

Otsego Fire Department Response Analysis

Response times

Call locations

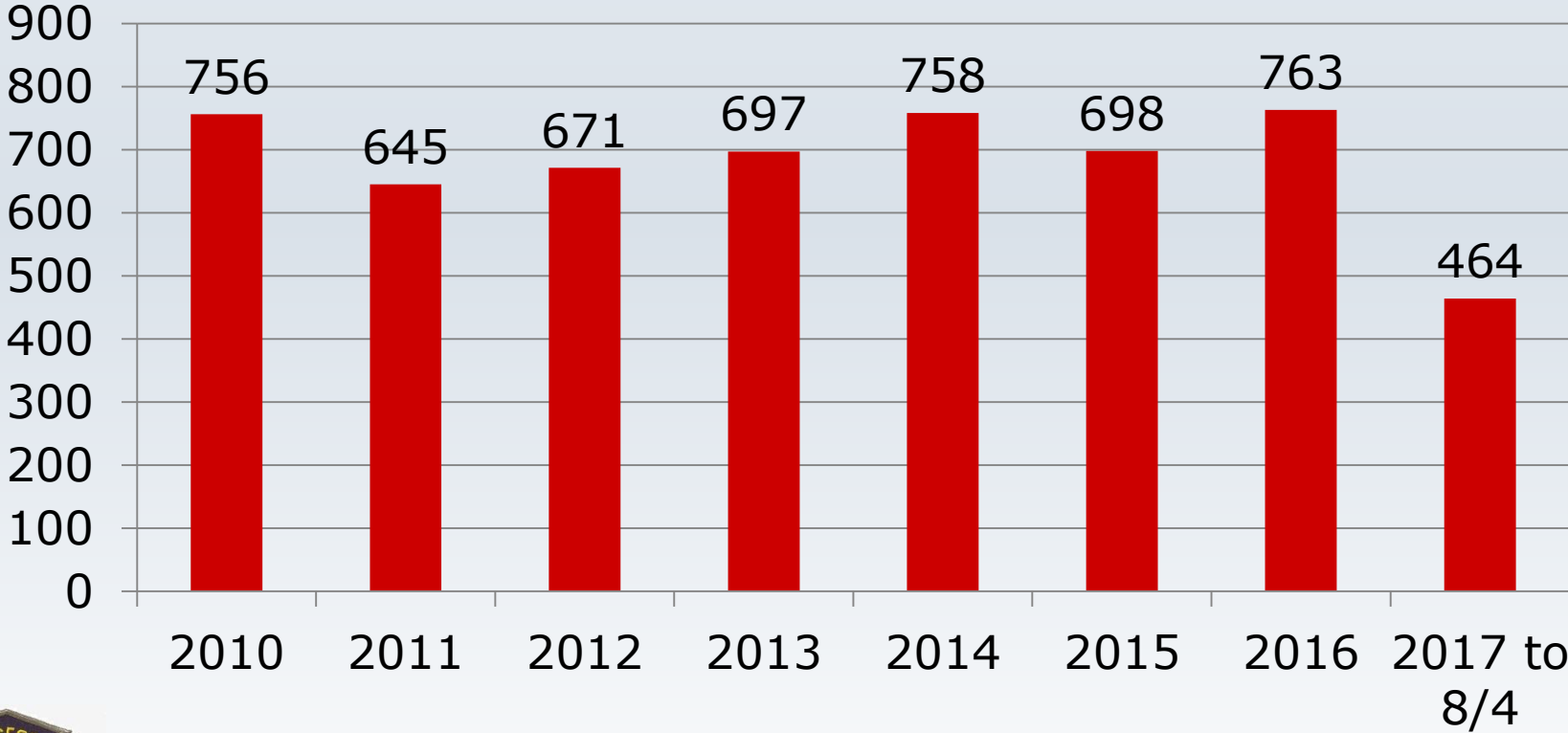
Neighboring community comparisons

Options



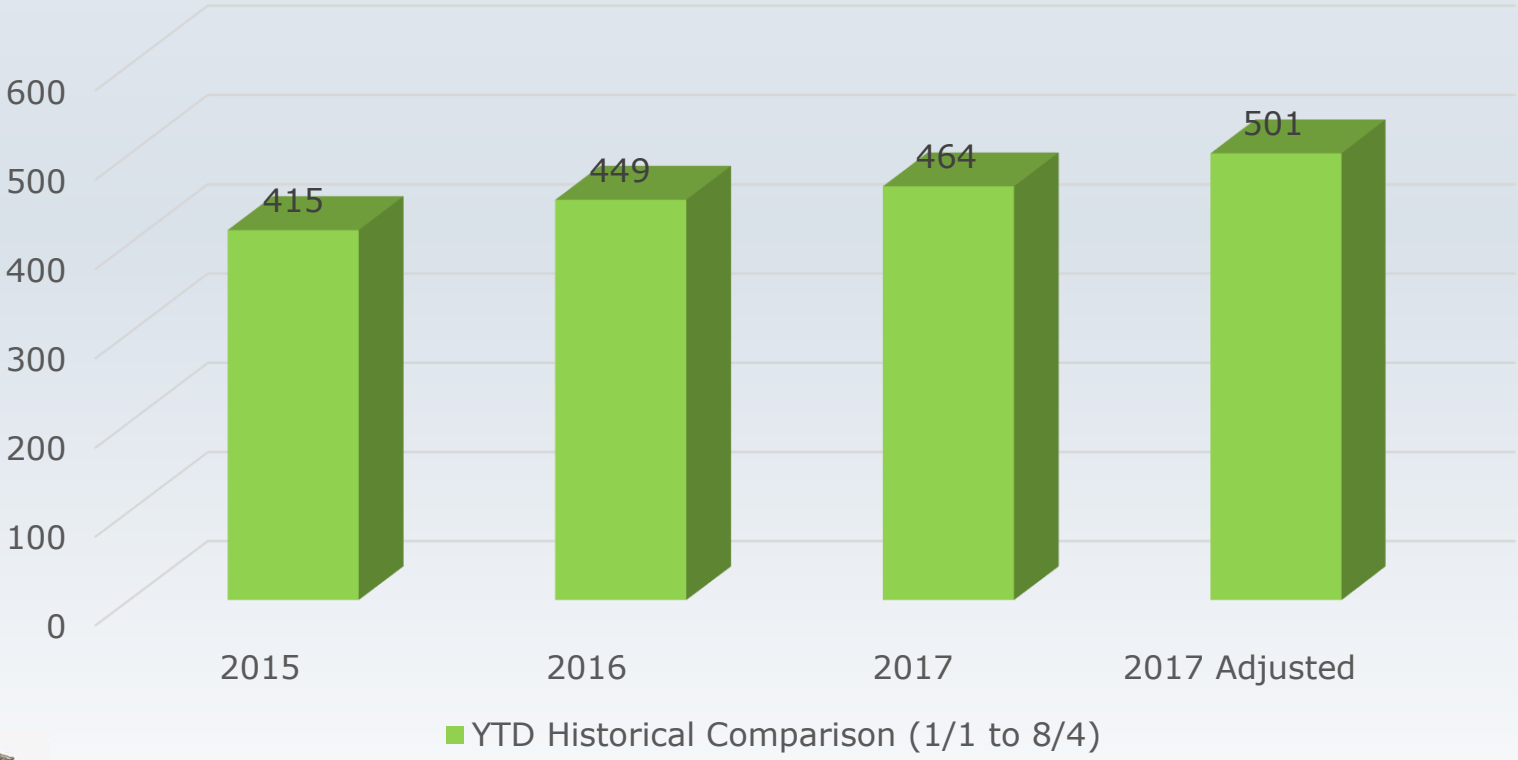
Historical Perspective

Call Volume Historical Trending

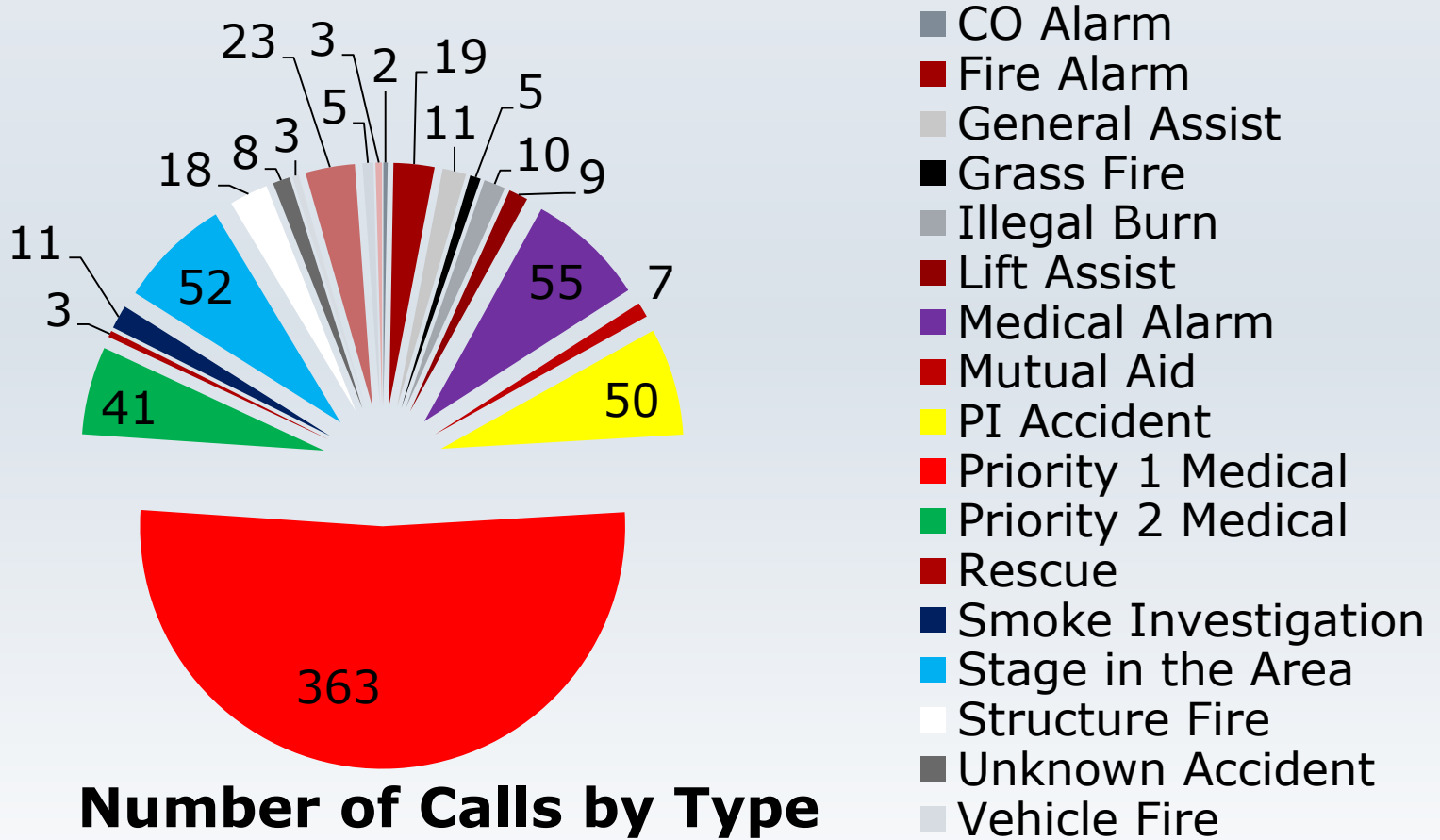


Historical Perspective

YTD Historical Comparison (1/1 to 8/4)

