UCSB

UCSB Audit and Advisory Services

Internal Audit Report

**Financial System Implementation Project:
Project Progress Review**

May 2, 2013

Performed by:
Angelo Quindara, Protiviti
Scott Nakamura, Protiviti
Jason Brucker, Protiviti
Ronan O'Shea, Protiviti
Jeremy Harbin, Audit Analyst

Approved by:
Robert Tarsia, Director

Report No. 08-13-0008

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University of California Santa Barbara

AUDIT AND ADVISORY SERVICES
SANTA BARBARA, CALIFORNIA 93106-5140
Tel: (805) 893-2829
Fax: (805) 893-5423

May 2, 2013

To: Brian Richard, Director
        Administrative Systems Program Management Office

        Jessie Masek, Financial System Project Manager
        Administrative Systems Program Management Office

Re: **Financial System Implementation Project: Project Progress Review**
        Audit Report No. 08-13-0008

As part of the 2012-13 annual audit plan, Audit and Advisory Services conducted a Project Progress Review of the University of California, Santa Barbara (UCSB) Financial System Implementation Project (FSIP). This review is part of a series of audits designed to support FSIP efforts. Enclosed is the report detailing the results of our review.

The primary purpose of this review was to identify and evaluate the key project risks and project management practices associated with UCSB's FSIP initiative and overseen by the Administrative Systems Program Management Office (PMO). The scope of the review was limited to FSIP activities and documentation available through March 22, 2013, as related to FSIP Phase 1 efforts.

Our review found that project management processes and practices are in place and sufficient to identify, monitor, and report project progress and key project risks. Looking forward to the second half of FSIP Phase 1 and starting Phase 2, there are opportunities to enhance project management practices to facilitate the effectiveness and efficiency of the FSIP initiative.

Detailed observations and management corrective actions are included in the following sections of the report. The management corrective actions provided indicate that each audit observation was given thoughtful consideration and that positive measures have been taken or planned to implement the management corrective actions. The cooperation and assistance provided by Administrative Systems PMO, Ciber, and UCSB departmental personnel during the review was sincerely appreciated. If you have any questions, please feel free to contact me.

Respectfully,

Robert Tarsia
Director
Audit and Advisory Services

Enclosure

cc: Chancellor Henry Yang
     Executive Vice Chancellor Gene Lucas
     Associate Vice Chancellor Ron Cortez
     Peter Rupert, Professor and Chairman, Economics
     UCSB Audit Committee
     Sheryl Vacca, Senior Vice President and Chief Compliance and Audit Officer
     Jim Corkill, Director and Controller, Business and Financial Services
     Leslie Griffin, Associate Director, Business and Financial Services

PURPOSE

The primary purpose of this review was to identify and evaluate the key project risks and project management practices associated with the University of California, Santa Barbara (UCSB) Financial System Implementation Project (FSIP) and overseen by the Administrative Systems Program Management Office (PMO). This audit is part of UCSB's 2012-13 annual audit plan and is part of a series of audits designed to support FSIP efforts.

SCOPE, OBJECTIVES AND METHODOLOGY

The scope of the review was limited to FSIP activities and documentation available through March 22, 2013, as related to FSIP Phase 1 efforts.

The objectives of this review included the following:

- *Project Risk Assessment*:

    o   Gain an understanding of the current state of FSIP through review of existing project documentation and interviews with FSIP stakeholders and team members.

    o   Identify and prioritize key areas of risk within FSIP for additional tracking and/or analysis by UCSB Audit and Advisory Services.

    o   Develop a risk scorecard to enable ongoing monitoring of FSIP risks by UCSB Audit and Advisory Services.

    o   Validate the prioritization of FSIP risks and finalize the FSIP risk scorecard through follow-up discussions with FSIP stakeholders and team members.

- *Project Management Activity Assessment*: Based on the project risk assessment results, identify key project management activity assessment areas; complete selected project management activity assessments, and identify areas for potential future audit efforts.

To accomplish our objectives, we:

- Reviewed and analyzed University of California (UC) policies and procedures related to system development and security, including Business and Finance Bulletin IS-10, *Systems Development and Maintenance Standards* (BFB IS-10) and Business and Finance Bulletin IS-3, *Electronic Information Security* (BFB IS-3).

