Audit Committee

Timothy M. O'Brien, CPA, Auditor
Audit Analytics Team

2021 Semi-Annual Audit Analytics Update
August 2021

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Continuous auditing is a method to identify and analyze risks through automated, scheduled analysis of the city’s financial and process data.

- Connect to and analyze information.
- Report results through an internal dashboard and memos.
Agenda

- Continuous audit and risk analytics update.
- Risk-finding analytics.
- Audit support.
- Community engagement and internal training.
2021 Continuous Audit and Risk Analytics
Number of Records Analyzed

- GEN TAX: 4,283,004
- PURCHASE CARDS: 216,402
- TRAVEL CARDS: 27,388
- PURCHASE ORDERS: 373,865
- SHORT TERM RENTALS: 800
- SUPPLIER INVOICES: 356,331
- EXPENSE REPORTS: 28,559
- JOURNAL ENTRIES: 12,832,662
Continuous Audit: GenTax

- **Timeliness of accepting tax returns.** About 98% of tax returns are accepted within seven days.
- **Write-offs.** Analytics found anomalies, but separation of duties is working as intended.
Continuous Audit: GenTax, Returns Processed within Seven Days

Source: Auditor’s Office analysis of GenTax records.

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Continuous Audit: GenTax, Write-offs

- We identified 10,665 write-offs with matching names of “batch.”
- The values were less than $100, with an average value of $17 and a total value of $170,503.
- Department of Finance staff suggested to the Treasury Division to clear low-value penalty and interest balances.
- The query to write off penalties was applied consistently based on predefined criteria.
On March 10, 2020, the mayor directed:

- Nonessential travel suspended.
- Large public gatherings cancelled.
- Expansion of remote work options.
On May 19, 2021, the mayor directed agencies to implement a phased approach to require employees to work from city facilities in hybrid models.
Continuous Audit: Purchase Cards

- Split transactions continued to decrease through 2021.
- Spending at pass-through vendors decreased about 34% in 2021. However, Amazon spending is proportionally similar to pre-pandemic spending.
*These metrics are used only for risk assessment purposes and may require additional audit work to validate.
Continuous Audit: Travel Cards

- Travel card spending declined by over 50%.
- We categorized 97% of travel card spending as low-risk.
Travel Card Purchases Over Time*

Source: Auditor’s Office analysis of purchase card data.
*These metrics are used only for risk assessment purposes and may require additional audit work to validate.
Physical checks held for pickup

- Number for checks held for pickup remains low.
- Only one check held for pickup exceeded $1,000,000.
**Checks Held for Pickup**

Source: Auditor’s Office analysis of supplier invoice data.

*These metrics are used only for risk assessment purposes and may require additional audit work to validate.

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Unauthorized Purchases

• After-the-fact and code violations have decreased from their relative high point in April and June of 2018.

• Fiscal rule violations have decreased in total number for the year but continue to be the most frequent violation.
Count of Unauthorized Purchases

Source: Auditor’s Office analysis of standard comments report.

*These metrics are used only for risk assessment purposes and may require additional audit work to validate.
Purchase Orders

• Duplicates with purchase cards and travel cards.

• Geolocation of shipping addresses.
  Sampling shows some expenses were sent to home addresses early on in the pandemic.

• Results reported internally.
Short-Term Rentals

- Lodger’s tax ID number compliance levels have reached 100%.
- Active licenses continue to decrease since our last update in December 2020.
Expense Reports

We used a composite model of three risk factors.

Source: Auditor’s Office analysis of expense reports.

*These metrics are used only for risk assessment purposes and may require additional audit work to validate.
Risk-Finding Analytics

- Journal entries.
- GenTax.
We analyzed and quantified journal entries for:

- Payments held in suspense.
- Outdated assets.
- Use of subsidiary systems.
- Use of plug figures to true up balances.
Payments held in suspense

- These are payments received where we do not immediately know where it’s supposed to be classified.
- We tested 304 journal entries and found issues with the documentation supporting the transaction.
- The highest risk group is transactions that reverse expenditures.
Outdated assets

- The assets identified were related to Denver Arts & Venues.
- Sample testing showed the cost recorded for these non-depreciable assets has been reduced to $0.
Subsidiary systems

- These are systems that integrate with Workday and are specific to an agency because it provides more functionality.
- We reviewed the frequency when imports into Workday failed, requiring manual review of the file.
- We found a generally low failure rate, although it was higher for newly integrated systems.
Plug figures to true up balances

- This is the value used to balance an account.
- The term is misused in journal-entry descriptions.
- The largest transactions follow approved processes with Controller’s Office review.
- Quantification shows this as a low risk.
Objectives

• To better understand collection activity trends with accounts referred to collections.
• To better understand strategies for tax collection.
Risk-Finding Analytics: GenTax

- Data analysis of collections activities shows potential for more strategic approaches.
- Some accounts referred to collections were not assigned to an agent.

Source: Auditor’s Office analysis of GenTax
Our risk analyses informed several audits in 2021:

- **Coronavirus Relief Funding** – Analyzed journal-entry composition and cost classification and developed sampling methodology for testing and evaluation of results.

- **DOTI Construction Management** – Conducted data analysis of cost elements and composition of financial data.

- **Parks Legacy Management** – Mapped Parks spending data.

- **Phishing** – Developed and executed a phishing simulation.
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<th>Training Area</th>
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<th>Conference</th>
<th>CPEs</th>
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<tr>
<td>Arbutus</td>
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<td>🔄️</td>
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<tr>
<td>Excel (2 classes at 4 CPE each)</td>
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Next Steps

- Complete audit of the expense report approval process.
- Identify methods to test for data-quality errors in large datasets.
- Continue to cross-train auditors to expand analytics skills.
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