Shotspotter Report

September 2022

Fourth District, Cleveland Division of Police

Commander Brandon Kutz

Shotspotter Pilot Project

- Funded by the Catherine L & Edward A. Lozick Foundation with support from the Cleveland Police Foundation

- Intended to be a two year pilot project to test the efficacy and value of the technology to address violent crimes involving gunfire

Shotspotter Pilot Project

- Three (3) square miles selected in the Fourth District (18% of the Fourth District)
- Three years of crime data analyzed for deployment location (2016-2018)
  - 37% of all calls for shots fired
  - 37% of all felonious assaults
  - 45% of all homicides
- Go Live Date: November 4, 2020

How It Works and How We Use it

ShotSpotter®

Detect · Protect · Connect

Alerts!

2020 Total Alerts: 604	2021 Total Alerts: 2976	2022 Total Alerts: 1520
Average Daily Alerts: **10.6**	Average Daily Alerts: **8.2**	Average Daily Alerts: **6.0**
Single Gunshot Alerts: 271	Single Gunshot Alerts: 1448	Single Gunshot Alerts: 751
Multiple GS Alerts: 384	Multiple GS Alerts: 1712	Multiple GS Alerts: 899
Average Shots Per Alert: 4.3	Average Shots Per Alert: 3.8	Average Shots Per Alert: 3.6

52
Guns
44
Arrests
415
NIBIN
Leads
7 Lives
Saved
Sept 7,
2022

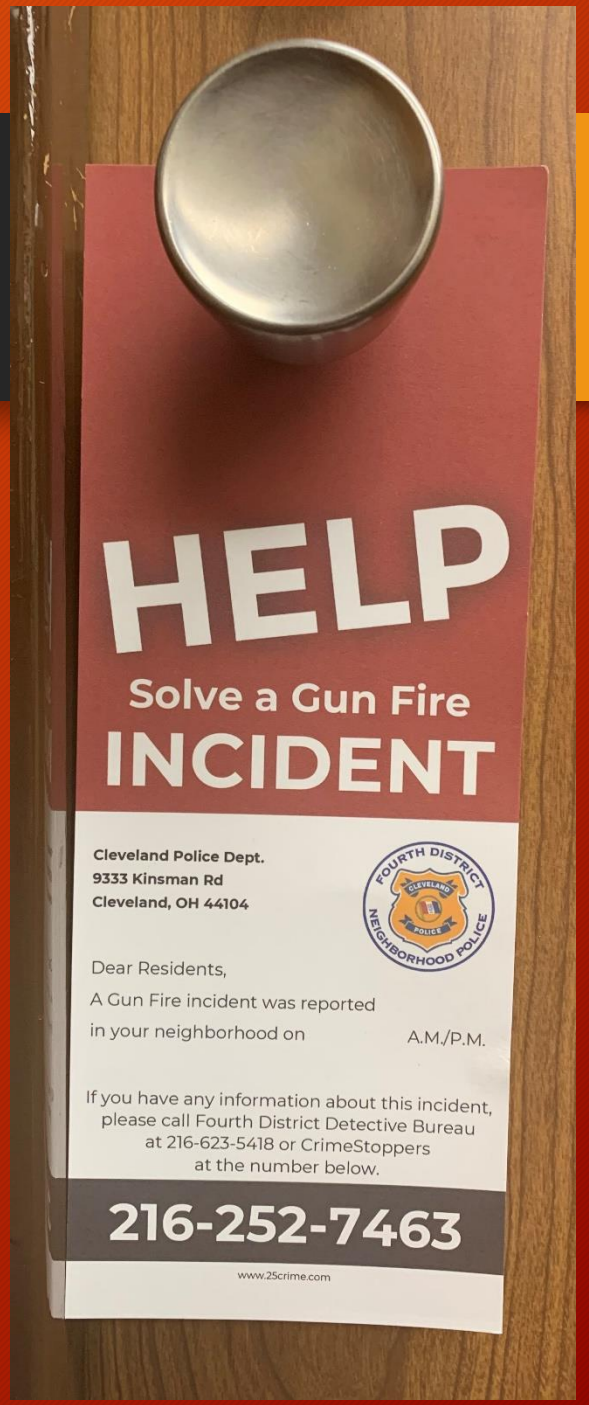
Evidence Collected

- Incidents with Evidence Collected: **548**
- Shell Casings Collected: **3272**
- NIBIN Leads Generated: **415**

