



CONGRESSIONAL BUDGET OFFICE
U.S. Congress
Washington, DC 20515

Douglas Holtz-Eakin, Director

November 30, 2005

Honorable Ike Skelton
Ranking Member
Committee on Armed Services
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman:

In response to your request, the Congressional Budget Office (CBO) has assessed the implications of last year's recruiting shortfalls on future active-Army end strength. CBO examined six scenarios that explore the effects of different recruiting levels and continuation rates on the Army's end strength. CBO forecast the year-by-year end-strength levels that would prevail over the next five years if future recruiting levels and continuation rates paralleled those observed during fiscal year 2005 or other recent years.

The attachment describes interim results. CBO will provide a complete report to the Committee, covering all the branches of the military services and their various components, in the spring of 2006. If you or your staff would like further details in the meantime, please call me at (202) 226-2700 or Heidi Golding, who led the team that prepared the analysis, at (202) 226-2912.

Sincerely,

A handwritten signature in cursive script that reads "Douglas Holtz-Eakin".

Douglas Holtz-Eakin

Attachment

cc: Honorable Duncan L. Hunter, Chairman

Honorable Joel Hefley, Chairman
Honorable Solomon P. Ortiz, Ranking Member
Subcommittee on Readiness
House Armed Services Committee

Honorable John M. McHugh, Chairman
Honorable Vic Snyder, Ranking Member
Subcommittee on Military Personnel
House Armed Services Committee

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 30 NOV 2005		2. REPORT TYPE		3. DATES COVERED 00-00-2005 to 00-00-2005	
4. TITLE AND SUBTITLE The Impact of Recruiting and Retention on Future Army End Strength: An Interim Report				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Congressional Budget Office, Ford House Office Building 4th Floor, Second and D Streets, SW, Washington, DC, 20515-6925				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES The original document contains color images.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES 23	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Honorable Ike Skelton

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cc: Honorable Jerry Lewis, Chairman
Honorable David Obey, Ranking Member
House Committee on Appropriations

Honorable C. W. Bill Young, Chairman
Honorable John P. Murtha, Ranking Member
Subcommittee on Defense
House Committee on Appropriations

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Honorable Ted Stevens, Chairman
Honorable Daniel K. Inouye, Ranking Member
Subcommittee on Defense
Senate Committee on Appropriations

The Impact of Recruiting and Retention on Future Army End Strength: An Interim Report

November 30, 2005

Note

Unless otherwise specified, all years referred to in this analysis are federal fiscal years.

Summary and Introduction

The Army's ability to recruit and retain service members will directly affect its ability to maintain the force levels required to continue conducting operations in Iraq and Afghanistan while simultaneously converting to a new modular structure.¹ In this analysis, the Congressional Budget Office (CBO) examines the recruiting and retention rates of the Army and the implications of those rates. The analysis concentrates on a single component of the U.S. military—the active Army. CBO will prepare a follow-up report in the spring of 2006 that completes the analysis for the remaining Army components (the Army Reserve and National Guard), as well as for the other corresponding service branches (the Navy, Air Force, and Marine Corps) and their various components. CBO focuses on the active Army in this report because it is the only active component that did not achieve its recruiting goals in fiscal year 2005, falling short of its goal of 80,000 accessions by 6,600 accessions, or 8 percent.²

This report concentrates on attaining end-strength goals as a metric of the Army's ability to sustain operations and convert to a modular structure.³ In turn, there are two key determinants of future end-strength levels: the number of soldiers accessed each year and the continuation rates of existing soldiers.⁴ Accessions and

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1. Since the September 11, 2001, terrorist attacks, ongoing military operations, including Operation Enduring Freedom (Afghanistan), Operation Iraqi Freedom, and Operation Noble Eagle (defense of the U.S. homeland), have required substantial increases in the number of military personnel deployed. In August 2005, about 155,000 active-duty service members and another 87,000 Reserve and National Guard members were deployed in support of those operations. The Army, supplying the bulk of the personnel, had 82,000 active-duty troops and 75,000 Reserve and National Guard members deployed at that time.
 2. Accessions are new recruits who “ship” to basic training and begin their military service. A related concept is contracts, which represent agreements between recruits and the military that the recruits will ship, often several months after signing the contract (for example, after they graduate from high school).
 3. End strength is the number of troops in a component's force at the end of the fiscal year. Authorized end strength represents a goal set by the Congress in the National Defense Authorization Act for that fiscal year; actual end strength may differ from the goal. There are a number of other factors besides end strength that affect the ability of the Army to sustain operations overseas. CBO's final report will consider the extent to which units of the Army Reserve and National Guard are meeting their own end-strength goals and can continue to deploy to Iraq or Afghanistan, reducing active-Army deployments and perhaps helping sustain the active Army's continuation rates. However, the final report will not examine other policy options, such as redeployment of units from elsewhere in the world (outside of the United States) to Iraq or Afghanistan. The analysis in a recent CBO report considered those other factors; see Congressional Budget Office, *An Analysis of the U.S. Military's Ability to Sustain an Occupation in Iraq: An Update*, Letter to the Honorable John M. Spratt Jr. (October 5, 2005). The Army's modular brigade structure is described in Congressional Budget Office, *Options for Restructuring the Army* (May 2005).
 4. Continuation rates are the proportion of soldiers with a given year of service at the beginning of a fiscal year that will remain in the military for 12 additional months and thereby accumulate another year of service at the beginning of the next fiscal year (for example, those who will remain in the military through their fourth year of service and into their fifth year of service).

continuation are related in a complex way. A trained soldier who separates from the Army must be replaced by more than one accession to account for recruits who separate during training or during their first few years of service.

CBO finds that if the accession levels and continuation rates from 2005 were to continue for the next five years, the Army's end strength would decline over that period. As discussed below, the Army has the authority to increase end strength to 512,400 service members. To do so would require the Army to sustain accession levels and continuation rates through 2010 that have not been sustained over prolonged multiyear periods during the past 20 years (although they have been experienced during one- or two-year periods).

