

National Council of University
Research Administrators



UNIVERSITY OF CALIFORNIA MERCED

NCURA PEER REVIEW

FINAL REPORT JUNE 27, 2012

Site Visit April 9-11, 2012



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ABOUT THIS REPORT

The National Council of University Research Administrators (NCURA) is a national organization of over 7,000 members. NCURA serves its members and advances the field of research administration through education and professional development programs, the sharing of knowledge and experience, and by fostering a professional collegial and respected community.

This document focuses on sharing knowledge and experience as a result of the recently conducted review of the research administration area of sponsored programs. Our objectives are to provide the institution with feedback on the institution's management in support of research and to share some national best practices that might be considered at the institution.

While the review utilizes the NCURA National Standards, the reviewers recognize that policies and practices vary at institutions and that not all Standards are applicable to each institution.

The NCURA peer review does not evaluate personnel, nor does it perform an audit function. The results of this review, therefore, cannot assure fiscal, regulatory, or ethical compliance with federal, state, or local regulations. The recommendations offered in this review report should not be construed as an exhaustive list as these recommendations necessarily represent an analysis by a particular set of reviewers and at a single point in time. A decision by an institution to not adopt one or more recommendations does not, in any way, mean that the institution is failing to meet legal requirements. Rather, the recommendations reflect an opinion by nationally recognized research administrators who may not be fully cognizant of local history, environment, or decisions. This document does not provide legal advice. NCURA does not warrant that the information discussed in this report is legally sufficient.

- The Executive Summary provides an overview of the report and a listing of all the recommendations in abbreviated form.
- The Background, Charge, and Approach lays out the charge to the reviewers and the approach utilized during the peer review.
- The section on National Standards for Sponsored Projects Operations provides an overview of the National Standards utilized for the review (the complete listing of National Standards appears as an appendix).
- The Current Environment for Sponsored Programs at Research Universities section discusses the many influences and pressures that have recently impacted research administration and created some of the current stresses.
- The remaining two sections on Institutional Infrastructure and Core Operations provide a detailed discussion of these areas followed by a set of recommendations and rationale for the recommendation being made.

NCURA will treat the contents of this report as confidential and will not disclose nor distribute the report outside individuals affiliated with the peer review program. There are no such restrictions on how the institution chooses to utilize the report.

University of California, Merced

NCURA PEER REVIEW

EXECUTIVE SUMMARY

An evaluation of the sponsored programs functions at the University of California, Merced was conducted at the request of Dr. Samuel J. Traina, Vice Chancellor for Research. The evaluation was performed in April 2012 (site visit on April 9-11, 2012) by a Peer Review Team from the National Council of University Research Administrators.

The evaluation covered the Institutional Infrastructure and Core Operations of the National Standards for research administration. The review assessed the following broad areas:

- 1) **Institutional Infrastructure**, consisting of Organizational Structure; Communication, Outreach, and Education; Compliance and Risk Assessment; and Electronic Research Administration
- 2) **Core Operations**, consisting of Proposal Services; Award Acceptance and Initiation; Award Management; and Research Ethics

The NCURA Peer Review Program performs a review of the effectiveness of the sponsored programs operation using National Standards. The program does not perform an audit function. The results of this review, therefore, cannot assure fiscal, regulatory, or ethical compliance with federal, state, or local regulations. Additionally, the program does not evaluate personnel.

The recommendations are listed here in abbreviated form. They appear in the order that they are discussed in the report. A more complete description and rationale for each recommendation below appears in the Recommendations section in the body of this report.

Organizational Structure

NCURA Standard II.A.i. Operational Structure

- 1 • **Recommendation: The Vice Chancellor for Research, the School Deans, and others as determined by the VCR, should explore a transitional model of School based support that shares funding and reporting lines of School sponsored programs positions between the VCR and the Schools.**
- 2 • **Recommendation: As UC Merced defines their model of sponsored programs support for Schools, Centers, and other units, the VCR should document with each unit head (Dean or Director) the authorities, reporting, and discipline aspects for unit-level staff, should there be shared funding and/or reporting lines.**

- 3 • **Recommendation:** UC Merced should implement regular assessment points to review the efficiency of the model of sponsored projects support that is implemented and funding for that model.
- 4 • **Recommendation:** As part of organizational assessment, SPS and CGA need to continue efforts to broadly review research administration functions and define the placement of those functions across central and departmental units.
- 5 • **Recommendation:** SPS should consider reassigning many of the current SPS post-award functions to School personnel in order to be more consistent with typical research university models,.
- 6 • **Recommendation:** School, academic, and research leadership need to discuss the implications of a distributed placement of research administration functions and the partnership commitments that are necessary to create a strong infrastructure.
- 7 • **Recommendation:** The Vice Chancellors for Research and Administration, the Directors of SPS and CGA, the School Research Administrators, and representative faculty should jointly assess needs and establish clear roles and responsibilities for all central and School stakeholders and for faculty involved in proposal and award administration.
- 8 • **Recommendation:** SPS should communicate to the University the owners of the sponsored projects roles and responsibilities (whether this sits at unit-level or central level) and the appropriate contact persons. This information should be prominent on websites.

NCURA Standard II.A.ii. Staffing and Resources

- 9 • **Recommendation:** The Vice Chancellor for Research should consider the need for an additional 1.0 FTE to assist SPS in the implementation of School-based infrastructure and education should the University develop such a model.
- 10 • **Recommendation:** Resources and staffing ultimately need to be aligned to support the research enterprise as defined through the roles and responsibilities.
- 11 • **Recommendation:** SPS should explore contacting retirees in the research administration area. These retirees could provide some assistance with operational support at School and central levels in areas of critical need in sponsored programs or assistance designing larger-scale programs.
- 12 • **Recommendation:** The central research administrative support offices should explore the feasibility of hiring a permanent administrative support person or hourly undergraduate students to assist the staff.

- 13 • **Recommendation:** Although the rate of staff turnover is currently low, SPS and CGA should develop an orientation and training program for new staff.
- 14 • **Recommendation:** Concurrently with implementing a School-based research administration structure, UC Merced should review position and salary structures across central and School-based personnel.
- 15 • **Recommendation:** All sponsored projects-related position descriptions and responsibilities should be critically evaluated and necessary skills for the performance of those responsibilities should be clearly defined *after* definition of the roles and responsibilities within research administration.
 - **Notable Practice:** It is an excellent technique for the CGA Director to utilize annual reviews to assess skill development needs and match the individual to skill training opportunities.
 - **Notable Practice:** It is commendable that SPS and CGA place clear expectations for staff attending professional development opportunities to share relevant information at staff meetings.
- 16 • **Recommendation:** SPS and CGA should define and implement coordinated plan for broad distribution of critical information gathered as a result of staff attending professional development opportunities and that may be of interest to School and Center personnel, faculty, and others in the UC Merced community.

NCURA Standard II.B.i. Communication and Outreach

- 17 • **Recommendation:** The Vice Chancellor for Research, along with others as he determines, should explore the value of developing and executing a communications plan across his units that will regularly inform the UC Merced community about changes that are underway or being planned. Such changes would include personnel changes, organizational changes, policy, or process changes.
- 18 • **Recommendation:** SPS should generate monthly reports of proposal and award activity in a user-friendly, easy-to-read format that provides each Dean with details of activity within their School and a snapshot of activity over time.
- 19 • **Recommendation:** The School of Engineering Dean, the Assistant Vice Chancellor for Business and Financial Services, and others as appropriate should explore shared reporting and forecasting initiatives for potential partnership opportunities that could benefit UC Merced as well as the overlapping initiatives that are underway.
 - **Notable Practice:** The periodic participation of the Vice Chancellor for Research/IO in the Institutional Review Board and Institutional Animal Care and Use Committee meetings is commendable.

- 20 • **Recommendation:** The School Deans and unit Directors need to actively encourage, if not insist, their unit-level staff to be engaged in networking and professional development opportunities offered at UC Merced related to research administration.
- 21 • **Recommendation:** SPS and CGA should re-assess the monthly sponsored programs networking meeting and collectively develop a focus and a model for moving forward.
- 22 • **Recommendation:** The unit-level staff involved in research administration functions need to step forward and be actively involved, to collaborate on developing strong networking partnerships, and to be part of the process to assess their needs and how best to respond to those.
- 23 • **Recommendation:** Attention should continue in maintaining an up-to-date SPS and CGA website with existing policies and procedures and more immediately the VCR websites for all offices should be reviewed for short-term updates to information while longer-term information initiatives are underway.
- 24 • **Recommendation:** SPS should consider developing FAQs or briefing documents to address the least understood issues/processes.
- 25 • **Recommendation:** SPS should consider the value of creating and posting a process map of the proposal submission and award process.
- 26 • **Recommendation:** The VCR and School Deans should design an optimal approach to introducing new faculty hires, upon their arrival, to local and central resources to assist them in their research activities.
- 27 • **Recommendation:** SPS and Development should convene periodic meetings to discuss guidance and definitions for gifts versus sponsored projects.
- **Notable Practice:** In light of the challenges of slim staffing and evolving research needs, it is notable that there has been a concerted effort towards creating staff meeting opportunities. These meetings help to build a sense of community and are opportunities for staff to provide input and suggestions into their own operations.
- **Notable Practice:** The Directors of SPS and CGA are commended for implementing a best practice of shared review of policies and procedures.

NCURA Standard II.B.ii. Education

- **Notable Practice:** Creating and offering a comprehensive basic introduction to contract and grant accounting is an impressive endeavor and critical to laying the foundation for a knowledge base about sponsored programs.

- 28 • **Recommendation:** To help promote and facilitate a supportive and compliant research infrastructure, SPS and CGA should develop and implement several training and educational programs for research partners.
- 29 • **Recommendation:** RDS should continue their initiative to offer proposal writing workshops for faculty, with consideration for science focused and non-science focused offerings.
- 30 • **Recommendation:** The Vice Chancellor for Research and RDS should consider developing a research seminar series for new faculty, focused on sharing insights on research submissions and management from experienced faculty.
- 31 • **Recommendation:** UC Merced should consider an educational program for PIs, especially those new to proposal submission or award receipt and management.

NCURA Standard II.C.i. Compliance and Risk Assessment

- **Notable Practice:** Establishing a cycle for review of sponsored program operations that incorporates both internal and external techniques is a best practice and provides accountability to stakeholders as well as opportunities for program improvement to meet evolving needs of those at the University. A review of the program that occurs regularly will enable continued attention on operational effectiveness and serve as a source of information for future decision-making. Such a review enables stakeholders to provide input.
- **Notable Practice:** The senior administrative Ethics, Audit and Compliance Risk Committee is an excellent model for institutional awareness and management of existing or emerging risk issues.
- 32 • **Recommendation:** The Office of Research should consider developing a simple compliance matrix to identify compliance oversight areas, policies, and responsible office.
- 33 • **Recommendation:** The Office for Research Compliance & Integrity should oversee an annual review of the University's disaster management plan and media response plan by each of the compliance oversight committees.

NCURA Standard II.D.i. Electronic Research Administration

These recommendations are located in each of the following sections.

Proposal Services

NCURA Standards 1.A.i Collection and Dissemination of Funding Information

- 34 • **Recommendation:** RDS should develop a meet-and-greet with new faculty in order to walk them through funding resources and how to create focused profiles with the funding databases in order to receive targeted opportunities.
- 35 • **Recommendation:** RDS should explore capabilities with IRIS and COS-Pivot to identify specific junior faculty opportunities and to disseminate those opportunities to UC Merced junior faculty.
- 36 • **Recommendation:** RDS might find it valuable to explore the use of listservs in broad areas to somewhat focus information being sent out to faculty.
- 37 • **Recommendation:** RDS should explore methods to provide faculty and unit administrators with further guidance on how to locate funding opportunities.
- 38 • **Recommendation:** The VCR, SPS, and RDS should explore the current model of identifying and advertising limited submission opportunities and consider a shared model between SPS and RDS.

NCURA Standards 1.A.ii Proposal Development and Assistance

- 39 • **Recommendation:** The VCR and Deans should explore models to provide continuing support for proposal development skills of their junior faculty.
- 40 • **Recommendation:** The Vice Chancellor for Research should look critically at the availability of faculty support for completing and packaging proposal forms and determine whether some short-term support for basic proposal services could be offered centrally while the broader organizational model for sponsored projects administration is being defined at UC Merced.

NCURA Standards 1.A.iii - Proposal Review and Submission

- 41 • **Recommendation:** SPS should review the Dropbox capabilities, with input from School/Center research administrators, and determine if refinements to the tool are needed to meet the evolving research needs and School operation needs.
- 42 • **Recommendation:** As broader sponsored programs roles and responsibilities are defined for the University, the central management model and how staff are assigned to areas should continue to be assessed.
- **Notable Practice:** The Research Administrator Desk Manual serves as a comprehensive training document and reference guide for central staff.

- 43 • **Recommendation:** SPS should explore the value to extending the availability of the Research Administrator Desk Manual, or refocusing it, so it could become a tool and resource for School and research-unit research administrators.
- 44 • **Recommendation:** SPS should continue to rigorously update the Research Administrator Desk Manual and all University web pages that contains sponsored programs information.
- 45 • **Recommendation:** SPS should immediately begin detailed tracking of proposal review issues with School of Engineering proposals and implement a weekly or similar meeting to discuss and reach consensus on review issues. These meetings should not hold up proposal submission but be used to discuss interpretations and expectations for proposal submission.
- 46 • **Recommendation:** SPS should critically assess their model for proposal review and the redundancies in the system as relate to the School of Engineering.
- 47 • **Recommendation:** Management and staff should explore the balance between customer service and adherence to expectations and define the appropriate steps that should be taken related to faculty that repeatedly disregard University expectations.
- 48 • **Recommendation:** The SPS Director, Engineering Director of Administrative Operations, and others as appropriate, should meet and clarify expectations on use of Dropbox in submitting proposals.
- 49 • **Recommendation:** SPS should consider the value of posting their budget template for ready access by the UC Merced community.
- 50 • **Recommendation:** SPS should determine appropriate inflation rates for out-years when calculating fringe benefits on proposal budgets.
- 51 • **Recommendation:** The Assistant Vice Chancellor overseeing the Office of Research Compliance & Integrity should provide periodic training for SPS staff and School staff on research compliance oversight and triggers to assist staff when working with faculty or reviewing proposals.
- 52 • **Recommendation:** The Office of Research Compliance & Integrity should develop an appropriate communications link with the scientific diving and boating oversight office at UC Berkeley in order to maintain current listings of approved scientific divers.
- 53 • **Recommendation:** UC Merced should explore research-related activities that may fall within a testing or a service agreement activity and how those types of activities relate to sponsored programs or other business functions.

NCURA Standards 1.A.iv Collaborative Project Development

- 54 • **Recommendation:** The Vice Chancellor for Research, with the School Deans, should define an appropriate policy for activity credit and an appropriate senior leadership group should review F&A distribution on interdisciplinary awards.

NCURA Standard 1.A.v. Agency Liaison

- **Recommendation:** None

Award Acceptance and Initiation

- 55 • **Recommendation:** UC Merced should invest in a knowledgeable programmer to expand the current Access program used by SPS.

NCURA Standards 1.B.i. Review and Negotiation of Terms and Conditions

- 56 • **Recommendation:** SPS should revise the Research Administrator Desk Manual to include citations of the appropriate sections in UC documents for the topic.

NCURA Standards 1.B.ii. Ancillary Agreements Associated with Research Grants and Contracts

- 57 • **Recommendation:** More effort should be made to ensure the Office of Research units include accurate information and fully-functional web links on their web pages.
- 58 • **Recommendation:** OTT should revise their web text to provide clear instructions to faculty and to the public concerning the NDA process.
- 59 • **Recommendation:** The responsible office should develop a standard operating procedure outlining the conditions and procedures for use of the Mutual Secrecy Agreement for Data.

NCURA Standards 1.B.iii. Subawards

- **Recommendation:** None.

NCURA Standard 1.B.iv. Award Acceptance Process

- 60 • **Recommendation:** SPS pre-award should immediately develop standard operating procedures for all research administration processes and/or to revise the Desk Manual to include more details on job responsibilities.

NCURA Standard I.B.v. Award Activation and Notification

- 61 • **Recommendation:** SPS should consider coordinating efforts to forward the completed award notification form and all documents to the campus one time only.
- 62 • **Recommendation:** After consultation and an examination of streamlining opportunities within the award set up process, SPS pre-award and CGA should develop standard operating procedures for account set up and for access to the UCLA accounting system.

Award Management

- 63 • **Recommendation:** CGA should survey a larger cross-section of faculty regarding their experiences with the Faculty Reporting system.
- 64 • **Recommendation:** CGA should reach out to more faculty in order to demonstrate the use of the Faculty Reporting system.
- 65 • **Recommendation:** CGA should develop a mechanism that would allow the Schools and other administering units, more specifically the Deans and PIs, to more easily produce reports for their own use. While the UCLA tool (QDB) is available and used, it appears to not be meeting the needs of the UC-Merced constituents.

NCURA Standards I.C.i. and C.ii Fiscal and Administrative Management

- 66 • **Recommendation:** UC Merced Administration should more visibly link to the UCOP policy for recharge centers and publish campus guidance for the review and approval of recharge and service center rates.
- 67 • **Recommendation:** CGA should provide additional training to faculty regarding the effort reporting system.
- 68 • **Recommendation:** CGA should make SPS and the campus units aware of the existing procedures for addressing past due effort certification reports.
- 69 • **Recommendation:** Some information regarding the Effort Reporting System should be made public.
 - **Notable Practice:** The Fund Closeout Checklist is an excellent tool to assist PIs and staff in the Schools and both divisions of SPS with the final closeout process.
- 70 • **Recommendation:** The pre-award and post-award units of SPS and CGA should develop a standard operating procedure for account closeout.
- 71 • **Recommendation:** CGA should develop a spreadsheet to track award receivables and an internal procedure to standardize the process.

- 72 • **Recommendation:** Staff from Schools and research units who perform tasks supportive of sponsored projects should receive training on their specialized duties.
- 73 • **Recommendation:** CGA should develop standard operating procedures and post guidance on various responsibilities and processes that involve PIs and/or staff.
 - **Notable Practice:** The published guidance on record retention and disposal is an excellent reference available to employees.
- 74 • **Recommendation:** If it is not already provided, information regarding post-award monitoring responsibilities should be provided to PIs and their Schools with each award that includes a subaward.

Research Ethics

- 75 • **Recommendation:** Instructions on the use of the Dropbox for IRB and IACUC applications should be posted to the RCI website.
- 76 • **Recommendation:** The Office of Research Compliance & Integrity and SPS pre-award should work toward an integrated data system to streamline processes between SPS and the regulatory committees.
- 77 • **Recommendation:** RCI staff should investigate software options that would provide for electronic submission of applications to all compliance committees.

NCURA Standard I.D.i. Project Integrity

- 78 • **Recommendation:** A more definitive statement concerning NSF RCR required training is needed to indicate whether the PI or the institution is responsible for tracking completion of training for research personnel.
- 79 • **Recommendation:** The RCI should develop a system to track completion of RCR training on the campus as relates to sponsors that require this training.
- 80 • **Recommendation:** The VCR or the AVC RCI should meet with Development personnel to establish processes for financial disclosures on gifts.

NCURA Standards I.D.ii Human and Animal Use

- **Notable Practice:** The survey review application to the SCC is completed and submitted on line. This form is the only one found by the Reviewers that eliminates hard copy submission and email routing.
- 81 • **Recommendation:** The IACUC website should include clear instructions and public links related to the requirement for registration in the Occupational Health Program.

- 82 • **Recommendation:** Sponsored Projects should provide EH&S with copies of awards, along with the originating proposals, that involve compliance areas within the purview of EH&S.
 - **Notable Practice:** The EH&S website includes a highly visible grouping of responsibilities for researchers under the heading, Research Safety. In addition, EH&S has a separate heading for New Principal Investigators, which provides information regarding laboratory set up requirements and other information of importance to new investigators. Both websites are thoughtfully presented and contain useful information for investigators.
 - **Notable Practice:** The New Radioactive Material User Training Sheet (Appendix G.1 in the Radiation Safety Manual) is an excellent format on which to base a training program for the individual user. Each individual completes this form before they begin working with radioactive materials. The supervisor or PI is responsible for ensuring adequate training and maintaining complete training records for their research team.
- 83 • **Recommendation:** All EH&S forms should be available as downloadable or interactive forms to facilitate completion and routing.
- 84 • **Recommendation:** The Faculty Handbook should be corrected to link diving and small boat safety to the UC Berkeley site.
- 85 • **Recommendation:** UC Merced documents should reflect the process agreed upon with UC Berkeley for the review of projects involving diving or the use of boats.

Export Controls/Deemed Export Regulations

- 86 • **Recommendation:** The RCI Export Control website links should be tested and corrected.
- 87 • **Recommendation:** Future training for export controls should mention the possibility of non-research export control situations and provide guidance to the academic units.

BACKGROUND, CHARGE, AND APPROACH

The National Council of University Research Administrators (NCURA) Peer Review Team would like to commend the University of California Merced for undertaking an open and comprehensive review of the research administration infrastructure. The strong support for research is evident with the decision of University leadership and the University community to engage in a process that allows all members to participate and contribute.

The NCURA Review Team especially believes it is a critical part of this review process to include experienced research administrators who have a national presence. This external validation allows UC Merced to incorporate best practices and models into their final action plans.

An evaluation of the Office of Sponsored Projects Services, at the University was conducted at the request of Dr. Samuel J. Traina, Vice Chancellor for Research. The NCURA Peer Reviewers consisted of two individuals who both brought experience with sponsored programs operations (see Appendix B for bios of the peer reviewers). All reviewers brought national-level experience on pre-award, post-award, departmental, and compliance operations, as well as a broad view of the academic environment and the interface of academic needs with research administration processes.

The Charge and Scope of Work given to the reviewers appears in Appendix C. Prior to the two and one-half day site visit (itinerary appears in Appendix D) the Peer Reviewers received descriptive materials from the University covering policies, forms, and other information. The evaluation was performed in April 2012 (site visit on April 9-11, 2012).

The evaluation covered the Institutional Infrastructure and Core Operations of the National Standards for research administration. The review assessed the following broad areas:

- 1) **Institutional Infrastructure**, consisting of Organizational Structure; Communication, Outreach, and Education; Compliance and Risk Assessment; and Electronic Research Administration
- 2) **Core Operations**, consisting of Proposal Services; Award Acceptance and Initiation; Award Management; and Research Ethics

Acronyms Used:

- CGA: Contracts and Grants Accounting
- CEP: Center for Educational Partnerships
- COIOC: Conflict of Interest Oversight Committee
- DHHS: Department of Health and Human Services

- EH&S: Environmental Health and Safety
- F&A: Facilities & Administrative Costs or Indirect Costs or Overhead Costs
- NCURA: National Council of University Research Administrators
- NDA: Non-Disclosure Agreement
- OIT: Office of Information Technology
- OTT: Office of Technology Transfer
- PI: Principal Investigator
- RCI: Research Compliance and Integrity
- RDS: Research Development Services
- SBDC: Small Business Development Center
- SCC: Survey Coordinating Committee
- SPS: Sponsored Project Services
- UC: University of California
- UCOP: University of California Office of the President
- UC Merced or UCM: University of California Merced
- UC Manual: University of California Contract and Grant Manual

NATIONAL STANDARDS FOR SPONSORED PROJECTS OPERATIONS

The NCURA Peer Reviewers utilized the National Standards for Sponsored Project Operations, developed by NCURA, as guidelines to conduct this assessment. The Standards appear as Appendix A. The application of those Standards to UC Merced is described in the following sections of the report.

