Facilities and Administrative Cost Reimbursement:
A Multi-Perspective Case Study

The purpose of this example is to illustrate the role played by Facilities and Administrative (F&A) costs in supporting university research. The example begins from the perspective of a faculty member, continues using the perspectives of the institution and the federal government, and concludes with the faculty member perspective.

Faculty Member Perspective

Professor Jones is a new faculty member at State University (SU). Soon after joining SU, Professor Jones applies for her first competitive research award from the National Science Foundation (NSF). Within months, she is notified that her proposal has been accepted. Upon receipt of her award, her grant budget applicable to the direct activities associated with her research work is as follows:

Salaries and fringe benefits, Professor Jones, plus
Grad Research Assistant and Lab Technician $100,000
Materials, Chemical Supplies, and Travel $20,000
Laboratory Equipment $10,000
Tuition Remission for Grad Research Assistant $10,000
Total Direct Costs of Research $140,000

Institution Perspective

Professor Jones requires an infrastructure that will permit her to conduct high quality research that will contribute to the nation’s science and technology goals. These include:

- Up-to-date laboratory space; renovating/leasing/building new space, as necessary, and corresponding depreciation and/or debt service expense.
- Treasurer’s Office and Legal Counsel to assist with bond issues for new facilities.
- University Architectural and Construction Offices to provide needed services.
- Purchasing Office support to acquire laboratory equipment.
- Climate control for equipment, specimens, etc. (e.g., air conditioning, heating, refrigeration).
- Physical Plant and Custodial for utilities, repairs and facility maintenance.
- Telecommunications support including network, voice, data, and video.
- Library support and services for essential research resources and materials.
- Department Chair, Dean, and Human Resources for recruitment and hiring matters (e.g., faculty, postdocs, and foreign nationals), and other related support.
- Office of Grants and Contracts to assist in meeting agency-required award documentation, as well as assistance in writing future proposal applications to advance the research findings.
• Environmental Health and Safety Office support if the research requires acquisition, handling, and/or disposal of biologics, hazardous or radioactive materials.
• Research Compliance Office to meet federal, state, and local rules and regulations, to provide education and training regarding compliance with institutional policies and regulations, including compliance with human subject and animal protection requirements.
• Intellectual Property Office for managing and licensing inventions.
• Internal Audit to provide appropriate accounting oversight.
• Financial and Cost Analysis for direct, indirect and employee fringe benefit cost determination.

The Sponsored Project Accounting and Post Award Administration Office and departmental administrators assist Professor Jones to monitor the progress of her research from a compliance and fiscal standpoint. This includes providing reminders about deadlines for submitting reports to the funding agency, reviews of costs which are not allowed to be charged to federal projects, and other related matters. This support helps to reduce the administrative burden on Professor Jones, comply with award requirements, and protect against cost disallowances and audit problems. Professor Jones can concentrate on her research, while complying with federal regulations.

Federal Government Perspective

To assure the ongoing success of the research enterprise of the nation, the federal government has a vested interest in sustaining its investment in the nation’s facilities and research compliance infrastructure through the reimbursement for F&A costs incurred by universities and their faculty during the conduct of federally sponsored research.

When Professor Jones initially prepared her proposed grant budget, she did not have to identify specifically the support activities she receives, and will continue to receive from her institution. Still, these are real costs that are necessary in the conduct of her research. Federal government policy has historically recognized that the sponsoring federal program should pay its fair share of these costs. The mechanism for proposing, and ultimately charging these costs to a project, is through an institution’s F&A rate.

The formula for determining F&A rates is specified in the Office on Management and Budget (OMB) Circular A-21. The circular defines cost reimbursement principles, and emphasizes the important and historic partnership between the federal government and research institutions.

The formula that an institution uses in its formal “F&A rate proposal” to the federal government is relatively complex, but can be simplified as the ratio of F&A costs attributable to research at the institution, compared to the direct costs of the institution’s research (F&A costs divided by direct costs). F&A costs are those costs that are not directly or easily identifiable to a single activity because they simultaneously provide benefits to multiple other activities at the institution.

