

COUNCIL ON GOVERNMENTAL RELATIONS

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VARIATIONS IN ADMINISTRATIVE COST RATES OF RESEARCH A LOOK AT EIGHT UNIVERSITIES

This paper identifies why administrative cost rates of research vary from university to university and describes incentives to contain administrative costs. It is prepared as a result of questions raised by the President's Office of Science and Technology Policy in conjunction with its review of indirect cost rates as part of an evaluation of the health of research in higher education. Representatives of twelve leading research universities gathered on January 21, and 22, 1985 to participate in the development of this paper. Data from eight of the universities was collected, reviewed, and is summarized in this paper.

We have identified five principal reasons for differences in the administrative portion of the indirect cost rates among the various universities.

1. Similar administrative costs may be charged indirectly at one university and directly at another.
2. Space related costs are included in administrative pools by means of cross allocation. [Tables I and II show how space costs affect administrative rates.]
3. The same costs may be regarded as administrative costs at one university and as operational or plant costs at another.
4. Exclusions from the research base can cause the same amount of administrative costs to result in a different rate.
5. Improved identification of cost and rate negotiations may affect the amount attributable to administration.

The first four of these reasons result in shifting of costs among various indirect and direct cost categories; the remaining reason results in modifications in the total amount of costs claimed. In addition, we have identified numerous examples where the same costs may be classified in various of the three administrative components; Sponsored Projects Administration, General Administration and General Expense, and Departmental Administration. Since the fraction of costs in these various categories which are attributable to research varies, these differences will result in a different administrative cost rate for research.

We should stress that the differences which are alluded to here reflect not arbitrary decisions, but rather real differences in the various institutions, in their budgeting, structure, and governance. OMB Circular A-21, Federal Cost Principles, which sets forth the basic structure of the calculation of indirect costs and the method of determining the fair share to be borne by the federal government, recognizes these institutional differences by providing alternatives for the treatment of various components of costs. In addition, it provides that

where equity and efficiency in the administration of research can be maintained or improved, institutions and the cognizant federal agencies can negotiate different bases for the treatment of these costs. The differences which we describe below have resulted from this recognition of mutual advantage in alternative approaches. References to specific universities in the following examples cannot be taken to mean that a particular practice is necessarily followed by only the university mentioned. Most examples are representative of practices at many universities.

RATE DIFFERENCES AMONG TOTAL ADMINISTRATION

1. Similar Administrative Costs May be Charged Indirectly or Directly

Some examples of costs that may be charged either indirectly or directly are secretarial staff, departmental and central shops, undistributed employee benefits, research graduate assistant tuition remission and faculty sabbatical leave.

a. Secretarial Staff

Princeton University charges all of its academic departmental secretaries indirectly. This makes up about eight points of its total administrative rate. The other seven universities charge secretarial staff directly to individual research projects or to instructional accounts. Administrative secretaries in academic departments are charged to Departmental Administration.

b. Departmental and Central Shops

Universities may elect to treat shops directly or indirectly, depending on the dollar volume and management incentives in each case. At Princeton University, for example, departmental stockrooms were converted from direct fully costed service centers to a cost of Departmental Administration. Thus, about \$100,000 of direct research costs were converted to indirect costs, adding a half point to the rate. The added administrative simplicity enabled one senior administrative position to be eliminated.

c. Undistributed Employee Benefits

In the case of the MIT, a credit for over distributed benefits lowered administrative costs by 2/3 of a point. The University of Washington distributes its supplemental pensions for faculty through the G&A rate, with an impact of about seven-tenths of a point. At most schools, over or under recovery of benefit costs are rolled forward and considered in setting next year's benefits rate.

d. Research Graduate Assistants Tuition Remission

Yale University, University of Washington, Princeton University, and the University of Michigan include research graduate assistants tuition as a direct charge to research. Alternative treatments are charging it to an indirect cost pool or charging it to the fringe benefits pool, as both MIT and Stanford now do.

e. Faculty Sabbatical Leave

Faculty sabbatical leave was included as a fringe benefit at three universities and as an administrative indirect cost at four universities with rate impacts ranging from one half to 1.8 points. Treating it as a benefit cost tends to reduce the rate impact, since part of the cost appears in the research base along with salaries.

