



# **ACCOUNTS PAYABLE PERFORMANCE AUDIT**

## **JANUARY 2016**



**CITY OF DURHAM**  
AUDIT SERVICES DEPARTMENT

*“Provides independent, objective  
assurance and investigative services”*

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**To:** Audit Services Oversight Committee  
**From:** Germaine F. Brewington, Director  
Audit Services Department  
**Date:** February, 2016  
**Re:** Accounts Payable  
Performance Audit (January 2016)

The Department of Audit Services completed the report on the Accounts Payable Performance Audit dated January, 2016. The purpose of the audit was to determine if adequate controls existed over the Accounts Payable process administered by the City's Finance Department.

This report presents the observations and results of the Accounts Payable Performance Audit dated January, 2016. City management concur with the recommendations made. Management's response to the recommendations is included with the attached report.

The Department of Audit Services appreciates the contribution of time and other resources from employees of the Finance Department in completion of this audit.

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## BACKGROUND INFORMATION

The primary objectives for the Accounts Payable function are to ensure that disbursements are properly authorized, invoices are processed in a timely manner, and vendor credit terms and operating cash are managed for maximum benefits. The City of Durham's Accounts Payable process is centralized in the Finance Department. The Accounting Services Division of the Finance Department is responsible for processing payments to vendors and contractors after goods or services have been received and payments have been requested. The Finance Department has five FTE's (full-time equivalents) dedicated to the centralized payment function. Table 1 shows the activity carried out by the Accounts Payable staff.

Fiscal Year	Number of Invoices Processed	Amount of Invoices Processed
2015	61,836	\$ 288,660,823
2016 (August 31)	10,373	\$ 36,492,759

The role of the Accounts Payable staff in reimbursing vendors is only a part of the process to appropriately pay for the goods and services acquired by City staff. Purchasing and receiving of goods and services is performed by all departments in the City. Department staff procure goods and services through the Purchasing Division of the Finance Department, which provides a centralized approach for bid specification and solicitations for any apparatus, supplies, equipment, and materials for all departments. In order for the Accounts Payable function to effectively carry out its duties, they have to collaborate with other departments including the Purchasing Division of the Finance Department.

The duties of vendor set-up and Vendor Master File maintenance primarily reside with the Purchasing Division with some overlap with the Accounts Payables staff. The Purchasing function is staffed with three FTEs.

## EXECUTIVE SUMMARY

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### Purpose

The Audit Services Department staff performed this audit to determine if adequate controls existed over the Accounts Payable process administered by the City's Finance Department.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient and 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.

### Results in Brief

Overall adequate controls existed over the accounts payable process administered by the City's Finance Department. The Accounts Payable staff were processing payables on a timely basis in accordance with their performance measures. Audit staff did not identify duplicate payments or unusual activity based on the extensive testing performed.

Opportunities for enhancement existed in the area of Vendor Master File maintenance and written standard operating procedures. Vendors were not verified prior to setup in the MUNIS system and the Vendor Master File was not periodically reviewed or updated. In addition, opportunities for improvement existed in the area of segregation of duties. Accounts Payable staff had access to add/change, modify or delete vendor records and acted as a backup for the vendor setup function performed by the Purchasing Division staff. Employees involved in cash disbursement activities should not have access to modify the Vendor Master File.

## OBJECTIVES, SCOPE AND METHODOLOGY

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### Objectives

The objectives of the audit were to:

- Determine if adequate controls were in place to process payments in an efficient and timely manner;
- Determine if adequate controls existed over the process of vendor setup, maintenance and validation;
- Review accounts payable transactions for duplicate payments to vendors and/or unusual activity;
- Determine if adequate segregation of duties existed; and
- Determine if adequate controls existed over check issuance.

### Scope

The scope of this engagement included all current practices as they pertained to the Accounts Payable process. Audit Services staff examined invoices for the period of July 2014 to August 2015.

### Methodology

To accomplish the objectives of this audit, Audit Services staff performed the following steps:

1. Obtained a list of all invoices processed for the period of July 2014 to August 2015 and verified the timeliness of payments in accordance with the Finance Department's performance measures;
2. Reviewed a sample of invoices that were not processed on time to determine the cause for the delay in payment;
3. Obtained a list of vendors;
4. Selected a sample of vendors to test and verify the:
  - Document authenticity, completeness, originality and compliance in accordance with the standard operating procedures for selected vendors;
  - Agreement between information in the Vendor Master file in the MUNIS system and the related documents;

