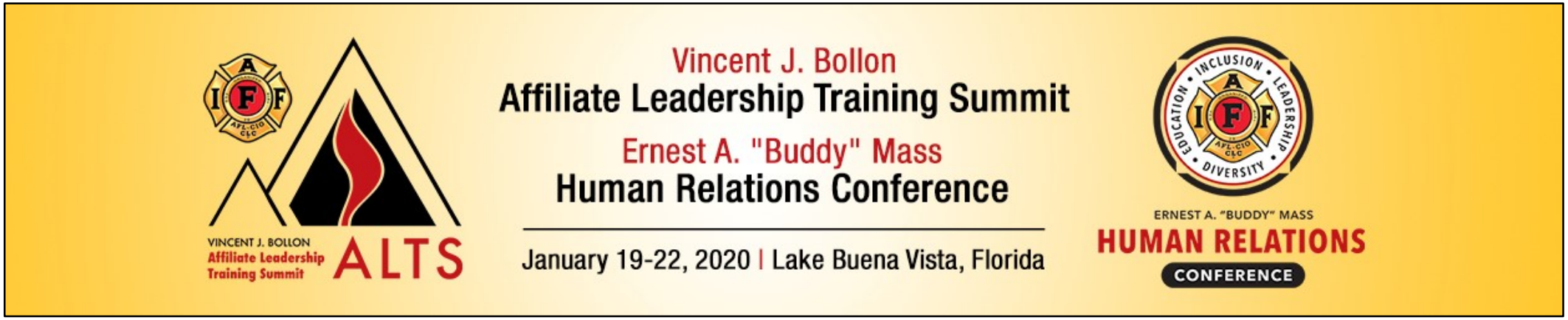
INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS



Not Just a Report: Using Your Standards of Cover

Thomas Breyer

January 20, 2020

Objectives

- Understand what the standards of cover analyses.
- Understand the data requirements for the analyses
- Discuss how to leverage the results of the analysis

The Initial Call

What is the Story?

- Basic Background
  - Number of stations and typical staffing
  - Determine what “type” of department the local serves
  - Service provision
  - Current Situation
- Establish Objectives
- Q and A

Synopsis Email

Confirm we heard what the POC said and ask for data

- Data that is always required
  - Require GIS shape files or confirm a boundary map
  - Require a staffing table (provided)

Required or Recommended

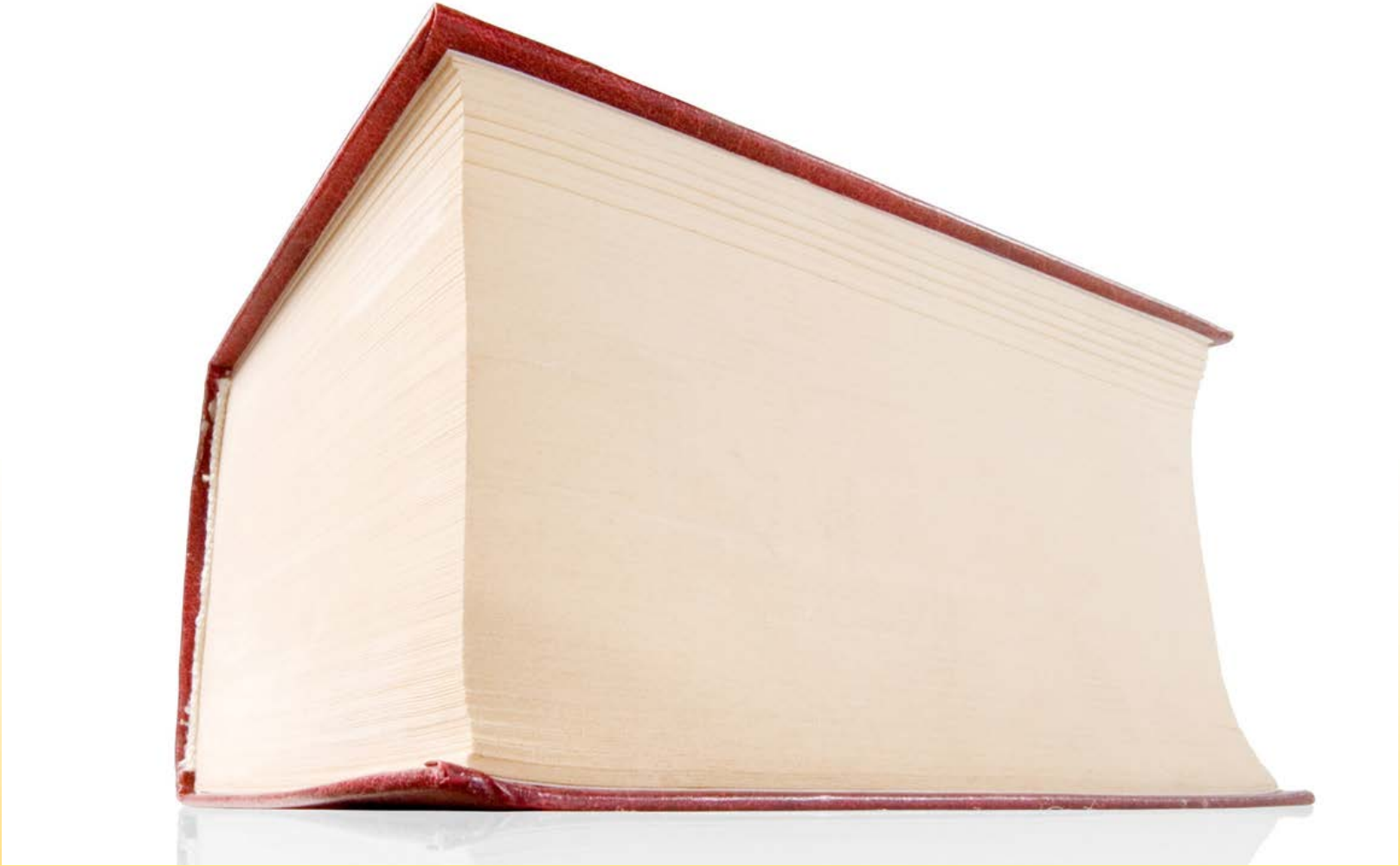
- CAD/RMS
- *hh:mm:ss*

Synopsis Email

- Other data requirements
  - Modified staffing table
  - Questionnaires
    - EMS Integration/Expansion
    - Unique requests

