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:
September 2013

Duplicate Vendor Payments: We analyzed 16,532 vendor invoices paid in August 2013 amounting to about $248 million and found 100% of the invoices were paid only once. Of the $248 million vendor invoices, we identified no potential duplicate payments made to vendors.

To date we have identified $1,025,702 in duplicate vendor payments, of which $1,011,943 or 99% has been recovered.

AUDIT NO: 1349-C
REPORT DATE: SEPTEMBER 23, 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
Internal Audit Department


Providing Facts and Perspectives Countywide

RISK BASED AUDITING

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Transmittal Letter

Audit No. 1349-C  September 23, 2013

TO:  Jan Grimes, Auditor-Controller
                      Steve Danley, Chief Human Resources Officer
                      Human Resource Services
                      Rob Richardson, 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 September 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 $1,011,943.

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
Mark Denny, Chief Operating 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
Macias Gini & O'Connell LLP, County External Auditor
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**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. 1349-C*

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*September 2013*

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Audit No. 1349-C

TO: Jan Grimes, Auditor-Controller
    Steve Danley, Chief Human Resources Officer
    Human Resource Services
    Rob Richardson, 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 13-14. 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.

Audit Highlight

We analyzed 16,532 vendor invoices paid in August 2013 amounting to about $248 million and found 100% of the invoices were only paid once.

Of the $248 million vendor invoices, we identified no potential duplicate payments made to vendors.

To date we have identified **$1,025,702** in duplicate vendor payments, of which **$1,011,943** or **99%** has been recovered.
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 September 2013. Our analysis included a review of the following data:

1. **Duplicate Vendor Payments:** 16,532 vendor invoices totaling $247,517,795 for potential duplicate payments.

2. **Employee Vendor Match:** This routine is performed on a quarterly basis; therefore, it was not performed in August 2013. The next analysis will be performed at September 30, 2013.

3. **OC Working Retiree/Extra Help Hours:** County working retiree/extra help hours worked during FY 13-14 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:** 54,065 payroll direct deposit transactions processed for pay periods #16 (7/12/13 – 7/25/13), #17 (7/26/13 – 8/8/13), and #18 (8/9/13 – 8/22/13) for suspicious direct deposit activity.
RESULTS

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

- **Objective #1 – Duplicate Vendor Payments:**
  We identified no potential duplicate payments made to vendors of the $248 million of vendor invoices processed during August 2013.

- **Value-added Information**
  Based on the to-date recoveries of $1,011,943 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 136 monthly performance reports for the CAATs.

- **Objective #2 – Employee Vendor Match:**
  This routine is performed on a quarterly basis. All employee-vendor matches identified to date have been resolved to Human Resource Services (HRS) satisfaction. The next analysis will be performed at September 30, 2013.

- **Objective #3 – OC Working Retiree/Extra Help Hours:**
  As of August 22, 2013, no OC working retirees exceeded the annual fiscal year 2013-2014 limits of 960 or 720 hours mandated by Government Code Sections 31680.6 and 31641.04.

- **Objective #4 – Payroll Direct Deposits:**
  Analysis performed on 54,065 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 August 2013.

A. Results

We identified no potential duplicate payments made to vendors of the $248 million in vendor invoices processed during August 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>Recovered $'s</th>
<th>In Process #s</th>
<th>In Process $'s</th>
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<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>
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<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>
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<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>
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<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>
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<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>
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<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>
<td>2</td>
<td>$29</td>
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<tr>
<td>2011</td>
<td>22</td>
<td>$9,351</td>
<td>0</td>
<td>$0</td>
<td>22</td>
<td>$9,351</td>
<td>0</td>
<td>$0</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>
<td>0</td>
<td>$0</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>
<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>
<td>0</td>
<td>$0</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>
<td>2</td>
<td>$147</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>
<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>1</td>
<td>$237</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>June 2013</td>
<td>1</td>
<td>$29</td>
<td>1</td>
<td>$29</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>July 2013</td>
<td>2</td>
<td>$4,548</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>2</td>
<td>$4,548</td>
</tr>
<tr>
<td>August 2013</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 2013</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>
</tbody>
</table>

**TOTAL 680 $1,137,111 93 $111,409 563 $1,011,943 24 $13,759**

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 September 2013, 16,532 invoices for $247,517,795 were added to this data sub-set representing August 2013 transactions. Currently, the data sub-set includes 1,339,209 invoices totaling $14,484,659,578. The total data file from which the sub-set is derived includes 2,899,784 records totaling $31,704,417,130. For FY 12-13, established vendor payments were about $2.6 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:**
   This routine is performed on a quarterly basis. All employee-vendor matches identified to date have been resolved to Human Resource Services (HRS) satisfaction. The next analysis will be performed at September 30, 2013.

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 13-14.

   **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 August 22, 2013, there were 141 OC working retirees with hours; non-County working retirees are excluded from these totals (e.g. Superior Court, OCERS, LAFCO, etc.). As of August 22, 2013, no OC working retiree exceeded the annual fiscal year limits.

   As of August 22, 2013, OC working retiree/extra-help hours were as follows:

<table>
<thead>
<tr>
<th>Department</th>
<th>No. of OC Working Retirees</th>
<th>FY 13-14 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheriff-Coroner</td>
<td>84</td>
<td>9,823</td>
</tr>
<tr>
<td>District Attorney</td>
<td>19</td>
<td>3,044</td>
</tr>
<tr>
<td>Probation</td>
<td>11</td>
<td>1,112</td>
</tr>
<tr>
<td>Health Care Agency</td>
<td>10</td>
<td>843</td>
</tr>
<tr>
<td>Social Services Agency</td>
<td>3</td>
<td>650</td>
</tr>
<tr>
<td>Assessor</td>
<td>8</td>
<td>603</td>
</tr>
<tr>
<td>OC Public Works</td>
<td>2</td>
<td>364</td>
</tr>
<tr>
<td>Human Resource Services</td>
<td>2</td>
<td>263</td>
</tr>
<tr>
<td>Treasurer-Tax Collector</td>
<td>1</td>
<td>133</td>
</tr>
<tr>
<td>Child Support Services</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>141</strong></td>
<td><strong>16,851</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 August 2013, there were 54,065 regular payroll 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>PP16</td>
<td>7/12/13 – 7/25/13</td>
<td>17,979</td>
</tr>
<tr>
<td>PP17</td>
<td>7/26/13 – 8/8/13</td>
<td>18,049</td>
</tr>
<tr>
<td>PP18</td>
<td>8/9/13 – 8/22/13</td>
<td>18,037</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>54,065</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 12-13, direct deposits for regular payroll were about $1.3 billion.