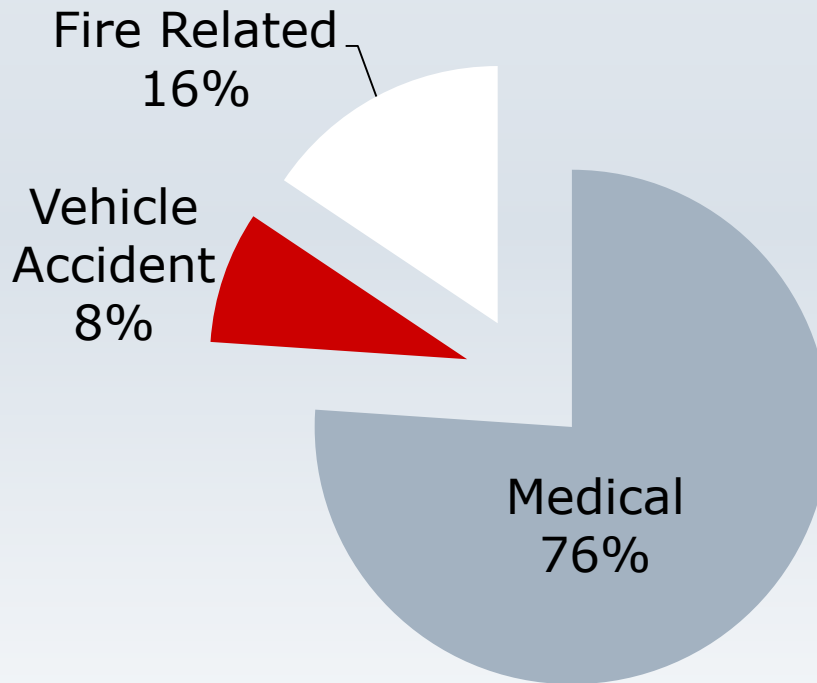


2015 Break Out by Call Type

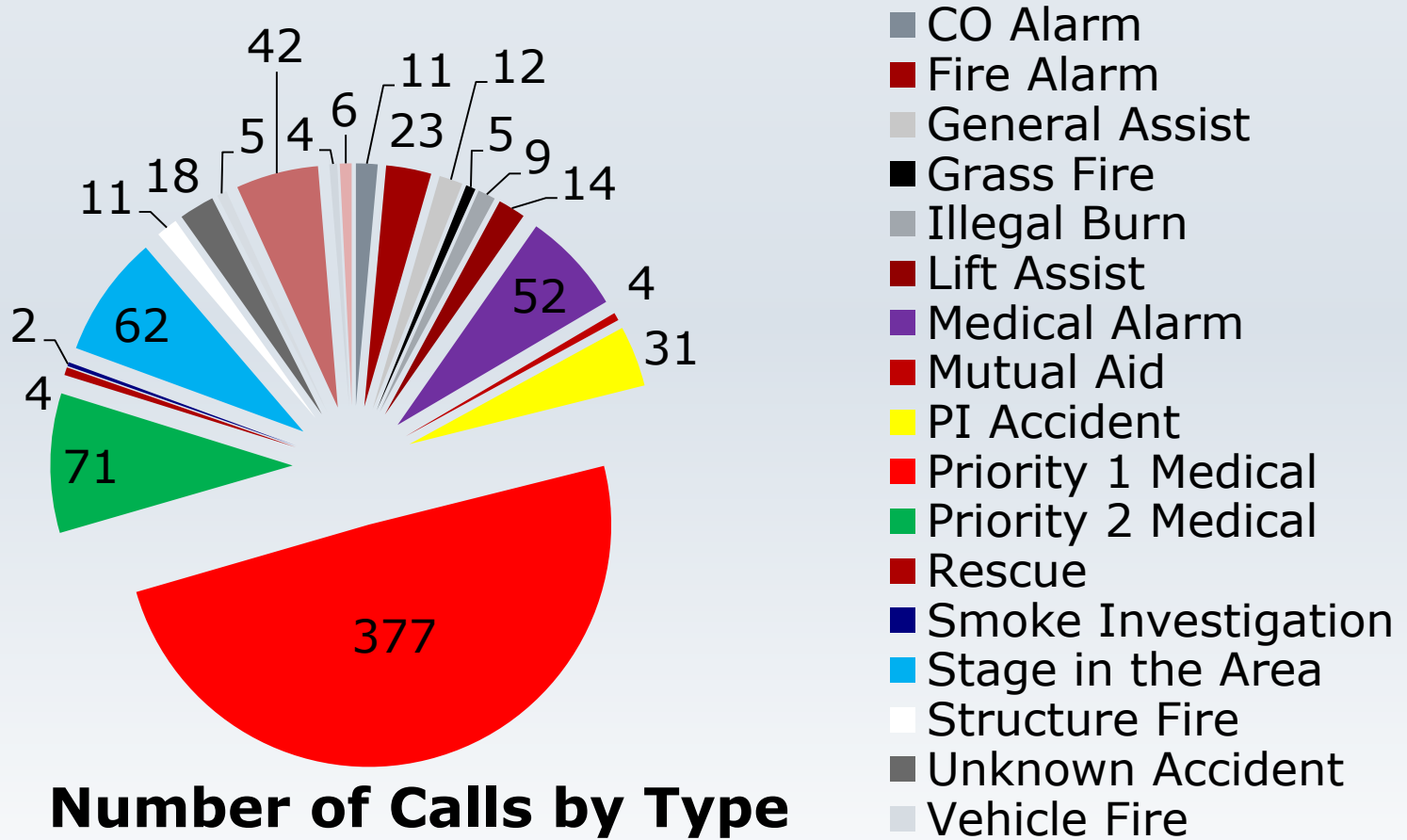


2015 Break Out by Call Type Simplified

Call Type by Percentage

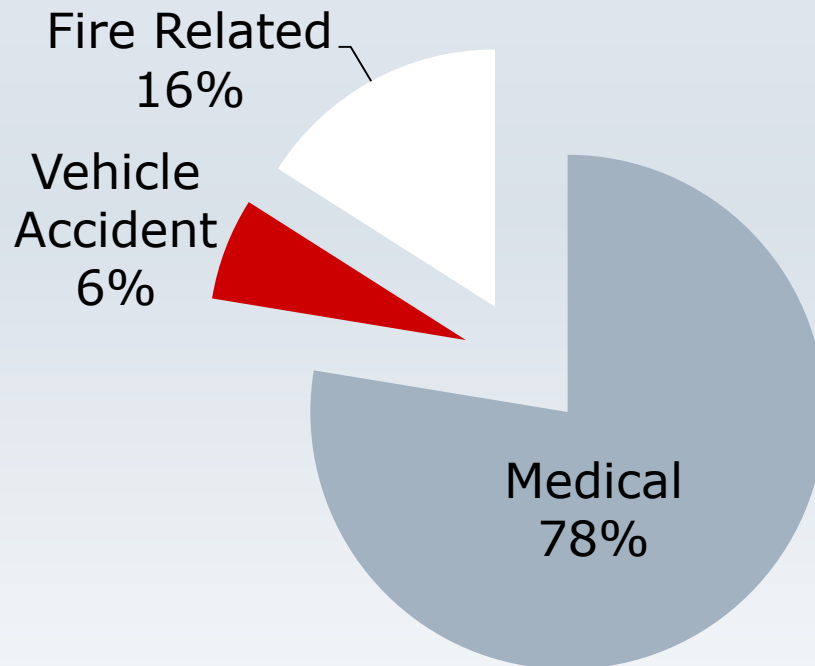


2016 Break Out by Call Type

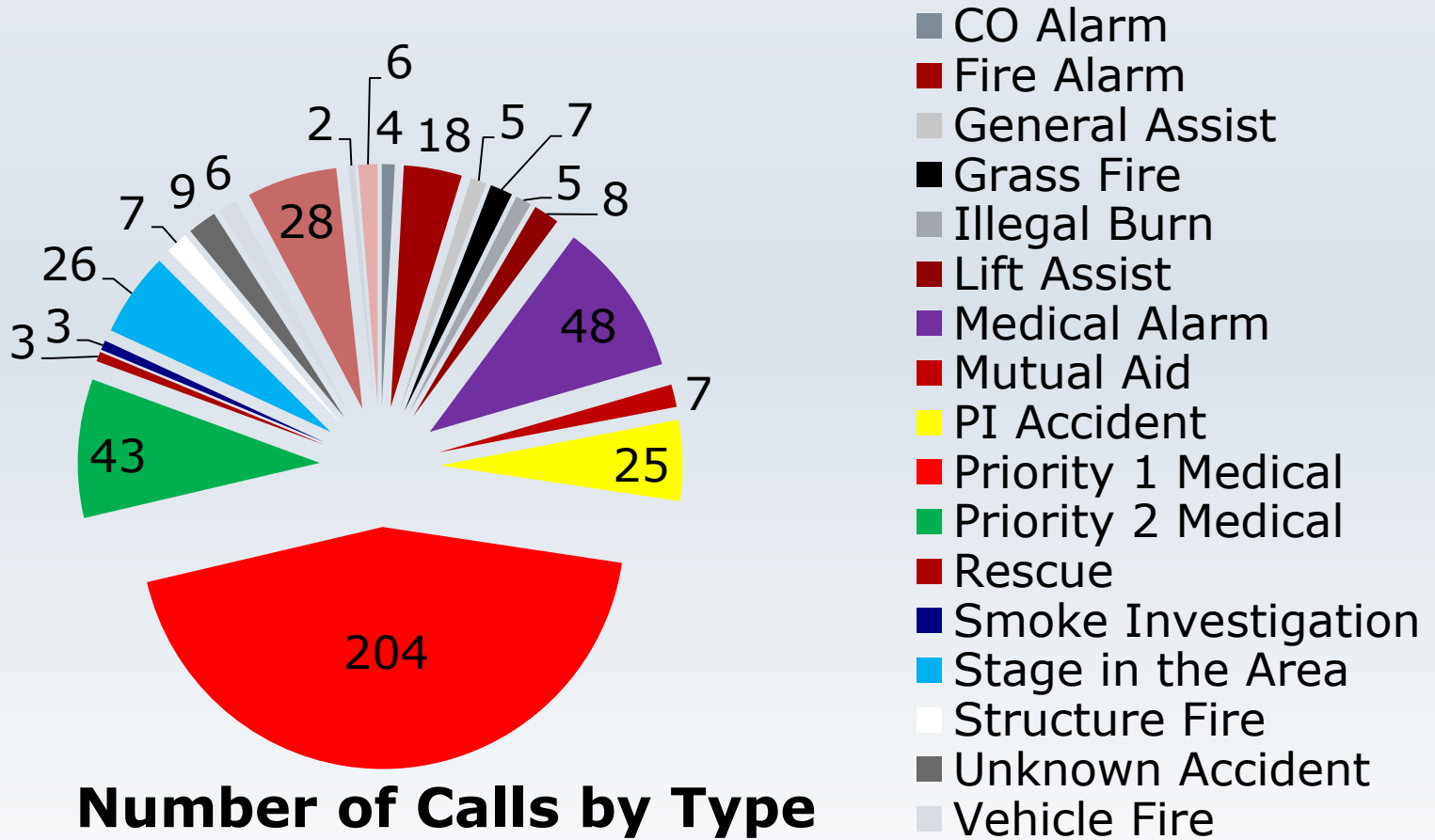


2016 Break Out by Call Type Simplified

Call Type by Percentage

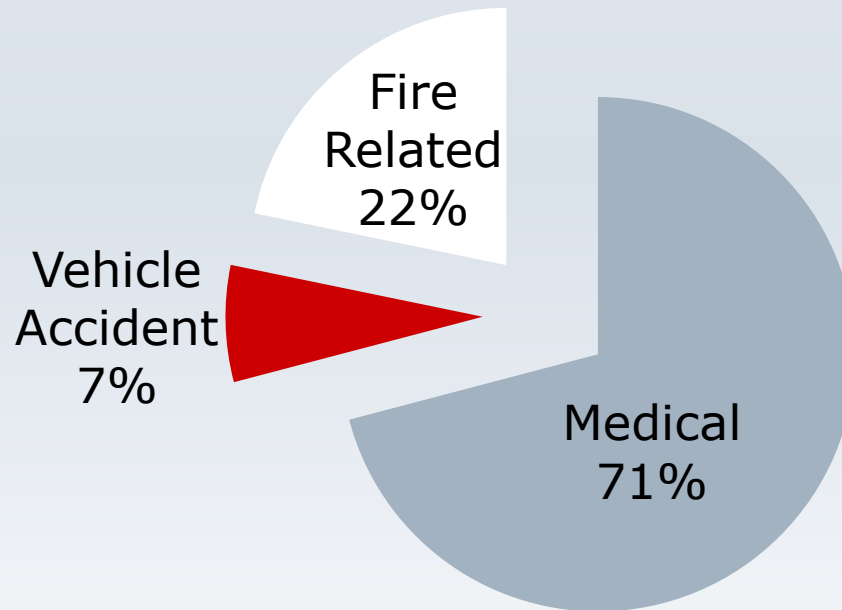


2017 Break Out by Call Type (1/1 to 8/4)



2017 Break Out by Call Type Simplified (1/1 to 8/4)

Call Type by Percentage



Firefighter Application

OTSEGO FIRE DEPARTMENT

117 E Orleans Street
Otsego, MI 49078

Name: _____
Last First MI Suffix

Are you at least 18 years old?

Driver's License # _____ State _____ DOB: _____

Address: _____

City: _____ State: _____ ZIP: _____

Phone: _____
Work Home Cell Pager

Email Address: _____

EDUCATION	HIGH SCHOOL	VOCATIONAL SCHOOL	COLLEGE/ UNIVERSITY	ADVANCED EDUCATION
School Name				
City/State				
Yr. Graduated				
Degree/ Area				

Military Experience	Branch	Highest Rank	Dates	Assignment
None				

Fire/Rescue Experience	Fire Department	City/State	Highest Rank	Dates/Years
None				

EMS Training	First Responder	EMT	Paramedic
None			

List all other training, hobbies, etc.: _____

Check the Usual times when you would be available to respond to emergencies:

Available Time	Sun	Mon	Tue	Wed	Thur	Fri	Sat
6:00am to noon							
noon to 6:00 pm							
6:00 pm to midnight							
midnight to 6:00 am							

1. Do you have any medical conditions that would prevent you from doing the physically demanding work of firefighting? Yes _____ No _____

