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Briefing Report to the Chairman, Subcommittee on Defense, Committee on Appropriations, United States Senate

June 1986

MILITARY HOUSING ALLOWANCES

Housing Allowances Provided Military Members in the United States

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION

June 27, 1986

B-291192

The Honorable Ted Stevens
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate

Dear Mr. Chairman:

This briefing report is in response to your letter and subsequent discussions with your office requesting that we provide information on (1) the Variable Housing Allowance (VHA) rate-setting process, (2) five alternatives to the VHA program, and (3) a Department of Defense (DOD) Inspector General (IG) report on the Rent Plus housing allowance program in Alaska and Hawaii. Our objectives were to (1) analyze the procedures used to set VHA rates, (2) evaluate the alternatives to the VHA program in terms of their impact on retention, cost, equity for recipients, and ease of administration, and (3) review the DOD/IG's audit of the Rent Plus program in Alaska and Hawaii.

Before and during the fiscal year 1986 Defense budget deliberations, we briefed your staff on the preliminary results of our analysis. As you know, we also briefed the staffs of the Senate and House Armed Services Committees.

Partially as a result of our preliminary analysis, beginning in fiscal year 1986, the Congress changed the VHA program by (1) requiring that service members pay back 50 percent of any VHA payments not used for housing costs (rather than keeping all the excess payment, as was formerly permitted), and (2) limiting the use of certain techniques to set VHA rates which had the effect of raising some VHA payments.

Since the earlier briefings, we have completed our analysis and obtained and analyzed DOD comments. The details on our work are provided in the appendixes. Appendix I is a summary of our findings. Appendix II describes our objectives, scope, and methodology. Appendix III discusses VHA program costs and operations. Appendix IV discusses five alternatives to the current VHA program. Appendix V discusses our review of the DOD/IG report on the Rent Plus housing allowance program in Alaska and Hawaii. Appendix VI contains DOD's comments.

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretaries of Defense, the Army, the Navy, and the Air Force; the Chairmen, House Committee on Appropriations, and the House and Senate Committees on Armed Services; and other interested parties. If you have any questions, please call me at 275-5140.

Sincerely yours,

Martin M Ferber
Associate Director

C O N T E N T S

FIGURES

TABLES

ABBREVIATIONS

ABS	Absorption of housing costs
BAQ	Basic Allowance for Quarters
BMC	Basic Military Compensation
CONUS	Continental United States
CPI	Consumer Price Index
DOD	Department of Defense
DOD/IG	DOD Inspector General
GAO	General Accounting Office
LMTHC	Local Median Total Housing Costs
MHA	Military Housing Area
NATMTHC	National Median Total Housing Cost
PCS	permanent change of station
RMC	Regular Military Compensation
SMSA	Standard Metropolitan Statistical Area
VBAQ	Variable BAQ
VHA	Variable Housing Allowance

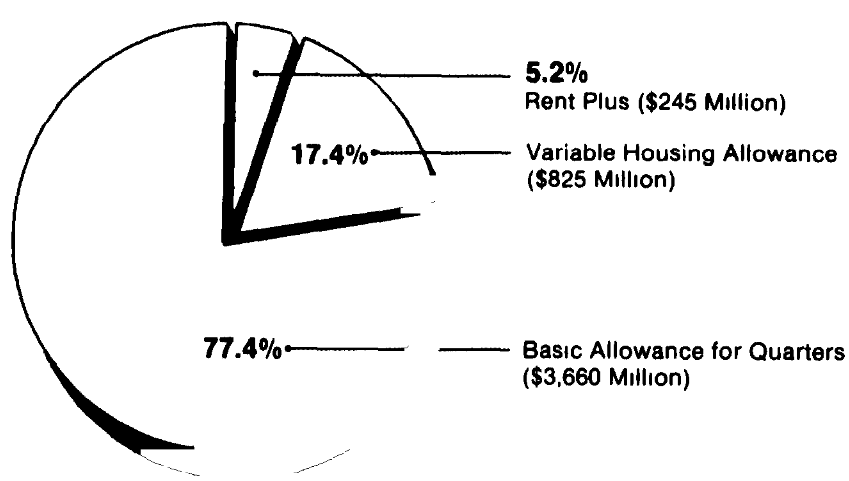
SUMMARY

Congressional interest in the military housing allowance programs has been high over the last 5 years. The Congress has been especially concerned with the increasing costs of the VHA provided to service members in the continental United States (CONUS) and has periodically revised the VHA program to control these costs. Also, the Congress, during fiscal year 1985, considered whether Alaska and Hawaii should continue to be overseas locations for housing allowance purposes and, therefore, under the Rent Plus housing allowance program, or be treated as a part of CONUS, and therefore under the VHA program. The Congress decided not to change the program in fiscal year 1985. The Defense Authorization Act for fiscal year 1986, however, placed Alaska and Hawaii under the CONUS-based VHA program.

BACKGROUND

The overall purpose of housing allowances is to help service members defray the cost of housing when they are not provided with government quarters. Members not living in government quarters receive a Basic Allowance for Quarters (BAQ), the present structure of which was established under the Career Compensation Act of 1949. In addition, military members living in, or assigned overseas with dependents living in, high-cost areas of the United States receive a VHA. Those who are stationed outside the United States received a Rent Plus housing allowance until October 1, 1985, when the name was changed to the Overseas Housing Allowance. All three allowances vary by pay grade and dependent status. The two supplemental allowances (VHA and Rent Plus) also vary by housing costs in particular geographical areas. In fiscal year 1984, the BAQ accounted for about 77 percent of the housing allowance, VHA for about 17 percent, and Rent Plus for about 5 percent. (See fig. I.1.)

Figure I.1: Fiscal Year 1984 Housing Allowances



The VHA program went into effect on October 1, 1980 (P.L. 96-343). The Congress passed the VHA legislation because the BAQ did not provide a differential allowance for high-cost areas within CONUS. Thus, members assigned to high-cost areas, or assigned overseas but with dependents living in high-cost areas, were forced either to lower their housing expenses or to pay the difference between their housing costs and their housing allowances themselves. Consequently, they had to lower their standard of living relative to members stationed in less costly areas.

The Rent Plus program went into effect in Alaska in May 1982 and in Hawaii in June 1982 (P.L. 91-486). This program was instituted because the previous overseas-station housing allowance did not redress such problems as rapid escalation in rental rates, over- and underpayments of housing allowances, and high housing costs for junior members. The intent of this program was to reimburse actual housing costs for 80 percent of the members in a given overseas locale. Those whose costs were in the top 20 percent were reimbursed at the 80th percentile.

EVOLUTION OF THE VHA PROGRAM

When the VHA program was established, it linked VHA to BAQ. The monthly VHA was defined as the difference between the average housing cost for members of the same pay grade in an area and 115 percent of the BAQ for that grade. As a result, members were said to "absorb" 15 percent of their housing costs. Annual increases in BAQ, however, were tied to authorized pay raises. Therefore, when BAQ increases (based on pay increases) were not at least equal to housing-cost increases, there was a disproportionate increase in VHA costs to offset the shortfall.

VHA program costs increased almost 48 percent (from $652.1 million to $962.5 million) from fiscal year 1981 to fiscal year 1983 due to such factors as increases in the numbers of service members receiving VHA and housing costs increases which exceeded raises in pay-based BAQ allowances. In order to control the growth in VHA program costs, the Congress significantly revised the program on three separate occasions.

First, in fiscal year 1983, the Congress restrained the costs of the VHA program by directing that VHA rates be computed as if BAQ had increased by 8 percent instead of the 4 percent it actually increased. This had the effect of increasing the amount of housing costs absorbed from 15 percent to 19.4 percent of BAQ.

Second, for fiscal year 1984, the Congress (1) froze local VHA rates at their fiscal year 1983 levels, (2) eliminated VHA for members of the reserve components ordered to active duty for periods less than 140 days, (3) deducted the January 1, 1984, 4-

percent BAQ increase from the VHA rates which were in effect on September 30, 1983, and (4) placed a monthly ceiling on total housing allowances (BAQ and VHA) of $800 for members with dependents and $600 for members without dependents. The net effect of these changes resulted in a decrease in VHA amounts of about $138 million in fiscal year 1984, compared to the fiscal year 1983 budgeted amount.

Third, effective January 1, 1985, the Congress severed the link between VHA and BAQ. In so doing, the Congress set BAQ rates for each pay grade at 65 percent of the national median housing costs of service members in that grade and defined VHA as the difference between the local median housing cost for a pay grade and 80 percent of the national median housing costs for that same pay grade.

The 1985 DOD Authorization Act amended existing law, effective January 1, 1985, to authorize VHA for Alaska and Hawaii, and to specifically prohibit Rent Plus in those two states, except for individuals already entitled to receive it on December 31, 1984. This amendment was adopted because some members of the Hawaii delegation felt that the Rent Plus program was driving up local housing costs on the island of Oahu. However, the DOD Appropriations Act for fiscal year 1985 provided that, notwithstanding the Authorization Act amendments, Rent Plus allowances were to continue for members stationed in Alaska and Hawaii through fiscal year 1985, and those members receiving Rent Plus would not be entitled to VHA. This provision remained in effect under the fiscal year 1986 continuing resolution. Subsequently, the DOD Authorization Act for fiscal year 1986 repealed the authority contained in the fiscal year 1985 Appropriations Act for payment of Rent Plus to members in Alaska and Hawaii, except for those already entitled to it.[1]

VHA RATE-SETTING METHODOLOGY

The procedures used to determine VHA rates involve estimating housing costs for each of 23 pay grades (enlisted grades E-1 to E-9, officer grades O-1 through O-10, officers with previous enlisted experience (O-1E to O-3E), and warrant officers W-1 to W-4) in each of 337 military housing areas (MHAs) in CONUS. These costs are then used to determine a national median and 337 local median housing costs for each grade. About 98 percent of the military members eligible for VHA payments live in these MHAs. In certain cases, little or no data exists to produce reliable estimates of these housing costs. Therefore, DOD uses operations-research techniques to produce these estimates. Details of the procedures used in setting VHA rates for fiscal year 1985 are described below:

[1]Other program changes made as a result of the fiscal years 1985 and 1986 authorization acts are described on pages 13 and 17.

--About 400,000 questionnaires on housing costs were sent in March 1984 to samples of members in 337 MHAs eligible for a VHA payment.

--Returned questionnaires from each MHA (about 74 percent of those sent) were categorized according to a combination of house-type, bedroom-number, pay grade, and dependent status (with or without dependents), creating 704 different groupings.

--Median housing costs were computed for each category in each of the 337 MHAs. Owners' actual-cost data were not used in the rate-setting; instead, "rental equivalents" were used to estimate owners' costs, categorized by the above groupings.

--Rental equivalents were computed by regression equations relating renters' costs to pay grade levels, type of house, number of bedrooms, and dependent status. These equations were estimated for each MHA. Mathematical regression routines were employed because, with the 704 different groupings in each of 337 MHAs, little or no data existed for a large number of groupings; consequently, reliable estimates of housing costs could not be made.

--Data on both renters' costs and owners' rental equivalents were then combined to estimate the area's average median housing cost for each pay grade.

--The local median cost data was then used along with national data to determine the local VHA rates: The portions of local median costs (by pay grade) exceeding 80 percent of national median housing costs are the VHA rates. (The BAQ currently covers, on the average, 63.5 percent of CONUS median housing costs. It and the VHA combined cover, on the average, about 83.5 percent of members' housing costs.)

For fiscal year 1986 and beyond, VHA rates are capped. This capping was the result of the Congress's prohibiting VHA program costs from increasing at a higher rate than a military version of the housing component of the Consumer Price Index (CPI). A military version of the CPI is developed in accordance with VHA legislative requirements in order to more appropriately reflect the distribution of the elements of housing costs (residential rent, rental equivalency for owners, utilities, and maintenance) of military members. For fiscal year 1986 and beyond, rates for all grades and housing areas are set approximately equal to the rates in fiscal year 1985 plus the increase in the military housing price index. Every other year after 1986 (i.e., 1988, 1990, etc.), the rates will be set in the same way. During intervening years (i.e., 1987, 1989, etc.), rates will be set on the basis of the housing-cost survey methodology discussed above, adjusted to a budget which is capped by the military housing price index.

Operations-research procedures used in estimating housing costs

Among the more complex of the operations-research procedures applied in setting VHA rates are those known as geographical-proximity, pay-grade, and year-to-year smoothings. All three procedures are designed to produce more accurate estimates of local housing costs and, in the case of pay-grade smoothing, to achieve certain policy objectives.

The geographical-proximity smoothing is performed to ensure that enough data is used to make reliable estimates and that rates are consistent for adjacent areas. For example, if an MHA has only 25 to 30 members who are eligible for VHA, using only data from these members could result in housing-cost estimates in that MHA which are very different across pay grades and which might also differ dramatically from those of adjacent housing areas. Therefore, through the geographical-proximity smoothing, the data from this area is adjusted by using a weighted average of data from adjacent areas.

The pay-grade smoothing is performed to prevent a lower-graded member from receiving a larger total allowance than a higher-graded member. For example, if the housing costs in an area for all those at the grade of E-6 are higher than the costs of those at the grade of E-7, the E-6 costs are lowered by averaging them with the costs reported by others in adjacent grades in that area. In addition, the E-7 costs are raised by averaging them with adjacent grades. This averaging process may continue several times in an effort to eliminate the inversion in housing costs. If still unsuccessful, the geographical-proximity smoothing is again carried out to increase the influence of data from adjacent areas. These procedures are repeated until the inversion in housing costs is eliminated.

When data is insufficient, housing costs are estimated. In these cases, the computer substitutes an assigned housing cost based on the assumption that the members spend about 33 percent of their Basic Military Compensation (BMC) on housing. An official of DOD's Per Diem, Travel, and Transportation Allowance Committee--which administers the housing allowance program--said that the 33-percent figure was a judgment based upon his experience and that there was no documentation to support it.

Our analysis indicated that the assigned housing cost may be too high. We used the fiscal year 1985 housing-cost survey data and DOD's published data on average BMC and computed a weighted average of housing-costs relative to BMC. Our results indicated that members spend about 27 percent of BMC on housing. However, the Per Diem Committee official said, and we agree, that the effect on program outlays from using the 33-percent estimate is negligible due to the small number of cases in which that estimate is used.

The year-to-year smoothing is performed to dampen the effect on VHA rates of housing-cost changes in a particular grade, or grades, that are radically different from the norm. The procedure calculates housing costs from the previous year and the current year for members in a particular pay grade in an area. It then compares the annual increases in housing costs for all pay grades and adjusts the current-year costs to ensure that resultant rates are not drastically different among pay grades. For example, if E-6s in a particular area pay an average of $500 for housing this year but paid an average of $450 last year, their average housing-cost increase over the year would be 11 percent. If the range of average housing-cost increases for all other pay grades were from 8 to 10 percent over last year's costs, the housing costs to be used in setting VHA rates for E-6s would be set somewhere within the 8- to 10-percent range. Because housing costs for E-6s were rising in this example faster than for all other pay grades, the procedure reduced overall program costs; if housing costs had fallen faster for E-6s than for others, the procedure would have increased program costs.

The budgetary impact of the geographical-proximity and pay-grade smoothings is difficult to estimate because these smoothings are so interdependent in the computer program which generates VHA rates and budget estimates. However, we estimate that the use of the year-to-year smoothing reduced VHA program costs for fiscal year 1985 by $11 million. To prepare this estimate, we eliminated the year-to-year smoothing routine in the computer program. DOD analysts agree that the results from eliminating the routine are accurate.

DOD believes that the use of these two procedures is justified because they conform to sound management practice and because higher-graded personnel generally have increased job responsibilities and, therefore, should be compensated more for housing costs than lower-graded personnel. Furthermore, DOD states that current VHA legislation gives it the authority to establish implementing regulations, and DOD believes that these are appropriate procedures under that delegation of authority.

DOD also believes that its use of these smoothing techniques is fully consistent with VHA legislation. However, the use of year-to-year and pay-grade smoothings, except when specifically authorized, appears to be inconsistent with VHA legislation (P.L. 98-525), which emphasizes that VHA rates are to be based only on the housing costs of members in the same pay grade. The pay-grade and year-to-year smoothings allow the VHA rates for any one pay grade to be influenced by the rates of other pay grades.

The DOD Authorization Act for fiscal year 1986 contains an amendment prohibiting the use of these smoothing procedures solely to prevent pay inversions or to prevent reductions in VHA rates when housing costs decline. The Act permits the use of these procedures for groups of 50 or fewer people of the same grade in the same housing area when the limited data might otherwise produce anomalous inversions or reductions in rates.

An official responsible for the VHA program said that DOD implemented the above amendment in setting fiscal year 1986 VHA rates. He said that DOD recalculated fiscal year 1985 rates, taking into consideration the amendment prohibitions, to set baseline rates for indexing to the military version of the housing component of the Consumer Price Index. The recalculated fiscal year 1985 rates were indexed and used to develop fiscal year 1986 VHA rates.

ALTERNATIVES TO THE VHA PROGRAM

We analyzed five specific alternatives to the VHA program and evaluated the cost and effects on different groups of service members of each of the alternatives. These alternatives were (1) payment of actual housing costs only, (2) a partial retention by service members of 20 percent of the payments in excess of actual costs, (3) a flat rate for a geographical area, (4) a constant proportion of income spent on housing--called the "constant-absorption ratio," which would not vary by grade and geographic area, and (5) a combined VHA and BAQ--a variable BAQ (VBAQ). We also evaluated the ease of administration and the potential impact on retention of each alternative.

