

Report to Congressional Committees

September 2010

UNIVERSITY RESEARCH

Policies for the Reimbursement of Indirect Costs Need to Be Updated





Highlights of GAO-10-937, a report to congressional committeess

Why GAO Did This Study

In fiscal year 2007, the majority of the Department of Defense's (DOD) basic research obligations were provided to higher education institutions. DOD reimburses these institutions for both direct and indirect costs for research. Two federal agencies, DOD and the Department of Health and Human Services (HHS), negotiate indirect cost rates used to reimburse higher education institutions for indirect costs on federally funded research awards, including DOD awards.

GAO was asked to examine the following issues related to higher education institutions performing basic research for DOD: (1) the variation in proposed and negotiated indirect cost rates and factors that may contribute to variations; (2) how and to what extent the administrative cap and the DOD basic research cap limit reimbursement of indirect costs; and (3) the methods DOD uses for overseeing compliance with indirect cost reimbursement for grants. GAO surveyed a generalizable sample of higher education institutions performing basic research for DOD: reviewed agency guidance and policies: and interviewed officials from federal agencies, independent public accounting firms, and higher education institutions.

What GAO Recommends

GAO is making recommendations to address consistency in ratesetting and to improve oversight of indirect cost reimbursement. The agencies generally agreed with these recommendations.

View GAO-10-937 or key components. For more information, contact John Needham at (202) 512-4841 or NeedhamJK1@gao.gov.

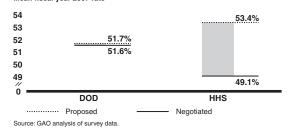
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What GAO Found

GAO identified wide variation in indirect cost rates at schools receiving DOD funding in fiscal year 2007, which may be related to a number of factors. For example, the average difference between a school's proposed and its negotiated rate was much larger for schools with HHS as the cognizant rate-setting agency than for those with DOD (see figure below), in part due to the agencies' differing approaches to negotiation. GAO also found that schools receiving a 1.3 percent add-on to their rate to assist with the cost of utilities both proposed and negotiated higher rates than those without the adjustment. Contrary to guidance to periodically review school eligibility, the fixed list of schools eligible to receive this add-on has not been revisited since established in 1998.

Estimated Mean Proposed and Negotiated Rates at the Two Cognizant Rate-Setting Agencies Mean fiscal year 2007 rate



The cap on the administrative portion of the indirect cost rate limited fiscal year 2007 reimbursement for about 83 percent of schools. The cap was established nearly 20 years ago with the intent of limiting federal reimbursement for schools' administrative costs, and OMB has not reexamined this cap since its implementation. We estimate the DOD basic research cap might have limited fiscal year 2008 reimbursement for some awards at about 22 percent of schools, but the limitation depends on the types of costs included in each individual award and is difficult to determine up front on a schoolwide basis until total costs for each award are tallied.

GAO identified weaknesses in the three methods DOD says it uses to oversee that indirect costs for research grants are reimbursed appropriately: the single audit, the closeout process, and audits by DOD's Defense Contract Audit Agency or by cognizant agencies for audit. At least one of the three methods was used at most of the schools we reviewed, but four schools were not covered by any of the methods, indicating a gap in coverage. In our discussions with cognizant agencies for audit, we learned that recent audits of research awards to schools at HHS have led to some significant findings of improper billings of indirect costs. Inconsistencies in rate-setting and reimbursement processes lead to perceived and actual differences in the treatment of schools. Moreover, because of the weaknesses in its oversight methods, DOD lacks assurance that it is reimbursing indirect costs appropriately.

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United States Government Accountability Office Washington, DC 20548

September 8, 2010

Congressional Committees

In fiscal year 2007, the federal government obligated nearly \$27 billion for basic research, the majority of which went to higher education institutions in the form of research grants and contracts. The federal government has recognized that university research contributes to American competitiveness and leadership in science, in effect creating shared goals between the federal government and universities, and has committed to sponsoring a share of the research costs. The government's contribution can be broken down into direct costs (those costs specifically identified with individual research projects) and indirect costs (those that are not directly attributable to a specific project or function, such as the costs for administrative staff), also referred to as facilities and administrative costs when dealing with higher education institutions. While direct costs are relatively easy to define and measure, indirect costs can be more difficult to allocate to individual projects. Further, there has been debate over what portion of indirect costs is the responsibility of the government and what portion is the responsibility of the research institution.

Over the years, Congress has enacted legislation and agencies have issued guidance to clarify what indirect costs the government will reimburse. For example, in the early 1990s, revisions to the *Cost Principles for Educational Institutions*¹ limited reimbursement of the administrative portion of indirect costs for higher education institutions to 26 percent of the modified total direct cost base. More recently, Congress enacted legislation which capped the reimbursement of indirect costs on Department of Defense (DOD) basic research grants, contracts, and cooperative agreements to 35 percent of the total cost of the award.² The House Committee on Armed Services Report for the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (H.R. 110-652) directed that we review the DOD processes and procedures related to

¹ OMB Circular No. A-21, Cost Principles for Educational Institutions, G.8.b (5/10/04) (incorporated in 2 C.F.R. 220 (Jan. 1, 2010)).

 $^{^2}$ For the purposes of this report, we refer to the 26 percent cap as the administrative cap and the 35 percent cap as the DOD basic research cap.

indirect costs for research.³ In response, we examined the following issues related to higher education institutions performing basic research for DOD: (1) the variation in proposed and negotiated indirect cost rates and factors that may contribute to variations; (2) how and to what extent the administrative cap and the DOD basic research cap limit the government's reimbursement of indirect costs; and (3) the methods DOD uses for overseeing compliance with indirect cost reimbursement for grants and the extent to which each method was used.

To determine the proposed and negotiated indirect cost rates at higher education institutions performing DOD basic research, we surveyed university administration officials at schools that DOD reported had active grants, contracts, or cooperative agreements in fiscal year 2007 that were coded as basic research. The survey sample was comprised of (1) the 32 higher education institutions that received more than half of the funding DOD obligated for basic research, and (2) a random selection of 146 higher education institutions with obligations of more than \$100,000 in fiscal year 2007. Of the 178 sampled higher education institutions to whom we sent the surveys, 144 responded for an 87 percent response rate. Of the 144 respondents, 114 used a standard format proposal for negotiating an indirect cost rate, and 29 used a simplified format proposal, which can be used by higher education institutions that received \$10 million or less in total direct costs for federally sponsored grants, contracts, and cooperative agreements annually. For the purposes of this report, we produce population estimates for the higher education institutions within the United States that use the standard format for proposal submission and that DOD identified as performing more than \$100,000 of basic research in fiscal year 2007. Based on our survey, we estimate that this

 $^{^{3}}$ In response, we provided an oral briefing to the Defense committees in October 2009 and agreed to further examine the objectives of this report.

⁴ Each school in our sample can have multiple proposed and negotiated indirect cost rates. Unless otherwise specified in the report, findings relating to proposed and negotiated rates are limited to a school's on-campus organized research rate. We focused on the on-campus organized research rate because it represents a comprehensive measure of indirect costs for research to be reimbursed by the federal government.

⁵ For the purposes of this report, the term "schools" refers to higher education institutions. Based on the data provided by DOD, 83.2 percent of funds DOD obligated to schools for basic research in 2007 was in the form of grants or other financial assistance awards.

 $^{^{6}}$ One respondent did not negotiate a rate agreement with the federal government, but did receive a DOD research award.

would correspond to about 263 schools. ⁷ Characteristics and demographic information for the higher education institutions that used a simplified form of submitting indirect cost rate proposals can be found in appendix V. To determine what factors may contribute to rate variations, we surveyed university administration officials concerning various factors, such as the school's cognizant rate-setting agency (which can be either the Department of Health and Human Services (HHS) or DOD),8 whether an institution received an adjustment for the cost of utilities, and whether an institution is public or private (see appendix III for a list of factors), interviewed DOD and HHS officials, and interviewed representatives from higher education associations. Detailed analysis of the factors that contribute to variations in research rates can be found in appendix III, with the analysis of key factors included in the objective 1 findings. To determine how and to what extent the administrative and DOD basic research caps limit reimbursement of indirect costs, we collected information through our survey of university administration officials at higher education institutions and reviewed the intent and legislative history of the administrative and DOD basic research caps. To identify and understand the methods DOD uses for overseeing compliance with reimbursement of indirect costs, we interviewed DOD officials. To determine the extent to which each of the methods identified by DOD was used, we focused on the 32 higher education institutions that received more than half of DOD's fiscal year 2007 basic research obligations. For these institutions, we reviewed documentation such as DOD guidance on grant administration, financial reporting forms for grants, data from independent public accounting firms on the research and development awards sampled for the single audit, and previous reports by GAO and others. We also interviewed officials at DOD, the Office of Management and Budget (OMB), cognizant agencies for audit such as HHS, the National Science Foundation (NSF), and the Department of Education, as well as officials of independent public accounting firms and higher education institutions to understand their role in reviewing indirect cost reimbursement on DOD basic research awards. See appendix I for additional details on our objectives, scope, and methodology.

⁷ All estimates based on this survey are subject to sampling error. The 95 percent confidence interval for this estimate is from 244 to 283 schools. Appendix I contains additional information about the survey and precision of estimates.

⁸ Rate-setting cognizance is determined by which of the two agencies (HHS or DOD) provides more funds to the institution for the most recent 3 years and defaults to HHS when neither agency provides federal funding to the educational institution.

We conducted this performance audit from October 2009 to September 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

In fiscal year 2007, the federal government obligated nearly \$27 billion for basic research, with DOD obligations accounting for \$1.5 billion of that total. As shown in figure 1, more than half of DOD basic research funding was provided to schools in the form of research grants and contracts.

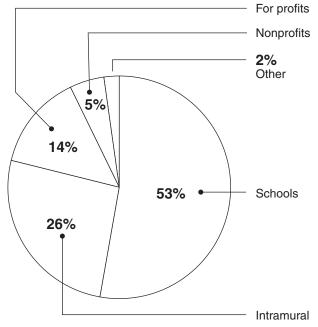


Figure 1: DOD Funding of Basic Research in Fiscal Year 2007: \$1.5 Billion

Source: GAO analysis of National Science Foundation data

Notes: Intramural research is research performed by federal agencies and carried out directly by federal personnel.

"Other" includes Federally Funded Research and Development Centers and foreign performers.

⁹ Source: GAO analysis of fiscal year 2007 data from NSF.

OMB Circular A-21, *Cost Principles for Educational Institutions*, establishes principles on how schools charge costs to federally funded research. Circular A-21 requires all costs for reimbursement to be allowable, allocable, and reasonable, and provides that the federal government bear its fair share of total costs, determined in accordance with generally accepted accounting principles, except where restricted or prohibited by law.¹⁰ While the federal government and schools share certain research goals, there is debate on what constitutes the federal government's fair share of research costs.

The federal government reimburses both direct and indirect costs associated with federally funded research. Direct costs can be specifically identified with individual research projects and are relatively easy to define and measure. They include, for example, the researcher's salary, subawards, ¹¹ equipment, and travel. Indirect costs represent a school's general support expenses and cannot be specifically identified with individual research projects or institutional activities. They include, for example, building utilities, administrative staff salaries, and library operations (see fig. 2).

¹⁰ A cost is allowable if it is reasonable, allocable to the agreement, it is treated consistently with generally accepted accounting principles appropriate to the circumstances, and conforms to principles in OMB Circular A-21 and the sponsoring agreement. A cost may be considered reasonable if the nature of the goods or services acquired or applied, and the amount involved, reflect the action that a prudent person would have taken under the circumstances prevailing at the time the decision to incur the cost was made. A cost is allocable to a particular cost objective (i.e., a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received or other equitable relationship. OMB Circular No. A-21, attachment, section C.

¹¹ A subaward is an award provided by a recipient of a federal award to another researcher, for the performance of substantive work under the federal award.

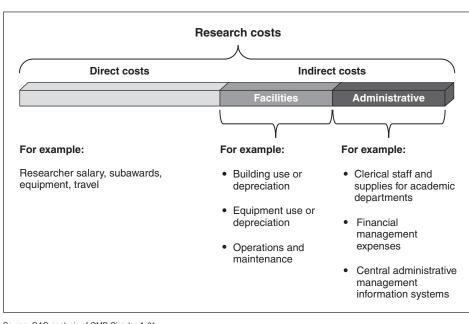


Figure 2: Types of Research Costs

Source: GAO analysis of OMB Circular A-21.

As shown in figure 2, indirect costs are divided into two main components, facilities costs and administrative costs. ¹² Facilities costs include operations and maintenance expenses, building use or depreciation costs, equipment use or depreciation costs, and library expenses. Administrative costs include general administration expenses, such as the costs associated with executive functions like financial management; departmental administration expenses, including clerical staff and supplies for academic departments; sponsored projects administration expenses, that is the costs associated with the office responsible for administering projects and awards funded by external sources; and student administration and services expenses, such as the administration of the student health clinic.

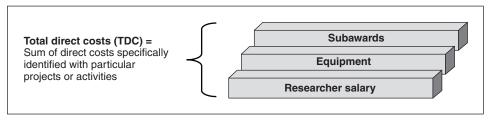
Indirect Cost Rate

Circular A-21 outlines the process for establishing an indirect cost rate for schools performing federally funded research. The indirect cost rate is the

 $^{^{12}}$ In 1996 OMB substituted the term "indirect costs" for higher education institutions in Circular No. A-21 with the term "facilities and administrative (F&A) costs."

mechanism for determining the proportion of indirect costs that may be charged to federally funded research awards. The rate is established based on a historical fiscal year of cost data from a school, and is applied to individual research awards. The indirect cost rate is applied to a modified set of direct costs referred to as "modified total direct costs" (MTDC) (see figs. 3 and 4). MTDC includes the salaries and wages of those conducting the research, fringe benefits (e.g., pensions), materials and supplies, travel, and the first \$25,000 of each subaward. MTDC excludes costs such as equipment costs, capital expenditures, tuition remission, equipment or space rental costs, and the portion of each subaward in excess of \$25,000 (see fig. 4).