NCURA Standards for Institutional Infrastructure

The NCURA Standards for the Institutional Infrastructure are based on two key points. (1) The structure for sponsored programs should support all the needs of those activities at both central and departmental levels. Communications and coordination must be clear, and the lines of authority should be specified for each function. (2) Institutional resources, including staff, should be sufficient to support the core functions of sponsored programs in a manner consistent with the institutional mission.

NCURA Standards for Core Operations

Proposal Services: The NCURA Standards for Proposal Services focus on support of faculty and staff in the general areas of providing funding information, assistance in proposal development, review of proposals prior to submission, and monitoring sponsors for changes in process and policy. These Standards outline the importance of a thorough understanding of federal and non-federal policies, as well as the importance of disseminating a wide variety of information to differing audiences, routinely, clearly and with relevance.

Award Acceptance and Initiation: The NCURA Standards for Award Acceptance and Initiation focus on the areas of reviewing and negotiating award terms and conditions, subawards, formal acceptance of awards, and award activation and notification to appropriate parties.

Award Management: The NCURA Standards for Award Management focus on the areas of fiscal and administrative management. These Standards outline the importance of a thorough understanding of federal and non-federal policies, appropriate accounting mechanisms and internal controls and cover areas such as F&A rates, cost sharing, re-budgeting, time and effort, fiscal controls, cost accounting standards, cost transfers, cash management, program income, recharge centers, procurement, closeout, prior approval, reporting, record retention, data retention, subrecipient monitoring, intellectual property, and property control.

Research Ethics: The NCURA Standards for Research Ethics cover institutional systems needed to meet federal and state regulations for the oversight and protection of certain populations involved in research, most notably the use and protection of humans and animals in research. These Standards also cover expectations for institutional systems for the oversight and protections involved in the use of radioactive materials, bioterrorism, conflicts of interest, and export controls. The Standards define expectations for linkages between the management of sponsored programs and the assurance of project integrity. Although not explicitly stated, the Standards suggest a broader expectation for an institutional statement or program on responsible conduct of research.

CURRENT ENVIRONMENT FOR SPONSORED PROGRAMS OPERATIONS

Any institution that is focused on developing a more research-intensive program faces a number of challenges. On one front is the challenge to change the culture of the institution to integrate a heightened focus on research. On the other front is the challenge to build an infrastructure that can nurture, facilitate, and support a growing research enterprise.

A growing research enterprise brings a measure of risk, accountability, and oversight to the institution that has not been previously apparent. Those measures are in response to a parallel growth in attention by the federal government that is evidenced by escalating policies, regulations, and oversight. This increased involvement of the federal government in research oversight has resulted in the need for higher degrees of specialization and education on the part of institutional sponsored programs staff. Institutions now maintain a delicate balancing act between developing the infrastructure for facilitating and moving forward research activities of

their faculty and providing sufficient oversight and internal controls to demonstrate accountability and to mitigate risk.

In the last five years, institutions have been especially impacted by the external environment. Reduced funding, increasingly large-scale and multi-disciplinary research, and collaborations with foreign scientists and business have all contributed to complex relationships and issues. The recent federal attention on institutional operations through audits, whistleblowers, and investigations has not only exposed our institutions to the public but has brought increasing levels of Congressional attention. The resulting attention on how institutions manage their relationships and the use of the public's funds often results in tighter institutional controls and more restrictive policies imposed on both the university and faculty.

Many of our institutions are now recognizing that the growth of infrastructure and specialized expertise has not kept pace with the complexity of the current-day research relationships and the attention to government regulations and policies that are inextricably intertwined with the external funding.

Institutions that are transitioning into a greater focus on research will find that external funding is a double-edged sword. At even a relatively low level of funding, the federal awards carry all the rules, regulations, oversight, and accountability found at a top university whose research enterprises is in excess of one billion dollars. It is critical that an institution have adequate staff, with appropriate training and resources, in place to handle the administrative burden imposed by accepting external funding. Mistakes in this area can be damaging to both individual and institutional reputations. In addition, sponsored programs offices are responding to deadlines not of their own making. Decisions and administrative actions must often be undertaken with virtually no advanced notice. Sponsored programs offices, pre- and post-award, must have staff in the office every day. Shutting down these offices for even short periods of time due to inadequate staffing can have considerable short- and long-term consequences for the institution's research enterprise.

The infrastructure supporting sponsored programs is always complex and it requires a periodic review to determine if it efficiently supports the efforts of investigators while also offering an adequate compliance posture with respect to the regulations that underlie federal funding.

This general discussion of the current national environment, within which all sponsored programs operations exist, and the special challenges for transitioning institutions will serve as a foundation for the more specific discussion of the pre- and post-award functions, project integrity, and institutional infrastructure issues for sponsored programs staffing, communication, and educational programs.

INSTITUTIONAL INFRASTRUCTURE

Many integral aspects of an institution's infrastructure provide the framework supporting the extramural funding of faculty and the necessary protections and accountability associated with that funding. To best coordinate this effort, the institution needs to attend to the organizational structure of sponsored programs and the lines of authority and responsibility that support

research. Within the organizational structure, the institution must consider appropriate levels of staffing, necessary expertise of those staff, and salary and promotional lines for staff.

Institutions must ensure that faculty and staff understand the requirements and expectations of the funding sponsors with whom they work, as well as key institutional policies and procedures and risk areas. Institutions must ensure that faculty and departmental/college staff have ready access to the body of knowledge needed to effectively oversee their sponsored projects. Key roles and responsibilities for those involved in the research enterprise need to be articulated to all participants and accepted, understood, and promoted (enforced). The institution must establish mechanisms to communicate key regulatory, policy or procedural changes to stakeholders, recognizing the varied roles of the participants. Appendix E provides examples of some NCURA resources that are utilized by institutions in their educational and professional development activities.

Organizational Structure

NCURA Standard II.A.i. Operational Structure

The University of California Merced is the newest university in the University of California system, opening in the fall of 2005. Faculty arrived in 2003 prior to the campus opening. During the period since the University opened, there has been significant growth in students, faculty, and infrastructure. The University has three Schools (Natural Sciences; Engineering; and Social Sciences, Humanities, and Arts) as well as two Centers and one Institute that are actively engaged in research. The UCM Strategic Academic Vision 2009 document lays out a number of areas of planned research growth.

The research enterprise is led by the Vice Chancellor for Research and Dean Graduate Studies. Reporting to this Vice Chancellor are the following areas and offices pertaining to research and research administration.

- Associate Vice Chancellor for Research who oversees: Technology Transfer and core facilities
- Research Institutes (Sierra Nevada Research Institute, and two future Institutes)
- Sponsored Projects Services (containing pre-award and post-award sponsored program services)
 - SPS pre-award is broadly responsible for budget assistance (except Engineering), proposal review in preparation for submission (this is in addition to Engineering where staff are also responsible for proposal review), proposal submission, award acceptance, and budget reconciliation.
 - SPS post-award is broadly responsible for financial management reports for the PI (including reconciliation of charges to the award and approval of expenditures). These post-award staff perform critical support functions of day-to-day financial management of an award. Of note is that these functions, by their nature, necessitate working closely with faculty to insure that the

sponsored program funds are expended in a manner appropriate to the award and under direction of the Principal investigator.

- Research Compliance & Integrity
- Research Development Services: broadly responsible for assistance with funding opportunities and proposal development.

Reporting to the Vice Chancellor for Administration, the following research administration offices include:

- Contracts and Grants Accounting: broadly responsible for financial management (contracts & grants accounting system, chart of accounts, principal investigator profile, agency profile, billing and receivable management, audit & fiscal compliance, F&A rate development, effort reporting, faculty reporting, cost transfers, cost allowability).
- A number of additional business and administrative units for the University that through those functions support sponsored research activities but are not typically considered research administration offices.

Beyond these central offices, UC Merced has three units that have dedicated staff for the administration and support services for sponsored programs specific to those units.

- School of Engineering
- Center for Educational Partnerships
- Small Business Development Center

The organization of research administration under a senior administrator position of Vice Chancellor for Research reflects a common organizational model for research universities. The Reviewers acknowledge the tremendous effort and challenges in building a new university. However, as the emphasis on research and graduate students continues and the enterprise grows, a separation of the two functions of Dean of Graduate Studies and Vice Chancellor for Research may become a viable model and necessary to the increased demands of both functions.

In anticipation of significant growth in research activity, the University will need to assess its posture on the organization and support of research institutes and the treatment of the F&A recovered on awards.

- The University will need to clearly define the organization of new research institutes as relates to research administration. A fully functioning institute will command significant effort in the administration of extramural funding and each new institute will further stress the central operations. Campus guidance should clarify expectations for the research administration management when forming institutes. The link to the University of California Irvine guidance on this topic follows:

<http://www.research.uci.edu/centers/index.htm> See Budget and Financial Considerations in the ORU Guidelines. The other types of research units are school-based.

- The F&A return is currently maintained centrally. While this is a model that is found at some institutions, the majority of research universities has a distributed model that returns a portion of the recovered F&A back to the unit. This distributed model carries expectations that the unit will utilize the F&A to further support research efforts. At some point, faculty expectations may become more heightened about the need to see a return of some portion of F&A to the unit.

The Review Team understands that the University has discussed some of these broader organizational topics and therefore will not make formal recommendations.

A challenge for growing research is the higher than normal proportion of junior faculty found at UCM. Academic leadership is aware of the research needs for junior faculty spanning areas of academic mentorship, introduction to research administration services, PI expectations, and education in specific sponsor and proposal budgeting requirements. This area will be discussed under the communication and education section.

The current systems in place at UCM to support sponsored programs reflect a series of changes that have occurred over the past five years. While these systems function, they do not reflect a model more typically found in research universities, nor that will be able to sustain significant growth in research. The following aspects of the current system will serve to highlight the structural fractures that are beginning to appear.

- Sponsored Projects Services acquired their “post-award” staff when the University Academic Resource Center was dissolved in 2008. At that time, business functions (HR, purchasing) went to the individual Schools and the remaining positions that oversaw the contract and grant activity went to SPS. At research universities the functions performed by this post-award group are typically considered departmental or college/school functions and are placed in those units. Placing a departmental support function centrally and labeling it as “post-award” appears to force departmental management into central functions. While institutions with small volume in sponsored programs awards may follow this model and manage all functions centrally, it will not serve UC Merced well as research volume grows and it is not a model that research faculty will find optimal.
- The models found within the School of Engineering, the Centers for Leadership Development, and the Small Business Development Center are typical for a research university. Within this model, the dedicated local staff are the front-line support for faculty services to support proposal submission and to provide direct assistance in the management and oversight of awards.

However, all three of these models are not well interfaced with central operation. For the two Centers, the central “post-award” function tends to duplicate and overlap what is already in place within the Centers. The School-based model (Engineering) appears to have some additional interface difficulties at the pre-award stage. There may be number of factors that are contributing to this, including lack of defined accountability and

consequences, lack of clarity in roles and responsibilities, and uneven knowledge base across staff. More broadly, having one School out of the three Schools providing the local services tends to promote confusion across the faculty, if not frustration.

UC Merced is at an opportune time to focus on defining the appropriate models and the infrastructure needed to support extramural research growth five to eight years out. Current operations and models are not yet entrenched in a particular approach and would allow some consideration of the best support model to meet the current and future research growth that is expected. Placing functions appropriately also will lay the groundwork for a more streamlined operation.

The remainder of this section will discuss organizational issues, placement of responsibilities, and education of School staff that will carry out the responsibilities. These three components are closely integrated and, while discussed separately in this report, will need to be merged to form the UC Merced model for operations.

ORGANIZATION OF SCHOOL-LEVEL RESEARCH ADMINISTRATION

In looking towards the future, the Reviewers acknowledge that UC Merced is at a crossroads in terms of how best to provide School-level support to their faculty. Should the School/Center-based support model be used as a model for other Schools and future centers or institutes, then two aspects of this new organizational model need addressing and will eventually help to direct investment of resources:

- 1) the appropriate placement of responsibilities and
- 2) the appropriate expectation of School-level support for the investigators.

The appropriate expectation of School-level support for investigators is a key consideration to organizations. For many organizations the local-level support grows naturally as the research activities within a given area increase. While such unit-level positions may be funded centrally, these positions commonly evolve through investments by the School (or department) from their portion of F&A return. While some institutions may choose to centrally fund and support the School-level support (such as the University of Texas, San Antonio) many institutions rely on the School to support some of their faculty proposal and award needs through their F&A return. Because the calculation for F&A includes the costs for departmental administration functions related to research, many institutions will return a portion of the F&A to assist units.

How UC Merced decides to organize or invest in the local-level support positions is a significant piece of the future organizational structure. There are some aspects to consider during the assessment of this piece of the organization.

- Distinguishing between immediate critical needs in a particular area and a broad view of the system and future needs; how best to integrate School and central resources to assist faculty short-term and longer-term as research and faculty needs grow.

- Engaging School leadership in a shared vision for infrastructure support to meet institutional commitments that come with extramural funding and the needs of faculty.
- Balancing School responsibilities with SPS responsibilities so there is minimal overlap and duplication.
- Exploring models in place at other institutions. There are a number of models that exist:
 - A model that is fully centralized.
 - A model that is decentralized (with some central responsibilities) that is fully funded by the unit.
 - A model that is decentralized (with some central responsibilities) that is fully funded centrally.
 - The Review Team especially recommends looking at whether a hybrid approach might be suitable as the enterprise grows.
 - One hybrid approach would provide a consistent service offered to all faculty, but that service would be offered *either* through those Schools with higher levels of activity where unit-staff are housed *or* the service would be offered centrally for other areas with less activity.
 - Another model would be to co-share funding support for School research administrators with the staffing costs increasingly shifted to the School as the extramural support grows and as systems are refined and the knowledge base and experience expanded.
 - One final hybrid approach during the transition to a fully decentralized model would be to establish administrative core support units that serve more than one school or several units with funding shared by the users.

The Schools play a critical role in facilitating research, supporting the infrastructure to meet the commitments that come with funding and assisting faculty in those pursuits. The key partnership of School leadership and their understanding of significant commitments that come with extramural funding is critical to moving forward.

In order to help achieve these multiple priorities, the Review Team recommends that UC Merced consider a transition period of shared-funding between the VCR and the Schools for sponsored program positions (including those positions currently in place). Shared-funding and a shared reporting line would achieve the following:

- Promote accountability. School staff would become familiar with institutional expectations for sponsored programs support as well as School expectations for service to faculty.
 - Promote shared authority. As interface systems are strengthened, authority for the different functions can become better defined.
 - Provide experience and increase knowledge. By sharing the funding and reporting lines, both unit and central positions will gain experience of the challenges in managing sponsored programs across the stakeholders and offices. The increased knowledge will build strong partnerships for streamlining and responding to the needs of faculty.
 - Create consistency. As the model is implemented, consistency of processes and responsibilities will become a crucial element.
 - Allow for flexibility. The model needs to maintain some flexibility to meet crises or unusual needs for both School and sponsored programs operations. The shared funding promotes communication and discussion when flexibility is needed.
- 1 • **Recommendation: The Vice Chancellor for Research, the School Deans, and others as determined by the VCR, should explore a transitional model of School based support that shares funding and reporting lines of School sponsored programs positions between the VCR and the Schools.** A shared funding approach would provide an acceptable structure for developing more completely the roles, responsibilities, consistency, and knowledge base to support the research infrastructure.
 - 2 • **Recommendation: As UC Merced defines their model of sponsored programs support for Schools, Centers, and other units, the VCR should document with each unit head (Dean or Director) the authorities, reporting, and discipline aspects for unit-level staff, should there be shared funding and/or reporting lines.**
 - 3 • **Recommendation: UC Merced should implement regular assessment points to review the efficiency of the model of sponsored projects support that is implemented and funding for that model.**

Although no specific recommendation is being made at this time, as UC Merced continues to aggressively expand extramural funding, the Academic Deans should consider the value of creating a .5 FTE Associate Dean for Research position within their Schools. Many research universities have moved in the direction of implementing school or college positions that will further strengthen the research priorities of the school/college, as well as serve as a local resource to help facilitate and nurture those activities. Such a position requires a faculty member who has been or is an active researcher and is aware of the impediments and needs of faculty in conducting research.

PLACEMENT OF RESPONSIBILITIES

In laying the operational foundation to support the rapid growth in extramural funding that has occurred and will continue in the next five to eight years, the Review Team found a theme of some uncertainty about roles and responsibilities. This confusion was expressed by all of the major stakeholder groups (PIs, School-support staff, central staff). This uncertainty has led to frustration, duplication, and processes that are more cumbersome than they need to be. While a portion of this theme was discussed previously as it relates to the School support system, the need for clarity in responsibilities extends beyond central/School staff. In some ways, the consistency of this theme reflects a positive stage of development and the Review Team believes this indicates growth of the enterprise and readiness of the partners to better define relationships that position the University to move to the next plateau.

An organizational transition period, especially with School-based personnel who have a shared reporting line, will allow the University to build a strong team of unit-based and central-based staff. The continuum of responsibility from the local unit through central offices is a key feature to a streamlined and faculty-responsive structure.

The creation and placement of roles and responsibilities is a significant undertaking and many stakeholders need to be engaged in the process of definition. More than defining and listing responsibilities in a matrix, there needs to be a significant culture shift across the organization to align training, resources, and understanding so each individual can assume and correctly manage their role. As responsibilities shift, there may need to be accompanying shifts in resources.

The Directors of SPS and CGA are knowledgeable about typical roles and responsibilities found in similar offices. Their discussions have begun defining appropriate placement of responsibilities. This initiative should continue and serve as the foundation for discussions.

- 4 • **Recommendation: As part of organizational assessment, SPS and CGA need to continue efforts to broadly review research administration functions and define the placement of those functions across central and departmental units.** A review of peer and aspirational peer institutions will identify typical placement of functions and provide some models. This more specific review will provide a solid foundation for subsequent conversations and a basis for a business plan that is in line with other institutions.
- 5 • **Recommendation: SPS should consider reassigning many of the current SPS post-award functions to School personnel in order to be more consistent with typical research university models.** Depending on how UCM develops their model, either the SPS post-award positions would be moved to a School, or a hybrid approach would be implemented where these positions retain a reporting line regardless of where the position sits.
- 6 • **Recommendation: School, academic, and research leadership need to discuss the implications of a distributed placement of research administration functions and the partnership commitments that are necessary to create a strong infrastructure.**

- 7 • **Recommendation: The Vice Chancellors for Research and Administration, the Directors of SPS and CGA, the School Research Administrators, and representative faculty should jointly assess needs and establish clear roles and responsibilities for all central and School stakeholders and for faculty involved in proposal and award administration.**

- SPS and CGA might consider the value of a retreat with a core of the primary stakeholder groups and with a shared agenda. Use of a facilitator, even an outside facilitator, may provide benefits. Different from a strategic planning process, the retreat may prove valuable to explore the research vision for the University and the changing needs of constituents. Such a retreat may provide opportunities for stakeholders to step away from their own particular roles and to view the larger continuum of research administration and how that continuum can move forward UC Merced.

- 8 • **Recommendation: SPS should communicate to the University the owners of the sponsored projects roles and responsibilities (whether this sits at unit-level or central level) and the appropriate contact persons. This information should be prominent on websites.** Faculty and staff struggle to identify the appropriate contact person for a particular issue. SPS should develop different directory models to provide contact information. Directories could be broken out by name, by assigned proposal/contract/project, by sponsor assignments or by topic. Example can be found at:

University of Wisconsin

<http://www.rsp.wisc.edu/directory.cfm>.

Northwestern University

<http://www.researchroles.northwestern.edu/responsibilities.aspx>

Wayne State University

[http://research.wayne.edu/about/pdfs/roles and responsibilities matrix.pdf](http://research.wayne.edu/about/pdfs/roles_and_responsibilities_matrix.pdf)

University of Delaware

[http://www.udel.edu/research/pdf/Roles and Responsibilities Matrix.pdf](http://www.udel.edu/research/pdf/Roles_and_Responsibilities_Matrix.pdf)

Stanford University

<http://med.stanford.edu/rmg/roles/>

Wichita State University

[http://webs.wichita.edu/?u=POSTAWARDSVCSHOME&p=/Roles and responsibilities/](http://webs.wichita.edu/?u=POSTAWARDSVCSHOME&p=/Roles_and_responsibilities/)

Washington University in St. Louis

<http://research.wustl.edu/Resources/Roles/Pages/OSRS.aspx>

University of Rochester -- Departmental Staff

http://www.rochester.edu/ORPA/rules/roles_admin.htm

MIT

<http://osp.mit.edu/about-osp/research-administration-improvement-initiative-rai>

NCURA Standard II.A.ii. Staffing and Resources

Staffing levels in the research administration offices that support sponsored programs and research compliance include:

- Sponsored Projects Services:
 - 1.0 FTE Director
 - 3.0 FTE post-award positions
 - 3.0 FTE pre-award positions
- Contracts and Grants Accounting:
 - 1.0 FTE Director
 - 2.25 FTE staff
- Research Development Services
 - 1.0 FTE Director
 - 1.0 FTE staff
- Research Compliance & Integrity
 - 1.0 FTE Assistant Vice Chancellor for Research
 - 1.0 FTE staff

It is not possible at this point for the Review Team to suggest specifics on staffing given the number of variables that are currently being addressed (i.e., increased education will lead to more efficient functions; electronic systems will reduce effort; more complete integration of proposal, contract and post-award functions will streamline processes and remove duplications of effort and files; clear definition of responsibilities may adjust workload). At the present time, central staffing in the four offices (SPS pre-award and post-award, CGA, RDS, RC&I) may be sufficient to respond to current volume while the broader plan for infrastructure is implemented.

However, there may be a need (potentially shorter-term of one to two years) for 1.0 FTE to assist with the many transitional priorities that are currently underway or recommended in this report and to attend to monitoring changes in process.

- 9 • **Recommendation: The Vice Chancellor for Research should consider the need for an additional 1.0 FTE to assist SPS in the implementation of School-based infrastructure and education should the University develop such a model.**

- 10 • **Recommendation: Resources and staffing ultimately need to be aligned to support the research enterprise as defined through the roles and responsibilities.** Staffing and resources should be assigned in proportion to the research responsibilities, and research responsibilities should clearly define the necessary knowledge base of staff. If significant functions are placed within the School, this will require sufficient trained staff to support faculty in those functions. Specific training recommendations are made elsewhere in this report.

Because a number of significant initiatives are recommended in this report and numerous changes are already underway to address policy and communication needs as well as improved support to faculty, the Director of SPS might find it valuable to explore the use of research administrative retirees. These retirees could provide some assistance with transitional models and bring expertise to assist in those models and provide some effort on particular projects.

- 11 • **Recommendation: SPS should explore contacting retirees in the research administration area. These retirees could provide some assistance with operational support at School and central levels in areas of critical need in sponsored programs or assistance designing larger-scale programs.**

There appeared to be little administrative support available to SPS, CGA, RDS, or Research Compliance & Integrity offices. Every office has lower-level functions that could be moved to entry-level administrative support positions and thereby free up staff time to attend to higher-level functions. While the Review Team understands that Federal Work Study is not a viable option and graduate student assistantships are cost prohibitive, hourly undergraduate students might provide an option if full-time administrative support positions are not available.