The significance of the information we present on these alternatives depends on whether one views housing allowances as an element of compensation or as reimbursement for expenses incurred. Currently, housing allowances are defined as an element of Regular Military Compensation (RMC) under Title 37, Section 101, U.S.C. 25. Under this view, it would seem appropriate that positions of higher responsibility receive larger housing allowances, as they receive larger amounts of other types of compensation. Housing allowances, like certain other elements of compensation, are progressive with pay-grade structure. The actual-cost and partial-retention alternatives reflect this view.

Another view, though, is that the allowances are reimbursement for expenses incurred and, as such, do not need to demonstrate the same characteristics as other elements of compensation. This view is supported by the fact that housing allowances are not considered as compensation for tax purposes (Jones v. United States, 60 Ct. Cl. 552 [1925]).

The actual-cost, partial-retention, and constant-absorption-ratio alternatives, as designed, would have resulted in major budgetary savings for fiscal year 1985. Conversely, the VBAQ alternative would have resulted in major budgetary cost increases over the combined fiscal year 1985 VHA and BAQ costs. The flat-rate alternatives redistribute housing costs among the various pay grades and would have had no major budgetary savings or increased costs. Table I.1 shows the estimated program costs of the policy alternatives compared to the VHA program costs estimated for that year.

Table I.1: Comparison of Fiscal Year 1985 CONUS VHA Program Costs With Policy Alternatives

Policy alternatives	Alternative program cost	Cost change with alternative
	- - - - - - - (millions)	- - - - - - - -
Fiscal year 1985 program	$1,051	$ -
Actual cost	952	-99.0
Partial retention (20 percent)	972	-79.2
Flat rate		
Version 1 (same rate for officers and enlisted members)	1,048	-3.6
Version 2 (one rate for officers and one rate for enlisted members)	1,051	0
Constant-absorption ratio	1,018	-33.0
VBAQ	1,127	76.0

Each alternative would have certain advantages and disadvantages. The actual-cost alternative would affect only those members whose housing costs are less than their combined BAQ and VHA. It would reduce members' allowances by the difference between their allowances and the combined total of their housing costs and the amount they are required to absorb. This alternative would provide large program savings, which we estimate to be about $99 million in fiscal year 1985, assuming no change in housing-consumption patterns. The savings would, however, range from about $55 million to about $85 million in fiscal year 1986, or from $128 million to $186 million through fiscal year 1990, exclusive of administrative expenses. The range results from differing assumptions made about members' behavior patterns. We assume that these savings would diminish over time because members would likely increase their housing expenditures since they would no longer be able to keep the difference between what they spend and their VHA.

The partial-retention alternative would reduce members' maximum housing allowances by 80 percent of any difference between the allowance and actual housing costs. This alternative would also provide large savings.

From DOD's point of view, a major disadvantage of either of these alternatives would be that all of the approximately 860,000 VHA recipients would have to provide records of actual housing costs to verify the amount of allowance they should receive. DOD estimates that the administrative costs of this requirement would reduce the projected savings of these alternatives by about $9 million annually. From the members' point of view, a major disadvantage would be that those whose housing costs are less than their VHA would lose nontaxable income.

The flat-rate alternative would assign either a single dollar amount for all members in a given MHA (version 1) or establish two rates--one for officers and one for enlisted members in that area (version 2). We computed the rate by averaging housing costs across pay grades within each local housing area. The flat-rate alternative would have the advantage of being somewhat simpler to administer. It would also increase lower-graded members' allowances over what they currently receive, thus making it easier for them to obtain affordable housing. On the other hand, it would decrease higher-graded members' allowances. This alternative would create a larger amount of over- and underpayments than what exists in the current program. It would have no significant impact on program costs.

The constant-absorption-ratio alternative would have members absorb housing costs according to their ability to pay: The higher the pay grade and the higher the income, the greater the absolute amount of housing costs absorbed. While this alternative might be viewed as equitable in the sense that each member would absorb the same percentage of income for housing, other analyses we made during this assignment show that the proportion of civilian income devoted to housing generally decreases with increasing income. Under this alternative, most pay grades would absorb more housing costs than they currently do under VHA and would have over- and underpayment problems like those of the current program. This alternative would have saved about $33 million in program costs in fiscal year 1985.

The VBAQ alternative would be simpler to administer because it would combine two allowance programs--BAQ and VHA--into a single allowance and consolidate the 337 MHAs into 3. Although this alternative could be implemented in a number of ways, for simplicity we established three housing areas--high-, medium-, and low-cost--and for each area computed allowances based on a multiple of the BAQ. We then compared these results with current VHA and BAQ amounts. Like the current VHA and BAQ programs, pay-grade differences would be maintained. Each of the three areas would include about one-third of the BAQ-eligible population. Most senior officer and enlisted pay grades would receive increased allowances, thus reducing the amount of housing costs they currently absorb under VHA. Pay grades O-7 through O-10 would benefit the most from this alternative, with a resultant housing-allowance increase that would be more than twice that of the O-6 allowance. In total, 17 of the 23 pay grades would receive an increase and the remaining 6 a decrease in allowances, compared to what they currently receive under VHA.

The major drawbacks of the VBAQ alternative are that it would have (1) increased program costs by about $30 million in fiscal year 1985, and (2) allowed larger over- and underpayments than those which have been criticized in the current program. DOD said, however, that the over- and underpayment disadvantage of the VBAQ would be so great that the whole purpose of the VHA program would be lost.

Using standard econometric procedures, we estimate that each of the alternatives would have little effect on the number of military personnel leaving or reenlisting in relation to the active-duty force size of more than 2 million members. The actual-cost and partial-retention alternatives might cause about 8,600 (four-tenths of 1 percent) and 6,900 (three-tenths of 1 percent) members to leave the service, respectively. The net effect of the remaining alternatives would be to increase the allowances sufficiently so that additional members would remain in the service. We estimate that the range of those who would remain would be between 1,600 (one-tenth of 1 percent) under the constant-absorption-ratio alternative to 5,700 (three-tenths of 1 percent) under the flat-rate alternative, version 1.

The fiscal year 1985 VHA program, compared with several of the alternatives, is more costly, but it maintains differences between pay grades in housing allowances, a feature which DOD views as desirable. In addition, it maintains consistency throughout each housing area in the absolute amount of housing costs that members in each pay grade absorb. Finally, from the service members' standpoint, the current VHA provides them with the opportunity to have additional nontaxable disposable income.

Subsequent to our audit work, House and Senate Conferees agreed to a Defense Authorization Bill for 1986, which contained a provision allowing members to keep only one-half of the difference between their housing costs and their combined VHA and BAQ allowance. Based on remarks made by the conference managers, the Conferees intended that DOD separate utilities and maintenance costs from other housing costs (i.e., rents and mortgage payments) and that it use different procedures for setting allowances for these two classes of costs. We have not estimated the effects of this provision on program cost because DOD officials informed us that they will be recalculating VHA allowances to reflect these changes.

DOD/IG REPORT ON RENT PLUS IN ALASKA AND HAWAII

The fiscal year 1986 Defense Authorization Act placed Alaska and Hawaii under the VHA program. Before that, however, the Rent Plus program had been implemented in Alaska and Hawaii because they have traditionally been considered overseas posts for housing-allowance purposes. The two major ways in which Alaska and Hawaii differ from their CONUS counterparts are their higher housing costs and their geographic remoteness, which limits how far members can commute to find lower-cost housing. DOD has also argued that Hawaii differs from CONUS because of its low housing-vacancy rate. However, we found this rate to be similar to that of a number of cities in CONUS where comparable data was readily obtainable.

Over the last 2 years, the Congress has debated whether Alaska and Hawaii should continue under the Rent Plus program or whether they should be included under the VHA program. Advocates for the retention of the Rent Plus program in Hawaii and Alaska have argued that converting to the VHA program would cause increased family hardships and would result in a decrease in extensions of tours and a sharp increase in the number of moves. Neither DOD nor the services had complete data readily available to support this argument.

In 1984, the DOD/IG conducted an audit of the Rent Plus Housing Allowance program in Alaska and Hawaii and concluded that (1) an inappropriate calculation methodology resulted in excess program costs of $25.2 million; (2) specific provisions of Rent Plus regulations resulted in higher program costs of at least $1.4 million; and (3) inadequate internal controls resulted in estimated overpayments of about $.08 million in Alaska and $1.4 million in Hawaii.

We found that most of the DOD/IG work was thorough and well-documented. The few inaccuracies or miscalculations that did exist would appear to have had little effect on the DOD/IG conclusions.

Costs of Rent Plus versus VHA

Several estimates have been made of the cost-savings that could result from transferring Alaska and Hawaii from the Rent Plus program to the VHA program. The DOD/IG estimated that, for fiscal years 1983 and 1984, $52 million could have been saved--$24 million in fiscal year 1983 and $28 million in fiscal year 1984--had Hawaii been under VHA. Although we have not reviewed the underlying statistics used to generate the estimated $52 million in savings, we believe, based on discussions with DOD/IG staff, that this figure should not be used without recognizing the limitations in the data available when it was developed. The VHA and Rent Plus rates and costs calculated by the DOD/IG were based on initial 1981 survey data, and a number of questionable assumptions about program growth, numbers of recipients at the Rent Plus ceilings, and numbers of renters and buyers in the recipient population. The DOD/IG did not attempt to compare estimated VHA costs with actual Rent Plus expenditures for the fiscal years in question.

Subsequently, a DOD study group established to review the Rent Plus program worldwide also developed estimates of cost-savings by shifting Alaska and Hawaii to the VHA program (based on rate calculations for three major cities--Anchorage, Fairbanks, and Honolulu, where the military population is concentrated). The study group used survey data collected in September and October 1984 to generate VHA rates for Alaska and Hawaii and to update Rent Plus ceilings and utility allowances for cities in these two states. To develop its cost estimates, the study group then compared the VHA with the Rent Plus allowance, based on the updated ceilings and utility allowance.

The utility-allowance calculation method used by the study group has not been used before under Rent Plus, nor has it received DOD sanction as the appropriate method to use. It establishes allowances for each pay grade instead of either a flat allowance for all pay grades or one allowance for officers and another for enlisted grades as is now used, and has the effect of generally reducing the amount of allowances. Using this calculation method, the study group found that approximately $21.4 million could have been saved in fiscal year 1985 by transferring Alaska and Hawaii to the VHA program. This represents a net savings: The study group found that it would be more expensive to place Alaska under VHA but less expensive to place Hawaii under VHA.

For illustrative purposes, we used the Rent Plus study-group data to compare the costs of VHA and Rent Plus for Alaska and Hawaii, using three different calculations, and found that savings would range from $1.2 million to $31.2 million, depending on the assumptions and methodology used. In our first calculation, we used the VHA costs generated by the study group and compared these with Rent Plus allowances based on updated ceilings and then-existing utility allowances, and found that $31.2 million could be saved. In our second calculation, we compared the VHA costs with Rent Plus allowances based on then-existing ceilings and utility allowances, and found that $10.9 million could be saved. In our third calculation, we compared VHA costs with Rent Plus allowances based on then-existing ceilings and updated utility allowances, and found that $1.2 million could be saved.

AGENCY COMMENTS AND OUR EVALUATION

DOD concurred or partially concurred with our findings and agreed with our overall discussion of the VHA program, emphasizing that the program was implemented for the purpose of providing financial support for military members assigned to high-cost areas. In several instances, DOD suggested changes to clarify and update the report. We agree with a number of those suggestions and have revised the report accordingly.

DOD had two major concerns with the report. First, DOD did not believe that we accurately portrayed how and why operations-research techniques--particularly year-to-year and pay-grade smoothings--are used in setting VHA rates. DOD stressed that the purpose of these techniques is not to achieve a predetermined result, or to change a result which would be produced from the use of the raw data, but to determine accurate housing costs in those cases where limited data exists. In response to DOD's concern, we have made revisions to make it clear that we did not intend to imply that these procedures are performed to achieve a predetermined result. (See pp. 11 and 13.)

It should be pointed out that the pay-grade smoothing is used because one of DOD's fundamental assumptions is that the higher the pay, the more will be spent on housing. Consequently, in every circumstance where data shows the housing costs of lower pay grades to be greater than those of higher pay grades, DOD believes that the data is atypical and needs correcting. Also, DOD considers that housing allowances are part of members' basic compensation and that they should, therefore, increase with rank and responsibility.

DOD also stated that it believes that the use of these techniques is fully consistent with VHA legislation. Further, it said that the Congress has been aware of the use of the year-to-year and pay-grade smoothings since the beginning of the program and that the fiscal year 1986 Authorization Act specifically authorized their use in situations where data is limited.

As we interpret VHA legislation, DOD has little flexibility in determining how VHA rates should be calculated. We believe that DOD is precluded from using housing-cost data of one pay grade to influence the VHA rates of another pay grade except when specifically authorized for an area that has 50 or fewer people. However, when an area does have more than 50 people, we interpret the legislation as precluding the use of smoothing procedures if VHA rates of one pay grade are influenced by housing-cost data of other pay grades. (See p. 13.)

DOD's second major concern was that we did not demonstrate any of the five alternatives to be less costly than the current VHA program. DOD did agree that the alternatives, as structured, would result in different budgetary costs, some of which would be lower than the current program. However, it said that these differences were immaterial since none of the alternatives is intrinsically more or less costly than the others, its relative cost being a function of the assumptions made in our analyses. DOD said that our assumptions are no more valid than those used under the current VHA methodology.

We agree that the alternatives could be designed to yield different budgetary costs and have added language to reflect this. (See p. 14.) However, it should be pointed out that the assumptions we used in designing the alternatives were founded upon either detailed data analysis of actual experience or the logic of prior research on the program over the last 12 years, and congressional concern over the program's growth.

Our report clearly indicates that housing allowances are currently defined as an element of RMC and, under this view, it may be appropriate for positions of higher rank to receive larger allowances. However, there is an element of RMC--Basic Allowance for Subsistence--which does not increase with each increase in rank. Moreover, if housing allowances are viewed as a reimbursement for expenses incurred, they do not need to increase with rank. (See pp. 13 to 14.)

DOD also stated that we have underestimated the negative effects the alternatives would have on force retention, saying that we used the oversimplified assumption that, so long as the total number of compensation dollars in a pay grade is unchanged, the alternatives would have no impact on retention. We recognize that many variables can affect an individual's decision to stay in or leave the military--pay and benefits being only one of those. Our interest in doing this analysis was to isolate the effect that changes in this one variable would have on retention. The methodology we used is consistent with current practice in analyzing the effects of pay changes on military retention. (See pp. 35 and 36.)

DOD agreed with the basic advantages and disadvantages of the alternatives, but said that our discussion did not go far enough. As an example, DOD cited the importance that we seemed to place on the administrative-simplicity advantage of some of the alternatives as compared to the importance of other advantages and disadvantages associated with those alternatives. Although some of the alternatives may differ little in their relative ease of administration, others could differ significantly. For example, the administration of the actual-cost alternative would be far more difficult, it seems to us, than that of the VBAQ alternative due to the extensive field verifications of actual housing expenditures that may have to be performed.

DOD agreed with our discussions of the (1) Rent Plus Housing Allowance program in Alaska and Hawaii, (2) DOD/IG report on Rent Plus, and (3) DOD study-group review of the Rent Plus program. It said that the disadvantages of the Rent Plus program also applied to the actual-cost and partial-retention alternatives discussed in the body of our report.

With regard to the $52 million that could have been saved had Hawaii been under VHA, DOD pointed out that the savings for fiscal year 1983 and 1984 were $24 million and $28 million, respectively. Also, effective November 8, 1985, all members newly assigned to Alaska and Hawaii will be paid under VHA. DOD also informed us that, as of October 1, 1985, the name of the Rent Plus Program was changed to the Overseas Housing Allowance. We have updated the report to reflect these comments. (See pp. 7 and 18.)

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objectives were to (1) analyze the procedures used to set VHA rates, (2) evaluate alternatives to the VHA program in terms of their impact on retention, cost, equitableness to members, and ease of administration, and (3) review the DOD/IG's audit of the Rent Plus program in Alaska and Hawaii.

We first reviewed existing VHA and Rent Plus legislation to determine what the law requires with respect to how VHA rates should be determined and why Alaska and Hawaii were under the Rent Plus program at that time. We then discussed our objectives, scope, and methodology with key DOD officials responsible for setting policies and managing the VHA and Rent Plus programs to gain an understanding of how these programs are managed and operated. We obtained their advice on the procedures we developed and used to test alternatives to the current program.

We also reviewed the procedures used to establish VHA rates. We obtained documents describing how VHA rates are determined from DOD officials, and had numerous discussions with these officials about the procedures used. To verify that the documented procedures were actually followed, we evaluated the computer program used to set the rates. Although we did not trace the data back to source documents and did not perform reliability and validity tests, we did perform other tests to ensure the reasonableness of results obtained from using the program. These included reviewing DOD data-collection and editing procedures, examining the computer code, and performing sensitivity tests on the rate-setting model.

To estimate the budgetary impact of the VHA rate-setting procedures, we used various DOD data bases and modified the official computer program used to estimate the VHA costs for fiscal year 1985 in order to estimate what impact not using the procedures would have. We discussed the results with DOD officials.

We met with DOD/IG officials responsible for the study of the Rent Plus program in Alaska and Hawaii, as well as officials from the Office of the Secretary of Defense responsible for a separate study of the Rent Plus program. We examined the results of their work and the methods used to obtain those results, and also obtained their views regarding whether Alaska and Hawaii should be placed under the VHA program. On numerous occasions, we also met with staff members of the Senate Appropriations Subcommittee on Defense to provide status reports and to brief them on our preliminary results.

