

Fire and Rescue Department

Mission To provide the highest quality services to protect the lives, property, and environment of our community.

Focus The Fire and Rescue Department (FRD) currently operates 38 fire stations. The 39th Fire Station, Scotts Run, is expected to be open in late spring of 2021. Fire stations are staffed full time by County personnel with supplemental services provided by volunteers. The department operates from an “all-hazards” platform and serves Fairfax County and its residents by suppressing fires; providing advanced life support; pre-hospital emergency medical care; rescue operations (i.e. searching for and rescuing persons who become trapped in fires, and extrication from vehicle accidents); and special operations, including the release or spill of hazardous materials, technical rescue (i.e. swift water rescue, building or trench collapse, high angle or rope rescue), marine operations (i.e. water rescue, boat fires, fuel spills) on the lower Potomac and Pohick Bay, and performing emergency planning. The Office of the Fire Marshal investigates fires, bombings, and hazardous material releases. The department also supports regional, national, and international emergency response operations during disaster situations through maintaining and supporting the Urban Search and Rescue (US&R) Team (Virginia Task Force 1), the National Capital Region Incident Management Team, and other response groups. The US&R Team is one of only two teams in the United States federally sponsored for international disaster response.

Additionally, FRD provides critical non-emergency services to prevent the 911 call, such as community risk reduction, educating the public on fire and personal safety issues, providing public information and prevention education, and enforcing fire prevention and life safety codes in all public buildings. Robust life safety education programs, concentrated enforcement of fire prevention codes and operational personnel dedicated to protecting lives are instrumental in the County maintaining a low fatality record.

FRD actively engages at local, regional, and national levels to meet the challenges of emergency response and prevention. Regionally, FRD has built collaborative relationships with surrounding localities and organizations necessary for responding to emergency incidents regardless of jurisdictional boundaries and across public safety disciplines.

FRD also operates a number of facilities to ensure personnel are trained and prepared to perform the mission. The Fire and Rescue Academy provides firefighter, rescue, and emergency medical training and conducts citizen emergency response training. Two apparatus shops are staffed to ensure emergency response vehicles are safe and service ready.

Despite high demands for emergency services (almost 102,000 incidents in FY 2020) and tightened financial resources, FRD has maintained its ability to meet core responsibilities while striving to remain on the cutting edge of safety and technological advancements. The department continually seeks alternative funding sources to fund new and on-going initiatives. During FY 2020, FRD was awarded in excess of \$12 million in grant funds. Grant funding is used to support Urban Search and Rescue personnel, purchase personal protective equipment and emergency response vehicles, as well as to support firefighter training and education.

FRD is dedicated to being the best community-focused fire and rescue department and ensuring a safe and secure environment for all residents and visitors. To successfully meet challenges posed by increasing urbanization and a more densely populated response area, FRD will continue to be progressive in efforts to achieve economies of scale through regional cooperation, seek out innovative methods for keeping pace with technology, sustain programs to maintain a healthy workforce and adjust staffing configurations to meet the needs of future growth in Fairfax County.