Figure 3: Illustration of Total Direct Costs (TDC)

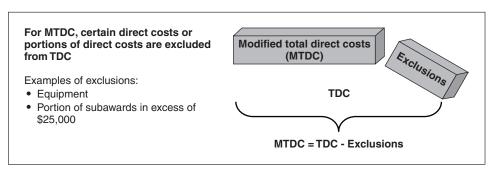


Source: GAO analysis of OMB Circular A-21.

¹³ Schools use a standard format, also known as the long form, for submitting their indirect cost rate proposals to their cognizant rate-setting agency. However, schools whose total direct costs on federal awards do not exceed \$10 million in a fiscal year may use a simplified method for determining the indirect cost rate applicable to all federal awards. Whereas schools above the \$10 million threshold must use a modified total direct cost base, schools using the simplified method may use either salaries and wages as their distribution base, that is, the denominator in the indirect cost rate calculation, or MTDC. As already noted, this report focuses on those schools that used the standard format for proposal submission.

 $^{^{\}rm 14}$ Tuition remission is compensation provided to graduate research assistants in lieu of salary.

Figure 4: Illustration of MTDC Exclusions



Source: GAO analysis of OMB Circular A-21.

The indirect cost rate¹⁵ is developed as follows:

- Each subcomponent of the facilities component of the indirect cost rate (e.g., building use, depreciation, operations and maintenance) is divided by MTDC and added together to derive the facilities component of the rate.
- Similarly, each subcomponent of the administrative component of the indirect cost rate (e.g., general administration, sponsored administration) is divided by MTDC and then added together to derive the administrative component of the rate.
- Then, the facilities component and the administrative component are added together to equal the indirect cost rate.

Indirect Cost Rate-Setting Process

A school's indirect cost rate is negotiated between the school and the federal government. A school can establish three types of indirect cost rates (see table 1).

 $^{^{\}mathrm{15}}$ This describes the process for developing the on-campus organized research rate.

Rate types	Predetermined		Fixed with carry-forward		Provisional	
Key features	•	Negotiated and generally established for a 2-4 year period	•	Negotiated and generally established for a 1-year period	•	Allows a school to continue to have a federally approved
	•	Actual incurred costs are not determined at the end of the period	•	Actual incurred costs are determined at the end of the period		indirect cost rate when negotiated rates expire, but no new rates have been agreed to
			•	Costs above or below fixed rate are added or subtracted from future rate (this is known as carry-forward)	•	If the provisional rate is not converted to a predetermined or fixed rate by the end of school's fiscal year, a final rate is
			•	School cannot change from this method without approval of cognizant rate-setting agency		established and adjustments are made based on actual incurred costs
When used	•	Used if future costs are fairly predictable	•	Used if future costs are less predictable	•	School and cognizant rate- setting agency unable to reach agreement on rate before the current negotiated rate runs out
Benefits	•	Simpler research award administration	•	Carry-forward can be added to next subsequent rate negotiation if necessary	•	Allows flexibility when a new negotiated rate is unable to be established in a timely manner
	•	Enables budget preparation Expedited closeout	•	Costs are adjusted based on actual fiscal year costs		

Source: GAO analysis of OMB Circular A-21.

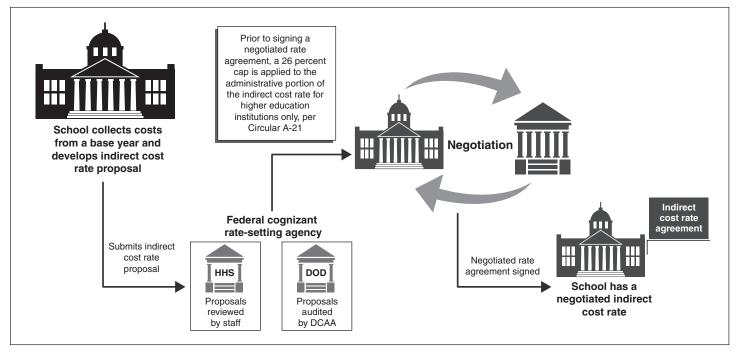
Circular A-21 assigns rate-setting responsibility to either HHS or DOD, as the cognizant rate-setting agency. The Division of Cost Allocation (DCA) handles this responsibility within HHS and the Indirect Cost Branch within the Office of Naval Research (ONR) does so for DOD. ¹⁶ Currently, HHS, with 50 rate negotiators in four field offices and headquarters, is the cognizant rate-setting agency for more than 1,000 schools, while DOD, with four negotiators and a director in one location, is responsible for 44 schools.

As shown in figure 5, a school establishes its indirect cost rate by submitting a proposal to its cognizant rate-setting agency using a base year that represents a historical fiscal year of costs. HHS reviews the proposal while DOD generally sends the proposal to the Defense Contract Audit

 $^{^{16}}$ Cognizance is determined by which of the two agencies (HHS or DOD) provides more funds to the institution for the most recent 3 years. Once rate-setting cognizance is established, the determination lasts for a 5-year period. In cases where neither HHS nor DOD provide federal funding to an educational institution, assignment defaults to HHS.

Agency (DCAA) to be audited. ¹⁷ After the proposal has been reviewed or audited, the cognizant rate-setting agency and the school negotiate, and come to agreement on the rate. The rate is then documented in a formal indirect cost rate agreement.

Figure 5: Indirect Cost Rate-Setting Process



Source: GAO analysis; PhotoDisc (clip art).

Indirect Cost Reimbursement Limitations

Administrative Cap

Across the federal government, there are limitations, or caps, placed on the reimbursement of indirect costs. Two related to DOD-funded research at schools are known as the administrative cap and the DOD basic research cap.

In 1991, Circular A-21 incorporated an administrative cap limiting the administrative costs for which a school may be reimbursed to 26 percent of the MTDC for research awards. This cap is applied during the rate-

¹⁷ DCAA reports to the Office of the Under Secretary of Defense (Comptroller) and plays a critical role in DOD's oversight of award recipients.

setting process. This limitation only applies to higher education institutions, as stated in OMB Circular No. A-21. Despite the circular's administrative cap, DOD regulations, which implement a statutory mandate, provide that for DOD contracts, versus grants or cooperative agreements, schools have the option to negotiate a separate rate that is not subject to the administrative cap. ¹⁸

DOD Basic Research Cap

The Department of Defense Appropriations Act, 2008 incorporated a cap limiting the indirect costs for which a research performer (including a school) may be reimbursed to 35 percent of a DOD basic research award's total costs. This cap, which applies to all nonfederal research performers, that is, schools, nonprofits, and private sector companies performing on contracts, grants, and cooperative agreements, was also included in the fiscal year 2009 and fiscal year 2010 defense appropriations acts. In contrast to the administrative cap, which is applied to the negotiated rate applicable to all of a school's federal research awards, the DOD basic research cap is applied to individual DOD basic research awards, and while the school can monitor whether the charges have exceeded the 35 percent limitation as it performs the research, the school (or other performer) ultimately ensures government reimbursement does not exceed the cap once all costs are known.

The DOD basic research cap is calculated with different cost bases than either the school's indirect cost rate or the administrative cap. As previously discussed, a school's indirect cost rate is applied to a modified set of total direct costs to arrive at the dollar amount of indirect costs applicable to a specific research award. In contrast, the 35 percent cap on DOD basic research awards limits indirect costs as a proportion of total costs. Total costs include all allowable direct and indirect costs on an individual award.

Because of the different cost basis, the 35 percent DOD basic research cap does not mean that an institution with an indirect cost rate higher than 35 percent will be limited by the cap. The threshold for a school to be limited by the 35 percent DOD basic research cap is a negotiated indirect

¹⁸ Defense Federal Acquisition Regulation Supplement (DFARS) 231.303(1) states that for DOD contract awards, no limitation (including the 26 percent cap) may be placed on the reimbursement of a higher education institution's otherwise allowable indirect costs unless that same limitation is applied uniformly to all other organizations performing similar work under DOD contracts.

cost rate of 53.8 percent. ¹⁹ This is demonstrated through the following example: if a school receives a DOD basic research award for \$100,000, the maximum amount of the award that may be reimbursed as indirect costs is \$35,000.

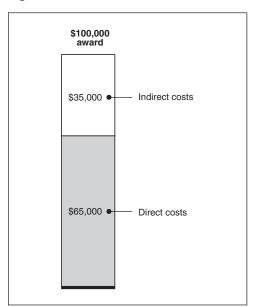


Figure 6: Indirect Costs Limited to 35 Percent of Total Award Costs

Source: GAO analysis.

This threshold holds true in situations where no direct costs are excluded from total direct costs. In this circumstance, total direct costs are equivalent to modified total direct costs. This allows us to use the formula for an indirect cost rate to calculate the threshold (see fig. 7 below).

 $^{^{19}}$ The arithmetic behind the 53.8 indirect cost rate threshold has also been computed by DOD and is understood in the research community.

Figure 7: Calculation for Indirect Cost Rate Threshold

For a school with a \$100,000 DOD basic research award: $\frac{\text{Indirect costs}}{\text{Total direct costs}} = \frac{\$35,000}{\$65,000} = 53.8\% = \frac{\text{Indirect cost rate threshold}}{\$65,000}$

Source: GAO analysis.

If a school has an indirect cost rate below this 53.8 percent threshold, it will not be affected by the DOD basic research cap on indirect costs at 35 percent of total award costs. If a school has an indirect cost rate above this threshold, it may not be reimbursed for all its indirect costs, depending on each award's costs.

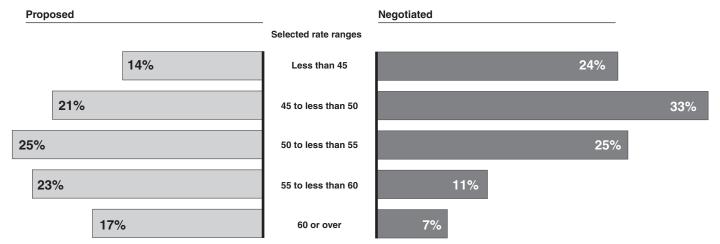
Variations in Indirect Cost Rates Are Driven by Multiple Factors

We identified multiple types of variation in indirect cost rates for schools performing DOD basic research, driven by several different factors (see appendix III for detailed information on the factors and variations we identified). Across all schools, wide variation was identified in proposed rates, negotiated rates, and in the difference between the proposed and negotiated rates at schools receiving DOD research funding in fiscal year 2007. The difference between the proposed and negotiated rates was significantly larger for schools that negotiate with HHS than for those that negotiate with DOD. Differing policies and procedures employed by the two cognizant rate-setting agencies, including, for example, different approaches and differing use of rate types, may explain some of this variation. Another source of variation was that schools eligible for a rate increase of 1.3 percent to account for the cost of utilities, known as the utility cost adjustment, both proposed and negotiated higher rates than those not receiving the adjustment. The increase for the costs of utilities is received by a fixed list of schools that are listed in OMB Circular A-21. OMB has not reexamined the list of those receiving the adjustment since 1998 and DOD and HHS officials responsible for rate-setting were unclear on what the process should be for receiving and approving applications for use of the utility cost adjustment.

Proposed and Negotiated Indirect Cost Rates Varied Widely among Schools Performing DOD Research

The proposed and negotiated indirect cost rates at schools performing DOD research²⁰ varied widely from one school to another.²¹ Figure 8 summarizes the distribution of schools with various levels of proposed and negotiated rates. For example, whereas about 14 percent of schools proposed a rate of less than 45 percent, about 17 percent of schools proposed a rate of 60 percent or higher. Similarly, while about 24 percent of schools negotiated rates that were less than 45 percent, about 7 percent of schools negotiated a rate of 60 percent or higher. Variation between what was proposed and what was negotiated can also be seen in this figure. For instance, while about 17 percent of schools proposed a rate of 60 percent or higher, only about 7 percent of schools negotiated a rate that high.

Figure 8: Estimated Proportion of Schools with Proposed or Negotiated Rates in Selected Rate Ranges



Source: GAO analysis of survey data.

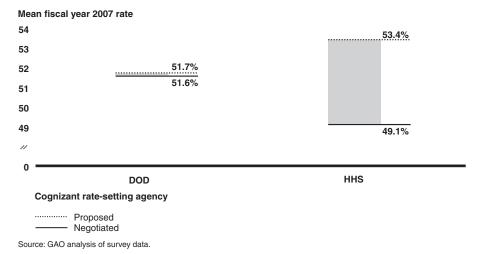
Notes: Percentage estimates shown have 95 percent confidence intervals of within +/- 7 percentage points of the estimated percent. This figure represents the fiscal year 2007 rates for all schools, including those with HHS as their cognizant rate-setting agency as well as those with DOD.

²⁰ Unless otherwise noted, all survey analyses are generalizable to the universe of about 263 schools using the standard form within the U.S. that DOD identified as receiving more than \$100,000 in DOD basic research funding in fiscal year 2007.

²¹ Schools receiving DOD research funds may negotiate indirect cost rates with either DOD or HHS, depending on the assigned cognizant rate-setting agency.

The Difference between Proposed and Negotiated Rates was Larger for Schools Negotiating with HHS Than Schools Negotiating with DOD The difference between a school's proposed and negotiated rates varied significantly based on the cognizant rate-setting agency with which a school negotiated. Specifically, the average difference between proposed and negotiated fiscal year 2007 rates for schools with HHS's Division of Cost Allocation as their cognizant rate-setting agency was about 4.5 percentage points. In contrast, the average difference between proposed and negotiated rates for schools with DOD's Office of Naval Research as their cognizant rate-setting agency was less than 1 percentage point (see fig. 9 below).²²

Figure 9: Estimated Mean Proposed and Negotiated Rates at the Two Cognizant Rate-Setting Agencies



Note: The shaded bars represent the estimated differences between proposed and negotiated rates for schools with each of the two cognizant rate-setting agencies. For each agency, differences between the proposed and negotiated rates that exceed 0.67 percent are statistically significant. Therefore, at HHS, proposed rates differ significantly from negotiated rates. This difference is not significant at DOD.

