

**COSTS OF THE  
NATIONAL SERVICE ACT (H.R. 2206):  
A TECHNICAL ANALYSIS**

*Staff Working Paper*

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Congressional Budget Office  
Congress of the United States  
Washington, D.C.

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**The Congress of the United States  
Congressional Budget Office**



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## PREFACE

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The Congress has shown considerable interest in national service by young persons as a way of meeting military manpower needs, while also serving broader social objectives. The National Service Act (H.R. 2206), which was introduced in the 96th Congress, was one of the major proposals authorizing the establishment of a national service system. This study estimates the likely budgetary costs of H.R. 2206 over the next five years, as well as its effect on military manpower. The study was requested by the House Armed Services Subcommittee on Military Personnel. In accordance with CBO's mandate to provide objective and impartial analysis, the study makes no recommendations.

The study was prepared by Joel N. Slackman of the National Security and International Affairs Division of the Congressional Budget Office, under the general supervision of David S.C. Chu and Robert F. Hale. The author gratefully acknowledges the contributions of Janice Grassmuck, George Iden, Eileen Maguire, Edgar Peden, Patrick Renehan, Charles Seagrave, Stacy Sheffrin, and Nancy Swope of the CBO staff. The comments provided by Richard V.L. Cooper on an earlier draft were also greatly appreciated. (External reviewers, of course, bear no responsibility for the final product, which rests solely with CBO.) Francis Pierce edited the manuscript; Jean Haggis and Janet Stafford typed the various drafts; Janet Stafford prepared the paper for publication.

Alice M. Rivlin  
Director

December 1980



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## SUMMARY

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The National Service Act (H.R. 2206) is intended to establish a national service system to meet the nation's economic, social, and military needs. Youths could volunteer for one year of civilian service or for two years of military service. If too few persons enlisted in the military, young men would be drafted to eliminate the shortfall. Subsistence wages would be paid, but military personnel would also receive substantial post-service educational benefits. This study estimates the costs of H.R. 2206.

If implemented at the beginning of fiscal year 1982, CBO estimates that H.R. 2206 could add a total of \$13.1 billion to federal budget costs in fiscal years 1982-1986. (All costs are in constant 1981 dollars.) This estimate assumes that national service would develop into a broad-based effort involving a substantial portion of the youth population. A breakdown shows that over the first five years:

- o A broad-based National Youth Service Corps--providing one million civilian jobs by 1986--would increase budget costs by \$20 billion.
- o The costs of manning the active-duty military force would decline by \$8.7 billion largely because of decreases in military pay. To maintain recent levels of recruit quality in the face of these pay reductions, however, the services over the next five years would have to draft a total of 460,000 young men, or 27 percent of total accessions.
- o The costs of manning the Selected Reserve--enlarged to its peacetime objective of one million reservists--would decline by about \$0.2 billion largely because of pay and allowance cuts.
- o Registering, testing, and examining youths--about 16 million in 1982, 4 million a year thereafter--would add \$2.0 billion to federal budget costs.

The added costs might be less if there were reductions in existing Comprehensive Employment and Training Act (CETA)

youth programs. In fiscal year 1979, the government spent \$1.2 billion on public service jobs for the youth population. Merging CETA into the National Youth Service Corps, however, would diminish its focus on economically and educationally disadvantaged persons. Thus, CBO has not included the offsets in its basic cost estimates.

The estimates are based on CBO projections of the number of youths who would participate in military and civilian service. There is substantial uncertainty about the response of the youth labor market to national service. If most youths avoid civilian service--a possibility in view of the very low wage rates--national service could be limited to a small-scale effort involving about 230,000 youths by fiscal year 1986. Federal budget costs over the first five years would then increase by only about \$700 million rather than the \$13.1 billion increase estimated for a broad-based program. A breakdown of these costs shows that over the next five years:

- o A small-scale National Youth Service Corps would increase budget costs by only about \$9.4 billion.
- o The costs of manning the active-duty military force would decline by \$10.3 billion. Savings would be higher under the small-scale case because conscripts would comprise a greater percentage of total accessions over the next five years (39 percent).
- o The costs of manning the Selected Reserve would decline by about \$0.4 billion.
- o The costs of registering, testing, and examining youths would not differ from the costs under a broad-based effort.

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## CHAPTER I. INTRODUCTION

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The National Service Act (H.R. 2206), introduced in the House of Representatives in 1979, would authorize the establishment of a National Service System to meet the nation's economic, social, and military needs. H.R. 2206 would affect youth employment, postsecondary education, military manpower requirements, and hence the federal budget. At the request of the House Armed Services Subcommittee on Military Personnel, CBO has estimated the potential costs of H.R. 2206 over the five-year period fiscal years 1982-1986. This study presents those estimates.

The idea of service to one's country is fundamental to H.R. 2206. National service could foster in young people a sense of duty to their country, which might provide valuable, if intangible, benefits. This study, of course, cannot measure such benefits, though they might be considered to compensate for some of the added budgetary costs. Nor does it try to measure the loss to society, in the form of productive civilian output foregone, of labor employed under national service; such nonbudgetary costs of H.R. 2206 could be substantial. Finally, the study does not assess the effects of H.R. 2206 on employment, education, and social factors, beyond the findings necessary to estimate costs.

### THE NATIONAL SERVICE PROPOSAL

Under the proposed National Service System, youths could volunteer to serve in either the active-duty or reserve military, or in a National Youth Service (NYS) Corps. Males who did not volunteer would be subject to induction if the military failed to meet its manpower objectives on a voluntary basis. CBO has assumed that women would not be drafted. 1/

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1/ The bill as drafted does not provide specifics on some key points. To deal with this uncertainty, CBO analysts discussed the specific objectives of H.R. 2206 with the bill's sponsor. This analysis reflects CBO's understanding of the sponsor's key assumptions.

On the act's effective date, all youths between the ages of 17 and 20 would register with a local placement center, where they would be counseled, and classified according to physical and mental attributes. CBO assumed that virtually all youths would be eligible to enter the NYS Corps, enabling the approximately 30 percent of the population normally ineligible for military service on medical, mental, or moral grounds to serve in civilian jobs.

Ten days before their next birthday, registrants could volunteer for a service option, and specify any age between 18 and 23 for their service to begin. Length of service would be one year for civilian volunteers, two years for active-duty military enlistees, and six years for Selected Reserve volunteers (including six months in active-duty training and service). Young men not volunteering for military or civilian service, or unable to secure a job in the NYS Corps, would enter a lottery pool and be liable for induction over the next six years. After the six years had elapsed, those not inducted would be free of further obligation. Draftees would serve two years in the active-duty military, then four years in the Selected Reserve.

Under H.R. 2206, the federal government would pay for civilian service jobs, but the act is not specific about the number. Participants would be restricted to working in state, local, or regional government agencies; nonprofit health care or social service organizations; criminal justice system agencies; public or private schools; or commercial farms employing seasonal labor.

Finding a job in the National Youth Service Corps would be the volunteer's responsibility. Employers would have full discretion over the selection of personnel. Moreover, CBO assumed that the number of civilian jobs would be constrained to ensure full manning of the military.

NYS Corps volunteers would be paid subsistence wages presumably comparable to current volunteer program allowances. CBO assumed that they would receive monthly stipends of \$385, equivalent to about two-thirds of minimum wage earnings. (All costs are in constant 1981 dollars.) The same level of compensation was assumed for military personnel in their first year of service. Military allowances were assumed to increase to today's all-volunteer force levels in the second year of service, raising monthly compensation to \$470. Today, first-term military recruits earn roughly \$870 a month in pay and allowances.

