



HOUSTON FIRE DEPARTMENT RESOURCE STATUS

Samuel Peña, Houston Fire Chief

November 4, 2020



Agenda

Provide a resource status and program improvement for three major Houston Fire Department (HFD) programs

1. Fleet (Engine, Aerial, Ambulance) Replacement Program
2. Flood Response Program
3. Firefighter Health and Safety Program

Provide information on EMS Service Demand

Provide information on staffing levels



In each of the last three years, the HFD presented a resource needs assessment to the Public Safety and Homeland Security Committee (PSHS).

- 2017 focused on Fleet Replacement; Flood Response resources, equipment and training
- 2018 focused on Personal Protective Equipment (PPE) NFPA 1851; Firefighter Health and Safety equipment and training
- 2019 focused on strategic purchases and investment needs for each program

Fleet Replacement Program



FY20 Fleet

Fire Trucks	8
Rescue Trucks	1
Ladders Trucks	2
Boosters	4
Ambulances	5
Light Duty	13
Total Investment \$10,086,641	

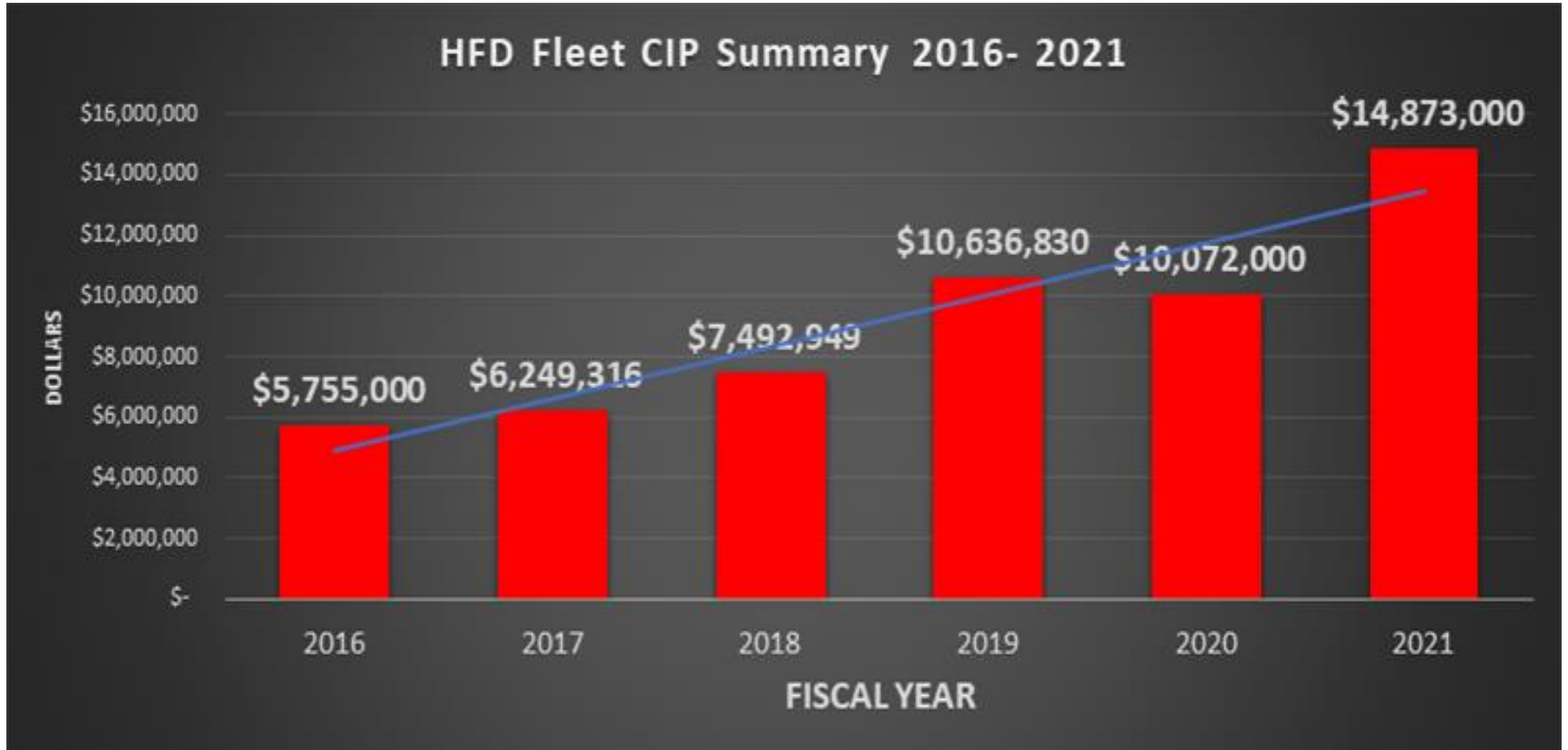


FY21 Fleet

Fire Trucks	9
Ladder Trucks	3
Ambulances	15
Boosters	1
District Chief Trucks	2
Forklifts	1
EMS Supervisor Vehicles	3
Box Vans	1
Cascades	1
Arson Vehicles	15
Cargo Vans	1
Specialty Vehicles	6
Total Investment \$14,873,000	



Multi-Year Summary of Fleet CIP



Annual Fleet Purchases



