The Janus Face of Research Administration

Stephen Hansen
Southern Illinois University Edwardsville

and

Kim Moreland
Fred Hutchinson Cancer Research Center

ABSTRACT

The principles of research administration emerged during the 1960s and 1970s, a time when research in institutions of higher education generally was unencumbered by external factors. Over the past three decades, however, regulatory, economic, and political forces have altered dramatically the boundaries of sponsored research, calling into question the viability of research administration's founding principles. Now, research administration faces a difficult dilemma. It cannot confront the future by ignoring the past, jettisoning the founding principles as irrelevant in today's more complex environment. Nor can it resolutely cling to those guiding principles and disregard the new, demanding context in which research is conducted. Only by being Janus faced will research administrators be able to address the problems inherent in managing research and sponsored programs in today's environment.

INTRODUCTION

Recently, Derek Bok, president emeritus of Harvard, darkly warned that American colleges and universities were in danger of losing their core values. One might discount Bok's warning as a lone jeremiad if it were not for the fact that other observers of higher education have also commented on the difficulties and challenges facing colleges and universities in the new millennium. The concern most frequently expressed by these commentators is that immense social, political, and economic pressures are threatening the mission and values of higher education.[1]

Nowhere in the university are these pressures felt as keenly as they are in research administration. The management of externally sponsored projects makes research administration a kind of

barometer for the university, measuring the degree of social, political, and economic pressure. The mission and values of research administration, consequently, have themselves become particularly vulnerable to these same powerful forces.

By examining the impact of certain social, political, and economic changes over the past three decades, it is possible to see the effect those changes have had upon the guiding principles of research administration. The challenge for research administration is how to preserve its fundamental principles while responding to the pressures of continual social, economic, and political change. Research administration cannot afford to focus stubbornly on its past principles and back into the future, ignoring the social, economic, and political changes, nor can it blindly march into the future in response to these pressures and disregard its original principles. Only by being Janus faced can research administration respond to the external changes in the social, economic, and political environment and still preserve its own values and purposes.

The Roman god Janus is a useful metaphor for research administration. Janus is the god of entrances and exits, and his image was often found on gates and doorways. While research administration is the university's gateway for grants and contracts, it is a second, deeper, meaning that makes Janus a powerful symbol for research administration. Janus marks beginnings and endings. He sits at the moment in time between the past and the future. He is typically depicted, consequently, as having two faces, one looking forward and another backward. It is this image that metaphorically best describes how research administration can preserve its core values while responding to the pressures of change.[2]

PRINCIPLES AND VALUES
of RESEARCH ADMINISTRATION

No single publication defines either the core values or the guiding principles of research administration. Instead, the principles and values evolved as the profession grew in the first decades after World War II. In those early years, four basic principles emerged in the literature, which have been repeated since in publications in one variation or another.

The first of these principles was expressed by Alvin Eurich, who wrote that research administrators must serve as a kind of oil in the grants process, reducing the inevitable friction that occurs when the interests of the faculty, the university, and the sponsor collide. Writing in 1969, Eurich maintained that the interests of the faculty, the sponsor, and university often conflicted.[3] Even when those interests did not conflict, they "rubbed" into each other with sufficient force and frequency to cause friction. The job of the research administrator was to reduce the friction and keep the process moving.

A second principle was articulated by Kenneth L. Beasley, who argued that research administrators should serve as "mediators-expeditors" of the grants process.[4] Beasley maintained that the grants process was both delicate and complex, and required an individual to balance the entire gamut of tasks from identifying funding agencies to submitting financial reports. A research administrator needed to mediate between the interests of the researcher and the demands of an outside agency. In doing so, the administrator would expedite the grant process.

Raymond Woodrow best expressed a third principle, stating that the purpose of research administration was "management *for* research, not *of* research…."[5] Woodrow meant that research

administrators were to make it possible for faculty to do research by managing the grants process for investigators, including all regulatory and fiscal matters. For Woodrow, it was clear that the research administrator was not to be involved in determining the direction or the shape of the research. Rather, the research administrator was to make it possible for researchers to do their work unencumbered by administrative burdens.