In addition, we reviewed previous reports on military housing allowances--including those issued by the President's Commission on Military Compensation, the Third Quadrennial Review of Military

Compensation, and the Joint Services VHA Study Group--to determine how housing-allowance issues have been dealt with in the past and to ascertain whether any issues remained pertinent.

We conducted our audit work from August 1984 to June 1985, in accordance with generally accepted government auditing standards.

VHA PROGRAM: COSTS AND CHARACTERISTICS

The VHA program, which went into effect on October 1, 1980, provides a supplementary housing allowance to any service member who is entitled to BAQ and who is

--assigned to duty in an area of CONUS which is a high-cost housing area, or

--assigned to an unaccompanied overseas tour but whose dependents reside in a CONUS high-cost housing area.

Before the implementation of the program, members assigned to those high-cost housing areas were forced either to lower their housing consumption or to supplement their BAQ from other income sources, such as basic pay. Consequently, they had to lower their standard of living relative to members stationed in less costly areas. For example, before 1980, a member assigned to Los Angeles, California, would have received the same housing allowance as a member of the same status assigned to Gallop, New Mexico, although the housing costs of the member in Los Angeles might be twice that of those of the member in Gallop.

When established, the monthly VHA was defined as the difference between the average housing cost for members of the same pay grade in an area and 115 percent of the BAQ for that pay grade. For example, if the average monthly housing cost for all E-6s assigned to Washington, D.C., was $600 and the E-6 BAQ was $200, the E-6 VHA for Washington would have been $370 (i.e., $600 - [1.15 X $200] = $600 - $230 = $370). If particular members' housing costs were greater than their combined BAQ and VHA, they would have to pay the difference themselves.

VHA program costs for DOD service members increased almost 48 percent (from $652.1 million to $962.5 million) from fiscal year 1981 to fiscal year 1983, and are expected to increase about 35 percent from fiscal year 1984 to fiscal year 1986 (from $825 million to $1.1 billion). A number of factors have contributed to these increases:

--The number of DOD service members receiving VHA has increased almost 24 percent (from 703,000 in fiscal year 1981 to an estimated 869,000 in fiscal year 1986).

--The cost of housing has increased over the period, and the BAQ has failed to keep pace with housing-cost increases.

--The method of computing VHA has changed from that of determining rates for 5 pay grade groups to that of determining rates for each of 23 pay grades.

In order to control the growth of the VHA program cost, the Congress significantly revised the program several times. The most recent revision, effective January 1, 1985, tied BAQ to housing costs by setting BAQ at 65 percent[1] of the national median housing costs of members in each pay grade. BAQ will be adjusted in the future by the amount of military pay raises. This revision also severed the link between VHA and BAQ by defining VHA rates as the difference between the local median monthly cost of housing for a pay grade and 80 percent of the national median monthly cost of housing for members in the same pay grade. Finally, this revision capped future increases in VHA rates at the increase in a military version of the housing component of the CPI. Thus, current VHA rates, unlike old rates,

--will be received only by members assigned to duty in locales where median housing costs exceed 80 percent of national median housing costs,

--will be limited within the overall program cost determined by the CPI,

--are not in any way dependent upon or tied to BAQ increases, and

--require a greater absorption of housing costs by the member.

Many of these legislative changes were the result of the program changes DOD recommended in Variable Housing Allowance Program: Should It Be Changed?, its February 1984 Joint Service report to the Congress.

Tables III.1 and III.2 demonstrate, for selected pay grades, how the VHA works to equalize the absorption rate of members, irrespective of their duty assignments. By limiting the amount of housing costs that members have to absorb, VHA lessens the economic burden of living in high-cost areas.

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[1]Although the authorizing language set the BAQ at 65 percent of national median housing costs, actual BAQ funding approved by the Congress supported rates set at approximately 63.5 percent, on the average. The reason for the difference was that the actual increase in members' housing costs was greater than the increase in the housing component of the CPI.

Table III.1: Local Median Housing Costs and VHA in Selected Areas for E-6s With Dependents, Fiscal Year 1985

	VHA	Absorption	BAQ	Local median housing costs
Santa Clara, CA	$313.30	$79.35	$343.85	$736.30
Los Angeles, CA	257.66	79.35	343.85	680.86
Washington, DC	204.53	79.35	343.85	627.73
Quantico, VA	136.76	79.35	343.85	559.96
Newark, NJ	116.41	79.35	343.85	539.61
Fort Hood, TX	57.41	79.35	343.85	480.61
Gallop, NM	0	67.28	343.85	411.13
Johnstown, PA	0	57.91	343.85	401.76
National median housing costs	-	-	-	529.00

Table III.2: Local Median Housing Costs and VHA in Selected Areas for O-4s With Dependents, Fiscal Year 1985

	VHA	Absorption	BAQ	Local median housing costs
Los Angeles, CA	$384.09	$118.35	$512.85	$1,015.29
Santa Clara, CA	332.92	118.35	512.85	964.12
Newark, NJ	265.39	118.35	512.85	896.59
Washington, DC	245.85	118.35	512.85	877.59
Quantico, VA	134.21	118.35	512.85	765.41
Fort Hood, TX	100.41	118.35	512.85	731.61
Johnstown, PA	0	117.89	512.85	630.74
Gallop, NM	0	111.31	512.85	624.16
National median housing costs	-	-	-	789.00

VHA BASELINE: PROGRAM CHARACTERISTICS FOR FISCAL YEAR 1985

Table III.3 provides detailed characteristics of the VHA program in fiscal year 1985 for DOD service members with dependents; table III.4 provides the same information for members without dependents. Analysis of data in the tables reveals the following:

--E-3s to E-7s with dependents accounted for a total of 56 percent of those receiving BAQ, and the E-3s to E-7s without dependents accounted for another 14 percent.

--The VHA rate increased as grades increased except for the relatively small group of warrant officers and O-1Es and O-3Es with previous enlisted experience.

--The percent of housing costs absorbed by members varied slightly across grades. Generally, the middle enlisted pay grades and the upper officer pay grades absorbed slightly more than the other groups.

--Absorption was a relatively small proportion of RMC, which includes basic pay, basic allowance for subsistence, tax advantage, and housing allowances. However, absorption was generally higher for those with dependents and for those in the enlisted grades. (On the average, for those with dependents, the absorption rate was 4.5 percent for enlisted members and 3.3 percent for officers. For those without dependents, it was 3.5 percent for enlisted members and 3.0 percent for officers.)

The VHA rates varied significantly across the 337 MHAs, as table III.5 shows. For example, monthly rates for E-5s varied from $16 for Spokane, Washington, to $228 for Los Angeles, California. For O-3s, the rates varied from $19 for Spokane to $315 for Los Angeles.

Table III.3: VHA Operating Characteristics for Members With Dependents, Fiscal Year 1985

Grade	Total no. receiving BAQ in each grade	No. with dependents receiving BAQ[a]	Percent of grand total receiving BAQ[b]	VHA average (per month)	Percent of NATMTHC[c] absorbed	ABS as percent of RMC[d]
Officers						
O-10	0	0	0	$ 0	0	0
O-9	16	16	0	201	17.1	2.6
O-8	134	129	0	201	16.8	2.6
O-7	188	183	0	201	16.8	2.6
O-6	9,942	9,467	1	186	15.9	2.8
O-5	25,764	24,215	3	173	16.3	3.2
O-4	39,470	34,874	4	156	16.2	3.4
O-3	59,547	40,120	5	122	16.5	3.5
O-2	21,390	8,587	1	100	17.6	4.2
O-1	19,026	6,174	1	81	14.9	3.8
O-3E	8,284	7,689	1	169	15.2	3.1
O-2E	3,841	3,287	0	177	16.2	3.7
O-1E	2,806	2,254	0	177	13.3	3.3
W-4	1,646	1,597	0	140	15.3	3.1
W-3	3,366	3,221	0	126	16.4	3.6
W-2	4,187	3,793	0	118	14.8	3.5
W-1	1,366	1,121	0	105	16.2	4.1
Total	200,982	146,737	17			
Average				$145	16.2	3.3
Enlisted						
E-9	9,846	9,578	1	136	17.0	3.7
E-8	24,203	23,360	3	124	15.9	3.7
E-7	78,426	73,944	8	116	16.0	4.1
E-6	126,149	112,834	13	104	16.3	4.4
E-5	161,782	124,513	14	93	16.9	4.8
E-4	142,285	103,472	12	80	17.1	4.9
E-3	103,685	78,482	9	74	17.4	5.1
E-2	23,357	20,778	2	70	13.7	4.0
E-1	11,730	11,462	1	65	7.6	2.2
Total	681,467	558,426	63			
Average				$ 94	16.4	4.5
Total	882,450	705,163	80			
Average				$104	16.4	4.1

[a]Of those receiving BAQ, 98 percent also received VHA. The remaining 2 percent lived in areas where the local median housing costs were less than 80 percent of national median housing costs. DOD Per Diem, Travel and Transportation Committee analysts advised us that the number receiving BAQ should be used for analyses reported in this study.

[b]Percentages will not add due to rounding.

[c]NATMTHC—Average national median total housing cost.

[d]ABS—Amount of average absorption (portion of housing cost not covered).

Table III.4: VHA Operating Characteristics for Members Without Dependents, Fiscal Year 1985

Grade	Total no. receiving BAQ in each grade	No. without dependents receiving BAQ[a]	Percent of grand total receiving BAQ[b]	VHA average (per month)	Percent of NATMTHC[c] absorbed	ABS as percent of RMC[d]
Officers						
O-10	0	0	0	$ 0	0	0
O-9	16	0	0	166	17.1	3.3
O-8	134	4	0	166	16.8	3.3
O-7	188	5	0	166	16.8	3.3
O-6	9,942	475	0	159	15.9	2.3
O-5	25,764	1,548	0	153	16.3	2.7
O-4	39,470	4,595	1	147	16.1	2.9
O-3	59,547	19,426	2	114	16.4	2.9
O-2	21,390	12,802	1	81	17.6	3.4
O-1	19,026	12,851	1	65	14.8	3.0
O-3E	8,284	595	0	149	15.2	2.6
O-2E	3,841	553	0	135	16.2	2.9
O-1E	2,806	552	0	135	13.3	2.5
W-4	1,646	49	0	117	15.3	2.9
W-3	3.366	145	0	121	16.3	3.0
W-2	4.187	394	0	80	14.8	2.9
W-1	1,366	245	0	78	16.4	3.3
Total	200,982	54,245	6			
Average				$ 99	16.2	3.0
Enlisted						
E-9	9,846	267	0	$107	17.0	2.8
E-8	24,203	843	0	96	15.9	2.8
E-7	78,426	4,482	1	86	16.0	2.9
E-6	126,149	13,315	2	77	16.2	3.1
E-5	161,782	37,268	4	70	16.9	3.5
E-4	142,285	38,813	4	62	17.0	3.6
E-3	103,685	25,202	3	61	17.4	4.0
E-2	23,357	2,576	0	58	13.7	2.7
E-1	11,730	268	0	49	7.6	1.5
Total	681,467	123,041	14			
Average				$ 67	16.4	3.5
Total	882,450	177,286	20			
Average				$ 77	16.4	3.3

[a]Of those receiving BAQ, 98 percent also received VHA. The remaining 2 percent lived in areas where the local median housing costs were less than 80 percent of national median housing costs. DOD Per Diem, Travel and Transportation Committee analysts advised us that the number receiving BAQ should be used for analyses reported in this study.
[b]Percentages will not add due to rounding.
[c]NATMTHC—Average national median total housing cost.
[d]ABS—Amount of average absorption (portion of housing cost not covered).

Table III.5: Area Variation on Monthly Housing Costs and VHA for E-5s and O-3s With Dependents in Selected MHAs in Fiscal Year 1985

	No. of BAQ eligibles	LMTHC[a] O-3	VHA O-3	VHA+BAQ O-3	LMTHC[a] E-5	VHA E-5	VHA+BAQ E-5
15 largest MHAs[b]							
Norfolk/Portsmouth, VA	46,869	$646	$157	$578	$465	$121	$421
San Diego, CA	43,458	692	206	627	493	152	452
Washington, DC	42,478	749	266	687	528	190	490
Fort Bragg/Pope AFB, NC	24,971	522	25	446	382	31	331
San Antonio, TX	21,596	597	106	527	428	81	381
Fort Hood, TX	20,088	575	82	503	394	44	344
Jacksonville, FL	18,045	629	139	560	439	93	393
Tacoma, WA	16,100	567	73	494	386	36	336
Charleston, SC	14,945	581	88	509	391	42	342
Colorado Springs, CO	14,827	576	83	504	413	65	365
Los Angeles, CA	14,642	795	315	736	564	228	528
Camp Lejeune, NC	13,462	545	50	471	368	17	317
Camp Pendleton, CA	13,241	676	189	610	531	193	493
Hampton/Newport News, VA	12,598	619	128	549	454	109	409
Fort Sill/Lawton, OK	10,381	544	49	470	421	73	373
Other selected MHAs[c]							
Philadelphia, PA	3,643	692	206	627	459	115	415
Fort Huachuca, AZ	3,095	533	37	458	420	72	372
Altus AFB, OK	1,998	537	41	462	400	51	351
Spokane, WA	1,932	515	19	440	368	16	316
Columbus, OH	986	587	94	515	396	47	347
Kings Bay/Brunswick, GA	958	551	56	477	373	22	322
Rock Island, IL	397	572	78	499	436	90	390
Greensboro, NC	389	556	62	483	409	61	361
Traverse City, MI	30	593	101	522	423	75	375

[a]LMTHC--Local median total housing costs represent local housing costs for each MHA and are averages of costs for service members both with and without dependents.

[b]The largest 15 MHAs accounted for about 42 percent of BAQ recipients who are potentially eligible for VHA.

[c]The other selected MHAs were randomly chosen from five groups of MHAs stratified according to the population of BAQ eligibles: 2,001-5,000, 1,000-2,000, 501-1,000, 101-500, and less than 100.

VHA RATE-SETTING METHODOLOGY FOR FISCAL YEAR 1985

According to VHA program administration officials, the following procedures were used to establish the CONUS VHA rates for fiscal year 1985. (Figure III.1 shows the complexity of these procedures.)

--Each of the services provided the Defense Manpower Data Center with a population file of those eligible to receive VHA. The Center then sorted these files by MHA and drew samples from each MHA to be surveyed.

--About 400,000 questionnaires on housing costs were sent in March 1984 to each of the services for distribution to military members who were eligible for VHA payment.

--The returned questionnaires (about 74 percent of those sent) were edited and then used for setting the VHA rates.

--Data collected from each of the 337 MHAs was further processed. A few areas with sparse data, less than 2 percent of the survey population, were grouped into another category called County Cost Groups.

--All questionnaires from each MHA were categorized according to a combination of house-type, bedroom-number, pay grade, and dependent status--i.e., with or without dependents--creating 704 different groupings.

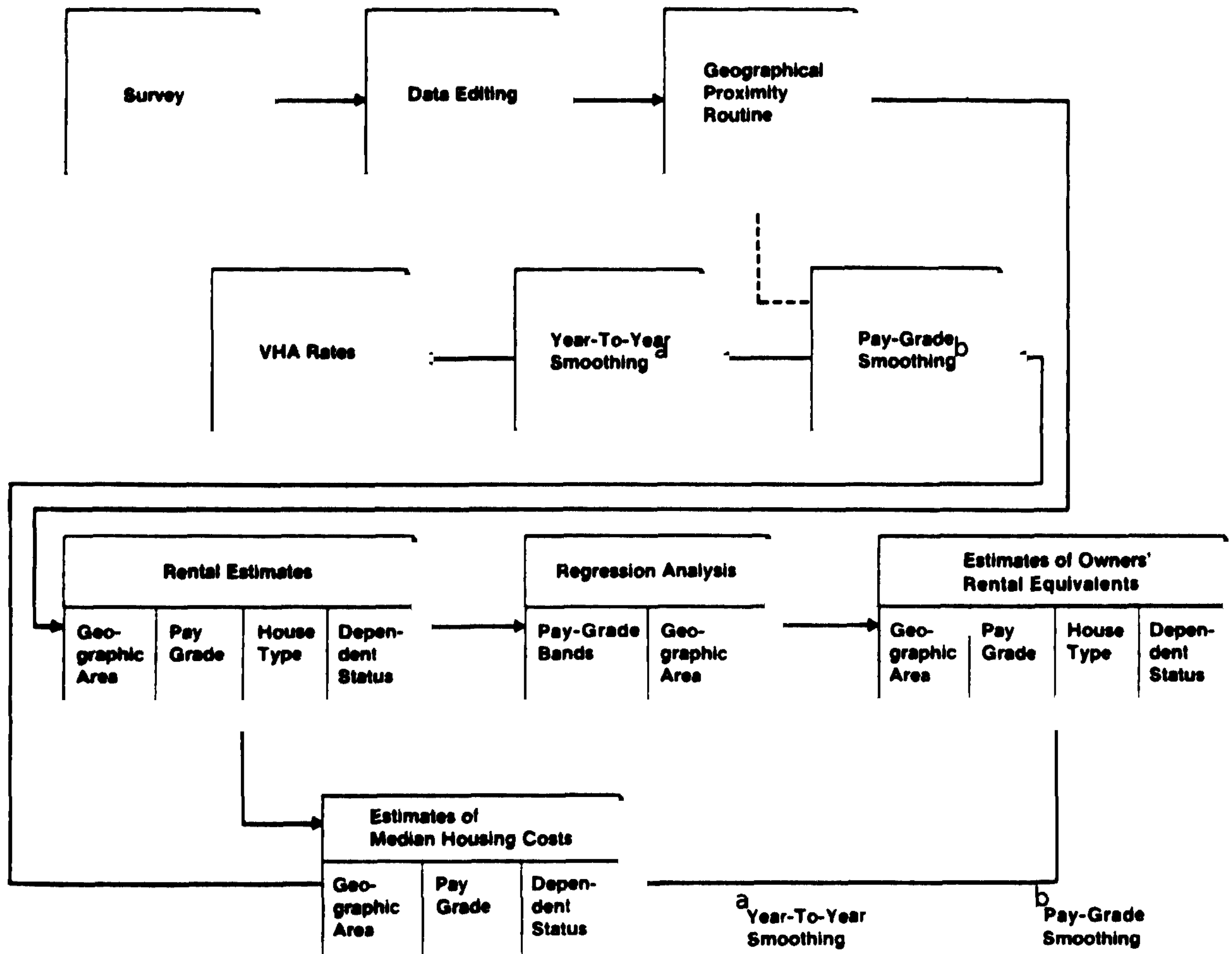
--Median housing costs were computed for each category in each of the 337 MHAs and the County Cost Groups. Owners' actual-cost data was not used in the rate-setting; instead, "rental equivalents" were used to estimate owners' costs in each of the above groupings.

