



OFFICE OF FINANCIAL AND PROGRAM AUDIT SEPTEMBER 2022 DRAFT QUARTERLY REPORT

**BOARD OF SUPERVISORS
AUDITOR OF THE BOARD**

www.fairfaxcounty.gov/boardauditor

Fairfax County
Office of Financial and Program Audit
Draft



Jim L. Shelton, Jr., MBA, CRP (Auditor of the Board)
Jim.Shelton@FairfaxCounty.gov

Fairfax County
Office of Financial and Program Audit
Draft
Table of Contents

REPORT ABSTRACT.....	4
DIT FOLLOW UP EXTERNAL SYSTEM PROCURED BY AGENCIES (USING P-CARDS)	5
MUTUAL AID AGREEMENT (MAA) POLICE AND FIRE & RESCUE SERVICE STUDY	8
• MAA/EMS NON-COUNTY RESIDENT GROUND TRANSPORTS CLAIM BILLINGS ANALYSIS	12
• MAA/EMS NON-BILLED NON-COUNTY RESIDENT TRANSPORTS ANALYSIS	15
• EMS CONTRACTORS DATA ENTRY ERRORS ANALYSIS FOR NON-COUNTY RESIDENTS' TRANSPORTS.....	18
• MAA/EMS BILLING CONTRACTORS PROCESSING TIME ANALYSIS FOR NON-COUNTY RESIDENTS' TRANSPORT	20
• HELICOPTER LAW ENFORCEMENT TRIPS ANALYSIS	21
• HELICOPTER DIVISION NON-COUNTY RESIDENT MEDEVAC TRIPS	23
EMERGENCY MEDICAL SERVICES (EMS).....	24
• EMS COUNTY RESIDENT GROUND TRANSPORT CLAIM BILLINGS ANALYSIS	28
• EMS NON-BILLED COUNTY RESIDENT TRANSPORTS ANALYSIS	30
• EMS CONTRACTORS DATA ENTRY ERRORS ANALYSIS FOR COUNTY RESIDENTS' TRANSPORTS	33
• EMS BILLING CONTRACTORS PROCESSING TIME ANALYSIS FOR COUNTY RESIDENTS' TRANSPORT	36
• EMS VEHICLE REPLACEMENT ANALYSIS	37
• HELICOPTER DIVISION COUNTY RESIDENT MEDEVAC TRANSPORTS	40
ADDENDUM.....	41
LIST OF ACRONYMS.....	43

**Fairfax County
Office of Financial and Program Audit**

Draft

REPORT ABSTRACT

Working under the guidance and direction of the Audit Committee (AC), the Auditor of the Board provides an independent means for assessing management's compliance with policies, programs and resources authorized by the Board of Supervisors (BOS). Further to this process, efforts are made to gain reasonable assurance that management complies with all appropriate statutes, ordinances, and directives.

This agency plans, designs, and conducts studies, surveys, evaluations, and investigations of County agencies as assigned by the BOS or the AC. For each study conducted, the agency focuses primarily on the County's Corporate Stewardship vision elements. The agency does this by developing, whenever possible, information during the studies performed which are used to maximize County revenues or reduce County expenditures.

To assist the Office of Financial and Program Audit (OFPA) with executing the responsibilities under our charge, members of the Fairfax County BOS submit study recommendations of which the findings and management responses are included in published studies. This process is utilized to provide the constituents, BOS and management reasonable assurance that fiscal and physical controls exist within the County.

Additionally, this agency conducts follow-up work on prior period studies. As part of the post study work conducted, we review the agreed upon managements' action plans. To facilitate the process, we collaborate with management prior to completion of studies. Through this collaboration, timelines for the implementation of corrective action and status updates are documented for presentation at the upcoming AC Meetings.

The results of studies may not highlight all the risks/exposures, process gaps, revenue enhancements and/or expense reductions which could exist. Items reported are those which could be assessed within the scheduled timeframe, and overall organization's data-mining results. The execution of the OFPA's studies is facilitated through various processes such as sample selections whereby documents are selected, and support documentation is requested for compliance and other testing attributes. Our audit approach includes interviewing appropriate staff and substantive transaction testing. OFPA staff employs a holistic approach to assess agencies/departments whereby the review is performed utilizing a flow from origination to closeout for the areas under review.

There are several types of studies performed by OFPA, e.g., operational, financial, compliance, internal controls, etc. To that end, it is important to note; OFPA staff reserves the option to perform a holistic financial and analytical data-mining process on all data for the organization being reviewed where appropriate. This practice is most often employed to perform reviews for highly transactional studies.

DIT Follow up External System Procured by Agencies (Using P-Cards)

Gregory Scott (Director, DIT)
September 20, 2022

**Fairfax County
Office of Financial and Program Audit**

Draft

Overview

In the March 2022 Audit Committee quarterly report, OFPA identified several areas for enhancement in the oversight of external systems procured by the County's agencies with P-Cards. Some systems procured by these agencies have not been interfaced with FOCUS whereby manual journal entry uploads are required. Several systems are operating without disaster recovery modes, these items are operating without adequate data backup. The external system inventory file used for oversight has a considerable amount of missing information of which the onus is on the agency to provide to DIT to monitor these items.

- **Active Critical Systems Not Interfaced to FOCUS**

Management agrees with the recommendation. The FOCUS team will work with each respective agency to understand the 15 external system's financial functions.

- **Status:** The FOCUS team is working with each respective agency to understand the 15 external system's financial functions, confirm their current method to posting financial transactions to FOCUS (such as manual journal entry (JE) or the JE Upload tool) and determine the necessity and feasibility of creating an automated interface to FOCUS. Once information is gathered, the external system inventory will be updated, and the FOCUS team will coordinate with the respective agencies to plan and schedule the agreed upon interface builds. Review in progress; target due date is 10/31/22.

- **Active Critical Systems w/o Disaster Recovery (DR) Mode**

Management agrees with the recommendation. DIT will review and update the system inventory to reflect those systems that have disaster recovery in place.

- **Status:** Completed. Identified systems have an SLA in place for DR either on-premises or on cloud.

- **External Systems w/FOCUS Functionalities**

Management agrees with the recommendation. DIT and the FOCUS Team will liaise with the respective agencies to better understand the 6 systems core functionalities and whether those can be performed in FOCUS.

- **Status:** DIT and the FOCUS Team are working with the respective agencies to better understand the 6 systems core functionalities and whether those can be performed in FOCUS. On initial review, most of the 6 systems provide agency/industry specific functionality, such as healthcare management, that is not a function of FOCUS. Since these systems may also perform some financial subfunctions, we will discuss and determine if any additional interfacing is needed with FOCUS. Review in progress; target due date is 10/31/22.

- **Active Systems w/Expired Vendor Dates and Costs**

Management agrees with the recommendation. DIT is actively reviewing and updating contract expiration date.

- **Status:** Completed.

**Fairfax County
Office of Financial and Program Audit**

Draft

- Incomplete External Systems Inventory Tracker Agency Reported
Management agrees with the recommendation. DIT will review and update the External Systems Inventory Tracker for completeness.

➤ **Status:** Instead of a moratorium on the procurement of systems with a Pcard, DPMM has implemented a multifaceted education and outreach effort to curtail the procurement of systems with the Pcard. Efforts include reminders during Pcard Program Manager meetings, additional stress placed on this topic in PCard training, and additional emphasis on the topic in an upcoming release of an updated Pcard Procurement Technical Bulletin. The first round of outreach has occurred and education and outreach will be ongoing to ensure that all stakeholders are trained and remain aware of the policy. This recommendation is complete. IT Purchases is reflected in the updated 70-07 IT Policy, which will be released shortly.

- External Systems procured by Agencies (using P-cards)
A moratorium on the procurement of systems with a Pcard would mandate a moratorium of the entire Pcard program, which is cost prohibitive.

➤ **Status:** Instead of a moratorium on the procurement of systems with a Pcard, DPMM has implemented a multifaceted education and outreach effort to curtail the procurement of systems with the Pcard. Efforts include reminders during Pcard Program Manager meetings, additional stress placed on this topic in PCard training, and additional emphasis on the topic in an upcoming release of an updated Pcard Procurement Technical Bulletin. The first round of outreach has occurred, and education and outreach will be ongoing to ensure that all stakeholders are trained and remain aware of the policy. This recommendation is complete. IT Purchases is reflected in the updated 70-07 IT Policy, which will be released shortly.

Agency	System	Comments
Health and Human Services	Health and Human Services Customer Relationship Management	CRM is not a function of FOCUS
Health and Human Services	Health and Human Services Customer Relationship Management Internal	CRM is not a function of FOCUS
Department of family services	Web Harmony	FOCUS currently interfaces to Harmony. Harmony provides healthcare specific functionality not available in FOCUS. In addition, many healthcare systems manage highly sensitive information that should not be tracked in FOCUS.
Community Services Board	Allscripts Payerpath	Provides healthcare specific functionality not available in FOCUS. In addition, many healthcare systems manage highly sensitive information that should not be tracked in FOCUS. The FOCUS team will reach out to agency to determine if any financial automated interfacing is needed.
Department of Finance	Laserfiche	Laserfiche is a document management system. FOCUS is not a document management system, but rather should integrate with a document management system as it does with OpenText for Vendor Invoice Management. The FOCUS team will work with the agency to understand their use of Laserfiche and if any documents should be connected to FOCUS in any way.
Department of Finance	Conservice	FOCUS currently interfaces to Conservice (2 interfaces: County and Housing).Conservice is a 3rd party utility management company that provides services and functionality not available in FOCUS.

MUTUAL AID AGREEMENT (MAA)

POLICE AND FIRE & RESCUE SERVICE STUDY

Draft

OVERVIEW OF MUTUAL AID AGREEMENT

OVERVIEW AND UPDATES

The results of this study may not highlight all the risks/exposures, process gaps, revenue enhancements and/or expense reductions that could exist. Items reported are those which could be assessed within the scheduled timeframe, and overall organization's data-mining results. Office of Financial and Program Audit (OFPA's) studies are facilitated through several processes such as sample selections, compliance support documentation, and various testing approaches. There are several types of studies performed by OFPA, e.g.: performance, operational, financial, compliance, etc. To that end, it is important to note OFPA staff reserves the option to perform a holistic financial and analytical data-mining process on all data for the organization being reviewed where appropriate. This practice is most often employed to complete reviews for highly transactional studies.

We performed a review of the Northern Virginia Mutual Aid Agreement, through which Fairfax County cooperates with local law enforcement authorities during an emergency beyond the capacity of a signatory jurisdiction. Under this agreement, fire and rescue services (EMS and Helicopter transports) are provided in response to calls for surrounding jurisdictions. Other jurisdictions respond to calls in Fairfax County based on service needs or the closest available unit. The County participates in mutual response and automatic dispatch agreements with surrounding jurisdictions. The County owns and operates two Bell 429 helicopters to support law enforcement and Medevac trips. This study was performed to identify if opportunities exist for revenue enhancement or expenditure reduction.

Under the terms of the MAA, Helicopter Division provided a total of 429 trips to other jurisdictions in FY2021. Of these, only 10 were Medevac transports; the remaining 419 trips were conducted in support of law enforcement. Emergency Medical Services provided 56,703 transport services to non-County residents from FY2017-FY2021. Residents of other jurisdictions are billed for County EMS transports, provided that relevant billing information can be obtained from the patient.

