

September 2005

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Actions Needed to Improve Estimates and Oversight of Costs for Transforming Army to a Modular Force



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Highlights

Highlights of [GAO-05-926](#), a report to congressional committees

Why GAO Did This Study

In 2004, the Army began transforming its force into modular brigade-based units, thus expanding the number of units available for deployment and creating new command and support units. The Army is transforming while engaged in the Global War on Terrorism and developing other high-cost capabilities. This prompted congressional concern about the affordability of Army plans. Thus, under the Comptroller General's statutory authority, GAO examined the Army's restructuring. This report addresses (1) the extent of change in costs and areas of uncertainty that could affect those costs, (2) the Army's plan for funding modularity and factors that may affect affordability, and (3) whether the Army has an adequate approach to track modularity obligations.

What GAO Recommends

GAO recommends that the Secretary of Defense provide Congress an annual plan outlining the costs of Army modularity and develop an approach to track funds obligated for this effort. The Department of Defense (DOD) agreed on the need to provide Congress better information on Army modularity, but stated it does not plan to establish an approach for tracking costs. GAO reiterates the need for the Secretary to provide a plan for overseeing expenditures for Army modularity in a matter for congressional consideration.

www.gao.gov/cgi-bin/getrpt?GAO-05-926.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Sharon Pickup at (202) 512-9619 or pickups@gao.gov.

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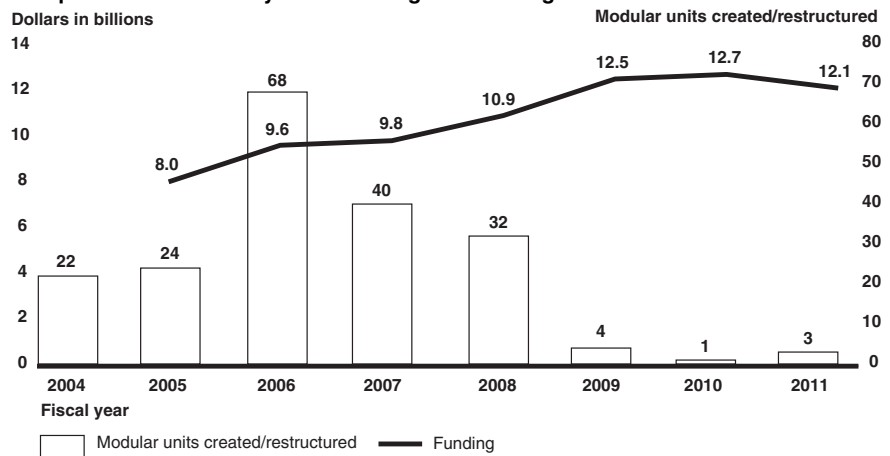
Actions Needed to Improve Estimates and Oversight of Costs for Transforming Army to a Modular Force

What GAO Found

The Army's cost estimates for its modular force are evolving and have increased substantially, and uncertainty exists that will likely increase costs further. In March 2005, the Army estimated it will need \$48 billion to fund modularity through 2011, a 71 percent increase from its 2004 estimate of \$28 billion. However, this latest estimate does not include \$27.5 billion in personnel and construction costs the Army and GAO identified, bringing potential known costs to \$75.5 billion. Uncertainties remain in this estimate related to force design, equipment, facilities, and personnel, which could increase costs or require the Army to reduce capabilities. Until the Army provides a more reliable estimate of its modularity costs, DOD and Congress will not be well positioned to weigh competing requests for funding.

The Army's funding plan, which it uses as the basis for developing funding requests, relies on annual and supplemental appropriations and may present future affordability challenges. Uncertainty in cost estimates noted above, reliance on business engineering efficiencies that historically have been difficult for DOD to achieve, and likely cost growth from another high-cost program—Future Combat Systems—collectively pose the risk of making this plan unaffordable. Also, as shown below, the Army will be creating most of the modular units before it has the funding to support them.

Comparison of Modularity Restructuring and Funding Schedules



Source: GAO analysis of Army funding data and unit creation schedules.

Note: The Army plan did not include funding data for fiscal year 2004.

While the Army can generally identify overall equipment purchases, it lacks an approach for tracking most modularity obligations and thus cannot provide a reliable picture of past spending or future funding needs. Army officials said they had not established a framework to track personnel and equipment obligations in part due to the difficulty of defining whether such expenses were incurred specifically for modularity or to support the force in general. However, we note the Army has made such distinctions in its past funding requests, including identifying specific amounts needed for equipment, and will require such data to develop and justify future requests.

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Abbreviations

BRAC	Base realignment and closure
CBO	Congressional Budget Office
DOD	Department of Defense
FCS	Future Combat Systems
FYDP	Future Years Defense Program

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United States Government Accountability Office
Washington, DC 20548

September 29, 2005

Congressional Committees

The Army considers its transformation into a modular force to be the most extensive reorganization of its force since World War II, requiring large investments in personnel and equipment to restructure a force now organized in divisions to a modular brigade-based force. By the end of fiscal year 2006, the Army plans to reorganize its 10 active duty divisions, expanding from 33 brigades to 43 modular brigade combat teams, and by fiscal year 2010, create new types of command and support units. At the same time, the Army is fighting the Global War on Terrorism and developing other new capabilities such as the Future Combat Systems (FCS).¹ As the Department of Defense (DOD) requests funds to support these Army initiatives, it is incumbent on DOD to provide the best available data to justify its resource needs.

Because of the magnitude of the Army's transformation plans and growing congressional concerns about their affordability, we are examining both the force structure and cost implications of the Army's transformation into a modular force under the Comptroller General's statutory authority. We presented our preliminary observations on the Army's plan in a March 2005 hearing before the Subcommittee on Tactical Air and Land Forces, House Committee on Armed Services.² This report focuses on the cost of the modular force, with an emphasis on assumptions related to the active component because these plans were the most mature at the time of our review. Because of your oversight responsibilities, we are sending this report to you. Specifically, we (1) determined the extent of change in the Army's cost estimate for transforming to a modular force and the potential areas of uncertainty that could affect those costs, (2) examined the Army's plan for funding these costs and factors that may affect its ability to afford modularity, and (3) determined whether the Army has an adequate approach to track modularity obligations. We will be providing a separate

¹ FCS is a program that consists of a family of systems composed of advanced network combat and sustainment systems, unmanned ground and air vehicles, and unattended sensors and munitions.

² GAO, *Force Structure: Preliminary Observations on Army Plans to Implement and Fund Modular Forces*, [GAO-05-443T](#) (Washington, D.C.: Mar. 16, 2005).

report on force structure implications of the modular transformation at a later date.

Overall, our assessment of the cost estimate, funding plan, and the approach for tracking obligations associated with the modular force transformation focused on the assumptions underlying cost projections for equipment, personnel, and facilities as they related to the modular force proposed by the Army. We examined the processes for developing them and assessed the estimates against analyses from officials knowledgeable about each of the cost categories. We found this information sufficiently reliable for analyzing the assumptions underlying costs of the modular force and funding plans. Specifically, to assess change and uncertainty in the cost estimate, we compared the Army's original rough order of magnitude estimate with updated estimates and discussed reasons for the changes with Army budget and programming officials. We also discussed areas of uncertainties with Army officials responsible for equipment procurement, personnel, and facilities, including both headquarters and command officials. To assess the affordability of the funding plan, we examined the plan in light of our ongoing and previously issued reviews examining Army assumptions about other high-cost programs and projected efficiencies expected in the Army's budget. To assess the Army's approach for tracking modular force costs, we discussed processes used to track these funds at the command and headquarters levels, and discussed the Army's existing processes for tracking costs in general with headquarters officials. We conducted our review from May 2004 through June 2005 in accordance with generally accepted government auditing standards. Further information on our scope and methodology and data reliability assessment appears in appendix I.

Results in Brief

The Army's cost estimates for transforming to a modular force are evolving and have increased substantially, and uncertainty exists that will likely increase costs. As of March 2005, the Army estimated that it will need \$48 billion to fund modular forces—which represents a 71 percent increase from its 2004 estimate of \$28 billion.³ However, this most recent estimate does not include \$27.5 billion in personnel and construction costs the Army and GAO have identified, bringing the potential known costs to

³ Unless otherwise noted, costs presented in this report are in then-year dollars.

\$75.5 billion.⁴ Uncertainties remain in assumptions about force structure design, equipment requirements and shortfalls, personnel costs, and basing, which could increase costs even more. For example, if the Secretary of Defense decides to further increase the number of brigade combat teams—a decision to be made in fiscal year 2006—increases in equipment, facilities, and personnel costs may occur. In addition, the amount for equipment costs included in the Army’s estimate is likely understated because it does not entirely reflect the cost of purchasing all the equipment needed to bring the currently planned units to the modular design—and therefore to the level of capability—that the Army validated in testing. Also, Army officials are uncertain whether the current end strength authorization is enough to support the modular conversion, putting personnel costs at risk of increasing if additional end strength is needed. Finally, the costs of constructing permanent facilities are uncertain because they have not incorporated recent proposals for base realignment and closure and restationing of personnel from overseas. If costs grow due to these uncertainties, the Army may require additional funding beyond \$75.5 billion or need to accept reduced capabilities among some or all of its units. Until the Army provides a better understanding of costs associated with the modular force and a clearer picture of the impact of resource decisions on the modular force capability, DOD will not be well positioned to weigh competing priorities and make informed decisions nor will Congress or the Secretary of Defense have the information they need to evaluate funding requests.