- 12 • **Recommendation: The central research administrative support offices should explore the feasibility of hiring a permanent administrative support person or hourly undergraduate students to assist the staff.**

The Directors of the SPS and CGA have established a training program that introduces new employees in those units to written procedures and manuals, job shadowing, and individual instruction from colleagues. Employees are introduced to position responsibilities and to sponsor electronic information systems. Supplementing the training are opportunities for each employee to participate in professional development opportunities, typically annually. The SPS staff are experienced research administrators. These staff have one year in their Principal Research Administrator pre-award positions and an additional 3 to 23 years experience as research administrators.

- 13 • **Recommendation: Although the rate of staff turnover is currently low, SPS and CGA should develop an orientation and training program for new staff.** The program curriculum should include key topics for new hires regarding the research mission of UC, the research funding process and partner offices. Training can be done by colleagues and rely on UC policy manuals, but having a written curriculum or instructional outline ensures coverage of all relevant issues within a reasonable time period. This structure also identifies personal areas of weakness and allows for a discussion of UC Merced policy and preferences/priorities.

The Director of SPS has begun to define a career ladder in SPS. This provides an excellent foundation for recognizing staff growth in knowledge and responsibilities. As UC Merced defines their broader operational model with School and other unit-based areas, this is an excellent opportunity to assess staff positions as relates to the initiative in defining roles and responsibilities and for this to include both central and School positions. A key component to position management is defining the necessary skills that come with the positions and are necessary for the appropriate execution of responsibilities. As part of the staff assessment process, clear career ladders should be developed across units that reflect increased decision-making and autonomy and will serve the University as activity and positions grow.

The Director of CGA has not yet had to define a career ladder due to the small size of the staff. With the latest staff addition in January 2012 and anticipated continued growth, CGA plans to define a career ladder for staff to acknowledge continued growth in expertise and responsibilities.

- 14 • **Recommendation: Concurrently with implementing a School-based research administration structure, UC Merced should review position and salary structures across central and School-based personnel.** A larger plan for positions and salary structure would enable the institution to better define expectations for unit-level research administrators in terms of both responsibilities and interface. A broad review of the salary structures would assist setting equity across responsibilities.
- 15 • **Recommendation: All sponsored projects-related position descriptions and responsibilities should be critically evaluated and necessary skills for the performance of those responsibilities should be clearly defined after definition of the roles and responsibilities within research administration.**

Existing staff need a consistent foundation of information from which to build a career. Professional development opportunities for the SPS and CGA staff are available and extend from attendance at national or regional professional organizations for research administration, to webinars or more local opportunities. The offices participate in broader UC system meetings. It will be important that the Directors continue to monitor professional development opportunities and extend these to staff to insure there is ongoing access to best practices, trends, and new developments with research administration issues.

The CGA Director additionally incorporates a skill assessment during the annual review and matches skill training opportunities to position responsibilities and necessary skill development.

- **Notable Practice:** It is an excellent technique for the CGA Director to utilize annual reviews to assess skill development needs and match the individual to skill training opportunities.

SPS and CGA have implemented a meeting report process to share back to the staff information from professional development opportunities. This is an excellent practice to extend knowledge and discussion among staff.

- **Notable Practice:** It is commendable that SPS and CGA place clear expectations for staff attending professional development opportunities to share relevant information at staff meetings.
- 16 • **Recommendation:** SPS and CGA should define and implement coordinated plan for broad distribution of critical information gathered as a result of staff attending professional development opportunities and that may be of interest to School and Center personnel, faculty, and others in the UC Merced community. Such a plan could include preparation of a "meeting report," posting materials (if permitted) and/or notes on a restricted web site for the UC Merced community, and sharing information at campus networking meetings. Not only does this share timely information, but it provides staff with experience in synthesizing and presenting information.

NCURA Standard II.B.i. Communication and Outreach

Communication and outreach activities surrounding sponsored projects covers a broad range of stakeholders who have differing needs. This section of the report will be broken into four broad categories: senior administrators; School research administration professionals; faculty; and central research administration offices. One theme that cuts across all of these categories is the somewhat inconsistent messaging to keep the community informed of changes.

While there are various communications and meetings that occur through the range of offices, these venues may overlap and may not be as focused as they could be. The individuals meeting with the Review Team demonstrated a remarkable level of tolerance for the many developing systems across the University, cutting across all aspects of institutional functions. However, it would be likely that expectations for clearer and more focused research administration communications will increase as research volume increases.

The Review Team is aware that given the rapid changes occurring in numerous areas of the UC Merced research administration, there are increased challenges to keep the community up-to-date. And clearly to this point the offices have been focused on sustaining a growing enterprise. With the current assessment of organizational change and constituent needs, this is an ideal time to address a plan to provide clear and consistent messaging in the research area.

- 17 • **Recommendation: The Vice Chancellor for Research, along with others as he determines, should explore the value of developing and executing a communications plan across his units that will regularly inform the UC Merced community about changes that are underway or being planned. Such changes would include personnel changes, organizational changes, policy, or process changes.** Many universities use a combination of listservs, meetings, campus-wide newsletters or mailings, and website postings. More recently there is the emergence of blogs, social networks and other new technology to deliver training.

The remaining four discussion areas in this section will highlight aspects to such a communication plan.

SENIOR ADMINISTRATORS

The Vice Chancellor for Research has established a solid foundation for communication with the School Deans. The VCR attempts to meet monthly with the Deans and is a member of the Cabinet, as are the Deans. These are critical links to academic leadership and build a framework for addressing emerging research or sponsored program challenges.

The Office of Communications prepares press releases about research activities. There is an established line of information flowing from SPS to this Office. For large awards received by the University, the Cabinet is notified.

A key communication to Cabinet and Dean-level administrators is accurate data on proposals and awards. Currently, this senior administration receives a monthly listing of all funded proposals. This data is very limited and not conveyed in a fashion that is useful for tracking, historical analysis, or assessing activity by a particular School/unit.

The SPS database should allow detailed reports to be compiled for each School/unit, showing current month activity (and details), year-to-date, and comparison to prior year activity. Simple Excel spreadsheets would allow for analysis of activity levels and success rates by either faculty or by sponsor. In addition, simple bar charts showing proposal activity (current month compared to prior year) and award activity are a useful way to quickly show University-wide activity to senior administrators.

- 18 • **Recommendation: SPS should generate monthly reports of proposal and award activity in a user-friendly, easy-to-read format that provides each Dean with details of activity within their School and a snapshot of activity over time.**

Separately from the monthly SPS reports, CGA prepares a quarterly expenditure report. This report includes School spending and the type of sponsor (such as state or federal funding). The report is shared with the Cabinet.

As with all research universities, forecasting capabilities are important and will become increasingly necessary as activity grows. The Review Team was informed in meetings that the

School of Engineering has developed a Business and Simplified Reporting system that pulls data directly from the UCLA financial system. This system generates reports for the PIs and they are in process of developing a projection reporting system for awards. A similar initiative is underway within Business and Financial Services. While BFS may be aware of the School initiative, the Review Team is not clear if senior administration at the School level is unaware of this overlap. The Review Team was not in a position to explore this information more fully, however it points to a potential lack of communication about developing tools that are needed by senior administration, in addition to PIs. Obviously creating partnerships on similar initiatives would help to move forward the overall research enterprise.

- 19 • **Recommendation: The School of Engineering Dean, the Assistant Vice Chancellor for Business and Financial Services, and others as appropriate should explore shared reporting and forecasting initiatives for potential partnership opportunities that could benefit UC Merced as well as the overlapping initiatives that are underway.**

As the University looks out five to ten years with increased faculty and sponsored program activity, it would be a natural next step to have specific faculty research advisory committees evolving. At some research universities, the sponsored programs office or the vice chancellor would have faculty advisory committees, as well as similar committees at a college or school level. These advisory committees may be in addition to whatever research committee is in place through a faculty senate. These committees provide a line of communication into senior administration on policy or challenges facing researchers. No specific recommendations are made on this topic.

The Vice Chancellor for Research serves as the Institutional Official for the regulatory oversight committees for use of humans and animals in research. The VCR attends committee meetings twice each year. Because the IO serves as the position within the University that makes institutional commitments for these areas, it is a strong and important statement for him to periodically attend the committee meetings.

- **Notable Practice: The periodic participation of the Vice Chancellor for Research/IO in the Institutional Review Board and Institutional Animal Care and Use Committee meetings is commendable.**

SCHOOL RESEARCH ADMINISTRATION PROFESSIONALS

A monthly networking meeting has been established and extended to School and other staff who were involved in sponsored programs administration. The intent was for unit-level staff to have an opportunity to meet monthly and to discuss common issues. Approximately a year ago a number of the SPS staff stepped back from this networking meeting as the goals of the activity were not being achieved. CGA has spearheaded organizing this meeting since that time.

While on-site, the Review Team heard a consistent theme from stakeholders that more education was needed. As the University considers organizational changes, the lines of communication between individuals who hold responsibility for sponsored programs administration will become critical.

Support for faculty depends on solid partnerships between unit-level and central staff; and these relationships often are developed through the “networking” functions and through participation in process improvements. Equally important is developing the "face" for sponsored programs. While the audits and controls meeting may be well attended, a small portion of the agenda is sponsored programs and the overall focus of a meeting under the direction of Audits and Controls may cast sponsored programs to be more of an audit function.

The Review Team had relatively short meetings with stakeholders to learn about the organization, but it is clear that there are many historical factors that have led to the current configuration of the research infrastructure. However, the challenge facing UC Merced is how to engage the significant stakeholder group at the unit-level in a manner that will bring them into the partnership.

During this period of strengthening research support across the institution, the academic Deans, and the Directors of research units play a critical role in helping, if not expecting, their School/Center/unit research administrators to recognize the importance of their engagement in this conversation. Without the encouragement and support of academic leadership and clear expectations for partnership, it is difficult for staff to justify time spent away from their day to day workload.

- 20 • **Recommendation: The School Deans and unit Directors need to actively encourage, if not insist, their unit-level staff to be engaged in networking and professional development opportunities offered at UC Merced related to research administration.** Ultimately, such engagement will provide a more solid foundation of support for faculty and will develop opportunities for streamlining effort.

- 21 • **Recommendation: SPS and CGA should re-assess the monthly sponsored programs networking meeting and collectively develop a focus and a model for moving forward.** All central staff should be visibly involved in these meetings. A number of aspects of the model should be considered:
 - This should be a collaborative process, recognizing that both central and unit-level staff are partners in defining and organizing the meetings. After established and operational, an eventual shared Chair function for the meetings may provide opportunities for collaboration.
 - SPS and CGA should explore models at other institutions. Some examples:
 - University of Michigan: <http://orsp.umich.edu/ran/>
 - Oregon Health & Sciences University: <http://www.ohsu.edu/xd/research/administration/rain.cfm>
 - University of North Carolina Chapel Hill: http://research.unc.edu/offices/sponsored-research/resources/DATA_RES_OS_RASG

- One hour monthly meetings should provide sufficient time for interaction without disrupting other responsibilities. A consistent time each month or each quarter is often useful.
 - Occasionally changing locations allows different units to "host" the meetings. Consider inviting the School Dean or a unit Director to provide an opening 10 minute welcome and brief discussion on research. This has the value of adding exposure from senior academic leadership to this group and to visibly demonstrate their support in this investment of time.
 - Minutes of the meetings should be posted so anybody who cannot attend can gain from the discussion or presented information.
 - Meetings should be shared in terms of "presentations" and discussion. Many unit-level staff have models or best practices or challenges that would be valuable to share. Discussions on policies or practices can assist the group in understanding where there is flexibility in approach.
 - Consider annually asking the Vice Chancellor for Research to address the group and discuss the "state of the union" and the research vision.
- 22 • Recommendation: The unit-level staff involved in research administration functions need to step forward and be actively involved, to collaborate on developing strong networking partnerships, and to be part of the process to assess their needs and how best to respond to those.**

FACULTY AND UC MERCED COMMUNITY

It is a challenge for any university to keep all members of their community up-to-date on changes. A broad range of communication techniques is often used and no single technique is sufficient. "Push" communication (where information is delivered to the end user) to faculty and unit-level administrators occurs through use of listservs to faculty, via new faculty orientation, via monthly VCR/Dean meetings, and via the Cabinet.

"Pull" communication (where the end user must find and extract information) occurs through the websites of the Office of Research and CGA.

The following recommendations would fit into a broader communications plan when it is developed.

- 23 • Recommendation: Attention should continue in maintaining an up-to-date SPS and CGA website with existing policies and procedures and more immediately the VCR websites for all offices should be reviewed for short-term updates to information while longer-term information initiatives are underway.** Policies need to be collected and located in one central, easy-to-access location, even if they are undergoing revisions. Established procedures and/or guidance may also be included provided they are not identified as policy. A

review of comparison universities should provide additional examples. Several universities have published their policies in this manner, including;

University of California, Irvine - <http://www.research.uci.edu/researchpolicies.htm>

University of Texas at San Antonio - <http://vpr.utsa.edu/osp/guidelines.php>.

- 24 • **Recommendation: SPS should consider developing FAQs or briefing documents to address the least understood issues/processes.** FAQ's/briefing documents should address not only the associated process, but to the extent possible, the business decisions that drive exceptions. The Review Team recognizes that academic leadership must retain some leeway and independence for decision-making; however, briefing documents provide some understanding about how decisions are made. Some examples of university FAQs include:
Clark University: <http://www.clarku.edu/offices/research/faq.cfm>
Clemson University: <http://www.clemson.edu/research/sponsored/faq.html>
Oregon State University: <http://oregonstate.edu/research/osp/index.htm>
University of Iowa: <https://research.uiowa.edu/dsp/graduate-and-professional-students-faqs>
- 25 • **Recommendation: SPS should consider the value of creating and posting a process map of the proposal submission and award process.** Such a map will assist faculty new to proposal submission and awards to understand the continuum of steps across School or research unit and central offices.

Typical to most research universities, the Office of Research hosts a New Faculty Orientation annually, early in the fall semester. This orientation is intended as a broad overview of offices and resources. The three Schools do not appear to have any specific introduction of their own to new faculty as relates to research, although the Deans are engaged with new hires coming into their Schools. The one School that has dedicated grant and contract staff will respond to inquiries coming to them from new faculty, but the School staff do not do any specific orientation or outreach for the new hires.

The University is making a significant investment in their faculty hires. In particular, the large number of junior faculty highlights the importance of adequately introducing them to research administration processes, expectations, and resources. Unlike many research universities, the new junior faculty may be coming into UCM without having ready access to either the senior mentoring structure or an outreach effort by the unit-level research administration support. As a result, the junior faculty may be expending more effort than they should in tracking down specifics of resources and services.

Although there is a large number of junior faculty at the University, the new faculty hires each year are at a reasonable size that would allow some specific outreach and meetings to better introduce faculty to services, at the time of their hire.

- 26 • **Recommendation:** The VCR and School Deans should design an optimal approach to introducing new faculty hires, upon their arrival, to local and central resources to assist them in their research activities. Such an approach might include specific outreach to each new faculty member and designing a meeting that partners central office representatives (pre-award, post-award, research development services) and unit-level administrators with tailored information to assist the new faculty member.

Universities typically create some mechanism for communication between the sponsored program office and the development arm. As research activities increase, this communication is important to clarify the distinctions between a gift and a sponsored project. Discussions while on-site indicate that there is not yet clear communication between Development and SPS, although this is likely to improve with the relocation of the SPS office to be in proximity to the Development staff. This would be an opportune time to review the system-level definition of gift-sponsored project and provide UCM guidance on the distinctions.

- 27 • **Recommendation:** SPS and Development should convene periodic meetings to discuss guidance and definitions for gifts versus sponsored projects.

CENTRAL RESEARCH ADMINISTRATION OFFICES

Central research administration offices have a variety of meetings and activities to maintain communication.

- The Office of Research plans quarterly meetings of the entire staff. While schedules do not always permit a quarterly meeting, the intent is for such to occur. These meetings are important for staff to feel a part of the broader vision that the VCR brings to UC Merced.
- The Director of SPS meets bi-weekly with the VCR.
- SPS staff meet bi-weekly.
- The Directors of SPS and CGA meet frequently. In particular, the Directors have been collaborating on a shared roles and responsibilities document, reviewing each other's policies and procedures, and doing outreach together.
- There has been an attempt to bring staff from SPS and CGA together quarterly.
 - **Notable Practice:** In light of the challenges of slim staffing and evolving research needs, it is notable that there has been a concerted effort towards creating staff meeting opportunities. These meetings help to build a sense of community and are opportunities for staff to provide input and suggestions into their own operations.
 - **Notable Practice:** The Directors of SPS and CGA are commended for implementing a best practice of shared review of policies and procedures.

NCURA Standard II.B.ii. Education

A consistent theme expressed to the Review Team by central and academic leadership was the need for additional training. There is in fact a fairly significant level of research administration experience at both unit and central levels. Given that, the Reviewers are not clear if the desire for additional training relates more to unclear roles and responsibilities and processes, as opposed to the need for training in the functions of research administration. Regardless, as UC Merced looks to greater definition of roles and responsibilities, a broad training/educational initiative will be critical to assure research administrators at all levels understand expectations and processes.

SPS and CGA offered a new workshop in January 2012 on Introduction to Contracts and Grants Accounting. The workshop had a full class of approximately 25 staff attending. The Review Team believes this is an excellent start of an educational program.

- **Notable Practice:** Creating and offering a comprehensive basic introduction to contract and grant accounting is an impressive endeavor and critical to laying the foundation for a knowledge base about sponsored programs.

Even with the initiation of the new workshop, a cohesive communication strategy with regard to informing staff of key regulatory and procedural changes does not appear to be currently in place.

Without recurring exposure to professional development, external discussions, and other models of operation, it is more challenging for staff to keep current with the latest regulatory changes; and, it limits their exposure to best practices, hot issues, and solution alternatives. Faculty must, at minimum, be apprised of key changes that impact them personally (i.e., NIH-funded researchers being alerted to the recent NIH public access policy), while other changes that are more administrative or process-oriented may safely have departmental or central administrators as their primary audience.

1. **Staff.** SPS and CGA should look towards offering a rigorous and complete series of classes to provide a comprehensive foundation of knowledge to those responsible for handling research administration. At some universities, this direction has grown into a university led research administration certification program.

Educational topics in a series such as this could include proposal budget expertise, time and effort reporting, working with subcontractors, specific agency policy education, interpreting award terms and closeout procedures. In particular, the now-closed Research Administration Management Program at UC Irvine provided information about the research mission and the role of research at the university. As UC Merced continues their commitment to increasing research activities, knowledgeable School, and eventually department, administrators, are the critical key to increasing capacity to enable faculty to compete for funds and to provide proper stewardship for awards.

28 • Recommendation: To help promote and facilitate a supportive and compliant research infrastructure, SPS and CGA should develop and implement several training and educational programs for research partners.

- Scheduled training sessions should be offered for School, Center, and central administrators engaged in some aspect of research administration, regardless of title or level of effort. This training should support and flow from clarifying roles and responsibilities. Educational topics in a series such as this could include proposal budget expertise, time and effort reporting, working with subcontractors, specific agency policy education, interpreting award terms and closeout procedures.
- UC Merced should consider requiring a minimal level of training for administrators responsible for a sizable portfolio of sponsored projects. Access to a skilled administrator should be made available to other administrators who have more minimal involvement.
- A wide variety of models for on-line and in-person training programs and training opportunities exist and could be deployed for this purpose. It is critical that the tone of this training is collegial and professional, and trainers are seen as knowledge experts who are dedicated to helping the constituency.

Examples of training programs in research administration offered by other institutions can be found at:

University of Pennsylvania Compliance Certification Program
(<http://www.upenn.edu/researchservices/SPCCP/>)

Emory University certification program in research administration
<http://www.osp.emory.edu/communication/training/index.cfm>

University of Michigan training programs
(<http://orsp.umich.edu/training/>)

Stanford's "Cardinal Curriculum"
(<http://ora.stanford.edu/cardinal/>)

U of Minnesota's "Certified Approver" program for post-award departmental research administrators
(http://www.oar.umn.edu/CA/CAE_Themes.cfm and
http://www.oar.umn.edu/CA/CAE_Gen_Info.cfm)

UC Santa Barbara's "STAR" Certificate in Research Administration program
(<http://www.research.ucsb.edu/spo/contracts-and-grants-liaison-resources/star-class-schedule/>)

Florida State University's "The Compliance and Research Administration Training and Education" program, known as CReATE
(<http://www.research.fsu.edu/contractsgrants/workshops.html>)

University of California Irvine's "Research Administration Management Program," known as RAMP, which was made available to all UC campuses by CD several years ago. [Note, the Review Team understands that the School of Engineering has obtained a copy of these training materials if it is not otherwise available.]

- Certifications, recognition, and other mechanisms for valuing participation might be employed as a means to encourage attendance.

Training resources and opportunities for unit-level support staff are an important step. Creating a repository of training materials in a single on-line location can serve as a training library for participants. If the need exists and cost permits, meetings could be transmitted on-line to allow participants who are unable to participate in person to watch from their offices or to watch the presentations at a later time. Another option to encourage community is to offer a one-time or annualized one-day conference for all staff engaged in research administration, or to provide web sites that consolidate information needed by new administrators. Samples are offered below.

University of Minnesota Grants Management User Network
<http://www.ospa.umn.edu/GMUN/>

University of Minnesota Sponsored Projects Symposium III
Agenda: <http://www.ospa.umn.edu/announcements/Symposium10.htm>
Materials: <http://www.ospa.umn.edu/announcements/SymposiumIIIMaterialsPage.htm>

Duke University
<http://finance.duke.edu/research/training/index.php>

2. **Faculty.** Educational opportunities for faculty are an important consideration as SPS and CGA develop their workshop topics. Often, faculty will be most interested in short, focused offerings. As subjects are considered, SPS and CGA may find it useful to poll the faculty on the type of information that would be most valuable to them. For some faculty, having an opportunity to hear from other faculty, who have been peer reviewers or have been successful with particular types of sponsors, can be valuable.

The recently offered proposal writing workshop appeared to have been well received and important for skill building for new faculty. As additional workshops of this nature are considered it may be valuable to add a companion workshop that is focused more towards the arts, humanities and social sciences.

- 29 • **Recommendation: RDS should continue their initiative to offer proposal writing workshops for faculty, with consideration for science focused and non-science focused offerings.**

In discussions with faculty it was clearly articulated that the recently offered proposal writing workshop was an excellent offering. With this solid foundation, implementing a seminar series for new faculty would further highlight the insights for proposal preparation and networking with sponsor program officers. Some faculty may need advice on the process, e.g., scheduling the proposal writing/submission process and understanding what happens when the award arrives. In many cases, the faculty themselves serve as an important resource to assist faculty new to proposal writing. Experiences either as a proposal writer or as a proposal reviewer can help guide faculty new to proposal writing in the process and the pitfalls. As RDS continues to build the educational offerings for proposal writing, the experienced faculty should be tapped for contributions and shared experiences.

- 30 • **Recommendation: The Vice Chancellor for Research and RDS should consider developing a research seminar series for new faculty, focused on sharing insights on research submissions and management from experienced faculty.**

UC Merced should consider adopting an educational program specifically focused for its principal investigators – either on a voluntary or a mandatory basis. UC Merced has a large number of junior faculty, who lack experience in applying for and managing an award. Thus, their appointment at the University may be their first exposure to research administration and their associated responsibilities. Some institutions (e.g., University of Washington, Stanford University, or University of Minnesota) offer mandatory training (1.5 hours – several hours) in order to either obtain or maintain principal investigator status. A variety of models exist for such training, both on-line and in-person.

