

FREDERICK COUNTY, MARYLAND
Frederick County Public Schools Financial Transactions
Data Analytics

For the period July 1, 2017 through June 30, 2020
Report #21-03

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EXECUTIVE SUMMARY

CliftonLarsonAllen LLP (CLA) was engaged by Frederick County, Maryland (the County) to perform data analytics over the financial transactions of Frederick County Public Schools (FCPS). The scope of the data analytics covered the period July 1, 2017 through June 30, 2020. We conducted our analysis complying with chapters 3, 4 and 5 of *Government Auditing Standards* (Revision 2018), issued by the Comptroller General of the United States. These standards provide a framework for ethical principles, independence, professional judgement, competence, continuing professional education, the system of quality control and external peer review.

Data analytics is the process of exploring and analyzing large datasets to find hidden patterns, unseen trends, discover correlations and derive valuable insights. Data analytics can be used to improve decision making and provide more efficient operations.

We conducted data analytics over financial transactions, focusing on five key areas of journal entries, general disbursements, purchase card disbursements, vendor master file and payroll disbursements. The analysis identified, explored and quantified trends, grouping, and outliers that FCPS may find useful in developing and enhancing controls or planning monitoring procedures.

Several notable trends and out outliers were noted, which were sufficiently investigated and explained by FCPS Accounting, Financial Accounting and Purchasing personnel. Those items are noted throughout this report. However, there were six observations noted as follows:

Area	Test	Observations
Journal Entries	Credit Entries to Expense Accounts	FCPS receives prescription drug rebates from drug vendor(s) and recorded them net of claims expense, which is not in accordance with GAAP. This practice results in the understatement of revenue and understatement of claims expense.
General Disbursements	Disbursements Summarized by Account	We noted one instance whereby FCPS provided an advance on salary to a new teacher prior to their start date. As an incentive to attract a new hire, FCPS at times may provide a salary advance, which is recorded as a general disbursement since the individual is not yet established as an employee in the payroll system.
Purchase Card Disbursements	Purchase Card Transactions by Month / Purchase Card Vendors with Large Payments	FCPS paid Comcast (fiber broadband) and Dell (Chromebooks) via a purchase card. Typically, these vendors are paid through the general disbursement process.

Area	Test	Observations
Vendor Master File	Duplicate Vendors	There was an instance where there were ten business names associated with the same vendor address and tax identification number. We obtained vendor payment history and noted that only one business name received payment and is the only active vendor. The remaining nine business names were inactive in 2005 and prior.
Vendor Master File	Active Vendors not Paid in 3 Years	We identified 618 vendors that are listed as active but haven't had a payment in over 3 years. Per FCPS, many of these vendors were associated with parent refunds of school lunch funds and payments processed by the schools.

Refer to the specific area of the report, as noted for more information on each of the observations identified above.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland
July 16, 2021

BACKGROUND

Frederick County Public Schools (FCPS) has 68 schools, including 38 elementary schools, 13 middle schools, 10 high schools and 7 other schools (public charter schools, special education school, alternative school and career and technology center). The financial records of FCPS include the following funds: general (includes general, charter school and restricted funds), school construction, food and nutrition services, artificial turf, self-insurance, and other post-employment benefits trust. These funds were within scope of our data analysis.

OBJECTIVES AND METHODOLOGY

The objectives of the data analytics are as follows:

- Gain an understanding of types of data sets available at FCPS and internal controls as it relates to data entry;
- Evaluate the data sets obtained to determine the completeness of the populations;
- Perform data analytics to determine if there are any anomalies that could result in internal control weaknesses. Procedures were performed over the following data sets:
 - General ledger entries
 - General disbursements
 - Purchase card disbursements
 - Vendor master file
 - Payroll disbursements

We used the following three-phase approach for performing the data analytics:

1. *Collaborative Planning*

We met with personnel from the FCPS Financial Reporting Department to gain an understanding of system controls in place to ensure all data is properly entered, reports that can be generated from the financial system, and their thoughts and perspectives of the risks associated with the data entry.

2. *Information and Evidence Gathering*

We obtained the necessary and available data including electronic transactional files, master files, trial balances, financial reports, chart of accounts, and supporting documentation from the FCPS' accounting system, PeopleSoft Finance.

3. *Technical Analytics and Interpretation*

Based on the plan developed in Phase 1 and the available data obtained in Phase 2, we executed the analytical tests.

We analyzed available disbursement data identifying unusual or unexpected patterns and transactions. After analyzing the data, we shared our results and collaborated with FCPS

representatives who provided context and aided interpretation. Together, we then determined if there were additional vendors or transactions that warranted further review.

We obtained the following data for all FCPS funds to conduct our analysis:

- General ledger entries for fiscal years 2018, 2019 and 2020 including the following data: date entered, transaction type, transaction number, batch, source journal, description, GL account, debit, credit, posting user, approving user, date posted;
- Trial Balances for fiscal years 2017, 2018, 2019 and 2020 including the following data: account number, account name, debit, credit;
- Chart of Accounts;
- General disbursement listing for fiscal years 2018, 2019 and 2020 including checks, wires, and automated clearing house (ACH) payments;
- Vendor master file for fiscal years 2018, 2019 and 2020;
- Employee master file for fiscal years 2018, 2019 and 2020;
- Payroll Registers for fiscal years 2018, 2019 and 2020 including pay period begin date, pay period end date, pay date, hours, gross amount, taxes, net amount, employee name, employee ID, department; and
- Purchase Card Spending Reports for fiscal years 2018, 2019 and 2020.

When investigating fraud and identifying risk, it is critical to confirm that the data being examined is complete. To establish complete general ledger data, we reconciled the general ledger to the trial balance – as the trial balance is used for preparation of the audited financial statements. We successfully established that we had a complete general ledger detail dataset and felt confident in executing our analytical tests.

DATA ANALYTICS

A. Journal Entries

We used the General Ledger entries received from FCPS to extract all manual journal entries. We only included manual journal entries, as system generated journal entries were pulled from another source journal (payroll, general disbursements, etc.) and were analyzed by us separately. We also deemed manual journal entries to be the highest risk and the entries most susceptible to fraud or error. Manual journal entries are included in the following journal transaction types which were isolated for analysis: ONL (On-Line Entry), MPS (Managed Print Services), EXT (Journals from External Source), PCD (Procurement Card Journals). We performed the following analysis over manual journal entries:

1. Benford's Law

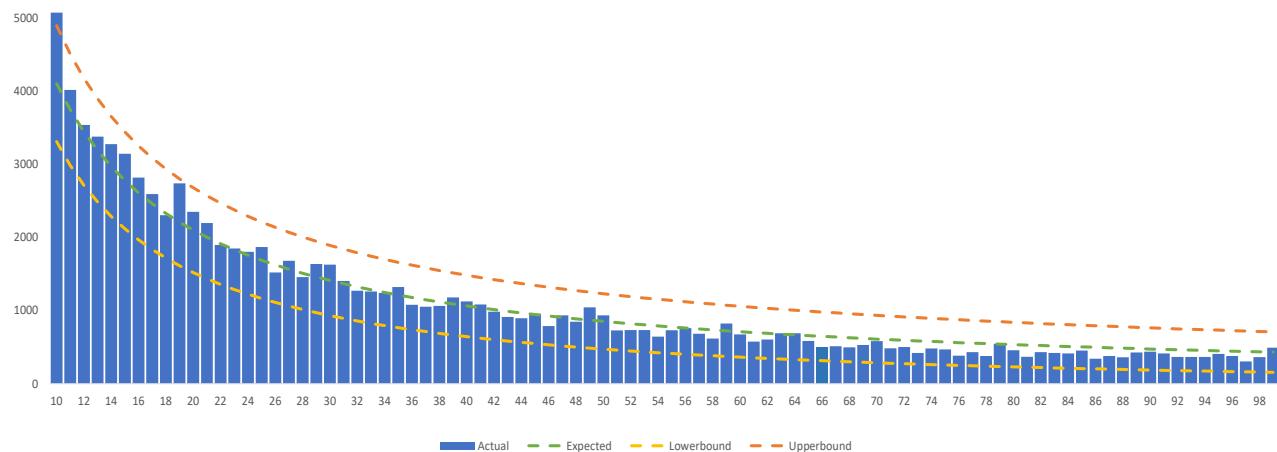
Benford's Law, also known as the *Law of First Digits*, is the finding that the first digits of the numbers found in a series of records of the most varied sources do not display a uniform distribution, but rather are arranged in such a way that the digit "1" is the most frequent, followed by "2", "3", as so on in a successively decreasing manner down to "9". We performed this analysis on the first two digits of the line item amount of the manual journal entries. We would expect the data to fall within the Benford's curve. See the graphs below for the results of Benford's law analysis on fiscal years 2018, 2019 and 2020.

Fiscal Year 2018

First Two Digits Benford's Law Analysis

Journal Entries

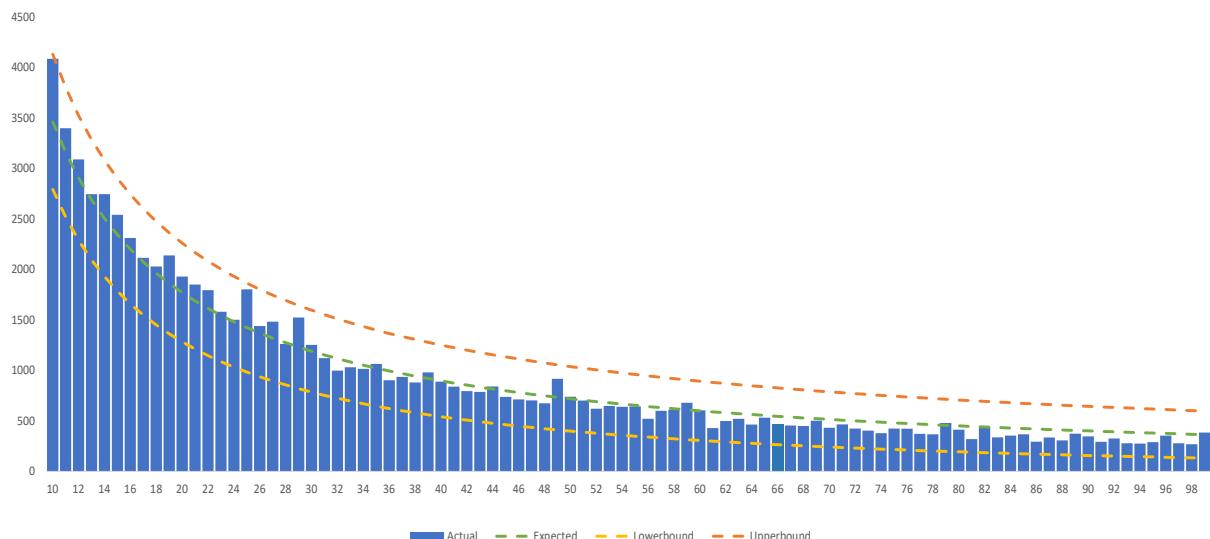
6000



Fiscal Year 2019

First Two Digits Benford's Law Analysis

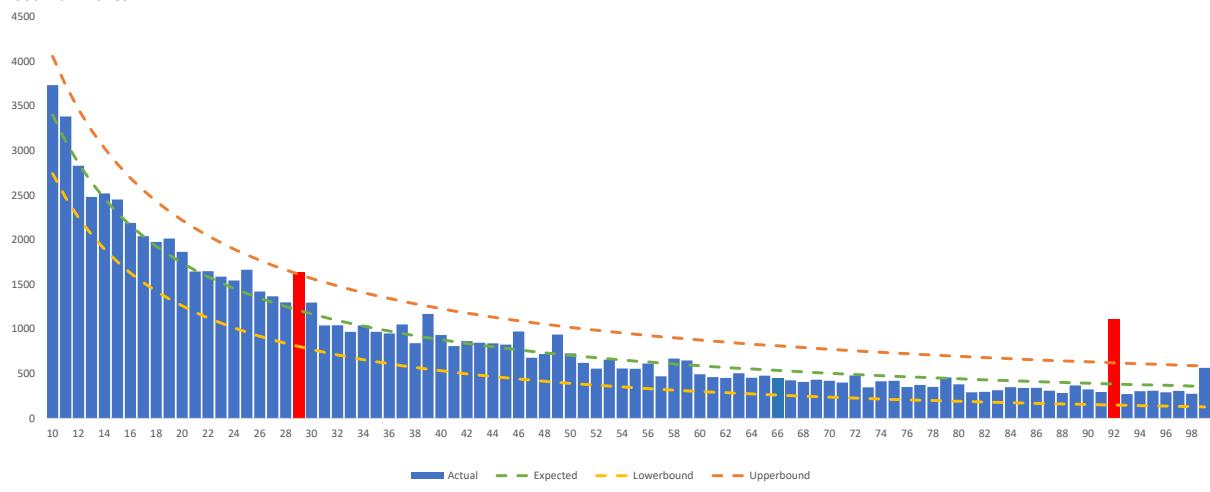
Journal Entries



Fiscal Year 2020

First Two Digits Benford's Law Analysis

Journal Entries

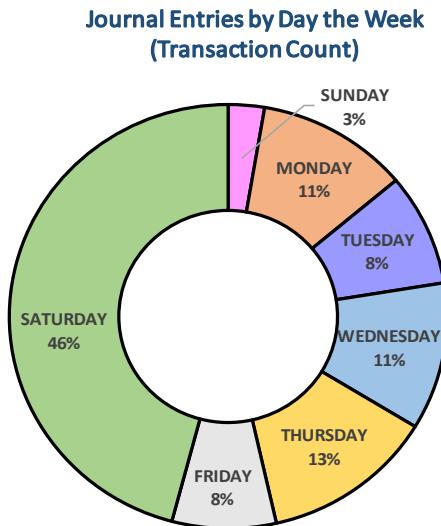


Results: In fiscal year 2020, the population had a higher than expected number of transactions that began with the digits "29" and "92" (see amounts in red above). Amounts beginning in 29 primarily relate to repeating similar purchases from Impact Office for office supplies mostly consisting of paper purchases and Career Technology Schools (CTE) salaries that were reclassified each month to match the expense in the proper period which caused multiple same dollar transactions. The spike in amounts beginning in 92 are related to the substitute daily rate of \$92.89. Per inquiry with FCPS, a new substitute teacher system was implemented in August 2019 and there were numerous coding errors of the daily rate due to lack of staff training on the system. FCPS has provided staff training to ensure expenditures are properly coded. As there were a large amount of entries related to substitute pay, the recurrence of this amount resulted in an outlier data set.

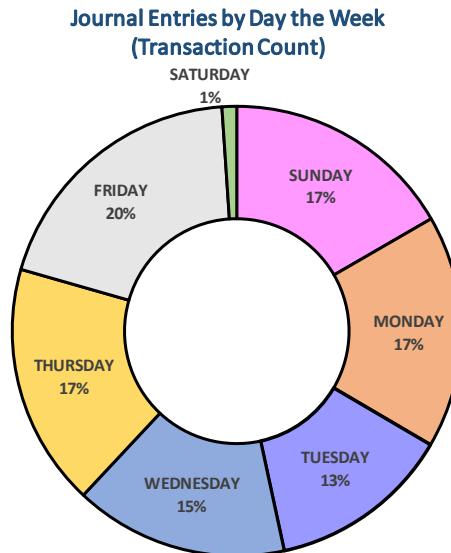
2. Entries by Day of Week

We performed an analysis on the journal entries by the day of week the entry was posted. We expect all journal entries to be made on normal workdays (Monday – Friday). However, per discussion with FCPS, it is common practice at FCPS to use the month-end date for most manual journal entries regardless of what day of the week it is. For example, an entry with a date of May 31, 2020, would show up as a Sunday transaction on the below chart. See below for the distribution of journal entries by day of week for fiscal years 2018, 2019 and 2020.

