TRENDS IN RECRUITING AND RETENTION OF ENLISTED PERSONNEL IN THE SELECTED RESERVE

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NOTE

Unless otherwise indicated, all years referred to in this report are fiscal years.

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SUMMARY

Selected reserve personnel are on active duty only part-time during peacetime but would provide a large portion of U.S. military capability in a major war. The Administration is planning to increase the role played by selected reserve forces in U.S. military posture. To accommodate this increased reliance on reservists, the number of personnel in six selected reserve components--Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, and Air Force Reserve--is projected to grow from an estimated 1,134,600 at the end of 1986 to 1,263,000 by 1991. Some people have questioned whether the current package of incentive programs will support the recruiting and retention necessary to achieve the planned growth.

Using the best available data, the Congressional Budget Office (CBO) estimates that the various reserve components should be able to increase the size of their forces with the recruiting and retention incentive programs in place as of fiscal year 1985, assuming that pay rates are adjusted to keep pace with inflation. According to CBO estimates, the Army Reserve could experience a shortfall in 1987 of as many as 14,000 recruits without prior military service (17 percent of the projected Army Reserve recruiting goal in that year). This shortfall, however, could be made up by higher retention, improved recruiting performance (such as occurred in 1986) or heavier reliance on personnel with prior service, as has been done in some past years.

Some trends in the characteristics of reserve personnel, however, could cause problems. Over the next few years, the average reservist will have more years of military service. This greater seniority will add to costs and may also make it more difficult to recall reserves to active duty in time of war, since these senior reservists could have greater responsibilities in civilian life. Senior reservists may also have less experience in dealing with the latest military equipment. The reserve components are also recruiting substantial portions of personnel with prior military service, which provides the advantage of immediate experience but can also reduce promotion opportunities and so harm future retention.

CBO's analysis of these trends reflects the incentive programs for reserve recruiting and retention that the Congress has enacted since 1978, except for the Veterans Educational Assistance Act of 1984 (known as the "New GI Bill"). The New GI Bill, a major new benefit for the reserves, first became available, on a test basis, in July 1985. Because it is so new, CBO analyzed the effects of the New GI Bill separately from the other incentive programs, and found that the bill will probably have a positive but modest effect on recruiting and retaining reserve personnel.

CBO's estimates are subject to considerable uncertainty. The analytic tools available to project reserve personnel trends are crude. CBO made several assumptions about the variables that could affect these trends, but changes in these assumptions could alter the projections. Policy changes may also alter the results. For example, if the Congress does not authorize all the increases in numbers of reserves requested by the Administration, the reserve components would find themselves better able to meet their diminished personnel goals.

CHAPTER I. INTRODUCTION AND BACKGROUND

The military posture of the United States relies on both active and reserve forces. Active forces are employed full-time during peacetime and would generally be ready with little notice in the event of a conflict. Reserve forces are civilians who usually spend, at most, one weekend a month and two weeks a year in military training; thus, they are usually less costly to maintain than active-duty units. Reserve forces typically would require time to mobilize and train before being used in a conflict, though the amount of time would vary widely with the type of unit.

The Administration currently plans to expand the role of the reserves by increasing their numbers and substituting reservists for active-duty personnel in the performance of selected support missions. The expanded use of reserves raises many questions, such as: Would they be available quickly enough in the event of a conflict? How much cheaper are they to maintain? How large can the reserves be in light of the United States' peacetime commitment and the ability of the reserves to attract personnel. This analysis addresses the last of these questions--whether the reserves can recruit and retain enough members of suitable quality. Specifically at issue is whether the current package of incentive programs for reserve recruiting and retention is adequate to support the planned growth in reserves.

STRUCTURE AND PERSONNEL TRENDS

All of the reserve components are projected to grow as the reserves take on new responsibilities. This future growth will vary among the components, however, as it has in the past.

Structure

U.S. reserve forces are organized into seven components: Army Reserve (USAR), Army National Guard (ARNG), Naval Reserve (USNR), Marine Corps Reserve (MCR), Air Force Reserve (USAFR), Air National Guard (ANG), and Coast Guard Reserve. (All except the Coast Guard Reserve, which is not paid out of Department of Defense (DoD) funds, are included in this report.) Within these components, personnel are classified as either members of selected reserve units or as individual reservists. Selected reservists are paid personnel who drill one weekend each month and train for a two-week period in the summer; individual reservists are not paid and usual-

ly do not drill, but are subject to individual call-up at the discretion of the President. This report concentrates on selected reservists since most of the planned increase in reserve levels will occur in their ranks.

Enlisted reservists can be further classified according to whether they have previously served in the military: non-prior-service (NPS) personnel have no military experience, while prior-service (PS) personnel generally have served between three and six years on active duty before joining the reserves.

Trends

Following the termination of conscription in 1973, the number of personnel in the six components of the selected reserve declined to a low of 788,000 at the end of fiscal year 1978, from a previous high of 919,000 in fiscal year 1973. Since that downturn, the "end strength" of the selected reserve (the number of personnel at the end of the year) has increased steadily, totaling 1,088,000 in 1985. Under the Administration's plans as of February 1986, the end strength of the selected reserve would increase through fiscal year 1991 to 1,263,000. As Table 1 indicates, end strength is expected to increase at different rates in the various reserve components.

RECRUITING AND RETENTION PROGRAMS

The selected reserve has been able to increase in size in recent years because of a favorable economic climate and a comprehensive package of recruiting and retention incentives for enlisted personnel. The various recruiting and retention incentives that have been instituted since 1978 are summarized in Table 2. These incentives include bonuses--cash payments given to people who enlist or reenlist--as well as educational benefits and repayment of student loans.

Few of these incentive programs have been subjected to formal evaluation to quantify their effects on the recruiting and retention of reserve personnel. In some instances, however, analysis of similar programs for the active forces suggest what the impacts of the reserve incentives might be. Appendix A summarizes DoD's assessment of the results of available research.

DoD's ASSESSMENT OF LIKELY TRENDS

At the request of the House Armed Services Committee, the Department of Defense recently conducted a review of the reserve recruiting and retention

TABLE 1. PLANNED END-STRENGTH LEVELS OF THE COMPONENTS OF THE SELECTED RESERVE, FISCAL YEARS 1987-1991 (In thousands)

Reserve Component	1987	1988	1989	1990	1991	Percent Change 1987-1991
Army Reserve	327.6	333.6	339.5	343.2	344.9	5.3
Army National Guard	462.8	472.1	480.8	487.7	492.1	6.3
Naval Reserve	155.7	164.9	168.2	170.4	170.7	9.6
Marine Corps Reserve	44.4	45.7	46.8	48.0	48.0	8.1
Air National Guard	115.2	119.2	120.8	121.0	121.1	5.1
Air Force Reserve	80.5	83.9	86.0	86.2	86.2	7.1
Total	1,186.2	1,219.4	1,242.1	1,256.5	1,263.0	6.5

SOURCE: Compiled by Congressional Budget Office using (combined enlisted and officer) data from Department of Defense, *Manpower Requirements Report for Fiscal Year 1987*, vol. III, pp. III-3, IV-3, V-5, VI-2, and VI-3.

programs and their ability to meet the required levels of enlisted personnel. 1/ The DoD claimed that its analysis was hindered by the dearth of data directly linking the various incentive programs with the recruitment and retention of reserve personnel, a point borne out by the paucity of research findings reported in Appendix A. Because of these data limitations, the DoD used alternative approaches to estimate the impact of reserve incentives. Many of these methods were characterized by indirect rather than direct modes of investigation. For example, DoD estimated the impact of incentive programs on reserve recruitment of non-prior-service

1. See Department of Defense, *Recruiting and Retention Resources for the Reserve Components* (November 1985).

TABLE 2. RECRUITMENT AND RETENTION INCENTIVES IN THE SELECTED RESERVE

Incentive	Requirements and Benefits
	Fiscal Year 1985 Programs
Non-Prior-Service Enlistment Bonus	Up to $2,000 for 6-year enlistment Enlistees must: Be high school diploma graduates Score in I-IIIA range on enlistment aptitude battery a/ Enlist in an approved military occupational specialty a/ Not have previously served in the Armed Forces
Reenlistment Bonus	$900 (in installments) for a 3-5 year reenlistment or extension $1,800 (in installments) for 6-year reenlistment
New GI Bill	Maximum of $5,040 in educational benefits Eligible member must: Have a high school diploma or be a graduate of a secondary school Not have a baccalaureate or an equivalent degree Pursue a baccalaureate at an accredited institution Agree to serve 6 years in the selected reserve after July 1, 1985
Affiliation Bonus	$25 per month for each remaining month in one's military service obligation Eligible member must: Have 180 days or less of active-duty obligation Serve the remainder of military service obligation in selected reserve in a unit in need of the member's military specialty