Apparatus	2017	2018	2019	2020	2021	Totals	% Replacement
Fire							
Engines	4	4	10	8	9	35	40%
Aerials	3	2	3	3	3	14	37%
Ambulance	0	9	18	8	15	50	48%



Flood Response Program

Highwater Rescue Vehicle/Hybrid Booster Additions

- 1 Booster Truck in FY19
- 4 Booster Trucks in FY20
 - Expected delivery in February 2021
- 1 Booster in FY21
- Approximate cost per truck: \$184,000



Equipment Type	Inventory Received
Rescue Boats	11
Evacuation Boats	21
HW Vehicles (Plus: Booster/HWV's)	9 (6)
Wave Runners	10
Prime Movers	10
PS Drones	3
Water Strike Team Training/Equipment	80
GF Investment: \$2,911,349	
*Donations: \$593,012	
Total Investment(FY'18-'20): \$3,504,361	



Firefighter Health and Safety Program

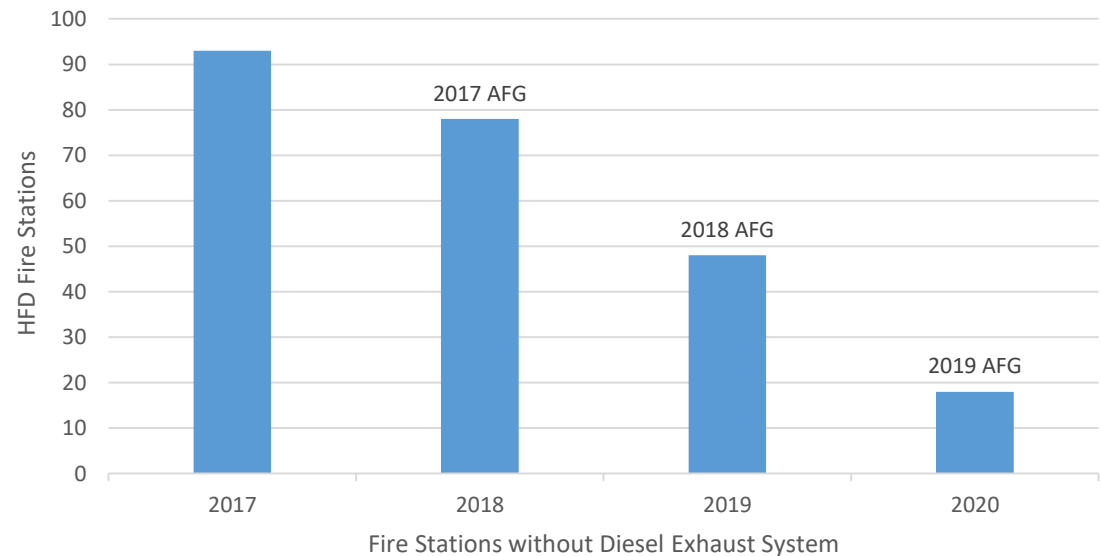
Program Improvements

Thermal Imaging Cameras

- Evaluated and selected by HFD Firefighters
 - Single button use FLIR K33
 - Better display quality
- Provide crucial insight for search & rescue
- 119 Units Replaced this year
 - 47 Units Purchased by District F, G, AL 1 & 5
 - *\$118,000 CDF Investment*



Diesel Exhaust Removal System





Program Improvements

- Improve our process of keeping gear clean and firefighters safe
- Funding assisted by Firefighter Foundation of Houston FFFH
- District A, G and E
 - *\$95,682 for Extractors- Gear Cleaning*
- Total facilities 94 (Arson & Academy)
 - 59 currently installed
 - 35 outstanding





