

FROM DATA TO DOLLARS

Quantifying Resource Decisions for Budget Stakeholders

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McKinney Fire Department • McKinney, Texas

The Reality Chiefs Face Today



Budget Pressure

Competing priorities — roads, parks, services — mean fire departments must fight harder for every budget dollar.



Backward-Looking Methods

Traditional justification relies on past data. Councils want predictive evidence, not historical reports.



The New Standard

Shift to measurable, predictive decision-making. You must forecast the future, not just explain the past.

“It’s not enough to explain the past—we have to predict the future.”

Building the Data Partnership

The Partnership

McKinney Fire + Darkhorse Analytics

Combining operational fire service expertise with advanced data analytics to build a compelling, data-driven budget narrative.

Data Sources:

CAD (Computer-Aided Dispatch) • RMS (Records Management System)

Key Principle:

*Usable data > perfect data.
Start with what you have.*

Three Analytics Sections

1

HQ

Command-level dashboard. Real-time system performance and operational intelligence.

2

Diagnostics

Deep-dive analysis. Identify patterns, pinch points, and performance trends.

3

Deployment

Predictive modeling. Optimize resource placement and justify new investments.

Leveraging the “HQ” Dashboard

What is the HQ Tab?

Central command dashboard

for decision-makers — not data scientists.

Translates raw analytics

into real-time operational intelligence.

Designed for command staff

to monitor performance and support strategic decisions.

Value to Leadership

- Immediate visibility into system performance
- Identify problems quickly — before they become crises
- Monitor trends over time and across demand zones
- Support both real-time and long-term strategic decisions
- Bridges Analytics → Action → Budget justification

HQ Dashboard — McKinney Fire 2025 Overview

2025

January 01 2025 - December 31 2025

D W M Q **Y** YTD FY 5Y MONTHLY QUARTERLY < 1Y >

TIME RANGE

ALL SHIFT
ALL RESPONDING STATION
ALL DEMAND ZONE
ALL APPARATUS TYPE
ALL INCIDENT OF INTEREST
ALL TRANSPORT DISPOSITION
ALL RMS MAJOR CATEGORY
ALL CAD CATEGORY

RESPONSE METRICS

21,855 Incident Volume ↑ 1,448 from prev. yc.	39,634 Response Volume ↑ 3,727 from prev. yc.	9,891 1st Due Overgoals ↓ 89 from prev. yc.
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RESPONSE TIMES [90TH]

10m31s Total Response [90th] ↓ 14s from prev. yc.	2m37s Dispatch [90th] ↓ 19s from prev. yc.	1m41s Turnout [90th] ↓ 10s from prev. yc.	7m27s Travel [90th] ↑ 05s from prev. yc.
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RESPONSE TIMES [50TH]

6m51s Total Response [50th] ↓ 27s from prev. yc.	1m23s Dispatch [50th] ↓ 20s from prev. yc.	55s Turnout [50th] ↓ 06s from prev. yc.	4m15s Travel [50th] ↓ 04s from prev. yc.
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Custom Tabs for McKinney HQ

Jail Incident Volume

2021 - 2025

1,136

1,995
Total Responses



ETJ Responses

Extra-Territorial Jurisdiction tracking. Quantifies out-of-boundary responses and supports cost-recovery discussions.

[COST TRACKER APP](#)

Jail Responses

High-frequency / high-demand location monitoring. Identifies operational burden and staffing implications.

Assisted Living / High-Utilizer Facilities

Tracks repeat call locations to drive community risk reduction and targeted prevention efforts.

Why Customization Matters

YOUR

Department

Every agency has unique pressure points

YOUR

Problems

Build tabs around the questions your council is asking

YOUR

Narrative

Align analytics with your specific budget story

Key Message: If you can track it consistently, you can justify it financially.

