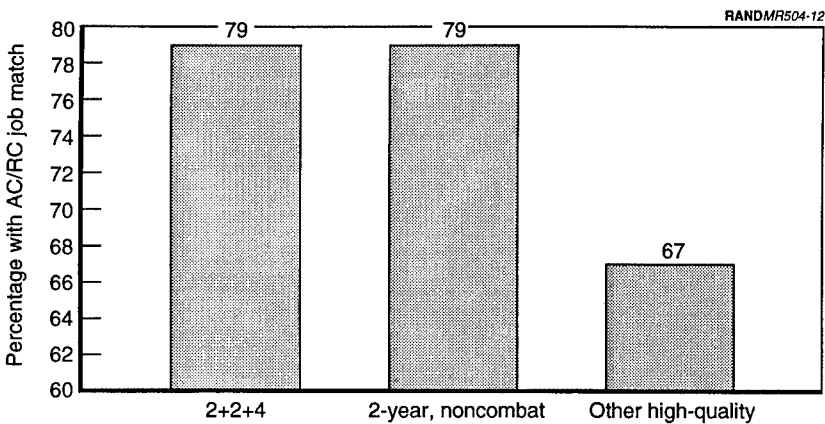
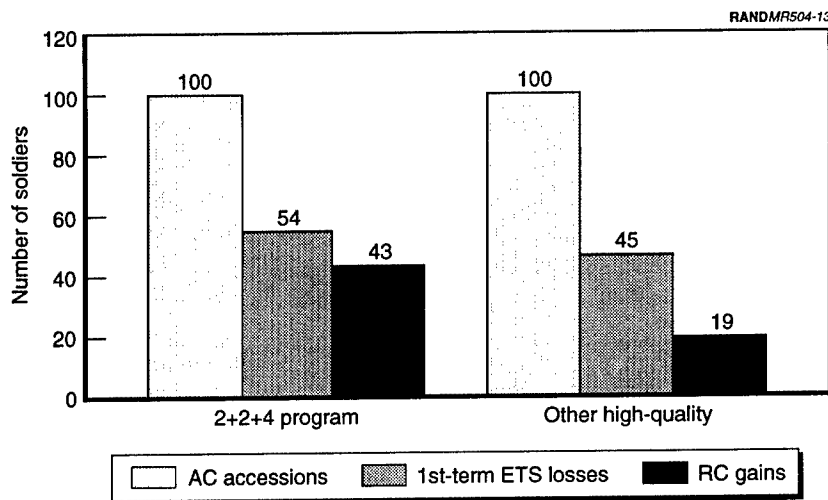


Figure 12—Comparison of Job Match Rates



**Figure 13—Comparison of First-Term Losses and Reserve Gains from AC Accessions Under 2+2+4 Program Versus Under Other High-Quality Programs**

the 2+2+4 program with 100 accessions under the existing options offered to high-quality accessions. The 2+2+4 program has lower attrition and reenlistment rates than those of the traditional programs, so the new program yields 20 percent more individuals to the pool available to the RC. Furthermore, the RC affiliation rate is higher for the 2+2+4 group, so the RC gains 43 prior-service soldiers per 100 AC accessions under the 2+2+4 option, compared with only 19 gains under other AC recruiting options.

However, two-year enlistments do not generate as many person-years of first term AC service as three- and four-year enlistments. Therefore, we must adjust the number of AC accessions under the 2+2+4 program to account for the fact that shorter terms imply that the AC must train more individuals to achieve comparable AC output. The average recruit serves about 24 months in the first term under the 2+2+4 program and about 30 months under other high-quality enlistment options. Thus, the scale of accessions would have to be adjusted to generate comparable numbers of AC person-years under the standard enlistment program. This adjustment means

that the AC needs to train 26 percent more soldiers under 2+2+4 to generate comparable AC first-term person-years, but the adjustment also means that the flow of prior-service personnel to the RC increases by 26 percent.