- Reference material = Science behind the report
  - NIST studies, including Cardiovascular Strain Report
  - Two risk documents
  - ASU study

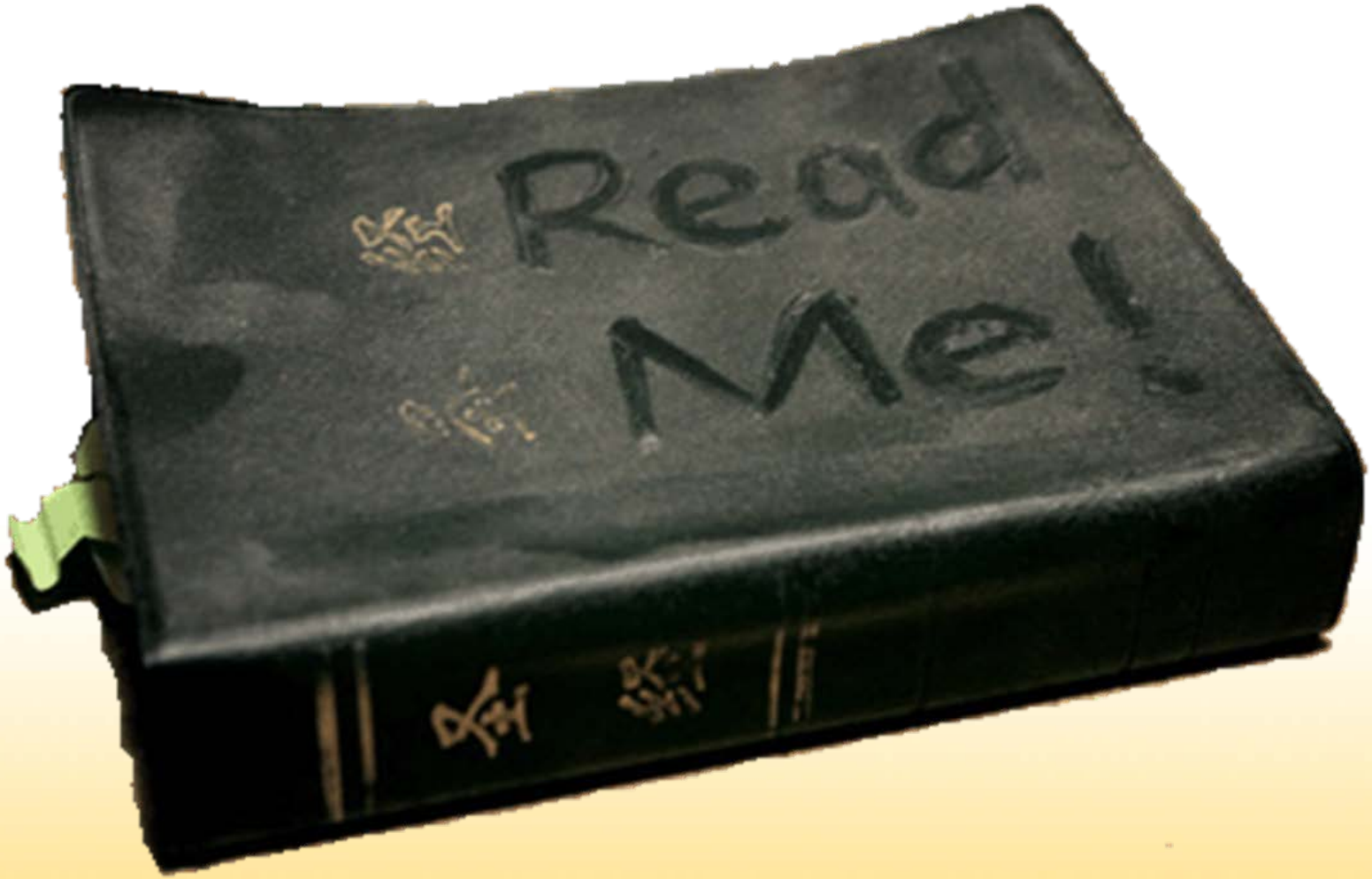
Do Not Fear The Many Pages



Report Content

- Executive Summary
- Body of Document
  - Background and brief risk assessment
  - Explanation of fire and EMS response
  - Analysis and recommendations
  - Conclusion
- Annex

Don’t Just Hand It Off



Using the Report

- Big Data Does **NOT** Give You the Answer
  - Useable pots
  - Support conclusion

- “Big data describes facts, thick data explains them”
  - Thick data is the context
  - Decision makers need to hear the story
  - The report is reference material

