

**UNIVERSITY OF CALIFORNIA, DAVIS  
INTERNAL AUDIT SERVICES**

**Accounting & Financial Services  
Expense Management and General Ledger Review  
Project #12-10**

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**MANAGEMENT SUMMARY**

As part of the Internal Audit Services (IAS) audit plan for fiscal year (FY) 2012, IAS conducted a review of the Accounting & Financial Services (A&FS) General Ledger Review System (GLRS). The purpose of our review was to assess the efficiency and effectiveness of the GLRS, and determine the level of compliance with campus policies mandating use of the system<sup>1</sup>.

The GLRS was implemented in 2005 to reduce the workload associated with the monthly validation of non-payroll financial transactions and to demonstrate that reviews are being performed timely. It was additionally intended to enforce the separation of duties required by UC Davis (UCD) Policy and Procedure Manual (PPM) 330-11, *Department Financial Administrative Controls and Separation of Duties*, when one person has initiated and approved a document within DaFIS, because a system control within GLRS required a second individual to review and annotate (mark as valid) the transaction. Finally, the GLRS has historically been part of the internal control testing performed by external financial auditors and affords evidence to federal sponsors that we are providing sound oversight of transaction processing activities.

To evaluate the GLRS we conducted interviews with system owners, developers and users<sup>i</sup>. We also analyzed financial and operational data related to usage of the GLRS. The scope of our review included current GLRS business practices and selected financial and operational data for FY 2010 through FY 2012.

Our review found that the GLRS is not working as management intended when the system was implemented. System users generally regard the GLRS as overly burdensome and labor intensive, and they are not consistently performing an adequate review of transactions before annotating them in the GLRS. Additionally, the GLRS system control that ensures a proper separation of duties was not working for Quali documents at the time of our review. Auto-annotation, which allows a transaction to be marked as reviewed in GLRS if the transaction had a separate initiator and approver, thus increasing the efficiency of the review process, was also not working for Quali documents and documents originating in the Shared Service Centers (SSC). There is no central oversight of general ledger review activity by A&FS. Instead, Deans and Vice Chancellors offices are expected to perform this oversight role. There are a limited number of Decision Support reports for the GLRS that would enable a manager to determine the status of the general ledger reviews for business units under their span of control, or to identify and address the risk posed by accounts and organizations that are not part of a review plan. Finally, formal training regarding the GLRS has not been provided since 2008.

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<sup>1</sup> PPM 330-11, [\*Departmental Financial Administrative Controls and Separation of Duties\*](#) section IV.B.1: "The General Ledger Review function in Decision Support must be used by all general ledger reviewers." Additionally, the Administrative Responsibilities Handbook on the A&FS website cites general ledger review responsibilities contained in PPM 330-11.

Several of the technical issues with GLRS have been fixed since our review began. The system controls within GLRS that enforce a separation of duties and allow auto-annotation have been amended to include Quali documents. Additionally, documents handled by the SSC can now be auto-annotated. However, management must still address the ongoing role of GLRS in UCD's system of internal control. To that end, the Campus Controller will work with the IAS Director to form and charge a task force to determine acceptable levels of risk associated with financial transaction processing and evaluate available controls that will optimize the accuracy and appropriateness of campus expenditures. Controls will be evaluated for their efficiency and effectiveness. The task force will develop recommendations for the types of controls needed including necessary training, communication and appropriate reporting to ensure adequate oversight and approaches to ensure compliance. These recommendations will be submitted to the Chancellor for evaluation and approval.

## I. OBSERVATIONS, RECOMMENDATIONS, AND MANAGEMENT CORRECTIVE ACTIONS

### A. Evaluate the General Ledger Review System (GLRS) for Future Use

**A decision must be made to either invest in updating the GLRS or to utilize other tools and resources to fulfill the intended purpose.**

UC Davis Policy and Procedure Manual Section 330-11, *Departmental Financial Administrative Controls and Separation of Duties*, requires monthly departmental review of the DaFIS Decision Support Transaction Listing (FIS2) and reports providing detail on payroll transactions. The GLRS was developed to facilitate the timely review of general ledger transactions while reducing the corresponding workload associated with the review. It was also intended to enforce the separation of duties required by PPM 330-11 when the same individual has both initiated and approved a transaction within DaFIS. Finally, the GLRS has historically been part of the internal control testing performed by external financial auditors, and affords evidence to federal sponsors that we are providing sound oversight for transaction processing activities.