In making those determinations, CBO modeled six scenarios, each defined by future accession levels and continuation rates. Under any given scenario, CBO assumes that the new accession levels and continuation rates take effect in 2006 and continue at those levels indefinitely and that there are no phased-in changes. The end strength and, more particularly, the number of enlisted soldiers within each year of service will evolve over time as past years' accession cohorts, as well as new accessions, are subjected to the new (assumed) continuation rates. Eventually, a "steady state" is reached wherein all of the past years' accession cohorts have separated from the military and only the cohorts from 2006 and beyond remain in the force (at the assumed accession levels). Because military careers can span 30 years, the steady state is not reached until 30 years into the future, or 2035; as a practical matter, because relatively few soldiers are retained beyond 20 years of service, the steady state is essentially reached by 2025. A 20-year horizon, however, is too distant to enlighten the current policy debate. Therefore, CBO reports instead the evolution of the Army's personnel under each scenario for the next five years: 2006 through 2010.

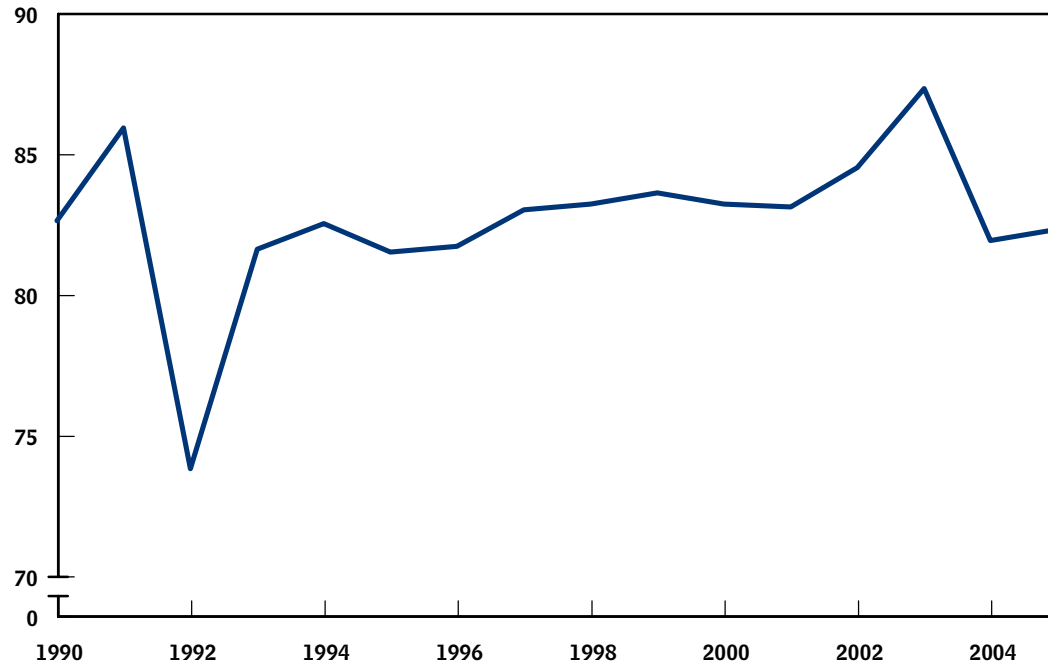
Each of the six scenarios begins with the Army's end-strength levels on September 30, 2005: 406,900 enlisted personnel, 81,700 officers, and 4,100 cadets, for a total of 492,700 active personnel. CBO's analysis assumes that the number of officers and cadets is maintained at 2005 levels, focusing only on the enlisted force. The six scenarios that CBO considers are characterized as follows:

- Scenario 1 (base-case scenario): Annual accessions at the 2005 level of 73,400 per year; continuation rates also at 2005 levels.
- Scenario 2: Annual accessions at the stated 2006 goal of 80,000 per year; continuation rates at 2005 levels. Because the Army did not achieve 80,000 accessions in 2005, this case is more optimistic than the base case.

Figure 1.

Overall Continuation Rates for Active-Army Enlisted Personnel

(Percent)



Source: Congressional Budget Office based on Department of Defense, Defense Manpower Data Center.

Note: The 2005 rate is calculated using the June 2004 force profile and tracking the number of soldiers remaining in the Army through June 2005.

- Scenario 3: Accessions totaling 80,000 per year; continuation rates at 2001 levels. This case is more optimistic than Scenario 2 because continuation rates in 2001 were almost 1 percentage point higher than in 2005 (see Figure 1).
- Scenario 4: Accessions totaling 69,100 per year; continuation rates at 2005 levels. This case is less optimistic than the base case because the Army achieved 73,400 accessions during 2005. However, it did so at the expense of drawing down its pool of enlistees in the Delayed Entry Program (DEP) by 4,300 individuals.⁵ The Army normally prefers to have about one-third of the coming year's accession goal "banked" in the DEP to improve its odds of meeting accession goals as well as to balance its training requirements. The

5. Recruits who have signed contracts but have not yet shipped enter the Delayed Entry Program. However, recruits may separate from military service while in the DEP pool prior to shipping without incurring serious penalties.

figure 69,100 represents CBO's estimate of the accessions the Army would have achieved in 2005 had it held the size of its DEP constant.

- Scenario 5: Accessions totaling 73,400 per year; continuation rates at 2005 levels but removing the effects of stop-loss.⁶ This case is more pessimistic than the base case because stop-loss enabled the Army to involuntarily retain an average of about 7,000 enlisted soldiers at any point in 2005. CBO assumes the policy will be rescinded early in 2006, resulting in an immediate onetime drop in end strength. The scenario also incorporates the lower continuation rates that would have prevailed during 2005 had stop-loss not been in effect, as estimated by CBO.
- Scenario 6: Accessions totaling 80,000 per year; continuation rates at an average of 2002 and 2003 levels. This case is the most optimistic because the Army's continuation rates during 2002 and 2003 were at the highest levels observed since 1991 during Operations Desert Shield and Desert Storm. Those higher continuation rates imply a much more senior enlisted force: the average time in service for Army soldiers would be up to 1.3 years higher in the steady state than under the other five scenarios.