--Rental equivalents were computed by regression equations relating renters' costs to income levels, type of house, number of bedrooms, dependent status, and pay grades. These equations were estimated for each MHA.

--Data on both renters' costs and owners' rental equivalents were then combined to estimate the area's average median housing cost for each pay grade.

--The local median cost data was then used along with national data to determine the local VHA rates: The portions of local median costs (by pay grade) exceeding 80 percent of national median housing costs are the VHA rates. (BAQ currently reimburses, on the average, 63.5 percent of CONUS median housing costs. The two programs combined cover, on the average, about 83.5 percent of members' housing costs.)

Figure III.1: Steps in Setting Fiscal Year 1985 Rates for the VHA Program



[a] **Year-To-Year Smoothing**

After execution of this subroutine, a test is made for paygrade inversion

- If none exists, then the data resulting from the year-to-year smoothing is used
- If one exists, then the data is used as it existed before the year-to-year smoothing

[b] **Pay-Grade Smoothing**

Subroutine could be called up to 60 times

- Every sixth smoothing requires reexecution of the entire program using data from every MHA
- Reexecution of the program could possibly be done 10 times with a 10% increase in weighted data each time the Geographical Proximity routine is executed

Operations-Research Procedures

VHA rate-setting uses certain operations-research procedures--including techniques designed to achieve geographical-proximity, pay-grade, and year-to-year smoothings--to produce more accurate estimates of local housing costs and to achieve policy objectives. We initially attempted to develop estimates of the budgetary impact of all three smoothings. However, because the geographic-proximity and pay-grade smoothings are so interdependent in the computer program which generates VHA rates and budget estimates, we were unable to do so. We estimate that the year-to-year smoothing reduced VHA program costs by $11 million in fiscal year 1985.

The computer program uses the pay-grade smoothing not only to prevent pay inversion but also to determine when enough data is available to produce reliable calculations based on actual costs. When little data exists, the computer assigns a housing cost based on the assumption that members spend about 33 percent of their BMC on housing. A Per Diem Committee official responsible for the development of the program said that the 33-percent figure was a judgment based upon his experience and that no documentation was available to support it. Analyses we did on another aspect of this assignment, however, indicate that members spend only about 27 percent of BMC on housing. The effect of the difference is negligible in terms of overall program outlays because of the small number of cases in which housing costs are assigned.

Since we were informed at a late date of this data-substitution aspect of the pay-grade smoothing, our original estimate of the budgetary impact of this smoothing was based on data that was an unknown mixture of actual and assigned costs. The computer model would need to be significantly redesigned in order to obtain budget estimates of the effect of the pay-grade smoothing based only on actual costs.

As we have previously observed, the use of smoothings appears to be inconsistent with legislation. In our report, Variable Housing Allowance: Rate Setting Criteria and Procedures Need To Be Improved (FPCD-81-70, Sept. 30, 1981), we stated that rates computed on the basis of similar techniques may be inconsistent with the rate-setting methodology prescribed by P.L. 96-343 since these techniques could result in rates established for a particular pay grade that would not depend totally on housing costs incurred by members in that pay grade. Current VHA legislation (P.L. 98-525), like prior legislation, emphasizes that VHA rates are to be based on housing costs experienced by members of the same pay grade. Accordingly, we believe that the use of the pay-grade and year-to-year smoothings is also inconsistent with existing VHA legislation.

DOD believes that the use of these two procedures is justified, either on the grounds of sound management practice or on the view that higher-graded personnel generally spend more for housing and have increased job responsibility and, therefore, should be compensated more for housing costs than lower-graded personnel. This view is supported by the fact that Title 37, Section 101, U.S.C. 25, defined VHA as part of military compensation. Accordingly, DOD argues that positions of higher responsibility should receive larger housing allowances, just as they receive larger amounts of certain other types of compensation. Furthermore, DOD states that current VHA legislation gives it the authority to establish implementing regulations and believes that these are appropriate procedures under that delegation of authority. It should be pointed out, though, that DOD's implementing regulations do not address the rate-setting methodology.

The DOD Authorization Act for fiscal year 1986 contains an amendment prohibiting the use of these smoothing procedures solely to prevent pay inversions or to prevent reductions in VHA rates when housing costs decline. The Act would permit the use of these procedures for housing areas with 50 or fewer people of the same grade when the limited data might otherwise produce anomalous inversions or reductions in rates.

FIVE ALTERNATIVES TO THE VHA PROGRAM

We evaluated five different alternatives to the fiscal year 1985 VHA program. The first alternative would have the same structure as the fiscal year 1985 program except that it would reimburse only actual costs, up to the limit of the existing VHA rate for a given pay grade, MHA, and dependent status. The second alternative would allow the service member to keep some portion of any excess VHA payment over actual costs--a partial retention of excess payment. The third alternative would set a flat rate for the variable portion of the allowance in each MHA. The fourth alternative would create a constant portion of income absorption ratio (constant-absorption ratio) for each pay grade in each MHA. This alternative would differ from the current procedure by equalizing the portion of RMC devoted to housing across pay grades and localities instead of equalizing the amount of housing costs absorbed in different localities by the same grade. The fifth alternative would provide variable BAQ (VBAQ) rates for high-, medium-, and low-cost areas.

Each of the five alternatives, as designed, would differ from the fiscal year 1985 program in at least one of the following aspects: effect on retention of personnel in the military, budget savings, effect on members, or ease of administration.

To estimate the effect of each alternative on retention, we used standard econometric procedures. For each alternative, we computed the change in allowances as a percentage of RMC. We then multiplied the computed percentages by a set of commonly used supply elasticities to obtain an estimated retention effect on the total BAQ-eligible population. To estimate the retention effect of each alternative, we assumed an elasticity of 1.25 for E-1s, 1 for officers, and 2 for all others. These elasticities are identified in the literature on retention of military members.[1] Using a standard computational procedure, we then converted the results obtained for the BAQ-eligible population to a retention effect for the total force population.

[1]See Captain Thomas V. Daula and Major Thomas W. Fagan, "Modeling the Retention Behavior of First-Term Military Personnel: Methodological Issues and a Proposed Specification," U.S. Military Academy, preliminary paper, Dec. 1982; and Glenn Gotz and John J. McCall, A Dynamic Retention Model for Air Force Officers--Theory and Estimates, R-3028-AF, Santa Monica, Calif.: Rand Corporation, Dec. 1984.

Table IV.1 shows the results of our analysis for each of the alternatives. As can be seen, none of the alternatives would have a significant impact on total force retention. Specifically, the actual-cost alternative would result in small number of additional members leaving the service, while the remaining alternatives would induce a small number of additional members to remain in the service. The overall effect of any of the alternatives would be minor in relationship to the total active-duty force size of approximately 2 million members.

Table IV.1: Impacts of the Various Policy Alternatives on Retention (by Pay Grade)

Pay grade	Number of personnel gains or losses[a]				
	Actual cost[b]	Flat rate 1[c]	Flat rate 2[c]	Constant-absorption ratio	VBAQ
Officer					
O-7/10	0	0	2	-4	6
O-6	-5	-62	-3	-108	93
O-5	-20	-211	-35	-209	196
O-4	-63	-370	-65	-266	239
O-3	-320	-483	61	-436	258
O-2	-193	-28	231	-80	138
O-1	-249	67	323	-151	137
W-4	-2	-18	-7	-14	2
W-3	-4	-38	-13	-15	-6
W-2	-12	-50	-16	-22	-12
W-1	-4	-15	-4	-1	-9
Total	-872	-1,209	474	-1,305	1,042
Enlisted					
E-9	-25	-130	-169	-71	52
E-8	-83	-329	-441	-158	91
E-7	-438	-822	-1,282	-123	357
E-6	-1,133	95	886	347	922
E-5	-2,324	1,874	393	1,122	1,017
E-4	-1,904	2,632	1,408	867	305
E-3	-1,500	2,771	1,698	1,242	147
E-2	-318	768	524	-83	78
E-1	-90	93	34	-205	15
Total	-7,813	6,953	1,280	2,938	2,984
Total	-8,684	5,744	1,755	1,632	4,026

[a]Totals may not add due to rounding.

[b]The partial-retention alternative is designed at 80 percent of the actual-cost alternative. Thus, to estimate the retention effects of implementing the partial-retention alternative, multiply the figures under the actual-cost column by 80 percent. For example, the total retention effect (officer and enlisted) under the actual-cost alternative is -8,684. Applying the above formula (-8,684 X .80) results in an estimated retention effect of -6,947 under the partial-retention alternative.

[c]We looked at two versions of the flat-rate alternative. Version 1 would assign a single dollar amount for all members in a particular MHA, varying only by dependent status. Version 2 would assign separate rates for officers and for enlisted members, which would also vary by dependent status.

REIMBURSEMENT OF ACTUAL COST

Under the actual-cost alternative, service members would not receive VHA payments in excess of their actual housing costs. This alternative has also been described as "payback of overpayments" and "recapture of windfall payments." Unlike the existing program, which treats VHA as an element of compensation, this alternative treats VHA as payment only for housing costs incurred by members when the government does not provide quarters, unless housing costs exceed BAQ and VHA payments.

Budget savings

The actual-cost alternative would have resulted in reductions in fiscal year 1985 program costs of about $99 million, assuming no change in housing-consumption patterns, and after being adjusted for inflation in housing prices through the midpoint of fiscal year 1985. For fiscal year 1986, the program savings have been estimated at $55 million and $85 million, depending on the assumptions made by DOD and us about how members would change their housing behavior in response to the program. DOD estimates that the administrative cost to implement this alternative would be $11 per member. Thus, the net budget savings would be between $45 million and $75 million for fiscal year 1986. For the 5-year period beginning with fiscal year 1986, this alternative would save $128 million to $186 million in aggregate or $78 to $136 million net. Because so much depends on assumptions made about members' behavior, which cannot be predicted with accuracy, precise budgetary savings are difficult to project.

DOD's estimate and our estimate of budget savings

The fiscal year 1985 Appropriations Act required that DOD's budget submission for fiscal year 1986 reflect savings which would be achieved if the actual-cost alternative were implemented. As indicated above, DOD's estimate of this savings was $55 million. This estimate was based on certain assumptions that are outlined below. In contrast, we believe that the savings would be $85 million in fiscal year 1986, exclusive of additional administrative expenses, based on other, perhaps equally plausible, assumptions.

DOD assumed that all members would be informed on January 1, 1985, that the alternative would be implemented on October 1. Some of the excess payment which existed when the survey was done in March 1984 would have disappeared by January 1 because of increases in housing prices since the survey. DOD estimated the housing-price increase to be about 4 percent for the period from April 1984 to January 1985.

DOD's estimate of the savings that would accrue from the actual-cost alternative was based on the following assumptions:

--Members would begin changing their housing expenditures on January 1, 1985, in anticipation of implementation on October 1.

--All members not now at the ceilings would eventually increase their housing expenditures to the full VHA ceiling.

--The average time between permanent change of station (PCS) moves would be 2 years.

The effects of these assumptions on savings in fiscal year 1986 and beyond are shown in table IV.2. "Base savings" in the table represents the amount of VHA payments in excess of the estimated actual costs on January 1, 1985. DOD estimated no growth in base savings because it assumed no increase in housing costs or VHA rates beyond fiscal year 1986. The "Percent of members not changing housing expenditures" represents those service members at the end of a fiscal year who are assumed to be unresponsive to the alternative; that is, they would maintain their pre-January 1, 1985, pattern of housing expenditures. The table shows that by fiscal year 1990 the savings would decline to about $7 million. Savings would decline very gradually after that point. However, total savings over the 5-year period from fiscal year 1986 to fiscal year 1990 would be $128 million.

Table IV.2: DOD's Estimated Savings From the Actual-Cost Alternative

Fiscal year	Base savings	Percent of members not changing housing expenditures	Realized savings
	(millions)		(millions)
1986	$103	54	$ 55
1987	103	32	33
1988	103	20	21
1989	103	12	12
1990	103	7	7
Total			$128

In contrast, our estimate of the savings that would accrue from the implementation of the actual-cost alternative is based on the following assumptions, which we believe to be equally plausible:

--Members will not change their housing expenditures until the alternative is implemented on October 1.

--An estimated 10 percent of the members will not increase their housing expenditures at all. This group might include homeowners unwilling to pay points to refinance a mortgage, individuals near the end of their military careers and unwilling to carry heavy mortgages or rents into retirement, and those for whom housing is a relatively unimportant commodity.

--The average time between PCS moves (excluding accession and termination moves) would be 2.8 years, as it was during fiscal years 1983 and 1984.

Table IV.3 shows the effects of these assumptions on the savings. Unlike DOD's estimate of base savings, our estimate assumes that housing costs will continue to grow between January 1 and October 1, 1986, and during the next 5 fiscal years at the same rate those costs grew from 1984 to 1985.

Table IV.3: GAO's Estimated Savings From the Actual-Cost Alternative

Fiscal year	Base savings	Percent of members not changing housing expenditures	Realized savings
	(millions)		(millions)
1986	$100.9	84	$ 85
1987	106.2	52	55
1988	111.9	20	22
1989	117.8	10	12
1990	124.1	10	12
Total			$186

Effect on members

Using the data from which DOD made its fiscal year 1986 savings estimates, we calculated the VHA amounts that would have been lost to members in each pay grade in fiscal year 1985. The data results were (1) based on the assumption that members would not have changed residences after this program was implemented and (2) adjusted by DOD for a 9-month housing price inflation period to account for increases in housing costs between April 1984, when the survey was conducted, and January 1, 1985. Tables IV.4 and IV.5 present the results of our analyses, which under the above assumptions show total program savings of about $109 million in fiscal year 1985. However, had we applied an inflation rate through the midpoint of fiscal year 1985, the estimated savings would have been about $99 million. Tables IV.4 and IV.5 also show that the amount lost would generally have been less for renters and more evenly distributed across the renter pay grades than it would have been across the homeowner pay grades:

--For homeowners with dependents, the range would have been from $73 for a W-1 to $283 for an O-7/10. For homeowners without dependents, losses would have ranged from $52 for an E-1 to $159 for an O-6, with losses of $100 or more occurring at E-9 and at 10 of the 14 officer levels.

--For renters with dependents, the losses would have ranged from $31 for an E-1 to $88 for a W-4. The average monthly loss would have been $68 for officers and $50 for enlisted members. The range of losses for renters without dependents would have been $41 for an E-4 to $107 for an O-6. No enlisted member would have had a monthly loss over $70, and only two officer ranks (O-5 and O-6) would have lost over $100. The average monthly loss would have been $65 for officers and $47 for enlisted members.

--The percent of all members affected by the actual-cost alternative would have ranged from 3 percent for O-6s through O-10s to 42 percent for O-1s. The percentage would also have been high for E-1s to E-5s (about 24 to 27 percent) and for O-2s (30 percent).

Ease of administration

The administration of the actual-cost alternative would be similar to that of the Rent Plus program. It could require annual verification of rental utilities and maintenance costs for about 860,000 members.

Table IV.4: Potential Allowance Reductions under the Actual-Cost Alternative From CONUS VHA Program for Owners, Fiscal Year 1985

Pay grade	Percent of each grade affected	With dependents: No. members	With dependents: Average monthly reduction	Without dependents: No. members	Without dependents: Average monthly reduction
Officer					
O-7/10	3	1	$283	1	$139
O-6	3	30	199	32	159
O-5	4	108	183	107	152
O-4	6	276	171	304	145
O-3	19	695	132	1,185	109
O-2	30	251	99	607	79
O-1	42	177	91	452	67
O-3E	9	46	170	39	149
O-2E	13	33	177	32	137
O-1E	23	27	165	30	136
W-4	5	4	151	3	116
W-3	5	8	119	10	117
W-2	10	18	93	27	80
W-1	14	6	73	17	79
Total		1,680		2,846	
Weighted average	16		$136		$103
Enlisted					
E-9	6	16	149	19	107
E-8	7	55	130	59	97
E-7	10	247	117	323	86
E-6	15	644	107	922	76
E-5	24	1,683	98	2,426	68
E-4	27	1,846	82	2,540	59
E-3	26	1,299	81	1,508	58
E-2	24	172	91	115	68
E-1	26	46	78	7	52
Total		6,008		7,919	
Weighted average	21		$ 91		$ 65
Total		7,688		10,765	
Weighted average	20		$101		$ 75

Note: Potential 1985 program cost-savings would have been $19.010 million.