We liaised with Helicopter Division and EMS staff throughout the review to align our understanding of the operations with actual practices.

MAA/EMS operates under Board of Supervisor settled policies, which provides approved operational guidance. With that, this Audit Committee approved the study, will in several instances, present areas identified as **BOS Settled Policy Description/Discussion Items** as opposed to **Observations** and **Recommendations**.

Fairfax County
Office of Financial and Program Audit
Draft

EMS Non-County Resident Billing Process: Benchmarking to Comparable Jurisdictions				
Jurisdictions	Non-County Resident Billings	% of Collections* in FY2021	Sent to Collections?	A/R Aging and Write-offs
Fairfax County	Non-Residents are billed. Outstanding bills are written off after 180 days.	80%	No	Receivables are aged 180 days before being written off.
Loudoun County	Non-Residents are billed. Outstanding bills are written off after 120 days.	74%	No	Receivables are aged 120 days before being written off.
Montgomery County	Data Not Available	65%	No	Data Not Available
Prince William County	Non-Residents are billed. Outstanding bills are written off after 280 days.	79%	No	Receivables are aged 280 days before being written off.
Arlington County	Non-Residents are billed. Outstanding bills are sent to collections after 150 days.	65%	Yes	Receivables are aged 150 days before sending to collections. Bills are not written off.
City of Alexandria	No Data Provided			
Prince George's County	No Data Provided			

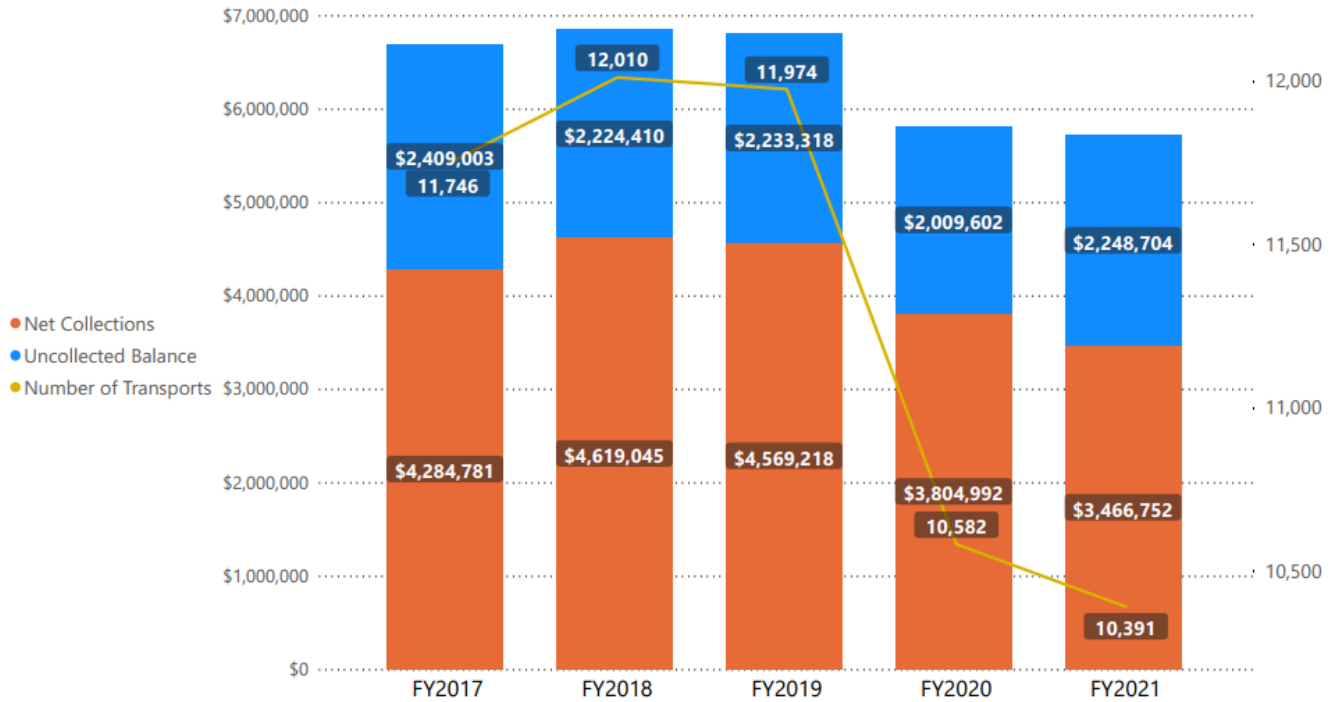
*Total County and Non-County Resident EMS Transports

Benchmarking: EMS Transport Fees by Jurisdiction							
Fee Description	Fairfax County	Loudoun County	Montgomery County	Prince William County	Arlington County	City of Alexandria	Prince George's County
Basic Life Support	\$500	\$467	\$400	\$400	\$500	\$400	\$500
Advanced Life Support 1	\$650	\$660	\$500	\$500	\$650	\$500	\$650
Advanced Life Support 2	\$800	\$770	\$700	\$675	\$850	\$850	\$750
Transport Charge per Mile	\$12	\$11	\$8.50	\$10	\$12	\$10	\$5

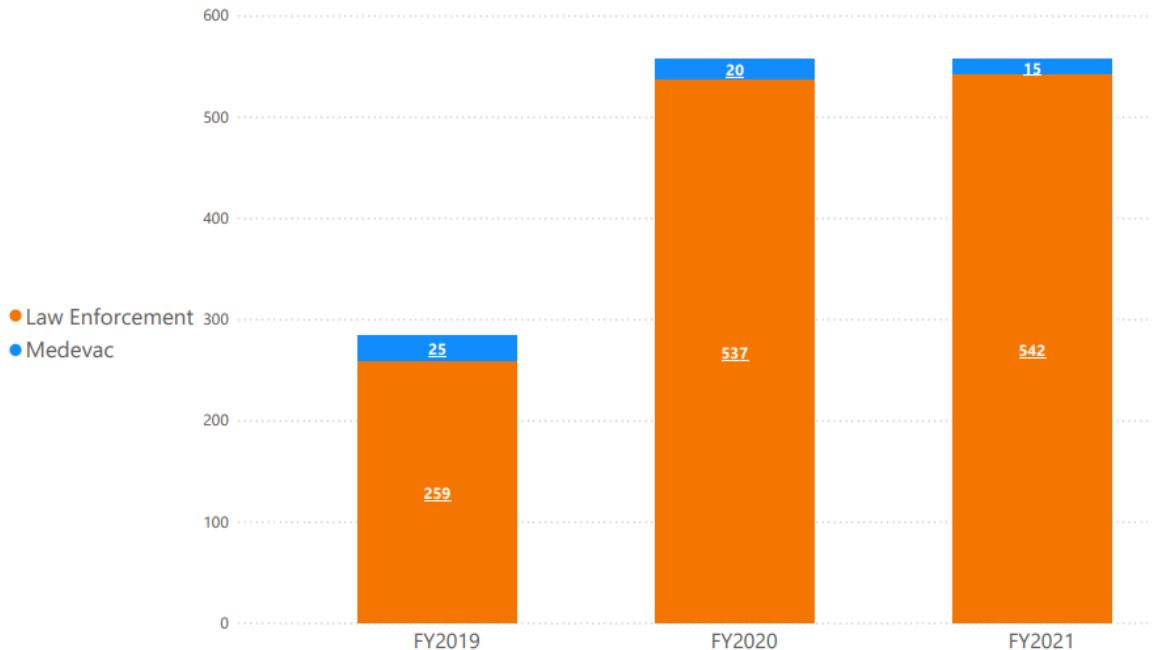
The graphs below indicate the summary data of MAA/EMS non-County resident collection and helicopter flight hours

Fairfax County
Office of Financial and Program Audit
Draft

MAA/EMS Non-County Resident Billing Collections and Number of Transports



Helicopter Division Flight Hours



The following tables detail the BOS Settled Policy Description/Discussion Items, observations and recommendations for this study along with management's responses.

STUDY AREA 1

MAA/EMS NON-COUNTY RESIDENT GROUND TRANSPORTS CLAIM BILLINGS ANALYSIS

BOS Settled Policy Item Description

We reviewed the MAA/EMS Transport Claim Billings to identify areas to enhance revenue and/or offset the operating costs for these services. Partners (local jurisdictions) in the MAA benefit financially from some of the County's practices. These practices also result in using the County's general fund to support the costs of services to the partner jurisdictions. The results of our analysis revealed two areas whereby collections are decreased through "Discounts" and/or "Uncollected Balances." There are two points of discussion we are raising in relation to these items:

- Write-off of claims aged past 180 days, and
- The lack of effort to participate in the collection of aged claims after 180 days.

As purported by EMS management, approval to discharge claim receivables after 180 days is in alignment with the direction of the Board of Supervisors. We could not locate documentation to support this assertion. The table and graph below detail the average annual discounts and uncollected monies (~\$3.5M or 46% of Gross Charges), and five-year discount and uncollected monies (~\$17.4M or 46% of Gross Charges) dollar magnitude of revenue that has been discharged. Given the consistency in this five-year trend, the monies will continue to be discharged resulting in the ongoing support of our MAA partners at the cost of the County's general fund.

MAA/EMS Transports to Other Jurisdictions vs. Transports Received, FY2019-FY2021			
	Aid Received from Other Jurisdictions	Aid Given to Other Jurisdictions	Net
Number of Transports:	24,949	34,731	(9,782)
Gross Charges*	\$16,740,779	\$23,304,501	(\$6,563,722)
Net Charges**	\$14,021,338	\$19,518,822	(\$5,497,484)

*Average Gross Charge of EMS Transport is \$671

**Average Net Charge of EMS Transport is \$562

We identified a rate of uncollected balance to net charges of 35% from FY2019-FY2021. Thus, the estimated uncollected net charge available for potential recovery is $\$5,497,484 * 35\% = \$1,924,119$ over 3 years.