2. Cross Allocation Ties Space Related Costs to Administration

Cross allocation is the process whereby space related and General Administration and General Expense costs [hereafter referred to as G&A] are assigned to each of the administrative cost pools. Those space related costs are building and equipment use allowance or depreciation and plant operation and maintenance. Most schools display their rates for the government with the cross allocations to each pool included. Table I shows total administrative cost rates with the cross allocated costs returned to the original cost pool. Table II shows the administrative cost rate calculation as it is seen by the government or others who examine only the rate. For the MIT and Stanford University there is no difference because they normally display their rates with cross allocations backed out.

For most universities the administrative components change by a total of only one or two points. For Princeton, Wisconsin, and the University of Michigan the change is three to four and one-half points. This only means that these universities cross allocate a slightly higher proportion of their costs. It must be emphasized that no matter how the rates are displayed, the total costs allocated to research stay the same. Table I has been constructed for this exercise to isolate "pure" administrative costs without space costs. With the exception of the cross allocation discussion, rates cited in this analysis come from Table I.

3. The Same Cost May Be Regarded as Administrative Cost or Plant Operations Cost

Princeton University and MIT recover all of its plant management costs in the Plant Maintenance and Operations pool, while the others in the sample recover some of these costs in the G&A pool. For Princeton University to do this, it would add roughly one half point to the G&A rate.

In another example, Yale University assigns its police force to the G&A pool. The other seven universities assign those costs to Plant Maintenance and Operations. Security makes up about seven-tenths of a point in Yale University's G&A rate.

4. Exclusions From the Research Base Affect Administrative Cost Rates

Among the universities in our sample, tuition remission, student aid, utilities, patient care, service center charges, subcontracts and capital equipment are examples of costs on which an indirect charge is not levied to project grants, and which are not included in the research

MTDC base. Although OMB Circular A-21 only requires exclusion of the latter two costs, universities typically exclude other of these costs. Even the required exclusions are sometimes treated differently. For example, the first \$25,000 of cost of a subcontract may bear indirect cost, but amounts above \$25,000 do not. However, the University of Washington, Yale University, and the Johns Hopkins University have chosen to exclude all subcontracts from their bases. In addition to these exclusions, the differences in the treatment of items as direct or indirect costs mentioned before also affect the size of the base. To the extent that costs are removed from the modified total direct cost base, administrative rates when expressed as a fraction of that reduced base will be higher than they would otherwise appear, even though they are no greater in absolute terms.

5. Improved Identification of Cost and Rate Negotiation Affect Administrative Rates

Universities have been under pressure from governing boards, from state legislatures (in the case of state assisted universities) and from the federal government to better manage themselves by identifying costs more precisely and allocating such costs to benefiting cost objectives. Improved accounting systems now better identify cost with their ultimate cost objective, thereby permitting the universities to better allocate costs to appropriate activities. For its part, the federal government wants to assure that the taxpayer pays only for those things attributable to research, and the university pays for those things attributable to instruction. A natural by-product of this process has been a more precise recognition of the cost of performing research.

The degree to which a university chooses to exercise more precise identification of costs and the tenacity with which it negotiates will affect all of the cost pools including the administrative cost pools. The information collected from the universities in this sample represents the actual cost included in the indirect cost proposals based on 1982 - 1983 expenditures.

Special studies will also affect administrative costs. When we talk of special studies we usually speak of using them with regard to non-administrative costs such as inventory, energy, building valuation, equipment valuation, and library usage. These special studies may affect administrative costs through the cross allocation process described earlier.

Sampling of faculty effort to ascertain administrative costs is also considered a special study. Yale University and Stanford University are using a negotiated fixed rate based on previous cost history. When those agreements need to be renewed, statistical sampling may be considered as a basis for negotiating new agreements. Princeton University uses a similar approach. These three universities have voluntarily agreed to reduce their Departmental Administration rates in recognition of relief from the burden of 100% effort reporting. Yale University lowered its indirect cost rate by two points, Stanford University by 2.4, and Princeton University by one half point.

The allowability of student services costs depends entirely on special studies, since the government requires their allocation fully to instruction in the absence of studies. The variations in rates are due mostly to differing concentrations of students in organized research and different approaches to special studies. The two universities claiming no costs in the category are organized so that some of the costs classified as student services are elsewhere accounted for in offices such as the Dean of the Graduate School.