Schools' explanations for the difference between their proposed and negotiated rates varied based on the schools' cognizant rate-setting agencies. For example, we estimate that about 60 percent²³ of schools with HHS as their cognizant rate-setting agency identified negotiation that was

 $^{^{22}}$ These estimated negotiated rate reductions have 95 percent confidence intervals of within \pm 0.7 percentage points of the estimated rate itself.

 $^{^{23}}$ The 95 percent confidence interval for this estimate is within +/- 9 percentage points of the estimate itself.

not clearly tied to specific aspects of their rate proposal as a part of the explanation for the negotiated rate reduction. For example, one school we surveyed stated that HHS officials told them that 2 percentage points would be the most that their rate could increase over the previous negotiated rate. The National Director of HHS's Division of Cost Allocation confirmed that a limitation on the increase in negotiated rates of 2 percentage points had been the practice in one of the DCA field offices. Once this matter was brought to the attention of the National Director of HHS's Division of Cost Allocation, he ordered that the practice be discontinued both to ensure consistent treatment across field offices and because it was not a practice supported by policy or regulation. For schools with DOD as their cognizant rate-setting agency, none of the 15 sampled schools identified negotiation that was not clearly tied to specific aspects of their rate proposal as a part of their explanation of the difference between their proposed and negotiated rates. When DOD was the cognizant rate-setting agency, school officials generally indicated the difference between the rate proposed and negotiated resulted from disagreements with DOD over specific costs or methodologies used in their rate proposal. For example, some schools said that DOD officials made changes to the school's proposed classification and allocation of space to research. In addition to the findings from the survey, interviews with school officials revealed that schools perceived that the reasons for rate reductions varied depending on which agency the school negotiated with. For example, in discussions with a group of senior-level university research administrators, HHS negotiations were described as arbitrary, whereas administrators negotiating with DOD stated that they clearly understood why reductions were being negotiated. However, HHS officials stated that their negotiations are not arbitrary. Prior to the negotiation, HHS provides schools written documentation of its position that was developed based on its review of facts included in the school's indirect cost rate proposal.

Differing Policies and Procedures Employed by the Cognizant Rate-Setting Agencies Are Factors That Contribute to Differing Rate Reductions for Each Agency

The differences between the proposed and negotiated rates based on cognizant rate-setting agencies and schools' perceptions of the reasons for the rate reductions may be related to differences between the processes employed by the two rate-setting agencies. For example, the two cognizant rate-setting agencies express differing approaches to executing responsibilities under Circular A-21 in terms of rate-setting goals. OMB Circular A-21 states that the cognizant rate-setting agencies are responsible for negotiating and approving indirect cost rates for schools on behalf of all federal agencies. DOD policy on rate-setting for indirect costs states that DOD is to implement relevant regulations (including OMB

Circular A-21) in a manner that "ensure[s] uniform and consistent treatment of indirect cost issues at all DOD cognizant institutions" and DOD officials have stated that a broader goal is to ensure that DOD is able to obtain high-quality research by reimbursing all allowable, allocable, and reasonable costs. In contrast, HHS's approach, as identified in its rate-setting mission, includes two components – being "fair, reasonable and equitable when communicating and negotiating with the grantee community" and having "a fiduciary responsibility to protect the public funds."

HHS and DOD use different processes for evaluating a school's rate proposal. DOD officials told us it generally performs audits of its indirect cost proposals to validate costs enumerated in the proposal. HHS does not generally perform an audit of indirect cost proposals, but they review the cost proposal data.²⁴ HHS officials stated that the findings from the review are used as the basis for their negotiation with a school.

The frequency with which the two cognizant rate-setting agencies approve predetermined and fixed with carry-forward rate types also varies. Although both cognizant agencies expressed a preference for negotiating predetermined rates, in part due to the burden associated with carry-forward adjustments, in our survey 5 out of the 15 DOD schools negotiated fixed with carry-forward rates, while no more than 1 percent of schools with HHS as their rate-setting agency did.

The year on which a school based its proposal for 2007 rates also varied by the cognizant rate-setting agency, with schools negotiating with HHS using, on average, earlier base years than those negotiating with DOD. In addition, while none of the 15 DOD schools we surveyed used a base year prior to 2002 to negotiate 2007 rates, about 17 percent of HHS schools did. Further, schools that reported an early base year (2001 or earlier) negotiated an average rate of 6.5 percentage points below their proposed rate, compared to a 3.6 percentage point rate reduction for schools with more recent base years. ²⁵ The interaction between cognizant rate-setting

²⁴ HHS officials told us that an HHS review differs from an audit of an indirect cost rate proposal in that the review does not adhere to generally accepted auditing standards, and that HHS reviewers have the authority to negotiate the rate, whereas auditors make recommendations to a negotiator.

²⁵ Several reasons exist that schools might use older base year data, including the negotiation of a rate covering multiple years, the unavailability of current data at the time a school is to submit its proposal, or the granting of an extension by the cognizant rate-setting agency.

agency, base year, and the degree of rate reduction may relate to the different policies the two agencies have related to extending rates. ²⁶ DOD officials stated that DOD does not allow extensions, whereas HHS policy allows for an extension of an existing rate agreement in some circumstances. HHS granted extensions to some of the schools included in our survey and, according to HHS officials, many of the extensions were granted with associated reductions in the rate, ranging from half a percentage point to 2.5 percentage points. This may account for some of the rate reduction observed at these schools.

Our findings on different approaches used by the cognizant rate-setting agencies are similar to our findings of nearly 20 years ago. Specifically, in 1992, we reported that different approaches used by the two cognizant rate-setting agencies resulted in variation in negotiated rates. We found that DOD's approach generally provided for full recovery of claimed allowed indirect costs, whereas HHS's approach generally resulted in limiting the federal reimbursement of indirect costs. At the time, we reported that the average rate negotiated by DOD was about 59 percent, whereas the average rate negotiated by HHS was about 50 percent. For our fiscal year 2007 survey data, proposed rates averaged 53.4 percent for schools assigned to HHS and 51.7 percent for schools assigned to DOD. Negotiated rates averaged 49.1 percent for HHS schools and 51.6 percent for DOD schools. In both cases, the averages did not vary between the two cognizant rate-setting agencies by a statistically significant amount.²⁷ However, the different approaches identified in the 1992 report are consistent with the different processes we found today.

²⁶ HHS defines a rate extension as applying or adjusting current organized research indirect cost rates beyond the fiscal years covered by the current rate agreement.

 $^{^{27}}$ The 95 percent confidence interval for the mean proposed rate is from 52.1 to 54.3 percent, and the confidence interval for the mean negotiated rate is from 48.5 to 50.2 percent. Unless otherwise noted, 95 percent confidence intervals for estimated mean indirect cost rates are within +/- 2 percentage points of the estimated rate.

The Utility Cost Adjustment Is Linked to Schools That Propose and Receive Higher Rates, but Is Not Clearly Associated with Current Utility Costs

The utility cost adjustment—a 1.3 percentage point increase in the negotiated indirect cost rate—is linked to institutions with higher proposed and negotiated indirect cost rates. The utility cost adjustment was implemented in 1998 to replace a system of special utility cost studies. It was made available to 65 institutions identified in Exhibit B of OMB Circular A-21,²⁸ based on whether they had submitted a special study in their most recent indirect cost rate proposal. Schools on the list receive this adjustment in addition to the utilities portion of indirect costs that a school negotiates based on its proposal. In fiscal year 2007, the average negotiated rate for schools that reported receiving the utility cost adjustment was 54.7 percent and the average for those reporting not receiving the utility cost adjustment was 47.6 percent.²⁹

Although OMB Circular A-21 states that, beginning in July 2002, federal agencies must reevaluate periodically the eligibility of institutions to receive the utility cost adjustment, no changes have been made to the list since the utility cost adjustment was implemented in 1998. Also, OMB Circular A-21 states that federal agencies may receive applications for use of the utility cost adjustment from schools not on the list. An OMB official stated that OMB considers the list of utility cost adjustment recipients to be final for the time being, and the eligibility list has remained unchanged since 1998. The official also told us that OMB has not been asked to reassess the utility cost adjustment by federal agencies. DOD and HHS officials responsible for rate-setting reported that schools have requested to be added to the eligibility list; however, these officials also stated they were unclear on what the process should be for receiving and approving applications for use of the utility cost adjustment.

²⁸ Exhibit B of OMB Circular A-21 ends with #66, but only 65 schools are listed, because #59 is missing from the list. According to OMB, this is a typo.

²⁹ The difference in negotiated rates between the two groups is 7.1 percent, with a 95 percent confidence interval from 5.4 to 8.8 percent. This difference exceeded the 1.3 percent of the utility cost adjustment. Examining the reasons why the difference was this large was beyond the scope of this engagement.

Administrative Cap Generally Limits Reimbursement, but the Effects of DOD Basic Research Cap Are Unclear The limitation on government reimbursement of administrative costs affects most schools. Based on our survey results, about 83 percent of schools had fiscal year 2007 administrative costs above the administrative cap, with a reported average administrative rate component of 31 percent. The cap was established in 1991 with the intent of limiting federal reimbursement for schools' indirect costs. When the cap was originally proposed in 1986, it was established at 26 percent for that year for the administrative portion of indirect costs because it was the 5-year average administrative cost reimbursement rate for all major universities. OMB has not formally reexamined this cap since its implementation in 1991. In survey responses and interviews, school and association officials reported that growing administrative costs were associated with modern research and complying with federal regulations. Some government officials also attributed the potential increase to federal regulations, particularly those enacted since September 11, 2001.

The administrative cap limits reimbursement of indirect costs in different ways than the DOD basic research cap. For example, whereas the administrative cap is applied to a school's negotiated indirect cost rate and limits reimbursement of administrative costs on all federal awards to the school, the DOD basic research cap is applied at the close of an award and limits reimbursement only on DOD-funded basic research awards. We estimate the DOD basic research cap may affect some awards at about 22 percent of schools, based on schools' negotiated indirect cost rates for fiscal year 2008. It is difficult to pinpoint the extent to which the DOD basic research cap limits indirect cost reimbursement at a school in part because it operates differently than the guidance for rate-setting and reimbursement familiar to schools, as outlined in OMB Circular A-21. For example, unlike for the administrative cap, the DOD basic research cap's impact cannot be determined up front on an institution-wide basis because its limitation on indirect costs depends on the types of costs included in each individual award. In addition, the cap's impact cannot be fully determined until total costs for an award are known, making it difficult for schools to know up front whether their reimbursement will be limited for a given award. These differences between the DOD basic research cap and the rate-setting and reimbursement structure familiar to schools under Circular A-21 may contribute to confusion reported by schools about how the cap is applied to awards.

The Cap on Administrative Costs for Research Limits Reimbursement at Most Schools The administrative cap limits reimbursement at most schools. An estimated 83 percent of schools reported administrative costs that were higher than the 26 percent administrative cap. During the rate-setting process, schools generally provide cost information in their proposal that identifies the administrative component of their indirect cost rate based on their total administrative costs, regardless of the 26 percent cap. These rate components averaged 31 percent in fiscal year 2007, which represents an average 5 percentage point difference between these proposed administrative rate components and the cap at 26 percent.³⁰

The fact that about 83 percent of schools had administrative costs in fiscal year 2007 higher than the administrative cap indicates that the cap controls government costs through limiting reimbursement. The cap was enacted in 1991 to stop abuses related to indirect cost reimbursement at schools. In addition, the federal government acknowledged that indirect costs were rising rapidly, and characterized the situation as problematic and therefore in 1986 proposed what it considered to be a reasonable ceiling on all administrative costs for that year. To determine the ceiling, OMB used the 5-year average administrative rate component for all major universities. OMB first proposed establishing the cap at 26 percent and subsequently reducing the reimbursement rate to 20 percent after a year. This further reduction was not included in the final revision of the circular, but reflects the initial goal of controlling government costs even below the average reimbursement rate for administrative costs.³¹ An OMB official stated the agency believes that over time the administrative cap has forced the schools to be more efficient with their administrative effort and to be more disciplined in spending. OMB has not reopened the administrative cap issue since its implementation because they have not seen evidence that this is a priority issue.

³⁰A small portion of schools—12 percent—take advantage of a defense regulation allowing them to negotiate a separate indirect cost rate for DOD contracts that does not limit reimbursement of administrative costs. These schools' separate DOD contract rates had a mean of 57 percent, whereas their negotiated rates with the cap would have been a mean of 54 percent, allowing the schools to recover additional reimbursement. Many schools that chose not to negotiate this separate rate reported that doing so was easier for award management or they expected minimal impact on their cost recovery from the separate rate. Notably, 15 percent of schools were unaware of the availability of this separate rate for DOD contracts.

³¹ 51 Federal Register 5286, proposed revision of Circular A-21, Cost Principles for Educational Institutions, Feb. 12, 1986.

According to school and association officials we spoke with, administrative costs have been rising over time. They attribute these changes, in part, to increased federal regulations, such as regulations related to national security standards, human subjects and animal care, as well as reporting and audit requirements, having large impacts on their indirect costs. However, school and association officials were unable to provide an estimate of the increased costs associated with federal regulations. In response to these regulations, schools we surveyed report taking a number of actions that have raised administrative costs. These include the following:

- hiring new staff to, for instance, report data on grants and subrecipient monitoring,
- opening new offices to monitor compliance with federal regulations,
- implementing new information technology systems,
- developing processes for improving security and safety, and
- training staff on new systems and compliance efforts.

In order to respond to the government's research needs with respect to complex research topics, such as nanotechnology, some schools we surveyed report making investments in research capabilities which could require hiring personnel to manage programs in new or upgraded facilities. Schools claim these indirect costs may not be fully reimbursed because of the administrative cap. Since the implementation of the administrative cap, some schools tell us they have had to identify additional sources of funding to conduct the research. When asked how they bridge the gap between actual administrative costs and the reimbursement from the federal government for administrative costs, school officials offered examples including the use of funds from university endowment and investments, and student tuition.

