

May 2004

MILITARY HOUSING

Further Improvements Needed in Requirements Determinations and Program Review



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Highlights

Highlights of [GAO-04-556](#), a report to the Secretary of Defense

Why GAO Did This Study

The Department of Defense (DOD) plans to spend about \$9.8 billion in fiscal year 2004 to provide housing for about 711,000 families of active-duty military personnel in the United States. DOD's policy for some time has been to rely on housing in the local communities and provide military-owned or privatized military housing when the communities cannot satisfy requirements. Historically, DOD has viewed private sector housing as more cost-effective. In January 2003, DOD approved a revised housing requirements determination process designed to provide a solid basis for justifying on-base family housing needs. GAO looked at whether (1) reliance on community housing remains cost-effective, (2) the revised process has resulted in consistent and reliable needs assessments, and (3) DOD's top-level review of military housing construction proposals could be improved.

What GAO Recommends

GAO recommends that the Secretary of Defense (1) expedite efforts to provide more detailed guidance on the requirements determination process, (2) review the rationale for allowed exceptions to using community housing, (3) update information on servicemember housing preferences, and (4) apply a more consistent top-level review for housing construction and privatization proposals. DOD generally agreed with the recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-04-556.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Barry W. Holman at (202) 512-5581 or holmanb@gao.gov.

MILITARY HOUSING

Further Improvements Needed in Requirements Determinations and Program Review

What GAO Found

DOD's policy of relying primarily on local community housing to meet military family housing needs has been and continues to be cost-effective for the federal government. GAO's analysis of DOD's fiscal year 2004 estimated housing costs showed that the annual costs to provide housing for a typical military family were about \$13,600 for local community housing, \$16,700 for privatized military housing, and \$19,000 for military-owned housing.

Although DOD's revised housing requirements determination process represents a significant step in the right direction, the process has not resulted in consistent and reliable estimates of military installation housing needs and does not require the services to maximize reliance on local community housing—the least costly housing option. Because DOD has not provided the services with timely detailed guidance addressing the particulars of performing housing requirements assessments, the services often used inconsistent methodologies, questionable assumptions, and outdated information in performing these assessments. Further, although the use of military-owned or privatized family housing is clearly justified when local community housing is not acceptable or available, or to meet military mission requirements, the process provides the services with several exceptions to community housing use that may allow the services to build or retain more military housing than necessary. It is also unclear whether servicemembers' housing preferences have changed in view of recent changes, such as increases in housing allowances and the increase in the number and length of deployments.

DOD could improve the top-level review of proposed military housing construction projects. DOD has different top-level review and approval processes for service proposals for military housing construction and housing privatization projects with the process for privatization proposals including additional steps, for example, a top-level review of the adequacy of the associated housing requirements analyses.

Privatized Military Family Housing at Fort Hood, Texas, and Elmendorf Air Force Base, Alaska



Source: DOD.
Fort Hood, Texas



Source: Air Force.
Elmendorf Air Force Base, Alaska

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Abbreviation

DOD Department of Defense

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United States General Accounting Office
Washington, DC 20548

May 19, 2004

The Honorable Donald H. Rumsfeld
Secretary of Defense

Dear Mr. Secretary:

The Department of Defense (DOD) plans to spend about \$9.8 billion in fiscal year 2004 under various programs to provide housing for about 711,000 families of active-duty military personnel in the United States. DOD's policy is to rely on private sector housing in the local communities near military installations as the primary source of family housing. About two-thirds of all military families in the United States live in local community housing and receive a cash housing allowance to help defray the cost of renting or purchasing a home. Until 2001, the housing allowance covered an average of 81 percent of the typical housing costs, and servicemembers paid the rest out of pocket. An initiative started in 2001 has significantly increased housing allowances and is slated to cover 100 percent of typical housing costs by 2005. When local community housing is unavailable, unsuitable, or too expensive, DOD's policy is to provide families with military-owned or privatized housing.¹ Privatized housing, authorized by legislation in 1996, is housing normally located on military installations that is owned, operated, and maintained by private developers.² Families in privatized housing use their housing allowance to pay rent and typical utility costs while families in military housing receive no housing allowance but pay nothing for housing or utilities. In privatizing housing, DOD expects to leverage private sector funding to achieve greater gains in housing improvements than could otherwise be achieved through use of military construction appropriations. This report is being addressed to you to bring to your attention opportunities to strengthen program management.

¹ DOD considers local community housing to be unsuitable if it is structurally unsound; is not well maintained; poses a health, safety, or fire hazard; does not possess amenities or a size consistent with housing in the local area, or is located outside of the market area used to determine local housing allowance rates. The military services normally consider local community housing to be too expensive if it costs more than the servicemember's housing allowance plus average out-of-pocket costs.

² Section 2801, National Defense Authorization Act for Fiscal Year 1996 (Pub. L. No. 104-106, Feb. 10, 1996).

Prior reports from us and others have noted that DOD did not have a consistent and reliable process to determine family housing requirements.³ These reports showed that significant uncertainty existed in both the number and location of housing units required in the future because DOD often underestimated the ability of local communities to meet housing needs and thus overestimated the need for military-owned or privatized housing. In January 2003, DOD approved a revised housing requirements determination process designed to provide a solid basis for justifying the number of family housing units actually needed on each installation, whether financed through use of military construction funding or through privatization. In implementing the revised process, DOD reaffirmed its policy of primary reliance on housing in local communities and stated that the construction, operation, and maintenance of military-owned housing would be considered only when local communities could not provide military families with housing.

In view of DOD's housing policies, the potential impacts from increased housing allowances, and the importance of having a consistent and reliable housing requirements determination process to avoid unnecessary housing investments, this report, undertaken pursuant to our basic legislative authorities, addresses whether (1) DOD's policy of primary reliance on local community housing remains cost-effective, (2) implementation of DOD's revised housing requirements determination process has resulted in consistent and reliable needs assessments, (3) DOD's revised housing requirements determination process maximizes reliance on local community housing, and (4) opportunities exist for DOD to improve its review of proposed military housing construction projects.

To address these objectives, we used DOD's budget and program information to determine and compare the government's costs to provide housing for a typical military family using each of the three housing options—local community housing with payment of a housing allowance; military owned, operated, and maintained housing; and privatized housing that is owned, operated, and maintained by private developers under the military housing privatization program. We primarily used cost data

³ U.S. General Accounting Office, *Military Housing: Management Improvements Needed As the Pace of Privatization Quickens*, [GAO-02-624](#) (Washington, D.C.: June 21, 2002); U.S. General Accounting Office, *Military Housing: DOD Needs to Address Long-Standing Requirements Determination Problems*, [GAO-01-889](#) (Washington, D.C.: Aug. 3, 2001); and *DOD Family Housing Requirements Determination* (Inspector General Report No. 98-006, Oct. 8, 1997).

contained in DOD's fiscal year 2004 budget justification material submitted to the Congress in February 2003 and did not test the reliability of this data because it represented DOD's official information used to support the President's budget. We reviewed the housing requirements determination analyses for 12 installations to evaluate the basis for the estimates and assumptions used and assess consistency and compliance with DOD's guidance but did not otherwise attempt to independently determine housing requirements at the 12 installations. We reviewed and discussed the details of the revised housing requirements determination process with DOD and service officials and specifically examined the basis for provisions in the process that allow exceptions to using local community housing. Finally, we documented differences in DOD's review and approval processes for service proposals for military housing construction and privatization projects and discussed with DOD officials the reasons for the differences and potential advantages from making the processes more consistent. We conducted our work from May 2003 through March 2004 in accordance with generally accepted government auditing standards. A more detailed description of our scope and methodology is included in appendix I.

Results in Brief

DOD's policy of relying primarily on local community housing to meet military family housing needs has been and continues to be cost-effective for the federal government. Previous studies by the Congressional Budget Office⁴ and DOD showed that compared to the cost of providing military-owned housing, the government's cost was significantly less when military families were paid housing allowances and lived in local community housing. Since these studies were performed in the mid-1990s, several factors have affected military housing costs, such as the initiative to increase the amount of the housing allowance paid to individual servicemembers to eliminate average out-of-pocket costs and the implementation of a new military family housing option—privatization of military-owned housing. Nevertheless, our analysis of fiscal year 2004 estimated housing costs showed that reliance on local community housing continues to be the government's least costly option for housing military families. Specifically, our analysis showed that the government's annual costs to provide housing for a typical military family were about \$13,600 for local community housing, \$16,700 for privatized military housing, and

⁴ Congressional Budget Office, *Military Family Housing in the United States* (Washington, D.C.: September 1993).