Military personnel would also receive substantial non-contributory educational benefits that CBO assumed would be comparable to those offered under the Vietnam-era G.I. Bill. If so, H.R. 2206 would provide for the payment of a \$340 monthly subsistence allowance directly to the veteran for each month of postsecondary education. Volunteers would accrue benefits at twice the rate of conscripts, earning 1-1/2 months of educational assistance for each month on active duty, compared to the entitlement for conscripts of 3/4 month for each month on active duty.

The civilian service system would be administered by a National Youth Service Foundation, comprising a 19-member board of trustees, a director, and support personnel. State and local government sponsors would receive grants from the foundation to pay civilian stipends and to support other sponsors in providing employment. The foundation would also prescribe minimum standards for supervision and training and would make health care coverage available to volunteers. Annual reports from sponsors to the foundation would facilitate oversight.

This brief summary of H.R. 2206 only highlights certain key features of this complex proposal. The bill is not specific in all its aspects, and the summary has made certain assumptions. The remaining portions of this study describe the provisions of H.R. 2206, and the assumptions made by CBO, that directly relate to its costs. Interested readers are referred to the text of H.R. 2206 for details of the program.





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## CHAPTER II. THE COST OF NATIONAL SERVICE

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Table 1 shows the added federal costs under H.R. 2206 for each fiscal year from 1982 to 1986 and for each major cost component. All costs in this study are in constant 1981 dollars.

CBO estimates that, if implemented at the beginning of fiscal year 1982, H.R. 2206 would increase federal budget costs by about \$540 million in 1982. The increase is relatively small because military pay would be sharply reduced and a draft instituted to ensure adequate numbers of enlistees. By 1986, however, the annual added costs of the bill would grow to \$5.6 billion, for a total of \$13.1 billion over the five-year period 1982-1986. These added costs assume that military end strengths and existing civilian manpower programs remain at roughly their current levels. The added costs are subject to possible offsets that are discussed in later sections.

The costs of H.R. 2206 in Table 1 assume that the National Youth Service Corps develops into a broad-based effort involving one million volunteers by 1986. Alternative projections discussed below suggest, however, that supply and demand constraints could limit the program to a small-scale effort involving about 230,000 volunteers by 1986. As Table 2 shows, instituting a small-scale national service program would increase costs by about \$430 million in fiscal year 1982, but only by a total of \$700 million over the next five years because of savings in 1985 and 1986. This cost differs considerably from the five-year cost shown in Table 1 largely because it assumes many fewer civilian jobs. Both cost estimates (hereinafter referred to as the "broad-based" and "small-scale" case estimates) are based on numerous detailed assumptions discussed more fully in later sections.

Civilian service costs account for most of the added costs in Tables 1 and 2. Subsistence wage payments--by far the largest component of civilian costs--would rise from \$920 million in 1982, when 200,000 volunteers serve in the NYS Corps, to \$1.1 billion or \$4.6 billion under a small-scale or broad-based effort, respectively. Outlays for travel, training, and fringe benefits would increase costs by amounts ranging from \$200 million in 1982 under the small-scale case to as much as \$1.3 billion in fiscal year 1986 under a broad-based effort. Civilian service costs also

TABLE 1. ADDITIONAL COSTS OF THE NATIONAL SERVICE ACT UNDER A BROAD-BASED PROGRAM, FISCAL YEARS 1982-1986 (In millions of constant 1981 dollars)

Major Components	1982	1983	1984	1985	1986	1982-1986
<b>Civilian Service</b>						
Subsistence wages	920	1,850	2,770	3,700	4,620	13,860
Travel	50	90	140	180	230	690
Training	120	240	360	480	600	1,800
Fringe benefits	90	180	260	350	440	1,320
Administration	<u>150</u>	<u>310</u>	<u>460</u>	<u>610</u>	<u>770</u>	<u>2,300</u>
Subtotal	1,330	2,670	3,990	5,320	6,660	19,970
<b>Active-Duty Military</b>						
Pay and allowances	-1,270	-2,230	-2,000	-1,600	-1,530	-8,630
Training	0	0	260	280	260	800
Accession	0	0	110	110	110	330
Recruiting	-410	-410	-410	-410	-410	-2,050
Education	<u>10</u>	<u>50</u>	<u>130</u>	<u>240</u>	<u>380</u>	<u>810</u>
Subtotal	-1,670	-2,590	-1,910	-1,380	-1,190	-8,740
<b>Selected Reserve</b>						
Pay and allowances	-90	-120	-150	-200	-220	-780
Accession	80	90	30	50	-90	160
Education	30	80	120	150	170	550
Recruiting	<u>-20</u>	<u>-20</u>	<u>-20</u>	<u>-20</u>	<u>-20</u>	<u>-100</u>
Subtotal	0	30	-20	-20	-160	-170
<b>Registration and Testing</b>						
	<u>880</u>	<u>300</u>	<u>290</u>	<u>290</u>	<u>280</u>	<u>2,040</u>
Total	540	410	2,350	4,210	5,590	13,100

NOTE: The computations underlying each cost component's estimate are discussed in Appendix B.

TABLE 2. ADDITIONAL COSTS OF THE NATIONAL SERVICE ACT UNDER A SMALL-SCALE PROGRAM, FISCAL YEARS 1982-1986 (In millions of constant 1981 dollars)

Major Components	1982	1983	1984	1985	1986	1982- 1986
<b>Civilian Service</b>						
Subsistence wages	920	1,850	2,130	1,200	1,060	7,160
Travel	50	90	100	60	50	350
Training	60	110	130	70	60	430
Fringe benefits	90	180	200	110	100	680
Administration	<u>100</u>	<u>200</u>	<u>230</u>	<u>130</u>	<u>110</u>	<u>770</u>
Subtotal	1,220	2,430	2,790	1,570	1,380	9,390
<b>Active-Duty Military</b>						
Pay and allowances	-1,270	-2,210	-2,310	-2,150	-2,210	-10,150
Training	0	0	260	280	260	800
Accession	0	0	110	110	110	330
Recruiting	-410	-410	-410	-410	-410	-2,050
Education	<u>10</u>	<u>50</u>	<u>130</u>	<u>230</u>	<u>350</u>	<u>770</u>
Subtotal	-1,670	-2,570	-2,220	-1,940	-1,900	-10,300
<b>Selected Reserve</b>						
Pay and allowances	-90	-120	-160	-200	-220	-790
Accession	80	90	-30	-30	-150	-40
Education	30	80	110	140	140	500
Recruiting	<u>-20</u>	<u>-20</u>	<u>-20</u>	<u>-20</u>	<u>-20</u>	<u>-100</u>
Subtotal	0	30	-100	-110	-250	-430
<b>Registration and Testing</b>	<u>880</u>	<u>300</u>	<u>290</u>	<u>290</u>	<u>280</u>	<u>2,040</u>
Total	430	190	760	-190	-490	700

NOTE: The computations underlying each cost component's estimate are discussed in Appendix B.

include the cost of administration, based on historical Comprehensive Employment and Training Act (CETA) experience. The estimates assume that a broad-based effort would incur a more sizable per-capita administrative burden, and would spend more per capita on training, than would a small-scale effort. Neither case, however, would involve substantial training of the sort available to military recruits in technical occupations.

The costs of manning the active-duty force would decline in each year from 1982 to 1986 by amounts ranging from \$1.7 billion in 1982 to as much as \$1.9 billion in 1986 under the small-scale case. Most of these savings would result from a dramatic cut in first-term pay and allowances, coupled with peacetime conscription to ensure full manning of the military. Costs would decline more under the small-scale effort because draftees would constitute a greater proportion of the first-term force, thus reducing overall continuation into the more expensive career force. The pattern of savings shows less in the third year because, beginning in 1984, increasing numbers of recruits would lead to a first-term force considerably larger than today's all-volunteer first-term force, with concomitantly higher travel and training expenditures.