Some government officials have also observed increasing administrative costs over time. For example, HHS officials who review indirect cost rate proposals told us they have seen a trend of increasing administrative costs reflected in schools' rate proposals. These officials attributed the increased administrative costs to federal regulations such as post-9/11 regulations related to security standards and foreign students that have led schools to spend resources on security clearances, student visas, and other screening efforts. Despite reported increasing administrative costs and related under-reimbursement, some DOD officials who are responsible for awarding basic research told us that schools continue to compete for federal research awards and produce the research that meets the government's needs.

The Administrative Cap and the DOD Basic Research Cap Limit Reimbursement for Schools in Different Ways

The administrative cap and the DOD basic research cap limit government reimbursement of indirect costs in distinct ways, as shown in table 2 below. Whereas the administrative cap limits reimbursement of administrative costs specifically, the DOD basic research cap limits reimbursement of all indirect costs for an applicable award. Additionally, the design of each cap differs in terms of when the cap is calculated, what entities and awards the cap applies to, and what cost base is used to calculate the cap's impact.

Table 2: Characteristics of the Administrative Cap and the DOD Basic Research Cap

	Administrative cap	DOD basic research cap
What it is	26% limit on the administrative portion of the negotiated rate	35% limit on reimbursement of indirect costs (both administrative and facility costs) as a portion of an award's total costs
When calculated	Prior to signing a negotiated rate agreement	During and at the end of an award
To whom it applies	Schools	All nonfederal research performers (schools, nonprofit, for profit)
Cost base	Modified total direct costs (MTDC)	Total costs
Affects	All research awards	DOD basic research awards only

Source: GAO analysis of OMB Circular A-21 and federal statutes.

The differences in the way the caps limit reimbursement also means each cap's impact may differ and cannot be compared to the other.

The Cap on Indirect Costs for DOD Basic Research May Limit Reimbursement for Some Schools, but the Extent That Reimbursement Is Limited Is Difficult to Determine

Approximately 22 percent of schools had a fiscal year 2008 indirect cost rate high enough for awards to be potentially limited by the 35 percent cap on indirect costs of DOD basic research awards. While the legislative intent for including this cap in certain defense appropriations acts is sparse, House Report 110-279 for the Department of Defense Appropriations Bill, 2008 indicated that overhead costs had grown to unwarranted levels, and the House Committee on Appropriations recommended that DOD limit the percentage of overhead costs that would be reimbursed for basic research awards. Because the cap could have affected only some of the fiscal year 2008 awards at about 22 percent of schools, the scope of its effect might have been limited.

It is difficult to determine the extent to which the DOD basic research cap will affect schools in part because its key features differentiate it from the rate-setting and reimbursement structure outlined in OMB Circular A-21, the guidance familiar to schools.³⁵ The DOD basic research cap limits reimbursement of indirect costs as a proportion of total award costs, instead of MTDC, which has two important outcomes on the way its impact is determined. First, the final impact on reimbursement cannot be determined until total costs are tallied. Second, the cap's limitation depends on the types of costs included in each individual award, and therefore its impact cannot be determined up front on a schoolwide basis. Moreover, because the cap uses a base of total costs instead of MTDC, the cap is not structured in the same way as an indirect cost rate. Consequently, the cap at 35 percent of total award costs does not require schools to negotiate an indirect cost rate below 35 percent. However, in our survey we found that some schools mistakenly perceived they would be affected by the cap if their negotiated indirect cost rate was above

³² This estimate represents the portion of schools whose fiscal year 2008 indirect cost rate for on-campus organized research was above the rate threshold of 53.8 percent. Only schools with indirect cost rates above this threshold may have awards that would be affected by the DOD basic research cap.

 $^{^{\}rm 33}$ House Report No. 110-279, at p. 7, for the Department of Defense Appropriations Bill, 2008.

³⁴ However, as noted in table 2, the DOD basic research cap also applies to all awards, including those to the nonprofit and for profit sectors. It was beyond the scope of this project to determine the cap's impact on research institutions in these sectors.

³⁵ The negotiated indirect cost rate is applied to a restricted set of direct costs referred to as the MTDC. The administrative cap is a limitation on the administrative component of that rate, allowing it to use the same base of MTDC. According to agency officials, the administrative cap is therefore applied prior to signing a negotiated rate agreement.

35 percent. For example, two schools stated that the 35 percent rate cap was lower than their indirect cost rates of approximately 50 percent, and therefore they believed the cap would decrease their reimbursement. In another example, a school with a 45 percent indirect cost rate stated the cap at 35 percent of indirect costs would result in a 10 percent reduction in recovery of indirect costs on each of their awards. These schools misunderstood how using a base of total costs instead of MTDC makes the cap different than their indirect cost rates. In fact, none of the schools in the examples stated above would be affected by the cap, because their negotiated indirect cost rates were below 53.8 percent, a mathematically determined threshold below which no school is affected by the cap.

The 53.8 percent indirect cost rate at which awards may begin to be affected by the DOD basic research cap is a minimum and does not mean that all awards above this rate will be affected by the cap. Multiple schools may have the same indirect cost rate above this threshold, but each school may experience different effects from the cap, depending on the proportion of direct costs that are excluded from the MTDC base for each individual award. For example, we looked at a DOD award for each of two schools in our survey that had indirect cost rates of 57 percent in fiscal year 2007. One of the awards was for research on laser technology at a large private school. The other award was for research on prostate cancer at a smaller private school. With an indirect cost rate of 57 percent, if more than about 6 percent of the total direct costs are excluded from MTDC, reimbursement on an award is not limited by the DOD basic research cap. Only one of the two sample awards would have been limited by the DOD basic research cap because of the level of exclusions for the award. The affected award—research on prostate cancer at the smaller school—had no total direct costs excluded from its MTDC, making the proportion of indirect costs to total costs above 35 percent. The award for laser technology research at the larger school had more costs (9 percent) excluded from its MTDC, and therefore the proportion of indirect costs to total costs was below 35 percent. The higher the percentage of costs excluded from an award's MTDC, the less likely the award would be affected by the DOD basic research cap. Whether the DOD basic research cap limits reimbursement depends on the level of an award's exclusions; therefore, it is difficult for a school to pinpoint and predict the effects of this cap on a schoolwide basis.

The Three Methods DOD Uses to Oversee Reimbursement of Indirect Costs to Schools Have Weaknesses DOD identified three methods it uses to oversee indirect cost reimbursement for research grants awarded to schools: the annual single audit, the award closeout process, and agency audits, performed by DCAA or by cognizant agencies for audit. However, we identified weaknesses in DOD's use of each of these methods. DOD relies primarily on the single audit, but some schools we reviewed were not individually audited as a part of the single audit. The second method identified by DOD, the closeout process, is conducted by DOD administrative grants or contracting officers using various processes. However, DOD officials told us they do not verify mathematically if the correct indirect cost rate and dollar amount was charged at grant closeouts. The third method, audits by DCAA or by cognizant agencies for audit, covered only a limited number of the schools in fiscal year 2008, and cognizant agencies for audit had inconsistent approaches to auditing the awards of other agencies, with only HHS conducting a limited number of audits on DOD awards. At least one of the three methods was used in fiscal year 2008 at 25 of the 32 schools we reviewed. However, 4 schools were not covered by any of the three methods, indicating a gap in coverage (see table 3).³⁶

 $^{^{36}}$ In 2008, DCAA reported that it conducted 16 classified audits at schools. These audits were excluded from this analysis because of the nature of the audits.

Table 3: Fiscal Year 2008 Coverage of the Schools We Reviewed by DOD Methods for Overseeing Reimbursement of Indirect Costs

DOD method for overseeing reimbursement of indirect costs	Number of schools covered
Method 1: Single audit	12
and	
Method 3: DCAA or other agency audit	
Method 1:	10
Single audit only	
Method 3:	3
DCAA or other agency audit only	
Method 2:	0
Award closeout check on indirect costs ^a	
No method used	4°
Not counted ^b	3
Total	32

Source: GAO analysis of information from independent public accounting firms, DOD, and cognizant agencies for audit.

^aDOD components responsible for award closeout on school awards through the postaward administration process told us they do not check indirect costs during grant closeout.

^bThree schools are not counted due to lack of single audit (Method 1) data provided to GAO. Neither the award closeout process or agency audits were used to review reimbursement of indirect costs at these schools in fiscal year 2008.

^cDCAA officials confirmed that none of the 16 classified audits were performed at the four schools where no method was used. Therefore, these four schools did not receive coverage from these methods of overseeing reimbursement of indirect costs.

In our discussions with cognizant agencies for audit, we learned that HHS has increased the audits of research awards to schools in recent years, which have led to some significant findings of improper billings of indirect costs.

Some Schools Are Not Individually Audited under the Single Audit, DOD's Primary Method for Overseeing Reimbursement of Indirect Costs

DOD reports that its primary method for overseeing compliance with indirect cost reimbursement on research grants is the annual single audit under the Single Audit Act, as amended.³⁷ The Single Audit Act adopted a single audit concept to help meet the needs of federal agencies for grantee oversight and accountability as well as grantees' needs for single, uniformly structured audits. The act was intended to promote sound financial management with respect to federal awards administered by nonfederal entities. An audit performed in accordance with the Single Audit Act is directed at operations of an entire entity. 38 While the auditors must conduct audit procedures that address particular compliance requirements as they apply to specific federal programs identified by the auditors as high risk, the Single Audit Act does not require that auditors test all federal programs administered by an entity for compliance with all related requirements.³⁹ For a large and complex organization such as a state government or a university system, the auditors examine selected federal programs administered by the entity based on guidance in OMB's Circular No. A-133 Compliance Supplement. 40

OMB's *Compliance Supplement* identifies the compliance requirements relevant to audits that are applicable to the major programs, including research and development, and provides suggested audit procedures for

³⁷ The Single Audit Act requires states, local governments, and nonprofit organizations, including schools, expending over \$500,000 in federal awards in a year to obtain an audit in accordance with requirements set forth in the act.

³⁸ At the option of the nonfederal entity, the audit may include a series of audits that cover organizational units that comprise the entity under certain conditions.

 $^{^{39}}$ The single audit is generally conducted by an independent public accounting firm or a federal or state auditor.

⁴⁰ The auditor identifies programs to include in tests of compliance with federal requirements based on risk criteria, including minimum dollar thresholds, set out in the Single Audit Act and OMB Circular No. A-133. Guidance on identifying compliance requirements for most large federal programs is set out in the *Compliance Supplement* to OMB Circular No. A-133. OMB has 14 requirements that generally are to be tested for each major federal program to opine on compliance and report on significant deficiencies in internal controls over compliance with each applicable compliance requirement.

testing compliance with those requirements, including sampling.⁴¹ The *Compliance Supplement* includes a section on testing for allowable costs, including allowable indirect costs, and the auditor may sample a certain number of transactions (claims for reimbursement) from federal awards. Table 4 below shows the indirect cost audit objectives provided by the *Compliance Supplement* for use by auditors for federal awards selected for audit.

Table 4: Circular A-133 Compliance Supplement: Audit Objectives of Indirect Costs

Under A-133 guidance for educational institutions that charge indirect costs to federal awards based on federally approved rates, auditors do the following under (2) Audit Objectives – Indirect Costs:

- Obtain an understanding of internal controls, assess risk, and test internal controls as required by OMB Circular A-133 § ____.500(c).
- Determine that the rate(s) used to charge indirect costs is consistent with the appropriate cognizant federal agency rate agreement.
- Determine that the federally approved rate in effect at the time of the initial award is applied throughout the life of the award.
- Determine that the federally approved rate(s) were applied to the appropriate distribution base.
- Determine that indirect costs billed to awards are the result of applying the approved rate(s) to the appropriate base amount(s).

Source: OMB Circular A-133 Compliance Supplement, March 2009.

For single audit reporting purposes, the parameters of the reporting can differ from one school or school system to another. As a result, in some cases individual educational institutions are considered separate entities and audited separately, while in other cases they may be audited as a part of a university system, or even as a part of an entire state government, which includes numerous institutions or agencies within the reporting entity.

⁴¹ OMB Circular A-133; Subpart E - Auditors; §___.520 - Major program determination; the auditor shall use a risk-based approach to determine which Federal programs are major programs. A four-step process is delineated in §___.520. If the program expenditures normally exceed the A-133 threshold the program must be periodically included as a major program. "Major program" means that it has been selected for compliance testing in a particular audit period, so a program can be major one year but not the next. DOD's research and development programs can be included as a major federal award program under the A-133 Research and Development Cluster.

The fact that the single audit may not be sufficient to provide assurance that an entity is in compliance with requirements for indirect costs charged to research and development grants was reflected in our findings. In 2008, no research and development awards or transactions were selected for review at 7 of the 32 schools we reviewed. For 6 of these schools no research and development awards or transactions were selected because the schools were a part of larger reporting entities and the auditors told us that the research and development program from other schools within the larger reporting entity were selected for audit in 2008. 42 Each of the 6 schools was either a campus at a major public university and the entity was defined at the university-wide level, or the entity was defined at the statewide level and the school was included under the umbrella of the state. However, in terms of receiving federal awards, each school functioned independently by, for example, negotiating an indirect cost rate agreement with the federal government that was only applicable to that school. Further, based on data from the National Science Foundation, each of these schools received more than \$97 million in federal research and development funding in 2007, an amount much greater than the \$500,000 threshold over which an entity is required to receive a single audit. For example, the University of California (UC) was defined as one entity subject to the single audit, although each of its 10 campuses and the Office of the President separately negotiate an indirect cost rate agreement. 43 In 2008, no research and development awards or transactions were sampled for any of the 4 UC campuses included in our 32 schools, including UC campuses at Berkeley, Los Angeles, Santa Barbara, and San Diego, because the University of California is defined as one entity. 44 Similarly, in 2008 the University of Virginia was defined as a part of the Commonwealth of Virginia for the purposes of the single audit, although the university negotiates its own indirect cost rate agreement with the federal government. Because the university falls under the umbrella of the state as an entity, in 2008 no research and development awards or transactions were selected from the

⁴² For one of the seven schools, according to the auditor, the research and development program was not considered a major program, and therefore no research and development awards were included as a part of the 2008 single audit.

