



COMPLIANCE AND CONTROL AUDIT REPORT

**Statewide Expenditures: Reviewing Transactions in
the STARS Accounting System for Fraud and Abuse**

**A Report to the Legislative Post Audit Committee
By the Legislative Division of Post Audit
State of Kansas
December 2007**

Legislative Post Audit Committee

Legislative Division of Post Audit

The Legislative Post Audit Committee and its audit agency, the Legislative Division of Post Audit, are the audit arm of Kansas government. The programs and activities of State government now cost about \$10 billion a year. As legislators and administrators try increasingly to allocate tax dollars effectively and make government work more efficiently, they need information to evaluate the work of government agencies. The audit work performed by Legislative Post Audit helps provide that information.

We conduct our audit work in accordance with applicable government auditing standards set forth by the U. S. Government Accountability Office. These standards pertain to the auditor's professional qualifications, the quality of the audit work, and the characteristics of professional and meaningful reports. These audit standards have been endorsed by the American Institute of Certified Public Accountants and adopted by the Legislative Post Audit Committee.

The Legislative Post Audit Committee is a bipartisan committee comprising five senators and five representatives. Of the Senate members, three are appointed by the President of the Senate and two are appointed by the Senate Minority Leader. Of the representatives, three are appointed by the Speaker of the House and two are appointed by the House Minority Leader.

As part of its audit responsibilities, the Division is charged with meeting the requirements of the Legislative Post Audit Act which address audits of financial matters. Those requirements call for two major types of audit work.

First, the Act requires an annual audit of the State's financial statements. Those statements, prepared by the Department of Administration's Division of Accounts and Reports, are audited by a certified public accounting firm under contract with the Legislative Division of Post Audit. The firm is selected by the Contract Audit Committee, which comprises three members of the Legislative Post Audit Committee (including the Chairman and Vice-Chairman), the Secretary of Administration, and the Legislative

Post Auditor. This audit work also meets the State's audit responsibilities under the federal Single Audit Act.

Second, the Act provides for a regular audit presence in every State agency by requiring that audit work be conducted at each agency at least once every three years. Audit work done in addition to the annual financial statement audit focuses on compliance with legal and procedural requirements and on the adequacy of the audited agency's internal control procedures. These compliance and control audits are conducted by the Division's staff under the direction of the Legislative Post Audit Committee.

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LEGISLATIVE DIVISION OF POST AUDIT

800 SW Jackson
Suite 1200
Topeka, Kansas 66612-2212
Telephone (785) 296-3792
FAX (785) 296-4482
E-mail: LPA@lpa.state.ks.us
Website: <http://kslegislature.org/postaudit>
Barbara J. Hinton, Legislative Post Auditor

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LEGISLATURE OF KANSAS
LEGISLATIVE DIVISION OF POST AUDIT

800 SOUTHWEST JACKSON STREET, SUITE 1200
TOPEKA, KANSAS 66612-2212
TELEPHONE (785) 296-3792
FAX (785) 296-4482
E-MAIL: lpa@lpa.state.ks.us

December 10, 2007

To: Members, Legislative Post Audit Committee

Representative Peggy Mast, Chair
Representative Tom Burroughs
Representative John Grange
Representative Virgil Peck Jr.
Representative Tom Sawyer

Senator Nick Jordan, Vice Chair
Senator Les Donovan
Senator Anthony Hensley
Senator Derek Schmidt
Senator Chris Steineger

This report contains the findings, conclusions, and recommendations from our completed performance audit, *Statewide Expenditures: Reviewing Transactions in the STARS Accounting System for Fraud and Abuse*.

This report includes one recommendation each for the University of Kansas Medical Center and the Department of Administration. We would be happy to discuss these recommendations or any other items in the report with any legislative committees, individual legislators, or other State officials.

Barbara J. Hinton
Legislative Post Auditor

EXECUTIVE SUMMARY
LEGISLATIVE DIVISION OF POST AUDIT

**Have State Agency Expenditures
Been Made Appropriately?**

We used data mining techniques to identify potential problems with State purchases in the STARS accounting database. page 2
This data mining project uses statistical and non-statistical data analysis techniques to identify unusual transactions that are more likely to be fraud or abuse. While data mining helps narrow our sample to transactions that are more likely to be problematic, it doesn't allow us to draw any conclusions about transactions that aren't in our sample. That means we can't say whether the transactions we didn't look at do or don't have problems. Overall, we looked at three fiscal years of transaction data, found one serious problem, and 23 less serious problems.