Fiscal Year 2018

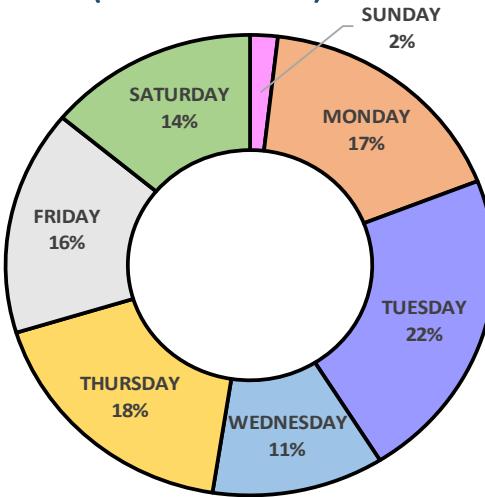


Fiscal Year 2019



Fiscal Year 2020

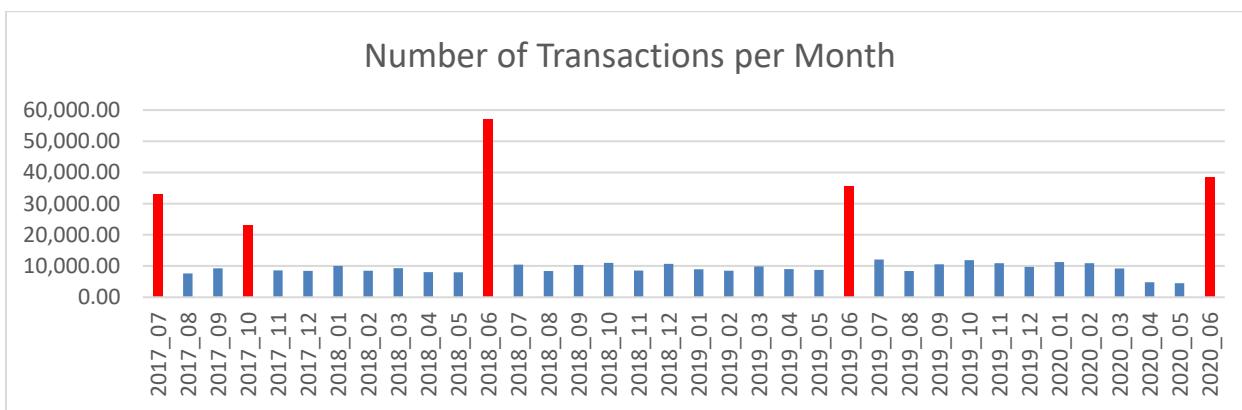
Journal Entries by Day the Week (Tranaction Count)



Results: Saturday or Sunday transactions above are related to month end transactions or payroll related entries. Month end transactions default to the last day of the month, no matter the day of the week. Payroll entries correspond to pay dates as FCPS pays employees on the 15th and last day of each month. We reviewed the Saturday transactions for all three fiscal years and noted that the Saturday and Sunday entries were associated with the last day of the month for month end or payroll related transactions. This falls within FCPS practices and similar practices we see at other school systems within the State of Maryland.

3. Entries by Year and Month

The below graphs represent an analysis of the manual journal entries by year and month. We expect journal entry activity to be consistent throughout the year, with the exception of June (year-end) due to closing entries.



Results: Increases in journal entry activity in June for all three years is within expectations related to closing procedures. July of 2017 exhibited an increase in activity that was attributed to the way entries were processed at that time. FCPS has recently been consolidating entries, as opposed to breaking them out, which has decreased the amount of transactions. In October 2017, FCPS changed point of service (POS) software for the food and nutrition program. In October 2017, activity was recorded on a daily basis from the POS system; however, starting in November 2017, activity has been recorded on a summarized monthly basis, resulting in less entries. This was the primary driver related to the increase in entry activity. In addition, in October of every year, there is an analysis conducted to make sure positions are coded correctly and in prior years, significant reclassification entries were associated with the analysis, which contributed to the significant increase in transactions for October 2017. Since that time, FCPS has worked to initially classify positions correctly, which has resulted in less adjustments in October 2018 and 2019.

4. Debit Entries to Revenue Accounts

A revenue account typically has a credit balance, therefore a debit to a revenue account would be reducing/removing revenue. We performed an analysis to identify entries posted that included a debit to revenue. We expect there to be a limited number of debit entries to revenue accounts.

Fiscal Year	Number of Debit Entries to Revenue Accounts
2018	4,368
2019	1,752
2020	646

Results: To determine the reason and legitimacy of deductions to revenue accounts, we selected ten entries from each year to obtain further explanations. Per FCPS, debit entries to revenue were for the reversal of accrual entries, rebate entries, refund entries (i.e. Student Athletic Fees refunded to cancellation of 2020 season due to Covid-19), non-sufficient funds (NSF) checks, reclassification entries related to improper coding, and adjustments to revenue to match grant expenditures. We also noted instances of debits to revenue account 45202 "Salary Exp Reimb from Employees" related to employees that left employment with FCPS, however, must repay tuition assistance previously provided by FCPS as a benefit. When the employee terminates employment, an accounts receivable and revenue is recorded for the amount the employee must reimburse FCPS. We noted that debits are made to revenue accounts when the employee reimbursement becomes uncollectible, which happens occasionally. We noted that all these explanations were common practice and legitimate reasons to have a debit to a revenue account.

5. Credit Entries to Expense Accounts

An expense account typically has a debit balance, therefore a credit to an expense account would be reducing/removing expenses. We performed an analysis to identify entries posted that included a credit to an expense. We expect there to be a limited number of credit entries to expense accounts.

Fiscal Year	Number of Credit Entries to Expense Accounts
2018	14,821
2019	13,559
2020	17,177

Results: To determine the reason and legitimacy for these credits, we selected ten entries from each year to obtain further explanations. Per FCPS, credit entries to expense accounts include employee reimbursement of employer paid costs, reversal of payroll classification errors, costs reimbursed by Student Activity Fund accounts, reversal of standard accrual entries, prescription rebate accruals, reclassifications of amounts to the proper account, monthly adjustments related to inventory levels, and adjustments to record expenses in the proper accounting period. We noted that FCPS receives prescription drug rebates from the drug vendor(s) and they are recorded net of claims expense, which is not in accordance with GAAP. This practice results in the understatement of revenue and understatement of claims expense.

6. Description Key Word Search

We performed a search in the description of each journal entry for words that could indicate an inappropriate journal entry. We searched for the following key words: "fraud", "mistake" or "error".

Results: In fiscal year 2018, there were 42 entries that included the words "fraud", "mistake" or "error". There were 8 entries related to correcting budget check errors, 6 entries related to reclassification of posting errors, 2 entries with the description "Record Prepaid Errors & Omissi/Prepaid Insurance", and 1 entry related to reversal of an accrual that was posted in error. Per discussion with FCPS and review of the entry descriptions, none of these entries were deemed unusual. However, there was 1 transaction with the description "HR Error-Return Overpay" and 24 purchase card (PCD) entries that had the word "fraud" listed in the description. Per discussion with FCPS, the "HR Error-Return Overpay" entry was related to an employee that was returning money to the school system after being overpaid. The employee switched to 10-month status, but the change was not processed by Human Resources in time for the pay period end. The error was detected by FCPS controls and corrected. We obtained and reviewed a copy of the journal entry, cash receipt log, and the check from the employee written to the school system in the amount of the overpayment of \$863.83. Per discussion with FCPS, PCD entries with "fraud" in the description were reimbursements for fraud charges made on a compromised purchase card. In all instances noted, FCPS confirmed the cards were in possession of the cardholder at the time the charge was identified. Once a fraudulent purchase has been identified, the account is closed, and a new account is issued. JPMorgan Chase credits FCPS in the amount of the fraudulent charge. This explanation appears reasonable.

In fiscal year 2019, there were 21 entries that included the words "fraud", "mistake" or "error". There were 2 entries with the description "Non-FCPS Cleared" for \$6 each, 1 entry related to a reversal of a PO rolled in error, 1 entry related to mileage reimbursement error, and 2 entries related to reclassification of Chromebook entries posted in error. Per discussion with FCPS and review of the entry descriptions, none of these entries were deemed unusual. However, there were 15 PCD entries that had the word "fraud" listed in the description. Per discussion with FCPS, these were reimbursements for fraud charges made on a compromised purchase card. In all instances noted, FCPS confirmed the cards were in possession of the cardholder at the time the charge was identified. Once a fraudulent purchase has been identified, the account is closed, and a new account is issued. JPMorgan Chase credits FCPS in the amount of the fraudulent charge. This explanation appears reasonable.

In fiscal year 2020, there were 1,712 entries with “frontline error” in the description. As noted in the Benford’s analysis above, these entries were related to a new substitute teacher system that was implemented in August 2019. There were numerous coding errors that required correction resulting from staff inexperience with the new system. FCPS has provided staff training to ensure expenditures are properly coded going forward.

7. Accounts with Significant Activity but Net to Zero

During our review of the data, we noted several accounts with more than 100 transactions for which activity netted to zero. Based on our experience with local school systems, we expect FCPS would have zero balance bank accounts, whereby, funds are swept at the end of each day to a main bank account. Additionally, we expect FCPS to have payroll liability accounts, whereby payroll deductions are recorded each pay date and then remitted to a third party (i.e., garnishments, payroll taxes). The following table shows the number of accounts by fiscal year:

Fiscal Year	Number of Accounts
2018	22
2019	27
2020	27

Results: The majority of the accounts listed above are related to zero balance bank accounts and payroll liabilities, which is within our expectations. In addition, we noted an account used to initially record Food Nutrition Services administrative costs from office departments that are eventually allocated out to the individual schools, resulting in a zero-account balance. We noted this account is in line with normal operations of a school system.

B. General Disbursements

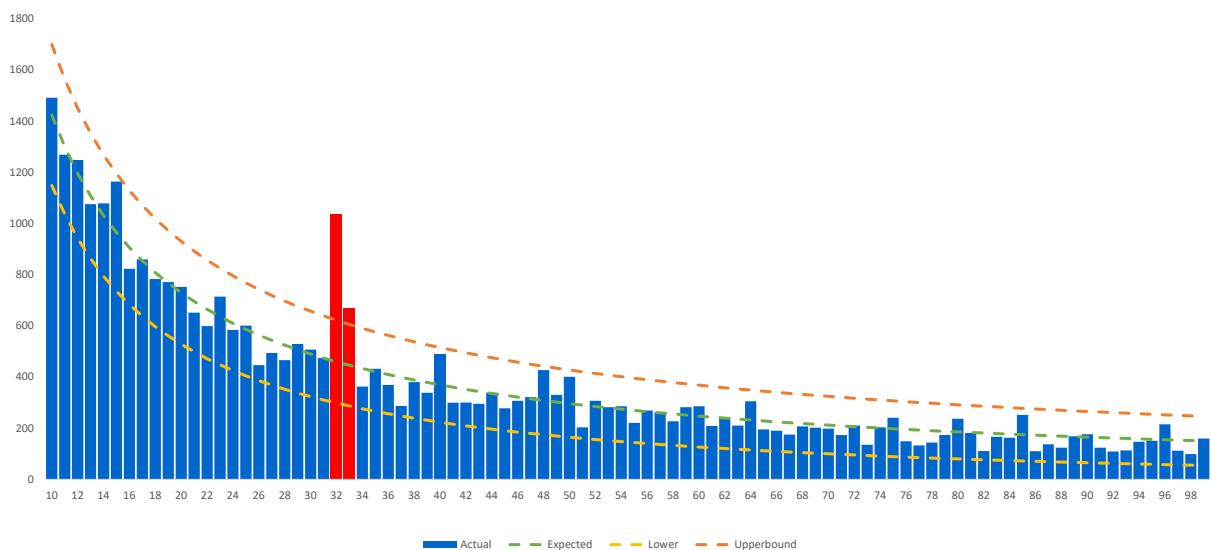
We obtained the general disbursements listing including checks, automated clearing house (ACH) and wires to complete the analysis over general disbursements. We determined the completeness of the population of general disbursements received by FCPS by performing gap detection analysis over the general disbursement population. Per inquiry of FCPS and review of additional documentation, we noted gaps in the sequence of disbursement numbers were related to voided checks. Explanation appears reasonable. We performed the following analysis over general disbursements:

1. Benford's Law

Benford's Law, also known as the *Law of First Digits*, is the finding that the first digits of the numbers found in a series of records of the most varied sources do not display a uniform distribution, but rather are arranged in such a way that the digit "1" is the most frequent, followed by "2", "3", as so on in a successively decreasing manner down to "9". We performed this analysis on the first two digits of the line item amount of the general cash disbursement entries. We would expect the data to fall within the Benford's curve. See the graphs below for the results of Benford's law analysis on fiscal year 2018, 2019 and 2020.

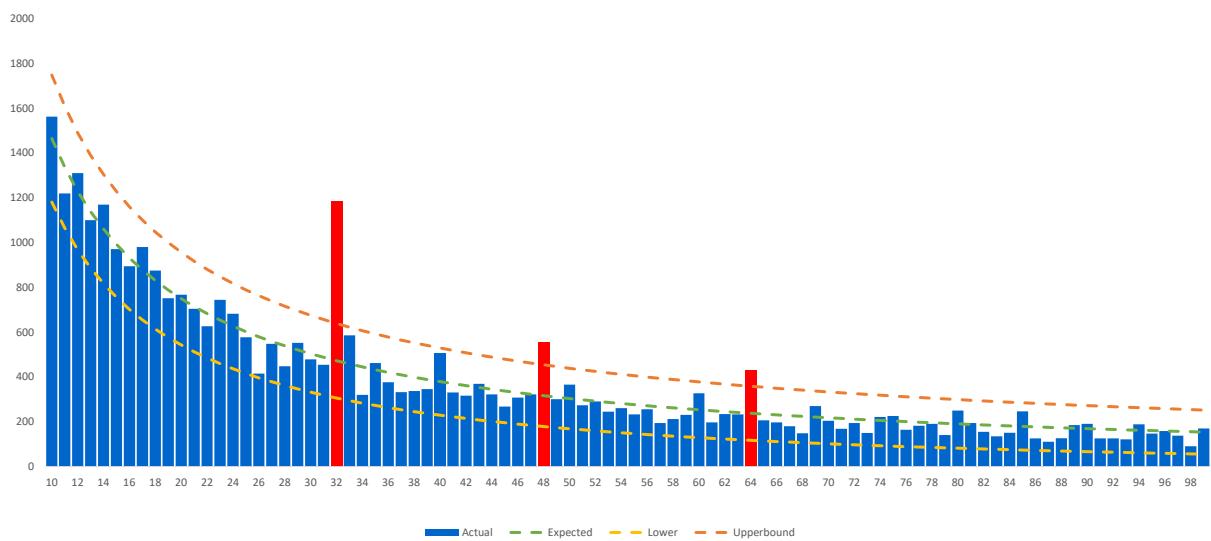
Fiscal Year 2018

First Two Digits Benford's Law Analysis
Cash Disbursements



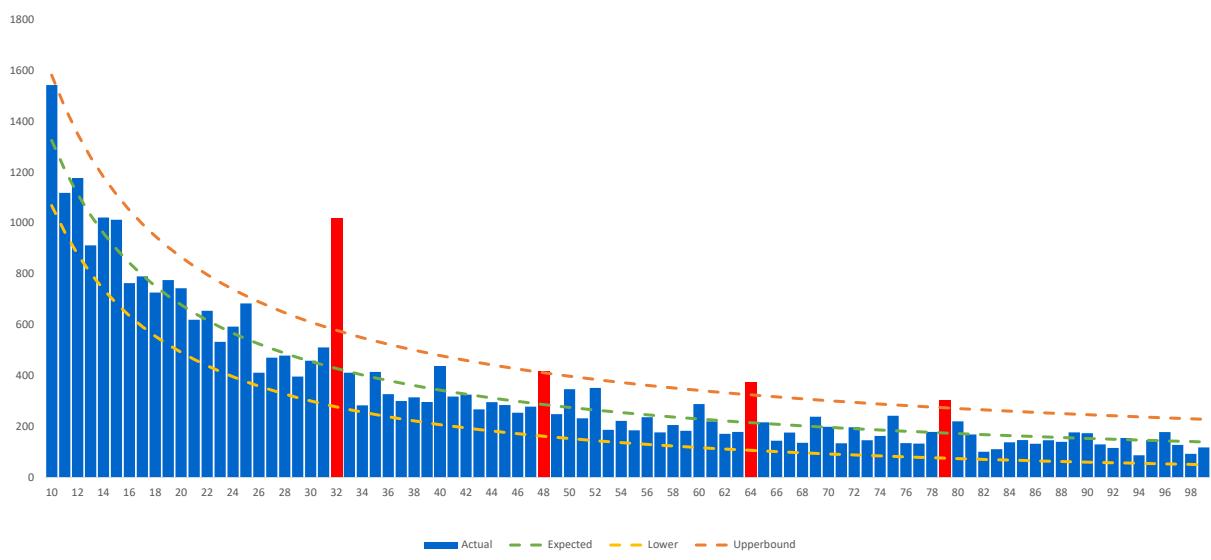
Fiscal Year 2019

First Two Digits Benford's Law Analysis
Cash Disbursements



Fiscal Year 2020

First Two Digits Benford's Law Analysis
Cash Disbursements



Results: There was a higher than expected number of transactions that began with the number 32 in fiscal years 2018, 2019 and 2020. Additionally, occurrences in the exact amount of 48 and 64 were higher than expected in 2019 and 2020. Per review of the underlying data, we noted that the vast majority of these transactions had the description "Open Purchase Order", "Open Purchase Order for Interp", "Open Purchase Order for Foreig" or similar descriptions. Per discussion with FCPS, \$32 is the standard rate for one hour of interpretation services. We reviewed a sample of invoices and noted they were entitled "Standard English Language Interpreting" and were in the amount of \$32.00, \$48.00, and \$64.00 depending on the length of time that interpretation services were provided.

