

The Organization of the Research Enterprise

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In the biological world, form seems to follow function, which helps to explain a few of the more unusual creatures on earth like the giraffe and pelican—but what about the hippopotamus? That must be a case of form gone awry. In the organizational world, function also generally dictates form or structure, though we do occasionally find anomalies. The research enterprise is no different. There are typical organizational structures, but many other forms that are equally appropriate. In this section information will be provided for determining or reviewing:

- functional and service units;
- the structure of the research organization;
- roles and responsibilities, authorities; and
- the costs associated with administration of research.

None of the elements are independent but impact each other and are rightly interrelated. The organization must have common goals and objectives and must communicate regardless of structure, individual and group roles, responsibilities, and authorities. This chapter will capture the essence of both the critical functions and the structures associated with the management and leadership of the research enterprise. Each of the topics discussed is further elucidated in subsequent chapters and sections.

Functional and Service Units within Research Administration

Before embarking on a description of research administration functional and service units, it will

be helpful to get an understanding of the scope—the breadth and depth—of the enterprise we will be examining in this chapter. The research enterprise encompasses all organizations that advocate, fund, manage, practice or report on research. When an institution is significantly engaged in the research enterprise, research administration is woven into the very fabric of the organization: nearly every operation within the institution is impacted in some way or other by the conduct and support of research. For instance, at Penn State, the judicial affairs office, which oversees the student court, called the Office of Sponsored Programs to ask about “NISPOM,” the National Industrial Security Program Operating Manual, because of the increasing numbers of background checks being conducted by federal special agents, including investigations into former students’ disciplinary records. NISPOM applies to universities such as Penn State that have secure research facilities for conducting classified research. A requirement of NISPOM is that subject organizations “cooperate with Federal agencies during . . . conduct of personnel security investigations of present or former employees and others.”¹ “Others” may also include former students. With so many students going into security-sensitive jobs or being called up to active duty overseas, the volume of these background checks is escalating. At Penn State, even though background checks had nothing to do with research, the conditions under which the checks were conducted were there because of the research program being conducted at Penn State’s secure facility, the Applied Research Laboratory. New regulations may be extremely

tory compliance; project management; financial management; intellectual property and technology transfer; research administration support; and institutional research administration infrastructure management. One could write an entire book covering these functions; in fact most of this book will be devoted to covering some of these functions individually and in more depth. In this chapter we provide a survey to give the student of research administration an introduction to the functions of research administration.

Capacity Building and Marketing

Institutions realize that in order to thrive as research organizations, they must first create cultures which stimulate, promote, assist, and reward those faculty who take on the extra burdens of seeking and operating sponsored projects. In addition, the success of individual faculty members depends heavily on the reputation of the institution. Promoting the successes of the institution in research and sponsored projects is also a task that research administrators need to consider.

Identification of Faculty Expertise and Institutional Research Facilities Research administration offices should maintain a database of faculty research interests and expertise and a listing of institutional research facilities.

• *Faculty Research Interests.* There are some faculty profile systems available on the World Wide Web, such as the Community of Science (www.cos.com). Through this kind of service, institutions can maintain research expertise databases for use within the institution in matching investigators with funding opportunities, in building multi-investigator or interdisciplinary research projects, but a service like COS also allows other institutions or companies to find research experts at your institution to partner with or obtain services from. Some institutions build their own research expertise databases or have them as a part of their electronic research administration (ERA) systems, either of the homegrown or the vendor variety. The advantage of having the faculty profile database in the overall ERA system is that faculty expertise can be linked electronically to the faculty's grant and contract activity; faculty can keep their profile information current and "port" their information into proposals; and faculty "track records" in proposals and awards is another indicator of expertise and interest that can be employed within the institution. Faculty profiles should

contain such key information about the faculty member as: college, department, contact information; academic degrees and certifications; and research keywords. Additional information might include a list of publications, funded research projects, and an "abstract" of primary research. The obvious problem with all such systems, however, is keeping them updated. The more the profile system is integrated into an overall ERA system for the institution, the more likely it is that the information will be kept current by the faculty.

• *Institutional Research Facilities.* Maintaining a current listing of major research instruments and laboratories that are available for faculty use is a great way of informing faculty who need resources for their research of where they might find them on campus, but it is also a great way of advertising an institution's strengths. If a little "boilerplate" information is also available on the Web site containing the list, faculty can use the descriptive material for proposals. A listing of research centers is also helpful to internal and external "customers or clients."

Identification and Dissemination of Funding Opportunities One of the principal functions of a research administration office is keeping faculty and institutional officials aware of funding opportunities and deadlines. This means keeping current with information coming out of a host of sponsoring entities including the federal government, state governments, foundations, and corporations. This can be done by monitoring the Web sites of these entities and getting on their mailing lists (either e-mail or "snail mail"). For federal opportunities Grants.gov's FIND Web site posts government-wide grant opportunities. There are a number of vendors who compile funding information for subscribers. Institutions large and small can benefit greatly from this kind of service. The research administration office also needs to find the best way(s) for disseminating the information. Maynard Kohler of Penn State University and one of the first research administrators to envision electronic dissemination of opportunities announcements, once described the process as trying to take a drink from a fire hose. There's just too much information. The principal method is providing a search tool for faculty to pull out matching opportunities from a funding database. But constantly checking databases for new opportunities is time-consuming and usually wasteful. Alert systems (like the National Science Foundation's Custom News Service) that allow faculty to enter keywords

pervasive and to some extent invasive as demonstrated by the work student affairs, the graduate school, and other university offices have had to undertake in order to comply with regulations regarding visas for graduate research assistants from foreign countries. The mandate of background checks at all universities where research is conducted has placed a great burden on research administrators at schools throughout the US.

Indeed the spectrum of research administration also reflects the breadth of the research enterprise. Research, although considered one of the three main activities of a comprehensive institution of higher education (teaching, research, and service), actually supports and interacts with the other missions—supporting and enhancing them. Research is integral to the instruction of undergraduate and graduate students. A faculty member engaged in active research makes a better teacher. Student research experiences help prepare students for the “real world” of business and industry. Research is also one of the key driving forces in economic development. Many universities see interactions with business and industry as a clear part of their service mission to the community, state, and nation. There are many other indicators of how closely aligned the research mission is with instruction and service, but the “take home” lesson is that research administration is indeed visible throughout the institutional garment, even if the garment isn’t always seamless!

Another indicator of the breadth of this enterprise is that the spectrum of research administration activities spans the entire life cycle of a research project and all its sponsored support: from building faculty expertise and a culture for research and sponsored support, through the identification of funding opportunities; to proposal writing and submission, award acceptance, project management, the handling of research results (including inventions and creative works), project closeout and auditing, and all the physical and administrative infrastructure that supports the whole operation.

A final element to consider by way of introduction is that what a research administration operation does, its very functions and activities, is highly dependent on what that “organization” perceives are its core values. Historically, research administration has been recognized as a service organization. Raymond Woodrow, an early research administrator at Princeton University, said more than 25 years ago that a primary function of research administra-

tion is to create a nourishing climate for research.² While that job has grown in scope and complexity over the years, the mission is the same. This means serving the faculty who perform the research, serving the institution by protecting the institution’s reputation and finances, serving the sponsor by ensuring proper stewardship of funds and proper dissemination of results, serving the federal government by complying with research regulations, and serving the people by facilitating the creation and dissemination of new knowledge and technologies to their benefit.

All this cannot be accomplished within a single office—even at an institution that has little sponsored activity. How all these functions and activities are organized depends a great deal on how much research and other sponsored projects activity there is, how the institution is organized, and the cultural history of institution—whether it has evolved as a centralized or decentralized organization, whether it has strong departments or strong colleges, and whether it has a good or a poor electronic business system.

In this chapter, we will survey the range of functions and activities involved in research administration. One can consider them organizationally, as units; but what is discussed is not necessarily related to organizational placement, but is related, rather, to the functions and services themselves. In this discussion we will rely on the components of the *Topical Outline of the Essential Elements of Research Administration*, a document produced jointly by the National Council of University Research Administrators (NCURA) and the Society of Research Administrators (SRA) in 1998. Even though the document has aged somewhat, it still provides a strong foundation on which to build. We will look at some options available for organizing these functions within a corporate structure.

The Pre- and Post-Award Research Enterprise

Research administration has been historically divided into two principal functions: pre-award and post-award. Many institutions still divide their operational offices in this manner. While these two categories still exist, the proportion of items falling into the two categories has radically shifted in the last decade or so, so that the number of post-award activities has greatly increased. Instead of using the two categories, we are going to examine nine principal functions of research administration: capacity building and marketing; proposal development and submission; award negotiation and acceptance; research protections and regula-

describing their interests, which are then used to send matching opportunities out by e-mail, is an improvement on that system. The second way is to proactively transmit opportunities to faculty. The two principal dangers that exist in this latter process are sending too little or sending too much information, either of which can undermine the goal of getting the right information into the right hands or catching the attention of the faculty recipients before they hit the delete key. An ideal system combines faculty research interest profiles with a human being who has a general idea of who is doing what. Funding newsletters, deadline lists, and Web sites are some of the favorite tools for disseminating funding information.

Identification of Research Administration Infrastructure Elements Keeping faculty aware of the services and resources that an institution has available to assist them in research and sponsored programs is a difficult but absolutely essential activity for a research administration operation. A functional and easy-to-navigate, content-rich home page and an accompanying hard copy version is the best way for letting your faculty customers know about what is out there to help them. A complete survey of services and tools available can also let you benchmark against other institutions or against recommended best practices. The list needs to include guidance for faculty on whom they need to see to get help finding funding, building budgets, submitting proposals, monitoring their budgets, appointing personnel and making purchases, etc.

Coordination of large multidisciplinary research is becoming more and more complex. Often single scientists, single disciplines, or even single institutions cannot provide solutions. Thus, multidisciplinary approaches to certain research problems are becoming standard. The National Institutes of Health's Roadmap Initiatives, as an example, stress an interdisciplinary approach to research to cope with the complexity of studying human biology and behavior, recognizing that the "traditional divisions within biomedical research may in some instances impede the pace of scientific discovery."⁴ Research administration needs to provide coordination within the institution and among institutions in order to bring together scientists from the various

disciplines, facilitate their working together, and provide the unique management requirements that are required for grants that overlap departments, colleges, and institutions.

Industrial Research Development and Management

Both industrial support of research and industry-university research collaborations have been on the rise since the 1980s. While some technical and land grant universities trace their close workings with industry back 80 to 100 years, industry interactions are a more recent phenomenon for most institutions. The Reagan administration was instrumental in fomenting this change. First Reagan stated the principle that it is not up to the federal government to provide for all the costs of fundamental research at US institutions of higher education and science. Industry, he insisted, benefits greatly from the new knowledge generated by universities and therefore should be responsible for supporting to some degree the costs associated with that enterprise. Second, during the Reagan administration, the Bayh-Dole Act was passed, which opened new doors to collaboration between universities and industries, since US research institutions could then own intellectual property developed with federal funding. This change in federal research policy and the recognition of both the industry and university communities led to the creation of the Government-University-Industry Research Roundtable (GUIRR) in 1984 under the National Academies. In addition, government grant programs were specifically developed to encourage and enhance this collaboration. Government, industry, and universities all began to see the importance of industry-university collaborations for enhancing technology transfer from university science to commercial products, promoting regional economic development, and putting university and industry scientists together to meet national needs. Companies received new ideas and solutions to their problems; universities received new sources for much-needed research funding. Unfortunately, this interface is particularly difficult because there is such a cultural divide between non-profit institutions and profit-driven corporations. Some universities, in responding to resulting pressures, have established research administration operations that promote and facilitate interactions between faculty and companies. Research administrators need to be sensitive to the needs of industry, but also the risks that working with companies can present. The service operations typically "market" university research capabilities to industry, mainly

⁴National Institute of Health, "Interdisciplinary Research Overview," <http://nihroadmap.nih.gov/interdisciplinary/index.asp>.

through personal interactions, but also through specialized brochures and Web sites. For large institutions, one promotional technique is to showcase a particular strength of the university to a particular industrial segment. One institution recently held a "Hydrogen Day" which brought together university faculty and companies that shared an interest and expertise in hydrogen production, storage, sensors and monitors, fuel cells, transports, and national policy. An office that functions directly with companies apart from those associated with negotiating contracts or managing industry financial matters can often act as a liaison between the university and a company if problems or disagreements arise.

International Research Development and Management

Universities have long recognized the benefits of developing an international dimension to the advancement and dissemination of knowledge. Research administration offices need to be able to assist in this activity. First of all, universities have long been committed to the principles of social justice that call for sharing educational, agricultural and technological advances that promote human development especially in the poorest of countries. "In a world moving rapidly toward the knowledge-based economies of the 21st century, capacity building in science and technology (S&T) is necessary everywhere. But the need is greatest for the developing countries."³ In addition, university faculty collaborate with peers in their fields worldwide; sometimes these collaborations are enhanced by joint research projects that require external funding. Research administrators need to know how to work with foreign governments, US government organizations such as the Agency for International Development, joint research programs sponsored by the National Science Foundation, and others, so that they can facilitate these exchanges. Since the September 11, 2001 terrorist attacks on the United States, international research exchanges have become many times more complicated. Export control and national security issues, visa problems, travel restrictions, and a host of other complications now have to be on the research administrator's radar when working on international projects. In addition, in some respects international research entities are becoming a rough competitor for industrial research funding. Recent congressional testimony from industry says that many companies are so frustrated fighting with US universities over intellectual property clauses in

research agreements that they are finding new partners internationally. It is important that research administrators in the United States gain a better understanding of how their neighbors are working and create better lines of communication. The importance of the international dimension has been reflected in associations of research administrators: The SRA formally changed its name to the International Society of Research Administrators and the National Council of University Research Administrators announced in 2003 the creation of a task force to study the international dimensions of research administration, both developments intended to better prepare their memberships to work in the international arena.

Marketing Research Capacity One of the most difficult and frustrating aspects about university research programs is how little our clients know about what we do for them day in and day out to help promote the welfare of our citizens and the world. All too often, the only university activities that make the news (aside from sports news) are stories of scandals and blunders. Universities in general and university research in particular suffer from poorly managed public relations. Research administration needs to address this problem in some way. Some of the basics that are essential include sending out press releases covering the receipt of major grants and contracts, new discoveries and technologies from which our constituencies will benefit, and the ways that university research creates new jobs and improves local economies. Another essential for many institutions is the publishing of an annual report of research that highlights research projects that are under way and gives some of the institution's statistics in regards to proposals and awards. These kinds of publications can enhance the institution's reputation and promote the research capacity of the institution. But marketing research capacity is not only an external activity; part of creating a culture of sponsored research on campus is to market research capacity internally. University-based newsletters that recognize faculty accomplishments in research and that highlight current research projects and research facilities at the university can inform faculty of the research capacity of their own institution.

Proposal Development and Submission

Preparation and submission of proposals are two primary functions of any research administration

operation. Whether these functions are performed centrally or in a distributive fashion, whether done electronically or on paper, proposal development is the heart of the research administration process. There has always been a direct proportional relationship between the number of proposals submitted and the number of awards received. The way proposals are prepared affects not only success in grant competitions but the whole course of the research project, from how much money is available, to how it is spent, and how much can be accomplished. A truly bad proposal may not be the one that is rejected, but the ill-conceived one that is awarded. Bad proposals that become funded can lead to financial liabilities, contractual defaults, lawsuits, conflicts of interest, ruined partnerships, bad science, and your institution's name on the cover of the *Chronicle of Higher Education* in a none-too-flattering way.

Budget Building The budget of a proposal is the financial expression of the project. Every research administration service unit needs to be fluent in the language of budgets, in their construction, the rules and regulations that set up boundaries on allowable and unallowable costs, and in their institution's various rates for fringe benefits, student stipends and tuition remission, facilities and administrative costs, etc. In the preparation of budgets an indispensable tool for any research administration office is some form of electronic budget building capacity. While it is still possible to crunch out a proposal budget with a calculator, a pencil, and a pad of columnar paper, the complexity of today's research, the short turnaround times expected by faculty, and the sheer potential for errors make the use of electronic spreadsheets, budget templates, or proposal development software an absolute essential. These budget building tools range from highly sophisticated software packages to simple spreadsheets that do nothing more than add numbers automatically. The highly dynamic packages lead faculty or research administrators through the budget process like Turbo Tax leads one through the preparation of tax returns. These tools frequently have business rules built right into the software, so that rates are always applied correctly and unallowable costs avoided. Regardless of the tools used, budget building almost always should involve an experienced research administrator working closely with a faculty member. In this manner, the tasks of the project can be converted into the finances needed to accomplish them—with the faculty member providing the description of the science, and the research

administrator translating that into dollar impacts. Since budget building works best with interaction between faculty and administrator, organizationally, the budget building operation ought to be situated as close to the faculty as practicable. Spending time with faculty members during the budget building process can help them understand better what is going to be expected later from them as they manage their project. It also gives research administrators an opportunity to explain some of the logic and purposes for the rules that are established regarding budgets.

Proposal Writing, Editing, and Assembly The narrative of the proposal is what really sells it to the sponsor. Well-written proposals coherently and cogently make the case to reviewers that this is the project they should select for funding. Some truly great scientists might get away with sloppy language and incomplete sentences in their proposals and still get funded, but this is certainly not the case for everyone else. Dr. Don H. Blount, formerly a program officer of the National Heart, Lung and Blood Institute and now retired from the University of Missouri—Columbia Medical School, used to talk of the phenomenon he called the “cascade of negativity.” One typographical error is not likely to affect a priority score, but each additional grammatical error, incomplete sentence, poorly reproduced chart or photograph works almost geometrically in convincing the reviewer that the science is probably just as sloppy as the proposal. On the other hand, poor science, no matter how well expressed, is unlikely to be funded. So research administration operations need to recognize that while they may be able to enhance a well-conceived proposal, they really can not write the proposal for the faculty member. What can research administrators do for faculty who are writing proposals? Here are some helpful services, tools, and activities they typically provide:

- Offer proposal writing classes for new faculty that cover the basics of proposal writing
- Have a prewritten boilerplate describing institutional capacity and facilities
- Provide editorial assistance to faculty who request it (remembering that the really great editor does not rewrite the text but elicits the best writing possible out of the writer)
- Provide faculty mentoring and internal reviewers to help young faculty
- Provide proposal templates for faculty to help them make sure they cover all the necessary sections
- Remind them constantly about the proposal guidelines—emphasizing the importance of

complete compliance with page limits and type-size restrictions

- Coordinate the final packaging of the proposal, ensuring that all the sections are completed
- Have access to proposal and funding information to help prepare statements of current and pending support

Proposal Compliance Reviews and Representations, Certifications, and Assurances Institutional responsibility for ensuring that proposals comply with federal regulations must be taken with the utmost seriousness. This responsibility falls squarely within the realm of research administration. Other offices may be responsible for ensuring compliance with the regulations themselves: for example, purchasing department keeping track of procurements from small, minority, or disadvantaged businesses or the affirmative action office being responsible for monitoring compliance with civil rights laws. Research administration, however, must maintain contacts with all the offices that oversee compliance to be able to make the proper representations, certifications, and assurances. The first hurdle in accomplishing this, of course, is knowing all of the requirements. The National Council of University Research Administrators has a compendium of all the various federal compliance issues. This is a great resource, but one can also glean a great deal of compliance information by a careful reading of the proposal guidelines, like the PHS 398 packet. At the proposal stage the primary responsibility of the research administrator is to make sure that key compliance reviews are completed as necessary. Checklist forms are a good aid for this. Most internal review forms or electronic processes have a compliance checklist that is completed by investigators, identifying when human research participants will be involved, animal experimentation undertaken, the use of biohazardous materials is proposed, or when the financial holdings of a researcher might present the potential for a conflict of interest. With "just-in-time" processes in effect at some agencies, actually having all the reviews completed at the time of proposal submission is not always required, but having a record of what compliance issues are raised in the proposal makes it easier to track completion and approval at a later date.