Figure 2 displays CBO's estimates of the end strength that the Army could achieve over the next five years under each scenario. The starting point in each case is the Army's strength level of 492,700 active personnel as of September 30, 2005 (the end of fiscal year 2005). The Congress granted the Secretary of Defense the discretion to increase active-Army end strength to as many as 512,400 service members for the period 2005 through 2009, although as stipulated by the Congress, any excess above 482,400 would be funded by supplemental appropriations.⁷ Under the base-case scenario, CBO estimates that Army end strength could drop by almost 40,000 to a level of 454,000 active personnel. Under that scenario, the size of the Army would be more than 55,000 below the 2009 discretionary end strength of 512,400.

Active-Army end strength would continue to drop, but not as severely, under Scenario 2 (80,000 accessions per year), reaching 473,000 by 2010. End strength would drop by a smaller amount under the more optimistic Scenario 3 (80,000 accessions annually plus continuation rates at the higher 2001 levels), reaching 485,000 by 2010. That level is consistent with the size of the force prior to 2002 but less than the 492,700 Army personnel on active duty in 2005.

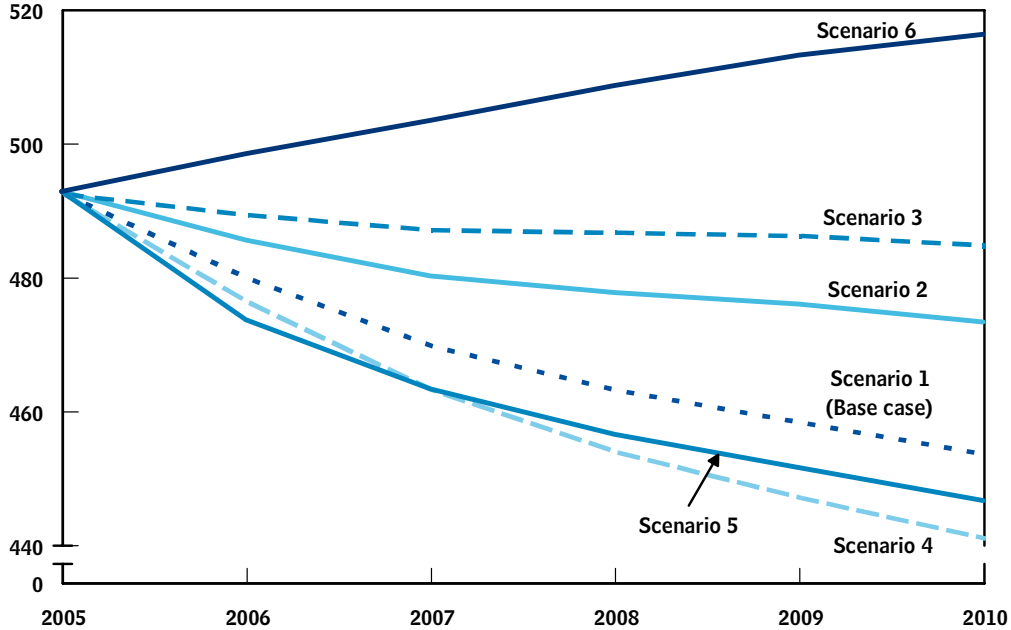
6. Stop-loss policies enable the military services to retain members beyond their contract obligation dates.

7. See the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (Public Law 108-375, sections 401 and 403).

Figure 2.

Effects of Various Recruiting and Retention Scenarios on Active-Army End Strength

(Thousands)



Source: Congressional Budget Office.

Scenario 4 (69,100 accessions per year) and Scenario 5 (lower continuation rates than during 2005 because of the elimination of stop-loss) are more pessimistic than the base-case scenario. Under those two scenarios, by 2010, the active Army's end strength would drop to 441,000 and 447,000, respectively, according to CBO's analysis.

The conditions that CBO assumed for Scenario 6 would enable the Army to achieve the authorized discretionary end-strength goal of 512,400; CBO estimates that the Army would reach 513,000 active-duty troops by 2009 under that scenario. To do so would require 80,000 accessions per year, plus sustained continuation rates as high as those observed during 2002 and 2003. Continuation rates for those two years averaged about 85.3 percent (when computed as a weighted average based on the 2005 force profile). Those rates, some analysts believe, were driven by stop-loss policies and the unique operational environment facing soldiers during that period. The last time that continuation rates had reached those levels in the Army was in 1991 during Operations Desert Shield and Desert Storm. The rates in 1991 were not sustained, however; continuation at the

average for the subsequent five years was 80.2 percent.⁸ Nor have the rates been sustained since 2003; current continuation rates average 82.3 percent.⁹ Nonetheless, CBO's analysis indicates that those are the continuation rates needed—in conjunction with 80,000 annual accessions—if the Army chooses to expand in fiscal years 2006 through 2009 to the maximum of 512,400 active-duty troops authorized in the 2005 National Defense Authorization Act (NDAA).

Recruiting Trends for the Active Army

To facilitate the Army's transformation to a modular brigade structure and to support operational missions, the Congress authorized several increases in active-Army end strength. Starting from a level of 480,000 in 2003, the Congress raised the Army's end-strength goal to 482,400 in 2004 and to 502,400 in 2005. The Congress also granted the Secretary of Defense the discretion to increase end strength to as high as 512,400 for the period spanning 2005 through 2009. However, as stipulated by the 2005 NDAA, the Department of Defense's (DoD's) budget (including the out-year budget projections through 2009 displayed in DoD's Future Years Defense Program) contains only enough funding for military personnel to pay 482,400 active-Army service members. As previously noted, any additional end strength must be funded through supplemental appropriations.¹⁰

The Army did not achieve its end strength goal of 502,400 in 2005. Actual end strength on September 30, 2005, included 406,900 enlisted personnel, 81,700 officers, and 4,100 cadets, for a total of 492,700 personnel in the active Army—a shortfall of nearly 10,000 personnel, or 1.9 percent (see Table 1). The size of the force, however, was about 9,000 higher than it was between 1997 and 2001.