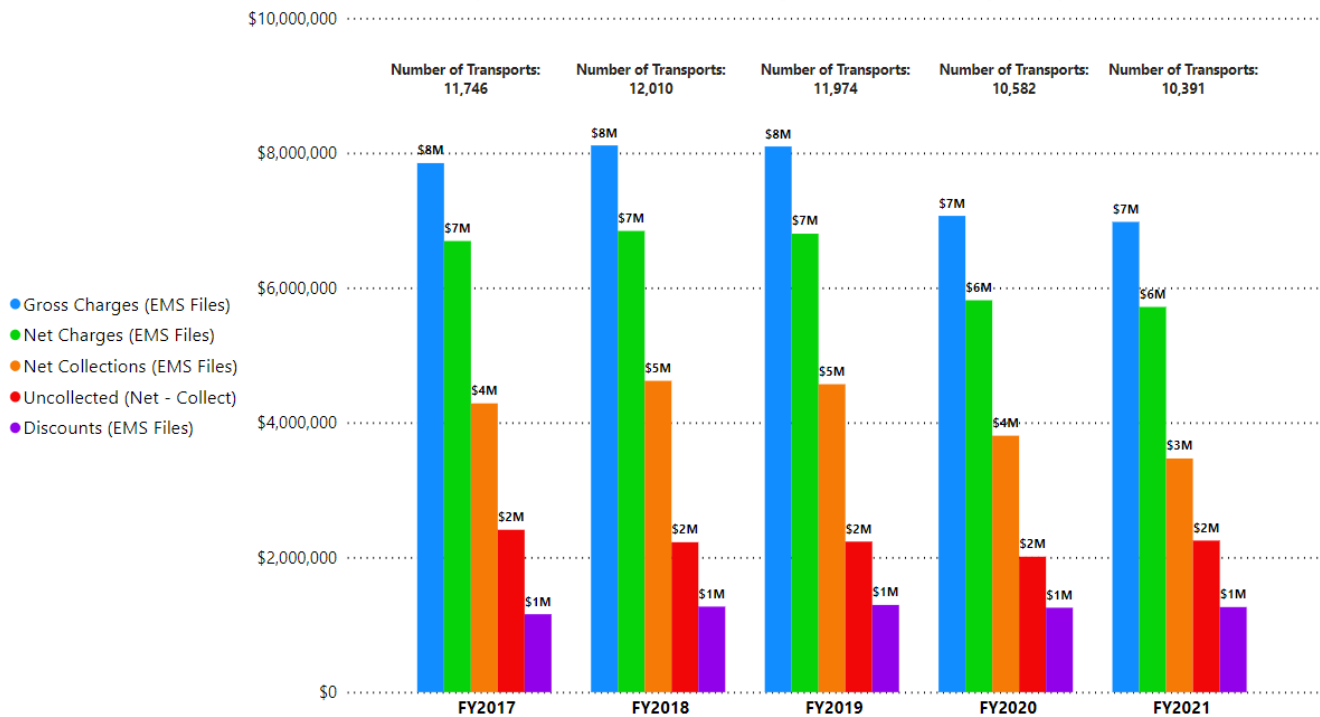
Fairfax County
Office of Financial and Program Audit
Draft

The table and graph below highlight further exposure from Non-County Resident EMS transports.

MAA/EMS Non-County Residents* Ground Transports Claim Billings Analysis						
Number of Transports	11,746	12,010	11,974	10,582	10,391	56,703
Financial Activity	FY2017	FY2018	FY2019	FY2020	FY2021	Total
Gross Charges (EMS Files)	\$7,849,934	\$8,112,502	\$8,096,631	\$7,067,041	\$6,977,505	\$38,103,613
Discounts (EMS Files)	(\$1,156,149)	(\$1,269,047)	(\$1,294,095)	(\$1,252,447)	(\$1,262,048)	(\$6,233,787)
Net Charges (EMS Files)	\$6,693,785	\$6,843,455	\$6,802,536	\$5,814,594	\$5,715,457	\$31,869,826
Net Collections (EMS Files)	\$4,284,781	\$4,619,045	\$4,569,218	\$3,804,992	\$3,466,752	\$20,744,789
Uncollected Balance (Net - Collect)	\$2,409,003	\$2,224,410	\$2,233,318	\$2,009,602	\$2,248,704	\$11,125,037
Discounts / Gross Charges	15%	16%	16%	18%	18%	16%
Net Collections / Net Charges	64%	67%	67%	65%	61%	65%
Uncollected Balance / Net Charges	36%	33%	33%	35%	39%	35%

*Based on Patient Resident Status

MAA EMS Non-County Residents Ground Transports Claim Billing Analysis



Fairfax County
Office of Financial and Program Audit
Draft

BOS Settled Policy Item Discussion

Given the Board of Supervisors' settled policies under which these EMS services are provided, OFPA is not recommending a remedy to recover the financial exposure reported in this study. This data provided is presented for advisory purposes.

With that, I respectfully mention (*without recommendation*) that the extension of collection times and efforts through our contracted collection vendor Nationwide Credit Corporation (NCC) could extend the recognition of partner jurisdictions' ground transport receivables on our books and may reduce some of the revenue leakages.

DRAFT

STUDY AREA 2

MAA/EMS NON-BILLED NON-COUNTY RESIDENT TRANSPORTS ANALYSIS

Observation

We reviewed EMS transports to non-residents of the County that were never billed due to unidentifiable patient information. EMS management asserts these non-billed transports were a combination of Patient Identifiable Information (PII) that could not be obtained, or the patient did not meet medical necessity for transport, or worker's compensation, or other reasons not specified. In these instances, the patient cannot be billed for the transport.

OFPA identified **12,087** such transports from FY2017-FY2021. The gross charges for these transports were **~\$7.9 million**; all of these charges were uncollected. Inova Fairfax Hospital processed **4,081** transports from FY2017-FY2021. The gross charges for these transports were **~\$2.7 million**. The top 5 hospitals by incident count (Inova Fairfax Hospital, Reston Hospital Center, Inova Alexandria Hospital, Mount Vernon Hospital, and Inova Fair Oaks Hospital) combined for **9,569** transports and **~\$6.3 million** in gross charges.

The tables below detail the financial exposures resulting from these transports.

MAA/EMS Non-County Residents* Non-Billed Ground Transports		
Fiscal Year	Amount (\$)	Count
FY2017	\$1,778,469.60	2,738
FY2018	\$1,664,369.20	2,529
FY2019	\$1,534,412.00	2,306
FY2020	\$1,409,698.40	2,164
FY2021	\$1,551,745.20	2,350
Total	\$7,938,694.40	12,087

**Footnote: Based on patient's resident status*

Fairfax County
Office of Financial and Program Audit
Draft

MAA/EMS Non-County Residents* Ground Transports w/o Billings Due to Unidentifiable Patient Information or Other Designations as Asserted by EMS		
Hospital	Total (FY2017-FY2021)	
	Amount (\$)	Count
INOVA FAIRFAX HOSPITAL	\$2,739,968.00	4,081
RESTON HOSPITAL CENTER	\$1,238,352.40	1,888
INOVA ALEXANDRIA HOSPITAL	\$802,095.60	1,243
MOUNT VERNON HOSPITAL	\$775,939.20	1,221
INOVA FAIR OAKS HOSPITAL	\$735,752.80	1,136
VIRGINIA HOSPITAL CENTER	\$697,242.00	1,055
SPRINGFIELD HEALTHPLEX	\$323,245.60	525
INOVA LORTON HEALTHPLEX	\$232,421.20	378
STONE SPRING EMERGENCY CTR	\$87,406.00	126
FAIRFAX EMERGENCY CARE CTR	\$52,374.40	82
SENTARA NORTHERN VA MED CTR	\$50,056.40	73
PRINCE WILLIAM HOSPITAL	\$40,064.80	50
LOUDOUN HOSPITAL CENTER	\$34,958.80	47
FORT BELVOIR COMM HOSPITAL	\$27,682.40	40
GEORGE WASHINGTON UNIV HOSP	\$17,756.40	25
WASHINGTON HOSPITAL CTR	\$19,689.60	25
CAREFLIGHT	\$9,052.40	14
RESTON EMERGENCY CARE CTR	\$8,148.40	14
CHILDRENS NATIONAL MEDICAL	\$9,518.40	12
DEWITT ARMY HOSPITAL	\$4,110.00	7
FORT WASHINGTON UNIV HOSP	\$5,008.40	7
GEORGETOWN HOSPITAL	\$4,766.40	6
INOVA HEALTHPLEX ASHBURN	\$4,172.40	6
S MARYLAND MED CENTER	\$4,380.00	6
SUBURBAN HOSPITAL	\$2,987.60	4
UNITED HOSPITAL CTR SE	\$1,790.40	3
FREEFORM	\$1,655.20	2
PRINCE GEORGES HOSP CTR	\$1,160.80	2
VETERANS AFFAIRS MED CTR	\$1,790.80	2
WALTER REED ARMY MED CTR	\$1,582.00	2
HAYMARKET MEDICAL CENTER	\$539.60	1
HEATHCOTE HEALTH CENTER	\$825.20	1
HOWARD UNIV HOSPITAL	\$761.60	1
SHADY GROVE ADVENTIST HOSPITAL	\$839.60	1
SIBLEY HOSPITAL	\$599.60	1
Grand Total	\$7,938,694.40	12,087

*Footnote: Based on patient's resident status

Fairfax County
Office of Financial and Program Audit
Draft

Recommendation

Purported by EMS management, hospitals provide PII to EMS management to facilitate the billing process.

We recommend staff develop a process to analyze the gaps between patient intake, discharge, and collection of PII. The results of these analyses should be used to identify the root causes for the PII collection failures.

OFPA Data Scientists data-mined the records to identify and rank the providers that are contributing to this revenue leakage. We further recommend the staff start the analysis by focusing on the top 5 service providers.

Action Plan

Point of Contact	Target Implementation Date	Email Address
Daniel Shaw (Assistant Fire Chief)	10/31/2022	Dan.Shaw@fairfaxcounty.gov
Mark Kordalski (Deputy Fire Chief)		Mark.Kordalski@fairfaxcounty.gov
Chinaka Barbour (Fiscal Services Division Director)		Chinaka.Barbour@fairfaxcounty.gov
Arsenio DeGuzman (Program Manager, EMS Billing/Accounting)		Arsenio.Deguzman@fairfaxcounty.gov

MANAGEMENT RESPONSE:

12,087 out of 56,703 (or 21.3%) of non-resident transports were deemed unbillable during the claim submission process. EMS transports are sometimes unbillable due to missing or incomplete data.

FRD will commence tracking errors and identifying root causes through these existing processes:

- Review of the billing vendor's daily client receipts to reconcile missing data.
- Program Manager's review of unbilled transports using bi-weekly lists, which will be reconciled to monthly patient records for transports not deemed a medical necessity.
- Reconciliation of all monthly/quarterly transactions, audits and KPI analysis.
- Semi-monthly review of contract performance meetings with billing vendor, Client Manager and Executive Director to resolve outstanding issues.
- Annual vendor reviews/evaluations to set contracted rates based on average net collections.

STUDY AREA 3
EMS CONTRACTORS DATA ENTRY ERRORS ANALYSIS
FOR NON-COUNTY RESIDENTS' TRANSPORTS

Observation

We reviewed EMS transport data for non-residents to identify errors in billings. OFPA analysis revealed four types of data entry errors for these transports: duplicate line-items incorrect mileage charges, incorrect transport mileage, and discounts exceeding gross charges.

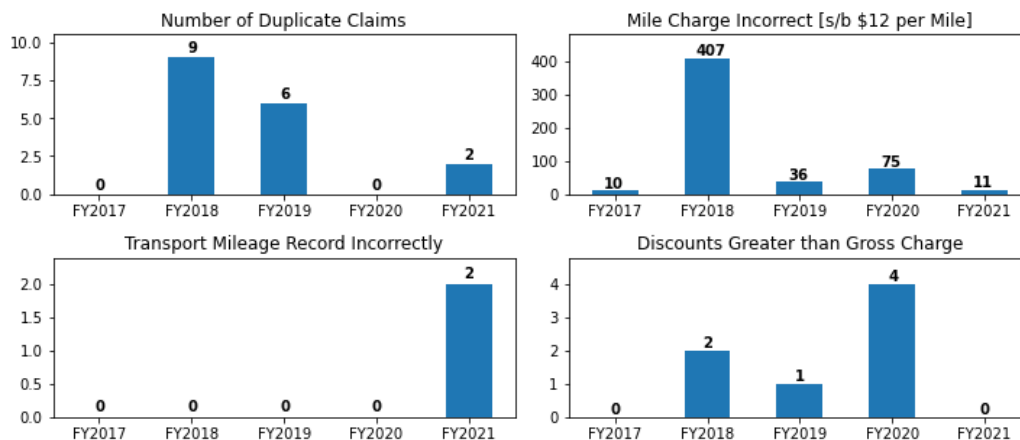
- 17 duplicate transports from FY2017-FY2021. These line-items share identical unique identifiers but have different gross charges recorded. As purported by EMS management, duplicate line-items reflect billing adjustments that were made to earlier transports.
- 539 transports from FY2017-FY2021 where the mileage charge was calculated incorrectly. Mileage incurred for EMS transports is charged at \$12/mile. For these transports, the mileage charge was lower than \$12/mile.
- 2 transports from FY2017-FY2021 where the transport mileage was recorded incorrectly. The mileage for these transports were recorded as 93.7 and 90.9 miles from pick-up to drop-off.
- 7 transports from FY2017-FY2021 where the discounts exceed the gross charge of the bill.