The Army’s 2005 through 2011 funding plan for its modular force, which relies on a combination of supplemental and regular appropriations and efficiencies, contains various risks that may pose difficult affordability challenges in the future. In sum, the Army anticipates it will fund the \$75.5 billion cost for modularity with \$10 billion in supplemental appropriations, \$42.5 billion in regular appropriations (including \$4.5 billion achieved through efficiencies), and a GAO-estimated \$23 billion in either supplemental or regular appropriations to pay for personnel expenses. According to Army officials, the Army plans to use this strategy to meet its aggressive schedule for completing its modular conversion and to avoid canceling or restructuring other programs. It also intends to use its funding plan as the basis for developing requests for regular appropriations and supplemental appropriations funds. Several risk factors may impede the Army’s ability to adhere to its plan. First, the Army

⁴ In constant fiscal year 2006 dollars, this totals \$71.6 billion.

will be creating units before funding is available to restructure them. Its schedule for creating and transforming modular units shows that by 2008, 96 percent of the 194 active and reserve units will be created by the time the Army has a little over half of its anticipated funding. Further, uncertainties in the cost estimate for the modular force noted above may increase the costs of the conversion. The funding plan also relies on the Army to produce \$4.5 billion from business process reengineering efficiencies in order to fund new construction for the modular force. However, the Army's ability to achieve these savings is uncertain because DOD historically has had difficulty achieving these efficiencies. Finally, although the bulk of funding for the Army's FCS—a high-cost, high-priority Army program—occurs outside modular transformation time frames, we have reported that the program is at significant risk for not delivering required capability within budgeted resources, and that because of the size of FCS, cost growth could have dire consequences on the affordability of other Army programs. Collectively, the risks associated with uncertainties in cost estimates; the Army's ability to find efficiencies; and implementing two high-cost, high-priority programs could pose challenges for DOD and the Army in the future.

While Army officials stated they can generally identify overall equipment purchases, the Army lacks an approach for tracking and categorizing most obligations related to modularity and thus cannot provide decision makers a transparent, reliable picture of past spending or future budget requirements for the modular force. Federal internal control standards state that agencies should provide reasonable assurance that an agency's objectives are being achieved through, among other things, reliable reports on budget execution.⁵ While the Army reported obligations of \$133 million for its operation and maintenance expenses in fiscal year 2004 for the modular force transformation, Army officials told us that additional funds were obligated for personnel and equipment, but they could not specify the amounts. Initial Army estimates indicated that these costs could have been as high as \$496 million. Army officials told us that they had not established a framework to track these modularity expenditures in part because of the difficulty in distinguishing whether such expenses were incurred specifically for the modular force transformation or to support the force in general. We note, however, that the Army has made such distinctions in its past funding requests for the modular force by

⁵ GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999).

requesting specific amounts of funds for equipment. For example, in documentation supporting the fiscal year 2005 supplemental appropriation request, the Army stated that it required \$4.6 billion for modularity largely to fund equipment, vehicles, and facilities, and \$3.1 billion to repair tanks and handle other battle losses. Moreover, without centrally tracking and reporting on equipment and personnel expenditures specifically related to its modular transformation, the Army cannot determine if the funding it planned and programmed for this purpose is being spent to meet the requirements for modularity. In addition, Congress cannot be certain that the funds it has authorized for fulfilling the Army's modular conversion requirements were spent for that purpose and that future funding requests for the modular force are justified in light of those expenditures.

We made recommendations to DOD to improve information available to decision makers on the cost of the Army's plans and related expenditures. In comments on a draft of this report, DOD strongly disagreed with our findings related to the cost estimate for the modular force and the uncertainties we cited. DOD stated that its cost estimate was solid and that any uncertainties would not substantially change the estimate. For the reasons stated above and as discussed in the section summarizing these comments, we do not believe the department is in a position to state that the estimate is solid. Further, while DOD agreed on the need for improved reporting on modularity plans, it did not agree to establish an approach for tracking modularity costs as we recommend. Given the magnitude and significant cost of the effort, and the fact that DOD has requested funds from Congress specifically for modularity, we continue to believe oversight of expenditures is needed. Therefore, we have included a matter for congressional consideration. Specifically, Congress should consider requiring the Secretary of Defense to provide a plan for overseeing spending of funds provided for modularity.

Background

The Army's modular force transformation, which has been referred to as the largest Army reorganization in 50 years, encompasses the Army's total force—active Army, Army National Guard, and U.S. Army Reserve—and directly affects not only the Army's combat units, but related support and command and control. Restructuring these units is a major undertaking because it requires more than just the movement of personnel or equipment from one unit to another. The Army's new units are designed, equipped, and staffed differently than the units they replace, therefore successful implementation of this initiative will require many changes, such as new equipment and facilities; a different mix of skills and

occupational specialties among Army personnel; and significant changes to training and doctrine.

The foundation of the modular force is the creation of brigade combat teams—brigade-size units that will have a common organizational design and will increase the pool of available units for deployment. The Army believes a brigade-based force will make it more agile and deployable and better able to meet combatant commander requirements. Not only does the Army expect to produce more combat brigades after its restructuring, it believes the brigades will be capable of independent action by the introduction of key enablers, such as enhanced military intelligence capability and communications, and by embedding various combat support units in the brigade itself instead of at a higher echelon of command. The Army's objective is for each new modularized brigade combat team, which will include about 3,000 to 4,000 personnel, to have at least the same combat capability as a brigade under the current division-based force, which ranged from 3,000 to 5,000 personnel.⁶ Since there will be more combat brigades in the force, the Army believes its overall combat capability will be increased as a result of the restructuring, providing added value to combatant commanders.

Although somewhat smaller in size, the new modular brigades are expected to be as capable as the Army's existing brigades because they will have different equipment, such as advanced communications and surveillance equipment, and a different mix of personnel and support assets. The Army's organizational designs for the brigade combat teams have been tested by its Training and Doctrine Command's Analysis Center at Fort Leavenworth against a variety of scenarios, and the Army has found the new designs to be as effective as the existing brigades in modeling and simulation.

By 2011, the Army plans to have reconfigured its total force—to include active and reserve components, and headquarters, combat, and support units—into the modular design. The plan includes expanding the existing 33 brigades in the active component division structure into 43 modular, standardized brigade combat teams by fiscal year 2006. Table 1 shows the Army's schedule for transforming to the modular design.

⁶ The Army's plan calls for three variants of the modularized brigade combat team. The infantry variant will have about 3,300 personnel, the armored variant 3,700 personnel, and the Stryker variant 4,000 personnel.

Table 1: Army Schedule for Transforming to the Modular Design

	2004	2005	2006	2007	2008	2009	2010	2011	Total
Active maneuver brigade combat teams added	3	3	4	0	0	0	0	0	10
Active maneuver brigade combat teams reconfigured	10	5	11	7	0	0	0	0	33
Active headquarters units	3	3	4	4	1	2	1	0	18
Active support units	6	4	11	12	4	2	0	0	39
Total active units	22	15	30	23	5	4	1	0	100
Army National Guard units	0	9	34	13	23	0	0	3	82
U.S. Army Reserve units	0	0	4	4	4	0	0	0	12
Total Army units	22	24	68	40	32	4	1	3	194

Source: GAO analysis of Army data.

Supporting DOD's goals for transformation while undertaking current operations is a complex undertaking. In addition to the sheer magnitude of force structure changes the Army is implementing, the Army's transformation to a modular force is occurring as the Army is rotating over 160,000 troops annually into combat theaters to fight the Global War on Terrorism. As an indication of the progress already made, the Army reports it has built 5 new brigade combat teams, converted 16 brigade combat teams, and created 16 modular support brigades. In addition, the Army reports it has made "rebalancing" decisions affecting over 100,000 military positions in order to make the best use of its available personnel. This involves creating more units of the types needed most and eliminating from the force units of lesser priority.