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8. The service branches were reducing the size of their forces in the early to mid-1990s after the end of the Cold War. The Army's relatively lower continuation rates from that period may reflect its strategy for cutting personnel.
 9. CBO calculated the most current continuation rates using the June 2004 force profile and tracking the number of soldiers remaining in the Army through June 2005.
 10. See the National Defense Authorization Act for 2004 (Public Law 108-136, section 401) and the Ronald W. Reagan National Defense Authorization Act for FY 2005 (Public Law 108-375, sections 401 and 403; 10 U.S.C. 115 note). Section 403 of the 2005 NDAA offered the rationale of "achiev[ing] transformational reorganization objectives of the Army, including objectives for increasing numbers of combat brigades, unit manning, force stabilization and shaping, and rebalancing of the active and reserve component forces of the Army." The 2005 NDAA also increased active-Marine Corps end strength from 175,000 to 178,000 and further granted the Secretary of Defense the discretion to increase end strength as high as 184,000 between 2005 and 2009, with the same stipulation on funding through supplemental appropriations.

Table 1.**Active-Army End Strength**

Fiscal Year	Authorized	Actual			Total
		Enlisted Personnel	Officers	Cadets	
2000	480,000	401,414	76,667	4,089	482,170
2001	480,000	400,461	76,169	4,161	480,801
2002	480,000	404,304	78,158	4,080	486,542
2003	480,000	414,769	80,325	4,207	499,301
2004	482,400	414,438	80,968	4,137	499,543
2005	502,400	406,923	81,656	4,149	492,728

Source: Congressional Budget Office based on National Defense Authorization Act (various years), Department of Defense, Directorate for Officer and Enlisted Personnel Management, and Directorate for Information Operations and Reports (available at web1.whs.osd.mil/mmids/military/miltop.htm).

Quantity of Recruits

The Army has several mechanisms available to help achieve its end-strength goals. One option is to increase Selective Reenlistment Bonuses (SRBs) in an effort to improve continuation rates; that approach will be discussed later in this report. Alternatively (or in combination), the Army has various mechanisms available to boost accessions and, consequently, end strength: for instance, increasing enlistment bonuses or recruiters or easing enlistment restrictions. The Army's accession goal in 2003 was 73,800 (see Table 2). The Army began 2004 with an accession goal of 72,500 but later in that year increased its goal to 77,000. The Army exceeded the latter goal by 1 percent and recruited 77,586 soldiers that year. However, the Army exceeded its goal in part by drawing from its DEP. The Army normally prefers to have about one-third of the coming year's accession goal banked in the DEP, but the Army drew down its DEP pool to 18.5 percent, or to about 14,000 individuals, to meet its 2004 recruiting goal.¹¹

The Army set an accession goal of 80,000 for 2005. Although the goal of 80,000 exceeded that of the two previous years, that level of accessions is not without precedent in recent history. The Army recruited almost that many soldiers as recently as 2002 and slightly more than 80,000 soldiers in 2000. Those precedents notwithstanding, the Army was able to recruit only 73,373 soldiers (92 percent of its goal) in 2005. Moreover, by the end of 2005, the Army had depleted its DEP

11. See Lawrence Kapp, *Recruiting and Retention: An Overview of FY 2004 and FY 2005 Results for Active and Reserve Component Enlisted Personnel*, CRS Report for Congress RL32965 (Congressional Research Service, June 30, 2005).

Table 2.

Total Accessions for Active-Army Enlisted Personnel

Fiscal Year	Begin Fiscal Year Objective	Final Fiscal Year Objective	Actual Accessions
2000	80,000	80,000	80,113
2001	78,950	75,800	75,855
2002	76,800	79,500	79,585
2003	73,389	73,800	74,132
2004	72,500	77,000	77,586
2005	74,000	80,000	73,373
2006	80,000	n.a.	n.a.
Average, 2000-2004	76,328	77,220	77,454

Source: Department of Defense, Directorate for Accession Policy.

Note: n.a. = not available.

pool to 12.4 percent of its annual accession goal—fewer than 10,000 individuals, or somewhat higher than the number of recruits who typically “ship” to basic training in a single month.¹²

Quality of Recruits

End strength and the ability of the force to meet its mission are also influenced by the quality of new recruits. Recruits who are better educated or who score higher on aptitude tests are more likely to complete their initial training and continue to perform better in the military.¹³ DoD has to compete for young people with those characteristics because many such youth are inclined to pursue higher education or to seek jobs in the private sector.

DoD sets two major goals for the quality of its recruits. First, at least 90 percent of the non-prior-service recruits in each branch of service should be high school graduates. Second, at least 60 percent of those recruits should score at or above the 50th percentile (relative to the general population) on the Armed Forces

12. The Army did not increase its 2006 accession goal to make up for its 2005 shortfall—the goal for 2006 is again 80,000 recruits. There may be a number of reasons for that choice. The Army’s current training establishment, for example, may not be able to handle a larger student load.

13. See David J. Armor and Paul R. Sackett, “Manpower Quality in the All-volunteer Force,” in Barbara A. Bicksler, Curtis L. Gilroy, and John T. Warner, eds., *The All-Volunteer Force: Thirty Years of Service* (2004), pp. 90-108; and Jennifer Kavanagh, *Determinants of Productivity for Military Personnel: A Review of the Findings on the Contributions of Experience, Training, and Aptitude on Military Performance*, RAND Corporation, TR-193-OSD (Arlington, Va.: RAND, 2005).

Table 3.**Quality of New, Non-Prior-Service Recruits**

(Percent)

Fiscal Year	Army		Navy		Marine Corps		Air Force	
	AFQT Category		AFQT Category		AFQT Category		AFQT Category	
	HSDG ^a	I-III A	HSDG	I-III A	HSDG	I-III A	HSDG	I-III A
2000	91	65	90	64	95	64	99	73
2001	91	65	90	63	96	65	99	75
2002	91	70	92	65	97	67	99	76
2003	92	73	94	66	98	69	99	81
2004	92	72	96	70	97	69	99	82
2005	87	67	97	71	96	68	99	80

Source: Department of Defense, Directorate for Accession Policy, available at www.dod.mil/prhome/docs/recqual04.pdf.