National service would not substantially change the costs of manning the Selected Ready Reserve (SRR) in fiscal year 1982, but would decrease costs by a total of \$170 million or \$430 million over the next four years. These costs assume growth in the size of the SRR and, beginning in 1984, in the proportion of draftees constituting reserve accessions. Substituting low-paid and trained conscripts for untrained personnel without any prior service and for relatively expensive separatees from higher active-duty ranks would lower pay, allowance, and training costs.

The active-duty recruiting estimates assume a return to fiscal year 1970 spending rates (adjusted to 1981 dollars), to reflect draft-era costs rather than higher costs under the all-volunteer force. Recruiting estimates for the Selected Ready Reserve show the effect of eliminating enlistment bonuses.

#### COMPARISON WITH OTHER ESTIMATES

The estimates in Table 1 are lower than some previous estimates of the costs of national service. An earlier CBO study, for example, estimated that a broad-based voluntary national service system would add \$12 billion annually (in 1978 dollars) to

the federal budget. <sup>1/</sup> Costs in that earlier study were higher because the estimates assumed 1.6 million public service years of employment supported at the minimum wage. In contrast, H.R. 2206 would pay roughly two-thirds of the 1981 minimum wage of \$3.35 an hour (under present minimum wage legislation) to one million or fewer civilian volunteers. Also, the earlier cost estimates were not offset by substantial savings in military pay and allowances.

#### POSSIBLE BUDGETARY OFFSETS

The costs of national service in Table 1 assume no offsetting budgetary reductions in existing CETA public service and work experience programs employing young people, largely because these offsets would assume a major change in CETA's focus. Altogether, some 300,000 persons under the age of 22 participate in job creation and subsidized employment programs, of whom more than 90 percent are economically disadvantaged. In addition to being well-targeted on low-income populations, most employment programs attract a high proportion of minorities and high school dropouts. Incorporating CETA youth programs into the National Youth Service Corps would diminish CETA's present focus on these disadvantaged persons, since middle-class youths might successfully compete for CETA jobs that were included in the NYS Corps.

If, however, the Congress mandated a merger of CETA into the National Youth Service Corps, the savings could be substantial. In fiscal year 1979, CETA youth programs subsidized about 150,000 public employment service years--costing approximately \$1.2 billion. (Some 360,000 service years of work experience--costing about \$1.7 billion--were also provided, but these activities are less likely than public employment jobs to fit into the NYS Corps.)

The active-duty force savings assume that military pay raises under an all-volunteer system would keep pace with those in the private sector in each year from 1982 to 1986. To meet recruiting and quality goals, however, the services may need to increase military pay even further. An earlier CBO study estimated that

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<sup>1/</sup> Congressional Budget Office, National Service Programs and Their Effects on Military Manpower and Civilian Youth Problems, Budget Issue Paper for Fiscal Year 1979 (January 1978).

substantial enlistment bonus increases may be needed to attract enough high school graduate recruits. During the period 1982 to 1985, added outlays in the form of enlistment bonuses could be about \$1.6 billion. <sup>2/</sup> Hence, establishing a national service system might result in active-duty military savings larger than those shown in Tables 1 and 2.

On the other hand, the costs of national service in Tables 1 and 2 ignore the possible need to increase pay for career military personnel. Since the first-term force feeds the career force, the costs of manning a particular type of career force may differ under national service from those of the all-volunteer force. Given the low propensity of draftees and draft-induced recruits to reenlist, the services might have to spend substantially more on selective reenlistment bonuses to maintain the career force at today's levels. Also, the services might have to counter the disincentive effects of educational benefits on first-term reenlistments.

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<sup>2/</sup> Congressional Budget Office, Costs of Manning the Active-Duty Military, Staff Working Paper (May 1980).

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### CHAPTER III. METHOD USED TO ESTIMATE COSTS

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The costs in Tables 1 and 2 are subject to considerable uncertainty as to the true supply and demand conditions in fiscal years 1982 to 1986, particularly the willingness of youths to work in a National Youth Service Corps. National service could alter structural relationships underlying the youth labor market (for example, the presence of a military draft could change the propensity of youths to enroll in college), thus making historical experience an imperfect guide to predicting the supply of volunteers. Also, it is difficult to quantify the intangible appeal that national service might have.

#### KEY ASSUMPTIONS

H.R. 2206 does not provide specific guidance on many key points, including the size of the NYS Corps, military manning objectives, and civilian training levels. The supply and demand estimates are sensitive to specific assumptions on these points.

If national service fostered in young people a strong desire to serve their country, while offering them attractive job and training opportunities, many might volunteer for civilian service. Supporting such a broad-based effort could, however, require an expensive investment in training programs and would impose a sizable administrative burden.

On the other hand, the idea of national service might not appeal to many youths, especially if they were offered unattractive training. The fact that many are in the labor force and earn--or expect to earn--far more than \$385 a month suggests that subsistence wages could be a disincentive. Moreover, the characteristics of the relatively few participants who might be attracted to work for such low wages could make them relatively unattractive to state and local sponsors.

To deal with this uncertainty about future conditions, CBO examined the effects on costs of two hypothetical national service efforts. Each effort results from differing assumptions as to the willingness of youths to work at low wages, the



intangible appeal of national service, and the attractiveness of civilian jobs and training.

#### Broad-Based National Service

The National Youth Service Corps might develop into a broad-based effort involving one million volunteers annually. Participation would be widespread because of success in promoting the idea of service to one's country in peacetime, because of substantial federal investment in creating productive jobs and training, and because of a relatively high willingness among youths to work for low wages. The size and cost of such a program would be controlled by limiting it to one million jobs, phased in over a five-year period.

#### Small-Scale National Service

The other case assumes a small National Youth Service Corps supporting about 230,000 participants by 1986. The small supply of volunteers might result because few youths would prove willing to work at subsistence wages, and because the government would have invested sparingly in job creation and training.

Based on these alternative projections of civilian supply, the analysis projects the military's demand for and supply of manpower under national service. Inductions would be reinstated under each case, but more people would be drafted under a small-scale effort.

The remainder of this section presents more detail on the methods used to project supply and demand, and thus to estimate costs. Table 3 summarizes key features of H.R. 2206 that are common to each case. The table reflects CBO's understanding of the sponsor's key assumptions.

#### CIVILIAN SERVICE MANPOWER DEMAND

Public service salaries would account for the largest component of net budgetary costs over the next five years. Neither H.R. 2206 nor historical experience suggests the number of civilian service jobs that the government should seek to create. Donald Eberly, a longtime proponent of national service, has identified an immediate need for one-half million jobs for youths,

TABLE 3. KEY COSTING ASSUMPTIONS

Provision	Assumptions
NYS Corps Size	A ceiling of one million subsidized jobs in the steady state. Jobs would be created at the rate of 200,000 per year. About 50 percent of participants would be women.
Active-Duty Force Size	End strengths would not change from currently projected levels--about 2.1 million by fiscal year 1986.
Conscription Policy	Women would not be drafted. The Defense Department would use a lottery draft to conscript only enough men to maintain current quality objectives. If so many persons volunteered for civilian service that the draft pool was insufficient, civilian service registrants or volunteers would be drafted into the military.
Selected Reserve Requirements	Projected requirements would maintain an average en' strength of one million, about 185,000 above fiscal year 1980 actual strength and roughly equivalent to the services' pre-AVF requirements.
Civilian Wages	Volunteers would be paid subsistence wages of \$385 per month (1981 dollars). This approximates allowances currently given to VISTA volunteers.
Military Compensation	
Basic pay	Pay rates used are those prescribed in H.R. 2206, adjusted to reflect a comparability raise in fiscal year 1981.
Allowances	First year of service: Allowances would be set so that total compensation equaled \$385 per month, the same as that for civilian volunteers. Second year of service: Allowances would be increased to today's AVF levels.
Military Postsecondary Educational Benefits	Benefits would be keyed to Vietnam-era G.I. Bill benefits of \$340 per month of entitlement.

and a long-range need for four to five million. 1/ On the other hand, national service critics argue that if such jobs were truly needed, the economy would already have created them. Moreover, the fact that many youths find employment suggests that high civilian service requirements could deprive the economy of many productive workers. 2/

Striking a compromise between these viewpoints, this analysis assumes that the government would seek to create up to one million civilian service jobs. During a buildup period, an attempt would be made to create 200,000 more jobs each year. Although a statutory limit on NYS Corps size would be unlikely, some budgetary ceiling might be imposed to limit the number of jobs.