Also, in FY18 there was a higher than expected number of transactions that began with the number 33. Per review of the underlying data, 41% of these transactions have the description "SilverScript Subsidy", are related to LIPS (Low Income Premium Subsidy) payments and are the primary reason why transactions beginning with 33 exceed the upper bound of normal expected occurrences. These payments are income based "rebates" to Medicare retirees. FCPS is a passthrough agent whereby the school system receives a file of those retirees that are eligible for LIPS as well as funds from CVS (administers the SilverScript program and obtains the info from CMS). FCPS then issues the LIPS payment to retirees as indicated on the file received.

Lastly, in FY20 there was a higher than expected number of transactions that began with the number 79. The excess was related to a Houghton Mifflin Harcourt: Education and Learning Resources invoice that was allocated across several Department IDs for several schools in the amount of \$79.00 each. 154 of the 303 or 51% of the transactions that begin with 79 are related to invoice #71016217. We obtained and reviewed the check copy, invoice, and PO showing the math manipulatives purchased, the quantity purchased and the price per item. Payment details correspond with the voucher line/ PO line.

We deemed all deviations from Benford's law to be appropriate.

2. *Stratification Trends*

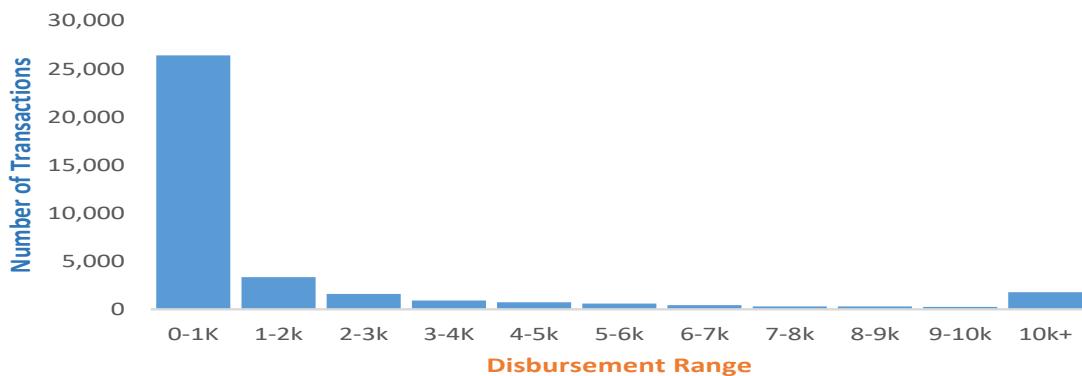
To gain a better understanding of the disbursement population, we performed a stratification of the disbursement information by amount and number of transactions. This analysis assists us in understanding what an "average" transaction at FCPS resembles.

Results:

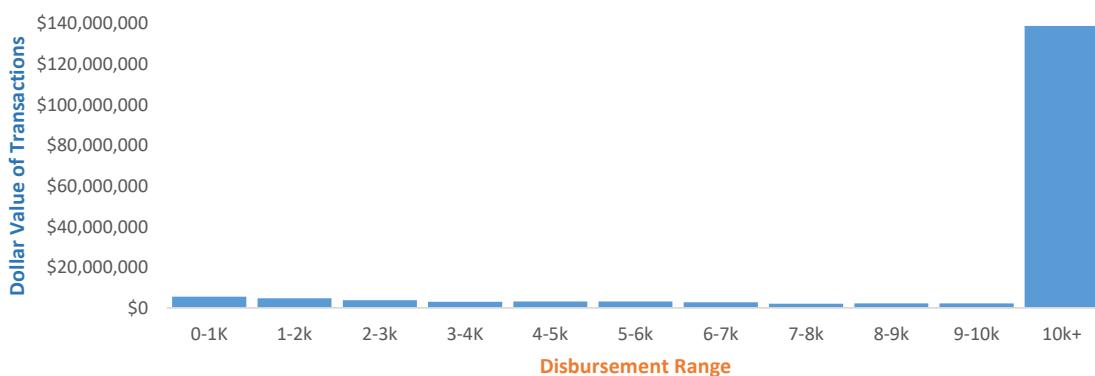
Fiscal Year 2018

Approximately 71.0% of disbursement transactions were below \$2,000. However, transactions below \$2,000 represent only approximately \$5,536,000 or 3.22% of total disbursements. Approximately 4.8% of disbursement transactions are over \$10,000, however, disbursements over \$10,000 total approximately 81.0% of dollars of all transactions. As such this range represents the largest concentration of dollars and is considered a higher risk area.

Disbursement Stratification (Transactions)



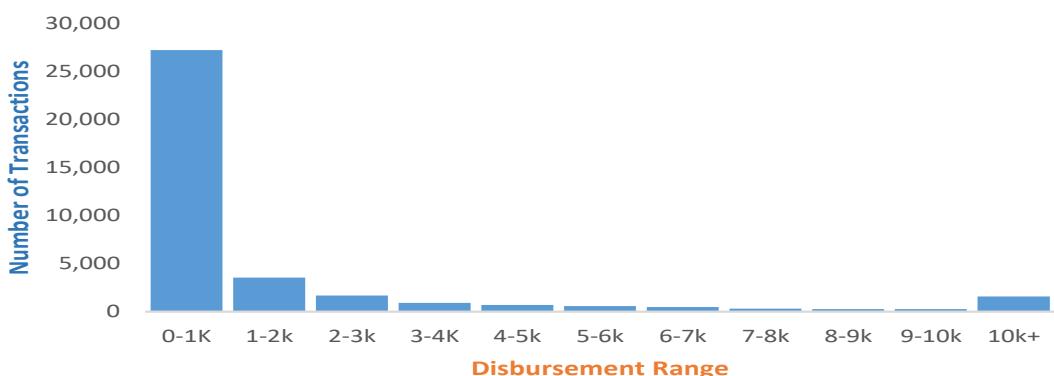
Disbursement Stratification (Dollars)



Fiscal Year 2019

Approximately 71.0% of disbursement transactions were below \$2,000. However, transactions below \$2,000 represent only approximately \$6,023,000 or 5.04% of disbursements. Approximately 4.2% of disbursement transactions are over \$10,000, however, disbursements over \$10,000 total approximately 72% of dollars of all transactions. As such this range represents the largest concentration of dollars and is considered a higher risk area.

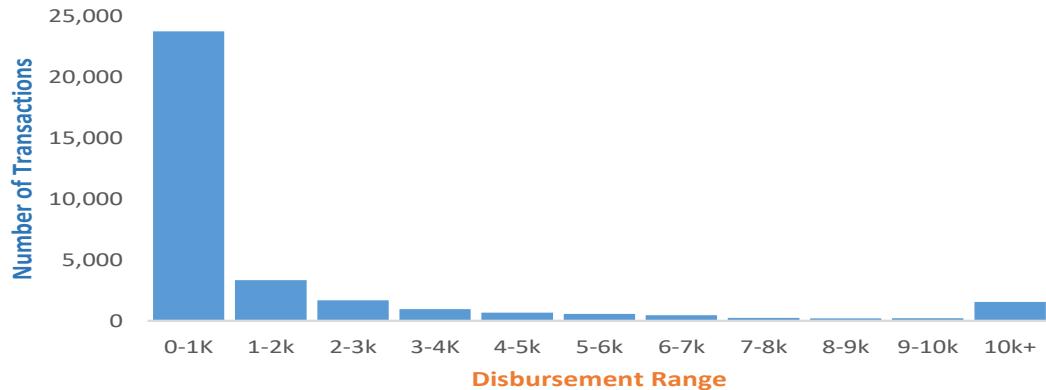
Disbursement Stratification (Transactions)



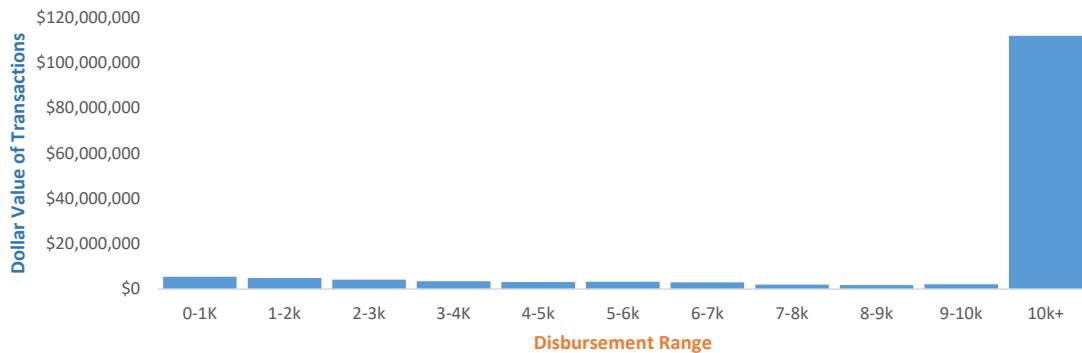
Fiscal Year 2020

Approximately 69.0% of disbursement transactions were below \$2,000. However, transactions below \$2,000 represent only approximately \$5,347,000 or 3.78% of disbursements. Approximately 4.6% of disbursement transactions are over \$10,000, however, disbursements over \$10,000 total approximately 79.0% of dollars of all transactions. As such this range represents the largest concentration of dollars and is considered a higher risk area.

Disbursement Stratification (Transactions)



Disbursement Stratification (Dollars)



We noted that the number of high dollar disbursements comprised a majority of the total dollar amount disbursed for all three years (71%-81%). Therefore, we extracted the detail of all disbursements over \$10,000 to perform an additional analysis. We summarized this detail by vendor in order to obtain and understanding of the types of services provided and to confirm these vendors are within normal operations of the public school system. We provided the top 10 vendors paid with disbursements over \$10,000 for each fiscal year, as follows:

Fiscal Year 2018

Payee	Number of Records	Total Sum	Description of Services
Kennedy Krieger Institute	122	\$ 1,506,156	Non-public services for students
US Foods Inc	97	1,947,441	Food for Schools
WGL Energy Services Inc	67	920,296	Electricity and Natural Gas Supplier
Petroleum Traders Corp	61	950,497	Fuel for buses
Oak Contracting LLC	38	1,566,095	School construction vendor
Shipley Fuels Marketing	37	532,541	Heating fuel
K Neal International Trucks Inc	33	2,823,852	Bus purchases, parts and service
Grimm & Parker Architecture Inc	33	917,014	School construction architect
R W Warner Inc	32	17,197,946	School construction vendor
Linwood Center Inc	29	565,421	Non-public school services for students

Fiscal Year 2019

Payee	Number of Records	Total Sum	Description of Services
Global Montello Group Corp	94	\$ 1,565,569	Fuel for buses
US Foods Inc	89	1,851,793	Food for Schools
Kennedy Krieger Institute	83	1,049,266	Non-public services for students
WGL Energy Services Inc	80	1,076,045	Electricity and Natural Gas Supplier
Shipley Fuels Marketing	33	451,266	Heating fuel
Linwood Center Inc	30	471,150	Non-public services for students
K Neal International Trucks Inc	30	2,642,995	Bus purchases, parts and service
Frederick County Maryland	29	1,392,668	Many things (permits, fuel)
Sheppard Pratt Health System Inc	27	872,549	Non-public services for students
Glover Furniture & Design Group Inc	22	537,969	Furniture for schools and offices

Fiscal Year 2020

Payee	Number of Records	Total Sum	Description of Services
Kennedy Krieger Institute	78	\$ 976,004	Non-public services for students
US Foods Inc	75	1,648,385	Food for Schools
CDW LLC	66	4,585,948	Computers, laptops, IPADS
Global Montello Group Corp	65	993,774	Fuel for buses
WGL Energy Services Inc	57	758,065	Electricity and Natural Gas Supplier
Linwood Center Inc	37	536,138	Non-public services for students
Sheppard Pratt Health System Inc	34	1,025,816	Non-public services for students
Standard Insurance Co	32	2,620,171	Insurance coverage
K Neal International Trucks Inc	30	2,712,298	Bus purchases, parts and service
Frederick County Maryland	30	1,173,834	Many things (permits, fuel)

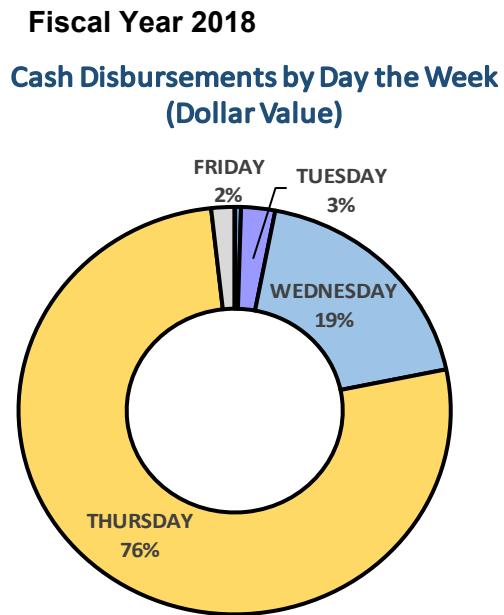
Results: Per review of the top ten vendors paid with disbursements over \$10,000 for each fiscal year, we noted they were consistent with operations of a local school system. Additionally, we obtained copies of contracts for the following sample vendors in order to further document that disbursements were in line with schools operations and disbursements were in line with normal school operations: Kennedy Krieger Institute,

Linwood Center Inc., Sheppard Pratt Health System Inc., CDW LLC, and Standard Insurance Co.

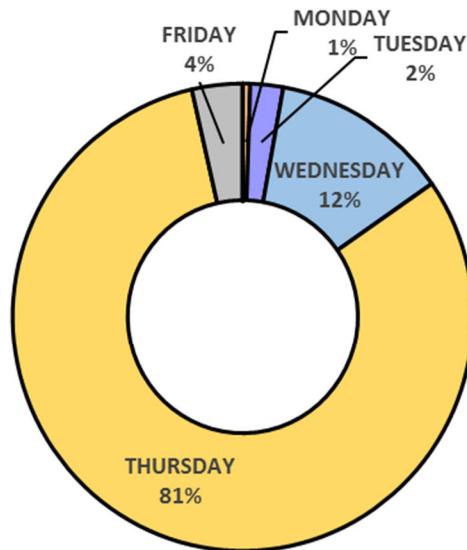
However, we noted that bus fuel costs appeared to increase significantly from 2018 to 2019 and decrease significantly from 2019 to 2020. Upon further investigation it was determined that in FY18, FCPS purchased bulk diesel and unleaded fuel from two vendors, Petroleum Traders Corp which was in the top ten vendors with disbursements over \$10,000 and James River Solutions which was not in this category. Total fuel purchased from these two vendors together was approximately \$1,531,000 in FY18 which is comparable to the FY19 amount of \$1,565,569. The decrease from FY19 to FY20 is directly related to the Covid-19 Pandemic. FCPS did not have students in the classroom from March 20, 2020 through June 17, 2020. The only buses operating during this time period were buses used to deliver meals at designated locations 2 to 3 times each week.