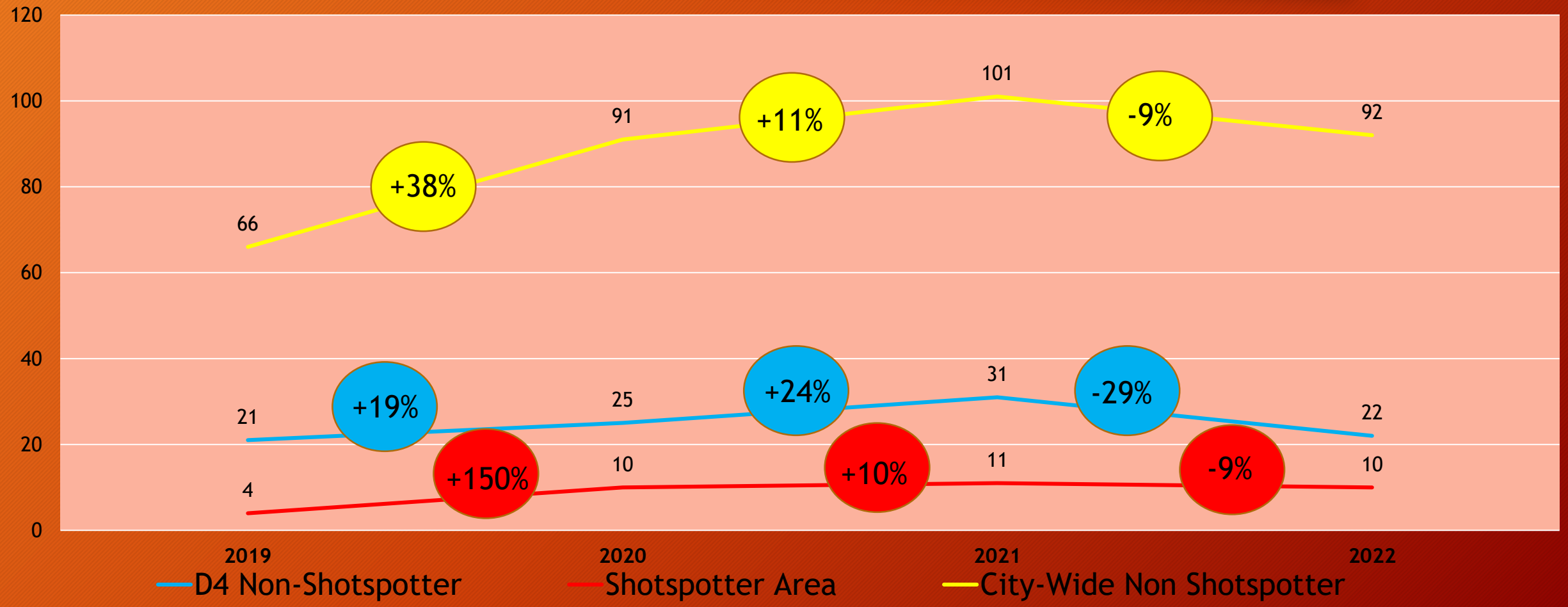
Community Outreach

4479

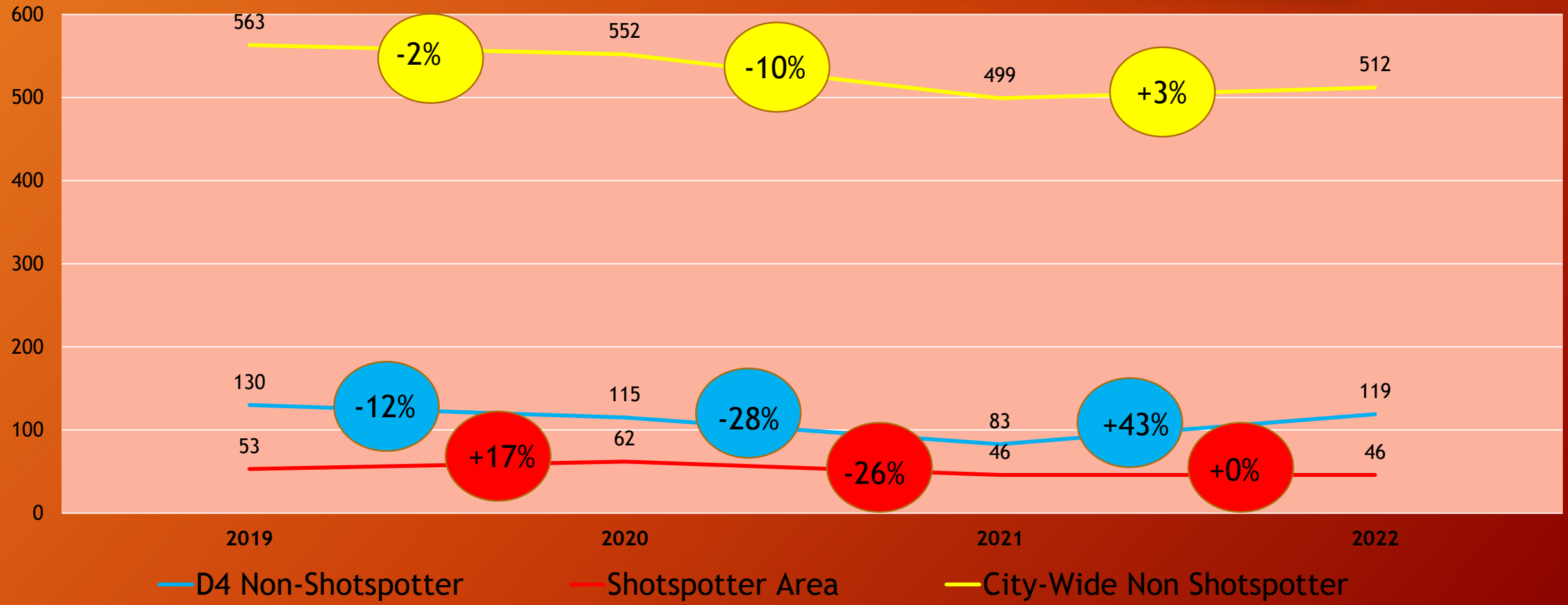
Incidents with Community Outreach



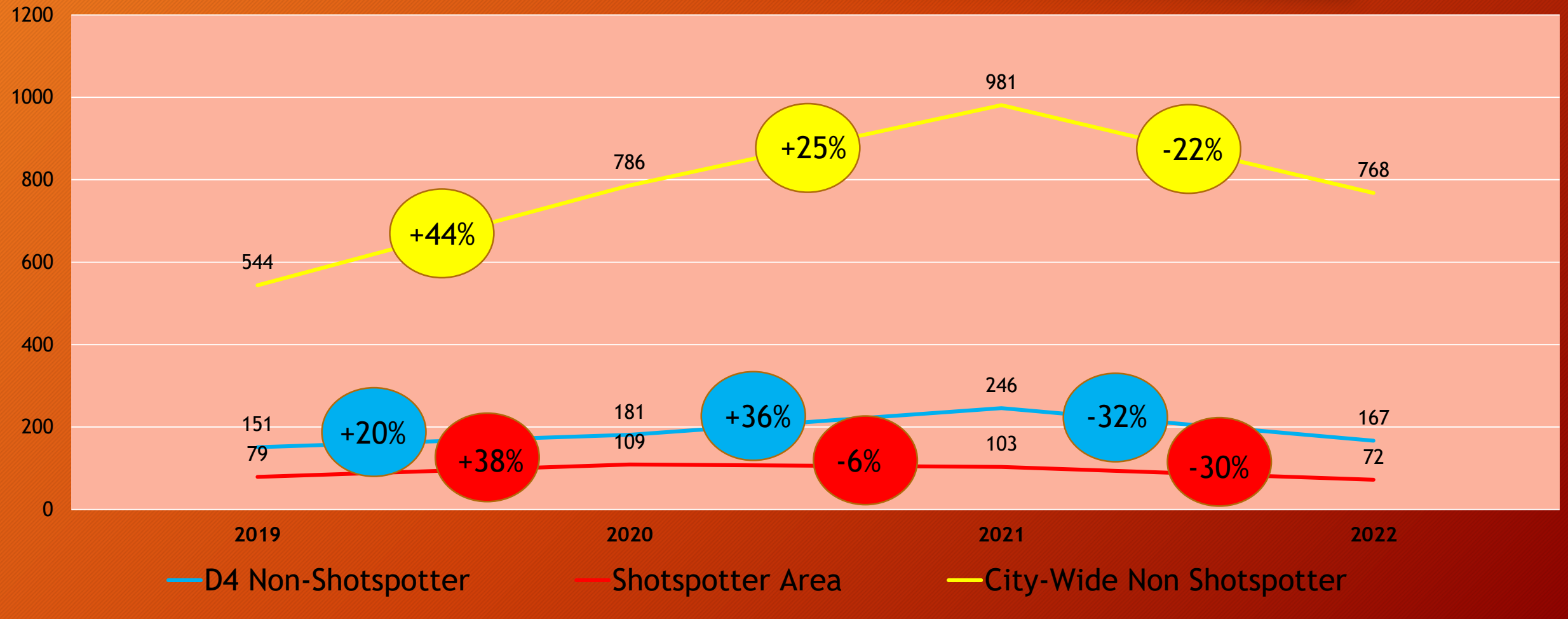
Homicides (Year to Date: August 31)