- Reviewed and analyzed select FSIP documentation for Phase 1, including the project plan as of February 28, 2013, and March 20, 2013, project charter, FSIP Start-up Phase I Status Report, Fit/Gap Analysis and Results[1], project status reports, issues log, FSIP Steering Committee objectives and agendas, the PMO's FSIP intranet site, and UCSB's contract with Ciber, the firm selected as UCSB's FSIP implementation partner.
- Interviewed stakeholders involved with and impacted by FSIP Phase 1 (see Appendix for listing of individuals interviewed).

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[1] Fit/Gap analysis includes identifying key data or components that fit within a business system and gaps that need solutions.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing.*

BACKGROUND

UCSB implemented its current legacy mainframe financial system over thirty years ago. Over the years, limitations in a number of areas resulted in a number of workaround solutions to meet campus needs, including a wide range of shadow systems and a data warehouse[2]. Several campus committees reviewed the legacy financial system, and each committee recognized the need to replace it, citing a combination of technical and resource issues that identified the ongoing operation of the campus financial system as a key campus risk, primarily because:

- The system is written in older programming languages, and is coexisting with outdated and unsupported versions of vendor software.

- Personnel who have the institutional knowledge and the ability to support the system, including the relevant technical infrastructure and programming language skills, are becoming scarce.

The UCSB FSIP began in October 2010 for the purpose of assessing the current financial system's continued operational viability and identifying and evaluating near-term options to replace the system. As part of this evaluation, UCSB contracted with Gartner Consulting to provide an independent and objective assessment of the UCSB financial system's current state, to identify risks and recommend mitigation strategies for each risk, and to identify alternate financial system solutions and approaches that should be considered. The report recommended purchasing and implementing a comprehensive commercial enterprise resource planning (ERP) system. Following this report, rSmart and IBM were engaged to evaluate the Kuali Financial System, previously evaluated in conjunction with UC Irvine and UC Davis, and Oracle/PeopleSoft Financials (PeopleSoft), currently in place at three UC campuses – UC San Francisco, UC Riverside, and UC Berkeley. On December 15, 2011, the FSIP Steering Committee unanimously recommended implementing Oracle/PeopleSoft Financials. Additionally, the UC Office of the President chose the Oracle platform for UCPath, the new systemwide human resources and payroll system, creating an opportunity to leverage synergies between existing products.

In March of 2012, the campus hired Moran Consulting to write a Request for Services (RFS) for the Oracle/PeopleSoft Financials implementation. After reviewing a variety of proposals, in September of 2012 the campus contracted with Ciber to implement Oracle/PeopleSoft Financials. FSIP Phase 1 encompasses deployment of General Ledger, Chart of Accounts, Commitment Control (Budgeting), Accounts Payable, Purchasing Integration, Asset Management, and Project Costing modules, as well as relevant interfaces with campus shadow systems. Implementing these modules will lay the groundwork for decommissioning the legacy mainframe system and proceeding with additional financial modules in subsequent FSIP phases.

Table 1 illustrates the modules that are planned for each FSIP phase per the Project Charter. Estimated total costs for the FSIP implementation effort is based on budget to actual calculations provided by the Administrative Systems PMO.

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[2] A shadow system is any application or database used for business processes that is not provided and supported centrally. A data warehouse is a database used for reporting and data analysis. The data stored in a data warehouse is uploaded from the organization's operational systems, such as the campus financial and payroll systems.

Table 1	FSIP Project Schedule and Cost Highlights
Phase*	**Module**
Phase 1	General Ledger Chart of Accounts Commitment Control (Budget) Accounts Payable Asset Management Purchasing Integration Project Costing
Phase 2	Contracts Grants Management Billing Accounts Receivable
Projected Full Budget to Year End 2015-16**	**$19 million**

Source: Administrative Systems PMO
*Phases 3 and 4 are to be determined.
**Includes startup costs, salaries and benefits, vendor services, training, office expenses, and contingencies.

Initial plans provided for a one-year pause following Phase 1 deployment to allow UCSB to implement UCPath. At the conclusion of that period, UCSB would move forward with Phase 2, which includes the deployment of Contracts, Grants Management, Billing, and Accounts Receivable solutions. However, the UCPath project timeline was subsequently revised, and UCSB is now planning to move forward with FSIP Phase 2 immediately after Phase 1 is complete. In addition to the modules listed above, Phase 2 will include business process redesign/improvements as well as required integration with other key campus systems, including the UCSB Data Warehouse, UCSB Procurement Gateway (an e-procurement system), department-specific shadow systems, and others.