Table IV.5: Potential Allowance Reductions Under the Actual-Cost Alternative From CONUS VHA Program for Renters, Fiscal Year 1985

Pay grade	Percent of each grade affected	With dependents: No. members	With dependents: Average monthly reduction	Without dependents: No. members	Without dependents: Average monthly reduction
Officer					
O-7/10	3	5	$70	1	$ 63
O-6	3	177	81	50	107
O-5	4	385	87	230	101
O-4	6	778	81	838	90
O-3	19	2,856	73	5,716	74
O-2	30	1,102	54	4,265	63
O-1	42	1,120	41	5,624	49
O-3E	9	373	80	171	92
O-2E	13	255	86	134	76
O-1E	23	335	74	195	84
W-4	5	57	88	9	94
W-3	5	99	87	31	62
W-2	10	260	69	111	68
W-1	14	72	51	84	49
Total		7,874		17,459	
Weighted average	16		$66		$ 65
Enlisted					
E-9	6	410	87	58	69
E-8	7	1,323	75	162	57
E-7	10	6,084	70	678	61
E-6	15	13,993	59	2,255	60
E-5	24	22,958	52	9,414	52
E-4	27	19,801	44	12,349	41
E-3	26	12,956	38	9,497	44
E-2	24	4,529	38	588	42
E-1	26	3,038	31	17	70
Total		85,092		35,018	
Weighted average	21		$50		$ 47
Total		92,966		52,477	
Weighted average	20		$51		$ 53

Note: Potential 1985 program cost-savings would have been $90.107 million from renters.

PARTIAL RETENTION OF EXCESS PAYMENTS

Under the partial-retention alternative, members' VHA would be reduced by 80 percent of the difference between the maximum amount of the allowance and their actual housing costs. This alternative would be more likely than the actual-cost alternative to encourage members to conserve housing costs and not buy more expensive housing simply to keep the full allowance. This alternative appears to be consistent with another program administered by DOD--the Do-It-Yourself Move Program--where members who move their household goods themselves are paid a fraction of what commercial movers would charge.

Budget savings

If members had been allowed to keep 20 percent of the difference between their actual housing costs and their VHA allowance in fiscal year 1985, the program savings would have been about $79.2 million, assuming no change in housing-consumption patterns and after being adjusted for inflation in housing prices through the midpoint of fiscal year 1985. For fiscal year 1986, the program savings would be $45 million, or $75 million, depending on the different assumptions DOD and we made about how members would change their housing behavior in response to the program. (See pp. 38 to 40.) Other retention percentages--such as 10, 30, and 90 percent--would have produced proportionally greater or smaller savings.

DOD Authorization Act for 1986

Subsequent to our audit work, House and Senate Conferees agreed to a DOD Authorization Bill for 1986, which contained a provision allowing members to keep only one-half of the difference between their housing costs and their combined VHA and BAQ allowance. We have not estimated the savings from this provision because we believe that the Conferees intended DOD to recalculate VHA rates before estimating program costs under the retention provision. Our belief is based on remarks by the conference managers which indicate that the Conferees contemplated separating utilities and maintenance costs from other housing costs (i.e., rents and mortgage payments) and using different procedures for setting allowances for these two classes of costs. At this time, DOD has no procedures for setting allowances for the different classes of housing costs.

Other impacts

Other impacts would be similar to those of the actual-cost alternative.

FLAT RATE ON PAY GRADES

The flat-rate alternative would assign a single dollar amount for all members in a particular MHA, varying only by dependent status (version 1); or it would assign separate rates for officers and for enlisted members, which would also vary by dependent status (version 2). These flat rates would be computed as the local weighted median housing costs minus 80 percent of national median costs weighted across pay grades. This alternative would treat VHA like an adjustment for average differences in local housing costs, which would not vary by pay grade. The alternative would represent a minor simplification of the VHA rate-setting process.

Budget savings

Budget savings would not be significant because this alternative would redistribute existing allowances among the various pay grades in each MHA.

Effect on members

The area and dependent status variations of VHA rates would be preserved under this alternative. (See tables IV.6 and IV.7.) However, rates would not vary for each pay grade, which would result in more widespread and greater over- and underpayments than exist in the fiscal year 1985 program. We aggregated and analyzed the data on a national level to evaluate the average absorption burden as a part of RMC for each pay grade. The results of our analysis are shown in tables IV.8 through IV.11, and a summary of the specific effects of the flat-rate, version 1, alternative follows:

--On the average, officers with dependents would receive about $29 less and officers without dependents would receive about $26 less than they receive under VHA. Conversely, enlisted members with dependents would receive about $8 more, and enlisted members without dependents would receive about $5 more.

--Housing allowances would be reduced for all officers with dependents except those in pay grade O-1 and O-2 and for enlisted members with dependents in pay grades E-7 through E-9. This reduction would range from $5 to $70. Also, virtually every officer pay grade and enlisted pay grades E-6 through E-9 without dependents would receive smaller allowances than they receive under VHA. The decrease would range from $2 to $70.

--In contrast, E-1s through E-6s with dependents and E-1s through E-5s without dependents would receive an increase in their allowances, ranging from $1 to $25.

--Generally, absorption rates (as a percent of RMC) for lower-graded members would decrease, and those for higher-graded members would increase. Instead of having the E-2s to E-6s bearing the burden of higher absorption ratios, as they do under the current program, this alternative would move the burden away from them to higher-graded members.

Ease of administration

Administration of this alternative would be simpler than under the fiscal year 1985 VHA program since only two or four rates are needed for each MHA, and those rates could be determined using the current VHA housing-cost questionnaire.

Table IV.6: Area Variations on the Flat-Rate (1) Alternative for Members With Dependents, Fiscal Year 1985

	Flat rate for all pay grades	VHA rate		Difference	
		O-3	E-5	O-3	E-5
15 largest MHAs					
Norfolk/Portsmouth, VA	$133	$157	$121	-$ 24	$ 12
San Diego, CA	176	206	152	-30	24
Washington, DC	203	266	190	-63	13
Fort Bragg/Pope AFB, NC	36	25	31	11	5
San Antonio, TX	89	106	81	-17	8
Fort Hood, TX	58	82	44	-24	14
Jacksonville, FL	113	139	93	-26	20
Takoma, WA	60	73	36	-13	24
Charleston, SC	59	88	42	-29	17
Colorado Springs, CO	75	83	65	- 8	10
Los Angeles, CA	258	315	228	-57	30
Camp Lejeune, NC	32	50	17	-18	15
Camp Pendleton, CA	202	189	193	13	9
Hampton/Newport News, VA	117	128	109	-11	8
Fort Sill/Lawton, OK	72	49	73	23	-1
Other selected MHAs					
Philadelphia, PA/Camden, NJ	143	206	115	-63	28
Fort Huachuca, AZ	72	37	72	35	0
Altus AFB, OK	55	41	51	14	4
Spokane, WA	23	19	16	4	7
Columbus, OH	63	94	47	-31	16
Kings Bay/Brunswick, GA	40	56	22	-16	18
Rock Island, IL	94	78	90	16	4
Greensboro, NC	68	62	61	6	7
Traverse City, MI	87	101	75	-14	12
Astoria, OR	0	0	0	0	0

Table IV.7: Area Variations on Flat-Rate (2) Alternative for Members With Dependents, Fiscal Year 1985

	Officer flat rate	Enlisted flat rate	VHA rate		Difference	
			0-3	E-5	0-3	E-5
15 largest MHAs						
Norfolk/Portsmouth, VA	$172	$123	$157	$121	$15	$ 2
San Diego, CA	236	160	206	152	30	8
Washington, DC	256	190	266	190	-10	0
Fort Bragg/Pope AFB, NC	26	39	25	31	1	8
San Antonio, TX	116	82	106	81	10	1
Fort Hood, TX	94	48	82	44	12	4
Jacksonville, FL	168	98	139	93	29	5
Takoma, WA	83	53	73	36	10	17
Charleston, SC	102	48	88	42	14	6
Colorado Springs, CO	86	72	83	65	3	7
Los Angeles, CA	355	233	315	228	40	5
Camp Lejeune, NC	58	26	50	17	8	9
Camp Pendleton, CA	214	200	189	193	25	7
Hampton/Newport News, VA	137	112	128	109	9	3
Fort Sill/Lawton, OK	75	72	49	73	26	-1
Other selected MHAs						
Philadelphia, PA/Camden, NJ	218	124	206	115	12	9
Fort Huachuca, AZ	57	76	37	72	20	4
Altus AFB, OK	64	52	41	51	23	1
Spokane, WA	20	23	19	16	1	7
Columbus, OH	107	51	94	47	13	4
Kings Bay/Brunswick, GA	73	32	56	22	17	10
Rock Island, IL	81	97	78	90	3	7
Greensboro, NC	72	67	62	61	10	6
Traverse City, MI	114	80	101	75	13	5
Astoria, OR	0	0	0	0	0	0

Table IV.8: Impacts of the Flat-Rate (1) Alternative for Members With Dependents, Fiscal Year 1985

	Rates			Absorption as a percent of RMC		
Pay grade	VHA baseline[a]	Flat rate	Change	VHA baseline[a]	Flat rate	Percent change[b]
Officers						
O-7/10	$202	$197	-$ 5	2.6	2.6	0.0
O-6	187	148	-39	2.7	3.5	0.7
O-5	173	134	-39	3.2	4.1	0.9
O-4	157	122	-35	3.4	4.4	1.0
O-3	123	106	-17	3.5	4.1	0.6
O-2	101	107	6	4.2	3.9	-0.3
O-1	82	97	15	3.8	3.0	-0.9
O-3E	170	112	-58	3.1	4.8	1.7
O-2E	177	113	-64	3.7	6.1	2.4
O-1E	177	107	-70	3.2	6.4	3.1
W-4	140	99	-41	3.1	4.4	1.3
W-3	127	91	-36	3.6	4.8	1.2
W-2	118	87	-31	3.5	4.9	1.3
W-1	105	80	-25	4.1	5.4	1.3
Weighted average	$145	$116	-$ 29	3.3	4.2	0.9
Enlisted						
E-9	$136	$110	-$ 26	3.7	4.5	0.9
E-8	125	103	-22	3.7	4.6	0.8
E-7	116	103	-13	4.1	4.7	0.6
E-6	105	106	1	4.4	4.3	-0.1
E-5	93	106	13	4.8	4.0	-0.8
E-4	81	101	20	4.8	3.4	-1.4
E-3	74	98	24	5.1	3.2	-1.9
E-2	71	95	24	4.0	2.0	-2.0
E-1	65	74	9	2.3	1.5	-0.8
Weighted average	$ 94	$102	$ 8	4.5	4.0	-0.5
Weighted average	$105	$105	$ 0	4.1	4.1	0.0

[a]VHA baseline represents the fiscal year 1985 program. (See table III.3.)
[b]Changes in absorption ratios are compared to VHA baseline numbers.

Table IV.9: Impacts of the Flat-Rate (1) Alternative for Members Without Dependents, Fiscal Year 1985

	Rates			Absorption as a percent of RMC		
Pay grade	VHA baseline[a]	Flat rate	Change	VHA baseline[a]	Flat rate	Percent change[b]
Officers						
O-7/10	$167	$130	-$ 37	3.5	3.9	0.6
O-6	159	99	-60	2.4	3.5	1.2
O-5	153	90	-63	2.8	4.2	1.5
O-4	147	88	-59	3.0	4.6	1.7
O-3	114	76	-38	2.9	4.3	1.3
O-2	82	72	-10	3.4	3.8	0.4
O-1	66	67	1	3.0	2.9	-0.1
O-3E	149	79	-70	2.5	4.7	2.2
O-2E	135	72	-63	2.9	5.4	2.4
O-1E	135	73	-62	2.5	5.4	2.9
W-4	117	61	-56	2.9	4.6	1.7
W-3	121	71	-50	3.0	4.8	1.9
W-2	80	46	-34	2.9	4.4	1.5
W-1	79	53	-26	3.3	4.5	1.2
Weighted average	$100	$ 74	-$ 26	3.0	4.0	1.0
Enlisted						
E-9	$108	$ 77	-$ 31	2.8	3.9	1.1
E-8	96	70	-26	2.9	3.9	1.0
E-7	86	73	-13	2.9	3.5	0.6
E-6	78	76	-2	3.1	3.2	0.1
E-5	71	74	3	3.5	3.3	-0.2
E-4	63	72	9	3.6	2.8	-0.7
E-3	61	72	11	4.0	3.1	-0.9
E-2	58	83	25	2.7	0.5	-2.3
E-1	50	66	16	1.4	-0.2	-1.6
Weighted average	$ 68	$ 73	$ 5	3.5	3.1	-0.4
Weighted average	$ 77	$ 74	-$ 3	3.3	3.5	0.2

[a]VHA baseline represents the fiscal year 1985 program. (See table III.4.)
[b]Changes in absorption ratios are compared to VHA baseline numbers.

Table IV.10: Impacts of the Flat-Rate (2) Alternative for Members With Dependents, Fiscal Year 1985

	Rates			Absorption as a percent of RMC		
Pay grade	VHA baseline[a]	Flat rate	Change	VHA baseline[a]	Flat rate	Percent change[b]
Officers						
O-7/10	$202	$250	$ 48	2.6	1.9	-.7
O-6	187	186	-1	2.7	2.8	0.0
O-5	173	168	-5	3.2	3.3	0.1
O-4	157	153	-4	3.4	3.5	0.1
O-3	123	133	10	3.5	3.2	-0.4
O-2	101	136	26	4.2	2.6	-1.6
O-1	82	120	38	3.8	1.7	-2.1
O-3E	170	142	-28	3.1	3.9	0.8
O-2E	177	144	-33	3.7	4.9	1.3
O-1E	177	136	-41	3.2	5.1	1.8
W-4	140	125	-15	3.1	3.6	0.5
W-3	127	115	-12	3.6	3.9	0.3
W-2	118	109	-9	3.5	3.9	0.4
W-1	105	100	-5	4.1	4.4	0.3
Weighted average	$145	$146	$ 1	3.3	3.3	0.0
Enlisted						
E-9	$136	$102	-$ 34	3.7	4.8	1.1
E-8	125	96	-29	3.7	4.9	1.1
E-7	116	95	-21	4.1	5.0	1.0
E-6	105	98	-7	4.4	4.7	0.4
E-5	93	98	5	4.8	4.5	-0.3
E-4	81	93	12	4.8	3.9	-0.9
E-3	74	91	17	5.1	3.8	-1.3
E-2	71	88	17	4.0	2.6	-1.4
E-1	65	69	4	2.3	1.9	-0.3
Weighted average	$ 94	$ 95	$ 1	9.5	4.4	0.0
Weighted average	$105	$106	$ 1	4.1	4.0	0.0

[a]VHA baseline represents the fiscal year 1985 program. (See table III.3.)
[b]Changes in absorption ratios are compared to baseline numbers.

Table IV.11: Impacts of the Flat-Rate (2) Alternative for Members Without Dependents, Fiscal Year 1985

	Rates			Absorption as a percent of RMC		
Pay grade	VHA baseline[a]	Flat rate	Change	VHA baseline[a]	Flat rate	Percent change[b]
Officers						
O-7/10	$167	$176	$ 9	3.5	3.2	-0.1
O-6	159	133	-26	2.4	2.8	0.5
O-5	153	121	-32	2.8	3.5	0.8
O-4	147	118	-29	3.0	3.7	0.8
O-3	114	101	-13	2.9	3.4	0.4
O-2	82	96	14	3.4	2.7	-0.7
O-1	66	87	21	3.0	1.7	-1.3
O-3E	149	105	-44	2.5	3.9	1.4
O-2E	135	96	-39	2.9	4.4	1.5
O-1E	135	96	-39	2.5	4.3	1.8
W-4	117	82	-35	2.9	4.0	1.1
W-3	121	94	-27	3.0	4.0	1.0
W-2	80	61	-19	2.9	3.7	0.8
W-1	79	70	-9	3.3	3.6	0.3
Weighted average	$100	$ 99	$ 1	3.0	3.0	0.1
Enlisted						
E-9	$108	$ 66	-$ 42	2.8	4.2	1.4
E-8	96	60	-36	2.9	4.3	1.5
E-7	86	62	-24	2.9	4.1	1.2
E-6	78	65	-13	3.1	3.8	0.7
E-5	71	64	-7	3.5	4.0	0.5
E-4	63	62	-1	3.6	3.6	0.0
E-3	61	61	0	4.0	4.0	0.0
E-2	58	70	12	2.7	1.6	-1.1
E-1	50	56	6	1.4	0.9	-0.6
Weighted average	$ 68	$ 63	-$ 5	3.5	3.8	0.3
Weighted average	$ 77	$ 74	-$ 3	3.3	3.5	0.2

[a]VHA baseline represents the fiscal year 1985 program. (See table III.4.)
[b]Changes in absorption ratios are compared to baseline numbers.

CONSTANT-ABSORPTION RATIO

A fourth alternative would be to determine a constant portion of income to be spent on housing (constant-absorption ratio). For simplicity, we set the absorption ratio equal to the national average housing cost absorbed as a percentage of RMC across all pay grades and all MHAs. This alternative would require members to absorb housing costs according to their ability to pay because all members would absorb the same proportion of their income for housing.