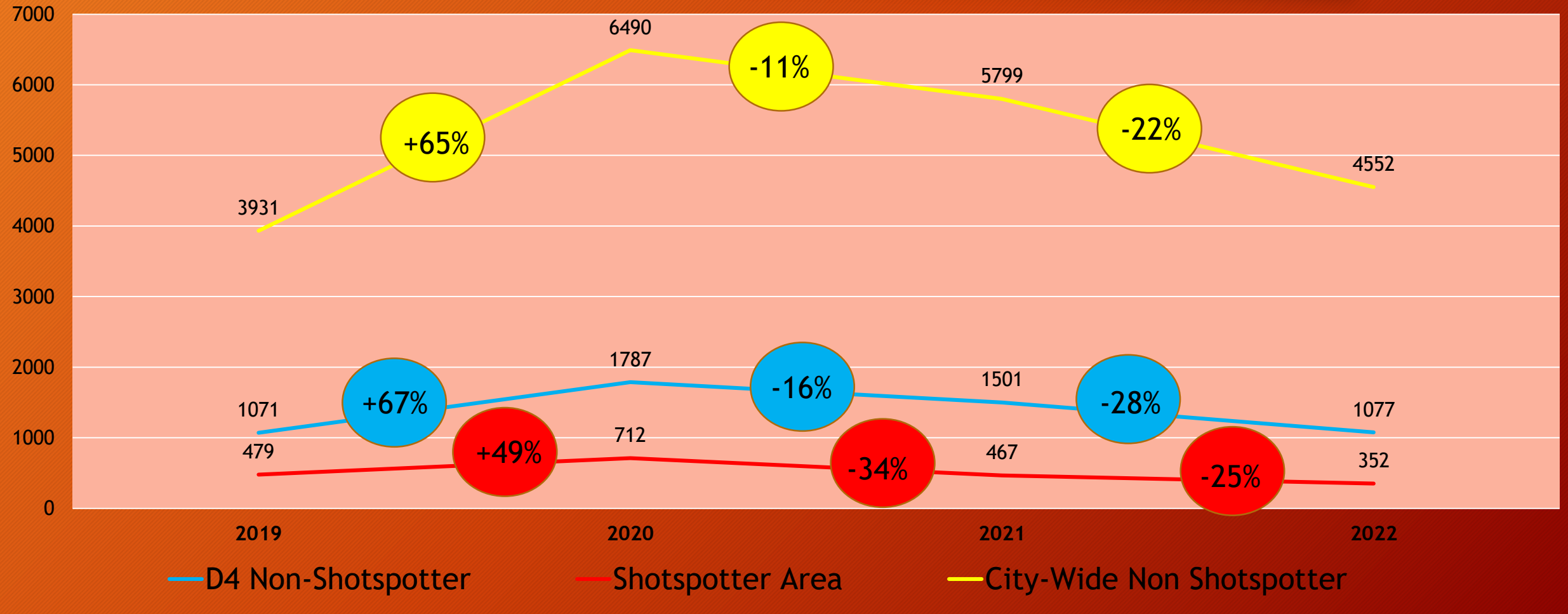
Robberies with Firearms (YTD: August 31)



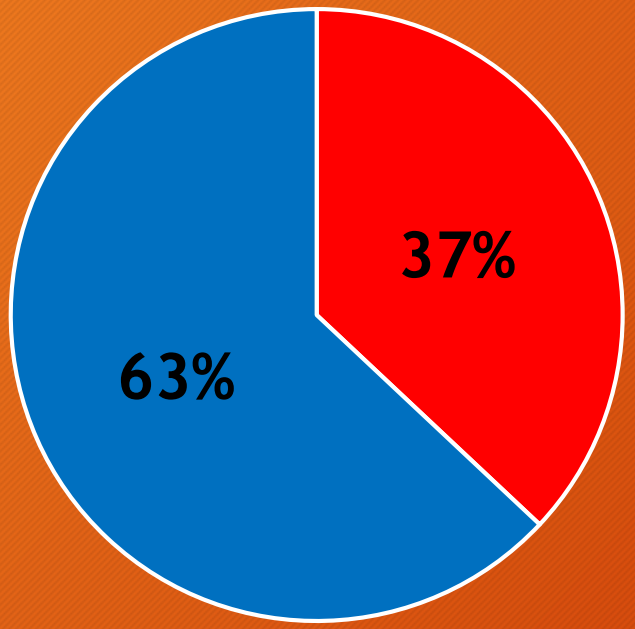
Felonious Assaults with Firearms (YTD 8/31)



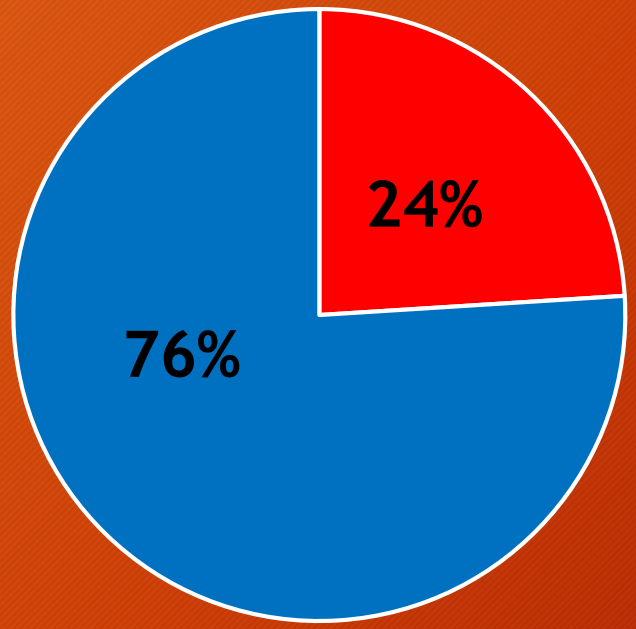
Calls for Shots Fired (Year to Date: August 31)