John Rodman and Michael Dingerson suggested a fourth principle. Effective research administration, they argued, depended upon positive collaborative relationships with the faculty.[6] Rodman and Dingerson maintained that research administrators needed to have the trust of the faculty and that they should represent the faculty voice when mediating between the interests of the sponsor and the university.

These four principles were echoed in the literature in some fashion or another through the 1980s.[7] Something began to change in the 1990s, however. Fewer articles discussed effective relationships with and services to the faculty, and more articles appeared exploring new issues, particularly the various aspects of management.[8] The change in the literature reflected, in part, research administrators' concern with how to manage the growing complexity of the regulatory environment, the changing economic forces, and the narrowing of the political agenda affecting research. Equally important, the attention to these new issues reflected the beginning of an erosion of research administration's guiding principles.

CHANGES IN THE REGULATORY ENVIRONMENT

One of the most significant factors that began to wear on the principles of research administration was the change in the regulatory environment for federal grants and contracts.[9] In the years immediately following World War II, federal grants were generally unencumbered by regulation. Proposal formats were flexible, deadlines were fluid, and terms and conditions were negotiable. In the 1970s and 1980s, however, federal management and oversight of grants changed.

One of the regulatory changes that profoundly affected federal grants to colleges and universities was Washington's growing number of rules concerning the management of research funds. The Office of Management and Budget, for example, issued Circular A-110 in 1976, revising it later in 1993. OMB also re-issued Circular A-21 in 1979, and modified it three more times between 1979 and 1987. These Circulars defined more precisely the administrative requirements for grant agreements. They codified and specified uniform requirements and provided a framework for the management of grants, forcing universities to create new systems for control.

A second regulatory change was a new emphasis upon auditing. The passage of the Single Audit Act in 1984 and the adoption in 1985 of OMB Circular A-128, Audits of State and Local Governments, ushered in a new era of fiscal accountability and control. Not only did these regulations address financial requirements, but they also gave auditors the authority to review "other control systems," which came to mean a wide variety of activities, ranging from subrecipient monitoring to compliance with the Civil Rights Act.

The third area of change was the explosion in the last two decades of regulations governing fraud and waste, protecting the environment, humans, and animals, and addressing individual rights. For example, regulations addressed employment of the handicapped, sex discrimination, age discrimination, clean air and water, hazardous materials, human subjects and animals in research,

biosafety, recombinant DNA, debarment and suspension, misconduct in science, procurement integrity, conflict of interest, and drug-free workplace.

Regardless of the reasons or the need for the regulations, these changes acted as an abrasive force, grinding and wearing away the original principles of research administration. Emphasis began to shift from services that helped faculty identify funding opportunities and facilitate the submission of proposals to control functions responsible for assuring compliance with a vast array of federal requirements. It became extremely difficult, if not contradictory, for offices of research administration to mediate, expedite, facilitate, and represent the faculty when federal requirements demanded that universities provide more regulation and control.

CHANGES IN THE ECONOMIC ENVIRONMENT

In addition to regulatory changes, a second significant factor affecting research administration was a change in the economics of higher education. Derek Bok wrote that universities controlled the three most important aspects of America's post-industrial economy––expert knowledge, research, and educated people.[10] Government as well as industry wanted, needed, and demanded access to these assets, and they began to exert pressure on universities to produce even greater amounts of these resources. With demand so high, there was little social and political patience for the amount of time it took to develop knowledge, conduct research, and educate people.

Research had helped win World War II, cure polio, and put a man on the moon. The lessons were clear. Research could solve any number of problems, ranging from national defense to public health. Federal support for research, consequently, grew 46-fold after 1951, increasing from $1.85 billion to $84.9 billion. In the 1990s alone, federal support for research increased from $65.8 to $84 billion.[11] The tremendous increase in federal support for research reflected the faith society had in the ability of universities to solve problems.