The University might consider a number of alternatives if they move in this direction.

- Voluntary for all PIs
- Required for all PIs
- Required for PIs submitting their first UCM proposal (allowing experienced PIs to not participate)

If adopted on a mandatory basis, a key to the ultimate success of such initiatives is support by the senior leadership at the University and a willingness to enforce the requirement universally.

- 31 • **Recommendation: UC Merced should consider an educational program for PIs, especially those new to proposal submission or award receipt and management.**

NCURA Standard II.C.i. Compliance and Risk Assessment

At many institutions, there is increasing attention on critical administrative operations and the need for a regularly occurring review cycle, as is found in academic program reviews. While the form for such review can be varied (internal or external), the process establishes an expectation for attention to the operational effectiveness, how well that operation succeeds in a fluid environment, and a venue for faculty to comment on process.

There are a number of techniques used by institutions of higher education to periodically review the effectiveness of sponsored programs, to assess operations for areas of improvement and currency, and to review for compliance or risk. Techniques may include:

- Self assessment
- Institutional defined program of review for administrative units
- Assessment of programs following internal or external audit or investigation findings
- Scheduled reviews of program components by Internal Audit
- External program review

The Office of Research follows a University policy on the review of administrative units. The Vice Chancellor for Research has indicated his intention to utilize an external review process at an interval of every seven years with internal review processes used in the other periods.

- **Notable Practice:** Establishing a cycle for review of sponsored program operations that incorporates both internal and external techniques is a best practice and provides accountability to stakeholders as well as opportunities for program improvement to meet evolving needs of those at the University. A review of the program that occurs regularly will enable continued attention on operational effectiveness and serve as a source of information for future decision-making. Such a review enables stakeholders to provide input.

UC Merced has laid a solid foundation for risk management. Many universities utilize a combination of formal and informal risk assessment to identify areas within their operations that need attention. Informal risk assessment is performed through the senior research leadership and Directors who routinely monitor the external landscape for potential risk issues surfacing at other institutions. Through regular meetings, risk areas are discussed and action plans are developed, as needed.

Another resource for risk assessment is for a university office to partner with Internal Audit to help define and implement focused reviews of aspects of the operations. Use of Internal Audit brings an outside audit perspective to specific aspects of the operation to insure that processes and policies are in place and being followed.

The UC Merced Internal Auditor began in October 2011. The Internal Auditor has experience with audit activities related to grants and contracts. Expectations are that there would be some aspect of research administration on each annual audit plan. To prepare the annual audit plan, the Internal Auditor speaks with a large number of stakeholders to identify a range of risks. This position sits on several key committees, including:

- Ethics, Audit and Compliance Risk Committee (EACRC). This committee is composed of senior University leadership, including the Chancellor, all of the Vice Chancellors, the Associate Chancellor and the Internal Auditor.
- Enterprise Risk Management Group. This group is comprised of heads of operations.
- University of California Auditors. This group meets quarterly.

An audit plan is prepared and presented to the EACRC. The involvement of senior leadership in regular dialogue on risk issues is a crucial component for managing risk.

- **Notable Practice:** The senior administrative Ethics, Audit and Compliance Risk Committee is an excellent model for institutional awareness and management of existing or emerging risk issues.

The Review Team believes there are appropriate communication lines to identify and address risk issues at UC Merced.

Another tool that can be helpful in the management of risk is the use of periodic quality assurance assessments. These assessments, which are less formal than an internal audit review, can also provide valuable information about specific and targeted areas that the University wishes to review. Examples of such assessments might include reviewing a sample of grants for appropriate administrative and clerical charges in real time or reviews of animal and human subject protocols to assure that the research is being conducted in accordance with the approved protocol. No specific recommendations are offered on this aspect.

As part of risk management and compliance, an operation should routinely and periodically review policies and practices. This should be a formal process of review and engage key stakeholders in identifying accuracy and currency on practices. The Review Team understands that there have been a number of pressing needs in building the infrastructure for research. As the operations look to the next 3 to 4 year period, a regular cycle of reviewing existing local policies and practices should be considered.

Creating and implementing a compliance matrix is a tool used by many institutions. The matrix identifies the compliance areas throughout the university and the unit that is responsible for ensuring compliance. A compliance matrix could be as simple as a chart that includes some of the following elements:

- Compliance areas (e.g., use of humans, monitoring of expenditures, proposals reviewed for university commitments, Federal or state policies referenced in

proposal/award terms and conditions that, as such, are committed to being in place by the institution—i.e., Drug Free Workplace)

- Responsible university office and individual
- Monitoring process (e.g., committee, individual, or other)
- Location of university policies/procedures
- Guiding principles (e.g., applicable Federal or State regulation, OMB, ethical codes)
- Reporting requirements (e.g., filing of assurance/certification/non-compliance/other); frequency of reporting; recipient of reports
- Fines, findings, audit results
- Training requirements (who, frequency, oversight)

The matrix enables various offices to come together to discuss and understand the compliance areas and their role in mitigating risk. Information from a compliance matrix may additionally be useful to ensure compliance risks are addressed during proposal development, award set-up, and management. There are numerous varieties and approaches that can be used for such a matrix with some focused on identifying responsible units for an area and others focused on providing a “risk assessment” of the area. Some examples of compliance matrixes follow and can be found in Appendix F:

<http://www.stanford.edu/dept/Internal-Audit/compliance/initiative/matrix.html>
<http://universityrisk.tamu.edu/AssessmentTool.aspx>
http://researchadmin.uchicago.edu/Compliance_Responsibility_Matrix_2011.pdf

The following NCURA publications could serve as additional references and best practices:

- *Regulation and Compliance: A Compendium of Regulations and Certifications Applicable to Sponsored Programs*, 2007 Edition (NCURA, 2007)
 - *Establishing and Managing an Office of Sponsored Programs at Non-Research Intensive Colleges and Universities*, 2nd ed., (NCURA, 2008).
- 32 • Recommendation: The Office of Research should consider developing a simple compliance matrix to identify compliance oversight areas, policies, and responsible office.** Such a matrix will assist the institution in coordinating the multiple compliance requirements that are managed by differing offices.

The conduct of some research can bring a level of risk or exposure when unanticipated or adverse events occur. UC Merced has a disaster management plan (Emergency Operations Plan) in place and research is part of that plan. The Vice Chancellor for Research has identified one risk area of disaster management as the need to assess campus capabilities for backup systems for the digital systems.

Some types of activities bring attention, such as animal research, can bring visibility from activist groups or some types of research can result in some risk to individuals. As part of risk management, it is often valuable for the institution to anticipate such exposure areas and to insure that the committees, the VCR, and the University's communication office are clear as to the point person for response and the form of the response.

While the probability of an exposure incident might be small, as research grows so does the potential exposure and it is valuable to have a process and plan in place for responding to the public if an incident occurs. The creation and periodic review of such a plan by the central research administrative offices and the appropriate compliance oversight committees ensures that the institution has clear action plans and has identified responsible parties to represent and speak for the University for research-related incidents.

From discussions on-site, it appears that the VCR is well versed with the disaster management plan. The animal oversight committee has reviewed this plan as it relates to the care of animals. There appeared some uncertainty if the Biosafety Committee, chemical, or radiation safety had reviewed the plan related to their responsibilities. And, it might be useful for the human subjects oversight committee to likewise review the plan.

- 33 • Recommendation: The Office for Research Compliance & Integrity should oversee an annual review of the University's disaster management plan and media response plan by each of the compliance oversight committees.** This regular review provides awareness of process and response and allows for committees to assess suitability of plans as their research oversight areas continue to evolve.

As research grows, it is likely that more gifts will be received in support of individual faculty research activities. Such gift accounts are typically managed through the development arm of the institution. While there does not yet appear to be gift accounts for specific faculty research activities, UC Merced should anticipate this stage and review UC policy for how the research gift accounts will be managed and what controls are used for those funds (i.e., use of those funds for research activities that may require oversight, such as use of human subjects). Along a similar vein, gifts of equipment should be defined as to ownership of equipment and related control issues. No specific recommendations are made on these issues except for the institution to consider the appropriate point in time where management and local procedures should be implemented.

NCURA Standard II.D.i. Electronic Research Administration

This standard will be covered in each of the Core Operations sections of the report.

CORE OPERATIONS

Research administration begins with the receipt, review and submission of proposals to funding sponsors. Institutional offices and services need to be in place to aid faculty in the

development of proposals into successful applications for funding. The NCURA Standards for Proposal Development and Assistance outline the need for staff that are knowledgeable in sponsor regulations and procedures and in the use of sponsor electronic systems for proposal submission.

Submission of successful applications hinges on a university's ability to keep up-to-date with sponsor policy and procedures, proposal solicitations, adherence to federal, state and local laws as they relate to compliance, and with the consistent application of university policy. These aspects of successful submission are realized only through a staff with regular access to changes in sponsor policy, electronic systems, and university policy.

In addition, institutional policies and sponsoring agency procedures have a significant impact on the conduct of research. Communications about these policies and any changes in them must be brought to the attention of senior management. The need for ongoing communications about compliance risks is critical to success in our dynamic research environment.

Proposal Services

Proposal Services in sponsored program operations includes collection and dissemination of funding information, proposal development and assistance, proposal review and submission, collaborative project development and providing faculty and other staff with information on and interpretation of current sponsor policies, procedures and processes. These services should be within the scope of support provided by staff in school/departmental and centralized levels of research administration, with responsibilities shared as fits the institution. Proposal services are core to the undertaking of research and central to proposal success and receipt of extramural funding. Without efficient and reliable proposal services the research enterprise may falter or in some cases may fail.

Obtaining funding is critical for without funding the other elements of research administration would not exist. It is important to have strong support staff that are knowledgeable about proposal preparation, including allowable, allocable, and consistent costing. It is also important that pre-award research administrators can articulate to faculty and staff up-to-date information on sponsor policies, procedures and processes, are knowledgeable about electronic proposal submission, and can advise faculty and other staff on preparation of compliant proposals.

NCURA Standards 1.A.i Collection and Dissemination of Funding Information

RDS holds primary responsibility for providing funding information to the University community, having taken over this function in 2008 from sponsored programs. The office maintains a calendar of upcoming sponsor deadlines and periodically distributes sponsor information through an e-mail blast to the entire faculty (Funding Alerts) as well as some targeted emails to faculty.

The calendar is maintained through information pulled from a variety of sources, including sponsor listservs, Grants.gov searches, Community of Science-Pivot (COS-Pivot) searches, and external institutions' funding calendars.

RDS anticipates implementing a quarterly newsletter with the first issue to come out in the spring 2012.

At most research universities, faculty are expected to develop and know their primary funding sources; however, there are often a number of worthwhile funding opportunities that are less well-known (private foundation, state agencies). UC Merced has subscriptions to two vendors that provide a searchable database for funding opportunities: COS-Pivot and IRIS. Both vendors have compatible databases, but funding searches of the two will yield different results. Both vendors have capabilities for faculty interests to be automatically linked to potential funding opportunities. Both of these databases have tremendous potential to focus funding opportunities to faculty with a limited central office staff investment.

While faculty are alerted to these two funding resources through web links and the New Faculty Orientation, many faculty are unaware of the value of connecting to the database and establishing a profile in order to have focused opportunities e-mailed to them. The Review Team understands that plans are underway for colleagues from the University of California San Francisco to visit Merced and to offer training opportunities on COS.

- 34 • **Recommendation: RDS should develop a meet-and-greet with new faculty in order to walk them through funding resources and how to create focused profiles with the funding databases in order to receive targeted opportunities.** As part of a plan to better connect newer faculty with resources, RDS should plan individual follow-up with the faculty to insure the faculty understand the funding information coming to them or to improve the focus of their profile.

In particular, the IRIS database allows searches to be constructed that are specifically limited to junior faculty. COS-Pivot may have similar capabilities. Because junior faculty often are still developing their funding sources and their track record, being aware of opportunities that are restricted to new faculty can help focus them to programs that exclude competition from more experienced faculty.

- 35 • **Recommendation: RDS should explore capabilities with IRIS and COS-Pivot to identify specific junior faculty opportunities and to disseminate those opportunities to UC Merced junior faculty.**
- 36 • **Recommendation: RDS might find it valuable to explore the use of listservs in broad areas to somewhat focus information being sent out to faculty.**

Well designed materials to help direct faculty to tools to identify federal or state opportunities and practical tips for developing profiles for a subscription service can be valuable.

- 37 • **Recommendation: RDS should explore methods to provide faculty and unit administrators with further guidance on how to locate funding opportunities.** While an educational session might best provide this guidance, a well designed web page that is broadly communicated can also provide an effective tool to assist

those seeking funding. This should include information on where and how to access/use the available systems and tips for faculty.

Although the funding information responsibilities were shifted in 2008 from SPS to RDS, the oversight for limited submissions was retained in SPS. It is a common institutional model for SPS to hold responsibility for insuring that the selected applicant for a limited submission is in fact the submission that is made. However, where funding information responsibilities reside in a separate office, there often is a shared function where the limited submission funding opportunities are tracked and advertised through the area responsible for funding opportunities. Coordination then involves those participating in the selection process and sponsored programs staff who should manage the submission process.

- 38 • **Recommendation: The VCR, SPS, and RDS should explore the current model of identifying and advertising limited submission opportunities and consider a shared model between SPS and RDS.** In this model, RDS holds responsibility for identifying and advertising these opportunities and SPS holds responsibility for insuring the selected proposal is submitted.

NCURA Standards 1.A.ii Proposal Development and Assistance

RDS holds primary responsibility for central proposal editing services. Initial priorities for proposal services were focused on larger interdisciplinary proposals and graduate priorities. More recently the focus has expanded to support junior faculty. A number of services are provided through this office

- proposal editing
- assistance with large interdisciplinary proposals
- proposal boilerplate language (available on the web)
- proposal writing workshops (geared to junior faculty)

A prior discussion on faculty mentorship appears in the communications section of this report. While the academic issue of faculty mentoring needs attention by UC Merced, the Review Team believes that RDS is making a critical contribution to help support that particular need. Because of the success of the first proposal writing workshop, additional focused workshops and seminars will continue to provide tools and assistance to the faculty.

The School Deans were very supportive of the efforts provided by RDS to assist junior faculty and hoped to see continued mentoring and educational offerings. The discussion suggested a few additional areas of service that could be offered to junior faculty, including efforts to help re-write proposals that have been denied and to interpret referee comments.

There are clearly limitations to services offered through RDS with 2.0 FTE staff. The needs for re-writing denied proposals and interpreting referee comments are important considerations in building a successful structure for junior faculty. The VCR and Deans might consider a

collaborative program to provide support for either or both of these suggestions by engaging external faculty consultants in the appropriate discipline to review a pre-submission proposal from a junior faculty member. Another model is one that was used at Oregon State University. The School of Health and Human Performance hired an external consultant for a year-long program of proposal writing and mentoring for new faculty, especially geared to NIH and NSF proposals. This program, offered by Grant Writers' Seminars and Workshops, LLC (<http://www.grantcentral.com/>), provided focused, hands-on assistance to faculty new to proposal writing. There are a number of consultants who offer such services.

- 39 • **Recommendation: The VCR and Deans should explore models to provide continuing support for proposal development skills of their junior faculty.**

Some examples include the following.

University of Oklahoma: <http://vpr-norman.ou.edu/resources/new-faculty>

University of Nebraska Lincoln:

<http://research.unl.edu/facultyresources/docs/earlycareer.pdf>

Stanford University: <http://dor.stanford.edu/newfac.html>:

An area of frustration for faculty centers on the lack of assistance in some of the fundamental areas of proposal development, e.g., completion of budget and sponsor forms, and compilation of biosketches. Faculty understood their role and responsibility for research design, but reported that the lack of assistance with these other routine areas of the proposal took time away from applying for funding and conducting research. There are many institutional models for providing basic proposal development support: some models locate assistance at the central level, other models provide assistance at the unit level, and some models utilize a hybrid approach. Generally, the larger the institution the more decentralized the support.

- 40 • **Recommendation: The Vice Chancellor for Research should look critically at the availability of faculty support for completing and packaging proposal forms and determine whether some short-term support for basic proposal services could be offered centrally while the broader organizational model for sponsored projects administration is being defined at UC Merced.**

NCURA Standards 1.A.iii - Proposal Review and Submission

A number of electronic tools are used in the proposal review and submission activities at UC Merced.

- Currently, the SPS pre-award function utilizes an Access database to record proposal information.
- Dropbox is a secure electronic tool used by SPS to receive draft proposals and budgets for review prior to submission. Currently Dropbox is used to store documents. This function will transition to Quali-Coeus when implemented.

- An initiative is underway to implement the Kualii-Coeus research administration management system. This system will provide enormous support and efficiency to proposal routing and electronic submission to sponsors.

At present, the Access database has somewhat limited functionality. An immediate investment in a consultant to improve functionality and expand reporting capabilities will provide some improvements until the Kualii-Coeus system is implemented. The Dropbox system was an important step in utilizing electronic tools to streamline processes. It would be valuable to continue to look at Dropbox as a solution to meeting a range of needs (such as the development of interdisciplinary proposals, the submission of white papers, or the submission of requests for internal funding). A separate recommendation on Access is made under the Award Initiation section of this report.

- 41 • Recommendation: SPS should review the Dropbox capabilities, with input from School/Center research administrators, and determine if refinements to the tool are needed to meet the evolving research needs and School operation needs.**

The review of proposals is done primarily by the 3.0 FTE positions dedicated to pre-award support with final review and sign-off by the Director of SPS. Staff are assigned to Schools to serve as primary contact for inquiries or requests; however, proposals are addressed on a first-in-basis by whoever of the three staff is available. When possible, the pre-award staff pulls proposals from their assigned units, unless they have to step in to get a proposal out the door.

A number of models exist to organize pre-award staff for the review and submission of proposals. Best practices is to perform an analysis of all tasks, processes and procedures on a regular basis to ensure current organizational structure and assigned responsibilities are supportive of the current research environment at an institution. Most organizations experience task and organizational slippage as personnel change, new technology is available, the culture shifts, and research activity increases. An increase in sponsored program volume is often the trigger. A good review of some best practices can be found in *Sponsored Research Administration: A Guide to Effective Strategies and Recommended Practices*, (Washington DC: Atlantic Information Services, Inc. and NCURA, 2006).

There are a number of broad staff models that may be found in institutions, including (not a comprehensive list) those that UC Merced might find useful as it considers the functions of sponsored programs management:

- Cradle-to-grave alignment of staff responsibilities (a single staff person handles all functions related to a proposal spanning pre- to post-award)
- Alignment of functions by sponsor (staff are assigned activities based on particular sponsors)
- Alignment of functions focused by School (staff are assigned activities based on particular units)
- First in (staff handle any proposal that is next in queue)

- Pre-award (which includes some staff who specialize in contracting as well as performing other pre-award activities) and post-award assignments.

Each model of organization contains pros and cons. As an institution grows its research base, there tends to be higher levels of specialization in either or both sponsor expertise (suggesting specialists with particular sponsors) or volume (suggesting specialists focused by school or unit). Many institutions have blended models. How ultimately the central operation is organized for the review of proposals will in part be determined by how the broader model of support offered through the Schools is developed.

- 42 • **Recommendation: As broader sponsored programs roles and responsibilities are defined for the University, the central management model and how staff are assigned to areas should continue to be assessed.**

SPS has developed a Research Administrator Desk Manual that lays out processes and details for proposal management by SPS staff. This is an excellent summary guide for central staff and could easily serve as basic information and guidance for School or research-unit level research administrators. There is some contradictory or erroneous information contained in the Desk Manual and in the web pages. Information between these two resources needs to be aligned and corrected. The following contains some examples:

- The proposal budget webpage and the F&A section of the Desk Manual include only the 55% MTDC rate; there is no mention of the 26% off-campus rate.
- The Administrative Policies on the Office of Research webpage (Guide to Facilities and Administrative Costs) incorrectly indicates a 52% F&A rate.
 - **Notable Practice:** The Research Administrator Desk Manual serves as a comprehensive training document and reference guide for central staff.
- 43 • **Recommendation: SPS should explore the value to extending the availability of the Research Administrator Desk Manual, or refocusing it, so it could become a tool and resource for School and research-unit research administrators.**
- 44 • **Recommendation: SPS should continue to rigorously update the Research Administrator Desk Manual and all University web pages that contains sponsored programs information.**

Proposals are routed for approval using the PASS (Prior Approval and Submission Sheet) form to provide internal approvals and summary information concerning the proposal. The authorizing official for the University is the Director of SPS. When signature approval is needed in the Director's absence, this function moves to the VCR.

When a proposal is received, the SPS staff review it following a specific proposal review checklist. This includes printing and reviewing the proposal guidelines, internal forms, compliance, and commitments. The Reviewers note that the NSF sponsor requirement for proposals to contain a data management plan is included on the RCI website and is not linked

under the SPS proposal preparation website. Because this is the type of information critical to proposal preparation, it would be valuable to PIs to have relevant information accessible or linked through one location.

The budget and budget justification are reviewed closely for allowability and sufficient justification; reasonable fringe benefits; and appropriate indirect cost rates. Staff review the proposal narrative against the proposal guidelines to insure all required components are in place and review the narrative for other cost commitments that were not identified in the budget. The staff attempt to identify triggers in the proposal package that might suggest a compliance oversight area (such as human or animal). Close communication with the Office of Research Compliance & Integrity assist staff in clarifying oversight requirements. The proposal review process appears thorough and has sufficient flexibility to attend to late submissions by faculty.

However, even though there exists dedicated trained staff in the School of Engineering who provide direct faculty services in proposal preparation and who are responsible for assisting faculty in preparing both budgets and proposals, those same proposals undergo the identical review as all other proposals submitted by UC Merced. This translates into duplication of effort for Engineering proposal review. In discussions while on-site, there was a marked difference of opinion between School of Engineering and central staff as to the quality of the review of Engineering proposals. The Review Team was not in a position to assess more directly this issue, but it does speak to a lack of more formal communication between central and School operations in terms of proposal review. If in fact the central review is correcting as many as 50 percent of the Engineering proposals with required corrections (incorrect budgets or not meeting explicit sponsor guidelines), this speaks to a fundamental need for training. Without data, the Review Team is not in a position to comment further.

- 45 • **Recommendation: SPS should immediately begin detailed tracking of proposal review issues with School of Engineering proposals and implement a weekly or similar meeting to discuss and reach consensus on review issues. These meetings should not hold up proposal submission but be used to discuss interpretations and expectations for proposal submission.** The regular meetings based upon process and data will provide a more factual discussion of review issues, or serve to dispel the perception that has developed among staff.
- 46 • **Recommendation: SPS should critically assess their model for proposal review and the redundancies in the system as relate to the School of Engineering.** The current two-tier review process should be assessed as to value-added and whether there can be some streamlining by eliminating the management review (second review) for all proposals. One approach would be for SPS to consider relinquishing full responsibility to the School of Engineering for “school-based” issues affecting the budget and proposal assembly. Thus, any financial consequence for an improper budget or rejection due to a deviation from the sponsor guidelines would be the responsibility of the School. This change would be documented by a Memorandum with the School and any future unit that has developed research administration capabilities.

The University implemented a Dropbox in February 2010 where draft proposals are electronically placed for review by SPS. The Dropbox contains a date and time stamp and reports

are issued periodically concerning activity and how well faculty are meeting the University expectation for submitting proposals to SPS five working days prior to the sponsor submission deadline. Two specific aspects of the interface between the School of Engineering and SPS deserve comment.