In one instance State employees engaged in self-dealing. page 4
Self dealing occurs when a State official or employee takes an action in an official capacity that benefits him or her privately. In this instance, two University of Kansas Medical Center professors used their positions as lead investigators for federally funded grants to spend more than \$14,000 on hormone pellets for cancer research from a company they privately owned. University of Kansas Medical Center officials are investigating this incident and will decide if further action should be taken against the professors. In addition, we will be reporting the situation to the Kansas Governmental Ethics Commission for review.

We found several situations where State agencies may be missing opportunities to save money by contracting with vendors. page 5
Bidding out contracts with vendors removes biases toward certain vendors and encourages competition, which leads to lower overall procurement costs. We identified several vendors that did more than \$400,000 of business with State agencies in fiscal year 2005, but that weren't on Statewide contract. Although the State may not be able to contract with all of these vendors, contracting with any one of these vendors could save the State money. In addition, we found four instances where State agencies spent more than \$5,000 with the same vendor in a short period of time without seeking competitive bids.

Recommendations pages 4, 5, 6

APPENDIX A: Scope Statement page 8

APPENDIX B: Agency Response page 9

This audit was conducted by Levi Bowles. Scott Frank was the audit manager. If you need any additional information about the audit's findings, please contact Mr. Bowles at the Division's offices. Our address is: Legislative Division of Post Audit, 800 SW Jackson Street, Suite 1200, Topeka, Kansas 66612. You also may call us at (785) 296-3792, or contact us via the Internet at LPA@lpa.state.ks.us.

Statewide Expenditures: Reviewing Transactions in the STARS Accounting System for Fraud and Abuse

State agencies spend billions of dollars of both State and federal moneys in any given fiscal year. Those expenditures are audited annually using classic financial audits designed to provide reasonable assurance that the State’s financial statements essentially are correct. However, those audits aren’t designed to review for fraud and abuse.

As part of the ongoing compliance and control audit work authorized by the Legislative Post Audit Committee to address the risk of fraud and abuse, Legislative Post Audit conducted audit work reviewing State expenditures recorded in the State Accounting and Reporting System (STARS) for fraud, abuse, or non-compliance.

This audit answers the following question:

1. Have State agency expenditures been made appropriately?

As approved by the Legislative Post Audit Committee, we applied “data mining” audit techniques to this area. These techniques make use of modern technology—both hardware and software—to increase the likelihood of finding fraud and abuse if it exists. Compared to traditional audit approaches, data mining allows us to:

- Analyze entire groups of transactions, budget categories, etc., instead of just samples.
- Identify specific transactions or situations more likely to be fraudulent or abusive, and focus the audit effort on those items.
- Compare large data sets belonging to different agencies or divisions that normally wouldn’t be compared.

While no audit approach can guarantee that existing fraud and abuse will be found, this audit approach increases that likelihood.

A copy of the scope statement for this audit is included in *Appendix A*.

In conducting this audit, we followed all applicable government auditing standards.

Have State Agency Expenditures Been Made Appropriately?

Answer In Brief:

Using data mining techniques we found a few problematic State expenditures. We found one instance where professors at the University of Kansas Medical Center were involved in self-dealing—they had purchased more than \$14,000 worth of medical research supplies from their own outside company. We also identified several other issues that did not represent fraud or abuse, including vendors who do a lot of business with State agencies but who aren't on a Statewide contract, and several instances where agencies may have missed opportunities to save money by seeking competitive bids. These and other findings are discussed in the sections that follow.

We Used Data Mining Techniques To Identify Potential Problems with State Purchases

As part of Legislative Post Audit's ongoing compliance and control work, we reviewed State financial data using data mining techniques. Using these techniques, we can efficiently analyze all State financial data.

Legislative Post Audit's data mining project uses statistical and non-statistical data analysis techniques to identify unusual transactions that may be more likely to be problematic. Data mining allows us to identify unusual patterns in large data sets that we could not identify with traditional audit methods. It also allows us to bring various State datasets together to check for irregularities or potential problems between the datasets. An example of data mining from a previous audit report is looking for patterns of transactions that may indicate employees splitting transactions to avoid transaction limits on business procurement cards.

