# CITY FINANCIAL TRANSACTIONS:
## Issues warrant management attention

September 2012

**LaVonne Griffin-Valade**
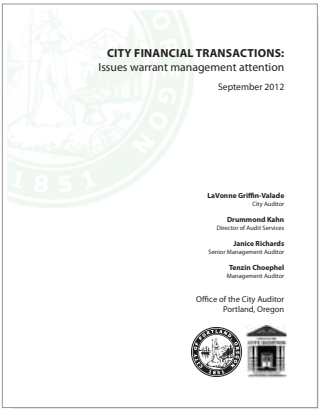City Auditor

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# CITY OF PORTLAND

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September 26, 2012

TO:          Mayor Sam Adams
                    Commissioner Nick Fish
                    Commissioner Amanda Fritz
                    Commissioner Randy Leonard
                    Commissioner Dan Saltzman
                    Jack Graham, Chief Administrative Officer

SUBJECT:    Audit Report – *City Financial Transactions: Issues warrant management attention* (Report #406A)

The attached report contains the results of our audit of financial transactions at the City of Portland.  We conducted a similar review of the Portland Development Commission's financial transactions, and issued those results in a separate report (*Portland Development Commission: Financial transaction review reveals areas warranting management attention*, Report #406B).

Audits of business activities provide important assessments of a government's financial transparency and relevant safeguards.  Such reviews also shine a light on the quality of public stewardship.  In this case, our diagnostic tests identified seven areas that merit management's further attention.  These seven areas represent a variety of City processes – from payments to noncompliant businesses to limited SAP documentation.   We recommended specific improvements to help prevent, detect, and correct such activities in the future.  In response, the City has already initiated its review of most of these areas and taken action.

We ask the Office of Management and Finance to provide us with a status report in one year, through the Office of the Mayor, detailing steps taken to address our recommendations in this report.

We very much appreciate the cooperation and assistance we received from Office of Management and Finance staff as we conducted this audit.

LaVonne Griffin-Valade
City Auditor

Audit Team:    Drummond Kahn
                           Janice Richards
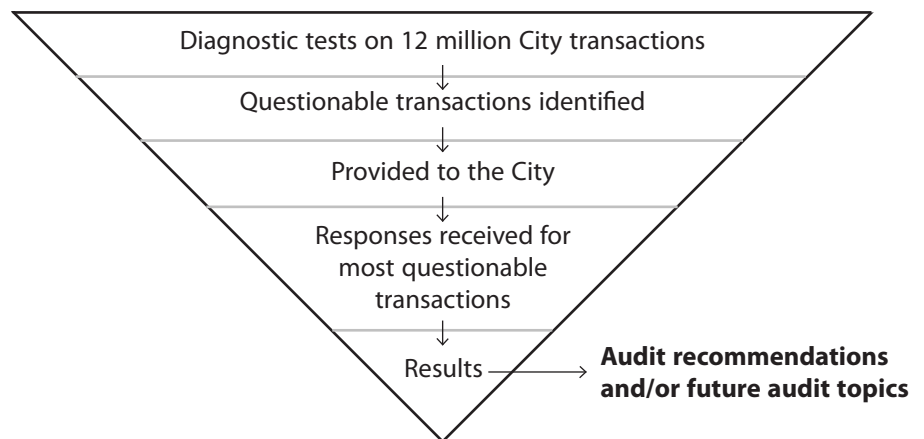                           Tenzin Choephel

Attachment

# Table of Contents

# Summary

Organizations are susceptible to errors, fraud or inefficiencies. Without adequate defenses, possible risks to an organization include fraudulent financial reporting, misappropriation of assets, corruption, regulatory and legal misconduct, and public mistrust. An organization's financial transactions represent its business activities. Transactions also serve as a record for the actual flow and use of funds. Analyzing transactions is an important part of financial transparency and stewardship over public funds. Transaction audits are also an effective way to analyze business practices. These audits use a series of diagnostic tests to identify any areas within an organization that may warrant management attention.

We conducted this check-up on the financial transactions of the City of Portland, following our February 2012 review of financial transactions of the Portland Development Commission. Our objective was to review transactions to identify irregularities and anomalies that might be signs of risks and potential fraud.

**Figure 1    Transaction testing audit process**

Diagnostic tests on 12 million City transactions

Questionable transactions identified

Provided to the City

Responses received for most questionable transactions

Results → **Audit recommendations and/or future audit topics**

Source:  Audit Services Division

1

We selected a variety of diagnostic tests commonly applied to organizations' transactions, and after analyzing 12 million City financial transactions, we identified areas warranting discussion with the City's financial managers.  We presented the results to the City for interpretation.

Ultimately, our diagnostic tests revealed mixed results, and we identified areas that merit further evaluation.  We have developed recommendations to fortify the City's defenses to prevent, detect and correct such activities in the future.