1. The Review Team received many comments from staff concerning this 5-day expectation to review proposals. The comments suggested to the Review Team that many School staff believed if the VCR and the Deans do not enforce this 5-day review expectation by refusing to submit the proposal, that staff should not encourage faculty to comply. There appeared to be a significant level of frustration from staff on the particular issue of lack of enforcement on the 5-day rule. The Review Team would like to emphasize that all staff were passionate and dedicated to their responsibilities. The frustration appears to stem from interpretation of how an institution should manage faculty who do not adhere to expectations.

As is common at many research universities, the UC Merced expectation requiring a 5-day lead time for proposal review is expressly published. And, as is common with research universities and the majority of all universities, this expectation is set aside when a proposal arrives at the last minute. The vast majority of institutions recognize that regardless of when proposals arrive for central review, the proposal will be submitted. Faculty are typically notified that the review will occur after the proposal is submitted and the institution reserves the right to withdraw the proposal. While some staff may feel frustrated that this expectation is not upheld by the VCR and Deans, meaning that a proposal will not be submitted, it is the norm of doing business. Specific education to staff on this area should occur.

However, it is also important for an institution to recognize the stresses placed on research administrative staff when proposals are consistently submitted at the last minute and appropriate institutional review cannot occur. As proposal activity continues to increase, the expectation of the institution should be clear. It is a common model that repeat faculty offenders at some point are notified that their behavior in ignoring the submission policy is unacceptable and unfair to those faculty who are abiding by the policy. This notification would follow a progression of discussions with the faculty member and his/her dean. Often such a directed communication from the VCR and Dean to faculty offenders can clarify expectations.

47 • Recommendation: Management and staff should explore the balance between customer service and adherence to expectations and define the appropriate steps that should be taken related to faculty that repeatedly disregard University expectations. Reviewing management philosophy of customer service over policy enforcement would help the staff's morale, as well as ensure that the rules at UC Merced are the same for all. It is not prudent or wise to have stated expectations that everyone knows will not be followed.

2. There were similar comments from School and central staff concerning the use of Dropbox and the expectation for draft proposals to be submitted in a timely manner. While SPS expects draft proposals and budgets to be added to Dropbox as quickly as they are available, Engineering has approached their role as compiling the proposal with

faculty and adding the material to Dropbox only when the proposal package is complete. As a result, the Engineering proposals are being prepared and loaded based on that staff's understanding of their roles. As with the prior discussion, the frustration surrounding this issue was high and the differing opinions appear to stem from a lack of clarity of roles and responsibilities between the two operations.

- 48 • **Recommendation: The SPS Director, Engineering Director of Administrative Operations, and others as appropriate, should meet and clarify expectations on use of Dropbox in submitting proposals.**

SPS pre-award provides budgeting assistance to faculty (with the exception of the School of Engineering). Budgeting assistance is a common central service found in like size institutions. The central staff utilize a budget template that has built-in formulas. This template is e-mailed to faculty, but it is not currently on the web. Currently, the budgeting process provides a 3 percent increase each year on salary but uses actual fringe benefit rates. Because benefits in particular can change in out-years, it would be worthwhile to include a reasonable increase on benefits, similar to what is done with salaries. A review of UC universities will provide models.

- 49 • **Recommendation: SPS should consider the value of posting their budget template for ready access by the UC Merced community.** Easy access to this tool, until the Kuali system is implemented, will promote a more standard approach to budgeting.
- 50 • **Recommendation: SPS should determine appropriate inflation rates for out-years when calculating fringe benefits on proposal budgets.**

There appears to be a mechanism for coordination between the SPS pre-award review and the research compliance oversight functions. Staff have ready access to the Assistant Vice Chancellor who oversees the Office of Research Compliance & Integrity. Copies of PASS forms that indicate research activities require oversight are sent to the appropriate office (RCI or Biosafety). The SPS pre-award staff have received some basic training in research compliance to assist them in identifying compliance-related commitments in proposal submissions. There has not been recent training. The only oversight area that is not well connected is the Diving Safety area. Diving Safety training and certification of scientific divers is performed by a different university. While this is an acceptable arrangement, there should be a link to the SPS office (or the RCI office) communicating a current listing of approved scientific divers, so that UC Merced proposals that involve diving can be appropriately reviewed for this aspect of compliance.

- 51 • **Recommendation: The Assistant Vice Chancellor overseeing the Office of Research Compliance & Integrity should provide periodic training for SPS staff and School staff on research compliance oversight and triggers to assist staff when working with faculty or reviewing proposals.**
- 52 • **Recommendation: The Office of Research Compliance & Integrity should develop an appropriate communications link with the scientific diving and boating oversight office at UC Berkeley in order to maintain current listings of approved scientific divers.**

UC Merced has established a process to review and approve recharge rates. At present there are several research-related recharge rates associated with operations for the Vivarium, the Stem Cell Instrumentation Foundry (SCIF), the Microscopy Facility, the Yosemite Field Station, and the Genomics Center. There is also an existing policy for Sales and Services; this appears to be similar to what is often referred to as testing and service fees at universities for external users. A number of research-related activities fall within the testing and service fee area. At some institutions, fees are established for use of specialized equipment or for testing procedures that may be performed by a lab. Some types of activities, such as research data analysis or services to K-12 organizations may legitimately fall under the "services" aspect where a service is performed and these activities have no intellectual contribution being made. In particular, some of the activities performed by the Center for Educational Partnerships may fall within this services aspect.

It is important for institutions to clearly define the types of activities that are considered service activities, how those are processed, and if there is a role for research administration. In particular, proposal budgeting would utilize approved service fees for some activities (such as established testing procedures or data analysis services) and fees for external users would assess institutional overhead through the external rate or as a line item.

As research activities continue to expand, it would be valuable for the institution to clearly define characteristics of sponsored programs, service agreements, and testing agreements. The matrix developed at Oregon State University may be of some value when UC Merced is at a point to consider this.

<http://oregonstate.edu/research/osp/submission/Contract%20Type%20Characteristics.pdf>

- 53 • Recommendation: UC Merced should explore research-related activities that may fall within a testing or a service agreement activity and how those types of activities relate to sponsored programs or other business functions.**

NCURA Standards 1.A.iv Collaborative Project Development

RDS provides some support for large interdisciplinary proposals. At this point in time for the University, having an office that can provide the support structure for the complexity of this type of proposal is crucial. As centers and institutes continue to grow there may be some portion of this activity that will naturally revert to those units.

There currently is no central policy on expectations for where proposals are submitted (through a School or through a Center/institute). If F&A begins to be returned to the unit, and as interdisciplinary activities continue to increase, there will be increased tensions and pressures to run proposals through a School or a Center/Institute in order to obtain the associated F&A. For junior faculty, the issue of academic credit will be critical.

- 54 • Recommendation: The Vice Chancellor for Research, with the School Deans, should define an appropriate policy for activity credit and an appropriate senior leadership group should review F&A distribution on interdisciplinary awards.**

NCURA Standard 1.A.v. Agency Liaison

It would be expected that pre-award central staff, at minimum, would be knowledgeable about federal regulations, agency policies, and agency systems, and would take proactive measures to remain current on regulatory or agency policy changes. This is typically done via a combination of connections to electronic lists and publications, and via attendance at national and professional conferences and training sessions.

The current pre-award staff appear knowledgeable about sponsors, how to navigate sponsor information and websites, and how to obtain and extract needed information. Staff are appropriately linked to those sponsor listservs for those sponsors with whom they work.

- **Recommendation:** None

Award Acceptance and Initiation

Award acceptance and initiation includes review and negotiation of incoming awards for acceptability to the institution and to the investigators involved, formal classification and acceptance of the award by the institution, establishment of the award in the institution's financial system, notification of the terms and conditions of the award to all relevant parties, and issuance of any subawards associated with an award. Award acceptance and initiation processes are core to the success of the research enterprise since it is at this stage that the institution and investigators commit to the terms and conditions that will govern how each award is handled. The institution must have staff trained and authorized: 1) to review and negotiate award terms and conditions and ensure that investigators or others materially impacted by the terms have an opportunity to provide input prior to their acceptance and have a process to remain informed during the award negotiation process; 2) to deploy staff knowledgeable about sponsor regulations and requirements and the institution's research policies and practices; 3) to be able to properly discern among various types of agreements (e.g., grants, contracts, cooperative agreements, material transfer agreements, gifts, confidentiality agreements, etc.); and 4) to ensure that key provisions and requirements of awards are translated into useful guidance for faculty and other staff.

Electronic Research Administration

No electronic systems are in place at UC Merced to process award transactions or review and track activities. Without an electronic system integrating proposal and award activities and the related compliance reviews, the award initiation process relies on hard copy files, duplicate data input and manual screening. This is an extremely inefficient system. Within SPS, data that should have been recorded from the proposal must be entered anew for the award; Accounting must subsequently enter some of the same data into the accounting system for award set up. While this duplication of effort seems to cause minimal problems at the present time, the volume can quickly become unmanageable given the rapidly increasing faculty, proposals, and awards.

UC Merced joined UC Berkeley, Davis, Irvine and San Diego in the University of California Quali Coeus Partners, a group intent upon working cooperatively toward implementation of

Kuali Coeus at each of the campuses. The Kuali Coeus application system will eventually provide a comprehensive, integrated, web-based research administration management system much needed by UC Merced. A Web Application Developer has been assigned from the OIT to work with the SPS Director on Kuali Coeus implementation. He reports to the SPS Director on functional matters and the campus OIT on enterprise issues. The schedule for release of Kuali Coeus software has been known to slip by several months. Therefore, the Reviewers suggest UC Merced consider the following temporary stop-gap measures to meet the needs of staff and faculty.

An Access database is used by SPS to compile quarterly proposal and award data that is submitted electronically to the UC Office of the President. Approximately twenty-one data fields are submitted for each record. The Access data entered for the UCOP report is not used as an operational resource or to generate reports regarding proposal and award activities on campus. This data could be a valuable tool in streamlining processes among SPS, the regulatory committees and CGA.

- 55 • **Recommendation: UC Merced should invest in a knowledgeable programmer to expand the current Access program used by SPS.** The programmer should focus on tasks that can be quickly implemented to improve the quantity and quality of data within SPS. Some suggested enhancements to Access would be: eliminating multiple re-entry of data within SPS; allowing for upload of award data to CGA for review and transfer (hard copy or electronically) to General Accounting without re-entry; and (possibly) uploading to the UCLA Accounting system. Data in the pre-award Access database should also be expanded to include information on the status of any regulatory compliance reviews associated with a proposal or award. This would assist with tracking and screening of required approvals at the time of award acceptance.

The Reviewers heard from Deans and research unit Directors that they would like to have data at their fingertips related to contract and grant activity within their units. Currently a monthly listing of proposals and awards is compiled in a Word document by the SPS Director and distributed to the VCR, deans and directors and other campus individuals. Unlike Excel, Word does not allow data analysis. Access data could be used to generate and export school-limited or unit-limited reports to satisfy this need. A recommendation has been made on this topic under the Communications section of this report.

NCURA Standards 1.B.i. Review and Negotiation of Terms and Conditions

Three staff in the pre-award office are responsible for the review and negotiation of terms and conditions in grants, contracts and cooperative agreements to UC Merced. Staff assignments are divided by campus Schools and units. During negotiation and prior to acceptance of an award, staff consult with the Principal Investigator when changes have been made by the sponsor or unexpected burdens are placed upon the researchers or institution.

The Research Administrator Desk Manual includes a section on Negotiation, but limited information regarding agreement terms. Furthermore, it does not point staff to the substantial

information provided by two documents maintained by the UC system-wide Research Administration Office. The first, the UC Contract and Grant Manual, is a comprehensive, high-level, reference source utilized by research administration staff at all ten UC campuses. It provides policy-based and regulatory-based information regarding UC and the acceptability of terms. The second document, UC Contract and Grant Memos, provide additional operating guidance on a wide range of contract and grant topics. In limited circumstances, these documents allow for policy exceptions to be approved by UCOP or the campuses. Institutional positions related to a number of topics, including intellectual property, confidential information, classified research and export controls, are covered in these documents.

- 56 • **Recommendation:** SPS should revise the Research Administrator Desk Manual to include citations of the appropriate sections in UC documents for the topic. In order to allow staff to more quickly refer to information that may help resolve an issue during negotiation or other post-award action, desk references should include specific references or footnotes to background policy and procedures.

Questions arising during negotiations regarding the acceptability of award terms are discussed with the Director, who may seek further assistance or advice from UCOP or from research offices at other UC campuses. The UC Manual requires the delegated signatory to determine whether legal advice from General Counsel's Office is needed. Therefore, policy issues are discussed with the Vice Chancellor for Research before elevating to UCOP for an exception or other actions. The Reviewers understand from conversations with staff that typically matters related to sponsored research agreements are referred to UCOP, rather than the Campus Counsel, for resolution. Nonetheless, Campus Counsel anticipates SPS would seek her input on institutional issues, such as those involving increased campus liability or impacting UC Merced public relations.

Authority to accept or execute certain extramural grants and contracts for research, scholarly or professional training, or for public service programs relating either to research or to scholarly or professional training was delegated to the UC Merced Chancellor by the UC system President. The Chancellor subsequently re-delegated the authority to the Vice Chancellor for Research and to the Director of Sponsored Projects. Signature authority is limited to \$5 million in direct costs per project year and the delegation document highlights several issues that may not be accepted by the campus signatories.

The Reviewers were told in interviews that pre-award staff do not have signature authority and must refer all agreements to the Director of SPS. However, the background materials provided to the Reviewers indicates that pre-award staff responsibilities include "negotiating and executing agreements with State, Local Governments and Non-profit sponsors." While it is not unusual for staff to possess some level of signature authority, the conflicting information requires clarification if other documents such as job descriptions describe additional authority. If the intent is to re-delegate signature authority to staff in the future, perhaps as they gain additional experience or certification, it should be documented as such.

NCURA Standards 1.B.ii. Ancillary Agreements Associated with Research Grants and Contracts

Simple step-by-step instructions for the handling of outgoing research materials are posted on the UC Merced Office of Technology Transfer website. OTT utilizes the Uniform Biological Materials Transfer Agreement (UBMTA) for some non-profit institutions and a separate Transfer Agreement for profit-making institutions and non-profits that have not already agreed to the terms of the UBMTA. Active email and fax links on the website assist in contacting OTT. However, the link for the Transfer Agreement was disabled when the Reviewer attempted to access it.

The OTT site also addresses incoming research materials and directs the faculty member to send accompanying material transfer agreements to SPS for review and signature, along with a financial disclosure required by the State of California for the receipt of materials. An appropriate notation advises faculty that highly proprietary material may require lengthy negotiation of a special agreement in order to gain access to the research materials. Unfortunately, the OTT website has conflicting information for this process within the *OTT Quick Guide Pamphlet*, which indicates OTT will sign these agreements.

- 57 • Recommendation: More effort should be made to ensure the Office of Research units include accurate information and fully-functional web links on their web pages.** A regular schedule should be established with staff members from each office assigned a set of web pages to review. All web pages should be reviewed and web links tested at least semi-annually. Staff should be encouraged to bring any errors or inactive links to the attention of their supervisor throughout the year for immediate correction.

Non-disclosure agreements are addressed on the OTT website where a sample Mutual Non-Disclosure Agreement (NDA) may be downloaded. The site describes when the NDA is used; however, it does not direct the reader to an office or individual for further information. The NDA is to be signed by the VCR and, because the form is found on the OTT site, the Reviewers assume that OTT reviews and forwards the NDA to the VCR for signature.

- 58 • Recommendation: OTT should revise their web text to provide clear instructions to faculty and to the public concerning the NDA process.**

The Mutual Secrecy Agreement for Data template was included in the briefing booklet given to the Review Team and is used when data are provided by UC Merced to an external party that is providing other data to the University and the UC Merced inventor. This confidentiality agreement is executed on behalf of UC Merced by the VCR. No funds change hands. Further instructions regarding the use and process were not provided. Thus, the Reviewers could not determine whether this agreement is the responsibility of OTT or SPS.

- 59 • Recommendation: The responsible office should develop a standard operating procedure outlining the conditions and procedures for use of the Mutual Secrecy Agreement for Data.** While it may not be in the best interests of the campus to post this or any other agreement on the UC Merced website, the

website should identify an appropriate contact for like circumstances in order to facilitate interactions with the faculty, staff and the public. A standard operating procedure detailing responsibilities and sequential processes should exist in the appropriate office.

Clinical trial agreements provide for testing of investigational drugs, devices or biologics in human participants. These studies require performance in accordance with specific instructions provided by the sponsor, usually the manufacturer or a company that specialized in coordinating clinical trials. No clinical trial agreement templates were included in the briefing materials provided to the Review Team or mentioned during interviews. However, the Institutional Review Board instructions for protocols undergoing full committee review ask the PI to indicate if investigational drugs will be involved and if the PI is filing an FDA 1572 form. It is likely that such a protocol would be funded by the manufacturer of the investigational drug/device and, therefore, a clinical trial agreement with the sponsor would be required. Regular communication between SP and RCI staff would ensure the appropriate agreement is put in place to cover trial activities.

No other special agreements were examined in this review.

NCURA Standards 1.B.iii. Subawards

Incoming subawards are reviewed and managed by pre-award staff in the same manner as other incoming awards. As a subrecipient of funds, staff typically will be required to provide additional information to the sponsor regarding UC Merced and any previous audit findings.

Outgoing subawards are governed by the UCOP Contract and Grant Memo Operating Guidance No. 06-05 and the UCM Guidelines and Procedures for Pre/Post Award Management and Monitoring of Subrecipients Under Federal Assistance Awards to A-110/A-102 Entities, which provide detailed steps in determining the transaction type and, thus, the campus office that will take the lead. Guidance No. 06-05 also prohibits issuance of a subaward to any entity or individual on the Federal Excluded Parties List.

Pre-award staff prepares the subaward agreement once the prime award has been accepted and an account/fund number has been assigned. General instructions within the Research Administrator Desk Manual describe a consultative process with the PI related to the subaward budget, deliverables and scope of work. Pre-screening of subrecipients for the appropriate OMB Circular A-133 assurance is completed by the pre-award staff. Subaward templates developed by the Federal Demonstration Partnership are used as appropriate.

- **Recommendation:** None.

NCURA Standard 1.B.iv. Award Acceptance Process

Upon receipt of an award, pre-award staff obtain the hard copy proposal file and compare it to the award terms. The review and negotiation process is generally described in the Research Administrator Desk Manual, which includes little guidance or background as to acceptable

agreement language. For example, the Desk Manual does not explain that a reduction in budget should, in most cases, have a corresponding reduction in the scope of work. Staff are referred to the terms included in the UC Merced standard research agreement located on the shared external hard drive. No reference is made to the resources provided by UCOP or other areas. Also, staff have no written instructions on how to respond when negotiations are unsuccessful and it becomes necessary to escalate an issue to a higher level.

The text in the Negotiation section of the Desk Manual is written as if the PI is the reader, when that is not the case. There are two examples: a) the PI is to notify and coordinate responses through SPS pre-award whenever a sponsor makes changes to the scope of work or the budget; and b) the PI is to discuss all aspects of the proposed project with SPS pre-award prior to negotiations. The impression is that the PI initiates action. Staff are not directed to take the lead in identifying contractual problems or raising issues with the PI. Clearer instructions are needed.

The only reference to staff securing evidence of regulatory committee approval prior to accepting an award is in response to a specific question asked in the Review Team briefing book. No explicit instructions are included in the Research Administrator Desk Manual or other document provided for this section of the review. This point should be prominently mentioned in the Desk Manual or at the least on an award review checklist.

- 60 • **Recommendation: SPS pre-award should immediately develop standard operating procedures for all research administration processes and/or to revise the Desk Manual to include more details on job responsibilities.** These internal documents should identify responsible individuals and detail sequential actions so that any staff replacement will be able to accomplish the tasks. Standard operating procedures should be written on a template for consistency and recognition by staff. They may be produced in hard copy for each staff member or posted to the office internal website. Regular reviews and updates should be scheduled for the procedures when they are issued. A complete set of standard operating procedures would support internal training and ensure that uniform processes are followed.

NCURA Standard 1.B.v. Award Activation and Notification

The SPS pre-award website includes a description of the process to obtain an account number prior to the receipt of an award. An internally routed form is used to confirm an alternate fund source should the award not materialize. SPS pre-award obtains a firm commitment prior to approving the request.

Once an award is accepted or executed and the appropriate regulatory approvals have been obtained, SPS pre-award staff prepare an email notification that is distributed to staff in CGA and SPS post-award, the PI and the administrative officer of the appropriate school. Documents attached to the email include copies of the internal award notification form, the sponsor's award, a detailed budget and budget justification, and other pertinent documents. Special or noteworthy terms, including cost sharing, are described in the Notes section of the award notification.

The Reviewers were advised that CGA does not have written internal procedures regarding the award set up process; however, details were obtained from the interviews and written responses from staff. When CGA receives the internal award notification, they ask the SPS post-award staff or the administrative officer of the Engineering school (as determined by the affiliation of the PI) what account number should be assigned. If the award includes a cost sharing commitment, a cost sharing account is assigned and linked to the main account.

In order to establish each award in the accounting system, CGA staff complete a Fund Setup Request form that is forwarded to UC Merced General Accounting staff. This same process is followed to initiate a modification to data in an existing award account. General Accounting is the only division at UC Merced that has authority to change or add UC Merced accounts in the financial accounting system supported by UCLA, a sister campus. All others on the campus, including business officers in the Schools and units, are limited to view-only access to the award account information. The fund number is assigned by the UCLA financial system based upon the details of the award and, specifically, the type of sponsor.

The Reviewers note that the campus notification form initially distributed by SPS pre-award includes fields for the account and fund number assigned to the award. These numbers are not assigned until CGA/General Accounting/UCLA take action, at which time it is presumed that the notification form is distributed a second time. In addition, the Reviewers are unclear why it is necessary for the academic School or unit to determine the account number and why CGA cannot assign an account number in accordance with pre-determined parameters in order to facilitate the process.

The award set up and initiation process involves multiple offices and is data-intensive. However, without integrated electronic systems, staff are facing a manual process that makes it difficult to implement improvements and track workload metrics or processing time. As mentioned in the ERA section earlier in this report, UC Merced should move quickly to establish electronic systems in this area.

- 61 • **Recommendation:** SPS should consider coordinating efforts to forward the completed award notification form and all documents to the campus one time only. Rather than distributing two award notices to PIs and administering units, SPS pre-award would send the draft award notification form with the award documents only to CGA. After receipt of the award documents from SPS pre-award, CGA would email the assigned account/fund number to the pre-award staff who would complete the campus award notification form and distribute it by email along with the award documents.
- 62 • **Recommendation:** After consultation and an examination of streamlining opportunities within the award set up process, SPS pre-award and CGA should develop standard operating procedures for account set up and for access to the UCLA accounting system. These internal documents should identify responsible individuals and detail sequential actions so that any staff replacement will be able to accomplish the tasks. Standard operating procedures should be written on a template for consistency and recognition by staff. They may be produced in hard copy for each staff member or posted to the office

internal website. Regular reviews and updates should be scheduled for the procedures when they are issued. These documents provide resources for training new staff and often allow management to identify duplicative steps or burdensome processes.