RATE DIFFERENCES AMONG INDIVIDUAL ADMINISTRATIVE POOLS

1. Sponsored Projects Administration

The administration of sponsored projects includes administering grants and contracts, proposal preparation and submission, contract and grant negotiations, securing agency approvals, assuring compliance with laws, regulations, and university administrative and research policy requirements. It also includes resolving problems of institutional and/or outside financing, cost sharing, accountability and coordination of purchasing, personnel and other administrative functions as they affect sponsored projects. How a university is organized will usually dictate how these costs are classified, i.e., at some universities proposal preparation is done centrally, while at others it is done in academic departments. Table I shows, in most cases, relatively low rates for the Sponsored Projects Administration element. The lowest is for the University of Wisconsin where only final proposal screening and negotiation functions are included. The University of Michigan, however, allocates 9.3 points to this category. Why is it so much higher than the other universities?

First, the University of Michigan provides a broad range of centralized research proposal preparation services. This includes identifying new sponsors, proposal development, word processing, and printing services. The Division of Research Development and Administration does everything necessary to assist potential investigators in submitting first rate research proposals. Many of the other universities in the sample provide less in the way of services at a central level, but are likely to provide some or all of these services in the academic departments or deans offices. When provided by the academic departments, these costs are most often included in Departmental Administration. These activities account for 4.0 points of the total Sponsored Projects Administration component of Michigan's rate.

The University of Michigan also includes the administration of its research institutes in its sponsored projects administration pool. For example, The Michigan Transportation Research Institute, The Institute for Social Research, and The Institute for Science and Technology are three among the 20 or more research institutes operating at the University of Michigan, where administrative costs are included in the sponsored projects pool. Since administration of the University's research institutes relates to sponsored research, their costs are included in the Sponsored Projects Administration component. This accounts for an additional 4.8 points. Most other universities in the sample either do not have separately budgeted research institutes or include them in the Departmental Administration component.

2. General Administration and General Expense (G&A)

The General Administration and General Expense component contains expenses that have been incurred for central accounting, payroll and other administrative offices and functions, including the President, Chancellors and Vice Chancellors. Table I shows a fairly tight range of rates in this component. Two universities stand out as having rates about one-half that of their counterparts. Why is that?

The Johns Hopkins University classifies divisional administration as a cost in the Departmental Administration pool, rather than as a cost of General Administration and General Expense. The university does this because they are decentralized in their organization so each division has its own sponsored projects office, personnel office and business office, thereby permitting smaller central offices. The Johns Hopkins University believes this kind of decentralization permits it to manage more efficiently and to be more responsive to academic needs at a cost comparable to those of other universities. The G&A component for The Johns Hopkins University is 4.66 points. Moving divisional administration to G&A would lower Departmental Administration by approximately four points and raise G&A to a little more than eight points. The University of Wisconsin also operates in a decentralized manner and in similar fashion could shift almost five points to G&A from Departmental Administration. The G&A rates would now be more nearly equal among the universities in the sample.

3. Departmental Administration

Departmental Administration is the largest component of administrative costs and also the most controversial. It contains expenses for departmental and college administration including administrative effort of faculty, department heads, and their staffs. Table I shows a range of rates for Departmental Administration costs. If we look at Princeton University and MIT as the high and low in this component we can begin to understand why the data is not directly comparable.

Princeton University's rate of 21.29 points was brought into perspective when we learned that Princeton charges all of its academic departmental secretaries to Departmental Administration. This makes up roughly eight points in its Departmental Administration rate. If Princeton were to direct charge part of its secretarial staff as the other seven schools do, their Departmental Administration rate would be closer to others in the sample. MIT, on the other hand, has a low Departmental Administration rate because of a policy decision not to collect faculty administrative effort beyond that of Department Heads and Deputy Department Heads. Faculty effort charged directly to a research project is considered to include a reasonable increment for individual research program administration. In addition, MIT considers academic deans to be a part of G&A not Departmental Administration.

Somewhat similarly, the University of Wisconsin does not charge faculty committee time to Departmental Administration except in the case of formal administrative appointments.