\$19,000 for military-owned housing.⁵ The cost difference between local community housing and military privatized housing was primarily caused by additional federal impact aid paid to local school districts for children of families living in on-base privatized housing that is not subject to local property taxes.⁶ The cost difference between privatized and military-owned housing, according to DOD officials, primarily reflected the estimated difference in the costs of a housing unit constructed, operated, and maintained by the military and a unit constructed, operated, and maintained by private developers. Other factors possibly affecting cost differences include differences in construction specifications and the size of privatized, military-owned, and community housing units rented by military families.

Although DOD's revised housing requirements determination process represents a significant step in the right direction, the process has not resulted in consistent and reliable assessments of military installation housing needs and may result in over reliance on more costly military-owned family housing. Determining an installation's housing needs requires a complex analysis involving many subjective factors and assumptions, and DOD did not provide the services with timely detailed guidance addressing these matters or the level of oversight needed as the services began to use the process. Thus, it is not surprising that the services adopted different methods for determining installation housing needs as they began implementing the process. For example, the services independently decided how to address many subjective factors, estimates, assumptions, and methodologies, including methods and assumptions (1) to determine an installation's housing requirement considering base population, servicemember rank, family size, and associated bedroom

⁵ In determining the costs for the privatization option, we used the budgetary scored costs of privatization projects as determined by the Office of Management and Budget. Each privatization contract that DOD enters into must be scored for budget purposes. Scoring seeks to determine the cost that should be recognized and recorded as an obligation of DOD at the time the contract is signed. However, there are differences between the Office of Management and Budget and the Congressional Budget Office over budgetary scoring for DOD's military housing privatization program. In the view of the Congressional Budget Office, privatization projects should be scored at a higher amount.

⁶ Federal impact aid is paid to local governments to help cover the cost of educating dependents of military servicemembers. The impact aid for each dependent is significantly higher for students who live with their families in military-owned or privatized housing located on military installations because such housing is not normally subject to local property taxes. When military families live in housing in the local communities, a much smaller amount is paid for each student because the housing is subject to local property taxes.

needs; (2) to project changes in the supply and availability of local community housing; (3) to estimate how many military families are home owners and therefore will not need community rental housing; (4) to identify unsuitable community housing units that are excluded from consideration for military family use; and (5) to estimate the competition between civilian and military families in securing available community housing. Collectively, differences in these factors result in inconsistent installation housing requirements analyses and could result in generating higher or lower on-base housing needs and costs than warranted. Without consistent and reliable housing requirements assessments, DOD cannot know with assurance how many housing units it needs, where it needs them, whether its housing investment decisions are justified, and whether its overall housing costs are minimized.

In addition, DOD's revised housing requirements determination process provides the services several exceptions to the policy of maximizing reliance on local community housing near military installations that could result in further reliance on on-base housing than necessary. Although one exception—military mission requirements—appears clearly justified, the other exceptions do not and could result in the services identifying more on-base family housing requirements than actually needed. For example, regardless of the availability of local housing, the revised process allows installations to maintain an on-base military housing community that can accommodate up to 10 percent of the projected number of families at the installations. Applying this exception, the 12 installation analyses we reviewed determined that 4,576 military family housing units were required regardless of the ability of local communities to meet these housing needs.⁷ The process also permits installations to provide additional on-base military housing in some cases for servicemembers with lower incomes, even though housing allowances for these servicemembers are expected to fully cover the actual cost of local housing by 2005. Application of the permitted exceptions could decrease reliance on community housing and increase family housing costs. Also, the services had no analytical support showing that there would be negative impacts if military families were housed in suitable, affordable housing in the local communities rather than on base where some preferred to live. DOD's 1999 survey of active duty personnel showed that 72 percent of servicemembers preferred local community housing if costs

⁷ The total on-base military community housing requirement is overstated by 31 housing units because one analysis made a computational error.

were equal and that there was no clear link between housing and retention. However, we cannot be sure to what extent these survey results may change given other recent changes based on the increase in housing allowances and the increase in the number and length of troop deployments.

Opportunities exist for DOD to improve the top-level review of proposed military housing construction projects to provide additional assurances that the projects are justified and optimally integrated with the privatization program. DOD has different review and approval processes for service proposals for housing construction and housing privatization projects. The process for reviewing privatization proposals includes additional steps, such as a briefing from service officials describing each project and its justification and a top-level review of the adequacy of the associated housing requirements analysis. These extra steps provide additional assurances that proposed projects are adequately justified before approval. Also, DOD's top-level review of military housing construction proposals normally does not include an analysis of whether the planned improvements could be more economically achieved through housing privatization. Our review found that the Army, the Air Force, and the Marine Corps have recently used, or plan to use, military construction projects to build replacement military family housing at installations slated for privatization in the near future. The Army, for example, has an approved \$41 million fiscal year 2004 project at Fort Knox, Kentucky, to replace inadequate housing with 178 new houses. The Army plans to convey the new housing units to a privatization developer when all Fort Knox family housing is privatized in 2006. Although military housing construction projects may be appropriate at installations scheduled for privatization, a top-level review of such proposals could provide additional assurances that the alternative used to achieve needed housing improvements is the more advantageous option for the government—a feature not always present in the current process.

We are recommending that DOD expedite efforts to provide the military services with more detailed guidance on implementing the revised housing requirements determination process to help ensure that housing investments, whether through military construction or privatization, are supported by consistent and reliable needs assessments. We are also recommending that DOD (1) review the rationale supporting each of the exceptions to using local community housing provided in the revised process in an effort to reduce or narrow the scope of the exceptions and minimize family housing costs, (2) survey servicemembers with dependents to update information on preferences for family housing, and

(3) apply a more consistent top-level review and approval process for both military housing construction and privatization project proposals to help ensure that proposed housing construction projects are adequately justified and appropriate consideration has been given to privatization options and plans. In commenting on a draft of this report, DOD generally agreed with our recommendations and indicated that actions were under way or planned to deal with most of them.

Background

DOD seeks to provide servicemembers and their families with access to adequate, affordable housing either by paying a cash allowance to help cover the costs of renting or purchasing a home or by assigning families to military-owned or leased housing. In fiscal year 2004, DOD plans to spend about \$7.1 billion for housing allowances for about 527,000 military families living in local community or military privatized housing and about \$1.8 billion to operate and maintain about 169,000 military-owned family housing units in the United States and lease about 15,000 units. The Congress also authorized DOD to spend about \$908 million in fiscal year 2004 to construct and renovate military-owned family housing units.

Family Housing Initiatives

Recognizing that housing is a major component of the military's compensation package and a key factor affecting quality of life, DOD has placed priority on improving the family housing program for several years. Partly due to initiatives to improve the program, DOD's family housing costs increased by about \$2.4 billion, or 37 percent, between fiscal year 1998 and 2004. For example, DOD began a quality-of-life initiative in 2001 to increase housing allowances and eliminate average out-of-pocket costs paid by servicemembers for rent and utilities when living in community housing. Prior to this initiative, enlisted servicemembers with families living in community housing received, on average, an allowance of \$681 per month and paid 19 percent more for housing costs out of pocket. In 2004, enlisted servicemembers will receive, on average, an allowance of \$1,027 per month and pay 3.5 percent more for housing costs out of pocket.⁸ Similarly, in 2004, officers will receive, on average, an allowance

⁸ The amounts shown reflect the average housing allowance for servicemembers with dependents in all enlisted paygrades in all areas of the country. Actual housing allowance amounts vary based on the local cost of housing in about 350 geographic areas in the United States. Also, housing allowances increase by paygrade except for junior enlisted servicemembers in paygrades E1 through E4. Servicemembers with dependents in paygrades E1 through E4 in the same geographic area receive the same housing allowance amount. Housing allowances do not vary by family size.

of \$1,486 per month and pay 3.5 percent more for housing costs out of pocket. By 2005, DOD plans for the average housing allowance to fully cover the normal costs of housing and utilities with the typical servicemember paying no additional out-of-pocket costs.

DOD also started initiatives to improve the condition of military-owned housing. A DOD official testified in 1998 that the majority of military-owned housing units were old, had not been adequately maintained and modernized, and needed to be renovated or replaced. DOD established a goal to eliminate nearly all inadequate family housing by 2007 using a three-prong approach consisting of increased housing allowances, privatization, and military construction. First, DOD expects the housing allowance initiative to reduce the requirement for military-owned housing because more community housing units should become affordable to military families. Second, widespread use of military housing privatization is expected to result in renovating and replacing inadequate housing units faster than use of traditional military construction funds. DOD's plans call for privatizing the majority—about 146,000 units—of the existing military-owned housing inventory by 2007. Third, DOD plans to use military construction funds to eliminate inadequate housing at installations where privatization is not considered to be a viable option. Also, compared to the past, DOD officials stated that they are providing on-base family housing units with more bedrooms to meet the needs of larger families.