The federal government negotiates F&A rates with most research institutions through the Division of Cost Allocation (DCA) at the Department of Health and Human Services. A small percentage of institutions negotiate with the Office of Naval Research (ONR) at the Department of Defense. Both DCA and ONR conduct a rigorous review and audit process to ensure rates are fair and equitable to both the federal government and to the institutions.

The DCA typically negotiates “predetermined” rates, which are set for a period of three to four years. The ONR, while using “predetermined” rates in some situations, also uses “fixed with carry forward”
rates. This type of rate is applicable to a single (1) year at a time. At the end of the one year, the institution must support the rate with the actual costs from that year, and the following year rate is adjusted up or down based on under or over recovery.

Back to Professor Jones

If SU has a negotiated F&A rate of 50 percent, how does this apply to Professor Jones’ award and grant budget? In her initial proposal to NSF, she would have included the proposed F&A costs as part of her budget proposal.

Using a simple example based on her budgeted $140,000 for direct costs, and a negotiated 50-percent F&A rate for her university, F&A costs would equal $70,000. However, another regulation, OMB Circular A-21 excludes certain costs from the direct-cost base to which F&A is applied. Two examples of excluded costs are laboratory equipment and tuition. After excluding these two items from the direct cost base, F&A is applied to a “modified total direct cost” base (i.e., MTDC base).

As a result, Professor Jones’ grant budget should be re-summarized as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and fringe benefits</td>
<td>$100,000</td>
</tr>
<tr>
<td>Materials, etc.</td>
<td>$20,000</td>
</tr>
<tr>
<td>Direct, where 50% F&amp;A is applicable</td>
<td>$120,000</td>
</tr>
<tr>
<td>Laboratory Equipment (no F&amp;A applicable)</td>
<td>$10,000</td>
</tr>
<tr>
<td>Tuition Remission (no F&amp;A applicable)</td>
<td>$10,000</td>
</tr>
<tr>
<td>Subtotal Direct costs</td>
<td>$140,000</td>
</tr>
<tr>
<td>F&amp;A on applicable cost items ($120,000 X 50%)</td>
<td>$60,000</td>
</tr>
<tr>
<td>Total Direct and F&amp;A Costs of Research</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

Summary

Professor Jones’ original proposal to NSF would have been $140,000 for direct costs and $60,000 for F&A costs, as shown above. In fact, the original proposal to NSF by Professor Jones would have been for $200,000 of support, not $140,000. The $60,000 of F&A costs would be computed as an additional cost, after Professor Jones documented the direct costs associated with her research.

The example also demonstrates an important point: a 50-percent F&A rate does not mean that 50 percent of the total costs of research represent F&A costs. Rather, two indicators that are more relevant should be the focus when discussing F&A reimbursement:

- **The Effective F&A Rate.** Because some costs are excluded (e.g., laboratory equipment and tuition), the Effective F&A rate is more pertinent. In the case of Dr. Jones’ research, the Effective F&A rate would be equal to $60,000 divided by $140,000, or 43 percent.

- **The True F&A Rate.** While the standard practice is to negotiate and apply F&A rates as a ratio of F&A costs to direct costs, the True F&A rate is represented by the ratio of F&A costs to the
total costs of conducting research. In the case of Dr. Jones’ research, the True F&A rate would be equal to $60,000 divided by $200,000, or 30 percent.

This case illustrates the important role of F&A costs in an institution’s research program. Through the services paid for by F&A cost reimbursement, institutions help faculty manage their research projects efficiently and effectively. Furthermore, the dollars recovered through F&A cost reimbursement replenish the capital costs associated with renovating facilities and maintaining state-of-the-art research facilities. Finally, F&A reimbursement that is fair and equitable to both the federal government and research institutions will contribute to the continued strength and vitality of the nation’s research enterprise.

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