#### CIVILIAN SERVICE MANPOWER SUPPLY

This study assumes that national service would attract two types of volunteers: "economically motivated" youths who view civilian service as superior to their private-sector alternatives; and "service-motivated" youths who act in response to appeals to serve. Economically motivated volunteers would come from three sources: the unemployed, those who are out of the labor force and out of school, and the working poor.

#### Economically Motivated Volunteers

Wages in the NYS Corps would be far below the average market earnings of working youths. Hence, the most likely source of volunteers would be the unemployed. Yet not all unemployed youths would be willing to volunteer. Some would prefer holding out for private-sector jobs paying wages commensurate to their skills and abilities. Income transfer programs might cause others to be more selective in their choice of jobs and stretch out periods of unemployment. Finally, some measured unemployment is leisure time

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1/ D.J. Eberly, "National Youth Service," New York Affairs (Winter 1977), p. 67.

2/ Richard V.L. Cooper, A National Service Draft? (Rand Corporation, May 1977), p. 27.

taken voluntarily, particularly for those who are secondary workers within households. 3/

To determine the proportion of unemployed youths likely to volunteer, CBO relied on 1979 National Longitudinal Study (NLS) data showing large proportions of youths willing to accept jobs at subminimum wages. 4/ Among unemployed youths 16 to 21 years old, 28 percent indicated a willingness to work cleaning up neighborhoods at \$2.50 per hour (86 percent of the minimum wage in 1979), and 42 percent indicated a willingness to work away from home in a national forest or park.

Assuming modest wage effects on participation, this study estimated that the proportion of unemployed youths willing to work away from home in a national forest or park at subsistence wages (\$2.20 per hour, or 66 percent of the minimum wage) would decline to roughly 32 percent, and that the proportion willing to work at cleaning up neighborhoods would decline to 21 percent. 5/ Willingness to accept subminimum wages for the more popular job was used as a measure of youth willingness to volunteer under the broad-based case. Willingness to work in a less desirable job was used as a proxy for youth willingness to volunteer under the small-scale case.

Youths no longer enrolled in school who are not in the labor force may also be attracted to national service. By substantially lowering the costs of searching for a job, the local placement centers could encourage service among groups whose labor force participation is low--particularly young blacks. 6/ One of

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3/ Leonard J. Hausman, "Comment on Participation in Public Employment Programs," in J.L. Palmer, ed., Creating Jobs (Brookings Institution, 1978).

4/ Michael E. Borus and others, Pathways to the Future: A Longitudinal Study of Young Americans, Preliminary Report: Youth and the Labor Market - 1979 (Center for Human Resource Research, Ohio State University, January 1980).

5/ To provide a rough estimate of youth willingness to work at wages below those given in the survey question, this study applied a supply elasticity of 1.0 to the relative wage change.

6/ L.J. Hausman, "Comment on Participation in Public Employment Programs."

the major puzzles about the youth labor market, however, is why the utilization of young black workers has declined relative to that of young whites since 1964. <sup>7/</sup> Given uncertainty about the cause, there is no a priori basis for predicting the participation rate of this youth group in a national service program.

CBO again relied on the 1979 NLS data to determine the proportion of youths outside the labor force willing to volunteer. Using the method described above, this study found that roughly 30 percent would be willing to volunteer under the broad-based case, and 18 percent under the small-scale case.

Full-time workers now earning less than national service wages might also be attracted toward civilian service. In fiscal year 1980, some 260,000 full-time workers aged 16 to 24 had usual weekly earnings under \$100. Their working conditions are likely to be less pleasant, and their fringe benefits less attractive, than under NYS Corps jobs. The number of employed workers who would actually enter the NYS Corps would depend on the effects of civilian service jobs on market wages. Low-wage industries might rapidly increase wages to prevent loss of workers to the NYS Corps. The small-scale case assumes sufficient adjustment in wages so that few full-time workers would volunteer. The broad-based case assumes that employers would be unwilling to hire these persons, most of whom would then enter the NYS Corps. <sup>8/</sup>

#### Service-Motivated Volunteers

The broad-based case assumptions suggest a substantial service-motivated supply response, but a specific number cannot be predicted with any certainty. If, however, only 20 percent of youths who are not economically motivated were to volunteer, the total number of civilian service volunteers--both economically and

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<sup>7/</sup> For a discussion of the issues concerning youth unemployment, see R.B. Freeman and J.L. Medoff, "The Youth Labor Market Problem in the United States: An Overview," Discussion Paper 747 (Harvard Institute of Economic Research, February 1980).

<sup>8/</sup> The assumptions used are described in greater theoretical detail in D.H. Greenberg, "Participation in Public Employment Programs," in Creating Jobs.

service-motivated--would exceed the number of jobs available in each year 1982 to 1986.

In contrast, the small-scale case assumptions suggest that national service would induce a minimal service-motivated supply response. This study assumed that, in addition to the economically motivated volunteers, the National Youth Service Corps would attract only as many volunteers as are now applying to federal domestic volunteer programs--some 7,000 persons annually.

#### Sum Total of Civilian Volunteers

Under the broad-based case, the sum total of economically and service-motivated youths would exceed one million in each year 1982 to 1986. The civilian manpower supply would comprise 1.4 million economically motivated volunteers in fiscal year 1982, but only 400,000 by 1986. The decline would occur because the sizable starting stock of 18- to 21-year-old youths would have been largely exhausted of volunteers after five years. Also, CBO assumed a tightening of the youth labor market during the five-year period as the state of the overall economy improved.

Under the small-scale case, the sum total of volunteers would range from 740,000 in fiscal year 1982 to 230,000 in 1986. This supply would comprise only about 7,000 service-motivated youths in each fiscal year 1982 to 1986.

The civilian supply projections are conservative to the extent that substantially more youths would volunteer to avoid military conscription. However, given the low likelihood of conscription (fewer than one out of ten males would be drafted), the civilian supply may not have been seriously underestimated. Moreover, accounting for draft pressure would not affect the broad-based case cost estimates because, even in the absence of draft effects, supply would exceed the one million civilian jobs the government would be willing to create.

#### ENLISTED ACTIVE-DUTY MILITARY MANPOWER PROJECTIONS

##### Enlisted Recruit Demand

Under the National Service Act, the services would require an average annual inflow of about 370,000 enlistees by 1986. This

compares to an estimated demand for 270,000 recruits in fiscal year 1986 under an all-volunteer force (assuming that military pay raises keep pace with those in the private sector).

Demand would be higher under H.R. 2206 largely because the bill would institute two-year enlistments for most military personnel, compared to today's average enlistments of three or more years. Thus, H.R. 2206 would shift today's military profile to a somewhat younger force with higher turnover. First-term reenlistment rates would also decline because of the presence of draftees and draft-induced volunteers. <sup>9/</sup> To account roughly for the effects of these changes on recruit demand, CBO relied on the Defense Department's turnover rates in fiscal years 1956 to 1965. These data suggest that the turnover rate in a short-term conscript-volunteer force would increase over today's rate by about one-third, to roughly 20 percent.