While data mining helps narrow our sample to transactions that are more likely to be problematic, it doesn't allow us to draw any conclusions about transactions that aren't in our sample. Auditors use two primary methods to select financial transactions for review. Each method has its own purpose, as described below:

- **Auditors select a representative sample when they want to use the sample transactions to draw conclusions about all transactions.** The transactions in a representative sample are selected randomly so they end up looking like a smaller version of the population. As a result, whatever the auditor finds for the sample—such as the amount of fraud or abuse—can be projected back to the population.
- **Auditors select a targeted sample when they want to increase the likelihood of finding something specific, such as fraud, abuse, waste, or noncompliance.** The transactions in a targeted sample aren't selected randomly. Rather, they're more likely to be what the auditors are looking for. For example, if we are looking for transactions that exceeded

a \$500 statutory limitation, we would only sample transactions that are more than \$500. Because targeted samples aren't necessarily representative of the entire population, the auditors' findings can't be projected.

Because data mining is a technique used to look for transactions that are more likely to be problematic, we end up selecting a target sample that doesn't look like the rest of the population. Therefore, what we found (or didn't find) in this project doesn't necessarily represent the rest of what's out there.

We used data mining techniques to look for problematic transactions in the State's STARS accounting database. STARS is the Statewide accounting and reporting system run by the Department of Administration's Division of Accounts and Reports. This system tracks State agency expenditures of federal and State dollars. We analyzed STARS data for fiscal years 2004, 2005, and 2006. This data set included approximately 22 million accounting records, 9 million of which were payment vouchers.

Using data mining techniques, we selected 263 records that appeared to be unusual, and found one serious problem. We also found 23 less serious issues. These problems are summarized in *Figure 1-1*.

Figure 1-1 Summary of STARS Transactions Sampled FY 2004-2006		
Data Set	Number	Dollars involved
Transaction Records in Data Set	22 Million	\$47 Billion
Payment Vouchers Selected Through Data Mining	263	\$2.8 Million
Serious Problems	1	\$14,740
Transactions with Less Serious Problems	23	\$64,585
Source: Division of Accounts and Reports STARS data.		

Data mining is an iterative process. We use tools to identify unusual patterns in the data, and follow up on a sample of the transactions. Some of the transactions turn out to be problematic, but most don't. Over time, we'll try to use what we've learned from all the transactions we reviewed to refine our approach. The transactions highlighted in this report reflect the problems we found through this round of analysis.

***We Identified
One Instance Where
State Employees Had
Engaged in Self-Dealing***

Self-dealing occurs when a State official or employee takes an action in an official capacity that benefits him or her privately. An example would be an agency's procurement officer deciding to purchase supplies from his or her own private business. Under the State's ethics statutes, State officials and employees are prohibited from engaging in self-dealing.

Two University of Kansas Medical Center professors used their positions as lead investigators to spend more than \$14,000 on hormone pellets for cancer research from a company they privately owned. This situation is described below:

- **The two professors use pellets containing hormones to research the role that hormone levels may play in causing cancer.** As part of their research, they surgically implant pellets into laboratory mice that release hormones, and then study the effects.
- **Since 1999, the professors have used \$14,740 from federal research grants to purchase the hormone pellets from a small company they own.** One of the professors told us they've owned the company since 1993. According to the company's records, the proceeds from the sale of these pellets generally were used to purchase journal subscriptions, memberships to professional organizations, and office supplies for the professors' research laboratory.

Because these purchases likely violated the terms of the federal grants, officials from the Medical Center told us they plan to report this to the federal agency that oversees the grants. In addition, Medical Center officials currently are conducting an investigation through the Academic Affairs Office and will decide if further action should be taken against the professors. We will be reporting this incident to the Kansas Governmental Ethics Commission for review.

Although we did find several other cases where the vendor was also an employee of the agency, the situation at the Medical Center was the only one that involved self-dealing. In each of the other cases, we found evidence that the agency employee either wasn't the primary decision maker, an official that was higher up in the agency had signed off on the transaction, or the transaction was part of a competitively bid contract.

Recommendations

To ensure that the problem situation involving Hormone Pellet Press is fully addressed and federal grant provisions are adhered to, the University of Kansas Medical Center should:

- a. continue its own internal investigation of payments made to Hormone Pellet Press.