A critical FSIP goal is for UCSB to implement delivered functionality to provide flexibility, sustainability, and to value configuration over customization. UCSB expects a very conservative approach in regard to customization and will utilize tight project management controls and analysis to ensure this outcome.

UCSB identified the need for a Program Management Office (PMO) function to help manage this initiative and other critical campus system implementation programs. The Administrative Systems PMO was established in 2012, and a PMO Director and FSIP Project Manager (PM) were hired in July and September 2012, respectively. Working with the Ciber PM, the PMO helped to define a structure and methodology for FSIP implementation that did not previously exist on campus.

SUMMARY OPINION

The audit found no critical weaknesses in the areas included in the scope of our review. Our work did identify opportunities for improvement in the following areas:

- Oversight and Governance
- Organizational Readiness/Training
- Resources
- Testing and Gap Resolution

Audit observations and management corrective actions are detailed in the remainder of the audit report.

DETAILED OBSERVATIONS AND MANAGEMENT CORRECTIVE ACTIONS

A.   Improving FSIP Oversight and Governance

1. A More Effective Steering Committee

   Our interviews with key stakeholders and review and analysis of FSIP project documentation highlighted opportunities to enhance the oversight and governance function to further mitigate project risks.

   Formalizing a Charter

   At the time of our audit fieldwork, a FSIP Steering Committee charter was not formally documented. This document would define the purpose, objectives, and role of the FSIP Steering Committee and its members, and would detail the required commitment and decision-making responsibilities of committee members. Without a formally documented charter, the FSIP Steering Committee may be limited in its ability to provide appropriate guidance, direction, and oversight for future phases of FSIP.

   It is our understanding that a charter is currently being formalized and will be finalized shortly. In documenting the charter, the Administrative Systems PMO should:

   - Work with the FSIP Steering Committee and consider incorporating guidance on the authority of working groups/committees to address issues and questions which may not require the involvement of the entire FSIP Steering Committee.

   - Ensure that each project under its oversight with a steering committee has a documented charter that contains the appropriate sections and guidance.

   Steering Committee Size and Composition

   The FSIP Steering Committee was assembled with the campus culture of shared governance and collaboration as a key consideration. However, our audit observations suggest that there is an opportunity to consolidate the number of FSIP Steering Committee members in a manner that is consistent with the campus culture.

   The FSIP Steering Committee is approximately 25-50% larger than similar committees at two other UC campuses with similar financial system implementation projects, UC Irvine and UC Davis. The size of the steering committees for the Kuali implementations at UC Davis and UC Irvine is 19 and 13 members, respectively. In addition, not all 26 FSIP Steering Committee members are directly impacted by or involved with the scope of Phase 1, which could result in ineffective dialogue and resulting challenges to an effective decision-making process.

   As Phase 1 wraps up and the campus moves to Phase 2, the Administrative Systems PMO and FSIP Steering Committee should consider re-evaluating the membership of the FSIP Steering Committee to more closely align it with the campus units directly impacted by or involved with the Phase 2 scope.

Additionally, to ensure the FSIP Steering Committee is working as effectively as it can, the Administrative Systems PMO should consider reassessing whether:

- The FSIP Steering Committee receives appropriate data to perform its role.

- Members have the right context/background to participate in appropriate decisions.

2. Improving Communication

During our initial interviews with stakeholders, there was a perception that communication was ineffective and not always timely. The results of our interviews later in the course of our audit fieldwork suggest that the Administrative Systems PMO and Ciber PM have improved stakeholder perceptions related to communication by formalizing and adding structure to the FSIP communication processes, including establishing a Communication Plan, providing more frequent periodic updates via multiple mediums, town hall presentations, etc. However, the later interviews also suggest opportunities for further improvement.