We conducted on-site interviews with 13 GLRS users and found that the GLRS is not being used by department reviewers and certifiers as initially designed. Originally intended to provide assurance that each transaction selected and reviewed within the system is valid, departments have evolved to using the system as a high level review for only those transactions that appear unusual, large in dollar amount, or were processed outside of the department as part of an external feed from another system. For all other transaction documents, we found most reviewers annotate (mark as valid without further assessment in order to expedite the monthly ledger review). The reviewers credit their internal department controls and processes as allowing them to have confidence that the items not scrutinized during this review are valid transactions. They also refer to frustrations with mechanics of using the GLRS such as long load times for the system when performing reviews and auto-annotation not working for Kualii documents.

During the ongoing process of converting the campus financial system from DaFIS to Kualii, the GLRS lost functionality. For example, the GLRS feature that would prevent the same individual who initiated and approved a DaFIS document from annotating the document in GLRS was not functioning for Kualii documents. Therefore, the GLRS could not be relied upon to enforce a separation of duties for Kualii documents. Additionally, certain transaction types that were initiated and approved in DaFIS by two separate employees within an organization were previously able to appropriately bypass the physical review in GLRS through auto-annotation<sup>ii</sup>. This feature was not working for Kualii documents or documents processed through the SSC, making the general ledger review process more labor intensive for GLRS users.

The campus can use alternative tools and resources to fulfill the GLRS purpose. Both DaFIS and Kuali have the capability to provide system enforced business rules that require separate individuals within an organization to initiate and approve a transaction and hence ensure a proper separation of duties. It has been a campus choice not to turn these business rules on. However, use of these system enforced business rules combined with analytical procedures such as trend analysis, budget to actual comparisons, and sampling of transactions in key risk areas such as contracts and grants, might provide the needed assurance to management regarding transaction validity within an acceptable level of risk without use of the GLRS.

Use of the GLRS in a modified form with a greater focus on review of high risk transactions may also be a viable alternative. For example, for the first 10 months of FY 2012 we found that only 12% of all annotations (transactions marked as valid) in GLRS were auto-annotations. For the same period, 38% of all transaction line items had the potential to be auto-annotated if there was a requirement for a separate document initiator and approver at the department level. Additionally, there are a large number of recharges that lend themselves well to analytical procedures versus the detailed transaction review currently required by the GLRS since the charges are expected to remain relatively consistent from month to month. For example, Communication Resources recharges comprised 23% of all transaction line items in the first 10 months of FY 2012. (See Appendix A) Increasing the number of auto-annotations and providing the option to exclude certain types of recharges from the GLRS and address them through analytical procedures would allow the GLRS to focus on truly high risk transactions. Management could adjust sampling parameters for the remaining items in GLRS to be consistent with the risk appetite of the campus.

While the GLRS was clearly not functioning as management intended at the system's inception, there are several options available to ensure an appropriate review of general ledger transactions takes place.

### **Recommendations**

During the time since our review was completed, A&FS has indicated that GLRS will continue to be used for the review of general ledger transactions and has addressed some of the primary concerns with GLRS functionality. Specifically, the forced separation of duties within GLRS is now functional for both DaFIS and Kuali documents. Additionally, the auto-annotation feature is working for both DaFIS and Kuali documents. Finally, transactions initiated within the SSC can now be auto-annotated.

Though technical problems with the GLRS are being addressed, management has stated it is their intention to no longer require that GLRS be used for ledger reviews. Instead, they plan to give business units the option of using the GLRS or conducting a paper based review. Management has also stated that they do not believe it is feasible to implement a forced separation of duties between document preparers and reviewers within DaFIS or Kual. For business units that adopt a paper based review, IAS believes that a significant risk may be posed by the loss of the system enforced separation of duties GLRS provides since there is no system enforced separation of duties within DaFIS or Kual. This difference of opinion has been a point of ongoing discussion between IAS and A&FS.

In order to ensure the ledger review process that is ultimately decided upon fits the needs of the Campus and appropriately addresses associated risks, IAS recommends that a task force be formed to assess the ledger review process. The task force should include representatives from campus units and groups such as, but not limited to, A&FS, Budget and Institutional Analysis and ADMAN. IAS should participate in the group in an advisory capacity. The specific charge for the group should be developed by the Campus Controller and IAS Director, and should include establishing standards for review and analysis that include guidelines for meeting acceptable levels of risk to the campus.

