

Federal spending for scientific research at U.S. academic institutions amounts to approximately \$15 billion each year, funding a variety of projects that improve human health, our understanding of the natural world, education, national defense, and other areas. About three-quarters of this amount supports the direct costs of conducting research, such as the materials and labor used to perform each project. The other one-quarter covers facilities and administrative (F&A) costs. F&A costs (sometimes called indirect or overhead costs) encompass spending on such items as facilities maintenance and renewal, heating and cooling, libraries, and the salaries of departmental and central office staff.

Higher education institutions are eligible for reimbursement of F&A costs related to federal grants and contracts. They do not necessarily receive full reimbursement for these costs, however. F&A reimbursement rates are set by negotiation between the federal government and each university, based on accounting data. There are also statutory limitations that apply to certain programs. In these cases, universities recover less than their negotiated F&A rate.

Congress has long taken an interest in facilities and administrative costs in higher education. In 1998, Congress asked for an investigation of issues related to this topic. At the request of the White House Office of Science and Technology Policy, we undertook analyses of these issues.

In conducting our analysis, we have been hampered, in some cases, because the government does not maintain convenient databases from which to extract the requested information. The accessible government data contain information on negotiated facilities and administrative rates. Our analysis of these data shows that these negotiated rates have remained about constant for a decade, but we lack data on actual federal outlays for F&A costs. The data we do have are consistent with the findings based on negotiated rates.

Because we have to rely on incomplete data for actual outlays by agencies and receipts by universities, we can only make approximations in these areas. On

average, about 31 percent of total true costs appear to be for facilities and administration. The share of federal outlays that pays for F&A costs is somewhere between 24 and 28 percent, indicating that universities are sharing significantly in the facilities and administration costs. There are requirements in law for universities to share certain costs. In addition, universities voluntarily agree to share costs on federal projects. Overall, we estimate that universities are providing between \$0.7 and \$1.5 billion in facilities and administration costs that would be eligible for reimbursement based on their negotiated F&A rates. We estimate that universities are recovering between 70 and 90 percent of the facilities and administrative expenses associated with federal projects.

Because universities report a total level of support for research from their own funds of about \$5 billion, it appears that these facilities and administration costs represent about one-fifth of the university funds devoted to research. A further portion of the \$5 billion in university funds represents universities' sharing in the direct costs of some projects, in particular by subsidizing faculty time.

The universities are voluntary participants in this system. They offer and provide these funds to share the costs of research because they perceive good reasons to do so. Federal projects bring prestige to faculty in their careers and universities as institutions.

To analyze F&A rates further, we divide them into two major components. The administrative component includes salaries and expenses for accounting, general administration, sponsored projects administration, and departmental administration. Negotiated rates are subject to certain limits, including a cap on the amount of administrative costs that may be included. The facilities component includes expenses for the construction, operation, maintenance, and renovation of both buildings and equipment. Although there are no fixed caps on facilities costs, limitations and reviews apply.

As administrative rates have declined because of the imposition of the administrative cap, facilities rates have increased, leaving overall negotiated rates about constant since the late 1980s.

In terms of the reasonableness of F&A costs in universities, our direct evidence is limited. What evidence we have indicates that the underlying cost structures in universities have lower F&A costs than federal laboratories and industrial research laboratories. Because of specific limitations on university F&A reimbursement, such as the administrative cap, the actual amount awarded to universities for F&A costs is likely to be even lower than what cost structure comparisons would indicate.

Although universities clearly exercise some discretion in deciding how to staff administrative offices and how to construct facilities, many of the costs of facilities and administration derive from requirements in federal, state, and local law. These laws and regulations support a number of objectives, including the desire to protect the health and safety of humans and animals and to promote good stewardship for federal research funding. But they impose real costs.

Facilities rates have increased partly because of a change in federal policy that allows the inclusion of interest costs on new construction in rate negotiations. Universities appear to have undertaken modernization especially during the 1990s, increasing research space by 28 percent and resulting in increased costs for construction. The operations and maintenance component of rates has declined, perhaps because newer facilities are more efficient to operate.

If the federal government were to significantly reduce payments for facilities and administrative costs, universities might pursue various options to make up some of the difference. We do not know how universities would finance additional cost-sharing. The \$5 billion in university funding for research already includes F&A costs on federal projects that the federal government does not reimburse. Universities faced with reduced federal reimbursement for facilities and administration might follow several strategies. They could reduce other projects within the \$5 billion to provide more of that amount as cost-sharing for F&A costs. As an alternative, universities could slow investments in building new facilities or renovating old ones. Other possible sources of funds for greater cost-sharing on research could come from reducing internal funding for other missions, such as education, public service, or patient care. We lack data to indicate the choices that universities would make. It seems worthwhile to further investigate the options for universities to shift funding and the consequences of those shifts before contemplating major changes in reimbursement of F&A costs.

One alternative to direct federal reductions in payments for F&A costs is to examine the laws and regulations that give rise to costly requirements on university facilities and administration. If some of these requirements could be streamlined, universities could reduce costs and the federal government could lower payments for F&A costs without forcing universities to shift resources from other programs.

Overall, the research partnership between the federal government and universities is widely praised for its contributions to the public welfare. Facilities and administrative costs are real to both the government and universities. These costs, like all research costs, are shared among the federal government, state governments, universities, industry, and private donors. The exact amounts

shared by each participant in the system are subject to policy debate and negotiation. This report provides up-to-date quantitative and qualitative data on facilities and administrative costs to inform that policy debate.