Housing Requirements Determination Process

DOD's policy is to rely primarily on local community housing and provide families with military-owned or privatized housing when local community housing is unavailable, unsuitable, or too expensive. To help implement this policy, the military services follow a housing requirements determination process that includes a periodic analysis at major installations to estimate housing needs. Each analysis estimates the number of military families at an installation and their housing needs, including bedroom requirements, considering family size and servicemember rank. The analysis compares the housing requirement with the availability of local community rental housing that meets the military's

criteria for suitability and affordability.⁹ When the analyses predict that local communities cannot meet family housing needs, the services have a basis to justify military-owned or privatized housing. When the analyses predict that local communities could meet most or all housing needs, the services may have a basis to justify elimination of existing military-owned housing units that are no longer needed.

The housing determination process is complex and involves many subjective factors, assumptions, estimates, and projections. In the past, the services used different methods to determine housing requirements, and DOD was criticized by us and others for not having a consistent process that produced reliable results.¹⁰ To address this issue, the Deputy Secretary of Defense issued a memorandum on January 8, 2003, directing the services to begin using a new, revised process for determining family housing requirements.¹¹ This memorandum confirmed a revised process that the military services had already agreed to and put into use.

Family Housing Program Management

Separate DOD organizations manage the two key components of the family housing program—housing allowances and military housing. Housing allowances are the responsibility of the Under Secretary of Defense for Personnel and Readiness and primarily are managed centrally at DOD headquarters by the organization responsible for all compensation issues, including basic pay and other types of allowances. Military-owned and -leased housing and the military housing privatization program are the responsibility of the Under Secretary of Defense for Acquisition, Technology and Logistics. Although DOD headquarters establishes overall policy for military and privatized housing, primary management responsibility is delegated to the individual services, their major commands, and individual installations.

⁹ The analyses assume that military families will rent housing when living in local communities. However, to recognize that some families purchase homes, installation housing analyses normally estimate the number of military family home owners, assume that the home owners are adequately housed, and exclude the home owners from the installations' rental housing requirements.

¹⁰ See [GAO-02-624](#), [GAO-01-889](#), and Inspector General Report No. 98-006.

¹¹ See *Memorandum for Secretaries of the Military Departments Directors of the Defense Agencies, Subject: Housing Requirements Determination Process Policy Guidance*, the Deputy Secretary of Defense (Washington, D.C.: Jan. 8, 2003).

Prior GAO Reports on the Military Family Housing Program

Since 1996, we have issued several reports on DOD's family housing program that addressed the overall program, housing allowances, military housing requirements, and the military housing privatization initiative.

- In September 1996, we reported that the family housing program allowed significant differences in the housing benefit provided to servicemembers of the same paygrade depending on whether they lived in military-owned or community housing because of the differences in out-of-pocket costs paid for housing.¹² DOD's initiative to reduce out-of-pocket costs to zero by 2005 will eliminate this inequity.
- In July 1998, we reported on several concerns related to the new military housing privatization program.¹³ These concerns included (1) whether privatization would result in significant cost savings and whether the long contract terms of many projects might result in building housing that will not be needed in the future; (2) whether controls were adequate to protect the government's interests in the event developers might not operate and maintain the housing as expected; and (3) whether DOD would face certain problems if privatized housing units were not fully used by military members and were subsequently rented to civilians, as the contracts permit.
- In March 2000, we reported that initial implementation progress for the privatization program was slow, the services' life-cycle cost analyses provided inaccurate cost comparisons because DOD had not issued standardized guidance for preparing the analyses, and DOD lacked a plan for evaluating the effectiveness of the program.¹⁴ As DOD subsequently quickened the pace of family housing privatization, it issued standard guidance for privatization life-cycle cost analyses and developed a program evaluation plan.
- In May 2001, we reported on the results of our analysis of selected results from a broad-based 1999 survey of active duty personnel.¹⁵ We noted that

¹² U.S. General Accounting Office, *Military Family Housing: Opportunities Exist to Reduce Costs and Mitigate Inequities*, [GAO/NSIAD-96-203](#) (Washington, D.C.: Sept. 13, 1996).

¹³ U.S. General Accounting Office, *Military Housing: Privatization Off to a Slow Start and Continued Management Attention Needed*, [GAO/NSIAD-98-178](#) (Washington, D.C.: July 17, 1998).

¹⁴ U.S. General Accounting Office, *Military Housing: Continued Concerns in Implementing the Privatization Initiative*, [GAO/NSIAD-00-71](#) (Washington, D.C.: Mar. 30, 2000).

¹⁵ U.S. General Accounting Office, *Military Personnel: Higher Allowances Should Increase Use of Civilian Housing, but Not Retention*, [GAO-01-684](#) (Washington, D.C.: May 31, 2001).

although increasing the housing allowance to eliminate out-of-pocket costs should help satisfy servicemember preferences and increase servicemember demand for community housing, DOD should not expect a substantial increase in retention to result solely from increasing housing allowances.

- In August 2001, we reported that despite earlier recommendations, DOD had not implemented a standard process for determining military housing requirements.¹⁶ In that report, we pointed out that the initiative to increase housing allowances heightened the urgency for a consistent process, because the initiative could lessen the demand for military housing by making housing in local communities more affordable. In January 2003, DOD approved the revised family housing requirements determination process addressed in this report.
- In June 2002, we reported that by investing about \$185 million in the first 10 family housing privatization projects, DOD should obtain housing improvements that would have required about \$1.19 billion in military construction funds had only government funds been used.¹⁷ We also noted that privatization projects were supported by inconsistent and questionable needs assessments and that the overall requirement for military housing was not well-defined. Further, although DOD had included provisions in project contracts designed to protect the government's interests, our report identified several areas where DOD could further enhance protections to the government. DOD responded by outlining ongoing and planned management actions to address the concerns noted in the report.

Community Housing Remains the Least Costly Option for Meeting Military Family Needs

Similar to information we previously reported, our analysis of fiscal year 2004 estimated housing costs showed that the government's most economical option for meeting military family housing needs continues to be reliance on local community housing with payment of housing allowances. Although costs and other factors have changed over the past 10 years, the results of our analysis are consistent with similar analyses performed in the mid-1990s and show that DOD's policy of relying primarily on local community housing continues to be cost-effective. We estimated that the cost difference to the government for each family that lives in local community housing, instead of military-owned housing, is about \$5,400 less annually. The difference for each family that lives in local

¹⁶ See [GAO-01-889](#).

¹⁷ See [GAO-02-624](#).

community housing, instead of military privatized housing, is about \$3,100 less annually. The cost differences are primarily due to three reasons. First, the government pays significantly less federal impact aid for military dependents educated in local schools when they live in community housing, which is subject to local property taxes. Second, according to DOD officials, the private sector generally can build, operate, and maintain a family housing unit at less cost than the government. Third, according to DOD officials, other factors possibly affect cost differences such as differences in construction specifications and the size of privatized, military-owned, and community housing units rented by military families.

Previous Cost Comparisons of Housing Options

In 1993, the Congressional Budget Office issued a report on military family housing that included an analysis comparing the average annual cost of a military-owned housing unit with the cost of a community housing unit obtained by a military family.¹⁸ The comparison showed that in the long run the government spent \$5,500 more annually when military-owned housing was provided instead of paying an allowance for a family to live in community housing. In response to the report, DOD compared the same costs. Because of some differences in the assumptions and data used for some cost elements, such as long-term capital investment and federal impact aid costs, DOD's estimates differed somewhat. Nevertheless, DOD also estimated that the reduced costs to the government when families used community housing were significant—about \$3,200 per family annually. Details from these analyses are shown in table 1.

¹⁸ See *Military Family Housing in the United States*.

Table 1: Prior Estimates of Annual Government Costs for Military-Owned and Community Housing Options

Then-year dollars				
Category	1993 Congressional Budget Office study		1994 DOD study	
	Cost per family	Difference	Cost per family	Difference
Military-owned housing option				
Operations and maintenance	\$6,200		\$6,505	
Capital investment	4,900		2,803	
Federal impact aid	1,900		1,478	
Total	\$13,000		\$10,786	
Community housing option				
Housing allowance	\$7,500		\$7,506	
Federal impact aid	0		62	
DOD housing referral services	0		37	
Total	\$7,500		\$7,605	
Cost difference		\$5,500		\$3,181

Sources: Congressional Budget Office, *Military Family Housing in the United States* (Washington, D.C.: September 1993) and U.S. General Accounting Office, *Military Family Housing: Opportunities Exist to Reduce Costs and Mitigate Inequities*, [GAO/NSIAD-96-203](#) (Washington, D.C.: Sept. 13, 1996).