Legislation has increased the Army's end strength in part to support the modular reorganization. In the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, the Army was authorized an end strength of 502,400 soldiers—a 20,000 soldier increase of the fiscal year 2004 end strength of 482,400.⁷ The 2005 act also authorized the Secretary

⁷ Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, Pub. L. No. 108-375 § 401 (2004).

of Defense to increase the Army's end strength as high as 512,400 during fiscal years 2005 through 2009 to support the operational mission of the Army in Iraq and Afghanistan and to achieve transformational reorganization objectives of the Army.⁸

Modular Transformation Cost Estimate Has Increased, and Uncertainties Surrounding Pending Decisions May Increase Costs Further

Since the summer of 2004, the Army's cost estimate for transforming its force through fiscal year 2011 increased from \$28 billion to \$48 billion in its spring 2005 estimate. While this latest estimate addressed some of the shortcomings of the initial estimate, and includes lessons learned developed from operations in Iraq, this estimate excludes some known costs and includes uncertainties that may increase the cost estimate further. The Army did not include personnel costs, which we estimate to total \$23 billion over the same time frame, and also did not include \$4.5 billion in construction costs the Army plans to achieve through efficiencies. When added to the most recent estimate, the total known costs increase from \$48 billion to \$75.5 billion.⁹ Uncertainties in the estimate could cause costs to increase higher. Pending decisions about the number and design of modular units, and uncertainties surrounding equipment, personnel, and facilities costs, may require the Army to request additional funding beyond \$75.5 billion or accept reduced capabilities among some or all of its units. Without a clearer picture of the Army's resource requirements, DOD will have difficulty weighing competing funding priorities, and the Secretary of Defense and Congress will not have information they need to evaluate funding requests.

Cost Estimate for the Modular Force Has Increased

The Army's current cost estimate for the modular force transformation is \$48 billion, a 71 percent increase from its initial rough order of magnitude estimate of \$28 billion made in the summer of 2004.¹⁰ There were several weaknesses in the initial \$28 billion estimate. Because the modular force designs had not been finalized, earlier estimates reflected costs based mainly on the existing division-based design. Further, in constructing the active component portion of the estimate the Army (1) assumed the costs

⁸ Ibid, § 403.

⁹ In constant fiscal year 2006 dollars, this totals \$71.6 billion.

¹⁰ The initial estimate for the active component transformation, which accounted for \$20.1 billion of the initial \$28 billion, was presented to the President and Secretary of Defense in a January 2004 briefing on the modular force transformation. In later briefings the Army added \$7.9 billion to cover the costs of transforming the reserve component.

of adding 15 light infantry, division-based brigades but did not include costs of restructuring the existing combat brigades in the force structure; (2) did not include restructuring of command and support units; and (3) made no allowances for permanent construction to house and support these units, funding instead temporary facilities reflecting the Army's assumption that end strength increases would be temporary as well.

In March 2005, the Army increased its estimate for transforming to a modular force to \$48 billion from fiscal year 2005 through 2011.¹¹ According to Army officials, this most recent estimate addressed shortcomings of the initial estimate in that it included funding to (1) both create new units and restructure existing ones, (2) build permanent facilities to house and sustain the new force structure, and (3) used the modular design where available as the basis for estimating costs. Moreover, officials told us that the modular design had been updated to reflect lessons learned about equipping and employing the force from ongoing operations in Iraq.

This estimate, however, did not include personnel costs and some construction costs. The Army reported that increases in end strength above the appropriated end strength of 482,400 soldiers were assumed to cost \$3 billion per year, but were not tallied as part of the estimate. According to Army officials, these personnel costs were excluded because officials from the Office of Management and Budget and in the Office of the Secretary of Defense provided guidance that modular transformation was largely equipment related, and thus the Army should not include such costs. Further, Army officials cited the difficulty in segregating end strength cost increases due to modularity versus those due to ongoing operations. For example, units preparing for deployment to Operation Iraqi Freedom are being reorganized into a modular organization prior to deployment. While we acknowledge that it may be difficult to clearly state whether end strength increases associated with a deploying unit were due to modular transformation or operational requirements, we believe including these costs in their entirety is appropriate because (1) the Army has stated it requires an increase in end strength to accommodate the modular force, (2) it assumes that its tempo of operations will continue at the same pace through 2011, and (3) excluding personnel costs would

¹¹ Army officials told us they excluded fiscal year 2004 costs from the estimate because the Army wanted to present future requirements, as opposed to past expenditures, and that the inclusion of the fiscal year 2004 modular force costs would add a relatively minor increase to the overall costs.

significantly understate the cost of the modular force. The Army's \$3 billion estimate multiplied over the 7-year period from 2005 through 2011 and including estimates for inflation totals \$23 billion, based on GAO's calculations. In addition to these personnel costs, the Army did not include an additional \$4.5 billion in efficiencies it planned to apply to construction costs related to the modular force. This assumption is discussed in more detail in the next section. Adding these known costs for construction and personnel to the Army's official estimate brings the total potential known costs to \$75.5 billion.

According to Army data and our projection of personnel costs, equipment accounts for 54 percent of the costs, personnel for 30 percent, military construction and facilities for 8 percent, and sustainment and training for 8 percent as well. These figures along with the annual totals are presented in table 2.

Table 2: Modular Force Cost Estimates for the Entire Army by Function

Dollars in billions

	2005	2006	2007	2008	2009	2010	2011	Total	Percent of total
Equipping	4.7	5.8	5.4	5.9	6.5	6.7	6.0	\$41.0	54
Personnel	3.0	3.1	3.2	3.3	3.4	3.5	3.6	\$23.0	30
Military construction/facilities	0.3	0.0	0.5	0.5	1.5	1.5	1.5	\$5.8	8
Sustainment and training	0.0	0.7	0.7	1.2	1.1	1.0	1.0	\$5.7	8
Total	\$8.0	\$9.6	\$9.8	\$10.9	\$12.5	\$12.7	\$12.1	\$75.5	100

Sources: GAO analysis of Army cost estimates for equipping military construction and facilities, and sustainment and training costs; GAO projection of Army personnel cost data.

Uncertainty Surrounding Assumptions Could Result in Further Cost Increase

While the Army's latest cost estimate addressed several of the shortfalls in its initial rough order of magnitude estimate, uncertainties in its latest estimate are likely to cause costs to increase. We identified the following factors that could affect equipment, personnel, and facilities costs.

Future Decisions on Design of Combat, Support, and Command Units Could Affect Costs

The Army's Campaign Plan calls for a decision by fiscal year 2006 on whether to create five additional modular brigade combat teams—a decision that could affect the size and composition of the modular force as well as its cost. Adding five brigades would provide additional capability to execute the defense strategy but would require additional restructuring of people and equipment. If the Secretary of Defense decides to add five

brigade combat teams to the current plan, the cost for modularity will increase significantly. For example, each modular brigade combat team under the current design would require 3,300 to 3,700 soldiers, for a potential total of up to 18,500 soldiers. It is not clear whether the Army would have to add this entire amount to its end strength, however. The Army has begun initiatives to rebalance the force by converting military positions to civilian positions, thus allowing soldiers currently in the institutional force to be moved to the operational force, and by rebalancing the active and reserve components in the force. To the extent the Army is successful in reallocating positions under these initiatives, it may be able to offset some of these requirements of the additional brigades. In addition to personnel requirements, adding these brigades to the force structure would add costs for equipment, facilities, and training.

At the time the cost estimates were set, the Army had not finished the designs for all support units and command and control echelons. Refinement of these designs could increase costs if, as the Army fields these designs, it finds that additional personnel and equipment are needed to ensure sufficient capabilities. Some Army officials we spoke with have already expressed concern that command echelon designs do not have sufficient staff to manage all required tasks. For example, at one division we visited, officials thought that the command design was short staffed given their expanded set of responsibilities. As a result, command staff would have to prioritize the management of daily tasks and activities such as trend analysis, statistical tracking, and oversight, while leveraging of historical data to produce lessons learned and program improvement would have to be performed by contractors or other civilian staff. In both cases, if the Army finds that staffing levels in current command designs are not sufficient, it will have to choose between decreased capabilities or increased personnel expenses stemming from higher end strength requirements or hiring civilians or contractors to perform some of these functions.

Equipping Brigade Combat Teams Poses Cost Uncertainties

Equipping brigade combat teams poses cost uncertainties because the Army did not use the equipment quantities in the tested design as the basis for determining equipment costs. Instead, the amount estimated for equipment reflects costs based upon a lesser modified amount of equipment that does not necessarily meet the capabilities of the tested design. The Army determined it could expect to provide this modified equipment level to units undergoing conversion based on the limitations of its current inventory of equipment, planned procurement pipelines, and expected funding.

Further, in estimating its equipment costs for the modular force, the Army assumed that some equipment from ongoing operations would remain in operational condition for redistribution to new and restructured modular units. To the extent equipment is not returned from operations at assumed levels, it is not clear whether costs of replenishing this equipment would be considered modularity costs or costs of ongoing operations. Currently, equipment is wearing out and being consumed at higher-than-expected rates due to significant usage in current operational commitments overseas. For example, a Congressional Budget Office (CBO) assessment indicates that trucks in Iraq and Afghanistan are being driven roughly 10 times more miles per year than the average over the past several years. An internal Army assessment also found that tactical vehicles in Iraq are being utilized 6 to 10 times the normal operating tempo, dramatically reducing expected service life and creating significant repair expenses. In addition, the Army's prepositioned stocks will have to be reconstituted due to their heavy use in Operation Iraqi Freedom. We recently reported that according to Army officials, the Army is nearing completion on a new strategy for its prepositioning programs.¹² They told us that prepositioning will continue to be important in the future and that the prepositioned sets would be converted to the modular configuration by 2012 or sooner. However, until the strategy is finalized, costs for converting this equipment remain unclear.

