



# Small Departments, Big Insights: Crime Analysis

February 5, 2025

## FY 2023 Small and Rural Violent Crime Reduction Program

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# OVERVIEW

1. Introductions & Principles

2. The Importance of Crime Analysis

3. Simple Tools & Techniques

4. Implementing Crime Analysis

5. Questions

6. Closing Remarks



# Introductions



## ■ Presenters:

- 👤 Ms. Anna Goedert - JSS, Senior Data Scientist
- 👤 Mr. Mike Green - JSS, Project Lead
- 👤 Mr. Bob Haas – JSS, Senior Police Advisor

## ■ Special Guest:

- 👤 Chief Steve Lowell - Oneida Police Department

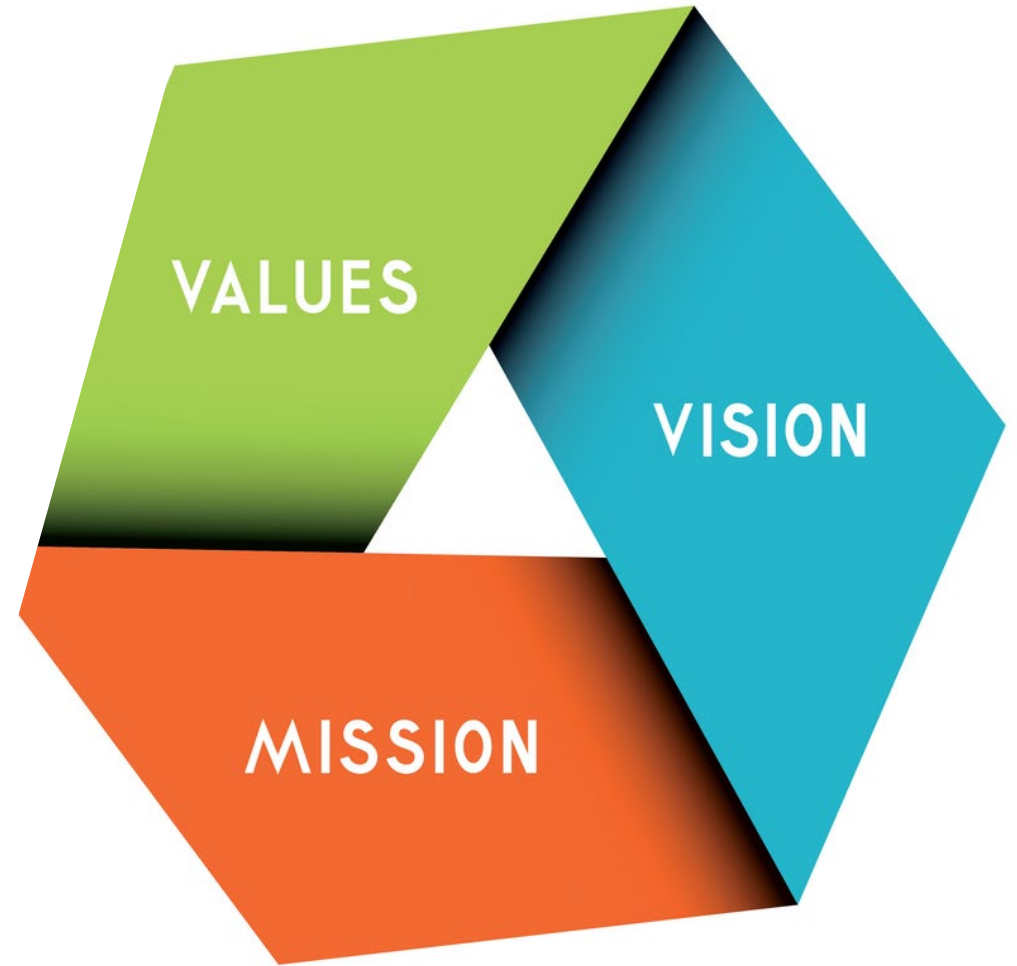
# JSS Guiding Principles

**Customer-Focused**

**Ease of Use**

**Leverage Technology**

**Data-Driven**



# Why Does Crime Analysis Matter?

- Support investigations by identifying and connecting patterns
- Identify trends – emerging hotspots or recurring offenders
- Enhance community safety by focusing on resources

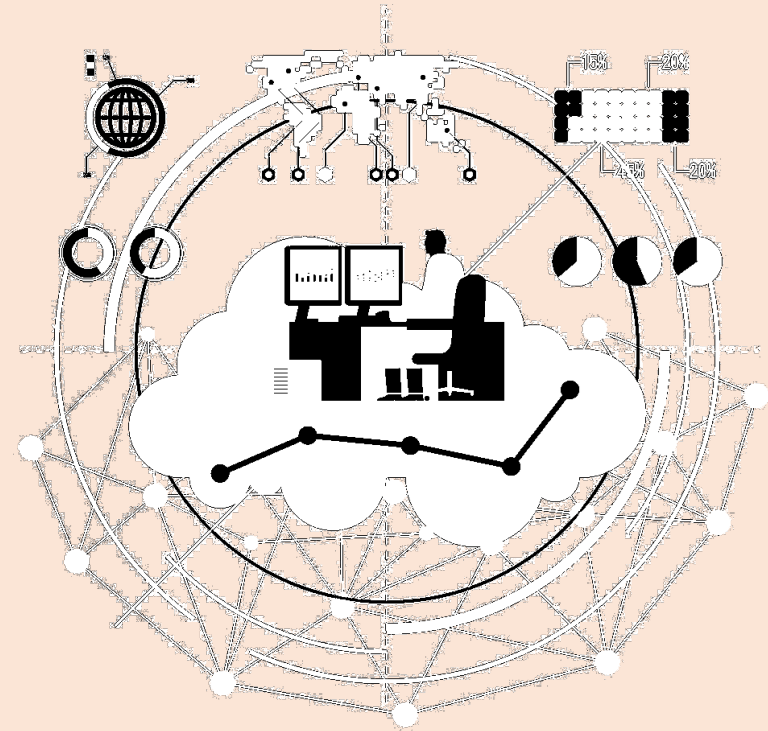


# Common Misconception:

- Require advanced software or dedicated analyst

# Key:

- Simple, Straightforward, & Scalable



# Accessible Tools

Microsoft Excel

Understand  
your data

Easy  
Visualization

Open-source  
GIS tools

Map your  
incidents

Find  
Hotspots

Dashboards

Complex  
Visualization

# Test Data Set

1000 Data Entries

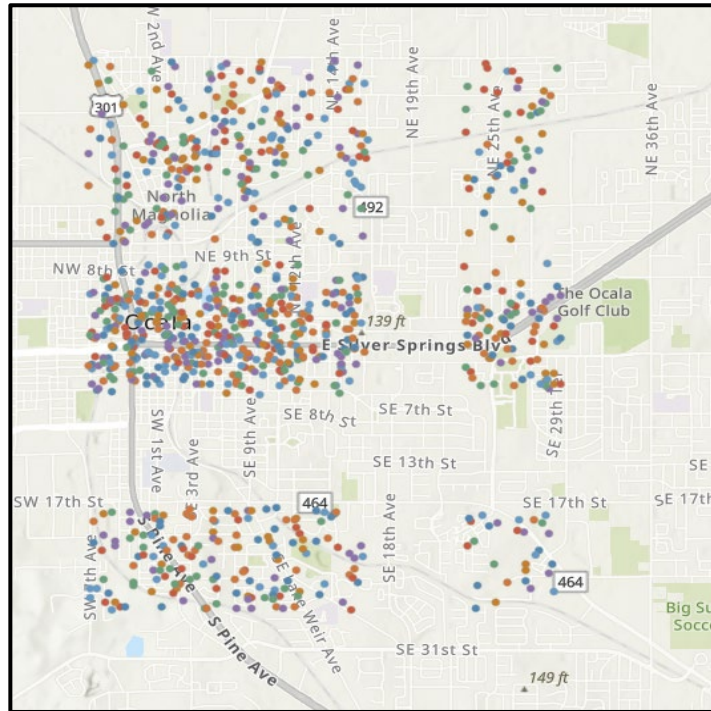
A mix of civilian reported crimes and officers

