COUNCIL ON GOVERNMENTAL RELATIONS
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MTR

February 19, 1987

TO: Costing Policies Committee

FROM: Milton Goldberg MG.

SUBJECT: Study of Variations in Overhead Rates Among Institutions

The enclosed paper describes an approach to a study of variation in overhead rates among institutions. This approach has "not been tested by reflection or consultation." It is being sent so you may apply both of those tests for the purpose of ascertaining its potential for identifying important factors that cause variations and to quantify their effect. This paper is authored by Bill Massy, Vice President for Business and Finance at Stanford University.

May I hear from you?

Enclosure

cc: William Massy
Robert Rosenzweig, AAU
Ad Hoc Indirect Cost Task Force
George Dummer

February 1, 1987

To: Robert M. Rosensweig
AAU-Washington

From: William F. Massy
Stanford university

Subject: Study of Variation in Overhead rates Among Institutions

Dear Bob:

Here, as I promised, is the written version of what we discussed on the phone yesterday. Because I've been thinking about the problem for only a few days, these ideas have not been tested by reflection or consultation. I hope they are helpful to you and to the AAU Executive Committee anyway.

THE OBJECTIVE

: We need an authoritative analysis of the policy tradeoffs associated with variations in overhead rates. The primary objective of the study is to identify the important factors that cause these variations and quantify their effects. The analysis should:

- o Provide a clear statement of the issues, in non-technical terms understandable to faculty and government policy makers.
- o Focus on the true cost of sponsored research in the context of overall institutional economics, not on the intricacies of cost accounting methodology, per se.
- o Include estimates of the consequences for various classes of institutions, for research faculty, and for the federal government, of changes that might be proposed to A-21 in order to achieve greater uniformity of indirect cost rates.
- o Use data from a representative cross section of institutions, over a significant span of time.
- o Be founded on good research methodology, consistency of data interpretation, and complete objectivity.

The findings should be credible to the AAU presidents, and also to university faculty and the federal government.

THE APPROACH

The study should be led by a small team of people (the "PI team") with proven research skills, who have experience with the policies, operations, and economics of research universities. The team members should work closely with and enjoy the confidence of the AAU presidents, and be positioned to command the respect of university faculty and key federal policy makers and staff. The team should be small. It should be organized to deliver research quality and objectivity and minimize the impact of institutional and federal politics during the course of the study.

Sensitive institutional data will be required as input to the study. Therefore, an independent accounting firm should be engaged to collect and encode the data and perform most of the analysis. The firm would work under the direction of the PI team, but would not disclose sensitive institutional data to them. The sensitive data would be returned to the institutions or destroyed at the end of the study.

Provision should be made for peer-group review by faculty and members of the federal professional scientific establishment, before the study is completed and the report finalized. This is important because the study should be conducted with the idea of peer-group review in mind, and also because of the benefits to buy-in and credibility that such review will afford.

TWO KINDS OF ACCOUNTING ISSUES

We have come to understand that variations of overhead rates across institutions stem from at least two causes: (1) differences in accounting policies; and (2) differences in the "fundamentals." By "fundamentals" I mean things like the institution's mission and scope, its size, the age of its plant, its access to state funds, and its ability to attract students, sponsored research funding, and gifts. While the effect of fundamentals upon overhead rates is of great importance, this is difficult to examine because the relationships are masked by the accounting differences.

The AAU's research strategy is to analyze the accounting differences, keeping in mind the possibility of reducing them through policy action. Such changes could produce benefits in and of themselves, and also make possible a more healthy dialog on differences in rates due to fundamentals.

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I believe that the aforementioned view is correct, but that the situation is complicated by the fact that there are actually two kinds of "accounting differences." They are:

I. DIFFERENCES IN THE CLASSIFICATION OF RESEARCH COSTS AS DIRECT OR INDIRECT. For example, is the secretary who spends time on organized research (as determined by effort reports) charged directly to a project or included in the departmental administration indirect cost pool? There is no issue in this example about whether the time spent benefits research or instruction (or public service or administration), only about the method of accounting and billing.

The hypothesis to be tested is that the consequences of standardizing this kind of accounting policy are small. While there may be some financial losses (or gains) due to differences in measurement procedures, and also difficulties in making a transition from one method to another, these problems may turn out to be outweighed by the advantages of a more consistent accounting procedure for higher education as a whole.

II. DIFFERENCES IN POLICIES FOR THE ALLOCATION OF CERTAIN COSTS TO RESEARCH OR INSTRUCTION. Certain costs cannot easily be categorized as instruction or research, even with the aid of effort reports. Library collection development and operations represents one case in point, and the cost of building O&M and utilities represents another. The cost accounting profession provides models of varying refinement (and difficulty and cost of application) for allocating these kinds of expenses between instruction and research. Under A-21 each institution is free to decide how much refinement it wishes to pursue for particular expense categories.