**Figure 2**    **Issues referred to the City**

| Area | Issue |
|------|-------|
| 1 | Payments to some potentially noncompliant businesses |
| 2 | Vendor records sometimes incomplete |
| 3 | Employees as City vendors; potential related parties |
| 4 | City employees and vendors included in Oregon death data |
| 5 | Information systems access appears to be appropriately managed |
| 6 | SAP documentation is limited; not able to reach a conclusion on transactions occurring outside business hours. |
| 7 | Duplicate payments to vendors and inconsistencies between Vendor and Accounts Payable data |

Source:  Audit Services Division

This performance audit follows up on and expands upon our 2006 audit, *Financial Transaction Review: Few results identified for further study* (Report #334), which analyzed the City's financial transactions for irregularities and found that less than 0.02 percent of the analyzed transactions contained anomalies.  That review included tests for duplicate payments, salary changes, weekend entries, payments exceeding certain limits and other parameters.  The 2006 review analyzed data generated from the City's previous business system, IBIS.  The current review analyzed data from SAP, the City's new business system that went live in November 2008 and July 2009.  We used ACL, a software tool widely used in the auditing profession, to review over 12 million transactions.

## Payments to Some Potentially Noncompliant Businesses

**Requirements**

Businesses are required to register with applicable government entities, and information in these registries is available to the public. Anyone doing business in Portland is required to register for a license through the City's Revenue Bureau. In addition, many businesses also need to register with the state, and obtain any licenses, permits or certifications specific to their industry. For example, construction contractors must be licensed by the Oregon Construction Contractors Board.

Government agencies should evaluate potential vendors to make sure they comply with applicable requirements prior to conducting business with them. Front-end verification is important to confirm that the entity is a legitimate business and to protect against potential fraud. These particular verification requirements vary based on the type of business activity and the level of government. Collectively, these public registries provide the means for government to monitor business activity, collect applicable fees and taxes, and allow the public to research and file complaints about their interactions with listed business entities. At the City, procurement decisions originate in various bureaus, but the City's centralized Procurement Services division governs the City's public procurement process.

**Audit steps**

In our audit, we used ACL, a type of audit software, to compare City vendor records to business registration data obtained from the City Revenue Bureau and Oregon Corporations Division to determine whether vendors doing business with the City complied with applicable requirements. While the City had over 18,000 vendors between November 2008 and September 2010, we focused our examination on the 723 vendors that each conducted at least $100,000 in business with the City during this period and were not exempt from registration or licensing requirements (i.e., they were not governments or sole proprietors).

When testing City transactions against the State Corporations Division data, we initially identified 210 vendors who did business with

the City, but did not have a corresponding record in the state data. From these results, we used the Corporations Business Registry Database to look up all vendors that conducted at least $1 million in transactions with the City, in addition to reviewing a sample of vendors below this threshold.

**Findings**  The City's procurement-to-pay process involves several parties, including Procurement Services, Central Accounting, and bureau staff. We found that the City has not yet assigned responsibility for ensuring vendor compliance with registration and licensing requirements. City accounting managers told us that they plan to write an Administrative Rule to address the issue.

At the end of our audit fieldwork, one City accounting supervisor estimated that about 40 percent of its vendor records contained a City business license number. Central Accounting told us they recently began providing a list of City vendors without license numbers to the Revenue Bureau, which adds the numbers and returns the information for manual entry into the SAP vendor master files. City staff designed an interface that attempts to compare SAP vendor data against the Revenue Bureau system, and then automatically update the SAP records, but the interface does not yet work. City accounting managers further stated that they do not check vendors against the Corporations Division for license information.

From our review of the 723 vendors in the two business registries, we found the following:

1. From the City license registry, we initially identified 600 payments to 30 vendors that appeared to be noncompliant with City licensing requirements at the time of payment. The total amount of these payments exceeded $11 million. Total payments made to individual vendors ranged from less than $1,000 to $1.6 million.

   - One vendor, Reach Walnut Partners LP, received two payments totaling more than $560,000 from the City in March 2010, while potentially not compliant with the Revenue Bureau requirements.

- Another vendor, Netversant Cascades Inc., received 14 payments exceeding $290,000 in total from the City between March 2009 and July 2009, while potentially not compliant.

- A third vendor, Cale Parking, received over $18,000 in payments from the City while potentially not compliant. Cale has a long-term contract with the City for more than $20 million.

Upon further review of these results, a Revenue Bureau manager confirmed that seven of the 30 vendors were not compliant at time of payment by the City, including the vendors described above. Cale has had brief periods of noncompliance each year, according to the Revenue Bureau. The manager also stated that four more vendors appeared to be out of compliance, but further investigation was needed to confirm their status. However, the Bureau was able to confirm compliance of 19 vendors we identified as potentially non-compliant.