Case Study 1

Adding Med Units

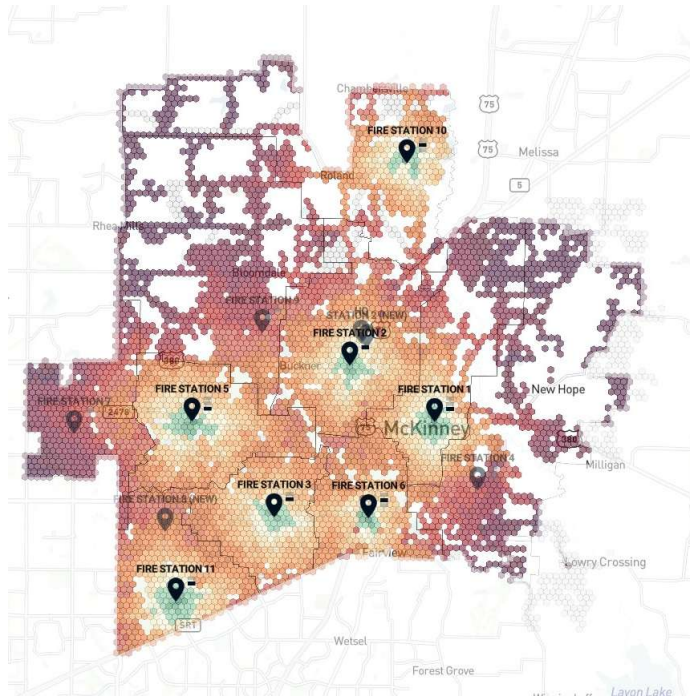
Why additional Med Units?

- EMS is the #1 call we respond to
- **75% of our EMS patients are transported to the hospital**
- Med Unit overload occurs several times a week
- Citizens in Fire Districts without a Med Unit in-district must **wait 2 ½ - 3 minutes longer** for an ambulance to arrive
- “Time is tissue”

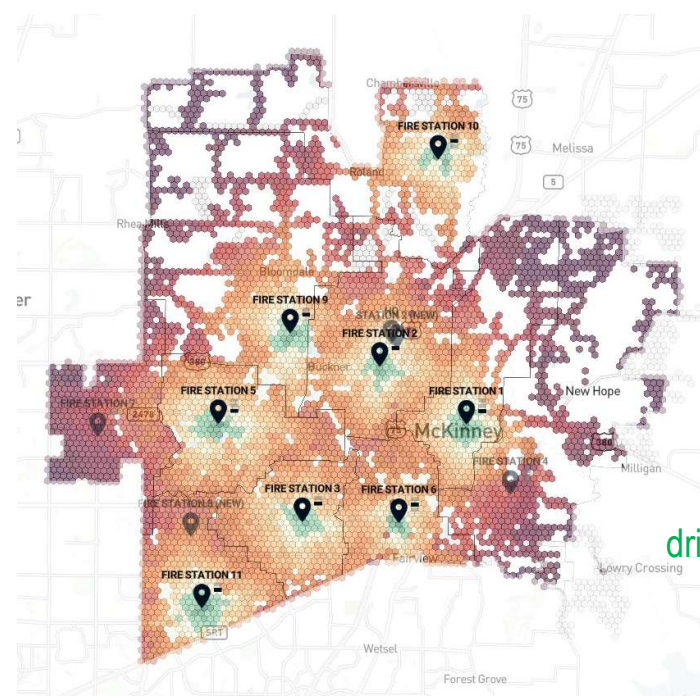


#1 – Med 9 (Add Eight Firefighters)

Response without Med 9



Response with Med 9




Response
drive time 2:19

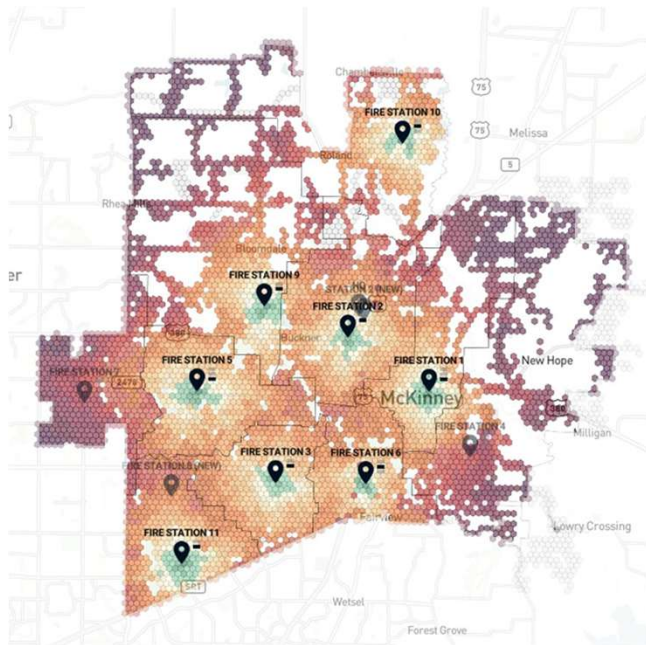


#1 – Med 9 (Add Eight Firefighters)