3. Disbursements by Day

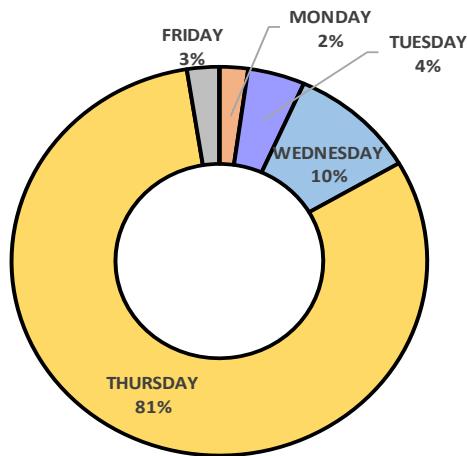
The following graphs represent the population of general disbursements by day of the week. Per our discussion with FCPS, it was confirmed that FCPS' normal check run is every Thursday; however, checks could be run on other days of the week due to compressed work weeks in the summer, holidays and inclement weather occurring on a Thursday and/or checks that need to be issued immediately.



Fiscal Year 2019
Cash Disbursements by Day the Week
(Dollar Value)



Fiscal Year 2020
Cash Disbursements by Day the Week
(Dollar Value)

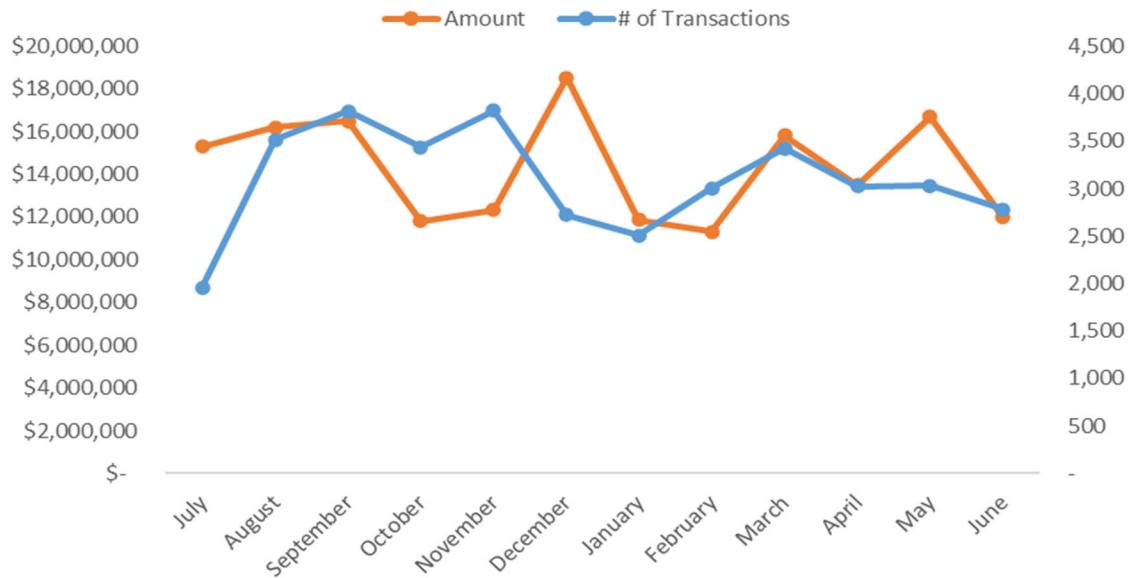


Results: Per review of the data, it appears that a majority of the checks were issued on Thursday and consistent with FCPS' operations. We also noted there were no checks run with a date that falls on Saturday or Sunday.

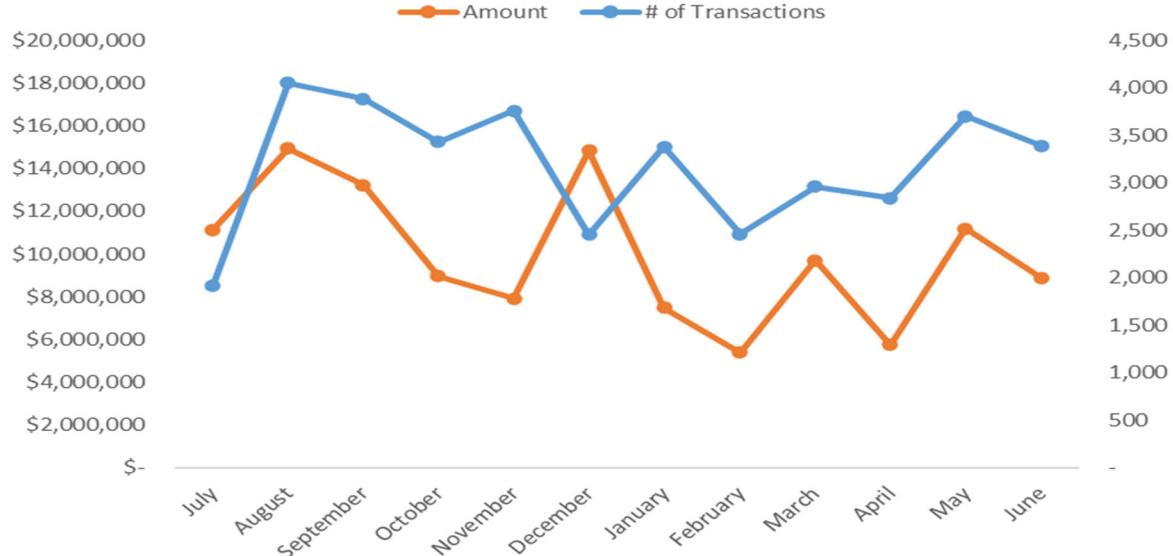
4. Disbursements by Month

The following graphs represent the population of general disbursements, in total dollars and total transactions for each month. Based on our experience with school systems, we would expect July to have a lower number of transactions and dollars due to this being a month that schools are typically closed. We would expect June and August to have more expenditures than July, but less than the remaining months as school is partially in session and/or gearing up for the upcoming school year.

Fiscal Year 2018
Monthly Disbursements and Transactions

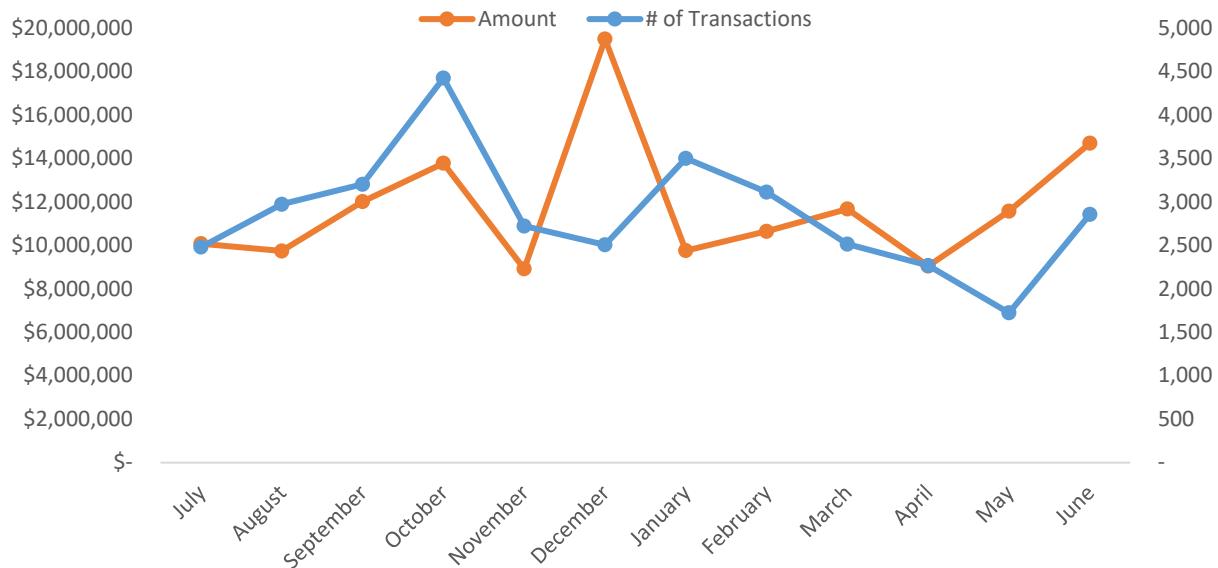


Fiscal Year 2019
Monthly Disbursements and Transactions



Fiscal Year 2020

Monthly Disbursements and Transactions



Results: During fiscal years 2018, 2019 and 2020, FCPS disbursed on average \$12,000,000 per month. During the same 3-year period, the average number of transactions was 3,042 per month. The months with the most significant variance from average were the December 2017, 2018 and 2019, February 2019, April 2019, and December 2019.

FCPS pays the Maryland State Retirement Agency for the Employee Pension Plan, annually each year in December. A significant increase in the disbursement amount was noted in December for all three years.

Significant decreases in total disbursement amount and total number of disbursement transactions were noted in February and April of 2019. Construction is based on what projects are in process, what phase the construction is in and weather can impact the billings for period of performance. It was noted that the departures from average in February and April 2019 were related to fluctuations in construction activity and timing of billing.

We also noted a small spike in May of June of each year. It was determined that the following factors contribute to this spike:

- a. Efforts to spend budget monies as the year end approaches as deemed appropriate (particularly general fund and restricted fund).
- b. As FCPS approaches year end, accounts payable (AP) pays vendors sooner than net 30 terms to clear vouchers/accounts payable. On June 30, accounts payable attempts to have the AP balance for all funds at \$0.

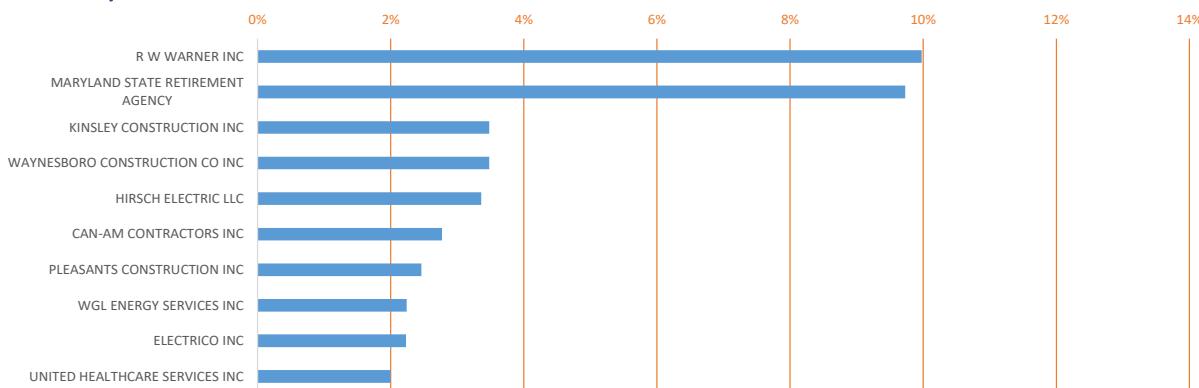
- c. Occasionally, as FCPS projects out expenditure through 6/30 at year end budget meetings, there may be an allowance for year -end spending if budget to actual is in a good position and the classifications remain in category compliance.
- d. The construction fund often incurs late year end expenditures as they start to receive on furniture and equipment for new schools that will be opening in the fall. This depends on what major school construction projects are happening and the timing of their opening. Furniture and equipment purchases occur in the final year of construction during this time frame.
- e. Purchases (and corresponding payments) to support summer programs.
- f. There are some annual year end type purchases that occur. For example, purchases and disbursements related to health supplies and materials are typical. Epi pens and other related health items are often bought near year end due to shelf life. Also, health rooms supplies and materials are reviewed and restocked for summer activities.

5. **Top Ten Vendors**

The following graphs represent an analysis of the activity of the top vendors of FCPS. Generally, we expect the top ten vendors to represent a significant portion of total disbursement activity. We also expect these vendors be related to school construction, retirement and pension, utilities, and medical benefits.

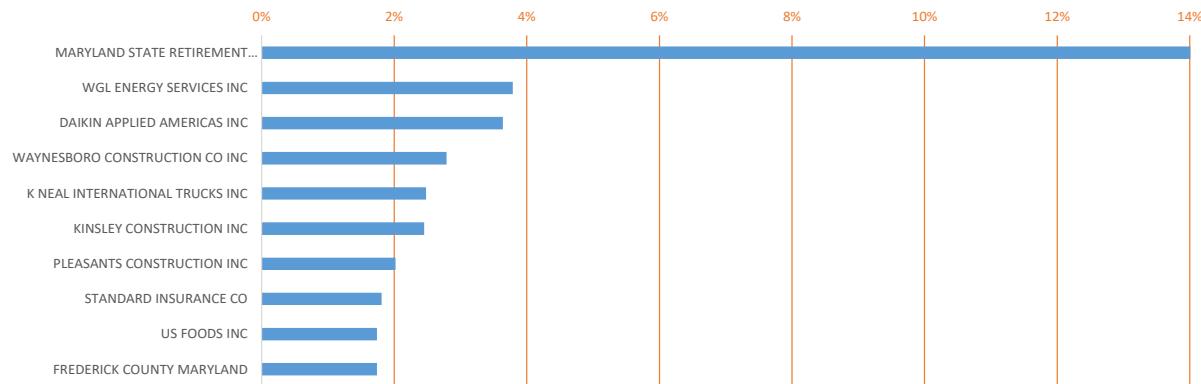
Fiscal Year 2018

Vendors By Cash Disbursements



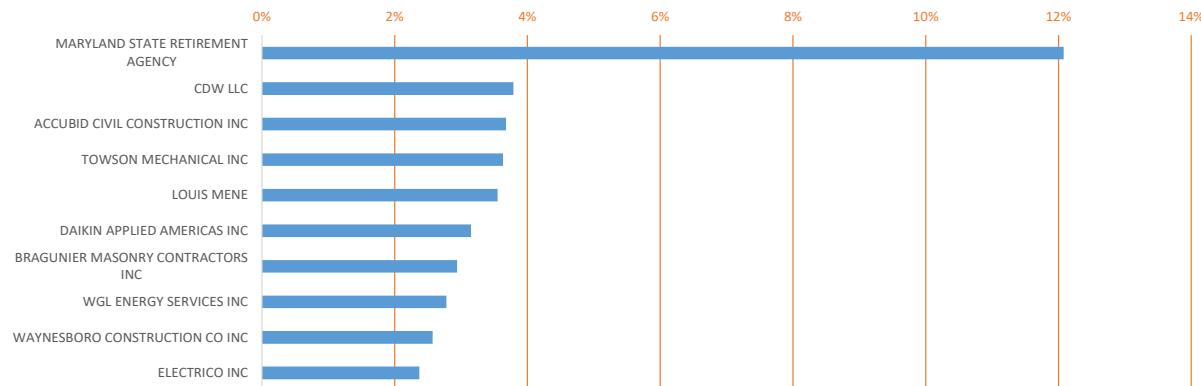
Fiscal Year 2019

Vendors By Cash Disbursements



Fiscal Year 2020

Vendors By Cash Disbursements



Results: At FCPS, the top 10 vendors represented 41.73% of all disbursements in FY18, 36.47% in FY19, and 40.54% in FY20. We reviewed the vendors and our expectations were met. We also noted that U.S. Foods and Frederick County made the top ten listing for FY 2019 only. US Foods provides food for student breakfast and lunches, which is within normal operations; however, in 2019, FCPS expanded the summer lunch program which resulted in the purchase of more food. Frederick County provides many miscellaneous services to the school system which include transactions related to permits, fuel, summer programs, landfill charges, cell towers, and several other categories. They were a top ten vendor in FY 2019 due to construction related fees associated with several new elementary schools.

