



Office of Internal Audit

Audit of the University Libraries

Report No. 12/13-03

September 10, 2012

Date: September 10, 2012
To: Tomas A. Breslin, Interim Dean of University Libraries
From: Allen Vann, Audit Director 
Subject: **Audit of the University Libraries, Report No. 12/13-03**

We have completed an audit of the University Libraries for the period July 1, 2010 through March 31, 2012. The University Libraries' collections comprise over 1.7 million volumes, access to over 27,000 serials titles and an increasing variety of multimedia resources including DVDs, videotapes, audio books and digital collections representing a variety of subjects. The Libraries' operating budget for the fiscal year 2011-2012 totaled approximately \$13.8 million. The annual operating budget is funded mainly by the Educational & General (E&G) fund.

Overall, our audit disclosed that the University Libraries' established controls and procedures were adequate to ensure that library resources were properly safeguarded; revenue collections were properly accounted for; and funds were spent pursuant to University policies and procedures, applicable laws, rules and regulation. Nevertheless, areas where there are opportunities for improvement include: collection management, circulation management, financial reporting, utilization of the library management system, and workstation security. The audit resulted in 13 recommendations, which management agreed to implement.

We would like to take this opportunity to express our appreciation for the cooperation and courtesies extended to us during this audit.

Attachment

C: Sukrit Agrawal, Chair, BOT Finance and Audit Committee and Committee Members
Mark B. Rosenberg, University President
Douglas Wartzok, Provost & Executive Vice President
Kenneth A. Jessell, Chief Financial Officer and Senior Vice President
Javier I. Marques, Chief of Staff, Office of the President

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OBJECTIVES, SCOPE AND METHODOLOGY

Pursuant to our approved annual plan we have completed an audit of the University Libraries¹ for the period July 1, 2010 through March 31, 2012. The primary objectives of our audit were to determine whether established controls and procedures are adequate and effective to ensure that:

- Library resources are properly recorded and safeguarded;
- Revenue collections are properly accounted for; and
- Funds are spent pursuant to University policies and procedures, applicable laws, rules and regulations.

The audit was conducted in accordance with *the International Standards for the Professional Practice of Internal Auditing*, and included tests of the accounting records and such other auditing procedures as we considered necessary under the circumstances. Audit fieldwork was conducted from May to June 2012.

During the audit we:

- Reviewed University policies and procedures, applicable Florida statues, and regulations;
- Observed and evaluated current practices and processing techniques;
- Reviewed the library resources management system, personnel management, and a safety and disaster recovery plan;
- Interviewed responsible personnel;
- Reviewed electronic resources acquisition agreements between Florida International University (FIU or University) and contactors/vendors; and
- Tested selected transactions.

Sample sizes and transactions selected for testing were determined on a judgmental basis.

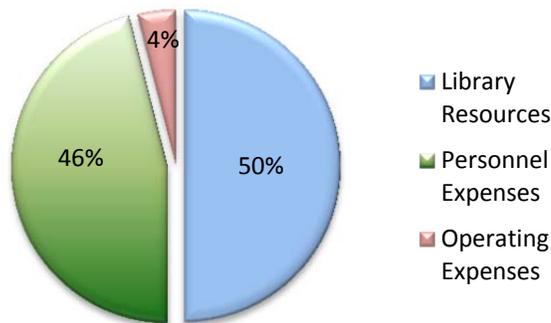
As part of our audit, we reviewed past audit reports to determine whether there were any prior recommendations related to the scope and objectives of this audit. As this was the first time the University Libraries has been audited, there were no prior audit recommendations related to the scope and objectives of this audit requiring follow-up.

¹ Our audit did not cover certain independently operated libraries such as the Wolfsonian, Law, and Medical Libraries.