Facilities Cost Estimates Remain Uncertain

Potential increases in the number of brigades and pending decisions related to base realignment and closure (BRAC) and restationing of forces from overseas present considerable uncertainty in facilities cost estimates. As previously noted, the current estimate does not include the cost of funding to cover five additional brigades that may be added if approved by the Secretary of Defense in fiscal year 2006. A decision to add these brigades would add significantly to the modular force facilities' funding requirements. Without knowing where these brigades would be stationed, it is difficult to evaluate funding requirements for facilities because each base will likely have a different inventory of facilities in place to house and support such units. However, according to Army facility planning estimates, each new brigade combat team would require approximately \$300 million dollars in permanent facilities if there are no existing facilities, such as barracks and vehicle maintenance facilities, at the proposed site. This planning estimate does not include facilities

¹² GAO, *Military Prepositioning: Better Management and Oversight Needed to Reduce Risk and Improve Future Programs*, [GAO-05-427](#) (Washington, D.C.: July 2005).

requirements for higher headquarters and support units, which can be substantial. For example, at Fort Campbell, the facility requirements for support and headquarters units accounted for \$156 million, or 28 percent, of the \$553 million dollar permanent construction requirements for the installation. None of these costs have been incorporated into the current estimate.

The impact of decisions related to the BRAC process and DOD's overseas forces restationing strategy present further uncertainties in the Army's facility cost estimate. Although recent cost data on BRAC have been reported, the Army's current modularity facilities cost estimate predates the availability of the data and the Army has not updated its estimates accordingly. Both BRAC and the overseas restationing strategy have the potential to limit the Army's ability to construct new permanent facilities to support its modularity requirements. The BRAC commission's decision to close, realign, or reduce the size of military installations may constrain the construction funding available for the Army's modular forces, thereby serving to delay the Army's ability to construct sufficient permanent facilities for its modular force structure. The overseas restationing strategy aims to determine the optimum level of overseas stationing of U.S. military personnel and equipment in order to meet defense strategies. According to the Army, decisions related to the plan could return approximately 47,000 Army soldiers to the United States. This would greatly add to the requirements for facilities as entire units are relocated back to bases in the United States and soldiers from disestablished overseas units are transferred to fill the new modular units. The Army will face severe facilities shortages due to the increased populations within its continental U.S. installations resulting simultaneously from the BRAC decisions, overseas restationing strategy, and modular force restructuring. This increased demand for facilities may force the Army to make trade-offs in its permanent facility construction plans and may delay the construction of permanent facilities for its new modular and restructured units.

End Strength Requirements Are Uncertain and Could Increase Personnel Related Costs

Although the Army has estimated that it will require about \$3 billion per year for the 30,000 soldiers it has attributed to meeting the requirements of transforming to a modular force while conducting operations related to the Global War on Terrorism, uncertainty about the need for additional end strength could produce cost growth in personnel-related expenses. This uncertainty about the total end strength required for the modular force has been reflected in our discussions with Army officials, in recent deliberations by Congress, and in analyses by other research organizations.

-
- Officials from the Deputy Chiefs of Staff for Personnel told us in April and June 2005 briefings that the current authorized end strength of 512,400 active duty soldiers may not be enough to meet modular force personnel requirements, especially during the transformation process. In these briefings, officials told us the Army would likely need 522,400 soldiers and possibly more to staff the modular force structure.
 - As a part of deliberations on the National Defense Authorization Act for Fiscal Year 2006, both houses of Congress have proposed increases in end strength in part to support the Army's restructuring. The pending House Defense Authorization Bill increases the Army's end strength to 512,400, with the option, as necessary, for the Secretary of Defense to increase the end strength as high as 532,400 for fiscal years 2007 through 2009.¹³ The Senate version of the bill authorizes increasing the size of the force to 522,400 in fiscal year 2006.¹⁴
 - Finally, an analysis by the CBO reported that the Army may need as much as 542,400.¹⁵ This end strength assumes that the Army will add the 5 brigades to make a 48-brigade force and that it will be unsuccessful in reassigning 30,000 soldiers from the institutional to the operational force as planned.

Increasing end strength has significant cost implications. Using the Army's suggested estimate of \$70,000 per additional soldier, increasing the end strength by 10,000 soldiers for a total of 522,400 from 2006 to 2011 would add \$4.7 billion to the \$23 billion cost estimate. However, this estimate is conservative, based primarily on personnel salaries but few other personnel-related expenses. The Army's current estimate of about \$3 billion per year for 30,000 soldiers—a more comprehensive estimate that includes expenses for institutional and unit training, relocation, base support, and other items—translates to about \$100,000 per soldier. Using this more inclusive per-soldier estimate, we estimate that it would cost an additional \$6.7 billion if the Army were required to increase its end strength to 522,400.

¹³ H.R. 1815, 109th Cong. §§ 401, 1521, and 1522 (2005).

¹⁴ S. 1402, 109th Cong. § 401 (2005).

¹⁵ Congressional Budget Office, *Options for Restructuring the Army* (Washington, D.C.: May 2005), www.cbo.gov (downloaded May 11, 2005).

In written comments on a draft of this report, DOD stated that the end strength increase was temporary and related solely to current operations. As discussed in the section of this report on agency comments and our evaluation, we disagree with DOD's comments on end strength. We note that the Army's own documents justified the end strength increase for the dual purpose of transforming and conducting operations. For example, the Army's approved 2005 Modernization Plan states that a 30,000 temporary increase in the Army's end strength enabled the beginning of the modular conversion of active component combat units. This view is consistent with Army briefings provided throughout our review that link the end strength increase with the Army's modularity initiative.

The Army's Funding Plan Poses Funding Risks That May Cause Affordability Challenges in the Future

The Army's funding plan for its modular force anticipates a combination of supplemental and annual appropriations, but risks borne of the fast pace of transformation, cost growth for the modular transformation, not achieving efficiencies as planned, and likely cost growth from FCS could pose affordability challenges in the future. The plan indicates that the transformation will be paid for with \$10 billion in supplemental appropriations in fiscal years 2005 and 2006, and a total of \$42.5 billion in its regular appropriations from 2005 through 2011. In addition, the Army anticipates receiving personnel funding to pay for increased end strength through either supplemental appropriations or an increase to the Army's base budget. As noted earlier, we project these costs to total \$23 billion, including inflation. Table 3 displays the annual totals for these funds.

Table 3: Modular Force Funding Plan

Dollars in billions								
	2005	2006	2007	2008	2009	2010	2011	Total
Supplemental appropriations	5.0	5.0						\$10.0
Regular appropriations		1.5	6.6	7.6	9.1	9.2	8.5	\$42.5
Supplemental or regular appropriations for increased end strength	3.0	3.1	3.2	3.3	3.4	3.5	3.6	\$23.0
Total	\$8.0	\$9.6	\$9.8	\$10.9	\$12.5	\$12.7	\$12.1	\$75.5

Sources: GAO analysis of Army funding plan; GAO projection of Army personnel cost data.

Note: Figures may not add due to rounding.

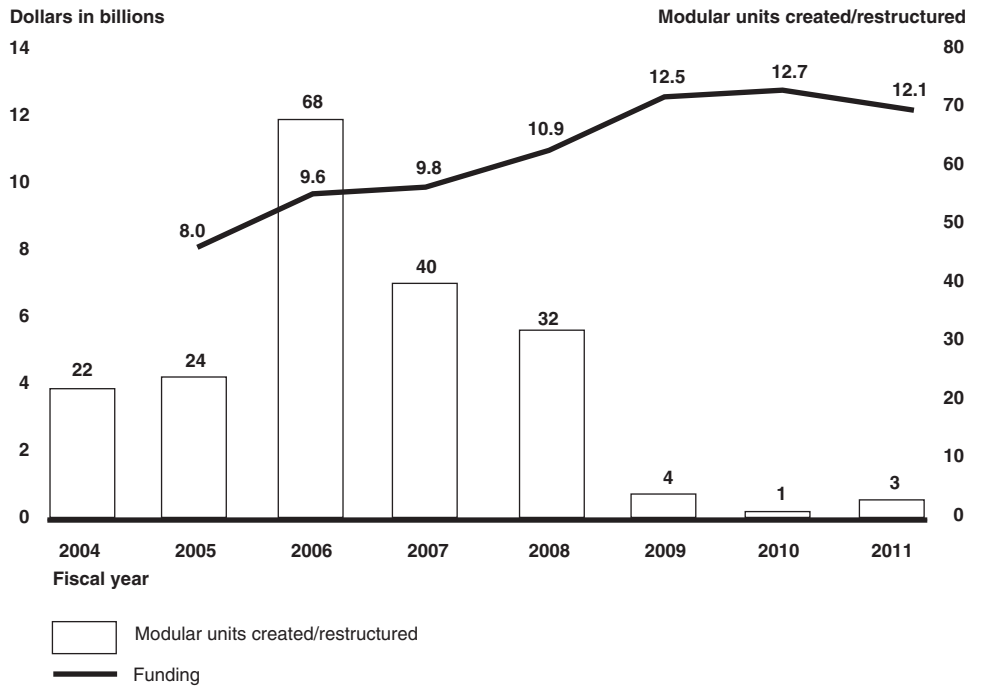
The Army intends to use this funding plan in developing funding requests for funds provided through both regular and supplemental appropriations.