If the task force determines that GLRS will continue to be a part of the Campus internal controls over financial transactions, all issues identified in the following observations must be addressed to strengthen GLRS functionality and provide appropriate assurances regarding the validity of Campus financial transactions.

### **Management Corrective Actions**

The Campus Controller will work with the IAS Director to form and charge a task force to determine acceptable levels of risk associated with financial transaction processing and evaluate available controls that will optimize the accuracy and appropriateness of campus expenditures. Controls will be evaluated for their efficiency and effectiveness. The task force will develop recommendations for the types of controls needed including necessary training, communication and appropriate reporting to ensure adequate oversight and approaches to ensure compliance. These recommendations will be submitted to the Chancellor for evaluation and approval.

This task force will be convened by March 31, 2013, and will be asked to provide a report to the Chancellor no later than June 30, 2013.

## B. GLRS Technical Issues

### 1. Kuali Documents

#### **GLRS business rules did not work with Kuali initiated documents**

Separation of duties is a key control to reduce the risk of inappropriate transactions and provide a proper level of oversight during transaction processing. PPM 330-11 states, "The last person approving a DaFIS transaction that results in a non-payroll disbursement shall be someone other than the person annotating that transaction as part of the required monthly review of the DaFIS Transaction Listing (FIS2)."

The GLRS business rules that provide for separation of duties between transaction initiation, approval and review were not working at the time of our review for Kuali initiated documents. The GLRS was not programmed to access Kuali routing information that identifies Kuali transaction initiators and approvers, and thus could not determine when the initiator and approver were the same person to require that the GLRS reviewer be a different person than the approver. Conversely, the auto-annotation feature of GLRS, which allows documents to bypass GLRS review if a separation of duties is present, was not functioning for Kuali documents and as a result increased the workload of staff conducting GLRS reviews.

#### **Recommendations**

Once the issues related to Kuali document business rules were brought to the attention of A&FS, resources were allocated to address the problems. A&FS has since corrected the GLRS workflow so that the system enforced separation of duties and auto-annotation are functional for Kuali documents.

#### **Management Corrective Actions**

No further action is necessary.

### 2. Documents Initiated by Shared Service Center (SSC)

Documents initiated by the SSC and approved by department personnel could not be auto-annotated in the GLRS, thus increasing the detailed review of transactions for GLRS users. Auto-annotation could not take place because the SSC and the approving units reside in a different organizational hierarchy. Auto-annotation would only occur if the document initiator and approver resided in the same organizational hierarchy, but were not at the same level within the organizational hierarchy.

The SSC initiates transactions on behalf of the department after receiving a request from the department along with supporting documentation. In order for the initiator to stand as the first approver in the auto-annotation process, they must be knowledgeable enough to ensure the document is accurately processed and that the document is appropriate and in compliance with laws, regulations, and contractual terms and conditions as appropriate. Currently, the SSC is responsible for ensuring the document is accurately processed and the criteria for ensuring appropriateness and other compliance related issues would logically fall to the requesting department. It would therefore be reasonable to allow SSC documents to be auto-annotated if this accountability can be shared.

### **Recommendations**

Once the issues related to Quali document business rules were brought to the attention of A&FS, resources were allocated to address the problem. A&FS has since corrected the GLRS workflow so that the certain documents initiated by the SSC can be auto annotated.

### **Management Corrective Actions**

No further actions are necessary.

## **3. GLRS Load Time**

### **Slow GLRS system load time impacts user resources and contributes to annotating transactions without appropriate review.**

GLRS users interviewed by IAS expressed dissatisfaction with the time it takes for the system to load plans and cycle between on screen pages when the monthly review is being performed. Users sometimes walk away from their desk while the system completes loading or perform other duties while waiting for the system to catch up.

Users are already under increasing pressure to complete other tasks they cite as higher priority items for their department. Users believe that the GLRS load time has negatively impacted them and contributed to the reduced amount of time devoted to transactions identified for review in the GLRS.

### **Recommendation**

Evaluate the GLRS programming code to determine if the system can be streamlined to load and process at a faster rate.



### **Management Corrective Action**

Evaluation of the GLRS system, including issues such as the load time, will be part of the charge for the task force discussed at Observation A above.