BACKGROUND

The Libraries' goal is to support the University's mission of teaching, research, and service by providing the means for the discovery and the pursuit of knowledge. The Libraries' collections comprise over 1.7 million volumes, access to over 27,000 serials titles and an increasing variety of multimedia resources including DVDs, videotapes, audio books and digital collections representing a variety of subjects. The Libraries are housed in the Steven and Dorothea Green Library at Modesto A. Maidique Campus and in the Glenn Hubert Library at the Biscayne Bay Campus. There is also an annex at the Engineering Center.

FY 2011-2012 Operating Budget



The Libraries' operating budget for the fiscal year 2011-2012 totaled approximately \$13.8 million. The annual operating budget is funded mainly by the Educational & General (E&G) fund.

The Libraries have approximately 101 full-time employees, including 37 faculty members and 64 staff spread across five major library units:

- **Administrative Services** provides day-to-day administrative operations, for personnel matters, time-keeping, purchasing and vendor payments, budget controls, and facilitating the library's maintenance needs.
- **Technical Services** orders, receives, and catalogs library resources. It also maintains the database of library holdings, and mends and replaces damaged, lost and/or stolen library materials. The unit also includes a Digital Collections Center and the Geographic Information Systems Center.
- **Access Services** provides circulation services to the Libraries' patrons. It issues library cards and maintaining the patron database. It also loans patrons electronic equipment such as laptops, iPads, and Kindles.
- **Information & Research Services** assists library patrons with research and reference questions, individualized help for projects and research, and providing instruction in using library resources. This unit also has Government Documents desk.
- **Special Collections** is responsible for the acquisition and preservation of rare, unique, and out of print materials.

The FIU Dean of Libraries is a member of the Council of State University Libraries (CSUL), which provides access to collections, and services that directly support the teaching, research, and service missions of Florida's state universities and the communities they serve.

CSUL works with the Florida Center for Library Automation (FCLA), for information technology support for the State Universities Libraries. FCLA manages and supports an integrated library system, ALEPH, used by all state universities, including FIU. ALEPH provides library resource management functions such as circulations, acquisitions, cataloging, course reserves, and database maintenance. It runs on servers located at the University of Florida Campus in Gainesville.

Florida laws require the State University System (SUS) and the Florida College System to establish a new joint library services organization to address the needs of post-secondary academic libraries in Florida. This resulted in the merger of FCLA with the College Center for Library Automation, the Florida Distance Learning Consortium, and the Florida Center for Advising and Academic Support. They became Florida Virtual Campus (FLVC) effective July 1, 2012.

FINDINGS AND RECOMMENDATIONS

The University Libraries' established controls and procedures are adequate to ensure that library resources are properly safeguarded; revenue collections are properly accounted for; and funds are spent pursuant to University policies and procedures, applicable laws, rules and regulation.

Nevertheless, we recommend improvements in the following areas: collection management, circulation management, financial reporting, utilization of the library management system, and workstation security that need to be addressed. Our overall evaluation of internal controls is summarized below.

INTERNAL CONTROLS RATING			
CRITERIA	SATISFACTORY	FAIR	INADEQUATE
Process Controls		X	
Policy & Procedures Compliance		X	
Effect	X		
Information Risk		X	
External Risk	X		
INTERNAL CONTROLS LEGEND			
CRITERIA	SATISFACTORY	FAIR	INADEQUATE
Process Controls	Effective	Opportunities exist to improve effectiveness	Do not exist or are not reliable
Policy & Procedures Compliance	Non-compliance issues are minor	Non-Compliance Issues may be systemic	Non-compliance issues are pervasive, significant, or have severe consequences
Effect	Not likely to impact operations or program outcomes	Impact on outcomes contained	Negative impact on outcomes
Information Risk	Information systems are reliable	Data systems are mostly accurate but can be improved	Systems produce incomplete or inaccurate data which may cause inappropriate financial and operational decisions
External Risk	None or low	Potential for damage	Severe risk of damage

Our findings and recommendations are detailed below.