We note that the total costs reflected in the Army's funding plan are not specifically identified in the Future Years Defense Program (FYDP)—DOD's centralized report for providing DOD and Congress data on current and planned resource allocations. According to Army officials, the fiscal year 2006 FYDP, which projects funding requests from fiscal years 2006 through 2011, included only \$42.5 billion of the \$67.5 billion the Army plans to request over those years. Of that, only \$25 billion was specifically designated in the FYDP for this purpose.¹⁶ The FYDP also included \$17.5 billion that the Army planned to use for modularity over that period according to Army officials, but these amounts were not specifically identified in the FYDP. Because the FYDP does not include anticipated requests for supplemental appropriations, the 2006 FYDP did not reflect either the \$5 billion the Army plans to request in fiscal year 2006 or the \$20 billion we project the Army will request from fiscal years 2006 through 2011 to support increases in end strength.

Notwithstanding the potential for increases in the cost of modular force transformation noted above, this funding plan poses several risks that may raise difficult affordability questions in the future. First, when compared to the Army's unit creation schedule, the plan indicates that the Army will be creating units before it has the funding available to resource them, as shown in figure 1.

¹⁶ This amount includes \$5 billion per year from 2007 through 2011 that the Secretary of Defense specifically allocated to the Army for modularity in guidance for preparing the fiscal year 2006 budget request.

Figure 1: Comparison of Army Modularity Restructuring and Funding Schedules



Source: GAO analysis of Army funding data and unit creation schedules.

Note: The Army plan did not include funding data for fiscal year 2004.

While the Army anticipates that 96 percent of its 194 active and reserve units will be created by 2008, it will have received only 51 percent of its anticipated funding required to restructure these units by that time. Army officials told us that while it was necessary to create these modular units to support ongoing operations, and that units deploying were being supplied with equipment required to execute ongoing operations, the Army could not afford to equip the modular units according to its planned equipping levels for the modular force at the time the units were created. Therefore, to avoid canceling or restructuring other programs, funding was flattened out over time to meet the constraints of the funds available. In written comments on a draft of this report, DOD acknowledged that some units will face equipment shortages in the early years of transformation but the Army will manage these shortfalls through preplanned processes and stringent management controls.

Also, the funding plan assumes that the Army will achieve a total of \$4.5 billion in business process reengineering efficiencies, and that the savings associated with these efficiencies will be available to fund the

modular force as part of the Army's regular appropriations. In December 2004 budget guidance from the Deputy Secretary of Defense, the Army was instructed to assume that \$1.5 billion in business process reform efficiencies would be available for the modular force in each of fiscal years 2009, 2010, and 2011. In written comments on a draft of this report, DOD stated that it had identified programmatic offsets for these efficiencies and intended to include them as part of its fiscal year 2007 President's budget request. However, Army officials told us that details of their plan were not yet finalized and available for review. As a result, we are unable to comment on the specific plan the Army has for achieving these efficiencies. However, we noted in our most recently issued High-Risk Series that for years we have reported on inefficiencies and the lack of transparency and appropriate accountability across DOD's major business areas.¹⁷ Further, despite commitment and attention from senior DOD leaders, we found little tangible evidence of actual improvement in DOD's business operations to date. Given this track record and the lack of data available for us to review, we are not confident that the Army can achieve these efficiencies as planned.

Finally, as we testified in March 2005, the Army's \$108 billion FCS program is at significant risk for not delivering required capability within budgeted resources.¹⁸ Although the bulk of the funding for this high-priority program is planned for after 2011 when the Army plans to have completed its modular transformation, \$23 billion is projected to be spent from fiscal years 2005 through 2011 on research and development costs. Given the scope of the program, our assessment that FCS is likely to encounter problems late in development when they are very costly to correct, and historical cost growth in weapons systems, we reported that cost growth associated with FCS could have dire consequences on the affordability of the Army's programs, especially in light of a constrained discretionary budget.

In comments to our report DOD stated that the FCS program is on track and stated that the Army uses a different standard for assessing technology maturity than GAO. Further, DOD stated that there is sufficient flexibility in its investment accounts that if financial risks arise, these risks can be addressed through extended planning period adjustments in future

¹⁷ GAO, *High-Risk Series: An Update*, [GAO-05-207](#) (Washington, D.C.: January 2005).

¹⁸ GAO, *Defense Acquisitions: Future Combat Systems Challenges and Prospects for Success*, [GAO-05-428T](#) (Washington, D.C.: Mar. 16, 2005).

programming cycles. The fact remains that the program's level of knowledge—a key indicator of budgetary risk—is far below that suggested by best practices or DOD policy: nearly 2 years after program launch and with \$4.6 billion invested, requirements were not firm and only 1 of over 50 technologies was mature as of our March 2005 testimony. Even using the Army's standard for assessing technology maturity, less than 40 percent of the FCS technologies would be mature. Further, we note that while extended planning periods may make the program more affordable in a given year, we have reported that such extensions are costly.¹⁹

Lack of an Approach to Track Funds Obligated for the Modular Force Limits the Transparency of Funds Used

While the Army can generally track funds associated with individual programs, it has not established an approach for tracking funds obligated for its modular force transformation. As a result, the Army, DOD, and Congress will have limited visibility over whether funds are being expended as intended to achieve transformation goals, and will not have key data available to determine whether course corrections in the program are needed. Standards for internal control in the federal government state that internal controls should provide reasonable assurance that the objectives of the agency are being achieved.²⁰ One of the categories of internal controls is reliability of financial reporting, including reports on budget execution.

The Army's inability to track obligations related to its modular transformation is most clearly illustrated by the lack of data from fiscal year 2004. In that year, the Army created or transformed a total of 22 units. However, the Army has been unable to determine how much money it obligated to do so. For example, officials from the Army Budget Office told us that they track obligations of the overall Army related to equipment and personnel, but cannot discern how much of the funds obligated were related to the modular force transformation versus other programs, such as repairing or replacing equipment from operations in Iraq and Afghanistan. In early cost projections, the Army had estimated that it would need \$400 million to procure equipment and \$96 million in personnel expenditures to support the modular transformation in fiscal year 2004. Although Army officials told us that the majority of equipment requirements were satisfied with equipment transfers from other units that

¹⁹ GAO, *Major Management Challenges and Program Risks: Department of Defense*, GAO-03-98 (Washington, D.C.: January 2003).

²⁰ GAO/AIMD-00-21.3.1.

were not scheduled to deploy to operations in the near future, they were not able to tell us how much of the \$400 million was offset by these transfers. Similarly, the Army was not able to distinguish how much of the amount of expenditures on personnel was attributable to the modular force transformation versus personnel cost increases associated with activating reservists for ongoing operations, and stop-loss policies designed to retain servicemembers for the operations beyond their service obligations. The Army did report that it obligated \$133 million related to operations and maintenance for the modular force in fiscal year 2004 through a database it employs to track obligations related to supplemental appropriations for the Global War on Terrorism. However, in our report on cost data related to the Global War on Terrorism to be issued later this month, GAO found numerous problems in DOD's processes for recording and reporting costs for the Global War on Terrorism, raising significant concerns about the overall reliability of DOD's reported cost data.

Army officials acknowledged the need to closely monitor resources required and applied to the modular force transformation, and noted that this monitoring occurs as part of weekly, high-level meetings with the Army Chief of Staff. These meetings focus on tracking equipment needs of transforming units and making sure that these needs are met. Equipment shortages can be filled with new equipment, transfers from other units, or by the unit falling in on equipment left in Iraq. There are also controls to track how many and what pieces of equipment have been purchased and distributed, according to these officials. However, because ongoing missions continually change the status and availability of equipment, it is difficult for Army officials to define whether new equipment meets the requirements of modular transformation or ongoing operational needs. Indeed, sometimes the equipment may serve to meet both purposes. Also the Army's financial system has limitations and lacks the functionality required to split out modular components within each line of equipment. Army leadership, therefore, has made the decision that it is more important to account for the total equipment purchased; dollars spent; and operational issues, such as ensuring that equipment gets to the units that need it, rather than labeling a particular piece of equipment as dedicated to modular transformation or not.

