UNIVERSITY OF MICHIGAN

REGENTS COMMUNICATION

Item for Information

Subject: Report of University Internal Audits
             December 2010 through January 2011
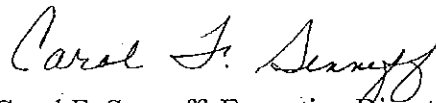
Background:

This is the report of the Office of University Audits activities for the period **December 2010 through January 2011**. The summaries of audits contained in this report were previously reported to members of the Regents' Finance, Audit and Investment Committee and included in discussions at Committee meetings.

Included in this report:
- Summaries of each audit report issued during the period, including Management's Plan to enhance specific control processes discussed with the audit client and presented in the report.
- Summaries of follow-up review reports issued during the period, including the actions taken by Management. Follow-up reviews are designed to give assurance that Management's Plan for corrective action has been implemented and controls are working appropriately.
- A report on the status of follow-up reviews as of **January 31, 2011**.

If you have any questions or would like additional information, please contact me at 647-7500 or by e-mail at csenneff@umich.edu.

Respectfully submitted,

Carol F. Senneff

Carol F. Senneff, Executive Director
University Audits

ORIGINAL REPORTS

Campus

University of Michigan Museum of Art   #2010-201
Report issued December 17, 2010

The Provost requested an audit of the University of Michigan Museum of Art (UMMA) due, in part, to the Museum's major transitions over the past few years:

- The building re-opened in March 2009, after three years of renovation and expansion including:
    o Major restoration of its historic Alumni Memorial Hall
    o Development of the Frankel Wing, which more than doubled its square footage
    o Additions of an auditorium, classrooms, and a variety of educational gathering spaces
    o Implementation of UMMA's DialogTable, an interactive storytelling and social learning tool
- The leadership to whom UMMA reports within the Office of the Provost changed several times
- The new Museum Director was appointed in July 2010, following a year with a team of interim co-directors

With the new building space, UMMA significantly enhanced the programs and services offered to the University community and the general public. Programs range from story-time for four to seven year olds and tours for kindergarten through grade twelve school children to workshops on drawing and painting and other public programming for performing arts, spoken word, and film. UMMA plays an important role in academics by promoting collaboration across disciplines and bringing the classroom to life with hands-on experiences. The Museum's Education Center now features an auditorium, object study classrooms, a research library, and open storage offering visual access to additional works of art not on display in traditional gallery spaces. UMMA is accredited by the American Association of Museums.

The curators and the Museum Registrar develop and maintain the Museum's collections. UMMA has four curators with specialties in western art, modern and contemporary art, Asian art, and education. The curators work on acquisitions, conduct research on objects, and assist with planning and executing exhibitions. The Museum Registrar oversees the physical care of the collections.

The docent program is another integral part of the Museum. UMMA's docents are highly trained volunteers who offer tours and gallery lessons on UMMA's collections and exhibitions for visitors as part of the Museum's educational outreach mission. People interested in becoming a docent must submit a written application and go through a competitive interview process. Successful candidates complete a one-year training program under the supervision of education staff, complemented by twenty-five to thirty-five continuing education sessions per year. Currently, there are 61 touring docents and 34 emeriti docents (emeriti docents participate in educational events but do not regularly conduct tours). Docents who provide tours are evaluated by staff and docent master teachers on a regular basis. UMMA has been recognized for the excellence of its docent program through local awards.

Exhibitions are one of the ways UMMA increases appreciation for art and attracts visitors to the Museum. There are three different types of exhibitions:

- In house – UMMA owns the objects on display.
- Loans – UMMA borrows objects from all over the world. These exhibitions require a contract with the individual or organization that owns or creates each object.
- Traveling – UMMA may own and/or borrow objects to create an exhibition that will be displayed at institutions around the world.

In addition to general fund appropriations, gifts, donations, and grants, UMMA has many other sources of revenue that support its operations. During fiscal year 2010, UMMA earned over $500,000 from external resources and recharge revenue. This amount is composed of funds from the Museum Store sales, facility rentals, conservation lab fees, and teacher workshops.

UMMA's Asian Art Conservation Laboratory provides specialized care for its collections of nearly 400 Chinese and Japanese paintings and more than 7,000 prints and drawings in a space designed for public viewing. The lab also provides conservation services to institutions and individuals worldwide, which provide additional revenue to UMMA.

The Museum Store at UMMA offers contemporary, one-of-a-kind, art-inspired items produced in the United States, including many by local artists. As part of a recycling initiative, wood from trees removed from the site of the new Frankel Wing and other places around campus has been transformed into beautiful pieces of wood art, sold exclusively through UMMA.

The objective of this audit was to evaluate the adequacy of UMMA's internal controls over the following key processes:
- Managing, tracking, and reconciling Museum collections
- Acquiring artwork
- Borrowing and loaning objects for exhibitions
- Budget monitoring
- Gift processing
- Cash handling for Museum Store revenue, gifts, conservation lab fees, and workshops
- Building safety
- Business continuity and disaster recovery planning
- Compliance with relevant laws and regulations specific to a Museum environment, such as copyright laws and receiving gifts of art
- Conflict of interest/commitment
- Payroll processing
- Procurement

Physical security of the collections in the gallery is part of ongoing collaboration between U-M's Department of Public Safety and UMMA, and was not included in this audit.

Risk and Control Discussion
- Budget Monitoring - Budgeting for exhibitions is a complex process. The curators begin developing the budget for a specific exhibition years before the actual event. Funds to support an exhibition can come from various sources, such as gifts, grants, and cost sharing by UMMA or other campus units. Some of UMMA's past exhibitions generated large deficits for a variety of reasons including:
  - UMMA did not receive funds from external sources as planned
  - Funds were not available to support UMMA's cost sharing commitments
  - Expenses were higher than expected
  - UMMA's actions did not sufficiently address the deficit

UMMA has the tools and information to monitor their budgets and establish accountability. Budget managers are provided with a monthly report that details existing balances. They are required to sign a form attesting to the accuracy and appropriateness of the budget report; however, there is no formal process to document explanations for variances or prepare contingency plans to help stay within budgets. Documented budget monitoring procedures should specify who is responsible for recommending and authorizing budget changes and corrective actions to ensure UMMA effectively operates within budget.

UMMA uses an internally developed FileMaker Pro system for building and monitoring their program budgets. This system was necessary because exhibition budgets often have more than one project grant and fund and require more detailed reporting than the University systems provide. The internal system has many fields that auto-populate but maintaining it still involves manual re-entry of data and a detailed process to reconcile with University systems. There are no documented procedures for operation and maintenance of UMMA's internal budgeting system.

UMMA is considering ways to improve their budget monitoring system. They met with staff from Information Technology Services (ITS) to review their internal system and determine how University systems could be used instead. Alternatively, they are evaluating an open-source software tool that would reduce the manual work currently required through a more direct interface with University source data.

Efficiency should be a major factor in determining the most appropriate next steps for changing or improving the system used for budgeting. ITS indicated that converting to University systems would be a time consuming process, but possible. Since improving the internal system will also take a significant amount of time, it is important to analyze which system will improve efficiency in the long run. If continuing with an internal system is the best solution, the following controls must also be implemented:
- o Documented operational and maintenance procedures, including backup and recovery
- o System training for more than one individual

Management Plan - The nearly three-year construction of the Frankel Wing and renovation of Alumni Memorial Hall project, in conjunction with management changes, contributed to the Museum's deficit in the most recent fiscal years. UMMA, with the new Director and increased oversight from within the Office of the Provost, has already implemented additional budget monitoring and control procedures to prevent budget overruns. For fiscal year 2011, the Director and Chief Administrative Officer will enforce these procedures during regular meetings and annual performance evaluation discussions with each budget manager. Modifications and additions to UMMA's process include:
- o Monitoring salary and staff benefit costs and projections monthly
- o Creating A, B, and C-level alternative budgets for exhibitions
- o Monitoring income, both earned and raised, regularly with the Director of Development

UMMA is exploring options for streamlining the efficiency of the financial reporting system. Over a year ago, UMMA's IT staff began to think about how to integrate financial data into UMMA's current suite of cloud-based custom software. With the arrival of a new Director and the announcement that Apple will no longer support the version of FileMaker Pro we use for financial reporting, we have already begun looking for how to best integrate and adapt what financial data is available through M-Pathways with what UMMA requires and will again

contact ITS for their expertise. Anticipated timeline for completion will depend on resources available and compatibility with Apple, as well as the reporting needs of the new Director.

UMMA will document brief operational and maintenance procedures for the existing system. We will explore options for training an additional staff person.

Collections Inventory Management - UMMA has more than 19,000 works of art in its collection. The Museum Registrar assigns a unique identification number to every object that comes into the museum and enters important data into the inventory management system. Each object, whether it is a new purchase, gift, borrowed item, or a long-term loan (on consignment), also has an "object file". Object files contain information such as a picture and description of the object, how to care for the object, and the object's complete history.

- Condition Reports - Condition reports are used to record the physical condition of all objects that enter or leave the Museum. If damage is noted on a condition report, insurance claims can be managed between the borrower and the Museum. University Audits reviewed the object files for a sample of objects that were loaned to and borrowed from another institution. UMMA did not consistently prepare condition reports for the loaned objects.