CONCLUSION ABOUT DIFFERENCES IN ADMINISTRATIVE COST RATE

While we have mentioned above some of the reasons for differences in administrative rates, it is important to share the more general conclusion of those who gathered to interpret the data. Essentially, the variety of methods used to group and allocate costs was basically the result of the variety of organizational structures. In the administration of the universities, accounting follows organization just as form follows function. The reasons for organizational variety itself are a complex mixture of such factors as legal constraints, philosophical and intellectual orientation, geography, political orientation, and size. Matching the right administrative structure to the particular nature of each institution is the single most important factor in achieving overall administrative efficiency. It would not make good sense for Princeton University, the school with the smallest research program of the eight, to change from its centralized administration to a decentralized one for the sake of uniformity of rate calculations. Likewise, decentralized universities like the University of Wisconsin and The Johns Hopkins University would be foolish to centralize for the sake of accounting tidiness.

INCENTIVES EXIST TO CONTROL COSTS

The main functions of a university have traditionally been identified as instruction, research and service; in the academic structure, these are generally inseparable. Universities have always tailored their activities to provide an environment where research and instruction can thrive. The administrative officers of our universities are dedicated to nurturing that environment. We thus regard one of the primary missions of our universities to be the performance of research, much of which is supported by the federal government. We recognize that, irrespective of the details of agency treatment of indirect costs, at some level or another the payment of indirect costs requires expenditure of research funds. To the extent that we can hold down these administrative costs, not only we, but also the federal government will have more money available for the support for research, which is the common interest of all of us. The fundamental point is that universities also recognize the need to be frugal, and they are well aware that unnecessary indirect costs are as wasteful as unnecessary direct costs.

Beyond that, there are at least four practical incentives to control administrative costs. These incentives are:

1. The Largest Percentage of Administrative Costs Accrue to Instruction Rather Than to Research;
2. Oversight;
3. Administrative Needs Compete with Other University Needs in the Budget Process; and
4. Faculty Participation in Resource Allocation.

1. The Largest Percentage of Administrative Costs Accrue to Instruction Rather Than to Research

Administrative components are established to provide support to the education and research activities of the university. These administrative components such as the personnel office, the purchasing office, the business office, the office of the President, Chancellor, Vice Chancellors, Department Heads, Deans, etc., are all designed to manage all university functions and activities. Every efficiency or deficiency of this management accrue to all administrative costs of a university. Therefore, indirect costs are university costs. Only those administrative costs allocable to research find their way into the federal indirect cost rate. They are distributed to instruction, research and other university activities. The universities in our survey pay for the largest share of administrative costs. For each dollar of administrative costs, the university pays 55 to 80 cents of that bill. The balance is further apportioned to both federal and private sponsors of research. Consequently, there is significant incentive to keep indirect costs low, as the largest portion of administrative costs are paid from university funds.

2. Oversight

All such costs are subject to audit by the federal government. When all the calculations discussed have been made, the institution prepares an annual indirect cost proposal and makes its working papers and supporting data available to the federal audit agency for review. Disagreement about allowable indirect costs or the resulting indirect cost rate is settled by negotiations between the institution and representatives of the agency.

The University of Michigan reports, "The State Auditor General's Office, Appropriations Committees, Federal auditors, internal auditors, external certified public accounts, industrial auditors, and consultants review the operations of the University of Michigan and comment on its administrative efficiency. Any significant changes in administrative costs would be scrutinized by these agencies and the university would try to correct inefficient areas."

3. Administrative Needs Compete with Other University Needs in the Budget Process

All of the universities in our sample report that all of the various activities of those universities compete for scarce resources. For example, universities try to maintain faculty salaries at competitive levels in order to retain qualified faculty and attract new faculty. Costs of utilities and maintenance of the physical plant have increased fourfold at many universities in the last ten years. The demand for student financial assistance has increased. New facilities must be built and older facilities renovated and maintained.

Administrative functions must compete for resources in this environment. All universities in our sample report that administrative functions fare badly in the competition. This budget process acts as a

check and balance on all university costs. Administrative costs are not immune.