Incidents and Responses

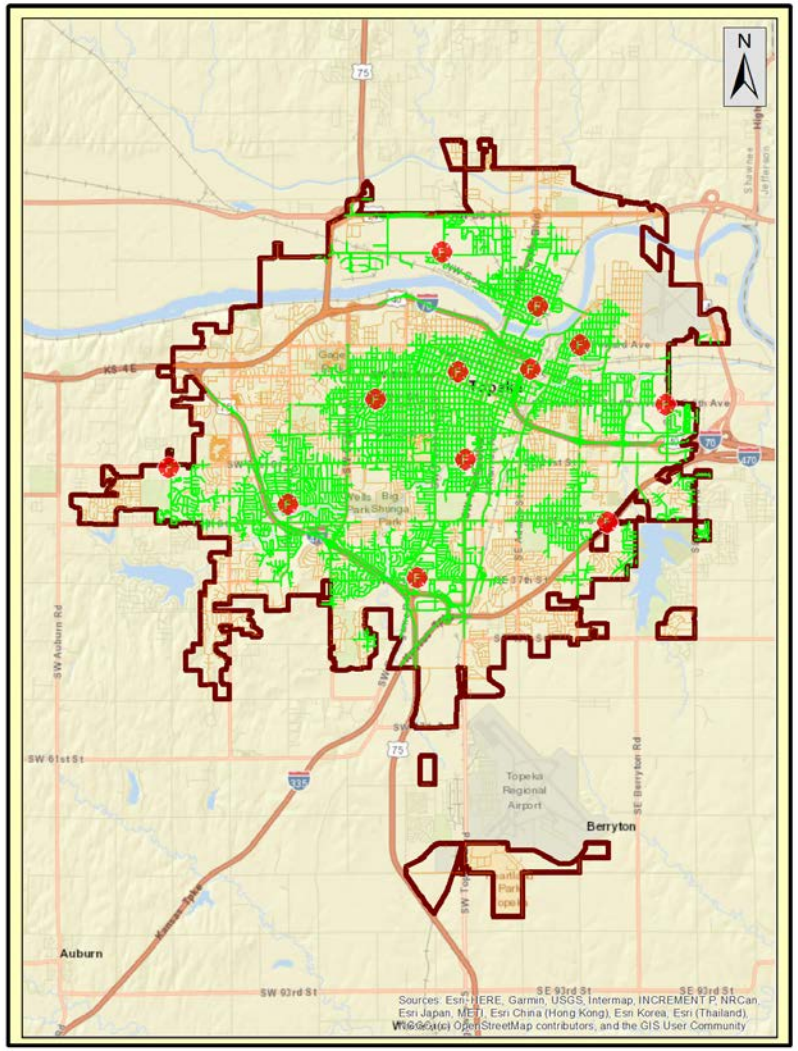
Incident + Responses = Emergency Demand

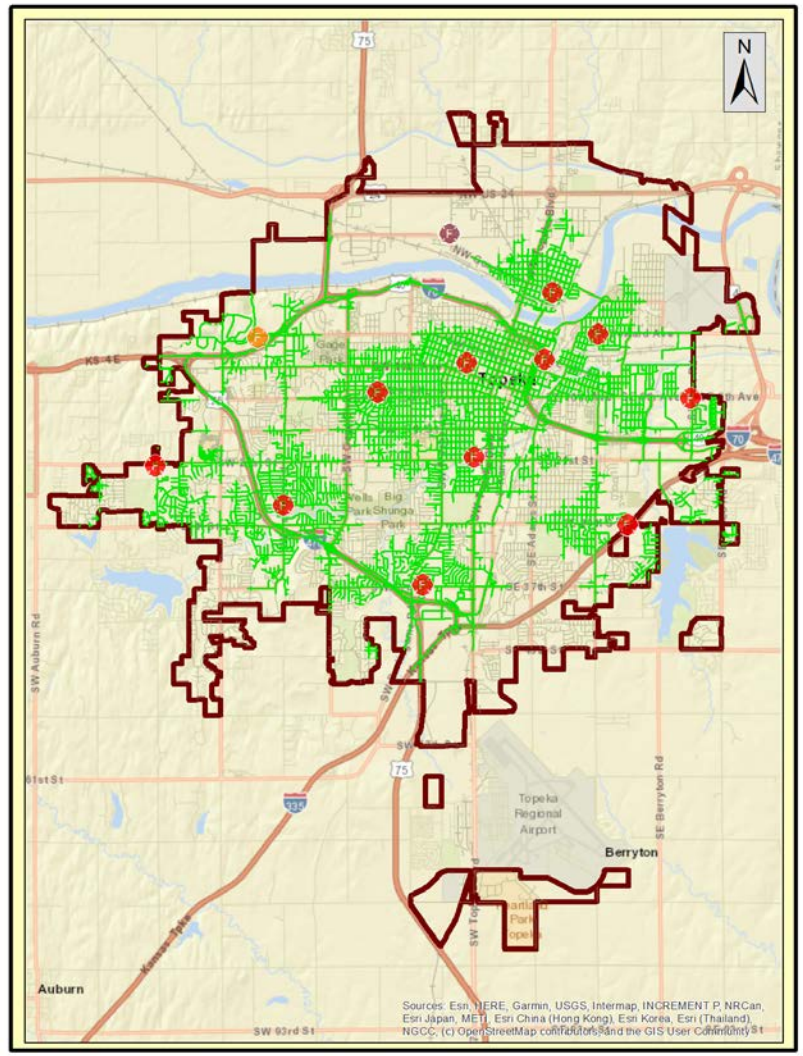
Emergency Demand ≤ Total Workload

Low Demand ≠ No Demand

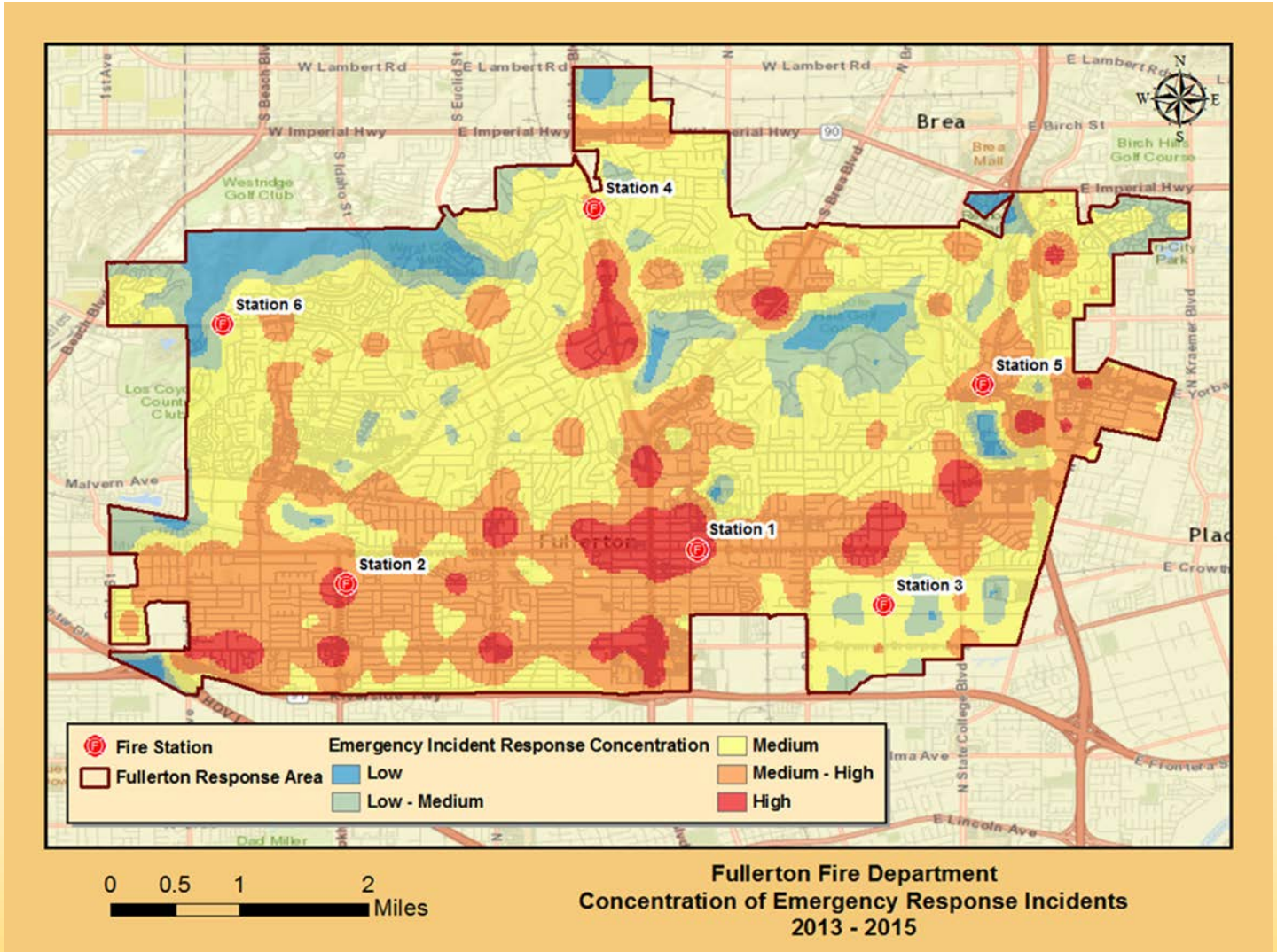
- Do not forget all the other tasks
  - Inspections
  - Maintaining equipment (spinning caps counts)
  - Training