  To help ensure that condition reports are always completed with appropriate sign-off, create a checklist that must be prepared when an object is loaned to another institution. Include steps for obtaining a copy of the borrowing institution's insurance certificate and facility report, and completing and signing the condition report when the object leaves and is returned to the Museum.

  Management Plan - The Museum Registrar created checklists for acquiring and loaning art to be maintained with the object files and is documenting procedures to follow when an object is loaned.

- Reconciliations - Most of UMMA's collections are maintained in secured storage areas within the Museum. Some of the collections are displayed at the President's House and other locations. Security staff performs daily reconciliations of the objects on display in UMMA's galleries. Due to limited resources, UMMA is not able to appropriately separate the responsibility of reconciling the objects that are not displayed in the galleries. Duties of the collection staff require:
  o   reconciling all objects stored at UMMA once every five years
  o   reconciling objects at the President's House and other locations annually
  o   having access to the physical objects and inventory management system

  Two of these individuals also have the ability to delete an object from the system. There is no monitoring to make sure inventory is not inappropriately deleted from the system of record. The collections at the President's House and other locations were last reconciled in 2008. Documented procedures for reconciling the collections were last updated in 2003 and do not include specific guidelines that should be followed or procedures for reconciling the inventory at the President's House and other locations.

  Security staff check all employees' bags as they enter and exit the Museum, which helps reduce the risk of inventory being diverted.

  Management Plan - UMMA will explore with UMMA IT staff how to create a report that shows deleted objects that can be reviewed twice per year. We will require that two people

conduct inventories of the collection when they occur. A new annual schedule for inspecting and maintaining artwork in locations other than UMMA will be created. The Museum Registrar is in the process of updating documentation for inventory procedures.

Museum Store Inventory Management - Museum Store staff consists of a Store Manager, a temporary Assistant Manager, and two to seven clerks, depending on the season. The clerks are usually students who receive thorough training. The store is open Monday through Saturday from 10 AM to 5 PM and Sunday from 12 PM to 5PM. The Manager is at the store Monday through Friday during regular business hours. Annual sales increased significantly since the building re-opened in March 2009.

UMMA operated a temporary exhibition space while the facility was under construction (primarily during FY2007 and FY2008). During this time, the Museum Store remained open, but traffic was very low. Sales increased 45% from the last full fiscal year before the renovation (2006) to the first full fiscal year afterward (2010).
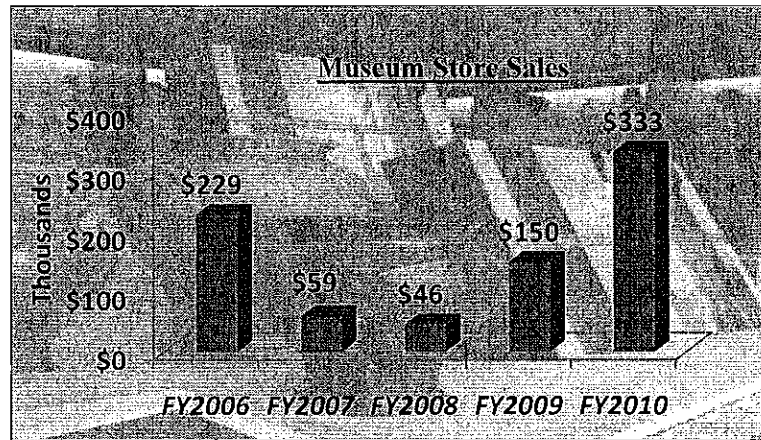
Physical inventory reconciliations are performed as needed throughout the year and a complete reconciliation is performed annually. The following are opportunities to improve controls over the store merchandise.

- Separation of Duties - Responsibilities for purchasing, receiving, and reconciling Museum Store inventory are not adequately separated. The Museum Store Manager and Assistant Manager have the following responsibilities:
  - o Purchasing store merchandise (primarily the Store Manager)
  - o Helping with receipt of merchandise
  - o Entering items into their inventory management system, which is the source for sales and reconciliations
  - o Reconciling the system report of received inventory to the purchasing invoice
  - o Assisting with physical inventory reconciliations

  Ideally, UMMA should separate responsibilities for purchasing, receiving, and reconciling store merchandise. Since this is not feasible with limited staff resources, to help reduce the risk of inventory being diverted, someone without access to the merchandise itself or the inventory tracking system should reconcile a sample of invoices to items received in the system on a regular basis.

  Management Plan - The Administrative Manager or Chief Administrative Officer will reconcile a random sample of merchandise received quarterly and investigate any discrepancies. This process will be documented in the inventory management procedures.

- Inventory Shrinkage - The Store Manager has access to edit quantities and delete items from the inventory system to ensure the system matches the physical inventory after reconciliations. The same adjustments are then manually entered into a spreadsheet used to review and monitor the amount of inventory shrinkage. The Store Manager is the only person that reviews this type of information annually.

  Management Plan - The Store Manager will explore with the inventory management system vendor how to create a report that may improve the efficiency of monitoring the inventory shrinkage. Following inventory(s), the Administrative Manager or CAO will also formally review reports.

- Credit Card Refunds - While refund activity for the store is low, most of the store's sales are made through credit card purchases. The responsibilities for processing credit card purchases and refunds are not always appropriately separated. Refund activity is not reviewed by a higher-level authority that does not have access to the credit card terminals. The Treasurer's Office Merchant Services Policy Document requires that a different individual be responsible for processing sales transactions and approving refunds.

  Management Plan - The Administrative Manager will review refund activity for the store on a quarterly basis. Documented procedures will be updated to reflect this change. We will explore the possibility of obtaining online access to bank statements.

Fiscal Responsibilities
- Payroll Process - The process for approving and reconciling payroll time could be improved:
  - UMMA recently converted to self-entry time reporting. The Administrative Manager is responsible for approving all UMMA employee time, except the security staff. There is no method for the approver to know whether time entered is accurate.
  - Reconciliation of the Gross Pay Register is not documented by the reconciler.
  - The Chief Administrative Officer's payroll time is currently approved by a direct report. This was expected to be a temporary solution until a permanent Director was chosen. The new Director started several months ago, but the process has not changed.

  Management Plan - The Museum will require that senior managers review the submitted time reports from the staff they supervise. They have direct knowledge of time worked or not worked and can approve accordingly for accuracy. Effective November 2010, the Director will be approving the Chief Administrative Officer's time report electronically. We are now initialing and dating the Gross Pay Register after reconciliation.

- Statement of Activity Reconciliation - System Access - Statements of Activity (SOA) are reconciled to source documentation on a monthly basis; however, employees responsible for reconciling and reviewing the SOA have system access to initiate and approve transactions. While initiating transactions is not one of their primary responsibilities, this access provides the opportunity to control a purchasing transaction from start to finish. Funds may be used inappropriately without detection if procurement duties are not appropriately separated. In addition, the SOA reconcilers do not initial and date the statements once the reconciliation is complete to document the reconciliation.

  Management Plan - The Museum will explore and address all suggested recommendations. In September, we began the process of initialing and dating the SOAs. Unnecessary procurement

access for the Chief Administrative Officer has already been deleted. We also review the Admin/Data Security Report from ITS regularly for changes that are needed.

Documented Procedures - UMMA does not have a comprehensive documented procedures manual. Several procedures do exist for:
- Managing the security of the building
- Operations of the Museum Store - last updated in 2002/2003
- Managing and tracking collections inventory - last updated 2002/2003

Although informal procedures exist for other processes, specific guidance is not documented. Absence of documented policies and procedures promotes inconsistent practices and creates inefficiencies. Good procedures give employees a point of reference for decision making and training.

UMMA does not have a new employee checklist or a terminated employee checklist to ensure appropriate steps are taken when employees are hired or leave the department.

Management Plan - New employee and termination checklists were documented during the course of the audit and are now used to help facilitate proper on-boarding and off-boarding of employees. UMMA will evaluate and create or update, as required, written documentation for the critical processes of operations. The Museum will review and revise the inventory management procedures documentation for the collection and the store. Employees will be trained on new procedures and included in the revisions and updating.

The significant expansion of the Museum's facility as well as programming and services offered to the University community and general public have allowed UMMA to build upon and enhance its mission; however, these positive developments also presented budgeting challenges. To support increased programming and more exhibitions with the same resources, budget planning, monitoring, and efficiency are critical. UMMA should continue to work closely with ITS and the Office of the Provost to improve their budget monitoring systems and processes. Increasing long-term efficiency should be a primary consideration in deciding whether to use a more automated internal system or the University systems. Developing contingency plans for major exhibitions and ensuring sufficient action is taken when budget-to-actual variances occur will help UMMA operate within budget.

Overall, UMMA has strong controls in the areas reviewed. University Audits will follow-up during the first quarter of fiscal year 2012 to assess progress made on corrective action plans.

UM-Flint School of Health Professions and Studies   #2010-209
Report issued January 25, 2011

The School of Health Professions and Studies (SHPS or School) was established in 1989 and is one of four schools at the University of Michigan at Flint (UM-Flint). The School's mission is to provide undergraduate and graduate level education in the health professions.

The School provides traditional academic coursework, a clinical experience in a health care setting, community outreach, distance learning, and on-site clinical care. SHPS has experienced the largest enrollment growth in recent UM-Flint campus history and is currently the largest source of research funding and expenditures at U-M Flint. SHPS is located in the William S. White building, which opened in 2002 with donations from the C.S. Mott Foundation.

