RESULTS OF CONTINUOUS AUDITING USING CAATS:
AUDITOR-CONTROLLER, HUMAN RESOURCE SERVICES, & COUNTY PROCUREMENT OFFICE

AUDIT FOR DUPLICATE VENDOR PAYMENTS AND OTHER PERIODIC ROUTINES

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

For the Month:
November 2012

Duplicate Vendor Payments: We analyzed 14,486 vendor invoices paid in October 2012 amounting to about $224 million and found 99.99% of the invoices were paid only once. Of the $224 million vendor invoices, we identified one (1) potential duplicate payment made to vendors totaling $5,013. To date we have identified $1,020,413 in duplicate vendor payments, of which $995,084 or 98% has been recovered.

Employee-Vendor Conflicts: We analyzed 40,242 employee and 16,878 vendor addresses and phone numbers at September 30, 2012 for employees that bought goods or issued contracts to themselves or a related vendor. We identified two (2) potential conflicts that were submitted to Human Resource Services (HRS) for further evaluation. As of November 9, 2012, departmental HR staff determined that one matter did involve a possible conflict of interest or appearance of conflict of interest and corrective action was taken by the department. This matter was resolved to HRS’s satisfaction. Departmental HR staff determined the other matter was not a conflict.

AUDIT NO: 1238-E
REPORT DATE: DECEMBER 6, 2012

Director: Dr. Peter Hughes, MBA, CPA, CIA
Deputy Director: Eli Littner, CPA, CIA, CISA
Senior Audit Manager: Michael Goodwin, CPA, CIA
Audit Manager: Carol Swe, CPA, CIA, CISA

RISK BASED AUDITING

American Institute of Certified Public Accountants Award to Dr. Peter Hughes as 2010 Outstanding CPA of the Year for Local Government

GRC (Government, Risk & Compliance) Group 2010 Award to IAD as MVP in Risk Management
2009 Association of Certified Fraud Examiners’ Hubbard Award to Dr. Peter Hughes for the Most Outstanding Article of the Year – Ethics Pays
2008 Association of Local Government Auditors’ Bronze Website Award
2005 Institute of Internal Auditors’ Award to IAD for Recognition of Commitment to Professional Excellence, Quality, and Outreach
Dr. Peter Hughes
Director
Ph.D., MBA, CPA, CCEP, CITP, CIA, CFE, CFF, CGMA
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Certified Information Technology Professional (CITP)
Certified Internal Auditor (CIA)
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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
Letter from Director Peter Hughes

Transmittal Letter

Audit No. 1238-E December 6, 2012

TO: Jan Grimes, Chief Deputy Auditor-Controller
Steve Danley, Director
Human Resource Services
Ronald C. Vienna, County Purchasing Agent
County Procurement Office

SUBJECT: Results of Continuous Auditing Using CAATS: Auditor-Controller, Human Resource Services, & County Procurement Office – Duplicate Vendor Payments & Other Routines

We have completed the November 2012 report of Results of Continuous Auditing Using CAATS (Computer-Assisted Audit Techniques). The final report is attached for your information. Recoveries to date from duplicate vendor payments are $995,084.

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 your offices. If we can be of further assistance, please contact me directly at (714) 834-5475 or Michael Goodwin, Senior Audit Manager at (714) 834-6066.

Respectfully Submitted,

Dr. Peter Hughes, CPA, Director
Internal Audit Department

Attachment

The Internal Audit Department is an independent audit function reporting directly to the Orange County Board of Supervisors.
Distribution Pursuant to Audit Oversight Committee Procedure No. 1:

Members, Board of Supervisors
Members, Audit Oversight Committee
Robert J. Franz, Interim County Executive Officer
Victoria Ross, Director, Central Accounting Operations, Auditor-Controller
Bill Malohn, A-C/Information Technology/CAPS G/L System Support
Bob Leys, Assistant Director, Human Resource Services/Support Division
Rosie Santiesteban, Administrative Manager, Human Resource Services/Administration
Foreperson, Grand Jury
Susan Novak, Clerk of the Board of Supervisors
## Transmittal Letter

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<th>i</th>
</tr>
</thead>
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## OC Internal Auditor's Report

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Audit Highlight
We analyzed 14,486 vendor invoices paid in October 2012 amounting to about $224 million and found 99.99% of the invoices were only paid once.