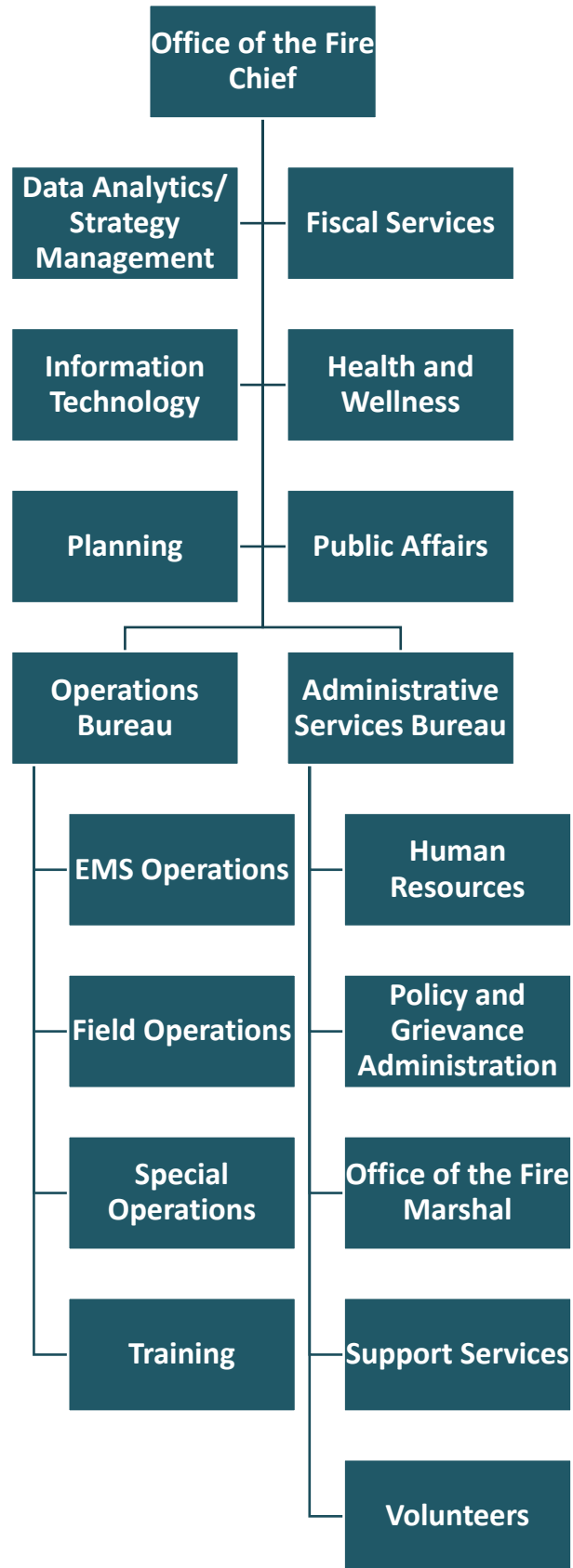
In August 2018, FRD became an accredited agency with the Commission on Fire Accreditation International (CFAI). FRD also holds a Class 1 rating from the Insurance Service Office (ISO). The department is one of only three agencies worldwide that serves a population greater than one million that is accredited by CFAI and holds an ISO Class 1 rating.

Pandemic Response and Impact

Since the beginning of the COVID-19 pandemic, the Fairfax County Fire and Rescue Department has been responding to COVID-19 emergency medical events. When providers respond to a prescreened positive event, COVID cluster facility, unconscious/unresponsive patient, cardiac arrest, or any event that requires an aerosol generating procedure, they don full COVID Personal Protective Equipment (CPPE), which consists of eye protection, N95 respirator, gown, and gloves.

On all other responses, providers make initial contact with the patient, place a surgical mask on the patient, decontaminate the patient's hands, and perform a COVID-19 patient assessment. If this assessment is positive, the providers don their CPPE. All eight of the local hospitals have different patient transfer policies, which frequently change. Some of these policies require providers to utilize additional sets of CPPE. Once patient care has been transferred to the hospital, providers and their units remain out of service until the transport unit is decontaminated, all reports are completed, the personnel have returned to the station, decontaminated their clothing, taken a personal shower, and donned a clean uniform. These additional unit and personal decontamination procedures significantly increase fire and rescue out of service time and require close monitoring to maintain service delivery.

**Organizational
Chart**



Budget and Staff Resources

Category	FY 2020 Actual	FY 2021 Adopted	FY 2021 Revised	FY 2022 Advertised
FUNDING				
Expenditures:				
Personnel Services	\$178,426,385	\$189,293,622	\$188,815,947	\$186,499,447
Operating Expenses	29,792,570	29,696,342	34,208,093	31,269,000
Capital Equipment	1,436,889	0	620,129	0
Total Expenditures	\$209,655,844	\$218,989,964	\$223,644,169	\$217,768,447
Income:				
Fire Prevention Code Permits	\$1,765,216	\$1,732,955	\$1,732,955	\$1,732,955
Fire Marshal Fees	4,767,621	4,802,171	4,802,171	4,802,171
Charges for Services	274,739	255,000	255,000	255,000
EMS Transport Fee	20,713,923	20,932,779	18,900,000	18,900,000
Total Income	\$27,521,499	\$27,722,905	\$25,690,126	\$25,690,126
NET COST TO THE COUNTY	\$182,134,345	\$191,267,059	\$197,954,043	\$192,078,321
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	1602 / 1602	1602 / 1602	1604 / 1604	1612 / 1612

This department has 19/18.5 FTE Grant Positions in Fund 50000, Federal-State Grants.