Distribution, Concentration and Changes

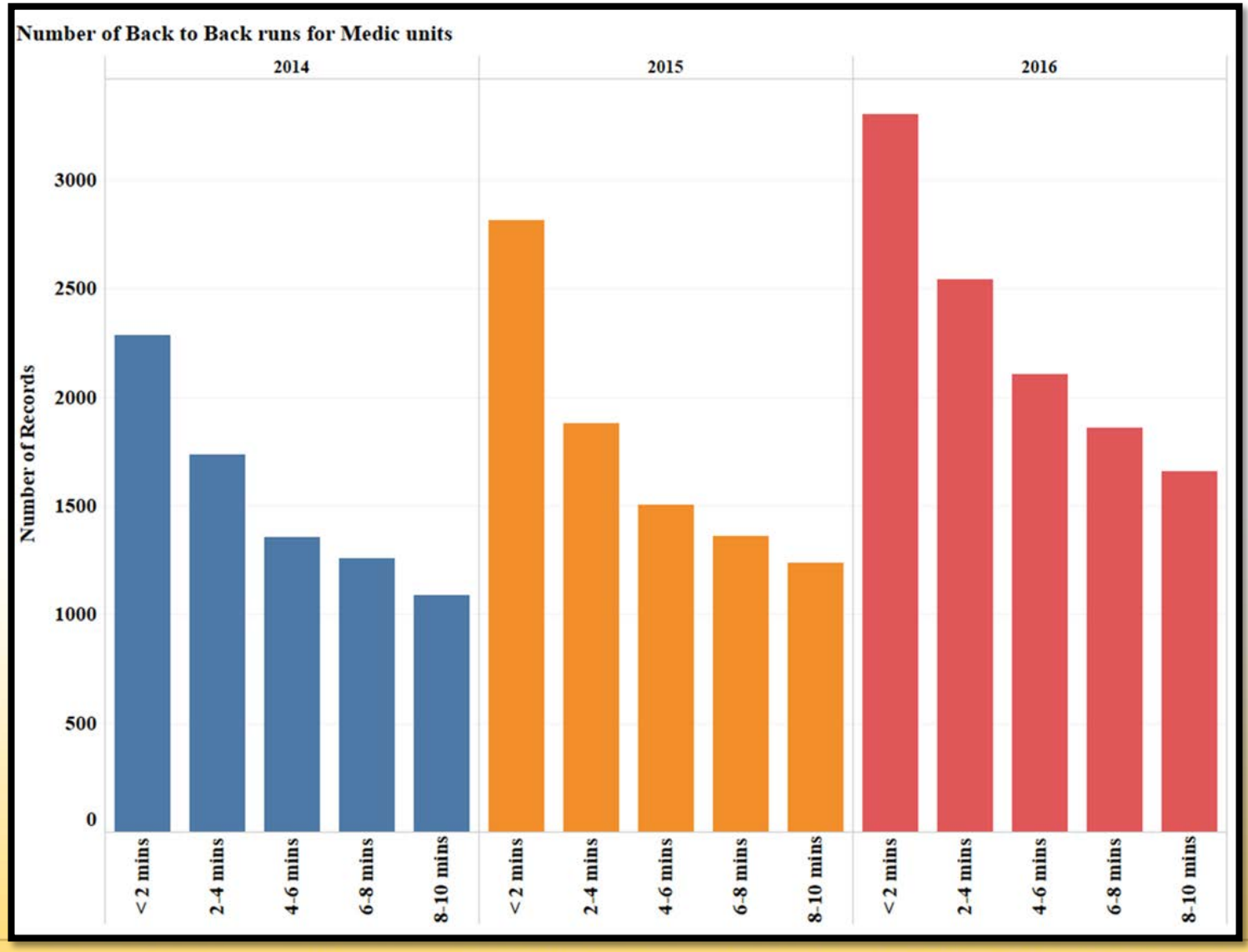




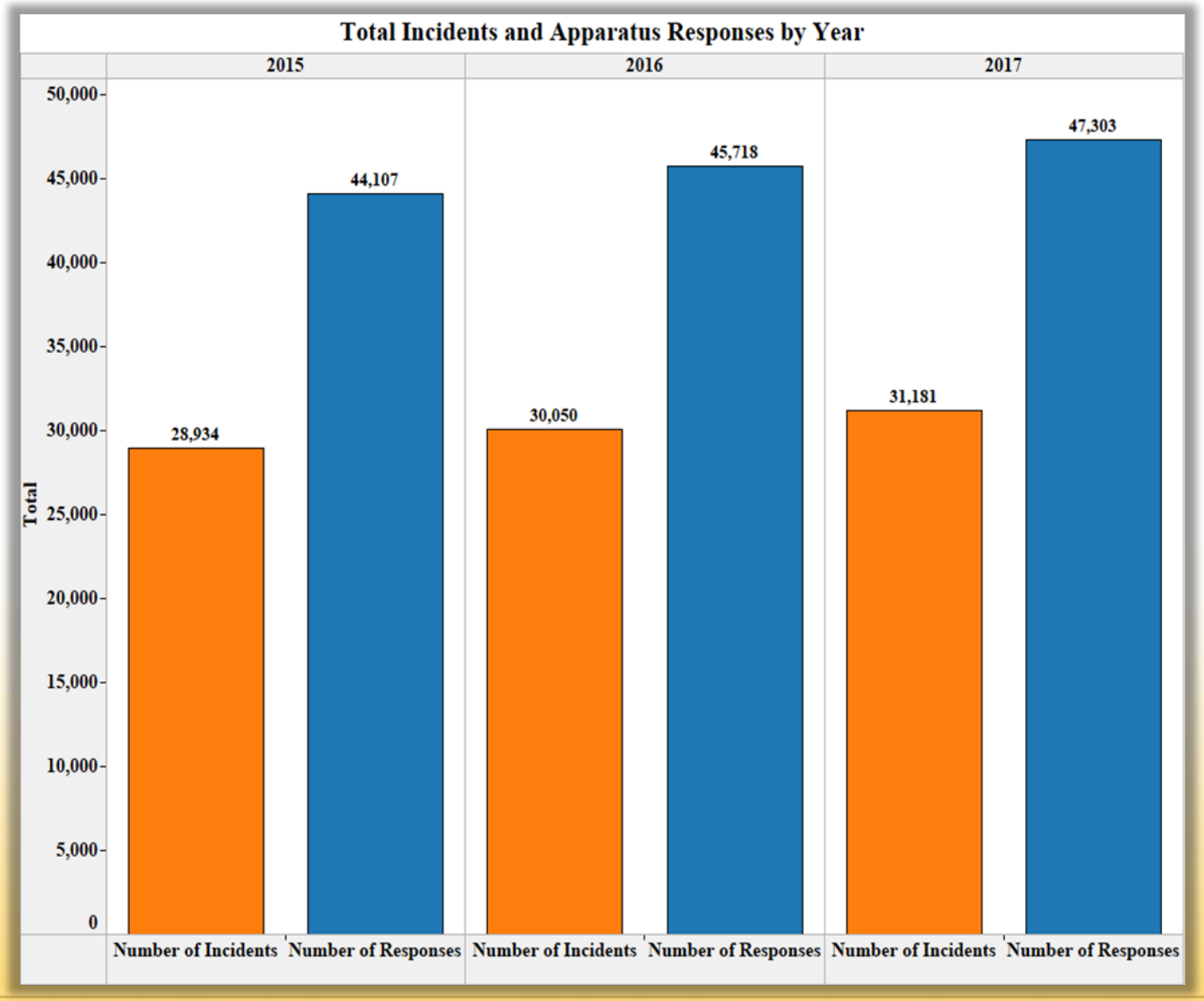
Know Your Demand Density



Back-To-Back


Number of Back to Back runs for Medic units
2014
2015
2016
Number of Records
3000
2500
2000
1500
1000
500
0
< 2 mins
2-4 mins
4-6 mins
6-8 mins
8-10 mins
< 2 mins
2-4 mins
4-6 mins
6-8 mins
8-10 mins
< 2 mins
2-4 mins
4-6 mins
6-8 mins
8-10 mins