- b. report any potential violations of the Medical Center’s grant agreements to the applicable federal agencies that administer those grants.
- c. report to the Legislative Post Audit Committee by March 1, 2008 regarding any actions it has taken in response to the purchases from Hormone Pellet Press.

We Identified Several Situations Where State Agencies May Be Missing Opportunities To Save Money by Contracting With Vendors

Bidding out contracts with vendors gives all vendors a fair shot at receiving a contract, which removes biases towards certain vendors. Also, the bidding process encourages vendors to compete with one another, and leads to lower overall procurement costs. Thus, State agencies generally can save money and reduce the risk of biases by seeking bids before making purchases.

We identified several vendors that did more than \$400,000 of business with State agencies in fiscal year 2005, but that weren’t on a Statewide contract. We searched STARS data for vendors that didn’t have a Statewide contract, but that had done a lot of business with several State agencies. As *Figure 1-2* shows, six vendors received at least \$400,000 from the State and did business with at least 10 State agencies, but weren’t on a Statewide contract:

**Figure 1-2
Commonly Used Vendors Not On State Contract
FY 2005**

Vendor Name	Type of Business	Dollars	Number of Accounting Records	Number of Agencies That Used Vendor
EBSCO Subscription Services	Publishing Academic Journals	\$4,120,715	255	18
Bibliographical Center For Research	Library Services	\$2,972,059	193	11
West Publishing Corporation	Legal Information Solutions	\$962,939	1462	43
Lawrence Journal-World	Newspaper	\$515,840	463	19
Topeka Foundry & Iron Works Co.	Manufacturing and Building	\$423,524	201	13
Star Lumber & Supply Co.,Inc.	Construction Supplies	\$416,213	344	15

Source: Division of Accounts and Reports STARS data and Division of Purchasing Contracts data.

While it may not be possible to contract with all these vendors—some vendors don’t offer contracting, or may not wish to set up a contract with the State—a Statewide contract with any one of these vendors might save the State money. This also suggests that State agencies

and the Division of Purchases could explore other opportunities for contracting by analyzing current transaction patterns.

We found four instances where State agencies spent more than \$5,000 with the same vendor in a short period of time without seeking competitive bids. Under regulations adopted by the Division of Purchasing, most State agencies are required to seek competitive bids for any purchases greater than \$2,000. The Division has granted some agencies, including the Regents' institutions, a \$5,000 limit. The University of Kansas Medical Center has the statutory authority to set its own limit—currently \$10,000.

In the following four instances, agencies purchased more than \$5,000 in a short period of time from the same vendor. Although they weren't required to seek competitive bids, they may have missed out on opportunities to save money by not bidding out the purchases:

- **University of Kansas Medical Center spent about \$8,000 on the same day for landscaping supplies.**
- **Kansas State University spent \$5,000 over the course of one month for building supplies.**
- **Wichita State University spent more than \$5,000 over the course of one month on printing supplies.**
- **The Adjutant General spent more than \$5,000 on the same day for boiler supplies.** Although these purchases were for buildings at several locations throughout the State, they were made from the central Topeka office, and staff could have sought bids for these transactions.

Recommendations

To help ensure the State procures goods and services in the most economical manner possible, the Division of Purchases should:

- a. attempt to negotiate Statewide contracts with the vendors we identified that did business with at least 10 agencies and received more than \$400,000 from the State in fiscal year 2005.
- b. periodically review STARS data and current State contracts to identify non-contract vendors that conduct a significant amount of business with the State, and attempt to negotiate Statewide contracts with them.
- c. encourage State agencies to periodically review their own expenditures to identify large-volume vendors who they could contract with.

Through the course of our review, we also found some other minor issues that agencies should be aware of:

- **One agency spent about \$20 for alcohol at a restaurant.** Because alcohol purchases easily can be abused, the Division of Accounts and Reports advises against using State funds for these purchases.
- **One agency was unable to locate vouchers for several transactions in our sample.** According to the records retention schedules maintained by the State Historical Society, agencies should retain their payment vouchers for at least three years.
- **A few agencies assigned incorrect expenditure codes to some of their transactions.** Although an occasional miscoding is unlikely to cause problems, frequently miscoded transactions could distort budgetary and expenditure numbers.