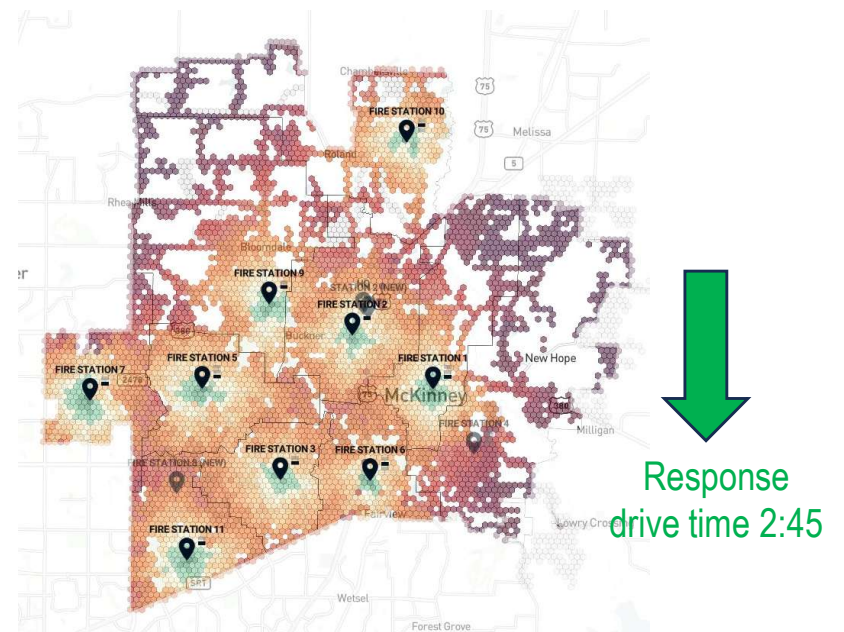
- New Med 9 apparatus arrives in Nov. 2024
 - Daily minimum staffing is two FF/Paramedics per shift
- **Why eight FFs?**
 - Improves ISO score by 0.54 points
 - Provides a 1.33 relief factor
 - (2 FF x 1.33 = 7.98 FF)

#2 – Purchase Med 7

Response Without Med 7



Response With Med 7








Case Study 2

Honey Creek Fire Station Location

Other Predictive Modeling Applications

Modeling Drives Decisions

-  4th Firefighter from T9 and E7
-  Fire Station #3 Relocation
-  EMS 1 Relocation
-  Build Fire Station #8 vs. Dual Company Stations
-  4-Minute City AED Location Planning

Fire Stations	Station Zones				
	2024		FORECAST - 2029		
	Calls	% of Total	Calls	% of Total	% Increase
1	2,454	12.68%	2,564	10.48%	4.48%
2	3,776	19.52%	4,708	19.25%	24.68%
3	2,424	12.53%	2,512	10.27%	3.63%
4	650	3.36%	910	3.72%	40.00%
5	2,236	11.56%	2,240	9.16%	0.18%
6	2,914	15.06%	3,301	13.50%	13.28%
7	1,431	7.40%	1,526	6.24%	6.64%
9	1,073	5.55%	3,281	13.41%	206%
10	695	3.59%	1,835	7.50%	164%
11	2,754	14.23%	2,916	11.92%	5.88%
	20,406		25,793		26.4%

Communicating with Stakeholders

Translate Data into Impact

Convert raw numbers into human outcomes — response times saved, lives protected, resources deployed.

Use Visuals

Maps, charts, and before/after comparisons convey in seconds what paragraphs of text cannot.

Show 'With vs. Without'

Side-by-side comparisons are a powerful tool in budget presentations. Let the data speak.

Frame the Message

“If we fund this...” vs. “If we don’t.” Both tell a story — make sure yours is heard.

Key Takeaways

1

Data builds credibility — quantify the problem before asking for resources.

2

Prediction builds confidence — forecast what will happen, not just what has happened.

3

Quantification drives funding — when you prove value, budget approval follows.