## OBJECTIVES, SCOPE AND METHODOLOGY

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5. Identified and reviewed vendors with unusual addresses (e.g. PO Boxes);
6. Analyzed the Vendor Master File to identify potential duplicate vendors;
7. Analyzed the vendor payment history for all active vendors;
8. Assessed the probability of creating fictitious vendors, and determined where the risk resided in the process;
9. Obtained the Employee Master File;
10. Matched employee addresses to vendor addresses;
11. Selected the records with matching addresses and performed the following step:
  - Reviewed all recent transactions for potential conflict of interest in appearance or in fact and verified if the related employee declared or signed a conflict of interest statement;
12. Reviewed invoices for the period of July 2014 to August 2015 for duplicate payments;
13. Performed fuzzy-matching to capture duplicate payments (invoice numbers that closely match)
14. Performed Benford's Law analysis;
15. Analyzed invoices just below approval amounts;
16. Analyzed invoice volume activity;
17. Analyzed average payments per vendor;
18. Selected from the check register a sample of checks that were issued and compared to information from the accounts payable file;
19. Verified appropriateness of segregation of duties;
20. Verified appropriateness of controls over check issuance (Acquiring, safeguarding, inventorying, distributing, processing checks);
21. Verified controls over returned checks;
22. Obtained a list of unclaimed, undelivered, pending and returned checks; and
23. Selected a sample of voided checks and determined that they were properly voided.



## OBJECTIVES, SCOPE AND METHODOLOGY

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During the audit, the staff also maintained awareness to the potential existence of fraud.

### Effective Practices:

#### **Adequate controls existed over processing of payments**

The Accounts Payable staff processed payables on a timely basis in accordance with their performance measures 91% of the time. Audit Services staff analyzed the timeliness of payments processed by the Accounts Payable staff for the period July 2014 to August 2015. The Finance Department's internal performance measure was to ensure timely processing of payments 90% of the time. Invoices paid within 30 days from invoice date were considered timely by the Department.

Staff performance on this measure was tracked monthly by the Controller. Audit staff verified the monthly reports for FY 2015 and the monthly reports for the first quarter of FY 2016. No exceptions were noted.

The Accounts Payable staff also used the three-way match procedures to assure that only valid and accurate vendor invoices were recorded and paid. Information such as quantities, price per unit, payment terms, etc. appearing on the invoice was compared to information on the purchase order and the receiving report.

#### **Testing confirmed no duplicate payments or unusual activity existed between July 2014 to August 2015.**

Audit Services staff performed extensive testing to identify duplicate payments and or/ unusual activity. Based on the testing performed no exceptions were noted.

#### *Duplicate payments search tests*

Audit Services staff obtained a list of all payments processed from July 2014 to August 2016 and performed the following queries to identify potential duplicate payments using the ACL software.

- Exact Vendor Number, Invoice Number, Invoice Date, and Invoice Amount;

## AUDIT RESULTS

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- Exact Vendor Number, Exact Invoice Number, Exact Invoice Date and Different Invoice Amount;
- Exact Vendor Number, Exact Invoice Number, Different Invoice Date, and Exact Invoice Amount;
- Exact Vendor Number, Different Invoice Number, Exact Invoice Date and Exact Invoice Amount;
- Different Vendor Number, Exact Invoice Number, Exact Invoice Date, Exact Invoice Amount;

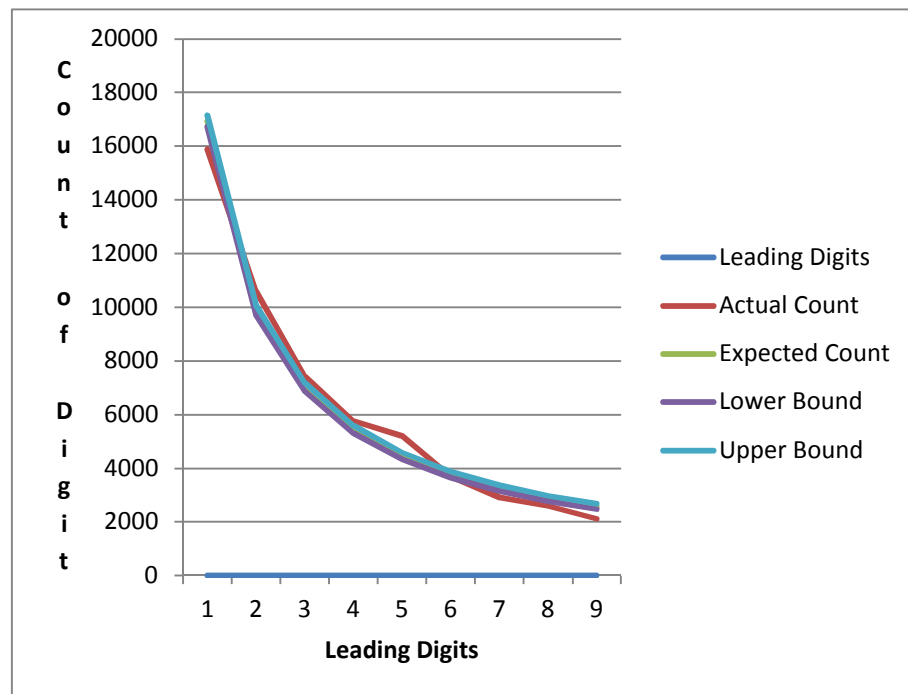
Payments extracted from these queries were reviewed and investigated further on a sample basis. No exceptions were noted.