Data from 2019-2024

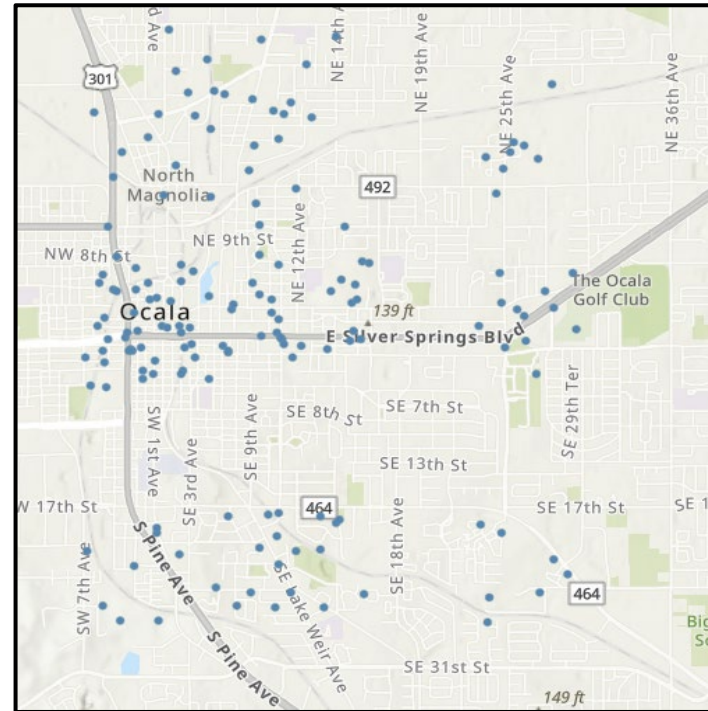
Incident_ID	Location	Crime_Type	Severity	Date	Year	Time	Reported_By	Arrest_Made	Latitude	Longitude
INC-0001	Downtown	Assault	High	1/1/2019	2019	4:17	Officer C	TRUE	29.1887422	-82.10354818
INC-0002	University	Violent Crime	Medium	1/3/2019	2019	1:03	Civilian	FALSE	29.194982	-82.0975153
INC-0003	Downtown	Theft	High	1/5/2019	2019	17:18	Officer A	TRUE	29.1837496	-82.1295361
INC-0004	Downtown	Assault	Medium	1/7/2019	2019	22:08	Officer B	FALSE	29.2072301	-82.10040523
INC-0005	Downtown	Violent Crime	Medium	1/9/2019	2019	20:55	Officer C	TRUE	29.18707896	-82.14016826
INC-0006	Shopping Mall	Theft	Low	1/11/2019	2019	15:06	Officer A	FALSE	29.20047782	-82.13798416
INC-0007	Residential Area	Theft	Low	1/14/2019	2019	0:36	Officer C	FALSE	29.18521646	-82.13426857
INC-0008	Park	Burglary	High	1/16/2019	2019	9:30	Officer C	FALSE	29.18591778	-82.13595356
INC-0009	Shopping Mall	Fraud	Low	1/18/2019	2019	15:28	Officer C	FALSE	29.18980953	-82.14225312
INC-0010	University	Drug Offense	High	1/20/2019	2019	10:11	Officer C	FALSE	29.19379324	-82.11722392
INC-0011	Shopping Mall	Assault	Medium	1/22/2019	2019	1:16	Civilian	FALSE	29.18814227	-82.10242149
INC-0012	Downtown	Theft	Low	1/25/2019	2019	15:07	Officer A	TRUE	29.19039191	-82.14367176



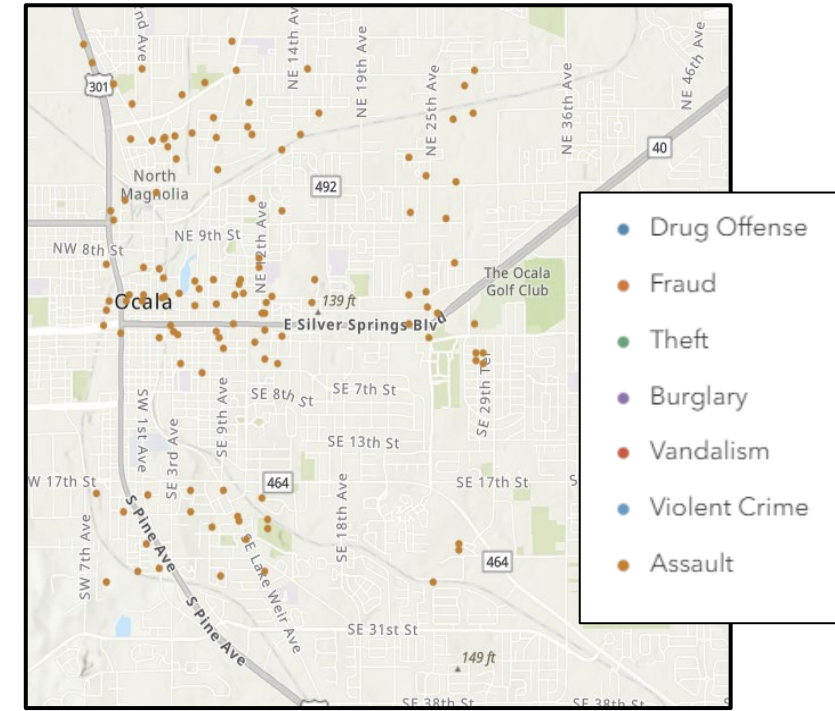
# Practical Technique 1 – Hotspots and Trends