1. **Collection Controls**

Approximately half of the Library's annual budget is devoted to acquisitions. University Policy No. 2110.020, *Collection Development at University Libraries*, states that the selection of library materials is governed by the Library Collection Policy Statements, which are written guidelines linking acquisitions to instructional and research needs. These policies are supposed to be prepared, maintained, and revised by the Associate Director for Collection Management in consultation with faculty.

Although the selection of library resources is decided by a Collection Management Advisory Committee, which consists of the Associate Director and selected University and Library faculty members, there was no evidence that Library Collection Policy Statements were being used. After some difficulty, the required written Policy Statements, dated May 19, 2009, were located and presented for our review.

The Library does not have established procedures to manage the collection withdrawal (de-selection) process. Over time the library collection has changed from books in favor of electronic resources. The process of de-selection is an essential element to an orderly transition and helps ensure that library's materials are kept current, and are useful and accessible. Library resources may also be de-selected from the collection for the following reasons:

- Patron indicates that the item cannot be located and staff confirms that the item is missing;
- Patron borrows an item and later reports it as lost/stolen; or
- The item is damaged beyond repair.

Without the guidance of required Library Collection Policy Statements, the selection (and subsequent deselection) of the library collections may not be optimal to patron needs.

Recommendations

The Library should:	
1.1	Use and periodically update the Library Collection Policy Statements.
1.2	Develop procedures to govern the collection withdrawal process.

Management Response/Action Plan

- 1.1 The current Library Collection Policy Statement consists of common practices within the FIU Libraries which do not vary broadly from year to year. Nevertheless, as stated the policy should be reviewed and updated periodically. Such an update will be completed by March 2013. The new policy will be made publicly available on a new Collection Development Department website.

Implementation date: March 2013

- 1.2 The FIU Libraries do not yet have a written policy on withdrawals from the collection, but there are established practices in place. This process of weeding materials from the collection is managed by subject liaison librarians who have responsibility for managing the collections in their assigned disciplines (selection, de-selection, etc.) and for working directly with academic departments to support their research and teaching needs. Decisions on deselection are based on content and programmatic needs. These needs vary greatly by discipline, so a computer science collection would be weeded on a regular basis to remove old and obsolete materials, while a history collection would be seldom weeded because those texts are relevant to research no matter how old. Current practice in weeding at FIU is also governed by space constraints, so that collections that are tightly shelved would be reviewed more frequently than other collections to alleviate space constraints (as long as the weeding is appropriate for that particular discipline).

It may also be noted that the specific criteria listed in this report – missing items, lost/stolen items, or damage to an item – do not automatically result in an item being withdrawn from the collection. Such titles are reviewed by liaisons or the Collection Development Department to determine whether it is best to de-select the material entirely or seek a replacement for the title.

A Withdrawal Policy will be drafted and placed on the Collection Development Department website by January 2013.

Implementation date: January 2013

2. Circulation Controls

Library policies govern the circulation procedures. Patrons are allowed to borrow an unlimited number of library resources for a prescribed loan period. The Library system, ALEPH, is designed to automatically assess fines/fees and place holds against patrons who retain library resources beyond the established loan period as follows:

- \$.25 per day for most overdue materials. Exception includes but not limited to course reserves, laptops and group study rooms; and
- \$100 minimum charge for materials overdue in excess of 30 days for replacement related costs. Library privileges will be blocked until the material has been returned or the fines/fees paid.

We tested the circulation records for 32 general collection items, consisting of 21 items loaned to faculty; 5 items loaned to students; 3 items listed as circulation repairs; and 3 items listed as suspended equipment. Test results follow:

- The period for the sampled items loaned to faculty ranged from 96 to 2,928 days; with 76% (16 items) of the sampled items exceeding the maximum loan period of 480 days.
 - There was no evidence of renewal for these items.
 - The ALEPH's automatic assessment indicator was disabled for faculty members; therefore, no fines were assessed. According to Library staff, faculty members are not assessed library fines and their library privileges are never blocked.
- Fines were properly assessed for all sampled items loaned to the students. However, a student volunteer working at the circulation desk used the generic login to access ALEPH and extended the loan period to 456 conservative days for an item she borrowed. The established renewal period for items loaned to students is 30 days.
- The period for the sampled repair items ranged from 1,024 to 1,133 days. As of June 30, 2012, these repair items were not returned to circulation.