Emergency Demand

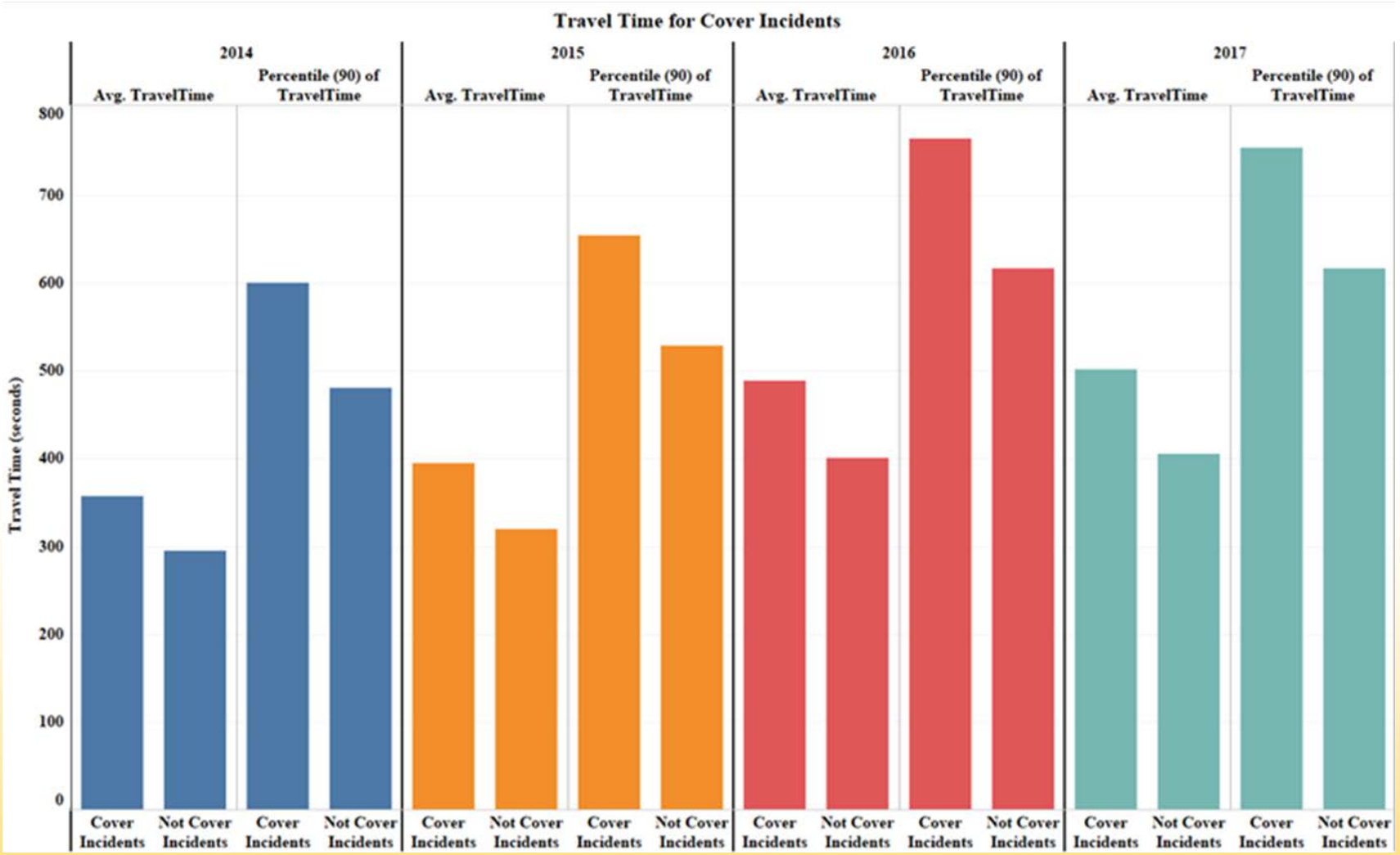


Travel Time: Compare

First-Due

-v-

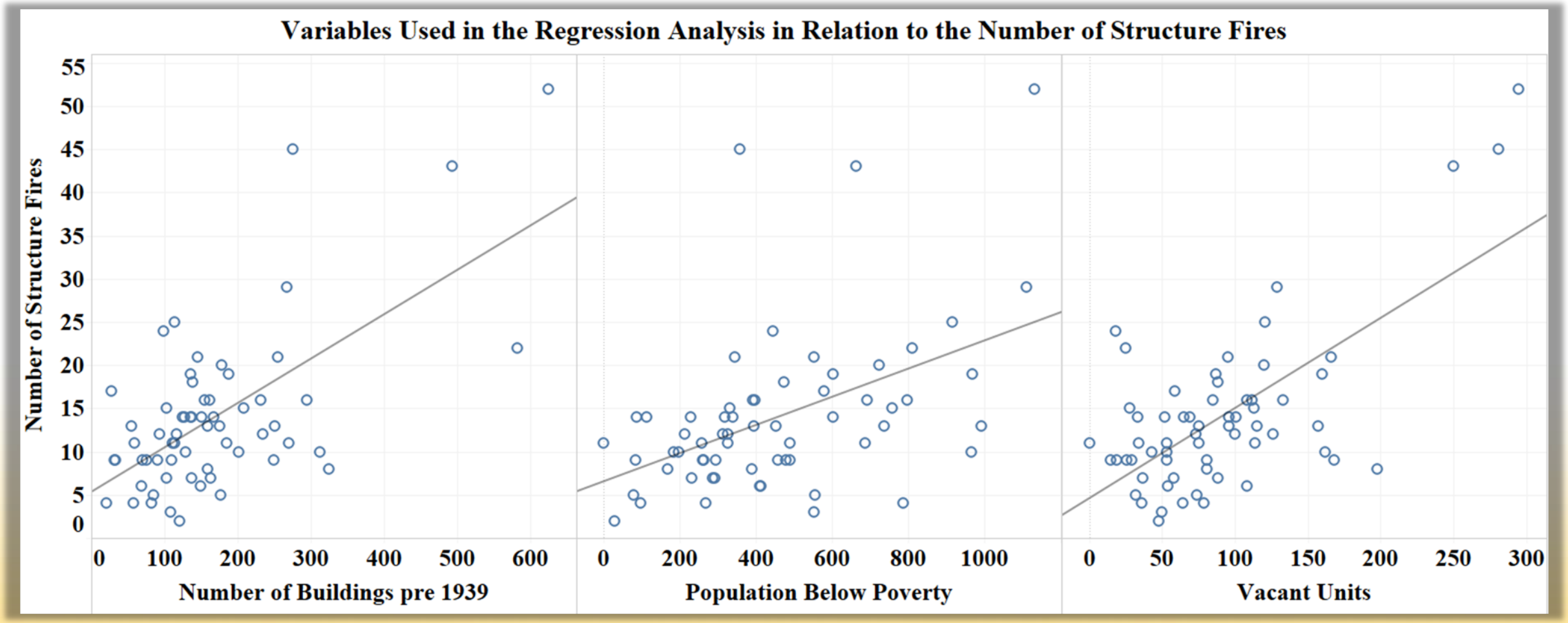
Cover Run



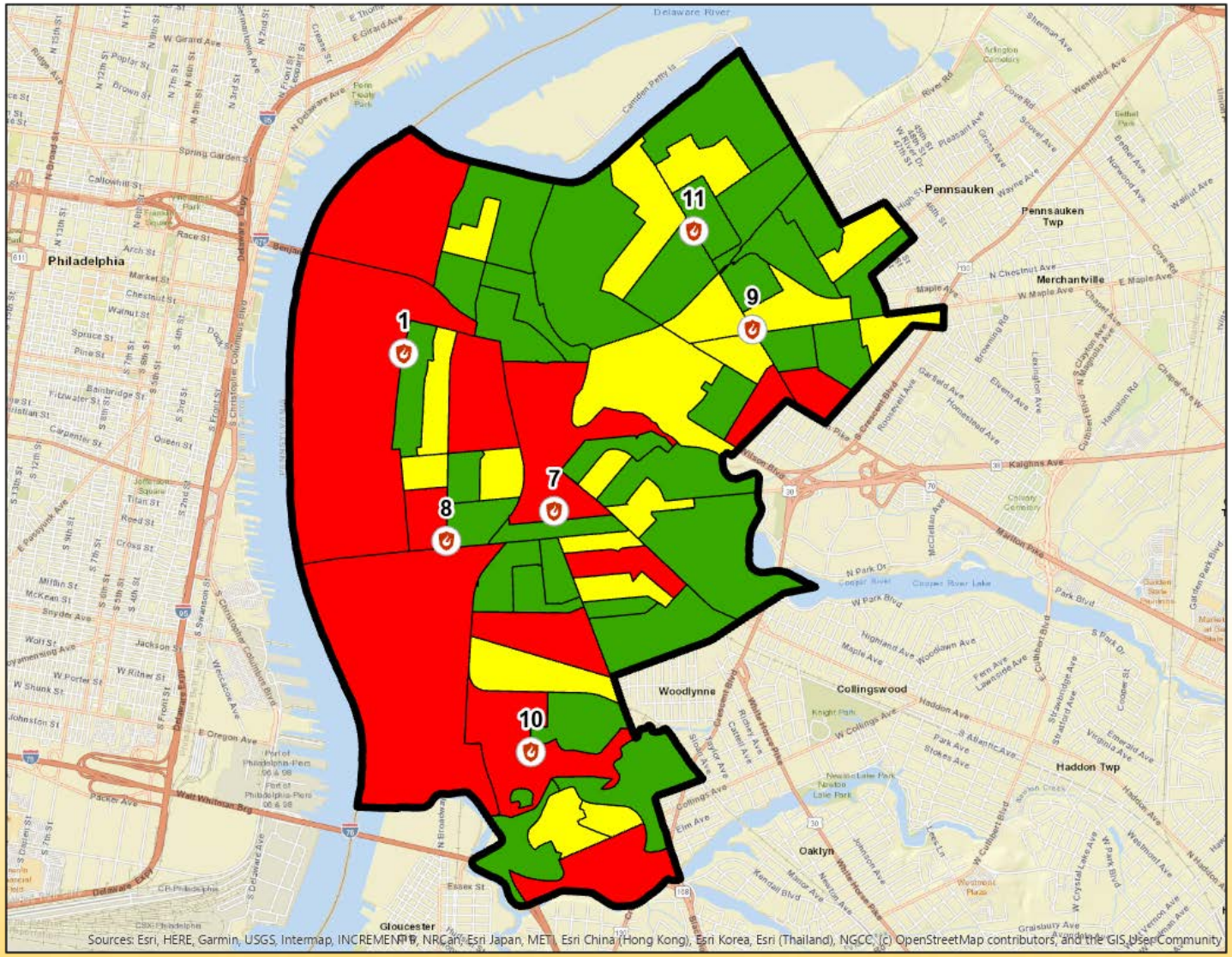
Time on Task

Call Type	Problem	Total Incidents	Percent of Total Incidents	Total Apparatus Responses	Percent of Total Apparatus Responses	Total On Assignment Time (Hours)	Percent of Total On Assignment Time
Medical	Traffic Injury Priority 4F	28,281	13.05%	53,211	18.09%	12,684	14.34%
Fire	BOX -Structure Fire	1,553	0.72%	13,194	4.49%	9,447	10.68%
Other	ALARM - Fire Alarm	20,159	9.30%	21,019	7.15%	5,828	6.59%
Medical	Chest Pain Priority 2	12,301	5.68%	12,793	4.35%	3,241	3.66%
Hazmat/HC	HC - Hazardous Condition	3,389	1.56%	7,107	2.42%	3,182	3.60%