All Crime across all 6 years

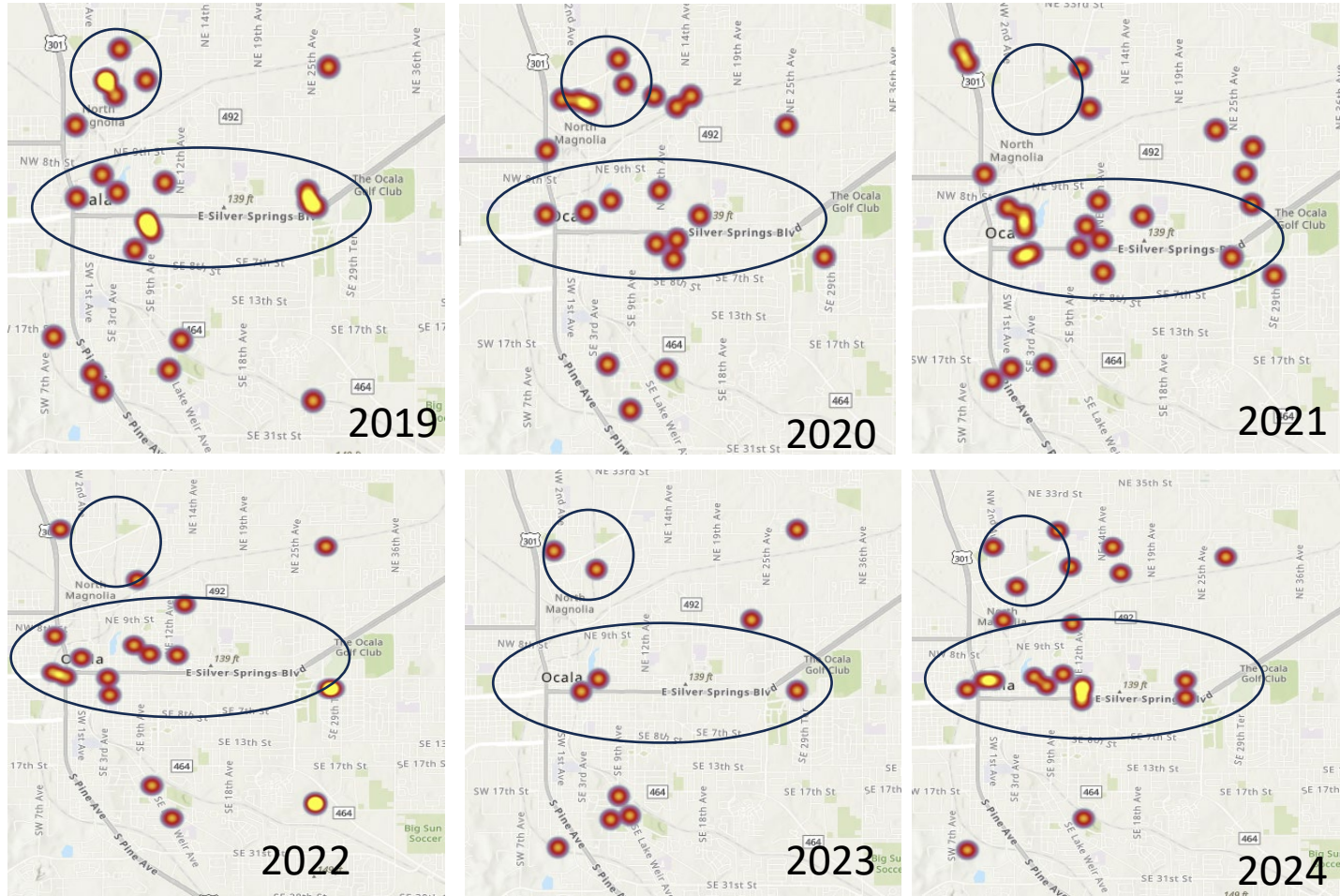


All Drug Offenses



All Assaults

# Practical Technique 1 – Hotspots and Trends



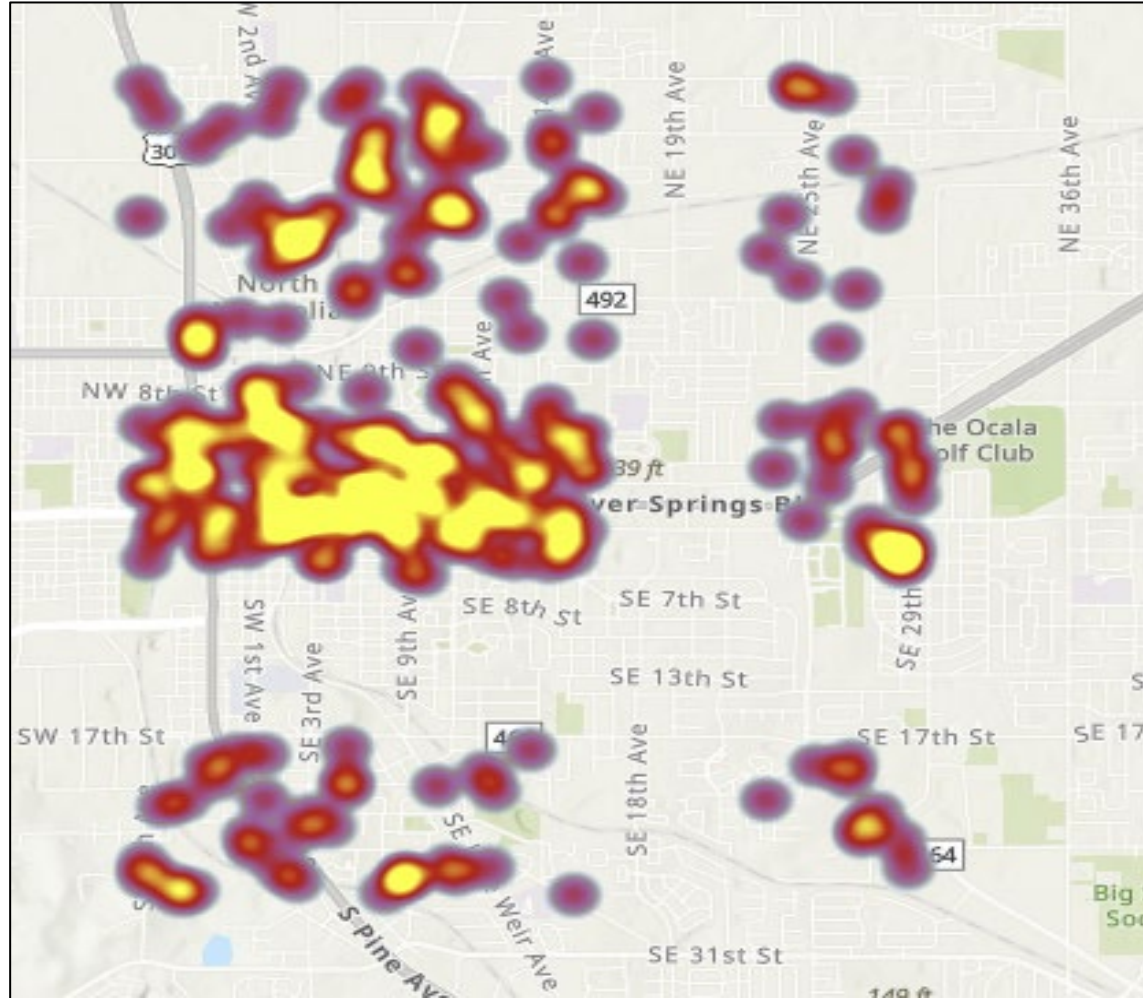
**What do you see?**

1. Hotspots are moving across time
2. Some areas ebb and flow

**Where would you focus on directing efforts in 2025?**



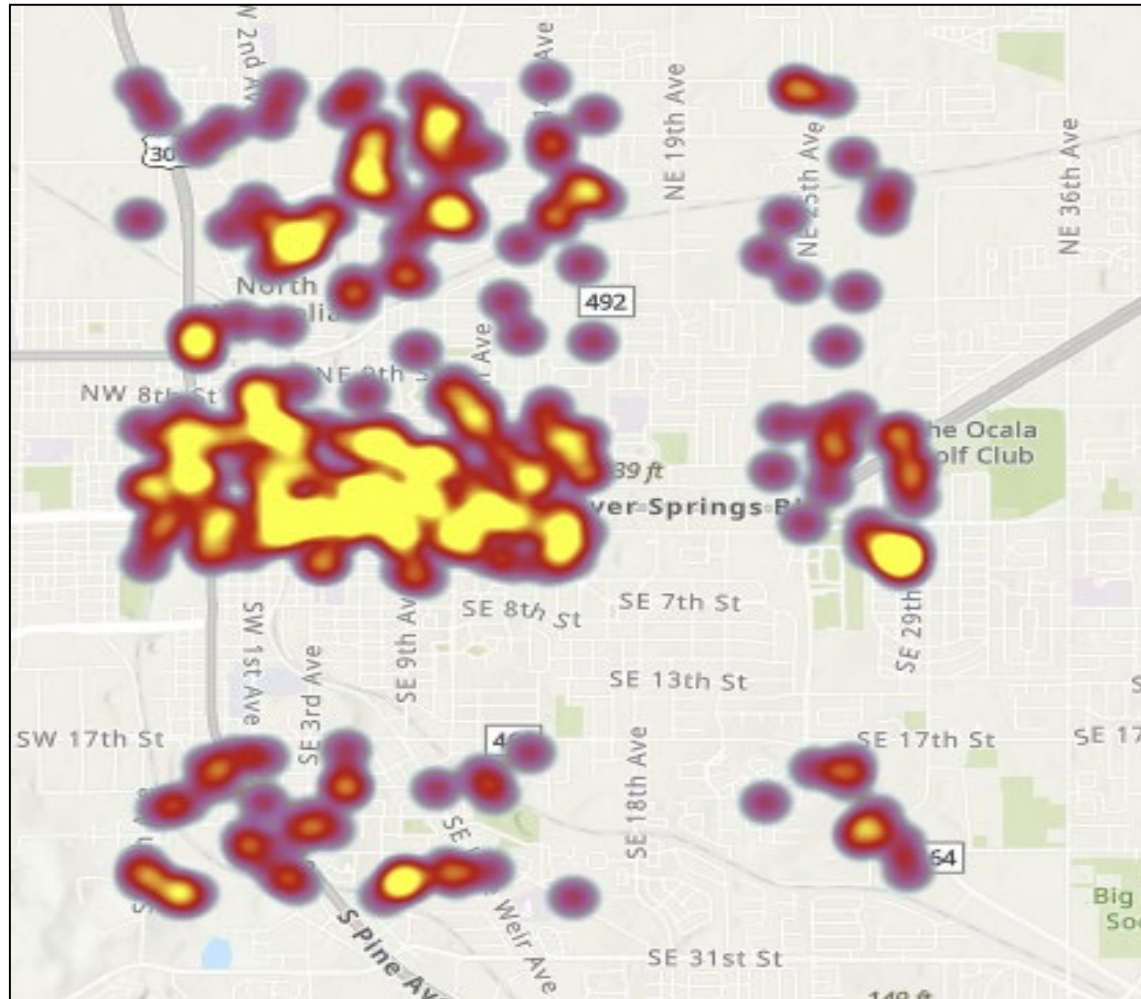
# Practical Technique 1 – Hotspots and Trends



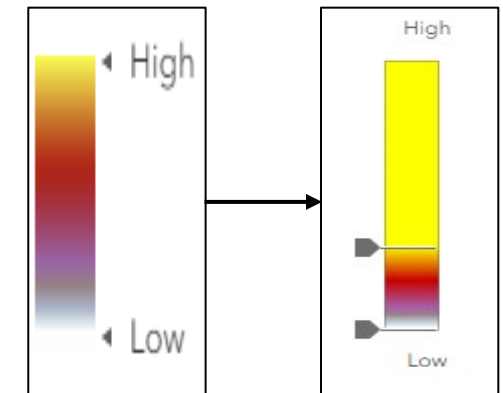
**What do you see?**

**What can this map tell us?**

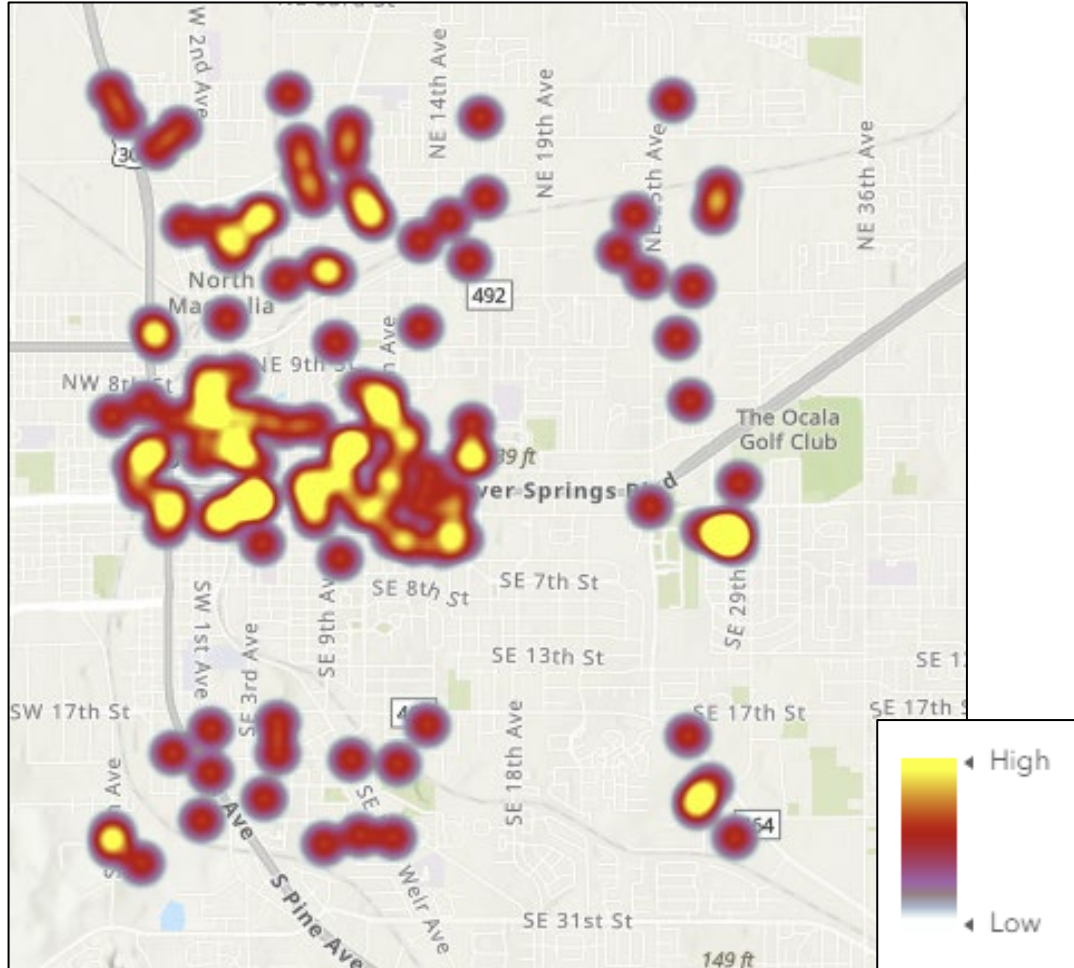