The impact of society's confidence in university research to solve problems, and its impatience for progress, changed the concept of funding for research. Instead of viewing support for research as a long-term investment in the future, society came to view research as a commodity to buy, use, trade, and consume. This gradual, yet profound shift transformed research into an enterprise, sometimes independent of the academic mission of the institution. Because it was viewed as an enterprise, curiosity based research was overwhelmed by research driven by agendas external to the investigator and to the academy. State agencies in particular were active in attempting to "buy" research to solve a variety of economic and social issues. State agencies, for example, directed public universities to address local issues, such as teacher shortages and the quality of education from pre-school through high school.[12]

The use of research to solve economic problems, however, best typifies the trend of treating research as a commodity. Both federal and state agencies trumpeted the miracle of R&D as an engine of economic development. Articles proclaimed the virtues of technology transfer, advised industry on new strategies to attract and retain R&D talent, and extolled the benefits of public-private partnerships.[13] The SRA and NCURA journals bristled with advice on industry and university collaboration, and a 1986 book advised that universities needed to undergo a cultural change in order to collaborate successfully with business and industry.[14] R&D was seen as the key to economic success, and research was asked to power an era of unparalleled economic

growth. These economic factors pressured universities to direct research, making it difficult for research administrators to maintain the principle of managing for research.

CHANGES IN THE POLITICAL ENVIRONMENT

Like the expansion of regulations and the change in the economics of higher education, the intrusion of politics into the research process affected the ability of research administration to maintain its guiding principles. Granting taxpayers' money gave policy makers the right to determine how that money would be spent, and since the public demanded solutions to any number of problems, why not direct research to address those problems? In 1992, the President's Council of Advisors on Science and Technology declared that the nation could no longer afford the "intellectual luxury" of funding all research and that government must focus the research mission.[15] The Government-University-Industry Research Roundtable echoed the same desire to focus and control research. It called for policy-makers to "set overall national priorities." Without irony, the Roundtable declared that we must think of the future and develop a strategic plan to manage the "pace and nature of research."[16]

Federal agencies managed the pace and nature of research in a variety of ways. Agencies set priorities for funding in some areas, while prohibiting research in other areas. For example, research in breast cancer received significant attention for a period of time in the early 1990s and was even included in the Department of Defense budget. Conversely, investigators were restricted from certain stem cell research, while others were discouraged from following other lines of research. Recently, for example, researchers studying AIDS and other sexually transmitted diseases were warned to avoid certain politically controversial topics.[17] The intrusion of politics into the research endeavor made it difficult for research administrators to mediate among the interests of the sponsor, the university, and the faculty when politics made the interests of the sponsor pre-eminent.

The way universities responded to the changes in the regulatory environment, the economic factors, and the political agenda for research also affected the principles of research administration. In 1987, Robert Rosenweig wrote that "compared to forty years ago, today's universities are larger, more complex, more competitive for money and people, have more capital needs, [and] are more dependent on government…."[18]That dependency on government funding led another academic observer to wonder if universities did not look now to research as a business, and grants as a source of revenue, instead of as supplemental support for the core educational mission.[19]

CHANGES IN THE UNIVERSITY

Universities created increasing complex bureaucracies to manage the dramatic rise in R&D funding and the complicated legal and regulatory environment. In 1988, the American Association of Higher Education observed that the "relationships with government have been marked by increasing bureaucratization and control."[20] The change could be seen most clearly in biomedical research. A study by the Pew Higher Education Research Program, for example, stated that "each new federal program carries with it substantial monitoring requirements that often lead to the establishment of new internal bureaucracies….Health and safety regulations are a prime example. Most research universities have to increase their staff of health and safety inspectors fivefold or better."[21] Paradoxically, the more money Washington granted to

universities for research, the more research cost and the more cumbersome it became to conduct that research. It became increasingly difficult for research administrators to facilitate the grants process as the institutional bureaucracy grew in magnitude.