565 transports from FY2017-FY2021 were recorded incorrectly. ~74% of these errors occurred in FY2018; as purported by EMS management, these transports were coded incorrectly by the billing vendor in 2017 due to staffing changes.

OFPA reviewed the contract between the County and Change Healthcare, LLC and found no performance measures pertaining to billing accuracy.

The table and graph below detail the errors identified in the billing data.

MAA/EMS Billing Contractors [Med3000 FY17-FY19/Change Healthcare FY20-FY21]
Data Entry Errors for Non-County Resident Transports



Fairfax County
Office of Financial and Program Audit
Draft

MAA/EMS Billing Contractors [Med3000 FY17-FY19/Change Healthcare FY20-FY21] Data Entry Errors for Non-County Resident Transports						
Error Types	FY2017	FY2018	FY2019	FY2020	FY2021	Total
Number of Duplicate Claims	0	9	6	0	2	17
Mile Charge Incorrect [s\b \$12 per Mile]	10	407	36	75	11	539
Transport Mileage Record Incorrectly	0	0	0	0	2	2
Discount greater than Gross Charge	0	2	1	4	0	7

Recommendation

Based on our review of the contract, no performance measures for this contractor could be identified. In the absence of performance measures, we recommend that staff liaise with Change Healthcare to develop a process to track errors and identify root causes.

This information should be used to implement processes to reduce errors and staff rework. Rework by staff comes at a financial cost and additional labor hours.

Action Plan

Point of Contact	Target Implementation Date	Email Address
Daniel Shaw (Assistant Fire Chief)	10/31/2022	Dan.Shaw@fairfaxcounty.gov
Mark Kordalski (Deputy Fire Chief)		Mark.Kordalski@fairfaxcounty.gov
Chinaka Barbour (Fiscal Services Division Director)		Chinaka.Barbour@fairfaxcounty.gov
Arsenio DeGuzman (Program Manager, EMS Billing/Accounting)		Arsenio.Deguzman@fairfaxcounty.gov

MANAGEMENT RESPONSE:

565 out of 56,703 (or 0.9%) of data entry errors for non-County resident transports. These data were generated from a multi-source summary report.

These errors reflect incorrect matching of billing or payment adjustments which were corrected during the billing cycle.

FRD will reinforce the daily billing information collection and contract monitoring activities to ensure errors are minimized to the greatest extent possible.

Fairfax County
Office of Financial and Program Audit

Draft

STUDY AREA 4
MAA/EMS BILLING CONTRACTORS PROCESSING TIME ANALYSIS
FOR NON-COUNTY RESIDENTS' TRANSPORT

Observation

We reviewed the processing time for EMS transport bills issued to non-residents. FCFRD contracts with a third-party vendor to process EMS bills: Med3000 from FY2017-FY2019, and Change Healthcare LLC from FY2020-FY2021. For claims with adequate billing information, ~80% of bills were processed between 0-30 days after transport. Less than 1% of transports were processed over 180 days after transport.

As purported by EMS management, there are situations for which bill processing time can be significantly delayed; examples of these include patients involved in traffic accidents or legal settlements.

The table and graph below detail the bill processing time for claims with adequate billing information.

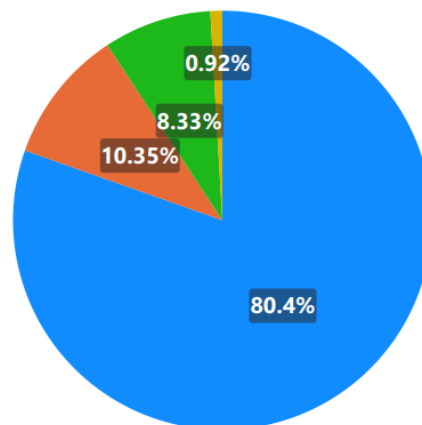
MAA/EMS Billing Contractors Non-County Resident Transport Processing Time* (Med3000 FY17-FY19/Change Healthcare FY20-FY21) Contractor Billing Between FY17-FY21		
Bill Processing Time	Counts	Percentage
0-30 days	34,203	80.4%
31-60 days	4,403	10.4%
61-180 days	3,543	8.3%
180+ days	392	0.9%

**For claims with adequate billing information*

MAA/EMS Non-County Residents Bill Processing Time*, FY2017-FY2021

Bill Processing Time

- 0-30 days
- 31-60 days
- 61-180 days
- 180+ days



**For claims with adequate billing information*

Conclusion

OFPA finds this process acceptable. **We Pass Further Audit Work (PFAW).**

Fairfax County
Office of Financial and Program Audit
Draft

STUDY AREA 5

HELICOPTER LAW ENFORCEMENT TRIPS ANALYSIS

BOS Settled Policy Item Description

OFPA mined the files provided by Fairfax County Police Department (FCPD) Helicopter Division management to aggregate Law Enforcement and Medevac trips. These operations are managed by the Helicopter Division which operates 2 helicopters for law enforcement and Medevac services.

The MAA, under which these services are provided, does not include the option to bill other jurisdictions for either law enforcement or Medevac services provided to partnering jurisdictions. Costs associated with these services are operating costs supported by the County's general fund.

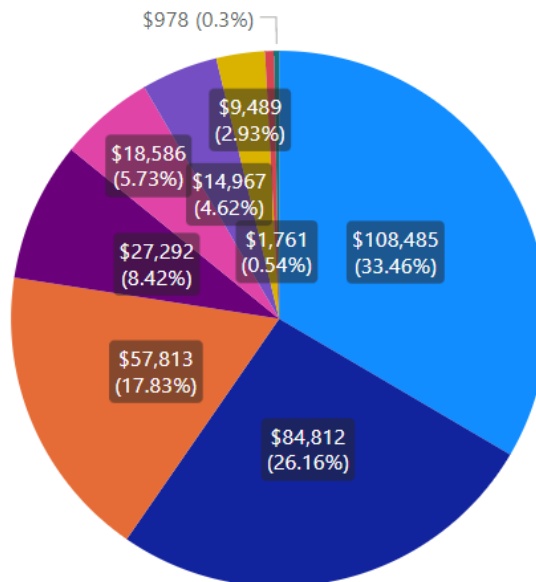
We discussed billing other jurisdictions for law enforcement trips with FCPD. Between FY2019-FY2021, there were **331** flight hours that could generate **\$324,182** in potential revenue. There does appear to be an opportunity to explore billing for law enforcement trips to other jurisdictions. There are some considerations which will need to be broached:

- Office of County Attorney (OCA) to discuss any needed amendment to the MAA, and
- FCPD finance, or another billing function at main campus, to assess the additional billing work, with the goal of folding these activities into the existing staff's workload.

Helicopter Division Law Enforcement Trips - Potential Billable Revenue, FY2019-FY2021

Jurisdictions

Prince William	Flight Hours: 110.9
Virginia State Police	Flight Hours: 86.7
Other	Flight Hours: 59.1
Alexandria	Flight Hours: 27.9
Loudoun	Flight Hours: 19
Arlington	Flight Hours: 15.3
Fairfax City	Flight Hours: 9.7
Warrenton	Flight Hours: 1.8
Fauquier	Flight Hours: 1



Fairfax County
Office of Financial and Program Audit
Draft

Potential Billable Revenue (Helicopter Law Enforcement Trips) Other Jurisdictions ¹								
Fiscal Year	FY2019		FY2020		FY2021		FY2019-FY2021 Totals	
Jurisdictions	Flight Hours	Potential Billable Revenue	Flight Hours	Potential Billable Revenue	Flight Hours	Potential Billable Revenue	Total Flight Hours	Total Potential Billable Revenue
Alexandria	1.3	\$1,272	3.6	\$3,522	23	\$22,499	27.9	\$27,292
Arlington	1.6	\$1,565	6.9	\$6,750	6.8	\$6,652	15.3	\$14,967
Fairfax City	1.5	\$1,467	7	\$6,848	1.2	\$1,174	9.7	\$9,489
Fauquier	0	\$0	0	\$0	1	\$978	1	\$978
Loudoun	1.5	\$1,467	6.1	\$5,967	11.4	\$11,152	19	\$18,586
Other	2.6	\$2,543	33.2	\$32,477	23.3	\$22,793	59.1	\$57,813
Prince William	9.8	\$9,587	74.2	\$72,584	26.9	\$26,314	110.9	\$108,485
Virginia State Police	6.8	\$6,652	54.3	\$53,117	25.6	\$25,042	86.7	\$84,812
Warrenton	0	\$0	0	\$0	1.8	\$1,761	1.8	\$1,761
Total	25.1	\$24,553	185.3	\$181,264	121	\$118,365	331.4	\$324,182

Footnote (1):Data compilation based on jurisdiction request

Operating Expense (Helicopter Law Enforcement Trips) Fairfax County ¹								
Fiscal Year	FY2019		FY2020		FY2021		FY2019-FY2021 Totals	
Jurisdictions	Flight Hours	Operating Expense	Flight Hours	Operating Expense	Flight Hours	Operating Expense	Total Flight Hours	Total Operating Expense
Fair Oaks	29.2	\$28,564	25.9	\$25,336	26.5	\$25,923	81.6	\$79,823
Fairfax Countywide	3.4	\$3,326	4.4	\$4,304	74.1	\$72,486	81.9	\$80,116
Falls Church	0	\$0	0	\$0	0.3	\$293	0.3	\$293
Franconia	37.8	\$36,977	43	\$42,063	67.3	\$65,834	148.1	\$144,874
Herndon	1.4	\$1,370	5.7	\$5,576	3.7	\$3,619	10.8	\$10,565
Mason	38.4	\$37,564	47	\$45,976	30.3	\$29,640	115.7	\$113,180
McLean	6.9	\$6,750	45.1	\$44,118	53.4	\$52,237	105.4	\$103,104
Mount Vernon	24.5	\$23,966	70.4	\$68,867	52.9	\$51,748	147.8	\$144,581
Reston	16.8	\$16,434	30.1	\$29,444	40.8	\$39,911	87.7	\$85,790
Springfield	0	\$0	0	\$0	0	\$0	0.0	\$0
Sully	37	\$36,194	28.9	\$28,271	31.5	\$30,814	97.4	\$95,279
Vienna	0	\$0	1.7	\$1,663	0	\$0	1.7	\$1,663
West Springfield	38.7	\$37,857	49.7	\$48,618	40.4	\$39,520	128.8	\$125,995
Total	234.1	\$229,001	351.9	\$344,236	421.2	\$412,026	1,007.2	\$985,263

Footnote (1):Data compilation based on jurisdiction request

BOS Settled Policy Item Discussion

The MAA details how law enforcement trips for partnering jurisdictions are provided, and how costs are paid. There is no billing option for partnering jurisdictions under this agreement. Costs associated with these services are operating costs supported by the County's general fund.