Coordination of Multi-Institutional Proposals Federal agencies have stressed the necessity of a team

approach to many research problems. It is no wonder then that the number of collaborative arrangements between institutions is increasing. At the proposal stage research administrators are called on to assist faculty in the integration of the various work scopes. Research administrators at the various institutions can work as a team in this particular effort, sharing information with one another as the proposal is being built, keeping each other notified of target dates and deadlines for wrapping up the various parts of the proposal. When a single proposal is to be submitted, one institution's research administration office is called on to do the final assembly of the proposal. From each collaborating institution the prime recipient needs to make sure it has a statement of work, a budget, and an institutional endorsement, at a minimum. Ensuring that all the pieces are there at the proposal stage makes issuing a sub-award at a later date a much easier task. The coordination of multi-institutional proposals can sometimes be helped by electronic communications, but frequently agency electronic proposal submission processes make it more difficult to submit proposals. Part of the research administrator's job is to make sure that coordination is begun early enough to head off problems.

Proposal Review, Approval, and Submission This is most likely the area that witnessed the genesis of the research administration profession. For early generations of research administrators it was the most important responsibility they had. It represents the first official point of intersection with outside sponsors. What is transmitted by the institution to the sponsor must be accurate, responsive, cohesive, and an excellent representation of the quality and reputation of the submitting institution. The proposal is the first document establishing the legal history of a contractual relationship and what is contained therein is of utmost importance. Regardless of how an institution delegates the responsibility and authority for review, approval, and submission, the task itself requires a high level of technical skill, a great attention to detail, and the endurance and mental toughness of a marathon runner to get through major deadline periods! As mentioned before, most institutions have some type of internal approval form or electronic process that is completed during the proposal review process. It is the final check for the accuracy of the budget, application of the correct rates, identification of investigators and their levels of effort, space commitments, regulatory compliance reviews, type size and space limitations, adherence to proposal guidelines, cost sharing commitments, appropriate commitments

from subrecipients and collaborators identified in the proposal, the terms and conditions of award if the proposal is successful, concurrence of department heads and deans, and the overall appearance of the proposal. Usually all this must be done within a very short period of time in order to meet the deadline. The approval given to the proposal by an authorized official represents the commitment of the institution to dedicate the resources and best efforts of university personnel to accomplish the scope of work within the budget proposed. Even when the proposal is for a grant (assistance and not procurement) it becomes, in a sense, a contractual offer. Sometimes, in the case of a response to an request for proposal (RFP), the proposal is in fact a binding contract that can be executed and awarded by the agency without further negotiation. The authorized official is a specifically assigned representative of the corporation submitting the proposal. There needs to be a clear line of delegation indicating the signer's legal capacity to execute legal documents, in this case the proposal. The research administration organization is responsible for ensuring the timely submission of the proposal. This means being aware of impending deadlines, tracking proposals through the review process, and using the appropriate method of transmission. While research administrators have tried for years to get faculty to submit proposals early enough before the deadline for thorough review, inevitably some proposals always come in at the last moment. New electronic submission techniques press the deadline crunch even more. In these situations, research offices should have a conditional submission process that allows the proposal to be submitted but makes the faculty member aware that if problems surface with the proposal, the faculty member would be responsible for revising the proposal or withdrawing it.

Award Stage

Award Review and Approval The award process may actually begin at any point after the proposal is submitted when the agency begins to work with the institution in arranging for a grant. Thus, this function includes providing "just-in-time" submissions of compliance information, working up and submitting revised budgets or statements of work, or providing other clarifications to the sponsor prior to the official award notice. Unfortunately, the "award" activity actually also includes receiving and processing "rejections" or, as many sponsors word rejections, proposals that have been "approved but not funded." The research administration office needs to appropriately

log the status into the proposal database and ensure that the principal investigator (PI) and the appropriate academic office are informed. Rejected proposals have to be "pulled" and processed according to the office protocol. The research administrator may also work with the PI in getting the agency's documentation on the review process, which may contain suggestions helpful to revising and resubmitting the proposal for reconsideration. Upon receipt of the award notice, the details of the award need to be reviewed against the proposal, with any discrepancies noted for follow-up. The award terms and conditions also need to be examined. With federal awards, this is normally a transparent process, since the terms are usually known before submission occurs. However, with certain foundations and other not-for-profit organizations, the institution may not have seen the award terms and conditions. Negotiations may even be called for in some instances with grants [see next section]. Normally grants are issued unilaterally, formal approval is therefore not usually required, but where it is, then obtaining the sign off of the authorized official is required. In some instances, formal acceptance is not required, but the sponsor asks for an acknowledgement that the award has been received. Such acknowledgement does not legally require an authorized official's signature (although some institutions may require it in their procedures). With unilateral awards, formal acceptance "contractually" takes place by the setting up of an account and spending money on the project.

Contract Negotiations Contract awards are quite different and require a great deal more work of the research administration office. Negotiations are to be conducted by authorized representatives of the institution only. This is a situation in which the old adage, "too many cooks spoil the broth," is really true. PIs, their staff assistants, and department heads need to be told politely that, while their input is important, it needs to be channeled through official university negotiators. The negotiation process needs to be adjusted to the particular situation at hand. "Negotiations" with federal contracts is more a process of arguing for the application of proper FAR clauses. To assist research administrators with this activity the research administration office should have a list of FAR clauses that are acceptable to the institution, those that are not (with the reasons stated), and the appropriate alternate clauses. Sometimes, however, "real" negotiations do occur with federal contracts, over such issues as the applicability of publication restriction clauses. The federal process also basically applies to

federal “flow-through” contracts from industry or from another nonprofit institution. However, straight industrial contracting is usually a very real negotiation. This function may be the most challenging among all the others undertaken in the research administration enterprise. Research administration negotiators need to balance the needs and desires of the faculty member, the best interests of the institution in avoiding excessive risks and liabilities, and compliance with university policies with the concerns and needs of the company, all in the interest of arriving at a win-win solution. All through the negotiation process it is critical to keep the PI informed and to consult with the PI from time to time on issues that might be impacted by the scope of work proposed and the potential for the creation of new technologies and knowledge. Research administration offices should have a “library” of contract clauses that work with the various groups of sponsors. These should include not only the language but the rationale for employing each particular clause or alternate. For a research project to be successful a well-reasoned and fair contract is essential. If the parties cannot agree on the nature and terms of their relationship, it is hard to imagine that their scientific collaborations will be any more successful. Using national norms in negotiations is very important, such as the NIH statement on developing sponsored research agreements with industry published in the NIH Guide in July of 1994 or the series of reports from the National Academies on model industry-university agreements, or the more recent report from the Business-Higher Education Forum, *Working Together: Creating Knowledge*.

Award and Account Establishment Upon the acceptance of the award, the emphasis shifts to concern about getting the research project underway. The research administration operation is responsible for coordinating the smooth transfer of documentation and data from the pre-award function to the post-award. A summary of the award terms and conditions should be transmitted to the various offices that will be responsible for the conduct of the project and the financial reporting and invoicing. Some institutions find it extremely helpful, particularly with new faculty, to establish orientation meetings with the PI and the lab staff to ensure that all understand both the financial and scientific responsibilities that the grant entails. The next activity is creating the proper account in the institution's accounting system that will allow project funds to be spent. Clear procedures for setting up the

account and informing the PI and department of the account need to be in place.

Compliance

Protection of Human Research Participants The fundamental healing axiom, “first do no harm,” is paramount in research as well. Research administration is responsible for ensuring that sufficient infrastructure is in place within the institutional environment to support the operation of federally mandated Institutional Review Boards (IRB), including the selection of members, providing adequate training and preparation to members, keeping detailed minutes, and the preparation and maintenance of IRB documentation. The administration needs to ensure that IRB membership is adequately diversified, has community members to reflect community standards, and possesses adequate expertise appropriate to the types of research supported. The supporting research office also oversees the submission and processing of protocol applications, maintenance of records, reporting of adverse events, and the development and enforcement of institutional policies and guidelines for conducting research involving human research participants. Special attention needs to be paid to the potential for conflicts of interest among investigators and the institution itself that might arise in conjunction with research involving humans. The institutional systems and procedures should be built upon the Belmont Report's basic ethical principles of respect for persons, beneficence, and justice. Research administrators need to ensure that the system provides for informed consent of and an assessment of the risks and benefits to all human research participants, and appropriate training for all those engaged in the conduct of human research. Research administrators also need to ensure that institutional policies are kept current with policy changes and the introduction of new federal regulations, for example, the effects of the Health Insurance Portability and Accountability Act (HIPAA) of 2002 on the conduct of human research.

Humane Care and Use of Animals Research administration generally oversees the operations of the Institutional Animal Care and Use Committee (IACUC) that is federally mandated for research that is conducted utilizing animals. This includes selection of members that reflect the diversity of the research community engaged in animal research, veterinary experts, community members, researchers, and research administrators. The IACUC, with the assistance of research administration, has the

responsibility of ensuring that animals used in research, testing, or education within the institution are treated humanely and within the regulations and standards established by federal, state, and local governments. Research administration needs to develop appropriate policies and procedures on animal research and offer adequate training programs for those engaged in animal research. The office overseeing animal research often takes the lead in the accreditation process under the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC).

Conflict of Interest An institution's ability to perform research in an objective and unbiased manner is key to its continued success and to fulfilling its role to society to advance new knowledge, to protect society from false claims, and to warn society of dangers. It is also an important service to the academic community and the nation. The institution needs to ensure that this reputation for unbiased research is not threatened when the financial holdings of individual researchers or the institution itself might call into question the objectivity and honesty of research conducted. At many institutions this responsibility is within the domain of research administration. Oversight would include: the development of policies and procedures compliant with federal and state regulations and standards; the operation of a conflict of interest committee (including establishing membership); administrative support to the committee (including preparing the agenda for meeting and maintenance of minutes and other documentation); development of disclosure mechanisms and review principles; disseminating findings and enforcing decisions, including the enactment of sanctions; and reporting as appropriate to federal sponsors.

Security and Export Controls Some institutions, by the nature of the research they perform, may fall under regulations governing the levels of security provided to certain kinds of research and the control of access to and dissemination of information and materials covered by the Export Administration Regulations (EAR) or the International Traffic in Arms Regulations (ITAR). A select group of US institutions perform government classified research in secure facilities. Research administrators at these operations must oversee strict requirements regarding facility security, clearance of persons entering the premises, storage of classified information, and the enforcement of appropriate federal regulations and institutional policies. Other institutions may

fall under these requirements because of contractual restrictions placed on the publication or other dissemination of certain security sensitive research. But research administrators at all institutions need to be aware of applicable US regulations that affect the actual export or the "deemed" export of restricted materials or information to foreign persons. This area is under a great deal of flux at the time of the writing of this chapter. Recent interpretations made by the inspectors general of a number of federal agencies and confirmed by the Department of Commerce present significant challenges to the open conduct of research at all US universities and nonprofit research institutions. In addition to concerns over the security of information, research administration needs to address the security of biological and other extremely dangerous substances that have come to be known as "select agents." The Centers for Disease Control and Prevention (CDC) is currently charged with regulating the possession of biological agents and toxins that can pose a serious threat to health and safety. Possessing or using select agents requires an institutional registration, which is reviewed and approved by the CDC. Research administrators need to keep current on new and changing requirements affecting security and export controls.

Research Integrity One of the most prized possessions of a university is its reputation. This reputation is built from the ground up in the way that research is proposed, reviewed by peers, conducted in the laboratory, and reported at conferences and in the literature. It is research administration's role to promote sound practices that lead to research being conducted with the highest level of integrity, to ensure that those engaged in research are properly trained in the responsible and ethical conduct of research, and, whenever failings or abuses are found, to investigate them, appropriately report findings to sponsors and the community, and to sanction those who have been determined to have committed scientific misconduct. A research administration office needs a thorough grounding in the requirements of the federal government promoting research integrity, which needs constant updating. Complete policies and procedures must be established to govern how the institution deals with suspected cases of scientific misconduct.

Ombudsman-Whistleblower Hotline A research administration office needs to have its eyes and ears open to effectively monitor the conduct of research. While we may not enjoy the policing role, one can

remember the motto of many police departments, "to serve and protect," and be comforted with the notion that in our vigilance, we as research administrators are both serving and protecting our institution and the reputation of the research enterprise. As research is conducted at the ground level, so, too, our knowledge of what is occurring in the research program has to come from the ground level. Therefore, it is essential for an institution to provide a way for suspected abuses to be reported, without fear of reprisal, by those who work in the laboratories or departmental administrative offices. Research administration should establish appropriate policies and procedures to encourage faculty, staff, and students with questions, suspicions, or allegations to report these to the proper authority.

Health and Safety The faculty, staff, and students of a research institution need to be provided a safe and secure environment in which to work and study. Research administration's role in this is to ensure that the institution has properly addressed health and safety concerns and has strong policies and procedures in place to effect that and that training is provided to those working in, maintaining, and cleaning scientific laboratories. For schools with agriculture and animal research programs, this means providing a sound health monitoring program for those engaged with working with animals. For schools working with radioactive material, it means having the appropriate individuals complete the approved training and certification. As stated in a section above, research administration needs also to be aware of what, if any, "select agents" may be present on campus, to provide adequate safeguards for them, and to ensure that the proper registrations have been made with the federal government. The research administration office needs to keep thoroughly up-to-date with federal requirements and restrictions.

Project Management

Assisting the Principal Investigator A basic tenet of research administration is that researchers research and administrators administer. Most institutions do actually put the primary responsibility for the conduct of a research project, both the scholarly/scientific aspects of a project and the fiscal management, on the principal investigator. And this responsibility is appropriate. But researchers need to devote most of their time and energies on advancing the academic goals of the project; they need to rely on their research administrators to see to the details of the fiscal management of the research project. How

research administration supports the principal investigator (PI) in project management depends in large measure on the size and cultural history of institutions. A small institution can run a highly centralized project management system to support PIs, but a large multicollage institution must rely on a more decentralized support system. In any case, the research administration infrastructure supporting project management needs to be "as close" to the PI as possible to really facilitate the management of the project. In most institutions, this means having project management and financial research administrators assigned to large program projects, to large centers, and to individual departments. Assisting the PI means serving the needs of the project, but it also means knowing when and how to say, "No." Research administrators are also responsible to the institution and must ensure compliance with institutional and sponsor regulations and requirements.

Human Resource Management At the initiation of a project the research administrator needs to coordinate with the PI the hiring of new project personnel and the assignment of current staff to the project. Salary distribution must be in conformance with OMB Circular A-21 and within the scope of the project and the budget. As the project continues, changes in personnel and effort must be monitored and effected in a timely manner; required approvals must be obtained in advance. The effort of all personnel must be reported in accordance with institutional procedures to comply with federal regulations.

Purchase Requisitions The research administrator is the front-line "purchasing agent" and "property manager." This begins with fulfilling due diligence in purchasing the right items, in a fair and competitive manner, and processing them within institutional procedures. Purchases must be in compliance with the project budget and within institutional or sponsor requirements, including prior approval if necessary. Procurement regulations for federal grants are covered by the Office of Management and Budget (OMB)'s Circular A-110. According to this circular, the institution is the responsible authority for the settlement of all contractual and administrative issues associated with procurement, without recourse to the federal agency. This includes handling disputes, claims, protests of award, source evaluation, and all other contractual matters. All university personnel involved in directly handling purchases, including research administrators, must comply with the institution's standards of conduct governing the award and

administration of procurements and contracts. These standards as well as all policies and procedures governing procurements must be in writing and a part of the institution's official regulations. An institution's procurement system is subject to periodic review by the federal government.

Subawards and Subcontracts Administration Closely related to procurement activities is the management of subawards and subcontracts. When an institution provides project funding to outside entities to accomplish a portion of the scope of work, it takes on the role and responsibility of the sponsoring agency in terms of oversight given to the subrecipient. Under federal sponsorship these duties are identified under OMB Circulars A-110 and A-133 or, in the case of contracts, under the Federal Acquisition Regulations. The research administration office is generally the preferred unit to serve as the subcontracts administration operation. The institution needs to have in place written policies and procedures governing subawards and subcontracts. These need to cover the full range of activities. Subawardees and subcontractors are usually identified at the proposal stage by the PI. They generally are considered collaborators on the project. Proposals from potential subrecipients need to include a scope of work, a budget, required representations, certifications, and assurances, and be signed by an authorized official of the subrecipient. When subrecipients are not identified in the proposal, agencies frequently require prior approval before subcontracting out a portion of the work. In these cases, too, it is important to make sure that competitive procurement practices are employed. In making an award to a subrecipient, it is absolutely essential to flow down to the subrecipient the appropriate terms and conditions of the prime award. With federal grants this can be done with the model subaward agreement form developed by the Federal Demonstration Partnership (FDP). This form can even be adopted for use with nonfederal sponsors who have given your institution grant assistance, as opposed to a contract. Subcontracts require individual attention to flow down terms and may require negotiation. Once subawards or subcontracts are issued, research administration attention turns to subrecipient monitoring. Even at the award stage it is important to verify that a potential subrecipient has the proper infrastructure to carry out the project and provide sound financial management of funds. The research administrator needs to confirm that the subrecipient has a "clean bill of health" by

checking the status of its A-133 audit. Once the project is under way, the principal investigator and financial research administrators working with the project need to be clearly charged with the responsibility to review invoices against budgets and progress reports against the scope of work and certify to the institution prior to making payment that the subrecipient is performing well. Anomalies and discrepancies must be tracked down (even if such investigation requires a site visit) and resolved. The research administrator must also be involved in the closeout of the project.

Payroll The research administrator, usually at the department or college level, needs to ensure that all project personnel are correctly entered into the payroll and paid from the proper accounts to match their efforts. This function is usually coordinated through the payroll office. However, the research administrator is the responsible party for ensuring compliance with A-21, Section J.8, which deals with compensation for personal services. The research administrator needs thorough knowledge about regulations governing academic year and summer appointments, distribution of effort and what constitutes 100% effort, and limitations on supplemental compensation.

Project Monitoring (Deliverables) The effective research administration operation has procedures in place to track performance of project goals and deliverables. This is usually done using electronic research administration tools, but can also be done separately on electronic spreadsheets or even on paper ones. While contracts containing milestone payments and deliverables are less frequently seen at universities, they are far from rare, especially as universities engage more in contract support of federal, state, and industry sponsors. Since the university investigators may be unaccustomed to working towards the accomplishment of milestones and production of contract deliverables (such as prototypes, manuals, brochures, samples processed, etc.), it is very important to provide them assistance and to keep them focused on output requirements. Contracts with deliverables, unlike grants, do not allow investigators the flexibility to follow their own course. Many a faculty member has been burned because of a lack of understanding of the contract model.