⁴³ UC includes the President's Office and 10 campuses—Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz.

⁴⁴ The independent auditor for the UC system determines at which campuses it tests awards or transactions using a risk-based approach, and reported it rotates the UC campuses at which research and development awards or transactions are selected each year.

university for the single audit.⁴⁵ Table 5 breaks down how many of the 32 schools that we reviewed had awards or transactions selected as a part of the single audit in 2008, and how many did not.

Table 5: Breakdown of Schools Receiving More Than Half of 2007 DOD Funding Obligations for Basic Research and Whether or Not They Were Included in the 2008 Annual Single Audit

R&D award selected for fiscal year 2008 single audit	Number of schools
At least one research and development award or transaction was selected for review in fiscal year 2008	22
No awards or transactions were selected for fiscal year 2008 A-133 audit ^a	7
No data available or not provided by independent auditor ^b	3
Total	32

Source: GAO analysis of data provided by independent public accounting firms.

^aFor six of the seven schools in this category, the school's awards or transactions were not selected for audit because of the way the entity was defined for purposes of the single audit. For one of the seven schools, no awards or transactions were selected for audit within the research and development program because the research and development program was not considered a major program, and therefore was not included as a part of the 2008 single audit.

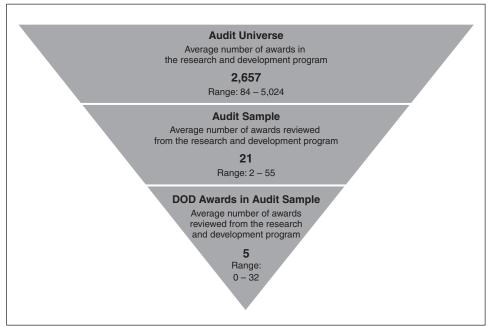
^bFor two of the three schools, the data we requested were not available according to the independent public accounting firm for the schools' single audits. For one school, the independent public accounting firm chose not to provide any data for our data request.

Furthermore, as shown in figure 10, based on data provided by independent public accounting firms, few awards were sampled as a part of the annual single audit in 2008, and even fewer DOD awards were included in the sample. ⁴⁶ Specifically, for the 22 of the 32 schools where research and development awards were sampled as a part of the 2008 single audit, the average number of total awards sampled was 21 awards, and the average number of DOD awards sampled was 5. Also, the percentage of total federal award dollars sampled for the annual single audit ranged from 0.5 to 36 percent, and the DOD award dollars sampled represented between 0.1 and 65 percent of all federal award dollars.

 $^{^{45}}$ The independent auditor reported the university is included in the audit on a 2-year cycle.

 $^{^{46}}$ DOD awards may include awards for all types of research and development (R&D). We could not identify which R&D awards were for basic research.

Figure 10: Research and Development Program Sampling Information for Schools' 2008 Single Audit (n=22)



Source: GAO analysis of data provided by independent public accounting firms.

DOD Does Not Use the Grant Closeout Procedure to Determine Whether Indirect Cost Charges Were Correct

DOD also reported that it uses the award closeout procedure—part of the postaward administration process conducted on an award after its period of performance has ended—for overseeing indirect cost reimbursement to schools. According to DOD, for grants to schools, postaward administration responsibilities are generally delegated to administrative grants or contracting officers at DOD's ONR.⁴⁷ As a part of award closeout, an ONR administrative grants or contracting officer reviews the costs incurred under a given award to determine whether all costs are allowable, allocable, and reasonable.⁴⁸ According to DOD officials, an

⁴⁷ After a DOD agency awards a grant or contract to a school, it decides whether to retain postaward administration duties, including contract closeout, or whether to delegate those responsibilities to another agency within DOD.

 $^{^{48}}$ DOD's Grant and Agreement Regulations (DoDGAR), DOD 3210.6-R#, Subpart D outlines the closeout requirements for grants and OMB Circular A-110, Subpart D "After the Award-Requirements" provides additional closeout guidance.

administrative grants or contracting officer may also request an evaluation of a final voucher be conducted.⁴⁹ To facilitate a financial review, schools fill out a final financial status report within 90 days of the end of the period of performance, which is to be reviewed and approved by the administrative grants or contracting officer. The Standard Form 425, or the "Federal Financial Report", is used for the final financial status report and includes a section for recording indirect costs charged by the school on the award.⁵⁰

DOD officials at ONR asserted that they use the award closeout procedure as a method for overseeing indirect cost reimbursements. However, DOD administrative grants and contracting officers told us that they do not regularly use the closeout procedure to determine whether or not the dollar amounts of the indirect costs charged were correct. For example, DOD administrative grants and contracting officers at two ONR regional locations and two other DOD service locations that provide contract administration services for school awards informed us they did not regularly check indirect costs to determine if they were accurately charged, even though we found that they can use information related to indirect costs provided by awardees in the indirect expense section of the Federal Financial Report to do so. OMB officials told us that, at a minimum, awards officers are to use information in the Federal Financial Report at award closeout to determine whether or not the correct indirect costs were charged to the government. However, the Federal Financial Report Instructions by OMB on completing the Indirect Expense section of the form says to complete this section only if required by the awarding agency and in accordance with agency instruction. According to DOD officials, this section may or may not be required by DOD awarding agencies and it is not the current practice of DOD administrative grants or contracting officers that we spoke with to use information in the Indirect Expense section to mathematically calculate if indirect costs were accurately charged.

 $^{^{\}rm 49}$ The coverage of DOD reimbursement of indirect research costs through an evaluation of a final voucher is discussed later in the report.

⁵⁰ The Federal Financial Report was developed for use throughout the federal government for recipients of federal awards or cooperative agreements to report the financial status of their awards. For the purpose of establishing a standard format, however, OMB has consolidated the two most common financial reports, the Financial Status Report (SF–269/SF–269A) and the Federal Cash Transaction Report (SF–272/SF–272A), into a single form. OMB required that federal agencies transition to the Federal Financial Report by September 30, 2009.

While ONR administrative grants and contracting officers stated they do not use information entered in the Federal Financial Report to verify that indirect costs were charged accurately on a particular award, ONR does use information in the form's Indirect Expense section, and other information in the form, to determine whether or not a school charged indirect costs at or below the DOD basic research cap of 35 percent of total costs. For example, at the two regional ONR offices we visited, the administrative grants and contracting officers informed us that ONR developed a form that incorporates data from the Federal Financial Report for use in determining whether or not an awardee receiving DOD basic research funds was below the cap of 35 percent of total costs. If the percentage is over the 35 percent cap, then the awardee is responsible for paying back to the awarding DOD agency the amount of the reimbursement over the limit.

DCAA Audited a Limited Number of Schools We Reviewed and Cognizant Agencies for Audit Have Differing Practices for Overseeing Indirect Cost Reimbursement of Other Agencies' Awards The third method DOD identified to oversee reimbursement of indirect costs on its research grants was audits conducted by DCAA or by cognizant agencies for audit. DCAA and HHS in its role as a cognizant agency for audit conducted audits of DOD awards at some of the 32 schools in fiscal year 2008, but DCAA's coverage of the schools was limited and the practices of the various cognizant agencies for audit differed.

DCAA performs audits of DOD awards, generally on contracts but also grants. DCAA's audit types include pre-award audits (such as an audit of a proposal), postaward evaluations or audits (such as an evaluation of a final voucher, or an incurred cost audit of an institution), and system audits (e.g., an audit of an institution's billing system or accounting system). For audits related to reimbursement of indirect costs, for example, a DOD administrative grants or contracting officer may request that DCAA conduct an audit of a school's final incurred cost submission or an evaluation of a final voucher on an individual award.

In fiscal year 2008, DCAA performed a total of 88 audits or evaluations at 10 of the 32 schools that accounted for more than half of fiscal year 2007

⁵¹ The DOD basic research cap is applied differently than the administrative cap or the indirect cost rate. The DOD basic research cap is calculated when the school reports its total costs for the award. In contrast, the administrative cap is applied before a school signs a negotiated indirect cost rate agreement.

DOD basic research funding.⁵² Approximately one-third of the audits and evaluations performed were conducted at 1 of the 10 schools (see table 6 below). We asked the DCAA Chief in the Policy Programs Division whose areas of responsibility include audits of schools to identify which types of audit services would include a check on indirect costs. Based on the official's descriptions of the audit services, about two-thirds of the audits were of the type where indirect costs were a main purpose, about a third of the audits were audit types where indirect costs were not the subject of the audit but were tested as a part of the basis of the audit opinion, and 3 of the 88 audits were types of audits that typically do not test indirect costs. Of note, 38 of the 88 audits were of the type conducted prior to an award, for example, an audit of a proposal. In some cases, an audit that takes place prior to an award may not oversee compliance with reimbursement of indirect costs since the costs have not yet been incurred.

Table 6: Fiscal Year 2008 DCAA Audits and Evaluations of 32 Schools Receiving More Than 50 Percent of DOD Basic Research Funding in Fiscal Year 2007

School ^a	Total audits
1	29
2	17
3	14
4	10
5	8
6	3
7	3
8	2
9	1
10	1
11-32	0
Totals	88

Source: GAO analysis of DOD data.

^aEach school in this column represents an individual school we reviewed.

 $^{^{52}}$ DOD was the cognizant rate-setting agency for 7 of the 10 schools, and the cognizant agency for audit for 3 of the 10 schools where DCAA performed audits in fiscal year 2008. The audit information reported does not include 16 classified audits. We report the total number of audits conducted at a school regardless of whether the audit includes basic research funding, and regardless of whether the audit was of a grant or a contract.

In addition to performing DCAA audits, DOD officials noted that DOD awards to schools may be audited by other agencies, in particular when another agency is designated the role of cognizant agency for audit for that school. Award recipients expending more than \$50 million in federal funding are assigned a cognizant agency for audit in accordance with OMB Circular No. A-133. Generally, the cognizant agency for audit is the federal agency that provides the predominant amount of direct funding to a recipient. Some of the responsibilities of the cognizant agency for audit include coordinating audits by federal agencies of the school, performing quality control reviews of audits by nonfederal auditors, and coordinating a management decision for audit findings that affect federal programs of more than one agency.

We determined that there were four cognizant agencies for audit (including DOD) for the top 32 schools we reviewed, and these agencies differ in their practices for addressing other agencies' awards. Of the four cognizant agencies for audit, Education and NSF told us they have not audited the awards of other agencies. HHS has a reimbursable audit program administered out of its Office of Audit Services. The Office of Audit Services establishes memorandums of understanding with other agencies, including DOD, stating they will perform audits on a reimbursement basis. Through the program, HHS retains its right, as the cognizant agency for audit, to perform audits of DOD awards at DOD's request. In addition to conducting audits for the three schools in our review for which it is cognizant, DOD reported that it, like HHS, establishes memorandums of understanding with other agencies to conduct audits of their awards. Circular A-133 requires, to the extent practical, cognizant agencies for audit to coordinate audits or reviews made by or for federal agencies in addition to the single audit.

Consistent with their stated practices, for the three cognizant agencies for audit besides DOD included in our review, only HHS conducted audits of DOD awards in fiscal year 2008. Specifically, HHS performed 12 audits of DOD awards at 6 of the 32 schools we reviewed. These audits were generally closeout or incurred cost audits on individual awards. Table 7 identifies the breakdown of cognizant agencies for audit for the 32 schools and the audits conducted by each of these cognizant agencies for audit.

Table 7: Audits of DOD Awards Conducted by Cognizant Agencies for Audit

Cognizant agency for audit	Cognizant for n schools in list of 32°	Total number of schools where audits of DOD awards were conducted	Total number of audits of DOD awards conducted at listed schools ^b
HHS	17	6	12
Education	11	0	0
NSF	1	0	0

Source: GAO analysis of audit information provided by HHS, Education, and NSF.

^aDOD is the cognizant agency for audit for 3 of the 32 schools. Audits conducted by DOD at schools for which DOD is the cognizant agency for audit are included in the information in table 6 above.

One Agency Reported Increasing Its Audit Activity in Recent Years to Oversee Compliance with Reimbursement on Individual Awards HHS officials told us that in 2003, a lack of confidence in the single audit and a significant increase in the amount of money awarded to schools led the agency to seek other ways to oversee the reimbursement of research costs. As a result they identified five areas where additional audits were necessary including audits of administrative and clerical salaries, an area that is associated with indirect costs.

HHS officials also told us that there have been significant findings in the area of administrative and clerical salaries. For example, the HHS Office of the Inspector General (OIG) conducted a review of administrative and clerical costs at Duke University and found the school claimed an estimated \$1.7 million in unallowable charges by improperly billing indirect costs as direct costs. ⁵³ The HHS OIG found that these unallowable claims occurred because the school had not established adequate controls to ensure consistent compliance with the federal requirements applicable to charges for administrative and clerical costs. HHS officials also told us they are currently undertaking a review of administrative and clerical costs at another school as a follow-on to significant problems found during a closeout audit of one of the school's awards.

Conclusions

Inconsistencies in the rate-setting and reimbursement processes lead to perceived and actual differences in the treatment of schools performing DOD basic research. The difference between the proposed and negotiated

^bThis table includes all audits of schools that the agencies reported they conducted for fiscal year 2008, regardless of whether the audit was of grants or contracts.

⁵³ HHS Office of Inspector General, *Review of Administrative and Clerical Costs at Duke University for the Period October 1, 2002, Through September 30, 2004*, A-04-05-01014 (Washington, D.C.: Jan. 2009).

indirect cost rate varied based on whether a school negotiated with DOD or HHS and leads schools to perceive unequal treatment, though negotiated indirect cost rates were not different. Even though this is only a perceived difference there are actual differences in how schools may be defined for rate-setting purposes versus the oversight of cost reimbursement purposes. Schools are treated differently in terms of the oversight on their reimbursement of indirect costs because of the flexibility in how the definition of a nonfederal entity is applied, in some cases, creating a situation where a school that expends \$500,000 or more in federal funds may not be audited as a separate entity, but is included as part of a larger entity. DOD does not effectively use the other methods to oversee indirect costs when a school is not separately audited. As a result, DOD lacks assurance that it is reimbursing indirect costs appropriately. In addition, guidance for the indirect cost rate-setting and reimbursement processes contains provisions that have been in place for a long time, but are overdue to be reviewed and updated. Because the utility cost adjustment eligibility is based on information that is 12 years old and therefore does not necessarily reflect schools' current costs, the OMB guidance runs the risk of inadvertently providing benefits to some schools and not others. Similarly, because the rate at which administrative cost reimbursement is limited has not been reviewed since it was implemented approximately 20 years ago, and administrative costs may have changed over time, it is unclear whether the current limitation achieves the desired balance between controlling government costs and sponsoring government's fair share of research costs.

