

## VENDOR MASTER FILE ANALYSIS

### Origin of Information Analyzed:

- Schneider Downs and Co., Inc. (SD) obtained the City of Hilliard Vendor Master File (VMF) from Karrie Martin – Fiscal Officer. The Vendor Master File captures the following vendor information: (1) each vendor, approved by the Finance Department, in which payment is authorized for merchandise or services received, (2) assigned vendor number, (3) vendor address, (4) date the first payment was made to the vendor, and (5) date the last payment was made to the vendor.
- SD obtained a list of current and terminated employee addresses from Tracy Rayburn – Payroll Specialist for the period 1996 through 2018. The Payroll Specialist provided SD with the reports in EXCEL format having extracted the information out of the Creative Microsystems, Incorporated (CMI) accounting system which is the City of Hilliard's system of record for financial capture and reporting.

### Analysis Performed:

- Duplicate Vendor Entries

The COUNTIF function in EXCEL was used to perform a duplicate vendor lookup on the VMF based on the vendor name. The results of the execution of the COUNTIF function were recorded in the *Duplicate Vendor* column added by SD. For each duplicate vendor identified, EXCEL printed "DUPLICATE" in the corresponding cell; if a duplicate vendor was not identified, the corresponding cell remained blank.

SD filtered out the blank cells from the *Duplicate Vendor* column, generating a list of vendors recorded in the VMF more than once. The names of the duplicate vendors were copied into the *DUPLICATE ENTRIES* tab added by SD. SD used the REMOVE DUPLICATES function in EXCEL to generate a list of all vendor's names that are recorded in the VMF more than once. This list was copied into the *VENDOR LIST - DUPLICATES REMOVED* tab and counted. There were 222 duplicate vendor records associated with 74 vendor. This resulted in the overstatement of vendors in the VMF by 148 vendors. The percentage of duplicate vendors calculated against the total number of vendor numbers recorded in the VMF was 2.59% (148 duplicate entries out of 5,711 total entries in the VMF).

- Duplicate Addresses

The COUNTIF function in EXCEL was used to perform a duplicate vendor address lookup based on the vendor address, city & state, and zip code columns associated with the vendor name as recorded in the VMF. The results of the execution of the COUNTIF function were recorded in the *Duplicate Address* column added by SD. For each duplicate vendor address identified, EXCEL printed "DUPLICATE" in the corresponding cell; if a duplicate vendor address was not identified, the corresponding cell remained blank.

SD filtered out the blank cells from the *Duplicate Address* column, generating a list of vendor addresses recorded in the VMF more than once. The names and corresponding addresses of the vendors in which duplicate addresses were identified were copied into the *DUPLICATE ADDRESSES* tab added by SD. SD used the REMOVE DUPLICATES function in EXCEL to generate a list of all vendor's names and corresponding addresses that are recorded in the VMF more than once. The percentage of duplicate vendor addresses calculated against the total number of vendor numbers recorded in the VMF was 6.86% (392 duplicate entries out of 5,711 total entries in the VMF).

- P.O. Box Addresses

The IF-ISNUMBER function in EXCEL was used to identify a P.O. box address lookup based on the vendor address, city & state, and zip code columns associated with the vendor name as recorded in the VMF. The results of the execution of the IF-ISNUMBER function were recorded in the *P.O. Box* column added by SD. For each P.O. Box address identified, EXCEL printed "P.O. BOX" in the corresponding cell; if a P.O. box address was not identified, the corresponding cell remained blank.

The blank cells were filtered out of the *P.O. Box* column, generating a list of P.O. box addresses recorded in the VMF more than once. The names of the vendors and corresponding P.O. Box addresses were copied into the *VENDOR LIST – PO BOX* tab added by SD. SD used the REMOVE DUPLICATES function in EXCEL to generate a list of all vendor's names and corresponding P.O. Box addresses that are recorded in the VMF more than once. The percentage of vendors with P.O. box addresses calculated against the total number of vendor numbers recorded in the VMF was 12.06% (689 duplicate entries out of 5,711 total entries in the VMF).

- Stale Vendors

SD placed the vendor names (based on vendor #) in to 5 buckets based on the date of the last payment recorded in the VMF: less than 1 year (<1 Year tab), 1 to 3 year (>1 Year tab), 3 to 5 years (>3 Year tab), more than 5 years (>5 Years tab), and No Data (last records in the vendor records listed in the >5 Year tab). SD recorded the total number of vendor records for each bucket and calculated the percentage compared to the total number of recorded vendor #'s.

<b>Last Payment</b>	<b>&lt;1 Year</b>	<b>&gt;1 Year</b>	<b>&gt;3 Year</b>	<b>&gt;5 Year</b>	<b>No Data</b>
<b>No. of Vendors</b>	859	482	294	3,465	611
<b>Total Records</b>	5,711	5,711	5,711	5,711	5,711
	<b>15.04%</b>	<b>8.44%</b>	<b>5.15%</b>	<b>60.67%</b>	<b>10.70%</b>

**Note:** SD did not remove duplicates in for this analysis in order to include all of the last payments issued to vendors by the City of Hilliard.

Per inquiry with Jennifer McCafferty - Finance Assistant, vendors (except for terminated employees who were set up as vendors) are not removed from the vendor file once they are recorded in the vendor file. Per inquiry with Greg Turanto - Deputy Finance Director, There is no policy in place to remove vendors from the Vendor Master File after a designated period in which transactions between the City of Hilliard and a vendor last occurred.