(Continued)

TABLE 2. (Continued)

Incentive	Requirements and Benefits
	Fiscal Year 1985 Programs (Continued)
Student Loan Repayment Program	Federal student loans can be repaid at 15 percent or $500 (the greater of the two) plus accrued interest for each year in the selected reserve. Score of non-prior-service recruits must be in I-IIIA range; prior-service members, I-III range. a/ Graduate of secondary school Serve 6 years in the selected reserve
	Fiscal Year 1986 Programs
Prior-Service Enlistment Bonus	Up to $2,500 for a 3-year term Up to $5,000 for a 6-year term Reenlist or extend in a targeted unit or military occupational specialty Have less than 10 (total) years of service and at least 90 (satisfactory) days of service in the selected reserve

SOURCE: Congressional Budget Office summary of Department of Defense report on *Recruiting and Retention Resources for the Reserve Components* (November 1985).

a. The I-IIIA range refers to recruits who score in the top half on the military entrance exam. Recruits with prior service, however, may qualify with a slightly lower score (in the IIIB range).

personnel by the "residual" method: where program effects are approximated by the unexplained portion of reserve non-prior-service recruits after using analytic results to account for the effect of trends in youth unemployment, the size of the youth population, and the level of the selected reserve's pay relative to civilian salaries. The Defense Department augmented its analysis whenever possible by relying on the results of similar programs on the active components (see Appendix A).

The DoD report concludes that enlistment and reenlistment incentives, along with leadership and management initiatives and economic and demographic trends, have contributed greatly to the success of the recruiting and retention in the selected reserve between 1978 and 1985. The challenge ahead, according to DoD, might be more formidable. More specifically, DoD believes that enlistment will become more difficult (particularly for the Army components) because of both the declining pool of potential NPS recruits and the anticipated decline in the number of those who have left active duty and are eligible PS personnel. The latter trend is expected to stem from the aging of Vietnam-era veterans and the recent tendency toward higher retention in the active forces.

The Department of Defense did not, however, empirically project numbers of available recruits and compare them with estimated needs in that report. In the next chapter, CBO makes such estimates as a basis for assessing the likelihood of problems in recruiting and retaining reserve personnel over the next few years.

CHAPTER II. CBO'S PROJECTIONS OF RESERVE RECRUITMENT AND RETENTION

The analytic tools available to project recruitment and retention trends in the selected reserve are quite crude. Available models do not permit full adjustment for all the many variables likely to affect these trends. Therefore, the projections in this chapter typically begin with actual reserve recruitment and retention results from a recent year and adjust, where possible, for anticipated changes in benefits, unemployment, and other factors. 1/ In the case of one important new benefit--the New GI Bill, which went into effect in 1985--a full year's data are not yet available, and this chapter assesses its effects separately using other means.

The next two sections outline the methods used to project the demand for new recruits (after taking into account the likely numbers of personnel who remain in the reserves) and the supply of reserve recruits. The chapter then compares demand and supply to draw conclusions about trends in recruitment and retention of reserve personnel. All the projections assume that the Congress authorizes the Administration's requests for reserve end strength (see Table 1), though the effects of lower authorizations are discussed.

PROJECTIONS OF RECRUIT SUPPLY

Non-Prior-Service Recruits

The projections of the supply of non-prior-service (NPS) recruits are derived in two steps. First, the supply of "high-quality" NPS male recruits is obtained by adjusting actual numbers recruited in 1984 for changes in three factors: civilian unemployment, the number of recruiters, and the size of the male youth population (age 17-21). (High-quality recruits are those who have a high school diploma and score in the upper half on the armed forces entrance examination; they are assumed to be the only recruits in short supply.) The particular specification is as follows: 2/

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1. The procedures used here follow those employed in Congressional Budget Office, *Improving the Army Reserves* (November 1985).

2. This formula is similar to the one used in William McNaught, *The Supply of Enlistees to the Selected Reserves*, N-1562-MRAL (Santa Monica, Calif.: The Rand Corporation, July 1984), p. 17. Unemployment rates are based on CBO's forecast of August 1986.

$$A_t = A_{1984} \left[\frac{P_t}{P_{1984}}\right] \left[1 + \varepsilon \left(\frac{U_t - U_{1984}}{U_{1984}}\right) + \eta \left(\frac{R_t - R_{1984}}{R_{1984}}\right)\right]$$

Where:

A_t = estimated male NPS category I-IIIA enlistments in year *t*

A_{1984} = actual male NPS category I-IIIA enlistments in 1984

P_t = estimated size of male youth population (age 17-21) in year *t*

P_{1984} = actual size of male youth population (age 17-21) in 1984

U_t = estimated unemployment rate

U_{1984} = actual unemployment rate

R_t = estimated number of full-time active guard/reserve recruiters in year *t*

R_{1984} = actual number of full-time active guard/reserve recruiters in 1984

ε = enlistment elasticity with respect to variable *U*

η = enlistment elasticity with respect to variable *R*

The 1984 results are used as a basis because 1984 is the most recent full year before the introduction of the New GI Bill in mid-1985. The 1984 results are adjusted for the actual changes in unemployment and other variables in 1985 and their projected changes from 1986 through 1990. 3/

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3. Projected changes in NPS recruits were made using a civilian unemployment elasticity (ε) of 0.6, which is consistent with an estimate contained in the econometric analysis reported in William McNaught, *Projecting Future Accessions to the Selected Reserve Components*, N-1563-MRAL (Santa Monica, Calif.: The Rand Corporation, July 1981). This unemployment elasticity was found to be statistically significant at the 5 percent level.

   Because of the lack of reliable research evidence on the impact of reserve recruiting efforts, this analysis uses an estimate of the recruiter elasticity imputed from actual recruiting results for each reserve component during 1981 through 1984. The estimated recruiter elasticity was calculated by first computing "baseline" estimates (where the number of recruiters was held constant at the 1981 level) for 1982 through 1984 by adjusting the 1981 results for actual changes in unemployment and the male youth population. Next, the differences between these baseline estimates and the actual recruiting results were attributed to changes in the number of recruiters over the period

In the second step, the number of low-quality male recruits (those who score in test category IV--the lowest acceptable category) and female recruits assumed to be accepted by each reserve component is added to the number of high-quality male NPS recruits to obtain the total supply of recruits without prior service. Their numbers are based on each component's goal or actual recruiting results during the last four years. The number of women recruited is generally influenced by policy decisions governing the mix of jobs available to them and their exclusion from combat.

These projections suggest that the number of available NPS recruits will remain quite constant in the next few years (see Figure B-1 and Tables B-1 through B-4 in Appendix B).

Prior-Service Recruits

Personnel who have recently separated from active duty provide the major source of prior-service recruits for the various reserve components. 4/ Projections of the annual supply of prior-service recruits for each component are made by first estimating the pool of available prior-service personnel who separated from active duty during the previous five years and then multiplying that group by the percentage of the available pool who actually enlisted in the selected reserve in 1985 (this percentage is assumed to remain the same in the future). Tables 3 through 6 show the results of these projections.

The results of CBO's analysis call in question DoD's concerns about the pending adverse impact of a declining pool of potential prior-service person-

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Footnote Continued

(1982 through 1984). An "imputed" elasticity for each year was derived by dividing the percentage differences in the number of NPS recruits by the percent change in number of recruiters; the average of these three years is used in the projections in this paper. The resulting "imputed" elasticities (0.2 for USAR, 0.25 for ARNG, 3.0 for USNR, 1.9 for MCR, 1.0 for ANG, and 0.35 for USAFR) compare favorably with econometric estimates for overall active-force recruiting contained in Lawrence Goldberg, "Estimates of the Marginal Costs of Selected Supply Factors Based on Recent Enlistment Supply Analyses" (Working Paper, Economic Research Laboratory, Reston, Va., March 4, 1985), when weighted to reflect the proportions of NPS recruits taken by each component during 1982 through 1984. Because these estimates are imputed elasticities, it is impossible to quantify the underlying standard errors.