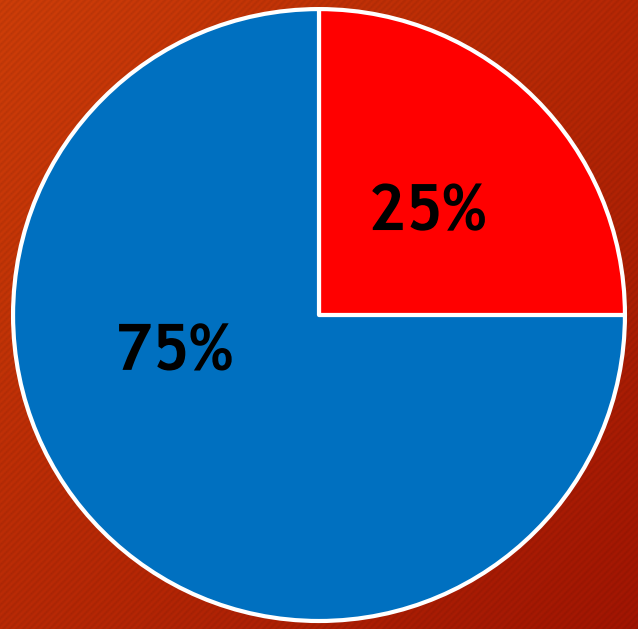
Shots Fired 2016-2018



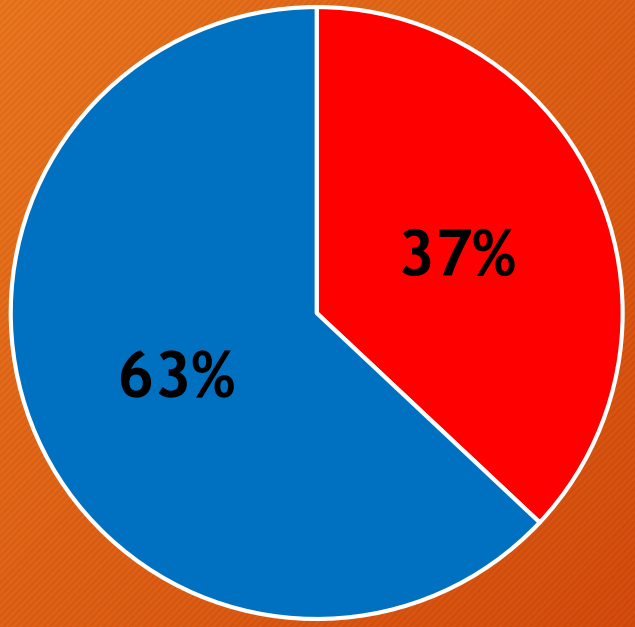
Shots Fired 2021



Shots Fired 2022

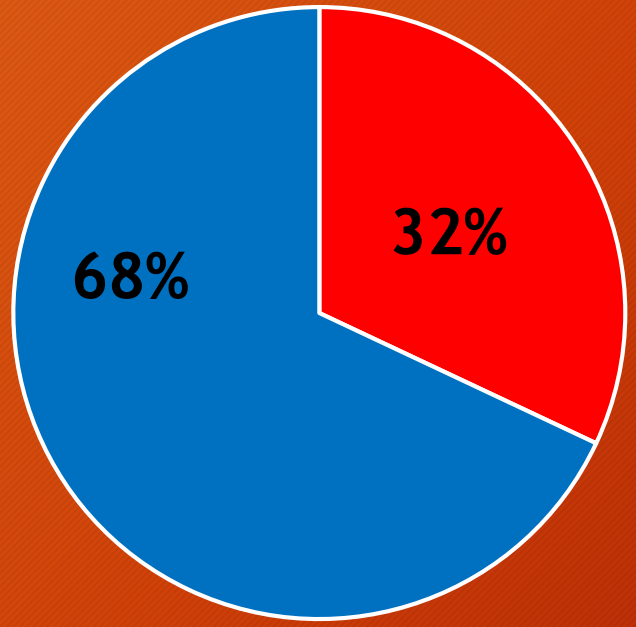


Fel Asslts 2016-2018



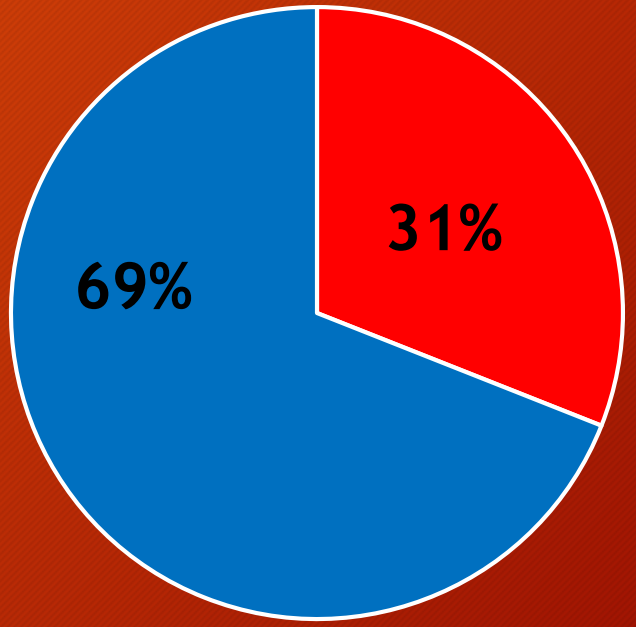
Shotspotter Area
D4 Non-Shotspotter

Fel Asslts 2021



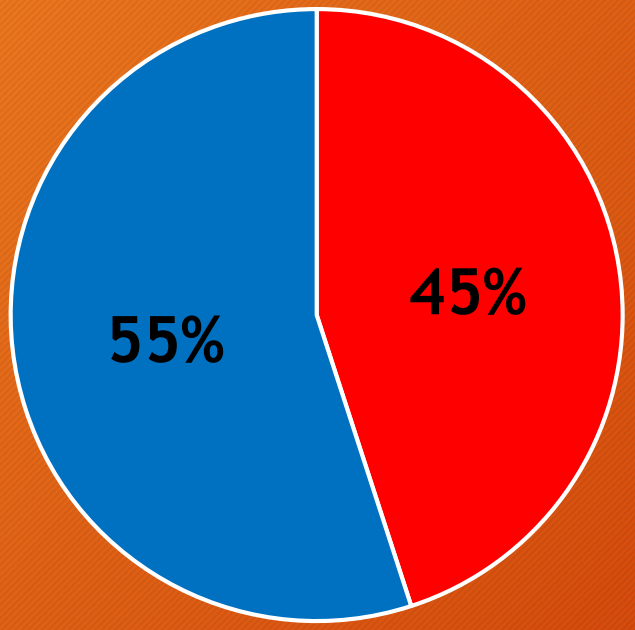
Shotspotter Area
D4 Non-Shotspotter

Fel Asslts 2022



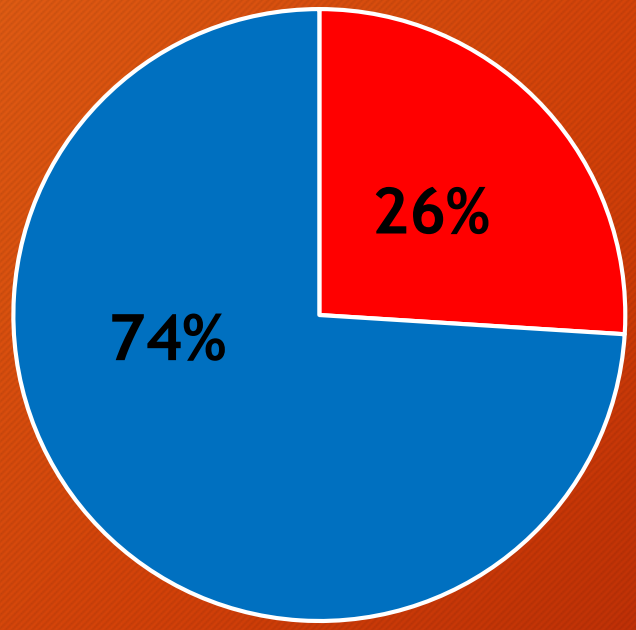
Shotspotter Area
D4 Non-Shotspotter

Homicides 2016-2018



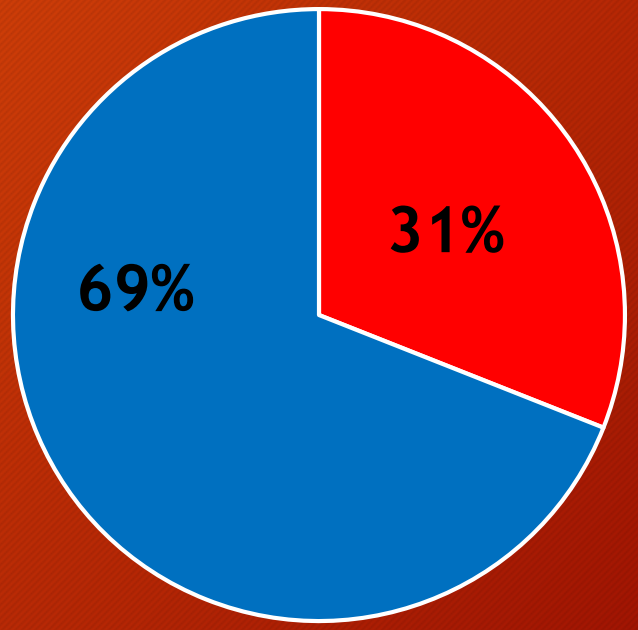
Shotspotter Area
D4 Non-Shotspotter

Homicides 2021



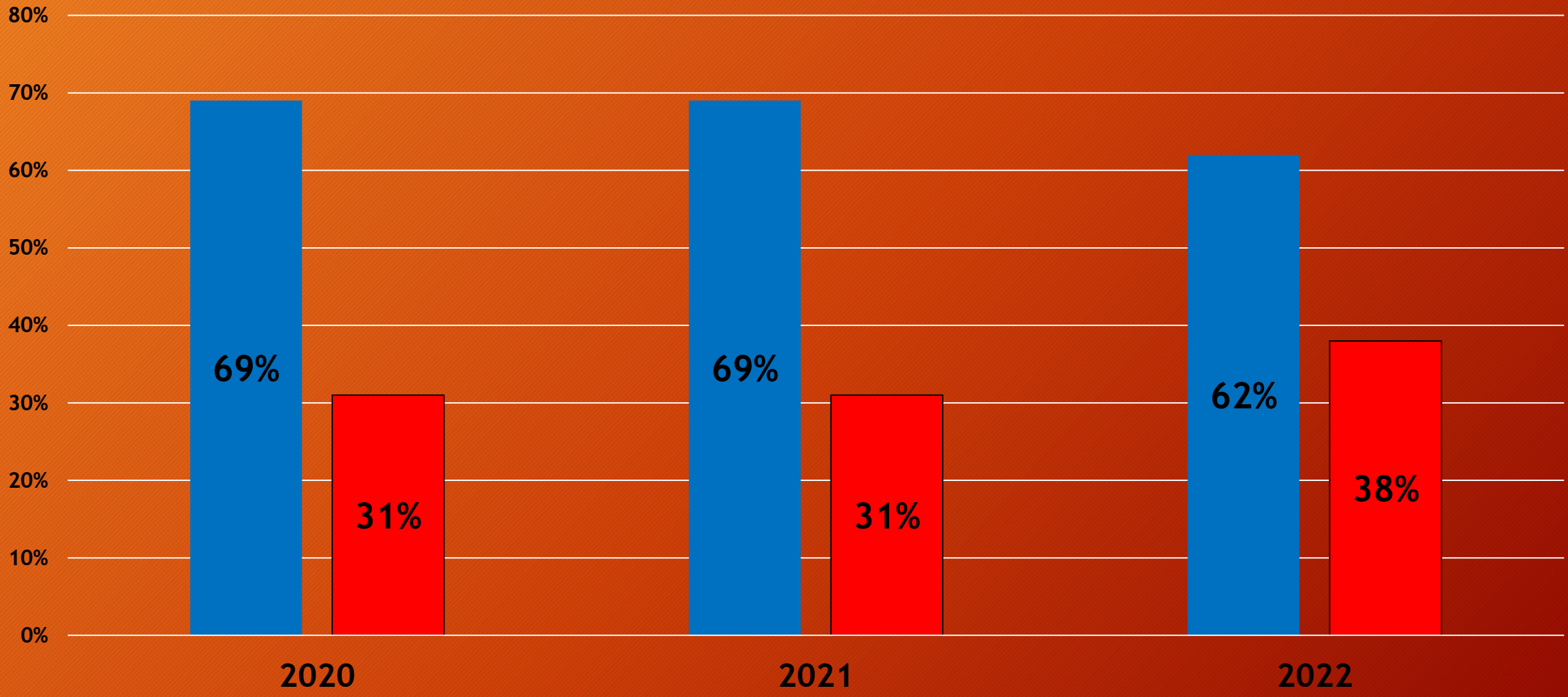
Shotspotter Area
D4 Non-Shotspotter

Homicides 2022

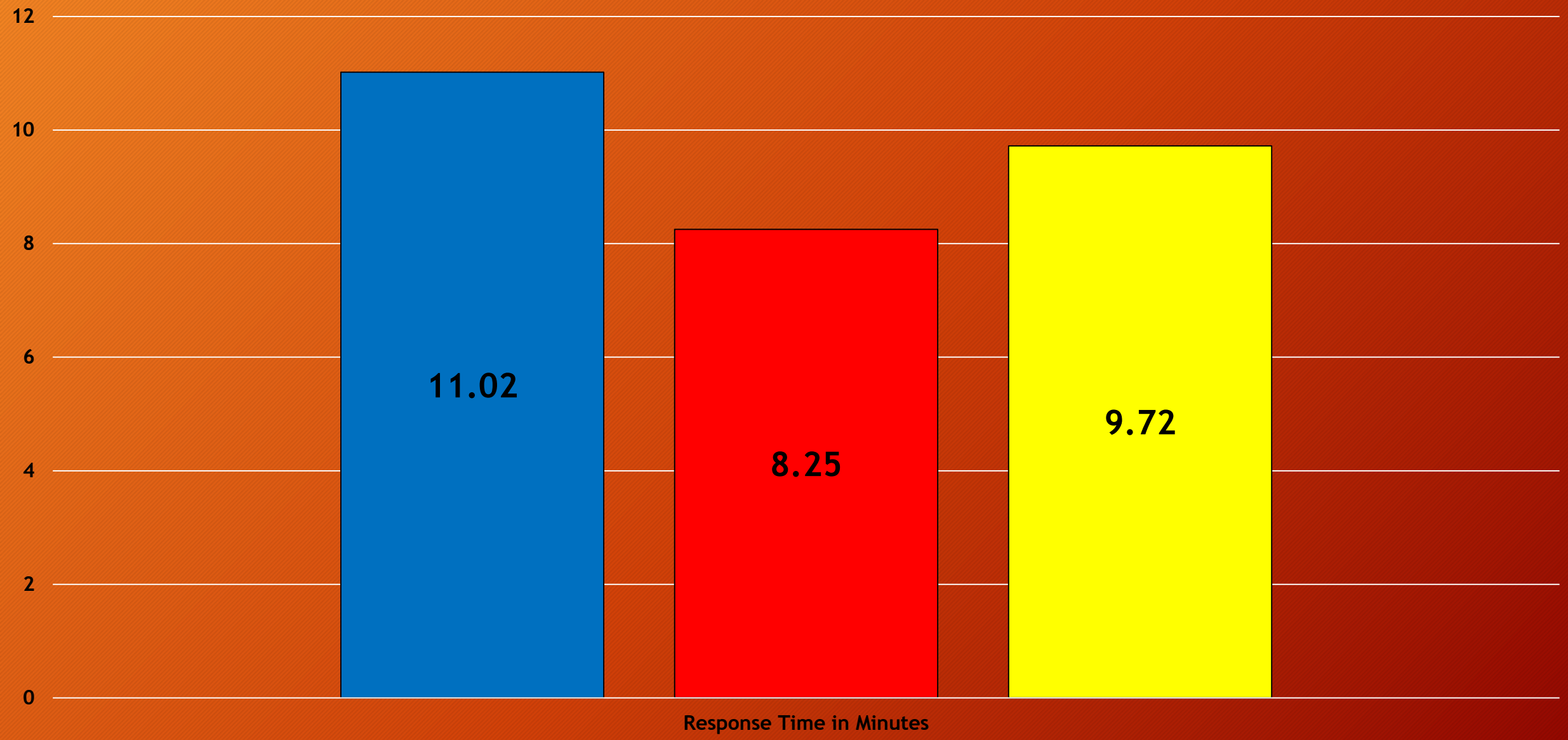


Shotspotter Area
D4 Non-Shotspotter

Weapons Arrests in the Fourth District



