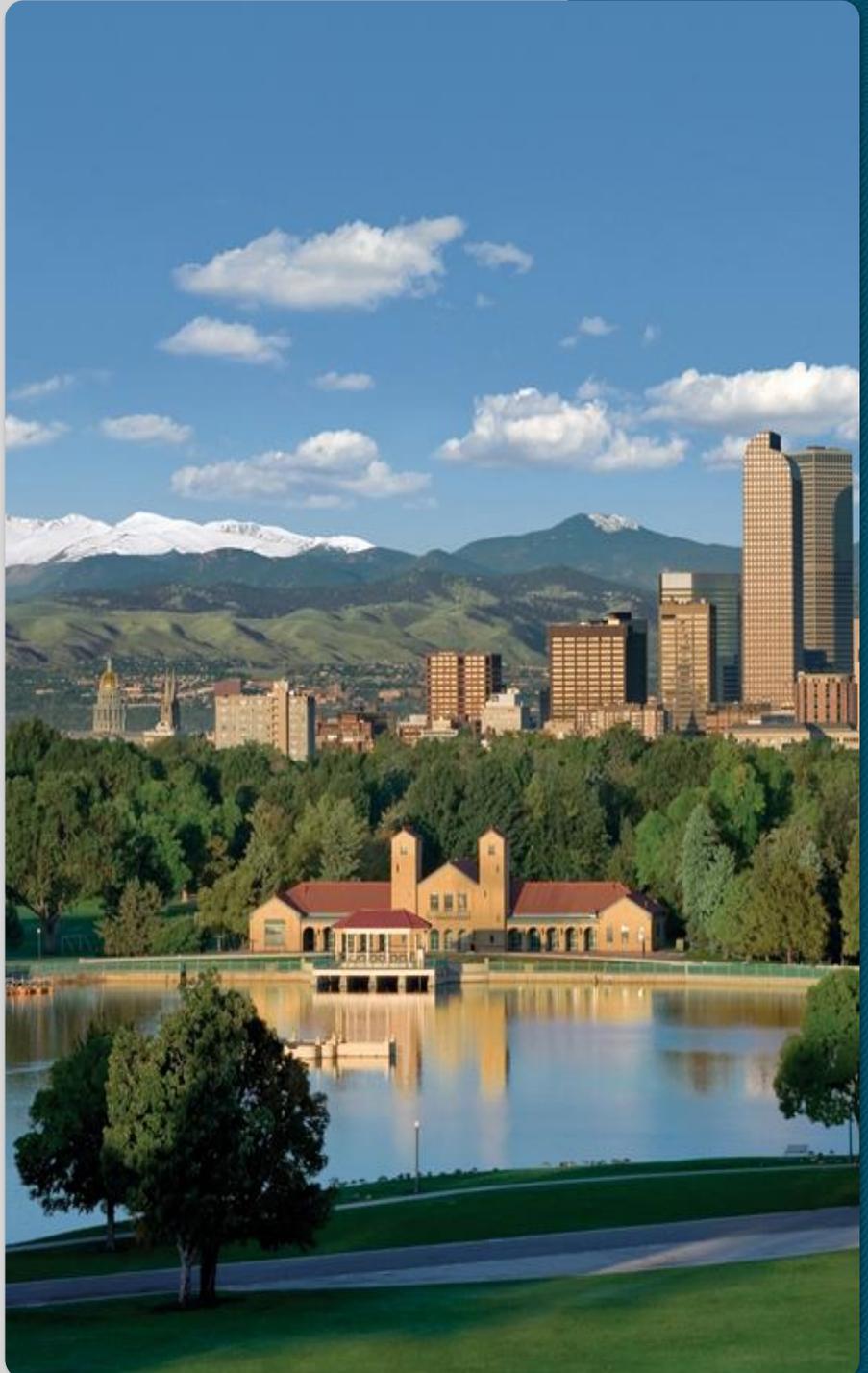


AUDIT REPORT
Department of Finance
PeopleSoft Journal Entry
May 2017

Office of the Auditor
Audit Services Division
City and County of Denver



Timothy M. O'Brien, CPA
Denver Auditor



The Auditor of the City and County of Denver is independently elected by the citizens of Denver. He is responsible for examining and evaluating the operations of City agencies and contractors for the purpose of ensuring the proper and efficient use of City resources and providing other audit services and information to City Council, the Mayor, and the public to improve all aspects of Denver's government.

The Audit Committee is chaired by the Auditor and consists of seven members. The Audit Committee assists the Auditor in his oversight responsibilities regarding the integrity of the City's finances and operations, including the reliability of the City's financial statements. The Audit Committee is structured in a manner that ensures the independent oversight of City operations, thereby enhancing citizen confidence and avoiding any appearance of a conflict of interest.