Note: AFQT = Armed Forces Qualification Test; HSDG = high school diploma graduate. DoD divides the scores on the AFQT into five ranges or categories. Scores at or above the 50th percentile fall into AFQT categories I through IIIA.

a. Army HSDG performance excludes up to 4,000 participants in the GED+ (General Educational Development Plus) pilot program for 2000-2004 and about 2,000 Tier Two Attrition Study participants for 2005.

Qualification Test (AFQT).¹⁴ The ability of the service branches to meet those quality goals depends on labor-market conditions as well as the adequacy and effectiveness of recruiting resources.

During 2005, 87 percent of the Army's non-prior-service recruits were high school graduates. Among all four service branches between 2000 and 2005, only the Army in 2005 missed the stated DoD goal of 90 percent of recruits with high school diplomas (see Table 3). The percentage of Army recruits with AFQT scores at or above the median (in AFQT categories I through IIIA) was on an increasing trajectory, starting at 65 percent in 2000 and reaching 73 percent in 2003. That metric was stable at 72 percent in 2004 but declined to 67 percent in 2005.

Incentive Packages and Recruiters

CBO examined two of the most important resources available to Army recruiting—enlistment bonuses and the number of recruiters.¹⁵ Enlistment

14. DoD divides the scores on the AFQT into five ranges or categories. Scores at or above the 50th percentile fall into AFQT categories I through IIIA.

15. Although CBO examined only enlistment bonuses and recruiters, other recruiting resources include advertising funds and the number of recruiting stations.

Table 4.

Total Amount Spent on Selective Reenlistment Bonuses and Enlistment Bonuses, Active Army

(Thousands of then-year dollars)

Fiscal Year	Selective Reenlistment Bonuses^a	Enlistment Bonuses
2000	105,388	94,924
2001	112,559	166,244
2002	127,817	200,722
2003	102,620	150,273
2004	142,936	125,983
2005 ^b	505,591	n.a.

Source: Department of Defense, Directorate for Accession Policy and Directorate for Officer and Enlisted Personnel Management.

Note: n.a. = not available.

a. Selective Reenlistment Bonuses also include the Critical Skills Retention Bonus.

b. Data for 2005 are preliminary.

bonuses, paid in a lump sum or in installments, provide incentives for new recruits to join the military. The service branches may offer more-generous incentives when they require larger numbers of recruits to fill a growing force or when they encounter an unusual degree of competition with the private sector for specific skills. The Army, in particular, has recently increased its incentives to join by instituting a prior-service enlistment bonus of up to \$10,000. Also, beginning in 2005, the Army began offering all non-prior-service recruits whom it considers high-quality a \$5,000 bonus if they enlist for three or more years.¹⁶ Previously, only non-prior-service, high-quality recruits in certain occupations were eligible for bonuses. Other enlistment incentives, besides enlistment bonuses, have also become more generous. For example, in 2005, the maximum payout from the Army College Fund was increased from \$50,000 to \$70,000.

Between 2000 and 2004, the Army spent between \$94 million and \$201 million annually on enlistment bonuses (see Table 4). Beginning in 2005, Army expenditures on enlistment bonuses will reflect payments for those new enlistment bonus programs.

The number of Army recruiters has varied between 2000 and 2005, presumably reflecting the service's recruiting climate and goals (see Table 5). The Army reduced its recruiting force from an average of about 6,400 recruiters during 2002

16. High-quality recruits are high school graduates who score in AFQT categories I through IIIA.

Table 5.

Average Number of Recruiters, Active Army

Fiscal Year	Recruiters
2000	6,188
2001	5,156
2002	6,367
2003	6,078
2004	5,109
2005	5,953

Source: Department of Defense, Directorate for Accession Policy.

to an average of 5,100 during 2004. The Army increased its recruiting force from 5,100 at the beginning of 2005 to 6,500 by year's end (averaging just under 6,000 for the entire fiscal year).¹⁷

Retention Trends for the Active Army

Although the Army did not achieve its recruiting goals in 2005, it did meet or exceed its retention goals for enlisted personnel.¹⁸ The Army states its goals in terms of the number, not the percentage, of soldiers retained. CBO examined retention separately among soldiers serving in their initial enlistment, those in mid-career, and careerists (see Table 6).¹⁹ The Army met its retention goals in all three seniority ranges for each year between 2000 and 2005. Year-to-year comparisons among those data are difficult to make, however. For example, in January 2005, the Army changed the eligibility window for deployed soldiers to reenlist from 12 months to 24 months before the expiration of their contracts and extended that policy change to all soldiers in April 2005. Consequently, the pool of possible reenlistees potentially nearly doubled between 2004 and 2005.

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17. Improvements in the economy or other events beyond the control of Army Recruiting Command could, however, counteract the additional recruiting resources.
18. Retention refers to the number of personnel who remain in the military after their contractual term of service expires; retention rates are often measured separately by military occupation and by seniority. Generally, retention rates are computed on a base of only those soldiers whose term of service will expire within a given fiscal year. By contrast, continuation rates are computed on the larger base of all personnel in the inventory at the start of the fiscal year, including those whose term of service will not expire until some future fiscal year.
19. Initial enlistment refers to soldiers under their first enlistment contract regardless of their length of service. Service members who are on their second or subsequent enlistment with up to 10 years of service are categorized as being in mid-career, whereas service members with more than 10 years of service are called careerists.

Table 6.

Retention of Active-Army Enlisted Personnel

Fiscal Year	Initial Enlistment ^a			Mid-Career			Careerist		
	Actual	Goal	Percentage of Goal Attained	Actual	Goal	Percentage of Goal Attained	Actual	Goal	Percentage of Goal Attained
2000	21,402	20,000	107	24,118	23,700	102	25,791	24,300	106
2001	20,000	19,750	101	23,727	23,350	102	21,255	20,900	102
2002	19,433	19,100	102	23,074	22,700	102	15,700	15,000	105
2003	21,838	19,821	110	19,509	18,422	106	12,804	12,757	100
2004	24,903	23,000	108	21,120	20,292	104	13,987	12,808	109
2005 ^b	27,818	26,935	103	24,407	23,773	103	17,287	13,454	128

Source: Department of Defense, Directorate for Officer and Enlisted Personnel Management.

