Appendix A contains a concise history of Circular A-21 and its revisions. From that history, we have identified recent changes that have had or may have impacts on negotiated facilities and administrative rates. These are the cap on administrative rates, library rates, infrastructure rates, the change in the equipment threshold, and introduction of the utility cost adjustment. The effects of these changes are summarized below:

- **Cap on administrative rates:** during 1993, the first full year it was in effect, the cap reduced negotiated administrative rates by approximately 2 percent; since then, administrative rates have remained constant.

- **Library rates:** these have remained constant since 1988.

- **Infrastructure rates:** these have increased gradually from nearly 6 percent in 1988 to approximately 9 percent in 1999, although some of the increase has been offset by reductions in operations and maintenance rates.

- **Change in the equipment threshold:** the magnitude of the effect of this change is not known, but it is expected to produce savings for both universities and the government because it reduces the need to track small items of equipment, especially personal computers.

- **Utility cost adjustment:** although the precise effect of this change is not yet known, it is unlikely to have a significant impact.

**CAP ON ADMINISTRATIVE RATES**

In 1991, OMB Circular A-21 was modified to impose a 26 percent cap on recovery of administrative costs in F&A rates. In the event that an institution decides not to compile the full documentation on all components of administration, it may claim a fixed allowance of 24 percent of modified total direct costs (or 95 percent of the most recently negotiated administration rate, if less). About eight
institutions in the set we analyzed have rates for administration that equal 24 percent, although we do not know the precise number of institutions that use this provision. In these circumstances, the university does not have to prepare a cost proposal or document its costs for administration. (The institution must still justify facilities costs in the usual way.)

As a result of this change, most of the institutions we have data for are now charging exactly 26 percent for administration. In 1998, 93 out of 153 institutions had negotiated rates for administration of 26 percent. Most others have negotiated rates close to 26 percent. Figure 5.1 (which reproduces Figure 4.2) shows that the cap had a significant effect in 1993, when the provision took effect in most institutions, and that negotiated rates for administration since then have remained constant as a percentage of MTDC. The reduction in the rate appears to be about two percentage points on the negotiated rate.

Universities, especially private universities, may have taken the cap as a chance to reduce their administrative staffs in an attempt to live more within their reduced means. However, staff reductions also mean that individual scientists might now be doing some of the tasks formerly done centrally, especially if the need for the tasks has not vanished. Payments to individual scientists are considered direct costs of their projects and eligible for reimbursement. So the federal government might be paying more-expensive salaries for scientists to per-

![Figure 5.1—Trends in Administrative Component of Negotiated F&A Rates, 1988–1999 (percentage of MTDC)](image)

form these tasks. We could not find hard evidence of these changes, and some debate has occurred concerning their existence and magnitude. However, there may have been some impact: administrative staffs have likely been cut, some workload eliminated, and some workload transferred to scientists.

The cap on administrative rates is certainly one method of reducing the government’s expenses for university administration. But as Chapter Six describes in detail, many laws and regulations create administrative requirements for universities. Other ways of reducing the government’s expenses for university administration might include finding ways to streamline the application of these laws and regulations that create administrative requirements. Savings from these changes could benefit both government and university.

LIBRARY RATES

From time to time, concerns have been expressed about the costs of libraries to support research. Universities have been allowed, in some cases, to conduct special studies to document who uses its libraries (undergraduate students, graduate students, faculty, and staff researchers). Based on these special studies, the university could apportion library costs to the university’s research base. In 1996, it was proposed that special studies be eliminated for libraries, although this provision was rescinded in 1998. Figure 5.2 illustrates the data

![Figure 5.2—Trends in Facilities Components of Negotiated F&A Rates, 1988–1999 (percentage of MTDC)](image)

from Table 4.2, showing that negotiated library rates have remained almost constant. There are concerns that the costs of operating libraries are rising, particularly the costs of maintaining access to current scientific journals. There have been no increases in negotiated rates for libraries, so either the MTDC base at universities has been rising enough to absorb increasing library costs or the universities are sharing these costs to prevent an increase in negotiated library rates.

INFRASTRUCTURE: INTEREST, DEPRECIATION, AND USE ALLOWANCES

Prior to 1982, universities could claim either depreciation or use allowances for buildings, equipment, and capital improvements used in research. Universities could thus recover the capital investment in facilities. But the costs of financing investments in facilities were not allowable under Circular A-21. That changed in 1982, when interest costs on debt used to finance buildings, equipment, and capital improvements for research became allowable in F&A rate negotiations. This policy change has made it more attractive for universities to construct new facilities for research, because they can recover not only the depreciation or use allowance but also interest costs on the debt to finance the building. But there are several limitations on the recovery of these costs. First, the university must contribute a specified portion of the capital costs from its own funds in order to claim interest expenses (or else its interest expense is offset to make up for the required contribution). Second, Circular A-21 now requires a review of reasonableness and specified documentation for construction costs of major facilities. This review is designed to ensure that the costs of constructing facilities expected to support federally sponsored research are consistent with the planned research use.

Figure 5.3 shows that the effect of allowing interest to be included in rate negotiations became noticeable in the early 1990s, about 12 years after the changes in Circular A-21. It took time for universities to plan and execute new construction projects and for the interest costs of those projects to begin appearing in F&A rates. The increase in the amount of interest included in negotiated rates is consistent with a pattern of infrastructure modernization, encouraged by the 1982 change in Circular A-21.

