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: June 2013

Duplicate Vendor Payments: We analyzed 24,643 vendor invoices paid in May 2013 amounting to about $204 million and found 99.99% of the invoices were paid only once. Of the $204 million vendor invoices, we identified one (1) potential duplicate payment made to vendors for $29.

To date we have identified $1,021,183 in duplicate vendor payments, of which $1,011,706 or 99% has been recovered.

Audit No: 1238-L
Report Date: June 25, 2013

Director: Dr. Peter Hughes, MBA, CPA, CIA
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

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Dr. Peter Hughes  
**Director**  
Ph.D., MBA, CPA, CCEP, CITP, CIA, CFE, CFF, CGMA  
Certified Compliance & Ethics Professional (CCEP)  
Certified Information Technology Professional (CITP)  
Certified Internal Auditor (CIA)  
Certified Fraud Examiner (CFE)  
Certified in Financial Forensics (CFF)  
Chartered Global Management Accountant (CGMA)  
E-mail: peter.hughes@iad.ocgov.com

Michael J. Goodwin  
**Senior Audit Manager**  
CPA, CIA

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

**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](http://www.ocgov.com/audit)

**OC Fraud Hotline (714) 834-3608**
Transmittal Letter

Audit No. 1238-L  June 25, 2013

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

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

We have completed the June 2013 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 $1,011,706.

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,

[Signature]
Dr. Peter Hughes, CPA, Director
Internal Audit Department

Attachment
Distribution Pursuant to Audit Oversight Committee Procedure No. 1:

Members, Board of Supervisors
Members, Audit Oversight Committee
Michael B. Giancola, County Executive Officer
Frank Kim, Chief Financial Officer
Victoria Ross, Director, Central Accounting Operations, Auditor-Controller
Paul Villanueva, Senior Manager, A-C/Claims and Disbursing
Bill Malohn, Manager, A-C/Information Technology/CAPS G/L System Support
Terri Bruner, Assistant Director, Human Resource Services/Operations Division
Kim Evans, Administrative Manager, Human Resource Services/Administration
Foreperson, Grand Jury
Susan Novak, Clerk of the Board of Supervisors
Vavrinek, Trine, Day & Co., LLP, County External Auditor
Results of Continuous Auditing Using CAATS: Auditor-Controller, Human Resource Services, & County Procurement Office – Audit for Duplicate Vendor Payments and Other Periodic Routines
Audit No. 1238-L

For the Month:
June 2013

Transmittal Letter i

OC Internal Auditor's Report 1

OBJECTIVES 1

BACKGROUND 2

SCOPE 2

RESULTS 3

DETAILED RESULTS

1. Duplicate Vendor Payments (Objective #1) 4
2. Employee Vendor Match (Objective #2) 5
3. OC Working Retiree/Extra Help Hours (Objective #3) 5
4. Payroll Direct Deposits (Objective #4) 6
Audit No. 1238-L

June 25, 2013

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

FROM: Dr. Peter Hughes, CPA, Director
Internal Audit Department

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

OBJECTIVES

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

1. **Duplicate Vendor 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% 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 payments 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 June 2013. Our analysis included a review of the following data:

1. **Duplicate Vendor Payments**: 24,643 vendor invoices totaling $203,967,971 for potential duplicate payments.

2. **Employee Vendor Match**: 41,055 employee and 17,693 vendor addresses/phone numbers at March 31, 2013 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**: 36,080 payroll direct deposit transactions processed for pay periods #10 (4/19/13 – 5/2/13) and #11 (5/3/13 – 5/16/13) for suspicious direct deposit activity.
RESULTS

For the month of June 2013, we found the following:

■ **Objective #1 – Duplicate Vendor Payments:**
  We identified one (1) potential duplicate payment made to vendors for $29 of the **$204 million** of vendor invoices processed during May 2013.

  **Value-added Information**
  Based on the to-date recoveries of **$1,011,706** 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 133 monthly performance reports for the CAATs.

■ **Objective #2 – Employee Vendor Match:**
  At March 31, 2013, **two (2) potential** employee-vendor conflicts were identified in the employee-vendor matches we reviewed. These two (2) matches were submitted to Human Resource Services for their review in May 2012. As of June 17, 2013, departmental HR staff determined that one matter did involve a possible conflict of interest and corrective action has been identified and will be taken by the department. This matter has been resolved to HRS’s satisfaction. Departmental HR staff is currently reviewing the other matter and the results of their review will be included in a future report.

■ **Objective #3 – OC Working Retiree/Extra Help Hours:**
  As of May 16, 2013, **one (1) OC working retiree exceeded the annual fiscal year 2012-2013 limits of 960 or 720 hours mandated by Government Code Sections 31680.6 and 31641.04.** The annual limit was exceeded by **42.5 hours**.

■ **Objective #4 – Payroll Direct Deposits:**
  Analysis performed on 36,080 direct deposit transactions with no findings noted.

See the Detailed Results section for further information.
1. Duplicate Vendor Payments (Objective #1)
We used a CAAT routine to identify potential duplicate payments made to vendors during May 2013.