FY 2022 Funding Adjustments

The following funding adjustments from the FY 2021 Adopted Budget Plan are necessary to support the FY 2022 program:

Fire Station 44 – Scotts Run \$817,848

An increase of 8/8.0 FTE new positions and \$817,848 in funding is associated with the Scotts Run Fire Station. FY 2022 funding will provide for the full-year operation of a Medic Unit. This funding represents a phased-in approach to staffing the Scotts Run Fire Station; future funding will be required for the Engine Unit. The total includes \$688,248 in Personnel Expenses and \$129,600 in Operating Expenses. The Medic Unit itself was purchased using one-time funding as part of the *FY 2019 Carryover Review*. It should be noted that an increase of \$364,706 in Fringe Benefits funding is included in Agency 89, Employee Benefits for a total cost of \$1,182,554. For further information on Fringe Benefits, please refer to the Agency 89, Employee Benefits, narrative in the Nondepartmental program area section of Volume 1.

Reduction (\$2,000,000)

A reduction of \$2,000,000 in Personnel Services reflects anticipated savings based on efficiencies and trends in actual Personnel expenditures.

Realignment (\$39,365)

A reduction of \$39,365 in Personnel Services reflects a shift in funding from the Fire and Rescue Department to Agency 89, Employee Benefits, as a result of the conversion of a contract position to a merit position. For further information on Fringe Benefits, please refer to the Agency 89, Employee Benefits, narrative in the Nondepartmental program area section of Volume 1.

Changes to FY 2021 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2021 Revised Budget Plan since passage of the FY 2021 Adopted Budget Plan. Included are all adjustments made as part of the FY 2020 Carryover Review, FY 2021 Mid-Year Review, and all other approved changes through December 31, 2020:

Carryover Adjustments **\$4,654,205**

As part of the FY 2020 Carryover Review, the Board of Supervisors approved encumbered funding of \$4,149,844 in Operating Expenses and \$504,361 in Capital Equipment.

Position Adjustment **\$0**

As part of an internal reorganization of positions approved by the County Executive, 2/2.0 FTE positions have been redeployed to Agency 92, Fire and Rescue Department, due to workload requirements.

Cost Centers

The three cost centers of the Fire and Rescue Department are the Office of the Fire Chief, the Operations Bureau, and the Administrative Services Bureau. The cost centers work together to fulfill the mission of the department and carry out key initiatives for the fiscal year.

Office of the Fire Chief

The Office of the Fire Chief manages and coordinates all aspects of the Fire and Rescue Department which include directing overall policy, planning and management of the department. This office also includes the department's Data Analytics Strategy Management Division, the Fiscal Services Division, the Health and Wellness Section, the Information Technology Division, the Planning Section, and the Public Information Section. These divisions work together to ensure the Operations Bureau has the resources needed to respond to emergency incidents.

Category	FY 2020 Actual	FY 2021 Adopted	FY 2021 Revised	FY 2022 Advertised
EXPENDITURES				
Total Expenditures	\$11,035,308	\$10,510,192	\$13,265,574	\$11,365,105
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	47 / 47	47 / 47	48 / 48	48 / 48

Operations Bureau

The Operations Bureau is composed of the EMS Operations Division, the Field Operations Division, the Special Operations Division, and the Training Division. The goal of the Operations Bureau is to save lives and protect property by providing emergency and non-emergency response to residents and visitors of Fairfax County. The Operations Bureau operates on three separate 24-hour rotating shifts. Each shift is led by two Deputy Fire Chiefs. The County is now separated geographically into eight battalions, each managed by a Battalion Fire Chief. The previous deployment model of one Deputy Fire Chief and seven battalions created a disparity in response times and call volume. The new deployment model will allow for desired span of control, reduced response times, and additional leadership and mentoring opportunities. Fire suppression personnel and paramedics work in tandem to ensure the highest level of safety and care for residents and visitors of Fairfax County. This bureau also provides basic and volunteer training, professional certifications, and continuing education.

Category	FY 2020 Actual	FY 2021 Adopted	FY 2021 Revised	FY 2022 Advertised
EXPENDITURES				
Total Expenditures	\$175,741,768	\$184,533,968	\$185,605,528	\$182,457,538
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	1365 / 1365	1365 / 1365	1365 / 1365	1373 / 1373

Administrative Services Bureau

The Administrative Services Bureau includes the Human Resources Division, the Office of the Fire Marshal, the Policy and Grievances Administration Division, the Support Services Division, and the Volunteer Liaison's Office. This bureau strives to provide a representative work force through equal employment opportunity, active recruitment of qualified applicants and volunteers, overseeing the volunteer program and maintaining professional standards for the department.