4. This analysis is based on the best data currently available. Nonetheless, some caveats are in order because techniques of modeling prior-service recruits are changing as new data bases are developed. While the majority of prior-service recruits in any year enter the reserves from active duty, some recruits are reserve pesonnel who left their reserve units and subsequently rejoined the reserves. This analysis does not fully take into account the latter group. To the extent that this group is sizable, the results presented here could be altered. Research on this and related issues concerning prior-service recruits in the reserves is currently being conducted by the Rand Corporation.

TABLE 3. SUPPLY OF PRIOR-SERVICE RECRUITS TO THE ARMY SELECTED RESERVE: ACTUAL (1980-1985) AND PROJECTED (1986-1991) (In thousands)

Fiscal Year	Total Annual Separations From Active Army a/	Six-Year Army Separations Pool b/	Previous Five-Year Prior-Service Recruits c/	Available Prior-Service Pool d/	Prior-Service Accessions			Percent of Available Pool Enlisted e/
					Army Reserve	Army National Guard	Total	
1980	131	729	463	266	33.5	46.8	80.3	30
1981	115	691	446	245	34.8	43.1	77.9	32
1982	110	649	423	226	39.4	44.0	83.4	37
1983	126	610	406	204	39.5	43.5	83.0	41
1984	121	603	400	203	41.0	43.9	84.9	42
1985	109	712	410	302	45.7	43.5	89.2	30
1986	116	697	418	279	42.0	42.0	84.0	30
1987	116	698	426	272	39.0	43.0	82.0	30
1988	116	704	427	277	40.0	43.0	83.0	30
1989	117	695	422	273	39.0	43.0	82.0	30
1990	118	692	417	275	40.0	43.0	83.0	30
1991	118	701	414	287	41.0	45.0	86.0	30

SOURCE: Congressional Budget Office. Data for 1980 through 1985 represent actual results using data compiled by the Defense Manpower Data Center. Estimates of separations from 1986 through 1991 are based on the enlisted force model used to project recruiting demand (see Congressional Budget Office, Improving the Army Reserves (November 1985)).

a. Includes those with 1 to 19 years of service.
b. Includes those separated in current year and in previous five years.
c. Includes all PS recruits to Army selected reserve regardless of branches in which active duty was served.
d. Calculated as the "Six-year Army Separations Pool" less the "Previous Five-year PS Recruits" during the same period.
e. The actual (1980-1985) or projected (1986-1991) percentage of the available pool taken by each reserve component for that year. The percentage is computed by dividing the total number of accessions (enlistments) in each year by the available prior-service pool for that year.

TABLE 4. SUPPLY OF PRIOR-SERVICE RECRUITS TO THE NAVAL SELECTED RESERVE: ACTUAL (1980-1985) AND PROJECTED (1986-1991) (In thousands)

Fiscal Year	Total Annual Separations From Active Navy a/	Six-Year Navy Separations Pool b/	Previous Five-Year Prior-Service Recruits c/	Available Prior-Service Pool d/	Prior-Service Accessions	Percent of Available Pool Enlisted e/
1980	79	512	124	388	23.1	6
1981	78	487	122	365	22.3	6
1982	69	463	119	344	25.7	7
1983	63	438	119	319	24.0	8
1984	68	432	121	311	19.2	6
1985	69	426	114	312	19.5	6
1986	67	414	111	303	18.9	6
1987	69	405	107	298	18.6	6
1988	71	407	100	307	19.2	6
1989	72	416	95	321	20.1	6
1990	73	421	96	325	20.3	6
1991	74	426	97	329	20.6	6

SOURCE: Congressional Budget Office. Data for 1980 through 1985 represent actual results using data compiled by the Defense Manpower Data Center. Estimates of separations for 1986 through 1991 are based on the enlisted force model used to project recruiting demand (see Congressional Budget office, Improving the Army Reserves (November 1985)).

a. Includes those with 1 to 19 years of service.
b. Includes those separated in current year and in previous five years.
c. Includes all PS recruits to Naval selected reserve regardless of branch in which active duty was served.
d. Calculated as the "Six-year Navy Separations Pool" less the "Previous Five-year PS Recruits" during the same period.
e. The actual (1980-1985) or projected (1986-1991) percentage of the available pool taken by each reserve component for that year. The percentage is computed by dividing the total number of accessions (enlistments) in each year by the available prior-service pool for that year.

TABLE 5. SUPPLY OF PRIOR-SERVICE RECRUITS TO THE MARINE CORPS SELECTED RESERVE: ACTUAL (1980-1985) AND PROJECTED (1986-1991) (In thousands)

Fiscal Year	Total Annual Separations From Active Marine Corps a/	Six-Year Marine Corps Separations Pool b/	Previous Five-Year Prior-Service Recruits c/	Available Prior-Service Pool d/	Prior-Service Accessions	Percent of Available Pool Enlisted e/
1980	35	245	27	218	3.6	2
1981	35	235	25	210	3.2	2
1982	33	217	23	194	4.8	2
1983	35	213	22	191	5.9	3
1984	36	212	22	190	5.6	3
1985	31	205	23	182	6.1	3
1986	26	196	26	170	5.7	3
1987	28	189	28	161	5.4	3
1988	30	186	29	157	5.3	3
1989	28	179	28	151	5.1	3
1990	27	170	28	142	4.8	3
1991	28	167	26	141	4.7	3

SOURCE: Congressional Budget Office. Data for 1980 through 1985 represent actual results using data compiled by the Defense Manpower Data Center. Estimates of separations for 1986 through 1991 are based on the enlisted force model used to project recruiting demand (see Congressional Budget office, Improving the Army Reserves (November 1985)).

a. Includes those with 1 to 19 years of service.
b. Includes those separated in current year and in previous five years.
c. Includes all PS recruits to Marine Corps selected reserve regardless of branch in which active duty was served.
d. Calculated as the "Six-year Marine Corps Separations Pool" less the "Previous Five-year PS Recruits" during the same period.
e. The actual (1980-1985) or projected (1986-1991) percentage of the available pool taken by each reserve component for that year. The percentage is computed by dividing the total number of accessions (enlistments) in each year by the available prior-service pool for that year.

TABLE 6. SUPPLY OF PRIOR-SERVICE RECRUITS TO THE AIR FORCE SELECTED RESERVE: ACTUAL (1980-1985) AND PROJECTED (1986-1991) (In thousands)

Fiscal Year	Total Annual Separations From Active Air Force a/	Six-Year Air Force Separations Pool b/	Previous Five-Year Prior-Service Recruits c/	Available Prior-Service Pool d/	Prior-Service Accessions			Percent of Available Pool Enlisted e/
					Air National Guard	Air Force Reserve	Total	
1980	61	365	104	261	9.5	9.5	19.0	7
1981	55	348	100	248	9.0	9.0	18.0	7
1982	49	330	99	231	8.7	8.5	17.2	7
1983	45	315	95	220	6.9	9.0	15.9	7
1984	44	309	90	219	7.4	8.5	15.9	7
1985	50	304	86	218	9.6	10.0	19.6	9
1986	48	291	87	204	9.0	9.3	18.3	9
1987	49	285	87	198	8.7	9.1	17.8	9
1988	49	285	88	197	8.7	9.0	17.7	9
1989	51	291	89	202	8.9	9.3	18.2	9
1990	50	297	92	205	9.0	9.4	18.4	9
1991	50	297	90	207	9.1	9.5	18.6	9

SOURCE: Congressional Budget Office. Data for 1980 through 1985 represent actual results using data compiled by the Defense Manpower Data Center. Estimates of separations from 1986 through 1991 are based on the enlisted force model used to project recruiting demand (see Congressional Budget Office, Improving the Army Reserves (November 1985)).

a. Includes those with 1 to 19 years of service.
b. Includes those separated in current year and in previous five years.
c. Includes all PS recruits to Air Force selected reserve regardless of branches in which active duty was served.
d. Calculated as the "Six-year Air Force Separations Pool" less the "Previous Five-year PS Recruits" during the same period.
e. The actual (1980-1985) or projected (1986-1991) percentage of the available pool taken by each reserve component for that year. The percentage is computed by dividing the total number of accessions (enlistments) in each year by the available prior-service pool for that year.

nel. In its report on reserve recruiting, DoD indicated that recent improvements in active-duty retention could reduce the pool of available personnel, thereby harming efforts to recruit personnel with prior service. According to CBO's estimates, the available prior-service pools for the reserve components of the Navy, Marine Corps, and Air Force will decline somewhat from their 1980 highs of roughly 120,000, 215,000, and 260,000, respectively. Except in the Army, however, the percentages of the pool who join as prior-service recruits are small, ranging from 3 percent in the Marines to 9 percent in the Air Force (see Tables 4 through 6). Modest increases in those percentages should enable these components to meet their prior-service recruiting goals. Thus, it is unlikely, except possibly in the Army, that the reserve components of the services will face a shortage of recruits with prior service in the near future.