6. One-Time Vendors

As part of our analysis of general disbursements, we identified one-time payments that occurred during the year, typically the infrequency of the payments results in these transactions being a higher risk for fraud.

Fiscal year	Number of One-time Vendors
2018	395
2019	388
2020	505

Results: Per discussion with FCPS and review of the one-time vendor listing in detail, one-time vendors included annual contract agreements and school lunch refunds to parents for balances on their child's lunch account when graduating, moving out of the district, decision to homeschool, etc. We noted no unusual activity. Additionally, in another test that will follow below, we also compared information from the employee master file to the disbursement listing and no unexplained relationships were noted.

7. Disbursements Summarized by Account

We summarized the General Ledger Accounts to determine if there were any accounts with suspicious names or if there were disbursements recorded to unexpected accounts.

Results:

Fiscal Year 2018

There was one check recorded to Account 17004 "Salary Advance" for \$2,000. FCPS confirmed that this transaction was for a new teacher salary advance. As an incentive to attract a new hire, FCPS at times may provide a salary advance, which is recorded as a general disbursement since the individual is not yet established as an employee in the payroll system. Per review of fiscal years 2019 and 2020, this account was not used.

Fiscal Year 2019

We noted disbursements were recorded to one revenue account, Account 45199 "Misc. Revenue." FCPS offers a summer World Language Camp. There is a fee associated with the camp that is paid when a child is signed up for the camp by a parent. Camp payments are recorded in a restricted project as revenue when collected. In the sample provided, FCPS issued refunds (whether a parent withdrew their child from the camp or whether there wasn't enough participation that caused FCPS to cancel the camp) from the revenue account where the cash receipt was recorded. This was deemed appropriate.

Fiscal Year 2020

There were four revenue accounts to which disbursements were recorded, which were deemed reasonable:

- a. Account 44414 "Rev - Federal Other": Transactions were refunds to Maryland State Department of Education (MSDE) for grants where they overpaid FCPS. The refund is processed from the revenue account in which cash receipts were recorded.
- b. Account 45131 "Phys Ed Activity Fees": Transactions were refunded pay to play sports activity fees. Typically, there are not a lot of athletic participation refunds however, prior to the pandemic, the spring rosters were posted and athletes could

pay to play. With the shut-down, and the cancellation of the FY20 spring sports season, refunds were issued. Transactions such as these were noted at many local school systems in spring of 2020 as a result of the COVID-19 pandemic.

- c. Account 45181 "Rental - Bldgs.": Transactions were refunds. Refunds were issued from the account where the cash receipt was recorded.
- d. Account 45199 "Misc. Revenue": There was a refund to the CMES Student Activity Fund (SAF) for a PNC transaction. The remaining transactions are related to refunds for canceled honors chorus, reimbursements for canceled ESSL show, reimbursement for learning life, summer camp refund, and Fredericktowne Rotary grant. Cancellations were due to the Covid-19 pandemic. Transactions such as these were noted at many local school systems in spring of 2020 as a result of the COVID-19 pandemic.

8. Disbursements in Cash Accounts

During our review of general disbursements, we noted checks with debits to the petty cash account as follows:

FY 2018:	11 Disbursements
FY 2019:	11 Disbursements
FY 2020:	10 Disbursements

Per discussion with FCPS for FY18, FY19, and FY20, checks were written to each food nutrition services field specialist. The field specialists cashed the checks and divided up the cash between the schools they are responsible for. This cash is used to make change, when necessary, at each register in each school cafeteria for meal and/or ala carte purchases. At the end of the year, the schools deposit the cash into the bank account, on a separate deposit slip marked as change funds. The Food Nutrition Services Accountant then reconciles the deposits to what was issued at the beginning of the year. This practice was deemed reasonable compared to similar local school systems.

9. Review of Payment Approval

We summarized the payments by User ID and Approver ID to ensure payments were approved by the appropriate officials, within the approvers' dollar threshold, there are no generic User ID's and there was proper segregation of duties between the User ID and Approver ID for all three fiscal years.

Results: There were no instances where the User ID and Approver ID were the same. Per FCPS, requisitions are the only transaction type that has an approval maximum threshold. Any requisition that is in excess of \$50,000 requires the Purchasing Officer's approval. Transactions have a multi-level approval process through workflow, regardless of the dollar amount. Workflow is set up based on role and their supervisor. Also, purchase card transactions have a daily limit and a statement cycle max spending level; unless a temporary increase is approved and granted. Lastly, approval for construction contracts which are often larger, is a manually signed approval on the contract and progress billings.

However, in fiscal years 2018, 2019 and 2020, we noted 35,073, 31,003 and 35,073 transactions, respectively with no documented approval. Also, in all three years, there were approvals from User IDs, such as "NULL" and "PURCHOFC.". Per FCPS, transactions that have blanks in the approval column are related to purchase orders received online by schools, who conduct receiving approvals online in their systems and do not generate a column in the disbursement listing. Approval from "Null" User IDs is related to open purchase orders that are part of a monthly file load which is signed by Andrea Shephard, Assistant Financial Reporting Manager. We obtained a copy of an example monthly file upload and noted it was signed by Andrea Shephard. Lastly, "PURCHOFC" indicates that the purchasing officer has approved the voucher. We verified that proper segregation of duties existed between the User ID and "PURCHOFC" Approver ID.

10. Voided/Zero Dollar Payments

There were 772, 1,061 and 897 voided, zero dollars, or negative disbursements in fiscal years 2018, 2019, and 2020, respectively. We selected a sample of 10 voided, zero dollar, or negative disbursements from each fiscal year and obtained an explanation. FCPS provided the following explanations:

- Correcting entries for invoices paid under the wrong purchase order
- Correcting entries for invoices applied to a wrong line on the purchase order
- Correcting entries for invoices reversed and billed at a lower cost
- Work that was not complete at year-end for which invoices were reversed
- Credit memos
- Vouchers entered to close a "rolled" purchase order
- Items billed at no charge
- Correcting entries for reject invoices
- Correcting entries for invoices that were entered before change orders were posted
- Correcting entries for invoices entered for the wrong payment amount
- Line items that were not billed
- Correcting entries to reverse duplicate entries
- Shipping transactions that had no charge

The explanations appear reasonable with school system operations.

11. Disbursements to the Same Vendor on the Same Day

We summarized all payments made to the same vendor on the same day. We expect a limited number of vendors who had more than one payment made on the same day. Multiple payments made to the same vendor on the same day could indicate a bypass of dollar threshold approvals. Those vendors with significant expenditures should also be consistent with operations.

Fiscal Year 2018 – Top 10 Vendors: Multiple Disbursements per Day

Vendor	Check Date	Number of Invoices/Pmt Lines	Amount	Reason for Multiple Payments
Word Processing Services Inc	8/31/2017	126	\$ 14,949	Goods/Services to multiple schools
Doing Better Business	9/28/2017	126	31,120	Goods/Services to multiple schools
K Neal International Trucks Inc	8/23/2017	113	2,965,053	Multiple bus purchases
WGL Energy Services Inc	9/29/2017	112	313,767	Electric for all schools
School Specialty Inc	9/28/2017	111	10,632	Goods/Services to multiple schools
Frederick County Maryland	7/12/2017	75	130,537	Annual tap fees for schools
B&H Foto & Electronics Corp	9/14/2017	60	32,786	Goods/Services to multiple schools
Washington Gas	8/10/2017	52	8,625	Goods/Services to multiple schools
Rudolph's Office Supply Inc	11/9/2017	51	1,858	Goods/Services to multiple schools
VWR Funding	10/6/2017	50	123,572	Goods/Services to multiple schools

Fiscal Year 2018 – Top 10 Vendors: Multiple Disbursements per Day/Large Dollars

Vendor	Check Date	Number of Invoices/Pmt Lines	Amount	Reason for Multiple Payments
Maryland State Retirement Agency	3/28/2018	3	\$ 3,259,397	Quarterly invoice for multiple services
Maryland State Retirement Agency	12/7/2017	3	3,259,397	Quarterly invoice for multiple services
K Neal International Trucks Inc	8/23/2017	113	2,965,053	Multiple bus purchases
R W Warner Inc	12/14/2017	2	2,945,143	Multiple invoices for construction
R W Warner Inc	3/15/2018	3	2,228,468	Multiple invoices for construction
R W Warner Inc	1/18/2018	2	2,063,717	Multiple invoices for construction
R W Warner Inc	7/12/2017	2	1,489,782	Multiple invoices for construction
Kinsley Construction Inc	10/12/2017	2	1,399,409	Multiple invoices for construction
Kinsley Construction Inc	8/16/2017	2	1,158,613	Multiple invoices for construction
R W Warner Inc	10/12/2017	3	1,104,851	Multiple invoices for construction

Fiscal Year 2019 – Top 10 Vendors: Multiple Disbursements per Day

Vendor	Check Date	Number of Invoices/Pmt Lines	Amount	Reason for Multiple Payments
Lakeshore Equipment Company	9/27/2018	327	\$ 49,155	Invoices for multiple schools
WGL Energy Services Inc	1/24/2019	170	427,215	Electric for multiple schools
Doing Better Business	5/16/2019	166	102,067	Invoices for multiple schools
Doing Better Business	6/13/2019	165	102,036	Invoices for multiple schools
WGL Energy Services Inc	10/18/2018	164	405,412	Electric for multiple schools
WGL Energy Services Inc	2/28/2019	163	448,253	Electric for multiple schools
Doing Better Business	4/25/2019	160	119,971	Invoices for multiple schools
Doing Better Business	3/28/2019	160	98,981	Invoices for multiple schools
WGL Energy Services Inc	1/3/2019	157	369,500	Electric for multiple schools
WGL Energy Services Inc	11/20/2018	156	332,762	Electric for multiple schools

Fiscal Year 2019 – Top 10 Vendors: Multiple Disbursements per Day/Large Dollars

Vendor	Check Date	Number of Invoices/Pmt Lines	Amount	Reason for Multiple Payments
Maryland State Retirement Agency	12/6/2018	4	\$ 7,300,313	Quarterly invoice for multiple services
Maryland State Retirement Agency	3/21/2019	3	3,197,492	Quarterly invoice for multiple services
K Neal International Trucks Inc	8/30/2018	103	2,776,719	Parts and bus purchases
Kinsley Construction Inc	7/12/2018	2	986,041	Multiple invoices for construction
Waynesboro Construction Co Inc	7/12/2018	2	908,904	Multiple invoices for construction
Houghton Mifflin Harcourt Publ Co	7/25/2018	2	850,000	Invoices for multiple schools
Monocacy Montessori	7/19/2018	3	465,981	Quarterly allotment multiple rents
WGL Energy Services Inc	2/28/2019	163	448,253	Electric for multiple schools
R W Warner Inc	7/12/2018	3	438,012	Multiple invoices for construction
WGL Energy Services Inc	1/24/2019	170	427,215	Electric for multiple schools

Fiscal Year 2020 – Top 10 Vendors: Multiple Disbursements per Day

Vendor	Check Date	Number of Invoices/Pmt Lines	Amount	Reason for Multiple Payments
Doing Better Business	1/16/2020	387	\$ 189,790	Monthly charge for copiers
Houghton Mifflin Harcourt Publ Co	9/12/2019	277	37,767	Book vendor, multiple orders
Doing Better Business	4/23/2020	199	71,458	Monthly charge for copiers
Doing Better Business	2/20/2020	194	101,579	Monthly charge for copiers
Doing Better Business	3/23/2020	192	130,075	Monthly charge for copiers
Wgl Energy Services Inc	4/23/2020	186	332,309	Monthly energy charges
Doing Better Business	11/21/2019	186	129,923	Monthly charge for copiers
Doing Better Business	10/24/2019	185	131,650	Monthly charge for copiers
Doing Better Business	9/26/2019	172	55,173	Monthly charge for copiers
Doing Better Business	6/19/2020	171	5,693	Monthly charge for copiers

Fiscal Year 2020 – Top 10 Vendors: Multiple Disbursements per Day/Large Dollars

Vendor	Check Date	Number of Invoices/Pmt Lines	Amount	Reason for Multiple Payments
Daikin Applied Americas Inc	12/12/2019	2	\$ 3,444,057	Construction contractor, multiple orders
Maryland State Retirement Agency	5/7/2020	2	3,340,827	Retirement Agency, multiple orders
Maryland State Retirement Agency	3/19/2020	2	3,340,827	Retirement Agency, multiple orders
Maryland State Retirement Agency	9/26/2019	2	3,340,827	Retirement Agency, multiple orders
K Neal International Trucks Inc	10/8/2019	119	2,868,718	Parts and bus purchases
CDW LLC	11/7/2019	22	1,253,839	Multiple orders
McGriff Insurance Services Inc	7/3/2019	8	888,575	Insurance, Multiple orders
CDW LLC	8/7/2019	35	763,716	Multiple orders
Sheppard Pratt Health System Inc	1/16/2020	12	739,060	Multiple orders
Monocacy Montessori	7/10/2019	3	691,241	Quarterly allotment multiple rents

Results: As noted above instances of vendors that were paid multiple times on the same day are within normal operations and not out of the ordinary.

12. Duplicate Checks

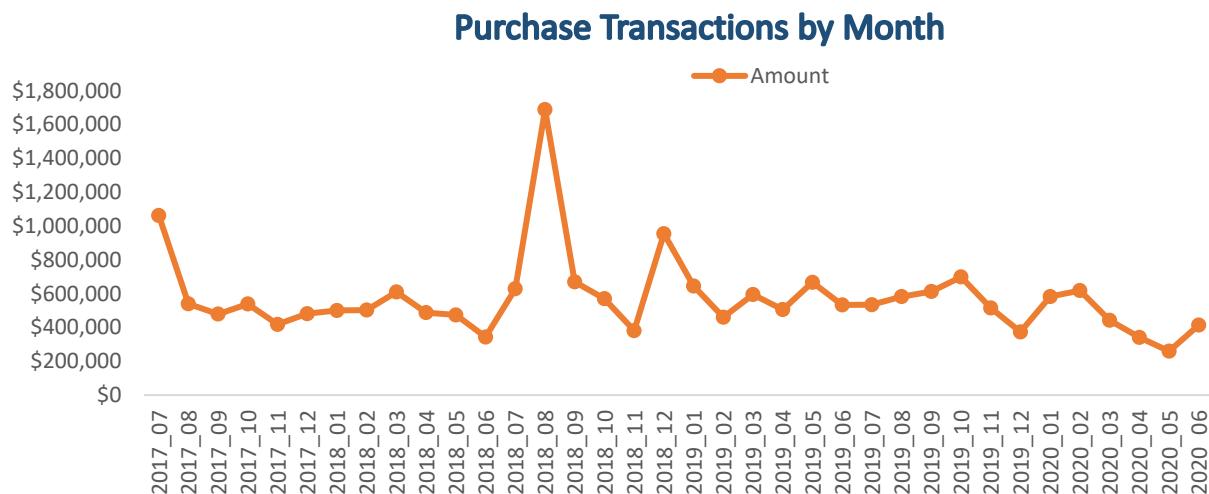
The query designed to identify duplicate payments produced thousands of results for all three years under review. However, upon closer inspection, it is apparent that what seems to be duplicate checks are actually either one invoice with payments applicable to multiple schools, payment for services at multiple schools, payment for multiple invoices related to the same vendor, payment for multiple lines on a purchase order or payment of split code purchase orders. We selected and tested a sample of 10 payments from each respective year to corroborate this explanation.