The demand projections assume no rise in enlisted end strengths to accommodate a larger training establishment. Given the higher annual recruit flow under national service, the portion of the force engaged in training activities would grow at the expense of some operating forces. The size of this intraforce shift, and its effect on combat effectiveness in peacetime, is subject to considerable uncertainty. If, however, the Congress mandated an increase in enlisted end strength to maintain the operating forces, enlisted recruit demand could be substantially higher.

### Recruit Supply

National service would shift the supply of enlisted volunteers downward from levels predicted under the all-volunteer force. Table 4 shows the projected supply of "true" volunteers, draft-motivated enlistees, and inductees that would be needed to meet the demand derived above under the broad-based and small-scale case assumptions. Together, the supply would total

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<sup>9/</sup> During fiscal years 1958 to 1965, the draftee retention rate was considerably lower than the overall first-term retention rate: 9.2 percent versus 23.5 percent. This study assumed that draft-induced volunteers have the same reenlistment propensities as draftees.

303,000 in fiscal year 1982 and increase to 373,000 by fiscal year 1986.

TABLE 4. MIX OF ENLISTED RECRUITS NEEDED TO MEET DEMAND UNDER H.R. 2206, FISCAL YEARS 1982-1986 (In thousands)

	1982	1983	1984	1985	1986
<hr/>					
Broad-Based NYS Corps					
True-volunteer HSDGs <u>a/</u>	168	154	141	127	124
Draft-motivated HSDGs	31	29	26	24	23
Conscripts	20	21	125	147	147
Non-HSDG volunteers	<u>84</u>	<u>78</u>	<u>85</u>	<u>81</u>	<u>79</u>
Total Demand	303	282	377	379	373
Small-Scale NYS Corps					
True-volunteer HSDGs	126	116	106	97	96
Draft-motivated HSDGs	31	29	26	24	24
Conscripts	72	68	169	184	180
Non-HSDG volunteers	<u>74</u>	<u>69</u>	<u>76</u>	<u>74</u>	<u>73</u>
Total Demand	303	282	377	379	373

a/ High school diploma graduates.

The numbers in Table 4 were developed assuming that the services would want to maintain levels of recruit quality, as measured by the percentage of enlisted recruits holding high school diplomas, at levels similar to those in recent years (about 71 percent). Thus, CBO first estimated numbers of true volunteers who are high school diploma graduates (HSDGs). As accession demands and civilian sector jobs grow in number, fewer and fewer males become eligible for military service in any given year, thus lowering the enlistment rate. National service would also



lower the expected returns to military service for HSDGs. Although military enlistees would receive generous educational benefits, sharp declines in first-term basic pay would decrease the attractiveness of military life relative to civilian life.

Next, CBO estimated numbers of HSDGs who would volunteer to avoid being drafted. The prospect of induction would motivate some to enlist to choose the time, place, and service of their obligation, and to enjoy educational benefits more generous than those available to draftees under H.R. 2206.

Finally, CBO simultaneously determined the numbers of those who would be conscripted, assuming a lottery draft that produced a roughly random sample of the population, and the numbers of those lacking high school diplomas who would be allowed to volunteer. The ratio of conscripts to non-HSDG volunteers was set to preserve the overall levels of diploma graduates discussed above. CBO assumed that, as has historically been the case, the services could obtain as many non-HSDG volunteers as they want.

The results show that, by 1986, the services would have to draft between 150,000 and 180,000 males. The services could, of course, draft fewer men by enlisting more high school dropouts, but this would lower force quality below present levels.

#### ENLISTED SELECTED READY RESERVE MANPOWER PROJECTIONS

##### Reserve Demand

Under the National Service Act, annual reserve accession requirements would range from roughly 280,000 in 1982 to 230,000 in 1986. This compares to an estimated demand under an all-volunteer force averaging 235,000 during the period 1982 to 1986 (assuming that peacetime objective end strengths were maintained).

Demand under H.R. 2206 would be higher in 1982 and 1983 because the bill (as indicated to CBO by its sponsor) would expand authorized Selected Ready Reserve strength. The demand estimates assume an end strength of one million by 1983, close to the services' requirements in the early 1970s. Demand declines in later years, however, due to the assumption that annual loss rates under national service would be lower than all-volunteer force loss rates.

## Reserve Supply

Given the four-year obligation for active-duty conscripts, the number of personnel being released from active duty who would be eligible for prior-service enlistment would increase under the National Service Act. This would decrease the need for more youthful volunteers without prior service. CBO assumed that the proportion of non-prior-service recruits would fall from today's level of about 45 percent to 31 percent under a broad-based NYS Corps, or to 20 percent under a small-scale NYS Corps.

Prior-service enlistments would increase from present levels of roughly 140,000 in fiscal year 1982 to either 160,000 or 180,000 in 1986 under the broad-based and small-scale cases, respectively. Although numbers of true volunteers might drop as a result of pay and allowance cuts, CBO assumed that active-duty military conscription would motivate enough enlistments to meet the estimated non-prior-service demand.

## OFFICER SUPPLY AND DEMAND

This study assumes no major change in the supply of or demand for officers. Today there are generally no shortages of officer applicants. This would be likely to continue under national service, since H.R. 2206 leaves officer pay rates at today's levels. The officer supply might even increase slightly if participation in a Reserve Officer Training Corps (ROTC) program satisfied the act's service requirement.



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## **APPENDIXES**

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## APPENDIX A. ESTIMATING ENLISTED RECRUIT SUPPLY

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Shifting from the present all-volunteer force (AVF) system to a national service system would lead to declines in the supply of volunteer non-prior-service (NPS) high school diploma graduates (HSDGs). This appendix discusses the methods used to estimate these supply effects. It assumes familiarity with standard military manpower terms.

By fiscal year 1986, CBO predicts that between 120,000 and 147,000 NPS male HSDGs would enlist, of whom 15 to 20 percent would be draft induced. This compares to an estimated supply of 166,000 HSDGs under an all-volunteer force (assuming that military pay raises keep pace with those in the private sector). Table A-1 shows HSDG supply under an AVF. The net supply shift of between 11.5 and 28 percent would result from:

- o NPS pool shrinkage;
- o The loss of true volunteers resulting from declining returns to military service; and
- o Draft pressure.

TABLE A-1. HSDG SUPPLY UNDER AN ALL-VOLUNTEER FORCE, FISCAL YEARS 1982-1986

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	1982	1983	1984	1985	1986
HSDG Volunteers	207	193	179	166	166
Percent of Force <u>a/</u>	68	68	65	62	62

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a/ These estimates assume that the services maintain recruiting to avoid shortfalls in numbers of recruits.

### CHANGES IN THE NPS POPULATION POOL

Individuals who have prior military or civilian service are no longer part of the population eligible to be NPS enlistees, and so should be excluded from the population. This study, then, subtracts from the total for a given age cohort in a given year the number of volunteers and inductees from that cohort in each preceding year. From 1983 to 1986, the adjusted population under the national service system would be smaller than the adjusted population under an all-volunteer force because recruit demand would be higher and because several hundred thousand men would enter civilian service. 1/

The number of males having prior service depends in part on the proportion of female volunteers. The estimates assume that females fill roughly 50 percent of the available NYS Corps jobs. This is consistent with the proportion of women currently in volunteer programs and CETA public service employment jobs.

### CHANGES IN THE SUPPLY OF TRUE VOLUNTEERS

This study applies generally accepted pay elasticities to the change in relative military returns to estimate a 19 percent decline in HSDG true volunteers under a broad-based NYS Corps, and a 39 percent decline under a small-scale NYS Corps.