# Practical Technique 1 – Hotspots and Trends



1. Map is depicting burglary, vandalism, violent crime, and assault
2. Map shows only 2020, 2021, 2022
3. Legend is not included so the “High” includes more now than in previous maps



# Practical Technique 1 – Hotspots and Trends



## Hotspot Map

Years: 2020-2022

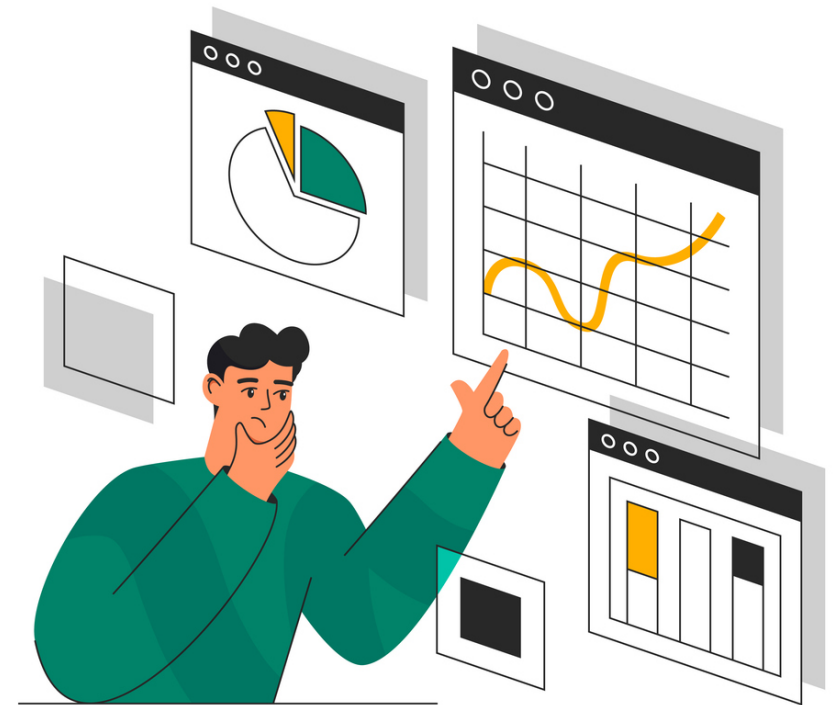
Crime Type: Assaults and Violent Crime

- While the crime locations didn't change, now that I've provided a legend and descriptions of the map, it is much clearer to the viewer
- These things are needed when disseminating maps