The cost differences in these analyses were primarily caused by three factors. First, in the mid-1990s, prior to the initiative to eliminate out-of-pocket costs, military families living in community housing typically paid about 19 percent of their housing costs out of pocket because housing allowances covered about 81 percent of average housing costs. Thus, in comparison to military-owned housing where the government paid all housing and utility costs and families paid no out-of-pocket costs, the government's annual cost for families living in community housing was smaller. Second, the federal impact aid paid by the Department of Education to local governments to help cover the cost of educating dependents of military families differed depending on where families lived. When military families lived in community housing, a relatively small amount of federal impact aid was paid for each student because the housing was subject to local property taxes, which can be used to help pay for schools. When families lived in military-owned housing, a significantly higher amount of federal impact aid was typically paid because the property was not subject to local property taxes. Third, the Congressional Budget Office concluded that the private sector can build, operate, and maintain housing more economically than DOD for reasons including DOD's higher project contracting and oversight costs, higher labor costs,

and more detailed regulations and constraints on housing design and construction.

Relying on Community Housing Continues to Be the Least Costly Option for Meeting Military Family Housing Needs

Because DOD had not updated its 1994 study of housing costs, we reviewed the current costs of each housing option to determine whether reliance on community housing continues to be the government's most economical option in view of family housing program changes since the mid-1990s. As shown in table 2, our review showed that, even though housing allowances have increased significantly and the new privatized housing option is less costly than the military-owned housing option, the community housing option continues to be the federal government's least costly option for meeting military family housing needs.¹⁹ Compared to the cost of military-owned and privatized housing, the government will typically spend about \$5,400 and \$3,100 less, respectively, each year for each family that lives in community housing.

¹⁹ See note 5.

Table 2: Estimated Annual Government Costs for Housing Options in 2004

Fiscal year 2004 dollars		
Category	Cost per family	Difference
Costs of military-owned housing option		
Operations and maintenance	\$9,006	
Capital investment	6,923	
Federal impact aid	3,106	
Total	\$19,035	
Costs of military privatized housing option		
Housing allowance	\$13,433	
Federal impact aid	3,106	
Other net privatization costs	165	
Total	\$16,704	
Difference with military-owned housing option		\$2,331
Costs of community housing option		
Housing allowance	\$13,433	
Federal impact aid	149	
DOD housing referral services	34	
Total	\$13,616	
Difference with privatized housing option		\$3,088
Difference with military-owned housing option		\$5,419

Source: GAO's analysis of DOD data except for federal impact aid.

Note: Federal impact aid estimates were obtained from the Congressional Research Service's report: *Impact Aid for Public K-12 Education: General Overview and Current Status*, RL31885 (Washington, D.C.: May 6, 2003).

According to DOD officials, the privatization option costs less than the military-owned housing option primarily because of the efficiencies gained from the use of private sector housing construction and management expertise and the use of local building specifications instead of sometimes more stringent military construction building specifications. The cost difference between the privatization option and the community housing option is primarily the result of differences in federal impact aid costs. According to DOD officials, because most privatized housing is on military-owned land, which is not subject to local taxes, federal impact aid is normally paid at the higher rate when dependents of servicemembers living in this housing are educated by local public schools. DOD officials also noted that because DOD's housing standards differ for

servicemembers living in privatized and government-owned housing and for those living in community housing, cost differences might be affected by differences in the average size of privatized or military-owned housing units compared to the average size of community housing units rented by military families. Specifically, DOD considers family size when determining military housing requirements and assigning servicemembers to government housing, but ignores family size when determining housing allowances for servicemembers living in local communities. As a result, servicemembers in lower paygrades with larger families are entitled to a residence with more bedrooms in privatized or military-owned housing than they are able to afford in the local community on the basis of their housing allowance. However, detailed data is not available to determine whether the average size of privatized and military-owned housing units exceeds the average size of community housing units rented by military families.

Family Housing Requirements Assessments Are Inconsistent and Questionable

Although DOD's revised housing requirements determination process represents a significant step in the right direction, the process has yet to achieve one of its key objectives—consistent and reliable assessments of military family housing needs. Determining an installation's housing needs requires a complex analysis involving many subjective factors and assumptions, and DOD did not provide the services with timely detailed guidance addressing these matters or the level of oversight needed as the services began to use the revised requirements process. In the absence of detailed guidance, we found that the services used inconsistent methods and sometimes questionable data sources and assumptions when determining family housing needs at various installations. Collectively, these factors could result in installation housing requirements analyses generating higher or lower on-base housing needs than warranted. Without consistent and reliable housing requirements assessments, DOD cannot know with assurance how many housing units it needs, where it needs them, whether its housing investment decisions are justified, and whether its overall housing costs are minimized.

DOD Has Not Issued Timely Detailed Guidance for Implementing the Revised Housing Requirements Determination Process

The January 2003 memorandum that announced the revised housing requirements determination process directed the Deputy Under Secretary of Defense (Installations and Environment) to consult with the military services and prepare necessary guidance to implement the revised process. Determining an installation's housing requirement involves a complex analysis of military housing needs and the ability of local communities to meet those needs, and DOD officials understood that

detailed guidance was needed to help ensure consistency and accuracy as the services implemented the revised process. However, DOD officials stated that developing detailed guidance has taken more time and coordination than expected and that final guidance might not be ready until 2005.

Without detailed DOD guidance, each service independently decided how to implement the revised requirements determination process and what level of oversight would be provided to the process and to the housing requirements analyses. Thus, the services independently decided how to address many subjective factors, estimates, assumptions, and methodologies associated with each housing analysis, including methods and assumptions (1) to determine an installation's family housing requirement considering projected base population, servicemember rank, family size, and associated bedroom needs; (2) to project changes in the supply and availability of local community housing; (3) to estimate how many military families are home owners and therefore will not need community rental housing; (4) to identify unsuitable community housing units that are excluded from consideration for military family use; and (5) to estimate the competition between civilian and military families in securing available community housing. With the services independently deciding how to address these factors, it is not surprising that the services adopted different methods for determining installation housing needs as they began implementing the revised process.

**Housing Requirements
Analyses Use Inconsistent
Methodologies,
Questionable
Assumptions, and
Outdated Information**

As illustrated below, our review of the services' housing requirements analyses for 12 installations found areas of concern, including use of inconsistent methodologies, questionable assumptions, and outdated information. Most of the analyses appeared to underestimate the ability of local communities to meet military family housing needs and thus overestimate the need for more costly military-owned or privatized housing.

- Ten of the 12 analyses used outdated information from military housing expenditure surveys completed from 1994 to 1997 as the basis for

estimating the number of military family home owners.²⁰ Since 1997, however, several factors have changed to make home ownership more likely for military families, such as significantly increased housing allowances, decreased average out-of-pocket housing costs, and lower mortgage interest rates. Yet, the analyses assumed that the home ownership rates reported in 1997 would remain constant through the end of each study period—specifically until 2006 to 2008. At Shaw Air Force Base, for example, the housing requirements analysis used 1994 to 1997 data to estimate that 785 of the 3,151 military families at the installation in 2002 were home owners and that approximately the same number, 784, would be home owners in 2007. Because underestimating the number of military family home owners can result in overestimating the need for more costly military-owned or privatized housing, accurate estimates are important and the use of outdated information to make home owner estimates appears unreasonable.

- Eight of the 12 analyses eliminated suitable community rental housing units from potential use by military families simply because the units' rental costs were too low. These analyses assumed that servicemembers would spend at least a stated minimum amount—either their full housing allowance, an amount based on spending patterns identified from housing surveys completed in 1997, or an amount determined on another basis—on housing costs and would not rent suitable local housing that cost less than this amount. For example, the analysis for Fort Eustis eliminated from consideration over 3,800 suitable two-, three-, and four-bedroom community housing units because they rented for less than \$600 a month—the approximate amount of the housing allowance for servicemembers in the lowest paygrades at this installation. Also, the analysis for Naval Station Everett eliminated from consideration over 12,500 suitable two-, three-, and four-bedroom community housing units because they rented for less than \$800 a month—the minimum rental cost considered appropriate, which was about 80 percent of the maximum allowable housing cost for servicemembers in the lowest paygrades at this installation. Similarly, the analysis for Luke Air Force Base eliminated from consideration over 23,000 suitable two-, three-, and four-bedroom community housing units because they rented for less than about \$700 a month—the minimum rental cost considered appropriate in the housing

²⁰ Prior to 1998, DOD conducted an annual survey to collect housing expenditure information because housing allowances were partially established on the basis of the amounts servicemembers actually spent for housing and utilities. Beginning in 1998, the basis for housing allowances changed to the actual median costs of local housing in various geographic areas of the country. DOD conducted the last housing expenditure survey in 1997.

analysis based on military family spending patterns identified in 1997 survey data. However, servicemembers are not required to spend their entire housing allowance on housing, and if they spend less, they can keep the difference. One of the reasons that DOD changed the basis for determining housing allowances in 1998 from servicemember housing expenditures to actual housing costs was that servicemembers, particularly in high-cost areas, often spent less than expected on housing. Further, because housing allowances are determined on the basis of the median rental cost in each geographic area, half of the rental units in the area will normally rent for less than the housing allowance amount plus the average out-of-pocket costs. For these reasons, the methodology used in the 8 analyses appears questionable and could result in underestimating the ability of the local communities to meet family housing needs and overestimating the need for more costly military-owned or privatized housing.

