MONTHLY PERFORMANCE REPORT OF COMPUTER-ASSISTED AUDIT TECHNIQUES (CAAT) FOR DUPLICATE VENDOR PAYMENTS AND OTHER PERIODIC ROUTINES

(Cited as a Best Practice by the Institute of Internal Auditors)

For the Month of November 2008

We analyzed 14,573 vendor invoices paid in October 2008 amounting to about $106 million and found no potential duplicate payments made to vendors.

To date we have identified $766,354 in duplicate vendor payments, of which $750,269 has been recovered.

AUDIT NO: 2844-E
REPORT DATE: NOVEMBER 24, 2008

Audit Director: Peter Hughes, Ph.D., MBA, CPA, CITP
Deputy Director: Eli Littner, CPA, CIA, CISA
Sr. Audit Manager: Autumn McKinney, CPA, CIA, CISA
Audit Manager: Carol Swe, CPA, CIA, CISA
Providing Facts and Perspectives Countywide

Dr. Peter Hughes  
Office of The Director  
Ph.D., MBA, CPA, CCEP, CITP, CIA, CFE  
Certified Compliance & Ethics Professional (CCEP)  
Certified Information Technology Professional (CITP)  
Certified Internal Auditor (CIA)  
Certified Fraud Examiner (CFE)  
E-mail: peter.hughes@iad.ocgov.com

Eli Littner  
Deputy Director  
CPA, CIA, CFE, CFS, CISA  
Certified Fraud Specialist (CFS)  
Certified Information Systems Auditor (CISA)

Michael J. Goodwin  
Senior Audit Manager  
CPA, CIA

Alan Marcum  
Senior Audit Manager  
MBA, CPA, CIA, CFE

Autumn McKinney  
Senior Audit Manager  
CPA, CIA, CISA, CGFM  
Certified Government Financial Manager (CGFM)

Hall of Finance & Records  
12 Civic Center Plaza, Room 232  
Santa Ana, CA  92701  
Phone: (714) 834-5475  
Fax: (714) 834-2880

To access and view audit reports or obtain additional information about the OC Internal Audit Department, visit our website:  www.ocgov.com/audit

OC Fraud Hotline (714) 834-3608
Transmittal Letter

Audit No. 2844-E  November 24, 2008

TO:  David Sundstrom, Auditor-Controller
     Carl Crown, Director, Human Resources Department
     Ronald C. Vienna, County Purchasing Agent, County Procurement Office

SUBJECT:  Monthly Performance Report of Computer-Assisted Audit Techniques (CAAT) for Duplicate Vendor Payments and Other Periodic Routines

We have completed the November 2008 report of the results of our Computer-Assisted Audit Techniques (CAAT). The final report is attached for your information. Recoveries to date from duplicate vendor payments are $750,269.

Each month I submit an Audit Status Report to the Board of Supervisors (BOS) where I detail any material and significant audit issues released in reports during the prior month and the implementation status of audit recommendations as disclosed by our Follow-Up Audits. Accordingly, the results of this audit will be included in a future status report to the BOS.

As always, the Internal Audit Department is available to partner with your staff so that they can successfully implement or mitigate difficult audit recommendations. Please feel free to call me should you wish to discuss any aspect of our audit report.

We appreciate the courtesy and cooperation extended to us by the personnel of the Auditor-Controller’s Office and the Human Resources Department. If we can be of further assistance, please contact me or Eli Littner, Deputy Director at (714) 834-5899, or Autumn McKinney, Senior Audit Manager at (714) 834-6106.

Respectfully Submitted,

Dr. Peter Hughes, CPA, Director
Internal Audit Department

Attachment
Letter from Director Peter Hughes

Distribution Pursuant to Audit Oversight Committee Procedure No. 1:

Members, Board of Supervisors
Members, Audit Oversight Committee
Thomas G. Mauk, County Executive Officer
Jan Grimes, Director, Auditor-Controller/Central Accounting Operations
Robert Leblow, Senior Manager, Auditor-Controller/Claims & Disbursing Section
Bill Malohn, A-C/Information Technology/CAPS G/L System Support
Shelley Carlucci, Assistant Director, Human Resources/Administration
Bob Leys, Assistant Director, Human Resources/Services and Support
Rosie Santiesteban, Admin. Manager, Human Resources/Administration
Joan Villanueva, Admin. Manager, Human Resources/Administration
Laurence McCabe, Admin. Manager II, Human Resources
Foreperson, Grand Jury
Darlene J. Bloom, Clerk of the Board of Supervisors
## Table of Contents

*Monthly Performance Report of Computer-Assisted Audit Techniques (CAAT) for Duplicate Vendor Payments and Other Periodic Routines*  
*Month of November 2008*