Along with the growth in the size and complexity of the bureaucracy came what can be best described as a change in the institutional culture for research. One such change in the culture has been viewed as a decline of "social capital" within the university, i.e., the loss of mutual social obligation, loyalty, and dedication. The loss of social capital meant fewer shared values, more parochial interests, less communication, and more antagonisms. Relationships between faculty and the administration, for example, become adversarial instead of collaborative.[22] A second cultural change has been the shift in faculty loyalty from the institution to the academic discipline and finally to the research funding agency, resulting overall in less collegiality within the academy.[23] The third change in the research culture has been the erosion of traditional academic values. The values and standards of excellence and of academic freedom, some have argued, have eroded to the point that universities needed external regulations to govern conflict of interest and misconduct in research.[24] These changes in the university increased pressure to the point that it became impossible for research administrators to act as a lubricant to reduce the friction between the faculty and the university.

STRUCTURAL RESPONSE TO THE CHANGING ENVIRONMENT

With the change in the regulatory environment, the increase in economic pressures, the impact of political agendas, and the universities' response to those factors, it has become very difficult for research administration to manage for research, to facilitate the grants process, to collaborate with the faculty, and to mediate among the conflicting interests. One reaction has been for research administrators to change their organizational structures to accommodate the new rules and demands. At a recent national conference, three major research institutions unveiled new models for organizing research administration. Additionally, a study at SUNY Albany proposed a fourth approach to organizing sponsored programs.[25] Each organizational model reflected an attempt by research administration to accommodate the guiding principles to the changes in the environment.

One model for organizational change was initiated by Stanford University. The purpose for changing the structure was to make research administration more "responsive, timely, and accountable." The mission of the research administration office, Stanford declared, was "to support outstanding sponsored research and education by providing service, expertise, innovative leadership, and by promoting a collaborative model of stewardship among all faculty and staff." To achieve this mission, Stanford combined its pre- and post-award functions. It adopted a "portfolio" approach to the management of awards, i.e., research administrators in the central office followed a single grant through its entire "life cycle." This approach focused the research administrator upon individual researchers with the goal of enhancing "customer service."[26]

The Dana-Farber Cancer Institute offered a second model. In response to the increasing grant volume that was crushing the old organizational structure, the Institute abolished its old divisions, de-centralized grants management, and re-defined administrative roles. Its goal was to create a "seamless" grants process for investigators by making the departmental research administrator the "facilitator" for the researcher and the central administrator the "mediator" among the various interests.[27]

Washington University addressed the changed research environment in a third way. It recognized that its central research administration structure was fragmented and plagued by weak service, slow response, and little or no support for proposal development. Its response was to create a "one stop shop," where faculty could have all of their grants needs taken care of by a single office. To support this concept, Washington University re-defined roles for the departmental research administrators and for the pre- and post-award offices.[28]

A report from the Center for Technology in Government at SUNY Albany stands in dramatic contrast to the organizational responses of Stanford, Dana Farber, and Washington University. Offering an organizational model from a national rather than an institutional perspective, the SUNY report agreed that the mechanisms supporting research were collapsing in the current environment. Its solution to the problem, however, was to recommend a plan that would manage the direction of research rather than the processes for facilitating research.[29]

The SUNY report argued that the ideal organization for research would invest only in *a priori* defined significant social and scientific research in contrast to supporting curiosity-driven research. The organization would foster collaboration to address these issues and direct resources only to qualified researchers for qualified projects. The ideal research organization would be able to identify emerging issues, develop human capital, and take investment risks. An organizational structure directed to these goals would result in lower overhead costs, create a standardized method of conducting business, enhance communication, and target resources better. By directing research, this kind of organization would eliminate inefficiency in the research enterprise.

TRENDS

These four examples show a number of trends. First, it is clear that the complex environment necessitated the creation of an equally complex system to manage it. All four cases recognized that the system for supporting sponsored research was crumbling under the strain of trying to manage grants in the current legal, regulatory, economic, social, and political environment. Stanford, Dana Farber, and Washington University responded by re-structuring their programs supporting sponsored programs in order to preserve the four founding principles of research administration. Although they re-structured differently, all three stated that their goal was to enhance the facilitation of the grants process for the faculty. In order to achieve that purpose, they had to create new organizational structures, and administrative roles. The SUNY report was similar in also proposing a structural response to the complex legal, regulatory, social, and political environment. Its response, however, differed from the other three in calling for sponsors and universities to adopt uniform methods and standards of accountability. This approach, the report argued, would better facilitate research than would university organizational re-structuring.