While we recognize the challenges of monitoring resource expenditures in the context of ongoing operations, we also note that in its estimates and requests for appropriations, the Army has been able to distinguish between funding requirements for its modular transformation and other priorities. For example, in documentation supporting the fiscal year 2005 supplemental appropriation request, the Army stated that it required \$4.6

billion for modularity largely to fund equipment, vehicles, and facilities, and \$3.1 billion to reset and recapitalize tanks and other battle losses. While the Army appears to have established parameters for estimating modularity costs, it cannot apply them for tracking purposes.

Conclusions

Despite a significant increase in its estimate to fund the modular transformation from its original estimate, the Army's ultimate costs of the modular force will likely be higher than currently estimated due to uncertainties and pending decisions, which may drive costs even higher. Until the Army develops a detailed plan estimating the total costs of the modular force as designed and tested and starts submitting this plan to Congress each year, Congress cannot be assured that it is receiving an accurate reflection of all costs associated with this restructuring and the risks associated with any funding shortfalls, given the uncertainties of the current estimate. Moreover, it will be difficult for the Secretary of Defense to make informed decisions weighing the relative merits of programs departmentwide in terms of making trade-off decisions when faced with likely affordability challenges in the future.

Further complicating its ability to project resource needs, the Army is not tracking and reporting obligations related to this effort by fiscal year. As a result, decision makers, including DOD and Army leadership and Congress, will not be able to assess whether funds appropriated for modularity have been utilized for the purposes intended nor will they have historical information useful in considering future funding needs.

Recommendations for Executive Action

To improve information available to decision makers on the cost of the Army's plan for modularity, we are making the following recommendations to the Secretary of Defense.

We recommend that the Secretary of Defense direct the Secretary of the Army to provide Congress a detailed plan estimating the costs of modularity sufficient to provide Congress reasonable assurance that estimated costs reflect total costs of modularity as designed and tested. Such a plan should be prepared annually and submitted as part of justification material supporting DOD's budget request, until the modular force is fully implemented. It should include

- a clear definition of what costs the Army does and does not consider to be related to the modular transformation;
- estimates for equipment, facilities and personnel;

-
- identification of uncertainties in the plan due to pending force structure design decisions or other decisions that may affect costs, and updates to the plan as these decisions are made;
 - a report on obligations related to the modular force made the previous fiscal year; and
 - divergences from the plan as stated in the prior year's report, and contributing factors.

To facilitate his oversight of the program and collecting the data for Congress mentioned above, we also recommend that the Secretary of Defense direct the Secretary of the Army in coordination with the Undersecretary of Defense (Comptroller) to develop a plan for overseeing the costs related to the Army's transformation to a modular force. This plan should include an approach for tracking modular transformation costs that clearly identifies obligations for the modular force.

Matter for Congressional Consideration

The Congress should consider requiring the Secretary of Defense to provide a plan for overseeing spending of funds provided for modularity.

Agency Comments and Our Evaluation

In written comments on a draft of this report provided by the Army on behalf of DOD, the department strongly disagreed with our findings related to the cost estimate for the modular force and the uncertainties cited. DOD stated that the Army's \$48 billion cost estimate is solid and does not include uncertainties. For example, although DOD expects the modular force design to change, it does not believe these changes will substantially change the Army's cost estimate. Also, DOD objected to our inclusion of personnel costs in our estimate because it believes the end strength increase is temporary and entirely related to the Global War on Terrorism. DOD noted that an end strength increase would not have been necessary in a peacetime environment. DOD also stated that our report includes costs related to resetting the force, BRAC, overseas restationing of service members, and FCS. The department noted that these costs were not included in its estimate for the modular force, nor should they be. Despite these concerns, DOD partially concurred with our recommendations.

We do not agree that DOD is in a position to state that the Army's cost estimate is solid and continue to believe that our findings fairly reflect the potential costs and uncertainties associated with the Army's modular transformation. As we state in our report, at the time the estimates were set, the Army had not finished the designs for support units and command and control echelons. In addition, we note that the Army has not included the equipment quantities in the tested design as the basis for determining equipment costs. If subsequent testing or lessons learned demonstrate any weaknesses in the current design, the Army may decide to modify equipment levels or force structure, which could affect costs. We recognize that some of these uncertainties, such as those related to facilities costs and force design, are a reflection of preparing an estimate for a very complicated undertaking where there are many moving parts. Given the complexity of this undertaking and two decades of GAO reports delineating DOD's overly optimistic planning assumptions in budget formulation, which often lead to program instability or costly program stretch outs, we believe these uncertainties should be explicitly acknowledged so that decision makers can make informed decisions.

Regarding the inclusion of personnel costs related to the end strength increase, we note that the Army's own documents justified the end strength increase for the dual purposes of transforming and conducting operations. For example, the Army's 2005 Modernization Plan states that a 30,000 temporary increase in the Army's end strength enabled the beginning of the modular conversion of active component combat units. Moreover, the Army's initial 2004 estimate included personnel costs due to increases in end strength. Finally, it is not clear how the Army would be able to add 10 combat brigades to the active component without affecting end strength in some manner. For these reasons we continue to believe that the Army needs to recognize these costs in its estimate.

DOD also suggests that costs associated with resetting the force, BRAC, overseas restationing of forces, and FCS are included in our estimate of \$75.5 billion. While we cite these issues as either pending decisions or related programs that could affect the scope or affordability of the modular transformation, we do not include the costs of these programs in the estimate itself.

DOD partially concurred with our recommendation that the Secretary of Defense direct the Secretary of the Army to provide improved cost estimates to reflect the total cost of the modular transformation as designed and tested, and recognized the need for periodic reporting on the modular force. DOD also cited forthcoming reports that it believed would

provide official, comprehensive oversight of the modular force initiative. Specifically, DOD cited a report due to Congress in September 2005 on the long-range plan for executing and funding the modular force initiative that includes related budget projections for fiscal years 2007 through 2011, funding challenges, equipment requirements, and program management oversight practices. In addition, according to the comments, the Army was directed to provide the Office of Management and Budget, through the Office of the Secretary of Defense, an annual report for the Army modular force. We agree with DOD that additional reporting on this initiative is needed, and note that the reporting requirements from both Congress and the Office of Management and Budget also indicate a need for improved information. Our recommendation does not seek to create redundant and unnecessary additional reporting requirements, as was indicated in DOD's comments. Indeed, our recommendation allows DOD wide latitude in how it provides the information we believe Congress needs for oversight to avoid such redundancy. However, we also note that the reports DOD cited have not yet been finalized, and we are unable to determine from DOD's description whether these reports would address our recommendations. If these reports adequately address the reporting requirements we recommend, there would be no need for additional reporting on DOD's part.

DOD also partially concurred with our recommendation that the Secretary of Defense direct the development of a plan for overseeing the costs related to the Army's transformation to a modular force. DOD noted that the Undersecretary of Defense (Comptroller) will closely monitor the funding and execution of projects and programs associated with transformational efforts as part of its oversight responsibilities. However, DOD also noted that there were no plans to establish an encompassing framework, grouping Army projects together under "modularity." It stated that such a framework would dramatically expand the billing process, increase administrative costs, and more importantly complicate distribution of material in a wartime environment. We continue to believe that the Army will need a framework or approach to oversee expenditures for modularity in order to provide DOD and Congress the information needed for effective oversight. We note that the recommendation provides DOD wide latitude to establish an approach for tracking modular transformation costs, and we do not advocate a framework that would require a separate billing system or complicate distribution of material in a wartime environment (or any environment). As we noted in the report, in preparing its budget estimate and request for funding, the Army has already grouped projects together under the modularity umbrella and has identified specific funding needs for modularity. DOD is asking Congress

to allocate \$48 billion to this modular transformation (over \$75 billion when personnel and some other costs are included). As with any initiative of this magnitude, the Secretary of Defense and Congress require the best data available to weigh competing resource requirements so that they can make appropriate trade-off decisions. Information on how the Army has spent funds provided for modularity should be considered in formulating future funding requests. Therefore, our recommendation is intended to provide assurance that future such requests consider the obligations made thus far so that Congress has a sound basis on which to determine whether funds allocated to the modular force are being obligated as intended. Because DOD stated it has no plans to establish a framework to track these obligations, and given the magnitude and significance of the effort as well as the fact that DOD has requested funds from Congress specifically for modularity, we continue to believe oversight of expenditures is needed. Therefore, we have included a matter for congressional consideration. Specifically, Congress should consider requiring the Secretary of Defense to provide a plan for overseeing spending of funds provided for modularity.

DOD's comments are reprinted in appendix II and addressed as appropriate in the body of the report. Annotated evaluations of DOD's comments are also included in appendix II.

We are sending copies of this report to the Secretary of Defense, the Undersecretary of Defense (Comptroller), and the Secretary of the Army. We will also make copies available to others upon request. In addition, this report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-9619 or pickups@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.