Response Times: 2022 YTD



How Often Does the Public Call for Gunfire?

2020	2021	2022
•15%	•13%	•9%

CFS Shots Fired Information Matched to ShotSpotter Alerts

2.8%

3 Minutes

Cleveland PD received 156 Calls For Service out of 7,666 ShotSpotter alerts within 3 minutes that were located within 300 feet of point of the firing location.

On average, these calls were 127 feet from the gunfire location.

12.0%

15 Minutes

Cleveland PD received 675 Calls For Service out of 7,666 ShotSpotter alerts within 15 minutes that were located within 1-Mile of the point of firing.

On average, these calls were 1,201 feet from the gunfire location.

Officer Behavior and Shotspotter

Uses of Force

ONE use of force since launch (Level 1: Pistol Point)

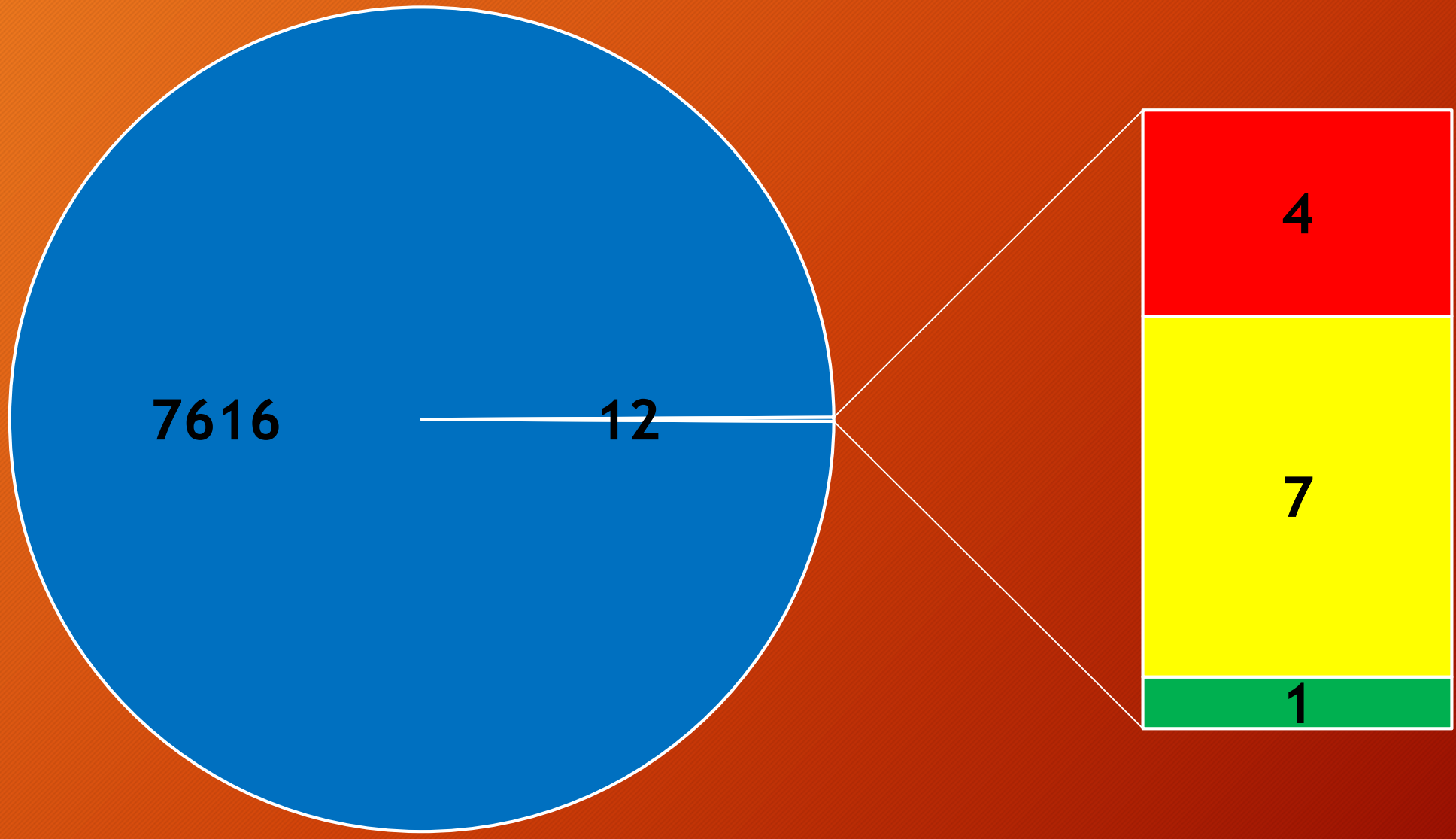
Citizen Complaints (OPS)

There are **ZERO** OPS complaints associated with Shotspotter calls for service

Policy Violations

ONE incident with policy violations involved. (body-camera and evidence mishandling violation)

Error Rates: November 2020-August 31, 2022



U.S. Cost of Gun Violence

The cost of gun violence in the United States was $280 Billion in 2020. This is up from $229 Billion in prior years. These costs are obtained from Everytown Research Institute, Giffords Law Center and National Institute for Criminal Justice Reform. The annual numbers focus on medical bills, policing and criminal justice, employer costs, work loss and quality of life costs.

The costs of a homicide exceed that of an assault firearm crime. However, the rate of assault firearm cases far exceed that of a homicide at a rate of 5 to 20 times more.