Of the $224 million vendor invoices, we identified one (1) potential duplicate payment made to vendors totaling $5,013.

To date we have identified $1,020,413 in duplicate vendor payments, of which $995,084 or 98% has been recovered.

OBJECTIVES

Each month, the Internal Audit Department conducts a variety of continuous auditing of vendor payment and payroll activity utilizing Computer-Assisted Audit Techniques (known by the acronym CAATS). Our objectives are to analyze selected vendor payment and payroll data to identify:

1. **Duplicate Payments**: Duplicate payments made to vendors. This CAAT is performed monthly.

2. **Employee Vendor Match**: Employees that bought goods or issued contracts to themselves or a related vendor. This CAAT is performed quarterly.

3. **OC Working Retiree/Extra Help Hours**: County retirees working as extra help in excess of mandated hour limits of 960 or 720 hours for FY 12-13. The mandated limits required by Government Code Sections 31680.6 and 31641.04 are per fiscal year and this CAAT is performed monthly and annually.

4. **Payroll Direct Deposits**: Multiple employee paychecks directly deposited to the same bank account which could be an indicator of inappropriate payments. This CAAT is performed monthly.
BACKGROUND
Continuous auditing is a change to the traditional audit approach of periodic reviews of a sample of transactions to ongoing audit testing of 100 percent of transactions. Continuous auditing provides efficient and timely testing of transactions and/or controls to allow immediate notification and remediation by management. An important component of continuous auditing is the development of models for the ongoing (continuous) review of transactions at, or close to, the point at which they occur.

As a supplement to traditional audits performed, Internal Audit performs continuous auditing of selected vendor payment and payroll activities utilizing Computer Assisted Audit Techniques (CAATs).

CAATs are automated queries applied to large amounts of electronic data searching for specified characteristics. We use a proprietary, best practices and industry recognized software product to help us in this process.

CAATs differ from our traditional audits in that CAATs can query 100% of a data universe whereas the traditional audits typically test but a sample of transactions from the population.

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. We also partner 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 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.

SCOPE
This report details the CAAT work we performed in November 2012. Our analysis included a review of the following data:

1. **Duplicate Payments:** 14,486 vendor invoices totaling $224,100,444 for potential duplicate payments.

2. **Employee Vendor Match:** 40,242 employee and 16,878 vendor addresses and phone numbers at September 30, 2102 for potential matches.

3. **OC Working Retiree/Extra Help Hours:** County working retiree/extra help hours worked during FY 12-13 for individuals exceeding annual fiscal year limits of 960 or 720 hours, as mandated by Government Code Sections 31680.6 and 31641.04.

4. **Payroll Direct Deposits:** 36,248 payroll direct deposit transactions processed for pay periods #21 (9/21/12 – 10/4/12) and #22 (10/5/12 – 10/18/12) for suspicious direct deposit activity.
RESULTS

For the month of November 2012, we found the following:

- **Objective #1 - Duplicate Payments:**
  We identified one (1) potential duplicate payment made to vendors totaling $5,013 or .002% of the $224 million of vendor invoices processed during October 2012.

  **Value-added Information**
  Based on the to-date recoveries of $995,084 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 126 monthly performance reports for the CAATs.

- **Objective #2 – Employee Vendor Match:**
  This routine is performed on a quarterly basis. At September 30, 2012, we identified two (2) potential employee-vendor conflicts that were submitted to Human Resource Services for further evaluation. As of November 9, 2012, departmental HR staff determined that one matter did involve a possible conflict of interest or appearance of conflict of interest and corrective action was taken by the department. This matter has been resolved to HRS’s satisfaction. Departmental HR staff determined that the other matter was not a conflict of interest.