Projections for the Army Reserve and the Army National Guard assume that a relatively larger percentage of the Army's available prior-service pool (30 percent) join as prior-service recruits (see Table 3). Unlike the other services, however, the Army's available prior-service pool, while declining over the next few years, is projected to grow from approximately 273,000 in 1989 to 287,000 in 1991. This trend reversal is probably explained in part by higher active-duty separation rates resulting from the tightening of reenlistment standards during the 1983-1985 period. Consequently, the Army as well as the other reserve components seems to be in little danger of a shortfall in the suply of PS recruits.

PROJECTIONS OF RETENTION AND RECRUIT DEMAND

Projections of available reserve enlisted personnel, and hence of the demand for enlisted reserve recruits (both with and without prior service), are derived from an inventory flow model that simulates the movement of reserve personnel through successive years of service in accordance with their continuation rates (that is, the fraction of reservists who begin the year in paid drill status and are still in that status at the beginning of the next year). 5/ The total demand for recruits in each year comprises the number of separations that occurred during the year plus the increase in end strength over the previous year. Thus, recruit demand depends not only on the planned size of the reserve components but also on the willingness of people to remain in the reserves.

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5. Continuation rates are assumed to remain at 1984 levels, the last full year before introduction of the New GI Bill. Implicitly, this means that CBO assumes that reserve pay remains at its 1984 level in real terms, as do other factors affecting continuation rates.

Projections of the force profile and recruiting requirement for the reserve components are shown in Table 7. The projections in Table 7 assume that there are no shortfalls of recruits and that growth in the senior force (personnel with over 10 years of combined active and reserve service) is not restrained. Under these assumptions, most reserve components will experience substantial growth in the portion of their forces with more than 10 years of service. According to CBO's projections, the Army National Guard and Army Reserve will have 32 percent and 27 percent, respectively, of their enlisted personnel with over 10 years of service by 1990, compared with 30 percent and 25 percent in 1987. The 1990 percentage for the Marine Corps Reserve is 11 percent, compared with 10 percent in 1987. Half of the forces of both the Air National Guard and Air Force Reserve are projected to have more than 10 years of service in 1990, compared with 49 percent and 44 percent, respectively, in 1987.

The Naval Reserve is the only component that does not show an increasing trend in the fraction of its enlisted force with over 10 years of service. The seemingly anomalous result for the Naval Reserve arises because historically it recruited few NPS personnel, but recently began increasing their numbers substantially. Thus, barring any major change in policy, the percentage of personnel in the Naval Reserve with over 10 years of service will initially decline and then begin to increase as in the other reserve components. 6/

While the number of senior personnel rises in most components, demand for new recruits usually does not increase by more than a few percent. Despite planned increases in the size of the components, retention of personnel is sufficient to hold down increases in the demand for new recruits.

COMPARING RECRUIT SUPPLY AND DEMAND

Can the selected reserve meet the planned growth in size with the current package of benefits? Comparison of projected supply and demand for recruits suggests that they probably can. Given the current package of recruiting and retention incentives (except for the New GI Bill, which is analyzed separately below), CBO estimates that only the Army Reserve will face any noteworthy shortfalls in recruiting; and even its projected shortfall of 14,000, or 17 percent, in 1987 will decline in later years (see Figure 1,

6. As of May 1, 1986, the Navy has reduced its planned future growth of NPS recruits. Originally, the Naval Reserve's plans called for a target of 10,000 NPS recruits annually. Under the revised policy, the target number of NPS recruits will be reduced to roughly 7,800 for fiscal year 1986, with an eventual decline to 6,000 a year. This shift is expected to slow the trend described in the text.

FIGURE 1.

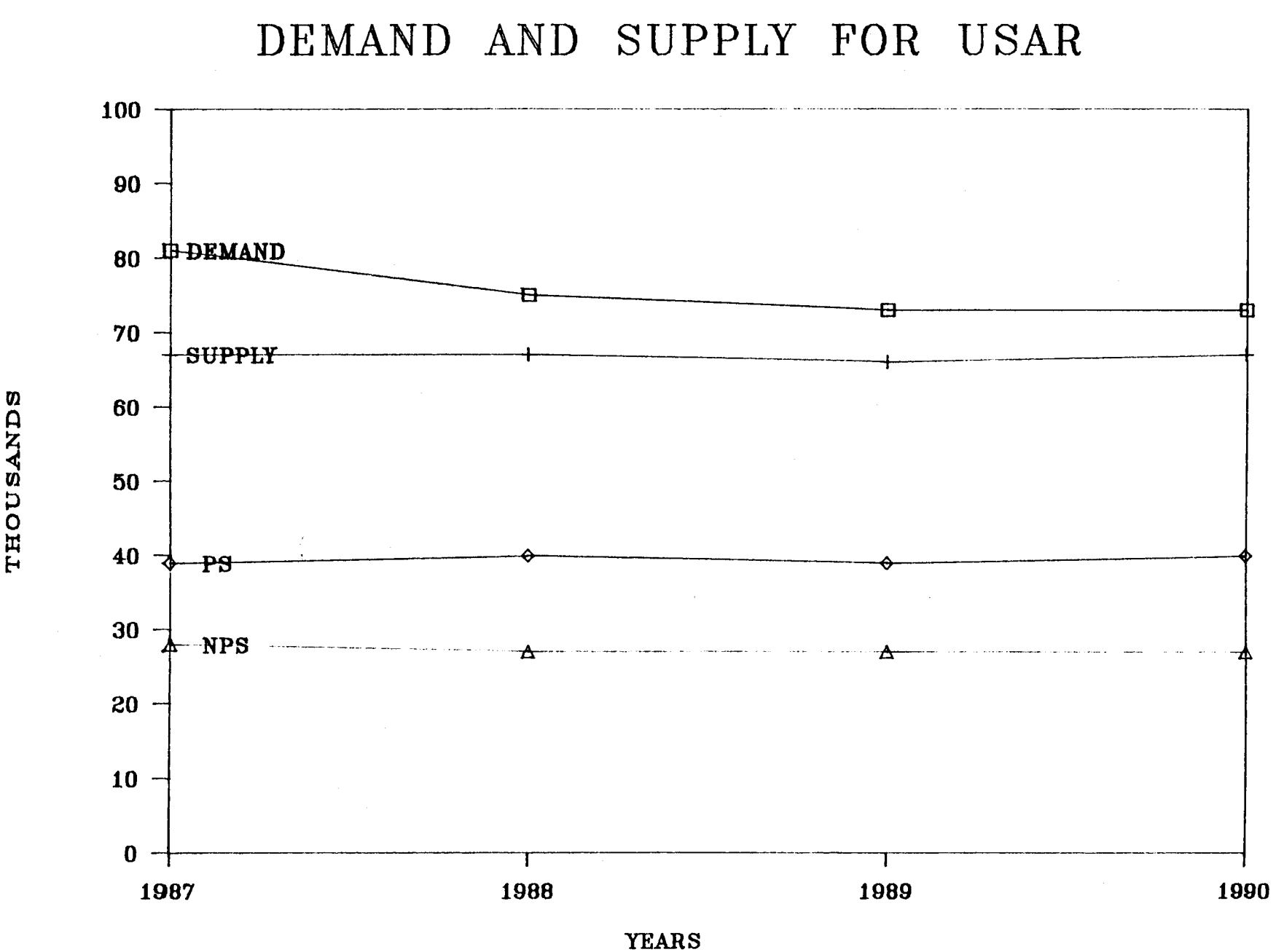
DEMAND AND SUPPLY FOR USAR
100
90
80
70
60
50
40
30
20
10
0
THOUSANDS
DEMAND
SUPPLY
PS
NPS
1987
1988
1989
1990
YEARS

