

A Proposal for an Alternative Method for the Allocation of Facilities Costs at Colleges and Universities

Background

The allocation of facilities costs to direct and indirect functions is the single most important element in the calculation of Facilities and Administrative (F&A) rates at colleges and universities. Arguably, it is also the most problematic, costly, and contentious aspect of determining of F&A rates. The root of the problem lies with the regulations governing the reimbursement of the costs of Federally sponsored research projects for colleges and universities. OMB Circular A-21 prescribes two types of allocation formulas for the assignment of facilities costs¹ space used jointly by more than one function. Facilities costs may be allocated to instruction, research and other university functions based on the Full Time Equivalent (FTE) employees or the salaries and wages of those individual functions benefiting from the use of that space or institution-wide FTEs or salaries and wages applicable to the major functions. Since most university rooms are used for more than a single function, an institution choosing the A-21 prescribed methodology would use FTE or salaries and wage data to allocate the costs of most academic rooms. Because these allocation formulas result in an inequitable distribution of costs to research, most large institutions employ an alternative to the A-21 method to allocate facilities costs to university functions.

Using FTEs or salaries and wages to distribute facilities costs does not take into account many of the factors that result in research facilities being more costly than buildings used for instruction, administration or other university functions. Research buildings are generally more costly to build, maintain and renovate because of the special structural and programmatic requirements of the space. Research conducted at most major universities is cutting-edge and the laboratories must be specially outfitted and periodically refinished or rehabilitated to meet the changing needs of the research. Instructional facilities, on the other hand, have much simpler requirements and the rooms remain relatively unchanged from year to year. Institution-wide FTE or salary data do not take into account the unique nature, and higher costs, of research facilities relative to other types campus facilities.

Another major shortcoming of an FTE calculation is that does not recognize the impact of hours of use when assigning facilities costs to functions. Activities performed in research laboratories are generally much more utility intensive than activities performed in other types of rooms, especially classrooms and lecture halls. Moreover, research experiments often continue around the clock, whether the room is occupied or not. Equipment used for research and the infrastructure supporting research, air handling systems and lighting for example, often run non-stop. Conversely, the hours of use of classrooms and other teaching areas

¹ Facilities costs including depreciation on buildings and equipment, interest on external debt, plant operations and maintenance, and library costs.

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are typically shorter than research laboratories. There is a relatively small amount of equipment in classroom areas compared to research labs and utility consumption is substantially reduced after-hours.

Allocating research labs and teaching rooms strictly on the basis of FTE counts or salaries and wages does not take into consideration many of the factors (i.e. cost drivers) that influence utility consumption, maintenance, and other types of facilities costs. Compiling accurate FTEs counts or salaries and wage data on a room-by-room basis would be problematic as many academic employees work in several rooms and virtually all employees move freely within a building or department. Institution-wide FTEs or salaries and wages would be easier to compile but these aggregate data aren't accurate allocation statistics because they have little relationship to the factors that influence facilities costs. For these reasons, many institutions utilize methods other than the A-21 "default" methodology to allocate facilities costs.

The most common alternative method is the room-by-room space survey, a process by which one or more occupants, or "owners," of a room are interviewed to determine what the functional utilization of the room has been over a prior period of time, typically the previous twelve months. For research laboratories, which are the primary focus of the government's review of space surveys, the survey process is laborious, costly and imprecise. While the results reflect a more accurate representation of functional use than FTE counts or salaries and wages, even this methodology is inherently difficult, if not impossible, to accurately summarize the activities that took place in a room in the past year. The survey process relies heavily on human memory and takes into account various inferential data, such as individuals with access to a room, salaries and wages, sources of funding, (i.e. grants, contracts, gifts), to approximate room usage. Furthermore, the estimation process has been made particularly difficult for research laboratories because of the government negotiators' expectation that universities should account for all activities that take place in a room, even if this activity does not have a material impact on facilities costs. The space survey process, therefore, ignores the concept of *incidental* use of rooms. That is, there may be secondary activities conducted in a room concurrent with the room's primary activity, but this secondary, or incidental, use does not incur additional facilities costs. For example, a graduate research assistant may be working in a research laboratory monitoring a research experiment, a process that often entails ample downtime when the student is free to perform other activities. If during the experiment monitoring the GRA has an opportunity to work on his/her dissertation, the current expectation is that the space survey should reflect this secondary, incidental, activity. In reality, the dissertation work did not incur any facilities costs over and above those generated by the primary activity in the room, i.e. research experimentation. Allocating facilities costs to the incidental

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activity is unrealistic and adds an unwarranted degree of complexity to the survey process.