C. Purchase Card Disbursements

Purchase card transactions for fiscal years 2018, 2019, and 2020 were analyzed together. In order to establish completeness of the population, we performed gap detection analysis over the “PCARD Reconciliation Report” for all funds, which is a list of all purchase card transactions that includes date, payment number, cardholder, account, merchant, and payment amount. There were 120 missing payment numbers noted. It was determined for a sample of these purchase card disbursements that gaps between payment or document numbers results from a timing difference between load and posted date. For example, there was a transaction with a post date of 6/30 that had a load date of 9/1 because the transaction was under dispute. These explanations appear reasonable. We performed the following analysis over purchase card disbursements:

1. Purchase Card Transactions by Month

The following graph represents purchase card transactions by dollar amount for each month of the review period:



Results: We noted three months that had unusually high activity (July 2017, August 2018 and December 2018). All of these months varied significantly from the monthly average. We noted the following per discussion with Bill Meekins, Purchasing Agent III, and Hope Miller, Procurement Card Administrator:

July 2017 & December 2018:

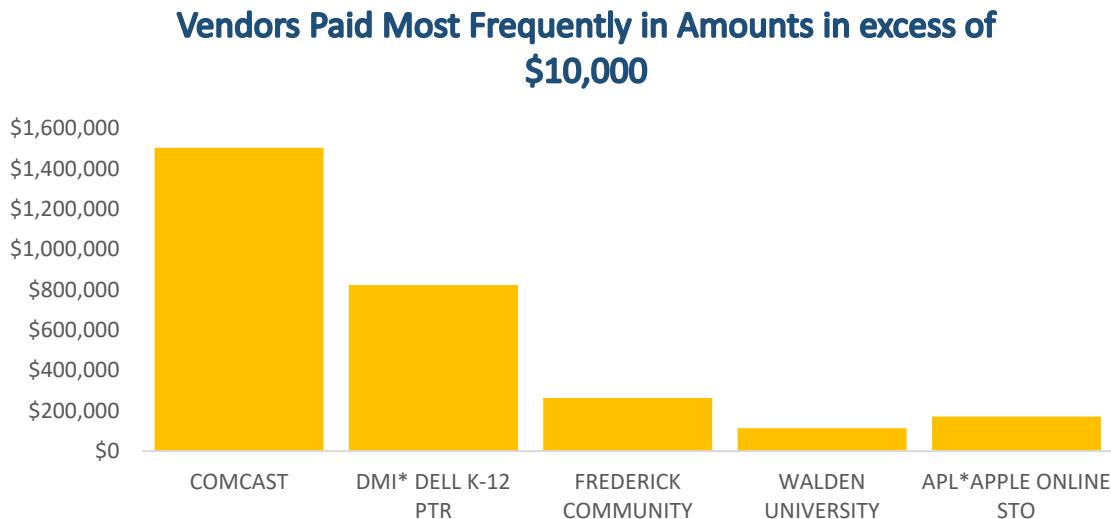
FCPS paid the Comcast Fiber Broadband bill online. These are large bills that FCPS can pay via purchase card which in turn helps with the system's purchase card's total spend amount and corresponding rebate. We noted that utility payments are not typically paid via a purchase card.

August 2018:

FCPS purchased Chromebooks for the 1 to 1 program prior to the start of the 2018-2019 school year. The purpose of the 1-to-1 Chromebook program in FCPS is to create a collaborative and expanded environment for all learners. The program was designed to enable and support students and teachers when implementing transformative uses of technology while enhancing students' engagement with content. We noted that a large purchase, such as computers is typically paid via a purchase order instead of a purchase card.

2. Purchase Card Vendors with Large Payments

We identified frequently paid vendors with purchase cards in respect to payments over \$10,000, as follows:



Results: This graph substantiates the explanations in C.1. above. FCPS had two large payments to Comcast in fiscal years 2018 and 2019 which resulted in it being the largest vendor with payments greater than \$10,000. In addition, the large purchase of Chrome books in August 2018 were from Dell, making it another top vendor for purchase card use. We noted that only Shelly Tribett, Budget Purchasing and Support Coordinator for Technology Infrastructure, is authorized to execute Chromebook purchases via purchase card. FCPS indicated they closely monitor purchase card transactions for Shelly as her authorization level is higher than the average purchase card user.

3. Top Ten Purchase Card Vendors

The following are the top ten purchase card vendors by total disbursement amount for the period of July 1, 2017 to June 30, 2020:

Vendor Name	Total Disbursement Amount	Nature of Service
Impact Office Products	\$ 2,264,519	Bid vendor for Office Supplies
Comcast	1,520,053	Broadband, internet, fiber services
Dell K-12 Ptr	928,634	Computer hardware, under contract
Verizon	710,206	Cell phone services for FCPS
Amazon Marketplace	486,038	Variety of purchases, weighted toward schools and instruction, under contract
School Specialty	452,352	Mostly materials of instruction, under contract
Amazon.Com	344,307	Variety of purchases, weighted toward schools and instruction, under contract
Asset Genie	334,212	Repair parts for Chromebooks, now under contract
Apple Online Store	295,118	Tablets and applications, under contract
Frederick Community College	270,250	Dual enrollment tuition

Results: We noted that for six of the top ten vendors, the procurement process was utilized and contracts were in place with the vendor. All vendors were within the normal operations of FCPS.

4. Top Ten Procurement Card Users

We summarized the top 10 procurement card users by top dollar amount and frequency for the period of July 1, 2017 to June 30, 2020. See below for results.

By Total Dollar Amount

Cardholder Name	Number of Records	Amount Sum	Position
Tribett,Shelly A	1,674	\$ 4,534,223	Budget, Purchasing and Support Coordinator in IT
Travers,Megan	1,013	690,907	Secretary for Media Services
Graham,Michele	184	531,870	Executive Secretary for Purchasing
Baseley,Jan	1,106	489,606	Secretary for IT repair shop
Mullineaux,Betsy	41	256,291	Employee Training Specialist
Hemp,Robin	1,310	253,718	Financial Secretary, Tuscarora High
Foreman,Debbie	187	221,743	Secretary in Student Services
Ensor,Jill	1,041	200,954	Financial Secretary, Oakdale High
Holt,Kara	1,185	165,911	Financial Secretary, Butterfly Ridge Elementary
Ferrante,Renee	762	162,691	Financial Secretary, Urbana High

By Frequency

Cardholder Name	Number of Records	Amount Sum	Position
Tribett,Shelly A	1,674	\$ 4,534,223	Budget, Purchasing and Support Coordinator in IT
Hemp,Robin	1,310	253,718	Financial Secretary, Tuscarora High
Holt,Kara	1,185	165,911	Financial Secretary, Butterfly Ridge Elementary
Baseley,Jan	1,106	489,606	Secretary for IT repair shop
Tregoning,Cheryl	1,066	94,181	Financial Secretary, Brunswick Elementary
Foland,Stacy	1,064	123,337	Financial Secretary, Middletown Middle
Ensor,Jill	1,041	200,954	Financial Secretary, Oakdale High
Travers,Megan	1,013	690,907	Secretary for Media Services
Day,Pamela Droll	938	115,676	Financial Secretary, Monocacy Elementary
Disler,Jacqui Ly	895	112,065	Financial Secretary, Urbana Middle

Results: It was determined that the above top ten purchase card users by total dollar amount and by frequency were appropriate based on their position and responsibilities.

D. Vendor Master File

We obtained the vendor master file for fiscal years 2018, 2019 and 2020. We performed the following analysis over the vendor master file:

1. Duplicate Vendors

We identified a significant number of vendor names on the vendor master file that appeared more than once. Per discussion with FCPS, the vendor master file report was created pulling the specific criteria from multiple data tables. When a vendor has multiple URLs, phone numbers, emails, locations, etc. a line is added to capture the information. The vendors aren't duplicate, but rather various pieces of information pulled from different data tables that resulted in duplicate lines, each line containing the additional information.

We also summarized the vendor master file by vendor address. Because vendors are listed more than once on the vendor master file as noted above, a significant number of addresses appeared more than once. We selected a sample of addresses with multiple records to test whether company name was the same. We noted one instance in which there were multiple vendor names with the same address. Per discussion with FCPS, all of vendor names are part of the same company and have the same tax identification number. We obtained vendor maintenance screenshots to corroborate that the tax identification numbers were the same for each vendor. We also obtained vendor payment history and noted that only vendor 1799 has ever received any payment. Lastly, only vendor 1799 is active. The remaining vendors are inactive.

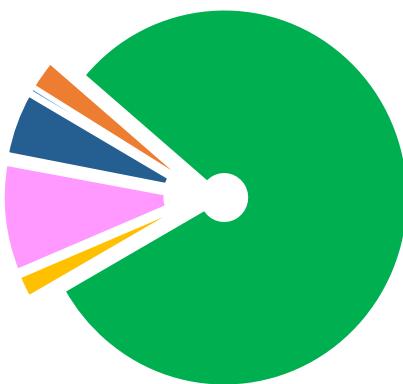
Company Name	Vendor Number	Address	City	State	Country
Pearson Education Inc	1799	PO BOX 409496	ATLANTA	GA	USA
Celebration Press	3239	PO BOX 409496	ATLANTA	GA	USA
Globe Fearon Publishing	3240	PO BOX 409496	ATLANTA	GA	USA
Modern Curriculum Press Inc	3242	PO BOX 409496	ATLANTA	GA	USA
Dale Seymour Publications	8008	PO BOX 409496	ATLANTA	GA	USA
Scott Foresman	8082	PO BOX 409496	ATLANTA	GA	USA
Silver Burdett Company	8086	PO BOX 409496	ATLANTA	GA	USA
Pearson Learning Group (I)	10843	PO BOX 409496	ATLANTA	GA	USA
Pearson Education Technologies (I)	11390	PO BOX 409496	ATLANTA	GA	USA
Pearson Skylight	11509	PO BOX 409496	ATLANTA	GA	USA

2. Vendors with Missing Information

We extracted the vendors with missing information (address, tax identification number, contact person, etc.) from the Vendor Master File.

Results: There were eight vendors with missing addresses. Per discussion with FCPS, six of these vendors were all debarred through the Federal Government website System for Award Management (SAM); therefore, these vendors were inactivated in Peoplesoft dating back to 2001. Two of these vendors were inactivated during the software conversion from the Legacy System to the Peoplesoft System (2000/2001).

There were 23,483 vendors with missing tax identification numbers (TIN). FCPS reviewed a random sample of 731 vendors, citing the following:



- A (3) Vendors for internal FCPS use only no TIN number of W9 required.
- B (18) Reimbursements set up with social security numbers - procedure has changed & these vendors were inactivated
- C (589) These are prepaid lunch refunds, which do not require a TIN number or W9
- D (14) TIN number field missing the number and has been corrected.
- E (67) TIN Number was listed in Peoplesoft
- F (1) Inactivated 3/2021 - TIN information in Peoplesoft
- G (39) Inactivated Vendor - No TIN Information in Peoplesoft

Per FCPS, of the 23,483 records missing the tax identification number, there were 20,202 that were inactive and aged, when compared to the vendor master file report. The report is a point in time report so it could not be run for just a fiscal year. Also, based on the research sample, there were 67 tax identification numbers that were listed in People Soft that did not reflect on the vendor master file report. Per FCPS, when pulling from all the data tables, the report was pulling from the "withholdings" table. However, there are other areas within the vendor maintenance screens whereby the TIN could be listed.

We selected 1 sample for each category and obtained documentation confirming that the respective explanation provided was accurate:

Company Name	Vendor Number	Tax ID	Location	Vendor Status	Reason for no TIN
		NULL	MAIN	Active	For internal FCPS use only
Yvonne Johns (I)		NULL	MAIN	Inactive	Reimbursement vendor set-up using SSN (old policy). Vendor has been inactivated.
Karen Wylie		NULL	MAIN	Active	Prepaid lunch refund
Total Restoration Services Inc		NULL	MAIN	Active	W9 attached in system - TIN # field just missing the number
Quest Software Inc		NULL	MAIN	Active	TIN Number was listed in Peoplesoft in a field not included in report parameters.
Frederick Assn Of School Support Employees		NULL	MAIN	Active	Inactivated March 2021. Tin Information not picked up in report
Bulb Direct Inc		NULL	MAIN	Inactive	Inactivated Vendor

3. Active Vendors not Paid in 3 Years

We identified 618 vendors that are listed as active but have not had a payment in over 3 years. FCPS reviewed 203 vendors in this category and there are several explanations as noted below:

- a. There are a few "financial" type vendors whereby FCPS processes ACH's to remit payroll deductions. These are kept active as a back up to ensure payroll related information can be processed (in the event of a system outage, etc.).
- b. Many of the vendors are used by schools. Payments were processed through School Cash Online throughout the year. Vendors that meet the 1099 vendor criteria are added as vendors in Peoplesoft Finance to help with 1099 reporting. In order to process and issue 1099's the vendors need to be added.
- c. Several vendors were parents that were requesting a refund on their child's lunch account. This can occur when seniors are graduating, students move out of district, decision was made to home school, or more funds were provided than the child was using for school lunches.

The purchasing department reviews the vendor master file periodically and will deactivate vendors with no activity in the past 24 months with the exception of those with special circumstances such as those noted above. Per discussion with FCPS, going forward the school system is considering deactivating all vendors with no activity within 24 months as the reactivation process is not complex and a new W-9 should be obtained.

4. Vendor Master File Comparison to Employee Master File

We compared the employee listing to the vendor master file to determine if any employee's information matches vendor information. There were 325 instances in which a vendor address matched an employee address and 38 instances in which a vendor phone number matched an employee phone number. Explanations for a sample selected for inquiry included:

- a. Employees that were set-up as vendors for employee reimbursements (mileage)
- b. Employees that were set-up as vendors related to refunds (i.e. refund prepaid school meals & career camp refunds)
- c. Retired employees who receive medial subsidies
- d. Employee that was hired as a consultant (this vendor has been inactive since 2011)

We noted that these explanations appeared reasonable for a local school system.

Samples:

Matching Addresses	Employee ID	Vendor ID	Explanation
8400 Bowman Farm Road	226		Retired employee who receives silverscript subsidies for disabled dependent.
PO Box 146	741		Same PO Box Number but different State.

Matching Addresses	Employee ID	Vendor ID	Explanation
8302 Water Street Rd	1070		Individual was employed by the school less than a month. Operates a charter bus and was contracted by the school system. Was not an employee and vendor at the same time.
1809 Rustic Hill Court	3120		Employee who was reimbursed for a CDL License in 2001. Both employee and vendor are inactive.
6810 Morrow Way	3159		Vendor received one payment for video services In-Service in 2007 and was inactivated in 2009. Vendor is a spouse of a current/active employee. FCPS does not have a policy that prohibits an active employee's spouse from being a vendor as long as procurement was handled properly.

Matching Phone Numbers	Employee ID	Vendor ID	Explanation
3013715731	1796		Vendor was set-up to reimburse for software programming database. Vendor inactivated 2008.
3012934199	19104		Vendor was used prior to 2000 for the purchase of attendance scanners. Hired as employee in 2009.
3013718686	4484		Sole proprietor hired as a consultant. Payment made in 2006 & 2007. Vendor inactivated in 2011.
3018655228	1856		Vendor was set-up for career camp refund. Payment made 7/04. Vendor inactivated 4/05.