TABLE 7. PROJECTIONS OF ENLISTED PERSONNEL AND RECRUITING REQUIREMENTS FOR THE SELECTED RESERVE, WITH SENIOR FORCE INCREASING: FISCAL YEARS 1987, 1988, and 1990 (In thousands)

Fiscal Year	Total Demand (Years of Service) 1-10 Years	Over 10 Years	Total	Recruit Demand	Percent of Total Over 10 Years of Service
		Army National Guard			
1987	294	124	418	90	30
1988	298	129	427	89	30
1990	302	139	441	89	32
		Army Reserve			
1987	200	68	268	81	25
1988	202	71	273	75	26
1990	204	76	280	73	27
		Naval Reserve a/			
1987	85.8	39.8	125.6	41.1	32
1988	92.6	40.2	132.8	39.9	30
1990	96.9	40.0	136.9	36.1	29
		Marine Corps Reserve			
1987	36.8	4.2	41.0	14.4	10
1988	37.6	4.4	42.0	14.8	11
1990	39.1	4.9	44.0	14.8	11
		Air National Guard			
1987	51.6	49.4	101.0	12.9	49
1988	53.9	40.8	104.7	10.7	50
1990	53.2	53.8	107.0	10.7	50
		Air Force Reserve			
1987	36.1	27.9	64.0	11.4	44
1988	36.0	30.0	66.0	10.7	46
1990	34.3	33.6	67.9	9.0	50

SOURCE: Congressional Budget Office.

a. The fraction of the Naval Reserve's enlisted force with over 10 years of service is projected to decline initially and then increase; thus, a more appropriate heading is "Senior Force Trend" rather than "Senior Force Increasing."

TABLE 8. COMPARISON OF SUPPLY AND DEMAND FOR RESERVE RECRUITS, WITH SENIOR FORCE INCREASING: FISCAL YEARS 1987, 1988, and 1990 (In thousands)

Reserve Component	Surplus (+) or Shortage (-) 1987	1988	1990
Army Reserve	-14.0	-8.0	-6.0
Army National Guard	-1.0	0.0	-2.0
Naval Reserve a/	-6.9	-5.0	-0.6
Marine Corps Reserve	-0.6	-1.2	-2.0
Air National Guard	+0.8	-0.4	+3.6
Air Force Reserve	+0.3	+0.9	+2.9

SOURCE: Congressional Budget Office.

a. The fraction of the Naval Reserve's enlisted force with over 10 years of service is projected to decline initially and then increase; thus, a more appropriate heading is "Senior Force Trend" rather than "Senior Force Increasing."

Table 8, and Appendix B). All other components should be within one or two percentage points of meeting reserve requirements.

These projections do not necessarily mean that the Army Reserve will fall short of its planned end strength. The Army Reserve may well be able to recruit more prior-service personnel. This study assumed that the Army Reserve recruited the same percentage of the available pool of PS personnel in each year that was achieved in 1985. In earlier years it has recruited higher percentages and could do so again. The shift toward enlisting more prior-service recruits would run counter to Army Reserve goals, which strive for large numbers of non-prior-service personnel in order to mirror the active Army. Although having more prior-service personnel could also harm retention because it might reduce promotion opportunities, it would not result in enlisted personnel levels much different from those in recent years, which featured large numbers of members with prior service. 7/

7. Reliance on prior-service recruits in place of NPS recruits to meet end-strength goals might generate future problems. First, it could eventually lead to a decline in the first-

Uncertainties in Comparisons

These results rest on strong assumptions that, while not unreasonable, may not be fully realized. Projections of available personnel assume that benefits remain constant in real terms at their 1984 level and that unemployment remains roughly at its current level. Though these projections adjust for anticipated changes in unemployment, the absence of adjustment for other factors reflects the lack of analytic results about the determinants of reserve recruiting.

These projections also assume that the reserves do not vary the quality of the recruits that they seek. As defined above, high-quality recruits are those who hold high school diplomas and score in the upper half on the military entrance examination. Generally, the reserves can recruit as many low-quality NPS recruits as they want; thus, recruiting objectives could be met by lowering quality goals. The reserve components are assumed not to follow this approach because of the adverse effects it could have on capability.

Finally, these results assume that the Congress authorizes the full levels of reserve strengths requested by the Administration in its February 1986 budget. This authorization seems unlikely to occur, however, at least in 1987. The Administration requested an increase of 72,100 over the fiscal year 1986 levels. The House Armed Services Committee has reduced the end-strength levels requested for 1987 by 7,500; and the Senate Armed Services Committee has recommended that no increase in end strength be authorized in fiscal year 1987. These actions would reduce the demand for reserve recruits and should strengthen the finding that all components will probably not face major recruiting problems.

Seniority of the Force

Another issue affecting reserve recruitment and retention is the desirability of increased numbers of personnel with over 10 years of combined active and reserve duty. The fraction of senior personnel would grow between 5 percent and 10 percent under the supply and demand projections made

Footnote Continued

term retention of NPS recruits, since the presence of large numbers of PS reservists would reduce promotion opportunities for NPS personnel. Second, it could make future recruitment of PS personnel more difficult, since the higher-grade PS positions would remain occupied, thus requiring future PS recruits to accept a lower pay grade. The author is indebted to reviewers at the Rand Corporation for these observations.

above. Although this trend would aid recruiting eforts by lowering the required number of NPS recruits, it might lead to future problems. In particular, the aging of reserve components could reduce readiness in the future. Experience is desirable, but having too old a force could present problems resulting from: (1) a potential conflict between the immediacy with which reserves could be called to active duty and the general tendency for older people to have more responsibilities in civilian life; (2) the likelihood of relatively higher personnel costs, since older reservists tend to stay longer and receive higher pay and retirement benefits; and (3) the tendency for personnel to be less capable of dealing with the latest military equipment and procedures because of the length of time since their active-duty service.

To counter these concerns, the reserves could limit the number of senior personnel, but at the risk of increasing shortfalls in NPS recruits. 8/ Except in the Naval Reserves, limiting the number of senior personnel to the current fraction would result in an increase in demand for NPS recruits (see Table 9). This limitation policy, in turn, would increase the projected shortfall, or lessen the surplus, of NPS recruits for the services (see Table 10 and Appendix B). In most components, shortfalls would remain modest even with the limit. In the Army National Guard, however, limiting senior personnel to current fractions would cause a shortfall of 13,000, or 14 percent, in 1987. Thus, under this assumption the Army National Guard would join the Army Reserve as a component with potential recruiting problems. Like the the Army Reserve, however, the Guard might be able to rely on more prior-service personnel to offset shortfalls.

THE NEW GI BILL

The analysis thus far has not taken into account the possible influence that the New GI Bill might have on recruiting and retention of reserve personnel. This legislation is in effect on a test basis through June 1988 but was not included in the analysis because the model used here extrapolated from 1984 data, which do not reflect the New GI Bill. Under the New GI Bill, people who enlist, reenlist, or extend for a period of six years in one of the selected reserve components (after July 1, 1985, but before June 30, 1988) may receive a maximum of $5,040 toward their education costs. Recipients must be high school graduates or have an equivalent degree and must use the educational benefits to pursue a baccalaureate degree at an accredited institution.

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8. These limits could be accomplished by using promotion policies and reenlistment incentives to manage selectively reenlistments for those individuals with 7 to 13 years of service.

TABLE 9. PROJECTIONS OF ENLISTED PERSONNEL AND RECRUITING REQUIREMENTS FOR THE SELECTED RESERVE, WITH SENIOR FORCE CONSTANT: FISCAL YEARS 1987,1988, and 1990 (In thousands)

Fiscal Year	Total Demand (Years of Service) 1-10 Years	Over 10 Years	Total	Recruit Demand	Percent of Total Over 10 Years of Service
		Army National Guard			
1987	299	119	418	102	28
1988	307	120	427	101	28
1990	320	121	441	101	28
		Army Reserve			
1987	203	64	268	87	24
1988	207	66	273	81	24
1990	214	66	280	80	24
		Naval Reserve			
1987	85.9	39.7	125.6	39.8	32
1988	92.4	40.4	132.8	38.7	30
1990	96.0	40.9	136.9	35.1	30
		Marine Corps Reserve			
1987	37.0	4.0	41.0	14.8	10
1988	37.9	4.1	42.0	15.1	10
1990	39.7	4.3	44.0	15.2	10
		Air National Guard			
1987	52.2	48.8	101.0	13.3	48
1988	55.0	49.7	104.7	14.7	48
1990	55.1	51.9	107.0	11.3	48
		Air Force Reserve			
1987	38.2	25.8	64.0	14.0	40
1988	39.4	26.5	66.0	13.5	40
1990	40.5	27.4	67.9	12.0	40

SOURCE: Congressional Budget Office.