The stakeholders we interviewed acknowledged the benefits of face-to-face meetings, enhancing/reorganizing the FSIP project SharePoint site, and leveraging various communication mediums (e.g., email, Facebook, Twitter, FSIP SharePoint site, etc.). However, the results of our follow-up interviews suggest that some functional groups still perceive communication as ineffective, and that there are opportunities to improve that perception and enhance the effectiveness of communications. Stakeholder concerns included:

- Lack of effective communication across functional teams/groups to discuss related issues.

- The scheduling of issue resolution meetings and inclusion of inappropriate team members.

- Team members (Ciber functional leads, UCSB functional leads[3]/subject matter experts, and PM) not always on the same page.

- Lack of timely updates of the PMO website (At the beginning of March 2013, the last posting to the News and Updates section was dated January 14, 2013.)

Looking to the second half of Phase 1 and for Phase 2, the continued perception of ineffective communication could increase the risk of stakeholder frustration, inaccurate or incomplete definition of business requirements, and insufficient resolution of issues. Ineffective communication could also increase the risk of insufficient organizational change management, which could diminish the expected benefits of the new system. The Administrative Systems PMO should continue to work with Ciber and UCSB functional teams to improve communication.

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[3] UCSB functional leads are the primary contact for a particular functional area, such as General Ledger/Chart of Accounts, Accounts Payable, Purchasing, Asset Management, Commitment Control (Budgets), etc., and work closely with the corresponding Ciber consultants during the implementation. They are responsible for coordinating meetings, managing and resolving team issues, reporting progress to the project management team, and serving as a liaison between the project team and departmental management.

Management Corrective Actions

1. A More Effective Steering Committee

   We concur. Since the Financial System Implementation Project kick-off, both PMO staff and PMO Steering Committee members have expressed the following concerns:

   - The PMO Steering Committee's purpose is not clearly defined.
   - Approximately 80 percent of the current members are not directly involved in the project and are not "stakeholders" by definition.
   - Given the current membership of the PMO Steering Committee, this group would function more effectively in an advisory role and as a communications conduit.

   Since the writing of this audit report, we have shared these concerns with the PMO Steering Committee membership, and most have been receptive to reorganizing into a PMO Advisory Committee that meets every six weeks.

   Audit and Advisory Services will follow up on the status of this issue by October 31, 2013.

2. Improving Communication

   We believe that individual Business Process Team (BPT) Leads and members may need to be more proactive in their efforts related to group communication, scheduling meetings, including the appropriate people in meetings, and in communicating a consistent message. When the BPTs were initiated in October of 2012, the PMO hosted an orientation for all BPT members to clarify BPT goals, objectives, and the responsibilities of each team member. Individual meetings with each of the BPT leads were held to address issues and concerns, and to reiterate roles and responsibilities. Staff from the PMO and Ciber attends the weekly Accounting Department Managers Meeting to answer questions and listen to concerns. As of February, the PMO started a mandatory Monday meeting of all the BPT Leads to assign weekly tasks and to identify issues and concerns. Throughout this project, the PMO has consistently listened to and taken steps to accommodate the concerns of BPT Leads.

   As stated in footnote 3 of the Audit Report:

   UCSB functional leads are the primary contact for a particular functional area … and work closely with the corresponding Ciber consultants during the implementation. They are responsible for coordinating meetings, managing and resolving team issues, reporting progress to the project management team, and serving as a liaison between the project team and departmental management.

   In retrospect, it appears that, even though the PMO communicated to the BPT their responsibilities as team lead numerous times, some needed more actual guidance through the process. Therefore the PMO initiated mandatory weekly meetings in February with BPT Leads, and we believe these meetings are mitigating this confusion over who is responsible for communication between Ciber and the BPTs, and within the BPTs.

   With regard to general campus communication, we do understand the perceptions of ineffective and untimely communication described in the audit report. However, the PMO has been very proactive, producing multiple streams of campus communications. We write

communications plans for the Financial System Implementation Project on a quarterly basis. The public website was created within a month of when the PMO was initially set up and has been updated regularly regarding the Financial System Implementation Project, including monthly newsletters that were not mentioned in the audit report. There has been no major news of interest to the whole campus that needed to be posted in the "News & Updates" section. We have delivered multiple departmental presentations regarding the projects the PMO is managing (approx. 60 in seven months), and we recently began hosting monthly information sessions intended for the whole campus. Additionally, for staff directly involved in the project, SharePoint is used for collaboration of documents, and information. Information regarding the Financial System Implementation Project is readily available.