2. Have you had a complete physical exam within the last two years? Yes _____ No _____

3. List any allergies: _____

4. Date of Last Tetanus Shot: _____

5. Are you within 4 minutes of the Fire Department to respond to calls? Yes _____ No _____

6. Has your driver's license been suspended or revoked within the past five years? Yes _____ No _____

7. List all traffic and criminal citations and arrests: _____

8. Do we have your permission to run a background check? Yes _____ No _____

9. Are you willing to submit a drug test? Yes _____ No _____

10. In case of Emergency, Notify: _____
Relationship: _____ Phone #: _____

11. How did you learn about this job?
Personal Contact Newspaper Ad Posting Radio/TV
Outreach Center Other Otsego Firefighter Name _____



Firefighter Application

WORK EXPERIENCE

DATE MONTH AND YEAR	NAME AND ADDRESS OF EMPLOYER	SUPERVISOR NAME	REASON FOR LEAVING
From _____ To _____			
From _____ To _____			
From _____ To _____			
From _____ To _____			

REFERENCES

NAME	ADDRESS	TELEPHONE NO.

I certify that all statements given on this form are true. I consent to the release of any information required to verify this information as true. I agree that I will obey all laws, rules and regulations, and follow the operational guidelines as prescribed by the fire department. I reside within four (4) minutes of the fire department. I understand that I will be on probation for not less than 12 months and may be excused from the department with no fault or liability. I also agree that if I am employed with the City of Otsego, that I will be paid by Direct Deposit.