Award Management

Extramural policies are often broad and written in a manner that leaves room for interpretation. Sponsors expect their funds to be treated in a manner that recognizes specific terms and conditions; however, sponsors also recognize that institutions are able to accomplish their research in a variety of methods under a range of administrative structures. In many areas, both federal and non-federal sponsors rely on the recipient's own policies and procedures. Within this framework, an institution has the ability to establish its operations, including policies and procedures, to optimize its research enterprise and appropriately allocate resources. These standards need to be balanced against the needs of the researchers to conduct their projects.

Electronic Research Administration

UC Merced relies upon a separate ledger system established with the UCLA electronic accounting system for its financial and accounting matters. For this young campus, the decision to utilize an existing and available system at another UC campus allowed UC Merced to quickly develop a fully-functional accounting system. No electronic systems currently link SPS pre-award and CGA, or CGA and General Accounting. Only General Accounting staff has authority to input changes to ledgers and contract and grant accounts.

Because of the limitations of the UCM/UCLA ledger system, the School of Engineering has developed a shadow system to manage its proposals and awards, based upon daily downloads from the UCLA system, and to provide monthly financial reports to its PIs. Two research units operating at a remote location have also developed their own systems to manage funds, i.e., the Center for Educational Partnerships and the Small Business Development Center. The other Schools and research units rely upon SPS post-award to reconcile ledgers on a monthly basis with the PIs and to prepare final reports.

UC Merced Financial Services, through CGA, has completed phase I of the Faculty Reporting System that is intended to provide real-time information to faculty on their awards. Many institutions are moving to a portal or dashboard vision in serving information to faculty on a number of topics. In this case, faculty are presented with information on their awards, past and current. There is no mechanism allowing faculty to develop scenarios for budget projections that would assist them in managing the project performance and budget. The Reviewers were not able to view the system, but were told by faculty that the system has yet to satisfy their needs. Although the Reviewers spoke to a limited number of faculty, feedback indicates that faculty found incorrect information in the system, the system was confusing, and it was difficult to use.

- 63 • **Recommendation:** CGA should survey a larger cross-section of faculty regarding their experiences with the Faculty Reporting system. The survey should be directed to users and PIs who are not yet regular users to gauge satisfaction and solicit ideas for improvement. One area expressed as a primary

need is the ability to easily and accurately project expenditures through the award budget period in order to maximize funds without overspending.

- 64 • **Recommendation: CGA should reach out to more faculty in order to demonstrate the use of the Faculty Reporting system.** The Reviewers also recommend continual improvement on this system because it ultimately could automate Monthly Activity Reports, if coupled with an approval process.

- 65 • **Recommendation: CGA should develop a mechanism that would allow the Schools and other administering units, more specifically the Deans and PIs, to more easily produce reports for their own use. While the UCLA tool (QDB) is available and used, it appears to not be meeting the needs of the UC-Merced constituents.** The Deans request more usable data on all research and other sponsored activities under their purview. Having access to a system that can generate reports on various criteria and time periods and drawing on historical and current data would be useful in determining productivity and success rates. Perhaps the School Deans and other unit administrators can be give expanded authorities in the Faculty Reporting System in order to do this independently.

UCLA is currently investigating options to replace their legacy accounting system, which undoubtedly will have some impact upon UC Merced. Optimistically, a new system could allow UC Merced more functionality and control of their accounts.

NCURA Standards I.C.i. and C.ii Fiscal and Administrative Management

POLICIES AND PROCEDURES

Accounting practices at UC Merced follow the UCOP Accounting Manual, which requires a ledger for each campus and a common chart of accounts for transactions across the 10-campus system. The complete account and fund number assigned to an award also follows a UC numbering system that identifies the unique location code for UC Merced funds, account /organizational unit within the campus, uniform account structure codes, award fund number, budget line items and object codes.

UC has an extensive policy library that is the basis for operations on all 10 campuses. UCOP Office of Finance maintains the Accounting Manual, which governs financial management. In addition to standards for account classification and reporting, the Accounting Manual includes guidance on cash management, direct costing, accounts receivables and payables, travel, and payroll. Additional policies and guidance related to research administration can be found on the UCOP Office of Academic Affairs website. The UCOP Research Administration Office hosts links to the UC Manual, the UC Contract and Grant Memos, and other certificates and information on its website.

In most cases, UC Merced CGA relies upon the UC-level policies in order to minimize duplication or confusion. The same is true for SPS. A few topics are addressed with UC Merced

policies or additional guidance, e.g., UC Merced posted a UCLA memo regarding the enforcement of deadlines related to non-payroll cost transfers on sponsored projects (appropriate considering UCLA rules apply to the UC Merced accounting system). UC policy and guidance documents are comprehensive and provide an effective structure for the UC Merced business activities noted in the above Standard. However, a few areas deserve special comment.

The UC Academic Support Unit Costing and Billing Guidelines and a companion University Direct Costing Procedures discuss the activities of campus recharge and service units that may initiate charges to extramurally-funded projects. These UC-level documents indicate that proposals to establish recharge accounts will be reviewed in accordance with locally established campus procedures. Reviewers were unable to locate any campus guidance as to the management of UC Merced recharge activities, however, this may be in place. Although few units may be establishing campus recharge rates, this is a responsibility that should be addressed by the campus.

- 66 • **Recommendation:** UC Merced Administration should more visibly link to the UCOP policy for recharge centers and publish campus guidance for the review and approval of recharge and service center rates. The overall goal should be to establish transparency for processes supporting research administration. Some examples are:
UC Berkeley Campus Recharge Background and Policy --
<http://controller.berkeley.edu/Recharge/Policies/Rechargepolicy.pdf>;
UC Irvine Recharge Accounts and Rate Review Procedures --
<http://www.policies.uci.edu/adm/procs/700/703-13.html>; and
UC Irvine Sales and Services Income Guidelines --
<http://www.policies.uci.edu/adm/procs/700/703-14.html>.

The payroll system used by UC Merced limits the rate of pay for National Institutes of Health investigators in accordance with the NIH salary cap imposed by the award terms. Only one investigator is currently affected and this is monitored by SPS post-award. The award notification to campus highlights this restriction for the PI and the administering unit; it is considered during reconciliation. Processes are adequate at this time.

Payroll ledgers for UC Merced are maintained on UCLA servers with input performed by Academic Personnel and Payroll Services for academic appointments and by Operations for non-academic appointments. To satisfy federal effort reporting requirements, UC Merced uses the web-based Effort Reporting System developed by several UC schools, which receives payroll data 45 days after the pay period. The supervising faculty member receives an email notice asking him or her to log into the web-based system and certify effort for the assigned funds. The Reviewers were unable to consider the system in detail due to the password-restricted access. However, the CGA website indicates the system “displays effort report detail that is clear and understandable to the user; captures certification electronically so that the system can monitor completion and provide an audit trail; provides a simple method of correcting and re-certifying reports, and notifies individuals and departments of reporting deadline requirements.” The Reviewers heard some indication that faculty still do not understand how to complete the certification.

- 67 • **Recommendation:** CGA should provide additional training to faculty regarding the effort reporting system.
- 68 • **Recommendation:** CGA should make SPS and the campus units aware of the existing procedures for addressing past due effort certification reports.
- 69 • **Recommendation:** Some information regarding the Effort Reporting System should be made public. A supporting webpage should include general facts regarding the reporting system, such as why it is needed, who certifies and how often. The overall goal should be to establish transparency for processes supporting research administration.

UC Merced offers campus personnel a variety of purchasing mechanisms, including Procurement cards (Pcards), service agreements, Costco cards, and blanket agreements. CatBuy is a web-based system for purchasing goods and services. Access is available to qualified, trained unit staff. The Purchasing website includes policy information and useful guidance and training materials to assist staff and faculty with their purchasing needs. UCLA provides some purchasing-related services to the campus. Travel plans and reservations are made through the Connexus travel program under a UC-wide agreement. The campus purchasing policy identifies authority levels for different types of purchases, as well as restrictions on certain types of items. Various training methods are employed to reach campus constituents. Systems and information sites for the users are adequate at this time.

Post-award actions affecting the account ledgers, such as cost transfers, are initiated in the system by SPS post-award staff, except for the School of Engineering, which has its own grants management group. Actual ledger changes are performed by staff in General Accounting. Guidance on the timing of actions and appropriate justification is clearly described in supporting documents. CGA works with the office of Controls and Accountability to review cost transfers quarterly and all payroll and non-payroll transfers over 120 days. This process, although not in a written internal procedure, appears to be working well at this time.

The SPS website includes two web pages, Closeout Process and Standard Reports, related to the award closeout process. Both web pages include the same text, which is confusing. Furthermore, the guidance seems to remind PIs of their responsibilities without asserting a coordinating role for the SPS staff. The Reviewers understand, however, that SPS post-award staff advise faculty 90 days in advance of termination of an award in order to clear financial issues. Also, CGA sends the Fund Closeout Checklist to the PI and the award manager after the project has ended. As helpful as the checklist is, it does not describe the internal process that generates this reminder. Without a written operating procedure, the Reviewers are left with the following questions:

- Are other notices of an upcoming project end date sent to the PI and the administering unit in advance and, if so, how often and by whom?
- Who is responsible for tracking expired awards to generate the Fund Closeout Checklist and when is the Checklist sent?

- What is the timeline for collection of required final reports and what steps are taken for non-compliance?
- Which office (SPO, SPA or CGA) is ultimately responsible to ensure all required deliverables and reports have been forwarded to the sponsor for the closeout process?
 - **Notable Practice:** The Fund Closeout Checklist is an excellent tool to assist PIs and staff in the Schools and both divisions of SPS with the final closeout process.
- 70 ● **Recommendation:** **The pre-award and post-award units of SPS and CGA should develop a standard operating procedure for account closeout.** The internal document should identify responsible individuals and detail sequential actions to accomplish the tasks. Standard operating procedures should be written on a template for consistency and recognition by staff. They may be produced in hard copy for each staff member or posted to the office internal website. Regular reviews and updates should be scheduled for the procedures when they are issued. These documents provide resources for training new staff and often allow management to identify duplicative steps or burdensome processes.

CGA prepares invoices to sponsors and draws down funds to meet expenditures under a letter of credit from federal sponsors. Staff track accounts receivables manually and follow up with phone calls or emails to the appropriate sponsor contact. At this time, an Aging Receivables Report is not regularly produced. In situations involving continually late payers, CGA staff also discusses the matter with the PI, Dean and SPS pre-award staff and, in some cases, recommends halting spending on the project. In the case of extremely late collections that could lead to a potential write off, CGA advises the Assistant Controller.

- 71 ● **Recommendation:** **CGA should develop a spreadsheet to track award receivables and an internal procedure to standardize the process.** An aging report can be prepared on an Excel spreadsheet to track receivables from the time an invoice is submitted. The report is most useful when it also indicates collection efforts made and any UC Merced deliverables that are still outstanding. This report should be shared with the SPS Director in order to inform future negotiations with a sponsor.

KNOWLEDGEABLE STAFF

CGA and SPS post-award staff appear knowledgeable regarding regulations and policies imposed by federal agencies, including the federal circulars A-21, A-110 and A-133. Both groups are attentive to terms and conditions imposed by non-federal sponsors. With the exception of the School of Engineering and two off-site units (CEP and SBDC), staff in the units supporting faculty appear to have few responsibilities for post-award administration even though they are issuing purchase orders and completing paperwork for other expenditures on awards. There have been few training opportunities related to sponsored programs, which limits the amount of authority central administration can transfer to a majority of the campus as research volume grows.

- 72 • **Recommendation: Staff from Schools and research units who perform tasks supportive of sponsored projects should receive training on their specialized duties.** SPS and CGA should implement a training program of basic and targeted topics related to sponsored projects. This would include post-award topics such as allowability of purchases, documentation of expenses, reconciliation of ledgers, and retention of records related to project activities.

SYSTEMS

UC policies provide excellent guidance on responsibilities, definitions, allowability and processes related to cost sharing and cost sharing by subrecipients. Other UC policies are useful in distinguishing between the acquisition of goods and services and subrecipient agreements. However, no information is found on the CGA website or in internal operating procedures to advise PIs or staff how to track cost sharing obligations.

- 73 • **Recommendation: CGA should develop standard operating procedures and post guidance on various responsibilities and processes that involve PIs and/or staff.** The overall goal should be to establish transparency for processes supporting research administration.

The Office of Technology Transfer provides general guidance to the faculty, staff and the public regarding UC Merced intellectual property policies and procedures. A Quick Guide for Faculty and Researchers was posted on the website in or after September 2011. No indication of past or pending workshops or training is indicated on the website. Information concerning UC Merced inventions is available to the campus and the public in booklet form or through a search engine.

Financial oversight of award expenditures is provided by SPS post-award, except for those awards to the School of Engineering, CEP and SBDC that provide their own post-award oversight. For each active award, SPS post-award sends Monthly Activity Reports to assist PIs with monitoring of funds and reviewing project expenditures. SPS post-award also meets with each PI on a quarterly basis for PI certification of project expenditures. It is hoped that the Faculty Reporting System will provide greater access and opportunities for streamlining.

The SPS post-award website and the Research Administrator Desk Manual include guidance for review and handling of changes requiring prior approval from the sponsor or the institution.

Policies issued by UC incorporate the appropriate cost accounting standards. UC Merced has not yet reached the level of sponsored awards that would require filing a Disclosure Statement (DS 2) describing their cost accounting practices. The threshold is \$25 million or more in total awards subject to Circular A-21 during a fiscal year.

UC Merced Office of Campus Records and Information Management handles inquiries under the California Public Records Act, which provides open access to most information maintained by the institution during regular office hours with the right to inspect and copy, except as noted in the Act. The Reviewers did not locate SPS guidance to staff or faculty regarding requests from federal agencies under the Freedom of Information Act. Although this is a rare occurrence,

faculty should be made aware that information included in a funded proposal may be disclosed under this Act.

Detailed guidance for retention of records (financial and non-financial) is posted on the UC Merced Policy and Procedure website under Records Management, along with the UC policy for records disposal. Of note is the separate document specifically addressing those records related to research activities.

- **Notable Practice:** The published guidance on record retention and disposal is an excellent reference available to employees.

The UC Merced Policy and Procedures website found at <http://policies.ucmerced.edu/table-of-contents/#Research> is not easy to locate from the UC Merced home page. It is not clear what office maintains this reference site. In addition, a search revealed that several other UC Merced sites have posted their own policies, which also appear as official policy. Because this is outside of the scope of our review, no recommendation has been made.

Subrecipient monitoring responsibilities and procedures are described in the UC Manual and the UC Merced Guidelines and Procedures for Pre/Post Award Management and Monitoring of Subrecipients Under Federal Assistance Awards to A-110/A-102 Entities. PIs are responsible for reviewing and approving subrecipient invoices, progress reports and other deliverables. SPS post-award staff and staff in the School of Engineering, CEP and SBDC, are to screen costs and advise the PI when questionable charges are submitted. Any additional monitoring required as a result of risk assessment completed by SPS pre-award is to be performed.

Overall, the UC and UC Merced guidance documents provide excellent support for these activities. The post-award monitoring information recognizes variations in subawardee capabilities and recommends more stringent monitoring plans in certain circumstances. Much of the post-award monitoring for subawards is to be performed by PIs through review and approval of invoices, progress reports and deliverables. Less clear is whether PIs understand the significance of their responsibilities to monitor subrecipients.

- 74 • **Recommendation:** If it is not already provided, information regarding post-award monitoring responsibilities should be provided to PIs and their Schools with each award that includes a subaward. In order to facilitate award processing, pre-award staff should develop standard text to include in campus award documents for distribution. Once an electronic system is developed, programming could automatically insert this language into the campus notification form for any award that includes a subrecipient. Links to the appropriate guidance on a UC Merced website could also be used. Campus training should include subaward monitoring responsibilities, describe situations that may raise concerns, and offer suggestions for management.

Research Ethics

Sponsored program activities come with a variety of ethical responsibilities that are shared by investigators and the institution. While institutions are expected to have appropriate policies and oversight committees in place, the principal investigators and the institution share the

ultimate responsibility that their conduct, and that of their colleagues and students, is within acceptable practices.

The commitment to an effective research ethics program is a visible demonstration of the University's willingness to maintain the trust of its major constituencies. Effective research ethics programs are based on some guiding principles such as:

- Stewardship of sponsor and donor funds
- Ethical conduct of research to assure the objectivity of the research and the integrity of the data
- Protection of human and animal subjects
- Safety of the employees participating in the research enterprise
- Protection of the environment for both University employees and students and the community they serve

Research ethics programs are constantly challenged with ever increasing regulations, guidance and policies. Each institution should have in place a process to monitor these changes, assess their impact on the specific institutional programs, identify and manage the risk for their specific institution and research portfolio and respond appropriately with policies, procedures, auditing and monitoring programs, educational initiatives and the ability to receive and respond to allegations of wrong doing.

Electronic Research Administration

At the present time, Research Compliance & Integrity procedures are manual and primarily paper-based. Forms for the IRB and the IACUC can be completed on downloadable forms, but tracking data is maintained on separate spreadsheets. IACUC applications are submitted by email. RCI requests copies of proposals from the PI and does not have access to documents maintained by SPS. RCI did recently implement the Dropbox for committee applications, although nothing in the instructions on the forms or the web indicate that is the case.

- 75 • Recommendation: Instructions on the use of the Dropbox for IRB and IACUC applications should be posted to the RCI website.** Additionally, the forms should have clear instructions for submission.

Approval letters for all committees are issued as email messages to researchers with copies to SPS pre-award. The level of research requiring committee review is still relatively low at the campus, so this manual process has not been particularly burdensome. However, research volume is expected to increase steadily as new faculty are hired. This will undoubtedly put more pressure on the committee staff to manage the increase in protocols and reviews.

The IRB and IACUC receive notification from SPS pre-award by email when committee review is required. There is no direct feed of proposal and award data between SPS pre-award

and the regulatory committees, or among the regulatory committees, so data input is repeated on the tracking documents for each committee. This is an inefficient method to manage data and one that amplifies opportunities for errors in the various systems.

- 76 • **Recommendation: The Office of Research Compliance & Integrity and SPS pre-award should work toward an integrated data system to streamline processes between SPS and the regulatory committees.** The campus is implementing the Quali-Coeus system to support proposal and award processes within the next 12 to 18 months. The campus should make a similar commitment to Quali-Coeus in light of its continued development of modules for regulatory compliance activities, e.g., conflict of interest, IRB and IACUC. Integrating processes and data among these activities would facilitate and expand the flow of information and enable the institution to coordinate compliance review and oversight.
- 77 • **Recommendation: RCI staff should investigate software options that would provide for electronic submission of applications to all compliance committees.**

NCURA Standard I.D.i. Project Integrity

Research Misconduct: The UC Merced Office of Research Compliance and Integrity is responsible for administering the federal requirements related to research misconduct review and education. Research and scholarly misconduct is addressed on the RCI website in links to the DHHS Office of Research Integrity, the UC Policy on Research Misconduct and Statement of Ethical Values, and by the UC Merced document entitled “Research Misconduct: Policies, Definitions and Procedures.” The policies comply with federal requirements and establish the two-stage review process of inquiry and investigation.

The Vice Chancellor for Research is the responsible institutional official (Research Integrity Officer) who administers the research ethics policy and supports the review process. The UC Merced policy is on file with the DHHS Office of Research Integrity and annual reports of research misconduct activity are filed with ORI between January 1 and March 1 of each year.

- **Recommendation: None.**

Responsible Conduct of Research: The RCR website includes a December 2009 memo from the VCR to faculty explaining the regulatory requirements for Responsible Conduct of Research (RCR) Training and providing three training options for individuals participating on NSF- or NIH-funded projects. Personnel are encouraged to take two of the three options.

The UC Merced RCR training includes a semester-long, credit course for graduate students and post-doctoral researchers scheduled each fall with the VCR and Assistant Vice Chancellor RCI as instructors. In addition, two half-day workshops are presented throughout the summer for faculty, staff and students, and a half-day workshop is given for graduate students. These workshops have covered human and animal research, research ethics, stem cell research, conflict of interest and intellectual property. In 2012, the curriculum will add discussion on

mentor/mentee relationships and authorship, while reducing the sections on intellectual property and animal research. The third option is web-based training offered through the Collaborative Institutional Training Initiative (CITI) hosted by the University of Miami.

NSF makes the institution responsible for certification that the RCR training plan is in place and verification that the students and postdoctoral fellows have completed the RCR training. At UC Merced, students and researchers completing the CITI training or the credit course could be tracked and linked back to awards and other compliance reviews. Those taking an RCR workshop are not tracked by RCI or any other unit. RCI receives a monthly award report from SPS post-award that identifies NSF grants and then RCI sends an email to the PIs regarding the training requirement. But, there is no mechanism in place to track all training completed by undergraduates, graduate students and postdoctoral fellows. Furthermore, there is no definitive statement in the VCR letter from 2009 or on the RCR website if the PI or the individual receiving the training is expected to maintain records on completion of training.

- 78 • **Recommendation: A more definitive statement concerning NSF RCR required training is needed to indicate whether the PI or the institution is responsible for tracking completion of training for research personnel.**
- 79 • **Recommendation: The RCI should develop a system to track completion of RCR training on the campus as relates to sponsors that require this training.** This could be done through the use of a learning management system or a simple spreadsheet. When electronic systems are put in place for the compliance committees, RCR training data should be associated with the research personnel records that are shared by the committees.

Conflict of Interest: The UC Merced conflict of interest policy addresses financial conflicts of interest in order to protect objectivity in federally sponsored project activities. The policy defines a Significant Financial Interest and requires review by the institution to manage, reduce or eliminate certain interests prior to the expenditure of funding. The policy also implements separate disclosures related to awards and gifts from certain non-governmental sponsors as required by the State of California. The Financial Interests Disclosure Matrix is very helpful in determining the need for disclosure under the above federal and state requirements and in reminding readers of the need for disclosure of financial interests when performing research with human subjects.

The conflict of interest disclosure forms are included only on the SPS website. For sponsored projects, any required financial disclosure is obtained from the researcher(s) at the time the proposal is submitted. Annual disclosures are collected by the SPS post-award staff. Disclosures that indicate no significant financial interests are filed in the award folder. When a positive disclosure is received by SPS staff, the disclosure form is forwarded to RCI.

When a positive financial disclosure is received by RCI staff, they contact the disclosing individual and request additional information. All positive disclosures go to the Conflict of Interest Oversight Committee. To date, no review has required a management plan.

UC Merced is currently working with UCOP and the other UC campuses to develop a system-wide policy responsive to NIH changes impacting conflict of interest training, expanded review, notification and posting of disclosure information.

The State of California conflict of interest regulations also mandate disclosure when a material transfer agreement provides research materials to an investigator and upon receipt of gifts. An explanation of the disclosure requirement is provided on the Office of Research Material Transfer Activities website, along with a link to the disclosure form on the SPS pre-award website.

The Reviewers were unable to locate similar information regarding disclosures associated with gifts. The State of California requires UC Merced to obtain financial disclosures from the recipient of gifts from certain donors. UC Merced policy directs University Relations (Development and Alumni Relations) to collect these disclosures and forward the disclosure and supporting documents to RCI for review by the COIOC. There is no mention of the disclosure requirement on the Development website, which is not necessarily of concern to the reviewers. However, the Development staff interviewed had no knowledge of a financial disclosure requirement. This could mean that Development has received positive disclosures but has not forwarded them to RCI because they are unaware of the regulation; no positive disclosures have been received by Development; or recipients of gifts do not fully understand the disclosure requirement.