The circulation records as of June 30, 2012 indicated that there are approximately 1,330 overdue library items loaned to 268 faculty members. We estimate the potential loss for these items if not returned at \$133,000. We could not determine why faculty are not subject to the same circulation procedures as other patrons.

Recommendations

The Library should:	
2.1	Activate ALEPH fee assessment and privilege blocks for all patrons.
2.2	Establish controls to limit the override access to the ALEPH circulation module.
2.3	Ensure that repair items are returned to circulation in a timely manner.

Management Response/Action Plan

- 2.1 The Library Dean will present the issue of non-returned items by faculty to the Faculty Senate Library Committee and discuss options to encourage faculty to return items to the Library timely. The subject of assessing a fee and blocking privileges for faculty members will also be discussed and resolved by the Deans and Provost.

Implementation date: On-going

- 2.2 Every user including students in the Access Services area has been issued an individual sign-on. Student system privileges have been limited to eliminate override access to the ALEPH circulation module.

Implementation date: Immediately

- 2.3 The current repair process is a multidepartment collaboration which may result in some inefficiencies. The workflow process will be reviewed by a multi-departmental group to make recommendations for streamlining the process in Fall 2012. The resulting agreed upon workflow process will be implemented by February 2013.

Implementation date: February 2013

3. Financial Controls

FIU Property Control Manual defines library resources as library books, films, tapes, disk records, bound periodicals, and maps and they are the responsibility of the University's Libraries for accounting and inventory control. Accordingly, the Library manages collections order, purchase and budget in the ALEPH acquisitions module. The payments and the recording of the library resources are processed by Library staff using a batch process from ALEPH to the PantherSoft Financials system.

Library resources recorded in ALEPH and PantherSoft and reported in the University's audited financial statements were reviewed as follows:

a) Library Resources Over Reported by \$27 Million in Financial Statements

Library resources are capitalized and recorded at cost at the date of acquisition or at estimated fair value at the date received in the case of gifts. They are reported as part of the University's depreciable capital assets with an estimated useful life of 10 years for the purpose of depreciation. The University's audited financial statements as of June 30, 2011 reflect \$56,120,243 in library resources net of depreciation. However, during the financial reporting review process, the Controller's Office identified that accumulated depreciation for the library was underreported by \$26.9 million. This resulted from not recording depreciation for the library prior to the fiscal year 1993.

b) Library Resources Not Accurately Recorded in Capital Asset Account

Florida Board of Governors (BOG) Regulation 9.002(1) states:

Library resources with a value or cost of \$250 or more and having a useful life of one year or more shall be recorded in the financial system as property for inventory purposes. For the purpose of this regulation, "cost" is used if the property is purchased and represents the purchase price of the property item; "value" is used if the property is donated and represents the fair market value of the property item at the date of donation.

Prior to July 1, 2011, the University was required to capitalize all library resources, which included items with value or cost less than \$250.

Our review of the itemized library resources purchased in ALEPH revealed that approximately 23,096 items, costing \$5.8 million, were purchased during the fiscal year 2011. Although only 2,369 items or \$4.8 million of the total items were identified as library resources costing \$250 or more, all of the items were recorded as capital assets in ALEPH and in the University's property records. The

same applies for the fiscal year 2012: approximately 22,872 items costing \$6.2 million were purchased and 2,445 items or \$5.3 million of the total items were identified as library resources costing \$250 or more, but again 100% of the total purchases were recorded as capital assets in ALEPH and the University property records.