Sharon L. Pickup
Director, Defense Capabilities and Management

List of Committees

The Honorable John Warner
Chairman
The Honorable Carl Levin
Ranking Minority Member
Committee on Armed Services
United States Senate

The Honorable Ted Stevens
Chairman
The Honorable Daniel Inouye
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable Judd Gregg
Chairman
The Honorable Kent Conrad
Ranking Minority Member
Committee on the Budget
United States Senate

The Honorable Duncan Hunter
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Committee on Armed Services
House of Representatives

The Honorable Bill Young
Chairman
The Honorable John Murtha
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
House of Representatives

The Honorable Jim Nussle
Chairman
The Honorable John Spratt
Ranking Minority Member
Committee on the Budget
House of Representatives

Appendix I: Scope and Methodology

Overall, our analysis of the Army's cost estimate, funding plan, and approach for tracking obligations pertaining to its modular transformation was limited to an examination of data presented in broad spending categories, such as equipment, facilities, and personnel costs by year. We interviewed and examined documents from knowledgeable Army officials about assumptions underlying each of these funding categories. Further, at headquarters and command levels, we examined the processes in place to monitor obligations related to the modular force. We found this information sufficiently reliable to analyze the assumptions underlying costs of the modular force and funding plans. Because of the uncertainties in the cost estimates and weaknesses in its approach to monitor obligations related to the modular force, we made recommendations to address each of these areas in order to improve data available for decision makers. Our specific methodology for each reporting objective follows.

To determine the extent to which Army reflected expected costs and identify areas of uncertainty in the estimate, we obtained overall cost estimates from the offices of the Deputy Chief of Staff G-8¹ and the Deputy Assistant Secretary of the Army for Budget. We also examined justification materials supporting the fiscal year 2006 budget request, as well as the fiscal year 2005 request for supplemental appropriations, and monitored the development of the strategy, scope, schedule, and status of Army restructuring by examining key planning documents, such as the Army Campaign Plan, the 2004 Army Transformation Roadmap, and the Army Modernization Plan. To examine areas of cost uncertainty likely to be produced by transforming to a modular force, we discussed assumptions underlying these estimates and obtained corroborating documentation in interviews with officials from the Department of the Army Deputy Chiefs of Staff for Personnel (G1), Intelligence (G2), and Operations and Training (G3), and the Assistant Chief of Staff for Installation Management. We further discussed assumptions and areas of uncertainty with these offices' organizational counterparts at Forces Command in Fort McPherson, Georgia; the 3rd Infantry Division, in Fort Stewart, Georgia; the 101st Airborne Division in Fort Campbell, Kentucky; and the 4th Infantry Division, in Fort Hood, Texas. We also reviewed reports by non-Department of Defense entities such as the Congressional Budget Office, and our own reviews related to Army personnel. We compared these sources against the Army's cost assumptions to determine if they

¹ This office is responsible for programming, materiel integration, and management of Department of the Army studies and analyses.

comprehensively accounted for expenses stemming from the strategy, scope, and schedule for transforming to a modular force.

To determine the Army's plan for funding these costs and factors that may affect its ability to fund the modular force, we considered the cost estimates in the context of the larger Army budget, particularly the Army's reliance on supplemental appropriations and how funding the modular force fit into other programs and initiatives. Specifically, we examined justification materials for the 2006 presidential budget, the 2005 supplemental appropriation request, and budget guidance from the Office of the Deputy Secretary of Defense. To identify factors that could affect the Army's ability to fund modularity, we questioned Deputy Chief of Staff G-8 officials about the Army's plan to garner efficiencies to apply to costs of the modular force to determine the status of these plans. We also relied on ongoing and previous GAO reviews of business process reengineering to evaluate Army efficiency claims. In addition, we considered the impact other priorities might have on the implementation of the Army's modularity plan, including current operations, the Future Combat Systems, Base Realignment and Closure decisions, and decisions to restation soldiers from overseas.

Applying federal internal control standards, we determined whether the Army has an adequate approach in place to track obligations related to the modular force. In that regard, we interviewed officials from the Office of the Deputy Assistant Secretary of the Army for Budget and the Resource Management Office at Forces Command, and resource management officials at the 3rd Infantry Division, the 101st Airborne Division, and the 4th Infantry Division to determine how these entities tracked funds earmarked for the modular force. We reviewed documents establishing guidance from Army headquarters and discussed and documented how this guidance was implemented at lower command levels. In addition, we relied on the results of GAO's analyses of funds used to support the Global War on Terrorism, to the extent that these funds were used to support the modular force.

Our review was conducted from May 2004 through June 2005 in accordance with generally accepted government auditing standards.

Appendix II: Comments from the Department of Defense



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-8
700 ARMY PENTAGON
WASHINGTON, DC 20310-0700

September 7, 2005

Ms. Sharon Pickup
Director, Defense Capabilities and Management
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Ms. Pickup:

Enclosed is the Department of Defense response to the GAO draft report, "FORCE STRUCTURE: Actions Needed to Improve Estimating and Tracking of Costs for Transforming Army to a Modular Force," dated August 4, 2005, (GAO Code 350547/GAO-05-926).

The Department strongly disagrees with the GAO view of the Army Modular Force estimate and the cited uncertainties surrounding this estimate as described in the report. The Army's \$48 billion cost estimate for the Army Modular Force is solid. The Army has portrayed the cost of the Army Modular Force both consistently and accurately. The GAO report includes costs related to personnel increases required to support current combat operations in the Global War on Terror, resetting the force, Base Realignment and Closure, overseas restationing, and Future Combat Systems (FCS). These costs are not included in the Army Modular Force estimate nor should they since they are addressed separately.

The Department recognizes the need for periodic reporting on the Army Modular Force and partially concurs with the recommendations.

Sincerely,

A handwritten signature in black ink, reading "N. Ross Thompson III".

N. Ross Thompson III
Major General, U.S. Army
Director, Program Analysis and Evaluation

Enclosure

Now on pp. 22 and 23.

Now on pp. 23 and 24.

GAO DRAFT REPORT - DATED AUGUST 4, 2005
GAO CODE 350547/GAO-05-926

"FORCE STRUCTURE: Actions Needed to Improve Estimating and Tracking of Costs for
Transforming Army to a Modular Force"

DEPARTMENT OF DEFENSE COMMENTS AND
COMMENTS TO THE RECOMMENDATIONS

COMMENTS:

Now on pp. 22 and 23.

The GAO report has attached or asserted unrelated costs to the Army Modular Force estimate. GAO also contends that the funding profile and force design changes create additional fiscal uncertainties. The Army strongly disagrees with the GAO view of the Army Modular Force estimate and the cited uncertainties surrounding this estimate as described in the report. The Army's \$48 billion cost estimate for the Army Modular Force is solid. The Army has portrayed the cost of the Army Modular Force both consistently and accurately. The GAO report includes costs related to personnel increases required to support current combat operations in the Global War on Terror, resetting the force, Base Realignment and Closure, overseas restationing, and Future Combat Systems (FCS). These costs are not included in the Army Modular Force estimate nor should they since they are addressed separately.

Now on pp. 22 and 23.

The Army disagrees with GAO's position that there are still uncertainties surrounding the current estimate. The Army's estimate of \$48 billion dollars coupled with \$4.5 billion gained internally through business process efficiencies allows for procurement of equipment and essential facilities required to equip and house the Army Modular Force as planned by the end of fiscal year 2011. Though there have been and there will continue to be Army Modular Force design changes subsequent to the current estimate, these are normal in the Army's force development process and will not substantially change the Army's estimate as GAO asserts.

Now on p. 17.

The Army has been forthright about the challenges of transforming while engaged in combat operations and understands that funding does not specifically match the current modular conversion schedule. Some units will face equipment shortages in the early years of transformation but the Army will manage these shortfalls through preplanned processes and stringent management controls. The systematic management of these shortages is directed from the highest leadership levels to ensure the right soldier and the right piece of equipment is in the right place at the right time. These shortages will be filled, as transformation progresses, by the end of fiscal year 2011. As an example of management emphasis, the Army has equipped and manned all deploying and deployed Brigade Combat Teams to the required level while transforming on schedule and within current estimates.

Now on pp. 15 and 23.

The GAO report incorrectly links personnel endstrength cost increases directly to the Army Modular Force cost estimate. The Army Chief of Staff requested a temporary endstrength increase to provide "head room" to enable the Army to transform while simultaneously fighting the Global War on Terror (GWOT). Based on a Presidential decision in January 2004, the active component is adding up to 30,000 Soldiers, increasing endstrength from 482,400 to 512,400. This endstrength increase is required to sustain ongoing combat operations and would not have been necessary in a peacetime environment. The Army considers all personnel costs related to the temporary endstrength increase to be GWOT related. Both the Secretary of the Army and the Army Chief of Staff have publicly acknowledged that endstrength increases due to current operations are temporary and all endstrength increases above 482,400 are GWOT related. Assertions made otherwise are inaccurate. As a result, endstrength costs are not part of the Army Modular Force estimate.