**Figure 3    Vendors not compliant or potentially not compliant with City Revenue Bureau at time of payment**

| | |
|---|---|
| Number of vendors analyzed | 723 |
| Number of vendors not compliant or potentially not compliant at time of payment | 11 |
| Number of payments to noncompliant or potentially noncompliant vendors | 155 |
| Total amount of payments at time of noncompliance or potential noncompliance | $3.6 million |
| Payment range (per vendor) | $18,000 to $1.5 million |

Source:  Audit Services Division

2. From the State Corporations registry, we identified nine vendors receiving over $9.2 million in total payments from the City that appeared to not be actively registered with the Corporations Division at time of payment. Further, we

identified eight additional vendors receiving payments exceeding $21 million where we could not determine if they were registered. Some of the information matched between the vendor and Business Registry, but not enough to reach a conclusion on their registration status. Total payments made to vendors that appeared to be noncompliant ranged from $146,000 to more than $5.4 million.

**Figure 4** **Vendors that did not appear to be actively registered with State Corporation Division at time of payment**

| | |
|---|---|
| Number of vendors analyzed | 723 |
| Number of vendors potentially not compliant at time of payment | 9 |
| Number of payments to potentially noncompliant vendors | 254 |
| Total amount of payments at time of potential noncompliance | $9.2 million |
| Payment range (per vendor) | $146,000 to $5.4 million |

Source: Audit Services Division

- One of the vendors named as not compliant with the Revenue Bureau requirements also did not appear to be compliant with state registration requirements. During the audit period, the City issued 61 payments to this vendor for $5.4 million. We did not find any record of this company in the state Business Registry.

- Another vendor receiving payments while not registered was a Washington state company with an office in Oregon. The City issued 100 payments for more than $1.2 million to this vendor between January 2009 and September 2010. Although we found records in the state Business Registry with information matching the City's vendor record for this company, we noted that it was not actively registered with the state while receiving payments from the City. The State Business Registry data shows this company as inactive between 1999 and 2011.

- The City issued 12 payments for nearly $800,000 to an information technology company retained by the City to provide support for the City's SAP system. We did not find any information in the state Business Registry for this company.

According to City managers, as a third party, they are not directly responsible for ensuring that City vendors comply with the state requirements. Instead, the City determined it should focus on making certain its vendors meet City business requirements, including business license confirmation.

## Conclusions

The City did not always ensure that vendors followed its requirements to do business with the City. By not verifying business registry, the City could provide City funds to businesses that may not be operating in the City legally or may not be paying applicable City business taxes.

## Recommendations

We recommend City management:

- Complete its review of the questionable items identified in the audit results and take appropriate action.

- Develop a formal policy to govern vendor records management, as planned. This should include assigning responsibility for verifying compliance with applicable business registries for all entities doing business with the City.

- Enhance its current procedures for examining vendor compliance to ensure vendors are current with applicable registration requirements prior to and while doing business with the City.

## Vendor records sometimes incomplete

**Requirements**

Data is often the most significant and valuable asset for a business. The way an organization collects, enters, and classifies its data into its system impacts the reliability, completeness, and usefulness of the data for management needs.

An entity's vendor master file is a critical part of the procurement and accounts payable control environments and a well-maintained file helps prevent control failures, inefficient processing, and inaccurate management reporting. Organizations should have a process in place to authorize new vendors, to ensure complete and accurate information is obtained and entered into the vendor records, and to ensure there is only one master record for each vendor. Vendors listed in the vendor master file multiple times increases the risk of duplicate or fraudulent payments. It may become more difficult to differentiate between legitimate and fraudulent vendor records when a large volume of unnecessary data exists.

The City has a vendor classification process that distinguishes between its primary vendors – standard vendors the City conducts business with and considered the main vendor record – and employee vendors. Payments to employees that are not related to payroll, such as reimbursements, are to be included in a separate employee vendor category.

**Audit steps**

We obtained over 18,000 vendor master file records and used ACL to analyze the data for duplicates, completeness, and the use of temporary or one-time vendors. We looked for duplicates on vendor name and telephone number, searched for vendor records that were missing key information, and analyzed vendor classifications for reasonableness. We also matched vendor and employee data on Social Security number (SSN), name, address, and telephone number, to identify City employees also classified as primary vendors.

**Findings**    When examining the data for duplicates on vendor name, we identified 84 vendor records that appeared to be duplicates. The City had already marked 14 of these records as duplicates. Further, when comparing vendor records on telephone number, we identified 137 records that contained the same phone number as another vendor record; 29 of these were already identified as duplicates by the City.

Upon its review of these results, City managers confirmed that many of the potential duplicates on vendor name were duplicate records, while others were not because they were for a different department or program within the same vendor name. Managers also noted that some of the potential duplicates on phone number appeared to be businesses that shared reception services or were affiliated organizations that shared space. Finally, management explained that most of the duplicate vendors were records from its previous financial system that were carried over into its new SAP system.

We also identified numerous vendor records that were missing key information such as City business license number, Taxpayer Identification Number (TIN), street address, P.O. Box or street address, or phone number. City accounting managers told us that the City does not currently have specific guidance available on required information for vendor records, but that the City has plans to develop a rule to govern vendor records management that will address this issue.

Finally, when reviewing vendor classifications, we found the following:

- There were 68 vendors classified as primary vendors who were also employees – the individual employees' SSN exactly matched the vendor's TIN.