Technical and Administrative Reporting Related to the above section, even when working with grants, it is

important to monitor the progress of the project and keep up with reporting requirements. Research administrators provide an important service to researchers by frequently reminding them of responsibilities under their research agreement for submitting reports. The simplest way to do this is through an electronic research administration (ERA) system. As the award comes in, reporting requirements are entered into the system (either on the award or accounting side) and the system takes care of sending out notices reminding project staff of deadlines. If no system exists, then maintaining a separate spreadsheet of requirements and manually sending out notices is sufficient. More attention is being paid by agencies to the delivery of required reports. The inspectors general of the various federal agencies have emphasized the importance of agency grants managers verifying receipt of required reports before closing projects. Institutions that are chronically delinquent in meeting reporting requirements can face sanctions that include withholding of awards all the way to disbarment from receiving any awards. One important detail is to ensure that all required copies are transmitted. Another reason for ensuring that all reports are submitted is that reports provide the measurement of real success in the research project. It is crucial to this nation's universities and research institutes to maintain the confidence of the people, whose tax dollars support the research.

Clinical Trial Management A growing area of project management and financial research administration is administering clinical trials. Whether funded by the federal government or by companies, clinical trials present unique challenges to the research administrator. At some institutions, clinical trials are a major component of a medical school's or hospital's research program. Some research administrators have become clinical trial specialists, whose full-time job is preparing proposals, negotiating awards, and managing clinical trials. Some major medical research institutions have whole departments that do nothing but manage clinical trials. Much of what is done to support clinical trials parallels all the services being covered by this survey of research administration functions. The difference is chiefly the focus on clinical trials research. Some additional areas of expertise are required of research administrators in clinical trials, for instance, the recruitment of human research participants. The list of services of Rush University Medical Center's Clinical Trials Office demonstrates the breadth of activity:

- Identification of investigators
- Completion of regulatory documents
- Budgeting and contract negotiation
- IRB application submission
- Study initiation, patient recruitment and follow-up
- Study coordinator support
- Ongoing quality control monitoring^b

Another example from the University of Iowa's Clinical Trials Office:

- Negotiate acceptable terms and conditions of clinical trials contracts
- Develop and implement marketing programs to increase clinical trials at the University
- Serve as a resource for faculty and staff concerning the clinical trials process
- Inform faculty of clinical trials opportunities
- Coordinate activities with the Human Subjects Office for expedient review of protocols and agreements
- Set up meetings between corporate visitors and our investigators^c

The management of clinical trials, like research administration itself, requires the research administrator to wear many hats.

Financial Management

A growing area of research administration is financial research administration. Once solely the domain of many central offices, financial management of grants and contracts has undergone some changes across the country. Many institutions have experienced tremendous growth in sponsored research, which has required new organizational models designed to try to keep up with the burgeoning workload. These distributed models have pushed much of the responsibility and authority for fiscal management out to individual colleges, institutes and centers, and even large research-intensive departments. This section will attempt to cover the central and distributed aspects of financial research administration.

^bSource: Rush University Medical Center Web site, <http://www.rush.edu/research/clinical-trials-office.html>.

^cSource: The University of Iowa Clinical Trials Office Web site, <http://research.uiowa.edu/cto/>.

Expenditure Monitoring

The research administration support function should provide faculty with support in tracking and approving expenditures on grants and contracts. This service is needed not only to keep the PI on track with expenditure "burn rates," but also to protect the institution from unallowable expenses being charged on projects. In addition, support is provided to prevent running an account into deficit, or from running too big of a surplus of funds (which can be a problem on fixed price agreements causing pricing questions. On Department of Defense projects—big surpluses can be de-obligated by the agency and pulled back to support more pressing military needs). To accomplish this takes an accurate and timely account reporting system. Research administrators, who find that the central accounting system cannot support this kind of monitoring, often become experts in spreadsheet management, creating "shadow systems" to track and reconcile expenditures.

Accounting and Financial Reporting

Typically this research administration function is managed centrally by a research accounting office or equivalent. OMB Circular A-110 identifies the range of responsibilities for accounting and financial reporting:

- Operating financial management systems
- Managing payments
- Accounting for cost sharing and matching requirements
- Accounting for program income
- Making budget revision approvals
- Undertaking audits
- Determining allowability of cost
- Establishing fund availability

Accounting and financial management requires a robust central, auditable accounting system that provides an accurate, current and complete disclosure of each individual sponsored project's financial activity. It must be able to identify the source and application of each sponsored project expenditure. A-110 requires that these records shall contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, outlays, income, and interest.

Financial Compliance: Expenditure Review, Cost Sharing, Allowable Costs, Program Income, and Effort Certification Financial compliance is usually a shared responsibility among the central research administration

unit, the college or department research administrators, and the investigators. As mentioned earlier, except for smaller institutions, few central offices are engaged in reviewing individual expenditures simply because of the workload volume. This activity is one generally carried out by research administrators at the unit level. Expenditure review requires checking each expenditure against what is allowable, reasonable, and allocable to the grant under the approved budget. Allowable costs are determined first by OMB Circular A-21, Section J, then by the award document, and finally by the budget that has been approved. Most budget modifications on research grants can be approved by the institution under the expanded authorities, but research administrators need to check the terms of each grant to ensure compliant budget revisions. Institutional written policies need to cover both cost sharing and program effort, as directed by OMB Circular A-110, Sections 23 and 24. Research administrators need to be particularly sensitive to these targeted audit categories and constantly watch for any clarifications that may be issued by OMB regarding cost sharing and program income. Financial research administrators need to ensure that local procedures capture both cost sharing and program income in accounts or cost centers where it is easy to identify the link to the grant and to monitor dollar levels. Effort certification is also a target for auditors. Institutional research administration operations need to ensure that the institution has a workable and auditable effort verification system in place and unit research administrators need to ensure that all personnel charged to grants or included in the institutional facilities and administrative cost pools certify their effort in a timely manner.

Closeout Closeout activities are normally the responsibility of both central research administration operations and their counterparts in a central research accounting operation. Closeout requires a final reconciliation of the budget and expenses, carried out by the central fiscal people, usually in collaboration with unit financial research administrators; submission of all required technical reports; final invention statement; and additional documentation necessary for closing out contracts. Institutions have 90 days after the ending date of the project to liquidate all financial obligations.

Audit Research administrators across the university usually participate in audits because it takes both central research administrators (both financial

and academic) and unit research administrators to handle most audit questions. Audits can be a breeze if an institution has good systems and everyone is following institutional policies and procedures. They can become very rough, however, if appropriate expense monitoring and close scrutiny of details are not a part of the research administration process. Audits come in many varieties, from the A-133 single audit, usually performed by an institution's certified public accounting firm, to programmatic audits by federal agencies, to internal audits. In addition, the institution is subject to certain other periodic reviews of property systems and procurement systems.

Intellectual Property

Invention Disclosures Since the early 1980s and predominantly due to the passage of the Bayh-Dole Act, research administration operations at universities have taken on the management of institutional intellectual property. The Bayh-Dole Act, codified in CFR Title 37, Part 401, sets forth the requirement for researchers working at universities and nonprofit institutions to file disclosures on all inventions funded in part by federal funds. A part of this activity is also ensuring that all employees of the university who are engaged in research have signed an intellectual property agreement and have it on file with the intellectual property office.

Licensing Bayh-Dole also sets forth requirements for patenting and licensing technologies. Most universities and other research institutions have a separate office that manages patents and licensing. Negotiations for intellectual property licenses parallel in many ways what research administrators do in research contracts, taking the process one step further. Whereas the research agreement may simply grant an option for a license, the license agreement itself spells out all the details of the license, including royalties, due diligence required of the licensee to bring the product to market, and sublicensing rights. One of the Bayh-Dole stipulations is that US companies be given preference for receiving licenses on federally funded research and among this pool of companies preference is to be given to small businesses.

Technology Transfer Technology transfer is a vital and growing part of university research administration. It is one way in which universities and nonprofit research institutions give a return on the country's investment in research. The goal of technology transfer is to turn research results into prac-

tical benefits for society. Research administration is a key to the success of transferring technology and includes the review of researcher invention disclosures; the identification of potentially marketable technologies and the companies that may have an interest in the technology; and by marketing the technology to these potential licensees.

Copyrights Another frequent product of research is copyrightable works. Many institutions give back to faculty rights to scholarly works and textbooks that are not commissioned specifically by the institution, but products that come from grants or contracts usually are considered the property of the institution, since ownership and licensing may be determined by the sponsored agreement. Copyrightable works from sponsored programs might include software that is developed by researchers. Frequently the Intellectual Property Office also manages copyrights.

Research Administration Support

Institutional Policy and Procedure Development and Maintenance As one can readily see from all the above research administration functions, a master set of research administration policies and procedures is absolutely essential in complying with federal regulations and giving good stewardship to all sponsored funds. Usually this task falls to a senior research administrator at the institution, frequently at the assistant or associate vice president level. The research administrator charged with this obligation needs to keep current on all federal regulatory changes affecting research. This can be done by participation in any number of research administration organizations, but primarily the Association of American Universities, Council on Governmental Relations, Federal Demonstration Partnership, National Council of University Research Administrators, Society of Research Administrators, Association of University Technology Managers, Applied Research Ethics National Association/Public Responsibility in Medicine & Research, American Association of Medical Colleges, and others. Policy development is generally best done in a collegial manner, vetting policy drafts through faculty and fiscal and academic administrative channels. Education is also an important factor in promulgating and disseminating research policies. Finally, policies must be strictly enforced and sanctions levied against violators in an appropriate degree.

Electronic Research Administration Electronic research administration (ERA), once a subject unto itself, has

now been nearly fully subsumed into the standard operating procedures of research administration itself. Hardly a day goes by for any research administrator in the country that does not involve a number of ERA transactions. ERA computer applications, many of which are fully integrated into ERA systems, cover the full spectrum of research administration functions. We use ERA to find funding opportunities, to market our institutions, to prepare proposals and budgets, to submit proposals, to review and approve animal and human research protocols, to negotiate awards, to receive and set up awards, to issue subawards, to rebudget accounts, to request prior approvals, to process and monitor expenditures, to file invention disclosures, to report on results, and to close projects. On the horizon for ERA are further integration of systems and (hopefully) the standardization of federal ERA systems under the Grants.gov initiative.

Research Administration and Research Integrity Training

As stated above, training is an integral part of any promulgation and dissemination of research administration policies and procedures. Certain training programs are mandated by the federal government, for example, the training that is required on the subject of human research participants before anyone can work on a project involving human subjects. In addition, certain federal regulations, like the US Sentencing Guidelines, place responsibility for certain illegal acts of employees on the employer, if adequate policies are not in place and training programs have not been initiated to communicate institutional policies and procedures to employees. The Office of Research Integrity has recommended training in the following areas of research integrity:

1. Data acquisition, management, sharing, and ownership
2. Mentor/trainee responsibilities
3. Publication practices and responsible authorship
4. Peer review
5. Collaborative science
6. Human subjects
7. Research involving animals
8. Research misconduct
9. Conflict of interest and commitment

In addition, auditors look for what educational programming the institution provides to the financial management of research projects to ensure that not only does the institution have policies, but employees are aware of the policies and know how to comply with them.

Institutional Research Administration Management

Property and Facility Management (Space Management)

OMB Circular A-110, Section 30, covers the requirements of the institution in regards to property management. These minimum regulations must be incorporated into the institution's policies and procedures. Research administrators are frequently involved with the institution's property management office, which should have the primary responsibility for managing property purchased on grant or contract funds. When dealing with research equipment acquired in association with a grant or contract, research administrators need to pay special attention to whether the equipment is considered government furnished equipment (GFE) or exempt equipment. GFE requires labeling the equipment as federally owned property and reporting on all federally owned equipment on an annual basis. Basically, nothing can be done with GFE without the written concurrence of the institution's federal administrative contracting officer. GFE cannot be modified, upgraded, traded in, assigned to another project, moved to another PI or institution, scavenged for parts, scrapped, or declared salvage, without federal approval. Ownership to exempt property vests immediately in the institution, but still has a number of restrictions on its use, especially for nonproject related purposes. The research administrator's role in all this is primarily ensuring that the investigators on the project know what they can and cannot do with what equipment. As everyone knows, space issues on campus are the most hotly contested of all academic matters. Research administrators need to make sure that space requirements for sponsored research are identified and addressed at the proposal stage. There is nothing like a PI showing up with a multimillion dollar grant saying, "Now, where's my space to do this project?" Many institutions are incorporating space allocations into their ERA system and relating that data to research activities (both sponsored and non-sponsored) to ensure that those investigators who need the space the most are given it in preference to those who are not producing. Having solid space data helps keep the issue focused on space requirements and less on personalities.

F&A Rate Development The development of institutional facilities and administrative cost rates is a specialized field of financial research administration. OMB Circular A-21 governs how indirect cost rates are developed. Basically one divides what it costs to administer and support research by the modified total direct costs of research

(both sponsored and organized research) at the institution. This yields a percentage that reflects the costs for which institutions should be reimbursed when conducting research. F&A costs are a much-misunderstood aspect of financing the full costs of research. Research administrators at every level in the institution need to be thoroughly conversant with F&A costs so they can adequately reflect their nature to inquiring faculty and staff. The more everyone knows about F&A the better the full costs of research can be recouped and the research infrastructure of the institution maintained.

Cash Management This is generally a function performed by the central office for financial research management. A primary tool for proper cash management is a strong cost receivables and billing system. Many federal agencies are using electronic financial reporting and payment systems. These greatly improve an institution's cash position. But still there are many agencies and other sponsors for whom paper invoicing is required. Usually, the investment of research administrators who focus on cash management on research grants and contracts pays for itself out of improved cash management.

Records Management and Retention OMB Circular A-110, Section 53, sets forth the requirements for maintaining appropriate project related documentation on grants. This is a research administration function that affects all layers and the entire breadth of the institution's research program and infrastructure. Records are to be kept on proposals and awards, protocols and compliance approvals, financial actions, inventions and patents, personnel actions and effort reporting, requisitions and expenditures, and technical reports. This takes the coordinated actions of many research administrators. Records need to be maintained for a minimum of three years from the date of the submission of the final financial report or, for grants requiring quarterly or annual reports, from the time of the submission of these periodic reports, unless an audit is started during that period. This task, too, requires the cooperation of research administrators across the university. A special aspect of records management and retention is now the storage and destruction of electronically stored documents. Many ERA systems are incorporating electronic records. Institutions need to obtain permission from their cognizant federal agency prior to relying solely on electronic records, but whether these records are the official records or just back-up records, the ease

of access and the minimal storage space required of electronic records is something that really can benefit research administrators.

This ends the survey on the functions of research administration in the university and non-profit research institution environments. One can readily see the scope and depth of expertise that research administrators must have and the breadth of coverage that research administration requires at a major research institution.

Organizational Structure for Administration of Research

The focus of this portion of the chapter is on structure of the research unit and is primarily relevant to universities, foundations, and not-for-profit and independent research institutes. Industry and for-profit research organizations are beyond the scope of this chapter but will have many of the same functions and responsibilities. In mission, scope, and responsibility an independent research institute will mirror closely a large research unit within a university. In middle to large universities, based upon level of extramural support, there is generally an office of record for research named Office of Research or a similar title. At the middle to large institution there is a chief research officer (CRO) at the vice president or vice chancellor level. Some universities, primarily public, administer the research program through a separate foundation. Still a vice president will be the CRO or chair of the foundation. Some foundations, such as Fred Hutchinson Cancer Institute, have a structure similar to a university and are frequently linked to an institution of higher education.

Central versus Decentralized Structure

The issue of whether the research functions should be centralized or decentralized to some degree has paralleled the general shifts in institutional policy regarding central control and responsibility. Since the late 1990s there has been a noticeable shift toward consolidation of traditional pre-award and post-award financial responsibilities into an office of research. The rationale for this stems from greater need for accountability and coordination of all research related administrative activities. Consolidation of the two functions can occur when administrative structures are either central or diffuse, but policy and oversight generally remains at the central level. The smaller research institutions have greater need for centralization from a management or

administrative responsibility. The centralized structure can avoid redundancy and promote consistency.

In her 1995 book, *Moo*, Jane Smiley wrote about an unnamed midwestern, land grant university, perhaps fictional, perhaps not. In her treatise, the research function resided with an unfriendly development officer. Thankfully, this model does not find itself too often in nonfictional research universities in the United States. However, at institutions with small research programs and little extramural support, the responsibilities and authorities may be distributed. No central office will coordinate the various functions of research administration. In some of these schools, a dean or faculty member may assume the role of CRO and the signatory for grant proposals may be the president. When an institution assumes research as one arm of its mission, a sponsored programs office is usually established to manage the administrative responsibilities. As the volume of extramural funding and commitment to expanding the research mission increase, additional central structures, including a chief research officer, are added.

A large institution will have a central research office but may decentralize some of the various functions. For instance, Stanford University has decentralized part of the function of the sponsored programs office. Each department in Stanford's School of Medicine has its own sponsored programs officer with signatory authority. The individuals in this position must go through extensive training and testing. Large medical schools, such as those at Johns Hopkins and Ohio State, have sponsored programs personnel in departments or colleges. With decentralized functions, the office of research assumes an even greater coordinating and policy and oversight role. With the advent of the Sarbanes-Oxley Act (PL 107-204), the government is requiring even greater accountability on the part of the chief research officers and research managers. This may demand or encourage even greater central control. There is no *right* structure; the structure must fit the culture of the institution.

Sponsored Programs Offices

In 1999, Bill Kirby and Paul Waugaman looked at the reporting channels for sponsored programs offices at universities. The survey looked at universities with varying levels of extramural support. The outcome was that the largest percentage of the sample had a vice president for research and the sponsored programs office reported to that office. Next, the second largest reporting structure was with a sponsored programs office reporting to the vice president for administration but this occurred

primarily in very small offices. Based on this survey and the functions that accrue to a large research office, a unit might be organized as is the University of California, Davis. Figure 4-1 shows the main functions and the reporting structure used to support the major areas of responsibility.

The Role of Research Administration in Universities

During and after World War II, Vannevar Bush began promoting the responsibility and benefits of federal support science and the role of universities in forging a national research agenda. Out of his efforts and those of other prominent scientists emerged the Office of Naval Research and the National Science Foundation. Regulators and the laws and regulations that they pass and protect grew in number and scope, generating the need for newly created positions at organizations that were in receipt of federal support for research. An organization that receives federal and other external funding for research, education, or other sponsored projects must commit to assuring the sponsor that they will adhere to generally accepted accounting principles and will comply with the laws, regulations, and program-specific requirements. Who or where in the organization this responsibility is vested is determined by the organization. There is no externally required or prescribed requirement that an office of research is established at the senior leadership level. However, if form and responsibility are to follow function, the creation of a central research administration is logical.

Roles and Responsibilities of the Research Administrator

Over the past 50 years universities began assigning responsibility for some oversight and coordination of research activities to an individual, generally a faculty member, who handled the administrative activities part-time. As the regulations, requirements and competition for funds expanded, so did the roles and numbers of responsible individuals. Gradually an entire body of knowledge and requisite skills emerged and the administration of research became a recognized unit within research-intensive organizations. Whereas in the 1970s a large university may have had only a few research administrators, it now requires literally hundreds of faculty, staff and high level administrators to manage the research enterprise. The research itself may encompass thousands of faculty, undergraduate, graduate, and post-doctoral students, and technical and staff support.

