New Business Models for Research - Background Paper

Author: COGR

Published Date: 11/05/2003
Executive Summary:

In previous communications, COGR has addressed the management of federally funded research primarily from the perspective of research faculty and their administrative support staff, involved in research projects. As a contribution to the discussion about new business research models, this paper presents the financial perspective of the institution, as the business manager for its faculty.

With the help of five examples, this paper illustrates some of the difficult choices, which universities have to make in view of the existing cost policy expressed by federal agencies and by OMB. In turn, each example illustrates a particular situation: the effect of restrictions on legitimate cost recovery by agency or type of award; the cap on administrative cost recovery; the lack of commitment to life cycle recovery costs for capital projects and the requirement to invest capital recoveries; the artificial distinction between internal and external interests costs; and the exclusion of certain universities from equitable energy cost recovery.

The government imposes many of these restrictions with the goal of realizing savings for the taxpayer. The examples suggest that the opposite may be true. The resulting costs to the public are partly financial and partly a loss of national research capacity. Taken either in isolation or labeled a short term mandate, any one of these restrictions may appear innocuous to the outside observer. However, their negative impact is obvious to the business officer and would not likely be acceptable if universities were making business decisions like commercial entities.

Taken together, the examples illustrate the dilemmas universities face when sound business decisions are not equivalent to sound research decisions. Unless the government changes its policies, it will be operating at cross-purposes with sound research business models. Such models anticipate that the government’s academic business partner is expected to manage itself and the federal investment in research in prudent and cost effective manner.

Case # 1: The Effect of Restricted Cost Recovery by Agency or Type of Award

A tenured professor retires and the 30-year old laboratory has been renovated to accommodate a new occupant. In deciding how to allocate the new space, the university has to weigh the risk that a junior faculty’s research support may come in form of awards, which do not pay the full negotiated Facilities and Administrative (F&A) rate. An example might be the NIH career development awards under which the F&A cost recovery is limited to 8%, similar to a training grant. Although the government has clearly stated its intent to support young academic researchers, in recognition of the national priority to assure a professional workforce, its failure
to provide the requisite support costs diminishes the impact of such career development programs.
Alternately, a faculty member might try to claim the renovated space, whose high-risk research is so novel that federal funding has not yet been obtained. For how long can the university afford to cost share the support costs for his laboratory? Some universities have begun to recognize faculty who are successful grantees and who bring in the full negotiated F&A rate, by assigning them the prime research space in newly renovated buildings. Other universities might consider prioritizing the renovation of buildings that will house successful grant applicants, at the expense of other disciplines that are not as likely to be “winners”.

It becomes obvious that academic and financial arguments are likely to clash as important research decisions are made. Financial considerations, of course, may not be the final determining factor in academic decisions. From a strictly “business” perspective, the odds favors the more senior appointment in high priority research areas, whose grants include F&A payment at the negotiated rate.

Case # 2: Effect of the Cap on Administrative Cost Recovery

The university determines that investment in a state-of-the-art purchasing system will substantially drive down the costs of material and supply purchases, most of which are consumed by its federal research programs. The institution’s administrative costs already exceed the 26% cap imposed in Circular A-21. The university has to calculate how it can pay for the investment in infrastructure systems costs and how it will cover the payroll costs for the clerical staff to handle the complicated data entry needed to achieve the net lowering of its direct research costs.

The benefits of upgraded or newly installed management systems, e.g. for payroll, human resources or accounting purposes, invariably extend to the research activities of the university. Among those exclusively benefiting research are the systems now required to handle electronic grants administration (e-Gov), human subjects protection and animal use and safety. By limiting universities from recovering the legitimate portion of their investment in systems and personnel, the government creates negative incentives to the realization of cost savings that in the long run will benefit not only the individual university but its regional environment and its research sponsors. In the clinical research areas, the impact of the cap on administrative costs is particularly strongly felt and hard to explain, when institutions are committing significant resources to meet new and expanded regulatory requirements for protection of human research participants.

Case # 3: Uncertainty about Facility Policies & the Requirement of Invest Capital Recoveries

The university determines that a research building dating from the 1930s has outlived its usefulness and that it would be most cost-effective to raze the building and to build all new space. However, the federal government has in the past considered imposing limitations on cost recoveries for buildings used as research space. While these plans were eventually discarded, universities are reluctant to invest in new research facilities based on existing federal cost policies that might be subject to change. Further, the government has for years failed to include a well-funded facilities support program in the federal agency research program budget. To date there exists no federal policy that commits the government to participate in its share of debt service over the life of the loan. It would make good business sense to provide incentives, since
the research to be performed is in the government’s and the nation’s interest. Such incentives have been proposed and could range from including a reasonable facilities funding program in the federal budget, offering universities a federal sharing in loans, or a federal loan guarantee program. The common denominator in all these would be removing the uncertainty that universities currently experience under the given federal policy.

Business decisions for the university are further exacerbated by the federal government’s requirement that for every dollar of depreciation that is recovered on the new building, a dollar must be spent on some future project. This means in effect that the university will never recover the cost of its investment, and may be committed to new construction at times when it is not in a sound financial position to do so.

Case #4: Artificial Distinction between External and Internal Interest Costs

The university’s bond rating is in jeopardy due to depressed financial markets and reduced state support. Because of this, it would be less expensive, on a gross basis, to allocate internal capital funds to pay for a new science building. However, the university knows that there is no option for recovery from the government of the university’s internal cost of capital. Under these circumstances, the university may make a rational business decision to borrow at a higher external rate because it then can recover a fraction of the interest costs from the federal government, thereby lowering its net cost of interest.

It would clearly be in the taxpayers’ interest to provide incentives for the university to use its own money, possibly by sharing some of the investment costs, so that the federal contribution does not go towards defraying avoidable higher interest costs.

Case #5: Inequitable Policies for Recovery of Energy Related Costs

A space vacancy occurs in the cancer research center. The university could make the space available for a number of equally worthy projects. One of them is a large laboratory where the research project requires constant air changes. Unfortunately such a laboratory would entail high energy use. Since the university had not undertaken an energy study prior to 1996, it is now prevented from receiving appropriate compensation through the F&A rate for its higher energy research consumption. When the government put new energy studies on hold in 1996, it promised to develop a fair formula for all academic energy consumers, but has failed to do so. As a result, more than one hundred universities are now prevented from recovering the costs for higher energy use which they consume, which they could easily document, and which their peers who had done prior energy studies now enjoy.

For the university faced with this choice, the uncompensated energy costs inject an artificial economic factor into a determination, which should be based solely on academic and scientific needs. This may influence the university to make a decision not in the best interests of science.
Conclusion

The unique nature of universities precludes their being treated as business partners just like commercial business partners. The government can justifiably expect to get the best results from federally funded research with the least appropriate investment, and with the expectation of cost sharing. But when the government fails to recognize the universities’ legitimate business constraints, and the result are increased research costs that are shifted to the university research partner, then it is time for new business research models, which recognize these constraints and offer incentives.

The government’s current cost polices do not deprive universities of the freedom to make choices but the choices are increasingly narrow. It seems logical that universities will best serve the nation if they are free to make their best academic judgments about future research directions and graduate education. Furthermore, universities are not risk averse. Universities have always had to face the risk that the areas of research on which they focus could suddenly change either because a redirection is called for by the nature of the science, or because the federal government changes its priorities. However, at this time the risks for universities have increased because artificial limits and prescriptions are built into the maze of applicable government policy and individual agency regulations that govern research. The result are financial disincentives for universities, which may force decisions that are not consistent with the country’s overall goals and expectations.