The School is made up of three academic departments and a health center:

Department of Nursing

The Department of Nursing, in collaboration with Hurley Medical Center, began offering the Bachelor of Science in Nursing degree in 1991 and a Masters of Science in Nursing degree in 1997. The Masters program is gradually phasing-out; a Doctor of Nursing Practice program was added in 2009.

Physical Therapy Department

In January 1982, the Physical Therapy Department moved from the Ann Arbor campus to the Flint campus. The department added a Masters in Physical Therapy program in 1988 and the Doctor of Physical Therapy program in 2001. The Doctor of Physical Therapy was UM-Flint's first doctoral program.

Department of Public Health and Health Sciences

The Department of Public Health and Health Sciences offers programs of study leading to undergraduate degrees in Healthcare Administration, Health Education, Health Sciences, Clinical Laboratory Sciences/Medical Technology, and Radiation Therapy. The department began offering a graduate degree in Anesthesia in 1991. The Master of Science in Health Education was added in 1995. The Department of Public Health and Health Sciences was formerly known as the Department of Health Sciences and Administration. Effective August 2010, the School's management changed the name to better reflect the department's expanded curricula.
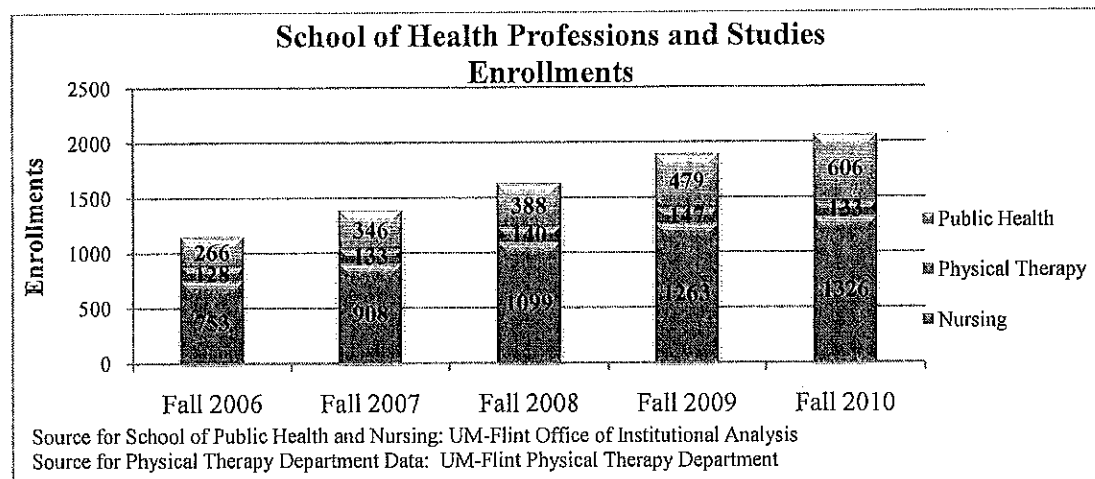
Urban Health and Wellness Center

The Urban Health and Wellness Center is a nurse-managed primary care and physical therapy clinic that provides outpatient healthcare services for UM-Flint students and members of the Genesee Health Plan. The Genesee Health Plan provides basic healthcare coverage for qualified, uninsured, limited-income adults aged 19 to 64.

SHPS Growth

The School has experienced significant enrollment increases over the past five years in response to the growing demand for health care professionals. SHPS growth is one of the reasons U-M Flint was recently named the fastest growing public university in the State of Michigan by the Presidents Council, State Universities of Michigan.

The following table illustrates historical data for enrollment levels since 2006:

Source for School of Public Health and Nursing: UM-Flint Office of Institutional Analysis
Source for Physical Therapy Department Data: UM-Flint Physical Therapy Department

Organizational Challenges

The School is facing several challenges:

- Rapid growth - Rapid growth strains SHPS capacity to provide services. Financial, faculty, and staff resources are spread thin and classrooms can be over-crowded. SHPS management has difficulty hiring experienced faculty and staff quickly enough to keep pace with enrollment growth.
- Decentralization - SHPS is decentralized as four functionally independent departments. Department managers naturally focus on their own departments and not on overall School goals. Departmental services are duplicated, which adds extra cost and promotes inconsistent practices.
- Funding model - Funding decisions at SHPS are managed and approved by department faculty as part of a historic faculty governance model. This type of funding model effectively limits a centralized focus on School-wide, strategic goals.

The focus of this audit was the SHPS Dean's Office and its academic departments: the Department of Nursing, Physical Therapy Department, and the Department of Public Health and Health Sciences. The Urban Health and Wellness Center was excluded from the scope of the audit; University Audits completed a review of its operations in fiscal year 2008.

University Audits evaluated the adequacy and effectiveness of controls governing the following processes within SHPS:

- Management of part-time faculty
- Student fees
- Off-site student clinical training programs
- Payroll and timekeeping
- Grant management
- Conflict of interest/conflict of commitment management
- Gift and endowment management
- Procurement, travel, and hosting
- Financial reporting and budgets
- Cash handling

Risk and Control Discussion

- Segregation of Duties - Segregation of duties is a key management tool. When properly segregated, tasks and associated privileges for a specific business process are distributed among multiple employees. No single individual should have control over two or more phases of a transaction or operation. University Audits observed several processes where segregated roles are needed for an effective control environment.
  - o Timekeeping - SHPS employees use the self-service feature in Wolverine Access to report time data. The Business Managers in the Physical Therapy Department and the Department of Public Health and Health Sciences act as the timekeeper, approver of employee time records, and reconciler of the Gross Pay Register in their respective departments. This concentration of duties could result in incorrect or inappropriate salary payments to employees. University Audits also noted that several employee time records were submitted late.
  - o Statements of Activity Reconciliations - Certain department reconcilers of Statements of Activity are also P-Card holders and/or have other purchasing authority. Statements are not consistently reconciled on a timely basis. Unauthorized or prohibited purchases may go undetected.
  - o Cash Handling - SHPS departments occasionally collect payments from students and affiliated healthcare institutions. The same individual controls the processing of the

payments from start to finish, which includes receiving cash, completing the cash receipts ticket, and delivering the payments to the Student Accounts/Cashier's Office for deposit. Deposits are not always made on a timely basis.

- o Journal Entries/Transfers - University Audits reviewed a sample of journal entries and noted that a P-Card holder completed journal entries for expenditures charged to their own P-Card account. The department director or some other higher administrative authority did not approve the journal entries. There was no indication of improper activity but journal entries should be independently reviewed and authorized.

- Faculty and Staff Certifications - The health professions are highly regulated industries, requiring special certifications and licensing for most professions. The School does not have an adequate process to follow-up on required faculty and staff certifications. Uncertified faculty and staff may lead to loss of academic program accreditation, malpractice, and non-compliance with federal and state regulations. Practices for tracking staff certifications are inconsistent from department to department.

- Privacy and Data Security - Robust patient privacy and data security practices are a fundamental requirement of healthcare organizations. SHPS faculty, staff, and students have access to protected health information in the clinical and research settings. Improvements are needed in privacy training and data security:
  - o Research staff involved in human subjects research have not completed "HIPAA for Researchers," a required course for all researchers engaged in human subjects research.
  - o Some faculty, students, and staff who have access to sensitive data have not signed confidentiality statements.
  - o The SHPS shared drives contain sensitive information. The shared drives have standard user access controls and there is a general lack of awareness that data is sensitive and needs restricted access.
  - o There are no school-wide policies or standards for raising privacy awareness and ensuring sensitive information is not viewed by unauthorized individuals.

- Policies and Procedures - Documentation of SHPS policies and procedures for department operations is not complete and many existing policies are out-of-date. Well-written policies, guidelines, and procedures allow employees to understand their roles, responsibilities, and limits. Job descriptions and job expectations are not consistently documented across all departments. Because SHPS has limited resources, documented policies, procedures, and job descriptions are critical for business continuity.

- P-Card Controls - Certain SHPS P-Card holders share their P-Card numbers with other faculty and/or staff, which is against University policy. Sharing of P-Card account numbers may lead to a lack of accountability for expenditures and unauthorized purchases.

- Conflict of Interest and Conflict of Commitment Management - Healthcare organizations are coming under more pressure from the Federal Government and other organizations to adopt proactive measures in conflict of interest management. University Audits observed that certain SHPS faculty and staff have not submitted Conflict of Interest/Conflict of Commitment Disclosure Forms to the Dean's Office as required by UM-Flint policy. Faculty and staff conflicts of interest and/or commitments may go undisclosed.

- Affiliate Payment Processing - The Nursing Department and the Department of Public Health and Health Sciences have contracts with outside healthcare institutions to provide clinical training to students and healthcare staff. The contracts are reviewed and approved by University Contract Administration. A number of these institutions pay an annual fee to the University to provide this service. The University negotiates fee payments with the outside institutions and the annual fee payments range from $4,000 to $6,000. There are inconsistent collection practices:
    o The Department of Public Health and Health Sciences collects the payments directly from the contracted institution and deposits the fees. This increases the risk of uncollected amounts and payment diversion. Payments from affiliate healthcare institutions should be sent directly to Financial Operations for processing.
    o The Department of Nursing has affiliate institutions send payments directly to Financial Operations in Ann Arbor, which supports timely processing, and updating of the accounts receivable.