Applying this type of detailed analysis by the number of different students and staff working in a research laboratory and the multiple experiments, projects (and dissertations) that occur in the typical lab illustrates the complexity of estimating room use. Performing this detailed analysis for hundreds of rooms and thousands of individuals on a major campus is a very costly and burdensome endeavor and the quality of the information collected should be considered as questionable at best.

Section J.8. of A-21 includes a statement that “it is recognized that in an academic setting, teaching, research, service, and administration are often inextricably intermingled. A precise assessment of factors that contribute to costs is not always feasible, nor is it expected.” Although this statement is made in reference to the distribution of salaries and wages, the concept holds true for the spaces where instruction and research are conducted as well as the people directly engaged in these activities. Using interviews to try and separate the proportion of a room used for instruction versus research is imprecise and can be a futile exercise. In reality, it is often impractical to separate teaching and research because these functions often occur simultaneously and are performed by the same people within the same spaces.

The occurrence of instructional activities in research laboratories is a key issue for Federal auditors and negotiators. These officials argue that some portion of a research lab is invariably used for non-research purposes, for instance the example cited above of the graduate student working on a dissertation while monitoring a research experiment. Auditors and negotiators scrutinize the space survey closely to find research laboratories that are classified as 100% research. Invariably, negotiators require these rooms to be “discounted” by the university so that some attribution is given to the instructional activities that occur in the laboratory. There is no similar scrutiny applied to classrooms, lecture halls, or teaching laboratories to determine if any research activities may be occurring in these rooms, the expectation is that these rooms are all used 100% for Instruction. We strive for precision in the allocation of research laboratory costs yet we use a default for the classification of Instruction rooms. In addition to being burdensome and costly, the survey process has a bias towards instruction.

Problem Statement

As an alternative to the A-21 prescribed methodology, the space survey is superior because it results in a more reasonable approximation of space usage thereby allowing universities to obtain a more equitable recovery of facilities costs. However, the space survey methodology is burdensome, costly, imprecise and uneven in its enforcement. It is not unusual for a major research institution to invest hundreds of thousands of dollars to update the survey and to

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involve scores of people on the campus in the process. With the advent of the administrative cap, the space survey became the main cost driver in the F&A calculation and the major focus of Federal officials involved in F&A rate negotiations. Yet the magnitude and complexity of the survey process and the inherent difficulties in trying to accurately separate instruction and research in a campus environment where these “products” occur jointly make the survey results highly subjective, judgmental, and prone to error.

Finding a simple and equitable method to allocate space costs could result in substantial savings for universities and the government and this could also significantly simplify the calculation and negotiation of F&A rates. The key is finding a formula that will provide an equitable reimbursement for universities without increasing F&A rates. As the administrative burden on universities continues to grow, with no concomitant increase in administrative reimbursements, the search for less burdensome ways to comply with Federal regulations becomes imperative. Developing and implementing an equitable, reliable, and simple process to replace space surveys has the potential to yield significant benefits both for universities and the federal government.

A Proposal for the Allocation of Space Costs According to Primary Use

The underlying assumption behind the concept of Primary Use is that in an academic setting many categories of rooms serve a single principle purpose and this purpose should be the sole cost driver used to allocate the room’s costs. Furthermore, although other activities may occasionally occur in a room, these uses are incidental to the primary purpose and the costs of the incidental activities are immaterial.

Rooms in academic departments and centers that are used for the conduct of the institution’s direct functions often serve only one primary purpose. Assigning the cost of the room to the primary function is simple, logical, and reasonable. Academic rooms that don’t serve a primary function, for example faculty offices, conference rooms, common areas, etc. should be classified as *joint use* space and allocated to the department’s major functions based on aggregate salaries and wages for the fiscal year corresponding to the F&A base year proposal. Spaces used primarily for indirect cost categories such as G&A, SPA, Plant O&M and Library would be assigned 100% to these functions.

Under this proposal, the assignment of room use to primary function would be based on two attributes that are common to the space inventory classification system for most institutions. These two attributes, generally referred to as functional category (or function code) and room use (or room type) code, are widely used and clearly defined in industry literature. A taxonomy for the functional categories of space and room use codes is published by the U.S.

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Department of Education in the “Postsecondary Education Facilities Inventory and Classification Manual (PEFICM).” Tables summarizing these two types of classifications are attached to this document.