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May 18, 2017

AUDITOR'S REPORT

We have completed an audit of PeopleSoft journal entries for the period of January 1, 2016, through June 30, 2016. The objective of the audit was to use data analytic procedures to identify unusual transactions that might represent fraudulent activity or non-compliance with the City's financial internal controls.

As described in the attached report, the audit revealed that the City appears to have sufficient internal controls in place to help identify financial transactions that could represent fraudulent activity or non-compliance with financial internal controls.

This performance audit is authorized pursuant to the City and County of Denver Charter, Article V, Part 2, Section 1, *General Powers and Duties of Auditor*, and was conducted in accordance with generally accepted government 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.

We extend appreciation to agency staff and City personnel who assisted and cooperated with us during the audit.

Denver Auditor's Office

A handwritten signature in black ink, appearing to read "Timothy M. O'Brien".

Timothy M. O'Brien, CPA
Auditor



PeopleSoft Journal Entry May 2017

Objective

The objective of the audit was to assess, through the use of data analytics, the City's exposure to the misrepresentation of financial information included in the City's financial statements known as the Comprehensive Annual Financial Report (CAFR).

Background

The Department of Finance, through the Controller's Office, is responsible for ensuring the integrity of the City's financial statements through a number of activities, including maintaining the City's ledgers and books and producing the annually audited financial statements of the City known as the Comprehensive Annual Financial Report (CAFR). The Controller's Office is also responsible for establishing and enforcing financial policies, procedures, and internal controls.

REPORT HIGHLIGHTS

Highlights

The PeopleSoft Journal Entry audit was conducted by Paragon Audit & Consulting, Inc. (Paragon). The scope of the audit was limited to manual journal entries recorded to the City's accounting system for the period of January 1, 2016, through June 30, 2016. Using data analytic testing, Paragon evaluated more than 4,200 manual journal entries for unusual transactions and other indicators of fraudulent activity or non-compliance with the City's financial internal controls.

Data analytic testing allows an organization to evaluate a large volume of data for specific risks such as fraud and policy violations. Based on the work performed, it appears that the City has adequate financial internal controls to identify fraudulent activity recorded through journal entries.

For a copy of this report, visit www.denvergov.org/auditor
or contact the Auditor's Office at 720.913.5000

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BACKGROUND

Paragon Audit & Consulting, Inc. (Paragon) was tasked by the City Auditor to conduct an audit of certain journal entries recorded to PeopleSoft, the City’s accounting system, to assess the City’s exposure to fraudulent activity or non-compliance with financial internal controls. Paragon used data analytic procedures to evaluate the entire population of 4,287 manual journal entries recorded to PeopleSoft for the period of January 1, 2016, through June 30, 2016. The audit focused primarily on manual journal entries, which for the purposes of this audit represent journal entry transactions that were created by a City employee. These differ from automated journal entries, which typically include journal entries created by other applications such as a payroll system or interfaces from other PeopleSoft modules such as accounts payable.

What Is a Journal Entry?

A journal entry is the method an organization uses to enter accounting transactions into its accounting system.¹ Journal entries are used to record standard monthly or recurring entries such as revenue or payroll expenses as well as unique transactions such as a one-time purchase or an adjustment or correction to an account.

A journal entry can consist of several line items, each of which represents either a debit or credit to an account in the financial records. The total of debits must equal the total of credits or the journal entry will be out of balance. In most cases, an organization’s accounting system will not accept journal entries that do not balance.

A standard journal entry contains the following basic elements:

- Date of the journal entry
- Accounting period in which the journal should be recorded
- Accounts along with the corresponding amounts to be debited and credited

Figure 1 depicts the elements of a basic journal entry.

FIGURE 1. Journal entry example

<u>Date of Journal</u>	<u>Accounting Period</u>	<u>Accounts</u>	<u>Debit</u>	<u>Credit</u>
3/28/17	March 2017	Cash	\$1,500	
		Revenue		\$1,500
Description: To record revenue received for the month of March				

Source: City and County of Denver Office of the Auditor.

A journal entry should also include the name of the person recording the entry, an appropriate level of management approval, and documentation to support the purpose of the journal entry.

Journal Entry Policies and Procedures

Currently, the City uses the PeopleSoft software application as its accounting and financial reporting system. Throughout the month, PeopleSoft aggregates all journal entries into sub-ledgers (e.g., a ledger containing all of a detailed subset of transactions), which are then rolled up into

¹ “Accounting Journal Entries,” accountingtools.com, <http://www.accountingtools.com/journal-entries> (accessed April 5, 2017).

the general ledger. This information is then used to construct the City's monthly and annual financial statements.