We respectfully mention (*without recommendation*) the consideration of staff to liaise with OCA, Department of Finance and FCPD Finance Department could be useful in evaluating billing functions to identify billing opportunities.

This process would assist the County in recovering costs and reducing the use of the County's general fund to support other jurisdictions.

Fairfax County
Office of Financial and Program Audit
Draft

STUDY AREA 6

HELICOPTER DIVISION NON-COUNTY RESIDENT MEDEVAC TRIPS

BOS Settled Policy Item Description

OFPA reviewed the Helicopter Division Medevac trips made in support of FCFRD's EMS services when air support is necessary.

There were **33.3** flight hours for Medevac trips to non-County Residents between FY2019-FY2021. Only **9.9%** of non-County Resident flight hours were associated with Medevac trips.

The Helicopter Division does not bill for Medevac transports. Purported by FCPD Helicopter Division management, "the County does not have the 14 CFR Part 135 Air Carrier and Operator Certification which is needed to bill for these transports." We've reviewed this assertion with the FCPD Helicopter Division; they concur with our conclusion. Additionally, the related BOS approved MAA precludes the County from billing for these services.

Uncollectable Revenue (Helicopter Medevac Trips) Other Jurisdictions ¹								
Fiscal Year	FY2019		FY2020		FY2021		FY2019-FY2021 Totals	
Jurisdictions	Flight Hours	Uncollectable Revenue	Flight Hours	Uncollectable Revenue	Flight Hours	Uncollectable Revenue	Total Flight Hours	Total Uncollectable Revenue
Annandale	0.7	\$685	0	\$0	0	\$0	0.7	\$685
Bealton	0	\$0	0	\$0	0.7	\$685	0.7	\$685
Centreville	1.1	\$1,076	0	\$0	0	\$0	1.1	\$1,076
Clifton	0	\$0	0.7	\$685	0.7	\$685	1.4	\$1,370
Dale City	0	\$0	0	\$0	0.5	\$489	0.5	\$489
Dulles	1.5	\$1,467	0	\$0	0	\$0	1.5	\$1,467
Dumfries	0	\$0	0.5	\$489	0.5	\$489	1	\$978
Fairfax	2.1	\$2,054	0	\$0	0.7	\$685	2.8	\$2,739
Fairfax Station	0	\$0	0	\$0	0.7	\$685	0.7	\$685
Fort Belvoir	0	\$0	0.7	\$685	0	\$0	0.7	\$685
Gainesville	0.5	\$489	0	\$0	0	\$0	0.5	\$489
Great Falls	0.6	\$587	0	\$0	0	\$0	0.6	\$587
Lake Ridge	0	\$0	0.5	\$489	0	\$0	0.5	\$489
Lorton	0.6	\$587	0.8	\$783	1.7	\$1,663	3.1	\$3,032
Manassas	0.7	\$685	0.5	\$489	2.7	\$2,641	3.9	\$3,815
Manassas Park	0	\$0	0.7	\$685	0	\$0	0.7	\$685
Manassas	0	\$0	0	\$0	0.4	\$391	0.4	\$391
Nokesville	0	\$0	0.6	\$587	0.6	\$587	1.2	\$1,174
Prince William	0.6	\$587	0	\$0	0	\$0	0.6	\$587
Reston	0	\$0	0	\$0	0.6	\$587	0.6	\$587
Sterling	0.7	\$685	1.2	\$1,174	0	\$0	1.9	\$1,859
The Plains	0.4	\$391	0	\$0	0.8	\$783	1.2	\$1,174
Warrenton	1.5	\$1,467	0.8	\$783	0	\$0	2.3	\$2,250
Woodbridge	2	\$1,956	0.7	\$685	2	\$1,956	4.7	\$4,598
Total	13	\$12,717	7.7	\$7,532	12.6	\$12,326	33.3	\$32,575

Footnote (1):Data compilation based on patient residency

BOS Settled Policy Discussion Item

OFPA finds incorporating Medevac billing to be cost prohibitive.
We Pass Further Audit Work (PFAW)

EMERGENCY MEDICAL SERVICES (EMS) STUDY

OVERVIEW OF EMERGENCY MEDICAL SERVICES

OVERVIEW AND UPDATES

The results of this study may not highlight all the risks/exposures, process gaps, revenue enhancements and/or expense reductions which could exist. Items reported are those which could be assessed within the scheduled timeframe, and overall organization's data-mining results. Office of Financial and Program Audit (OFPA's) studies are facilitated through several processes such as: sample selections, compliance support documentation and various testing approaches. There are several types of studies performed by OFPA, e.g.: performance, operational, financial, compliance, etc. To that end, it is important to note OFPA staff reserves the option to perform a holistic financial and analytical data-mining process on all data for the organization being reviewed where appropriate. This practice is most often employed to perform reviews for highly transactional studies.

This study included a review of operations, cost and vehicle fleet replacement by the County's Fire and Rescue Department (FCFRD). EMS staff provides emergency transport services to individuals in need. Transport services are categorized into three areas with fees: Basic Life Support (BLS) - \$500 fee, Advanced Life Support Level 1 (ALS1) - \$650 fee, and Advanced Life Support 2 (ALS2) - \$800 fee. Additionally, a \$12 per mile fee is charged for miles incurred from pick-up location to hospital. These fees remain unchanged since June 2008. Total EMS expenditures in FY2017 – FY2021 ranged between ~\$65.9M - ~\$73.4M. Total EMS revenues in FY17 – FY21 ranged between ~\$19.6M - ~\$21.3M.

Emergency Medical Services provided a total of 208,838 ground transports to County residents from FY2017-FY2021. The FCPD Helicopter Division provided a total of 44 Medevac transports to County residents in support of EMS operations from FY2019-FY2021.

Fairfax County Fire and Rescue Department is committed to a "service first" philosophy; through this mission, we liaised with EMS and Helicopter Division staff to align our understanding of the operations with actual practices.

EMS operates under Board of Supervisor settled policies, which provides approved operational guidance. With that, this Audit Committee approved study, will in several instances, present areas identified as **BOS Settled Policy Description/Discussion Items** as opposed to **Observations** and **Recommendations**.

The following tables detail the benchmarking of the County's EMS fee rates with other comparable jurisdictions as well as summary data for County resident billings and collections.

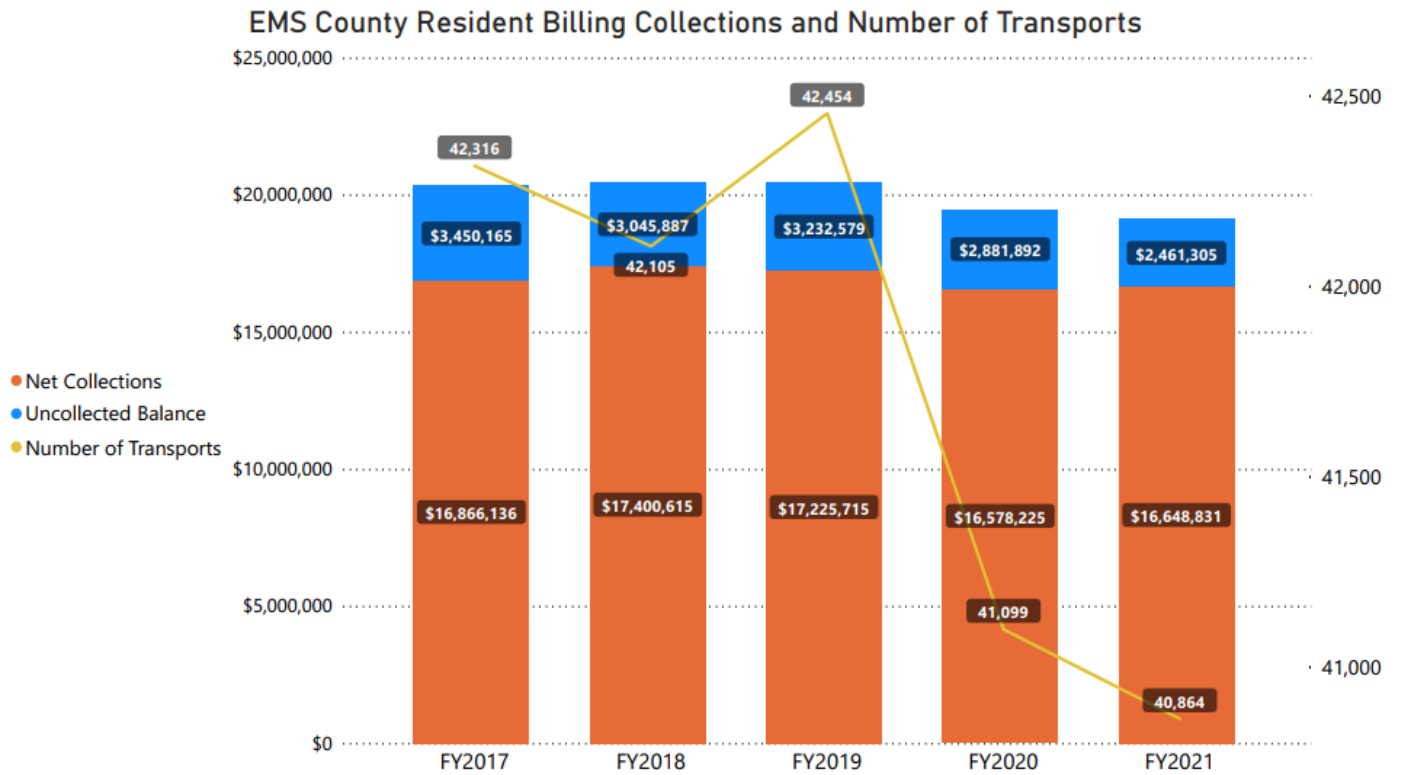
Fairfax County
Office of Financial and Program Audit
Draft

Benchmarking: EMS Transport Fees by Jurisdiction							
Fee Description	Fairfax County	Loudoun County	Montgomery County	Prince William County	Arlington County	City of Alexandria	Prince George's County
Basic Life Support	\$500	\$467	\$400	\$400	\$500	\$400	\$500
Advanced Life Support 1	\$650	\$660	\$500	\$500	\$650	\$500	\$650
Advanced Life Support 2	\$800	\$770	\$700	\$675	\$850	\$850	\$750
Transport Charge per Mile	\$12	\$11	\$8.50	\$10	\$12	\$10	\$5

EMS Non-County Resident Billing Process: Benchmarking to Comparable Jurisdictions				
Jurisdictions	Non-County Resident Billings	% of Collections* in FY2021	Sent to Collections?	A/R Aging and Write-offs
Fairfax County	Non-Residents are billed. Outstanding bills are written off after 180 days.	80%	No	Receivables are aged 180 days before being written off.
Loudoun County	Non-Residents are billed. Outstanding bills are written off after 120 days.	74%	No	Receivables are aged 120 days before being written off.
Montgomery County	Data Not Available	65%	No	Data Not Available
Prince William County	Non-Residents are billed. Outstanding bills are written off after 280 days.	79%	No	Receivables are aged 280 days before being written off.
Arlington County	Non-Residents are billed. Outstanding bills are sent to collections after 150 days.	65%	Yes	Receivables are aged 150 days before sending to collections. Bills are not written off.
City of Alexandria	No Data Provided			
Prince George's County	No Data Provided			

*Total County and Non-County Resident EMS Transports

Fairfax County
Office of Financial and Program Audit
Draft



The following tables detail the BOS Settled Policy Description/Discussion Items, observations and recommendations for this study along with management's responses.