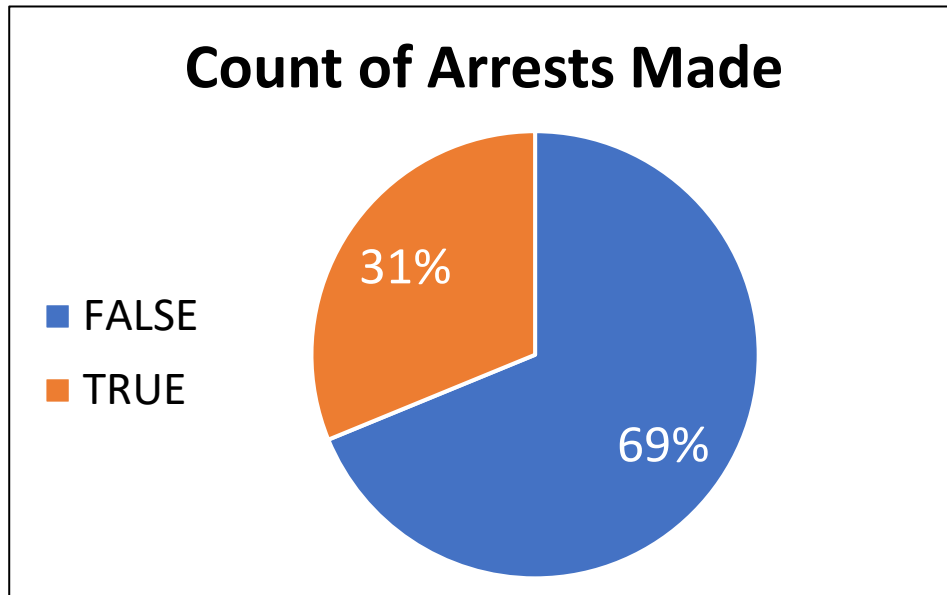
# Practical Technique 2 – Simple Tables and Graphs

## What can you learn from Calls for Service Data?

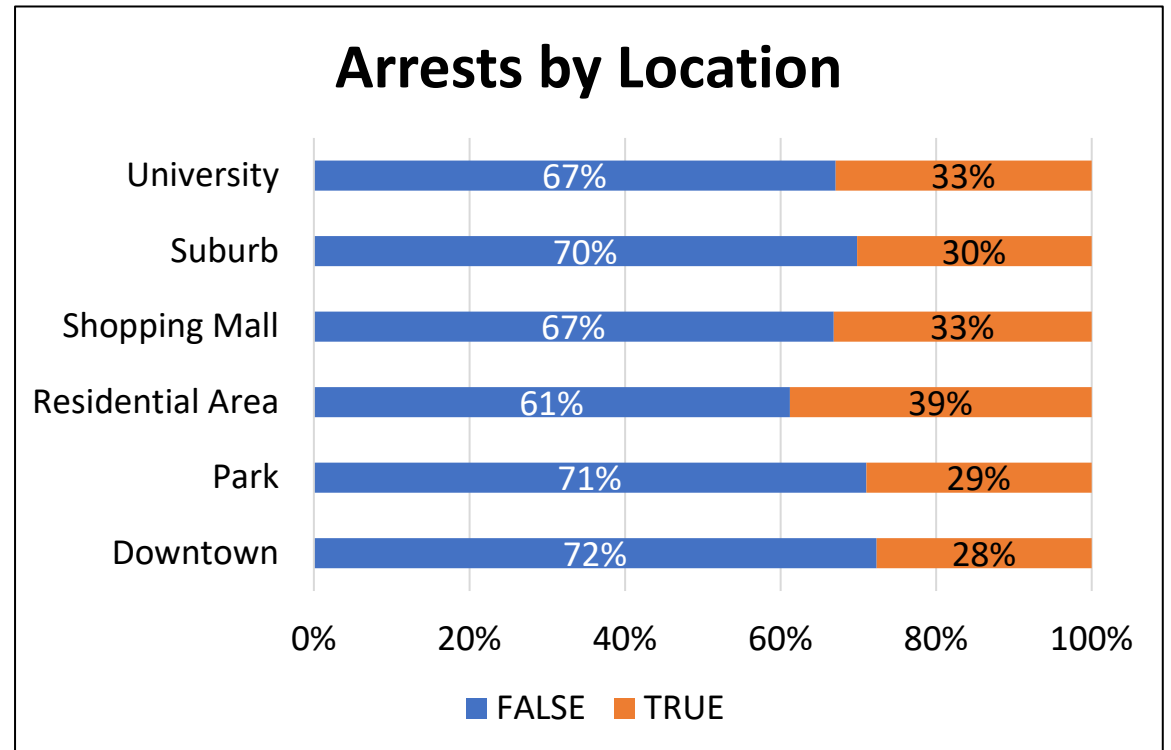
- High demand locations
- Frequent Issues
- Number of calls ending in arrest
- Number of calls ending in a case being created
- As well as many other variables



# Practical Technique 2 – Simple Tables and Graphs



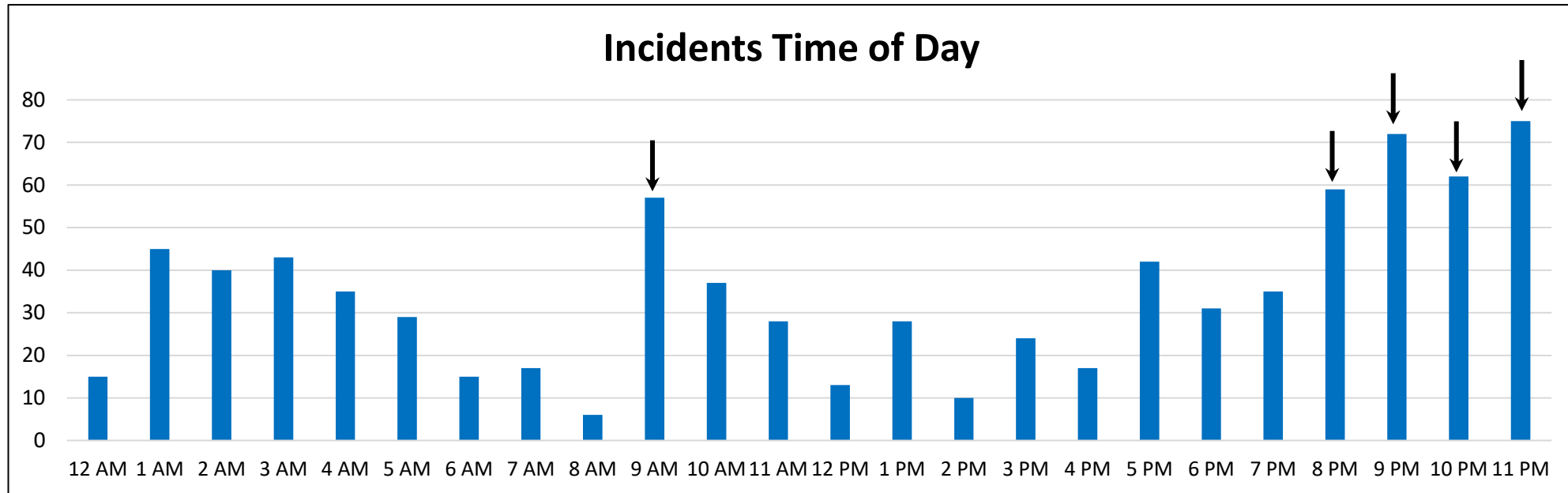
Again, by looking at more information, we can get a bigger picture



- It's helpful to know 31% of calls for service result in arrests.
- It's more helpful to know of all calls for service in each location, more result in arrest in residential areas than other locations.