Category	FY 2020 Actual	FY 2021 Adopted	FY 2021 Revised	FY 2022 Advertised
EXPENDITURES				
Total Expenditures	\$22,878,768	\$23,945,804	\$24,773,067	\$23,945,804
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	190 / 190	190 / 190	191 / 191	191 / 191

Position Detail

The FY 2022 Advertised Budget Plan includes the following positions:

OFFICE OF THE FIRE CHIEF - 48 Positions			
1	Fire Chief	3	Network Telecom. Analysts I
1	Assistant Fire Chief	1	Internet Architect III
1	Battalion Chief	1	Geo. Info. Spatial Analyst IV
1	Fire Captain II	1	Geo. Info. Spatial Analyst III
2	Fire Captains I	1	Geo. Info. Spatial Analyst II
1	Fire Lieutenant	2	Financial Specialists IV
1	Fire Technician	4	Financial Specialists III
1	Info. Tech. Program Mgr. I	2	Financial Specialists II
3	Management Analysts IV	2	Financial Specialists I
2	Management Analysts II	1	Public Information Officer III
1	Management Analyst I	1	Data Analyst II
1	Public Information Officer IV	1	Data Analyst I

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OFFICE OF THE FIRE CHIEF			
1	Programmer Analyst IV	1	Business Analyst I
1	Programmer Analyst III	1	Administrative Assistant V
1	Programmer Analyst II	4	Administrative Assistants IV
1	Network Telecom. Analyst III	1	Administrative Assistant III
1	Network Telecom. Analyst II		
OPERATIONS BUREAU - 1,373 Positions			
1	Assistant Fire Chief	1	Management Analyst III
9	Deputy Fire Chiefs	3	Management Analysts I
30	Battalion Chiefs, 1 AP	1	Emergency Management Specialist III
55	Captains II	1	Assistant Producer
100	Captains I, 1 AP	1	Material Management Specialist III
186	Lieutenants, 5 AP	1	Material Management Specialist I
567	Fire Technicians, 3 AP [+4]	3	Administrative Assistants IV
407	Firefighters, 4 AP [+4]	1	Administrative Assistant III
3	Nurse Practitioners	3	Administrative Assistants II
ADMINISTRATIVE SERVICES BUREAU - 191 Positions			
1	Assistant Fire Chief	1	Financial Specialist III
2	Deputy Fire Chiefs	1	Financial Specialist I
7	Battalion Chiefs	1	Emergency Management Specialist III
6	Captains II	1	Business Analyst III
15	Captains I	1	Business Analyst II
12	Lieutenants	3	Code Specialists II
9	Fire Technicians	1	Fire Inspector IV
3	Vehicle Maintenance Coordinators	5	Fire Inspectors III
1	Fire Apparatus Supervisor	38	Fire Inspectors II
2	Assistant Fire Apparatus Supervisors	1	Contract Analyst II
8	Fire Apparatus Mechanics	1	Communications Specialist II
1	Engineer V	1	Instrument Technician III
1	Engineer IV	1	Instrument Technician II
13	Engineers III	1	Inventory Manager
3	Engineering Technicians I	2	Administrative Assistants V
1	Program and Procedures Coordinator	8	Administrative Assistants IV
1	Management Analyst IV	6	Administrative Assistants III
2	Management Analysts III	2	Administrative Assistants II
6	Management Analysts II	2	Material Management Specialists III
4	Management Analysts I	2	Material Management Specialists II
1	Human Resources Generalist IV	2	Material Management Specialists I
2	Human Resources Generalists III	1	Material Management Driver
2	Human Resources Generalists II	1	Truck Driver
3	Human Resources Generalists I	1	Public Health Nurse
1	Internal Affairs Investigator		
1,415 Uniformed Positions/197 Civilian Positions			
+	Denotes New Position(s)		
AP	Denotes Alternative Placement Program		

Performance Measurement Results

Fairfax County Fire and Rescue Department has identified a four-pronged approach to a total community fire and life safety program:

- Prevent the 911 call through community outreach, education, and prevention programs including building inspections and code enforcement;
- Respond to structure fires to save lives and property;

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- Respond to medical emergencies to save lives; and
- Respond to all hazards incidents to save lives, property, and the environment.

The overarching priority of the Fairfax County Fire and Rescue Department is to "Prevent the 911 Call" to reduce the risk that any Fairfax County resident, business employee, or visitor will suffer a fire injury or death, and reduce the chances of fire-related property loss or damage. To achieve the goal of preventing the 911 call, FRD is committed to community risk reduction, and providing essential fire prevention and life safety education programs.