#### **C. GLRS Reporting in DaFIS Decision Support (DS)**

##### **DaFIS DS Reports for the GLRS could be improved to provide adequate management level information to monitor compliance with GLRS requirements.**

The GLRS reports and statistics available through DaFIS DS should provide management with specific information regarding the risk associated with accounts and transactions not reviewed and, more generally, the state of general ledger review plans. Instead, we found current reports to be insufficient to provide useful information to responsible management. Use of GLRS cannot easily be monitored at an organizational level and data regarding accounts included or excluded from review plans is not always accurate.

### **Recommendations**

A&FS must reevaluate the DaFIS DS reporting package for the GLRS. At a minimum, DaFIS DS reports for GLRS should provide management with information regarding accounts included /not included in a review plan at the plan and organization level, and with a current completion status of all review plans.

### **Management Corrective Actions**

Evaluation of the current ledger review reporting package will be part of the charge for the task force discussed at Observation A above.

#### **D. Formal classroom training on the GLRS is no longer provided.**

Only one person interviewed out of thirteen had attended the GLRS training classes which were last provided in FY 2008. All others had received verbal guidance from co-workers or learned how to use the system through their own research. While training materials from the 2008 class are available on-line, some of the information contained in these materials is dated. Other guidance for using the GLRS on the DaFIS website is not easily located.

We noted that some concerns the interviewees perceived as roadblocks to fully utilizing the GLRS were inaccurate and could have been addressed through training on the system. In addition, as experienced and formally trained users of the GLRS have left UC Davis employment effective use of the GLRS has deteriorated.

### **Recommendation**

A&FS should provide training to the campus on the GLRS system, either in a classroom setting or via easily accessible, up to date, on-line training tools. This training should incorporate the impact of ongoing Quali implementation and should also address current user concerns (perhaps identified through ADMAN or a similar group).

### **Management Corrective Action**

Evaluation of the training provided for the general ledger review process will be part of the charge for the task force discussed at Observation A above.

## **E. Lack of Follow-Up**

### **There are no tools designed to inform management of failure to perform ledger reviews or consequences for non compliance.**

PPM 330-11 requires use of the GLRS for online ledger review. At the campus level there are no consequences for non-compliance, though responsibilities for general ledger review may be spelled out in the job descriptions of individual employees and addressed in their annual performance appraisals. Additionally, there is no notification to department management, Deans or Vice Chancellors when ledgers are not being reviewed.

### **Recommendations**

1. Add a feature to the GLRS to send automatic reminders to Plan Managers with escalating messages up the chain of command when plans are not timely certified and become aged.
2. Determine if there are reasonable consequences that can be applied when a unit continually fails to comply with ledger review requirements and document those consequences in policy.

### **Management Corrective Action**

Evaluation of the oversight necessary for the general ledger review process will be part of the charge for the task force discussed at Observation A above.

## E. Enhancements to Facilitate Risk Based Review

As stated in observation A above, the GLRS was developed to reduce workload associated with the monthly review and provide support that reviews are being performed timely; enforce separation of duties in the GLRS review process when only one person has initiated and approved a document; provide assurance to the external auditors regarding the Campus' system of internal control; and provide evidence to federal sponsors that we are providing sound oversight of transaction processing activities.

GLRS users we interviewed stated that they often do not use the GLRS in a manner that is consistent with system requirements for validation of each transaction in the review population. They indicated that they would be more likely to use the system in a manner that is fully compliant with system requirements if it allowed them to structure reviews to be more risk based (i.e., focus more on large and or unusual transactions).

### Recommendations

As part of re-evaluating the GLRS, management should determine whether the control level can be relaxed for low risk transactions and streamlined for higher risk transactions. Some potential enhancements to GLRS to facilitate a risk based review that should be considered by management are:

1. Increase the dollar threshold for identifying transactions that are automatically subject to 100% review because of their larger dollar value.<sup>2</sup>
2. Decrease the confidence level and or increase the tolerable error for statistical sampling of smaller dollar value items. These adjustments would allow fewer transactions to be selected for review and or a greater error rate to be accepted before GLRS would require a full review of 100% of the transactions in a review plan.
3. Make auto-annotation the default in review plan set-up, consistent with on-line General Ledger Review training documentation which serves as guidance for GLRS use. During fiscal years 2010 to 2012, the average percentage of transactions eligible for auto-annotation that were actually auto-annotated was approximately 14.5%. Appendix A shows that as much as 38% of transactions included in the GLRS have the potential to be auto-annotated.
4. Consider options to reduce the detail review of external feeds, such as the ability to annotate all monthly feed transactions from a single source at one time, provided the reviewer attests that alternative analytical procedures were performed. (See Appendix A for details on external feeds.)