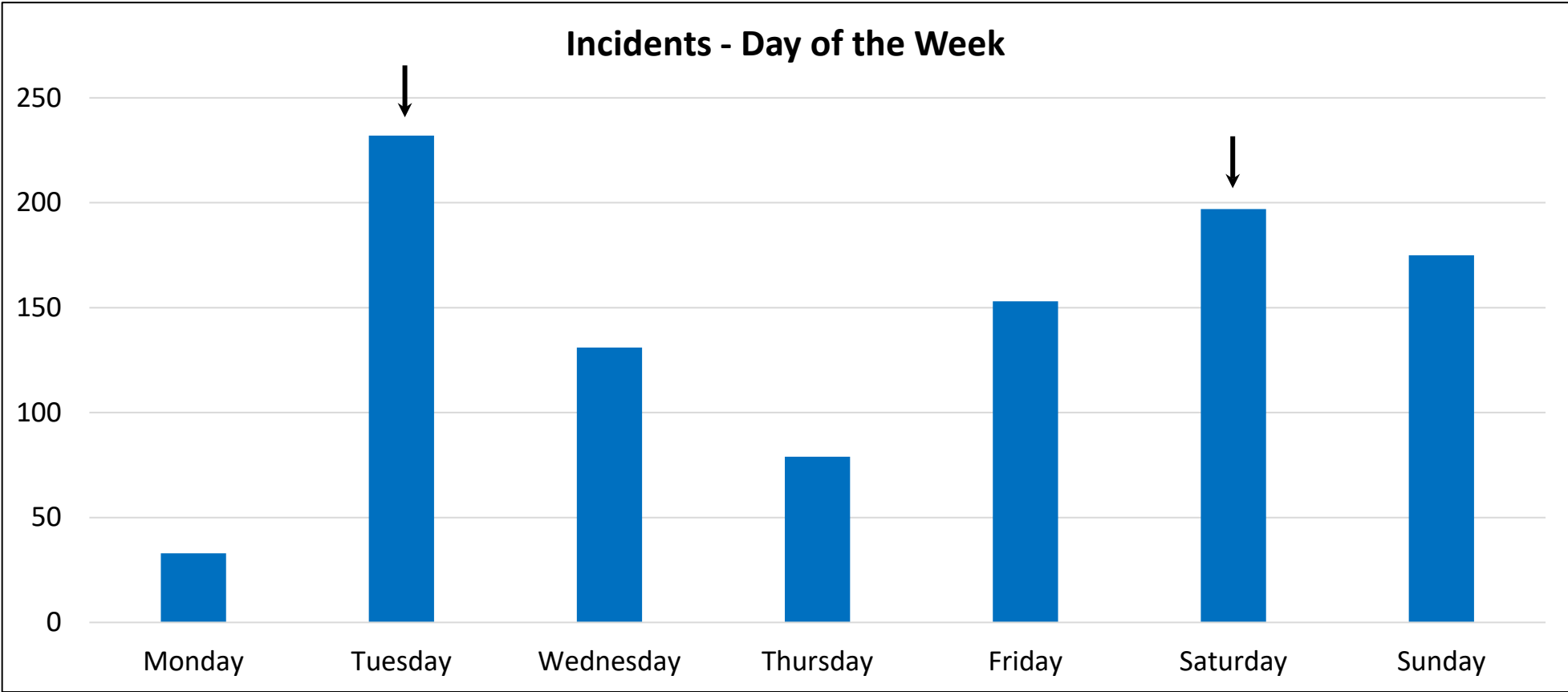
# Practical Techniques 2 – Simple Tables and Graphs



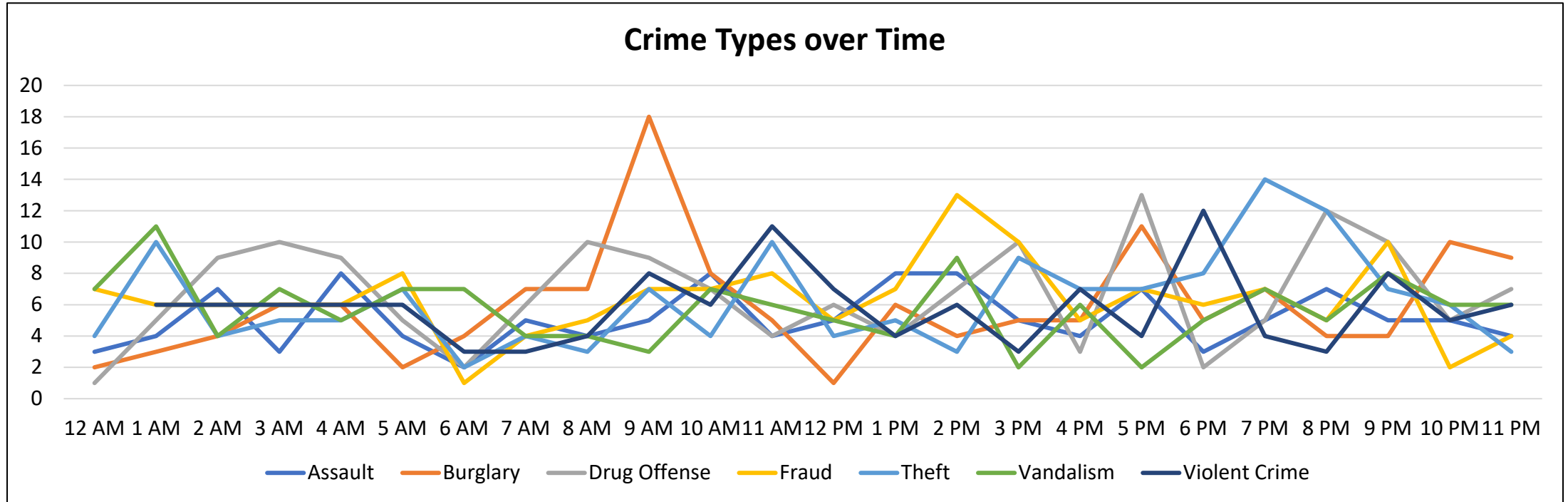
1. Create a pivot table from your incident time of day data – use Excel
2. Create a bar chart to visualize
3. Understand the chart
  1. This shows that 9am, and 8pm-11pm are the times with the most incidents
  2. Then ask, why?