Recommendations for Executive Action

To address different processes for negotiating rates by the two cognizant rate-setting agencies for higher education institutions, we recommend that the Director of OMB:

Identify methods to ensure that the rate-setting process is applied
consistently at all schools, regardless of which agency has rate cognizance.
This would include identifying ways to ensure that differences in
cognizant rate-setting agencies' approaches, goals, policies, and practices
do not lead to unintended differences in schools' rate reductions for
indirect costs.

To ensure that indirect cost reimbursement practices are consistent with the current state of indirect research costs at schools providing federal basic research, we recommend that the Director of OMB:

- Clarify the roles and responsibilities of federal agencies (including DOD, HHS, and OMB) in accepting applications and reevaluating the eligibility of schools to receive the utility cost adjustment.
- Reexamine and determine whether reimbursing administrative costs at a
 maximum rate of 26 percent achieves the appropriate level of cost control
 and achieves the government's objective that the federal government bears
 its fair share of total costs.

To improve DOD's ability to oversee reimbursement of allowable indirect costs to schools, we recommend that the Secretary of Defense direct that the Under Secretary of Defense for Acquisition, Technology and Logistics:

- Establish a process for administrative grants/contracting officers to verify
 at grant closeout whether a school has requested reimbursement at the
 accurate indirect cost rate and dollar amount, which includes calculating
 whether the dollar amount reflects the appropriate application of rates for
 that award.
- Assess the current level of audit coverage for monitoring DOD indirect cost reimbursement for schools and determine what level is sufficient and whether to expand use of closeout audits and other audits to oversee compliance.
- Develop a policy for oversight of indirect costs that includes the use of alternative oversight information (1) for those schools not individually audited under the single audit, and (2) for those schools where the audit coverage of research and development awards is not sufficient for oversight of indirect costs.

Agency Comments and Our Evaluation

We provided a draft of this report to DOD, HHS, OMB, Education, and NSF for review and comment. In written comments, DOD generally agreed with all three recommendations. Specifically, DOD concurred with two of the recommendations and partially concurred with the third. DOD cited short-term actions it planned to take to address some of the recommendations. For example, to address our recommendation that DOD establish a process for verifying whether a school has requested reimbursement at the accurate indirect cost rate and amount, DOD stated it would require university recipients of research grants to complete the field for indirect expenses on the final submission of the Federal Financial Report and have postaward administrators conduct the recommended verification on a sample of awards each year, using a risk-based assessment. While DOD concurred with our recommendation that DOD assess the current level of audit coverage and determine what level is sufficient, DOD did not identify any new actions it would take to do so, relying instead on continued efforts. Given our findings that there was limited audit coverage by DCAA and cognizant audit agencies of DOD

grants, the intent of our recommendation was for DOD to identify additional actions. In response to our recommendation that DOD develop a policy for oversight of indirect costs that includes the use of alternative oversight information in certain circumstances, DOD partially concurred, indicating it would look to identify alternative approaches, to the extent DOD identifies insufficiencies in its oversight. In this recommendation and the others, DOD emphasized that seeking improvements so DOD can continue to rely on the single audit to oversee compliance with reimbursement of indirect cost reimbursement for grants is its preferred approach. However, while the single audit is a valuable tool, it may not always be the right tool for DOD to ensure compliance with indirect cost reimbursement for research grants. In addition to written comments, DOD provided technical comments, which we incorporated as appropriate. The department's written comments are included in their entirety in appendix II.

OMB provided oral comments, indicating they generally agreed with the recommendations, and technical comments, which we incorporated into the report as appropriate. Education also provided technical comments, which were incorporated into the report as appropriate. HHS and NSF had no comment.

We are sending copies of this report to the Secretary of Defense, the Secretary of Health and Human Services, the Director of the Office of Management and Budget, the Secretary of Education, the Director of the National Science Foundation, and other interested parties. This report will also be available at no charge on GAO's Web site at http://www.gao.gov.

If you have any questions concerning this report, please contact me at (202) 512-4841 or by e-mail at needhamJK1@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Other staff making key contributions to this report were Penny Berrier Augustine, Sharron Candon, Pamela Davidson, Morgan Delaney Ramaker, Anne-Marie Fennell, Art James, Janet McKelvey, Ruben Montes de Oca, Amy Moran Lowe, Susan Neill, Kenneth Patton, Angela Pleasants, Scott Purdy, Mark Ramage, Sylvia Schatz, and Suzanne Sterling.

John K. Needham

Director

Acquisition and Sourcing Management

List of Committees

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

The Honorable Daniel Inouye Chairman The Honorable Thad Cochran Ranking Member Subcommittee on Defense Committee on Appropriations United States Senate

The Honorable Ike Skelton Chairman The Honorable Howard P. "Buck" McKeon Ranking Member Committee on Armed Services House of Representatives

The Honorable Norman D. Dicks Chairman The Honorable C.W. Bill Young Ranking Member Subcommittee on Defense Committee on Appropriations House of Representatives

Appendix I: Objectives, Scope, and Methodology

The objectives of this study were to examine the following issues related to higher education institutions performing basic research for the Department of Defense (DOD): (1) the variation in proposed and negotiated indirect cost rates and factors that may contribute to variations; (2) how and to what extent the administrative cap and the DOD basic research cap limit reimbursement of indirect costs; and (3) the methods DOD uses for overseeing compliance with indirect cost reimbursement for grants and the extent to which each method was used.

To identify the proposed and negotiated indirect cost rates of schools performing basic research for DOD and factors that may contribute to variation in the rates, we collected and analyzed information from a probability sample of schools that performed basic research for DOD in fiscal year 2007, according to DOD-provided data. Detailed information on the survey is available below. We also interviewed government officials at DOD and other government agencies on regulations and policies relating to the reimbursement of indirect costs for research. This included cognizant rate-setting officials in DOD's Office of Naval Research and the Department of Health and Human Services' (HHS) Division of Cost Allocation; DOD officials in offices awarding and overseeing basic research, such as the Air Force Office of Scientific Research; the Army Research Office; the Office of the Director, Defense Research and Engineering: the Defense Threat Reduction Agency; and the Defense Advanced Research Projects Agency; and regulatory officials overseeing indirect cost policy in the Office of Management and Budget (OMB). Through interviews with these officials, we obtained views and documentation on the indirect cost process and on factors that they believed might contribute to variation in rates. In addition, we spoke with representatives of the academic community to obtain information on their perspectives on the indirect cost rate-setting process and to better understand the information that would be available through our survey. These representatives included university faculty and research administrators, as well as associations representing the research community, including the Association of American Universities (AAU), the Council on Government Relations (COGR), the Association of Public and Land-grant Universities, and the Federal Demonstration Partnership. Through these interviews, we obtained perspectives on factors that they believed might contribute to variation in rates and information on the impacts of federal regulation on the research community. Finally, we reviewed reports and documentation pertaining to indirect cost regulation, policies, and processes, most notably OMB Circular A-21, governing school indirect cost reimbursement, but also including cognizant ratesetting agency process documentation, past GAO reports, and reports on

indirect costs by other organizations, such as the RAND Corporation and Arthur Andersen.

To determine how and to what extent the administrative cap and the DOD basic research cap limit reimbursement of indirect costs at higher education institutions performing DOD research, we collected and analyzed information from a probability sample of schools that performed DOD basic research in fiscal year 2007, according to DOD-provided data (see detailed survey information below). We also interviewed government officials at OMB and at the cognizant rate-setting agencies on regulations and policies relating to the application of caps to indirect cost rates. Through interviews with these officials, we obtained views on how the caps were developed and their perspectives on how the selected caps may affect research institutions. In addition, we spoke with representatives of the academic community to obtain information on their perspectives on the selected caps and to better understand the information that would be available through our survey. These representatives included university faculty and research administrators, as well as associations representing the research community. Through these interviews, we obtained information on the impacts of selected caps on the research community, as well as information about what information would be available to evaluate these impacts. Finally, we reviewed documentation pertaining to selected indirect cost caps, including OMB Circular A-21, the Department of Defense Appropriations Act, 2008, and legislative and regulatory histories related to the caps.

To determine the methods DOD uses to oversee indirect cost reimbursement on grants, we interviewed DOD officials at the office of the Director, Defense Research and Engineering and the Office of Naval Research (ONR). To identify the extent to which each of the three methods identified by DOD was used, we focused on the 32 schools representing more than half of DOD's fiscal year 2007 basic research obligations, based on DOD data. We obtained information about the extent to which these methods are used from DOD, independent public accounting firms conducting the annual single audit, higher education institutions, cognizant agencies for audit, and previous reports by GAO and others. We also interviewed officials at DOD, OMB, HHS, the National Science Foundation and the Department of Education, as well as independent public accounting firm representatives and higher education representatives. To determine the extent to which the first method, the single audit, was used, we collected and analyzed data provided by independent public accounting firms, state auditors, and DCAA on their sampling of research and development awards for the fiscal year 2008

single audit. To determine the extent to which the second method, the grant closeout process, was used by DOD, we reviewed DOD documentation and examples related to the various processes to closeout a DOD basic research grant. For example, we reviewed examples of financial information on a standard form that tracks the status of the grant, including direct and indirect costs. We discussed with the DOD award officers what and how the process and procedures and forms for grant closeout check indirect costs to determine if these costs were accurately charged during the award. In addition, we interviewed OMB officials to determine the purpose of the Indirect Expense section of the form developed by OMB, the Federal Financial Report (SF-425). To determine the extent to which the third method, audits by DCAA and cognizant agencies for audit, was used, we identified the agencies with audit cognizance for the 32 schools we examined. We requested and obtained information from the four agencies with cognizance for the 32 schools—NSF, Education, HHS, and DOD.² In addition, we collected information on the number and type of audits of DOD awards conducted by DCAA and by HHS at schools in fiscal year 2008 related to indirect costs.³ Through interviews with officials from the four agencies, we obtained information and documentation related to their audit cognizance programs. We also learned about school audit programs at one of the cognizant agencies for audit and heard their views on why they no longer rely on the single audit to oversee the reimbursement of indirect costs.

Survey Details

To address our first and second objectives, we designed and conducted a mail-based survey of a sample of schools in the U.S. that received basic research awards from DOD that were active in fiscal year 2007. The study population consisted of all U.S.-based schools receiving more than

¹ To assess the reliability of these data, we identified procedures or controls in place by the auditors, looked for obvious inconsistencies in the data, and verified the accuracy of the data with the auditors when necessary. From these efforts, we believe the information we obtained is sufficiently reliable for this report.

² Since DCAA is the audit entity for DOD, references to DOD as cognizant agency for audit include DCAA.

³ To assess the reliability of data we received from DCAA and HHS, we looked for obvious inconsistencies in the data and interviewed knowledgeable agency officials about the data. From these efforts, we believe the information we obtained is sufficiently reliable for this report.

⁴ According to DOD officials, the awards in the data provided by DOD were coded as basic research based on the perceived nature of the work.

\$100,000 in DOD funds to do basic research in fiscal year 2007. We developed our sample frame from DOD-provided award-level data. After excluding schools with \$100,000 or less in DOD basic research dollars in fiscal year 2007, there were a total of 343 schools⁵ in our population.

From this population, we selected a random sample of 178 schools, stratified by total award dollars. The first stratum was comprised of the 32 institutions with the highest amount of DOD basic research award dollars in fiscal year 2007, accounting for over 50 percent of the DOD basic research dollars for that year. All of these 32 schools were selected in our sample. From the remaining 311 schools in the second stratum, we selected a random sample of 146 for our study. The population, sample, and survey disposition by stratum is displayed in the following table.

Table 8: Survey Population and Sampling Information

Stratum	Total population	Sample	Nonrespondents	Out-of- scope	In-scope respondents	Response rate
1. Largest schools	32	32	1	0	31	97%
2. Smaller schools	311	146	20	13	113	86%
Total	343	178	21	13	144	87%

Source: GAO analysis of DOD data and survey data.

^aThis is based on the American Association of Public Opinion Research RR3 response rate definition. In this case it is the estimated (in-scope respondents)/(in-scope respondents + estimated in-scope nonrespondents).

Several of the sample schools were determined to be "out-of-scope" for the purposes of this study. In particular, we determined that 13 of the institutions selected in stratum 2 either did not receive basic research awards in fiscal year 2007 (e.g. the award really was to a different institution) or the research institution was not a university (e.g. the award was to a university-affiliated nonprofit not subject to higher education indirect cost rules). These schools were dropped from the analysis. Of the 178 selected institutions, we obtained useable responses from 144 for an

⁵ The unique identifier used in the DOD-provided data was the "fice_code", an Education identifier for higher education institutions. Because this was the only unique institution identifier on the file and because it was the best available identifier that corresponded to a "university" or "school," we use it to identify our population of schools.

overall response rate of about 87 percent. The survey data were collected from July 2009 to October 2009.

The survey was designed to collect information about a school's indirect cost rates and demographic information, as well as the university administrator's opinions on factors influencing the rates. Because we followed a probability procedure based on random selections, our sample is only one of a large number of samples that we might have drawn. We express our confidence in the precision of our particular sample's results as a 95 percent confidence interval. This is the interval that would contain the actual population value for 95 percent of the samples we could have drawn. Unless otherwise noted, in this report estimates of indirect cost rates based on our survey have 95 percent confidence intervals within +/- 2 percentage points of the estimate itself. Estimates of the percentage of schools with particular characteristics have 95 percent confidence intervals within +/- 7 percentage points of the estimate itself. Estimates of totals based on this sample are presented along with their corresponding 95 percent confidence interval in the report.