Firefighter Health and Safety Program

Equipment	Completed/Projected	Needs	Estimated Cost
Plymovent System	76 Fire Stations	18	\$1,110,639
Extractor/Gear Washers	59 Fire Stations	35	\$380,000
Thermal Imaging Cameras	119	85	\$204,000
Half Mask Respirators & Filters	0	4,290 Masks 11,190 Filters	\$308,000
Annual Program M&O	Safety Equipment Maintenance, Replacement and Repair		\$220,000
<i>*Personal Protective Equipment (PPE) Gloves 2nd set</i>			\$500,000
<i>*Annual (Mandatory/Non-Punitive) NFPA 1582 Compliant FF Physical Exams</i>			\$2,200,000
<i>*Implementation of IAFC/IAFF Wellness-Fitness Initiative (WFI)</i>			



Non-Traditional Funding Sources

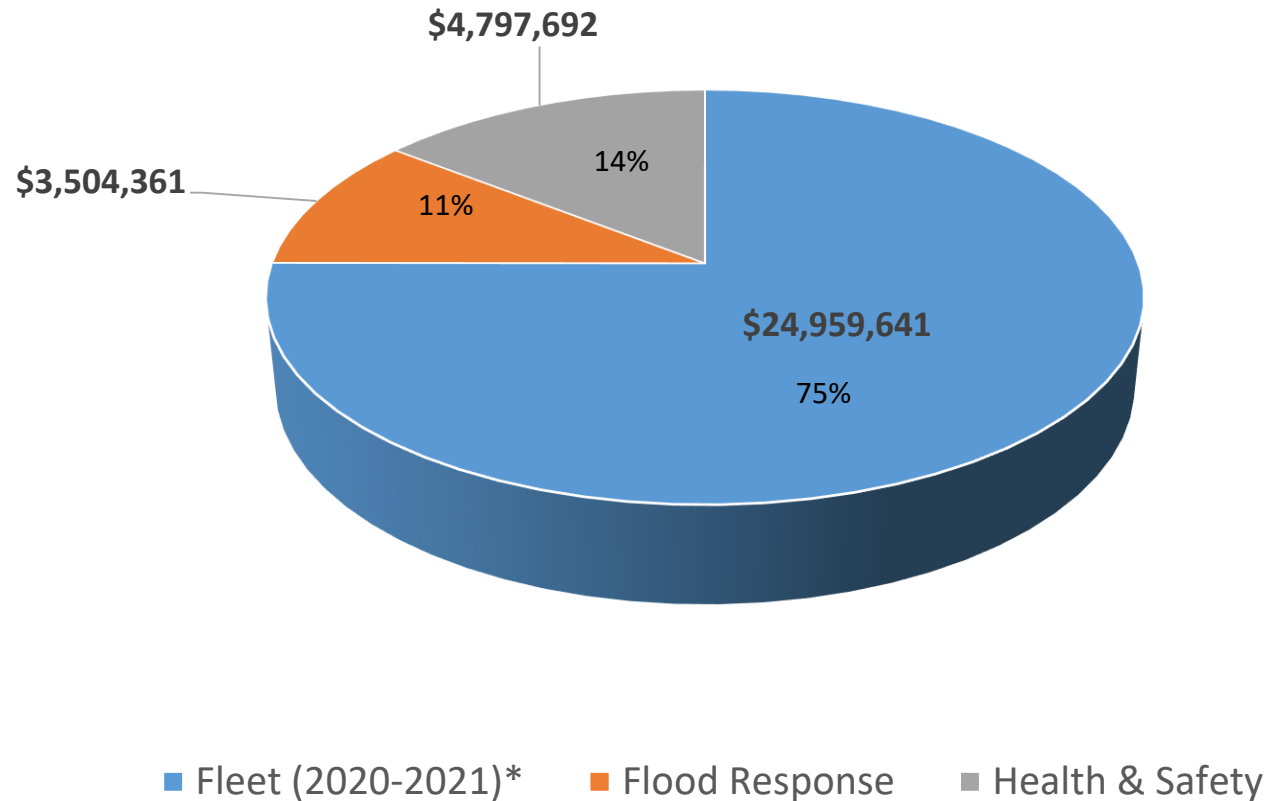
August 2017 to October 2020

– Donations:	\$1,254,949
– Grant Funding- Local, State and Federal:	
○ (UASI & HLSR: \$1,444,646)*	
○ AFG, State, and other Local:	\$6,499,605
○ Other Grants:	\$852,496
<i>Total Non-Traditional Funding to HFD:</i>	\$8,607,050