As a division of the Department of Finance, the Controller's Office is responsible for ensuring the integrity of the City's financial statements through a number of activities, including maintaining the City's ledger and books; establishing and enforcing Citywide financial policies, procedures, and internal controls; and producing the annually audited financial statements. Although the Controller's Office generates a number of journal entries that cross all agencies, each agency is responsible for creating and posting journal entries that impact their specific operations. For example, Denver Arts and Venue is responsible for recording event revenue to PeopleSoft.

All agencies with journal entry processing responsibilities are required to adhere to certain financial policies established by the Controller's Office. These policies, known as Fiscal Accountability Rules (FARs), form the City's internal control framework for financial transactions and processing. The following FARs apply to the journal entry process:

- **FAR 1.1. Accounting Principles and Standards** – Requires all agencies to certify annually to the Controller's Office the adequacy of their system of internal accounting and administrative controls
- **FAR 1.2. System of Record** – Establishes PeopleSoft as the system of record and requires all agencies to use PeopleSoft to record their financial transactions and financial information
- **FAR 2.5. Supporting Documentation** – Requires the use of adequate documentation to support financial transactions recorded to PeopleSoft

During the summer of 2017, the City is converting its accounting system from PeopleSoft to a different application called Workday. Although the conversion will change the City's system of record for financial transactions, as referenced in FAR 1.2, the conversion should not impact the City's internal control framework as established in the remaining FARs.

What Is Data Analytics?

Data analytics can be defined as "the process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making."² With the ever-increasing volume of data and the audit profession's ongoing concerns about data reliability, fraud, and financial statement misrepresentation, data analytics procedures have become a widely acceptable method to analyzing large data sets for fraudulent activities and potential non-compliance with internal controls. Other benefits of using data analytic procedures to assess data include the following:

- Mitigates fraudulent top-side journal entries
- Tests internal controls as well as the circumvention of controls
- Increases the likelihood of fraud detection by analyzing 100 percent of available data

² "An Auditor's Guide to Data Analytics," Institute of Internal Auditors, Raleigh-Durham Chapter, presented May 2013, https://chapters.theiia.org/raleigh-durham/Events/Training%20Presentations/2013_May_Raleigh%20IIA%20Presentation_Data%20Analysis.pdf (accessed April 4, 2017).

- Enhances auditor efficiency
- Strengthens audit work with substantial quantitative data rather than relying on sample selections³

Overall, data analytics testing provides a more efficient and thorough method to analyzing 100 percent of an organization's financial data and extracting information that could signify fraud or non-compliance with internal controls. Both fraud and non-compliance issues can result in the misrepresentation of an organization's financial statements.

Data analytics provides a more efficient and thorough method to analyzing 100 percent of the data in a data set.

³ Journal of Accountancy, "A Risk-Based Approach to Journal Entry Testing", by Richard B. Lanza and Scott Gilbert, June 30, 2007 <http://www.journalofaccountancy.com/issues/2007/jul/ariskbasedapproachtojournalentrytesting.html>

OBJECTIVE

The objective of this audit was to assess, through the use of data analytics, the City's exposure to the misrepresentation of financial information included in the City's financial statements known as the Comprehensive Annual Financial Report (CAFR).

SCOPE

The scope of the audit was limited to journal entries entered into the City's accounting system (PeopleSoft) for period of January 1, 2016, through June 30, 2016. The audit did not include an evaluation of application controls within PeopleSoft. Additionally, it did not include an evaluation of journal entries generated by another application such as the payroll system or system interfaces such as accounts payable.

METHODOLOGY

We applied various audit methodologies during the audit process to gather and analyze information pertinent to the audit scope and to assist with developing and testing the audit objectives. The methodologies included the following:

- Interviewing finance personnel to gain an understanding of the various journal entry types used throughout the City
- Reviewing the City's Fiscal Accountability Rules related to supporting documentation requirements for financial transactions posted to the City's accounting system
- Performing detailed analytic procedures on manual journal entries to determine the existence of unusual transactions or other indicators that could signify fraud or non-compliance with City's financial internal controls
- Reviewing journal entries for appropriateness, reasonableness, and compliance with journal entry supporting documentation requirements

FINDING

Department of Finance Appears to Have Adequate Internal Controls to Identify Fraudulent Activity Recorded through Journal Entries

The Department of Finance, under the Chief Financial Officer, has governance and oversight responsibility for the City's financial and accounting functions. This includes areas such as overseeing the City's financial rules and policies, developing accountability and performance management programs, as well as preparing and overseeing the implementation of the City's budget. The Department of Finance also, through the Controller's Office, maintains the City's ledgers and books and establishes and enforces the City's financial policies, procedures, and internal controls. Based on audit work, it appears that the Controller's Office has developed and implemented adequate internal controls to help mitigate the City's exposure to the misrepresentation of the financial statements for risks, such as the recording of fraudulent activities, and non-compliance with financial internal controls.