- a. Initial enlistment refers to soldiers under their first enlistment contract regardless of their length of service. Service members who are on their second or subsequent enlistment with up to 10 years of service are categorized as being in mid-career, whereas service members with more than 10 years of service are called careerists.
- b. In 2005, the Army changed the eligibility window for soldiers to reenlist from 12 months to 24 months before the expiration of their contract. Consequently, the pool of possible reenlistees potentially nearly doubled between 2004 and 2005.

Because yearly comparisons of the number of soldiers retained are difficult to make, CBO examined trends in continuation rates. CBO found that the Army's overall continuation rates (computed for all soldiers, regardless of their contract expiration dates) were lower in 2004 and 2005 than they had been since 1996 (see Figure 1 on page 3). In addition, continuation rates for initial enlistees in their fourth year of service (the point where many face their first reenlistment decision) were more than 5 percentage points lower in 2005 than they had been in either 2000 or 2001 and lower than they had been since the early 1990s. Despite increases in pay and the enforcement of stop-loss policies, continuation rates dropped to levels not observed in over a decade.²⁰ According to CBO's estimates, continuation rates without stop-loss would have been 0.3 percentage points lower than 2005 rates.²¹

20. Rates may or may not rebound to pre-September 11, 2001, levels. Improvements in pay and allowances argue for higher continuation rates in the future. However, many analysts have voiced concerns that higher sustained deployment rates than experienced in the past several decades will contribute to depressed continuation rates.

21. A 1 percentage point increase in overall continuation behavior translates into a rise in end strength of more than 20,000 in steady state and more than 10,000 by the end of CBO's five-year projection period.

Pay and Reenlistment Bonuses

Current military pay is often measured by Regular Military Compensation (RMC), a construct that includes basic pay, allowances for food and housing, and the tax advantage that arises because those allowances are not taxable. Between 2001 and 2005, average RMC for the entire enlisted force showed a cumulative increase of almost 14 percent, adjusted for inflation. However, some of that increase took the form of targeted pay raises for senior enlisted members (noncommissioned officers). For soldiers facing their first reenlistment decision, military pay and allowances rose by a smaller amount—about 10 percent, adjusted for inflation. This rate represents a faster growth in earnings than that for comparable civilians; military pay for those in their first-term relative to comparable civilians increased by about 13.5 percent.²² CBO estimates that, in the absence of any other changes, this increase in relative military pay should have increased first-term retention by about 25 percent and added more than 1 percentage point to overall continuation rates.²³ The observed decline in continuation rates represents the combined effects of other factors that overwhelmed the increase in military pay.

The services offer Selective Reenlistment Bonuses, which may be paid in a lump sum or in installments, usually to enlisted members in specific occupations as a way of retaining sufficient numbers in the military. The Congress authorized individual SRB payments of up to \$60,000.²⁴ The Critical Skills Retention Bonus, another type of reenlistment bonus, can range as high as \$150,000 for soldiers in Special Forces. In September 2003 the Army introduced a \$5,000 reenlistment bonus known as the Temporary Selective Reenlistment Bonus, which was later renamed the Deployed SRB. That bonus, payable to both active-duty and Reserve soldiers in Iraq, Afghanistan, and Kuwait, is exempt from federal income tax. In January 2005, the Army increased the payment to \$15,000. Although soldiers are

22. CBO calculated, using data from the Current Population Survey released by the Bureau of Labor Statistics, the 70th percentile civilian wages for male, full-time workers in nonagricultural industries with some college and four years of experience. DoD uses the 70th percentile as a benchmark for enlisted pay. See Beth Asch and others, “An Analysis of Pay for Enlisted Personnel,” *Report of the Ninth Quadrennial Review of Military Compensation*, Department of Defense, Office of the Under Secretary of Defense (Personnel and Readiness), 2002.

23. CBO applied a pay elasticity of 1.75. The pay elasticity that CBO uses expresses the change in retention associated with a change in relative military pay. An increase in relative military pay of 14 percent induces an increase in the reenlistment rate of $1.75 \times 14 \text{ percent} = 25 \text{ percent}$ for soldiers at their first reenlistment point. CBO applied that increase only to those soldiers whose initial term of service would expire within a given fiscal year. The effect on overall continuation rates (for all soldiers) is smaller—increasing overall rates by more than 1 percentage point. The elasticity of 1.75 was the midpoint of elasticities reported in Matthew Goldberg, “A Survey of Enlisted Retention: Models and Findings,” *Report of the Ninth Quadrennial Review of Military Compensation*, Department of Defense, Office of the Under Secretary of Defense (Personnel and Readiness), 2002. CBO made similar calculations to adjust careerists’ retention rates.

24. See 37 U.S. Code 308.

not entitled to both occupation- or skill-based SRB and the Deployed SRB, they are entitled to the bonus of the higher amount.²⁵ In 2004, the Army reported that 6,700 active-duty soldiers reenlisted and took the Deployed SRB; from September 2004 through August 2005, approximately 17,500 had reenlisted and taken the Deployed SRB.

Among the active components, the Army has had the largest increases in SRB expenditures (including the Critical Skills Retention Bonus) since 2000. In 2005 alone, the Army spent more on SRBs than it spent in the four previous years combined (see Table 4 on page 10).²⁶ Although the Army's SRB expenditures averaged less than \$120 million annually between 2000 and 2004, they grew to \$506 million in 2005. The Army has also sustained the highest deployment tempo of any of the services. A large number of active and reserve soldiers have deployed to the Iraqi theater, many of whom have deployed more than once since the onset of Operation Iraqi Freedom. Consequently, the deployment rate of Army troops is considerably higher now than it was during the previous decade; it is also higher than the rate implied by Congressional actions.²⁷ Without the substantial increase in SRBs during 2005, retention rates would have been still lower.