### Monetizing Pecuniary Returns

In deciding whether or not to enlist, true volunteers are assumed to compare the expected returns to military service and to civilian life, emphasizing near-term benefits. 2/ National

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1/ The adjustment procedure is based on work by Richard L. Fernandez, "Forecasting Enlisted Supply: Projections for 1979-1990," N-1297-MRAL (Rand Corporation, September 1979).

2/ Youths have high time preferences. Survey results indicate that 18- to 19-year-olds have a 28 percent subjective discount rate, which falls with age. Because some volunteers would be over age 19, computations here assume a 20 percent discount rate. See Steven L. Canby, Military Manpower Procurement (Lexington Books, 1972), p. 121.

service's effect on this comparison is assumed to depend on youths' college plans:

- o Non-College-Bound Youths. Enlistment returns would be the present value of regular military compensation (RMC) over the first enlistment term. Civilian returns would be the present value of earnings over a comparable period.
- o College-Bound Youths. Military returns would comprise the present value of first-term RMC and of post-service educational benefits. Civilian returns would comprise the present value of federally and locally subsidized grant and loan payments while in school, and of civilian salary earnings over a period comparable in time to the first enlisted term.

National service would lower first-term pay and raise military educational benefits, thus altering the returns to military service. At the same time, the broad-based case assumes declining civilian returns because most youths would expect one year of voluntary service to replace a year of relatively high earnings. If few youths seriously consider serving in the NYS Corps, as the small-scale case assumes, then national service would leave civilian returns unchanged. Table A-2 shows the present values under national service and compares their ratios to current values for two-year, four-year, and non-college-bound youths. The estimates implicitly assume that national service would not alter college-going propensities, or change any group's post-service civilian earnings.

In all instances, national service would lower the expected returns to military service. The decline is largest for non-college-bound youths, because they are assumed uninterested in educational benefits. For the college-bound, the vast scope of nondefense student aid programs detracts from the attractiveness of veterans benefits. 3/

Of course, these estimates are subject to uncertainty about the true levels of:

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3/ Government financial aid recipients comprise roughly 55 percent of college enrollees. On average, they receive about \$1,600 per year in federal aid--grants, subsidized loans, and work--and \$600 per year in state and local aid.



TABLE A-2. RETURNS TO MILITARY AND CIVILIAN LIFE UNDER THE CURRENT SYSTEM AND UNDER NATIONAL SERVICE (In constant 1981 dollars)

HSDGs	Current	National Service	
	Present Discounted Value	Present Discounted Value	Percent Change From Current
Non-College Bound			
Military	17,000 <u>a/</u>	8,400 <u>b/</u>	---
Civilian	16,500 <u>c/</u>	11,200 or 16,500 <u>d/</u>	---
Military/civilian	---	---	-27 or -50 <u>d/</u>
Two-Year College Bound			
Military	19,600 <u>e/</u>	13,800 <u>f/</u>	---
Civilian	21,200 <u>g/</u>	15,700 or 21,200 <u>h/</u>	---
Military/civilian	---	---	-5 or -30 <u>d/</u>
Four-Year College Bound			
Military	20,300 <u>i/</u>	16,000 <u>j/</u>	---
Civilian	20,600 <u>k/</u>	17,300 or 20,600 <u>h/</u>	---
Military/civilian	---	---	-6 or -21 <u>d/</u>

a/ Assumes 24 months' military service in grades E-1 for 2 months, E-2 for 10 months, and E-3 for 12 months.

b/ Assumes enlistees are paid at civilian subsistence rates during first 12 months, and at current allowance rates and H.R. 2206 basic pay rates over the next 12 months.

c/ Civilian salaries based on 1979 NLS survey results, adjusted to 1981 dollars. See Michael E. Borus and others, Pathways to the Future: A Longitudinal Study of Young Americans, Preliminary Report: Youth and the Labor Market - 1979 (Center for Human Resource Research, Ohio State University, January 1980).

TABLE A-2. (Continued)

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- d/ The range of estimates stems from differing assumptions about the scope of national service. The lower estimate assumes that the NYS Corps becomes a broad-based program involving a high proportion of the youth population.
- e/ Assumes 24 months' military service with the individual participating in the Veterans' Educational Assistance Program (VEAP). Participants invest \$100 per month while on active duty. After a six-month lapse between discharge and college, the veteran withdraws \$200 monthly while in school, exclusive of a three-month summer break.
- f/ Assumes 24 months' military service with no enlistee contribution. Educational benefits keyed to current G.I. Bill assistance for 36 months of benefits. Individual withdraws \$340 per month for 18 months.
- g/ Estimates assume grant and subsidized loan payments worth \$207 per month, and part-time work paying \$100 per month while in school. Estimates based on CBO computations and Office of Education Record Reserve Data.
- h/ Estimates assume that federal, state, and local education assistance remains unchanged from present levels.
- i/ Same contribution/service plan as in e/. Student withdraws \$200 per academic month for 36 months.
- j/ Same service plan as in f/. Individual withdraws \$340 per month for 36 months.
- k/ Assumes grant and subsidized loan payments worth \$286 per month, and part-time work paying \$100 per academic month while in school.

- o current educational assistance and salaries in civilian life; and
- o military salaries and educational assistance under national service.

Varying the estimating parameters, however, does not appear to have a general effect on the direction of the outcome. For example, if more generous educational benefits were made available to military volunteers, then the military's relative attractiveness to college-bound youths would increase slightly. On the other hand, the estimates ignore the considerable amount of private institutional aid received by college students. <sup>4/</sup> Civilian returns would be higher if the computations included higher financial aid payments.

#### Pay Elasticities

Past research relating enlistment propensities among NPS males to first-term pay have often found the pay elasticity to be around one. But analyses also show that enlistment responsiveness varies with indicators of volunteer quality. Moreover, a variety of econometric studies indicate that low-income students, who might be more likely than others to attend two-year institutions, are significantly more sensitive to price than high-income students in deciding whether to attend college. <sup>5/</sup> This study, then, distinguishes among HSDG recruits by assuming pay elasticities of:

- o 1.00 for non-college-bound volunteers;
- o 0.75 for two-year college-bound volunteers; and
- o 0.50 for four-year college-bound volunteers.

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<sup>4/</sup> In the private sector, student assistance from private sources (in academic year 1973-1974) amounted to about 13 percent of total tuition. See Susan C. Nelson, "Financial Trends and Issues," in David W. Breneman and Chester E. Finn, Jr., eds., Public Policy and Private Higher Education (Brookings Institution, 1978).

<sup>5/</sup> Michael S. McPherson, "The Demand for Higher Education," in Breneman and Finn, Public Policy and Private Higher Education.

### College-Going Rates

The overall true-volunteer supply response to present value changes depends on the proportion of HSDG volunteer recruits in each college-bound category. CBO relied on the G.I. Bill utilization rates for AVF-era separatees to estimate these proportions. In fiscal years 1977 to 1979, 28 percent of separatees made use of the G.I. Bill to attend college. (Unfortunately, no data were available detailing veterans' college attendance regardless of G.I. Bill usage.)

Because some of these separatees were non-HSDG recruits who received in-service diplomas (General Equivalency Diplomas, or GEDs), this study translated the utilization rates to HSDG recruit utilization rates. <sup>6/</sup> From 1975 to 1978, the average proportion of recruits holding high school diplomas was 70 percent. During the same period, roughly 87 percent of the enlisted force held high school diplomas or their equivalent, implying that about half the non-HSDG recruits receive GEDs while in service. Assuming that college-going separatees are proportionately split between HSDG recruits and GEDs, roughly 82 percent of the separatees utilizing the G.I. Bill enlisted with high school degrees. Table A-3 shows the percentage distribution of HSDGs by college-going category.