Investment Summary (All Funds)



Total Investment ~\$33.2 Million*

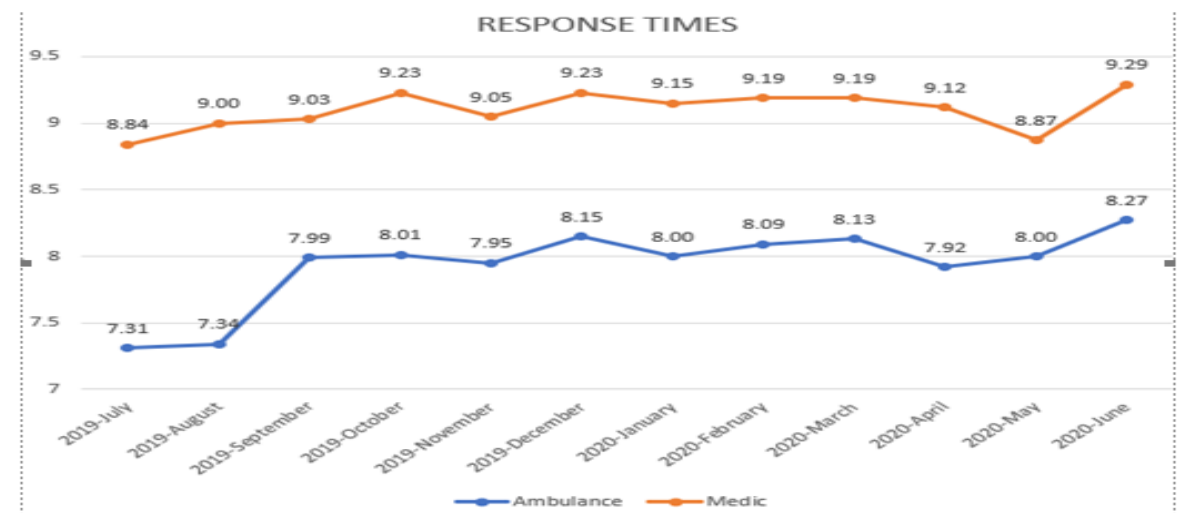




Ambulance Service Demand

- EMS incidents account for 87% of HFD workload
- Call volume has increased over 16% in the last 7 years
- Increase is completely driven by EMS call volume
- Peak time demand between 1100 and 1800
 - EMS Resource Management in effect 13% of the time
- Dispatch adjustments in attempts to send the most appropriate resource have been made to over 37 medical call types
- Dispatch adjustments have made limited impact on Ambulance capacity.
- **Additional Ambulance Units needed in the system**

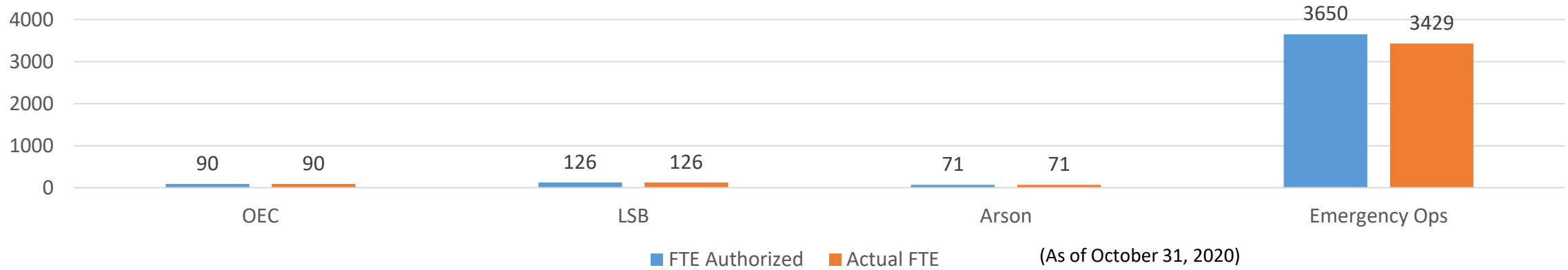
Year	Total Fire Type Incidents	Total EMS Type Incidents	All Incidents
2010	44,341	226,084	270,425
2011	46,200	230,518	276,718
2012	44,707	248,974	293,681
2013	42,061	257,040	299,101
2014	41,747	276,842	318,589
2015	43,053	289,873	332,926
2016	42,103	293,811	335,914
2017	44,451	297,385	341,836
2018	44,595	295,711	340,306
2019	45,299	301,731	347,095
2020 YTD	35,489	249,884	285,373
TOTAL	474,111	2,967,853	3,441,964