Budgetary savings

This alternative would have saved about $33 million in fiscal year 1985 if the 4.1-percent absorption rate had been used for every member, regardless of pay grade, dependent status, and location. (See tables IV.12 and IV.13.) We selected this absorption rate because it is what the members with dependents absorb, and they account for about 80 percent of the total BAQ-eligible population.

Effect on members

As stated previously, on the average, members with dependents absorb more of their housing costs. Since the constant-absorption-ratio alternative averages out absorption rates, its effect would be to increase absorption for all those without dependents, whose allowance would drop $14 per month on the average. Among those with dependents, the E-3s through E-6s (the largest sample group, constituting nearly 50 percent of the universe) would gain--as would the W-1s and the O-2s. All other groups would lose.

Ease of administration

The administration of this alternative would be similar to that of the fiscal year 1985 program.

Table IV.12: Impacts of Constant-Absorption Ratios for Members With Dependents, Fiscal Year 1985

Pay grade	Rates: VHA baseline[a]	Rates: Constant-absorption ratio	Rates: Difference	Absorption as percent of RMC: VHA baseline[a]	Absorption as percent of RMC: Constant-absorption ratio	Absorption as percent of RMC: Percentage point change[b]
Officers						
O-7/10	$202	$118	-$ 84	2.6	3.8[c]	1.3
O-6	187	118	-69	2.8	4.1	1.3
O-5	174	134	-40	3.2	4.1	0.9
O-4	157	132	-25	3.4	4.1	0.7
O-3	123	107	-16	3.5	4.1	0.5
O-2	101	104	3	4.2	4.1	-0.1
O-1	82	78	-4	3.8	4.1	0.2
O-3E	170	136	-34	3.1	4.1	1.0
O-2E	177	165	-12	3.7	4.1	0.4
O-1E	177	158	-19	3.3	4.1	0.9
W-4	140	108	-32	3.1	4.1	1.0
W-3	126	114	-12	3.6	4.1	0.5
W-2	118	105	-13	3.5	4.1	0.5
W-1	105	106	1	4.1	4.1	0.0
Weighted average	$145	$120	-$ 25	3.3	4.1	0.8
Enlisted						
E-9	$136	$123	-$ 13	3.7	4.1	0.5
E-8	125	115	-10	3.7	4.1	0.4
E-7	116	115	-1	4.1	4.1	0.0
E-6	105	110	5	4.4	4.1	-0.3
E-5	93	104	11	4.8	4.1	-0.7
E-4	80	91	11	4.9	4.1	-0.8
E-3	74	87	13	5.1	4.1	1.0
E-2	71	70	-1	4.0	4.1	0.1
E-1	65	46	-19	2.2	4.1	1.8
Weighted average	$ 94	$100	$ 6	4.5	4.1	-0.4
Weighted average	$105	$104	$ 1	4.1	4.1	0

The use of constant-absorption ratios would have resulted in an estimated cost savings of $33 million in 1985.

[a]VHA baseline represents the fiscal year 1985 program.

[b]Change in absorption ratios, compared with program baseline numbers.

[c]Because of the small number of members in this group, O-7 housing costs are used to estimate costs for O-8s through O-10s, causing a decreased average absorption for the group.

Table IV.13: Impacts of Constant-Absorption Ratios for Members Without Dependents, Fiscal Year 1985

Pay grade	Rates: VHA baseline[a]	Rates: Constant-absorption ratio	Rates: Difference	Absorption as percent of RMC: VHA baseline[a]	Absorption as percent of RMC: Constant-absorption ratio	Absorption as percent of RMC: Percentage point change[b]
Officers						
O-7/10	$ c	$ c	$ c	c	c	c
O-6	159	72	-87	2.3	4.1	1.7
O-5	153	96	-57	2.7	4.1	1.4
O-4	147	105	-42	2.9	4.1	1.2
O-3	114	82	-32	2.9	4.1	1.1
O-2	82	66	-16	3.4	4.1	0.7
O-1	66	49	-17	3.0	4.1	1.0
O-3E	149	99	-50	2.5	4.1	1.5
O-2E	135	104	-31	2.9	4.1	1.2
O-1E	135	100	-35	2.5	4.1	1.6
W-4	117	75	-42	2.9	4.1	1.3
W-3	121	91	-30	3.0	4.1	1.1
W-2	80	54	-26	2.9	4.1	1.2
W-1	79	64	-15	3.3	4.1	0.8
Weighted average	$100	$ 73	-$ 27	3.0	4.1	1.1
Enlisted						
E-9	$108	$ 69	-$ 39	2.8	4.1	1.3
E-8	96	66	-30	2.8	4.1	1.2
E-7	86	62	-24	2.9	4.1	1.2
E-6	78	60	-18	3.1	4.1	1.0
E-5	71	62	- 9	3.5	4.1	0.6
E-4	63	56	- 7	3.6	4.1	0.5
E-3	61	60	- 1	4.0	4.1	0.1
E-2	58	44	-14	2.7	4.1	1.4
E-1	50	26	-24	1.4	4.1	2.6
Weighted average	$ 68	$ 59	-$ 9	3.5	4.1	0.6
Weighted average	$ 77	$ 63	-$ 14	3.3	4.1	-0.8

The use of constant-absorption ratios would have resulted in an estimated cost savings of $33 million in 1985.

[a]VHA baseline represents the fiscal year 1985 program.

[b]Change in absorption ratios, compared with program baseline numbers.

[c]Cases were too few to produce reliable estimates.

VARIABLE BAQ

A fifth alternative would be a single housing allowance rather than the BAQ and VHA allowances and would reduce the number of MHAs from 337 to 3, as recommended by the 1978 Presidential Commission on Military Compensation. Under the VBAQ alternative, housing costs would be grouped into "high," "medium," and "low" categories, with each category including about one-third of the BAQ-eligible population. This division by population was recommended by VHA program analysts since natural break points in housing costs among the MHAs do not occur. For each category, pay-grade BAQ rates would be multiplied by a constant factor to compute VBAQ rates that, on the average, cover 85 percent of median housing costs.

Budget savings

This alternative would have increased program costs by about $76 million in fiscal year 1985. (See tables IV.14 and IV.15.)

Effect on members

Separating the MHAs into cost categories by assigning approximately one-third of VHA recipients to each cost group would result in MHAs at the break points, with very similar average housing costs, falling into different VBAQ cost categories. For example, Norfolk, with an average housing cost of $556, is included in the high-cost category, while Seattle, with an average housing cost of $554, falls into the medium category. Thus, VBAQ for an O-3 in Norfolk would be $646, while an O-3 in Seattle would receive $597--$49 less--even though their average housing costs would be very similar. We used national data to analyze the redistribution impacts across pay grades, and noted that general officers would benefit most, while officers with prior enlisted service would experience the greatest negative impact. Tables IV.14 through IV.17 show the following:

--The MHAs which have average housing costs below the group averages (i.e., $603 for the "high" group, $518 for the "medium" group, and $465 for the "low" group) would generally fare better than they do in the fiscal year 1985 program.

--Absorption of housing costs as a percent of RMC would decrease from an average of 2.6 percent to less than 1 percent for general officers with dependents. Their monthly housing allowance would increase more than twice as much as the allowances for other pay grades.

--Conversely, for officers with dependents with prior enlisted service (O-1E through O-3E), absorption of housing costs as a percent of RMC would, for example, rise from an average of 3.2 percent to 6.2 percent for O-1Es. The O-1Es' monthly average housing allowance would decrease $66 a month.

--For the remaining pay grades, absorption rates would fall between the extremes discussed above.

Ease of administration

This alternative is relatively simple to administer. It combines two allowances into one and drastically reduces the number of MHAs from 337 to 3 in this example. This eliminates the need to (1) apply complex algorithms and (2) exercise geographical-proximity and pay-grade smoothing procedures to determine VHA rates for each of 23 pay grades in 337 MHAs, yet this alternative maintains different allowances for each pay grade. However, this alternative, like the flat-rate alternative, would probably result in over- and underpayments greater than those which occurred in the fiscal year 1985 program.

Table IV.14: Impacts of the VBAQ Alternative on Absorption Ratios (CONUS Only) for Members With Dependents, Fiscal Year 1985

Pay grade	BAQ and VHA baseline	VBAQ	Change	Absorption as a percent of RMC: Baseline	VBAQ	Change
Officers						
O-7/10	$863	$1,003	$140	2.6	0.5	-2.0
O-6	786	847	61	2.7	1.6	-1.2
O-5	726	765	39	3.2	2.3	-0.9
O-4	662	687	25	3.4	2.7	-0.7
O-3	543	559	16	3.5	3.0	-0.5
O-2	462	479	17	4.2	3.5	-0.8
O-1	405	421	16	3.8	2.9	-0.9
O-3E	591	568	-23	3.1	3.8	0.7
O-2E	538	488	-50	3.7	5.5	1.9
O-1E	501	435	-66	3.2	6.2	3.0
W-4	594	598	4	3.1	3.0	-0.1
W-3	532	527	-5	3.6	3.8	0.2
W-2	498	489	-9	3.5	3.9	0.4
W-1	436	420	-16	4.1	4.9	0.8
Weighted average	$608	$ 626	$ 18	3.4	2.8	-0.6
Enlisted						
E-9	$566	$ 577	$ 11	3.7	3.3	-0.4
E-8	525	531	6	3.7	3.5	-0.2
E-7	489	495	6	4.1	3.8	-0.3
E-6	443	451	8	4.4	3.9	-0.5
E-5	394	401	7	4.8	4.3	-0.5
E-4	340	343	3	4.8	4.6	-0.2
E-3	313	314	1	5.1	5.0	-0.1
E-2	309	312	3	4.0	3.8	-0.3
E-1	304	305	1	2.3	2.1	-0.1
Weighted average	$398	$ 404	$ 6	4.4	4.1	-0.4
Weighted average	$442	$ 450	$ 8	4.1	3.7	-0.4

Note: The use of the VBAQ alternative would have resulted in an estimated cost increase of $76 million in fiscal year 1985.

Table IV.15: Impacts of the VBAQ Alternative on Absorption Ratios (CONUS Only) for Members Without Dependents, Fiscal Year 1985

Pay grade	BAQ and VHA baseline	VBAQ	Change	Absorption as a percent of RMC: Baseline	VBAQ	Change
Officers						
O-7/10	$704	$889	$185	3.5	0.5	-2.8
O-6	653	696	43	2.4	1.5	-0.8
O-5	619	645	26	2.8	2.1	-0.6
O-4	574	590	16	3.0	2.4	-0.4
O-3	459	466	7	2.9	2.7	-0.2
O-2	360	371	11	3.4	2.8	-0.5
O-1	304	314	10	3.0	2.4	-0.6
O-3E	494	469	-25	2.5	3.3	0.8
O-2E	413	372	-41	2.9	4.5	1.6
O-1E	374	321	-53	2.5	4.9	2.4
W-4	509	520	11	2.9	2.5	-0.4
W-3	452	444	-8	3.0	3.3	0.3
W-2	377	372	-5	2.9	3.1	0.2
W-1	330	320	-10	3.3	3.8	0.5
Weighted average	$413	$421	$ 8	3.1	2.7	-0.3
Enlisted						
E-9	$423	$425	$ 2	2.8	2.7	-0.1
E-8	389	391	2	2.9	2.8	-0.1
E-7	336	336	0	2.9	2.9	0.0
E-6	299	300	1	3.1	3.0	0.0
E-5	276	276	0	3.5	3.5	0.0
E-4	240	239	-1	3.6	3.6	0.1
E-3	234	233	-1	4.0	4.1	0.1
E-2	205	203	-2	2.7	2.9	0.2
E-1	183	178	-5	1.4	2.0	0.6
Weighted average	$260	$260	$ 0	4.0	3.5	0.0
Weighted average	$307	$309	$ 2	4.3	3.1	0.0

Note: The use of the VBAQ alternative would have resulted in an estimated cost increase of $76 million in fiscal year 1985.

Table IV.16: Area Variation on Monthly Housing Costs for O-3s With Dependents--VHA and BAQ Versus VBAQ, Fiscal Year 1985

	Average total housing costs (all pay grades)	VBAQ cost category	Average total housing costs	VBAQ amount	Current baseline (VHA and BAQ)	Change
15 largest MHAs						
Norfolk/Portsmouth, VA	$556	H	$646	$640	$578	$ 62
San Diego, CA	598	H	692	640	627	13
Washington, DC	626	H	749	640	446	194
Fort Bragg/Pope AFB, NC	459	L	522	492	527	-35
San Antonio, TX	512	M	597	551	503	48
Fort Hood, TX	481	L	575	492	560	-68
Jacksonville, FL	535	M	629	551	494	57
Takoma, WA	482	L	567	492	509	-17
Charleston, SC	482	L	581	492	504	-12
Colorado Springs, CO	498	M	576	551	436	115
Los Angeles, CA	681	H	795	640	736	-96
Camp Lejeune, NC	455	L	545	492	471	21
Camp Pendleton, CA	625	H	676	640	610	30
Hampton/Newport News, VA	540	M	619	551	549	2
Fort Sill/Lawton, OK	495	M	544	551	470	81
Other selected MHAs						
Philadelphia, PA/Camden, NJ	566	H	692	640	627	13
Fort Huachuca, AZ	495	M	533	551	458	93
Altus AFB, OK	477	L	537	492	462	30
Spokane, WA	445	L	515	492	440	52
Columbus, OH	485	L	587	492	515	-23
Kings Bay/Brunswick, GA	463	L	551	492	477	15
Rock Island, IL	516	M	572	551	499	52
Greensboro, NC	491	M	556	551	483	68
Traverse City, MI	510	M	593	551	522	29

Note: H--high-cost area, M--medium-cost area, L--low-cost area.

Table IV.17: Area Variation on Monthly Housing Costs for E-5s With Dependents--VHA and BAQ Versus VBAQ, Fiscal Year 1985

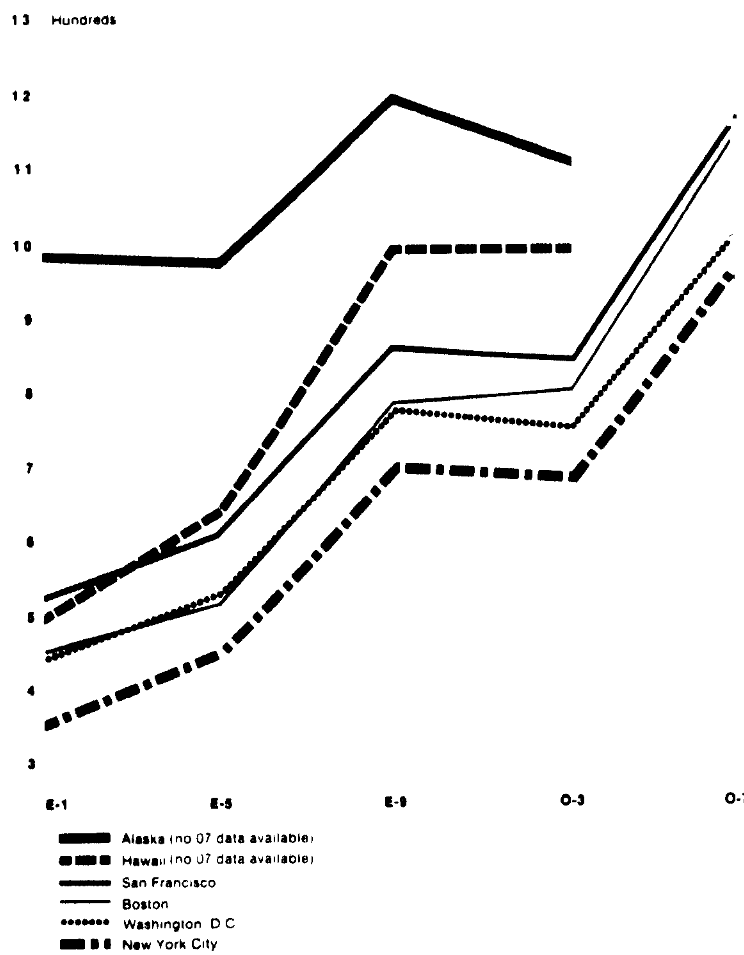
	Average total housing costs (all pay grades)	VBAQ cost category	Average total housing costs	VBAQ amount	Current baseline (VHA and BAQ)	Change
15 largest MHAs						
Norfolk/Portsmouth, VA	$556	H	$465	$456	$421	$ 35
San Diego, CA	598	H	493	456	452	4
Washington, DC	626	H	528	456	490	-34
Fort Bragg/Pope AFB, NC	459	L	382	351	331	20
San Antonio, TX	512	M	428	393	381	12
Fort Hood, TX	481	L	394	351	344	7
Jacksonville, FL	535	M	439	393	393	0
Takoma, WA	482	L	386	351	336	15
Charleston, SC	482	L	391	351	342	9
Colorado Springs, CO	498	M	413	393	365	28
Los Angeles, CA	681	H	564	456	528	-72
Camp Lejeune, NC	455	L	368	351	317	34
Camp Pendleton, CA	625	H	531	456	493	-37
Hampton/Newport News, VA	540	M	454	393	409	-16
Fort Sill/Lawton, OK	495	M	421	393	373	20
Other selected MHAs						
Philadelphia, PA/Camden, NJ	566	H	459	456	415	41
Fort Huachuca, AZ	495	M	420	393	372	21
Altus AFB, OK	477	L	400	351	351	0
Spokane, WA	445	L	368	351	316	35
Columbus, OH	485	L	396	351	347	4
Kings Bay/Brunswick, GA	463	L	373	351	322	29
Rock Island, IL	516	M	436	393	390	3
Greensboro, NC	491	M	409	393	361	32
Traverse City, MI	510	M	423	393	375	18

Note: H--high-cost area, M--medium-cost area, L--low-cost area.