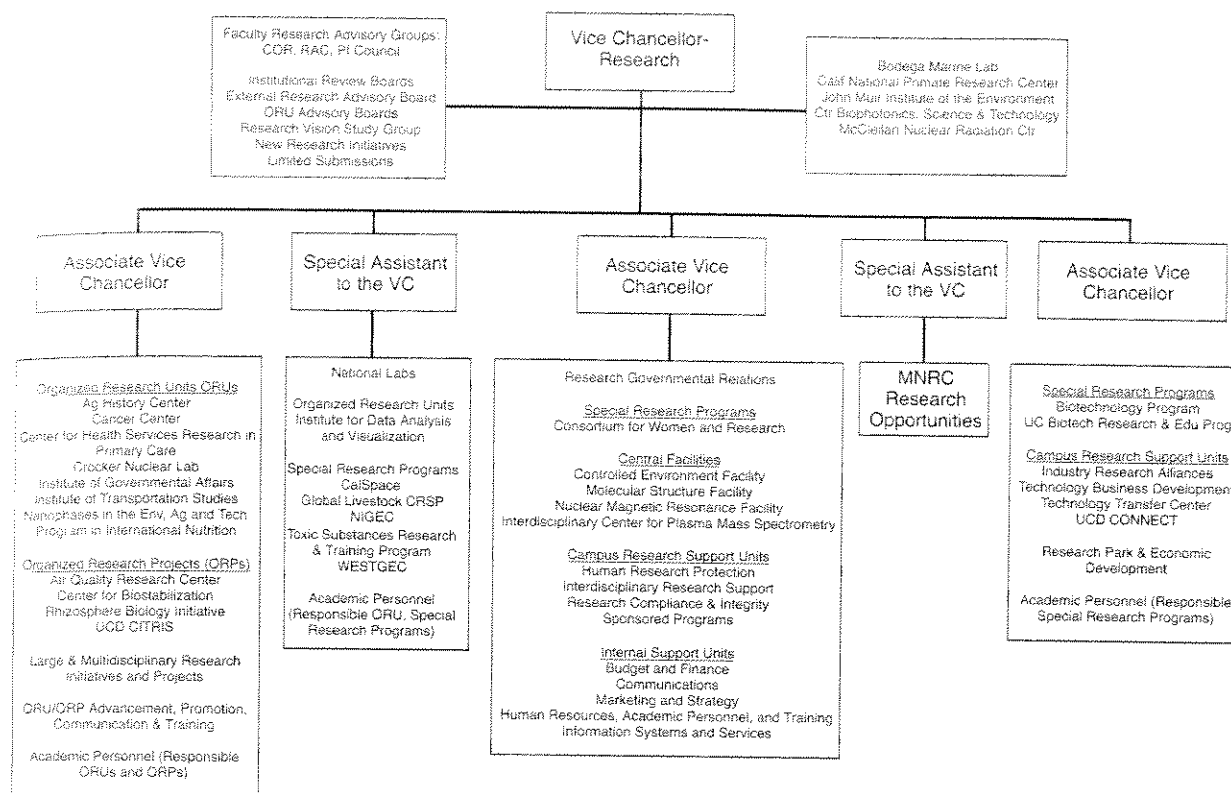


FIGURE 4-1 Organization Chart, University of California, Davis, 2004

The Research Administrator

The label *research administrator* is relatively new and describes generally someone who leads, manages or supports the research enterprise. The research administrator may provide service centrally or at the department or program level. Over the past 40 to 50 years, administration evolved from the responsibility assumed as part of another job to very specialized positions and leaders and managers with an enormous breadth of knowledge. In some large institutions, the research enterprise, because of its scope and complexity, parallels the management of a large business, and the scope of the research administrator has expanded to encompass this scope. Identified below are generic descriptions of typical members of the positions that form the leadership and administrative team in a central research program.

Chief Research Officer (CRO) In the university structure, the CRO is generally a researcher who has risen up the administrative ladder to the title of "vice president" or "vice chancellor for research." With the advent of large independent research organizations, the CRO may also serve as the chief

executive officer (CEO). While the organization is the legal receiver of all grant and contract funds, the authority to commit the institution, the authorizing official usually is delegated to the CRO. The CRO may assume a national leadership role in policy development and help set research priorities. At the home institution the CRO is responsible for fostering a research culture and environment and potentially leading the university in regional economic development. It is also this position that must instill, along with the president or chancellor, the highest level of research integrity. The CRO is generally the authorizing signatory for external proposals and awards and ultimately has responsibility of the management of the research enterprise at the institution.

Associate Vice President or Vice Chancellor Larger institutions may have multiple associate positions. Traditionally, these individuals are research faculty who have assumed administrative roles. Responsibilities may be directed to specific discipline areas, colleges, or research units or programs. Increasingly, large institutions are also promoting individuals to this role who have skill and experience

managing research units such as sponsored programs, research compliance, and technology transfer but who may not have had a faculty position. Sponsored programs offices, technology transfer, and research compliance may report to associate vice president. Development and oversight of training programs may rest with the associate.

Assistant Vice President or Chancellor The position of assistant vice president or chancellor is generally an administrative position and may have responsibility for the administration of the budget and human resources and other central management functions. Additionally this may be the title for the head of the sponsored programs function.

Special Assistant to the Vice President With the expansion of research programs and the increasing complexity of research, special assistants to the CRO assume responsibility for specialized programs. For example, a special assistant may be appointed to oversee expansion of an institution's nanotechnology related programs. These are generally faculty who assume part-time or temporary administrative positions.

Director of Sponsored Programs The director of sponsored programs has responsibility over all aspects of the process of proposal submission and contract negotiation. In smaller offices, this individual may also have the management of grant accounting and research compliance. The director frequently has signature authority for proposals and awards and may further delegate that authority to senior research officers. Efficient processes of awards, negotiations of grant and contract awards, training, and management of the budget and human resources of the office are the director's responsibility. Some universities have a separate research development office or the director of sponsored programs may be responsible for this function.

Director of Technology Transfer Institutions with separate technology transfer offices will have a director who will oversee staff experienced in the legal and technical aspects of protection of intellectual property (IP), licensing of patents and other IP, and, potentially, development of spin-off companies and regional economic development. Responsibility for material transfer agreements (MTAs) and nondisclosure agreements (NDOs) and industrial collaborations may fall under the director of technology transfer.

Director of Research Development Research development may be the responsibility of the vice president or vice chancellor or may rest with a director, who takes responsibility for maintaining data and information on grant or contract opportunities, disseminating the information to researchers and scholars, and offering assistance to individuals seeking specific research opportunities. The director may also be responsible for training and assistance in proposal development.

Director of Interdisciplinary Research With the emphasis at the federal level for large-scale, multidisciplinary or interdisciplinary research, the director may assume responsibility for development teams of researchers and preparation of complex or institutional proposals.

Director of Extramural Accounting The director must have extensive knowledge of financial compliance and federal, state and institutional regulations and policies regarding the expenditure and accounting for externally supported research and scholarship. This individual oversees the process of establishing extramural accounts, tracking and approving expenditures, and requesting draw-downs or reimbursements for sponsored projects. Institutional reporting to sponsors may rest with this office.

Director of Research Compliance Research compliance positions in medical schools and hospitals generally oversee billing compliance and clinical investigations. Compliance officers and directors who are part of a research office team ensure that a campus has all the requisite research related policies and procedures to carry out compliance. In addition, the office may be responsible for scientific misconduct investigations and conflict of interest reviews and management teams.

Director of the Human Subjects Office The human subject office/IRB director manages the office that provides support for the institution's institutional review board (IRB) committees. The human subjects or IRB offices oversee process, policy delineation, training, and coordination of the members and committees charged to protect human subjects in research. As part of this role, the director oversees policy development, ensures policy compliance, sets training programs, establishes efficient review processes and maintains records and committee minutes, and tracks and audits compliance with IRB decisions.

Director of Animal Care and Use The director of the institutional animal care program supports the institutional animal care and use committee (IACUC). The director ensures compliance with federal, state, and institutional policy and promotes the humane treatment of animals in research. The animal care office supports the IACUC by setting processes that are efficient and appropriate, develops and delivers training programs for investigators who use animals in research, assists investigators in designed appropriate protocols, and oversees the procurement and care of animals used in research.

Authorities Delegated to the Research Leadership

Generally, signature authority for the multitude of documents signed daily in research offices is legally vested in the highest authority at the institution. The high authority may be the chair of the board of trustees, the regents, the president or CEO, or other governing body. At a public institution, signature authority may be a matter of state law. In order for the institution to function, signature authority is delegated to the responsible operational unit, for example, the vice president or chancellor for research. The CRO may then re-delegate signature authority to directors and possibly senior research officials assuming there is not an institutional or state prohibition against lower tier delegation. All delegations should be in writing to protect both parties and the institution. Faculty and administrators may sign documents without clear understanding of the implications of what has been signed and without delegated signature authority.

Summary

This chapter began with a discussion of the forms and functions commonly associated with the leadership and management of the research enterprise at a university or independent research institution. The functions described are extensive and range from research initiation and proposal development to the

dreaded audit from an internal or external entity. Likewise, the model for the structures and positions needed to be created to handle the expanding multitude of required functions has been outlined. The model developed in this chapter placed most of the functions within one central unit. This may or may not be effective in all institutions. For example, the post-award accounting function traditionally has been situated within a business unit. Currently there is a trend toward incorporating all research functions, including research accounting, within a central research office. There are good arguments for keeping an arms-length relationship between a research office and the accounting function as well as equally good arguments for the efficiency of having a "one-stop shop." As an institution reviews its organizational structure and its strategic plan, it might review whether or not it has established a structure that optimally accommodates all of its clients and accomplishes all critical functions. Sometimes, for historical reasons or to accommodate individual skills or personalities, we end up with the hippopotamus. But like the hippo, the form and function meld into a workable creature. In conclusion, each research institution must define for itself the most workable, effective, and efficient form and function.

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Developing a Research Compliance Program

Daniel Vasgird, PhD, CIP, and Ellen Hyman-Browne, JD, LL.M., MPH

Introduction

Over the last decade, research compliance and the responsible conduct of research have received increasing attention and responsive action from the scientific community. The broad forces behind that heightened consideration are the increasing potential rewards that can be garnered from innovation and the changing scale of research. The more specific driving factors are an increase in regulatory requirements; the influence of publicized compliance breakdowns at institutions of higher education; and heightened scrutiny from the media, advocacy groups, and government. An added element is the idealistic desire of many scientists to attain a high ethical standard while practicing what many perceive as humanity's best hope for advancement to a more supportive and fulfilling existence, namely the scientific enterprise. The practical side of all this reflection and action can be summarized in a line from the recent National Academies publication *Integrity in Scientific Research*: "The public will support science only if it can trust the scientists and institutions that conduct research."¹

With these basic motivating forces in mind, it is easy to understand why many academic research institutions are looking for effective ways to foster and promote a culture of research integrity. This is not to say that these institutions have not supported the ideal of research integrity in the past, but the transmission of standards was done more informally, for the most part through mentoring and routine administrative activity. The present, more formal approaches are simply an acknowledgement

that the stakes are higher with today's high levels of funding, the intensity of competition, and the related increased levels of litigation and enforcement risk. Even in the past, mentoring could be inconsistent, but now the scale of research activities can make contact between researchers and their trainees very limited. What has emerged are two realizations: many researchers need and want assistance and research institutions themselves simply cannot afford to merely hope that in some indefinable way compliance and integrity are fostered within the institution's walls.

The Columbia Experience

The story of Columbia University's response to this changing compliance environment is an instructive one. The Columbia University Office for Responsible Conduct of Research (ORCR) evolved out of growing concern with compliance issues coupled with a new paradigm of oversight at Columbia. The objective was to have the individual schools and their research communities largely implement and oversee their own compliance activities. The philosophy was one of local support and problem-solving. Operational decisions would be made close to research activity, but ORCR was to offer central advisory and educational support to aid each school in this. Expected benefits from this collaborative approach were an increase in personal involvement with responsible research for those actually doing the work and avoidance of the sense

of external policing that can undercut that kind of individual responsibility.

Although Columbia, like most institutions, had been attentive to issues of responsible conduct of research and federal enforcement for many years, the chain of events leading to the creation of the ORCR began with a comprehensive risk assessment exercise carried out by Columbia's internal audit office in collaboration with the university's external auditors. That risk assessment appropriately identified a range of regulatory compliance issues for attention in research administration and in other areas. The resulting development of a billing compliance program in the university's clinical practice plans provided an example of how a significant division of the university, the medical center, could mobilize itself to address existing compliance challenges. In that case, the mobilization involved the creation of a central compliance office for billing headed by an officer with a dotted-line reporting relationship to the chief financial officer of the university and, through him, to the audit committee of the trustees. The direct line of reporting was to the senior associate dean of the Columbia University Medical Center and through him to the dean of medicine. This structure demonstrated that a compliance structure could be locally based but responsive and accountable to direction from the center of the university.

Another example of a model for securing local compliance in a decentralized organization was the university's preparation for the Y2K transition. The challenge was to establish a standard of preparation for conversion to Y2K compliance that could both be carried forward by individual operating units and simultaneously monitored from the center. In addition, it was necessary to create a set of requirements that were flexible enough to accommodate the different operating styles and structures of different parts of the university in a way that would facilitate something getting done as opposed to wasting energy on battles over structure, all the while reaching an effective level of compliance or readiness.

In 1999 these two initiatives were the important background to a series of conversations in the university regarding achieving greater focus on research compliance issues and reassuring the leadership of the university and the trustees that research compliance issues were being addressed university-wide.

The research compliance working group assembled by the executive vice president for finance in consultation with the provost was composed of a

dozen people, including outstanding researchers from chemistry and medicine, as well as the deans of schools with heavy research involvement. What emerged from the conversations was a model for activism, which basically matched a decentralized model of the university. It was agreed that the most useful form of support for researchers dealing with responsible conduct of research was to provide the support locally in a school. The dean of each school needed to be accountable for the progress of the school in addressing these concerns, and a central structure for support and monitoring of what was needed. The idea was to do this by having a central office with no operating role, but rather with the advocacy, educational, advisory and, to a certain extent, monitoring role necessary to interface with the responsible individuals identified with research in the schools. The deans, knowing local practice and culture, would best be able to devise structures that would work in each school.

The trustees were briefed as the process continued, and eventually they endorsed the creation of a central research compliance office which, when finally established, was called the Office for Responsible Conduct of Research. The philosophy of that central office was for it not to have an operating role but to serve as a critical resource and catalyst in encouraging the creation of appropriate structures and commitments regarding research in each school. These, in turn, would embody a major theme that emerged in the planning process: that compliance, if thought of as a rigid monitoring and enforcement activity, would be far less effective than if envisioned as a more collaborative venture in problem-solving at the local level, with involvement from the central university taking the form of advice and education. Therefore, a critical part of the philosophy that evolved was that the role for ORCR ought to be that of a supportive, central resource gaining credibility through partnering with local research communities.

The relationship between ORCR and internal audit needed to be addressed. On the one hand internal audit shouldn't be involved in advocacy and planning, because that would lead to a conflict in appraising university compliance structures, while on the other hand, the ORCR shouldn't play a monitoring role, since that would be better served by internal audit.

The demands on the ORCR in this model are multiple: remain abreast of research precedent and regulation, advise and collaborate with diverse individuals and groups, and find ways to provide palatable and effective education and support without

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seeming overregulatory. It must be remembered that ultimately ORCR's *raison d'être* was to create an environment in which responsible research was standard practice. To that end ORCR has, as one of its governing tenets, the idea that responsibility is not just institutional but also local. Most important was creating contact with the practitioners, actively making a very visible and concerted effort to reach all individuals within the university who are involved with research. The objective is to insure that researchers have an ethical involvement in their own work. As many philosophers will state, the only successful ethical systems are those that the practitioners adopt as their own.

The General Planning Process for a Research Compliance Program

There is no generic, one-size-fits-all compliance program that every organization can adopt. The two main variables in research compliance programs are content and structure, which substantive areas the program will cover, and how the program will be organized and operate. Existing programs reflect so many different responses to these variables because of the distinctiveness of the institutional features that determine the nature of an effective program. To borrow a slightly revised favorite saying of Allan Shipp, Director of Outreach at the NIH Office of Biotechnology Activities, "When you've seen one research compliance program, you've seen *one* research compliance program."²

It is essential that the research compliance program be designed with attention to the *fit* of the program with the institution as the Columbia model illustrates. Care in the initial planning process is worth the investment of time, however, as the right approach can generate widespread support for the program and also thwart the kinds of problems that result in injury, litigation, enforcement actions, or bad press.

Every organization's history, culture, and existing structures and systems are unique. Organizations are likely to have in place numerous administrative departments and committees with varying degrees of responsibility for the research process. The culture of an organization may be conducive to highly centralized decision making, or it may favor local control within departments. It should be asked:

- * Are existing policies and procedures institution-wide or specific to schools and departments? Is there a tradition of decentralized management?

- * Are there venues that bring administrators together?

It is important to reflect on the circumstances unique to each institution, and it is crucial to keep in mind that effective compliance grows out of internalization of values.

Equally distinctive is the organization's impetus for establishing a program, and the priorities and justifications that the program is intended to address. Every program is developed in response to a certain state of affairs based on an institution's experience with regulatory problems, awareness of certain risks, motivation to be proactive, or tradition of institutional values. It follows that every program should be designed to address the key organizational issues and priorities: fulfilling the terms of an agency settlement, reducing financial risk, building and maintaining trust, and promoting core institutional values. The legal and regulatory context in which the organization operates will shape program decisions, as does the institutional context. Other determining factors include the size and complexity of the organization; the extent of available resources; the scope and volume of the research program; and how quickly the research program is growing (and in what directions).

The best way to ensure that the design of the program has taken all these factors into account is to employ a planning process that is inclusive of those most interested in and affected by these issues (senior level officials, administrators, and faculty including the general counsel, finance, internal audit, and the operational research units of the organization). It is critical in the planning process to articulate both the organization's priorities and the criteria for success, and to do so in a way that generates support while managing expectations and moving the agenda forward.

The Functional Elements of a Compliance Program

Aside from content and structure, a compliance program is defined by its functional elements. There is now broad acceptance of the minimum essential elements of any formal corporate or research compliance program, a consensus largely shaped by the guidance provided by the *Federal Sentencing Guidelines for Organizations* (FSGO), promulgated in 1991 by the United States Sentencing Commission. In fact, the motivation for the establishment of many compliance programs is the strategic legal advantage offered to organizations with effective compliance programs, as defined by the FSGO. Though the adoption of the FSGO by organizations is volun-

tary, they are taken into account in determining an organization's sentence in a criminal case and they have come to be accepted by many as the minimum standards for compliance programs.

The guidelines set forth seven steps that are necessary for an "effective program to prevent and detect violations of law" (the full text of relevant portions of the FSGO is in the *Resources* section of this chapter):

1. Established compliance standards and procedures;
2. High-level personnel responsible for compliance;
3. Due diligence in personnel assignment in high-risk areas;
4. Communication of the standards and procedures through dissemination or training;
5. Monitoring and auditing of the organization's activities, and a mechanism for employees and other agents to report wrongdoing without fear of retribution;
6. Enforcement of standards through appropriate mechanisms, including discipline of those failing to detect the offense;
7. Responding appropriately and acting to prevent further similar offenses, which includes modifying the program itself.

This seven-part definition of an effective compliance program has been adopted by the Department of Health and Human Services, Office of Inspector General (OIG). Specific compliance guidance to various segments of industry, for the avoidance of fraud and abuse in federal health care programs, recommend these steps. Since 1997, DHHS has issued eleven voluntary guidances, including one for the hospital industry.³ In addition, all corporate integrity agreements which are executed as part of civil settlements between a health care provider and the government to resolve a case arising under the False Claims Act (FCA), including the *qui tam* provisions of the FCA, require that the organization maintain a compliance program consisting, at minimum, of the seven elements of the FSGO.