The New GI Bill took effect on July 1, 1985, but it is still too early to estimate its impact on recruitment and retention of reserve personnel. It is anticipated, however, that the New GI Bill will not only increase NPS accessions, but also will increase retention (for example, by reducing the number of personnel who leave before completing their first term of service), which in turn reduces the number of NPS accessions needed. Thus, smaller increases in demand for NPS accessions may be another positive impact of the bill.

In view of the New GI Bill's uncertain effects on recruitment and retention, CBO attempted to project the bill's impact on the recruiting of NPS accessions by estimating a range within which the true impact might lie. One set of assumptions included those showing a large effect on recruiting ("high estimate"); another set showed a more modest effect ("low estimate"). The following procedure and assumptions were used to project the high estimate:

- o A real personal discount rate of 15 percent was used to convert both expected reserve compensation and the expected maximum

TABLE 10. COMPARISON OF SUPPLY AND DEMAND FOR RESERVE RECRUITS WITH SENIOR FORCE CONSTANT: FISCAL YEARS 1987, 1988, and 1990 (In thousands)

Reserve Component	Surplus (+) or Shortage (-) 1987	1988	1990
Army Reserve	-20.0	-14.0	-13.0
Army National Guard	-13.0	-12.0	-14.0
Naval Reserve	-5.6	-3.8	0.4
Marine Corps Reserve	-1.0	-1.4	-2.4
Air National Guard	+0.4	+1.0	+2.5
Air Force Reserve	-2.3	-1.9	-0.1

SOURCE: Congressional Budget Office.

dollar value of the New GI Bill to their cash-value equivalents at the time of enlistment. 9/

- The ratio of these two expected values was multiplied by an assumed pay elasticity of 0.2. 10/ This product yields the expected percentage increase in enlistments resulting from the New GI Bill.

- Implicit in this calculation are the assumptions that all individuals eligible to participate in the program do so, and that participants use all of their available benefits.

For the low estimate of impact, the projection proceeds as above except that the cash-equivalent value of benefits from the New GI Bill is adjusted by assuming that potential recruits anticipate using only 13 percent of their entitlement. The usage rate employed by CBO reflects historical experience with previous educational benefit programs. 11/

According to CBO's analysis, the high estimates tend to reduce the projected shortages, or increase the surpluses, for the various reserve components somewhat, while the low estimates have little or no effect. Overall, the projections suggest that the likely impact of the New GI Bill will be

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9. This "personal" discount rate reflects the preference that military personnel have for current rather than deferred benefits and should not be confused with the much lower discount rate used in government investment and borrowing decisions. The selection of 15 percent is consistent with empirical results reported in Matthew Black, *Personal Discount Rates: Estimates for the Military Population* (Arlington, Va.: Systems Research and Applications Corporation, May 20, 1983).

10. Pay elasticity measures the responsiveness of a percentage change in enlistments to a percentage change in pay. Thus, a pay elasticity of 0.2 implies that a 10 percent increase in pay elicits a 2 percent increase in enlistments. The pay elasticity of 0.2 used here for reservists is consistent with the available empirical evidence. Robert Kelly, "The Supply of Volunteers to the Selected Reserve" (Department of Social Science, United States Military Academy, May 1979, mimeo); and David W. Grissmer and Zahava Doering, *The Effect of Reserve Pay, 1978 Selected Reserve Reenlistment Bonus Test* (Santa Monica, Calif.: The Rand Corporation, April 1982).

11. This usage rate is based on the experience of active-duty service personnel under the Vietnam-Era GI bill. The usage rate for reserve personnel under the New GI Bill might be expected to be higher for several reasons. First, the Vietnam-Era Bill was offered largely to a population of draftees; in contrast, today's military volunteers self-select themselves into service at least partially in response to GI Bill benefits and thus are more likely to use them. Second, provisions of the new bill permit reservists to use their benefits while they are members of the reserves, rather than waiting several years until they separate from service. These provisions enhance the value of the benefits to reservists and thus should tend to increase their usage rate. See Congressional Budget Office, "Budgetary Costs of Military Educational Benefits" (Staff Working Paper, August 1985).

positive but modest. The results of these projections are shown in Table 11 and Appendix C.

These findings are highly tentative for several reasons. Estimates of factors such as usage rates are uncertain. The estimates presented here do not take directly into account the bill's impact on the willingness of personnel to remain in the military. It is possible that, in order to realize larger benefits, reservists will stay in the reserves longer. This would reduce the demand for recruits to a greater extent than is noted in Table 11.

TABLE 11. PROJECTED RECRUITING OF NON-PRIOR-SERVICE PERSONNEL, WITH AND WITHOUT THE NEW GI BILL: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

Reserve Component	Without New GI Bill			With New GI Bill					
				High Estimate			Low Estimate		
	1987	1988	1990	1987	1988	1990	1987	1988	1990
Army Reserve	-14.0	-8.0	-6.0	-13.0	-6.0	-5.0	-14.0	-7.0	-6.0
Army National Guard	+1.0	0	-2.0	+1.0	+2.0	0	0	+1.0	-2.0
Naval Reserve	-6.9	-5.0	-0.6	-6.3	-4.4	0	-6.8	-5.0	-0.5
Marine Corps Reserve	-0.6	-1.2	-2.0	-0.1	-0.7	-1.5	-0.6	-1.1	-2.0
Air National Guard	+0.8	-0.4	+3.1	+1.1	+0.1	+3.4	+0.9	-0.3	+3.1
Air Force Reserve	+0.3	+0.9	+2.9	+0.5	+1.1	+3.1	+0.4	+1.0	+2.9

SOURCE: Congressional Budget Office.

NOTE: Surplus (+); shortage (-).

APPENDIXES

APPENDIX A.

The Department of Defense has reviewed the results of available research on the effects of various incentive programs on recruiting and retention in the selected reserve. Table A-1 provides a summary of DoD's assessment of these programs.

TABLE A-1. SUMMARY OF THE DEPARTMENT OF DEFENSE'S REVIEW OF RECRUITMENT AND RETENTION INCENTIVES IN THE SELECTED RESERVE

Incentive Program	Benefits and Requirements	Other Remarks	Research Results a/ Direct	Research Results a/ Indirect
		Fiscal Year 1985 Program		
Non-Prior-Service Enlistment Bonus	Up to $2,000 for 6-year enlistment Enlistees must: Be high school diploma graduates Score in I-IIIA range on enlistment aptitude battery b/ Enlist in an approved military occupational specialty Not have previously served in the Armed Forces	Use by component: Offered to designated units by Army National Guard, Army Reserve, and Marine Corps Reserve Offered to those in critical shortage skills by other reserve components Naval Reserve used only reenlistment bonuses Enhancements in 1986: Extension of the program to September 30, 1987	Preliminary results from a Rand study indicate that the enlistment bonuses for Army reserve components tend to channel recruits toward needed skills and units as well as reduce attrition. c/d/	Evidence from a national experiment of the enlistment bonus for NPS active Army components suggests that the bonus: e/ Expands the market Channels skills Leads to a longer term of commitment
Reenlistment Bonus	$900 (in installments) for a 3-5 year reenlistment or extension $1,800 (in installments) for 6-year reenlistment	Enhancements in 1986: Extension of program to September 30, 1986 Increase in amount of bonus from $900 to as much as $2,500 (3-5 year reenlistment) and from $1,800 to as much as $5,000 (6-year reenlistment)	Rand results indicate that reenlistment bonuses increased slightly the reenlistment rate while they lengthened the terms of commitment and deferred actual attrition. f/	n.a.