THE RENT PLUS HOUSING ALLOWANCE IN ALASKA AND HAWAII

The fiscal year 1986 Defense Authorization Act placed Alaska and Hawaii under the VHA program. Before that, however, the Rent Plus[1] program had been in effect in Alaska since May 1982 and in Hawaii since June 1982. Both states had traditionally been considered overseas posts for housing-allowance purposes because they differ in various ways from their CONUS counterparts. The two major ways in which these states differ are their high housing costs (see fig. V.1 for example) and their geographic remoteness, which limits how far members can commute to find lower-cost housing.

Figure V.1: Monthly Median Housing Costs for Selected Military Pay Grades in 1984



[1]Effective October 1, 1985, the name of the Rent Plus program was changed to the Overseas Housing Allowance program.

DOD has also argued that Hawaii differs from CONUS cities because of its low vacancy rate. However, we found that the vacancy rate for Honolulu is comparable to that of several cities within CONUS. For example, in 1983 the vacancy rate in Honolulu was 1.3 percent, while the vacancy rates ranged from 1.2 percent to 3.5 percent in several selected cities within CONUS for which vacancy-rate data is available. (See table V.1.)

Table V.1: Vacancy Rates (All Housing Types) for Selected Standard Metropolitan Statistical Areas (SMSAs)

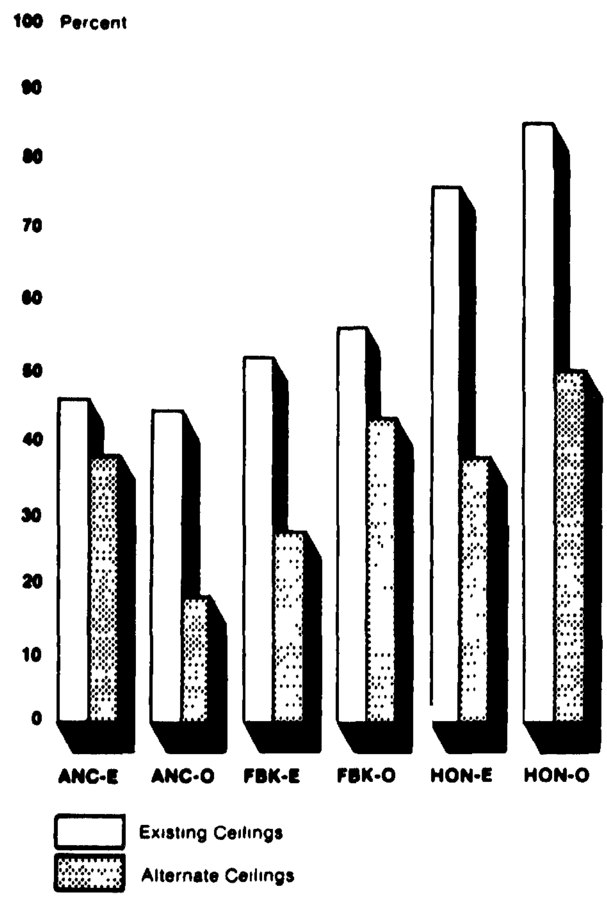
SMSA	1983	1984
Anchorage, AK	2.7	4.8
Chicago, IL	1.3	a
Green Bay, WI	1.5	a
Honolulu, HI	1.3	a
Los Angeles-Long Beach, CA	1.5	1.5
Madison, WI	1.4	1.6
Portland, OR	3.5	3.3
San Diego, CA	1.9	1.9
San Francisco-Oakland, Ca	1.2	1.1

This data was taken from Housing Vacancy Surveys sponsored by District Federal Home Loan Banks, as follows: Chicago--covering Chicago, Green Bay, and Madison; San Francisco--covering Los Angeles-Long Beach, San Diego, and San Francisco-Oakland; and Seattle--covering Anchorage, Honolulu, and Portland.

[a]No survey was done.

Under the Rent Plus program, members are reimbursed for actual housing costs in excess of the BAQ, up to a designated ceiling for each pay grade. Separate allowances are also provided for utilities and moving in/out costs. Ceilings for all grades have been capped in Hawaii since August 1983 and in Alaska since January 1984. The effect of these caps can be seen in figure V.2, which contrasts the proportion of selected enlisted and officer personnel whose housing costs exceeded the fiscal year 1985 ceilings with the proportion who would have been paying more if the ceilings had been updated to levels contained in a proposal by a special study group commissioned by the former Assistant Secretary of Defense (Manpower, Installations and Logistics).

Figure V.2: Percent Over Rent Plus Cap, Fiscal Year 1985



Key

ANC-E Anchorage - Enlisted

ANC-O Anchorage - Officer

FBK-E Fairbanks - Enlisted

FBK-O Fairbanks - Officer

HON-E Honolulu - Enlisted

HON-O Honolulu - Officer

The fiscal year 1985 cost of the program in Honolulu, Anchorage, and Fairbanks--which constitute Alaska's and Hawaii's largest areas of service-member population--was estimated to be approximately $115 million, using Rent Plus study-group analyses and DOD-supplied data. If the caps had been lifted, the cost could have climbed to as much as $135.6 million annually.

ADVANTAGES AND DISADVANTAGES OF RENT PLUS IN ALASKA AND HAWAII

DOD officials have cited a number of advantages that the Rent Plus program offered in Alaska and Hawaii, but they have also recognized that it had several disadvantages. Others in DOD have argued that the VHA program offers similar advantages, but that it does not have the disadvantages of the Rent Plus program.

The advantages of the Rent Plus program were that it

--allowed members to compete for housing in a tight market and thus live in adequate housing,

--enhanced readiness and morale,

--encouraged accompanied (longer) tours, increased extensions, and lowered associated PCS costs, and

--reduced members' out-of-pocket costs.

The disadvantages of the Rent Plus program were that it

--had high administrative and budgetary costs,

--was susceptible to fraud and abuse, and

--lacked cost-containment incentives.

Advocates for the retention of the Rent Plus program in Alaska and Hawaii argued that converting to the VHA program would cause a decrease in extensions and a sharp increase in PCS moves. They based this argument on the belief that an allowance reduction would cause increased family hardships.

REVIEW OF DOD/IG RENT PLUS AUDIT FINDINGS

In 1984, the DOD/IG conducted an audit of the Rent Plus housing allowance program in Alaska and Hawaii, using stratified samples of 301 and 450 Rent Plus recipients, respectively. The DOD/IG concluded the following:

--Rent Plus ceilings established in 1982 (and for succeeding periods) were inappropriately high due to the specific calculation methodology used and the survey data omitted. These ceilings resulted in excess program costs of $25.2 million.

--Specific provisions of the regulations governing Rent Plus pertaining to members with dependents elsewhere and members sharing housing with civilians resulted in unnecessary program costs of at least $1.4 million.

--Program administration suffered from inadequate internal controls, resulting in inadequate documentation to support Rent Plus allowance payments and causing overpayments of approximately $.08 million in Alaska and an estimated $1.4 million in Hawaii.

--A total of $52 million could have been saved had Hawaii been under VHA in fiscal years 1983 and 1984. (The DOD/IG made no similar estimate for Alaska.)

The DOD/IG also concluded that improper utilization of military housing resulted in excess costs to the Rent Plus program of $21.3 million. We did not review this aspect of the DOD/IG work since it had no bearing on the decision to retain Alaska and Hawaii under the Rent Plus program or place these states under the VHA program.

Our review of the DOD/IG's study led us to the following conclusions:

--The procedures and methodology used by the DOD/IG were generally acceptable, although we disagree with certain decisions. For example, in sampling Rent Plus recipients, the DOD/IG chose to sample relatively fewer officers than enlisted personnel. We believe that the sample should have been allocated proportionately among the grades to yield a more precise estimates of the results.

--The DOD/IG workpapers show that its audit work was generally accurate and that the specific audit findings were sufficiently documented.

--The figures used in the report or the associated workpapers were accurate in most cases. In those few cases where there were inaccuracies or miscalculations, the general effect of the errors appears to be slight.

Projected overpayments

While the DOD/IG was conducting its review, it referred cases with unresolved discrepancies to service investigators. On the basis of investigations completed as of September 1984, the DOD/IG estimated overpayments of about $.08 million in Alaska and $1.4 million in Hawaii. However, our analysis showed that these estimates were overstated in Hawaii due to the use of incorrect figures for several cases that were used to project the estimated overpayment. We calculated that the correct overpayment estimate should have been approximately $1 million rather than $1.4 million. However, based on additional investigations completed by service investigators between September 1984 and March 1985, we estimate the amount of overpayment to be $.12 million in Alaska and $1.8 million in Hawaii. (See table V.2.) As additional investigations are completed, these estimates may change.

Table V.2: DOD/IG and GAO Calculations of Rent Plus Overpayments in Alaska and Hawaii

	Alaska	Hawaii
Total cases referred for investigation	60	65
No. of investigations completed as of September 1984	28	30
No. of investigations with confirmed overpayments	7	19
Net DOD/IG estimated overpayment (millions)	$.08	$1.4
Net GAO estimated overpayment (millions)[a]	$.08	$1.0
No. of investigations with confirmed overpayments as of March 1985	11	27
Net GAO estimated overpayment (millions)[b]	$.12	$1.8

[a]At the 95 percent confidence level, the sample errors for these projections are $582,000 for Hawaii and $68,000 for Alaska; that is, the estimates could vary ± this amount.

[b]The sample errors for these projections are $854,000 for Hawaii and $102,000 for Alaska.

COST COMPARISONS: RENT PLUS VERSUS VHA

Several estimates have been made of the cost of transferring Alaska and Hawaii from the Rent Plus program to the VHA program.

The DOD/IG estimated that a total of $52 million could have been saved had Hawaii been under VHA in fiscal years 1983 and 1984. A DOD study group estimated that a total of approximately $21.4 million could have been saved in fiscal year 1985 by transferring Alaska and Hawaii to the VHA program. Our review found that the savings would have ranged from $1.2 million to $31.2 million, depending on the assumptions and methodologies used.

DOD/IG report

Although we have not reviewed the underlying statistics the DOD/IG used to generate the estimated $52 million in savings, we believe, based on discussions with DOD/IG staff, that the use of this figure should recognize the limitations in the data available when it was developed. The VHA and Rent Plus rates and costs calculated by the DOD/IG were based on initial 1981 survey data and on several questionable assumptions about program growth, numbers of recipients at the Rent Plus ceilings, and numbers of renters and buyers in the recipient population. The DOD/IG did not attempt to compare estimated VHA costs with actual Rent Plus expenditures for the fiscal years in question.

DOD study group

Subsequent to the DOD/IG initiative, a DOD study group established to review the Rent Plus program worldwide also developed cost estimates by shifting Alaska and Hawaii to the VHA program (based on rate calculations for three major cities--Anchorage, Fairbanks, and Honolulu, where the military population is concentrated). The study group used survey data collected in September and October 1984 to generate VHA rates for Alaska and Hawaii and to update Rent Plus ceilings and utility allowances for cities in these two states. To develop its cost estimates, the study group then compared the VHA rate allowances with Rent Plus allowances based on the updated ceilings and utility allowances. It should be noted that the study group's method of calculating utility allowances is not one that has been used before in Alaska and Hawaii, nor has it received DOD sanction as the appropriate method to use. The effect of using this new method is generally to reduce the amount of allowances.

As a result of its calculations, the study group found that a total of approximately $21.4 million could be saved by transferring Alaska and Hawaii to the VHA program in fiscal year 1985. This, however, represents a net savings: The study group found that it would be more expensive to place Alaska under VHA, but that savings could be realized by transferring Hawaii to VHA. It should also be emphasized that the study group based its calculations on updated (not current) ceilings, and a new method of calculating utility allowances which establishes allowances for different pay grades instead of a flat allowance for all pay grades as is now used.

GAO review

We used the Rent Plus study-group data to compare the costs of VHA and Rent Plus for Alaska and Hawaii, using three different methodologies. In our first calculation, we used the VHA costs generated by the study group and compared those with Rent Plus allowances calculated using updated ceilings and existing utility allowances, and found that $31.2 million could be saved. In our second calculation, we compared the VHA costs with Rent Plus allowances based on existing ceilings and utility allowances, and found that $10.9 million could be saved. In our third calculation, we compared VHA costs with Rent Plus allowances based on existing ceilings and updated utility allowances, and found that $1.2 million could be saved. The results of our analyses and those of the Rent Plus study group are shown in table V.3.

Table V.3: Impact of Transferring Alaska and Hawaii From Rent Plus to VHA in Fiscal Year 1985

	Rent Plus	VHA	Difference
	------------millions---------------		
Anchorage:			
Rent Plus Study Group (based on updated ceilings and utility allowances)	$ 26.6	$ 26.9	$ 0.3
First GAO calculation (based on updated ceilings and existing utility allowances)	26.6	26.9	0.3
Second GAO calculation (based on existing ceilings and utility allowances)	25.0	26.9	1.9
Third GAO calculation (based on existing ceilings and updated utility allowances)	25.0	26.9	1.9

	Rent Plus	VHA	Difference
	-------------	millions	---------------
Fairbanks:			
Rent Plus Study Group (based on updated ceilings and utility allowances)	6.6	7.2	0.6
First GAO calculation (based on updated ceilings and existing utility allowances)	7.0	7.2	0.2
Second GAO calculation (based on existing ceilings and utility allowances)	6.6	7.2	0.6
Third GAO calculation (based on existing ceilings and updated utility allowances)	6.2	7.2	1.0
Honolulu:			
Rent Plus Study Group (based on updated ceilings and utility allowances)	92.6	70.3	-22.3
First GAO calculation (based on updated ceilings and existing utility allowances)	102.0	70.3	-31.7
Second GAO calculation (based on existing ceilings and utility allowances)	83.7	70.3	-13.4
Third GAO calculation (based on existing ceilings and updated utility allowances)	74.4	70.3	-4.1

Using this same data, we also estimated the average monthly allowances for selected pay grades (E-3, E-5, E-7, O-3, and O-5) under both the Rent Plus and VHA programs. The results, as shown in table V.4, were as follows:

--In Anchorage, the average monthly VHA for all selected pay grades under the current program would have been higher than the average Rent Plus allowances for these pay grades. If the Rent Plus ceilings had been unfrozen (and thereby increased), most of these pay grades would have received less under VHA, ranging from $2.37 monthly for an O-3 to $79.05 monthly for an O-5.

--In Fairbanks, too, the average monthly VHA for all selected grades would have been higher than existing average Rent Plus allowances, and would still be higher for most grades even if the Rent Plus ceilings had been updated.

--In Honolulu, however, four of the five selected pay grades would have received less under VHA than they received, on the average, using the Rent Plus ceilings. If the Rent Plus ceilings had been updated, all the pay grades we examined would, on the average, have received less under VHA (the reduction ranging from approximately $152 per month for an E-7 to $191 for an O-5).

Table V.4: Comparison of Rent Plus and VHA Costs: Average Monthly Allowance for Selected Pay Grades

	Existing VHA	Existing Rent Plus[a]	Difference	Updated Rent Plus[b]	Difference	Updated Rent Plus[c]	Difference
Anchorage							
E-3	$525.09	$509.51	-$ 15.58	$537.80	$ 12.71	$479.84	$ 45.25
E-5	627.35	615.07	-12.28	623.52	3.83	606.22	21.13
E-7	666.19	622.52	-43.67	668.79	2.61	659.12	7.07
0-3	655.04	618.76	-36.28	657.41	2.37	631.19	23.85
0-5	641.58	593.85	-47.73	720.64	79.05	667.45	-25.87
Fairbanks							
E-3	467.10	450.74	-16.36	475.77	-8.67	417.10	50.00
E-5	506.13	424.27	-81.86	453.86	-52.27	404.35	101.78
E-7	511.95	398.46	-113.49	484.96	-26.99	362.81	149.14
0-3	525.22	503.80	-21.41	505.87	-19.34	442.99	82.22
0-5	536.81	396.57	-140.24	416.43	-120.38	396.58	140.24
Honolulu							
E-3	290.19	366.58	76.38	445.56	155.37	294.57	-4.38
E-5	322.40	424.61	102.21	511.20	188.80	374.79	-52.39
E-7	381.17	454.81	73.64	532.81	151.64	427.04	-45.87
0-3	491.59	543.89	52.30	654.03	162.45	506.84	-15.25
0-5	525.48	510.80	-14.68	716.71	191.22	501.21	24.27

These figures do not include BAQ. Figures may not add due to rounding.

[a]Rent Plus allowance was based on then-existing ceilings and utility allowances.

[b]Rent Plus allowance was based on updated ceilings and then-existing utility allowances.

[c]Rent Plus allowance was based on then-existing ceilings and updated utility allowances.

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D C 20301-4000

FORCE MANAGEMENT
AND PERSONNEL

7 FEB 1986

Mr. Frank C. Conahan
Director, National Security and
International Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report entitled, "Housing Allowance Provided Military Members in the United States," dated December 17, 1985 (GAO Code No. 391016, OSD Case No. 6895).

The Department agrees with the GAO's overall discussion of the Variable Housing Allowance (VHA) program. As the GAO points out, the VHA program was implemented for the purpose of providing financial support for military members assigned by the Government to high cost areas.