- There were also 116 primary vendor records that matched employee data when comparing name, address or telephone number.

- Vendors classified as one-time vendors appeared reasonable – these 13 vendors are used by City bureaus to provide one-time refunds.

**Conclusions**    The City's current practice of data management does not consistently produce unique, complete, or consistent records in the vendor master file.  By not maintaining a clean vendor file, the City increases its risks of duplicate payments to vendors with multiple vendor numbers, and of payments to fraudulent vendors.

**Recommendations**    We recommend City management:

- Review the vendor master records for duplicate, incomplete, and erroneous information and clean the data as needed.

- Develop formal policy on required information in the vendor master records and ensure data entry procedures maintain a complete record.

- Develop regular verification procedures to assure records are current and accurately reflect City activity with its vendors.

## Employees as City vendors; potential related parties

**Requirements**

Oregon public officials are expected to work in accordance with Oregon Government Ethics Law, and these requirements are included in City Code and Administrative Rules. Portland City Code 5.33.070 explicitly prohibits the City from purchasing goods and services from City employees or from any business associated with an employee, unless certain conditions are met. Any City purchase from a City employee or from a business associated with a City employee must either be authorized by City ordinance or occur during a state of emergency and be approved in writing by the Mayor.

Additionally, City Administrative Rule specifically prohibits City employees from using their employment to obtain financial gain for themselves or any member of their household, and from awarding business to a member of their household. Oregon Government Ethics Law also instructs public officials on ethical behavior as it relates to their public position.

**Audit steps**

We compared employee data to vendor, Revenue Bureau business license, and State Business Registry data as follows:

**Comparisons of City employee data to Revenue Bureau Business License ("BLIS") data**
We compared over 63,000 employee records to over one million Revenue Bureau records of business license data to identify employees who may be associated with businesses. We used Social Security number (SSN), phone number, and address to compare the data sets.

- When comparing records by SSN, we identified 431 records where an employee's SSN exactly matched the Revenue business license ID. We then compared these 431 matched records to City vendor and payment data to determine if any of the businesses were approved City vendors, and whether the City had conducted business with them during the audit period. We ultimately identified six City vendor records that matched the combined employee/business license data, with 10 payments made to two of the six vendors for $35,000 while

they were employed with the City.  Finance staff noted that they will further investigate the circumstances that led to the City contracting with these two employee-vendors.

- When comparing the data sets by phone number, we identified 252 records where the phone number in the employee record matched a phone number listed for a business in the license data.  From comparing these 252 records to the vendor data, we ultimately identified 11 records that matched between employee, business license, and vendor data.  We determined that the City made 11 payments to two of the 11 vendors while employed with the City, for a total of $66,000 during the audit period.

Finance staff reviewed these 11 payments and found them to be valid.  Payments to one potential employee-vendor were sent to a hotel where the employee stayed temporarily.  The employee used the hotel phone number as her contact number.  The second employee-vendor was identified as a national company that employed the spouse of a City employee.  The company conducts business with the City.  Finance staff stated that the City employee is not involved in the company and works for a different City bureau than those contracting with this company.

- When comparing the data sets by full address, we identified more than 900 records that matched between the employee and business license data; the Revenue data showed over 500 of these records as being in business at the time we obtained the data.  We also performed a separate comparison of the employee data to vendor data using full address, and identified 252 records where the full address was the same in the two data sets.  The City paid nearly $600,000 to 85 of the 252 vendors from these results.  We ultimately identified 34 payments where a vendor's full address matched between the employee, business license, and vendor data sets.  The total amount of these 34 payments exceeded $125,000.

Upon its initial review of these 34 payments, Finance staff found several of them to be reasonable, including one payment for $80,000.  The City plans to perform additional research on these findings.

**Figure 5    Potential related-party transactions (initial review)**

| Employee and Revenue data matched on: | Number of matched records listed as City vendor | Total payments |
|---|:---:|:---:|
| SSN / Business ID | 2 | $35,000 |
| Phone number | 2 | $66,000 |
| Address | 34 | $125,000 |
| **Employee and State Business Registry data matched on:** | | |
| Address | 84 | $134,000 |

Source:  Audit Services Division

**Comparisons of City employee data to state Business Registry data**
We also compared the City employee data to state Corporations Division Business Registry data using the full address in the records.  Our first step was to compare the employee and Business Registry data.  We identified 1,279 matched records, indicating that these employees – or someone in the employees' households – were registered as a business with the Corporations Division.

We further evaluated the initial results by comparing the 1,279 records to the City vendor records to determine if any of the matched employee and Business Registry records also matched the full address of a City vendor.  We identified 84 records that matched, and noted that many were classified as primary vendors.  Within the 84 records, we determined that the City paid 18 primary vendors nearly $134,000 during the audit period.

**Findings**    We identified many instances where employee data matched City license or state Business Registry data, indicating a potential relationship between an employee household and the named business.  Although City Code clearly disallows the City from purchasing goods

and services from City employees or any business associated with an employee, City accounting managers told us that there is currently no mechanism in place to monitor purchases for possible related parties.