Flint Office of the Provost Response - We have recently named an interim Dean to the School and are in the process of evaluating the School's funding and management structure. We concur with the report findings and recommendations and the Flint Office of the Provost is working with the interim Dean to take appropriate action. This report will be a helpful resource for evaluating and improving the current organizational control structure. We will provide prioritized management action plans by April 30, 2011.

SHPS is a strong academic program providing valuable educational and training resources to an economically stressed region. SHPS will need to carefully steward resources as enrollment increases. Management should evaluate centralizing some of the non-academic operations, such as employment, payroll, grant management, faculty and staff training, certification tracking, human resources, and finance. Common school-wide business practices will create efficiencies, promote a stronger control environment, and sustain anticipated growth.

University Audits will follow-up with the Office of the Provost to review management action plans in May 2011.

Information Technology

Information and Technology Services - Unauthenticated Wireless Access   #2010-312
Report issued December 22, 2010

Information and Technology Services (ITS) is considering providing unauthenticated guest wireless[1] access in its wireless service areas on the Ann Arbor campus. An unauthenticated wireless service does not require the user to provide credentials such as a username and password. University Audits has completed an evaluation of risks and controls associated with unauthenticated wireless service, as well as an assessment of existing unauthenticated wireless services both within U-M units and at peer institutions.

University Audits audited the UM Wireless Network in 2005. ITCom (now ITS Comm) subsequently implemented an encrypted network called MWireless. Both the UM Wireless Network and MWireless require users to authenticate. These two networks service U-M students, faculty, and staff, as well as guests with sponsored accounts obtained through the MCommunity Sponsor System.

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[1] "Wireless" in the context of this audit refers to IEEE 802.11 wireless local area network (WLAN) technology; commonly branded "Wi-Fi".

The University community has voiced concerns about this sponsor system, including the following:
- Sponsorship requires significant involvement by the host and the ITS Accounts Office.
- The guest is issued a temporary uniqname and complex password, which can be awkward to enter on a smartphone's on-screen keyboard.
- Login sessions on UM Wireless Network expire after a period of inactivity, requiring the guest to reenter this password. Over the course of a visit, guests may enter this password dozens of times to obtain Internet access.

An unauthenticated wireless network would replace the use of sponsored accounts for guest wireless access. Guests of the University would be able to quickly access the Internet from their wireless laptops and smartphones at will, allowing them to focus on the scholarly and professional activities. U-M students, faculty, and staff would continue to use MWireless and UM Wireless Network.

The Unit IT Steering Committee has identified guest wireless access as a priority. The Steering Committee, a component of NextGen Michigan IT governance, provides campus leadership for the IT community and sets priorities for development of shared services and infrastructure. Based on feedback from the Steering Committee, ITS is considering either a guest SSID[2] operated by ITS Comm with restrictions on the type and volume of network traffic, or a guest SSID operated by a third-party Internet service provider (ISP). The risks involved with these two approaches are different, but they can all be managed through implementation of proper controls.

University Audits analyzed the options and identified the following significant risks surrounding guest wireless access:
- Lack of UMnet or Internet access impeding scholarly and development activities
- Attacks on network-attached resources
- Violation of database subscription agreements
- Convenience of unauthenticated wireless luring students, faculty, and staff away from secure wireless service
- Large numbers of guest users reducing wireless performance
- Non-compliance with laws and court orders requiring identification and/or wiretapping of users

Two additional risks were discussed during the course of the audit:
- *Impaired ability to protect community members from harassment by unauthenticated individuals.* Wireless users are not tied to a specific physical location, hampering U-M's ability to identify and stop harassing messages. However, individuals can evade identification today by sending such messages through a public wireless hotspot in an off-campus facility.
- *Violation of Standard Practice Guide Section 601.15, Internet Addressing: IP Address Standards at the University of Michigan.* Standard Practice Guide Section 601.15 requires that IP addresses only be issued to direct affiliates of U-M, which cannot be ensured without authenticating the individual. Standard Practice Guide Section 601.15 also requires that recipients of those addresses "be instructed as to their obligations under University policy and their agreement to abide by University policy." Both of these requirements are equally applicable to the U-M hardwired network, which also does not authenticate users.

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[2] Service set identifier, or SSID, is a name that identifies a particular 802.11 wireless LAN. Some wireless access points support broadcasting multiple SSIDs, allowing the creation of Virtual Access Points, partitioning a single physical access point into several virtual access points, each of which can have a different set of security and network settings. Source: "Service set (802.11 network)," in *Wikipedia: The Free Encyclopedia;* retrieved 27 September 2010.

These are broad-based systemic risks that in our opinion are not appreciably altered by the expansion of unauthenticated wireless service. However, management may wish to seek clarification of the University's position and policy on these issues before implementing such expansion.

The objectives of the audit were to evaluate risks and controls generally associated with unauthenticated wireless networks, and assess the controls in place for existing unauthenticated wireless networks operated by U-M units and peer institutions.

Fieldwork included:
- Surveys of wireless networking practices in twelve U-M units and eleven peer institutions (through their internal audit departments)
- Identification of effective controls over unauthenticated use of wireless networks
- Tests of controls over unauthenticated wireless networks identified within U-M, including traffic restrictions and access to licensed material
- Research and discussion of compliance issues with the Office of General Counsel and U-M Library

Risk and Control Discussion
Based on survey results, the provision of unauthenticated wireless access is not common at either U-M or its peer institutions. The audit identified three generally accessible unauthenticated wireless services operating at UM-Flint, UMHS, and Ross School of Business. These networks are controlled in different ways, including:
- Rate limiting -- caps on download and upload speed
- Port blocking -- disallowing the use of insecure or infrequently used TCP/IP services
- Segregation from student/faculty/staff traffic on other networks
- Monitoring for malicious activity

All of these controls are appropriate for incorporating unauthenticated guest access into the U-M wireless network environment. Rate limiting ensures that guests do not monopolize the available bandwidth at the expense of students, faculty, and staff. Port blocking reduces the likelihood of unauthenticated users conducting malicious activities. Segregation of unauthenticated users from student, faculty, and staff network traffic protects unsecured data and network devices from anonymous attack. Even with all of these controls in place, malicious activity can still occur, which makes network monitoring an important compensating control.

Some of these controls offer a secondary benefit, which is to encourage students, faculty, and staff to use MWireless when they need a full-speed, unrestricted wireless connection. MWireless will become even more attractive if management converts to access control based on UMROOT Active Directory identities as ITS Comm has proposed for calendar year 2011. Students, faculty, and staff will simply log in using their UMROOT credentials. Third-party software, configuration profiles, and lengthy manual configuration steps will no longer be required.

In addition to identifying appropriate controls, the audit confirmed two compliance issues that unauthenticated wireless access introduces or exacerbates.
- CALEA Compliance - The Communications Assistance for Law Enforcement Act (CALEA) obligates Internet access providers to make it possible for law enforcement agencies to perform surveillance of Internet traffic. EDUCAUSE, a nonprofit organization focused on information technology in higher education, offers the following guidance on CALEA:

If there is significant public usage (e.g., university runs non-authenticated wireless network, etc.) then the network is at risk of being deemed public and at least those elements of the internal campus network that are providing the public access would need to be CALEA compliant (in addition to the gateway).[3]

The University declared itself exempt from CALEA in 2005 because, at that time, public use of U-M's Internet connection was limited to a small number of monitorable computers in the U-M Library.

The survey of campus units and auditor testing identified three units in which a guest wireless network can be accessed without authentication. One of these units attributes 40% of guest network use to the general public. Another attributes 90%. The Office of General Counsel (OGC) states that this degree of public use likely renders these networks (and thus the University) non-exempt and subject to CALEA requirements. If the University determines that its status is non-exempt, then it will have to register as non-exempt and institute a plan to comport with requirements for entities covered by CALEA. OGC is assembling what the University has to do to change from exempt to non-exempt status under CALEA.

Management Plan - ITS will work with OGC to gather necessary information and complete appropriate forms to be submitted to the Federal Communications Commission (FCC) to change U-M's CALEA status from exempt to non-exempt.

- Unauthorized Access to Licensed Content - The U-M Library purchases access to licensed content for scholarly purposes. License agreements are typically worded to permit currently enrolled students, currently employed faculty and staff, and walk-in users to access the content. Walk-in users are people physically entering a library and using a Library-owned terminal.

Access to these resources is actually authorized on the basis of network addresses. The Library maintains an authorization file listing U-M network address ranges. A computing device with a network address within these ranges is permitted to access licensed content. The underlying assumption is that only U-M students, faculty, and staff possess a U-M network address.

Testing revealed that some unauthenticated wireless networks operated by units challenge this assumption. Since users of these networks are not required to authenticate, proving their affiliation with U-M, they may not be affiliated, and thus are not truly authorized to access the Library's licensed content under the terms of the license agreements. Such use would be a license violation.

Management Plan - At this point, unauthenticated wireless access is not provided by ITS. If the IT Governance groups decide this service should be offered, persons using an ITS supported Unauthenticated Guest SSID will not receive an IP address that is in the Library's file of IP ranges authorized to access licensed content. ITS Comm will assist current providers of unauthenticated wireless access in adopting this approach. This only solves part of the license issue for the Library and other units on campus who use IP address to grant access to a service. Best practices are to not use IP address as an authentication mechanism.