ShotSpotter alerts provide officers with actionable intelligence, to arrive at the scene timely and safely. This will allow them to secure the scene, render aid, locate victims, witnesses and evidence which contributes to a reduction in gun-related homicides and an increase in investigatory information.

Sources:

https://maps.everytownresearch.org/everystat#cost
https://lawcenter.giffords.org/resources/the-economic-cost-of-gun-violence/
https://costofviolence.org

Cleveland Cost of Gun Violence

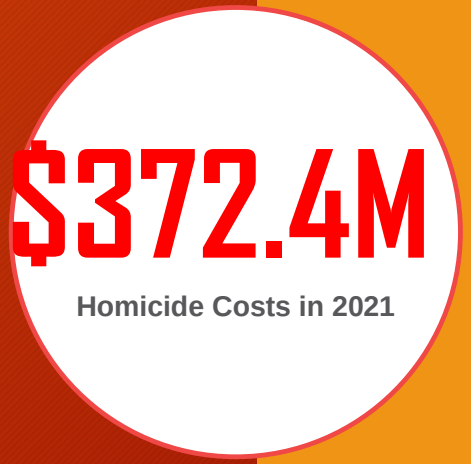
The average cost of a **homicide in this region is $1.3M per person and non-fatal shootings cost $775K per person.**

These costs include **crime scene, hospital, criminal justice, victim support and lost revenue**.

These **costs go beyond a monetary loss** to affect those living in areas of gun violence and being exposed to it regularly.

This **trauma is often invisible yet has long-term effects** on the individual, their mental and emotional state as well as those around them and the communities they live in.

Homicides Data Source:
2021-22 = 292
https://gunmemorial.org/CA/Cleveland



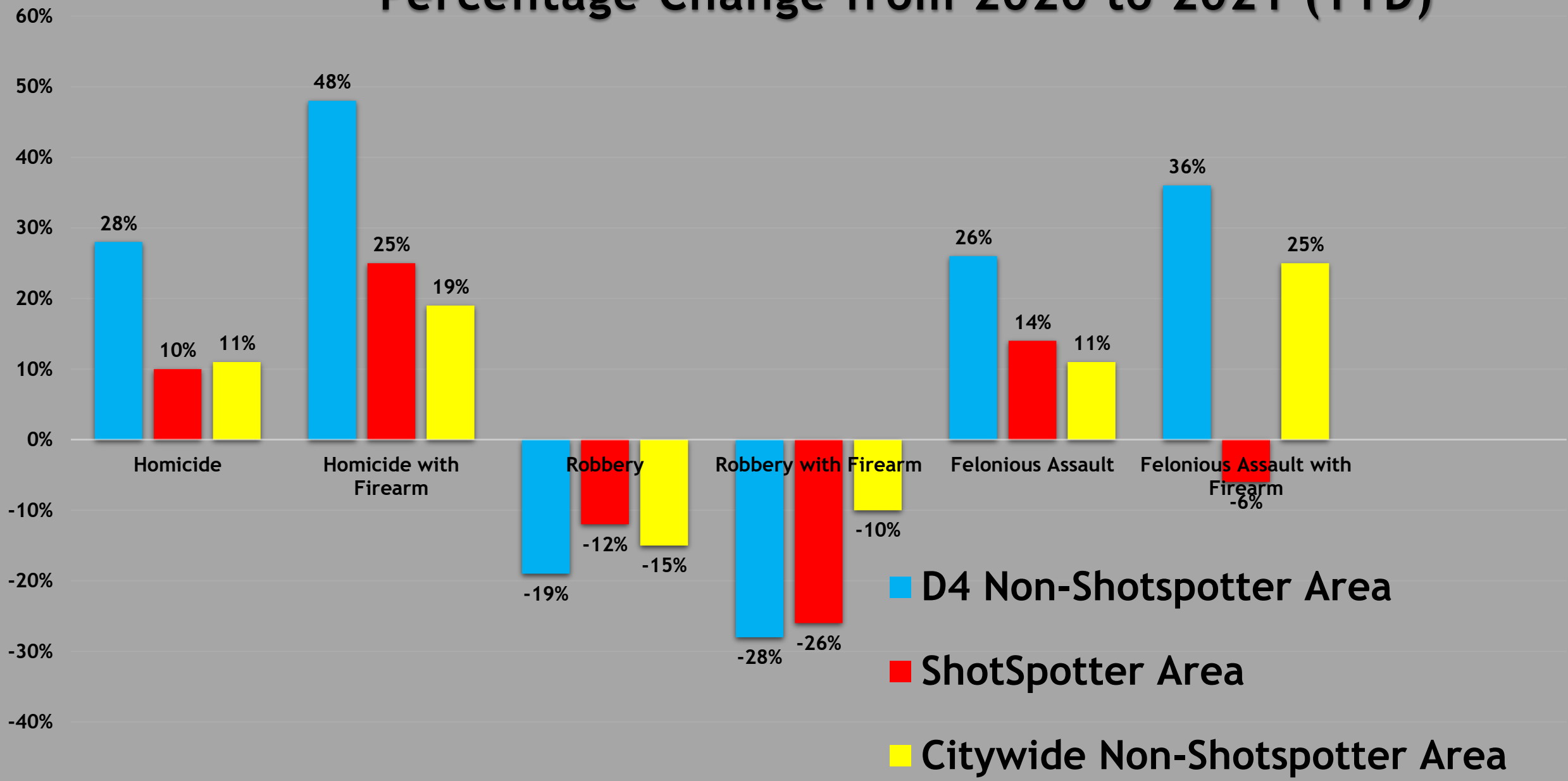
Calculations are based on averages of line-item costs from Cleveland. The data for the calculations is provided by the Giffords Law Center and National Institute for Criminal Justice Reform.

Approximation only. Info for other regions are available.