Signed: _____ Date: _____

Fire Department Use Only: Reviewed _____	DL Copied _____	EMS card _____	SOG _____
Modules Listed _____	Hep B Filed _____	Hired _____	



Why a 4 Minute Residency Requirement?

- 4 minutes residency requirement isn't actually a 4 minute response time
 - Assumes good weather conditions, no traffic, and driving time only
 - Doesn't factor in: getting dressed, getting to & starting a vehicle, cleaning off the vehicle, getting into PPE at the station, or mounting apparatus
 - All of which take up precious minutes in an emergency



Why a 4 Minute Residency Requirement?

□ NFPA 1720

- Standard for the Organization and Deployment of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by Volunteer Departments



NFPA 1720 Response Recommendations

Table 4.3.2 Staffing and Response Time

Demand Zone	Demographics	Staffing and Response Time	Percentage
Special risks	AHJ	AHJ	90
Urban	>1000 people/mi. ²	15/9	90
Suburban	500–1000 people/mi. ²	10/10	80
Rural	< 500 people/mi. ²	6/14	80



Patient Outcomes

- Since most (roughly 75%) Otsego Fire Department calls are EMS related, expedient patient care & Advanced Life Support (ALS) response times are critical
 - 90+% of the time, our ALS ambulance is responding from Plainwell



Patient Outcomes

- The American Heart Association's scientific position is that brain death and permanent death start to occur in 4–6 minutes after someone experiences cardiac arrest
 - Cardiac arrest can be reversible if treated within a few minutes with an electric shock and interventions to restore a normal heartbeat



Patient Outcomes

- Studies showing that a victim's chances of survival are reduced by 7%–10% with every minute that passes without defibrillation and advanced life support intervention
 - Few attempts at resuscitation succeed after **10** minutes



Fire Growth

- Most firefighters learned in their Fire Academies that “fire doubles in size every 30 seconds”
 - We now know this to be a gross underestimation, and was based upon studies conducted in the 1930's
 - Modern building materials burn much quicker, hotter, and fail much sooner than older construction



2017 Average Response Times (1/1 to 8/4)

- Dispatch to 1st apparatus responding
 - 0:04 (mean)
 - 0:04 (median)
 - 0:04 (mode)

- Dispatch to 1st arriving apparatus on scene
 - 0:08 (mean)
 - 0:07 (median)
 - 0:08 (mode)



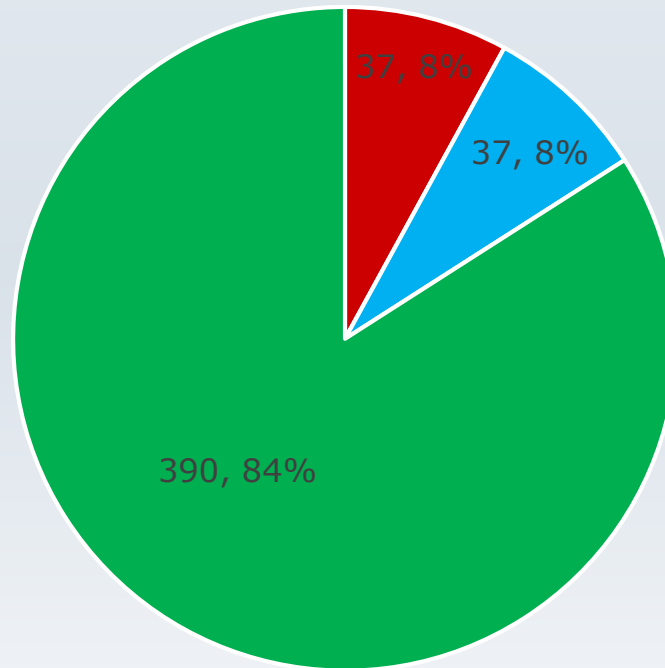
2017 Response Times (1/1 to 8/4)

- Number of responses with multiple responding apparatus
 - 37 of 464

- Number of responses with >6 minutes from dispatch to apparatus responding (for emergency)
 - 44 of 464 (7 of those also involved more than 1 apparatus responding as well)



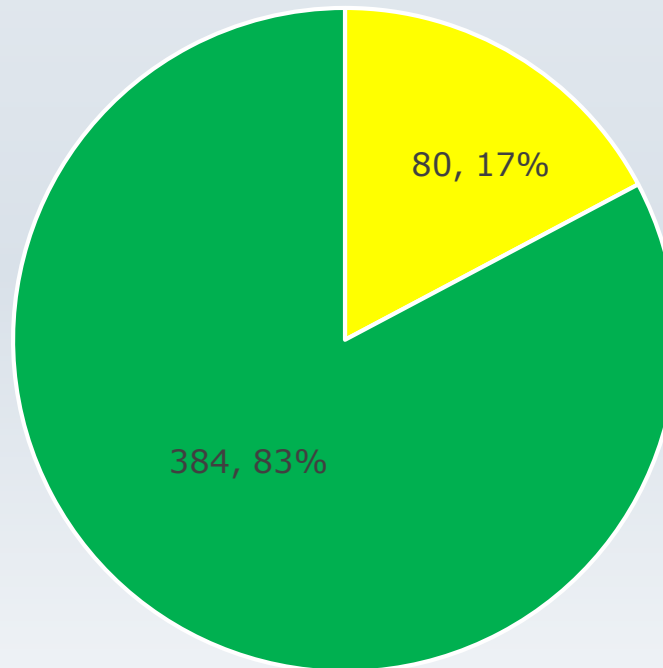
2017 Response Times (1/1 to 8/4)