**Conclusions**

The City may not have followed its own requirements related to purchasing from businesses where employees potentially have a personal interest.  We identified several instances where the City had conducted business with companies that may be related to City employees.  Without an established process to monitor for these relationships, the City places itself at risk of violating its own policies and state law.

**Recommendations**

We recommend the City:

- Complete its review of the questionable transactions identified in the audit results and take appropriate action.

- Establish a process to periodically monitor transactions for potential related party relationships.  This process should include ensuring that any confirmed relationships are within the guidelines of Oregon Ethics Law and the City's own policies.

## City employees and vendors included in Oregon death data

**Requirements**

Information security management includes having a process in place to establish, maintain, and monitor access to information systems. Further, controls should exist to issue payments to only employees and vendors that are legitimate. City policy requires business owners to notify the Bureau of Technology Services immediately when access to information systems should be discontinued. Policy also governs an employee's separation from City employment, including leaving employment due to death.

**Audit steps**

We used Social Security numbers (SSN) to compare City employee and vendor data to over 20 years of State of Oregon death records. For the comparison to employee data, we looked for deceased individuals identified as "active" employees, payroll funds disbursed after death date, and the City's timeliness of marking an employee as "deceased" in the employee record. We reviewed the vendor data for evidence of payments to vendors after death date.

**Findings**

In our comparison of employee and death data, we identified 30 records that matched. Within these 30 records, we also noted the following anomalies:

- Seven records had names that did not match between the City and death data, although the SSNs matched exactly. According to the Bureau of Human Resources (BHR), six of the seven individuals identified in these results are not deceased. For these six individuals, the City visually checked employment documentation, which showed that the City data is correct to the best of their knowledge.

- One employee record contained an invalid SSN. BHR management told us that in order to correct previous data entry errors associated with this employee record, they used the invalid SSN to deactivate the erroneous record and created a new record using the correct SSN. BHR also stated that they have not seen other occurrences of this error since providing additional training to bureau personnel.

- Nineteen records contained a significant time lag between the date of an employee's death and the date the employee record was marked as "separated" from City employment. This time lag ranged from 40 days to more than 14 years. According to BHR, 17 of these former employee records were converted into SAP from the City's prior business system. The City included employee records for former employees as part of the conversion process, as a way to prevent the City from rehiring former employees.

  Data of former employees converted into SAP include three employees who were part of a group of Parks Bureau seasonal employee records. After conversion, Parks determined they would not be reemploying several of these employees, and began the process to terminate their employment. According to the City, this resulted in a significant time lag between the last time one of these employees actually worked and when they appeared as terminated in SAP.

- Two employees received payroll funds following their dates of death. The City paid one of these employees more than $53,000, while the other received over $3,000. According to the City, any compensation owed to a deceased employee belongs to the estate of that employee and is paid in the name of the employee. Payment and any related processing occur after the date of death. Both of these employees were paid for time worked prior to date of death. Additionally, for one of the employees, accounting corrections also occurred after the date of their death to properly account for and report year-end earnings.

In our comparison of vendor and death data, we identified 10 vendor records where the taxpayer ID exactly matched a death record SSN. Within these 10 records, we also noted:

- Two vendor records contained individual names that completely differed from the death records, although the SSNs matched exactly. The City made eleven payments, for more than $158,000, to one of these vendors after the date of death. Upon further review, the City found this vendor to be an active business.

- Seven vendor records contained both a SSN and name that matched between the two data sets. We did not identify any payments made to these vendors after date of death.

- One vendor record contained only a business name and the owner name was unknown, so we were not able to fully compare the record names. We did not identify any payments to this vendor after date of death.

**Conclusions**

Our comparison of the City's employee and vendor data against death records obtained from the Oregon Health Authority revealed questionable items that required further investigation by the City. While City officials were able to explain the items, a timely and periodic review of City data against death records may provide additional assurance that the City's established controls are working as intended.

**Recommendations**

We recommend the City:

- Periodically obtain death data from the Oregon Health Authority for comparison to employee and vendor records, as a means to enhance the City's procedures for verifying vendor and employee data. This comparison may also help to ensure that City funds are disbursed only to legitimate recipients.

## Information systems access appears to be appropriately managed

**Requirements**

Information system security protects data from theft or loss, and must be managed and aligned with business requirements. City policies establish rules and guidance for the access and use of the City's systems, including SAP. Employees should be given access only to the specific SAP data required to accomplish their job responsibilities. The access should be discontinued once it is no longer required, such as when employment is terminated. Users with privileged access have elevated access rights and present greater risk of unauthorized access or changes to information; these accounts should be reviewed regularly to ensure they remain appropriate. Finally, user accounts should be managed in a consistent manner, such as by using a standard naming convention when assigning user IDs.