TABLE A-1. (Continued)

Incentive Program	Benefits and Requirements	Other Remarks	Research Results a/ Direct	Research Results a/ Indirect
New GI Bill	Maximum of $5,040 in educational benefits Eligible member must: Have a high school diploma or be a graduate of a secondary school Not have a baccalaureate or an equivalent degree Pursue a baccalaureate at an accredited institution Agree to serve 6 years in the selected reserve after July 1, 1985		Results are being reviewed by DoD.	n.a.
Affiliation Bonus	$25 per month for each remaining month of military service obligation Eligible member must: Have 180 days or less of active duty obligation Serve the remainder of service obligation in selected reserve in a unit that needs the member's military specialty	Enhancements in 1986: Extension of program to September 30, 1987 Increase the bonus rate from $25 to $50	n.a.	n.a.

TABLE A-1. (Continued)

Incentive Program	Benefits and Requirements	Other Remarks	Research Results a/ Direct	Research Results a/ Indirect
Student Loan Repayment Program	Federal student loans can be repaid at 15 percent or $500 (the greater of the two) plus accrued interest for each year in the selected reserve Eligible member must: Be a graduate of secondary school Score in I-IIIA range for NPS recruuits; I-III for PS members Serve 6 years in the selected reserve	Currently used by Army Reserve and Air National Guard although available to all components	n.a.	n.a.
		Fiscal Year 1986 Program		
Prior-Service Enlistment Bonus	Up to $2,500 for a 3-year term Up to 5,000 for a 6-year term Eligible member must: Reenlist or extend in a targeted unit or military occupational specialty Have less than 10 (total) years of service and at least 90 (satisfactory) days of service in selected reserve	n.a.	n.a.	n.a.

TABLE A-1. (Continued)

SOURCE: Congressional Budget Office summary of Department of Defense report on *Recruiting and Retention Resources for the Reserve Components* (November 1985).

a. Direct research results are derived from the evaluation of actual reserve program data. Indirect research results, on the other hand, are from comparable active-duty incentive programs from which the possible impact of reserve incentives might be inferred.

b. The range I-IIIA refers to recruits who score in the top half on the military entrance exam.

c. David W. Grissmer and Sheila N. Kirby, "Attrition of Non-prior Service Reservists in the Army National Guard and Army Reserve," Working Draft 2484-RA (The Rand Corporation, Washington, D.C., December 1984).

d. A recent study by the United States Army Recruiting Command (USAREC) confirms some of the results in the Rand Study. Specifically, USAREC finds that changes in enlistment incentives for non-prior-service personnel caused shifts between bonus and nonbonus military occupational specialties. See John N. Zauner, *Selected Reserve Incentive Program (SRIP) Test Evaluation*, USAREC SR86-2 (Fort Sheridan, IL: United States Army Recruiting Command, March, 1986).

e. Michael Polich, James Dertouzos, and S. James Press, *Enlistment Bonus Experiment*, R-3353-FMP (Santa Monica, Calif.: The Rand Corporation, April 1986).

f. David W. Grissmer and Sheila N. Kirby, *Attrition and Retention in the Army Reserve and Army National Guard: An Empirical Analysis*, P-7077 (Santa Monica, Calif.: The Rand Corporation, March 1985).

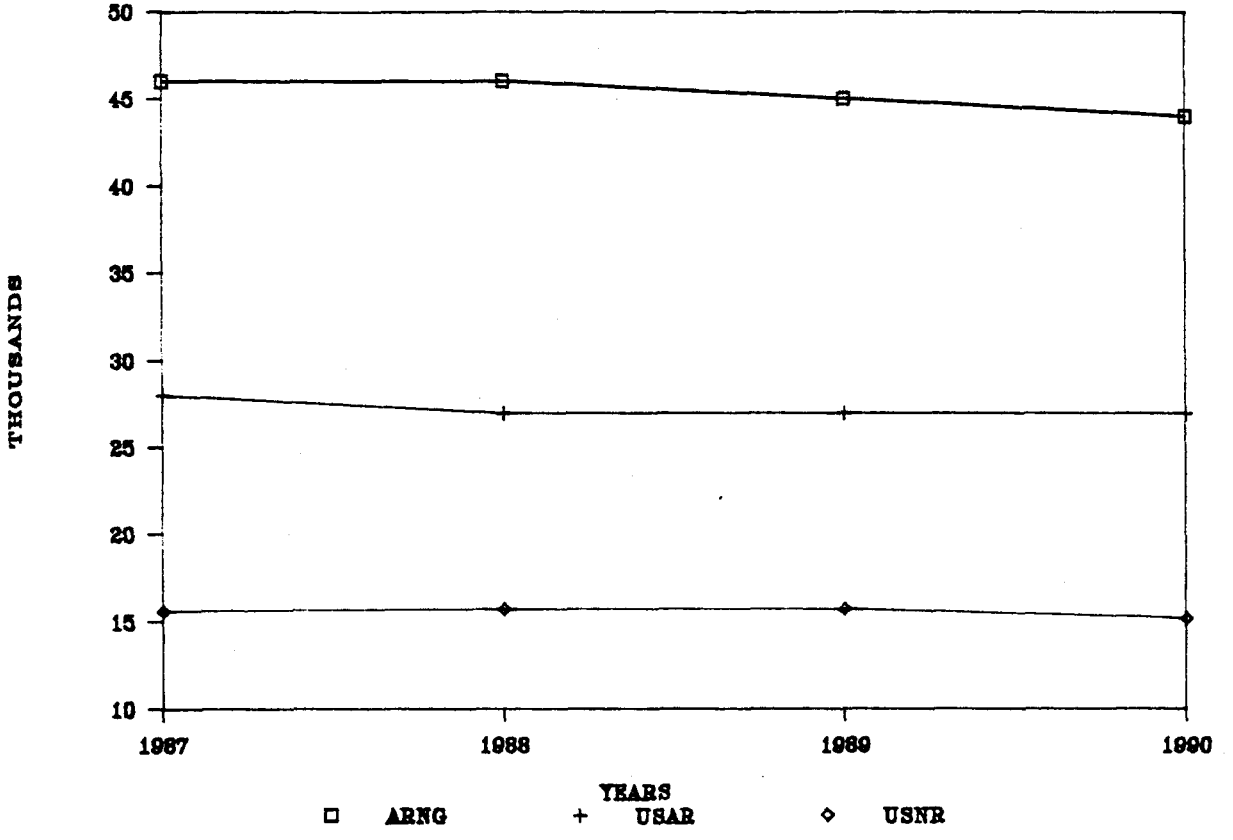
NOTE: n.a. = not available.

APPENDIX B.

This appendix contains tables comparing the projected demand and supply of enlistments for the various reserve components. Figure B-1 shows the projection of non-prior-service recruits for the selected reserve.

FIGURE B-1.