In September 2003, the DHHS Office of Inspector General gave its first indication of intent to develop compliance guidance for the recipients of extramural research grants and cooperative agreement awards from the NIH (i.e., applicable to most research entities). The OIG published a notice of "Solicitation of Information and Recommendations for Developing Compliance Program Guidance for Recipients of NIH Research Grants," (Federal Register, Vol. 68, No. 172). Further, the notice proposes that such guidance will contain the

seven core elements of FSGO, and a possible eighth element, "Defining roles and responsibilities and assigning oversight responsibility." The OIG received some comments highly critical of the proposed guidance, some on the grounds that there is already much existing guidance from federal agencies for the research community, a great deal of which is overlapping and inconsistent. But it would appear that this is a clear sign that such compliance program guidance is forthcoming.

So in planning a research compliance program, institutions should determine that these basic elements are covered. Existing compliance standards and procedures should be reviewed and gaps addressed. There should be a clear assignment of responsibility, preferably at a high level, for all areas of compliance. In assigning responsibility in high risk areas, the institution must take care, to rely on individuals with known or clearly warranted expectations of competence. The standards and procedures must be communicated clearly and often, throughout the research community. This may include distributing codes and policies, conducting training sessions, making resources available on the Web, and encouraging dialogue within units of the organization. The organization's activities should be monitored, often through a combination of "for cause" and random review of research activities. It is crucial to have and promote reporting mechanisms that allow individuals to come forward with concerns, without fear of retribution, which means having an option for anonymous reporting. And there should be a means to enforce standards and a continuing assessment of the program to prevent future problems.

Experience within the research community, and in the wider corporate world, has shown that these principles can be implemented through a variety of methods and processes. The elements must be shaped into an overall program to support ethics and compliance in whatever design will most effectively put the principles into practice.

Structuring a Research Compliance Program

Due to the distinctiveness of institutional culture, history, and existing structures and systems, research compliance programs reflect a wide diversity of responses to structural questions such as:

- How will the program be organized?
- What will be the reporting relationships?
- What are the roles and responsibilities of the staff and of leadership?

- How much interaction should there be with other organizational functions?
- How will the program balance collaboration with autonomy, and centralization with local flexibility?
- What is the optimal format and content of internal codes and policies?
- Should there be an oversight committee?
- How will success be defined and what assessment techniques will be employed?

Organizations are likely to have in place numerous administrative departments, offices, and committees, including: office of sponsored projects, office of clinical trials, institutional review board, institutional animal care and use committee, conflict of interest committee, HIPAA privacy board, and biosafety office. The individuals who have a degree of responsibility in these matters include a broad range of administrators, managers, laboratory directors, principal investigators, research coordinators, graduate students, and post-doctoral fellows. Taking into account this tangle of roles and responsibilities, the program structure must clarify accountability and functions to ensure that all elements are in place.

A continuum can be seen running from a highly centralized compliance function at one end to decentralized structure on the other end. A centralized program typically has a director of compliance, reporting to a high level executive, such as a vice president for research. Responsibilities of the director would include overseeing the compliance function, collecting and analyzing relevant data, developing and interpreting policy, and developing and administering education and training materials. The advantages of a centralized program are found in the greater control that can be exercised over the program. There may be enhanced consistency in communications, materials, and training, and more precision in monitoring and auditing. Decision-making authority is clear.

On the other end of the continuum is a decentralized program, with delegation of substantial control to local units. This system employs policies and procedures that are applicable to discrete sections of the organization and assigns compliance responsibilities to each operating unit. A decentralized structure allows for greater tailoring of policies, communications, and training to local needs. There may also be an increased sense of program ownership among faculty and staff. The changing nature of research impacts this issue. A decentralized structure can work well when research is mostly con-

ducted within discrete units of the organization. Today's research environment, however, promotes collaborations between different departments within the institution, between different institutions, and between academia and industry. In these situations, institution-wide policies and procedures may be necessary to avoid conflicts. Each institution should seek an ideal balance between centralized authority and local flexibility, and between collaboration and autonomy. These choices can affect the degree of support the community offers the program, the effectiveness of the program to anticipate and respond to problems, and the extent to which employees will seek out its guidance.

Even if compliance responsibilities are decentralized, however, it is necessary that some individual (preferably at a high level) be charged with oversight of the entire program. The eighth element added by the OIG in the proposed guidance described earlier, "Defining roles and responsibilities and assigning oversight responsibility," anticipates the existence of a decentralized arrangement, by stating the need to coordinate and provide oversight for the structural components. And whether the program is centralized or decentralized, there needs to be a clear assignment of responsibility in each area of concern for overseeing the compliance function, collecting and analyzing relevant data, developing related policy, developing and administering education and training materials, overseeing investigations, and auditing. One approach for the development of such a plan, to ensure that gaps in assigned accountability for compliance are identified and filled, specifies, and analyzes:

1. Each component of the compliance program (e.g., policies, communication, reporting),
2. The compliance areas (e.g., scientific misconduct, human/animal subjects, grant administration), and
3. The roles of those involved in research (e.g., deans, principle investigator, managers).

Content of a Research Compliance Program

The core priorities of a compliance program involve meeting legal and regulatory requirements, and minimizing risks of litigation and enforcement actions. Broadly then, the program should encompass all research-related content areas that are subject to legal and regulatory requirements, and those that expose the institution to risk. Depending on the actual scope of research activities, the organization may be subject to regulation in some or all of the following (nonexclusive) areas:

- Human subject protection
- Animal use protection
- Biosafety
- Select agents
- FDA
- Privacy
- Financial conflicts of interest
- Grants management
- Fraud and abuse
- Research misconduct
- Intellectual property
- Import/export

A logical allocation of resources among content areas follows upon an analysis of the *likelihood* and *impact* of the risks of noncompliance in each relevant area. For example, a new risk assessment at Learned University (L.U.) concludes that a high *likelihood* of risk exists in the areas of animal use protection, conflicts of interest, and environmental health and safety; while a medium *likelihood* of risk exists in the areas of faculty practices and research billing compliance, records management and retention, and HIPAA implementation. The *impact* of these various risks, if realized, can also range from low to high. For example, Learned University decides that, while the *likelihood* of risk from research billing compliance is medium because L.U. conducts very few clinical trials, that the *impact* of such noncompliance may be high due to the possible outcomes of a fraud and abuse charge. This analysis of relevant content areas and assessment of risk will be used as a basis for allocation of resources and development of a comprehensive plan to address priority areas.

Though a compliance program may be primarily concerned with following the laws and avoiding or minimizing the risk of litigation, the institution also may decide to make *compliance and ethics* the focus of its program. Formal ethics and compliance programs seek to promote awareness of legal and ethical concerns and to encourage ethical behavior among employees at work. There are many reasons to take this approach.

Clearly the responsible conduct of research goes beyond laws and regulations. The Office of Research Integrity of DHHS identifies nine core areas in the responsible conduct of research:

1. Data acquisition, management, sharing, and ownership
2. Mentor/trainee responsibilities

3. Publication practices and responsible authorship
4. Peer review
5. Collaborative science
6. Human subjects
7. Research involving animals
8. Research misconduct
9. Conflict of interest and commitment

Norms and standards in these areas exist in agency pronouncements (e.g., data sharing), professional codes, and in institutional policies and guidelines. A concern for ethics also extends to attention to human rights, the environment, and social responsibility. Many think of this broader focus as "doing the right thing while doing things right," and believe that compliance will more likely occur in a culture of integrity and ethics.

The Ethics Resource Center, Washington, D.C. (<http://www.ethics.org/>) is a nonprofit, nonpartisan educational organization whose mission it is to strengthen ethical leadership worldwide by providing leading-edge expertise and services through research, education, and partnerships. Their research shows that an *effective* integrity program goes beyond narrow compliance and integrates elements of organizational and individual integrity, deterrent to wrongdoing, satisfying legal requirements, as well as the organization's broader responsibilities to society.⁴ Most institutions have a commitment to a core set of values, including historically transmitted values and norms that go beyond legal obligations. This moral culture of the institution sets the stage for all conduct.

It is widely believed that effective compliance grows out of the internalization of values. There is a concern that when behavior is motivated by external control and authoritarian means, people comply mainly if and when they are closely supervised and fear punishment. On the other hand, reliance on shared moral values and internal convictions means that people conduct themselves voluntarily in line with the values and because they subscribe to them. Merely knowing what is right is no assurance that we will do it. While external controls are needed to a point, if relied on excessively, they undermine the cultivation of self-discipline.

A compliance program needs to strike an effective balance between conveying, on the one hand, the detailed content of government regulations and, on the other, an appreciation of the more broad-based general principles that underpin those regulations. It is critical for an effective compliance program to have the goal of promoting a change of

awareness and behavior in the workplace, such that decisions are made in reference to the full spectrum of legal and ethical concerns—with a desire to comply with external law and regulations, as well as organizational policies and procedures—and are guided by organizational and individual values. This can occur when there is a consistent message conveyed in the design and structure of the program, with the aim that the message becomes a central part of the *culture* of the institution.

Measuring Effectiveness

Outcomes of an effective compliance program are difficult to assess and can be quantitative or qualitative. The most typical methods of monitoring are surveys, individual and group interviews, observation, and audits. In a positive, ethical culture it can be expected that personnel will be willing to seek advice and report suspected violations. Research staff might report a sense that the compliance program contributes to ethical decision making. One hopes to see an increased awareness of ethics and compliance issues at all levels of the institution. In many institutions, the compliance officer reports assessment results directly to a committee of the board of trustees.

The Cost of Compliance

Although most of the focus of a compliance program will be on avoiding the costs of noncompliance and litigation, the financial expense of implementing such a program is considerable. Entities that engage in federally funded research and those with federal assurances already incur substantial expense in creating and maintaining the administrative support systems necessary to satisfy compliance requirements (which cannot be fully recovered due to the cap on F&A expenses). An effective compliance program will likely add staff and resources—auditing and monitoring, training, and internal reporting mechanisms—that will add considerably to the cost of conducting research.

In addition, these very activities, when carried out effectively, all create a real risk that the information and documentation created will be used by potential litigants to the detriment of the organization. This risk is often referred to as the “litigation dilemma,” and it can be a major concern in developing an effective program. These issues must be discussed with top executives and general counsel with the goal of achieving a balanced approach—

one that weighs the risks of exposing and documenting problems against the costs and risks of an institution not being well informed.

Conclusion

In the beginning of this chapter we emphasized the importance of trust for the successful conduct of research; the value of trust has to be thought of in its broadest sense—not just applicable to the individual research practitioner. Research institutions will only flourish when those who support them and ultimately make use of their product (i.e., the public) have high regard for their ways and means. Many institutions have internalized this insight and have expanded their research compliance and integrity programs concomitantly to meet the needs of a more demanding era while others are just evidencing the glimmerings of awareness. What can be said for all is that the stakes are too high to place the hope for compliance and integrity on a wish and a prayer.

It is in the planning stages of a research compliance program that forethought, care, and inclusion can exponentially express their worth in the final product. The Columbia University experience underscores the importance of patiently considered ramifications and outreach to all who participate in the process to insure the content and structure are appropriate to the individual institution. The necessary functions of a reliable compliance program are delineated as the seven core elements in the “Federal Sentencing Guidelines for Organizations” and can be shaped into an overall program to support ethics and compliance with the objective of effectively putting principles into practice. Considering the complexity of most academic research institutions, designing the appropriate structure becomes essential to ensuring accountability and the inclusion of all elements.

The core of any compliance program will be evidenced by its depth and breadth of content. Many institutions choose to focus solely on compliance with the letter of law and regulation while others seek to integrate edict and ethics, implicitly believing that legal compliance itself will be more likely to occur in an environment that promotes the responsible conduct of research. The latter approach presumes that institutions can consciously possess and foster a moral culture that will act as the ethical foundation for all that occurs within its confines and under its rubric. Whichever

approach is chosen, the test comes in spreading the word of compliance, whether narrow or broad in its focus. The final proof is always in the doing.

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Gilman S. C. "A Word from the President: Is Mere Legal Compliance Dangerous?" *Ethics Today Online* [serial online] 2, no. 4 (2003). http://ethics.org/today/et_v2n41203.html (accessed June 2, 2005).

Gunsalus, C. K. "Preventing the Need for Whistle-blowing: Practical Advice for University Administrators." *Science and Engineering Ethics* 4, no. 1 (1998): 75-94.

Institute of Medicine and National Research Council of the National Academies. *"Integrity in Scientific Research."* Washington, DC: The National Academies Press, 2002.

II. Web Sites of Selected Research Compliance Programs

Columbia University, Office for Responsible Conduct of Research
<http://orcr.columbia.edu> (accessed June 2, 2005).

Creighton University, Research Compliance Office
<http://www.creighton.edu/researchcompliance/index.htm> (accessed June 2, 2005).

Dartmouth College, Research Compliance
http://www.dartmouth.edu/~comply/rc_home.shtml (accessed June 2, 2005).

Kansas University Medical Center, Research Compliance Division
<http://www2.kumc.edu/researchcompliance/> (accessed June 2, 2005).

Stanford University, Institutional Compliance Program
<http://institutionalcompliance.stanford.edu> (accessed June 2, 2005).

University of Arkansas, Research Support and Sponsored Programs
<http://www.uark.edu/admin/rsspinfo/compliance/index.html> (accessed June 2, 2005).

University of Pittsburgh, Research Conduct & Compliance Office
<http://www.rcco.pitt.edu/> (accessed June 2, 2005).

University of Utah, Research Integrity and Compliance
<http://www.research.utah.edu/integrity/index.html> (accessed June 2, 2005).

III. 2002 Federal Sentencing Guidelines for Organizations, Chapter Eight – Part A – General Application Principles §8A1.2. Application Instructions—Organizations Available at:
http://www.ussc.gov/2002guid/8a1_2.htm (accessed June 2, 2005).

(k) An "effective program to prevent and detect violations of law" means a program that has been reasonably designed, implemented, and enforced so that it generally will be effective in preventing and detecting criminal conduct. Failure to prevent or detect the instant offense, by itself, does not mean that the program was not effective. The hallmark of an effective program to prevent and detect violations of law is that the organization exercised due diligence in seeking to prevent and detect criminal conduct by its employees and other agents. Due diligence requires at a minimum that the organization must have taken the following types of steps:

(1) The organization must have established compliance standards and procedures to be followed by its employees and other agents that are reasonably capable of reducing the prospect of criminal conduct.

(2) Specific individual(s) within high-level personnel of the organization must have been assigned overall responsibility to oversee compliance with such standards and procedures.

(3) The organization must have used due care not to delegate substantial discretionary authority to individuals whom the organization knew, or should have known through the exercise of due diligence, had a propensity to engage in illegal activities.

(4) The organization must have taken steps to communicate effectively its standards and procedures to all employees and other agents, e.g., by requiring participation in training programs or by disseminating publications that explain in a practical manner what is required.

(5) The organization must have taken reasonable steps to achieve compliance with its standards, e.g., by utilizing monitoring and auditing systems reasonably designed to detect criminal conduct by its employees and other agents and by having in place and publicizing a reporting system whereby employees and other agents could report criminal conduct by others within the organization without fear of retribution.

(6) The standards must have been consistently enforced through appropriate disciplinary mechanisms, including, as appropriate, discipline of individuals responsible for the failure to detect an offense. Adequate discipline of individuals responsible for an offense is a necessary component of enforcement; however, the form of discipline that will be appropriate will be case specific.

(7) After an offense has been detected, the organization must have taken all reasonable steps to respond appropriately to the offense and to prevent further similar offenses—including any necessary modifications to its program to prevent and detect violations of law. The precise actions necessary for an effective program to prevent and detect violations of law will depend upon a number of factors. Among the relevant factors are:

- (i) Size of the organization—The requisite degree of formality of a program to prevent and detect violations of law will vary with the size of the organization: the larger the organization, the more formal the program typically should be. A larger organization generally should have established written policies defining the standards and procedures to be followed by its employees and other agents.
- (ii) Likelihood that certain offenses may occur because of the nature of its business—If because of the nature of an organization's business there is a substantial risk that certain types of offenses may occur, management must have taken steps to prevent and detect those types of offenses. For example, if an organization handles toxic substances, it must have established standards and procedures designed to ensure that those substances are properly handled at all times. If an organization employs sales personnel who have flexibility in setting prices, it must have established standards and procedures designed to prevent and detect price-fixing. If an organization employs sales personnel who have flexibility to represent the material characteristics of a product, it must have established standards and procedures designed to prevent fraud.
- (iii) Prior history of the organization—An organization's prior history may indicate types of offenses that it should have taken actions to prevent. Recurrence of misconduct similar to that which an organization has previously committed casts doubt on whether it took all reasonable steps to prevent such misconduct. An organization's failure to incorporate and follow applicable industry practice or the standards called for by any applicable governmental regulation weighs against a finding of an effective program to prevent and detect violations of law.

Authors' Acknowledgment

We are grateful to John Masten of Columbia University for his invaluable editorial contributions to this chapter. We are also grateful to Michael Kalichman for useful discussions and insight. Finally, we want to thank Gesenia Alvarez-Lazauskas for her supportive contributions.

* * * Endnotes

1. Institute of Medicine and National Research Council. *Integrity in Scientific Research: Creating an Environment That Promotes Responsible Conduct*. Washington, DC: The National Academies Press, 2002, 1.
2. As Director of Outreach at the NIH Office of Biotechnology Activities, Mr. Shipp employs this phrase in the context of institutional biosafety committees.
3. "Publication of the OIG Compliance Program Guidance for Hospital," *Federal Register* 63, No. 35 (February 23, 1998): 8987-8998.
4. In Ethics Resource Center. *Ethics Today Online* 2, No. 4 (December 15, 2003), http://ethics.org/today/et_v2n41203.html (accessed August 16, 2005).

Research Advisory Board

May 6, 2009

Music 313

3:00 pm

Agenda

1. Review and Approval of Minutes Stephanie Endy
2. Continued discussion of issues All
3. Prioritization of issues All
4. Summer Schedule and Priority Issues from Administration; request for volunteers to work on topics over the summer.
 - a. Research and Compliance Offices
 - b. New Faculty Seminar/Colloquium
 - c. Electronic Pre-Award Research Administration
 - d. Strategic Priorities for Research

Handouts:

1. RAB Membership Directory
2. Minutes from March 18, 2009 meeting
3. Issues raised by faculty members
4. Grants Newsletter from April 17, 2009
5. MTA Tax notice from RF
6. Stipend Policies from RF
7. Compliance and Research Office background articles
8. New Faculty Seminar/Colloquium Reaction Document
9. Electronic Pre-Award Research Administration presentation slides

Research Advisory Board Membership

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Research Advisory Board
March 18, 2009
Music 313
3:30 PM

Minutes

In attendance: Professor Marilyn Aguirre-Molina, Professor Eugene Chudnovsky, Ms. Stephanie Endy, Mr. Dominic Esposito, Associate Dean Marzie Jafari, Professor Alan Kluger, Professor Dina Le Gall, Ms. Lois Levy, Professor Herminio Martinez, Professor Janet Munch, Provost Mary Papazian, Professor Anne Rothstein, Assistant Vice President Rene Rotolo, Professor Katherine St. John, Associate Provost Robert Troy, Vice President Derek Wheeler, Ms. Marcie Wolfe

1. **Welcome & Overview – Provost Mary Papazian:** The Provost opened the meeting stating that the process of creating a Research Advisory Board has been ongoing for some time and she was very grateful to all participants who worked towards establishing the board. Introductions were then made all around. The Provost continued by saying that all parts of the College are represented at the meeting and one of the purposes of the board is to receive input from this diverse group so that it could recommend policies that will develop, encourage and ensure successful research projects across the Institution. Additionally, the board will ensure that research projects adhere to all regulations including Federal and internal among others. The board will be an ongoing part of Lehman College and the group will foster and support research sustainability into the future. The newly established Recovery Act is one example of funding opportunities for the future.
2. **The Charge of the RAB – Provost Mary Papazian:** The charge of the board is to establish the best protocols, policies, and procedures across Lehman to support and enhance the research mission, one that will create a strong research culture at the college. Every topic is on the table for discussion.
3. **Introduction to Compliance Areas – Ms. Stephanie Endy:** There are four compliance areas that are of interest a. Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC) and Institutional Biosafety Committee (IBC) b. Responsible Conduct of Research (RCR) c. Conflict of Interest (COI) and d. Pre-Award and Post-Award Compliance.
 - **IRB, IACUC, IBC – Ms. Lois Levy:** The IRB protects human subjects in research. Ms. Levy reviewed the focus of the IRB and indicated that her office attempts to make the IRB process as pleasant as possible. IRB approval is extremely important because CUNY research was suspended ten years ago after being cited for non-compliance. IACUC is the committee that protects animals in research. Currently there are two species in the Animal Care Facility. IBC reviews and approves the use of hazardous materials in research. Initially this committee only

evaluated projects that used recombinant DNA, but now all biomedical issues are discussed.