# Practical Techniques 2 – Simple Tables and Graphs



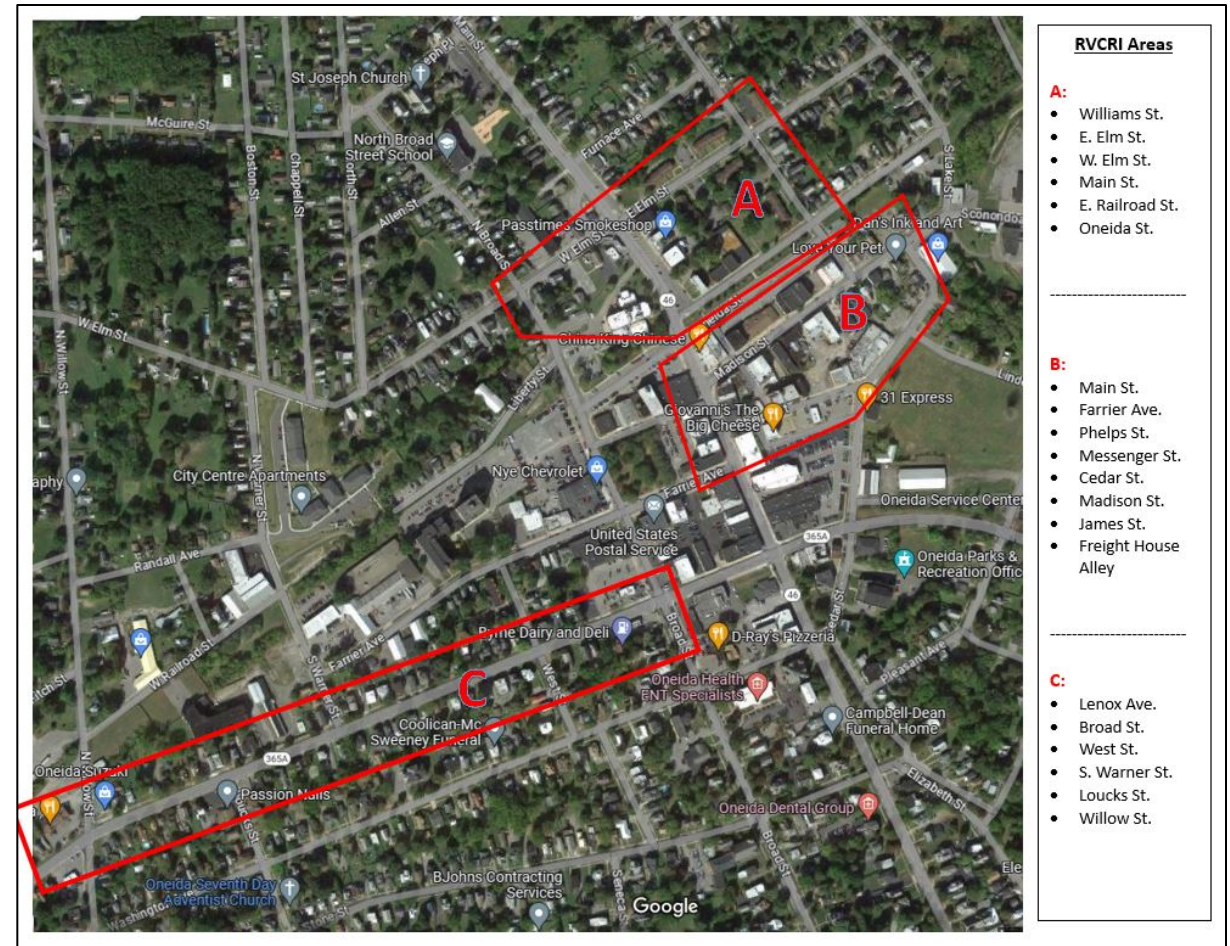
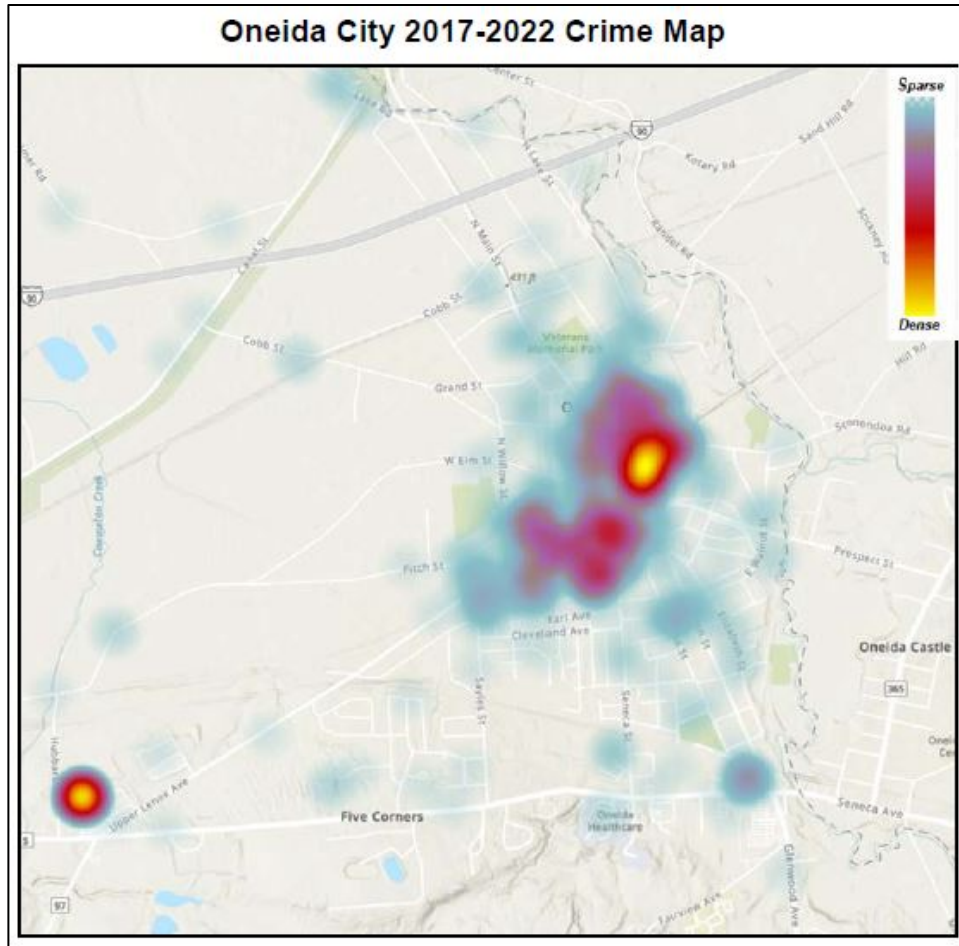
# Practical Techniques 2 – Simple Tables and Graphs