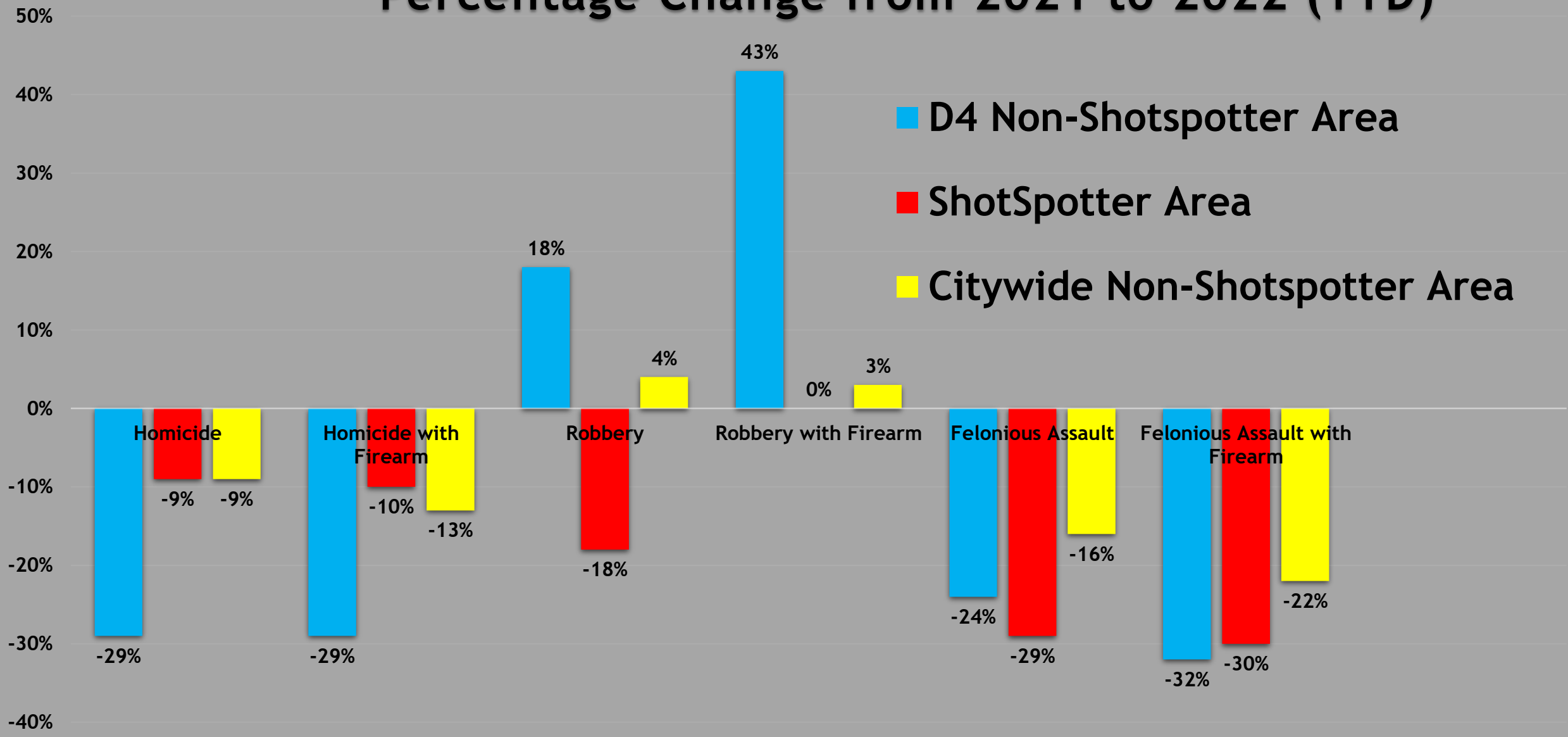
END OF PRESENTATION

Following are reference slides

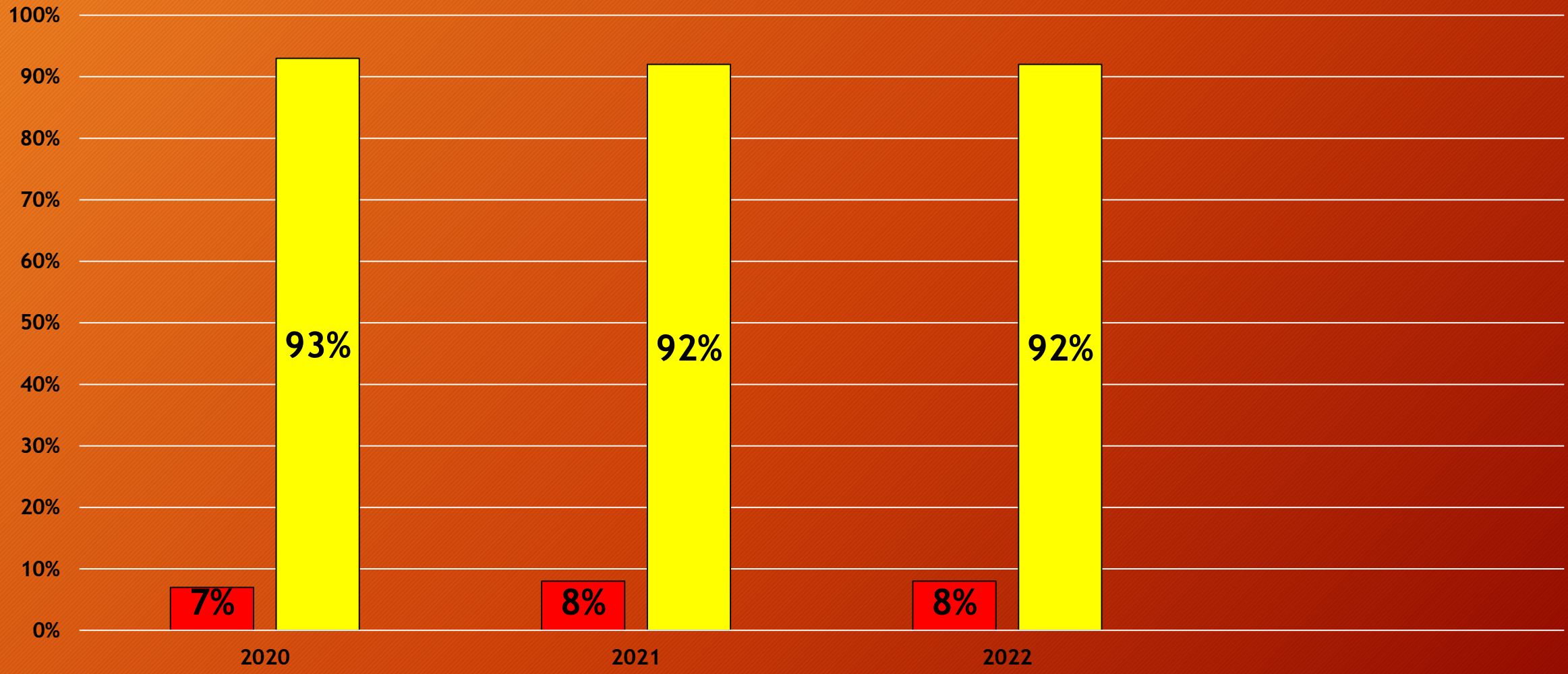
Percentage Change from 2020 to 2021 (YTD)



Percentage Change from 2021 to 2022 (YTD)



Weapons Arrests



Use of Force Associated with Shotspotter Alerts

		Top Level of Force for Shotspotter Calls				Use of Force Incidents by District						
Time Period	Shotspotter Calls	Level 1 - Firearm Point	Level 1 - Other	Level 2	Level 3	District 1	District 2	District 3	District 4	District 5	D4 Policy Violation - UOF	D4 Policy Violation - All Others
1 - 11/1/20 to 12/31/20	703	0	0	0	0	4	14	10	10	9	0	0
2 - 1/1/21 to 6/30/21	1,892	1	0	0	0	11	25	31	**17**	22	0	1
3 - 7/1/21 to 12/31/21	2,056	0	0	0	0	11	17	25	**17**	17	0	2
4 - 1/1/22 to 6/30/22	1,834	0	0	0	0	15	33	24	**13**	22	0	0
Total	6,485	1	0	0	0	41	89	90	57	70	0	3