The following illustrates the concept of Primary Use based on PEFICM classifications:

For rooms used primarily for direct cost functions, these rooms would be assigned by comparing the institution’s functional category to the room use classification. For example, rooms with Use Code 100 (Classroom Facilities) would be assigned entirely to Instruction (Functional Category 1). Laboratory facilities (Use Code 200) would be classified to either Instruction or Research as follows: a Class Laboratory or Open Laboratory (Codes 210-225) would be assigned to Instruction and Research/Non-Class Laboratories (Codes 250-255) would be assigned to Research. Office Facilities (Room Use Code 300) would normally be considered joint use space and allocated to functional category based on departmental salaries and wages. However, specific offices may be used primarily for one purpose, such as the office of a Teaching Assistant or a Research Scientist, and these offices may be assigned entirely to one function.

Under the Primary Use methodology, rooms are either attributable 100% to a direct function or they are considered as joint use and allocated based on salaries and wages. If it isn’t clear that a room has a primary use, the assignment of room defaults to the joint use allocation.

The benefits of Primary Use as a methodology for the allocation of facilities costs are many. It is simple to administer, relatively inexpensive, and much less subjective than a space survey/interview process. It relies on classification standards published by the Federal government that are recognizable to most universities. Similar to the requirements associated with the effort certification process, the method takes into account the primary drivers of facilities costs and ignores incidental use of space for uses that are immaterial in cost and add an unnecessary degree of complexity to the space allocation process. It reduces the burden on PIs and Departmental administrators who bear much of the responsibility for the space survey process. It would be relatively simple to verify and audit. It will make the F&A calculation process much less complicated and it will reduce a significant issue of contention in the audit and negotiation of rates.

Implementation of this method would also serve to minimize, if not eliminate, the disparate interpretations among the various federal officials on how universities should conduct a space utilization survey and what data should be collected. Adoption of a simplified, standard methodology such as Primary Use would also make the allocation of facilities costs more consistent from institution to institution which would help to reduce variability in F&A rates. Since there is no prescribed

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approach to conducting a space utilization survey, there is inconsistency in the way universities conduct the survey and the ways in which various Federal officials evaluate the survey results. It has been noted, this is an onerous process and absent adequate formal guidelines by either OMB or DHHS & ONR, the processes used by institutions -are inconsistent, very subjective and, at times, very contentious. A standardized method that is easy to administer and easy to verify would achieve a much greater degree of consistency in the F&A process and reduce variability in F&A rates.

The disadvantages of this method are the apparent lack of precision in the allocation of the costs of research laboratories and the belief that it will increase costs for the government. Since research laboratories are normally not assigned 100% to research, it is likely that Primary Use will be perceived as a less precise method than a space survey. However, this is the same principle by which Federal auditors and negotiators evaluate the use of Classroom and Teaching space; for these rooms it is assumed that they are used 100% for Instruction. Using this same logic to allocate the costs of research laboratories is reasonable. Furthermore, taking into consideration the complexities of the space survey process, the seemingly precise way in which institutions parse research laboratory usage between instruction and research is merely an illusion of precision. Under closer examination, it is clear that this parsing is arbitrary and subjective and the survey process is imprecise. Comparable results could be achieved with a less onerous and less costly process. Allocating facilities costs using a Primary Use methodology has the potential to provide comparable results at a fraction of the cost of space surveys and it will produce a more equitable result than the A-21 prescribed methodology. Although it would increase the allocation of facilities cost to research by classifying all research laboratories as 100% research, this increase would be offset by the allocation of costs for joint use rooms based on a salaries and wages formula. However, understanding the true cost to the government will require institutional modeling to determine the impact that a Primary Use methodology would have on F&A rates. An evaluation of the cost impact for a representative sample of research institutions should be undertaken as soon as possible in order to determine the cost to government research projects. The results of this evaluation will determine the viability of this alternative approach to the allocation of facilities costs.

Summary

To summarize, in the spirit of the FDP, a cooperative effort is being sought between colleges and universities and the federal government, in particular, the

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Office of Management and Budget, the Department of Health and Human Services, Division of Cost Allocation, and the Office of Naval Research, to identify and implement a methodology that simplifies the allocation of facilities costs. The ultimate solution should benefit all parties and not disadvantage any of the stakeholders. Active and positive participation by all stakeholders in this process is critical if a successful outcome is to be realized. What has been detailed in this paper is one of potentially several viable options in the anticipation that it will serve to stimulate thoughts and initiate a dialogue toward a more practical process.

It is critical, as we move through this process, that we all keep in mind the underlying concept of consistency. That is, the functional classification of space and assignment of facilities costs must be consistent with the functional classification of the source(s) of funds supporting the activities. This does not necessarily imply that there exists a direct correlation between organized research space (facilities costs) and organized research dollars (or FTE), however, we do need to identify a methodology and/or proxy that recognizes this concept and satisfactorily assigns these costs through a simpler and less contentious method. We must be creative, unprejudiced by existing methodologies, and collegial in our approach if we are to realize to a successful solution.