The objective of the Community Risk Reduction Section's Life Safety Education program is to educate 21,000 preschool and kindergarten students, 16,800 school-age children, and 10,500 older adults annually in an effort to eradicate fire deaths and burn injuries within these high-risk populations. In FY 2020, all life safety education programs decreased significantly when schools and nursing homes in Fairfax County closed in March 2020 due to COVID-19 pandemic. In FY 2021 and FY 2022 the number of life safety education programs presented to member of high-risk populations should increase as a result of transitioning to virtual life safety education programs.

In FY 2020, Operations responded to 101,961 incidents and 52,470 patients were transported to local hospitals. In addition to deaths, burn injuries, and property loss from fires. In FY 2020, the total property value loss was \$58.3 million. Over \$40 million was from one significant fire in a multi-structure commercial complex under construction in the Mount Vernon District. The total property value saved from fire suppression activities was \$2.3 billion.

FRD reports cardiac arrest outcomes using the Utstein template, the international standard for cardiac arrest reporting, as it more accurately reflects the populations of patients for whom prehospital interventions are likely to have the most impact, i.e., those presenting in a shockable rhythm. In CY 2019, FRD attempted resuscitation for 643 patients found in cardiac arrest; of those, 488 were presumed to be of cardiac origin. Only 88 met the Utstein criteria (witnessed arrest + presumed cardiac origin + presented in shockable rhythm). Eight of those patients had returned of spontaneous circulation (POSC) meaning they had a pulse upon arrival at a hospital (9 percent). Seven patients survived to admission and four survived to discharge (4.5 percent). All four with a cerebral performance category (CPC) of 1 or 2 at discharge, meaning they could resume activities of daily living. Latest data from the American Heart Association reveals that 10.4 percent of adults and 11.1 percent of children who presented in an out of hospital cardiac arrest survived to hospital discharge.

The National Fire Protection Association (NFPA), a standard-setting organization for fire departments, adopts standards regarding response time objectives and staffing levels. The Service Quality indicators reported by FRD track the percent of time the department meets NFPA standards. NFPA response time standards for structure fires require the first engine company to arrive on the scene of a structure fire within five minutes and 20 seconds, and 15 firefighters to arrive on scene within nine minutes and 20 seconds, 90 percent of the time. In FY 2020, the department met these standards 48.9 percent and 81.9 percent of the time. NFPA response time standards for medical emergencies require an advanced life support (ALS) transport unit on scene within nine minutes and an AED on scene within five minutes, 90 percent of the time. In FY 2020, these response goals were met 90.8 percent and 57.5 percent of the time. The department's ultimate goal is to improve response times to both fire and medical incidents through increased staffing and emergency vehicle pre-emption on traffic signals.

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The Office of the Fire Marshal activities are designed to minimize property loss in commercial (non-residential) fires through effective and comprehensive inspections that enforce all applicable codes. In FY 2020, total revenue for all inspection activities was down due to COVID-19 leave used by inspections staff. Revenue generated from retesting of fire protection system inspections decreased significantly in FY 2020, reducing the average revenue generated per inspection/systems testing activity. A change in business process to verify more building owners complied with maintenance regulations was instituted. Previously, a large amount of revenue was due to cancelled inspections which did not serve to ensure regulatory requirements were met. In addition, a change in scheduling for acceptance testing of fire protection system reduced the need for overtime inspections which decreased the amount of revenue generated from billing at overtime rates. FRD anticipates this trend to continue in FY 2021 and FY 2022 which will impact cost recovery percentages. The Office of the Fire Marshal is in the process of re-evaluating the revenue model for future inspections and system testing activities.

Maintaining a well-trained fully staffed workforce is key to the department's ability to perform its mission. The Training Division graduated 80 career firefighters from two recruit schools during FY 2020. This number was significantly higher than estimated because the total number of recruits enrolled was higher than previous years due to larger recruit schools. In FY 2021 and FY 2022, the FRD will continue to hold larger recruit schools to meet projected staffing needs.

The COVID-19 pandemic had a negative impact on the total number of Volunteers in Volunteer Fire Departments. Implementation of the Volunteer SAFER Recruitment and Retention grant was delayed, and the Volunteer Recruit Schools was postponed until FY 2022. In FY 2020, the total number of volunteer operational hours, as well as the number of times volunteer units were placed in service declined due to reduced riding opportunities to limit COVID-19 exposure, the elimination of standby events, and the cancellation of large public events such as Viva Vienna, Herndon Festival, and Celebrate Fairfax. It is anticipated the Volunteer numbers will remain low in FY 2021 and begin to stabilize in FY 2022.