A. Results
We identified one (1) potential duplicate payment made to vendors for $29 of the $204 million in vendor invoices processed during May 2013. The Auditor-Controller continues to investigate all duplicate payments and is pursuing collection. Currently, the County has a recovery rate of about 99% 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>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>
</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>
</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>
</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>
</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>
</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>
</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>
</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>
</tr>
<tr>
<td>2010</td>
<td>40</td>
<td>$84,059</td>
<td>7</td>
<td>$8,050</td>
<td>31</td>
<td>$75,980</td>
</tr>
<tr>
<td>2011</td>
<td>22</td>
<td>$9,351</td>
<td>0</td>
<td>$0</td>
<td>22</td>
<td>$9,351</td>
</tr>
<tr>
<td>2012</td>
<td>18</td>
<td>$38,843</td>
<td>0</td>
<td>$0</td>
<td>18</td>
<td>$38,843</td>
</tr>
<tr>
<td>January 2013</td>
<td>1</td>
<td>$65</td>
<td>1</td>
<td>$65</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>February 2013</td>
<td>1</td>
<td>$120</td>
<td>0</td>
<td>$0</td>
<td>1</td>
<td>$120</td>
</tr>
<tr>
<td>March 2013</td>
<td>3</td>
<td>$384</td>
<td>0</td>
<td>$0</td>
<td>1</td>
<td>$237</td>
</tr>
<tr>
<td>April 2013</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>May 2013</td>
<td>1</td>
<td>$237</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>June 2013</td>
<td>1</td>
<td>$29</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>678</strong></td>
<td><strong>$1,132,563</strong></td>
<td><strong>92</strong></td>
<td><strong>$111,380</strong></td>
<td><strong>562</strong></td>
<td><strong>$1,011,706</strong></td>
</tr>
</tbody>
</table>

B. Background
This CAAT routine concentrates on a sub-set of vendor invoices paid by the County that possess 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 June 2013, 24,643 invoices for $203,967,971 were added to this data sub-set representing May 2013 transactions. Currently, the data sub-set includes 1,283,938 invoices totaling $13,689,459,080. The total data file from which the sub-set is derived includes 2,807,698 records totaling $30,546,767,332. 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 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 phone numbers and addresses at quarter-end March 31, 2013. We identified two (2) potential employee-vendor conflicts in the employee-vendor matches we reviewed. These two (2) matches were submitted to Human Resource Services (HRS) for further review in May 2012.

As of June 17, 2013, departmental HR staff determined that one matter did involve a possible conflict of interest. Corrective action has been identified and will be taken by the department. This matter was resolved to HRD’s satisfaction. The other potential employee-vendor conflict is currently being researched by departmental HR staff. Results of their review will be included in a future report.

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 FY 12-13.

Status:
The Government Code Sections 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 May 16, 2013, there were 173 OC working retirees with hours; non-County working retirees are excluded from these totals (e.g. Superior Court, OCERS, LAFCO, etc.). As of May 16, 2013, one (1) OC working retiree exceeded the FY 12-13 annual limits by 42.5 hours.

As of May 16, 2013, 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>90</td>
<td>57,795</td>
</tr>
<tr>
<td>District Attorney</td>
<td>30</td>
<td>23,642</td>
</tr>
<tr>
<td>Assessor</td>
<td>13</td>
<td>6,589</td>
</tr>
<tr>
<td>Probation</td>
<td>9</td>
<td>6,433</td>
</tr>
<tr>
<td>Health Care Agency</td>
<td>11</td>
<td>5,032</td>
</tr>
<tr>
<td>OC Public Works</td>
<td>5</td>
<td>3,227</td>
</tr>
<tr>
<td>Social Services Agency</td>
<td>4</td>
<td>1,624</td>
</tr>
<tr>
<td>Child Support Services</td>
<td>3</td>
<td>938</td>
</tr>
<tr>
<td>Treasurer-Tax Collector</td>
<td>1</td>
<td>760</td>
</tr>
<tr>
<td>Human Resource Services</td>
<td>3</td>
<td>548</td>
</tr>
<tr>
<td>CEO Data Center</td>
<td>1</td>
<td>309</td>
</tr>
<tr>
<td>Auditor-Controller</td>
<td>1</td>
<td>255</td>
</tr>
<tr>
<td>Clerk of the Board</td>
<td>1</td>
<td>124</td>
</tr>
<tr>
<td>County Counsel</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>173</strong></td>
<td><strong>107,283</strong></td>
</tr>
</tbody>
</table>
4. Payroll Direct Deposits (Objective #4)

We used a CAAT routine to identify multiple employee paychecks directly deposited to the same bank account in the same pay period. For the month of May 2013, there were 36,080 direct deposit transactions as shown below:

<table>
<thead>
<tr>
<th>Pay Period</th>
<th>Pay Period Dates</th>
<th># of Direct Deposit Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP10</td>
<td>4/19/13 – 5/02/13</td>
<td>18,022</td>
</tr>
<tr>
<td>PP11</td>
<td>5/03/13 – 5/16/13</td>
<td>18,058</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>36,080</td>
</tr>
</tbody>
</table>

**Results:**

We reviewed results to determine whether there has been any irregular direct deposit activity. No unusual direct deposit activity was identified. For FY 11-12, direct deposits for regular payroll were about $1.3 billion.