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[3] Thinking Through the CALEA Exempt/Non-Exempt Issue (ID: CSD4607), Douglas Carlson, New York University, Educause Policy Office 2006
(http://www.educause.edu/Resources/ThinkingThroughtheCALEAExemptN/154304)

The University would benefit from a standard, campus-wide unauthenticated wireless service. Unauthenticated wireless service, while relatively uncommon in the Big Ten, would be a convenience for visiting scholars, donors, families, and prospective students at the University of Michigan. ITS and the Unit IT Steering Committee have been cautiously and collaboratively approaching the idea and its control issues. Unit-based implementations of unauthenticated wireless service to date have been developed thoughtfully, but have not fully addressed the risks to the University. Based on the audit work conducted, sufficient controls can be placed on unauthenticated wireless access to mitigate all marginal risk to the University and its constituents.

If ITS decides to adopt an unauthenticated guest wireless service so that units can discontinue such services, the central service should be architected, restricted, and monitored to protect University resources and comply with legal and contractual obligations. If operated internally, this means limiting bandwidth and TCP/IP services, separate routing, activity monitoring, using IP addresses outside the standard U-M ranges, and ensuring CALEA compliance. If outsourced, then cost model, availability, and performance targets should be established in the contract.

While the University is seeking ways to improve guest wireless access, ITS continues to carefully manage existing wireless networks across the Ann Arbor campus. MWireless, the secure network for students, faculty, and staff, is used nearly half the time. Converting MWireless to UMROOT Active Directory based access control and sign-on will simplify use, which could drive further adoption. This change may convince a handful of units with in-house wireless networks to decommission those networks, further increasing MWireless use and bringing the University closer to a unified wireless network environment.

University Audits will follow-up on the outstanding issues in the fourth quarter of fiscal year 2011.

Follow-up Reviews

International Programs – Student Safety Preparedness   #2009-111
Original report issued March 15, 2010   Follow-up report issued December 20, 2010

A follow-up review of International Programs - Student Safety Preparedness was recently conducted to assess progress in addressing observations noted during the audit. Several items have not been implemented or completed. University Audits will review these open items during a second follow-up, scheduled for the fourth quarter of fiscal year 2011.

- Considerations for Coordination
    - Memoranda of Understanding - A working group within the Council on Global Engagement (CGE) has prepared an updated process for the new Vice Provost for International Affairs (VPIA) regarding memoranda of understanding. A template for these memoranda will be prepared by the Office of the General Counsel (OGC). Schools or colleges can create an addendum for any existing memoranda, rather than creating new agreements. All completed memoranda will be maintained in the VPIA's office, following approval of the contract by OGC. **This item is closed.**

    - Travel to High Risk Areas - Based on risks posed by international incidents or strained political environments, U-M may restrict all travel to a particular area. The new Global Michigan portal publicizes this information. Each unit generally has discretion to authorize travel to other locations on the US State Department list of travel warnings. Continue discussions on how best to monitor this area of concern. One possibility to

consider is a central policy outlining high risk area travel procedures, cases for exception, and approvals necessary. **This item is closed.**

o   Pre-Travel Orientations - There has been no active discussion on how this item could be addressed. Small units, with limited resources to dedicate to orientations, may be more likely to inadvertently omit crucial travel information. Online streaming video modules are a proposed suggestion and warrant further review. **This item remains open.**

o   Travel Registration - The significant promotion surrounding the release of the new travel registry in July 2010 helped educate units about the need to ensure student travel is documented in the registry. Continue discussions on how the University and individual international travel offices within University units can further incent participation. **This item is closed.**

o   Travel Insurance - HTH insurance registration is now better connected to the new travel registry, increasing its visibility. **This item is closed.**

o   Sharing of Documents - The Global Portal has an "administrator's access" section that will be utilized to share information between travel administration offices. Consider how the access will be promoted and granted to ensure availability to interested parties. Specifically, programs and centers not directly affiliated with a school or college may not have representation in CGE, even though they offer international experiences for students. **This item is closed.**

•   International Travel Oversight Committee (ITOC) Travel Registry
   o   Use of the registry - The new travel registry was rolled out with a considerable ad campaign, included messages from President Coleman and other high University officials, and was reported in multiple news media. This increases awareness of the required travel registry component. In addition, some units are requesting confirmation that the student has registered their travel prior to approving the trip or disbursing trip-related funding. The travel registry is also a starting point to register in HTH health insurance, where they were formerly separated in two independent web pages. All these activities improve the likelihood that students will use the new travel registry and decrease the risk of unregistered travel. **This item is closed.**

   o   Data retention - The web page for the new registry no longer indicates that student information is purged after the trip, when it was actually maintained as a complete record. However, travel registry administrators are still determining a long-term data plan. The data may be archived in aggregate (no student-identifiable information) for reporting purposes. Develop and document a data retention policy. **This item is closed.**

   o   *Auditor's Note: Although the initial concern regarding data retention has been addressed, University Audits will assess any new data retention policies during the second follow-up.*

•   HTH Travel Abroad Health Insurance and Graduate Students - This item has been discussed between members of ITOC and CGE but there has been no significant movement towards developing a central policy. As best practice, the University could mandate HTH travel insurance for all student international travel. **This item remains open.**

- University Oversight for Student-Designed Programs - Controlling student-designed trips is difficult because the trips are often administered by institutions other than UM. There is no central U-M office that students are required to contact prior to their trip. The launch of Global Michigan has helped consolidate all information a student may need while planning a trip, such as health and safety considerations. However, a student could rely solely on advice or communications provided by the host institution. It is likely that students would visit academic advising offices in advance to determine if credit earned for their planned trip would transfer to the University. As such, consider educating school and college academic advising offices to guide students to the Global Michigan portal for health and safety information. **This item remains open.**

Multiple departments on campus, including ITOC, CGE, OGC, and the Office of Student Affairs, have recently come together to reevaluate the University's on-campus procedures to respond to student emergencies, inclusive of those that occur internationally. University Audits will assess communication plans as they are updated.

University of Michigan Medical School - Southwest Oncology Group   #2010-501
Original report issued February 25, 2010   First follow-up report issued August 18, 2010
Second follow-up report issued December 20, 2010

The Southwest Oncology Group (SWOG) has completed the final corrective action plan. **This audit is closed.**

- Statements of Activity Reconciliation - At the time of the audit and first audit follow-up, Statements of Activity reconciliations were not up-to-date due to short-term personnel constraints. SWOG management has assigned staff to reconcile the Statements of Activity and resolve the backlog. Reconciliations are now current and management is reviewing them monthly to ensure accuracy.

School of Art & Design   #2009-201
Original report issued December 8, 2009   First follow-up report issued June 29, 2010
Second follow-up report issued December 20, 2010

School of Art & Design (A&D) management has taken action on all items as summarized below. **This audit is now closed.**

- International Programs - A&D has made significant improvements to the documentation of policies and procedures for international trips. Roles and responsibilities for the approval of travel and funding are clearly defined and documented. The School has made progress toward developing customized emergency procedures and contacts for each trip. A&D leadership continues to stay connected to University-wide efforts related to international programs. The School has representation on the Council on Global Engagement through which it seeks best practices and procedures for international activities. **This issue is closed.**

- Supplemental System - As noted in the first follow-up memorandum, the A&D Finance Office has strengthened controls around their supplemental financial system. These controls include better system documentation, backup procedures, and training of staff so that more than one individual can use and maintain the database. Although these controls reduce the risk of using the supplemental system, during the second follow-up, University Audits reviewed A&D's progress toward their goal of eliminating the system.

A&D is currently testing the University's Real Time Financials system in its environment. The School continues to use their database because they have indicated the University systems do not fully address their management and financial reporting needs. The use of this system creates inefficiencies at A&D. This risk is known to the higher administrative authorities at the School. The Finance Office should consider the possibility of downloading financial data from M-Pathways to their database. This would greatly reduce the time staff spend recording financial transactions manually. The long-term goal is to completely eliminate the supplemental system once management feels comfortable with the level of functionality of the University systems. According to A&D, financial reports generated through the University's system do not provide the level of detail that the School's managers are accustomed to using for monitoring and review. Information and Technology Services (ITS) can assist A&D by customizing reports based on the School's specific requirements. In addition, leaders and managers at A&D could be trained and educated on how to interpret any new report formats. We support A&D's long-term efforts to eliminate their supplemental system and encourage them to be proactive in reaching out to ITS experts to work with them on resolving issues and concerns with University reports. **This issue is closed.**

- Statements of Activity Reconciliation - A&D is using eReconciliation as a tool to assist with the reconciliation of the Statements of Activity. Evidence of reconciliation is now documented electronically. A&D should work to stay current on their account reconciliations so that any erroneous or inappropriate transactions are identified and resolved in a timely manner. **This issue is closed.**

- Summer Programs - A&D has developed thorough policies and procedures for their summer programs. They address potential risks related to safety and security of students, emergency preparedness, background checks, and motor vehicle record checks for drivers. University Audits verified that these procedures, where applicable, were properly followed for the programs that took place during summer 2010. **This issue is closed.**

UM Flint Early Childhood Development Center   #2010-118
Original report issued July 19, 2010   Follow-up report issued December 22, 2010

Early Childhood Development Center (ECDC) has taken steps to strengthen their internal controls. Work on some items are still in progress. A second follow-up review will be conducted during the fourth quarter of fiscal year 2011. The current status of each action plan is summarized below.