APPENDIX A

Scope Statement

This appendix contains the scope statement for this audit of statewide expenditures. This audit was conducted as part of the expanded ongoing compliance and control audit work authorized by the Legislative Post Audit Committee to better address the risk of fraud and abuse.

Statewide Expenditures: Reviewing Transactions in the STARS Accounting System for Fraud and Abuse

As part of the ongoing compliance and control audit work authorized by the Legislative Post Audit Committee to address the risks of fraud, abuse, and non-compliance, Legislative Post Audit uses “data mining” techniques—methods that can be used to search for potential problems based on how they would appear in available data.

State agencies spend hundreds of millions of dollars, both State and federal moneys, in any given fiscal year. While those expenditures are audited annually by an audit firm under contract with Legislative Post Audit, those audits are designed only to provide reasonable assurance about any material misstatement of the State’s financial statements and about significant noncompliance with requirements that have a material effect on those financial statements. Those audits aren’t designed to review for fraud and abuse.

To more specifically review for fraud, abuse, and noncompliance in State agency expenditures, a compliance and control audit would answer the following question:

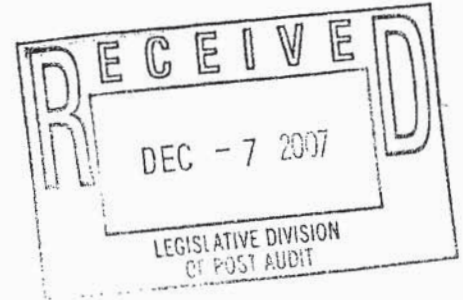
- 1. Have State agency expenditures been made appropriately?** In this audit, we will use data-mining techniques to search for different types of possible inappropriate expenditures. We will search for such things as use of State moneys for personal use and noncompliance with purchasing restrictions. We also will search for such things as possible inappropriate relationships between purchasers and vendors, payments to fictitious vendors, and noncompliance with purchasing restrictions. The specific analyses and tests we do will depend on the data available, the level of risk of the various types of potential problems, and the financial impact of those types of potential problems.

APPENDIX B

Agency Responses

On November 30, 2007, we provided copies of the draft audit report to the Department of Administration and University of Kansas Medical Center. Their responses are included as this Appendix. In the responses, both agencies agreed to follow our recommendations.

December 7, 2007



Ms. Barbara J. Hinton
Legislative Post Auditor
800 SW Jackson St, Suite 1200
Topeka, KS 66612

Dear Ms. Hinton:

Thank you for the opportunity to respond to the Legislative Post Audit's report on Statewide Expenditures: Reviewing Transactions in the STARS Accounting System for Fraud and Abuse. We're pleased to present the following official response.

The Division of Purchases has placed a major emphasis on analysis of available data in its Strategic Sourcing efforts since 2003, and the audit suggests another methodology that we can add to our expenditure review portfolio (review of multiple agency expenditures by vendor against existing contracts).

We look forward to on-going efforts to engage State of Kansas agencies in the development of contracting opportunities and developing their understanding of proper purchasing procedures.

Thank you for your time and consideration.

Sincerely,



Duane A. Goossen
Secretary of Administration



December 5, 2007

Ms. Barbara J. Hinton
Legislative Post Auditor
Legislative Division of Post Audit
800 Southwest Jackson Street, Suite 1200
Topeka, KS 66612-2212

Dear Ms. Hinton:

The University of Kansas Medical Center (KUMC) has reviewed the portion of the draft of your completed performance audit; *Statewide Expenditures: Reviewing Transactions in the STARS Accounting System for Fraud and Abuse*; regarding self-dealing between two KUMC faculty members and their privately owned business.

KUMC concurs with the findings and recommendations. We are currently conducting the recommended in-house investigation. At its conclusion, all necessary and appropriate actions will be taken. A final report to the Legislative Post Audit Committee will be made on or before March 1, 2008.

Mr. R. Michael Keeble, the Associate Vice Chancellor for Institutional Finance, will represent KUMC at the December 17, 2007, meeting of the Committee. If you have any questions please contact Ed Phillips at 913-588-1400.

Sincerely,

Barbara F. Atkinson, M.D.
Executive Vice Chancellor
Executive Dean, School of Medicine

BFA:dab

Cc: R. Michael Keeble, Associate Vice Chancellor for Institutional Finance
Allen B. Rawitch, Ph.D., Vice Chancellor for Academic Affairs