To address the perceptions stated in the report, the PMO will begin working with the UCPath Advisory Committee this summer to cultivate a campus-wide communications network regarding this and other PMO projects. The purpose of this communications network will be to ensure that memos sent to the campus managers' listserv are passed on to departmental staff and discussed as needed in staff meetings. Furthermore, we are supportive of efforts by the Office of Public Affairs to build a campus-wide e-newsletter.

UCSB is implementing four major systems within the span of a few years, and has had very little change management activity for department managers and campus leaders leading up to these implementations. As a result, we expect these perceptions to improve slowly and progressively throughout the year; this campus is seeing unprecedented change in a short time frame. It is important to note that the Financial System's Phase 1 is affecting a limited audience on campus.

Audit and Advisory Services will follow up on the status of this issue by October 31, 2013.

B. Enhancing Organizational Readiness and Training

Our interviews with stakeholders identified opportunities to enhance organizational readiness and more completely address training risks related to FSIP Phase 1. As stated in the Background section of this report, UCSB implemented its current financial system over 30 years ago; there has been a general sense of uneasiness and/or skepticism to change among the stakeholders as the campus moved towards the implementation of a new system. The FSIP also highlighted the need for updated computer skills for some campus personnel, which may impact the success and effectiveness of the transition to Oracle/PeopleSoft Financials. Areas for which training is required include familiarity with modern financial applications and common project team collaboration tools and applications (e.g., web applications, SharePoint, etc.).

Although these challenges have been encountered in FSIP Phase 1, the impact was mainly limited to financial and accounting functions, so the Administrative Systems PMO and Ciber PM were able to work through them and address them appropriately. As FSIP moves to Phase 2, more campus departments and personnel will be impacted; the Administrative Systems PMO should therefore consider a more proactive approach, including performing an evaluation of computer skills. Depending on the results, the Administrative Systems PMO should consider coordinating a wider range of training sessions to ensure that campus personnel impacted by FSIP Phase 2 have a common level of computer skills and familiarity with the applications and tools used.

Management Corrective Actions

We concur with this finding. We believe that proactive succession planning, career development, training, strategic vision, and performance measures should be a part of every organization.

Audit and Advisory Services will follow up on the status of this issue by October 31, 2013.

C. Adequacy of Resources

Our interviews with stakeholders also identified risks related to the level of resources allocated to FSIP. There are functional team members facing multiple competing priorities, including daily job duties, year-end accounting close, and other concurrent projects/initiatives, that can limit their effectiveness and ability to be fully engaged in critical FSIP project steps. In addition to FSIP, there are several initiatives in progress that involve changes to campus systems and processes, including UCSB Procurement Gateway, UCPath, and campus-wide timekeeping system. As the campus moves into the second half of FSIP Phase 1 and looks to plan for Phase 2, there are opportunities to improve and complete backfilling of positions so that key functional team members can devote the requisite time to meet the requirements of FSIP and other initiatives. Management and the functional leads of the impacted teams should initiate the process to identify and acquire resources to effectively backfill positions. Our stakeholder interviews also suggest there are risks associated with UCSB functional leads who may not feel empowered to make decisions. The Administrative Systems PMO, in conjunction with appropriate functional team leads, should consider multiple communications to team members regarding roles and responsibilities to ensure appropriate expectations are established and understood by all.

Management Corrective Actions

We concur with this finding. As a result of the speed of the project, resources such as subject matter experts are difficult to decouple from daily operations and devote time. Cross-training other staff to backfill takes an investment of time as well, impacting the workflows and project. Although it would have been ideal to have numerous staff available and ready from day one, this could have delayed the project from starting. It is commendable that the project was started; resource deficiencies and other vulnerabilities, foreseen and unforeseen, will be dealt with as they are exposed.

The Administrative Systems PMO has been leading an effort to address this finding. We have hired several additional staff and are continuing to recruit, as well as provide temporary staffing solutions for the Business and Financial Services and contracting with outside vendors.

Audit and Advisory Services will follow up on the status of this issue by October 31, 2013.