Stop-Loss Policies

A member of the military is obligated to serve through a date that is set in his or her initial enlistment contract as modified by subsequent extensions, reenlistments, or "payback" periods after training. However, stop-loss policies enable the military services to retain members beyond their obligation dates. Until November 2003, the active Army applied stop-loss to certain targeted occupational specialties. Since then, stop-loss has been applied instead at the unit level. Regardless of their contracted separation dates, active-duty soldiers under

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25. Either bonus is exempt from federal income tax if the soldier reenlists while in the wartime theater; see Department of the Treasury, Internal Revenue Service, *Armed Forces' Tax Guide*, Publication 3.
 26. SRB expenditures (excluding the Critical Skills Retention Bonus) by the other services did not grow nearly as rapidly. The Navy's annual SRB expenditures ranged between \$233 million and \$344 million over the years 2000 through 2005. SRB expenditures for the Marine Corps and the Air Force, respectively, ranged between \$36 million and \$64 million and between \$126 million and \$263 million during those years.
 27. In the NDAA for 2000 (Public Law 106-65, section 586), Congress authorized the payment of \$100 a day to service members whose deployments exceeded 251 days over the preceding 365 days. The following year, the NDAA for 2001 (Public Law 106-398, section 574) revised the threshold to 401 days deployed in the preceding 730 days. Those payments were never implemented, because Deputy Secretary of Defense Paul Wolfowitz invoked the national security waiver in an October 8, 2001, memorandum to the Secretaries of the Military Departments (www.defenselink.mil/news/Oct2001/n10122001_200110123.html). However, the deployment thresholds indicate the sense of the Congress in terms of a maximum deployment frequency. See also Congressional Budget Office, *Options for Changing the Army's Overseas Basing* (May 2004), Appendix C.

stop-loss are required to remain in the Army for a period beginning 90 days prior to their unit's deployment and extending until 90 days after their unit has returned from its deployment.

The number of soldiers affected by stop-loss varies from month to month as some soldiers' contracts expire and various units either deploy or return from deployment. Soldiers may reenlist when under stop-loss, and many do so to take advantage of the Deployed SRB. However, at any point in time in 2005, the Army retained an average of about 7,000 enlisted soldiers who were involuntarily kept in the service past their contracted separation dates. Almost all of those soldiers separate from the Army once they are no longer under stop-loss orders.

Implications of Recruiting and Retention Trends for End Strength

As described previously, CBO examined six scenarios, each defined by different possible future accession levels and continuation rates (starting in fiscal year 2006). All six scenarios begin with the Army's strength levels from September 30, 2005: 406,900 enlisted personnel, 81,700 officers, and 4,100 cadets, for a total of 492,700 active personnel. Further, the numbers of officers and cadets are assumed to be maintained at those historical levels so that the modeling assumptions affect only the enlisted force.

CBO's base-case scenario (Scenario 1) uses the continuation rates by year of service calculated over the 12-month period spanning June 2004 through June 2005 (the most recent data available). The base-case scenario also assumes that the Army will achieve 73,400 accessions during each future fiscal year—the same number achieved in 2005. The remaining scenarios are characterized as follows:

- Scenario 2: Accessions totaling 80,000 per year; continuation rates at 2005 levels. This case is more optimistic than the base case because the Army did not achieve 80,000 accessions in 2005.
- Scenario 3: Accessions totaling 80,000 per year; continuation rates at 2001 levels. This case is more optimistic than Scenario 2 because overall continuation rates in 2001 were almost 1 percentage point higher than those recorded in 2005.
- Scenario 4: Accessions totaling 69,100 per year; continuation rates at 2005 levels. This case is more pessimistic than the base case because the Army achieved 73,400 accessions during 2005. However, it did so at the expense of drawing down its DEP pool by 4,300 people. The figure 69,100 represents

CBO's estimate of the accessions the Army would have achieved during 2005 had it held the size of its DEP pool constant.

- Scenario 5: Accessions totaling 73,400 per year; continuation rates at 2005 levels but removing the effects of stop-loss. This case is also more pessimistic than the base case because stop-loss enabled the Army to involuntarily retain an average of about 7,000 enlisted soldiers at any point. CBO assumes that the policy will be rescinded early in 2006, resulting in an immediate onetime drop in end strength. The scenario also incorporates the lower continuation rates that would have prevailed during 2005 had stop-loss not been in effect, as estimated by CBO.
- Scenario 6: Accessions totaling 80,000 per year; continuation rates at the simple average of 2002 and 2003 levels. This case is by far the most optimistic because the Army's continuation rates during 2002 and 2003 were at the highest levels observed in recent history.

Figure 3 summarizes the accession levels and the average length of service (ALOS) in steady state associated with the assumed continuation rates. The ALOS will evolve under any scenario as historical accession cohorts pass through the system, converging to a steady-state value. Although CBO does not display the end-strength levels achieved in the steady state, the ALOS in the steady state provides a summary of the continuation rates under each scenario. Higher continuation rates imply that soldiers remain in the Army longer and are reflected in a higher ALOS. Figure 3 also displays the ALOS of 6.45 years that prevailed in 2005. Apart from the sixth scenario, all of the scenarios considered by CBO will eventually lead to a more junior force, including the base scenario whose continuation rates imply a thinning of the seniority structure of the current force.