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<sup>2</sup> The threshold for 100% review is currently transactions lines greater than or equal to \$2,500.

5. Consider options to elevate annotation to the account or organization level for lower risk activities if the reviewer attests to the presence of alternative internal control procedures within the business unit that provide assurance regarding validity of transactions in the account or organization. An example of an alternative internal control procedure is the review of Principal Investigator (PI) Reports by a PI, where accounts that would otherwise be encompassed in the transaction level annotation process.
6. Consider the feasibility of including payroll data in the GLRS, in order to eliminate a separate review of payroll ledgers.

#### **Management Corrective Actions**

A&FS has already adjusted the sampling parameters for the GLRS. Additional enhancements suggested above will be considered by the task force discussed at Observation A above.

**APPENDIX A: Document Origin Codes for 95% of all transaction lines\***

DOC ORIGIN CODE	DOC ORIGIN CODE DESC	COUNT	% of Total	
01	Transaction Processing	927,148	38.2%	
CR	IT Communication Resources	566,499	23.3%	
FS	Facility Services Billing & PS Feed	169,168	7.0%	
15	Vet Med Central Services	103,234	4.2%	
EP	E-procurement billing	77,360	3.2%	
04	Mail Division Recharges	60,760	2.5%	
TN	TouchNet Credit Card Feed	49,797	2.0%	80.4%
AD	Active Directory/Exchange Svcs (XEDA)	44,066	1.8%	
MM	Fleet Management Billing	40,201	1.7%	
L2	Storehouse Inventory	38,643	1.6%	
BN	Banner Ledger Feed	25,126	1.0%	
TE	Connexus Travel	25,091	1.0%	
UB	University Extension Internal Billing	23,253	1.0%	
42	Chemistry Stores/Services Recharges	22,237	0.9%	
UN	University Extension Income	20,589	0.8%	
PM	OP payroll processor	19,810	0.8%	
22	Repro Graphics Campus Copier Recharges	19,141	0.8%	
40	Bookstore Recharges	19,045	0.8%	
02	Cashier SCC interface	17,963	0.7%	
71	EH & S Non Hazardous Waste Billing	17,033	0.7%	
BB	Bargain Barn entries	12,948	0.5%	
BP	Planning and Budget Financial	10,801	0.4%	
14	IT Reprographics General Recharges	10,437	0.4%	95.5%
<b>///</b>	<b>///</b>	<b>///</b>	<b>///</b>	
PT	Med Center Clinics	<u>1</u>	<u>0.0%</u>	
		<u>2,429,123</u>	<u>100.0%</u>	

\*Total lines based on GL Applied Transaction table data for FY 2012 through Fiscal Period 10. The 2.4 million lines resulted after applying GLRS Business rules that reduce all transactions for only those that currently should be reviewed within the GLRS. Of these, 38.2% represent the "01" Transaction Processing Document Origin Code, which currently could qualify for auto-annotation. When the data above is reduced for centrally processed account transactions (~40,000) that IAS is recommending to be removed from the GLRS, the percentage for Doc Origin Code "01" transactions would be reduced to 37.1%

## NOTES

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<sup>i</sup> We interviewed 13 users who were identified as the heaviest users of the GLRS as recorded through their annotations, who were also Primary Reviewers or Plan Managers. We also ensured a widespread coverage of Schools, Colleges and Divisions were included in this selection.

### **Organizational Areas Covered by Interviews:**

Admin and Resource Management: 2  
Office of the Chancellor: 1  
VC Student Affairs: 2  
VC Research: 2  
College of Ag & Environmental Sciences: 2  
College of Engineering: 1  
College of Bio Science: 1  
College of Letters and Science: 1  
School of Vet Med: 1

<sup>ii</sup> **Auto-annotation** is a feature where the system automatically marks transactions on the ledger as having been reviewed. To qualify for auto-annotation, a transaction must:

- Have an origin code of 01.
- Be approved by at least two DaFIS users who are in the same organizational hierarchy as the account being charged.

If the following were modified during routing, auto-annotation will not occur unless the document is approved by someone else in the same hierarchy structure after the modifications are made: Fiscal period; chart; account; object; description/payee; or amount.