5. Disbursements to Vendor Master File Comparison

We performed an analysis to identify any vendors that were paid during fiscal years 2018, 2019 and 2020 that are not on the approved vendor master file. There were 5 vendors identified that received payment but were not on the vendor master file as follows:

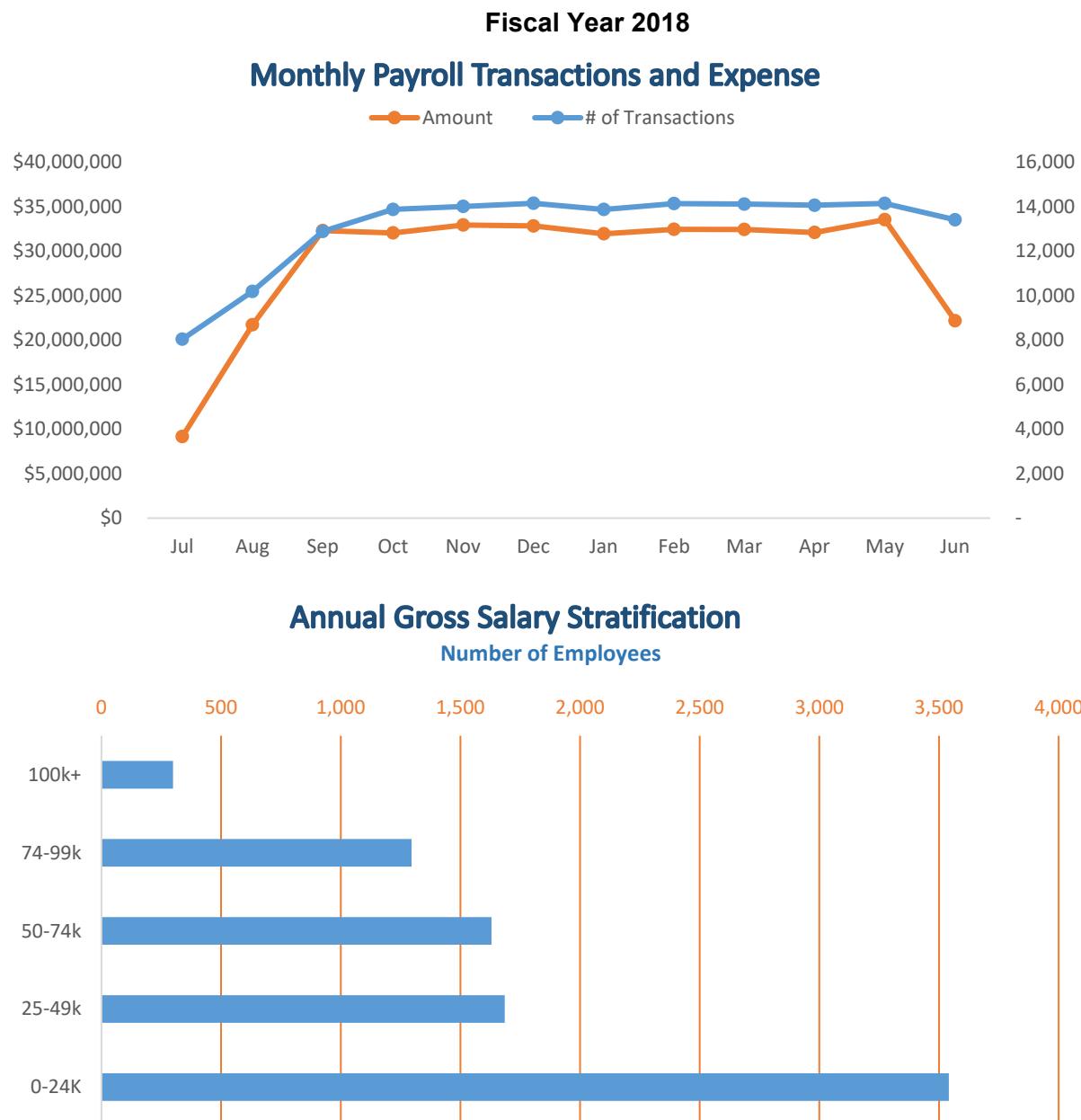
- a. Kristina Schmidt - Vendor name change occurred on 2/27/2019 to Kristina McGrath (Supplier Number 19665)
- b. Michelle A Searle - Vendor name change occurred 3/28/2019 to Michelle A. Kim (Supplier Number 19413)
- c. Ms. Laurie's Daycare - This is the Doing Business As (DBA) name. Vendor is listed as Laurie Arnold (Supplier 16986)
- d. Regional Institute For Children & Adolescents - This is the DBA name (along with RICA). Vendor is listed as Maryland Department of Health (Supplier 8118)
- e. Silvia M. Moreyra - Vendor name change occurred on 10/8/2019 to Silvia Karin Munoz-Salomon (Supplier Number 18479)

We noted that these explanations appeared reasonable for a local school system.

E. Payroll Disbursements

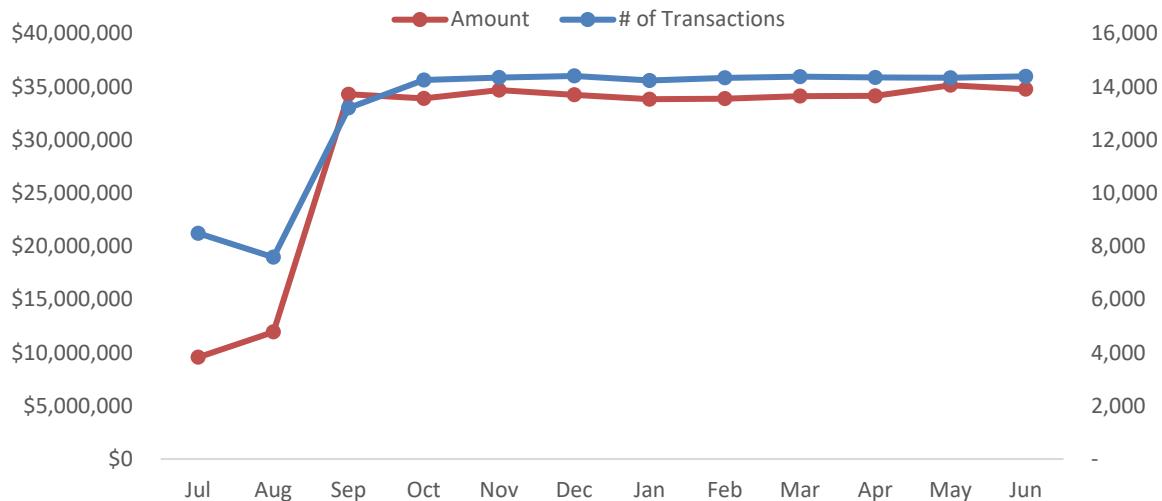
1. Payroll by Month and Payroll Stratification

The below graphs represent an analysis of the payroll disbursement population. FCPS disburses approximately \$30 million dollars a month to more than 8,000 employees and over 13,000 transactions. Generally, we expect salary expense and number of transactions by month to be highly correlated. We also expect to see the total disbursed per month to be consistent through the year except for mid-June to Mid-August, as there are many 10-month employees within the school system, that would not be paid during these times. In addition, we generally expect to see more individuals at lower annual salaries.



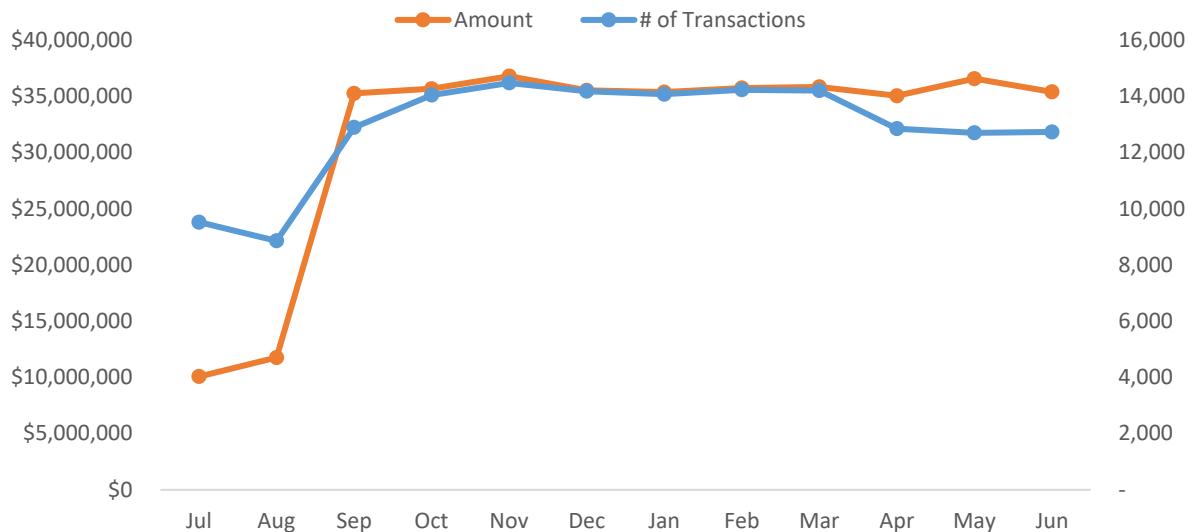
Fiscal Year 2019

Monthly Payroll Transactions and Expense



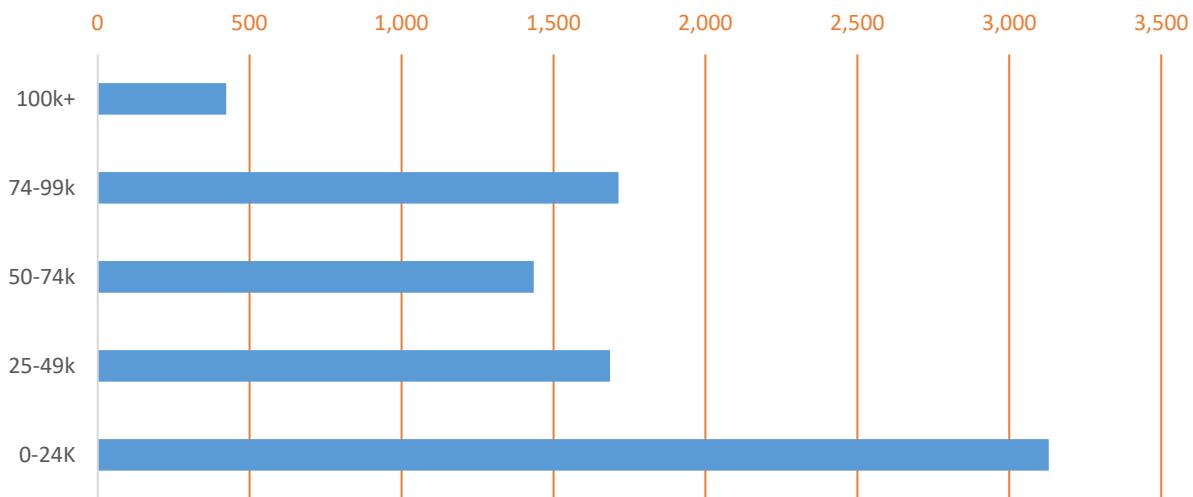
Fiscal Year 2020

Monthly Payroll Transactions and Expense



Annual Gross Salary Stratification

Number of Employees

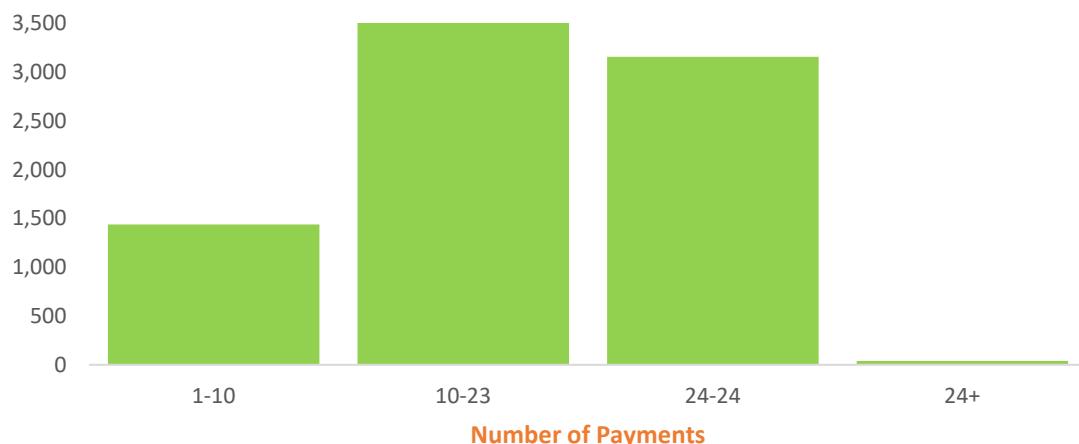


Results: The months of mid-June to mid-August were significantly lower than other months, as expected for fiscal year 2018. However, payroll for the month of August for fiscal year 2018 was significantly higher than August of fiscal years 2019 and 2020. Per FCPS, this is due to the fact that in fiscal year 2019, FCPS decided to change transportation payroll to be 1 pay period behind, meaning the disbursement would occur in September going forward and therefore the month of August would subsequently have lower payroll totals. Lastly, the month of June 2018 had a lower amount of total payments compared with June 2019 and 2020. This was due to the fact that the school system began school after Labor Day in 2019 and 2020. This resulted in an extra payroll date in June 2019 and 2020 that did not exist in June 2018. The annual gross salary stratification was comparable between fiscal years 2018, 2019 and 2020.

2. Pay Frequency by Employee

The following analysis reviews the frequency of pay by individual. For FCPS, there are 20 pay periods per year for 10-month employees, 22 pay periods for 11-month employees and 24 pay periods for 12-month employees. Therefore, we would expect the number of payments per employee be equal to or less than 24 per year. Per discussion with FCPS, events that could result in a greater than expected number of pays includes leave cash out, stipends, worker's compensation adjustments, bonus incentive, incentive rewards, and/or issued replacement checks.

Fiscal Year 2018
Pay Frequency by Employee



Results: There were 39 employees who received more than 24 payments. 10 of the 39 employees that received more than 24 payments were selected for inquiry. We noted 7 employees exceeded 24 payments related to workers compensation adjustments, 2 employees received replacement checks and 1 employee received a bonus incentive check in addition to their normal payroll checks. Explanations appeared reasonable.

Fiscal Year 2019
Pay Frequency by Employee



Results: There were 41 employees who received more than 24 payments in fiscal year 2019. 10 of the 41 employees that received more than 24 payments were selected for inquiry. We noted 8 employees exceeded 24 payments related to workers compensation adjustments, 1 employee received a garnishment refund and 1 employee received a bonus incentive check in addition to their normal payroll checks. Explanations appeared reasonable.

Fiscal Year 2020

Pay Frequency by Employee



Results: There were 388 employees who received more than 24 payments. 25 of the 388 employees that received more than 24 payments were selected for inquiry. We noted 10 employees exceeded 24 payments related to workers compensation adjustments, 14 employees received a sick leave cash out that was offered and processed as a separate check and 1 employee received a direct deposit replacement.

Fiscal year 2020 had more employees than usual that received more than 24 payments. Per discussion with FCPS, the vacation leave cash-out program, which is offered in April and November was opened to the support and administrative groups and greatly increased the quantity of these type of payments.

3. Employees with Multiple Employee Numbers

We summarized the payroll population by employee name and employee identification number to identify any employee name for which there are multiple employee identification numbers.

Results: In FY18 and FY19, there were 4 records that had the same full name but two different employee numbers. In FY20 there were 3 records that had the same full name and two different employee numbers. We inquired concerning employees with the same name and different employee numbers. In each instance, the employees had the same name but were differentiated by their social security numbers. In one case, there was a father and son with the same name that both worked for the school system.

4. Top 10 Compensated Employees

We reviewed the employee file for the ten highest paid employees, and then compared the salaries earned to the job title for reasonableness. We expect that executives and upper level management would have the highest salaries during the year.

