



# FORT LAUDERDALE FIRE RESCUE

OFFICE OF THE FIRE CHIEF

## Fort Lauderdale Fire Rescue EMS Response Times

Date: May 23, 2023: Reflecting Fiscal Years 2021, 2022 and the Second Quarter of FY 2023

Re: 90th Percentile Response and Travel Times for Emergency Medical and Rescue Calls

### Changes to the way FLFR calculates response times as of January 2021:

1. EMS response time periods have been rebalanced to show the fiscal year in alignment with the City's budget appropriation process. The change does not have statistical significance when tested relative to Calendar Year.
2. The levels are more descriptive: the first arriving unit (2 paramedics) and the ERF of 3, the low risk measure are both included. The ERF of 3 reflects the frequency of having a third paramedic from additional units when deployed for an Advanced Life Support (ALS) call when needed and reflects the third-person rescue arrival.
3. Each level is the minimum for calculating. Thus, ERF 3 is when 3 or more firefighters went on the call, with the calculation limited to the time of 3<sup>rd</sup> person arrival. ERF 2 is when 2 arrive; thus, ERF 2 includes all the ERF 3 calls.

EMS Times (All "300" Calls)		FY 20/21 (#Calls)	FY 21/22 (#Calls)	FY 23 Q1 (#Calls)	FY 23 Q2 (#Calls)	Bench- mark
ERF 2 (First Arriving Unit)	Travel Time	6:05 (35,927)	6:20 (37,422)	6:30 (9,016)	6:25 (18,536)	4:00
	Call to Arrival	<b>8:17 (35,926)</b>	<b>8:34 (37,422)</b>	<b>8:40 (9,016)</b>	<b>8:30 (18,536)</b>	<b>6:00</b>
ERF 3 (3 Paramedics On Scene = Rescue + Engine or 3P Rescue)	Travel Time	6:47 (24,946)	6:50 (25,118)	7:04 (5,795)	6:53 (12,374)	4:00
	Call to Arrival	<b>8:49 (24,946)</b>	<b>8:57 (25,118)</b>	<b>9:05 (5,795)</b>	<b>8:52 (12,374)</b>	<b>6:00</b>

### Considerations of a performance request related to travel or "call to arrival" times for an incident or for an individual vehicle:

#### 90<sup>th</sup> percentile measure of performance:

- 1) The 90th percentile is the value at which 90% of all other data points are smaller. The 90th percentile is a measure of ordinal statistical distribution, not unlike the median. The 90th percentile tells you the value for which 90% of the data points are smaller and 10% are larger.
- 2) The median is the middle value. The median is the value for which 50% of the values are larger, and 50% are smaller. Fire service agencies do not use medians for benchmarking.

**Fire service agencies use of the 90<sup>th</sup> percentile value to measure response time performance as accepted standards:** The 90<sup>th</sup> percentile is the response time value at which Fire Rescue arrives 90% of the time in all cases. For example, 90% of the time in 2018 Fire Rescue responded to EMS calls in less than or equal to a time of 7:50. Averages and medians are not used for benchmarking since these measures include outlier observations, and one outlier can misrepresent an entire set of data.

**Distinction between Travel Time and Call to Arrival (Response) Time:** Call to Arrival or Response Time is the total time from the time the emergency call was received at the dispatch facility for Broward County, to the arrival of paramedics on scene.



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Travel Time is only the time captured from the departure of the fire emergency vehicle to its arrival on scene. Travel time reflects traffic conditions and is not under the control of Fire Rescue.

**Effective Response Force (ERF):** “ERF” refers to the number of firefighters that need to be present on scene for a particular type of incident (residential fire, cardiac event, et. al.) designated by accreditation standards and medical standards. ERF for EMS is 2 or 3 paramedics, depending on the severity of the call.

**6:00 minutes goal for Response (Call to Arrival) Times:** According to the American Heart Association, in a cardiac arrest, the patient begins to have brain death at 6:00 minutes.