■ >6 Minute Response Time ■ >1 Apparatus Responding ■ "Normal" Responses



2017 Disregards (1/1 to 8/4)

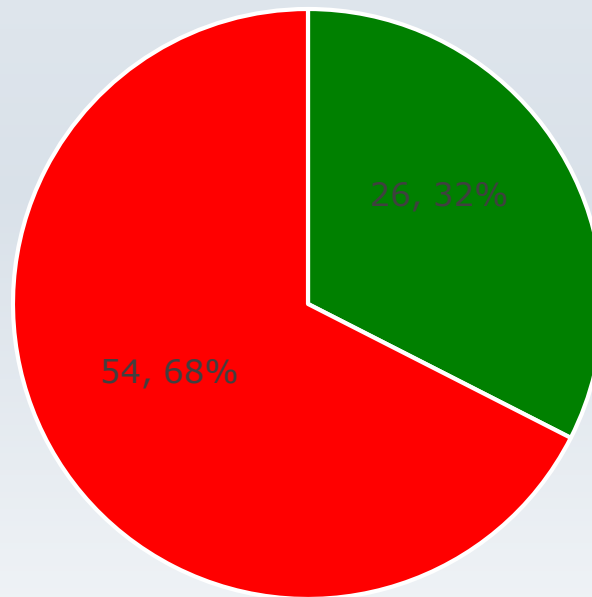


■ Disregards ■ Responses to Scene



2017 Disregards (1/1 to 8/4)

Calls from Which OFD Was Disregarded

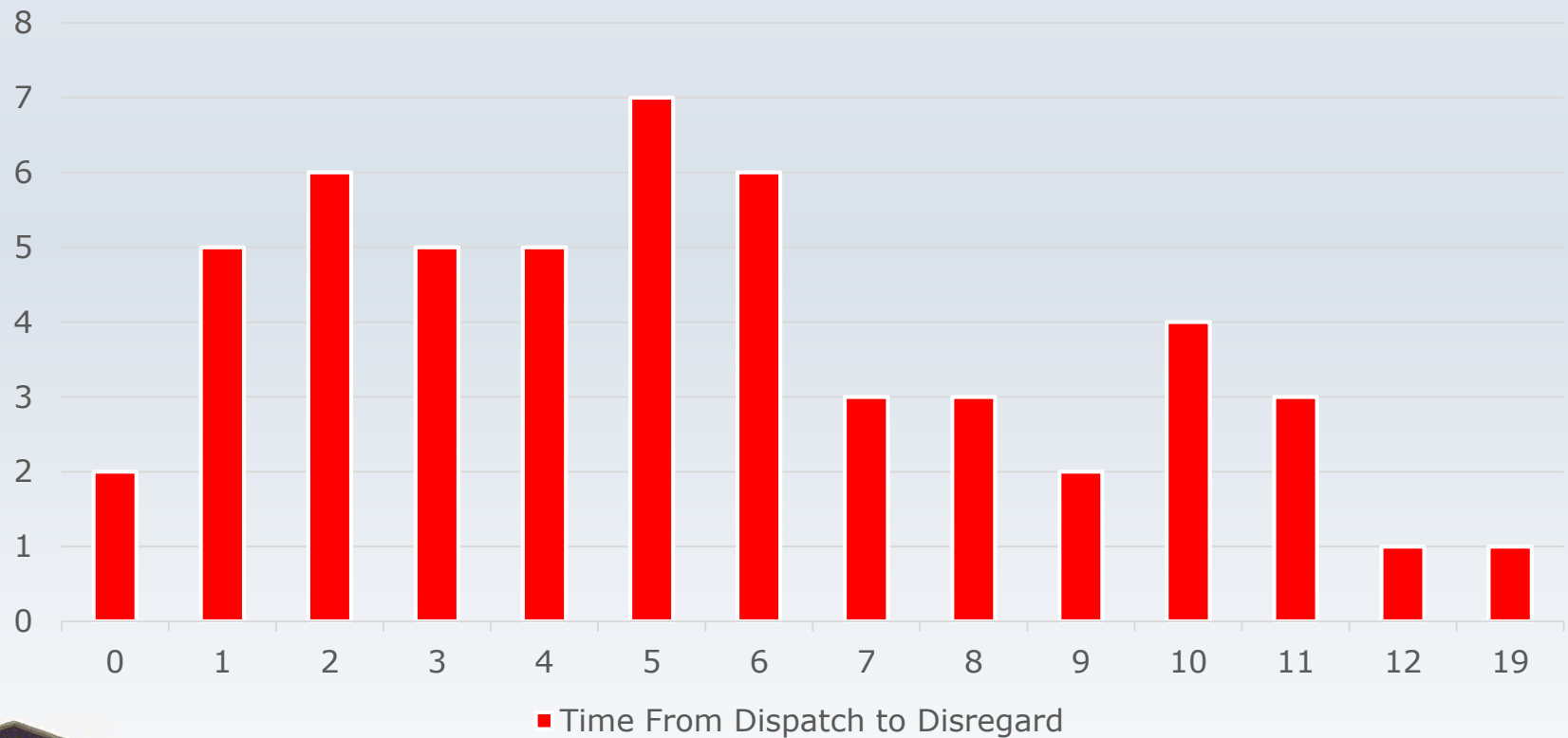


■ Apparatus Responded ■ No Apparatus Response

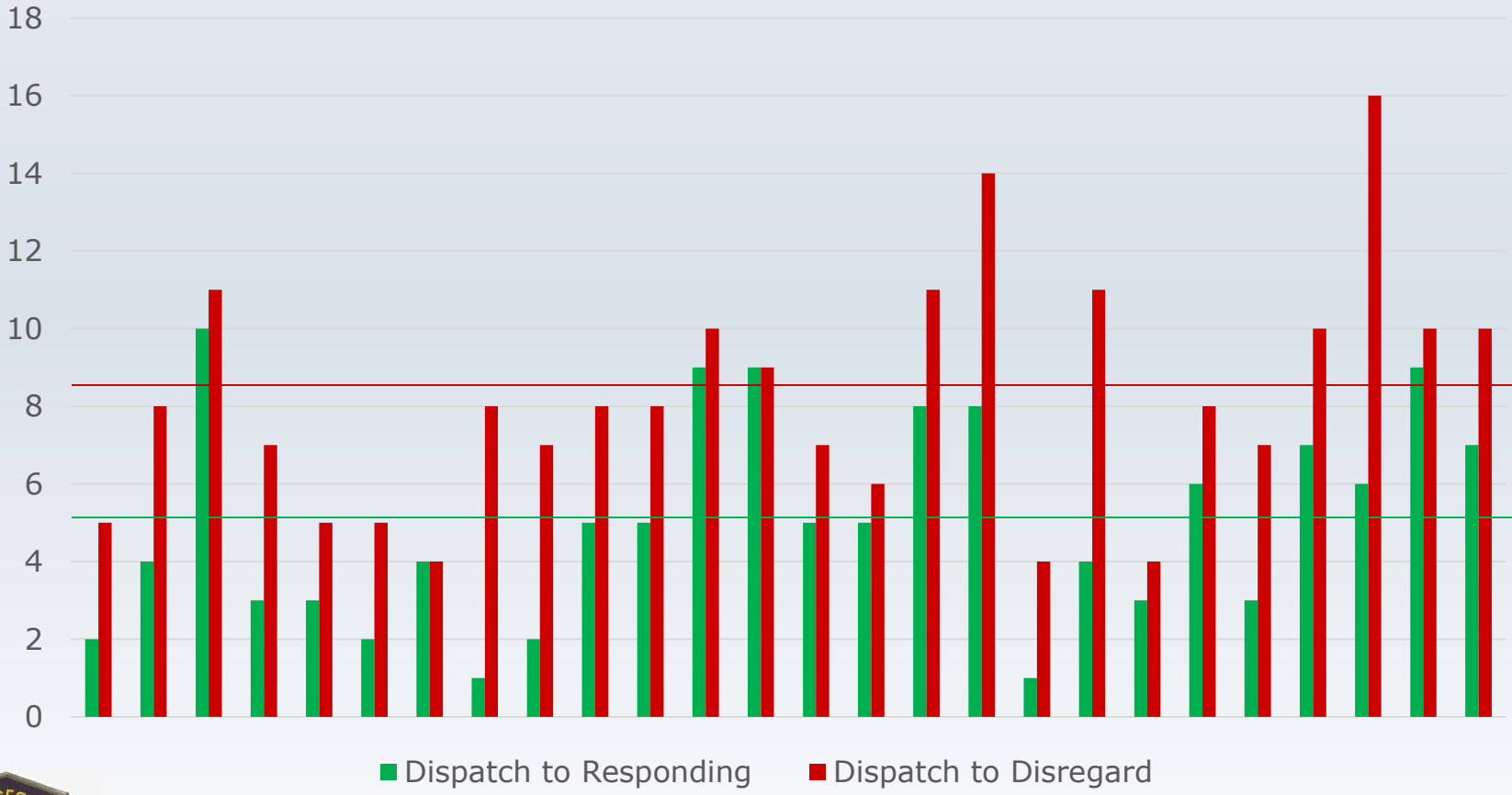


2017 Disregards w/o Response (1/1 to 8/4)

Time From Dispatch to Disregard



2017 Disregards w/ Response (1/1 to 8/4)

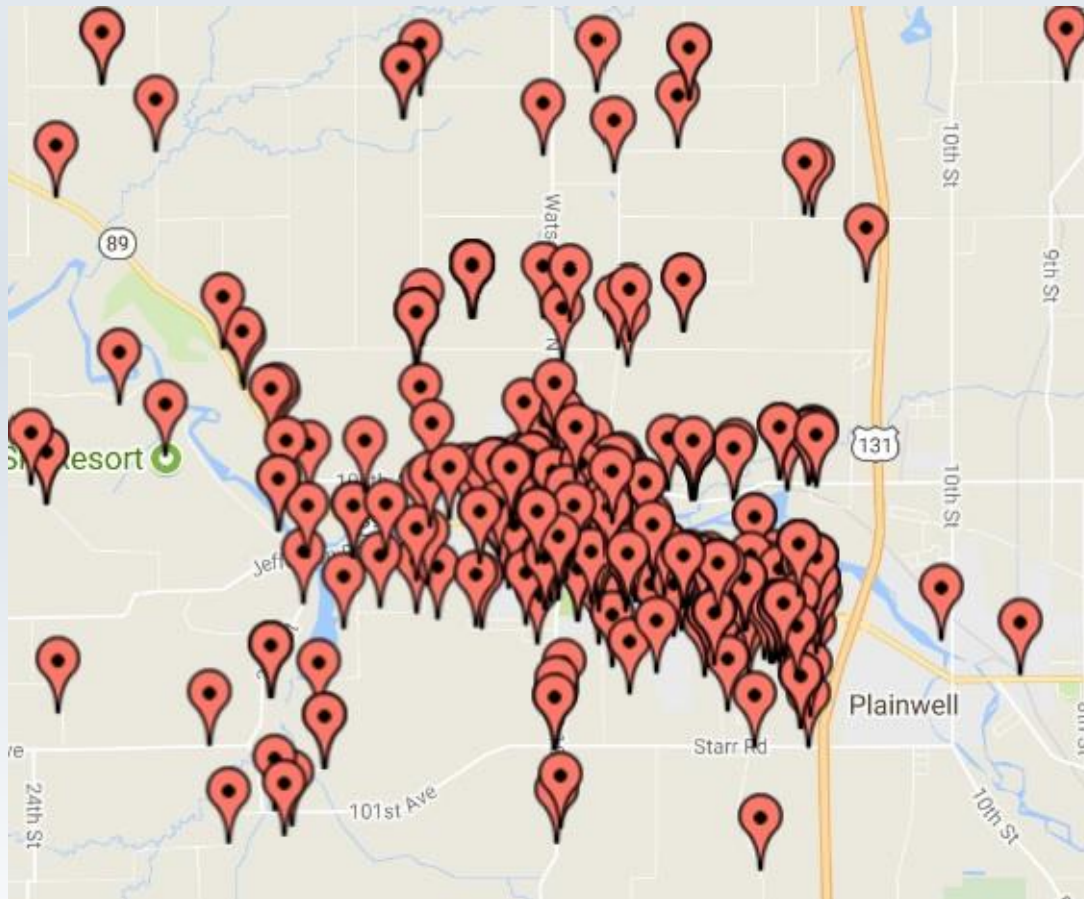


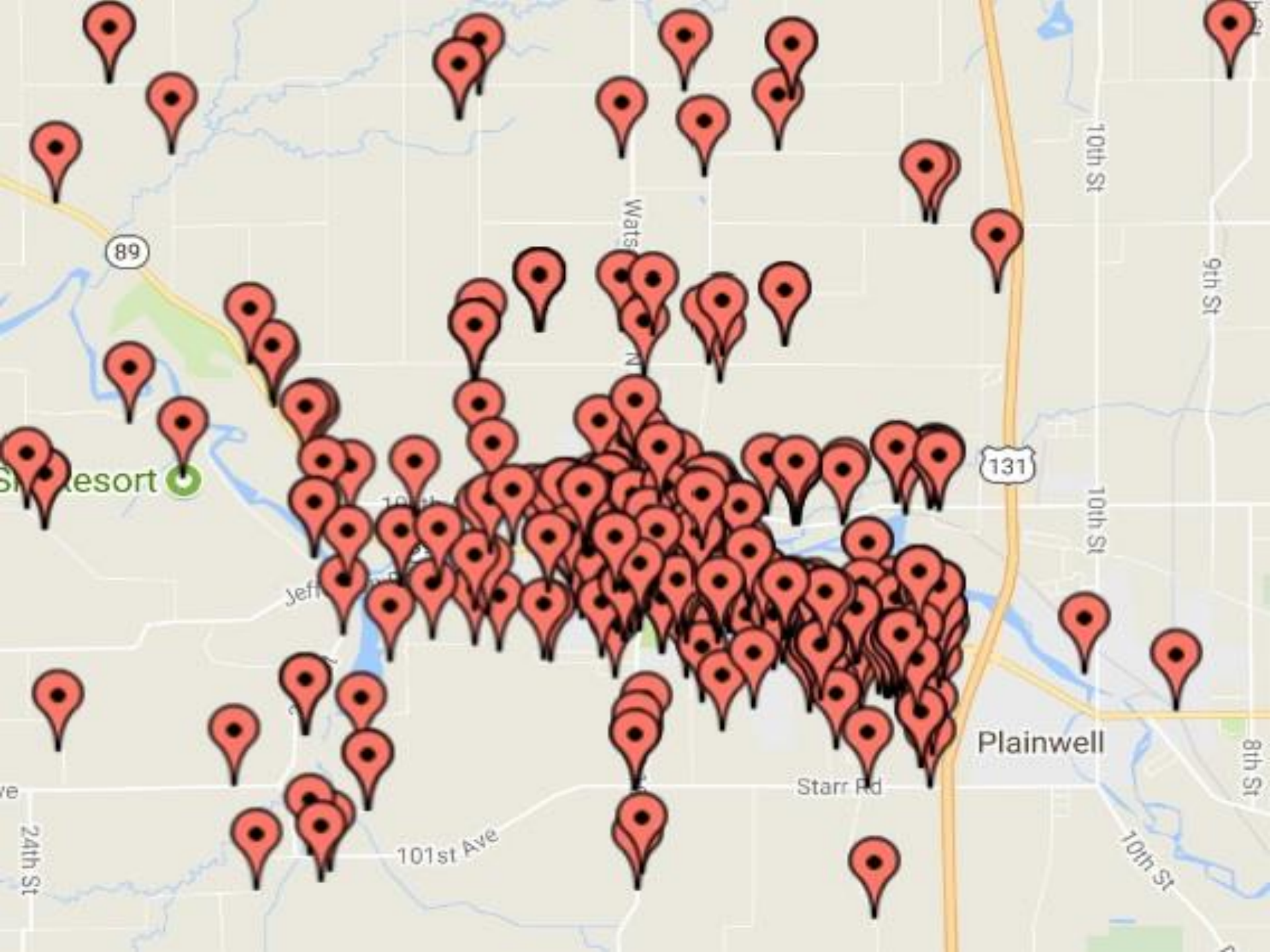
Disregard Breakdown (1/1 to 8/4)

Call Type	# Disregard	# Call Type	% Disregard
P1 Medical	26	204	13%
P2 Medical	4	43	9%
Medical Alarm	12	48	25%
Fire Alarm	12	18	67%