- Financial Decision Making - The level of communication and collaboration between ECDC and the School of Education and Human Services has improved. The Dean of the school and the Director of ECDC meet regularly to discuss financial matters. ECDC is currently reviewing its rates and performing benchmarking to other childcare centers. To generate additional revenue, the Center is considering offering supplemental programs for children. ECDC is also more effectively enforcing their fee collection policies. University Audits will re-evaluate the status of this item during the second follow-up review.

- Kid's Care System - To improve controls over their childcare management software, ECDC has researched available upgrade options. Management has decided to replace Kid's Care, the current system, with an upgraded version called EZCare. The new database will provide better controls, such as tiered access levels, to support segregation of duties and management oversight. ECDC plans to deploy the new system in early 2011. Meanwhile, the Center has

improved the back-up process for the existing system. University Audits will re-evaluate the status of the new software implementation and use during the second follow-up review.

- Web Camera Access - The Center is changing the password used to access the live web cameras at the end of each semester (fall, winter, and spring/summer). Families are notified of the new password at the start of each semester. This procedure reduces the risk of unauthorized individuals having access to the live stream video. University Audits encourages ECDC to use passwords that are not easily guessable. **This issue is closed.**

- Transportation Agreements - ECDC has established a procedure to annually notify their transportation service providers about Department of Human Services' transportation rules. The Center has obtained a signed acknowledgement of compliance with the rules from their main service provider, First Limo. The other service provider, Mass Transportation Authority (MTA), is rarely used by ECDC. However, obtaining a similar acknowledgement would mitigate any potential risks that may arise from the occasional use of their services. During the second follow-up, University Audits will review to see that an agreement with MTA is in place and the annual notification and sign-off procedure is documented.

- Imprest Cash and Snack Station Fund - Because most clients pay by check, ECDC has decided not to maintain a change fund. The Center has also eliminated its snack station and the petty cash fund used to replenish it. This eliminates the risk of comingling of cash from different funds. **This issue is closed.**

Information Technology Central Services   #2009-838
Original report issued December 2, 2009   First follow-up report issued June 30, 2010
                                       Second follow-up report issued December 22, 2010

In mid-2009, ITCS combined with Information Technology Security Services and Michigan Administrative Information Services to form a new IT service provider, ITS – Information and Technology Services. ITS now owns the systems and processes involved in these issues. ITS management has worked diligently to implement corrective action on all audit recommendations as outlined below. These efforts coincided with a major internal reorganization that repositioned ITS to support NextGen Michigan. Many action items required strategic planning decisions on service objectives, methodologies, and support systems to be made. Based on corrective action successfully implemented and progress toward completion of the remaining items, **this audit is closed.**

- Inventory Management - Computer Showcase - To safeguard against 100% discounting of product by cashiers at point of sale, the Point of Sale system does not allow cashiers to manually discount items without Student Manager or Store Manager intervention. In addition, the Showcase Manager reviews a monthly system-generated report from the Retail Management System (RMS) listing all discount sales (price adjustments). University Audits examined a report for October 2010. The report describes the item, quantity, discounted and regular prices, reason for discount, and cashier and customer names. The manager looks for repeated discounts by a single cashier, discount amounts inappropriate for the reason given, promotional discounts not coinciding with a known sales promotion, excessive discount dollar amounts, and other red flags that could indicate a need for further inquiry.

  Management has reviewed the security setup in RMS. Access levels corresponding to job roles have been analyzed. The detailed privileges granted to each access level have been reviewed for

appropriateness, and granted only where needed. The security setup also limits the value of merchandise returns that cashiers can process without Student Manager or Store Manager intervention.

Management maintains a listing of job roles and access levels assigned to Showcase personnel for the RMS system. University Audits examined the listing as of December 2010, and found that access levels accurately reflect job roles. In the future, access assignments will be reviewed one month into each academic term – February, June, and October.

Management is adhering to best practice in the separation of purchasing, receiving, and sales duties. RMS roles and office procedures are designed to ensure that one individual cannot order merchandise, receive/enter the item into inventory, and sell/remove the item from inventory.

- Computer Showcase Billing - Improvements have been made so interface files from RMS for Student Billing and Payroll Deduction can be uploaded directly to M-Pathways without manual adjustments. This approach was implemented in November. For the first three cycles, ITS is comparing the data generated by the old and new approaches to ensure accuracy.

- Inventory Management - ITCom Business Services - University Audits reviewed changes to the oversight of the cycle count inventory process. Inventory counts and discrepancies are documented, vetted, and submitted for management approval. Audit examined four months of approval documentation, verifying the process is functioning as designed. After approving the necessary adjustments, the Supply Chain Manager observes their entry into the system to ensure accuracy. ITS Finance is copied on the submission and approval emails.

- Inventory Management - ITCom Telecom Operations - ITS Comm Operations is working to migrate their maintenance spares inventory data from Excel spreadsheets to the Remedy workflow system, which will provide better access control and an audit trail. Data spares are the highest value inventory with the most turnover, so that data will be converted first, in January 2011. Voice and video spares inventories will be converted by July 1, 2011. A form has been created in Remedy through which Operations management and staff will update the inventory. Another ITS Comm team separate from Operations will perform an annual physical inventory.

- Inventory Management - Software Licensing Campus-Wide - University Audits observed the locking and password protection in place on software inventory spreadsheets. Management has completed its evaluation of the RMS system currently used by the Computer Showcase and has chosen to replace the software inventory spreadsheets and the FileMaker-based License Tracking System with RMS. Infrastructure will be shared but the degree of data sharing is still under discussion as it could impact customer usability and system stability. Once the architectural decisions like this have been made, conversion could be complete in a month. Management expects to make these decisions in December 2010.

- ITCS Recharge Rates - Financial Analysis has reviewed and approved seven recharge rates for ITS services, including Education Services, Mainstream Storage, Value Storage, Virtual Desktop, Computer Showcase Repair Center, Color Printing, and High Performance Computing. ITS continues to work with Financial Analysis on the remaining rates through weekly meetings, as evidenced by tracking files maintained by Financial Analysis. Rates are being approved for one year in anticipation of the comprehensive IT funding and service model planned under NextGen Michigan. The funding and service model will provide a methodology for matching IT

services to appropriate funding models. Based on progress to date and current trajectory, this issue is closed.

- ITCS Service Unit Procedures
  ITCom Business Continuity
  UMCE Business Continuity
  Information and Infrastructure Assurance has hired a Disaster Recovery Business Continuity (DR/BC) Manager who will begin work in February 2011. The DR/BC Manager will initiate detailed planning and goal-setting for DR/BC, and will hire a DR/BC Coordinator to support and execute this work in all areas of ITS. Based on the progress made in filling the DR/BC Manager position and management's clear vision of and commitment to DR/BC preparedness, this issue is closed.

- Financial Reports, Reconciliation Process - ITS Finance has developed and implemented a new budget reporting and forecasting approach for FY11. Business Coordinators in ITS Finance schedule a standard set of Business Objects reports, including Budget-to-Actual and Budget-to-Forecast, to be run and emailed to ITS Financial Stewards at month end. These reports provide year-to-date data for quick comparison to prior periods. Accuracy of forecast data is enhanced through the use of unit-defined commitments for salary-related projections that M-Pathways Salary and Benefits Projections do not include, such as temporary employees and open positions. The Business Coordinators conduct monthly face-to-face meetings with the Financial Stewards to review and discuss these reports. Financial Stewards are encouraged to also perform continuous monitoring through M-Reports. Rollup reports are available to the executive directors of ITS divisions. ITS Finance indicates improved participation and engagement in financial monitoring under this approach. University Audits reviewed policy and procedures documenting the new approach, as well as examples of the standard reports.

  ITS is still developing its reconciliation process. Prior to the merger, ITCS Financial Stewards reviewed detailed financial reports only when they had already identified an issue and needed information to substantiate. For calendar 2010, ITS Finance reworked the content and presentation of financial reports and assigned Business Coordinators to assist the Financial Stewards in review and reconciliation. Going forward, management envisions reconciling 100% of "targeted" transactions and choosing a sample of the remaining transactions to reconcile. Targeted transactions include non-salary compensation, salary supplements, transactions that could be self-processed, equipment over $5000, and certain account codes. Development of the reconciliation process includes determining how to systematically identify the targeted transactions and select the sample of non-targeted transactions, then writing procedures to accomplish those tasks. ITS Finance is finalizing Gross Pay Register reconciliation procedures now. Statement of Activity reconciliation is less developed but Finance aims to complete that work and begin training financial stewards on the process after January 1, 2011. They plan to roll out the complete new reconciliation approach by mid-February 2011.

- 4-Help and Accounts Office Key Performance Indicators (KPIs) - Management provided recent performance metrics for Help Desk (both overall tickets and phone queue detail) and Access Services. The KPIs in these reports include quantity processed, average time to process, hold times, and abandoned calls. The reports contain data going back over one year, allowing management to gauge long-term trends.

- Telecommuting and Flex Schedules - University Audits examined flex scheduling policy and procedures and verified that written agreements are now required for non-standard work

schedules. Management indicates that work plans are now in place for all ITS staff, including telecommuters. This is referenced in the updated ITS telecommuting agreement template.