- *Responsible Conduct of Research – Professor Alan Kluger:* Professor Kluger included a presentation in the handout and stated that two years ago, CUNY implemented a research misconduct policy. Professor Kluger reviewed the current state and goals of the policy. Professor Kluger stated that he will expand on the details of the policy in the future and the Lehman website should have links to the Responsible Conduct of Research policy.
 - *Conflict of Interest – Associate Provost Robert Troy:* Associate Provost Troy stated that CUNY has a conflict of interest policy and the Research Advisory Board can be used to direct how the information should be disseminated. All researchers are required to disclose if there is a potential conflict of interest. Proposals should be reviewed to identify potential conflicts of interest. Once the board decides how the information on these requirements should be available, it should be disseminated. Ms. Stephanie Endy added that there are both internal and Federal regulations regarding conflict of interest. National Institutes of Health has a policy that must be viewed and understood prior to an award being made. Institutions can be fined for non-compliance.
 - *Pre-Award and Post-Award – Ms. Stephanie Endy:* During the post-award period, we, as an institution, know what the sponsor requires and we adhere to those policies. In conjunction with the sponsor policies, we must adhere to Federal, CUNY and Lehman College regulations. Pre-award requirements can be a little less clear. Lehman currently has pre-award policies, but they are not always clearly communicated or documented. Research at Lehman is strong but more communication is necessary and the board should discuss any areas of research.
4. **Open Discussion:** The floor was opened for comments by the members of the board. Vice President Derek Wheeler stated that while faculty is aggressive and eager to bring in programs, there is not an institutional perspective regarding the impact of those programs on the College. For example, some projects impact the Information Technology department and there was not enough prior planning to implement the technology associated with the project. Also, space considerations and matching funds have not adequately been addressed. Mr. Wheeler will work with the group to help address those issues. Professor Eugene Chudnovsky stated that at the start of a proposal, faculty members were always aware what could not be done. He noticed that some of these issues were chronicled by faculty testimony that was included in the meeting packet. He would like to see the board encourage interest in research and make the process easier. Some issues raised were: additional faculty released time would help foster the process, teaching schedules are not always accommodating to conducting research, and more

support for graduate students from sponsored programs is needed. A discussion of how to pay graduate students through stipends rather than as employees ensued. Professor Katherine St. John agreed with Professor Chudnovsky. She added to the conversation concerning paying students with stipends and raised additional issues around the hidden costs associated with doing research at Lehman such as internet connection fees) and the difficulty faced by Principal Investigators in achieving reasonable solutions for issues that might cost the college F&A income. Prof. St. John suggested that a packet for incoming faculty should be made available with guidelines for grant management inclusive of personnel and other than personnel services and a book on how to use the Research Foundation should exist as well. She would like to see transparent rules and regulations. There was general support for all of these issues and ideas. Many members of the board have experienced similar frustrations and hurdles on campus and would like to see better materials available, especially for new faculty as these hurdles make it difficult for people to get funding and Professor St. John felt that she received negative feedback for conducting research. Professor Kluger stated that there are some areas that present challenges for researchers including the IRB. Oftentimes, clinical research is delayed by researchers trying to receive IRB approval from multiple schools. He would like to see the board formulate a way to work with other institutions to help streamline this process.

5. **Conclusion:** Ms. Endy added that there are cultural issues as well as compliance and administrative issues and the board will need to prioritize and decide upon the best approach. All members of the board should make a list and bring it to the next meeting so the issues can be addressed and the board can decide how to take appropriate action. The meetings will take place every other week and be two hours each. Email will be sent out to vote on the best meeting dates and times. The announcements from the agenda were then mentioned and the board was asked to email all possible agenda items to Ms. Endy prior to the next meeting.

Stephanie Endy

From: EDWARD KENNELLY [EDWARD.KENNELLY@lehman.cuny.edu]
Sent: Friday, April 17, 2009 3:16 PM
To: 'Endy, Stephanie'
Subject: Newsletter

Dear Stephanie,

It's nice to get the Newsletter. I unexpectedly find myself reading it more than I would have thought. In this day of endless emails, it is unusual to get a hard copy.

A few comments/suggestions:

1. RAB is a great idea. Is there a Chair who we can send ideas to? Perhaps this could be encouraged
2. Funding opportunities—can you annotate some of these? For example, SCORE is stuck at the very end, and some faculty may not be aware that it is one of our strongest programs on campus. You could mention that the MBRS folks said almost 50% of the SC1 have been funded, for example. This could entice more people to participate.
3. How about focusing on one successful grant per Newsletter. Ask a set of questions to the PI...How did you learn about the mechanism, how did you go about creating your project; ect. This may help others get ideas on how to approach a grant.
4. Graphics for the Newsletter?

I hope you are well. Keep up the good work.

Ed

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GRANTS NEWSLETTER

Stephanie Endy, Director
Office of Research & Sponsored Programs
Lehman College, City University of New York
www.lehman.edu/provost/grants
April 17, 2009

NEWS

The Lehman College Research Advisory Board

March 16, 2009 marked the first meeting of the Research Advisory Board at Lehman College. To keep their efforts transparent, a new web page has been added to the ORSP site where meeting dates, times, places, materials, agendas, and minutes will be posted. Check it out at
<http://www.lehman.edu/provost/grants/rab.html>

UPCOMING EVENTS

Wednesday April 22, 2009 at 9:30 am

Research Foundation PI Roundtable
Music 313

RF will be on campus to answer your trickiest questions about OTPS regulations and spending. Don't know what OTPS is? Come find out! Refreshments will be served.

Save the Date!

Thursday, May 7, 2009

Annual Reception

Celebrating Faculty Publications and Grants

4:00 – 6:00 pm

FINDING FUNDING

Fellowships

National Endowment for the Humanities

Due Date: May 5, 2009

<http://www.neh.gov/grants/guidelines/fellowships.html>

Fellowships support individuals pursuing advanced research that is of value to scholars and general audiences in the humanities. Recipients usually produce articles, monographs, books, digital materials, archaeological site reports, translations, editions, and other scholarly tools. Fellowships support continuous full-time work for a period of six to twelve months.

Faculty Early Career Development (CAREER) Program

National Science Foundation

Due Date: July 21-23, 2009

<http://www.nsf.gov/pubs/2008/nsf08557/nsf08557.htm>

CAREER: The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National

Science Foundation's most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations. Such activities should build a firm foundation for a lifetime of leadership in integrating education and research. NSF encourages submission of CAREER proposals from junior faculty members at all CAREER-eligible organizations and especially encourages women, members of underrepresented minority groups, and persons with disabilities to apply.

Academic Career Award (K07), PA-09-041

National Institutes of Health

Due Date: June 12, 2009

<http://grants.nih.gov/grants/guide/pa-files/PA-09-041.html>

Awards to increase the pool of individuals with academic and research expertise to become academic researchers and to enhance the educational or research capacity at the grantee-sponsoring institution. *K07 Development award*: Foster academic career development of promising junior teacher-investigators by providing them salary and research development support for mentored career development in areas of biomedical research related to the research mission of the supporting NIH Institute or Center (IC). Individuals applying for a Development Award are also encouraged to include a curriculum development component in their career development plan. *K07 Leadership award*: Develop and implement excellent multidisciplinary curricula through an interchange of ideas and enable the grantee institution to strengthen its existing teaching program by providing more senior investigators salary and research development support to improve the curriculum and enhance the health-related research capacity within an academic institution.

Faculty Research Awards

National Endowment for the Humanities

Due Date: May 5, 2009

<http://www.neh.gov/grants/guidelines/facultyresearch.html>

Faculty Research Awards support advanced research in the humanities by teachers at Historically Black Colleges and Universities, Institutions with High Hispanic Enrollment, and Tribal Colleges and Universities. The research must be of value to scholars and general audiences in the humanities. Recipients usually produce articles, monographs, books, digital materials, archaeological site reports, translations, editions, and other scholarly tools. The awards support the equivalent of six to twelve months of full-time work.

Mentored Research Scientist Development Award (K01), PA-09-040

National Institutes of Health

Due Date: June 12, 2009

<http://grants.nih.gov/grants/guide/pa-files/PA-09-040.html>

The overall objective of the NIH Research Career Development Award program is to prepare qualified individuals for careers that have a significant impact on the health-related research needs of the Nation. The objective of the NIH Mentored Research Scientist Development Award (K01) is to provide support for a sustained period of "protected time" for intensive research career development under the guidance of an experienced mentor, or sponsor, in the biomedical, behavioral or clinical sciences leading to research independence. The expectation is that through this sustained period of research career development and training, awardees will launch independent research careers and become competitive for new research project grant (R01) funding. Although all of the participating NIH Institutes and Centers (ICs) use this support mechanism to support career development experiences that lead to research independence, some ICs use the K01 award for individuals who propose to train in a new field or for individuals who have had a hiatus in their research career because of illness or pressing family circumstances. Other ICs utilize the K01 award to increase research workforce diversity by providing enhanced research career development opportunities.

Learning in the Arts for Children and Youth

National Endowment for the Arts

Due Date: June 11, 2009

<http://www.nea.gov/grants/apply/GAP10/LITA.html>

To advance arts education for children and youth in school-based or community-based settings. This category supports in-depth, curriculum-based arts education experiences that occur over an extended period. Projects must provide participatory learning and engage students with skilled artists, teachers, and excellent art. All projects must include the following components: 1) the opportunity for students and their teachers to experience exemplary works of art, in live form wherever possible; 2) study of the art experienced including the acquisition of skills for practicing the art form where appropriate; 3) the performance/making of art within the discipline(s) studied; and 4) assessment of student learning according to national or state arts education standards.

Minority Science and Engineering Improvement Program (MSEIP)

Office of Postsecondary Education, Department of Education, CFDA 84.120A

Due Date: May 1, 2009

<http://edocket.access.gpo.gov/2009/pdf/E9-7306.pdf>

The MSEIP is designed to effect long-range improvement in science and engineering education at predominantly minority institutions and to increase the flow of underrepresented ethnic minorities, particularly minority women, into scientific and technological careers. Invitational priorities are 1) the

development of bridge or articulation programs targeting pre-freshmen entering into STEM fields, 2) focus on student learning and encouraging and facilitating implementation of pedagogical approaches proven to increase student retention and achievement in STEM fields, and 3) mentoring programs designed to increase the number of underrepresented students graduating with STEM undergraduate degrees.

New York Community Trust

www.nycommunitytrust.org

Priority given to applications for projects having particular significance for the New York City area. Programmatic interests include: Children, Youth, & Families, Community Development and the Environment, Education, Arts and the Humanities, and Health and People with Special Needs.

Course, Curriculum, and Laboratory Improvement (CCLI)

National Science Foundation

Due Date: May 22, 2009 for Type 1 proposals

<http://www.nsf.gov/pubs/2009/nsf09529/nsf09529.html>

The Course, Curriculum, and Laboratory Improvement (CCLI) program seeks to improve the quality of science, technology, engineering, and mathematics (STEM) education for all undergraduate students. It especially welcomes proposals that have the potential to transform undergraduate education in science, technology, engineering, and mathematics (STEM) for all students. The program supports efforts to create, adapt, and disseminate new learning materials and teaching strategies to reflect advances both in STEM disciplines and in what is known about teaching and learning. It funds projects that develop faculty expertise, implement educational innovations, assess learning and evaluate innovations, prepare K-12 teachers, or conduct research on STEM teaching and learning. It also supports projects that further the work of the program itself, for example, synthesis and dissemination of findings across the program. The program supports projects representing different stages of development, ranging from small, exploratory investigations to large, comprehensive projects.

Humanities Collection and Reference Resources

National Endowment for the Humanities

Due Date: July 15, 2009

<http://www.neh.gov/grants/guidelines/HARR.html>

The Humanities Collections and Reference Resources program supports projects that provide an essential foundation for scholarship, education, and public programming in the humanities. Funding from this program strengthens efforts to extend the life of such materials and make their intellectual content widely accessible, often through the use of digital technology. Awards are also made to create various reference resources that facilitate use of cultural materials, from works that provide basic information quickly to tools that synthesize and codify knowledge of a subject for in-depth investigation.

Recovery Act Limited competition for NIH Grants: Research and Research Infrastructure "Grand Opportunities" (RC2), RFA-OD-09-004

National Institutes of Health

Due Date: May 27, 2009

<http://grants.nih.gov/grants/guide/rfa-files/RFA-OD-09-004.html>

To support projects that address large-scale, specific biomedical and biobehavioral research endeavors that will have high short-term impact, and a high likelihood of enabling growth and investment in biomedical research and development, public health, and health care delivery. Projects should accelerate critical breakthroughs, early and applied research on cutting-edge technologies, and new approaches to improve the synergy and interactions among multi and interdisciplinary research teams. Initiative seeks novel approaches in areas that address specific knowledge gaps, scientific opportunities, new technologies, data generation, or research methods.

Preservation and Access Education and Training

National Endowment for the Humanities

Due Date: July 1, 2009

<http://www.neh.gov/grants/guidelines/pet.html>

The Preservation and Access Education and Training program is central to NEH's efforts to preserve and establish access to cultural heritage resources. Preservation and Access Education and Training grants help the staff of cultural institutions, large and small, obtain the knowledge and skills needed to serve as effective stewards of humanities collections. Grants also support educational programs that prepare the next generation of conservators and preservation professionals, as well as projects that introduce the staff of cultural institutions to recent improvements in preservation and access practices.

Development and Learning Science (DLS)

National Science Foundation

Due Date: July 15, 2009

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=8671

DLS supports fundamental research that increases our understanding of cognitive, linguistic, social, cultural, and biological processes related to children's and adolescents' development and learning. Research supported by this program will add to our basic knowledge of how people learn and the underlying developmental processes that support learning, with the objective of leading to better educated children and adolescents who grow up to take productive roles as workers and as citizens.

Research Coordination Networks in Biological Sciences (RCN)

National Science Foundation

Anticipated Due Date: June 29, 2009

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11691

The goal of this program is to encourage and foster interactions among scientists to create new research directions or advance a field. Innovative ideas for implementing novel networking strategies are especially encouraged. Groups of investigators will be supported to communicate and coordinate their research, training and educational activities across disciplinary, organizational, institutional, and geographical boundaries. The proposed networking activities should have a theme as a focus of its collaboration. The focus could be on a broad research question, a specific group of organisms, or particular technologies or approaches.

Broadening Participation in Computing (BPC)

National Science Foundation

Due Date: May 13, 2009

<http://www.nsf.gov/pubs/2009/nsf09534/nsf09534.pdf>

The Broadening Participation in Computing (BPC) program aims to significantly increase the number of U.S. citizens and permanent residents receiving post secondary degrees in the computing disciplines, with an emphasis on students from communities with longstanding underrepresentation in computing. The BPC program seeks to engage the computing community to develop and implement innovative methods, frameworks, and strategies to improve recruitment and retention of these students through undergraduate and graduate degrees. Projects that target stages of the academic pipeline from middle school through the early faculty ranks are welcome.

GE Foundation

www.gefoundation.com

The foundation supports programs designed to promote education; the environment; disaster relief; human services; public policy; and community success around the globe.

Bridges to the Baccalaureate Program (R25), PAR-07-411

National Institutes of Health

Due Date: May 25, 2009

<http://grants1.nih.gov/grants/guide/pa-files/PAR-07-411.html>

To increase the number of students from groups underrepresented in the biomedical and behavioral research enterprise of the nation and/or populations disproportionately affected by health disparities who successfully complete the baccalaureate degree in biomedical and behavioral sciences. Promotes inter-institutional partnerships between community colleges and colleges or universities that offer the baccalaureate degree with the goal of developing well-integrated developmental activities that will increase students preparation and skills as they advance academically in the pursuit of the baccalaureate and subsequently more advanced degrees in biomedical and behavioral sciences.

Challenge America: Reaching Every Community Fast-Track Review Grants

National Endowment for the Arts

Due Date: May 28, 2009

<http://www.nea.gov/grants/apply/GAP10/Challenge.html>

For support, primarily to small and mid-sized organizations, of projects that extend the reach of the arts to underserved populations. Grants are for \$10,000. Funding is not available for curriculum-based instruction in the arts.

Short Courses on Mathematical, Statistical, and Computational Tools for Studying Biological Systems (R25), PA-09-002

National Institutes of Health

Due Date: May 25, 2009

<http://grants.nih.gov/grants/guide/pa-files/PA-09-002.html>

To conduct workshops and short courses to improve integration of mathematical, statistical, and computational approaches into biological and/or behavioral research.

Xerox Foundation – USA

www.xerox.com

Support for organizations involved with arts and culture, education, including the application of information technology, employment, human services, increased business quality and productivity, community development, science and technology, civic affairs, minorities, women, and economically disadvantaged people.

**NIH Small Research Grant Program (Parent R03), PA-06-180
NIH Exploratory/Developmental Research Grant Program (Parent R21), PA-06-181**

National Institutes of Health

Due Date: June 16, 2009

<http://grants.nih.gov/grants/guide/pa-files/PA-06-180.html>

<http://grants.nih.gov/grants/guide/pa-files/PA-06-181.html>

R03: Supports small research projects that can be carried out in a short period of time with limited resources.

R21: Intended to encourage exploratory and developmental research projects by providing support for the early and conceptual stages of these projects. These studies may involve considerable risk but may lead to a breakthrough in a particular area, or to the development of novel techniques, agents, methodologies, models, or applications that could have a major impact on a field of biomedical, behavioral, or clinical research.

Research Project Grant (Parent R01), PA-07-070

National Institutes of Health

Due Date: June 5, 2009

<http://grants.nih.gov/grants/guide/pa-files/PA-07-070.html>

Awards support a discrete, specified, circumscribed project to be performed by the named investigator. The research plan must be related to the stated program interests of one or more

NIH Institutes or Centers (ICs) based on descriptions of their programs.

Education Research Request for Applications

Institute of Education Sciences, CFDA 84.305A

Department of Education

Due Date: Letters of Intent April 27, 2009

<http://ies.ed.gov/funding/10rfas.asp>

In this announcement, the Institute of Education Sciences (Institute) requests applications for research projects that will contribute to its education research programs in Reading and Writing; Mathematics and Science Education; Cognition and Student Learning; Teacher Quality – Reading and Writing; Teacher Quality – Mathematics and Science Education; Social and Behavioral Context for Academic Learning; Education Leadership; Education Policy, Finance, and Systems; Early Childhood Programs and Policies; Middle and High School Reform; Interventions for Struggling Adolescent and Adult Readers and Writers; English Language Learners; Postsecondary Education; and Education Technology.