- 80 • **Recommendation: The VCR or the AVC RCI should meet with Development personnel to establish processes for financial disclosures on gifts.** In addition to re-establishing a communication link regarding disclosures associated with gifts, this meeting provides an opportunity to agree upon procedures and evaluate the training needs of faculty and Development staff.

NCURA Standards I.D.ii Human and Animal Use

When the involvement of human participants or animal subjects is indicated on the PASS form at the proposal stage, SPS pre-award forwards a pdf copy of the PASS form to the regulatory committee staff. There is no direct feed of electronic data in either direction between SPS and the compliance committees. RCI does not have access to proposal documents in the Dropbox.

Institutional Review Board: The UC Merced policy complies with regulations governing the participation of human subjects in federal research activities. The institution has been granted a Human Subjects Assurance (FWA00005105) by the DHHS Office for Human Research Protections; the current Assurance is valid through August 16, 2013. UC Merced policy applies the Assurance terms to all research, regardless of the source or existence of funding. The Vice Chancellor for Research is the Institutional Official for this regulated area. The Assistant Vice Chancellor for Research is a voting member of the IRB. Providing voting status to a staff member is often a convenience ensuring a quorum and facilitating review of protocols.

The campus has one Institutional Review Board, which meets approximately four times per year. Most protocols are social / behavioral research and two-thirds are Exempt from committee

review. Exempt registration applications are reviewed by staff and a member of the IRB. Expedited protocols are reviewed by staff and at least two members of the IRB. Comments are provided to the PI, the PI responds to questions, and the protocol is reviewed again by the Chair. The Chair either approves the protocol or it is listed on the IRB agenda for the next meeting. The IRB has the full authority to review and approve; require modifications in; or disapprove, suspend or terminate research activities involving humans as research subjects.

The UC Merced Survey Coordinating Committee reviews requests to survey (or conduct focus groups with) UC Merced students, faculty, staff, and alumni that require contact information; require institutional information about the survey population; or involve disclosure of research results. The SCC was established by the Executive Vice Chancellor and is broadly representative of campus academic and administrative offices.

- **Notable Practice:** The survey review application to the SCC is completed and submitted on line. This form is the only one found by the Reviewers that eliminates hard copy submission and email routing.

All faculty and personnel performing research with human participants must complete CITI training prior to participating in research. The Investigator Assurance Statement and the Exempt application require that all key personnel listed in the protocol and persons obtaining informed consent have completed human subjects training. IRB workshops given during the year are mostly attended by graduate students; some specialized training is provided upon request.

Positive financial disclosures must be reviewed and approved by the COIOC prior to IRB review.

Stem cell research at UC Merced is reviewed by UC Davis under a Memorandum of Understanding. As such, all UC Davis stem cell policies and procedures apply to UC Merced researchers doing human stem cell research. Communication between the IRB and the UC Davis stem cell review committee is on an as needed basis. Correspondence from the UC Davis stem cell review committee is sent to the PI with a copy to UC Merced AVC RCI.

The IRB web page includes assorted information regarding the level of review, contacts, the SCC review requirement, and forms. The new Research Compliance: A Faculty Handbook posted on the RCI website includes some additional information. Limited information is included to describe the review process or average review time.

Institutional Animal Care and Use: UC Merced is in compliance with federal regulations governing the involvement of vertebrate animal subjects in research, testing and instructional activities. The campus Institutional Animal Care and Use Committee program has been granted an Animal Assurance (A4561-01) by the DHHS Office for Laboratory Animal Welfare. The US Department of Agriculture inspections for the past four years show no USDA-covered species being used in research at UC Merced. Presumably as a result, USDA Certificate 93-R-0518 was cancelled as of September 30, 2011. The animal program is AAALAC accredited as of April 2009.

The Vice Chancellor for Research is the Institutional Official for this regulated area and is assisted by the Attending Veterinarian, who holds a contract position. The campus has one

IACUC, which meets approximately once a month. Currently, there are 30 active protocols, including several field studies. The IACUC has the full authority to: review and approve; require modifications in; or disapprove, suspend or terminate research activities utilizing animals in research and teaching. In addition, the IACUC performs semi-annual program reviews and inspections of regulated facilities in accordance with the federal regulations.

The IACUC designates the supervisor of the research as the responsible person to ensure all persons are sufficiently trained in the proper handling of the species involved in the project. Personnel must go through Vivarium orientation and specific skills classes provided by the Laboratory Animal Resource Center. In addition, all research personnel must complete basic and species-specific CITI animal research training prior to participating in research at UC Merced.

The IACUC also requires persons working with live animals to enroll in the UC Merced Occupational Health Program, which is coordinated by the Olivewood Meadows Occupational Health Center. The Faculty Handbook indicates that detailed information about the program is on the IACUC website. However, the Reviewers were unable to locate any OHP information on the IACUC website. The IACUC application indicates departments should enroll personnel by having them complete a "Risk Assessment/Animal Contact Health Surveillance Questionnaire" available from Employee Health Services. The Reviewers were unable to find a website for the Employee Health Services or any reference to the OHP on the EH&S website. The Animal Research Services website has a link to Occupational Health and Safety, but the webpage is password protected and has no explanation regarding the services provided or why one would need to go further.

- 81 • **Recommendation: The IACUC website should include clear instructions and public links related to the requirement for registration in the Occupational Health Program.** The OHP-related text should describe the why, who and how. OHP information should be included in the Faculty Handbook, the IACUC website and the Animal Research Services website.

NCURA Standards I.D.iii Biohazards, Radiation Safety, Bioterrorism

The Environmental Health and Safety office is a unit reporting to the Vice Chancellor for Administration. EH&S is comprised of a director (currently an interim replacement), a person assigned to laboratory safety (EH&S specialist), a fire marshal, and a part-time contract employee responsible for radiation safety. The EH&S Specialist serves as the campus Biological Safety Officer.

The Associate Vice Chancellor for Research, Director of the Vivarium, and the Assistant Vice Chancellor for Research are members of the UC Merced Institutional Biosafety Committee. Beyond that, it appears there is little interaction between EH&S and Sponsored Projects, even though questions regarding infectious diseases, recombinant DNA, ionizing radiation, infectious or select agents, diving or boating are completed on the proposal routing sheet by PIs. Especially at the award stage, information on these mentioned areas could be an early alert to EH&S and ensure that the institution is tracking oversight of all project compliance areas.

- 82 • **Recommendation:** Sponsored Projects should provide EH&S with copies of awards, along with the originating proposals, that involve compliance areas within the purview of EH&S. These items are clearly noted on the PASS form and distribution can be by pdf attachment.

Separate user manuals are posted on the EH&S website for Biosafety, Radiation Safety, Laser Safety and Laboratory Safety. These manuals are clearly written and provide comprehensive information on policy, training, licenses, roles and responsibilities at UC Merced. The Biosafety Manual describes the campus process for the registration of select agents and toxins.

- **Notable Practice:** The EH&S website includes a highly visible grouping of responsibilities for researchers under the heading, Research Safety. In addition, EH&S has a separate heading for New Principal Investigators, which provides information regarding laboratory set up requirements and other information of importance to new investigators. Both websites are thoughtfully presented and contain useful information for investigators.

Biosafety: The VCR and the VC Administration share responsibilities for laboratory safety, including biosafety. The Biosafety Officer is staff within EH&S and refers issues to the Institutional Biosafety Committee (IBC), chaired by the Associate VCR. UC Merced-affiliated principal investigators are required to obtain a Biological Use Authorization (BUA) if they plan to conduct research involving recombinant DNA, infectious agents, toxins, transgenic animals, human gene transfer, or human, sheep or Old World primates or their source material. The IBC is properly constituted under federal regulations and meets to review BUAs at least twice a year. BUAs are approved for three years with annual updates required. Current UC Merced facilities meet Biosafety Level 2 standards; BSL 4 research is prohibited on the campus.

The PI is given the responsibility for ensuring research personnel are adequately trained to work with or be exposed to biological agents. Immunizations and medical surveillance are recommended for specific biological agents; however, it is unclear if the occupational health program supporting animal researchers also covers these investigator needs.

A somewhat streamlined process is in place for submission of the BUA application. Investigators are advised to email the completed application to the BSO and to print, sign and send the original signature page by mail to the BSO.

- **Recommendation:** None.

Radiation Safety: The UC Merced Radiation Safety Manual is prominently posted on the EH&S site. The Radiation Safety Officer is currently a part-time position, but is responsible for obtaining licenses and offering required radiation safety training. Personnel working with radioactive material at UC Merced must receive basic radiation safety orientation from the RSO or other qualified personnel approved by the RSO. The RSO is responsible for scheduling annual refresher training and documenting attendance.

All acquisition of radioactive materials must be done through UC Merced. An inventory of the radioactive material must be maintained by the PI for the laboratory site and the RSO for the entire campus. The PI is responsible for the appropriate use and disposal of radioactive materials.

- **Notable Practice:** The New Radioactive Material User Training Sheet (Appendix G.1 in the Radiation Safety Manual) is an excellent format on which to base a training program for the individual user. Each individual completes this form before they begin working with radioactive materials. The supervisor or PI is responsible for ensuring adequate training and maintaining complete training records for their research team.
- **Recommendation:** None.

Laser Safety: The UC Merced Laser Safety Manual is posted on the EH&S site. The PI is primarily responsible for the safe operation of lasers in the laboratory and for ensuring an adequate training level of all laboratory personnel. The Laser Use Registration form is completed annually and submitted to the Laser Safety Officer in EH&S.

The Statement of Training and Experience and the Radioisotope Material Inventory form are provided as downloadable Word documents and may be completed, saved and forwarded by email. The Radiation Use Authorization forms and the Laser Use Registration form must be printed and completed by hand.

- 83 • **Recommendation:** All EH&S forms should be available as downloadable or interactive forms to facilitate completion and routing. The Radiation Use Authorization, Radiation Use Authorization Renewal and the Laser Use Registration forms should be provided on the EH&S website as interactive or downloadable forms.

Laboratory Safety: PIs are responsible for developing a Laboratory Safety Plan for their space and for submitting training certifications and annual Laboratory Self Audits to EH&S. The Laboratory Safety Plan documents standards for issues that may arise in the campus space. Laboratories are also required to have a written Chemical Hygiene Plan (CHP) pursuant to California Occupational Safety and Health Administration (Cal/OSHA).

- **Recommendation:** None.

Diving and Boating Safety: UC Merced relies upon UC Berkeley to review projects that involve diving for scientific purposes by UC Merced faculty, staff or students. All diving activities are in accordance with the UC Berkeley Diving Safety Manual and all are submitted directly to UC Berkeley for review and approval. A University scientific diver permit is required for anyone diving for science using University equipment, diving from University-owned property, or diving as a student or employee of the University. Likewise, UC Merced relies upon UC Berkeley to approve the use of small powerboats by UC Merced personnel.

The RCI Faculty Handbook describes UC Berkeley's involvement in the review and includes a hyperlink to additional information. Unfortunately, the link does not work.

- 84 • **Recommendation:** The Faculty Handbook should be corrected to link diving and small boat safety to the UC Berkeley site. The Reviewers believe the correct link is: <http://pe.berkeley.edu/scubadiving>. The diving and small boat safety manuals can be found at: <http://pe.berkeley.edu/scubadiving/forms.shtml>.

Although UC Merced has accommodated research involving diving and boating, the Reviewers were unable to determine how the campus is advised of UC Berkeley approvals or rejections of research from UC Merced faculty. This is extremely important to have prior to authorizing spending on the research.

- 85 • **Recommendation:** UC Merced documents should reflect the process agreed upon with UC Berkeley for the review of projects involving diving or the use of boats. The preference would be for the UC Berkeley committee to copy RCI on all correspondence with the UC Merced investigator and RCI would advise SPS.

Export Controls/Deemed Export Regulations

Export control regulations are addressed in the RCI Faculty Handbook and in the eight-page UC Merced Guide to Export Control Regulations for Faculty & Staff. These documents, plus other information on the RCI website, outline federal regulations that apply to export control in a research and academic setting. The Office of Research webpage entitled Points to Consider When Doing Research in Foreign Countries is excellent and brings together many issues that may require special approvals or arrangements by faculty. Also, especially well-written are two other web documents on the RCI Export Control page: the Academic Short Briefing document and the Taking Your Laptop Abroad document. Several web links are not functioning on the Export Control website.

- 86 • **Recommendation:** The RCI Export Control website links should be tested and corrected. The link to ITAR is not functioning in two places. In the text, the link to the UC Merced Guide to Export Control Regulations does not work. In the Useful Links section, the hyperlinks to the Commerce Control List (both) and EAR appear directed to the same document.

Export control questions are directed to the Assistant Vice Chancellor RCI. The aforementioned Guide is sent out annually by email with a memo and it also may be part of the new faculty orientation. The campus has not yet been required to obtain an export license. If one is necessary in the future, the AVC would seek assistance from the UC Office of the President.

The proposal routing form, PASS, includes a check box for foreign travel or exporting associated with the proposed project. If these compliance areas are checked by the PI, SPS pre-award sends an advisory email to the Assistant Vice Chancellor RCI. The PASS form also directs investigators to contact the AVC with export control questions.

In addition to research activities, academic units should be sensitized to export control regulations concerning foreign visitors and the shipment of materials or equipment to foreign

countries. The UC Merced Shipping and Receiving department requires the originating department to provide all export documentation required for shipments, including validated export licenses, carnets, NAFTA certificate of origin, shippers export declaration, etc.

- 87 • **Recommendation: Future training for export controls should mention the possibility of non-research export control situations and provide guidance to the academic units.**

APPENDICES

- Appendix A: NCURA Standards
- Appendix B: NCURA Peer Review Team Bios
- Appendix C: Charge to the NCURA Peer Review Team
- Appendix D: Site Visit Itinerary
- Appendix E: NCURA Resources
- Appendix F: Example of a Risk Matrix

National Council of University Research Administrators

Scope and Standards for Peer Reviewed Sponsored Projects Organizations

This definition of “Scope and Standards” represents a statement of the extent of an NCURA Sponsored Peer Review. While recognizing that institutions are organized differently with various kinds of pre- and post- award services, this definition of “Scope” reflects the core operations of Research Administration. The “Standards” outlined below come primarily from the Council of Governmental Relations, “Managing Externally Funded Research Programs: A Guide to Effective Management Practices” (June 2005).

I. CORE OPERATIONS

A. Proposal Services

i. Collection and Dissemination of Funding Information

The institution has procedures in place to identify various opportunities (Federal, State, local, private foundations, etc.) to which faculty can apply for funding. A system is in place to disseminate to faculty information on current funding opportunities in an efficient, timely and easily accessible manner.

STANDARD: The institution has access to information on prospective sponsors and their requirements.

STANDARD: The institution provides faculty with information on sources of support for research and other scholarly activities.

ii. Proposal Development and Assistance

The institution has a process in place to assist faculty with responding to funding opportunities, including proposal writing, understanding and complying with rules, regulations and administrative requirements and help with electronic application processes.

STANDARD: The institution has trained personnel who are knowledgeable about sponsor regulations, requirements and procedures.

STANDARD: The institution has trained staff who advises investigators in preparation of compliant proposals.

STANDARD: The institution has appropriate procedures in place to allow it to access and utilize the electronic proposal, award, administrative, and financial management systems of the federal government or other sponsors.

STANDARD: The institution stays current with respect to the electronic research initiatives of sponsored projects sponsors.

STANDARD: The institution provides assistance for proposal writing and for proposal preparation.

iii. Proposal Review and Submission

The institution follows standard processes and procedures for review of the business, administrative, and financial aspects of proposals developed by their faculty and submits the proposal to the sponsor on behalf of the institution. Where necessary, the

administrative official who submits the proposal on behalf of the proposing organization also makes certifications and assurances to the sponsor. They commit the organization to the conduct of the project that the sponsor is being asked to support as well as ensure the institution will adhere to the sponsor's various policies and grant requirements.

STANDARD: The institution advises investigators in preparation of compliant proposals.

STANDARD: The institution has a comprehensive system in place that is designed to ensure compliance with federal, state and local laws.

STANDARD: The institution processes proposals in compliance with institutional and sponsor policies and procedures

STANDARD: The institution has procedures in place to coordinate internal competitions that limit the number of submissions per institution.

iv. Collaborative Project Development

The institution assists its faculty who wish to collaborate, either with other colleagues at their own institution or at other organizations, on a unified project.

STANDARD: The institution reviews the collaborative arrangements and determines if the proposed activity is appropriately and administratively manageable.

v. Agency Liaison

Institution staff are involved with proposal development, review and submission and have established methods of keeping up-to-date on changes to sponsor's policies, procedures and processes. Such methods may include, for example, subscription to electronic mailing lists, newsletters or attendance at outreach events, conferences and/or webcasts.

STANDARD: Staff have knowledge of the organizational structure of the sponsor and are able to contact the appropriate individual or office when they have questions.

STANDARD: The institution has trained personnel who are knowledgeable about sponsor regulations, requirements and procedures.

B. Award Acceptance and Initiation

i. Review and Negotiation of Terms and Conditions

Grants and agreements that provide sponsored funding require review by the institution of the terms and conditions that are part of the award. While many grants come with standard terms and conditions, many agreements have language that necessitates scrutiny prior to acceptance. All awards require an institutional evaluation for sponsor restrictions on such items as the use of funds, appropriate project personnel, publication rights, intellectual property, etc. to assure compliance with institutional policies that govern the research activities of the campus.

STANDARD: The institution has staff trained to review and negotiate agreement terms and conditions.

STANDARD: The Institutional staff is cognizant of institutional policies and practices with respect to ownership of intellectual property rights, publication, and acceptance of classified material, etc.

STANDARD: The staff is authorized to negotiate changes in award terms and conditions and has access to legal assistance, either institutional or external counsel, when required during complex negotiations.

STANDARD: Investigators and other concerned individuals are consulted/informed during the negotiation.

STANDARD: The institution has policies and procedures to assure compliance with national policy requirements, e.g. Export Controls, Nondiscrimination, etc.

ii. Ancillary Agreements Associated with Research Grants and Contracts

Prior to acceptance, the institution evaluates any sponsor restrictions in light of campus policies and other existing projects. The review includes all agreements commonly associated with research, including material transfer agreements, clinical trial agreements, confidentiality, agreements, and others.

STANDARD: The institution has procedures for the review and negotiation of research and other agreements that meet all institutional policies and practices.

STANDARD: The institution takes advantage, when appropriate, of standard agreements, e.g., the Uniform Biological Material Transfer Agreement or the National Institutes of Health Simple Letter Agreement.

iii. Subawards

Incoming subawards are agreements that provide flow-through funding for a sponsored project. With incoming subawards the terms and conditions of the agreement require review as well as any restrictions that pass through from the original funding agency. An outgoing subaward is one in which the institution provides sponsored funding to a third party through the issuance of an agreement. Outgoing subawards are typically issued by a central office with the approval of the PI, and they may require negotiation with the recipient individual or organization.

STANDARD: The institution has policies and procedures for issuing subrecipient agreements and for monitoring the performance of subrecipients.

STANDARD: Policies and procedures are in place to determine whether subrecipients have established adequate management and financial systems prior to issuing subrecipient agreements.

STANDARD: Adequate documentation for the selection and approval if necessary, of the subrecipient when not named in the proposal, is prepared and maintained.

iv. Award Acceptance Process

The institution has a process in place that allows the formal acceptance of a sponsored award by designated individuals or offices. In some cases that may be the negotiation and signing of a bilateral agreement. In others, acceptance occurs when the institution begins to spend the funds provided.

STANDARD: The institution has a system to review proposed award terms and conditions and to negotiate those terms in accordance with institutional standards prior to award acceptance.

STANDARD: The institution has written procedures for review of award documents prior to acceptance.

STANDARD: Award budgets are compared to proposal budgets and amended budgets or scopes of work are submitted when awards have been significantly reduced from requested amounts.

STANDARD: The institution does not make funds available until compliance requirements are satisfied (e.g., human subjects committee approvals, conflicts of interest disclosures, etc.).

v. Award Activation and Notification

Activation is the process by which a sponsored award is placed in the accounting system and made available to the principal investigator for expenditures. The notification process delineates the steps followed to make all appropriate parties, such as PI and departmental staff, aware that the award has been accepted and activated by the institution.

STANDARD: The institution has developed procedures to establish awards in its accounting system in a timely manner, including receipt of electronic awards.

STANDARD: Terms and conditions of awards are distributed to principal investigators and made available to other institutional personnel, as required.

C. Award Management

i. Fiscal Management

The institution has established policies for F& A rates, cost sharing, re-budgeting, time and effort, fiscal controls, cost accounting standards, cost transfers, cash management, program income, recharge centers, procurement, and closeout.

STANDARD: The institution has policies and procedures for:

- *proposal costing and budget administration*
- *the review and submission of budget changes*
- *assessing F&A costs on external projects*
- *the review and approval of exceptions and waivers of F&A cost collection*
- *financial management systems*
- *depositing all monies on a timely basis and invest them in accordance with institutional and Federal policies and to record the receipt of revenue, to disburse cash, and to bill agencies in a timely manner*
- *establishing service and recharge centers and for reviewing rates charged by centers*
- *notifying of upcoming termination dates to appropriate offices and to ensure timely closeout of programs including submission of all sponsor required financial reports, invoices, and deliverables*
- *defining allowability of costs that are consistent with federal cost principles and other applicable standards of other sponsors*
- *justifying adequately cost transfers in a reasonable period of time*
- *applying consistently compensation costs in proposing, accumulating, and reporting those costs*
- *assuring that sponsor-imposed salary caps are in place.*
- *governing fringe benefits and the method used to account for these costs*
- *reporting payroll and effort certification*

- purchase of goods and services
- procurement systems
- the identification, recording, managing, and reporting program income in accordance with regulations
- expedited purchases

STANDARD: Staff are knowledgeable and responsible for initiation of direct charges and staff are knowledgeable and responsible for approval and payment of those charges.

STANDARD: Systems exist for:

- distinguishing between acquisition of goods and services and subrecipient agreements
- providing timely close out of purchases
- identifying mandatory and voluntary cost sharing
- proposing, accumulating, and reporting of cost sharing
- incorporating cost sharing if required in subawards

ii. Administrative Management

The institution has established management systems for administering awards and that encompasses prior approval, reporting, record retention, data retention, subrecipient monitoring, intellectual property, and property control.

STANDARD: There is clear communication of Intellectual Property policies and procedures for ownership and management of research data.

STANDARD: The accounting system identifies all external funded projects and the system provides appropriate review and internal controls.

STANDARD: The institution has procedures for seeking required sponsor prior approvals and for implementing federal expanded authorities.

STANDARD: The institution has policies and procedures that ensure compliance with mandated cost accounting standards, demonstrate on-going compliance with the CAS standards whether a DS-2 disclosure statement is filed or not, and ensure revisions to DS-2 are filed as required.

STANDARD: Property control policies and procedures exist for acquisition, use, and disposition of equipment, for equipment inventory, and for reporting equipment to external sponsors.

STANDARD: The institution has policies regarding responsibilities for report preparation and has procedures for submission of required reports and other deliverables.

STANDARD: Record retention policies and procedures exist for the retention and access of financial and administrative data and for responding to requests for data under relevant open records requests.

STANDARD: The institution has data retention policies regarding the retention of research records and data and has policies for responding to requests for data under Federal Freedom of Information Act.

STANDARD: Subrecipient monitoring policies and procedures for monitoring performance of subrecipients include reviewing annual A-133 audit reports from subrecipients as required.