- **Objective #3 – OC Working Retiree/Extra Help Hours:**
  As of November 1, 2012, no OC working retirees exceeded the annual fiscal year 2012-2013 limits of 960 or 720 hours mandated by Government Code Sections 31680.6 and 31641.04.

- **Objective #4 – Payroll Direct Deposits:**
  Analysis performed with no findings noted.

See the Detailed Results section for further information.
Detailed Results

1. Duplicate Payments (Objective #1)
   We used a CAAT routine to identify potential duplicate payments made to vendors during October 2012.

   A. Results
   We identified one (1) potential duplicate payment made to vendors totaling $5,013 or .002% of the $224 million of vendor invoices processed during October 2012. The Auditor-Controller continues to investigate all duplicate payments and is pursuing collection. Currently, the County has a recovery rate of about 98% on these duplicate payments that have been identified 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>56</td>
<td>$311,421</td>
<td>3</td>
<td>$1,867</td>
</tr>
<tr>
<td>2007</td>
<td>93</td>
<td>$99,999</td>
<td>12</td>
<td>$8,411</td>
<td>78</td>
<td>$90,920</td>
<td>3</td>
<td>$668</td>
</tr>
<tr>
<td>2008</td>
<td>70</td>
<td>$77,712</td>
<td>11</td>
<td>$6,794</td>
<td>58</td>
<td>$70,718</td>
<td>1</td>
<td>$200</td>
</tr>
<tr>
<td>2009</td>
<td>100</td>
<td>$155,529</td>
<td>10</td>
<td>$30,173</td>
<td>90</td>
<td>$125,356</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>2010</td>
<td>40</td>
<td>$84,059</td>
<td>7</td>
<td>$8,050</td>
<td>29</td>
<td>$74,517</td>
<td>4</td>
<td>$1,492</td>
</tr>
<tr>
<td>January 2012</td>
<td>2</td>
<td>$1,200</td>
<td>0</td>
<td>$0</td>
<td>2</td>
<td>$1,200</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>February 2012</td>
<td>4</td>
<td>$165</td>
<td>0</td>
<td>$0</td>
<td>4</td>
<td>$165</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>March 2012</td>
<td>2</td>
<td>$360</td>
<td>0</td>
<td>$0</td>
<td>2</td>
<td>$360</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>April 2012</td>
<td>1</td>
<td>$300</td>
<td>0</td>
<td>$0</td>
<td>1</td>
<td>$300</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>May 2012</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>June 2012</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>July 2012</td>
<td>2</td>
<td>$315</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>2</td>
<td>$315</td>
</tr>
<tr>
<td>August 2012</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>September 2012</td>
<td>4</td>
<td>$8,528</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>4</td>
<td>$8,528</td>
</tr>
<tr>
<td>October 2012</td>
<td>2</td>
<td>$22,962</td>
<td>0</td>
<td>$0</td>
<td>1</td>
<td>$22,016</td>
<td>1</td>
<td>$946</td>
</tr>
<tr>
<td>November 2012</td>
<td>1</td>
<td>$5,013</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>1</td>
<td>$5,013</td>
</tr>
</tbody>
</table>

   TOTAL 671  $1,131,728  91  $111,315  550  $995,084  30  $25,329

   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 2012, 14,486 invoices for $224,100,444 were added to this data sub-set representing October 2012 transactions. Currently, the data sub-set includes 1,130,544 invoices totaling $12,289,839,249. The total data file from which the sub-set is derived includes 2,536,444 records totaling $26,745,836,750. For FY 11-12, established vendor payments were about $2.7 billion.

   Our prior research has indicated that the duplicate payments are typically caused by a compounded human clerical error.
2. **Employee Vendor Match (Objective #2)**

We used a CAAT routine to identify employees that share a similar address or phone number as a vendor. This may identify employees buying goods or issuing contracts to themselves or a related vendor. This routine is performed quarterly.