Stage in Area	9	26	35%
PI Accident	4	25	16%
Unk Accident	6	9	67%
General Assist	1	5	20%
Incorrect Disp	1	1	100%



2017 YTD Call for Service Pin Map (1/1 to 8/4)





Data on Longer Responses to Station

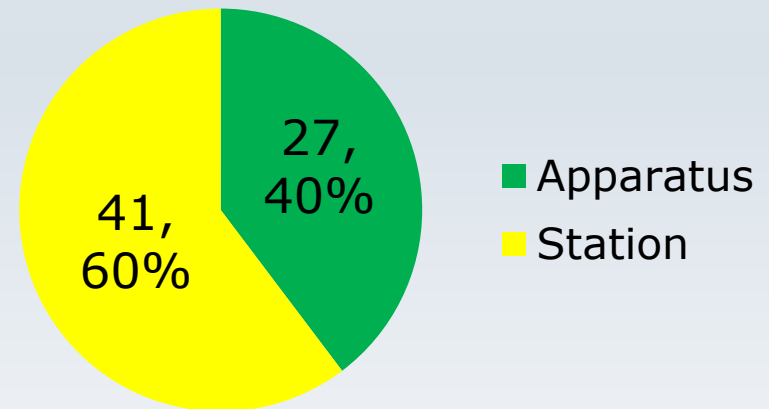
- Presently, there are two Firefighters, hired under previous, more relaxed guidelines, who live farther out from the station than the current 4 minute requirement



Data on Longer Responses to Station

- Firefighter #1
- Distance
 - 4.0miles
- Time to station
 - 7 minutes
(according to Google Maps)

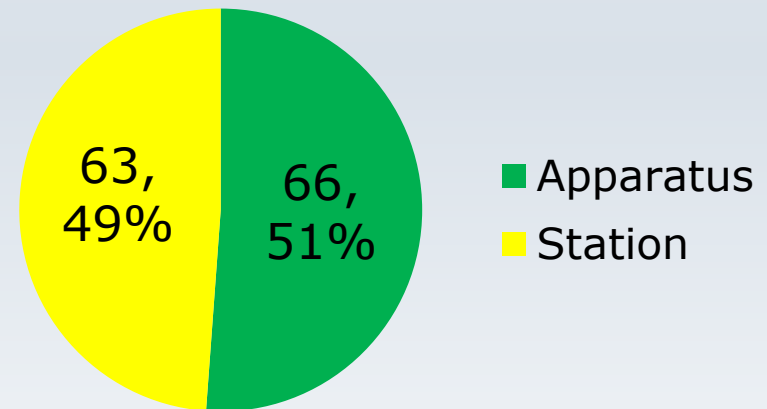
Responses



Data on Longer Responses to Station

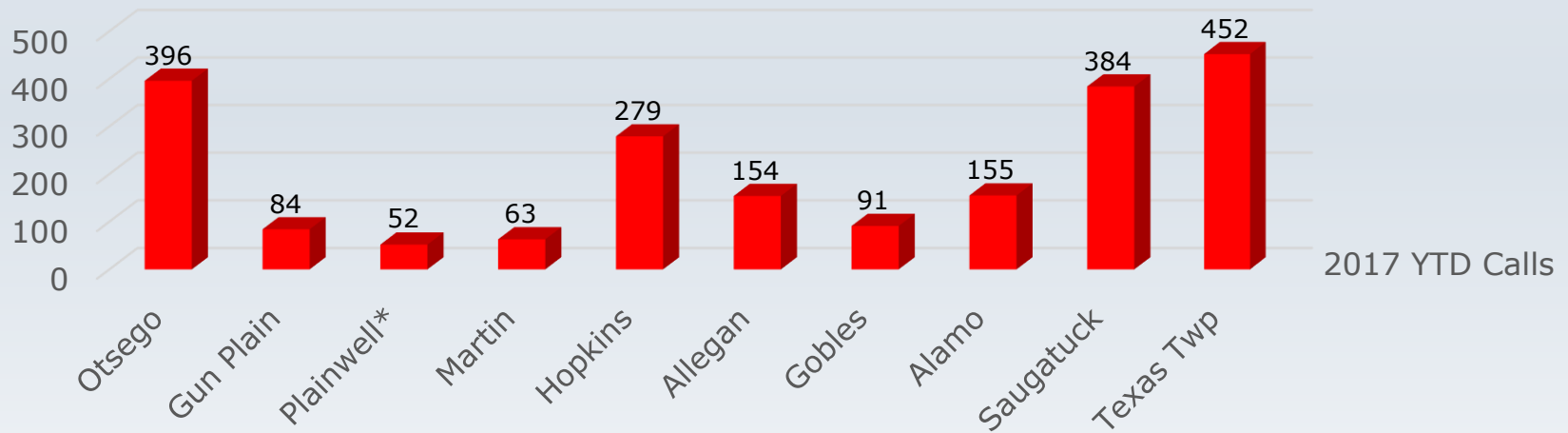
- Firefighter #2
- Distance
 - 2.8 miles
- Time to station
 - 5 minutes
(according to Google Maps)