The DoD does have concern with the report in two areas:

(1) The GAO does not accurately portray how and why the DoD operations research techniques are used. Rather than emphasize their use to produce better estimates of housing costs in limited data situations, the report creates the impression that the DoD uses the techniques to manipulate the numbers to produce desired results, which is not correct. The DoD also believes that its use of these operations research techniques is fully consistent with VHA legislation. Additional details concerning the use of these techniques have been provided to members of your staff.

(2) The GAO has not demonstrated that any of the alternatives is less costly than the VHA system. Rather, the GAO's conclusions result from cost estimates that are based upon GAO assumptions which are no more validated by actual experience and logic than those used under the current VHA methodology.

Further comments on the report findings are addressed in greater detail in the enclosure. The DoD appreciates the opportunity to comment on the draft report.

Sincerely,

Chapman B Cox

Chapman B. Cox

Enclosure

DEPARTMENT OF DEFENSE COMMENTS
ON GAO DRAFT REPORT DATED DECEMBER 17, 1985
(GAO Code No. 391016), (OSD Case No. 6895)

"HOUSING ALLOWANCE PROVIDED MILITARY MEMBERS
IN THE UNITED STATES"

- FINDING A: The Purpose and Methodology For Determining The Variable Housing Allowance (VHA). GAO reported that Congress enacted the VHA legislation because the Basic Allowance for Quarters (BAQ) did not provide a differential housing allowance for high-cost areas. GAO noted that when first established in October 1980, the VHA was linked to BAQ, and program costs for DoD service members rose almost 48 percent from FY 1981 to FY 1983. According to GAO, this prompted Congress to significantly revise the program on two separate occasions, the latest of which (effective January 1, 1985) severed the link between VHA and BAQ, and tied both BAQ and VHA directly to housing costs. To determine annual VHA rates, GAO found, housing costs for each of 23 pay grades are estimated in each of 337 CONUS military housing areas to determine a national median and 337 local median housing costs for each grade. GAO noted that because little or no data exists to produce reliable estimates in certain cases, the DoD computer program uses operations research techniques (smoothing procedures) to produce the estimates. For FY 1986 and beyond, GAO reported that VHA rates will be capped as a result of Congress' prohibiting VHA program costs from increasing at a higher rate than a military version of the housing component of the Consumer Price Index. According to GAO, DoD has interpreted this provision as allowing it to set VHA rates for FY 1986 (and every other year thereafter) on the basis of the military housing index; thus rates for all grades and areas will approximate the 1985 rates plus the increase in the military housing price index. For intervening years, GAO reported that rates will be set on the basis of the housing cost survey methodology. (pp. 4-8, Letter; and pp. 26-28, Appendix II, GAO Draft Report) [Now on pp. 8 to 13 and pp. 24 to 25.]

  DoD Position: Concur. While DoD agrees with the overall thrust of this finding, several clarifications need to be made. First, the most significant reason for the rapid cost growth in the early years of the VHA program was the failure of increases in BAQ to keep pace with increases in housing costs, thus requiring a disproportionate increase in VHA to offset the shortfall. Second, it is not correct that BAQ is now tied directly to housing costs. While the BAQ rates were restructured on January 1, 1985, to reflect housing costs, increases in BAQ are still part of the military pay raise which is unrelated to housing costs. Third, the term "smoothing procedures" is not synonymous with operations research techniques. There are many operations research techniques used in the VHA program, only some of which can be accurately described as "smoothing procedures". Finally, while it is correct that the DoD has interpreted the cost growth restraint applied by the Congress as allowing it to set VHA rates for FY 1986 on the military housing index, the DoD has always had the option of using an index to adjust VHA rates. The DoD decided to use the index in FY 1986, but could just as well have used a housing survey to determine the rates, subject, of course, to the cost increase constraint in the law.

- FINDING B: Application of Smoothing Procedures In Setting VHA Rates. GAO identified and discussed three operations research smoothing procedures used in VHA rate setting which are designed to produce more reliable local housing cost estimates and achieve certain policy objectives. According to GAO, the first procedure, geographical-proximity smoothing, is designed to ensure that enough data is used to make reliable estimates and ensure rates are consistent. Pay-grade smoothing is the second procedure discussed which, GAO reported, is designed to prevent a lower graded member from receiving a larger allowance than a higher graded member. The third smoothing procedure identified by GAO is year-to-year smoothing, designed to dampen the effect of annual housing cost fluctuations on VHA rates. GAO reported that the budgetary impact of both geographical-proximity and pay-grade smoothing is difficult to estimate, but GAO estimated the year-to-year procedure reduced VHA FY 1985 program costs by $11 million due to rising housing costs, a figure GAO noted was agreed to by DoD analysts. Based on its analysis, however, GAO concluded that the use of year-to-year and pay-grade smoothing, which allows VHA rates for any one pay grade to be influenced by other pay grade rates, is inconsistent with existing VHA legislation which emphasizes that VHA rates be based only on housing costs of members in the same pay grade. According to GAO, DoD justifies the use of these two procedures because: (1) sound management practice requires that higher-graded personnel be compensated more for housing costs than lower-graded personnel; and, (2) current VHA legislation gives DoD the authority to establish implementing regulations, which is how DoD views these procedures. GAO also reported that the FY 1986 DoD Authorization Act prohibits using these procedures solely to prevent pay inversions or reductions in VHA rates when housing costs decline but permits their use in certain limited data situations. GAO reported that, according to a VHA program official, DoD implemented the 1986 provision in setting FY 1986 VHA rates. (pp. 8-12, Letter; and pp. 39-41, Appendix II, GAO Draft Report) [Now on pp. 12 to 13 and pp. 33 to 34.]

  DoD Position: Partially concur. The DoD agrees with the broad GAO statement that the operations research techniques used by DoD are designed to produce more reliable local housing cost estimates and, in the case of pay-grade smoothing, to achieve certain policy objectives. However, the GAO descriptions of the operations research techniques include several inaccuracies. For example, in describing the geographic-proximity procedure, GAO states that data from areas with limited data are combined with data from adjacent areas. In describing pay-grade inversion elimination techniques, GAO states that housing costs of pay grades are averaged with other pay grades in order to raise or lower housing costs and that if this method is not successful, "the geographic-proximity smoothing is again carried out to increase the influence of data from adjacent areas." Finally, GAO asserts that "When there is little data, costs are arbitrarily assigned...based on the assumption that the members' spend about 33 percent of military compensation on housing." None of these statements are correct. Detailed information accurately describing the operations research procedures have been provided to the GAO staff.

The DoD wishes to emphasize that the purpose of using the statistical techniques is not to achieve a predetermined result, or to change a result which would be produced from the use only of the raw data, but rather to determine accurate housing costs in those cases where there are limited data. The DoD also agrees that VHA rates should be based on housing costs of members in the same pay grade. The operations research techniques are not used to avoid doing this but rather to enhance it by producing accurate housing cost figures.

The DoD does not agree that the use of year-to-year and pay-grade smoothing is inconsistent with either prior or existing VHA legislation. Congress has been aware of the use of regression techniques since the beginning of the VHA program and, in fact, specifically authorized their use in the FY 1986 Authorization Act in limited data situations.

With regard to year-to-year smoothing, the DoD agrees that this procedure reduced FY 1985 program costs by $11 million. However, the savings are not attributable to rising housing costs as GAO states but rather are the result of normal flucuations inherent in estimating the total housing costs associated with a program covering 860,000 members. The $11 million is only two-tenths of one percent of the total housing costs of these 860,000 members.

The DoD also wishes to clarify its policy objective of preventing housing allowance inversions. First, it is generally recognized that the higher the pay the more that is spent on housing, although at a declining rate. The military is no different--the higher the grade the more that is normally spent for housing. When housing allowance inversions occur, therefore, they indicate an aberration in the data which needs to be corrected. Second, it is DoD's position that housing allowances should increase with pay grade. Housing allowances are part of the member's basic compensation and should increase with greater rank and responsibility. The concept that housing allowances are part of pay was recently recognized by GAO in its report entitled "Small Percentage Of Military Families Eligible For Food Stamps," No. FPCD-83-25, dated April 19, 1983, wherein GAO stated "Because housing, either provided in-kind or as a cash allowance if on-base housing is not available, is an integral part of military pay, we believe it should be treated as such when determining military members' eligibility for food stamps." (Underline Added).

- FINDING C: Alternatives To The Current VHA. The GAO identified and analyzed five specific alternatives to the current VHA program and evaluated the cost and effects of each on different groups of service members. GAO identified these alternatives as: (1) payment of actual housing costs only; (2) partial retention by service members of 20 percent of payments in excess of actual costs; (3) a flat rate for a geographical area; (4) a constant proportion of income spent on housing, termed the constant absorption ratio, that would vary by grade and geographic area; and (5) a combined VHA and BAQ, termed a variable BAQ. Based on its assessment, GAO found that three alternatives--actual cost, partial retention and constant absorption ratio--would result in major budgetary savings. Conversely, GAO found the variable BAQ alternative would result in major budgetary increases, and the flat rate alternative would have no major budget impact. GAO also found that none of the alternatives would have a significant impact on total force retention. (pp. 12-14, Letter; and pp. 42-44, Appendix III, GAO Draft Report) [Now on pp. 13 to 14 and pp. 35 to 37.]

  DoD Position: Partially concur. The DoD agrees that the alternatives, as structured by the GAO, would result in budget savings or increases. However, these cost savings or increases are immaterial to an analysis of the alternatives, since none of them is intrinsically more or less costly than the others. Rather, their relative cost is a function of assumptions made by the GAO, not the result of the structure of the concept.

  The DoD also agrees that each of the alternatives will have an impact on force retention but the GAO methodology underestimated the negative effect. The GAO, for example, used the oversimplified assumption that as long as the total number of dollars spent in a paygrade is unchanged, there is no impact on retention. Under this assumption, the entire VHA budget could be spent in a single MHA with all other MHAs receiving zero, yet the GAO methodology would not account for the potential impact on retention. The GAO VBAQ alternative, in fact, does reduce the number of MHAs to three, which causes substantial inaccuracies in allowances at most locations that would have a high potential for impacting retention at those locations but the GAO methodology does not recognize the potential impact because the total dollars do not change. This oversimplification understates the negative impacts of both the flat-rate and VBAQ alternatives discussed in the GAO report.

- FINDING D: Advantages and Disadvantages Of The VHA Alternatives. The GAO identified various advantages and disadvantages of each alternative noted in Finding C.

(1) According to GAO, the actual cost alternative would reduce members' allowances by the difference between their allowances and their housing costs, and the partial retention alternative would reduce housing allowances by 80 percent of the difference. GAO reported that a major disadvantage of both alternatives from DoD's view would be that all the VHA recipients would have to provide actual housing cost records, increasing administrative costs. GAO also reported that from the members' view, when housing costs are less than VHA they would lose income.

(2) Advantages offered by the flat rate alternative, according to GAO, are that it would be simpler to administer and would increase lower graded members' allowances, thus making it easier to obtain affordable housing. However, GAO found this alternative would decrease higher graded members' allowances and would create a larger amount of over- and underpayments than exists currently.

(3) Under the constant absorption ratio alternative, GAO reported, members would absorb housing costs according to their ability to pay. While noting that this might be viewed as equitable, GAO found the proportion of civilian income devoted to housing decreases with increasing income, and thus most pay grades would absorb more housing costs than under the current VHA.

(4) GAO found the variable BAQ alternative would reduce the housing costs of most senior officer and enlisted pay grades; however, this alternative would increase program costs by about $30 million in FY 1985 and allow under- and overpayments similar to those criticized in the current program.

In comparison to the alternatives, GAO concluded that the current VHA program is more costly, but maintains housing allowance differences between pay grades, maintains consistency throughout each housing area in the absolute amount of housing costs members in each pay grade absorb, and provides service members an opportunity to have additional nontaxable income if they spend less for housing than the median expenditures of others in their area. (pp.

15-18, Letter; and pp. 45-78, Appendix III, GAO Draft Report) [Now on pp. 14 to 17 and pp. 38 to 61.]

DoD Position. Partially concur. The DoD agrees with the basic advantages and disadvantages cited by GAO for the alternatives, but many of them were not placed in the proper perspective and the GAO analysis did not go far enough. For example, the administrative simplicity cited as an advantage for some of the alternatives is so minor as to be practically unmeasurable. On the other hand, the disadvantage of the VBAQ under-and-overpayments is not similar to those criticized in the current program but rather would be so great that the whole purpose of the VHA system would be lost.

The DoD also does not agree that all members spending below the median will have additional disposable income. While 50 percent of members spend less than the median, only 30 percent of members spend less than their combined housing allowances. This occurs because, by law, BAQ plus VHA pays on average only 85 percent of median housing costs.

Finally, the DoD does not agree with the GAO conclusion that the current VHA program is more costly than the alternatives. As discussed in the response to Finding C, the relative cost of the alternatives is a function of the GAO assumptions, not the structure of the alternatives.

o FINDING E: The Rent Plus Housing Allowance In Alaska And Hawaii. GAO reported that the Rent Plus program was implemented in Alaska and Hawaii because these states differ in various ways from their CONUS counterparts, especially their higher housing costs and geographic remoteness. GAO additionally reported DoD argues that Hawaii also differs because of its low housing vacancy rate; however, GAO found that the vacancy rate of Honolulu is comparable to several CONUS cities. Under the Rent Plus program, GAO reported, members are reimbursed for actual housing costs in excess of the BAQ, up to a designated ceiling for each pay grade, while separate allowances are also provided for utilities and moving costs. GAO identified several advantages of Rent Plus, including: (1) it allows members to compete for housing in a tight market, and thus live in adequate housing; (2) it enhances readiness and morale; (3) it encourages accompanied tours, increases extensions, and lowers associated PCS costs; and (4) it reduces members' out-of-pocket costs. Disadvantages of Rent Plus identified by GAO are: (1) it has high administrative and budgetary costs; (2) it is susceptible to fraud and abuse; and (3) it lacks cost-containment incentives. (p. 19, Letter; and pp. 79-85, Appendix IV, GAO Draft Report) [Now on p. 17 and pp. 62 to 65.]

DoD Position. Concur. It should be noted that the disadvantages cited for Rent Plus also apply to the actual cost and partial retention alternatives analyzed by the GAO.

- **FINDING F**: The DoD/IG Report On The Rent Plus Program. GAO reported that in 1984, the DoD/IG conducted an audit of the Rent Plus housing allowance program in Alaska and Hawaii. The GAO listed five conclusions made by the DoD/IG:

  (1) Rent Plus ceilings established in 1982 were inappropriately high, resulting in excess program costs of $25.2 million.

  (2) Specific provisions of the regulations governing Rent Plus resulted in unnecessary program costs of at least $1.4 million.

  (3) Program administration suffered from inadequate internal controls, resulting in inadequate documentation and overpayments of about $0.8 million in Alaska and $1.4 million in Hawaii.

  (4) A total of $52 million could have been saved had Hawaii been under VHA in FY 1983 and 1984.

  (5) Improper utilization of military housing resulted in excess Rent Plus costs of $21.3 million.

  GAO reviewed the work done by the DoD/IG, except that leading to the fifth conclusion, and concluded that the procedures and methodology used by the DoD/IG were generally acceptable (although GAO disagreed with certain decisions). GAO found the audit work to be generally accurate and findings sufficiently documented, and figures used in the report were generally accurate. With regard to the $52 million savings estimated by the DoD/IG, (item 4 above) the GAO noted that these calculations were based on initial 1981 survey data, and a number of questionable assumptions about program growth, numbers of recipients at the Rent Plus ceilings, and numbers of renters and buyers in the recipient population. Therefore, based on its discussions with DoD/IG staff, GAO concluded that the $52 million figure should not be used without recognizing these data limitations. (pp. 19-20, Letter; and pp. 86-89, Appendix IV, GAO Draft Report) [Now on pp. 17 to 18 and pp. 65 to 67.]

  DoD Position. Concur. It should be noted, however, that the $52 million savings is comprised of $24 million in savings for FY 1983 and $28 million for FY 1984.

- **FINDING G**: DoD Study Group Review Of The Rent Plus Program. The GAO reported that subsequent to the DoD/IG report, a DoD study group was established to review the Rent Plus program. According to GAO, this group used data collected in September and October 1984 to generate VHA rates for Alaska and Hawaii and to update Rent Plus ceilings and utility allowances, and developed its cost estimates by comparing the VHA with the Rent Plus allowance based on the updated ceilings and utility allowances. GAO pointed out that this method, which has the effect of generally reducing allowance amounts, has not been used before under Rent Plus, nor has it received DoD sanction as the appropriate method to use. GAO reported that the study group found it would be more expensive to place Alaska under VHA, but a net FY 1985 savings of $21.4 million could be realized by transferring Hawaii to VHA. GAO reported that Rent Plus advocates argue that converting to the VHA program would cause increased family hardships and result in a decrease in extensions of tours and a sharp increase in the number of moves. GAO also reported that it used the Rent Plus study group data to compare the costs of VHA and Rent Plus for Alaska and Hawaii and, using three different methodologies, calculated that savings would range from $1.2 million to $31.2 million. (pp. 21-22, Letter; and pp. 89-94, Appendix IV, GAO Draft Report) [Now on pp. 18 to 19 and pp. 67 to 72.]

DoD Position. Concur. DoD agrees that savings will be realized from converting from Rent Plus to VHA in Alaska and Hawaii. Effective November 8, 1985, the date when the FY 1986 DoD Authorization Act was signed, all members newly assigned to Alaska and Hawaii will be paid under VHA rather than Rent Plus. Members already assigned to those States on that date will continue to receive Rent Plus. It should be noted that effective October 1, 1985, the name of the Rent Plus program was changed to Overseas Housing Allowance (OHA).

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