The Controller's Office worked with Library staff to make adjusting entries to remove library resources from the capitalized asset account costing less than \$250. However, an estimate of 89%, based on the number of titles/items purchased rather than actual cost, was used to adjust the asset account. Based on the actual cost of each title/item for the two years of data we analyzed, a more accurate estimate of the value of items less than \$250 appears to be only 16% necessitating a much smaller adjustment.

c) Library Resources Reduction Not Reported in University Financial Statements

ALEPH catalog reports showed that 13,442 items were removed from the library collection during the fiscal year 2011 and another 7,124 items were removed from July 1, 2011 to March 31, 2012. However, the University's audited financial statements as of June 30, 2011 disclosed that no reductions in library resources were reported. Due to the system limitation, the Library was unable to capture the inventory cost data when items were removed. (See more detail in Finding No. 4)

Since there are no established procedures in place providing guidance on the reporting of items withdrawn from the library collection, the library resources reduction had not been reported in the University's financial statements for prior years.

Recommendations

The Controller's Office should:	
3.1	Make the necessary adjustment to correct library resources reported in capital assets.

The Library should:	
3.2	Expense resources for items costing less than \$250 and provide the Controller's Office with the actual amount spent on the collection costing \$250 or more, so that capital asset accounts for the Library are maintained in accordance with BOG Regulations.
3.3	Enhance its system to easily identify the cost of library resources removed from collections.

Management Response/Action Plan

- 3.1 The Controller's Office is making the necessary adjustments to the capital assets effective in the June 30, 2012 financial statements. The methodology utilized by the internal audit staff, which yielded an average of 16% of purchases as costing less than \$250, is superior to that previously developed with library staff. Accordingly, this methodology was used to develop the final adjustments to the asset balances to remove items below the current capitalization threshold.

Implementation date: Immediately

- 3.2 The process of expensing items costing less than \$250 has been started effective with purchases made in fiscal year 2012/2013. A report detailing the actual amount spent on library collection costing \$250 or more will be provided to the Controller's Office on a schedule that is to be determined.

Implementation date: December 2012

- 3.3 Effective July 1, 2012 the acquisitions department has been linking the order record to the catalog record to improve reporting capabilities on items withdrawn from collections.

Implementation date: Immediately

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4. Utilization of the Library Management System

The Council of State University Libraries and the 11 Florida State University Libraries collaborated and purchased the Aleph system as the official library management system. The system performs various library resource management functions including:

- Acquisitions processing, tracking and budget management;
- Resource cataloging and bibliographic records management;
- Resource circulation management;
- Course reserves management; and
- Patron database management.

ALEPH was designed as an integrated library system, which provides academic research and national libraries with the efficient, user-friendly tools and workflow support needed to meet the increasing requirements of the library industry. The use of ALEPH is intended to improve operational efficiency and reduces cost. However, during our audit we observed the following conditions:

- Library resources cost is not being considered when items are removed from the collection. Library resources are ordered and purchased using the acquisition module and removed through the catalog module. Currently, there is no link between the acquisition and catalog modules of ALEPH to automatically capture the inventory cost data when items are removed. Therefore, staff would have to manually go back to the acquisition records which correspond to the fiscal year the items were purchased to capture the cost data and enable proper recording of the inventory removal.
- The full feature of the system that assists in effective and efficient management of library resources is not being utilized. The Library is using ALEPH to track library resources purchases, catalog inventory, and patron management. However, the full extent of the reporting function of ALEPH is not being used. For example, ALEPH has the capabilities to generate reports showing library resource utilization ratios, which can be beneficial in the development of library resource acquisitions and de-selection policies and procedures.

Recommendation

The Library should:	
4.1	Evaluate the Aleph integrated library system capabilities and use them to assist in the better management of library resources.