D. Research Ethics

i. Project Integrity

The institution has policies and procedures that govern responsible conduct of research, conflict of interests, and research integrity (misconduct) and appropriate assurances of compliance.

STANDARD: The institution has a written policy that:

- *addresses treatment of allegations of research misconduct and that meets sponsor requirements*
- *assists faculty, staff, and students in determining whether and to what extent outside financial relationships and interests may conflict with their primary research and academic activities or other institutional responsibilities*

STANDARD: The institution has written procedures to:

- *manage individual financial conflicts of interest*
- *recognize the concern regarding conflict of interest in research involving human subjects identify potential financial conflicts of interest of the institution and has mechanisms in place for managing them*

ii. Human and Animal Use

The institution has systems that comply with federal and state regulations and that provide ethical protection of human subjects and for the humane care and use of animals.

STANDARD: The institution's compliance systems accommodate multiple and integrated compliance obligations and are coordinated so that oversight and approval responsibilities are linked in an effective and timely manner.

STANDARD: The institution has a written Federal-Wide Assurance with the DHHS and received approval in accordance with federal regulations.

STANDARD: The institution has access to at least one Institutional Review Board in accordance with federal regulations to review, approve, require modifications in, or disapprove, suspend or terminate research activities involving human as research subjects.

STANDARD: The institution has a system of coordination between its IRB and sponsored projects administration.

STANDARD: The institution has filed a written assurance with the DHHS and received approval thereof, and has also secured USDA registration.

STANDARD: The institution has established at least one Institutional Animal Care and Use Committee in accordance with federal regulations to review, approve, require modifications to, or disapprove, suspend or terminate activities involving animals used in research.

STANDARD: The institution has a system of coordination between its IACUC and sponsored projects administration.

STANDARD: Adequate systems are in place to track, report, and maintain compliance with the Animal Welfare Act, the Public Health Service Policy on Humane Care and Use of Laboratory Animals, and applicable occupational health regulations.

iii. Biohazards, Radiation Safety, Bioterrorism

The institution has appropriate biohazards and radiation safety, and public health security and bioterrorism systems in place.

STANDARD: The institution has adopted an environmental, health, and safety policy that meets environmental, health and safety regulatory standards in sponsored projects activities.

STANDARD: The institution has devoted adequate staffing, funding, and other resources to implement, manage and oversee its EHS system and performance.

STANDARD: The institution has created a functional organization with clear roles, responsibilities and accountabilities for regulatory compliance and over oversight.

STANDARD: The institution has established an EHS management system and written policies and procedures for the scope and complexity of activities at the institution.

II. INSTITUTIONAL INFRASTRUCTURE

A. Organizational Structure

i. Operational Structure

The institution has identified offices and structures that support the sponsored programs function at both the central and departmental levels.

STANDARD: The relationships of institutional offices at both the central and departmental levels are compatible and supportive of one another.

STANDARD: Alignment is strong both between central offices and schools and departments as well as sponsors.

STANDARD: Operational relationships among other related functions is positive, such as development, human resources, travel, purchasing and procurements, information technology, and compliance functions.

STANDARD: Lines of authority and coordination of functions are clearly delineated. Roles and responsibilities are specified, particularly for key sponsor requirements, including final authority, decision-making,

ii. Staffing and Resources

The staff and financial resources necessary to support the core functions of the sponsored programs function are sufficient and consistent with its research volume and the complexity of the organization.

STANDARD: Staffing and resources are sufficient to meet the service requirements of constituents and compliance requirements of sponsors, including financial and administrative requirements.

STANDARD: Resources are sufficient to identify funding opportunities for faculty, and to provide education and training for faculty and staff, IT support, etc.

STANDARD: Sufficient formal and informal opportunities exist for the professional development of staff, in terms of continuing education, professional meetings, etc. in order to be current with sponsor requirements, effective practices, and appropriate oversight procedures.

B. Communication, Outreach, and Education

i. Communication and Outreach

The institution has established mechanisms for regular communication between faculty, central offices, and departmental staff about sponsored programs policies and procedures, expectations, roles and responsibilities, changes in policies, and risk areas.

STANDARD: There are routine and predictable means utilized to communicate institutional policies and procedures to faculty and appropriate staff. For example, sponsored programs policies may be incorporated within a body of formal organizational policy, the policies may be distributed in writing, updated on a web site, and special notices distributed by email, etc.

STANDARD: There are periodic communications to senior management and academic deans and department heads, regarding significant issues, implementation of new requirements, risk areas, assessment of staff resources, etc.

ii. Education

The institution has established programs of education for faculty including teaching and research faculty, postdocs, and graduate and undergraduate students, as appropriate, about institutional and sponsor expectations in the conduct of sponsored programs.

STANDARD: There are programs of education as appropriate for faculty, students, and staff on institutional policies and procedures, compliance issues, special risk areas, resources, points of contact, etc.

STANDARD: There are programs of education, as mandated for specific compliance requirements, such as the protection of humans and animals, bio-safety and other substantive policy requirements.

C. Compliance and Risk Assessment

i. Compliance and Risk Assessment

The institution periodically assesses sponsored programs policies and practices, and assessment of emerging risk areas.

STANDARD: There is a thorough, periodic review of the effectiveness of sponsored programs policies and procedures and the communication of the results of the reviews to institutional senior management. These programs may be conducted as internal controls, quality improvement, compliance programs, etc.

STANDARD: There is a system for monitoring new sponsor requirements, external trends in audit and compliance, and risk areas at the national level. New requirements or risk areas are addressed within institutional policies, education and outreach programs, and compliance reviews, as appropriate.

D. Electronic Research Administration

i. Systems

The institution has in place appropriate electronic information systems, and the integration of systems for proposals, financial management, human resources, education programs, and compliance reviews

STANDARD: Electronic systems are well integrated to process transactions, review and track activities, and provide required reports.

STANDARD: Systems are sufficient to integrate with Federal-wide or agency specific processes for proposal and report submission.

STANDARD: There is a sufficient level of understanding among central and departmental staff and a level of proficiency, support, and training to ensure the effective operations of the systems.



Appendix B: NCURA Peer Review Team Bios

NCURA Peer Review Program

The National Council of University Research Administrators has developed a formal system of assessment for university offices of sponsored programs, in part, from its purpose as a professional development organization. The mission of professional development organizations, like NCURA, is to provide education and training to its members as well as others within the research community. Many educational efforts implicitly, if not explicitly, provide information on effective practices, techniques for success, and models of excellence. Setting standards and identifying quality of organizational performance, therefore, are expected functions of professional development organizations. In fact, no other activity of a professional development organization may be as important as the articulation of the standards and core practices of the profession. The NCURA system of peer review was developed for this purpose.

NCURA Peer Review Team for University of California, Merced

Peggy S. Lowry **TEAM LEADER**

Peggy has been involved in over 40 peer reviews of research administration offices, received evaluations of her offices, and taught national workshops on sponsored program assessment. Peggy has led office self-studies and participated in institutional accreditation self-studies. She authored the chapter: "Assessing the Sponsored Research Office" (NCURA/AIS *Sponsored Research Administration—A Guide to Effective Strategies and Recommended Practices*) and published peer review articles: "But the Emperor Has No Clothes On! Or Assessing Your Operation with Fresh Eyes" and "Learning Your ABCs: Adaptability, Balance, and Culture" (NCURA Magazine). Peggy currently assists part-time as the Program Coordinator for the NCURA Peer Review Program as well as serving as a Reviewer.

Peggy served until her retirement in 2007 as Director of Sponsored Programs and Research Compliance at Oregon State University where she oversaw sponsored programs (\$250+ million in awards), non-financial research compliance areas, and served as Conflict of Interest Officer. She returned from retirement to assist by leading the University's new Office of Research Integrity, until 2011 when she retired again. Her career includes 22 years at the University of Illinois--Urbana-Champaign as Assistant Vice Chancellor for Research/Director, with 10 years as a College-level administrator, seven years in predominantly undergraduate universities: Ball State University and Murray State University in Director and Associate Director positions. At Ball State and Murray State she additionally focused on faculty development, institutional incentives for research, and integrating research with undergraduate education. While at Murray State University, she created a faculty Research Policy Committee to help promote the role of research at the PUI and the sponsored programs award level doubled. She served on numerous university/faculty committees, created/implemented university-wide policies, and engaged in department-central research administrator networking groups. At all of her universities she has worked extensively with faculty, Deans, and senior leadership.

Peggy has given over 200 national, regional and local presentations and workshops. She has served on numerous national NCURA committees and twice served on their Board of Directors. She served as a NCURA national workshop faculty for Fundamentals of Research Administration and Sponsored Projects Administration Level II, Chair of the Nominating and Leadership Committee and co-Chair of the NCURA newsletter. Peggy received NCURA's national Award for Distinguished Service in Research Administration in 2006 and the Award for Outstanding Achievement in Research Administration in 2011. She served several terms on the Board of Directors of the International Society of Research

Administrators and received several national awards from that organization. She has been a member of the Council on Governmental Relations.

Number of Years in Research Administration: 38

Current and Prior Institutions: University of Illinois at Urbana-Champaign, Oregon State University, Ball State University, Murray State University

NCURA Standard Review Expertise Areas: Proposal Services, Research Ethics, Institutional Infrastructure

Christina Hansen

Christina Hansen served as contract and grant officer, assistant director, director and assistant vice chancellor for research during her 30+ years in research administration. Retired in 2009 from the University of California, Irvine, she currently consults with local universities and works with NCURA on peer review panels. She also worked at the University of California, Los Angeles and in private industry.

Chris has experience in proposal support and management, award negotiation and acceptance, clinical trial negotiations, and special agreements. She supervised over 40 staff in charge of sponsored projects, human subjects, animal subjects, conflict of interest, export control, ARRA reporting, and awards data management. Her campus involvement included implementation of the Health Insurance Portability and Accountability Act, development of the whistleblowers and the campus conflict of interest policies, and coordination of a campus-wide response to export control regulations. She also was a co-director and member of the steering committee to develop and implement Quali electronic research administration programs at UCI.

At UCLA and UCI, Chris taught a variety of research administration-related courses, including the principles of research, conflict of interest management, gift/grant determination, research ethics, and export controls. She was instrumental in the development of the UCI Research Administration Management Program (RAMP), a certificated program for departmental staff and others on essential grant and contract functions.

Chris was faculty for four NCURA videoconferences and for NCURA's Fundamentals of Sponsored Projects Administration and Sponsored Projects Administration: Level II workshops. She is a co-author of *The Role of Research Administration*, an NCURA monograph, and was on the Editorial Advisory Board of the *Sponsored Research Administration: A Guide to Effective Strategies and Recommended Practices*. Additionally, Chris served on the NCURA Board of Directors and a number of committees. She also served on the Board of the Council on Governmental Relations board for two years.

Number of Years in Research Administration: 31

Current and Prior Institutions: University of California, Los Angeles, University of California, Irvine

NCURA Standards Review Expertise Areas: Award Acceptance and Initiation, Award Management, Research Ethics, Institutional Infrastructure

Appendix C: Charge to the NCURA Peer Review Team

UNIVERSITY OF CALIFORNIA

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

OFFICE OF RESEARCH AND GRADUATE DIVISION

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NCURA Peer Review Committee
1225 19th Street NW
Washington, DC 20036

Dear Peer Review Committee

The University of California, Merced, requests an NCURA Peer Review. In the interests of maintaining an effective, responsible administrative organization, I intend to periodically review the various special administrative units within the purview of the Office of Research. One of these units is the Office of Sponsored Projects Services. SPS has been under the aegis of the Vice Chancellor for Research since its inception in 2002. During that time SPS (along with the entire University) has developed substantially and grown from 0.5 FTE to 7 FTE. While the unit is still under development, I believe that it is at a stage that merits review of its functions and operations. More broadly, we hope to use this opportunity to look at the campus' administrative infrastructure in the entire area of extramural grants and contracts. I believe that the combination of self-reflection and external review will be extremely helpful as we strive to refine our service to the faculty and students of this campus. In accordance with UC Merced's policies on the review of administrative units, we anticipate recurring summative assessments of SPS including an external peer review, at an interval of every 7 years.

As a new organization, the development of the Office of Research, and its subunits (including SPS) has been patterned after similar operations at the 9 other campuses of the University of California. Unfortunately, this has occurred during a period of significant resource restrictions. Thus, the development of SPS has not occurred as quickly as we would have liked. Additionally, many areas of the campus are just now starting to transition from a "start-up" mode to a more normal mode of ongoing operations. Some of our initial organizational structure was intentionally created to "make things happen". While this approach was expedient for the time, it is not necessarily the most efficient or sustainable. With the arrival of a new Chancellor in July of 2011, and significant changes in the leadership of the campus' three schools, this is an appropriate time for us to ask how we can be better at what we do.

I understand that the review will utilize NCURA National Standards. In your review I ask that in particular you pay attention to the following:

1. the staffing levels within the Sponsored Projects unit of the SPS,
2. the existence of Sponsored Projects Accounting (SPA) within SPS, versus having the functions of SPA performed at the local level (within research institutes and Schools)
3. the relationships between SPS, and the Schools
4. the relationship between SPS and Contracts and Grants Accounting.

I thank you in advance for your willingness to undertake this activity.

Sincerely

A handwritten signature in black ink, appearing to read "Samuel J. Traina".

Dr. Samuel J. Traina
Vice Chancellor for Research



UNIVERSITY OF CALIFORNIA MERCED

NCURA Peer Review Site Visit Itinerary

On-campus Location of Meeting: Chancellor's Conference Room, KL232

Sunday, April 8, 2012	Arrive at Hooper House Executive Session
Monday, April 9, 2012	
7:45 a.m.	Taxi service arrives at Hooper House and departs to campus
8:00 – 9:00 a.m.	Working Breakfast with Director of Sponsored Projects
9:00 – 9:15 a.m.	Executive Session
9:15 – 9:45 a.m.	Samuel J. Traina, Vice Chancellor for Research and Dean of the Graduate Division
9:45 – 10:15 a.m.	John Purnell, Web Application Developer for Kuali Coeus, Information Technology
10:15-10:30 a.m.	Executive Session
10:30 – 11:30 a.m.	Autumn Tjalsma, Director, Contract and Grant Accounting Saira Aslam, Accountant
11:30 – 12:30 p.m.	Executive Session and Lunch
12:30 – 1:30 p.m.	E. Dan Hirleman, Dean of the School of Engineering Michael Spivey, Associate Dean of the School of Social Sciences, Humanities, and Arts Juan Meza, Dean of the School of Natural Sciences

1:30 – 1:45 p.m.	Executive Session
1:45 – 2:45 p.m.	Christina Christiansen, Director of Administrative Operations, School of Engineering Rhonda Pate, Manager of Financial Services, School of Social Sciences, Humanities, and the Arts Mireille Smith, Director of Administrative Operations, School of Natural Sciences
2:45 – 3:00 p.m.	Executive Session
3:00 – 4:00 p.m.	Jennifer Teixeira, Maggie Hollinger, (Jue Sun not available) Sponsored Projects Pre-award Staff
4:00 – 4:15 p.m.	Executive Session
4:15 – 5:15 p.m.	Deborah Motton, Assistant Vice Chancellor for Research, Director of Research Compliance Leslie Teixeira, Research Compliance Manager
5:30 – 5:45 p.m.	Taxi service from campus to Hooper House
6:30 p.m.	Dinner Executive Session
 Tuesday, April 10, 2012	
7:45 a.m.	Taxi service arrives at Hooper House and departs to campus
8:00 – 9:00 a.m.	Holly Werner, John Jackson, Mark Perez Sponsored Projects Post-award Staff
9:15 – 9:30 a.m.	Executive Session
9:30 – 10:00 a.m.	Susan Carter, Director, Research Development Services
10:00 – 10:30 a.m.	Lee Thomsen, Prospect Research Specialist, Development Office
10:30 – 10:45 a.m.	Executive Session
10:45 – 11:15 a.m.	Orquidea Largo, Interim Director, Center for Educational Partnerships Melissa Tatham, Assistant Director, Small Business Development Center
11:15 – 11:45 a.m.	Kim Groesbeck, Director, General Accounting
11:45 – 12:45 p.m.	Wendy Ewald and Don Gillis, Contract and Grant Analysts, School of Engineering; Executive Session and Lunch

12:45 – 1:15 p.m.	Mary Miller, Vice Chancellor of Administration; Monir Ahmed, Assistant Vice Chancellor of Business and Financial Services
1:15 – 1:45 p.m.	Elisabeth Gunther, General Counsel (via telephone #510/987-9941)
1:45 – 2:30 p.m.	Executive Session
2:30 – 3:30 p.m.	Faculty from the Schools of Natural Sciences; Social Sciences, Humanities and Arts; and Engineering (Prof. Robin DeLugan via telephone: #209/658-9481)
3:30 – 3:45 p.m.	Executive Session
3:45 – 4:15 p.m.	Larry Wong, Interim Director, Environmental Health and Safety (via telephone #510/520-7184); Karen Smith, EH&S Specialist
4:15 – 4:45 p.m.	Executive Session (call backs, opportunity for additional questions)
4:45 p.m.	Taxi service from campus to Hooper House
6:30 p.m.	Dinner Executive Session
 Wednesday, April 11, 2012	
9:30 a.m.	Taxi service from Hooper House to campus
10:00 – 10:30 a.m.	Todd Kucker, Internal Auditor
10:30 – 12:00 p.m.	Exit Interview and Working Lunch Samuel J. Traina, Vice Chancellor for Research and Dean of the Graduate School Thea Vicari, Director, Sponsored Projects Autumn Tjalsma, Director, Contract and Grant Accounting
12:00 p.m.	Taxi service from campus to Merced airport for Chris Hansen (plane departure at 1:55 p.m.) Taxi service from campus to Fresno airport for Peggy Lowry

Appendix E NCURA Professional Development Resources



A number of NCURA resources are valuable to the institution and serve to enhance professional development of departmental, college, and central research administrators. All of the NCURA educational offerings go through a rigorous evaluation process to insure the quality of the program. Presenters are carefully selected and represent experienced research administrators with extensive understanding of the profession. The following list provides a selection of professional development resources that may be referenced in this Review Report and may be valuable for the institution to consider.

NCURA Traveling Workshops

NCURA'S four traveling workshops are scheduled at locations around the country or can be hosted by your own institution. They serve as an excellent foundation for new staff, or as a refresher for more experienced staff. When hosted by your own institution, they serve to offer a broad-based and consistent knowledge sharing across the institution. To bring this resource to your institution, you need to have a minimum of 60 participants (central, departmental, center/college) and can include research administrators from neighboring institutions. These workshops are taught by experienced research administrators and the curriculum reflects the critical issues for training and professional development. Our four national workshop topics are: Departmental Research administration Workshop, Financial Research Administration Workshop, Fundamentals of Sponsored Project Administration, and Sponsored Project Administration II. http://www.ncura.edu/content/educational_programs/workshops/

NCURA TV

Each year, NCURA offers a series of TV broadcasts on critical issues of importance to sponsored program operations. Recent years have included such topics as audits, cost sharing, subrecipient monitoring, issues for the department administrator, and non-financial research compliance. These TV broadcasts, which can be viewed live or purchased as a DVD, provides excellent training opportunities within the institution. http://www.ncura.edu/content/educational_programs/ncura_tv_2009/index2009.php

Online Tutorials

NCURA offers several multi-week online tutorials. These tutorials provided interactive learning activities as well as knowledge reviews for each lesson. Current tutorials are primers offered in the areas of clinical trials, federal contracting, and subawards. http://www.ncura.edu/content/educational_programs/

Webinars

A number of webinars are offered on special focus topics that are of importance to research administration. Recent topics have included export controls, contract law, and procurement cards.

Other educational resources are located at: http://www.ncura.edu/content/educational_programs/

Appendix F Example of a Risk Matrix

Attachment I: QUICK REFERENCE

Institutional Compliance Risk Assessment Matrix

Purpose of Initial Risk Assessment

- Primary:
- To identify those compliance issues that have significant impact at the institutional level, including those risks that you feel are being adequately controlled. These are the areas that provide the infrastructure for the development of the compliance program.
- Secondary:
- To identify compliance issues at every level of the institutional organization.
 - To determine at each level those issues that are significant for that level.

Goal of This Risk Assessment

To populate the "Risk Assessment Matrix"

Required Resources

- All policies, procedures, rules and regulations that apply to the functions, processes and activities associated with the area of compliance.
- Ideally, employees with direct knowledge of the work being performed participate in a brainstorming session to identify risks that affect the successful achievement of the goals and objectives of the work unit.
- Recommended brainstorming question:
"What are the problems you recognize, concerns you have, and risks you perceive regarding compliance with the federal and state laws and regulations, and the UH System/UHD policies and procedures in this work unit?"
- "Compliance Sections/Risk Assessments" required by UH System [Note: Included in this package. You are not limited to these compliance sections/risk assessments; however, these are required to be addressed in your assessment.]

Summary of Steps in the Risk Assessment Process (Detail Information Included in this Package)

Step 1: Identify the Compliance Risk and Exposure

- Develop a list of all the compliance risks that can affect the successful achievement of the work unit's goals and objectives.
- Determine the applicable law, rule, regulation, policy or procedure driving the risk.

Step 2: Measure the Compliance Risk

- The *Impact* of the risk, when it happens, on the achievement of the work unit goals and objectives. (High, Medium or Low)
- The *Probability* of the risk becoming a reality (High, Medium or Low)

Step 3: Prioritize the Compliance Risk

- Based upon their combined measurement of probability of becoming reality and the impact that would have on the work unit.
- All risk that have an *HH* "measurement value" would be placed at the top of the risk inventory, followed by *HM, HL, MH, MM, ML, LH, LM,* and *LL* groups in that order.
- Rank order each "measurement value" group from most to least significant via paired elimination.

Step 4: Populate the Risk Assessment Matrix (For Each "Measurement Value")

- Phase I – Compliance Section, Assessment Date, Sub-Section, Prepared By, Objective/Activity, Risk & Exposure, Potential Impact, Probability of Occurrence and Rank Before Controls.
- Phase II – Assign the "Responsible Party" (see requirements in this package). Specify the Operating and Oversight Controls. Assess the Rank After Controls (High, Medium or Low).

Step 5: Initial Review

Provide a copy of the Risk Assessment Matrix package to _____ on of before _____.

Resource: Effective Compliance Systems: A Practical Guide for Educational Institutions by David B. Crawford, Charles G. Chaffin and Scott Scarborough

COMPLIANCE RISK ASSESSMENT AND IMPLEMENTATION PLAN



1.	2.	3.	4.	5.	6.	7.	
Law, Procedure, Policy, etc.	Risk and Exposure	Potential Impact H, M, L	Probability of Occurrence H, M, L	Rank Before Controls	Mitigation Strategy	Controls	Rank After Controls
Allowability of administrative/clerical salaries							
Fly America							
Drug Free Workplace							
Conflict of Interest (with financial subjects involvement)							
Conflict of Interest (without financial subjects involvement)							
NIH Salary Cap							



C COMPLIANCE RISK ASSESSMENT AND IMPLEMENTATION PLAN



1.	2.	3.	4.	5.	6.	7.	
Law, Procedure, Policy, etc.	Risk and Exposure	Potential Impact H, M, L	Probability of Occurrence H, M, L	Rank Before Controls	Mitigation Strategy	Controls	Rank After Controls
Seat Belt Requirements							
Effort Certification							
Constitution Day							