See comment 1.

The GAO report asserts the Army will not be able to achieve \$4.5 billion in business process re-engineering efficiencies in fiscal years 2009, 2010 and 2011. The Army is confident that it will achieve these efficiencies. In fact, the Army has already identified programmatic offsets for these efficiencies and will include the \$4.5 billion as part of the fiscal year 2007 President's Budget Request. The Army is training leaders in proven techniques such as Lean Six Sigma in order to implement disciplined and measurable approaches to reduce waste and streamline organizations. By the end of FY07, the Army will have the internal infrastructure established to train our entire workforce to develop a learning culture of innovation that focuses on continuous measurable improvement and increased productivity.

Now on pp. 18 and 19.

The GAO report asserts that FCS has "significant risk for not delivering required capabilities." FCS is a system of systems consisting of individual elements with technology maturing at different times. In addition, the Army considers a technology ready for transition to an acquisition program when it reaches Technology Readiness Level (TRL) 6 (demonstrated in a relevant environment), and provides technology base funding consistent with this philosophy. GAO, on the other hand, considers a technology ready for transition at TRL 7 (demonstrated in an operational environment). The FCS program is on track and the Army believes there is sufficient flexibility in our investment accounts and any financial risk can and will be addressed through extended planning period adjustments in future programming cycles.

See comment 2.

The decision to add an additional five Brigade Combat Teams will be determined by the Secretary of Defense in 2006. It would be inappropriate to prematurely add the potential increases of five additional Brigade Combat Teams to the current cost estimate. If the decision is made to add an additional five brigades, the Army Modular Force estimate will be updated at that time.

The GAO concerns regarding tracking Army Modular Force costs are based on a single system program approach. The Army Modular Force conversion is not an individual program but is instead a reorganization affecting almost 70 percent of the Army's total structure in the Active and Reserve Components as well as hundreds of individual procurement programs throughout the force.

Now on p. 20.

Funds for Army Modular Force transformation are requested and appropriated separately by Congress for each piece of equipment. Each acquisition item has a designated program manager with specialized acquisition experience and training. The Army uses a standard defense wide (DoD) financial system to manage and control the execution of these funds at the Budget Line (BLIN) item level in the manner appropriated. This standardized accounting system lacks the functionality required to split out modular components within each line of equipment nor is such a system desirable.

Now on pp. 24 and 25.

An accounting mechanism that specifically earmarks individual items of equipment as modular will, by necessity, have the undesirable effect of dramatically expanding the billing process and increasing administrative costs. More importantly, this change would complicate equipment distribution in a wartime environment. The Army requires a responsive, flexible system that facilitates the rapid maneuvering of equipment and materiel to transforming units preparing to deploy to combat. The current DoD financial system provides the best possible internal control for the acquisition of modular components and gives the Army the requisite flexibility necessary to meet operational requirements and contingencies.

See comment 3.

In our view, the GAO report should include a balance of positive commentary regarding the Army's strategic transformation specifically acknowledging significant accomplishments to date.

Army Transformation supports and complies with Department of Defense (DOD) operational goals as identified in the Defense Planning Guidance (DPG). In response to the DPG, the Army is transforming now while engaged in combat operations around the world. While engaged and transforming, the Army has equipped and manned all deploying Brigade Combat Teams on schedule and within current cost estimates. Although this has posed some challenges, the Army has and will continue to manage the force to meet the needs of the Nation and its Soldiers and families both at home and abroad.

Now on p. 7.

In the short time since concept approval, the Army has completed 29 of the 50 major decisions critical to achieve the Army Modular Force and the Modular Force Objectives defined by the Chief of Staff of the Army. The following actions critical to organizational transformation have been completed within estimated costs and on schedule:

- Created the modular designs and scheduled the conversion of almost every Army Modular Force unit, with completion by FY12
- Built five new BCTs and modularly converted 16 BCTs
 - 4 modular BCTs currently deployed to Operation Iraqi Freedom
 - 8 modular BCTs preparing to deploy
- Created 16 modular Support Brigades
- Realigned resources to fund crucial transformation efforts

Now on p. 7.

- Made rebalancing decisions affecting over 100,000 Active and Reserve Component personnel positions, with over 34,000 already executed
- Designed and began the implementation of a unit operational cycle process that maximizes readiness and availability of forces while restructuring Institutional Army capabilities to provide better support to the Army Modular Force

Now on p. 7.

These actions are occurring as the Army annually is rotating over 160,000 troops into combat theaters to fight the Global War on Terror.

The primary and most appropriate metric to monitor both the short and long-term performance of the Army Modular Force is building and converting current brigades to modular Brigade Combat Teams in accordance with the Army Campaign Plan schedule.

COMMENTS TO THE RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Secretary of the Army to provide Congress a detailed plan estimating the costs of modularity sufficient to provide Congress reasonable assurance that estimated costs reflect total costs of modularity as designed and tested. Such a plan should be prepared annually and submitted as part of justification material supporting DoD's budget request, until the modular force is fully implemented. It should include:

- A clear definition of what costs the Army does and does not consider to be related to the modular transformation;
- Estimates for equipment, facilities and personnel;
- Identification of uncertainties in the plan due to pending force structure design decisions or other decisions that may affect costs, and updates to the plan as these decisions are made;
- A report on obligations related to the modular force made the previous fiscal year; and
- Divergences from the plan as stated in the prior year's report, and contributing factors. (pages 20-21/GAO Draft Report)

Now on pp. 23 and 24.

DoD RESPONSE: Partially Concur. DoD recognizes the need for periodic reporting on the Army Modular Force. The Army will provide a report to Congress on the Army Modular Force initiative as of 1 September 2005. The report provides the long-range plan for executing and funding the Army Modular Force initiative, as well as the budget for the Army Modular Force in fiscal years 2007-2011. The report also encompasses funding challenges, equipment requirements and program management oversight practices. This report can be prepared annually and submitted as part of the justification material.

In addition, the Army was directed this fiscal year by the Office of Management and Budget (OMB) through the Office of the Secretary of Defense (OSD) to begin annual reporting for the Army Modular Force. The process used for this reporting is through the OMB Program Assessment Rating Tool (PART).

The PART comprehensively reviews federal programs looking at program purpose, design, strategic plans, management, and execution metrics. The PART is a systematic method of assessing the performance of program activities across the Federal government. It is a diagnostic tool used to improve program performance. The PART assessments help inform budget decisions and identify actions to improve results. Agencies are held accountable for implementing PART follow-up actions and working toward continual improvements in performance.

Since the Army Modular Force Initiative report and the OMB PART provide official, comprehensive oversight, we recommend that these reporting mechanisms be used as the authoritative source. The GAO proposal as structured creates redundant, and unnecessary additional reporting that will be addressed by both the Army Modular Force Initiative Report to Congress and the Army Modular Force PART.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense direct the Secretary of the Army in coordination with the Undersecretary of Defense (Comptroller) to develop a plan for overseeing the costs related to the Army's transformation to a modular force. This plan should include an approach for tracking modular transformation costs that clearly identifies obligations for the modular force. (p. 21/GAO Draft Report)

DOD RESPONSE: Partially Concur. The transformation of the Army is not a specific budget line item in the Army budget. Instead, funds provided to convert the Army to a modular force are spread throughout various appropriations and programs, which in total contribute to the transformation effort. The Undersecretary of Defense (Comptroller), as part of its oversight responsibilities, will closely monitor the funding and execution of projects and programs associated with transformational efforts. However, there are no plans to establish an encompassing framework, grouping Army projects together under "Modularity" that would dramatically expand the billing process, increase administrative costs and more importantly complicate distribution in a wartime environment when the Army requires a responsive, flexible system that facilitates the rapid maneuvering of equipment and materiel to transforming units preparing to deploy to combat. Instead, to address cost oversight, funding and execution will be separately tracked at the component and project level.

Now on pp. 24 and 25.

The following are GAO's comments on the Department of the Defense's letter dated September 7, 2005.

GAO's Comments

1. We did not state that the Army would be unable to achieve efficiencies. Rather we noted the Army's ability to realize savings is uncertain because DOD has historically had difficulty achieving expected efficiencies.
2. We did not state that the costs of an additional five brigade combat teams should be included in the estimate. Rather, as with other uncertainties cited in this section, we noted that pending future decisions, including whether to add five brigade combat teams, could impact the cost of the modular transformation.
3. We revised the text to reflect DOD's comments that Army transformation supports DOD's goals and that the Army has taken steps to design, schedule, build, and convert brigade combat teams and support brigades. We did not include the comments that these actions were completed within estimated costs because, as our report states, uncertainties remain about the Army's cost estimates and the Army does not have a system for tracking modularity costs.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

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Acknowledgments

In addition to the contact named above, Gwendolyn Jaffe, Assistant Director; Margaret Best; J. Andrew Walker; and Joah Iannotta made major contributions to this report.

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