- Although DOD's guidance states that normally no more than 20 percent of a local community's total rental units would likely be unsuitable for military families, 3 of the 12 analyses estimated that more than 20 percent were unsuitable.²¹ Specifically, after eliminating rental mobile homes, these analyses eliminated from 30 to 50 percent of the local communities' remaining rental units from consideration for use by military families because the units were judged to be unsuitable. According to the analyses, the suitability estimates were primarily based on interviews with local civilian housing officials, census and similar data, opinions from installation officials on areas that should be excluded from consideration and drive-by observations. However, the analyses did not include detailed information to explain or support their estimates. To illustrate, the analysis for Fort Sam Houston estimated that 50 percent of the approximately 205,000 rental units in the local communities surrounding the installation were unsuitable for use by military families because of quality or safety concerns. Similarly, the analysis for Dyess Air Force Base estimated that over 41 percent of the 22,000 local community rental units

²¹ *Memorandum for Assistant Secretaries of the Army (Installations and Environment), Navy (Installations and Environment) and Air Force (Installations, Environment and Logistics), Subject: Standardization of Housing Requirements Determination for Housing Privatization Projects in Hawaii*, Principal Assistant Deputy Under Secretary of Defense (Installations and Environment) (Washington, D.C.: Mar. 27, 2003). The memorandum discussed results from the services' joint effort to apply the revised process in Hawaii. On the basis of an analysis of the results of this effort and in an effort to apply lessons learned, the memorandum noted that future housing requirements assessments should normally exclude no more than 20 percent of a local community's total rental units due to unsuitability criteria. DOD officials stated that the 20 percent criterion is used after rental mobile homes in local market area have been excluded from consideration.

were unsuitable for use by military families because of quality or safety concerns. Because it was beyond the scope of our review, we did not determine the validity of the suitability estimates. However, DOD headquarters officials stated that accurate estimates are critical to the results of the housing requirements process. They also stated they are suspect of unsuitable estimates that exceed 20 percent. If more rental units are declared unsuitable than is appropriate, housing analyses could underestimate the ability of communities to meet family housing needs and overestimate the need for more costly military-owned or privatized housing.

- In defining the local community housing market area surrounding each installation, 9 of the 12 analyses did not use the definition prescribed in the revised process. The revised process stated that the services should use the same housing market area to determine housing requirements as DOD uses to determine housing allowances.²² The analyses that did not follow this guidance defined the local housing market area in four different ways. For example, the housing analysis for Fort Sam Houston defined the market area as the communities within 20 miles of the installation and the analysis for Marine Corps Air Station Yuma defined the market area as the communities within a 1-hour commute of the installation. In neither case did the market area used match the area used to determine housing allowance rates. Differences in the way the local housing market is defined can cause over- or underestimates of a local community's ability to meet family housing needs.
- Six of the 12 analyses included an assessment of the housing requirements for single servicemembers who live off base. These analyses assumed that single servicemembers who live off base competed with married servicemembers and civilians for available community housing. The other six analyses assessed only family housing needs and thus assumed that single servicemembers did not compete with married servicemembers for community housing. The two approaches were inconsistent and resulted in different assessments of family housing needs. Also, the housing analysis for Naval Station Everett included single servicemembers but inappropriately assumed that single personnel in paygrade E4 lived off base and that 269 single servicemembers in paygrade E4 would require either a two-bedroom or a three-bedroom housing unit in 2008. However, the Navy requires single E4 personnel with less than 4 years of service to live in military barracks, and the housing allowance standard for single E4

²² DOD determines housing allowances based on the local cost of housing in about 350 geographic areas in the United States. Each geographic area, termed a military housing area, is defined by a set of zip codes surrounding an installation or a metropolitan area that includes housing markets generally within 20 miles or an hour's drive in rush hour traffic.

personnel living off base is a one-bedroom unit, not a two- or a three-bedroom unit. The faulty assumptions reduced the number of community rental units considered available to military families at the installation and increased the estimated requirement for military-owned or privatized housing.

In combination, the use of inconsistent methodologies, questionable assumptions, and outdated information has resulted in inconsistent and questionable estimates of on-base military housing needs, which may result in under reliance on community housing. The results from our review also raise questions concerning the adequacy of the services' reviews of completed analyses for accuracy and compliance with criteria. Service officials stated that they provide guidance to and approve the assumptions used by the contractors selected to perform the analyses. Also, they stated that installation officials review the initial results of the analysis for their installation prior to the analysis being finalized. Nevertheless, the use of inconsistent and questionable data sources, assumptions, and methodologies continues to exist. See appendix II for additional details on all 12 housing requirements analyses.

DOD's Revised Housing Requirements Determination Process Does Not Maximize Reliance on Community Housing

DOD's revised housing requirements determination process provides the services several exceptions to the policy of maximizing reliance on local community housing near military installations that could further detract from reliance on local housing. The basis for some of these exceptions was the consensus of DOD and service military housing officials rather than military mission requirements, results from analytical studies, or evidence that retention would be negatively affected if more families lived in local housing. Consequently, the basis for such judgments was not always clear and thus subject to question. If achievable, reducing or narrowing the scope of any of the exceptions could increase reliance on community housing and reduce family housing costs.

Instances When the Services Are Not Required to Use Available Community Housing

The Deputy Secretary of Defense's memorandum that announced the revised housing requirements determination process emphasized DOD's long-standing policy requiring primary reliance on the local communities surrounding installations for housing military families. The memorandum stated that because housing is not a core defense function and adequate capability exists in the private sector to perform this function, DOD will consider the construction, operation, and maintenance of military housing only when the private sector is not capable of meeting family housing needs.

However, even in view of these policy statements, the memorandum also included guidance that provided four instances when the services are not required to use available, suitable community housing. Specifically, the guidance stated that notwithstanding the overall policy to look first to local community housing, the services may retain or build military housing by applying the following exceptions to the use of local community housing at each installation.²³

- Exception for key and essential personnel. The services may provide military family housing for servicemembers identified as key and essential personnel at each installation.
- Exception to establish a military housing community. The services may include up to 10 percent of the projected number of military families in each paygrade as a military housing requirement to establish a minimum military housing community at each installation.
- Exception to provide targeted economic relief. The services may include as a military housing requirement housing to accommodate families when the servicemembers' regular military compensation falls below 50 percent of the local median income in the community surrounding an installation.²⁴
- Exception for historic housing. The services may include as a military housing requirement any historic family housing units that an installation is obligated to retain in government ownership by agreement, regulation, or other requirement.

As discussed below, application of these exceptions individually or collectively could result in greater reliance on on-base family housing than is warranted in view of DOD's policy of reliance on local community housing. According to DOD and service officials, the exceptions were formulated during the years-long effort to develop a revised housing requirements determination process. The services believed that there were legitimate reasons for an installation to maintain some on-base military family housing regardless of the availability of community housing, for example, the mission-related need to house on-base personnel identified as key and essential. To recognize and address these reasons, DOD and

²³ The guidance stated that the exceptions may not be used cumulatively. The services may use the exception that produces the greatest military housing requirement for each paygrade, but they may not combine exceptions within paygrades to create a larger military housing requirement.

²⁴ Regular military compensation is considered the military equivalent of civilian salaries and includes servicemembers' basic pay, allowances for housing and subsistence, and the tax advantage of the tax-free housing and subsistence allowances.

service officials reached consensus that the four exceptions to the overall policy should be an essential part of the revised process.

**Basis for Three of the
Four Exceptions Appears
Subject to Question**

Although the justification supporting the exception for key and essential personnel appears well-founded, the justifications supporting the other exceptions appear less certain and subject to question. Service officials stated that the key and essential personnel exception was provided because of mission requirements. Specifically, a relatively small number of servicemembers at each installation normally are designated as key and essential and are required to live on base regardless of the local communities' ability to meet military housing needs. At the 12 installations we reviewed, the estimated total number of military families ranged from 365 to 13,998 and averaged 3,781, and the number of designated key and essential personnel ranged from 5 to 93 and averaged 24. However, as discussed below, the justifications for the other allowed exceptions to using available community housing appear less convincing and subject to question.