Second, these four examples show how the terms "facilitate" and "mediate" have come to have meanings different than when they were used by Woodrow, Beasley, Eurich, and Dingerson and Rodman. For example, Stanford's collaborative model incorporated the sponsor as part of the partnership with the researchers. Facilitation, consequently, meant facilitation for the sponsor as well as the investigator. It was a subtle yet significant recognition of the active role the sponsor now played in the grants process. The Dana Farber model, in contrast, did not include the sponsor but split the roles of "facilitator" and "mediator." The facilitator function was left to the departmental research administrator while the mediator role was given to the central research office. Washington University's "One Stop Shop" maintained a traditional approach to

facilitation and mediation, while the SUNY report addressed facilitation in terms of setting research agendas as a means of gaining efficiency in grants management.

In terms of the meaning of facilitation, probably the greatest change illustrated by these four examples was the recognition that facilitation also now meant regulation. The legal and regulatory environment had grown so complex that universities had to create significant office structures to assure compliance. Facilitation had come to mean not just helping investigators comply with regulations, but also enforcing the regulations to protect the university.

Last, these four examples demonstrate the transformation of the principle of managing *for* research. Stanford, Dana Farber, and Washington University clearly were attempting to manage *for* research, but the new realities were forcing them to make concessions and adjustments. Traditional structures of research administration were designed to support research. These new organizational models, however, sought not just to manage *for* research in terms of support, mediation, and facilitation; they attempted to *protect* research from the intrusion of external regulations, economics, and politics so that it could be conducted in as unencumbered a manner as possible. The social and political agendas, regulations, priorities for funding, cost of research, and institutional liability all made the possibility of curiosity-driven research problematic. The university examples illustrate how those institutions tried to mitigate those factors.

The report from SUNY, however, took a radically different approach. Its response to the new environment was to abandon the principle of managing for research and propose the management *of* research, i.e., manage the direction and agenda of research. Only by setting research priorities, directing resources, and imposing a research agenda, the report argued, could research be conducted efficiently and effectively in the current environment.

CONCLUSION

Regulatory, economic, and political changes over the past three decades have been an abrasive force grinding hard against the guiding principles of research administration. It has indeed been difficult to manage for research, facilitate for research, mediate the research process, and be a voice for the faculty in the face of these changes.

In reality, regulation, economics, and politics have always formed the boundaries for research administration. Over the past thirty years, however, those boundaries shifted and narrowed radically, permanently altering the landscape for research and its administration. It is within these new boundaries that research administrators must seek to understand the relevance of their founding principles in a new millennium. The first principle of research facilitation remains a critical precept, but it must now encompass the management of pervasive regulation. The profession's second principle, to mediate among the needs of faculty, sponsor, and institution, now extends to an environment in which powerful political, economic, and legal forces frequently make the interests of the sponsor pre-eminent. The third principle of building collaborative relationships with faculty faces new challenges now that both the sponsor and the institution require research administration to regulate faculty. Last, the task of managing *for* research is more complex and difficult now that external factors engage in the management *of* research.

Research administrators need to address the challenges of the regulatory, economic, and political environment, and search for new ways to facilitate and mediate for research. In doing so, research

administrators can neither face the future by turning their backs on the past, jettisoning the guiding principles as irrelevant, nor steadfastly cling to the founding principles and back into the future, ignoring what lies in front. Only by being Janus-faced will research administrators be able to answer the question of how to support research. One face of research administration must always focus forward on the ever-changing environment, adaptive and dynamic, while the other face must never lose sight of the guiding principles of managing for research, facilitating research, mediating the process, and supporting the faculty. The task is to determine how best to provide those services in the shifting boundaries of a new environment.

ENDNOTES

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