The NSF Survey of Research Facilities gives us an indication of the changes in research facilities over the past decade. According to that survey, between 1988 and 1998, research space increased 28 percent (from 112 million to 143 million square feet). In addition, according to the survey respondents the portion of research space rated “suitable for the most scientifically sophisticated research” increased from 24 percent in 1988 to 39 percent in 1998 (NSF, 1998). So in
terms of both quantity and quality, there has been a substantial modernization and expansion of university infrastructure.

It is likely that the effects of this modernization will continue to be apparent for many years. Bond debt is typically outstanding for 20 to 30 years, so we would expect to see the interest costs for a building project included in F&A rate negotiations over that period. Debt used to finance major equipment purchases would likely have a shorter payoff period, owing to the shorter useful life of equipment compared with buildings.

Although the amount of depreciation and use allowances in negotiated rates increased prior to 1994, this component did not increase during the period when the interest component rose. Overall, recent increases in building and equipment components have been offset by reductions in the operations and maintenance component. We are not able to observe actual cost experience, only the results of rate negotiations. One explanation for these changes is that newer buildings and equipment are more energy efficient and easier to maintain, leading to lower utility expenses and maintenance bills. Based on Table 4.2, between 1993 and 1999 infrastructure components in negotiated F&A rates increased by about one percentage point whereas the operations and maintenance component decreased by about one percentage point, leaving overall facilities rates unchanged.

NOTE: Based on DHHS institutions only.

**Figure 5.3—Trends in Infrastructure Components of Negotiated F&A Rates, 1988–1999 (percentage of MTDC)**
Today, many public institutions rely on use allowances rather than depreciation. Although it is not a change in Circular A-21, beginning in 2001 public institutions must adopt asset accounting methods, leading to much wider use of depreciation, rather than use allowances, for public institutions. The effects of this change are unknown but could lead to increased recovery of infrastructure costs by public institutions. Private institutions have been required to adopt asset accounting since 1988.

In summary, Figure 5.3 shows that the infrastructure component in negotiated F&A rates has increased since the late 1980s. The direct effect of allowing interest charges is noticeable in rates, but does not account for all of the increase in the infrastructure component. Allowing interest costs to be included in rate negotiations may have stimulated construction, which in turn may have led to greater negotiated rates for depreciation or use allowances.

As shown in Figure 5.2, recent increases in negotiated rates for the infrastructure component have been offset by reductions in the operations and maintenance component. Despite the lack of change in overall facilities rates recently, changes in Circular A-21 to allow interest costs appear to be encouraging institutions to modernize their research facilities.

CHANGE IN EQUIPMENT THRESHOLD

Equipment is formally defined as personal property having a useful life of more than one year and costing more than a set threshold to acquire. Institutions are required by Circular A-110 to conduct a physical inventory at least every two years to verify that each asset is usable and needed for its purpose. Prior to 1996, the equipment threshold was $500. In 1996, Circular A-21 allowed institutions to raise the threshold to the institution’s own internal threshold used for accounting purposes, up to a maximum of $5,000. Universities are not necessarily free to raise their own equipment threshold. For example, state universities are generally governed by state rules that specify the threshold for equipment. These thresholds are significant because of the effort involved in tracking equipment. For all equipment, the institution must maintain accounting records to track the purchase and use of the item and to record either the depreciation or the use allowance applicable to each item over its life.

The increase in the threshold has many benefits for institutions. Some institutions estimate that they can eliminate capital asset tracking on 80 percent or more of the items they were required to track with the $500 threshold. This should generate administrative savings because institutions will not have to maintain accounting records over the life of each asset and conduct inventories of the affected assets. The government should experience direct savings.
because of reduced auditing costs and possible savings if university administrative savings are passed through in lower negotiated administrative rates.

**UTILITY COST ADJUSTMENT**

Utility costs for research facilities are often higher than those for other campus buildings because research space often houses equipment that has higher demands for electricity, heating, air conditioning, and ventilation. Before June 1, 1998, many universities conducted special engineering studies to determine the amount of utility costs allocable to research facilities. Instead of these studies, which were characterized as expensive to perform and complex to validate, the revisions to Circular A-21 permit the 66 universities that were granted additional utility recovery on the basis of special studies to claim a fixed adjustment of 1.3 percent. Special studies were eliminated. Beginning in 2002, institutions not on the original list may ask to have this 1.3 percent provision applied to them. OMB and the cognizant agencies will have to develop criteria to determine which institutions will be eligible and perhaps adjust the allowance.

The 1.3 percent adjustment is based on the average amount allowed under previous special studies for utilities. It is intended to have no net effect on F&A reimbursements. But individual universities might fare better or worse under this system. If a university experiences a substantial increase in research volume, it receives the 1.3 percent utility adjustment applied to its total MTDC base. In this case, the university might increase its F&A recovery. On the other hand, some universities may see reduced recovery. A university able to document higher utility costs in research space than average for this group can no longer rely on special engineering studies and must accept the 1.3 percent of MTDC amount, even though it is lower than its previous negotiated rate. Because this provision is new, the precise effect on average rates and recovery is unknown. Because the adjustment was set at the average level justified by the old studies, the utility cost adjustment is unlikely to have a noticeable effect on average.