TABLE A-3. HSDG RECRUITS BY COLLEGE-BOUND CATEGORY (Percent)

	No College	Two-Year College	Four-Year College
HSDGs	67	24	9

### DRAFT-MOTIVATED VOLUNTEERS

Past research relating enlistment rates to draft pressure for the period 1958 to 1965 found the proportion of draft-motivated

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<sup>6/</sup> Non-HSDG enlistees are assumed to be supply unlimited regardless of their eventual college-going plans.

volunteers generally to vary between 15 and 30 percent of total supply-limited enlistees. These proportions can be considered estimates of the enlistment elasticity with respect to the probability of induction: the proportional change in enlistments that can be expected from a 100 percent change in the induction probability. 7/

CBO assumed that the proportion of draft-motivated enlistees among supply-limited HSDG volunteers would be close to the lower supply estimates (15 percent). Draft pressure under national service would probably be weaker than it was in fiscal years 1958 to 1965, largely because the enlisted force would be smaller and because the pool of eligible men would be larger. Without draft-motivated volunteers, the induction rate under H.R. 2206 in 1986 would be 0.026 or 0.031 under the broad-based and small-scale cases, respectively (falling to between 0.022 and 0.027 with the enlistment of draft-motivated volunteers). In contrast, had there been no draft-induced volunteers in fiscal years 1958 to 1965, the mean induction rate for that period would have been 0.046. 8/

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7/ Dorothy M. Amey and others, "Econometric Models of Armed Forces Enlistment Levels" (General Research Corporation, October 1976), pp. 28-29, 87.

8/ These estimates assume that 75 percent of the eligible population meets mental, moral, and physical standards. The eligible population under national service includes non-prior-service males between the ages of 18 and 23. For the period 1958 to 1965, eligibles include the civilian noninstitutional male population aged 17 to 20; the mean induction rate estimate assumes that 20 percent of enlistees were draft motivated.

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## APPENDIX B. ESTIMATING NATIONAL SERVICE COSTS

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This appendix discusses the methods and data used to estimate the national service costs shown in Tables 1 and 2. It assumes familiarity with standard military manpower terms.

### CIVILIAN SERVICE COSTS

Civilian service costs comprise salaries, travel allowances, fringe benefits, training investments, and administrative overhead. Outlays vary directly with numbers of National Youth Service Corps participants, shown in Table B-1 for each national service case.

TABLE B-1. NATIONAL YOUTH SERVICE CORPS PARTICIPANTS, FISCAL YEARS 1982-1986 (In thousands)

NYS Case	1982	1983	1984	1985	1986
Broad-Based	200	400	600	800	1,000
Small-Scale	200	400	460	260	230

### Subsistence Wages

Participants were assumed to receive monthly stipends of \$385. This stipend is comparable to current VISTA (Volunteers in Service to America) allowances, adjusted for a 9.1 percent comparability raise.

### Travel Expenses

The basis for travel costs was VISTA experience. VISTA reimburses volunteers for round-trip travel between home and

project sites. The per-capita cost of travel is \$225. If a national service program developed a national job referral service matching geographically separated jobs and volunteers, per-capita travel costs could be substantially higher.

### Training Costs

The basis for the costs of training under the small-scale case was again VISTA experience. VISTA's training expenses cover a four-day orientation session, day-long in-service training sessions (seldom exceeding 10 sessions) specific to the volunteer's project, and supervisor training. Average per-capita training costs are \$275.

The broad-based case assumed that the government would invest heavily in training to improve the future employability of youths and to provide marketable job skills, as well as to increase the attractiveness of service. To estimate the costs of this more ambitious effort, CBO looked to the youth training services funded by CETA public service employment programs under Title II-D. Under those programs, per-capita training costs average \$600.

### Fringe Benefits

Civilian service participants were assumed to receive the same package of benefits as today's VISTA volunteers. This includes a settling-in allowance of roughly \$100, a leave allowance of \$75, and group health insurance benefits costing \$260 annually.

### Administrative Costs

The administrative costs were based on recent CETA experience. Estimates of CETA's administrative expenses as a percentage of other expenses in its public service employment programs range between 6 and 9 percent. If CETA's average wage rates declined by one-third--to national service levels--administrative expenses would rise to between 9 and 13 percent of costs.

This study assumed that a broad-based effort would incur heavier administrative costs than would a small-scale effort. Broad-based national service would have a more elaborate training establishment, and many more of its jobs would be provided by

nongovernmental sponsors requiring close supervision. To reflect this difference, the broad-based case assumed an administrative cost factor at the upper end of the estimated range--13 percent--and the small-scale case assumed a cost factor at the range's lower end--9 percent.

#### ACTIVE-DUTY MILITARY MANPOWER COSTS

Active-duty costs in this study estimate effects on military outlays. Estimates exclude the effects on pay and allowances, and on retirement pay, of changes in longevity. Costs depend on the supply and demand projections discussed earlier.

#### Pay and Allowances

Savings under national service would depend upon both annual recruit demand and enlisted force retention rates. This section develops the sequence of calculations used to estimate pay and allowance savings.

The first step in the sequence involved projecting personnel flows under an all-volunteer military. Table B-2 shows the five-year distribution of personnel enlisting in or after fiscal year 1982. Each row traces the retention behavior of a recruit cohort. For example, of the 282,000 recruits enlisting in 1983, 148,000 remain by 1986, their fourth year of service. This study adjusted fiscal year 1979 retention rates to reflect effects of the military pay changes expected in fiscal year 1981.

TABLE B-2. ENLISTED PERSONNEL FLOW UNDER AN ALL-VOLUNTEER FORCE, FISCAL YEARS 1982-1986 (In thousands)

Recruit Cohort	1982	1983	1984	1985	1986
1982	303	263	232	159	87
1983		282	244	216	148
1984			274	238	210
1985				268	232
1986					268



In step two, average pay and allowance factors, displayed in Table B-3 by years of service (YOS), were applied to the personnel flows in Table B-2 to estimate total compensation costs by fiscal year.

TABLE B-3. AVERAGE ANNUAL PAY AND ALLOWANCE COSTS UNDER AN ALL-VOLUNTEER FORCE BY YEARS OF SERVICE (In constant 1981 dollars)

	Years of Service				
	1	2	3	4	5
Pay and Allowances	8,800	9,700	10,500	11,300	11,900

This sequence of calculations was repeated for the national service supply and demand projections. Step one was somewhat more complicated, however, because each cohort differed in its mix of recruits, and hence in its overall retention. Based on U.S. Army experience during fiscal years 1958-1965, this study assumed that first-term retention among draftees would be under 10 percent. Draft-induced volunteers were assumed to have the same reenlistment propensities. Draftees and draft-induced volunteers continuing beyond the first term were assumed to behave like true volunteers. Each cohort's overall continuation rate, then, was a weighted average of true-volunteer, draftee, and draft-induced volunteer retention behavior. True-volunteer continuation rates were assumed identical to today's all-volunteer force continuation rates. Table B-4 shows personnel flows for each case.

The path of the 1983 cohort clearly shows the effect of drafting proportionately more recruits. Draftees and draft-motivated volunteers comprise 17 percent of enlistments under the broad-based case. In contrast, 34 percent of small-scale case enlistees are drafted or draft induced. Of the 282,000 recruits enlisting in 1983, 97,000 leave the force before completing three years of service under the broad-based case, but 127,000 leave under the small-scale case. Both estimates substantially exceed expected losses under an all-volunteer force.