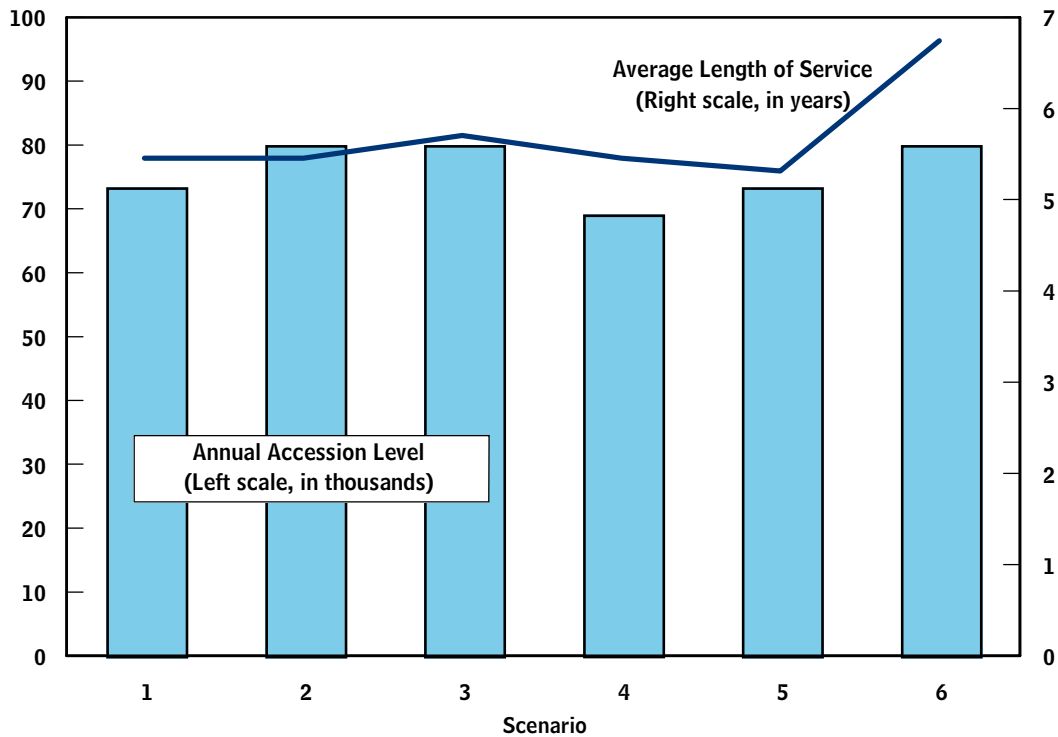
Figure 2 (on page 5) presents CBO's estimates of the end strength that the Army could achieve over the next five years under each scenario. Under the base scenario, CBO estimates that Army end strength could drop by almost 40,000 to a level of 454,000 active-Army personnel. Under this scenario, the size of the Army would be more than 55,000 below the 2009 discretionary end-strength goal of 512,400.

CBO's second scenario assumes that continuation rates remain at current levels but that the Army will meet its accession goal of 80,000 in each of the following five years. By 2010, each 1,000 increase in annual accessions will accumulate to almost 3,000 additional end strength.²⁸ This scenario would generate almost

28. For example, if accessions rose from 73,400 to 74,400 for each of the next five years, end strength by 2010 would be about 3,000 higher than it would otherwise have been.

Figure 3.

Annual Accession Levels and Average Years of Service Under Various Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: The average length of service in 2005 was 6.45 years.

20,000 more personnel than CBO estimates the Army would have if current conditions continued. However, end strength would still drop from today's levels to 473,000.

The third scenario is even more optimistic, assuming that the Army will meet its accession goal of 80,000 while also assuming that continuation rates improve to pre-September 11, 2001, levels. CBO obtained the continuation rates of enlisted soldiers over the 12-month period spanning September 2000 through September 2001. Those rates from 2001 reflect some of the improvements that the Congress authorized and appropriated in basic pay and allowances beginning in 2000 and are typical of soldiers' continuation behavior from 1997 through 2001. Under this third scenario the Army's end strength would reach 485,000 by 2010, or about 30,000 higher than under the base-case scenario. That level is in line with, or somewhat higher than, the size of the Army earlier in this decade; however, compared with the current force, the size of the Army would still decline by about 7,500 personnel.

The next two scenarios are more pessimistic than the base-case scenario. In the fourth scenario, CBO lowers the accession level for the next five years by 4,300 individuals so that the Army brings in only 69,100 new recruits annually. This lower level represents CBO's estimate of the accessions the Army would have achieved during 2005 had it held the size of its DEP pool constant. Under this scenario, the Army's end strength would decline to about 441,000 by 2010, or more than 50,000 soldiers below current levels.

In the fifth scenario, although CBO maintains the Army's 2005 accession level of 73,400, CBO assumes that the Army ends its stop-loss program so that soldiers will no longer be retained involuntarily past their contract expiration dates. During 2005, on average about 7,000 soldiers were retained involuntarily at any point in time. The drop in end strength is attributable to the soldiers who were involuntarily retained separating and from the lower continuation rates that would have prevailed during 2005 had stop-loss not been in effect, as estimated by CBO.²⁹ Reflecting the immediate, onetime drop from the policy rescission, the Army's end strength in 2006 would fall the furthest under this scenario; but by 2010, end-strength reductions would be greater by 5,000 soldiers under Scenario 4 than under this scenario. However, the size of the force would be about 7,000 smaller relative to the base-case scenario.

The final scenario was designed to roughly achieve the Army's discretionary end-strength goal of 512,400 for the years 2005 through 2009 (in fact, that Army would reach 513,000 active-duty troops by 2009 under this scenario, according to CBO's estimates). To do so would require 80,000 accessions annually, plus continuation rates as high as those observed during 2002 and 2003. Continuation rates for those two years averaged about 85.3 percent (when computed as a weighted average based on the 2005 force profile). Those rates, some analysts believe, were driven by stop-loss policies and the unique operational environment facing soldiers during that period. The last time continuation rates had reached those levels in the Army was in 1991 under Operations Desert Shield and Desert Storm. The rates in 1991 were not sustained; in fact, overall continuation rates averaged 80.2 percent in the subsequent five years.

The 2002 and 2003 continuation rates used in the final scenario imply an increase in the ALOS from its current level of 6.45 years to 6.73 years in the steady state. By contrast, freezing the continuation rates at 2005 levels (as was done in Scenarios 1, 2, and 4) implies a decline in the ALOS to 5.44 years. The continuation rates under the final scenario are so much higher than those under the other scenarios that they imply a difference of 1.3 years in the ALOS. However,

29. On the basis of data obtained from DoD, CBO estimates that about 90 percent of those soldiers kept in the Army past their contract expiration date will not reenlist when their stop-loss orders are lifted.

those are the continuation rates needed—in conjunction with 80,000 annual accessions—if the Army chooses to expand in fiscal years 2006 through 2009 to the maximum of 512,400 active-duty troops authorized in the 2005 National Defense Authorization Act.