In the steady-state, the 2+2+4 program implies that the RC will train fewer soldiers and the AC will train more. However, the key policy question is whether the program requires more or less training for the Total Force as a whole. We adjusted accessions under 2+2+4 to reflect the greater number of AC accessions required to generate the same AC person-years as under the longer terms of the standard enlistment package. The adjusted 2+2+4 accessions imply an even greater flow of prior-service personnel to the RC—the 2+2+4 program yields almost three times as many prior-service gains for the RC as the standard options. Figure 14 shows the adjusted figures and compares them with figures for the other high-quality recruits.

The 2+2+4 program requires the AC to train 26 extra accessions, but the new program produces 35 extra soldiers for the RC. Without the 2+2+4 program, the RC could implement a training program that

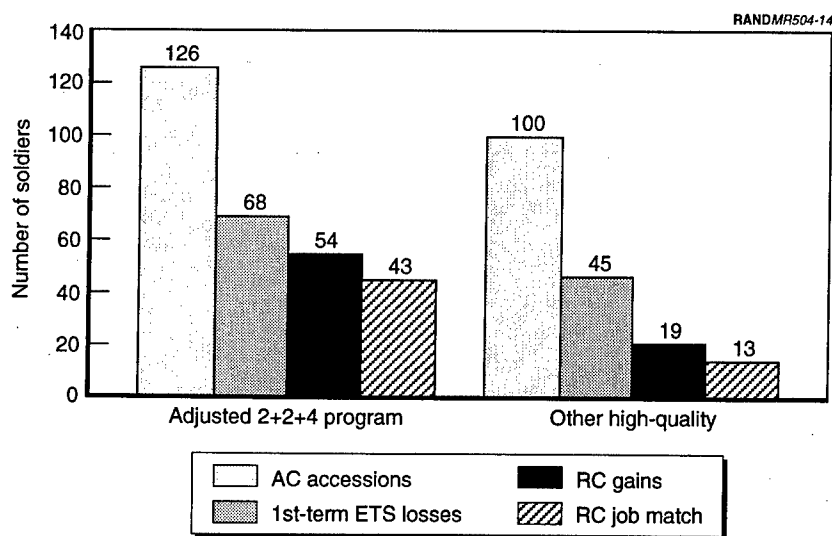


Figure 14—Comparison of Cohorts Adjusted for Equal AC Person-Years

would achieve the 54 trained soldiers available from the 2+2+4 group. The RC could take the 19 soldiers available from the AC and train 35 non-prior-service soldiers to make up the difference.<sup>1</sup> It is worth noting that under this option the 35 non-prior-service, newly trained soldiers would still not have the full two-year active-duty experience that the 2+2+4 program participants have. The 2+2+4 program requires the AC to train 26 extra soldiers but the RC to train 35 fewer non-prior-service soldiers. On net, the program reduces the training burden for the Army as a whole.

Now suppose that we are concerned only about RC gains in those cases when soldiers' reserve job matches their active job. Prior-service personnel are worth less to the RC if they are not matched with their active-duty skill because they require retraining in their assigned military job (Buddin and Grissmer, 1994). In this case, the Army still trains fewer people in steady-state (26 versus 30) than under existing enlistment options. Therefore, even if we count only job matches, the 2+2+4 program still saves training resources for the Total Force.<sup>2</sup>

A limitation of the 2+2+4 program is that the prior-service personnel available to the RC have less AC experience than those typically leaving the AC. After two years on the job, we expect that the 2+2+4 participants will be proficient at their military job and will have a good understanding of Army rules and procedures. Four-year enlistees, however, are much more likely to have some leadership experi-

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<sup>1</sup>Non-prior-service soldiers in the RC attend the same basic- and skill-training programs at the same schools as new AC soldiers, so the cost of training a non-prior-service soldier for the RC is the same as the cost of training a new AC soldier.