Responses



Neighboring/Comparable Agency Comparison

2017 YTD Calls Through 07/04

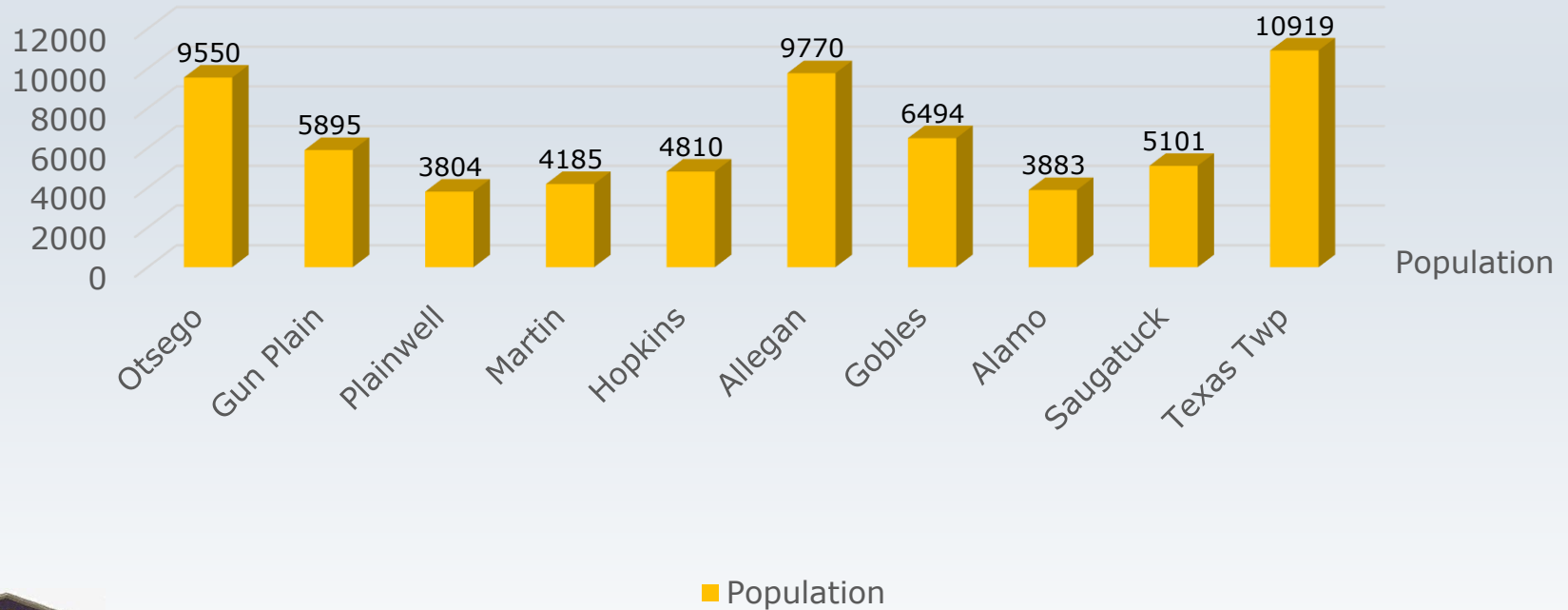


■ 2017 YTD Calls



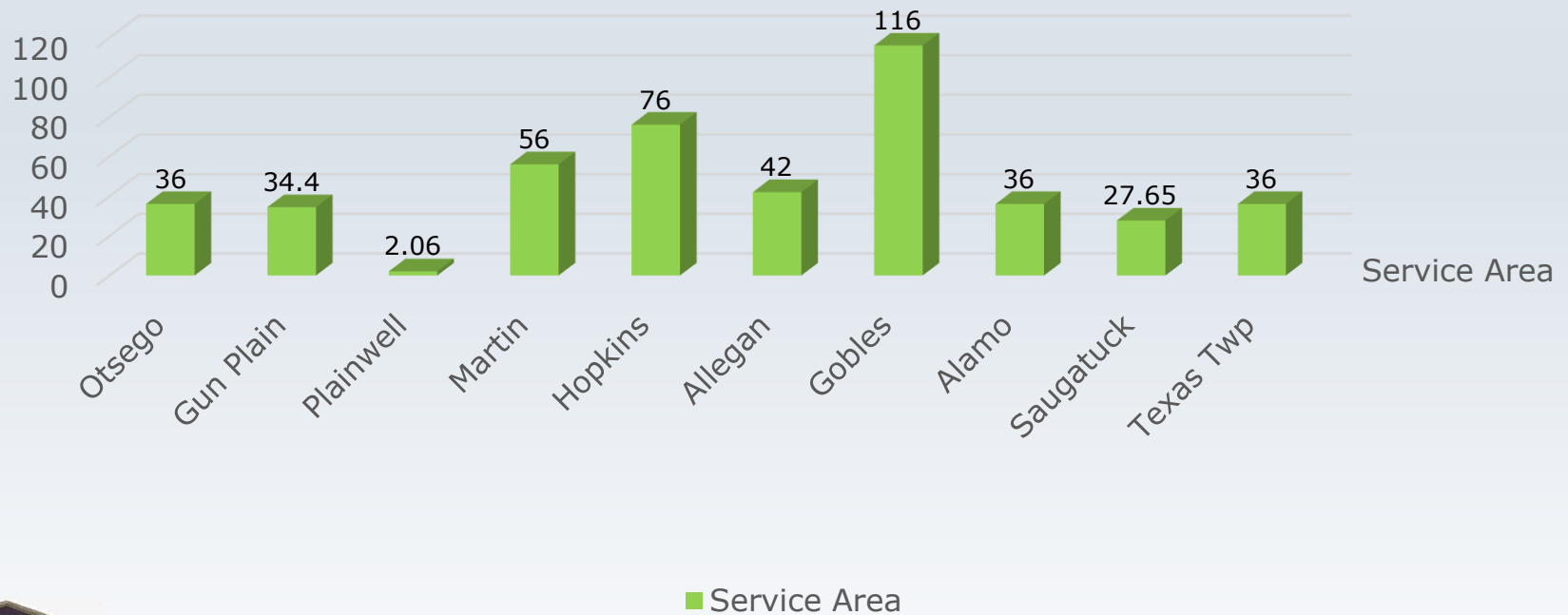
Neighboring/Comparable Agency Comparison

Population 2010 Census Data



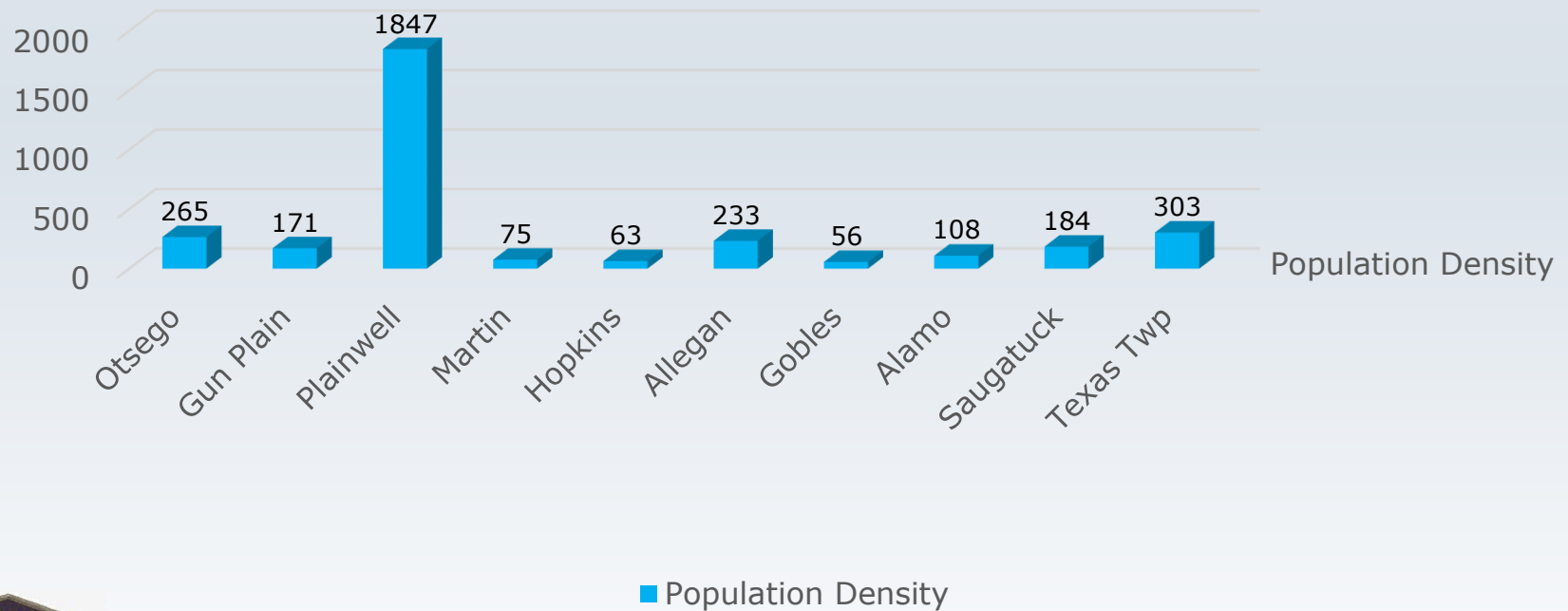
Neighboring/Comparable Agency Comparison

Service Area (square miles)