Indicator	FY 2018 Actual	FY 2019 Actual	FY 2020 Estimate	FY 2020 Actual	FY 2021 Estimate	FY 2022 Estimate
Operations Bureau						
Percent ALS transport units on scene within 9 minutes	88.20%	87.45%	90.00%	90.82%	90.00%	90.00%
AED response rate within 5 minutes	55.81%	52.71%	60.00%	57.47%	60.00%	60.00%
Total incidents responded to	103,926	104,937	105,000	101,961	105,000	105,000
Fire suppression response rate for the arrival of an engine company on a structure fire within 5 minutes and 20 seconds	48.82%	50.98%	52.00%	48.88%	52.00%	52.00%
Fire suppression response rate for 15 personnel within 9 minutes and 20 seconds	79.02%	76.36%	85.00%	81.88%	85.00%	85.00%
Percent of cardiac arrest patients arriving at the Emergency Department with a pulse ¹	9.5%	22.8%	30.0%	9.0%	20.0%	20.0%
Number of smoke alarms distributed and installed	391	1,067	7,000	6,390	3,000	3,000
Number of File of Life used as resource in patient encounters	1,854	460	400	1,634	800	800
Fire loss (millions)	\$27.2	\$18.1	\$16.0	\$58.3	\$16.0	\$16.0
Fire loss as percent of total property valuation	0.60%	0.01%	0.01%	0.03%	0.01%	0.01%
Total civilian fire deaths	6	3	2	5	2	2
Civilian fire deaths per 100,000 population	0.52	0.26	0.17	0.42	0.17	0.17
Civilian fire-related burn injuries	20	27	15	7	15	15
Civilian fire-related burn injuries per 100,000 population	1.8	1.8	1.3	0.6	1.3	1.3
Trained career firefighters added to workforce	66	37	74	80	90	110

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Indicator	FY 2018 Actual	FY 2019 Actual	FY 2020 Estimate	FY 2020 Actual	FY 2021 Estimate	FY 2022 Estimate
Office of the Fire Chief						
Preschool and kindergarten students served	10,572	10,577	20,000	7,539	18,500	21,000
Senior citizens served	7,506	8,507	10,000	4,040	9,000	10,500
Children (5 years and under) deaths due to fire	0	0	0	0	0	0
Children (5 years and under) burn injuries	0	0	0	0	0	0
Senior citizen (over age 60) deaths due to fire	5	2	1	2	1	1
Senior citizen (over age 60) burn injuries	3	6	2	2	2	2
Transport billing (in millions)	\$21.3	\$21.2	\$21.3	\$20.7	\$18.9	\$18.9
Administrative Services Bureau						
Fire investigations conducted (including arson cases)	296	287	300	243	250	250
Hazardous materials cases investigated	155	223	170	102	125	125
Fire inspection activities conducted	16,659	20,206	19,000	23,936	20,000	20,000
Systems testing activities conducted	10,289	10,423	11,000	10,557	11,000	11,000
Revenue generated for all inspection activities	\$7,378,543	\$5,911,337	\$5,757,832	\$4,977,625	\$4,262,832	\$4,262,832
Percent of fire prevention services cost recovered	123.3%	96.6%	88.8%	69.8%	65.5%	62.6%
Percent total fire investigation cases closed (fires, bombings, threats and arson)	91.1%	89.0%	90.0%	94.0%	90.0%	85.0%
Percent arson cases closed	41.0%	41.0%	40.0%	25.0%	40.0%	40.0%
Percent hazardous materials cases closed	98.7%	96.0%	90.0%	100.0%	90.0%	85.0%
Total fire loss for commercial structures	\$3,800,000	\$760,405	\$2,000,000	\$2,466,151	\$2,000,000	\$2,000,000
Volunteer operational hours	81,598	81,364	82,000	66,695	60,000	80,000
Times volunteer-staffed emergency vehicles are placed in service annually	1,648	1,358	1,600	1,429	1,500	1,600

¹ The Fairfax County Fire and Rescue Department aims to meet or exceed the national average for out of hospital cardiac arrest, which ranges from 10 to 15 percent between the years of 2006 through 2016. As a result, the department expects at least 20 percent of cardiac arrest patients to arrive at Emergency Departments with a pulse in FY 2021 and FY 2022.

A complete list of performance measures can be viewed at <https://www.fairfaxcounty.gov/budget/fy-2022-advertised-performance-measures-pm>