<sup>2</sup>An alternative approach to examining Total Force effects is to hold constant *trained* first-term person-years in the active force instead of total first-term person-years. Under this approach, individual basic and skill training is not counted as AC service. Each 100 AC accessions under the 2+2+4 and other high-quality programs will produce 1900 and 2400 trained person-months of AC service. Therefore, the 2+2+4 accession program would need to be increased to 132 accessions to generate comparable numbers of trained person-months with the other high-quality programs. Under this scenario, the AC would train an extra 32 individuals, but the RC could forgo training 38 non-prior-service individuals. Next, consider the stricter criterion of counting only RC gains when the prior-service soldier is matched to his or her AC job. Then, the AC trains an extra 32 soldiers, and the RC saves training expenses on 32 soldiers. We believe that the extra experience of the prior-service soldiers means that the Army as a whole is better off.

ence. For example, before the drawdown, about 30 percent of four-year enlistees had been promoted to sergeant by the end of their term as compared with about 3 percent of two-year enlistees.<sup>3</sup> Sergeants typically serve as squad, section, or crew leaders and have supervisory responsibility over three to ten soldiers. In many cases, the Army also assigns leadership responsibilities to senior E4 personnel, and these assignments are also more likely to be awarded to four-year enlistees than to two-year enlistees.

This AC leadership experience may be useful for the RC. As we saw earlier, however, it is more difficult for four-year enlistees to find suitable job matches in the RC because the RC has fewer openings at this level.

The Army faces a tradeoff between the high affiliation/job match under the 2+2+4 program versus the extra leadership skills in longer AC enlistment terms. The 2+2+4 program was never planned as the hallmark of the Army accession plan, however, so the decision is not really whether the Army should choose all short terms or all long terms. A likely solution is a mixed program that strikes a balance between the alternatives. In some occupations, it may be critical to the RC that the prior-service soldier have extra leadership experience, while in others, the RC might benefit from an increased flow of job-proficient, experienced soldiers.

Our analysis shows that the 2+2+4 program has been a success for the AC as well as the RC. The program has achieved its AC recruiting objectives by attracting more high-quality recruits into the Army and helping the Army man hard-to-fill jobs. The program did lead to a slight reduction in average person-years served, but the decrease was modest because 2+2+4 participants served two years plus training time. •

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<sup>3</sup>The promotion slowdown during the drawdown has increased average promotion time for sergeants from 3.9 years over the period from FY80 through FY88 to 4.6 years in FY93. For FY93 separations, 11 and 1 percent of four- and two-year enlistees, respectively, have been promoted to sergeant by the end of their first term. We expect that first-term promotion rates and timing have been temporarily disrupted by the drawdown, so the historical numbers might provide a better approximation of future steady-state numbers than the current numbers.

The RC benefited from a larger pool of potential reservists available under the experimental program. Lower attrition and reenlistment rates meant that a larger share of an accession cohort was available to the RC. The number available was further enhanced by greater AC throughput, since the AC cycled more personnel through the system to offset the shorter term length.

The larger pool and the larger RC affiliation rate yielded substantial RC benefits. Our preliminary results suggest that 2+2+4 program accessions will lead to almost three times as many RC affiliations as current high-quality accessions. The results also show that the 2+2+4 program is substantially improving the job match rate for RC affiliations.

## NEXT STEPS

Where do we go from here? We need to conduct a multivariate analysis of AC and RC outcomes. This analysis will help us to more precisely ascertain which features of the program are associated with its apparent success. We expect to focus on three main issues. First, how important is the self-selection issue in our results? We suspect that some individuals who were already interested in the RC have shifted to the 2+2+4 program to take advantage of the shorter term length under the program. As a result, some of the improvement in RC affiliation rate may overstate the "true" program effect.

Second, we believe that a sizable portion of the RC gains under the 2+2+4 program arise from a complementarity between school attendance and RC participation. Other research is exploring this relationship, and our initial results suggest that, in general, students are more likely to affiliate with the RC than nonstudents.

Finally, the long-term effects of the 2+2+4 program will depend on the extent of RC service. Further analysis is needed to track the program participants into the RC. How long do they stay in the RC? How likely are they to stay in a matching job? We have no inherent reason to expect that the 2+2+4 participants will fare worse in the RC than comparable high-quality affiliates. In fact, if the ACF is pushing them into the RC, we expect that the program participants may have a lower RC attrition rate.

In conclusion, the 2+2+4 program is a promising recruiting option for channeling experienced, trained personnel into the RC. The program both helps AC recruiting and provides substantial downstream benefits for the RC. Our results would not justify a global shift toward joint AC/RC tours, but our work does provide strong evidence that a modest-sized program like 2+2+4 should be a part of the Army's recruiting arsenal.

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