**Status:**

We performed an analysis of employee and vendor addresses and phone numbers at quarter-end September 30, 2012. We identified two (2) potential employee-vendor conflicts which were submitted to Human Resource Services (HRS) in October 2012 for further evaluation.

As of November 9, 2012, departmental HR staff determined that one matter did involve a possible conflict of interest or appearance of conflict of interest and corrective action was taken by the department. This matter has been resolved to HRS’s satisfaction. Departmental HR staff determined that the other matter was not a conflict of interest.

**Status as of November 9, 2012:**

<table>
<thead>
<tr>
<th>Quarter-End</th>
<th>CAAT Report Month</th>
<th>Matches Submitted to HRD</th>
<th>In Progress</th>
<th>Not a Valid Match</th>
<th>No Conflict Exists</th>
<th>No Conflict – Potential HR Policy Issue Resolved to HR's Satisfaction</th>
<th>Conflict – Issue Resolved to HR's Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/30/12</td>
<td>October 2012</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

3. **OC Working Retiree/Extra Help Hours (Objective #3)**

We performed an analysis of working retiree hours to identify retirees working as extra help in excess of Government Code Sections 31680.6 and 31641.04 mandated limits. Our criteria are 960 hours (maximum allowed for regular retirees) or 720 hours (maximum for early retirees) during the fiscal year (FY) 2012-2013.

**Status:**

The Government Code Section 31680.6 and 31641.04 mandated limits are per fiscal year and we perform this review monthly. The County’s timekeeping system (VTI) automatically alerts the working retiree and their supervisor when the working retiree is approaching the mandated limit. As of November 1, 2012, there were 151 OC working retirees with hours; non-County working retirees are excluded from these totals (e.g. Superior Court, OCERS, LAFCO, etc.). As of November 1, 2012, no OC working retiree exceeded the annual fiscal year limits.
As of November 1, 2012, FY 12-13 OC working retiree/extra-help hours were:

<table>
<thead>
<tr>
<th>Department</th>
<th>No. of OC Working Retirees</th>
<th>FY 12-13 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheriff-Coroner</td>
<td>87</td>
<td>24,072</td>
</tr>
<tr>
<td>District Attorney</td>
<td>26</td>
<td>11,582</td>
</tr>
<tr>
<td>Probation</td>
<td>9</td>
<td>3,281</td>
</tr>
<tr>
<td>Health Care Agency</td>
<td>8</td>
<td>1,943</td>
</tr>
<tr>
<td>Assessor</td>
<td>9</td>
<td>1,507</td>
</tr>
<tr>
<td>OC Public Works</td>
<td>4</td>
<td>1,028</td>
</tr>
<tr>
<td>Child Support Services</td>
<td>1</td>
<td>463</td>
</tr>
<tr>
<td>Treasurer-Tax Collector</td>
<td>1</td>
<td>309</td>
</tr>
<tr>
<td>Social Services Agency</td>
<td>2</td>
<td>267</td>
</tr>
<tr>
<td>Auditor-Controller</td>
<td>1</td>
<td>255</td>
</tr>
<tr>
<td>CEO Data Center</td>
<td>1</td>
<td>198</td>
</tr>
<tr>
<td>Clerk of the Board</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td>County Counsel</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>44,972</td>
</tr>
</tbody>
</table>

4. **Payroll Direct Deposits (Objective #4)**

   We used a CAAT to identify multiple employee paychecks directly deposited to the same bank account in the same pay period. We review results to determine there has been no irregular direct deposit activity. For FY 11-12, direct deposits for regular payroll were about $1.3 billion.

**Results:**

   This CAAT was applied in November 2012 with no significant findings.

**Attachments:**

   Details of Duplicate Payments provided to the Auditor-Controller/Claims & Disbursing Section, dated December 4, 2012.