**Basis for Military Housing
Community Exception Appears
Subject to Question**

Each of the 12 installation housing requirements determination analyses we reviewed applied the military community exception. Each analysis identified 10 percent of the projected number of military families at each installation as a military housing requirement and excluded this number of families from consideration for housing in the local communities surrounding the installation. In total, the 12 analyses determined that 4,576 military family housing units were required regardless of the ability of local communities to meet these housing needs.²⁵ On an installation basis, with total estimated families ranging from 365 to 13,998, the identified military housing community requirement ranged from 37 to about 1,400 housing units.

DOD officials stated that the justification for the military housing community exception was not founded on mission requirements or the results from any economic or other analysis. Instead, the exception was provided on the basis of consensus of DOD and military service housing officials. Service officials stated that they believed an on-base military housing community was needed to recognize the value of the cohesive attributes of a military community to the morale of servicemembers. The officials said that some families wanted to live on base because they felt a

²⁵ See note 7.

greater sense of security, received more support from military family neighbors, and were closer to work and on-base amenities, such as commissaries and recreation facilities.

While some families may prefer to live on base, DOD's position is that there is no mission requirement for families to live on base, except for the families of the servicemembers designated as key and essential. Also, the services had no analytical support showing that there would be negative impacts if military families were housed in suitable, affordable housing in the local communities rather than on base where some preferred to live. In a May 2001 report on DOD's 1999 survey of active duty personnel, we noted that the survey showed that (1) 72 percent of servicemembers preferred local community housing if costs were equal and (2) there was no clear link between housing and retention.²⁶ We do not know whether these survey results have changed given the recent increased housing allowances and the recent increase in the number and length of troop deployments. Nevertheless, the services had no analytical support showing that the optimum on-base housing community should consist of 10 percent of military families—as opposed to 5 percent, 20 percent, 10 percent plus some addition for the other exception criteria, or some other percentage. Also, although the services note the value of a cohesive military housing community, an installation's military-owned housing inventory often is not sited in one on-base neighborhood but instead is sited in several dispersed locations, including, in some instances, off-base locations several miles from the installation.

Basis for Targeted Economic Relief Exception Appears Subject to Question

At 5 of the 12 installations we reviewed, the application of the economic relief exception increased military housing requirements above the level established by the military housing community exception. Application of the economic relief exception at these installations increased military housing requirements by a total of 414 housing units. DOD seeks to provide servicemembers with access to adequate and affordable housing and, according to some service officials, the economic exception was provided on the basis of consensus of DOD and service housing officials to recognize the financial strain placed on married servicemembers in lower paygrades who live in high-cost communities. Service officials stated that because housing allowances vary by paygrade, servicemembers in lower paygrades receive lower allowances and might have more difficulty in renting affordable housing in high-cost areas. Further, servicemembers

²⁶ See [GAO-01-684](#).

living in high-cost areas normally are faced with higher incidental costs other than housing.

However, the targeted economic relief exception does not appear to recognize that other measures are in place to help mitigate financial hardships facing military families living in high-cost areas. In particular, housing allowances for servicemembers in all paygrades are based on the actual median cost of local housing in each geographic area of the country. Thus, housing allowances in high-cost areas reflect the high cost of community housing in those areas. For example, the 2004 housing allowance in the San Francisco area is \$2,153 a month for servicemembers with dependents in the lowest paygrades—paygrades E1 through E4. Also, DOD plans for the housing allowance to fully cover the average cost of housing and utilities by 2005, with the typical servicemember in all paygrades paying no out-of-pocket housing costs. Further, servicemembers living in 53 high-cost areas in the United States are paid a cost-of-living allowance to recognize the higher incidental costs of living in these areas.²⁷ For example, the cost-of-living allowance in the San Francisco area for servicemembers with dependents in paygrades E1 and E4 is \$210 and \$230 a month, respectively. Finally, because installation housing requirements determination analyses consider the availability and affordability of community housing for servicemembers in each paygrade, the analyses are designed to identify when military housing is justified because local housing is too expensive.

Basis for Historic Housing
Exception Appears Subject
to Question

At 2 of the 12 installations we reviewed, the requirements analyses identified 595 historic housing units, applied the historic housing exception, and increased total military family housing requirements by 186 units above the level established by applying the military housing community exception. According to service officials, the historic housing exception was provided on the basis of consensus of DOD and service housing officials to recognize that some housing units at some installations have been designated, or are considered, historic in nature and normally are required to be retained. However, historic designation of a housing unit does not mean that the unit must be used to house military families or

²⁷ According to DOD, cost-of-living allowances affect nearly 85,000 servicemembers in 53 military housing areas and 23 other counties in the continental United States. The cost-of-living allowance compensates for a portion of excess costs for non-housing expenses incurred in areas that exceed costs in an average U. S. military location by more than 8 percent. Servicemembers must absorb the first 8 percent of expenses above the national average.

that it should necessarily increase or reduce housing requirements beyond those identified for other purposes.

Opportunities Exist to Improve the Top-Level Review of Proposed Housing Construction Projects

Opportunities exist for DOD to improve the top-level review given to service proposals for military housing construction projects. Currently, DOD's review and approval process for housing construction proposals lacks certain additional steps included in the review and approval of privatization project proposals, for example, a top-level assessment of each project's supporting housing requirements analysis. Adopting additional review steps for housing construction proposals could provide additional assurances that the proposals are adequately justified and that the more cost-effective option, military construction or privatization, is used to achieve needed housing improvements when local communities cannot meet needs.

DOD Uses Different Review Processes for Housing Construction and Privatization Projects

DOD uses different top-level review and approval processes for proposed housing construction and privatization projects. DOD officials stated that the review process for housing construction proposals is rigorous, well-established, and similar to the process used for other types of projects financed with military construction funds. First, using the results from housing requirements analyses and assessments of the condition of existing on-base housing units, individual installations identify and justify needed housing construction projects. Project proposals are then submitted through the chain of command to service headquarters. During this process, service officials review the adequacy of project justifications, consider how the projects fit into the services' housing master plans, and prioritize projects in view of competing demands and budgetary limitations. Finally, the services submit their proposals to DOD headquarters for a top-level review and approval as part of the normal budget process prior to being submitted to the Congress. DOD housing officials stated that although they might raise questions concerning particular projects, they primarily rely on the services to ensure that the need for each project is well-supported and justified.

DOD headquarters uses a different review and approval process for privatization proposals. When the military housing privatization program began in 1996, DOD established a headquarters office to oversee and facilitate implementation of the program. In addition to creating the framework for the new program, the headquarters office established procedures for reviewing privatization proposals and criteria for approving proposals. Under these procedures, the service that proposes a project must provide DOD headquarters officials a detailed briefing that

describes the project, its justification, and whether it meets specific financial criteria. Also, DOD headquarters officials stated that they review each proposal's supporting housing requirements analysis. In this review, DOD evaluates the estimates, assumptions, and methodology used in the analysis for reasonableness and compliance with guidance. If concerns are identified, DOD asks the service for additional information before the proposal is approved.

The additional top-level review steps for privatization proposals—and in particular the review given to the housing requirements analyses that support the proposals—provide additional assurances that each proposal is adequately justified before approval. In view of the concerns we identified in the services' installation housing requirements analyses, it appears that including additional top-level review steps for proposed housing construction projects could provide additional assurances that these projects are adequately justified before approval. Further, because the initial amount of government funds needed to construct a military-owned housing project often exceeds the initial amount of government funds needed to start an equivalent privatization project, it appears appropriate that the top-level review provided to housing construction proposals be at least equivalent to the review provided to privatization proposals.²⁸

Top-Level Review of Housing Construction Proposals Does Not Normally Consider Privatization Alternatives

According to DOD officials, the top-level review of service proposals for housing construction projects does not normally include an analysis of whether the improvements planned from the projects could be achieved more economically through privatization. DOD officials stated that they assume that the services have considered privatization alternatives to achieving needed housing improvements and that the use of military construction funds is appropriate when the services propose this option. Service officials also stated that prior to submitting a housing proposal they consider both construction and privatization alternatives and chose the option that is more appropriate.

²⁸ As we reported in 2002, the initial amount of government funds needed in DOD's first 10 privatization projects averaged about \$18.5 million. Had military construction projects been used to achieve the same housing improvements, the initial amount of government funds for the projects would have averaged about \$119 million. See U.S. General Accounting Office, *Military Housing: Management Improvements Needed As the Pace of Privatization Quickens*, [GAO-02-624](#) (Washington, D.C.: June 21, 2002).