**Audit No. 2844-E**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmittal Letter</td>
<td>i</td>
</tr>
<tr>
<td>CAAT SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>CAAT Program</td>
<td>2</td>
</tr>
<tr>
<td>1. CAAT Performed: Duplicate Payments</td>
<td>3</td>
</tr>
<tr>
<td>2. CAAT Performed: Employee Vendor Match</td>
<td>4</td>
</tr>
<tr>
<td>3. CAAT Performed: Retiree/Extra Help Hours</td>
<td>4</td>
</tr>
<tr>
<td>4. CAAT Performed: Deleted Vendors</td>
<td>4</td>
</tr>
<tr>
<td>Appendix A: Report Item Classifications</td>
<td>5</td>
</tr>
</tbody>
</table>
CAAT SUMMARY

Description of CAAT Program:
The CAAT Routines (Computer Assisted Audit Techniques) are automated queries applied to large amounts of electronic data searching for specified characteristics. Resulting exceptions or findings are forwarded to the appropriate department for validation and/or resolution. Depending on the department’s review, the exceptions may or may not be a finding. Often there is additional data needed to validate the exception that is only known at the department level. These CAAT routines are not an audit because we have not audited the underlying business processes or internal controls.

Results (for the Month of November 2008):
No material weaknesses or significant issues identified. See Appendix A for a description of report item classifications.

Control Findings:
- **Duplicate Payments to Vendors:**
  Of the $106 million vendor invoices, we identified no potential duplicate payments made to vendors. Currently, the Auditor-Controller has a recovery rate of about 98% on these duplicate payments that we have brought to their attention since the inception of the CAAT routines.

- **Deleted Vendors:**
  No findings.

Value-Added Information:
Based on the to-date recoveries of $750,269 from the duplicate vendor payment routine, these computer assisted routines have paid for themselves and are returning monies to the County that may otherwise be lost. To date, we have issued 78 performance reports for the computer assisted routines.
CAAT Program:

This report details the monthly activity from the Computer-Assisted Auditing Techniques (known by the acronym CAAT). We use a proprietary, best practices and industry recognized software product to help us in this process. We are keeping the details of our process and the vulnerabilities identified to a general discussion because of the risks associated with disclosing specific details of our financial and accounting processes.

The CAATs are automated queries applied to large amounts of electronic data searching for specified characteristics. The CAATs differ from our traditional audits in that the CAATs can query 100% of a data universe whereas the traditional audits typically test but a sample of transactions from the population.

For example, each month we download the monthly disbursement activity from the County’s data warehouse into a cumulative vendor payment database that we have created. Then, we query 100% of the database looking for payments with the same invoice number and the same amount. We then subject the resulting matches to further review and analysis (such as obtaining and reviewing copies of the paid invoices) to determine if a duplicate payment was made. We then forward resulting findings to the Auditor-Controller for validation and recovery.

We also work with the departments to identify internal control enhancements with the purpose of preventing future occurrences of the type of findings identified by the CAATs.

We currently perform five CAAT routines described below utilizing selected payroll and vendor data. Depending on the nature of the CAAT, we perform them monthly, annually, or periodically as needed.
1. CAAT Performed: Duplicate Payments

We used a CAAT routine to identify potential duplicate payments made to vendors during October 2008.

A. Results

Of the $106 million of vendor invoices processed during October 2008, we did not identify any potential duplicate payments made to vendors. The Auditor-Controller continues to investigate all duplicate payments and is pursuing collection. Currently, the Auditor-Controller has a recovery rate of about 98% on these duplicate payments that we have brought to their attention since the inception of the CAAT routines.

The table below summarizes the duplicate payment activity to date:

<table>
<thead>
<tr>
<th>CAAT Report</th>
<th>Total #’s</th>
<th>Total $’s</th>
<th>Not Duplicates #’s</th>
<th>Not Duplicates $’s</th>
<th>Recovered #’s</th>
<th>Recovered $’s</th>
<th>In Process #’s</th>
<th>In Process $’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>103</td>
<td>$99,980</td>
<td>19</td>
<td>$10,334</td>
<td>80</td>
<td>$87,808</td>
<td>4</td>
<td>$1,838</td>
</tr>
<tr>
<td>2003</td>
<td>50</td>
<td>$33,306</td>
<td>7</td>
<td>$10,175</td>
<td>39</td>
<td>$21,020</td>
<td>4</td>
<td>$2,111</td>
</tr>
<tr>
<td>2004</td>
<td>33</td>
<td>$105,779</td>
<td>7</td>
<td>$2,990</td>
<td>24</td>
<td>$101,460</td>
<td>2</td>
<td>$1,329</td>
</tr>
<tr>
<td>2005</td>
<td>67</td>
<td>$80,162</td>
<td>2</td>
<td>$668</td>
<td>64</td>
<td>$78,472</td>
<td>1</td>
<td>$1,022</td>
</tr>
<tr>
<td>2006</td>
<td>75</td>
<td>$347,008</td>
<td>16</td>
<td>$33,720</td>
<td>54</td>
<td>$310,019</td>
<td>5</td>
<td>$3,269</td>
</tr>
<tr>
<td>2007</td>
<td>93</td>
<td>$99,999</td>
<td>12</td>
<td>$8,411</td>
<td>76</td>
<td>$88,735</td>
<td>5</td>
<td>$2,853</td>
</tr>
<tr>
<td>January 2008</td>
<td>7</td>
<td>$2,410</td>
<td>3</td>
<td>$1,303</td>
<td>4</td>
<td>$1,107</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>February 2008</td>
<td>5</td>
<td>$3,594</td>
<td>2</td>
<td>$2,126</td>
<td>3</td>
<td>$1,468</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>March 2008</td>
<td>6</td>
<td>$2,812</td>
<td>3</td>
<td>$2,343</td>
<td>2</td>
<td>$269</td>
<td>1</td>
<td>$200</td>
</tr>
<tr>
<td>April 2008</td>
<td>6</td>
<td>$24,188</td>
<td>0</td>
<td>$0</td>
<td>6</td>
<td>$24,188</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>May 2008</td>
<td>10</td>
<td>$1,850</td>
<td>1</td>
<td>$144</td>
<td>9</td>
<td>$1,706</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>June 2008</td>
<td>3</td>
<td>$788</td>
<td>0</td>
<td>$0</td>
<td>2</td>
<td>$518</td>
<td>1</td>
<td>$270</td>
</tr>
<tr>
<td>July 2008</td>
<td>5</td>
<td>$21,448</td>
<td>0</td>
<td>$0</td>
<td>3</td>
<td>$20,005</td>
<td>2</td>
<td>$1,443</td>
</tr>
<tr>
<td>August 2008</td>
<td>8</td>
<td>$2,691</td>
<td>1</td>
<td>$325</td>
<td>6</td>
<td>$1,190</td>
<td>1</td>
<td>$1,176</td>
</tr>
<tr>
<td>September 2008</td>
<td>2</td>
<td>$2,492</td>
<td>0</td>
<td>$0</td>
<td>1</td>
<td>$2,061</td>
<td>1</td>
<td>$431</td>
</tr>
<tr>
<td>October 2008</td>
<td>15</td>
<td>$10,386</td>
<td>0</td>
<td>$0</td>
<td>14</td>
<td>$10,243</td>
<td>1</td>
<td>$143</td>
</tr>
<tr>
<td>November 2008</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>488</td>
<td>$838,893</td>
<td>73</td>
<td>$72,539</td>
<td>387</td>
<td>$750,269</td>
<td>28</td>
<td>$16,085</td>
</tr>
</tbody>
</table>

B. Background

This CAAT routine concentrates on a sub-set of vendor invoices paid by the County that possesses certain common attributes. The sub-set excludes one-time payments (such as election worker pay, jury duty pay, etc.) as well as recurring payments (periodic payments to the same payee for the same amount such as welfare, family support, etc.).
During the month of November 2008, 14,573 invoices for $106,275,851 were added to this data sub-set representing October 2008 transactions. Currently, the data sub-set includes 792,640 invoices totaling $8,169,156,717.

The total data file from which the sub-set is derived includes 2,392,017 records totaling $15,603,188,396.

Our prior research has indicated that the duplicate payments are typically caused by a compounded human clerical error.

2. **CAAT Performed: Employee Vendor Match**
   We used a CAAT routine to identify employees that share a similar address as a vendor. This may identify employees buying goods or issuing contracts to themselves or a related vendor.

   **Status:**
   This routine is performed periodically as necessary. We are currently gathering data to perform this routine in future months.

3. **CAAT Performed: Retiree/Extra Help Hours**
   We performed an analysis of working retiree hours to identify retirees working as extra help in excess of mandated limits. Our criteria are 960 hours (maximum allowed for regular retirees) or 720 hours (maximum for early retirees) during the fiscal year (FY).

   **Status:**
   This routine is performed annually. There is no current work in progress for FY 08-09.

4. **CAAT Performed: Deleted Vendors**
   We used a CAAT to identify vendors that have been deleted or removed from the Vendor Master List. For deleted vendors, we verify that there has been no recent activity for that vendor.

   **Results:**
   This CAAT was applied in November 2008 with no significant findings.

**Attachments:**
Provided to the Auditor-Controller: dated 11/5/08 – A-C/Claims & Disbursing Section.
Appendix A: Report Item Classifications

For purposes of reporting our audit observations and recommendations, we have classified audit report items into three distinct categories:

- **Material Weaknesses:**
  Audit findings or a combination of Significant Issues that can result in financial liability and exposure to a department/agency and to the County as a whole. Management is expected to immediately address “Material Weaknesses” brought to their attention.

- **Significant Issues:**
  Audit findings or a combination of Control Findings that represent a significant deficiency in the design or operation of processes or internal controls. Significant Issues do not present a material exposure throughout the County. They generally will require prompt corrective actions.

- **Control Findings and/or Efficiency/Effectiveness Issues:**
  Audit findings that require management’s corrective action to implement or enhance processes and internal controls. Control Findings and Efficiency/Effectiveness issues are expected to be addressed within our follow-up process of six months, but no later than twelve months.