The City uses SAP as its financial, human resources, and payroll system. City bureaus initiate access change requests and then submit the approved requests to the City Enterprise Business Solution (EBS) division and the Bureau of Technology Services to process the user account in SAP. Per City Administrative Rule, the Bureau of Technology Services is responsible for creating and deleting user accounts, and granting and revoking access to City systems. The City also follows an informal naming convention to distinguish SAP accounts assigned to employees from those assigned to outside consultants.

**Audit steps**

We compared 7,800 SAP user profile records to employee master data to identify any individuals with inappropriate access. Specifically, we examined the data sets for user accounts that did not match an employee record and user access dates outside of employment dates. We also analyzed the security data for duplicate users, users with privileged access, and the City's use of a standard naming convention for creating SAP user accounts.

**Findings**
Our testing revealed mixed results. While all user profiles matched a corresponding record in the employee data, we also noted the following at the time of our audit:

- There were nine user records with SAP access dates outside of their period of employment.

- There were 26 records with privileged access, meaning these users had access to SAP functions generally required to maintain the system. Four of these records were assigned to finance staff, who were not responsible for maintaining the system. One SAP team member told us that he believed all users' privileged access should be removed and assigned only as needed.

  In response to our inquiry about these four accounts, a City manager noted that she had submitted a request to have one finance user's privileged access removed. This user had been involved in the City's implementation of SAP and required the elevated access for that project. However, her access was not immediately reduced when that assignment ended. For the remaining three finance users with privileged access, the City had previously identified this issue and was working on a solution.

**Conclusions**
We identified several questionable user accounts that we shared with the City for further review. Management concluded that the accounts were appropriate, issues had been resolved, or a resolution was underway.

**Recommendations**
We recommend the City:

- Strengthen existing controls for managing user IDs to ensure elevated access provided to users for a particular reason is reduced when that reason no longer exists.

**SAP documentation is limited;
not able to reach a conclusion on transactions occurring
outside business hours**

**Requirements**  Organizations should monitor system security by tracking system ac-
tivity to identify unusual or abnormal transactions or events that may
need to be addressed.  This proactive approach helps to promote the
prevention or early detection of unauthorized activity or other misuse
of user accounts.  Access monitoring should include searching for
activity outside of business hours, as system use at odd hours may
indicate that an individual is using the system to make unauthorized
entries or changes to data.

Further, organizations should have provisions in place for creating
and updating system and user documentation, including system
configurations, training materials, and user manuals, to ensure they
reflect the current environment.  Documentation should be sufficient
to guide and direct employees as they use or modify the system.

City policies govern information security and employee use of infor-
mation technologies.  These policies identify prohibited uses of City
resources and require employees to comply with all City Code and
Administrative Rule provisions when using City systems.  Policies
also note that the City monitors the use of information technology,
and specifically authorizes the City's Information Security Office to
conduct security audits to monitor user or system activity, where ap-
propriate.

**Audit steps**  We obtained over 12 million records of transactions posted to the
General Ledger (GL), and analyzed these records for entries posted
outside standard business hours.  We reviewed City's SAP documenta-
tion and interviewed personnel from the City's Enterprise Business
Solution (EBS) division, responsible for maintaining SAP, to gain an
understanding of the GL data.  Based on our understanding of the
data, we removed transactions from our analysis that appeared to be

system-generated, such as those that were created through an automated interface with another City system.  We attempted to focus on transactions that were manually entered by City staff.  We defined business hours as Monday through Friday, 6:00 AM to 7:00 PM, and reviewed the data for entries occurring outside these hours.

**Findings**

We identified thousands of transactions posted to the general ledger outside of standard business hours, including transactions posted on weekends and overnight on weekdays.  Using available documentation of the City's SAP system, we were not able to reach a conclusion as to how these transactions were generated and if they were appropriate.

We received the most comprehensive SAP documentation directly from the EBS team in response to our requests and attempted to use that information to perform this analysis.  The information enabled us to understand and identify the appropriate date field to use from the multiple dates included in the data.  EBS staff also provided links to other available SAP resources, which we also referred to.  However, we noted that the City's SAP documentation appeared incomplete or inconsistent and did not provide the information we needed to complete our analysis.

During our audit, one EBS staff member told us that existing SAP documentation was not considered sufficient, which has created challenges for the EBS team.  He noted that available documentation does not adequately explain the system and the configurations.  Much of the documentation work has fallen on the EBS team, but this work had not yet been completed.  Some EBS team members keep their own "cheat sheets," but these types of resources are managed by each individual.  City staff responsible for maintaining SAP also cited the SAP online help function and Google searches as additional resources for SAP information.

According to EBS management, the City's SAP system is designed to allow transactions to be processed 24/7.  Users are able to set up jobs and schedule them to run at any time, and are encouraged to do so to maximize efficiency.  Management also noted that it is not unusual for employees to work outside of standard business hours in order to meet critical deadlines.

**Conclusions**    While the City's explanations for transactions occurring outside of business hours were reasonable, monitoring these transactions to ensure they are authorized and valid can prevent errors or inappropriate changes to data.

**Recommendations**    We recommend the City:

- Add a mechanism to ensure transactions occurring outside of standard business hours are appropriate and authorized. This would strengthen the City's existing controls over its SAP system.