D.   Testing and Gap Resolution

Certain key testing and validation steps related to interfaces, data conversion, management reports, and Oracle/PeopleSoft user security roles/responsibilities were either in process or scheduled to start after we completed the audit fieldwork. Functional teams were also reviewing and modifying system testing scripts and scenarios to incorporate appropriate test cases for transactions and interfaces with various shadow systems; however, these were not ready for review at the time of our fieldwork. Audit and Advisory Services plans to perform a follow-up review when these areas are completed to analyze and assess that:

- Validation testing[4] scenarios are complete and include appropriate test cases.

- The inventory of identified interfaces is complete and that there is appropriate validation with adequate volumes of test transactions.

- The results of validation testing and procedures are appropriately documented, including results, issue resolution, and appropriate approvals.

- The issues identified during testing and validation are documented and tracked through resolution.

- Data conversion procedures are complete and include the appropriate level of precision and data volumes.

- Oracle/PeopleSoft user security roles and responsibilities are designed with appropriate segregation of duties and rules for access to sensitive data.

- Management reports identified are tested for accuracy and completeness and approved by appropriate stakeholders.

At the conclusion of our audit fieldwork, final resolution and approval were in process for the gaps identified during the Fit/Gap analysis and configuration validation and testing. As FSIP moves into the second half of Phase 1, there is a risk that some of the gaps identified may adversely impact the project's timeline. When the evaluation in this area is complete, the Administrative Systems PMO should confirm that all gaps identified were addressed appropriately, that resolutions were properly approved, and that documentation of the agreed-upon gap resolution was retained and posted to the FSIP project site.

Management Corrective Actions

The Administrative Systems PMO is in the process of confirming that all gaps identified and approach papers to resolve these gaps were addressed appropriately, with an appropriate solution for the project goal. These approach papers are posted on the FSIP SharePoint site and the final resolutions will be as well.

Audit and Advisory Services will follow up on the status of this issue by October 31, 2013.

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[4] Validation testing seeks to ensure that software functions and performance characteristics conform to specifications. Another type of testing, acceptance testing, is aimed at ensuring that the software works correctly for the intended users in the normal work environment.

Appendix: Individuals Interviewed

Name	Group / Process Team	Home Department
Jim Corkill*	General Ledger / Chart of Accounts	Business and Financial Services
Leslie Griffin	General Ledger / Chart of Accounts	Business and Financial Services
Butch Phillips	General Ledger / Chart of Accounts	Business and Financial Services
Monica Dunne	General Ledger / Chart of Accounts	Business and Financial Services
Linda Sessler	Project Costing / Contracts & Grants	Business and Financial Services
Kara Kaneda	Project Costing – FAMAS	Facilities Management
Susan Esparza	Project Costing – FAMAS	Business and Financial Services
Jenny Kai	Project Costing – FAMAS	Facilities Management
Vaughn Boyle	Asset Management	Business and Financial Services - Purchasing
Lynn Tran	Asset Management	Business and Financial Services
Arliene Shelor*	Budget	Budget and Planning
Bob Silsbee*	Budget	Office of the Vice Chancellor for Administrative Services
Briana Villasenor	Budget	Office of the Registrar
Steve Kriz*	Accounts Payable	Business and Financial Services
Eric Sonquist*	Accounts Payable	Institutional Advancement
Asger Pedersen	Accounts Payable	Business and Financial Services
Jacob Godfrey	Purchasing	Business and Financial Services - Purchasing
Christine Griffin	Purchasing	Business and Financial Services - Purchasing
Pam Lombardo*	Steering Committee	Environmental Health & Safety
Donna Trimble*	Steering Committee	Chemistry
Doug Drury*	Steering Committee	Administrative Services Information Technology
Tom Putnam*	Steering Committee	Associate Vice Chancellor for IT and CIO
Lubo Bojilov*	Steering Committee	Student Affairs Information Systems
Tricia Hiemstra*	Director	Human Resources
Brian Richard	Director	Administrative Systems PMO
Jessie Masek	FSIP Project Manager	Administrative Systems PMO
Gene Lucas*	Executive Vice Chancellor	Executive Vice Chancellor
Lucy Finkelstein	Project Manager	Ciber (Contract)
Ron Cortez*	Associate Vice Chancellor	Office of the Vice Chancellor for Administrative Services
Robert Tarsia*	Director	Audit and Advisory Services

*Individuals identified with an asterisk (*) are also members of the FSIP Steering Committee.