Per inquiry with the Finance Assistant, City of Hilliard employees are set up as vendors in the CMI system. This is accomplished in order to reimburse employees for expenses related to the performance of their required duties. In the event an employee is terminated, the employee is removed from the Vendor Master File.

- Employee Addresses

SD imported the Employee Address List (*EMPLOYEE ADDRESS LIST* tab) into the VMF analysis workbook.

The VLOOKUP function in EXCEL was used to perform a comparative analysis of the VMF and the Employee Address List based on vendor address, city & state, and zip code columns in the VMF (*VENDOR LIST* tab) and the address, city & state, and zip code column in the Employee Address List (*EMPLOYEE ADDRESS LIST* tab). The results of the execution of the VLOOKUP function were recorded in the *Employee Address* column (added by SD) in the VMF (*VENDOR LIST* tab).

The blank cells were filtered out of the *Employee Address* column, generating a list of current and terminated employee addresses recorded in the VMF. The percentage of current or terminated employee addresses recorded in the VMF calculated against the total number of vendor numbers recorded in the VMF was 1.37% (78 duplicate entries out of 5,711 total entries in the VMF).

VENDOR MASTER FILE CALCULATIONS			NOTES
Total Assigned Vendor No. (CMI)	5,711		
Duplicate Vendors Records*	(148)	2.59%	*NOTE: There were 222 duplicate vendor records associated with 74 vendor. This resulted in the overstatement of vendors in the VMF by 148 vendors.
Total Vendor Records (less Dup.)	5,563		
Vendors w/PO Box Addresses	689	12.06%	
Duplicate Addresses	392	6.86%	
Stale Vendors (>3 years)	3,759	65.82%	
Employee Addresses*	78	1.37%	*NOTE: Current employees are set up as vendors. Once an employee is terminated, they are removed from the VMF.

**DUPLICATE VENDOR ENTRIES:**

The COUNTIF function in EXCEL was used to perform a duplicate vendor lookup on the VMF based on the vendor name. The results of the execution of the COUNTIF function were recorded in the *Duplicate Vendor* column added by SD. For each duplicate vender identified, EXCEL printed "DUPLICATE" in the corresponding cell; if a duplicate vendor was not identified, the corresponding cell remained blank.

SD filtered out the blank cells from the *Duplicate Vendor* column, generating a list of vendors recorded in the VMF more than once. The names of the duplicate vendors were copied into the *DUPLICATE ENTRIES* tab added by SD. SD used the REMOVE DUPLICATES function in EXCEL to generate a list of all vendor’s names that are recorded in the VMF more than once. This list was copied into the *VENDOR LIST - DUPLICATES REMOVED* tab and counted. The percentage of duplicate vendors calculated against the total number of vendor numbers recorded in the VMF was 3.89% (222 duplicate entries out of 5,711 total entries in the VMF).

**STALE VENDORS**

SD placed the vendor records (based on vendor #) in to 5 buckets based on the date of the last payment (column H): less than 1 year (<1 Year tab), 1 to 3 year (>1 Year tab), 3 to 5 years (>3 Year tab), more than 5 years (>5 Years tab), and No Data (last records in the vendor records listed in the >5 Year tab). SD recorded the total number of vendor records for each bucket and calculated the percentage compared to the total number of recorded vendor #'s (A).

Note: SD did not remove duplicates in this population in order to include all of the last payments made by the City of Hilliard.

SD determined that 61% of the vendors recorded in the vendor master file had payments made to them 5 years or longer. Per inquiry with Jennifer McCafferty - Finance Assistant, vendors (except for terminated employees who were set up as vendors) are not removed from the vendor file once they are recorded in the vendor file. Per inquiry with Greg Turanto - Deputy Finance Director, There is no policy in place to remove vendors from the Vendor Master File after a designated period in which transactions between the City of Hilliard and a vendor do not occur.

Per inquiry with the Finance Assistant, City of Hilliard employees are set up as vendors in the CMI system. This is accomplished in order to reimburse employees for expenses related to the performance of their required duties. In the event an employee is terminated, the employee is removed from the Vendor Master File.

Refer to .pdf file [\*COH Forensic Report\\_Disb Vendor Master File – SUPPLEMENTAL SUPPORT\*](#) for further information.

**P.O. BOX ADDRESS:**

The IF-ISNUMBER function in EXCEL was used to identify a P.O. bos address lookup based on the vendor address, city & state, and zip code columns associated with the vendor name as recorded in the VMF. The results of the execution of the IF-ISNUMBER function were recorded in the *P.O. Box* column added by SD. For each P.O. Box address identified, EXCEL printed "P.O. BOX" in the corresponding cell; if a P.O. box address was not identified, the corresponding cell remained blank.

The blank cells were filtered out of the *P.O. Box* column, generating a list of P.O. box addresses recorded in the VMF more than once. The names of the vendors and corresponding P.O. Box addresses were copied into the *VENDOR LIST – PO BOX* tab added by SD. SD used the REMOVE DUPLICATES function in EXCEL to generate a list of all vendor’s names and corresponding P.O. Box addresses that are recorded in the VMF more than once. The percentage of vendors with P.O. box addresses calculated against the total number of vendor numbers recorded in the VMF was 12.06% (689 duplicate entries out of 5,711 total entries in the VMF).

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