During our review, however, we identified some approved housing construction projects that were being used as an intermediate step to privatization without a clear analysis of the benefits of one alternative over the other. Specifically, the Army, the Air Force, and the Marine Corps have recently used, or plan to use, military housing construction projects to build replacement housing at installations where the services plan to privatize all housing in the near future. In some instances, the construction of the new military-owned houses apparently will be completed just in time to convey ownership of the units to a privatization developer who will begin collecting rent from military occupants of the units. Examples of cases we identified are shown below.

- The Army's fiscal year 2004 budget included \$41 million for a military construction project at Fort Knox, Kentucky, to replace inadequate houses with 178 new houses. The new houses will be conveyed to a privatization developer when all family housing at Fort Knox is privatized—scheduled for 2006. Army officials stated that the rationale for the project was to replace inadequate houses with houses that meet current requirements as quickly as possible and that this could be achieved by using military construction funding. The officials also stated that the project should result in reducing the amount of government funds that will be needed to initiate the privatization project at Fort Knox.
- The Marine Corps' fiscal year 2004 budget included about \$68 million for two military construction projects at Camp Lejeune, North Carolina, to replace 519 inadequate family housing units. Also, the Marine Corps' fiscal year 2003 budget included about \$44 million for another military construction project to replace 317 inadequate family housing units at the installation. Marine Corps officials stated that the new housing units will be conveyed to a privatization developer when all family housing at Camp Lejeune is privatized—scheduled for 2005 or 2006. The officials also stated that the rationale for the projects was to improve the quality of life for the occupants of this housing and reduce the large number of inadequate housing units at Camp Lejeune. The officials stated that by using military housing construction projects to reduce the work that would be required by a privatization developer, the initial amount of government funds required to start the privatization project might be reduced, making the privatization project financially more feasible for the Marine Corps.
- The Air Force's fiscal year 2004 budget included about \$20 million for a military construction project to replace 120 inadequate houses with 112 new houses at Dover Air Force Base, Delaware. Also, the Air Force's fiscal year 2002 and 2003 budgets included military construction projects to replace inadequate housing at the installation—about \$18 million for 120 units in fiscal year 2002 and about \$20 million for 112 housing units in fiscal year 2003. Air Force officials stated that the new housing units will

be conveyed to a privatization developer when all family housing at Dover Air Force Base is privatized—scheduled for 2005. The officials also stated that at the time the proposals for the construction projects were prepared, the Air Force did not consider that housing privatization was financially feasible at the installation. However, after re-evaluation, the Air Force concluded that the installation had privatization potential and added the installation to its privatization schedule. The officials stated that the Air Force also concluded that there would be less risk and greater value added by continuing the implementation of the military construction projects prior to privatization.

Service officials stated that they have used military housing construction projects at installations slated for future privatization when justified by various reasons, such as those illustrated in the examples. We are not saying that use of military construction was not justified in any of these cases but rather point to opportunities for DOD to provide a higher level assessment of justifications for such projects and their privatization potential before the projects are approved. It is also important to recognize that DOD has pursued housing privatization because it provides certain advantages over military construction. DOD officials note that by leveraging government funds and using private sector capital, the military can stretch its available funds so that significantly more housing can be improved in comparison with traditional military construction financing. DOD officials also note, and our analysis supports, that the privatization option is a more cost-effective option than the military-owned housing option when local communities cannot meet family housing needs. Finally, DOD officials note that in most cases privatization offers less risk to the government if units are not used by military families because the privatization developer—not the government—owns and is responsible for the units. For these reasons, it is important that DOD's top-level review of housing construction proposals ensures that the privatization option has been appropriately considered and that the alternative more advantageous to the government is used to accomplish needed improvements in every case.

Conclusions

DOD's stated policy of primary reliance on local community housing for military families—if implemented to the maximum practical extent—could help minimize housing costs because the use of local community housing remains the government's least costly option for meeting military family housing needs. Closely related to achieving maximum reliance on local community housing is the need for a process that consistently and reliably determines housing needs at each installation. DOD's revised housing requirements process represents a significant step in this direction. Yet, largely because DOD has not provided timely detailed guidance to the services on how to implement and oversee the revised requirements process, installation housing analyses are inconsistent and questionable. Faulty analyses could lead DOD to construct military-owned housing or enter into long-term contracts for privatized housing in areas where local communities might have provided housing at lower costs. Also, because DOD allows several exceptions to using community housing, the services might justify more costly military-owned or privatized housing in some cases when local community housing might meet the needs. If achievable, reducing or narrowing the scope of currently allowed exceptions to the use of community housing could increase reliance on such housing, reduce costs, and help ensure that military-owned or privatized housing is provided only when the local communities near military installations are not capable of fulfilling needs. In addition, considering the recent increases in housing allowances, increases in the number and length of troop deployments, and other changes, servicemember housing preferences also may have changed. Current family housing preference information is an important consideration as DOD addresses the housing needs of servicemembers with dependents. Further, in view of the high cost of providing military-owned housing and to help prevent housing investments that are not adequately justified, it is important that service proposals for military housing construction projects receive a top-level review consistent with the review provided to service proposals for privatization projects. Without such a top-level review of military housing construction proposals that also considers privatization options and plans, DOD has less assurance that the proposals are well-supported and that the more advantageous option, military construction or privatization, is used to achieve needed housing improvements when local communities cannot meet needs.

Recommendations for Executive Action

We recommend that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to take the following four actions:

- Expedite efforts to provide the military services with more detailed guidance on implementing the revised housing requirements determination process to help ensure that housing investments, whether through military construction or privatization, are supported by consistent and reliable needs assessments. This guidance should include specifics on (1) the information sources, assumptions, and methodology to be used in each installation housing requirements determination analysis and (2) the appropriate service-level oversight of the requirements determination process to help ensure reliability and compliance with the guidance.
- Review the rationale supporting each of the exceptions to using local community housing provided in the revised housing requirements determination process in an effort to reduce or narrow the scope of the exceptions and help minimize family housing costs.
- Survey servicemembers with dependents to update information on the current preferences for family housing given recent changes, such as the increase in housing allowances and the increase in the number and length of troop deployments.
- Apply a more consistent top-level review and approval process for both military housing construction and privatization project proposals to help ensure that proposed housing construction projects are adequately justified and appropriate consideration has been given to privatization options and plans.

Agency Comments and Our Evaluation

In commenting on a draft of this report, the Principal Assistant Deputy Under Secretary of Defense (Installations and Environment) fully agreed with two and partially agreed with two of our recommendations and indicated that actions were under way or planned to deal with most of them. DOD stated it will issue detailed guidance on implementing the revised housing requirements determination process in the DOD Housing Management Manual, scheduled for issuance in December 2004, and resurvey the housing preferences of servicemembers with dependents by the end of 2004.

DOD partially agreed with our recommendations to review the rationale supporting each of the exceptions to using local community housing

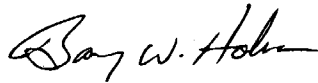
provided in the revised housing requirements determination process and apply a more consistent top-level review and approval process for both military housing construction and privatization project proposals. While DOD indicated it would review the rationale supporting each of the exceptions to using local community housing, it is not clear to what extent DOD plans to assess their collective effect on relying on local community housing to minimize family housing costs. Also, regarding the recommendation that DOD apply a more consistent top-level review and approval process for both military housing construction and privatization project proposals, DOD indicated that it would apply a top-level review process to the decision on whether to privatize or use traditional military construction as part of its master planning process. It did not state to what extent it intended to add a top-level review of the housing requirements analyses supporting proposed housing construction projects to help ensure that proposed housing construction projects are adequately justified. In view of the concerns we identified in the services' installation housing requirements analyses, we continue to believe that DOD should perform a top-level review of the housing requirements analyses supporting each proposed housing construction project prior to approval.

DOD's comments are reprinted in their entirety in appendix III.

As you know, Section 720, Title 31, United States Code, requires the head of a federal agency to submit a written statement of the actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Reform not later than 60 days after the date of this report. A written statement must also be sent to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this report.

We are sending copies of this report to the appropriate congressional committees, and it will be available at no charge on GAO's Web site at <http://www.gao.gov>. If you or your staff have any questions on the matters discussed in this report, please contact me at (202) 512-8412 or my Assistant Director, Mark Little, at (202) 512-4673. Gary Phillips, Sharon Reid, and Deborah Owalabi were major contributors to this report.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Barry W. Holman". The signature is fluid and cursive, with the first name "Barry" being more prominent.