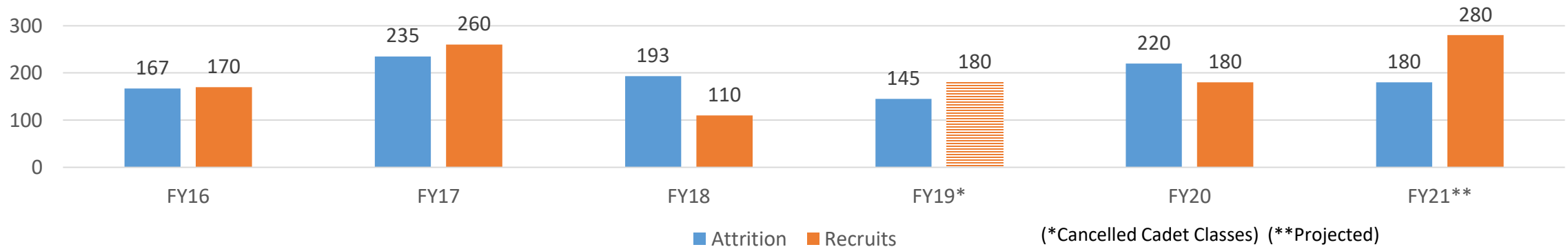


HFD Staffing Level

FTE Authorized vs Actual

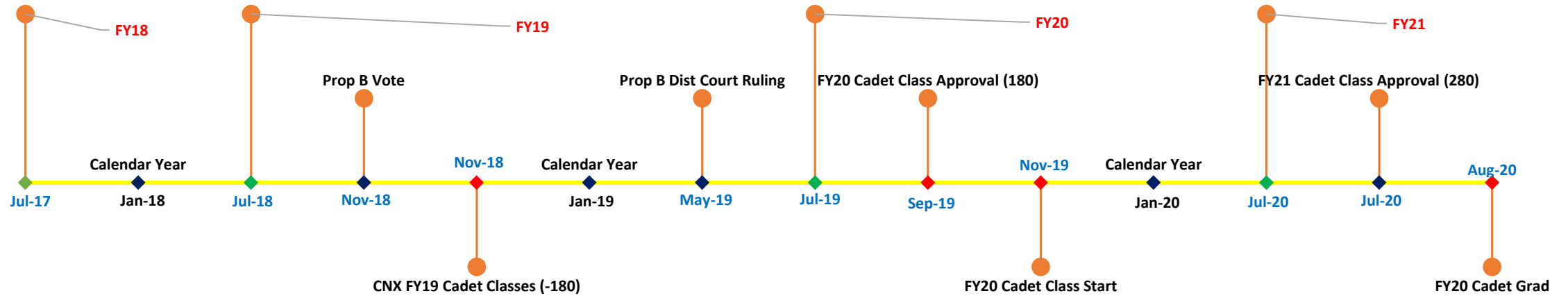


Attrition vs. Recruits





HFD Staffing Level



Proposition B Impact				
Start Date	Class Number	Disposition	Class Size	% Graduated
	2018C & 2018D	Graduation Postponed	67	100
Oct-18	2018E	Proposed & Cancelled	70	0
Mar-19	2019B	Proposed & Cancelled	40	0
Apr-19	2019C	Proposed & Cancelled	70	0
			-180	

FY20 Cadet Classes					
Start Date	Class Number	Class Size	Certification	Graduation Date	
Nov-19	2019A	25	Certified	Mar-20	
Nov-19	2019B	55	Non-Certified	Jul-20	
Jan-20	2020A	45	Non-Certified	Aug-20	
Jun-20	2020B	55	Non-Certified	Feb-21	
		180			

FY21 Cadet Classes					
Start Date	Class Number	Class Size	Certification	Graduation Date	
Sep-20	2020C	50	Non-Certified	May-21	
Nov-20	2020D	80	Non-Certified	Jul-21	
Apr-21	2021A	80	Non-Certified		
Jun-21	2021B	70	Non-Certified	Feb-22	
		280			



Questions?