Fiscal Year 2018

ID	Name	Amount	Position
20805		\$ 241,207.00	Superintendent
16495		183,557.00	Chief Financial Officer
2015		180,370.00	Executive Director Accelerated Achievement & Equity
4919		180,299.00	Chief of Staff & Legal Counsel
1894		180,099.00	Transportation Manager: Retired with Large Payout
1144		179,580.00	Executive Director: Human Resources Administration
1661		178,875.00	Executive Director: Retired with Large Payout
3103		177,463.00	Deputy Superintendent
1153		175,938.00	Director School Administration
21893		172,761.00	Director School Administration

Fiscal Year 2019

ID	Name	Amount	Position
20805		\$ 244,200.00	Superintendent
975		214,538.00	Principal at Rock Creek School: Retired with Large Payout
16495		190,392.00	Chief Financial Officer
2015		188,035.00	Executive Director Accelerated Achievement & Equity
1661		185,775.00	Executive Director: Retired and had large payout
3103		185,353.00	Deputy Superintendent
4919		184,641.00	Chief of Staff & Legal Counsel
1153		176,210.00	Director School Administration
21893		174,123.00	Director School Administration
1144		174,400.00	Executive Director Human Resources Administration: Retired with Large Payout

Fiscal Year 2020

ID	Name	Amount	Position
20805		\$ 255,456.00	Superintendent
15852		231,967.00	Curriculum specialist: Employee retired 5/31/20 and received payouts for vacation (ALP) of \$19,899 and sick leave payout (TLP) of \$95,380. Prior to retirement, employee also cashed in vacation leave in the amount of \$3,980, as allowed by the negotiated agreement/contract.
5090		226,508.00	Principal at Middletown High School: Retired with Large Payout
16495		201,457.00	Chief Financial Officer
2015		198,568.00	Executive Director Accelerated Achievement & Equity
4919		197,211.00	Chief of Staff & Legal Counsel
3103		194,140.00	Deputy Superintendent
26102		185,485.00	Chief Operating Officer
1153		183,914.00	Director School Administration
21893		182,452.00	Director School Administration

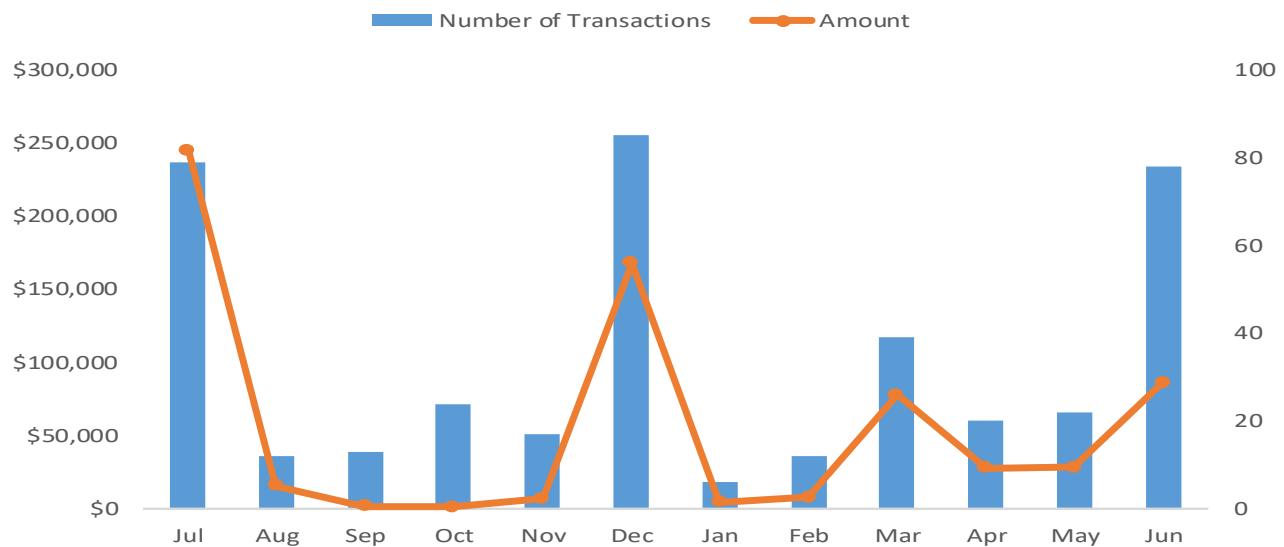
Results: Top ten employees per year appears reasonable based on position and leave payouts. We obtained and reviewed expense distribution reports which noted terminal leave and vacation payouts for employees for which a payout is indicated above.

5. One-Time Payments

We identified one-time payments that occurred during the year, typically the infrequency of the payments makes these transactions higher risk.

Fiscal Year 2018

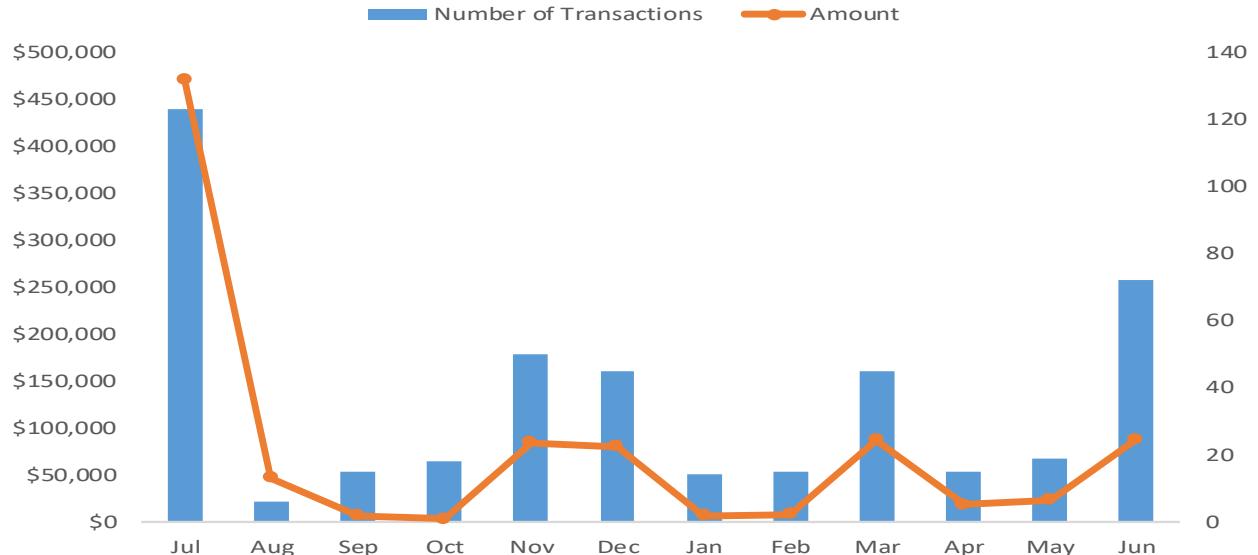
Amount and Number of One Time Payouts



Results: During fiscal year 2018, there were 410 one-time payments. We selected a sample of 25 payments and inquired as to the nature of the payment with FCPS. Explanations included substitute teacher payments, coaches who only had activity pay, termination leave payouts, a stipend for a band director, temporary food service workers, and Special Education Instructional Assistants with limited hours. Explanations received for one-time payments coincide with normal school operations.

Fiscal Year 2019

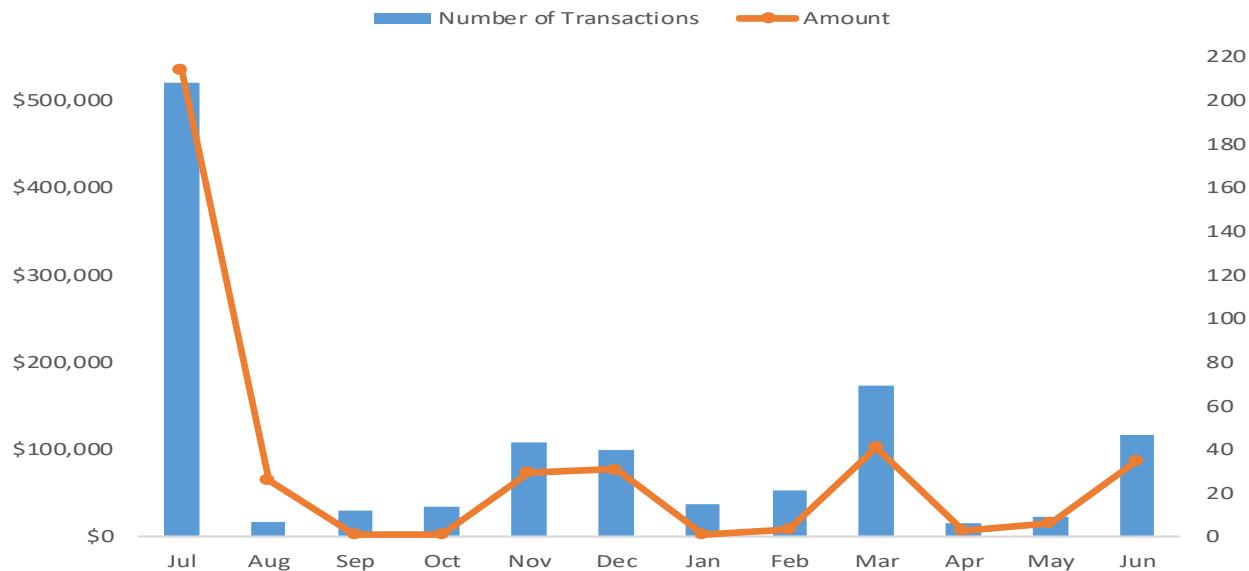
Amount and Number of One Time Payouts



Results: During fiscal year 2019, there were 438 one-time payments. We selected a sample of 25 payments and inquired as to the nature of the payment with FCPS. Explanations included substitute teacher payments, coaches who only had activity pay, terminal leave payouts, work study for learning for life students who worked 5.5 hours, security guard who only worked 4 hours, and Special Education Instructional Assistants who worked limited hours. Explanations received for one-time payments coincide with the normal school operations.

Fiscal Year 2020

Amount and Number of One Time Payouts



Results: During fiscal year 2020, there were 492 one-time payments. We selected a sample of 25 payments and inquired as to the nature of the payment with FCPS. Explanations included substitute teacher payments, coaches who only had activity pay, activity pay for drama, food service worker who worked limited hours, termination leave payouts, life guard who only worked during one pay period, and a security guard who only worked during one pay period. Explanations received for one-time payments coincide with normal school operations.

6. Employees Paid Multiple Checks in One Pay Period

During the period of July 1, 2017 to June 30, 2020, there were 549 instances where employees were paid more than once in a single pay period. A sample of 50 was selected for inquiry. Explanations included:

- Workers compensation adjustments, in addition to regular pay
- Pay out of annual leave for employees who moved to 10 -month positions
- Off-cycle checks for late timesheets, in addition to regular pay
- Vacation leave cash out, in addition to regular pay
- Paychecks that required reversal and re-issuance to correct errors

Notably, 437 of 549 of the instances occurred in fiscal year 2020 and related to the vacation leave cash-out program which is offered in April and November. Per discussion with FCPS, the program was opened to the support and administrative groups, which greatly increased the quantity of these type of payments.

7. Large Dollar Paychecks

We performed a stratification on payroll activity by employee to determine if there is any unusual activity. We would not expect to see any individual payroll disbursements over \$10,000. Below are the total number of payments by fiscal year of payments over \$10,000.



Results: It was determined that the largest paychecks, which were in excess of \$30,000 were all related to retirement leave payouts.

8. Gap Detection

We ran a gap detection on the payment number sequence to determine if there were any payments/checks missing from the registers we were provided.

Results: No gaps were noted in the payment number sequence for payroll disbursements.

9. Gross and Net Pay Equal

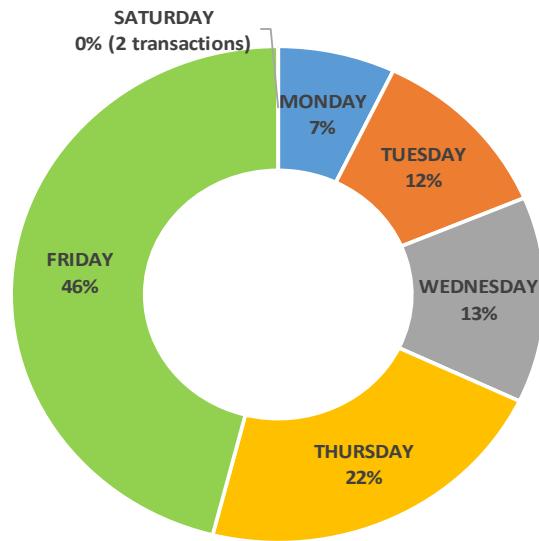
We ran an analysis to determine if there were any payroll checks in which the gross pay and net pay were equal. This will allow us to determine if there were any checks in which payroll taxes were not being withheld.

Results: There were 439, 747, and 347 transactions in fiscal years 2018 2019 and 2020, respectively, where the gross and net pay were equal. We inquired regarding the relationship between gross and net pay for these instances and explanations included non-taxable reimbursement, workers compensation adjustments, and exempt student earnings. Explanations received coincide with normal school operations.

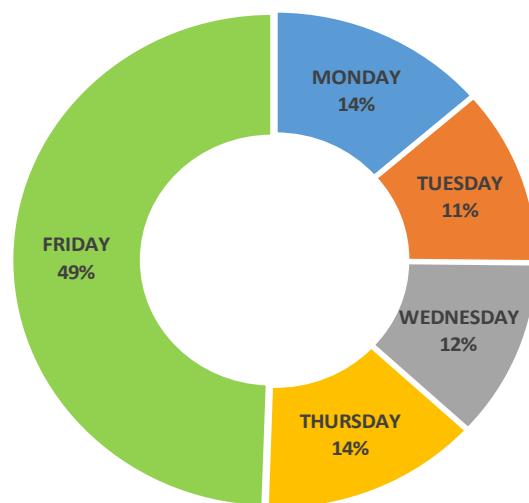
10. Weekend Payroll Checks

We summarized the payroll check register by dollar amount for each day of the week to identify any checks issued outside normal the work days of Saturday and Sunday.

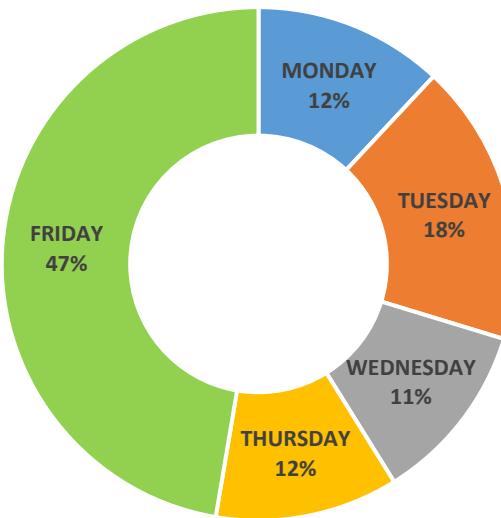
Fiscal Year 2018
Payroll Disbursements by Day the Week
(Number of Transactions)



Fiscal Year 2019
Payroll Disbursements by Day the Week
(Number of Transactions)



Fiscal Year 2020
Payroll Disbursements by Day the Week
(Number of Transactions)



Results: In fiscal year 2018, there were 2 checks with dated on a Saturday. However, they had an amount listed for gross pay of zero with actual amounts listed for net pay. We inquired regarding these two checks as well has the relationship between gross and net pay. These checks were direct deposits that were returned and re-issued with manual checks. As such, taxes were already deducted from the original direct deposit attempt. The checks were dated to correspond with the scheduled pay date of 12/30 even though the rest of checks related to the 12/30 pay date were dated 12/29 (Friday) because the 30th fell on a Saturday. There were no weekend payroll disbursements noted in fiscal years 2019 and 2020. Explanation appears reasonable.

11. Employees paid who were not on Employee Master File

We combined the payroll registers for fiscal years 2018, 2019 and 2020 and compared the combined database to the employee master file. We noted the following employees who received a paycheck that were not in the employee master file:

Name	Employee ID	Check Date	Check Number	Gross Pay	Net Pay	EE Terminated	Payment Reason
	26193	7/14/2017	A000000002071122	\$ 1,156.10	\$ 843.68	6/20/2017	Supplemental Earnings
	25288	7/14/2017	A000000002068056	708.43	625.41	6/24/2017	Sick Leave Payout
	26798	7/14/2017	416222	652.20	529.79	6/30/2017	Supplemental Earnings
	26786	7/14/2017	A000000002071069	108.70	100.38	6/19/2017	Supplemental Earnings
	24456	7/14/2017	416137	6.00	5.35	5/23/2017	Comp Time Payout

Results: There were 5 employees who received payment despite the fact that they were not on the employee master file. Per discussion with FCPS, these individuals all terminated in fiscal year 2017 and had supplemental earnings or accrued leave through June 30, 2017 (Fiscal Year 2017) that was paid in July 2017 (Fiscal Year 2018). This is consistent with operations at local school systems.