Barry W. Holman, Director
Defense Capabilities and Management

Appendix I: Scope and Methodology

To determine whether the Department of Defense's (DOD) policy of primary reliance on local community housing is cost-effective, we compared the government's costs to provide housing for a typical military family using each of the three available housing options. Specifically, we used DOD and service budget and program information to determine and compare the government's costs to house a typical military family in (1) local community housing with payment of a housing allowance; (2) military owned, operated, and maintained housing; and (3) housing owned, operated, and maintained by private developers under the military housing privatization program. We primarily used cost data contained in DOD's fiscal year 2004 budget justification material submitted to the Congress in February 2003 and did not test the reliability of this data because it represented DOD's official information used to support the President's budget. We considered the major types of costs in each housing option including housing allowances; military housing construction, operations, and maintenance costs; privatization project costs; housing referral services costs; and costs of federal impact aid paid by the Department of Education for dependents of military servicemembers attending local schools. The typical military family was a composite representing officer and enlisted servicemembers in all paygrades. In addition to our analysis, we reviewed estimates of military housing costs prepared in the mid-1990s by DOD and the Congressional Budget Office. Also, we shared the details of our analyses with DOD and service officials.

To determine whether DOD's revised housing requirements determination process has resulted in consistent and reliable estimates of installation housing needs, we selected and reviewed the housing requirements analyses for 12 installations—3 from each service. We selected analyses that (1) included statements that they had been prepared in accordance with the revised process and (2) were for installations where military housing construction projects and/or housing privatization projects were recently approved or planned. For each analysis, we evaluated the stated basis for the estimates and assumptions used and assessed consistency and compliance with the January 2003 memorandum that implemented the revised process. We did not otherwise attempt to independently determine housing requirements at the 12 installations. We shared the results of our analyses with DOD and service officials and incorporated their comments as appropriate. We also discussed with DOD and service officials the procedures they use to review the adequacy of completed installation housing requirements analyses.

To determine whether DOD's revised housing requirements determination process maximizes reliance on local community housing, we interviewed DOD and service headquarters housing officials, reviewed applicable DOD and military service policies and procedures, reviewed family housing improvement plans and initiatives, and visited four military installations in Virginia—Fort Eustis, Langley Air Force Base, Naval Station Norfolk, and Marine Corps Base Quantico—to view family housing conditions and discuss housing options and associated costs. In reviewing the details of the revised process, we specifically assessed the basis for the provisions in the process that allow exceptions to using local community housing. This assessment included a review of the support for each exception, discussions with DOD and service personnel on the need for each exception, and consideration of the impact of the exceptions at 12 installations where we reviewed housing requirements analyses.

To determine whether opportunities exist for DOD to improve its review of proposed military housing construction projects, we documented and compared DOD's review and approval processes for service proposals for military housing construction projects and military housing privatization projects. We discussed differences in the processes with DOD officials to determine the reasons for differences and the potential advantages of making the review and approval processes more consistent. We also reviewed the services' military construction budgets for fiscal years 2002, 2003, and 2004 to identify installations with approved military housing construction projects. We compared the installations identified with the list of installations that the services plan to privatize to identify installations with approved military housing construction projects that were also slated for future privatization. We discussed these installations with service officials to determine reasons for the construction projects in view of privatization plans.

We conducted our work from May 2003 through March 2004 in accordance with generally accepted government auditing standards.

Appendix II: Selected Information from Installation Housing Requirements Analyses

Table 3 shows selected information from the services' housing requirements determination analyses for the installations we reviewed. The information shows inconsistencies in how the analyses were prepared, ranges of estimates used, and projected results from the analyses.

Table 3: Selected Information from Installation Housing Requirements Determination Analyses

Installation	Used DOD's prescribed definition of local housing market?	Considered single servicemembers' housing needs?	Used survey data from 1997 to estimate home owners?	Excluded rental housing costing less than housing allowance or amount based on spending patterns from 1997 survey?
Shaw Air Force Base, South Carolina	No	Yes	Yes	No
Luke Air Force Base, Arizona	No	Yes	Yes	Yes
Dyess Air Force Base, Texas	No	Yes	Yes	Yes
Fort Eustis, Virginia	No	No	No	Yes
Fort Knox, Kentucky	No	No	Yes	Yes
Fort Sam Houston, Texas	No	No	Yes	Yes
Naval Station Everett, Washington	Yes	Yes	Yes	Yes
Naval Weapons Station Earle, New Jersey	Yes	Yes	Yes	Yes
Naval Submarine Base New London, Connecticut	Yes	Yes	Yes	Yes
Marine Corps Air Station Yuma, Arizona	No	No	Yes	Not shown in analysis
Marine Corps Base Camp Lejeune, North Carolina	No	No	No	Not shown in analysis
Marine Corps Air Ground Combat Center Twentynine Palms, California	No	No	Yes	Not shown in analysis

Source: DOD information with GAO analysis.

Note: The analysis stated that 21.3 percent of local community rental housing was unsuitable, including rental mobile homes. However, the analysis did not state the unsuitable percentage after eliminating rental mobile homes.

**Appendix II: Selected Information from
Installation Housing Requirements Analyses**

Percentage of local community rental housing considered unsuitable, after eliminating mobile homes	Projected total number of military families	Projected minimum on-base housing requirement allowed by DOD's revised requirements determination process	Projected total on-base housing requirement
17.1	3,152	326	1,491
(see note)	2,658	287	426
41.2	2,920	299	1,261
18.1	2,690	300	874
10.0	3,833	667	1,192
50.0	4,625	621	1,334
12.3	2,557	322	434
14.0	365	41	85
30.0	3,227	447	2,099
16.2	2,147	217	842
10.3	13,998	1,407	6,373
11.7	3,201	331	1,989

Appendix III: Comments from the Department of Defense



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

MAY 05 2004

Mr. Barry W. Holman
Director, Defense Capabilities and Management
United States General Accounting Office
Washington, DC 20548

This is the Department of Defense (DoD) response to the GAO draft report, "MILITARY HOUSING: Further Improvements Needed in Requirements Determinations and Program Review," March 31, 2004 (GAO Code 350376/ GAO-04-556).

Enclosed are the Department's specific responses to the recommendations of the draft GAO report. Thank you for the opportunity to provide comments. My point of contact for this action is Bob Helwig. He can be reached at (703) 602-9867.

Sincerely,

Philip W. Grone
Principal Assistant Deputy Under Secretary of Defense
(Installations and Environment)

Enclosure:
As stated



GAO CODE 350376/GAO-04-556

**“MILITARY HOUSING: FURTHER IMPROVEMENTS NEEDED IN
REQUIREMENTS DETERMINATIONS AND PROGRAM REVIEW”**

**DEPARTMENT OF DEFENSE COMMENTS
TO THE RECOMMENDATIONS**

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to expedite efforts to provide the Military Services with more detailed guidance on implementing the revised housing requirements determination process to help ensure that housing investments, whether through military construction or privatization, are supported by consistent and reliable needs assessments. This guidance should include specifics on (1) the information sources, assumptions, and methodology to be used in each installation housing requirements determination analysis and (2) the appropriate Service-level oversight of the requirements determination process to help ensure reliability and compliance with the guidance. (Page 32/Draft Report)

DoD RESPONSE: Concur. We will issue detailed guidance in the DoD Housing Management Manual, scheduled for issuance in December 2004. The guidance will include the recommended specifics. The Department issued broad housing requirement guidance on January 8, 2003. We deliberately delayed issuance of detailed, specific guidance to capture lessons learned from initial application of the new procedures. The resulting detailed manual will then reflect practical, as well as theoretical, guidance.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to review the rationale supporting each of the exceptions to using local community housing provided in the revised housing requirements determination process in an effort to reduce or narrow the scope of the exceptions and help minimize family housing costs. (Page 32/Draft Report)

DoD RESPONSE: Partially concur. We will review the rationale supporting each of the exceptions. However, we believe the existing exceptions are sufficiently narrow and well-founded to support sound determinations of our housing requirements. The exceptions allow the department to balance the critical values such as housing key and essential personnel and historic preservation with the need to minimize family housing costs.

RECOMMENDATION 3: The GAO recommended that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to survey service members with dependents to update information on the current preferences for family housing given recent changes, such as the increase in housing allowances and the increase in the number and length of troop deployments. (Page 32/Draft Report)

DoD RESPONSE: Concur. We will re-survey their housing preferences by the end of 2004.

RECOMMENDATION 4: The GAO recommended that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to apply a more consistent top-level review and approval process for both military housing construction and privatization project proposals to help ensure that proposed housing construction projects are adequately justified and appropriate consideration has been given to privatization options and plans. (Page 32/Draft Report)

DoD RESPONSE: Partially Concur. We will apply a top-level review and approval process to the decision on whether to privatize or use traditional military construction as part of our family housing masterplan process. Implementation of the new housing requirements determination process in 2003 delayed the Service's masterplans while accurate requirements were being calculated. This new review will require the military services to explain why privatization is not viable when choosing to use military construction. Military construction projects approved in the masterplans will then be budgeted using existing procedures as directed by the DoD Comptroller. We expect new masterplans in May 2004.

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