- Related Employees - Management revised its Nepotism Letter to include elements of a management plan to address circumstances in which an employee supervises a relative. ITS Human Resources indicates there are currently no circumstances in which two related employees report to the same manager. When such circumstances arise, ITS Human Resources will require a management plan to address them.

- Employee Terminations - University Audits reviewed some examples of recently processed tickets in the "ITS Onboard-Offboard Request" queue of the MRequest system. The ticket form contains check-offs for Facilities, Desktop, Access Services, and Keys. MRequest sends each of these teams an email notification when a ticket is submitted to this queue. University Audits observed an example of this notification to verify operation. As team members complete the tasks, they check the appropriate box in each ticket, add appropriate comments, and save the ticket. Tickets close automatically once all tasks are complete. A spot check of tickets found an off-boarding ticket that was submitted 45 days after the employee's termination date and was still open after three weeks. This suggests that timely submission of tickets and the review and escalation of open tickets need improvement. ITS is designing a weekly report of open tickets for distribution to each of the four service areas. The process for escalating tickets not closed in a timely manner is being determined for each area. Expectations for timely submission are being communicated to each area.

- Procurement - ITS has developed and documented their policies and processes involving P-Cards. University Audits examined a portion of this documentation, including process diagrams, and found it to be thorough. Management reviews a list of approved expense reports each month to ensure they were approved by an appropriate individual, whether the approver of record or the approver's previously designated delegate. This review is necessary because Concur cannot restrict employees to a particular approver. Management verifies the appropriateness of the approver by consulting a master list of P-Card holders and approvers. Financial stewards have been designated to approve travel expenses in each area. Directors approve all other expenses in their respective areas. Some approvers have delegated the responsibility to managers with more direct knowledge of the expenses. Thus for each P-Card holder, the list indicates the approver, any delegate, and a backup approver higher in the organization. ITS reviews and updates this list on a quarterly basis – most recently September 2010.

Dearborn Office of Cashiers/Student Accounts - TouchNet   #2010-301
Original report issued June 3, 2010   Follow-up report issued January 10, 2011

The follow-up review of TouchNet, the student accounts software used by the Dearborn Cashier's Office examined open audit issues and corresponding corrective actions. All issues from the audit have been satisfactorily addressed. **This audit is closed.**

- Application Hosting - The computer systems that run TouchNet[4] are housed on campus in an Information Technology Services – Dearborn (ITS) data center. Because they are hosted on site, University of Michigan-Dearborn assumes the management and risk responsibilities for these systems (i.e., system security, network security, and some PCI (Payment Card Industry) compliance). This means that all hardware and software maintenance is the responsibility of

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[4] TouchNet is a web based payment system that allows students to pay their tuition and class fees online via credit card. The system also allows for the creation and management of payment plans.

ITS staff. Any upgrades or changes to the software or hardware are performed by ITS staff on an as needed basis. The combination of staff members who do not regularly work on the system and TouchNet's proprietary error and logging methods make managing the system cumbersome. University Audits recommended ITS investigate the option to have the TouchNet system hosted by the vendor. ITS and the Office of Cashiers/Student Accounts (OCSA) worked together to assess the viability, risks, and benefits of making the change. Both parties agreed that moving to a hosted service would be advantageous. A contract has been signed by the University and TouchNet and the transition is underway.

- <u>Application Vulnerabilities</u> - Cross-site scripting (XSS) is a digital attack that takes advantage of dynamically generated Web pages. In an XSS attack, a web application is sent a script that activates when an unsuspecting user's browser reads it. Using an application vulnerability scanner, University Audits found multiple points within the TouchNet system where an XSS attack might be successful. OCSA contacted TouchNet about the vulnerabilities and provided them with the scan information from University Audits. TouchNet investigated the potential vulnerabilities and responded that they were all false positives. TouchNet also provided documentation showing how they confirmed the security of their system. University Audits reviewed this documentation and found it to be thorough and complete.

- <u>Change Control</u> - ITS currently does not have a documented change control process for TouchNet. To ensure smooth transitions between versions of software like TouchNet, it is important to have a thorough change control process. The process for each upgrade is dictated by TouchNet. The process utilized by ITS staff has worked well to fill the gaps in the TouchNet documentation and yielded no significant problems during upgrades. University Audits recommended ITS document their process to ensure continued success. ITS created the documentation. University Audits reviewed the set of instructions and found it to be reasonable.

- <u>User Roles</u> - OCSA grants access to TouchNet based on the job roles individuals perform. Individuals with the same job title may have very different access needs and rights because they perform very different functions within the system. OCSA did not have documentation tying user access to specific job functions. University Audits recommended OCSA create this documentation and review it regularly. OCSA has documented each user's access and the associated job functions they perform that require the access. University Audits reviewed the documentation and found it to be complete and thorough.

<u>Matthaei Botanical Gardens and Nichols Arboretum</u>   #2010-202
Original report issued April 20, 2010   Follow-up report issued January 25, 2011

A follow-up review of internal controls and processes at the Matthaei Botanical Gardens and Nichols Arboretum was conducted recently. Management has completed corrective action plans as summarized below. **This audit is closed.**

- <u>Safety and Security</u>
  o <u>Fire Safety</u>
    - Propane and diesel storage tanks were relocated and/or secured consistent with U-M Occupational Safety and Environmental Health recommendations.
    - Fire alarms automatically send alerts to on-site personnel.
    - Fire and safety training is given during employee orientation and annual fire safety drills are conducted.
  o <u>Heavy Equipment Operation</u>

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- Operator permits for heavy equipment are current and management is tracking permit expiration dates.
  - o Rental Program and Alcohol Use
    - Contract language for use of alcohol at private functions is up-to-date and consistent with University policies. After further review, University Audit's determined the correct rider was in use at the time of the audit, and this issue should not have been included in the audit report.

- Financial and Business Operations
  - o Cash Handling
    - Cash, check, and credit card deposits are made on a timely basis and all cash receipts are processed through the point of sale registers.
    - Financial transactions and reconciliations, including cash handling, are appropriately segregated.
    - Written cash handling and business procedures reflect current processes.
    - Credit card terminals are adequately secured.
  - o Procurement
    - MBGNA management with Procurement Services' assistance is minimizing P-Card use where feasible and leveraging cost-savings through use of contracts and strategic vendors.
    - Personnel handling P-Card transactions received additional training on documentation and allowable use. A limited review of P-Card transactions showed P-Card usage is consistent with University policy.
  - o Inventory
    - A point of sale system, which includes inventory tracking, was installed and inventory is appropriately tracked. The system also provides revenue management reporting.
    - Physical inventories are conducted on an annual basis and compared to the information from the tracking system.
  - o Human Resources
    - Staff work plans, job descriptions, and evaluations are up-to-date. All regular employees completed annual conflict of interest/conflict of commitment training and certification.
    - Employees must submit evidence of successful course completion prior to tuition expense reimbursement.
  - o Imprest Cash Funds
    - MBGNA is no longer using petty cash funds for miscellaneous purchases. At the time of the follow-up review, the change fund was intact and secure.

- Community Programs
  - o Rental Program
    - MBGNA management worked with the Office of Financial Analysis and developed approved recharge rates. The process also established rates for mission-related community groups.
    - The Rental Program Manager is no longer directly accepting rental payments; all payments are processed, tracked, and balanced through the point of sale cash registers.
  - o Community Education Instructor Payments
    - MBGNA is currently rolling out new policies related to mission driven community-based education and has significantly reduced direct financial support of external

community education teachers. The new policies will be fully implemented by July 1, 2011.

Chemical Biology Doctoral Program - Interdepartmental Degree Program   #2009-812
Original report issued June 30, 2009   Follow-up report issued January 25, 2011

A follow-up review of Chemical Biology Doctoral Program – Interdepartmental Degree Program was conducted. As detailed below, new processes and controls have addressed the risks identified during the original audit. **This audit is now closed.**

- Program Reporting and Oversight
    - Program Funding - The Chemical Biology Program has revamped its funding model to continue operations without the Provost's financial backstop, which ended in fiscal year 2010. The updated funding model was developed in conjunction with Rackham Graduate School and is based on a per-student contribution assessed to the seven participating units (Biological Chemistry, Biophysics, Chemistry, Life Sciences Institute, Medicinal Chemistry, Pathology, and Pharmacology). Support was received from each of the seven units for a three-year period, at which time the model will be revisited to determine if new funding resources could offset the per-student contribution.
    - Budgetary Process - With the change in the funding model, a new budget has been established for Chemical Biology. The budget has been shared with Rackham and the Chemical Biology Operating Committee. This process will continue annually.
    - Financial Monitoring - The governance of Chemical Biology was restructured. The Executive Committee was removed and the responsibilities of the Operating Committee were expanded. The Program Director and Program Manager meet with the Operating Committee quarterly to review Chemical Biology financial and program operations. Financial reports are provided to the committee at these meetings.
    - Recruiting Strategy and Expenses - In preparing the budget for fiscal year 2011, Chemical Biology management worked to reduce estimated recruiting expenses. As the program has become more established, management is better able to forecast recruiting needs based on previous years. The current recruiting strategy has been reviewed with Rackham.