Review of Journal Entries to Identify Potential Financial Statement Risks

Over the past decade, fraud has been and remains a significant issue for many organizations. Although an organization cannot completely mitigate its exposure to fraud, auditors can take steps to help detect signs of fraud before it results in serious consequences. In December 2002, the Auditing Standards Board issued Statement of Auditing Standards (SAS) 99, Consideration of Fraud in a Financial Statement Audit.⁴ Under this standard, external auditors are required to design procedures to test the appropriateness of journal entries recorded in the general ledger and of other adjustments.

Journal entries provide an audit trail and a means of analyzing the effects of transactions on the City's financial position. Given the ease at which employees can use manual journal entries can to manipulate the financial results of an organization, journal entry testing has become a widely acceptable approach to testing for financial fraud, policy violations, and other activities that could result in the misrepresentation of financial information.

Journal entries provide an audit trail and a means to analyzing the effects of transactions on the City's financial position.

Although auditors could use manual means to review financial transactions, this method can prove to be ineffective given the volume of the financial transactions recorded to an organization's accounting system as well as limitations associated with testing a random sample of journal entries. This is not to say that random sampling is ineffective, because the professional judgement exercised by an auditor when selecting and reviewing entries is still very valuable; however, relying exclusively on manual testing can be time consuming. This is where data analytics plays a critical role in assisting auditors with a more effective and thorough method of reviewing financial statements for specific risks. For example, by using data analytic procedures, an auditor can quickly identify potential policy violations by extracting financial transactions that include amounts that end in round multiples such as 100,000

⁴ The Auditing Standard Board is part of the American Institute of Certified Public Accountants. This 20-member board is responsible for issuing pronouncements in the form of statements, interpretations, and guidelines, which all Certified Public Accountants must adhere to when performing audits.

or journal entries that include words or phrases that could be indicative of fraud, deception or misrepresentation of financial information.

Review of Citywide Journal Entries

The primary focus of this audit was on journal entries recorded to the City's accounting system (PeopleSoft). For purposes of this audit, it excluded journal entries created by external systems such as City's sales tax system or payroll system. Additionally, it excluded journal entries resulting from system interfaces such as accounts payable.

Using data analytic procedures, Paragon evaluated a total of 4,287 journal entries for the 6-month period of January 1, 2016, to June 30, 2016. Cumulatively, these journal entries represented 172,983 lines of data and approximately \$19.3 billion in financial transactions. Using the following criteria, Paragon assessed the data to identify fraudulent activity and policy violations:

- Amounts recorded to PeopleSoft that were greater than \$100,000
- Amounts recorded to PeopleSoft that ended in 0, 250, 500, or 750
- Search for key words such as "fix", "true-up", "wrong", "correction", and "reclass"
- Number and timing of journal entries created each month by user
- Unusual transactions, such as journal entries recorded to an inactive account, fund, or program

The above analysis yielded a result of 69 journal entries (or less than 2 percent of the original population of 4,287) that included data that may point to fraudulent activity or non-compliance with internal controls. Paragon then ranked the journal entries based on the frequency at which they contained one or more of the risk criteria listed above. For example, a journal entry that included information related to the first three bullets above (i.e, contained amounts greater than \$100,000, included "wrong" in the description and, was recorded to an inactive account) would receive a risk rating of 3. As agreed to with the City Auditor, Paragon reviewed the top 25 high risk rated journal entries for potential fraud and policy violations to include FAR 2.5 (Supporting Documentation requirements). As part of their review, Paragon also evaluated all supporting documentation corresponding to these 25 journal entries as well as interviewed City personnel with journal entry responsibilities. During their review of the 25 journal entries, Paragon did not identify any instances of fraud or non-compliance with established internal controls.

Based on these results from the work performed, Paragon determined that the City has adequate internal controls within the journal entry process to help minimize the City's exposure to fraudulent activity. As a result, Paragon did not have any additional recommendations that would enhance the Department of Finance's internal control structure as it relates to identification of fraudulent activity and non-compliance with financial controls.

RECOMMENDATIONS

Based on the work performed, Paragon does not have any recommendations for the Department of Finance.