### *Benford's Law analysis*

Benford's Law, a digital analysis technique can identify fraud and/or irregularities in a data set. This technique involves examining the actual frequency of the digits in the data. The results of the application of the technique reveal that numbers in sets of data with low first digits, such as 1, occur with more frequency than numbers with high first digits, like 8 or 9. Valid, unaltered data, without exceptional transactions, will follow the projected frequencies. Benford's Law analysis was performed using ACL software. All invoice data for the period of July 2014 to August 2015 were analyzed. The results of the application of this Law on the data set for the City of Durham are displayed in Graph 1 below.

## AUDIT RESULTS

Graph 1: Application of Benford's Law on Invoice Amounts



The application of Benford's Law on the invoice amounts identified that the actual count on leading digit 5 was significantly higher than the expected count. Therefore, a detailed analysis was performed on all invoice amounts that had a leading digit of 5. Detailed tests revealed that there was no fraud and/or irregularities in the data set.

### *Fuzzy duplicate analysis*

Fuzzy duplicate is a match based on criteria where the values are not exact but very close. Audit Services staff analyzed the data set of all invoices for July 2014 to August 2015 using the fuzzy duplicate analysis feature in the ACL software. Audit staff scanned through approximately 20,000 fuzzy match records and further investigated 40 payments. No exceptions were noted.

## AUDIT RESULTS

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### *Adequate controls existed over check issuance*

The Controller reviewed and approved the check run before payments were processed. Adequate segregation of duties existed between the function of preparing transactions for payment and the check run. Also, blank check sheets and the key used for printing checks were adequately secured.

### Areas for enhancement:

#### **Current standard operating procedures were not all inclusive.**

The development and use of Standard Operating Procedures (SOPs) are an integral part of a successful quality control system. Standard operating procedures provide employees with information to perform a job properly and facilitate consistency in the quality and integrity of the result. Existing SOPs did not offer guidance on procedures related to vendor setup, validation and vendor file maintenance. Lack of SOPs over these processes can increase the risk of fraud.

#### **Vendors were not verified prior to setup in the MUNIS system. Also, the Vendor Master File was not periodically reviewed or updated.**

All vendors were required to provide a completed and signed Form W-9 before set up in the MUNIS system. A process did not exist to validate the information submitted by the vendor.

Approval was obtained by the Accounts Payable staff to access the Internal Revenue Service Tax Identification Number Match application. This application will enable staff to verify vendor information. However, as of the end of field work the matching process was not implemented. A vendor validation process is intended to ensure that vendors are legitimate entities by confirming their existence. Best practices for Vendor Master File maintenance suggest that vendor information should be

## AUDIT RESULTS

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validated prior to vendor set-up. Failure to confirm vendor information increases the risk of inaccurate data which can create opportunities for errors and fraud.

There was also no evidence to support a periodic review of the Vendor Master File data. The Finance staff are aware of this issue and a Vendor Inactivity Report was created to help facilitate the cleanup process. Staff have not begun the cleanup process. Audit Services staff obtained and reviewed the Vendor Master File. The review identified the possibility of duplicate vendor records being present in the Vendor Master File. In addition, Audit Services staff examined payment activity by vendor to determine inactive vendors. A significant number of vendors (approximately 30%) marked as active had not received payment for the prior five years. Best practices for vendor file maintenance suggest that the Vendor Master File should be purged regularly and changes to the Vendor Master File should be audited. According to the Accounts Payable staff, they have not purged inactive vendors since the initial transfer of data to the MUNIS system. The industry best practice is to inactivate or purge vendors with no activity every 15 months. Failure to regularly maintain and review vendor file data increases the chances for duplicate and erroneous payments and fraud. For example an active vendor could be selected, the address changed, and unauthorized invoices submitted and paid.

### **Segregation of duties specifically related to the Vendor Master File needed improvement**

Vendor invoice recording and cash disbursement activities were carried out by Accounts Payable technicians. The Accounts Payable staff did not prepare purchase orders, receiving reports and approve invoices.