- Program Operations
    - Compliance with Procurement and Hosting Guidelines - For the follow-up review, a sample of recent P-Card statements was reviewed. Expenses included in the sampled statements comply with University procurement and hosting guidelines. Meal limits were observed, Indirect Cost Recovery Excluded (ICRX) expenses were appropriately assigned, and lists of attendees were included for hosted meals. Supporting documentation was appropriately attached and submitted to Rackham for approval.
    - Payroll Observations - The Program Manager has submitted schedule information and submits exception time (e.g., vacation, sick time) to the Chemical Biology Director and Rackham Chief Administrative Officer for approval. The Program Manager reconciles the Gross Pay Register. The reconciliation documentation is initialed and dated by the Program Manager as evidence of the review prior to submission to the Rackham Business Office for a secondary review.
    - Effort Certification - Chemical Biology management worked with students to ensure previously unreported effort was certified appropriately. The Program Manager has implemented a process for monitoring reported effort for students using the As Needed Effort Certification report based on academic semester available in the M-Pathways Human Resource Management System. However, this process did not account for the

entire population. A second report based on fiscal year was added to the procedure to include effort for staff. The Program Manager has updated the process to generate reports based on both fiscal year and academic semester.
- o Sensitive Data - I-9 Forms are no longer retained by Chemical Biology; all I-9 Forms previously stored have been shredded. Student records are stored in the Program Manager's office in locked file cabinets.
- o Service Level Agreement - Chemical Biology continues to receive IT support from Chemistry Information Technology on an as-needed basis. The Chemical Biology Program Manager and Chemistry IT Manager have begun drafting a contract for IT services, which will be reviewed by the Program Director, Department of Chemistry Chair, and Rackham Dean's Office.

UMHS Office of the Executive Vice President for Medical Affairs   #2009-205
Original report issued November 17, 2009   Follow-up report issued January 31, 2011

University Audits planned to perform a follow-up review in July 2010; due to a transition in senior management, we postponed the review until January 2011. This memorandum summarizes the status of management's corrective action plans.

- Statement of Activity (SOA) Reconciliation - A review of SOA reconciliations showed reconciliations are up-to-date and reconcilers are obtaining support for transactions. Management enhanced SOA reconciliation procedures by including a secondary review by the Chief of Staff.

- Travel Expenditures and Higher Administrative Authority - Staff received training in Concur, the University's new travel and expense management system. Staff also received training to ensure expenditures are approved at the appropriate level. Discussions with management and a detailed review of a small sample of expense reports indicate that staff is aware of the need to document expenditures, charge expenses to the correct account codes, and provide explanations for expenditures. Our review also showed expenditures are approved at the appropriate level. Management meets with UMHS Finance staff on a monthly basis to review expenditures and is also developing a process to review departmental expenditures using online tools.

- Payroll Procedures
  - o Use of Standard Time Report Templates - Management revised time reporting procedures to ensure bi-weekly staff report time worked (instead of exception time) as required by University policy. The department timekeeper received the appropriate access to University data systems to download and print standardized time report templates. The EVPMA Office plans to move to Self Service Time Entry as soon as it is feasible.
  - o Use of Standard Payroll Reports - The department timekeeper reviewed online training and received specialized one-on-one instruction from UMHS Payroll Office staff to better acquaint herself with current payroll practices, including the use of standardized payroll reports such as payable time and leave data reports.
  - o Approval of Time Data - Management implemented a process to ensure supervisors review and authorize revisions to approved time reports before the timekeeper enters changes into the payroll system.
  - o Gross Pay Report (GPR) Reconciliations - GPR reconciliations are up-to-date and properly initialed and dated by the reconciler. The department timekeeper enters time data for several employees whose time data does not appear on the EVPMA Office

GPR. The timekeeper now reviews Payable Time Reports for those employees to reconcile their payroll data. The Chief of Staff has developed a process to periodically review GPR reconciliations. Payroll expenditures are also reviewed during monthly meetings with UMHS Finance staff.

- <u>Indirect Cost Recovery Excluded (ICRX) Expenditures</u> - Staff received training related to classifying ICRX expenditures. A review of operating expenditures for the Office of Government Relations showed payroll and other expenditures are appropriately classified.

Management has substantially implemented all corrective action plans. **This audit is closed.**

Open Audits Follow-up Table
January 31, 2011

Audit Title	Report Date	Issues	Expected Completion
University of Michigan Video Surveillance Systems 2009-311	4/14/10	Network connectivity; unnecessary ports, services, and shares; video quality; video handling; video storage; process documentation; cross-training	February 2011
Medical Center Information Technology Michigan PGIP Analytics Collaborative 2010-302	7/16/10	Risk assessment of local data workspace; project governance; time limit for reporting breaches; control of data use/access disclosure	March 2011
College of Literature, Science & the Arts Research Computing 2010-809	7/26/10	Security policy; data classification; data storage; backups; training and guidance; antivirus; disaster recovery plan; physical security	February 2011
Portable Electronic Devices UMHS 2009-305	8/26/10	Proper use standards; standard configurations; mobile devices policy; access control	March 2011
Plant Operations – Facilities Maintenance Building Automation Systems 2010-311	9/08/10	Open ports of monitoring devices; system maintenance; user access; network security; network isolation	June 2011
University of Michigan Dearborn Information Technology Services Data Center at Fairlane Center 2010-309	11/18/10	Disaster recovery plan; visitor control	June 2011
Information and Technology Services - Unauthenticated Wireless Access 2010-312	12/22/10	CALEA compliance; unauthorized access to licensed content	June 2011
University of Michigan Hospitals and Health Centers Cashier's Office 2008-206	10/17/08	Segregation of duties; bank statement reconciliation and check writing practices; follow-up of outstanding vouchers; duplicate facility refunds	First Follow-up June 2009 / June 2011
Medical School Administrative Internal Control Review 2008-208	1/30/09	IT strategic planning; reconciliations; gift fund usage; IT security; fire drill regulations	February 2011
U-M Hospitals and Health Centers Omnicell Pharmaceutical Distribution System 2010-305	6/16/10	User access; discrepancy reporting and escalation; patient charges; controlled substance procedures	April 2011

U-M Medical School W.K. Kellogg Eye Center 2010-204	8/30/10	Financial monitoring and oversight; procurement and travel; grant management and effort reporting; inventory management; charge capture; payroll; cash management; management structure	March 2011
University Press Inventory and Receivables 2008-203	1/30/09	Accounts receivable; inventory (U-Press continues to implement internal controls in many areas, including those noted in the audit report)	March 2011
University Housing Fiscal Responsibilities 2009-814	11/9/09	purchasing; payroll and time reporting, cash operations, internal control gap analysis, business continuity and disaster recovery plans, conflict of interest/conflict of commitment	First Follow-up August 2010
			February 2010
Center for Human Growth and Development 2009-206	11/17/09	Security/maintenance of sensitive data; monitoring grant budgets; imprest cash fund management/subject fee payments; disaster recovery/business continuity planning; statement of activity reconciliation/segregation of duties	First Follow-up August 2010
			March 2011
Wire and ACH Transfer Process 2009-112	1/06/10	Authorized user list; transaction limits; wire transfer policy	First Follow-up August 2010
			March 2011
International Programs – Student Safety Preparedness 2009-111	3/15/2010	Pre-travel orientations; health insurance; oversight for student-designed programs; individual program evaluations	First Follow-up December 2010
			June 2011
University of Michigan Dearborn School of Education 2010-205	4/26/10	Agreements with external entities; IT risk assessment; documentation for purchase exceptions; conflict of interest contact information	First Follow-up October 2010
			March 2011
Office of University Development Life Income Gifts Program 2010-806	6/11/10	Unit roles, sharing information, procedural efficiencies, and system opportunities	March 2011
School of Social Work 2010-813	6/18/10	Stewardship of gift funds, segregation of duties, signature authority, policies/procedures, inventory management, relationships with central service units, supplemental systems	February 2011
University of Michigan Center for Statistical Consultation and Research (CSCAR) 2010-809	6/23/10	Recharge rates and workshop fees, segregation of duties, reconciliations, supplemental systems, policies/procedures	March 2011

Center for AfroAmerican and African Studies 2010-820	6/25/10	Significant oversight and other control activities need to be implemented into many processes	March 2011
PeoplePay 2010-107	7/16/10	Payroll Office review office; clarification of PeoplePay capabilities; change management	April 2011
U-M Flint Early Childhood Development Center 2010-118	7/19/10	Financial decision-making; Kid's Care system; Web camera access; transportation agreements; imprest cash and snack station fund	First Follow-up December 2010
			May 2011
U-M Flint School of Education and Human Services Fiscal Responsibilities 2010-812	7/19/10	Financial reporting and budget monitoring; segregation of duties; faculty release time; conflict of interest and conflict of commitment; documented policies and procedures	March 2011
U-M Flint Genesee Early College Program 2010-114	10/1/10	Updating formal/informal agreements; reportable data and metrics; information technology management; employment controls; University obligations for K-12 students	March 2011
Division of Research Development and Administration Export Controls Compliance 2010-402	10/21/10	Training and education; export control identification; technology control plans; information technology controls; technology disposition	June 2011
University of Michigan Museum of Art 2010-201	12/17/10	Budget monitoring; collections inventory management; Museum Store inventory management; payroll processes; statement of activity reconciliation – system access; documented procedures	September 2011
UM-Flint School of Health Professions and Studies 2010-209	1/25/11	Segregation of duties; faculty and staff certifications; privacy and data security; policies and procedures; p-card controls; conflict of Interest and conflict of commitment management; affiliate payment processing	May 2011 – Action Plans October 2011 Follow-up