TABLE B-4. ENLISTED PERSONNEL FLOW UNDER A NATIONAL SERVICE PROGRAM, FISCAL YEARS 1982-1986 (In thousands)

Recruit Cohort	1982	1983	1984	1985	1986
<b>Broad-Based Case</b>					
1982	303	267	201	137	75
1983		282	249	185	127
1984			377	339	192
1985				379	343
1986					373
<b>Small-Scale Case</b>					
1982	303	271	167	114	62
1983		282	253	155	106
1984			377	343	163
1985				379	346
1986					373

Given these personnel flows, step two was repeated as before, except that pay and allowance factors in the first two years of service drop to \$4,620 and \$5,602. All-volunteer force costs were subtracted from national service costs to estimate total savings under H.R. 2206.

#### Training Costs

To estimate training costs, this study multiplied the Army's fiscal year 1978 variable training costs per non-prior-service male accession--\$2,520 in 1981 dollars--by the yearly recruit flow increase. As the text notes, this procedure underestimates the increase in training costs to the extent that combat effectiveness declines or force size grows.

#### Accession Costs

Active-duty accession costs were assumed to comprise permanent change of station (PCS) allowances and clothing allowances.

PCS costs cover movement of enlistees from recruiting station to first permanent duty station or training school.

CBO estimated that, in fiscal year 1981, per-capita travel costs would average \$586 and per-capita clothing costs would average \$454. These average costs were multiplied by the yearly recruit demand increase to estimate total accession costs.

#### Recruiting Costs

This study assumed a return to fiscal year 1970 spending rates of \$126 million, adjusted for inflation to roughly \$305 million. Today's recruiting budget of about \$715 million was subtracted from 1970 budget costs to estimate total savings.

#### Education Costs

Education costs depend on the number of separatees from each year's recruit cohort, the conscript-volunteer mix, post-service utilization rates, and average yearly per-capita costs. This section briefly describes the cost computations.

First, CBO projected the number of conscripts and volunteers leaving the service in fiscal years 1982 to 1986. <sup>1/</sup> Over time, volunteers comprise a steadily decreasing proportion of separatees, from 97 percent in 1982 to 59 percent in 1986 under broad-based assumptions, and from 88 percent to 43 percent under small-scale assumptions.

Next, CBO applied utilization rates, varying by years out of service, to each separatee cohort to project numbers of yearly beneficiaries. These utilization rates, shown in Table B-5, were based on usage patterns under the Vietnam-era G.I. Bill. To estimate the effect on costs of giving draftees less generous benefits, this study set draftees' utilization to two-thirds that of volunteers'.

Finally, CBO multiplied yearly numbers of users by an average cost of \$1,800 (\$1,000 in the program's first year) to estimate

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<sup>1/</sup> Separatees were defined as persons completing YOS i, but failing to complete YOS i+1.

TABLE B-5. POST-SERVICE EDUCATIONAL BENEFIT UTILIZATION RATES, BY YEARS OUT OF SERVICE (Percent of separatee cohort)

	Years Out of Service				
	1	2	3	4	5
Rates	20	35	31	28	25

total education costs. The average cost was set below maximum yearly benefits (\$3,060) to reflect the likelihood of frequent movement into and out of school.

#### SELECTED RESERVE COSTS

##### Pay and Allowance Costs

The sequence of calculations used to estimate reserve pay and allowance costs resembles the active-duty cost computations. Reserve supply projections, however, are somewhat more uncertain than active-duty force projections because reserve accessions comprise significant numbers of prior-service (PS) as well as non-prior-service (NPS) individuals.

First, this study projected the flow of PS and NPS personnel under an all-volunteer force, using fiscal year 1978 (second quarter) continuation rates. NPS flows were based on the first-term continuation rate (0.645), and PS flows on the career continuation rate (0.81). NPS recruits comprised 45 percent of reserve accessions through 1986.

Step two applied average pay and allowance factors--shown in Table B-6--to the personnel flow to estimate total costs. Reserve per-capita personnel costs generally average 20 percent of active-duty per-capita costs.

This sequence of calculations was repeated for each national service case. Reserve accessions would comprise three personnel types, however: draftees separating from active-duty service, volunteers who enlisted in the active force before institution of national service, and NPS recruits. Given the

TABLE B-6. AVERAGE ANNUAL PAY AND ALLOWANCE COSTS BY TYPE OF RESERVE ACCESSION UNDER AN ALL-VOLUNTEER FORCE (In constant 1981 dollars)

	Non-Prior Service	Prior Service
Compensation	4,400 or 2,160 <u>a/</u>	2,840

a/ The higher figure reflects the first year's six-month commitment.

draftees' obligation to serve, this study adjusted overall continuation rates upward to project personnel flows.

Step two used pay and allowance factors reflecting the dramatic cuts authorized in active-duty compensation. Cost savings under national service are due largely to the replacement of expensive PS volunteers with low-paid conscripts. Table B-7 shows these factors.

TABLE B-7. AVERAGE ANNUAL PAY AND ALLOWANCE COSTS BY TYPE OF RESERVE ACCESSION UNDER A NATIONAL SERVICE PROGRAM (In constant 1981 dollars)

	Non-Prior Service	Prior Service <u>a/</u>	Prior-Service Draftees
Compensation	2,310 or 1,120 <u>b/</u>	2,840	2,160

a/ This category comprises persons who joined the active-duty force before the institution of national service.

b/ The higher figure reflects the first year's six-month commitment.

### Accession Costs

Reserve accession costs include training, PCS, and clothing costs. To estimate total costs, this study multiplied the NPS recruit flow change by active-duty per-capita costs.

### Education Costs

The sequence of reserve computations was identical to the active-duty costing sequence, with two exceptions. First, only NPS volunteers were counted as beneficiaries upon separation from active service. Second, the estimates assumed an average cost of \$1,000, to reflect reservists' smaller benefit entitlements.

### REGISTRATION AND TESTING COSTS

National service would require a return to a Selective Service System (SSS) similar to the one in place before 1974. It would encompass universal registration, medical and ability testing, and classification. Costs would be highest in 1982 because several age cohorts would be registered during that year. Table B-8 shows the relevant cost and participation data.

TABLE B-8. FIXED AND VARIABLE REGISTRATION COSTS UNDER A NATIONAL SERVICE PROGRAM, FISCAL YEARS 1982-1986 (In thousands)

	1982	1983	1984	1985	1986
Number of Registrants	16,200	3,900	3,700	3,600	3,500
Variable Costs					
Registration	60	10	10	10	10
Ability testing	50	10	10	10	10
Medical exams	650	160	150	140	140
Fixed Costs					
Placement centers	80	80	80	80	80
Added SSS personnel	<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>
Total Costs	880	300	290	280	280

Marginal registration costs were based on current SSS marginal costs of \$4. The estimates shown in Tables 1 and 2 deduct today's registration costs from the total. Aptitude testing costs were based on the \$3 average cost of conducting ability tests using civil service testers. Marginal costs of \$40 per medical exam were based on AFEEs experience. This marginal cost could be low to the extent that large-scale medical exams impose substantial strains on the health care system.

Estimates of the cost of local placement centers were based on a California state education study that estimated the cost of operating 145 career centers at \$31,000 each. <sup>2/</sup> This study selected a far lower figure in real terms of \$25,000 on the premise that military recruiting stations could partially support this activity. Centers would be placed in each of 3,143 counties.

Reconstituting the SSS to its World War II through Vietnam war level would require an additional 1,900 supervisory/management and support personnel, at a cost of roughly \$21,000 per person. <sup>3/</sup>

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<sup>2/</sup> Thomas Jacobson and others, A Study of Career Centers in the State of California, Pupil Personnel Services, Grossmont Union High School District, La Mesa, California (June 1975), p. 91.

<sup>3/</sup> See President's Commission on Military Compensation, Supplementary Papers (April 1978), Appendix C. CBO took the estimated 2,150 additional personnel cited in the PCMC study and subtracted the 250 full-time staff required to restore today's peacetime registration.