- Evaluate existing SAP documentation and update or develop new as needed. This should include guidance for those responsible for updating and maintaining the system, for providing training on how to use the system, and for using the system to complete their job responsibilities.

## Duplicate payments and inconsistencies between vendor and payment data

**Requirements**

Organizations should have a procedure in place to maintain control over all incoming invoices, including a mechanism to ensure that invoices are paid only once. Further, only invoices from approved vendors should be paid, and the vendor and payment records should be maintained to ensure consistency between them. This reduces the risk of payments made to unauthorized or fraudulent payees. The City issues checks for payments to its vendors and employees.

**Audit steps**

We compared more than 86,000 payment transactions to over 18,000 vendor records, using vendor number, name, and address. We analyzed the data for payments made to vendors not listed in the vendor master data and for inconsistencies between the two data files. We also reviewed the payment transactions for duplicate payments using various combinations of data, such as vendor, payment date, amount, and payment document number. As part of our analysis, we also considered the possibility of errors like transposed numbers in certain data fields.

**Findings**

We identified about 100 potential duplicate payments. These records contained the same payee name and amount paid, with the two payment dates occurring within three days of each other.

We also noticed inconsistencies between the payment and vendor data. For example, when comparing payee and vendor names, we found several records that contained completely different names or did not match due to an apparent misspelling in one of the records.

While the City has several policies related to financial management, we found only minimal policy guidance on disbursements. Existing policy appears limited and does not address duplicate payments or general maintenance of disbursement and vendor files.

Further, although the City's review of the invoice numbers for the potential duplicate payments did not find any that were the same, we suggest additional review due to similarities we identified by comparing payee name, amount, and date.  In reviewing more than just invoice number, the City would obtain greater assurance that the payments are valid.  For example, a review of only invoice numbers would not identify invoices that have been re-issued by a vendor or invoice numbers that City staff entered into the system incorrectly then later re-entered with the correct number.  The City's SAP system can check for a duplicate invoice number, but it must be an exact match.  If there was any variation in one of the numbers, such as an extra space, the system would not identify it as a duplicate.

The City also reviewed some of the inconsistencies between the payment and vendor data and did not find any inappropriate transactions.  The inconsistencies appear to be the result of data entry errors.

## Conclusions

The accounts payable cycle is often a common area for erroneous or fraudulent transactions to occur.  Duplicate payments may be evidence of such transactions.  The results of our analysis of the City's payment data revealed multiple transactions that merit additional review.

## Recommendations

We recommend the City:

- Perform additional review of the potential duplicate payments by comparing two or more data fields and take appropriate action, as needed.
- Strengthen its existing policies and procedures to govern payments and records management.

# Objectives, scope and methodology

The objective of our work was to review transactions at the City to identify irregularities, anomalies, risks, and potential fraud.  For any questionable transactions identified, a second objective was to investigate the underlying cause and refer to management for resolution.

To prepare for our review, we examined a variety of documents to gain an understanding of the City's core business activities.  These documents included policies, procedures, and other City guidance.  In order to become familiar with the data, we interviewed staff, reviewed available system documentation, record layouts, field definitions and sample extracts of data sets. We also researched best practices and audit reports issued by other jurisdictions related to transaction testing and fraud detection.  We used this information to identify a series of diagnostic tests to perform for this review, as described in the Audit Results section.

We analyzed City SAP data and applied the transaction tests using ACL, a software application widely used in the auditing profession for data analysis. The advantage of using ACL is that we were not limited to a small sample of transactions but analyzed full populations of data.  We were able to quickly convert, match and join data to make information uniform and comparable for our purposes.

We analyzed over 12 million transactions, including transactions from the City general ledger, accounts payable, payroll register, vendor master, employee master, and information system user data sets.  We also received benefits data and other employee data, and may focus on these data sets in a future audit.  We also received data from other sources, including the State Corporations Division, Portland Revenue Bureau, and the Oregon Health Authority, which we used in our analysis of the City data.

We audited transactions from November 2008 to September 2010 for financial data and from July 2009 to September 2010 for employee and payroll data. However, when data was unavailable for these periods, we used an alternate period.

We relied on management's representations of data from its information systems. We did not perform tests of data reliability as part of our review, but we did verify and review the data for reasonableness. While we did not audit source documents, we checked management representations against our knowledge of programs.

Our reviews and results are not intended to provide absolute assurance that all data elements provided by management are free from error, or fraud, waste and abuse. We used an iterative process – we performed a set of tests, reviewed results and then used this information to perform additional tests as needed. We shared our observations with City managers, who provided responses to a few of the audit results during our fieldwork.

We conducted this performance audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

RESPONSES TO THE AUDIT

DATE:      September 13, 2012

TO:        LaVonne Griffin-Valade, City Auditor

FROM:      Mayor Sam Adams, Commissioner-in-Charge of the Office of Management and
           Finance

SUBJECT:   City Financial Transactions: Issues warrant management attention

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I appreciate the opportunity to respond to the above-reference audit. The report, *Financial Transactions: Issues warrant management attention*, includes information about and recommendations for improving how the City of Portland handles a broad variety and volume of financial transactions.