Fairfax County
Office of Financial and Program Audit
Draft

STUDY AREA 1

EMS COUNTY RESIDENT GROUND TRANSPORT CLAIM BILLINGS ANALYSIS

BOS Settled Policy Item Description

We reviewed the EMS Transport Claim Billings to identify areas to enhance revenue and/or offset the operating cost for these services. Some of the County's financial practices have resulted in the use of the County's general fund to support EMS services to constituents. The cost of EMS services provided to the County's constituents are partially offset by insurance companies' coverage. The results of our analysis revealed two areas whereby collections are decreased through "Discounts" and/or "Uncollected Balances." There are three points of discussion we are raising in relation to these items:

- Claim balance discharge not covered by the insurance companies,
- Discharge of the full claims not covered by insurance companies and not billed to constituents, and
- The lack of effort to participate in the collection of aged claims.

As purported by EMS management, approval to discharge the claim receivables is in alignment with the direction of the BOS. The following statement from a May 2004 Public Hearing Notice was provided by EMS management to support the above assertion *"It should be noted that ability to pay would not in any circumstances preclude medically-required transports nor would residents unable to pay be subjected to extraordinary collection efforts."* While this statement refers specifically to "extraordinary collections efforts," it is unclear if this statement is designed to mean EMS staff should *forgo customary collection efforts*.

The table and graph below detail the average annual discounts and uncollected monies (~\$11.6M or 41% of Gross Charges), and five-year discount and uncollected monies (~\$58.2M or 41% of Gross Charges) dollar magnitude of revenue that has been discharged. Given consistency in these trends, the monies will continue to be discharged resulting in the ongoing support for these services through the County's general fund.

These data are further highlighted in the table and graph below.

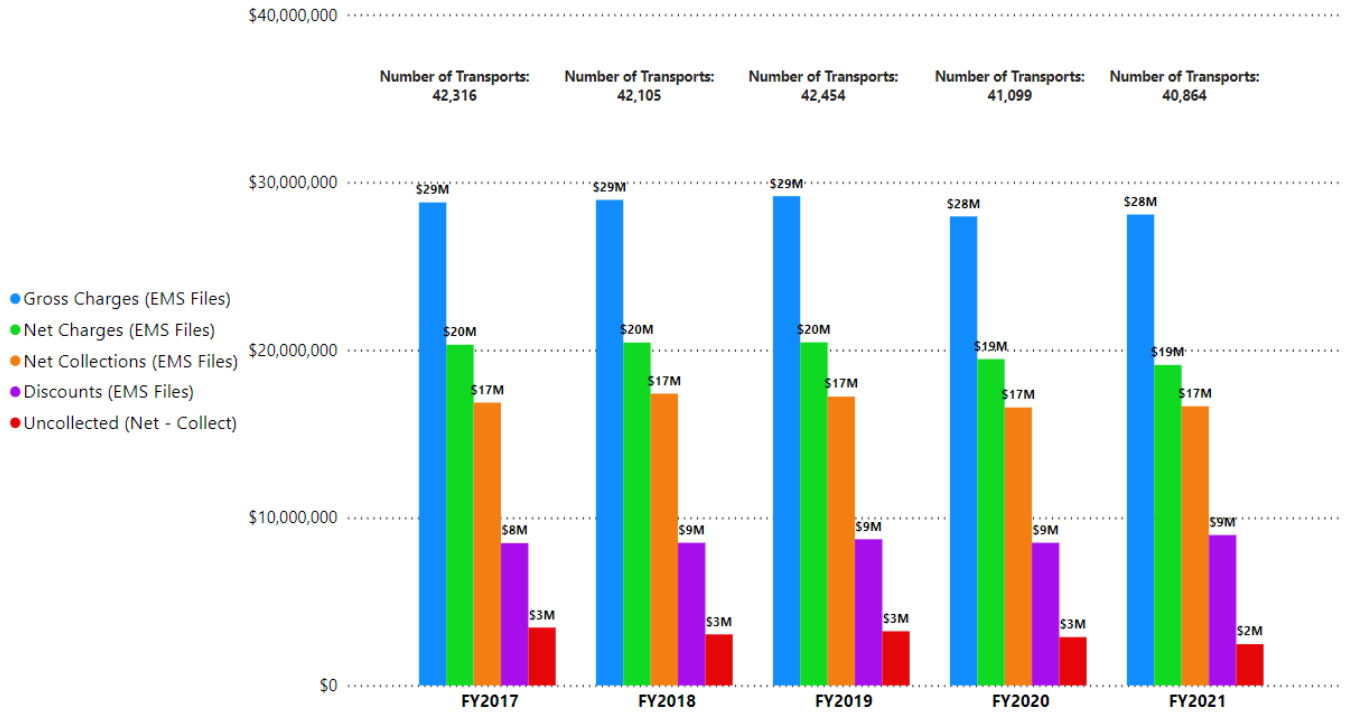
EMS County Residents Ground Transport* Claim Billings Analysis						
Number of Transports	42,316	42,105	42,454	41,099	40,864	208,838
Financial Activity	FY2017	FY2018	FY2019	FY2020	FY2021	Total
Gross Charges (EMS Files)	\$28,802,948	\$28,953,864	\$29,173,942	\$27,966,805	\$28,079,550	\$142,977,110
Discounts (EMS Files)	(\$8,486,647)	(\$8,507,362)	(\$8,715,648)	(\$8,506,688)	(\$8,969,413)	(\$43,185,759)
Net Charges (EMS Files)	\$20,316,301	\$20,446,502	\$20,458,294	\$19,460,117	\$19,110,137	\$99,791,351
Net Collections (EMS Files)	\$16,866,136	\$17,400,615	\$17,225,715	\$16,578,225	\$16,648,831	\$84,719,523
Uncollected Balance (Net - Collect)	\$3,450,165	\$3,045,887	\$3,232,579	\$2,881,892	\$2,461,305	\$15,071,829
Discounts / Gross Charges	29%	29%	30%	30%	32%	30%
Net Collections / Net Charges	83%	85%	84%	85%	87%	85%
Uncollected Balance / Net Charges	17%	15%	16%	15%	13%	15%

*Footnote: Based on patient's resident status

Fairfax County
Office of Financial and Program Audit
Draft

This information is being presented as context to the discussion above. Some alternative financial practices could be employed to enhance revenue and provide cost mitigation (relief to the general fund) to provide these services to our constituents should any consideration be deemed appropriate.

EMS County Residents Ground Transports Claims Billing Analysis



BOS Settled Policy Item Discussion

Given the Board of Supervisors' settled policies under which these EMS services are provided, OFPA is not recommending a remedy to the financial exposure reported in this study. The data provided is presented for advisory purposes.

While keeping in view our constituents' contribution to the general fund through various levied taxes, I respectfully mention (*without recommendation*) the consideration of a modified billing mechanism for receivables currently abated through our write-off process. This could also be facilitated through added efforts from our contracted collections vendor NCC. These considerations could reduce some of the claims' revenue leakage.

Fairfax County
Office of Financial and Program Audit
Draft

STUDY AREA 2
EMS NON-BILLED COUNTY RESIDENT TRANSPORTS ANALYSIS

Observation

We reviewed EMS transports to County residents that were never billed due to unidentifiable patient information. For these transports, neither the receiving hospital nor EMS staff obtained Personal Identifiable Information (PII) from the patient. In these instances, the patient cannot be billed for the transport. As purported by EMS management, examples of instances where medical staff were unable to obtain relevant billing information include transports from homeless shelters, or if the patient was in custody at the time of the transport.

OFPA analysis identified **22,431** such transports from FY2017-FY2021. The gross charges for these transports were **~\$14 million**; all of these charges were uncollected. Inova Fairfax Hospital processed **8,130** transports from FY2017-FY2021 that were never billed because medical staff did not obtain PII from the patient. The gross charges for these transports were **~\$5.2 million**.

The tables below detail the financial exposure resulting from these transports.

EMS County Residents Unpaid / Written off / Unresolved Bills		
Financial Year	Amount (\$)	Count
FY2017	\$3,067,428	4,981
FY2018	\$3,038,640	4,939
FY2019	\$2,859,476	4,634
FY2020	\$2,696,898	4,120
FY2021	\$2,355,195	3,757
Total	\$14,017,638	22,431

Fairfax County
Office of Financial and Program Audit
Draft

**EMS County Residents* Ground Transports w/o Billings
Due to Unidentifiable Patient Information
or Other Designations as Asserted by EMS**

Hospital	Total (FY2017-FY2021)	
	Amount (\$)	Count
INOVA FAIRFAX HOSPITAL	\$5,215,462.80	8,130
MOUNT VERNON HOSPITAL	\$2,219,138.00	3,690
RESTON HOSPITAL CENTER	\$1,955,421.60	3,166
INOVA FAIR OAKS HOSPITAL	\$1,671,110.80	2,635
INOVA ALEXANDRIA HOSPITAL	\$1,144,410.40	1,906
SPRINGFIELD HEALTHPLEX	\$566,023.60	937
VIRGINIA HOSPITAL CENTER	\$579,498.00	931
INOVA LORTON HEALTHPLEX	\$279,702.00	461
FORT BELVOIR COMM HOSPITAL	\$85,158.00	132
FAIRFAX EMERGENCY CARE CTR	\$78,039.20	129
STONE SPRING EMERGENCY CTR	\$71,728.40	104
WASHINGTON HOSPITAL CTR	\$27,584.00	31
SENTARA NORTHERN VA MED CTR	\$18,200.00	28
RESTON EMERGENCY CARE CTR	\$15,289.60	26
CHILDRENS NATIONAL MEDICAL	\$16,688.80	23
DEWITT ARMY HOSPITAL	\$11,144.00	18
PRINCE WILLIAM HOSPITAL	\$12,393.60	16
GEORGE WASHINGTON UNIVERS	\$12,120.80	16
LOUDOUN HOSPITAL CENTER	\$10,842.80	13
SIBLEY HOSPITAL	\$7,402.40	11
GEORGETOWN HOSPITAL	\$5,888.80	8
CAREFLIGHT	\$4,779.20	8
FREEFORM	\$5,170.40	7
INOVA HEALTHPLEX ASHBURN	\$2,546.40	3
VETERANS AFFAIRS MED CTR	\$1,894.00	2
Grand Total	\$14,017,637.60	22,431

**Footnote: Based on patient's resident status*

Fairfax County
Office of Financial and Program Audit
Draft

Recommendation

Purported by EMS management, hospitals provide Patient Identifiable Information (PII) to EMS management to facilitate the billing process.

We recommend staff develop a process to analyze the gaps between patient intake, discharge, and collection of PII. The results of these analyses should be used to identify the root causes for the PII collection failures.

OFPA Data Scientists data-mined the records to identify and rank the providers that are contributing to this revenue leakage. We further recommend the staff start the analysis by focusing on the top 5 service providers.