At each school, we also selected a nongeneralizable sample of one DOD research award with over \$10,000 of activity in fiscal year 2007 and requested award and reimbursement data pertaining to that year of the award.

Where appropriate, we followed up on unclear answers by calling the school-identified key contact at the sampled institutions for clarification.

Each school in our sample can have multiple proposed and negotiated indirect cost rates, for a number of categories of rate agreements (e.g., on-campus organized research, off-campus organized research, instruction, or other sponsored activities). Unless otherwise specified in this report, estimates relating to proposed or negotiated rates are limited to the rate that is associated with on-campus organized research. We focused on this rate because it represents a comprehensive measure of indirect costs for research to be reimbursed by the federal government, including both facilities and administrative costs.

⁶ One institution provided responses that were deemed "not usable" because their responses were inconsistent with verifiable information about the school. Consequently, this school was treated as a nonrespondent in our analysis.

In our questionnaire, we asked the university administrator to provide the proposed indirect cost rate applicable to fiscal year 2007, along with the elements of that proposed rate (the portions for facilities, administration, and carry-forward). Throughout our report estimates related to the proposed fiscal year 2007 indirect cost rates are not based on the proposed rate provided by the school. Instead we calculated each school's proposed rate based on the information in the survey responses. Specifically, the GAO version of the proposed rate is the sum of the fiscal year 2007 proposed facilities component of indirect cost rate, the carry-forward, and the lesser of the proposed administrative component or 26 percent. We used this as the proposed rate for our analysis to ensure proposed rates were comparable across schools.

In addition to sampling error, the practical difficulties of conducting any survey may introduce nonsampling errors, such as nonresponse bias or measurement errors. We took steps in developing the questionnaire, collecting the data, and analyzing the data to minimize such errors.

- To gain an initial understanding of the information reasonably available from schools about their research costs, as well as their thoughts on factors that may influence a school's indirect cost rate, we reviewed regulatory documents pertaining to indirect cost rates, particularly OMB Circular A-21, and interviewed officials from government agencies, including rate-setting officials from HHS's Division of Cost Allocation and DOD's Office of Naval Research. We also spoke with university research administrators and representatives of associations representing the interests of research institutions and reviewed past GAO reports and analysis by other organizations to identify possible influencing factors.
- We pretested our survey instrument with six schools to determine if the
 questions were clear, if the survey questionnaire placed an undue burden
 on schools, and to determine the sources of information schools would
 use to answer the questions. The information learned through the pretests
 was used to refine the survey.
- To ensure the best possible response rate, we contacted individuals from
 each sampled school via telephone to identify the person most qualified to
 answer our survey questions and to confirm the mail, phone, and e-mail
 information for that individual.
- After revising the survey to incorporate pretest comments and identifying
 the best survey contact, we mailed the survey to sampled schools and
 followed up with nonrespondents by e-mail and telephone to encourage
 their responses, and we followed up with survey respondents to clarify
 unclear or unlikely responses.

Appendix I: Objectives, Scope, and Methodology

We conducted this performance audit from October 2009 to September 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from the Department of Defense



DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING

3030 DEFENSE PENTAGON WASHINGTON, DC 20301-3030

SEP -8 2010

Mr. John Needham Director, Acquisition and Sourcing Management U.S. Government Accountability Office 441 G Street, N.W. Washington, DC 20548

Dear Mr. Needham:

Enclosure: As stated

This is the Department of Defense (DoD) response to the GAO draft report 10-937, "UNIVERSITY RESEARCH: Policies for the Reimbursement of Indirect Costs Need to be Updated," dated August 11, 2010 (GAO Code 120866).

The Department commends the GAO for the well written Background section of the report, which is a good introduction to indirect costs for readers who are less knowledgeable about the subject. Enclosed is the DoD response to the report's recommendations.

Sincerely,

GAO DRAFT REPORT DATED AUGUST 11, 2010 GAO-10-937 (GAO CODE 120866)

"UNIVERSITY RESEARCH: POLICIES FOR THE REIMBURSEMENT OF INDIRECT COSTS NEED TO BE UPDATED"

DEPARTMENT OF DEFENSE RESPONSES TO THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommends that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to establish a process for administrative grants contracting officers to verify at grant closeout whether a school has requested reimbursement at the accurate indirect cost rate and dollar amount, which includes calculating whether the dollar amount reflects the appropriate application of rates for that award. (See page 41/GAO Draft Report.)

DoD RESPONSE: Concur. At least as a near-term measure, pending outcomes of efforts to verify and ensure the sufficiency of audit coverage that are described in the DoD response to recommendation 2, we will establish policy for:

- (1) DoD Components to require university recipients of research grant and cooperative agreement awards to complete the optional field for indirect expenses on the final Federal Financial Report (SF-425) submitted at the end of the project period; and
- (2) Post-award administrators to carry out the recommended verification at the time of closeout on a sample of awards selected through a risk-based assessment each year. However, as Table 4 on page 30 of the draft GAO report indicates, the scope of the single audit is designed to provide federal agencies assurance on recipient compliance with federal requirements associated with indirect costs. If we determine over the longer term that single audits are providing the appropriate assurance that recipients' systems properly apply the correct indirect cost rates, we may remove the requirement in the interests of cost efficiency and streamlining of post-award administration.

RECOMMENDATION 2: The GAO recommends that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to assess the current level of audit coverage for monitoring DoD indirect cost reimbursement for schools and determine what level is sufficient and whether to expand use of closeout audits and other audits to oversee compliance. (See page 41/GAO Draft Report.)

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DoD RESPONSE: Concur. The Office of Naval Research (ONR) will continue to evaluate, as part of its post-award administration responsibilities, the sufficiency of audit coverage for monitoring indirect cost reimbursement under DoD basic research awards. They will continue to coordinate with appropriate DoD Components, including the Defense Contract Audit Agency (DCAA), and consult other federal agencies that conduct audits of research awards to academic institutions, to gain a sufficient understanding of the findings of their audits to be able to use them as an input to future risk assessments for planning sufficient audit coverage.

To the extent that ONR identifies a need for increased audit scrutiny of research awards to academic institutions, they will consult with DCAA to determine the best approach to accomplishing that. In accordance with Government-wide policy, we will continue to rely on single audits to the extent practicable. ONR and DCAA will take into consideration the concerns about single audit coverage that the GAO raised in the current draft report. They also will consider current and anticipated improvements to single audits resulting from work of interagency groups to implement recommendations from a review conducted under the auspices of the predecessor to the current Council of Inspectors General on Integrity and Efficiency (CIGIE). The interagency groups have been working with OMB, the American Institute of Certified Public Accountants (AICPA), and National Association of the State Boards of Accountancy (NASBA). Improvements made so far, including a new chapter on sampling in the 2009 AICPA audit guidance, are recent enough that their impacts on single audits are not yet fully known. With the assistance of the Office of the Inspector General, DoD, the Department's lead for technical advice on single audit policy, ONR and DCAA will continue to assess the impact of recent sampling guidance for the sufficiency of audit coverage for monitoring indirect cost reimbursement under DoD basic research awards.

If ONR identifies a need for increased closeout or other auditing to be performed by DCAA or other cognizant audit agencies, to supplement single audits, then that need will be considered in the next annual process by which DoD audit requirements are identified; priorities are assigned to them based on assessed risk and other factors; and available audit resources then are allocated among DoD procurement and assistance awards, including awards for research performed by academic institutions. The objective is to maintain a proper balance between risk and cost-effective accountability, and to help ensure the best use of available audit resources in support of stewardship of federal funding.

RECOMMENDATION 3: The GAO recommends that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics

Appendix II: Comments from the Department of Defense

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to develop a policy for oversight of indirect costs that includes the use of alternative oversight information (1) for those schools not individually audited under the single audit, and (2) for those schools where the audit coverage of research and development awards is not sufficient for oversight of indirect costs. (See page 41/GAO Draft Report.)

DoD RESPONSE: Partially concur. To the extent that the evaluations described in the response to recommendation 2 identify insufficiencies in the oversight of indirect costs that cannot be addressed in a timely manner through improvements to guidance for single audit sampling for the R&D cluster, the DoD will look to alternative approaches. Seeking improvements that enable us to rely on the single audits should be the preferred approach, however, because it is most consistent with the Government-wide policy on the use of those audits, potentially extends the benefits of any improvements beyond DoD awards to other federal research awards, and is a cost-effective way to address accountability matters that are amenable to being addressed by single audits. For example, our understanding from the draft report is that most of the identified cases of "schools not individually audited under the single audit" are the result of audits of individual campuses of some multi-campus university systems that are being performed on a rotating basis, rather than having all of the systems' campuses audited every year. We understand the concern and note that it raises a question that is Government-wide in nature, rather than specific to DoD.

Appendix III: Detailed Analysis of Factors

10-Year Trend in Negotiated Rates

Analysis of average negotiated rates across a 10-year period indicates that these rates have remained generally stable over time. The average negotiated rate across schools increased by less than a percentage point in total over the 10-year period, from 48.4 percent in 1999 to 49.3 percent in 2008.

Variations in HHS Cognizant Rate-Setting Agency Field Offices

Schools perceive different HHS Division of Cost Allocation (DCA) field offices as using differing and inconsistent practices for negotiating rates. For example, university officials GAO interviewed described negotiations with the New York office as less arbitrary, whereas they described "unwritten rules" to limit reimbursement at the Dallas office. While we did not examine the particular practices at DCA field offices, our survey results indicate there was not a significant difference in negotiated rate reductions across these offices. Specifically, average rate reductions negotiated by each of DCA's four field offices are all relatively close to one another, and HHS described processes that it uses to ensure consistency across the field offices.

Variation in schools' proposed and negotiated rates based on the DCA field office with which a school negotiates may be driven more by geographic factors than by the specific actions of the offices. Schools proposed and negotiated significantly higher rates to the New York field office (with an average proposed rate of 60.6 percent and an average negotiated rate of 55.9 percent) than those rates proposed to and negotiated by the other DCA field offices (average proposed rates in the other three regions all fall between 51 and 52 percent and average negotiated rates in the other three regions all fall between 46 and 48 percent). This result is consistent with similar findings for average rates based on the school's geographic region, regardless of the cognizant rate-setting agency. Specifically, schools in the Northeastern region negotiated an average rate of 56.4 percent, with all other regions falling near 48 percent. According to the Bureau of Labor Statistics the cost of goods and services, measured by things such as housing, health care, fuel, and utilities, varies by region, and the Northeast region is generally higher than other regions.

¹ The National Director of HHS's Division of Cost Allocation confirmed that a limitation on the increase in negotiated rates of 2 percentage points had been the practice in one of the DCA field offices. Once this matter was brought to the attention of the National Director of HHS's Division of Cost Allocation, he ordered that the practice be discontinued both to ensure consistent treatment across field offices and because it was not a practice supported by policy or regulation.

Variation between Schools Receiving Different Amounts of DOD Funding

On average, schools receiving the largest proportion of DOD basic research money proposed and negotiated higher rates than those schools with a smaller DOD basic research volume. For fiscal year 2007, more than half of DOD's basic research funding was obligated to just 32 schools, all of which were included in GAO's survey sample. These schools proposed an average rate of 57.3 percent and negotiated an average rate of 53.0 percent. For the remaining schools in the population, the average proposed rate was 52.5 percent and the average negotiated rate was 48.8 percent. These differences may be related more generally to the size or research-intensive nature of the schools.

Variation between Schools Receiving or Not Receiving a Separate DOD Contract Rate

Another factor that may be related to the amount of funding received is whether a school negotiated a separate rate for DOD contracts that allows for reimbursement of an administrative component without the standard 26 percent cap. Schools negotiating such a rate, on average, proposed higher indirect cost rates (i.e. for awards other than DOD contracts) than those schools that did not—57.5 percent versus 52.6 percent. A similar relationship held true for negotiated rates, with schools negotiating a separate DOD contract rate receiving an indirect cost rate of 53.0 percent, compared to 48.9 percent for schools not negotiating a separate rate. One of the main reasons schools provided for not negotiating a separate DOD contract rate was that they did not have enough research volume in DOD contracts to make it worthwhile. Consequently, this difference in estimated rates may be driven by higher overall rates at schools doing more research for DOD that are more likely to find value in a separate DOD contract rate.

Variations between the Negotiated Rate and the Rate Applied to an Individual Award

Based on survey responses, there was generally not much variation between the negotiated rate and the rate applied to a specific DOD basic research award. As part of GAO's survey, data were collected on a nongeneralizable selection of one DOD award from each of the schools surveyed.² Most schools reported that the rate applied to the selected

² One award of over \$10,000 in fiscal year 2007 activity was selected for each of the schools surveyed. Information was requested on the award, the indirect cost rate applied to it, its costs, and its fiscal year 2007 reimbursement to provide perspective on whether the negotiated rate was applied to an individual award. However, because sampled schools received different numbers of DOD basic research awards in fiscal year 2007, ranging from 1 to 133, these awards do not represent a generalizable sample of all DOD basic research awards.

award was their negotiated fiscal year 2007 rate. However, about one-third of schools reported that in 2007 a reimbursement rate other than their negotiated fiscal year 2007 rate was applied to the award on which GAO requested information. When there was a variation the primary reason schools identified for the difference was the OMB guidance that requires a school to use the rates negotiated at the time of an award throughout the life of that award, known as the "fixed for the life of the award provision." For example, one such school reported a fiscal year 2007 negotiated rate of 55.5 percent, but indicated that the selected award was reimbursed at a rate of 54.0 percent, representing the school's negotiated rate in fiscal year 2003 when the award was initiated.