Support of Competitive Research (SCORE)

Research Advancement Award (SC1), PAR-08-026

Pilot Project Award (SC2), PAR-08-027

Research Continuance Award (SC3), PAR-08-028

National Institutes of Health

Due Date: May 25, 2009

<http://grants.nih.gov/grants/guide/pa-files/PAR-08-026.html>

<http://grants.nih.gov/grants/guide/pa-files/PAR-08-027.html>

<http://grants.nih.gov/grants/guide/pa-files/PAR-08-028.html>

To increase the research competitiveness of faculty at minority-serving institutions and the institution's faculty research capabilities. SC1: for faculty who are at the most advanced formative stages of their research career (engaged in state-of-the-art biomedical or behavioral research and are productive) who have not yet had significant non-SCORE support and are planning to transition to other major external sources of support. SC2: pilot research for faculty members who are in their early stages of development and are seeking to gather preliminary data. SC3: Individual investigator-initiated research continuance award for faculty members at intermediate formative stages who seek to improve their scholarly development by engaging in research projects of limited scope and publishing in a given biomedical/behavioral area limited to the NIH mission.

Questions? Comments?

Office of Research & Sponsored Programs

Shuster Hall Room 303

(718) 960-8107

Stephanie Endy

From: Marilyn Aguirre-Molina [MARILYN.AGUIRRE-MOLINA@lehman.cuny.edu]
Sent: Thursday, April 02, 2009 11:09 PM
To: Stephanie Endy
Subject: Re: RAB: Draft Minutes, Web Site, Agenda Items, and Future Meeting Dates

Thak you for your message and dates of future meetings. As for an agenda item for the next meeting, I'd like to have a discussion on the Research Foundation and the services they are required to provide PIs (it has been a challenge working with them).

Marilyn

----- Original message -----

Date: Thu, 2 Apr 2009 13:52:02 -0400

From: Stephanie Endy <STEPHANIE.ENDY@lehman.cuny.edu>

Subject: RAB: Draft Minutes, Web Site, Agenda Items, and Future Meeting Dates

To: "Stephanie Endy" <stephanie.endy@lehman.cuny.edu>

Cc: <marilyn.aguirre-molina@lehman.cuny.edu>, "EUGENE CHUDNOVSKY" <EUGENE.CHUDNOVSKY@lehman.cuny.edu>, <michael.ferraro@lehman.cuny.edu>, <mira.goral@lehman.cuny.edu>, "ALAN KLUGER" <ALAN.KLUGER@lehman.cuny.edu>, <dina.legall@lehman.cuny.edu>, "Lois Levy" <LOIS.LEVY@lehman.cuny.edu>, "HERMINIO MARTINEZ" <HERMINIO.MARTINEZ@lehman.cuny.edu>, <joseph.middleton@lehman.cuny.edu>, <Janet.Munch@lehman.cuny.edu>, <joseph.rachlin@lehman.cuny.edu>, "ANNE ROTHSTEIN" <ANNE.ROTHSTEIN@lehman.cuny.edu>, <merrily.cohen@lehman.cuny.edu>, "KATHERINE STJOHN" <KATHERINE.STJOHN@lehman.cuny.edu>, "ROBERT TROY" <ROBERT.TROY@lehman.cuny.edu>, "DEREK WHEELER" <DEREK.WHEELER@lehman.cuny.edu>, <marcie.wolfe@lehman.cuny.edu>, "IRIS GONZALEZ-CORDOVA" <IRIS.GONZALEZ-CORDOVA@lehman.cuny.edu>, "MARZIE JAFARI" <MARZIE.JAFARI@lehman.cuny.edu>, "Mary Papazian" <MARY.P! ! APAZIAN@lehman.cuny.edu>, "IRIS GONZALEZ-CORDOVA" <IRIS.GONZALEZ-CORDOVA@lehman.cuny.edu>, "Dominic Esposito" <dominic.esposito@lehman.cuny.edu>

Dear RAB Members,

Stephanie Endy

From: Lois Levy [LOIS.LEVY@lehman.cuny.edu]
Sent: Wednesday, April 08, 2009 3:23 PM
To: 'Stephanie Endy'
Subject: RE: Draft Minutes, Web Site, Agenda Items, and Future Meeting Dates

Stephanie-

Items for the agenda:

1. If there is a plagiarism problem it clearly falls under the responsible conduct of research component. But if there is misconduct involving subjects we need a policy when more than one compliance area is involved. The same would be true if there is research involving subjects *and* there was a conflict of interest problem.
2. A written policy for communication between grants and IRB.
3. Compliance (IRB, IACUC, IBC) should be on the routing page. Seeing the full grant early on is the only way of knowing if there is any issue involving humans, animals or hazardous substances/recombinant DNA.
4. The history of additional faculty release time has been that faculty want less release time.
5. Clarification of appropriate questions for the IRB or IACUC: questions relating to policy or procedures are appropriate. However, questions involving individual decisions are not because the information is confidential. Some policies or procedures cannot be changed as they must follow federal guidelines.

Lois

Stephanie Endy

From: EDWARD KENNELLY [EDWARD.KENNELLY@lehman.cuny.edu]
Sent: Friday, March 20, 2009 9:16 PM
To: stephanie.endy@lehman.cuny.edu
Subject: Routing Sheet

Stephanie,

Per our conversation recently, can Advisory Board consider if it would be effective to have an electronic routing and tracking system for grants going out of Lehman? The "blue sheet" is unduly time consuming and not as effective as an electronic version (if the e-version could be tracked).

Thanks.

Ed

Edward J. Kennelly, Ph.D.
Professor
Department of Biological Sciences
Lehman College, City University of New York
250 Bedford Park Blvd. W.
Bronx, NY 10468

Phone: 718-960-1105
Fax: 718-960-8236

Stephanie Endy

From: Rothbard, Richard [Richard_Rothbard@rfcuny.org]
Sent: Tuesday, May 05, 2009 12:53 PM
To: #Grants Officers
Cc: #Executive Staff; Lucks, Jeffrey
Subject: MTA Tax
Attachments: image001.gif

If you have been following developments in Albany regarding the massive MTA deficit, you are probably aware that the Governor and legislature appear to have reached an agreement on a bailout plan. One aspect of that plan is the imposition of a payroll tax on all employers in the 12-county MTA service area. As it stands at the moment, this would result in a charge of 34 cents for each \$100 of RF payroll, or to put it another way, for an RF field or central office employee earning \$50,000 a year, the RF would be required to pay to the State \$170 over and above any other employer costs.

We do not currently have precise information regarding timing or process issues, so this will serve as a heads up that this change is coming. This tax will have to be charged as a direct cost of every grant and contract on your campuses regardless of sponsor or source of funding. We plan to send a blast e-mail shortly to all PI's to alert them to this development. As additional information becomes available we will, of course, share it with you.

Thank you.

Richard F. Rothbard

President
Research Foundation/CUNY
230 West 41st Street, New York, NY 10036
212-417-8507
www.rfcuny.org



Home » Guides & Forms » Project Director's / Employee Guide » Purchasing and Payables(OTPS) » Scholarship, Fellowship, and Honoraria Payments » Scholarship/Compensation Classification

Overview: The Fellowship/Compensation Classification

Many sponsored program awards include funds specified for the payment of research assistants. Often the award agreement and/or budget will refer to such payments as a "stipend" or "training grant."

Regardless of how such payments are described by a sponsor or in an award agreement, all "stipends," "training grants," or similar payments must be judged on a case-by-case basis to determine whether they fall into one of two IRS-defined categories: "**fellowship**" or "**compensation for services rendered**." To see some examples which illustrate the distinction between the two, [click here](#). You can also click on Form 703 at the [RF Form Downloading Page](#); we developed this required questionnaire to help you to make the classification in specific instances.

There are different tax consequences for both the Research Foundation and the recipients of fellowships/training grants depending on which category is chosen. Payments classified as fellowships, which are processed through the Office of Accounts Payable, are not subject to Federal withholding tax and the RF does not have to file any reports with the IRS. As you would expect, the IRS will assess back taxes and substantial penalties for individuals who they find to be improperly classified and in recent years has been very aggressive in its efforts to recoup tax revenues in this area.

Often, a graduate student on a fellowship will supplement his/her income by working part-time in a lab or performing some other work paid for out of funds administered by the RF. In such cases, the fellowship portion of the student's total income will be processed through Accounts Payable, and the remaining funds, which represent compensation for services rendered, will be processed through Payroll. This requires investigators to fill out the two corresponding sets of paperwork and the student will receive two sets of checks. Similar situations arise frequently when it comes to payments to graduate students. For example, a student on a fellowship paid for out of RF funds may teach one class a semester as an adjunct at one of the campuses, and thus get a check from the RF and one from the University.

IMPORTANT: Regardless of the classification and whether or not Federal taxes are withheld, research assistants and/or any student receiving scholarship/fellowship/stipend payments may still have a tax liability. *As a general rule, any money received over and above the cost of tuition, fees, and books/supplies related to the course of study is taxable.*

If a research assistant has questions about tax liability, refer him/her to IRS Publication 520, which sets out the regulations regarding this issue in clear and comprehensive terms. (You may also view

and download Publication 520 by going to the [IRS Forms and Publications Website](#) and selecting Publication 520 from the pop-up menu).

An Important Note about Fellowship and other non-payroll payments to non-resident Aliens

As a general policy, the IRS requires that a flat income tax be withheld on all payments to nonresident aliens. This includes fellowship payments and honoraria. There are provisions in the IRS regulations that allow for exemptions from such withholding taxes and in fact, there is usually some way that the RF can classify all or part of payments of this type as exempt in the vast majority of cases. Whenever we fail to withhold taxes on these payments, however, we must provide documentation to justify this decision. The documentation and procedures necessary will vary depending on whether or not the individual's country of origin is covered by a tax treaty with the US, what type of visa s/he holds, etc.

There are a few basic pieces of information you will need to begin processing such payments; [click here](#) to find out what they are. Please keep in mind when attempting to make payments to nonresident aliens that the procedures we have developed are designed to allow an exemption from withholding tax whenever possible. In our favor, there is usually a period of several months between the time a fellowship award is made and the first payment to a recipient is scheduled, so there is plenty of time to iron out any problems before causing a delay in payment.

In order to reduce paperwork, we allow project directors to specify a payment schedule on their initial Payment Request Form, so that later payments can be issued automatically. [Click here](#) for further details.

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Fellowship or Compensation - Four Sample Scenarios

Scenario 1: *A Straightforward Award to Pursue a Course of Study in a degree-granting Program*

John Smith receives a fellowship to University A to pursue a graduate degree in chemistry. The fellowship pays all of his tuition and fees (\$10,000), a book and equipment allowance (\$1000) and a living expense allowance of \$500 per month. John is not required to perform any services as a condition to receiving the fellowship. The \$11,000 for tuition, fees, books and equipment are excludable from John's gross income and hence not subject to taxes; the living expense allowance of \$500 per month *is* taxable. The IRS has held, however, that the payor of taxable scholarship fellowship income is not required to withhold any tax on the payment or file any reports with the IRS.

Classification: Fellowship

Payment Processed Through: Accounts Payable

Scenario 2: *An Award which requires Research Services in return for funding*

A sponsored program award requires that the project director retain a predoctoral trainee to conduct program-related research under the direction of faculty members while the trainee pursues his or her doctoral degree. The terms of the award provide that the trainee is to be paid a monthly "stipend" of \$1000 from Sept. 1 to August 31. The project director retains Jo Ann Andrews to work on the project. Because Jo Ann is conducting activities that assist the project director in satisfying his obligations under the award and because she is required to perform research services as a *condition* to receiving the stipend, the full amount of the stipend payment should be classified by the project director as compensation. The RF is thus required to withhold taxes and file a W-2 for Jo Ann.

Classification: Compensation

Payment Processed Through: Human Resources

Scenario 3: *A Fellowship Student who performs Research Services, but not as a condition of the award*

A sponsored program award permits the project director at his discretion to use outside research assistants. The project director learns of Susan Jones, who is receiving a research fellowship consisting of free tuition and a stipend of \$1,000 a month for living expenses. Susan is not required to perform any services as a condition of the award. The project director arranges with the college to provide research assistance related to the sponsored program and in return receives credit to her degree. She

receives no additional payments. Even though Susan may be performing the exact same research services as Jo Ann above, her stipend is still properly classified as a "fellowship" because the stipend payment is not conditioned on her performing the research services. She will receive the \$1,000 a month whether or not she works on the project. Because it is a fellowship, no income tax withholding or reporting is required.

Classification: Fellowship

Payment Processed Through: Accounts Payable

Scenario 4: Grants with both a compensation and a fellowship component

Assume the same facts as in Example 1, except that John's monthly stipend is \$2,000, not \$1,000. Assume further that the project director routinely hires research assistant employees for a salary of \$800 per month. Under these facts, the compensatory portion of the \$2,000 stipend paid to John is \$800 because that is the fair market value of the research services he is providing, as determined by reference to the salary paid to other individuals to do the exact same work. The remaining \$1,200 is properly classified as a fellowship. This is true even though John might lose the entire \$2,000 if he fails to perform the services. No income tax withholding or reporting is required on the \$1,200 fellowship payments; however, the \$800 monthly payments are treated as wages on which taxes are withheld and a Form W -2 is filed.

Classification: Mixed

Payment Processed Through: Accounts Payable and HR/Payroll

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Home » Guides & Forms » Project Director's / Employee Guide » Purchasing and Payables(OTPS) » Scholarship, Fellowship, and Honoraria Payments » E-Stipend Guidelines For Principal Investigators

E-Stipend Guidelines For Principal Investigators

E-Stipend is a faster, more secure stipend and scholarship payment service for Principal Investigators and stipend/scholarship recipients. Stipends and scholarships with three or more equal monthly payments are converted into electronic payments via direct deposit instead of checks. Stipends with fewer payments will remain on a paper check basis.

The benefits of the e-Stipend service include:

- No lost, missing, or late checks. No check cashing fees for students or research assistants. No need for costly messenger service to distribute checks to campuses.
- Payments are automatically generated on the same day of each month resulting in a more timely and predictable recurring payment schedule known in advance.
- Project Directors and PIs can modify payments with minimal involvement.
- Stipend/scholarship payments will be made electronically into the recipient's checking account via direct deposit. The RF will establish a free E-Fund account for recipients without a checking account to facilitate direct deposit.

Instructions:

If this is a new enrollment of stipend/scholarship recipients-

Assemble the following documents for each eligible student:

Stipend/Fellowship Information

For U.S. citizens & resident aliens:

- Data Collection Form RE-701; and
- Classification Questionnaire RE-703;
and
- Copy of school award letter

OR

AND ONE OF

OR

Bank Information

If the student already has a bank account:

Direct Deposit Enrollment Form.

For non-resident aliens:

- Data Collection Forms for Non-Resident Aliens RE-701/NRA; and
- Determination of Alien Tax

**THE
FOLLOWING**

If the student does not have a bank account:

Status RF-702 ; and	Stipend account E-Fund
■ Copy of the school award letter	Enrollment Form

- Submit the complete student(s) file with a payment request form to your OTPS team. E-Stipends will be paid on the 25th of each month for the following month. Please allow 15 business days for setup and processing.

If the student is presently enrolled in existing stipend/scholarship payments and currently receives paper checks, please obtain the appropriate bank information for each student and forward the completed form to your OTPS team:

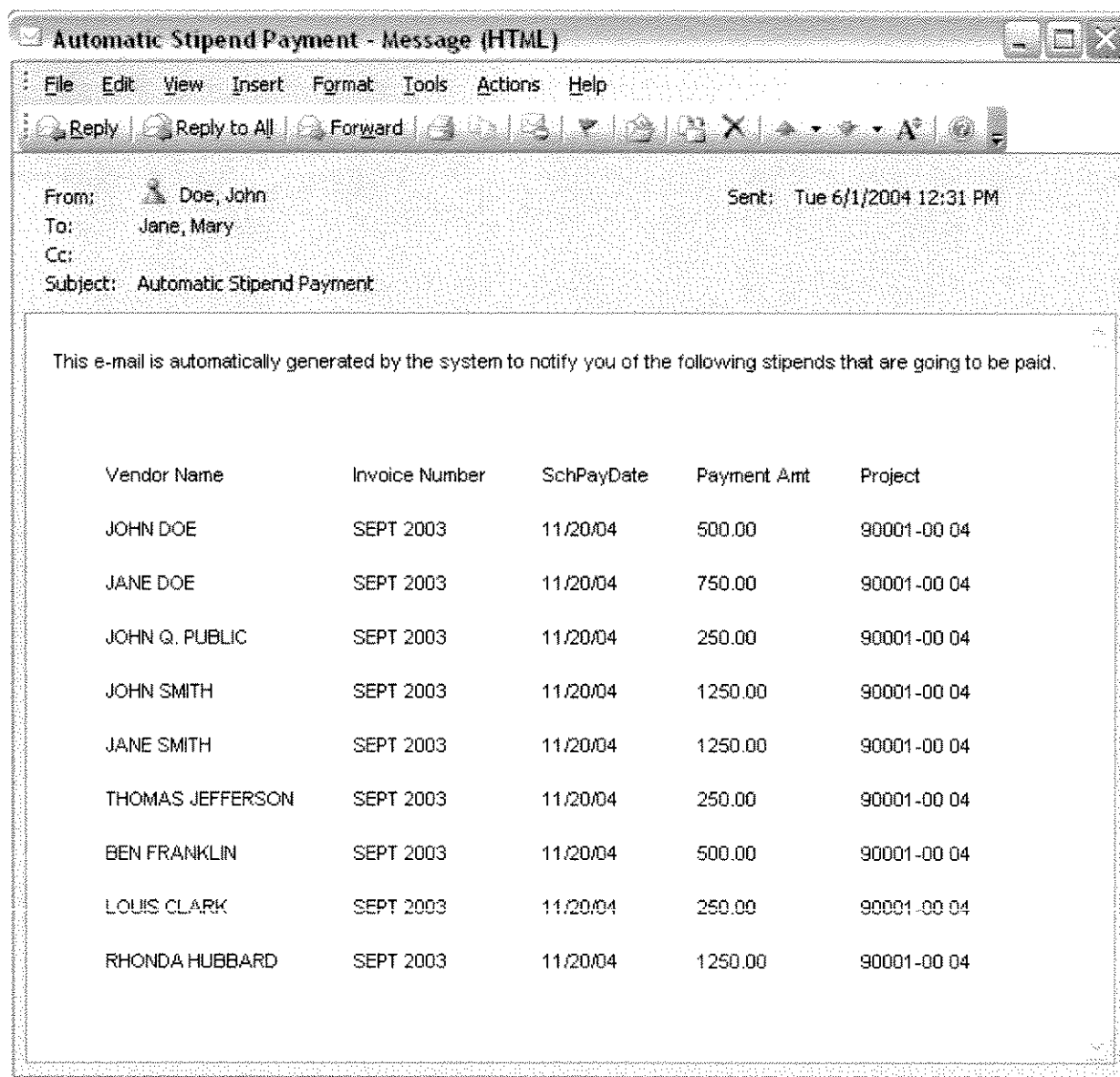
-If the student currently has a bank account: [Direct Deposit Enrollment Form](#)

-If the student does not have a bank account: [Stipend Account E-Fund Enrollment Form](#)

-For further information on the advantages, please refer students to [Direct Deposit: What it means to you](#).