I concur with OMF's memorandum of September 13, 2012, detailing their responses to the seven areas of inquiry covered in the above-referenced audit and find their responses to be appropriate. Thank you for your work completing this audit.

Sam Adams, Mayor
Jack D. Graham, Chief Administrative Officer
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# CITY OF PORTLAND

## OFFICE OF MANAGEMENT AND FINANCE

DATE:       September 13, 2012

TO:           LaVonne Griffin-Valade, City Auditor

FROM:      Jack D. Graham, Chief Administrative Officer

SUBJECT:   Response to Audit: City Financial Transactions

Thank you for the opportunity to review and comment on your audit of the City's Financial Transactions (Audit). The Office of Management and Finance (OMF) appreciates the efforts Audit Services staff took to incorporate much of the feedback and input provided by OMF regarding this Audit.

As described in the Audit, Audit Services performed diagnostic tests on more than 12 million City transactions. From that large sample, a small fraction of transactions was identified for further review. As you describe in the Audit report, OMF has not had the opportunity to fully review all of these transactions, however, OMF has been able to assess the majority of the "questionable" transactions and is pleased to note that existing City procedures and practices have been successful in identifying and resolving the vast majority of issues. We plan to complete a review of the remaining results included in the Audit and are committed to resolving any and all remaining issues.

In the paragraphs below, I have summarized OMF's plan to respond to the conclusions and recommendations in each of the seven areas of inquiry from the Audit.

**Payments to some potentially noncompliant businesses**
OMF has instituted procedures to verify compliance with the City's Business License Tax requirements. The three businesses cited in the Audit are all in compliance at this time. As indicated in the Audit, the City (as a third party) is not responsible for assuring that vendors/contractors are in compliance with the State's licensing requirements. OMF's focus will continue to be on improving procedures and practices to ensure compliance with the City's Business License Tax requirements as well as other City policies and requirements.

**Vendor records sometimes incomplete**
OMF agrees with the Audit's recommendation to periodically review and clean the vendor master data. With over 18,000 vendor records, many of which are held over from before SAP implementation, OMF's efforts have been and will continue to focus on active accounts. While the Audit identified only a small number of unidentified duplicate records, OMF agrees that routine verification is prudent. OMF will develop policies and guidance on required information for the vendor master records and will strengthen data entry procedures to maintain complete records. OMF will explore efficient and effective means of verifying vendor data and including relevant information in transaction records to ensure access to the most up-to-date information in the system.

**Employees as City vendors; potential related parties**
City Employees: The Audit and subsequent review by OMF found two instances where the City appears to have contracted with businesses operated by City employees. Neither employee appears to have used their City employment to secure these contracts or used their positions to obtain financial gain. OMF will further investigate the circumstances which led to the City contracting with these two employee-vendors. Moreover, OMF is recommending that clarifying language be added to the HR Administrative Rules referencing the provisions of City Code 5.33.070. Unless City employees have responsibilities related to procurement and purchasing, they may be unaware of this provision. Finally, OMF will also consider how to address situations involving payments to not-for-profit organizations that may be associated with City employees.

Potential Related Parties: As noted in the Audit, OMF has completed a review of the matches by phone number and has found no issues, and has identified no problems with the spot check conducted on the matches by address. OMF will work with Audit Services to identify those transactions that warrant further review and will take appropriate action. OMF will also establish a process to periodically monitor transactions for potential related party relationships.

**City employees and vendors included in Oregon death data**
The Audit and OMF's review did not identify any problematic payments. The review identified two situations in which an employee passed away while still employed and payment was due to the employee's estate. The Audit revealed that the Oregon Health Authority death records may have incorrect information. OMF will consider the value of obtaining this information for future comparisons.

**Information systems access appears to be appropriately managed**
OMF will strengthen existing controls for managing user IDs and continue efforts to reduce the access of the three finance users that still have privileged access to the level that will provide appropriate access for their job responsibilities.

**SAP documentation is limited; not able to reach a conclusion on transactions occurring outside business hours**
OMF will work with Business Process Owners to make sure SAP is available to City users as a tool to conduct business operations and to determine if additional measures are necessary to ensure transactions occurring outside of standard business hours are appropriate. The EBS team is also more aware of existing documentation within the system than EBS staff was at the time of this Audit's fieldwork. The new EBS Manager and team will meet with Audit Services staff to update them on existing SAP documentation in order to identify any areas that need improvement.

**Duplicate payments and inconsistencies between vendor and payment data**
OMF will perform an additional review of the potential duplicate payments identified in the Audit and take appropriate action if necessary. OMF will review its existing policies and procedures governing payments and records management to identify ways to improve them.

Thank you again for the thoughtful work provided by Audit Services staff. OMF is committed to continual improvement and appreciates the review, input, and recommendations provided by this and other Audits.