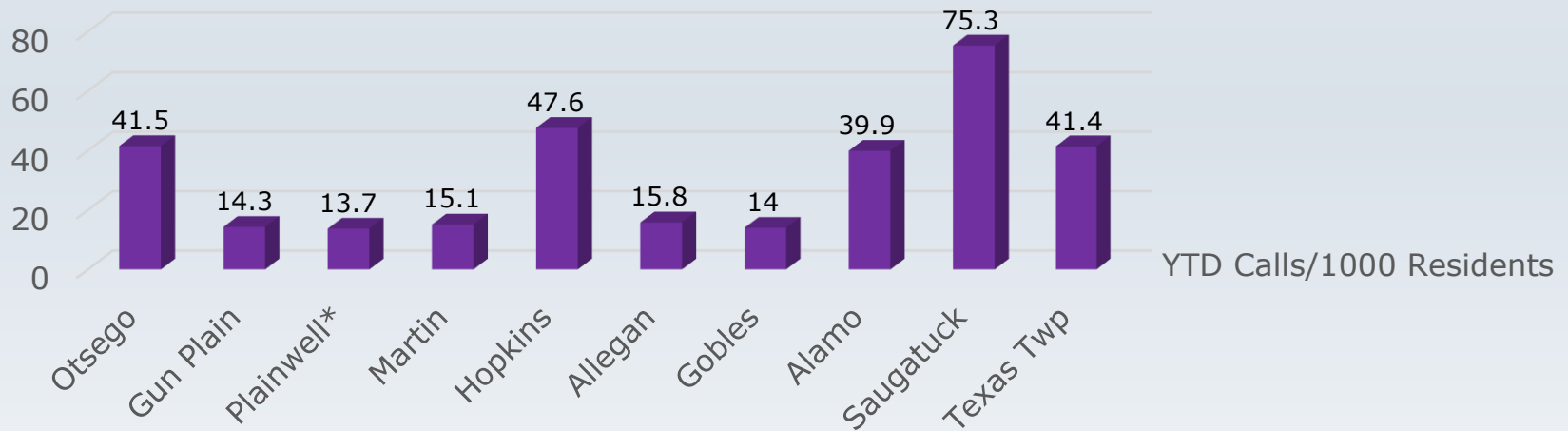
Neighboring/Comparable Agency Comparison

Population Density (people/mi²)



Neighboring/Comparable Agency Comparison

1/1 to 8/4 Call Volume Per 1000 Residents

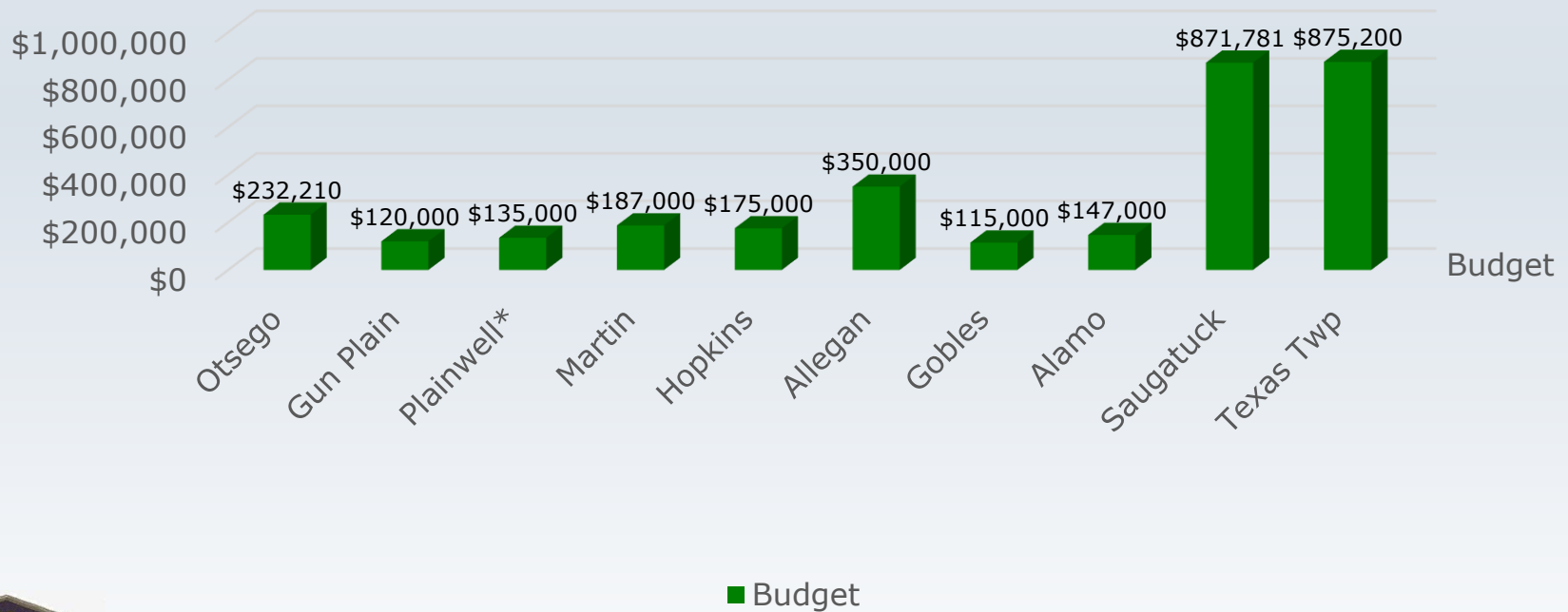


■ YTD Calls/1000 Residents



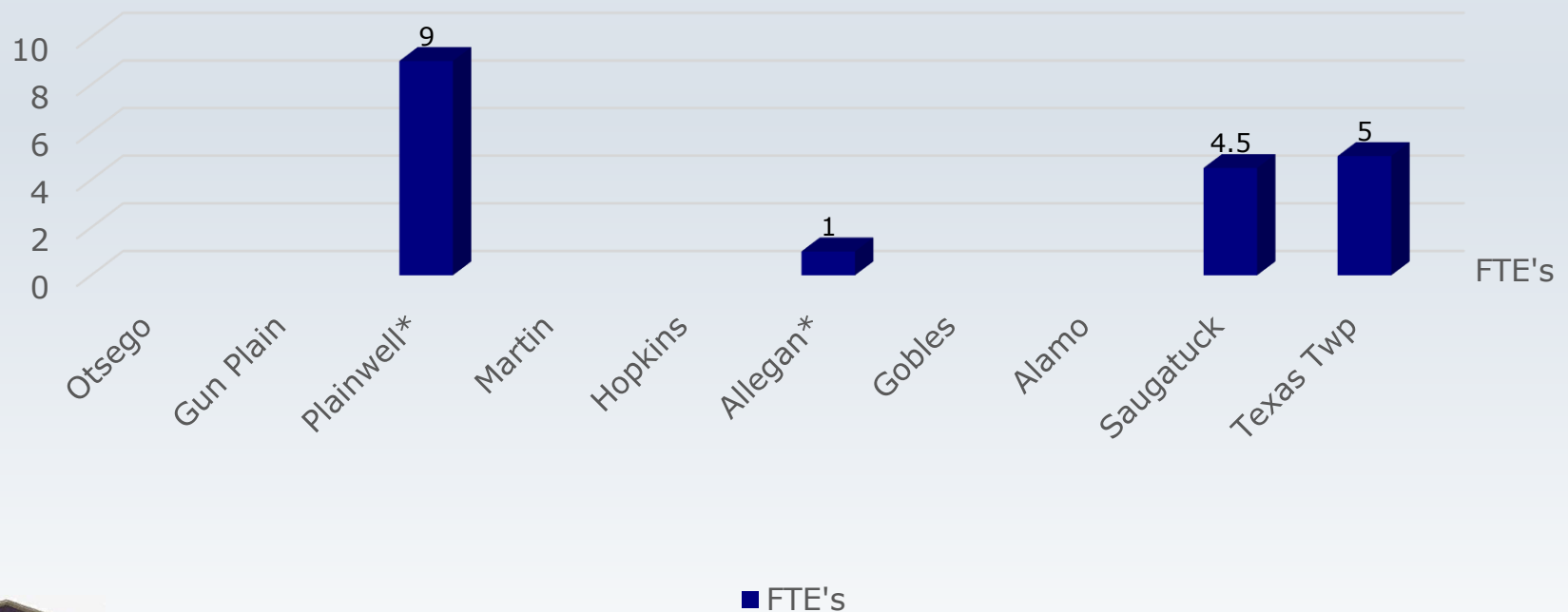
Neighboring/Comparable Agency Comparison

Current FY Operating Budget



Neighboring/Comparable Agency Comparison

Full-Time Personnel



Where Do We Go From Here?

- After analyzing the data, the decision has been made to continue the 4 minute residency requirement at this time
 - At some future time, it may be necessary to look at changing this if the Department cannot sustain the number of personnel needed to handle essential services



Where Do We Go From Here?

□ However...

- Unless staffing changes, it would be fruitless to continue service levels at current levels and expand the residency requirement
- From a simple function of time & distance, we cannot do both



Options?

- Staffed station
- Reduce services
- Expand residency requirement
- Allow personnel to respond directly to scenes
- Hire additional personnel
- Increase use of mutual aid



Thank You

Questions?