- You only need to submit the Direct Deposit Enrollment Form once for each student to establish e-Stipend eligibilty. However, since payment via e-Stipend is not automatic, be sure to check off the **e-Stipend** box in the Scholarship/Fellowship section of the Payment Request form each time you submit a stipend request.
- Ten days prior to the E-Stipend pay date, you will receive an email notification from the RF with the list of payees, amounts and date to be paid as shown below. A recipient list for each project number will be emailed separately. Please review all information carefully.

SAMPLE E-STIPEND E-MAIL:



- To withhold any/all of the scheduled payments, you must notify your Project Administrator at the RF by return e-mail by noon on the 20th of the month.
- If all the information is correct, no further action or response on your part is needed. The RF will automatically pay as indicated on the list.

Question about this content? Ask:

Daniel Carrier
 Phone: 212-417-8480
 Fax: 212-417-6480

Home » Guides & Forms » Project Director's / Employee Guide » Purchasing and Payables(OTPS) » Scholarship, Fellowship, and Honoraria Payments » Payment Processing & Required Documentation

Payment Processing and Required Documentation

Important: Before submitting fellowship payments to OTPS for processing, be sure to familiarize yourself with information contained on the [Overview](#) page.

- Fill out [RF 703](#), the Scholarship/Fellowship or Compensation Classification Questionnaire.
- If you find that the individual meets the Fellowship classification requirements, fill out a Payment Request Form (RF 021).
- Record the fellowship recipient's name, social security number and home address in the space provided.
- Include the full amount of the fellowship and the account number to be charged.
- Attach documentation of the stipend award, such as a notification letter, acceptance letter, etc. This documentation should explain why the particular individual is receiving the award (*Note: you can omit this documentation if the fellowship recipient is specifically named in the grant or contract award document or budget*).
- Forward the entire package to Grants & Contracts for processing.

In order to keep your paperwork to a minimum, we have developed the following procedures:

To pay an individual multiple fellowship payments over a period of time:

- Record the total dollar amount of the fellowship payments in the space on top of your payment request.
- In the Additional Comments section of the payment request, indicate the dates of the first and last payments, as well as the frequency of the payments (weekly, bimonthly, monthly, etc.)
- No further action is necessary. Subsequent payments will be issued automatically.
- Please give Grants & Contracts at least two weeks notice if a student on automatic payment leaves the program before the term of the fellowship ends
- Your college may have guidelines regarding fellowship payments to students. Check with your Grants Officer or Dean of Students.

To authorize payments to multiple fellowship recipients on the same award at the same time:

- Record the total dollar amount of the payments in the space on top of your payment request.
- In the Additional Comments section of the payment request, write "Fellowship Payments to Multiple Recipients--see attached".
- Attach a list with the name, home address, and social security number of each student, as well as the total dollar amount to be paid to each of them.
- Double check that the total dollar amount listed for each individual adds up to the dollar total on the payment request.

- To spread out the payments over time, follow the above procedures.
- Include an award letter or other such documentation for each recipient.

To pay students for health insurance provided under federal grants:

- Student must sign up with GHI directly for health coverage (see <http://www.ghi.com/members/cuny.htm> for details).
 - Students are responsible for paying their monthly GHI bill and must submit a copy of the paid bill to the PI to request reimbursement.
 - The PI must submit a formal payment request with supporting documentation to the RF.
 - The student will receive a reimbursement check.
-

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New Faculty Orientation

Getting Oriented

- Mission
- Getting Here
- Campus Map
- Campus Security
- Lehman Org. Chart
- CUNY Org. Chart
- The CUNY Contract
 - Academic & Summer explanation

- Including CITI Course
- Conflicts of Interest
- Human Subjects
 - Including CITI Course
- Animal Subjects
 - Including CITI Course
- Stem Cells
- Biohazards
- Equipment
- Space
- Supervisory Skills
- Reporting
- Effort Certification

Tenure & Promotion

- Timing
- Milestones
- Mentoring
- Balancing Career & Family/Employee Assistance Programs

Service

- Introduction to the Community
- Community Oriented Programs at Lehman

Teaching

- Academic Calendar
- Finals Schedule
- Electronic Resources
- Grading Deadlines
- Grading Policies
- Teaching Skills Resources
- Curriculum Resources
- Sexual Harassment Training, CUNY & RF
- Classroom Assignments
- Reassigned Time

Other Resources

- Library
- Gym
- Performing Arts
- Gallery
- Parking
- Campus Closures
- Cafeteria

Scholarship

- Sponsored Programs
 - Intro to RF
 - Intro to SP
 - Finding Funding
 - Building a Budget
 - Project Management
 - Spending
 - Records
- Intramural Opportunities
- Independent Contractor Agreements
- Technology Transfer
- Audit
- PI Responsibilities
- Responsible Conduct of Research

Lehman Students

- Student Profile
- Student Services
- Advisement
- Student Resources

SRA Chapter Meeting, Baltimore, April 4-8 2009
Stephanie Endy
Director, Research & Sponsored Programs
Lehman College, CUNY

PRE-AWARD ELECTRONIC RESEARCH ADMINISTRATION (ERA)

Structure

- What is eRA?
- History of eRA
- Pre-Award eRA today
- Discussion of your eRA experiences

What is eRA?

- "Electronic Research Administration is a philosophy for conducting research administration in an integrated and paperless environment." Jerry Stuck, NSF, FDP Co-Chair for eRA Committee
- Vision – seamless integration of an organization's eRA system with a sponsor's eRA system

Why eRA?

- Efficiency
- Cost Reduction
- Error Reduction
- Timely access to Information
- Leverage the convenience of web-based applications

History of eRA

- "The Administration of Sponsored Programs", 1982. Ken L. Beasley, Michael R. Dingerson, Oliver D Hensley, Larry G. Hess, John A. Rodman
- NSF Fastlane – 1995
- Proliferation of eRA Systems
 - Fastlane
 - Commons
 - Electronic Handbook
 - NSPIRES etc.

History of eRA

- Public Law (PL) 106 & 107 – Federal Financial Assistance Management Improvement Act of 1999
 - Mandated the use of a "common application and reporting system"
 - Forced Federal agencies to work together on a common system
- Public Law 106-107 has since sunset and its work is now continued by the Grants Policy Committee (GPC).

History of eRA

- Grants.gov established in 2002 as part of governmental resource named E-Grants Initiative
- Officially part of the President's Fiscal Year Management Agenda to improve government services to the public.

eRA today

What is Grants.gov?

"Today, Grants.gov is a central storehouse for information on over 1,000 grant programs and provides access to approximately \$500 billion in annual awards."

- A web-based portal site
- For identifying federal opportunities,
- Collecting information about specific federal opportunities, and
- Applying for federal funding.

eRA today

The Grants Policy Committee (GPC) consists of grants policy experts from across the Federal government. GPC's vision is to improve the effectiveness of Federal financial assistance by:

- Simplifying the application process
- Streamlining financial assistance award and administration
- Improving quality and timeliness of information related to assistance
- Improving stewardship of Federal dollars

Why eRA?

- Leverage the convenience of web-based applications (simplify)
- Timely access to Information (streamline)
- Efficiency (streamline)
- Error Reduction (quality)
- Cost Reduction (stewardship of \$\$)

eRA today

- Grants.gov unifies federal pre-award (sort of)
- Electronic systems for non-federal sponsors still proliferate
- Web based software has continued to develop
 - Non-profit and For-profit companies now develop software for pre-award electronic research administration

Pre-Award Needs

- Funding Opportunities
- Proposal Development – budget building
- Internal routing and approvals
- Compliance checks
- Proposal submission
- Reporting statistics
- Coordination with Award and Post-Award needs

Pre-Award Needs

Electronic Tools:

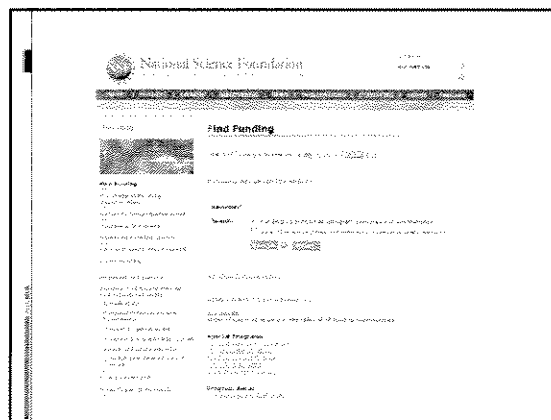
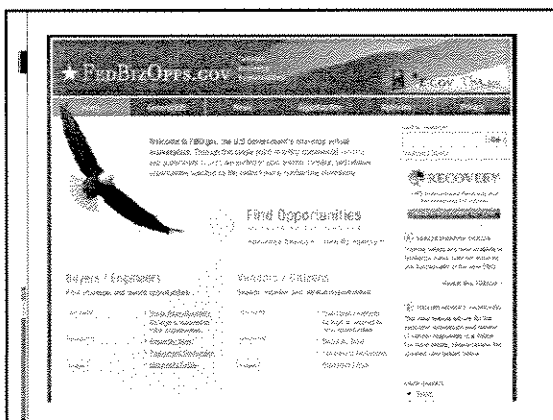
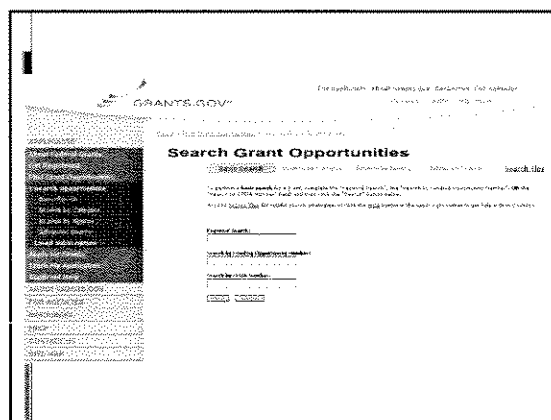
- Databases
- Spreadsheets
- Networking
- Email
- Web sites
- Web programming

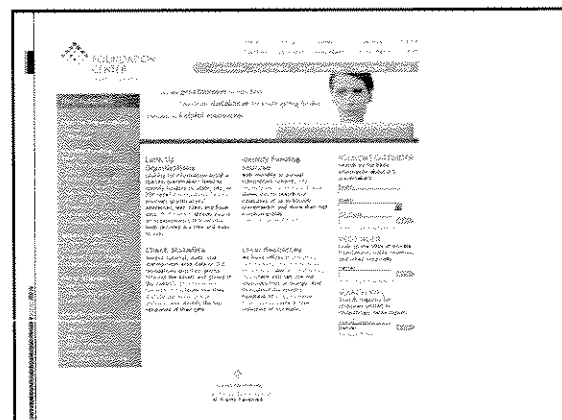
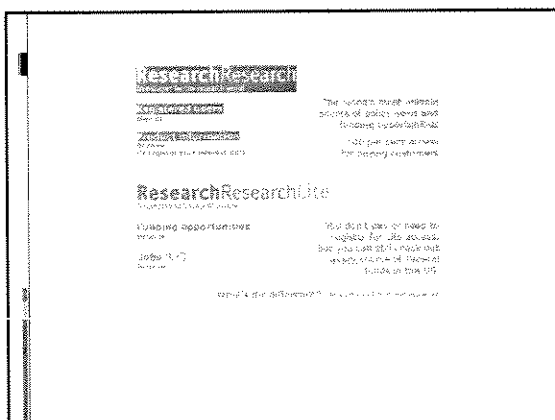
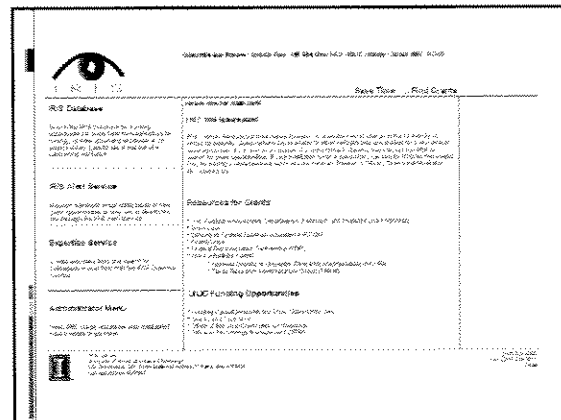
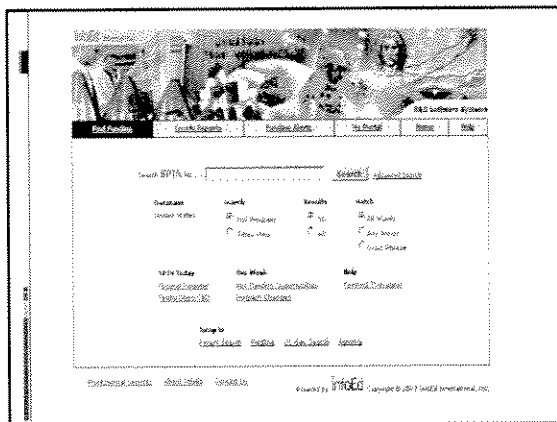
Electronic Pre-Award

- Finding Funding
 - Freebies
 - Paid Services
- Disseminating Opportunity Notices
 - Self-serve model
 - Active approach
 - Newsletters
 - Web site postings

Finding Funding: Freebies

- Grants.gov
- FedBizOpps
- Agency Lists
 - NSF
 - NIH
 - NASA NSPIRES
 - EPA NCER Listserv
- Web Sites
- RSS Feeds & Podcasts





Electronic Pre-Award

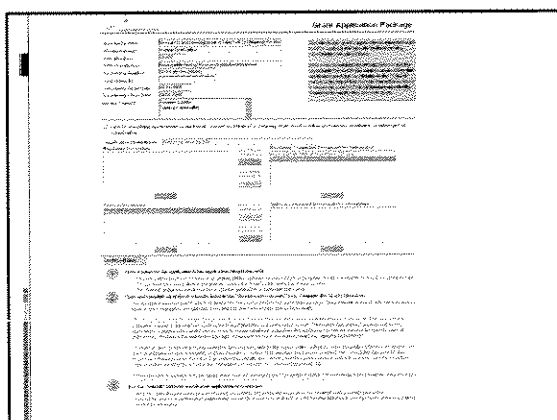
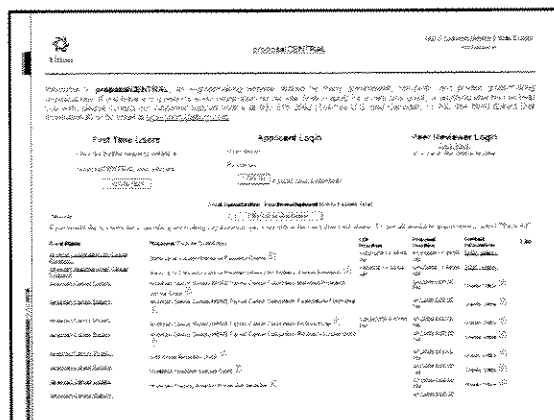
- Proposal Development – budget building
 - Agency Required Forms
 - Internal Spreadsheets
 - Internal Pre-packaged Software
 - Build your own software
 - Subawards.com

Electronic Pre-Award

- Routing and Approvals
 - Paper routing form
 - Electronic routing and approvals
 - Auto routing within system
 - System-generated emails

Electronic Pre-Award

- Proposal Submission
- Non-federal
 - proposalCENTRAL
 - Individual web sites
 - email submission
 - Mailing CDs
- Federal:
 - Grants.gov
 - PureEdge, Adobe
 - S&S
 - Legacy Systems (Fastlane, Electronic Handbook, etc.)



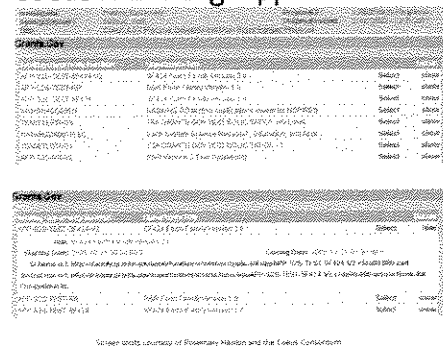
Electronic Pre-Award

- Coordination with other needs
 - Pre-Award reporting
 - Award stage
 - Post-Award

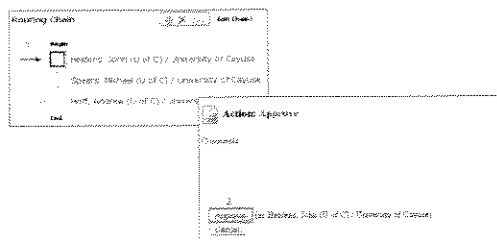
Electronic Pre-Award

- One Stop Shopping
 - Cayuse
 - Coeus Consortium
 - grantsERA
 - FastGrant
 - ClickCommerce eResearch Portal
 - Home grown

Coeus: Finding Opportunities

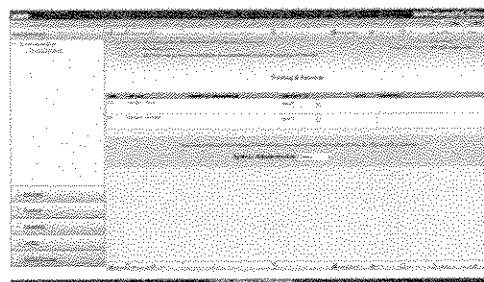


Cayuse: Routing & Approval



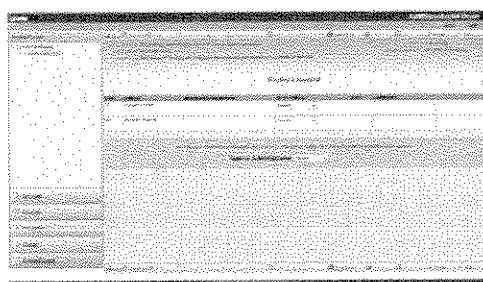
Screen shot courtesy of Cayuse

grantsERA: Routing & Approval



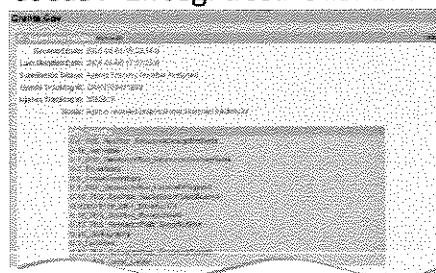
Screen shot courtesy of grantsERA

grantsERA: Routing & Approval



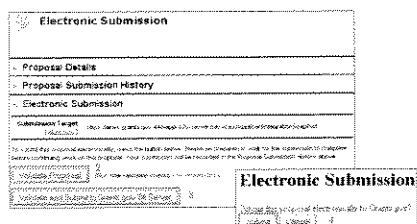
Screen shot courtesy of grantsERA

Coeus: Integrated Submission



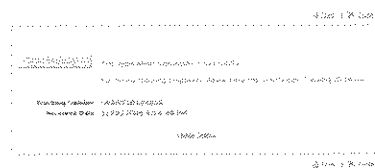
Screen shot courtesy of Rosemary Horton and the Coeus Consortium

Cayuse: Integrated Submission



Screen shot courtesy of Cayuse

grantsERA: Integrated Submission



Screen shot courtesy of grantsERA

What's right for your institution?

- Size
- Research structure
- Volume
- Resources
- IT capabilities

Preparing for eRA Internally

- Examine business practices
- Provide Training
- Secure resources
- Engage stakeholders and local IT
- Lead institutional change

Credit where credit is due

- Thanks to SRA for making previous versions of presentation available on which this presentation was built
- Thanks to the web for allowing constant searching and a deluge of information
- Thanks to my staff at Lehman College for their help and feedback

More Credit...

- Thanks to Rosemary Hanlon and the Coeus Consortium for screen shots and information used.
 - Thanks to Cayuse for screen shots used.
 - Thanks to Jeff Grettler at grantsERA for screen shots used.
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