Aside from differences of sophistication in cost accounting among institutions (differences that could be mitigated by hiring and training practices), the choices about degrees of cost accounting refinement are made on the basis of the following two considerations.

1. How well does the default model in A-21 (usually a model of relatively low refinement) fit the institution's fundamentals? For example, "Do research labs tend to use the same amount of electric power per square foot as instruction space (as assumed in the default model), or would a special study of power usage be likely to improve allocational accuracy to a significant degree? Would the time and effort of doing such a study be justified by the increase in accuracy?"

2. Does the institution wish to achieve full recovery of the indirect costs of research, or is it prepared to cost-share the difference between the sum allocated under the A-21 default model and that which would be determined by a special study? There are many reasons for cost-sharing, and at times it may be prudent to share implicitly (via the aforementioned mechanism) rather than in a more explicit and visible way. Whatever the motivations, the institution's particular circumstances will, and should, have a strong influence on its choice.

The study should test this hypothesis that the financial losses from standardizing on the A-21 default models would be large for some institutions. On the other hand, it is possible that some schools may be "cherry-picking" the system by using the default models in some areas while pressing the limits of special studies in others -- this, too, should be studied. Finally, variations among institutions in the treatment of joint costs should be included in the analysis.

Why worry about the distinction between the two kinds of accounting differences? One answer is that the two have profoundly different policy implications and financial consequences. A second is that the potential for collective action to standardize policies is likely to be greater for the first kind of difference than for the second. I believe that some of our recent problems have been due to confusion between the two kinds of differences.

THE METHODOLOGY

I envision that the study would proceed according to the steps listed below. There would be frequent consultations with the AAU Executive Committee or its delegates, and COGR could be used as a resource and sounding board at appropriate points. The independent accounting firm would be selected according to an RFP drafted by the PI team. The team would provide regular oversight of the firm's methodology and interpret the work product. Here are the main steps in the research, and the locus of primary responsibility.

1. Identify a list of accounting policies which, in the aggregate, are believed to cause most of the accounting-based differences in overhead rates. Classify each policy according to the typology given earlier. [PI team.]

2. Determine what data are needed from the institutions in order to permit the independent accounting firm to perform the analyses listed below. [PI team and independent accounting firm.]

   Possible candidate data sets are: (a) the institution's proposals and agreements under A-21; (b) answers to a questionnaire pertaining to the key policy areas defined in the previous paragraph; and (c) HEGIS or similar data to set the context and permit analysis of fundamentals.

   Data should be collected for the most recent available fiscal period, and for (say) a period ten years earlier to provide a comparison over time.

3. Collect the data decided upon in (2), hopefully from all AAU institutions. While 100 percent participation is not necessary for success of the study, the broadest possible participation is desirable. It is likely that followup letters, phone calls, or even visits to certain institutions will be necessary as the data are analyzed. [Independent accounting firm; data to be held as confidential within the firm and destroyed or returned after the study.]

4. Analyze the data to determine the incidence of alternative accounting policies. Describe the effects of the different policies on institutions' overhead rates in narrative form and by means of (disguised) examples. [Independent accounting firm.]

5. Develop two or more research "benchmarks" for accounting standardization. One benchmark would standardize only policies in Category I while others would add those in Category II. The benchmarks would in effect be collections of default models which could be applied to data contained in most institutions' A-21 proposals. [PI team and independent accounting firm.]

6. Apply the benchmark models to the institutional data, calculating the differences in the indirect cost rates and the resulting changes in dollars recovered. Report out histograms of rates and rate changes, variations in recovery, and the change in recovery for the whole sample. [Independent accounting firm.]

7. Analyze the relation between each institution's estimated overhead rate for each benchmark and the data set for fundamentals (see paragraph 2-c). [Independent accounting firm.] The accounting firm could also prepare a sanitized data set of rates and fundamentals not identified by institution for joint analysis with the PI team.

8. Interpret results and discuss their implications, but do not recommend specific policy alternatives. [PI team in consultation with the independent accounting firm.]

I believe this program is workable and that it would answer most of the questions about inter-institutional rate variations that are being asked by the AAU presidents. The study would help clear the air and facilitate a more informed policy debate.

The proposed methodology protects the institutions' privacy and minimizes their workload. It does not require that individual schools commit to consider particular benchmarks or even analyze their data in terms of the benchmarks selected as part of the study. (That will be done, in confidence, by the independent accounting firm.) The schools would not even know what estimates had been made for them as part of the study, and therefore they would not be responsible for the estimates. While there may be some loss of accuracy due to these procedures, I think this will be insignificant and that the advantages will outweigh the disadvantages.

I hope these idea are helpful. I'd be glad to participate in the study if the Executive committee wishes to proceed along these lines.

All the best.

Yours truly,

Bill