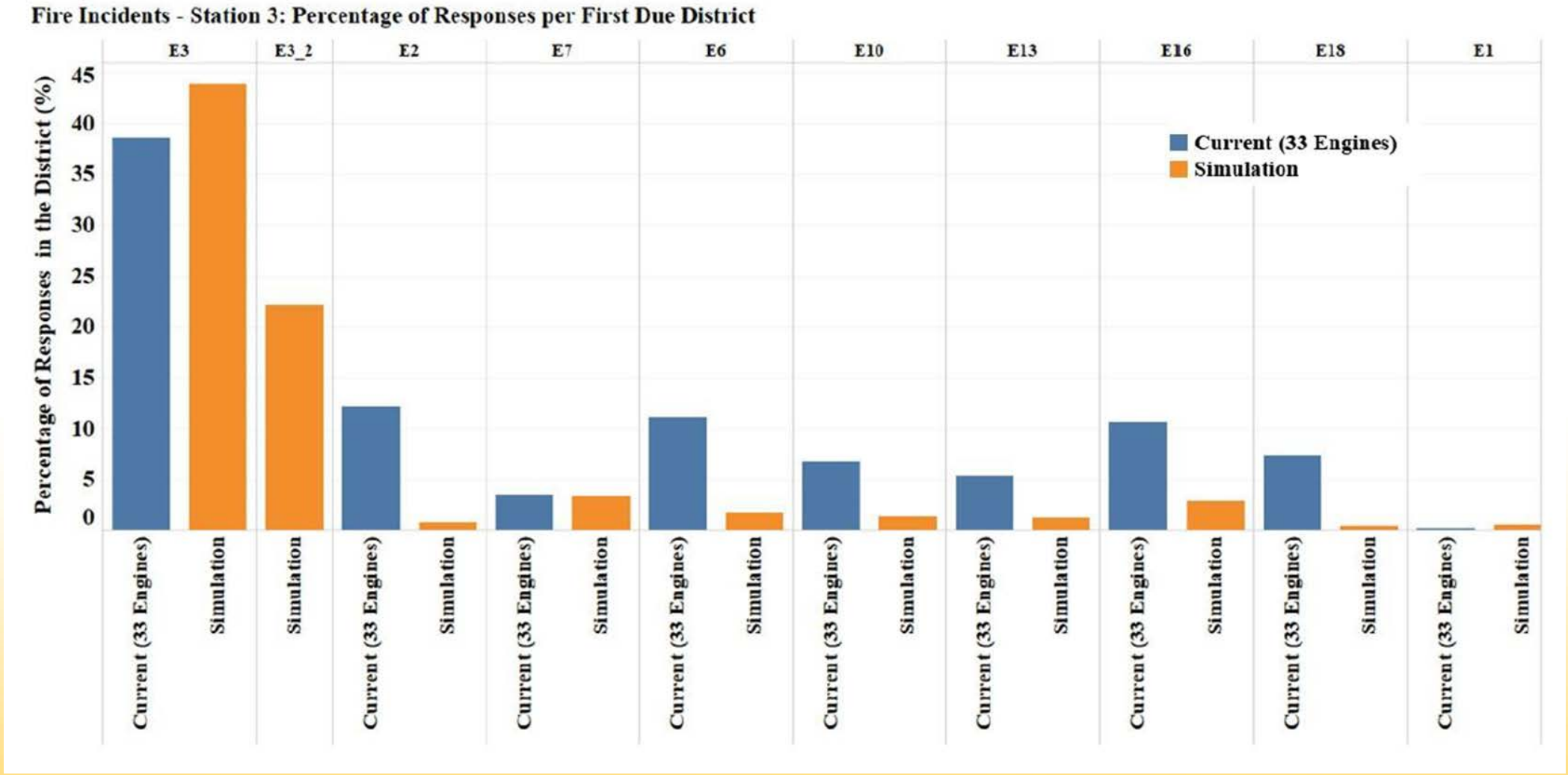
What's the Likelihood



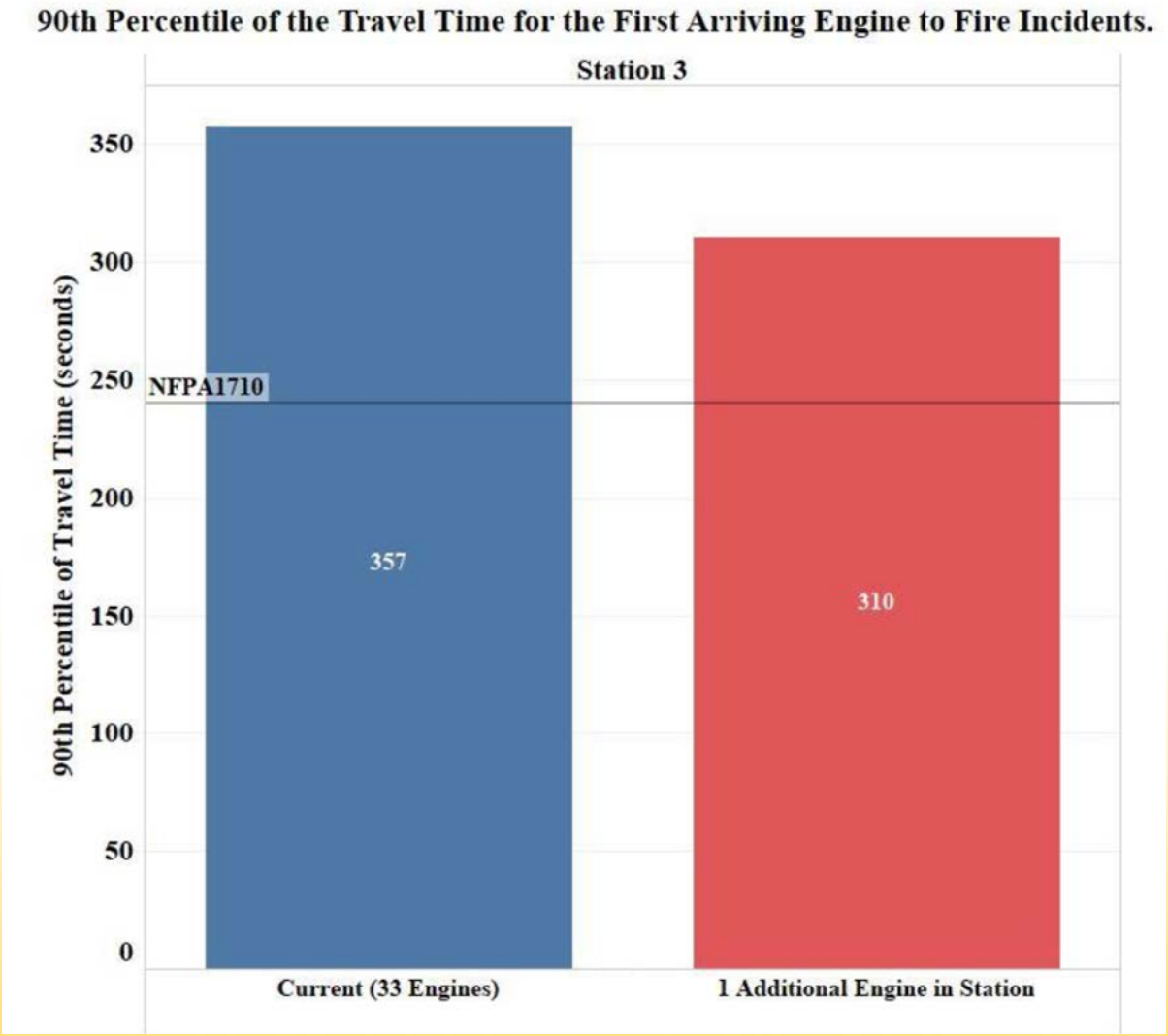
Where is the Likelihood



Modeling Responses



Modeling Travel Time



Always Remember This

“What is measurable isn’t the same as what is valuable”

- Don’t over-rely on the numbers
  - Marry your Big Data to your Thick Data

- The report is a tool
- Read the room
- Use Stories to build strong ties
  - Be relatable

It’s Hands On

- Media
- Town Halls
- Meetings with Decision Makers
- Community Organizers

If you build it…

- **Oshawa, ON:** “The Mayor elect also told me over dinner last night, that he has heard from other councilors/mayors in the region concern about "being picked off by the IAFF" as has happened in Oshawa.”
- **Las Vegas, NV:** “…successfully avoided a 2% budget cut to our department this fiscal cycle. In fact, we actually received an increase in our budget that included staffing for an additional engine company, fire training captain, and 2 paramedics for the community paramedic program.”
- **Vancouver, BC:** Increased staffing to six firefighters per apparatus, acquired political interest, improved relationship with management, and Data and Analytics Committee

If you build it…

- **Austin, TX:** The GIS report, along with a strong strategic campaign, helped secure an ordinance that required a minimum of four firefighters per apparatus.