Action Plan

Point of Contact	Target Implementation Date	Email Address
Daniel Shaw (Assistant Fire Chief)	10/31/2022	Dan.Shaw@fairfaxcounty.gov
Mark Kordalski (Deputy Fire Chief)		Mark.Kordalski@fairfaxcounty.gov
Chinaka Barbour (Fiscal Services Division Director)		Chinaka.Barbour@fairfaxcounty.gov
Arsenio DeGuzman (Program Manager, EMS Billing/Accounting)		Arsenio.Deguzman@fairfaxcounty.gov

MANAGEMENT RESPONSE:

The billing information collection and contract monitoring activities in place are the same for both County residents and non-residents with only one exception on the payment receiving end. The sole exception is when County residents provide insurance information, FRD accepts whatever the patient's insurance pays as payment in full and waives any remaining out-of-pocket co-payment or deductible requirements. Consequently, FRD's response to this recommendation is the same as in slide 12 above.

22,431 of 208,838 (or 10.7%) of County resident incidents that were deemed unbillable during the coding and claim submission process.

FRD will immediately reinforce the daily billing information collection and contract monitoring activities already in place to further ensure errors are minimized to the greatest extent possible.

STUDY AREA 3
EMS CONTRACTORS DATA ENTRY ERRORS ANALYSIS
FOR COUNTY RESIDENTS' TRANSPORTS

Observation

We reviewed EMS transport data for County residents to identify errors in billings. OFPA analysis revealed four types of billing errors for these transports: duplicate line-items, incorrect mileage charges, incorrect transport mileage, and discounts exceeding gross charges.

We identified 82 duplicate transports from FY2017-FY2021. These line-items share identical unique identifiers but have different gross charges recorded. As purported by EMS management, duplicate line-items reflect billing adjustments that were made to earlier transports.

- 1,783 transports from FY2017-FY2021 where the mileage charge was calculated incorrectly. Mileage incurred for EMS transports is charged at \$12/mile. For these transports, the mileage charge was lower than \$12/mile.
- 31 transports from FY2017-FY2021 where the transport mileage was recorded incorrectly.
- 25 transports from FY2017-FY2021 where the discounts exceed the gross charge of the bill.

~62% of 1,921 total errors occurred in FY2018 (staffing changes at billing vendor); as purported by EMS management, these transports were coded incorrectly by the billing vendor in 2017 due to staffing changes.

OFPA reviewed the contract between the County and Change Healthcare, LLC and found no performance measures pertaining to billing accuracy.

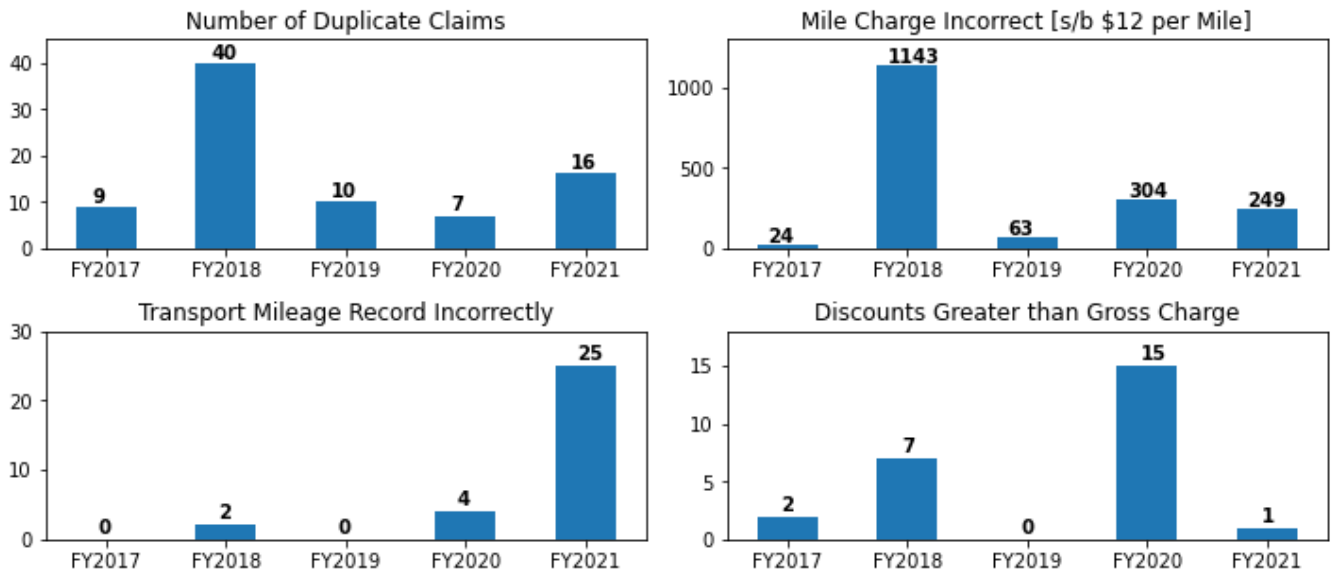
The table and graph below detail the errors identified in the billing data.

EMS Contractors [Med3000 FY2017-FY2019/Change Healthcare FY2020-FY2021] Data Entry Errors for County Residents' Transports						
Error Types	FY2017	FY2018	FY2019	FY2020	FY2021	Total
Number of Duplicate Claims	9	40	10	7	16	82
Mile Charge Incorrect [s\b \$12 per Mile]	24	1,143	63	304	249	1,783
Transport Mileage Record Incorrectly	0	2	0	4	25	31
Discount Greater than Gross Charges	2	7	0	15	1	25

**Fairfax County
Office of Financial and Program Audit**

Draft

**EMS Contractors [Med3000 FY2017-FY2019/Change Healthcare FY2020-FY2021]
Data Entry Errors for County Residents Transports**



Recommendation

Based on our review of the contract, no performance measures for this contractor could be identified. In the absence of performance measures, we recommend that staff liaise with Change Healthcare to develop a process to track errors and identify root causes.

This information should be used to implement processes to reduce errors and staff rework. Rework by staff comes at a financial cost and additional labor hours.

Action Plan

Point of Contact	Target Implementation Date	Email Address
Daniel Shaw (Assistant Fire Chief)	10/31/2022	Dan.Shaw@fairfaxcounty.gov
Mark Kordalski (Deputy Fire Chief)		Mark.Kordalski@fairfaxcounty.gov
Chinaka Barbour (Fiscal Services Division Director)		Chinaka.Barbour@fairfaxcounty.gov
Arsenio DeGuzman (Program Manager, EMS Billing/Accounting)		Arsenio.Deguzman@fairfaxcounty.gov

**Fairfax County
Office of Financial and Program Audit**

Draft

MANAGEMENT RESPONSE:

The billing information collection and contract monitoring activities in place are the same for both County residents and non-residents with only one exception on the payment receiving end. The sole exception is when County residents provide insurance information, FRD accepts whatever the patient's insurance pays as payment in full and waives any remaining out-of-pocket co-payment or deductible requirements. Consequently, FRD's response to this recommendation is the same as in slide 17 above.

1,921 out of 208,838 (or 0.9%) of data entry errors for County resident transports which exit in a multi-source summary report.

FRD will reinforce the existing daily billing information collection and contract monitoring activities to further ensure errors are minimized to the greatest extent possible.

Draft

STUDY AREA 4
EMS BILLING CONTRACTORS PROCESSING TIME ANALYSIS
FOR COUNTY RESIDENTS' TRANSPORT

Observation

We reviewed the processing time for EMS transport bills issued to County residents. FCFRD contracts with a third-party vendor to process EMS bills: Med3000 from FY2017-FY2019, and Change Healthcare LLC from FY2020-FY2021. For claims with adequate billing information, ~86% of bills were processed between 0-30 days after transport. Less than 1% of bills were processed over 180 days after transport.

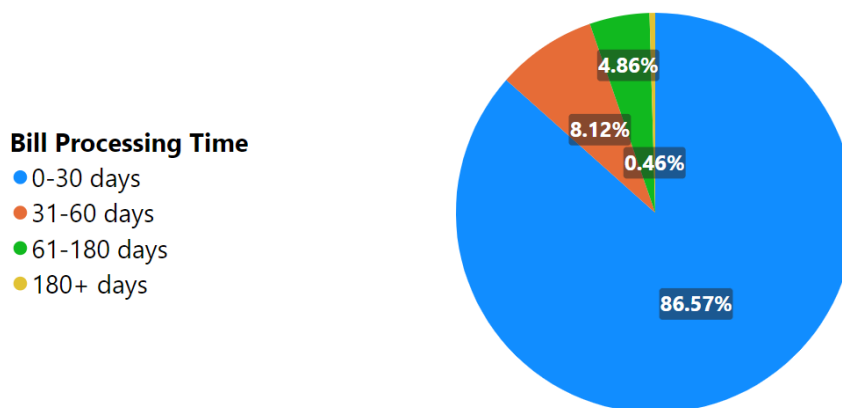
As purported by EMS management, there are situations for which bill processing time can be significantly delayed; examples of these include patients involved in traffic accidents or legal settlements

The table and graph below detail the bill processing time for claims with adequate billing information.

EMS Billing Contractors County Residents Processing Time* (Med3000 FY17-FY19/Change Healthcare FY20-FY21), Contractor Billing Between FY17-FY21		
Bill Processing Time	Counts	Percentage
0-30 days	158,382	86.6%
31-60 days	14,853	8.1%
61-180 days	8,884	4.9%
180+ days	843	0.5%

**For claims with adequate billing information*

EMS County Residents Bill Processing Time*, FY2017-FY2021



**For claims with adequate billing information*

Conclusion

OFPA finds this process acceptable. **We Pass Further Audit Work (PFAW).**

Fairfax County
Office of Financial and Program Audit
Draft

STUDY AREA 5
EMS VEHICLE REPLACEMENT ANALYSIS

Observation

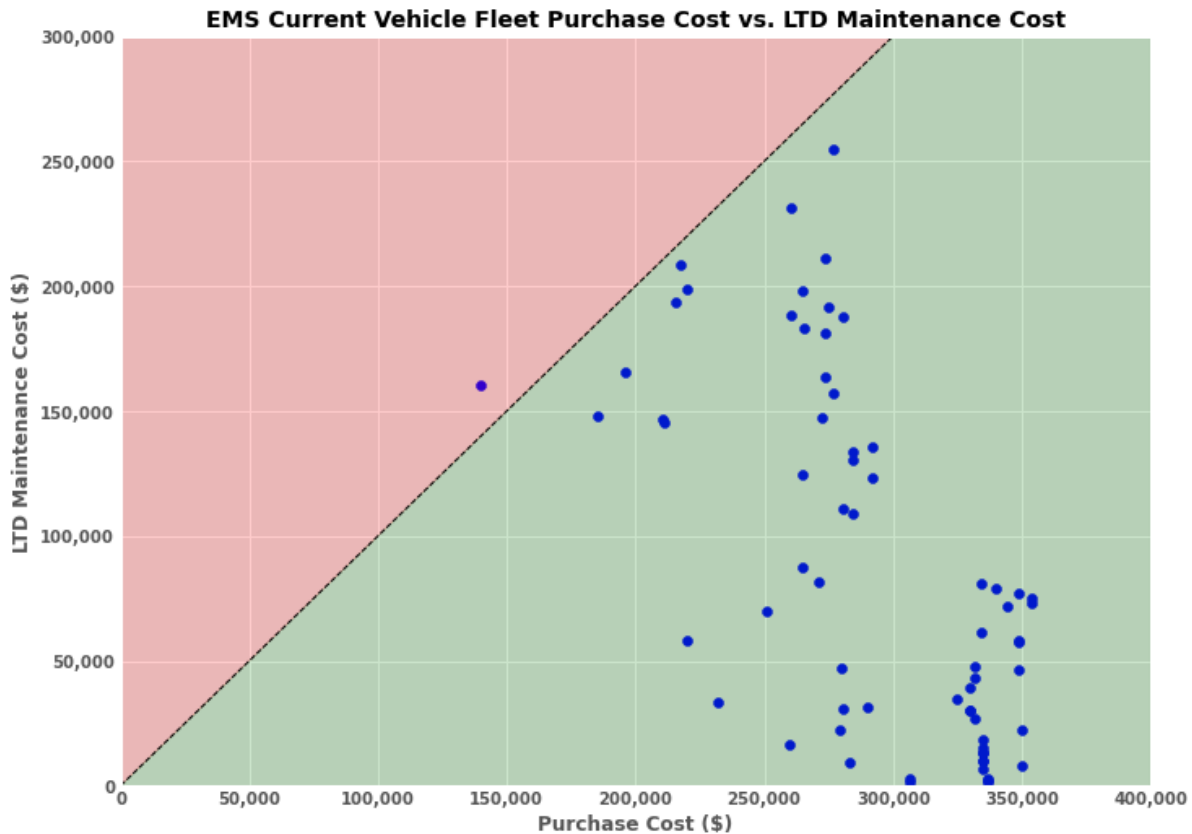
We reviewed the EMS vehicle fleet to identify rolling stock exceeding useful life, mileage, or other criteria. Vehicles that meet these criteria should be replaced to avoid excessive maintenance costs. As purported by EMS management, EMS transport units have a 10-year life cycle—5 years in front line service and 5 years in reserve fleet service. There is no minimum mileage requirement for a vehicle's retirement from the fleet.