SUPPLY OF NPS RECRUITS



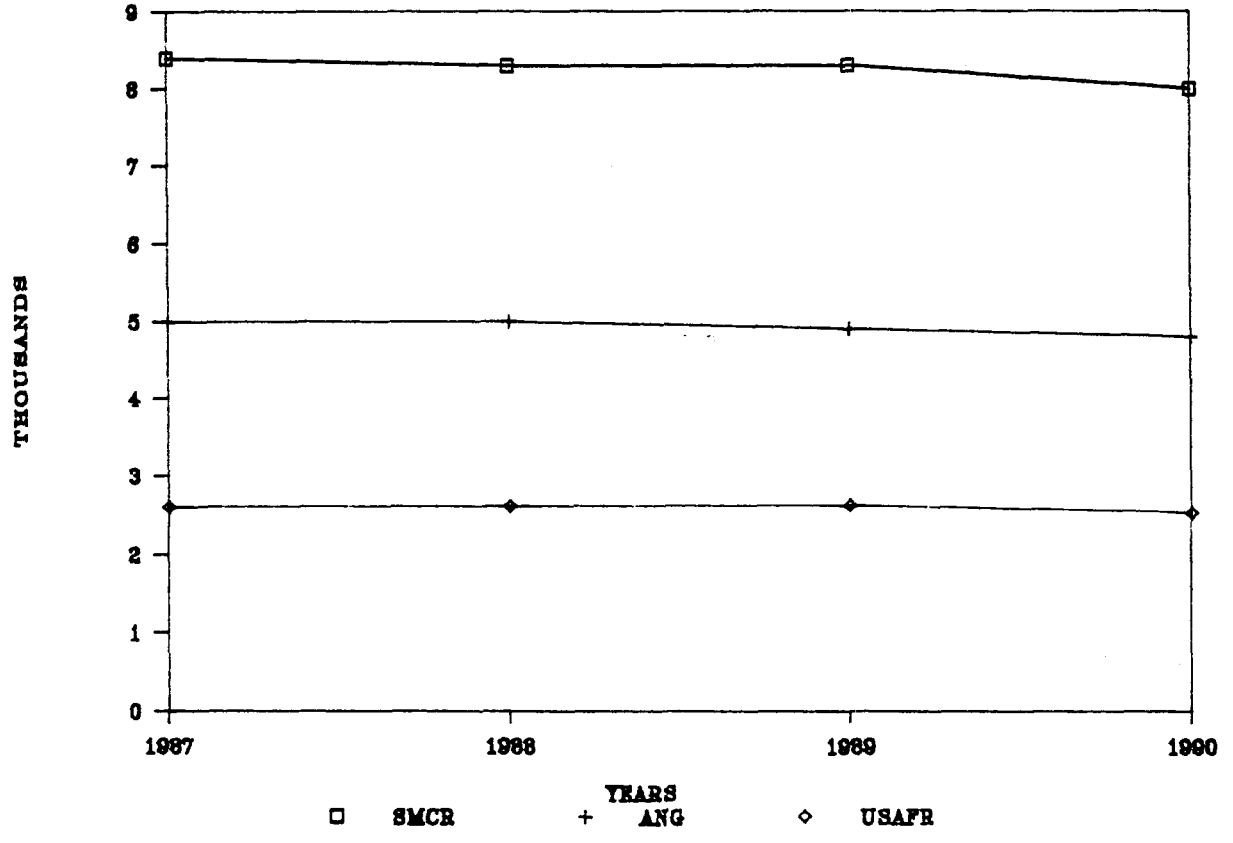


TABLE B-1. COMPARISON OF DEMAND AND SUPPLY OF ENLISTMENTS IN THE ARMY SELECTED RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	Army Reserve			Army National Guard		
	1987	1988	1990	1987	1988	1990
Demand						
Senior force increasing	81	75	73	90	89	89
Senior force constant	87	81	80	102	101	101
Supply						
Prior-service	39	40	40	43	43	43
Non-prior-service	28	27	27	46	46	44
Total supply	67	67	67	89	89	87
Surplus (+) or Shortage (-)						
Senior force increasing	-14	-8	-6	-1	0	-2
Senior force constant	-20	-14	-13	-13	-12	-14

SOURCE: Congressional Budget Office.

TABLE B-2 COMPARISON OF PROJECTED DEMAND AND SUPPLY OF ENLISTMENTS IN THE NAVAL RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	1987	1988	1990
Demand			
Senior force trend	41.1	39.9	36.1
Senior force constant	39.8	38.7	35.1
Supply			
Prior-service	18.6	19.2	20.3
Non-prior-service	15.6	15.7	15.3
Total supply	34.2	34.9	35.6
Surplus (+) or Shortage (-)			
Senior force trend	-6.9	-5.0	-0.6
Senior force constant	-5.6	-3.8	+0.4

SOURCE: Congressional Budget Office.

NOTE: The fraction of the Naval Reserve's enlisted force with over 10 years of service is projected to decline initially then increase; thus, a more appropriate heading is "Senior force trend" rather than "Senior force increasing."

TABLE B-3. COMPARISON OF PROJECTED DEMAND AND SUPPLY OF ENLISTMENTS IN THE MARINE CORPS RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	1987	1988	1990
Demand			
Senior force increasing	14.4	14.8	14.8
Senior force constant	14.8	15.1	15.2
Supply			
Prior-service	5.4	5.3	4.8
Non-prior-service	8.4	8.3	8.0
Total supply	13.8	13.6	12.8
Surplus (+) or Shortage (-)			
Senior force increasing	-0.6	-1.2	-2.0
Senior force constant	-1.0	-1.5	-2.4

SOURCE: Congressional Budget Office.

TABLE B-4. COMPARISON OF PROJECTED DEMAND AND SUPPLY OF ENLISTMENTS IN THE AIR FORCE SELECTED RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	Air National Guard			Air Force Reserve		
	1987	1988	1990	1987	1988	1990
Demand						
Senior force increasing	12.9	14.1	10.7	11.4	10.7	9.0
Senior force constant	13.3	14.7	11.3	14.0	13.5	12.0
Supply						
Prior-service	8.7	8.7	9.0	9.1	9.0	9.4
Non-prior-service	5.0	5.0	4.8	2.6	2.6	2.5
Total supply	13.7	13.7	13.8	11.7	11.6	11.9
Surplus (+) or Shortage (-)						
Senior force increasing	+0.8	-0.4	+3.6	+0.3	+0.9	+2.9
Senior force constant	+0.4	-1.0	+2.5	-2.3	-1.9	-0.1

SOURCE: Congressional Budget Office.

APPENDIX C.

The following tables present the estimated impact of the Veterans Educational Assistance Act of 1984 (the New GI Bill) on recruiting in the selected reserve.

TABLE C-1. PROJECTED IMPACT OF THE NEW GI BILL ON RECRUITING FOR THE ARMY SELECTED RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	Army Reserve			Army National Guard		
	1987	1988	1990	1987	1988	1990
Without New GI Bill						
Senior force increasing	-14	-8	-6	1	0	-2
Senior force constant	-20	-14	-13	-13	-12	-14
With New GI Bill: High Estimate						
Senior force increasing	-13	-6	-5	+1	+2	0
Senior force constant	-19	-12	-12	-11	-10	-12
With New GI Bill: Low Estimate						
Senior force increasing	-14	-7	-6	0	+1	-2
Senior force constant	-20	-13	-13	-12	-11	-14

SOURCE: Congressional Budget Office.

NOTE: Surplus (+); shortage (-).

TABLE C-2. PROJECTED IMPACT OF THE NEW GI BILL ON RECRUITING FOR THE NAVAL SELECTED RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	1987	1988	1990
Without New GI Bill			
Senior force trend	-6.9	-5.0	-0.6
Senior force constant	-5.6	-3.8	+0.4
With New GI Bill: High Estimate			
Senior force trend	-6.3	-4.4	0
Senior force constant	-5.0	-3.2	+1.0
With New GI Bill: Low Estimate			
Senior force trend	-6.8	-5.0	-0.5
Senior force constant	-5.5	-3.8	+0.5

SOURCE: Congressional Budget Office.

NOTES: Surplus (+); shortage (-). The fraction of the Naval Reserve's enlisted force with over 10 years of service is projected to decline initially then increase; thus, a more appropriate heading is "Senior force trend" rather than "Senior force increasing."

TABLE C-3. PROJECTED IMPACT OF THE NEW GI BILL ON RECRUITING FOR THE MARINE CORPS SELECTED RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	1987	1988	1990
Without New GI Bill			
Senior force increasing	-0.6	-1.1	-2.0
Senior force constant	-1.0	-1.4	-2.4
With New GI Bill: High Estimate			
Senior force increasing	-0.1	-0.7	-1.5
Senior force constant	-0.5	-1.0	-1.9
With New GI Bill: Low Estimate			
Senior force increasing	-0.6	-1.1	-2.0
Senior force constant	-1.0	-1.4	-2.4

SOURCE: Congressional Budget Office.

NOTE: Shortage (-).

TABLE C-4. PROJECTED IMPACT OF THE NEW GI BILL ON RECRUITING FOR THE AIR FORCE SELECTED RESERVE: FISCAL YEARS 1987, 1988, AND 1990 (In thousands)

	Air National Guard			Air Force Reserve		
	1987	1988	1990	1987	1988	1990
Without New GI Bill						
Senior force increasing	+0.8	-0.4	+3.1	+0.3	+0.9	+2.9
Senior force constant	+0.4	-1.0	+2.5	-2.3	-1.9	-0.1
With New GI Bill: High Estimate						
Senior force increasing	+1.1	-0.1	+3.4	+0.5	+1.1	+3.1
Senior force constant	+0.7	-0.7	+2.8	-2.1	-1.7	+0.1
With New GI Bill: Low Estimate						
Senior force increasing	+0.9	-0.3	+3.1	+0.4	+1.0	+2.9
Senior force constant	+0.5	-0.9	+2.5	-2.2	-1.8	-0.1

SOURCE: Congressional Budget Office.

NOTE: Surplus (+); shortage (-).