- **Shreveport, LA:** Proved the need for additional EMS response resources
- **Murfreesboro, TN:** Enhanced first response from EMR to EMT
- **Denver, CO:** Enhanced first response from EMT to EMT-IV
- **Key West, FL:** Integrated EMS transport

We Won’t

- Make proposals that do not meet or exceed NFPA 1710
- Oppose proposals that reflect the IAFF’s core values or policies
- Propose cross-staffing of frontline apparatus*

Parting Advice

- Without data you just have opinions
- The report is a tool
- Use and know industry standards and science
- Stay Frosty, be optimistic, be focused, constantly assess
- Be the expert

Questions?

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Win an Apple Watch!

Submit your workshop and overall evaluations to be automatically entered in two drawings for a new Apple Watch!

Complete your evaluations using the IAFF Frontline App:

1. **Open the Frontline App and click on the “ ☰ ” symbol in the top left corner by the logo**
2. **Select “sign in” and login with your iaff.org username**
3. **Click the “Events” icon and select ALTS**
4. **Select “Sessions” and click on the workshop you attended**
5. **Click “Session Evaluation”**
6. **Complete the evaluation**
7. **Click “Submit”**

For the overall evaluation, follow steps 1, 2 and 3 then click “Dashboard” > “Event Evaluation”.

Winners will be announced February 7, 2020