Management Response/Action Plan

- 4.1 The FIU Libraries are always seeking to better utilize the available tools to assist in the management of library resources. Aleph and other products are periodically explored to determine the most efficient means to assist in our daily workflows. However, Aleph itself is not always the best solution for the management of specific tasks, which has resulted in the utilization of other tools such as SerialsSolutions, an electronic resource management system, and FCLA-created ARROW reports, which generates reports which are more user-friendly for many data needs.

In terms of using Aleph for de-selection of materials, FCLA recently created an ARROW report called the "Low Use Items" report. This report runs against the Aleph database and returns the title, call number, and number of loan transactions for a specified collection and call number range in order to assist librarians in the de-selection process. The availability of this report has been promoted to the subject liaisons as a means to identify low use titles to assist in their decision to withdraw materials. As a Withdrawal policy is drafted (see 1.2), the availability of this report will be included as a recommended decision-making tool.

Implementation date: January 2013

5. Workstation Security

Fourteen user accounts that have privileged access to the Library's software applications were selected and tested. Our review of their workstations disclosed the following:

a) Malicious Code Protection

Malicious code may be transported by electronic mail, attachments, web access, removable media, and inserted through the exploitation of information systems vulnerabilities. The University Library implemented a layered approach to malicious code protection by employing McAfee's On-Access Scanner (OAS) antivirus software, VirusScan Enterprise (VSE) access protection, and Microsoft's Windows Malicious Software Removal Tool (MSRT) to mitigate the risk of virus infection of its workstations.

Our test disclosed that: 6 workstations did not have OAS antivirus software enabled; 6 workstations did not have their VSE access protection settings enabled; and 5 workstations did not have MSRT up to date.

b) Antivirus Maintenance

Antivirus applications need to be consistently updated to maintain their effectiveness in preventing malware. The Library's antivirus workstation mechanisms are managed internally and not through the University's UTS Network Services.

One workstation tested did not adequately maintain its antivirus signature definition files.

UTS' enhanced VirusScan Enterprise, ePolicy Orchestrator, and Host Intrusion protection applications can provide additional layers to existing University Library workstation security, including:

- Upgraded file-caching methods for every file prior to opening;
- Centralized policy management for deployment of security products, patches, and service packs; enforcement of security policies; and updated DAT files to ensure information systems are secure; and
- Host intrusion protection to block attacks from occurring and prevents security services from being disabled.

c) Workstation Administrators

Workstation administrator accounts are typically reserved for those individuals in IT to perform their job duties. Workstation administrator accounts have the ability to modify security measure and circumvent established workstation malicious code capabilities.

Our test disclosed that 9 had administrator privileges to their workstation although they had non-IT related job responsibilities. Also, 12 workstations tested had a shared administrator user account, which has a non-expiring password and is not listed on the active directory. Inappropriate administrator access decreases workstation security effectiveness.

Recommendations

The Library should:	
5.1	Work with the Information Technology Security Office to ensure that their workstations are adequately protected from malicious code.
5.2	Work with UTS Network Services to implement stronger antivirus and malware protection.
5.3	Limit workstation administrator access to appropriate personnel.
5.4	Discontinue the use of shared privileged workstation user accounts.

Management Response/Action Plan

5.1 The Library Systems Department is working with UTS to install a local electronic Policy Orchestrator (ePO) and the Host Intrusion Protection (HIP) system.

Implementation date: January 2013

5.2 The ePO and HIP mentioned above will also take care of implementing a stronger antivirus and malware protection.

Implementation date: January 2013

5.3 Passwords have been updated and the administrator access has been limited to the Library Systems Department, with the exception of the workstations that do not have an IT Function, but are using a software that requires that workstation to have administrative access in order to operate the software.

Implementation date: Immediately

5.4 Each student has been given a unique login to ensure that there is no shared privilege on user accounts in the ALEPH system. On the student workstations, privileges have been limited to only the ones that the student workers have to have access in order to complete their tasks. It is impractical to have each student with an individual log in for these shared workstations.

Implementation date: Immediately