4. Faculty Participation in Resource Allocation

Every university in our sample reported faculty membership on university budget committees. In addition, Johns Hopkins University and the University of Wisconsin operate in a decentralized mode, so decisions about where funds are spent in the various schools and colleges are made at the school or college level. It is possible for those schools or colleges to assign resources to administration, however, the pressure to keep faculty salaries competitive and to attract new faculty and facilities, act to limit money allocated to administration. The pressures from rising indirect cost rates are felt first and most keenly on our university campuses. Research investigators strive to keep the subject uppermost in the minds of the university administration. This strong concern by research investigators is a sure incentive to keep rates low. Several universities in the sample report billing at rates that are less than the audited rate.

PROGNOSIS

We have explained why the administrative rates of research vary from university to university and we have discussed incentives to control administrative costs. This explanation can only be worthwhile if one views administrative costs in the context of all indirect costs and views indirect costs in the context of total costs.

Most interested participants are focusing their attention on the health of the university infrastructure. Specifically how can we pay for sorely needed new facilities, renovation of old facilities, acquisition of state-of-the-art research instruments and plant renovation and maintenance.

If universities continue to provide resources to modernize their plant and build facilities, and if indirect costs remain the only avenue for reimbursement, we can predict indirect cost rates will continue to rise. Various studies and initiatives regarding direct federal investment in facilities and equipment hold forth the hope that such a scenario will be avoided. We are confident that recognition of the institutional differences which are a major strength of U.S. higher education, as well as recognition of our common interest in controlling all costs will enable institutional administration, faculties, and the federal government to work together for the optimum use of our limited resources.

SUMMARY

Administrative cost rates of research vary as a result of the variety of organizational structures created because of a complex mix of political and intellectual orientation, as well as historical and philosophical perspectives of our universities. These rates are not comparable because like costs are often charged to different components at different universities. Administrative rates reflect this diversity, they do not create it.

Administrative costs result from the need to provide support for educational and research activities of the university, hence indirect expenses accrue to all university functions, not just research. The principal part of those administrative expenses must therefore, be funded from university sources.

It follows that the university stands to gain significantly if administrative savings can be made. The university will have additional resources to assign to instruction and additional resources to devote to the direct funding of research.

1983 CALCULATED RATES

ADMINISTRATIVE COMPONENTS OF THE INDIRECT COST RATES
WITHOUT DEPRECIATION, USE ALLOWANCE, AND OPERATION AND MAINTENANCE CROSS ALLOCATIONS

TABLE I

	<u>Yale University</u>	<u>MIT</u>	<u>University of Washington</u>	<u>Princeton University</u>	<u>Johns Hopkins University</u>	<u>University of Michigan</u>	<u>University of Wisconsin</u>	<u>Stanford University</u>
<u>Points in Rate</u>								
General and Administration	7.65	9.53	9.70	11.89	4.66	10.12	5.17	12.57
Sponsored Project Administration	1.14	1.57	1.36	2.08	1.79	9.34	0.44	1.40
Student Services	0.17	1.95	0.13	0.00	1.23	0.76	0.00	2.95
Departmental Administration	17.70	7.66	12.01	21.29	15.26	16.23	18.31	14.88
Sabbaticals (when separated)					0.72			
TOTAL	26.66	20.71	23.20	35.26	23.66	36.45	23.92	31.80

1983 CALCULATED RATES

ADMINISTRATIVE COMPONENTS OF INDIRECT COST RATES OF SAMPLE UNIVERSITIES
AS PRESENTED BY INSTITUTION'S INDIRECT COST RATE STUDY

TABLE II

	<u>Yale University</u>	<u>MIT</u>	<u>University of Washington</u>	<u>Princeton University</u>	<u>Johns Hopkins University</u>	<u>University of Michigan</u>	<u>University of Wisconsin</u>	<u>Stanford University</u>
<u>Points in Rate</u>								
General and Administration	7.14	9.53	10.01	10.24	4.08	9.28	4.95	12.57
Sponsored Project Administration	1.28	1.57	1.54	2.45	1.92	10.39	0.47	1.40
Student Services	0.19	1.95	0.14	0.00	1.52	0.98	0.00	2.95
Departmental Administration	18.90	7.66	12.02	27.17	17.55	18.95	21.62	14.88
Sabbaticals (when separated)					0.76			
TOTAL	27.51	20.71	23.71	39.86	25.83	39.60	27.04	31.80