OFPA analysis identified **8** vehicles in service for over 10 years, beyond the lifespan for EMS transport units. Of these, 1 vehicle incurred a maintenance cost (**~\$160k**) exceeding its purchase price (**~\$140k**).

The table and graph below detail the replacement analysis performed by OFPA.

EMS Fleet Maintenance v. Purchase Price Analysis EMS Replacement Criteria is 10-Year Life Cycle- 8 Identified							
Vehicle ID	Model Year	Purchase Price	Parts Exp.	Labor Exp.	Total Maint.	Maint./Pur.	Years In Service
V070	2003	\$140,000.00	\$56,666.33	\$84,361.32	\$160,066.22	114.33%	18
V802	2006	\$196,175.00	\$65,492.52	\$79,733.90	\$165,698.69	84.46%	16
V382	2007	\$210,231.85	\$66,971.90	\$73,586.77	\$146,729.90	69.79%	15
V504	2009	\$215,809.00	\$85,852.76	\$86,783.62	\$193,505.72	89.67%	13
V383	2011	\$277,000.00	\$77,000.17	\$71,976.45	\$157,095.61	56.71%	11
V805	2011	\$260,548.00	\$120,762.05	\$101,830.22	\$231,606.97	88.89%	11
V231	2012	\$260,548.00	\$102,084.44	\$80,487.74	\$188,303.36	72.27%	11
V804	2012	\$277,000.00	\$120,462.48	\$97,285.65	\$254,578.48	91.91%	11

Fairfax County
Office of Financial and Program Audit
Draft



Recommendation

We recommend staff review vehicles which exceed replacement criteria. These vehicles should be brought into consideration for updating the fleet.

General Services Administration/Office of Inspector General minimum fleet replacement standards' guidance for:

- Non-Diesel Ambulances – **7 years or 70,000 miles.**
- Diesel Ambulances – **7 years or 100,000 miles.**

While the years-in-service requirements exist; given the criticality of the functions provided by our fleet, we also recommend the consideration of employing mileage replacement standards.

Fairfax County
Office of Financial and Program Audit
Draft

Action Plan

Point of Contact	Target Implementation Date	Email Address
Daniel Shaw (Assistant Fire Chief)	10/31/2022	Dan.Shaw@fairfaxcounty.gov
George Robbins (Fire Battalion Chief)		George.Robbins@fairfaxcounty.gov
Chinaka Barbour (Fiscal Services Division Director)		Chinaka.Barbour@fairfaxcounty.gov

MANAGEMENT RESPONSE:

The vehicles included in slide 51 are volunteer owned and do not maintain the same replacement standard as County-owned vehicles

FRD will continue to evaluate the current replacement plan with Department of Management and Budget and Department of Vehicle Services.

The current replacement plan of 10 years includes 5 years in front line service and 5 years in reserve status. While a mileage standard for vehicle replacement does not exist, we will work with leadership on the recommendation.

Fairfax County
Office of Financial and Program Audit
Draft

STUDY AREA 6
HELICOPTER DIVISION COUNTY RESIDENT MEDEVAC TRANSPORTS

Observation

OFPA reviewed the Helicopter Division Medevac trips made in support of FCFRD's EMS services when air support is necessary.

There were **27** flight hours of Medevac trips within the County between FY2019-FY2021. Only **2.6%** of County Resident flight hours were associated with Medevac trips.

The Helicopter Division does not bill for Medevac transports. Purported by FCPD Helicopter Division management, "the County does not have the 14 CFR Part 135 Air Carrier and Operator Certification which is needed to bill for these transports." We've reviewed this assertion with the FCPD Helicopter Division; they concur with our conclusion.

Operating Expense (Helicopter Medevac Trips) Fairfax County¹

Fiscal Year	FY2019		FY2020		FY2021		FY2019-FY2021 Totals	
Jurisdictions	Flight Hours	Operating Expense	Flight Hours	Operating Expense	Flight Hours	Operating Expense	Total Flight Hours	Total Operating Expense
Alexandria	2.9	\$2,837	0.7	\$685	0	\$0	3.6	\$3,522
Annandale	0.7	\$685	1.8	\$1,761	0	\$0	2.5	\$2,446
Burke	0	\$0	0.8	\$783	0	\$0	0.8	\$783
Centreville	2.6	\$2,543	1.5	\$1,467	0	\$0	4.1	\$4,011
Chantilly	0	\$0	1	\$978	0	\$0	1	\$978
Clifton	0.7	\$685	0.3	\$293	0	\$0	1	\$978
Fairfax	1.4	\$1,370	2	\$1,956	1	\$978	4.4	\$4,304
Fairfax Station	1.4	\$1,370	0	\$0	0	\$0	1.4	\$1,370
Falls Church	0.6	\$587	0	\$0	0	\$0	0.6	\$587
Great Falls	0	\$0	0	\$0	0.6	\$587	0.6	\$587
Herndon	1.2	\$1,174	1.5	\$1,467	0	\$0	2.7	\$2,641
Lorton	0	\$0	0	\$0	0.3	\$293	0.3	\$293
McLean	0	\$0	0.7	\$685	0	\$0	0.7	\$685
Oakton	0	\$0	0.8	\$783	0	\$0	0.8	\$783
Reston	0.7	\$685	0	\$0	0	\$0	0.7	\$685
Springfield	0	\$0	1	\$978	0.8	\$783	1.8	\$1,761
Woodbridge	0	\$0	0.6	\$587	0	\$0	0.6	\$587
Total	12.2	\$11,934	12.7	\$12,423	2.7	\$2,641	\$28	\$26,999

Footnote (1): Data compilation based on patient residency

Conclusion

OFPA finds incorporating Medevac billing to be cost prohibitive.

We Pass Further Audit Work (PFAW)

Fairfax County
Office of Financial and Program Audit
Draft
ADDENDUM SHEET

OFPA (September 2022 /Agency Report and/or Debriefing)

9/20/2022

The table below lists discussions from the Audit Committee.

<i>Location in Report</i>	<i>Comments</i>

09/20/2022

Name & Contact:

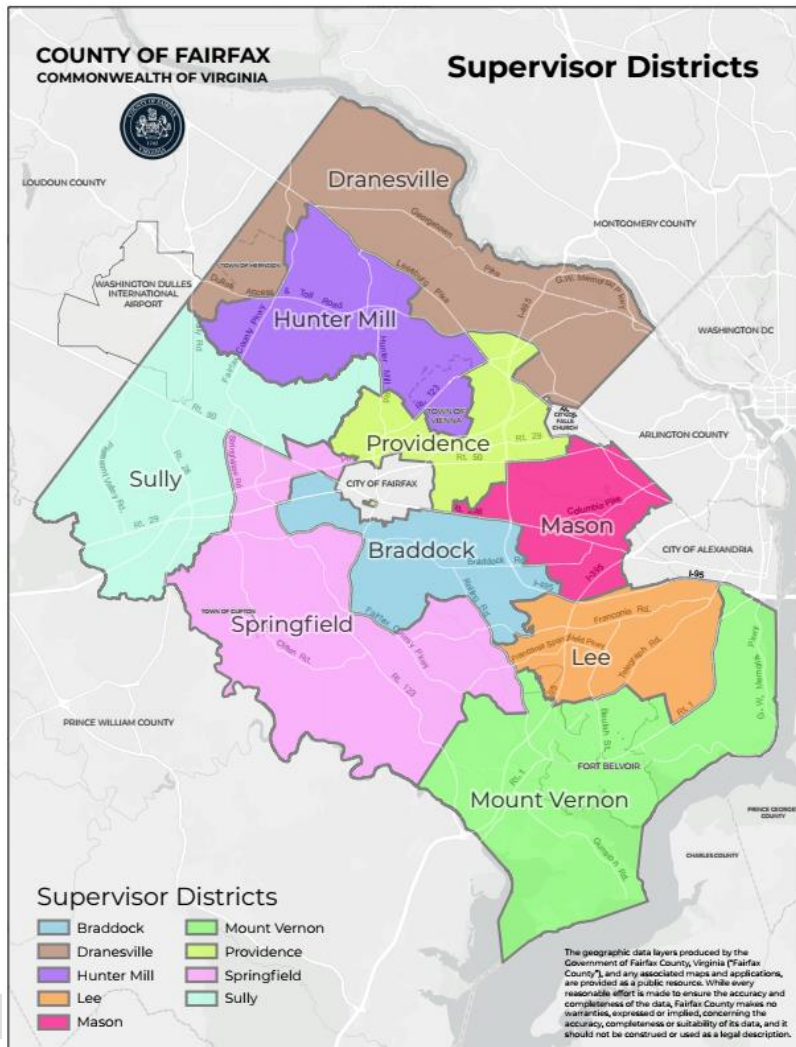
[illegible]

42 of 44 | Page

Fairfax County
Office of Financial and Program Audit
Draft
LIST OF ACRONYMS

AC	Audit Committee
ALS	Advanced Life Support
BLS	Basic Life Support
BOS	Board of Supervisors
CFR	Code of Federal Regulations
DIT	Department of Information Technology
DOF	Department of Finance
DR	Disaster Recovery
EMS	Emergency Medical Service
FCFRD	Fairfax County Fire and Rescue Department
FCPD	Fairfax County Police Department
FOCUS	Fairfax County Unified System
LLC	Limited Liability Company
MAA	Mutual Aid Agreement
NCC	Nationwide Credit Corporation
OCA	Office of County Attorney
OFPA	Office of Financial and Program Audit
PFAW	Pass Further Audit Work
PII	Patient Identifiable Information

Fairfax County
Office of Financial and Program Audit
Draft



FAIRFAX COUNTY BOARD OF SUPERVISORS
AUDITOR OF THE BOARD
www.fairfaxcounty.gov/boardauditor
Office of the Financial and Program Audit
12000 Government Center Parkway, Suite 233
Fairfax, Virginia 22035