However, lack of segregation of duties existed over the Vendor Master File. The Vendor Master File is the repository of a considerable amount of information about the organization's vendors, which are used for the payment of vendor invoices and the issuance of purchase orders. Accounts Payable staff had access to add/change, modify or delete vendor records and acted as a backup for the vendor setup function performed by the

## AUDIT RESULTS

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Purchasing Division staff. Employees involved in cash disbursement activities should not have access to modify the Vendor Master File. If the Accounts Payable Supervisor has privileges to conduct these incompatible duties, increased risks exist that unauthorized payments could be processed and go undetected.

### Conclusion

Overall adequate controls existed over the accounts payable process administered by the City's Finance Department. The Accounts Payable staff were processing payables on a timely basis in accordance with their performance measures. Audit staff did not identify duplicate payments or unusual activity based on the extensive testing performed.

Opportunities for enhancement existed in the area of Vendor Master File maintenance and written standard operating procedures. Vendors were not verified prior to setup in the MUNIS system and the Vendor Master File was not periodically reviewed or updated. In addition, opportunities for improvement existed in the area of segregation of duties. Accounts Payable staff had access to add/change, modify or delete vendor records and acted as a backup for the vendor setup function performed by the Purchasing Division staff. Employees involved in cash disbursement activities should not have access to modify the Vendor Master File.

## RECOMMENDATIONS

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### Recommendation 1

The Finance Department staff should revise the existing standard operating procedures to include processes pertaining to Master Vendor File Management. At a minimum the revised standard operating procedures should address:

- Requirement to validate vendor names, addresses, Tax Identification Numbers and telephone numbers prior to setting up vendors in the MUNIS system;
- Timeframe to periodically review and clean up the Master Vendor File; and
- Regular review of changes to the Master Vendor File.

### Recommendation 2

The Finance Department staff should review and clean up the Vendor Master File data. Vendors with no payment activity for a specified period of time should be purged and/or inactivated. In addition, duplicate vendor records should be corrected and the accuracy of vendor information should be verified. The review should be performed by staff independent of those involved in the vendor setup process.

### Recommendation 3

The Finance Department staff should revoke access to modify, delete, or update vendor information in the Vendor Master File for the Accounts Payable staff. This will ensure that Accounts Payable staff are not performing incompatible duties.



## MANAGEMENT'S RESPONSE

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Memo to: Dr. Germaine F. Brewington, Director of Audit Services  
From: David Boyd, Finance Director  
Date: February 12, 2016  
Subject: Accounts Payable Performance Audit (January 2016)

The following is the management's response to the Accounts payable Performance Audit, January 2016.

### **Recommendation 1:**

The Finance Department staff should revise the existing standard operating procedures to include processes pertaining to Master Vendor File Management. At a minimum the revised standard operating procedures should address:

- Requirement to validate vendor names, addresses, Tax Identification Numbers and telephone numbers prior to setting up vendors in the MUNIS system;
- Timeframe to periodically review and clean up the Master Vendor File; and
- Regular review of changes to the Master Vendor File.

### **Management's Response:**

We concur. Management is in full agreement with the recommendation. The Purchasing Division of the Finance Department will revise the existing procedure to include validating vendor information and set standards for reviewing and maintaining the vendor master files. There will also be a report developed to review any changes made since the previous review.

**Implementation Date:** Procedure shall be in place April 1, 2016.



Accounts Payable  
Performance Audit  
January 2016

**Recommendation 2:**

The Finance Department staff should review and clean up the Vendor Master File data. Vendors with no payment activity for a specified period of time should be purged and/or inactivated. In addition, duplicate vendor records should be corrected and the accuracy of vendor information should be verified. The review should be performed by staff independent of those involved in the vendor setup process.

**Management's Response:**

We concur. Management is in full agreement with the recommendation. The Purchasing Division of the Finance Department after completing the procedure in recommendation number one above will use the procedure to clean up the vendor master files and correct information and inactivate vendors as required.

**Implementation Date:** Start May 1, 2016 after above procedure is in place and complete initially June 30, 2017. Ongoing after that as set in the procedure.

**Recommendation 3:**

The Finance Department staff should revoke access to modify, delete, or update vendor information in the Vendor Master File for the Accounts Payable staff. This will ensure that Accounts Payable staff is not performing incompatible duties.

**Management's Response:**

We concur. Management is in full agreement with the recommendation.

**Implementation Date:** The Purchasing Division will work with the database administrator in Technology Solutions and all access for the Accounting Services Division staff will be rescinded on the implementation date of recommendation one April 1, 2016.