Factors

Tables 9 and 10 contain a list of the factors GAO analyzed to identify which ones may contribute to variations in proposed indirect cost rates, negotiated indirect cost rates, and the difference between proposed and negotiated indirect cost rates. In addition to those discussed in the body of the report, we found statistically significant differences in relation to the following factors:

- Geographic region: Northeast region schools both proposed and negotiated higher rates than other regions.
- HHS DCA field office: Schools negotiating with the DCA Northeastern field office both proposed and negotiated higher rates than other DCA regions.
- Stratum: The 32 schools with the largest DOD research volume both proposed and negotiated higher rates than the schools with smaller research volume.
- Type of institution: Private schools both proposed and negotiated higher rates than public schools.
- Negotiation of separate indirect cost rate for DOD contracts: Schools
 negotiating a separate rate for DOD contracts both proposed and
 negotiated higher rates for non-DOD-contract awards than schools that did
 not negotiate such a rate.
- Proposal cost type: The difference between the proposed and negotiated rate was higher at schools using actual base year costs in their proposal than at schools using projected costs.

Table 9: Estimated Means and Confidence Intervals of Proposed and Negotiated Fiscal Year 2007 Indirect Cost Rates for On-Campus Organized Research by Different Attributes of Schools

	Sample size	Mean proposed fiscal year 2007 indirect cost rate	95% confidence intervals	Sample size	Mean negotiated fiscal year 2007 indirect cost rate	95% confidence intervals
Strata						
Stratum 1	31	57.3	56.9-57.7	31	53.0	52.6-53.4
Stratum 2	82	52.5	51.2-53.8	82	48.8	47.8-49.8
Cognizant agency in fiscal year 2007						
DOD ONR	15	51.7	48.7-54.8	15	51.6	48.7-54.5
HHS DCA	98	53.4	52.2-54.5	98	49.1	48.2-50.0
HHS DCA field office						
Dallas (Central)	31	51.9	50.6-53.3	30	47.8	46.9-48.7
NY (Northeastern)	17	60.6	57.9-63.3	18	55.9	54.0-57.8
SF (Western)	25	51.8	49.0-54.6	25	47.6	45.8-49.4
DC (Mid-Atlantic)	25	51.5	49.9-53.1	25	46.7	45.6-47.9
Base year for fiscal year 2007 indirect cost rate proposal						
Fiscal years 1994 to 2001	18	56.3	53.7-58.9	18	49.7	47.8-51.7
Fiscal years 2002 to 2007	95	52.6	51.4-53.8	95	49.3	48.3-50.3
Proposal cost type						
Actual base year costs	81	53.1	51.8-54.4	82	48.9	47.9-49.8
Projected costs	19	52.8	50.0-55.6	18	51.6	49.0-54.3
Both	4	_a	-	4	-	-
Other	8	-	-	8	-	-
Negotiation of separate DOD contract rate						
Yes	16	57.5	54.1-60.9	16	53.0	50.9-55.1
No	97	52.6	51.5-53.7	97	48.9	48.0-49.8
Institution type						
Public	79	50.7	49.7-51.8	78	47.1	46.3-47.9
Private	34	59.1	57.1-61.1	35	54.7	53.2-56.2
Geographic region						
Central	34	51.4	50.0-52.7	33	47.7	46.8-48.7
Northeastern	18	60.8	58.2-63.3	19	56.4	54.5-58.2
Western	27	52.2	49.4-54.9	27	48.0	46.3-49.8

	Sample size	Mean proposed fiscal year 2007 indirect cost rate	95% confidence intervals	Sample size	Mean negotiated fiscal year 2007 indirect cost rate	95% confidence intervals
Mid-Atlantic	34	51.4	50.0-52.9	34	47.7	46.4-49.1
Utility cost adjustment						
Yes	34	58.6	57.0-60.2	34	54.7	53.2-56.1
No	67	51.6	50.2-53.1	67	47.6	46.7-48.5
Not sure	12	50.5	47.7-53.3	12	47.9	44.9-50.9

Source: GAO.

Table 10: Estimated Means and Confidence Intervals for the Difference between Proposed and Negotiated Fiscal Year 2007 Indirect Cost Rates for On-Campus Organized Research by Different Attributes of Schools

		Mean of the difference between proposed fiscal year 2007 indirect cost rate and negotiated	95% confidence
	Sample size	fiscal year 2007 indirect cost rate	intervals
Strata			
Stratum 1	31	4.3	4.1-4.5
Stratum 2	81	4.0	3.3-4.7
Cognizant agency in fiscal year 2007			
DOD ONR	15	0.1	-0.6-0.8
HHS DCA	97	4.5	3.9-5.2
HHS DCA field office			
Dallas (Central)	30	4.4	3.6-5.3
NY (Northeastern)	17	4.9	3.0-6.8
SF (Western)	25	4.2	2.5-6.0
DC (Mid-Atlantic)	25	4.8	3.8-5.7
Base year for fiscal year 2007 indirect cost rate proposal			
Fiscal years 1994 to 2001	18	6.5	4.8-8.2
Fiscal years 2002 to 2007	94	3.6	2.9-4.2
Proposal cost type			
Actual base year costs	81	4.4	3.6-5.1
Projected costs	18	1.8	0.8-2.7
Both	4	_a 	-
Other	8	-	-

^aUnreliable due to small sample size.

Appendix III: Detailed Analysis of Factors

	Sample size	Mean of the difference between proposed fiscal year 2007 indirect cost rate and negotiated fiscal year 2007 indirect cost rate	95% confidence intervals
Negotiation of separate DOD contract rate			
Yes	16	4.5	1.9-7.1
No	96	4.0	3.3-4.6
Institution type			
Public	78	3.8	3.1-4.4
Private	34	4.6	3.2-6.0
Geographic region			
Central	33	3.9	3.0-4.8
Northeastern	18	4.6	2.8-6.4
Western	27	4.1	2.4-5.8
Mid-Atlantic	34	3.7	2.8-4.6
Utility cost adjustment			
Yes	34	3.9	3.3-4.5
No	66	4.4	3.4-5.3
Not sure	12	2.6	1.2-4.0

Source: GAO.

^aUnreliable due to small sample size.

Appendix IV: Survey Data for Standard Form Schools

The following data represent the responses of schools that reported using the standard form for their indirect cost rate proposal in fiscal year 2007. These schools receive more than \$10 million in annual federal grants. In this report we produce population estimates for the schools within the United States that use the standard format, which we estimate would correspond to about 263 schools. All estimates based on this survey are subject to sampling error. The 95 percent confidence interval for this estimate is from 244 to 283 schools. Percentage estimates presented in this appendix have 95 percent confidence intervals within +/- 7 percentage points of the estimate itself, unless otherwise noted.

In what format(s) did your institution submit its F&A cost rate proposal to the federal government to determine the F&A² cost rates for FY2007? N=143

Format of proposal	Estimated percentage
Standard form	77%
Simplified method	23%
Other or Not sure	0

Between FY1998 and FY2007 (as defined by your institution), which cognizant agency or agencies for the establishment of an F&A rate did your institution have? N=114

Cognizant rate-setting agency fiscal year 2007	Estimated percentage
DOD ONR	11%
HHS DCA	89%

¹ The study population consisted of all U.S.-based schools that received more than \$100,000 in DOD funds to perform basic research in fiscal year 2007.

 $^{^2}$ In the survey, GAO used the term "Facilities and Administrative Costs," or F&A Costs, because it is the term used in OMB Circular A-21. For the purposes of the report we used the term indirect costs.

If you marked that your institution had DCA as a cognizant agency for at least 1 year, which field office did your institution use? N=99

HHS DCA region	Estimated percentage ^a
Dallas (Central)	32%
New York (Northeastern)	19%
San Francisco (Western)	25%
Washington, DC (Mid-Atlantic)	24%

^aThe 95 percent confidence intervals for these percentages are within +/- 8 percentage points of the estimate itself.

Base year for F&A cost rate proposal N=114

Base year	Estimated percentage
1994	1%
1997	1%
1999	3%
2000	less than 1%
2001	9%
2002	16%
2003	19%
2004	18%
2005	24%
2006	6%
2007	1%

Are the costs included in this proposal actual base year costs or FY2007 projected costs? N=113

Type of costs used	Estimated percentage
Actual base year costs	75%
Projected costs	16%
Other	7%
Both	2%

As part of a rate agreement applicable to FY2007, did your institution negotiate an uncapped administrative rate for DOD contracts, per DFARS 231.303(1)? N=114

Negotiated separate DOD contract rate	Estimated percentage
Yes	12%
No	88%

Rate type(s) for your institution's F&A cost rate agreement(s) applicable to FY2007. N= 113

On-campus organized research rates	Estimated percentage
Fixed	4%
Predetermined	93%
Provisional	3%
Final	1%

Which one of the following reasons accounts for the largest portion of your institution's F&A costs unreimbursed by the federal government for the base year identified previously? N=107

Reasons	Estimated percentage ^a
Cost above regulatory cap	57%
Cost not allocable or allowable	8%
Cost associated with cost sharing	28%
Fixed for the life of the award provision	3%
Other	5%

^aThe 95 percent confidence intervals for these percentages are within +/- 8 percentage points of the estimate itself.

What is your institutional control or affiliation? N= 114

Institutional affiliation	Estimated percentage
Public	70%
Private	30%

Does your institution receive the 1.3% utility cost adjustment? N=114

Receives UCA	Estimated percentage
Yes	24%
No	64%
Not sure	12%

Proposed FY2007 F&A Rate? N= 113

Type of F&A rate for organized research	Estimated mean proposed fiscal year 2007 F&A rate	95% confidence intervals
On-campus	53.2%	52.1 – 54.3%

What is your institution's negotiated FY2007 F&A rate? N= 113, 80, 13, & 7

Type of F&A rate for organized research	Estimated mean negotiated fiscal year 2007 F&A rate	95% confidence intervals
On-campus	49.4%	48.5 – 50.2%
Off-campus	25.6%	25.3 – 25.9%
On-campus separate DOD contract rate	56.7%	54.3 – 59.1%
Off-campus separate DOD contract rate	29.1%	28.3 – 29.8%

Difference between the proposed and negotiated FY2007 F&A Rate? N= 112

Type of F&A rate for organized research	Estimated mean difference between proposed and negotiated fiscal year 2007 F&A rate	95% confidence intervals
On-campus	4.0%	3.4 – 4.7%

Appendix IV: Survey Data for Standard Form Schools

What F&A cost rates for organized research did your institution have for FY1999 to FY2008 for federal grants and contracts?

	On-campus		Off-campus			
Fiscal year	Sample size	Estimated mean F&A rate	95% confidence intervals	Sample size	Estimated mean F&A rate	95% confidence intervals
1999	111	48.4%	47.4 – 49.5%	106	25.2%	25.0 – 25.4%
2000	113	48.4%	47.4 – 49.3%	110	25.1%	24.8 – 25.3%
2001	113	48.1%	47.2 – 49.1%	110	25.3%	25.0 – 25.5%
2002	113	48.3%	47.4 – 49.2%	110	25.3%	25.1 – 25.5%
2003	113	48.5%	47.7 – 49.4%	110	25.4%	25.2 – 25.6%
2004	114	48.6%	47.7 – 49.6%	110	25.6%	25.4 – 25.8%
2005	114	48.8%	47.9 – 49.6%	110	25.6%	25.3 – 25.8%
2006	114	49.0%	48.2 – 49.8%	110	26.0%	25.6 – 26.3%
2007	113	49.3%	48.4 - 50.2%	111	25.8%	25.4 – 26.2%
2008	112	49.3%	48.4 – 50.2%	109	25.9%	25.5 – 26.2%

Uncapped administrative rate for on-campus organized research, FY2007. N=114

Description	Estimated mean	95% confidence intervals
Uncapped administrative component	30.9%	29.9 – 31.9

Appendix V: Survey Data for Simplified Method Schools

Some schools submit their indirect cost rate proposals to the federal government using a simplified method instead of the standard form. Each of these schools' total direct cost of work is no more than \$10 million and they are therefore considered small enough to use a simplified method of proposing a rate. Our survey sample included schools that may have used either the standard form or the simplified method for their rate proposal for fiscal year 2007. The following data represent the responses of schools that reported using the simplified method in fiscal year 2007. Because this survey was not designed to produce reliable estimates for simplified method schools, the 95 percent confidence intervals are wider than for other survey estimates and are noted along with each table.

In what format(s) did your institution submit its F&A cost rate proposal to the federal government to determine the F&A cost rates for FY 2007? For those who answered simplified method, which base did your institution use? N=29

Format of proposal	Estimated percentage ^a
Simplified method schools using salary & wage base	79%
Simplified method schools using MTDC base	21%

^aThe 95 percent confidence intervals for these percentages are within +/- 14 percentage points of the estimate itself.

Between FY1998 and FY2007 (as defined by your institution), which cognizant agency or agencies for the establishment of an F&A rate did your institution have? N=28

Cognizant rate-setting agency for fiscal year 2007	Estimated percentage ^a
DOD ONR	4%
HHS DCA	96%

^aThe 95 percent confidence intervals for these percentages are within +/- 12 percentage points of the estimate itself

If you marked that your institution had DCA as a cognizant agency for at least 1 year, which field office did your institution use? N=27

HHS DCA region	Estimated percentage ^a
Dallas (Central)	41%
New York (Northeastern)	15%
San Francisco (Western)	15%
Washington, DC (Mid-Atlantic)	30%

^aThe 95 percent confidence intervals for these percentages are within +/- 15 percentage points of the estimate itself.

Base year for F&A cost rate proposal N=26

Base year	Estimated percentage ^a
1995	4%
1999	4%
2000	4%
2001	4%
2002	8%
2003	19%
2004	4%
2005	42%
2006	12%

^aThe 95 percent confidence intervals for these percentages are within +/- 15 percentage points of the estimate itself.

Are the costs included in this proposal actual base year costs or FY2007 projected costs? N=26

Type of costs used	Estimated percentage ^a
Actual base year costs	96%
Projected costs	4%

^aThe 95 percent confidence intervals for these percentages are within +/- 12 percentage points of the estimate itself.

What is your institutional control or affiliation? N= 29

Institutional affiliation	Estimated percentage ^a
Public	52%
Private	48%

^aThe 95 percent confidence intervals for these percentages are within +/- 14 percentage points of the estimate itself.

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