**This graph shows us so much more than the previous ones!**

**Now we can see that **burglaries** are contributing to the 9am time spike!**

# Case Study: Oneida Police Department

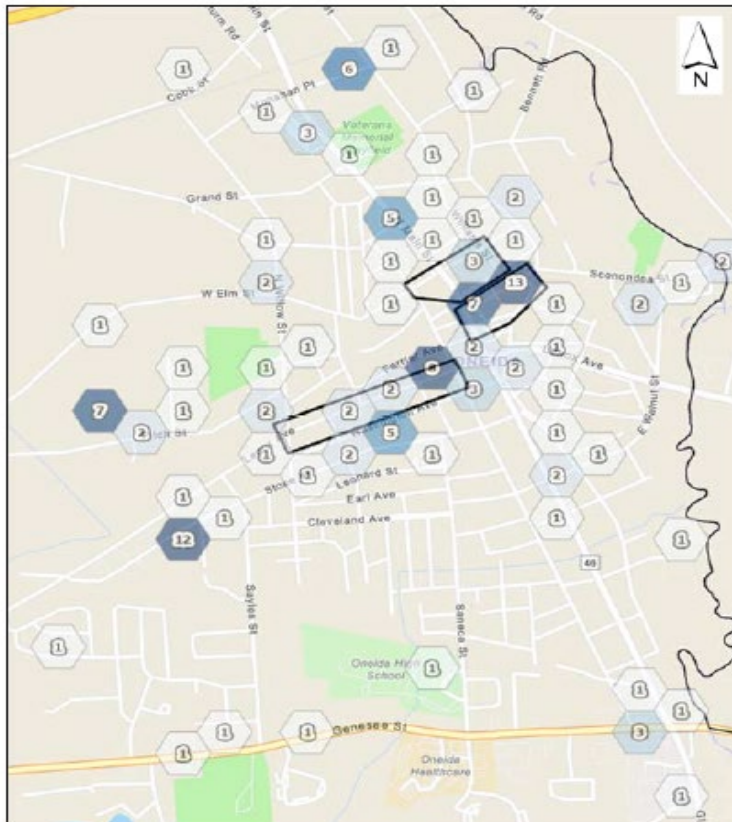




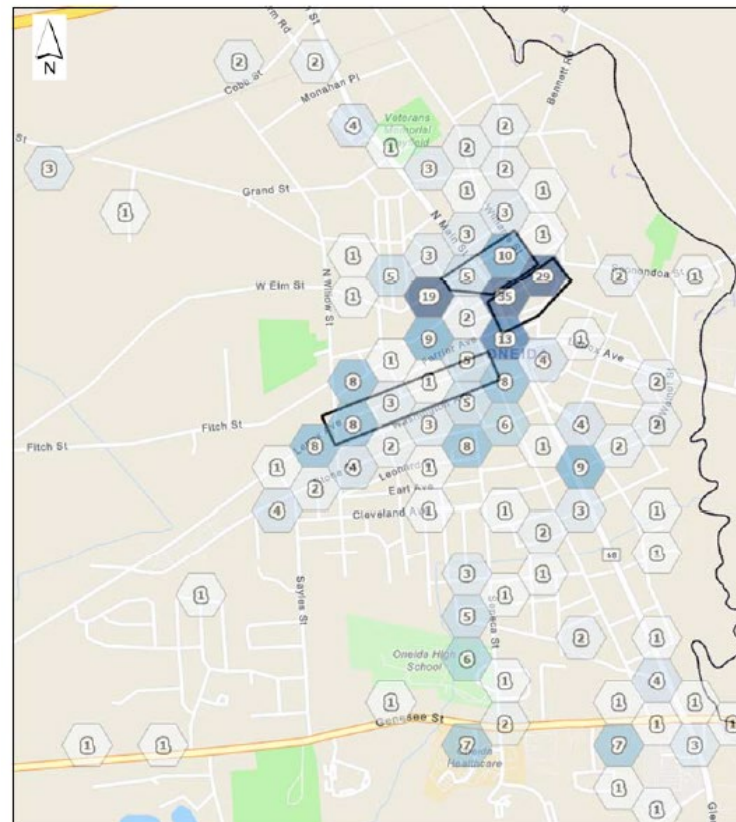
# Case Study: Oneida Police Department

1/1/2023-3/31/24

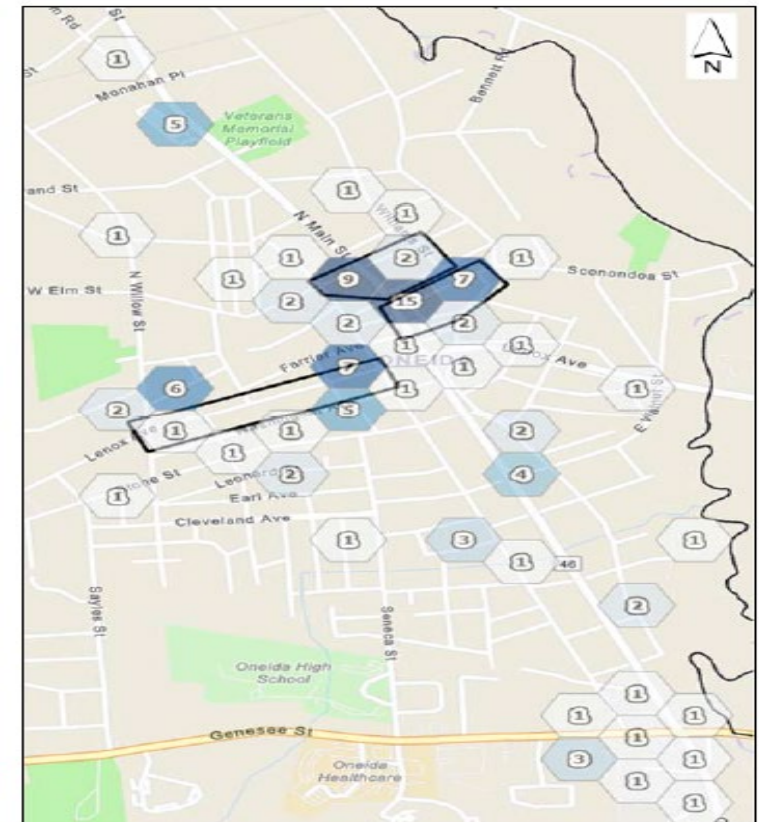
## CRIMINAL INCIDENTS



## MENTAL HEALTH INCIDENTS



## DRUG SEIZURES



# Case Study: Oneida Police Department

## Central New York Crime Analysis Center

Official Member of the New York State Crime Analysis Center Network

### City of Oneida Analysis - 1/1/2023-3/31/24



	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Total
Sunday	4	2	4		2	4	3	6	3	1	2	1	3	5	2		6	6	10	5	9	1	4	2	85
Monday	4	3	1	2		1	1		7	6	6	4	6	7	3	12	8	9	4	3	3	4	4	5	103
Tuesday	3	4	1	2	3		4	2	2	5	7	6	6	3	3	7	4	10	4	6	2	4	3	2	93
Wednesday	1	2	2		1			4	1	3	9	7	1	2	4	9	6	8	7	6	9	5	1	3	91
Thursday	2	1	2	1	2	2	3	2	4	2	8	4	2	5	11	11	4	2	4	3	3	6	2	3	89
Friday	2	1		1			2	3	2	1	2	5	8	3	9	12	4	4	8	4	5	3	6	4	89
Saturday		1	2	3	1	2		1	3	3	3	5	4	7	3	3	6	7	3	8	6	4	4		82
Total	16	14	12	9	9	9	13	18	22	21	37	32	30	32	35	54	35	45	44	30	39	29	24	23	632

### COMBINED THREE INCIDENT TYPES



### CRIMINAL INCIDENTS



	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Total	
Sunday	2	1	3			2		2	2		1			2	2		2		1		2	1	1			24
Monday	3		1			1	1		1	1		2	1	3		2	3	4			1					24
Tuesday	2	1	1				2	2	1	1		2	1			2		4	2	3		1	2	1	28	
Wednesday					1			2		1	1	2			1	4		1	3	1		1		1	19	
Thursday	1		1				1	1			1	1	1	4	2	2	1		2			1	1	1	21	
Friday	1	1					1		1		1		2		2	1	2	1	1	1				1	16	
Saturday				1	1	1			1			1	1	3	1		1	2	2	3	2	1	1	1	23	
Total	9	3	6	1	2	4	5	7	6	3	4	8	6	12	8	11	9	12	11	8	5	5	5	5	155	

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IR# 24-1949  
10MAY2024

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### Rural Violent Crime Reduction Initiative (RVCRI)

Sign-up by straight seniority for those who completed the required CPTED & PNI training. Uniform and marked car unless otherwise noted. Detail sheet MUST be completed. **OT Pay ONLY.**

#### Instructions:

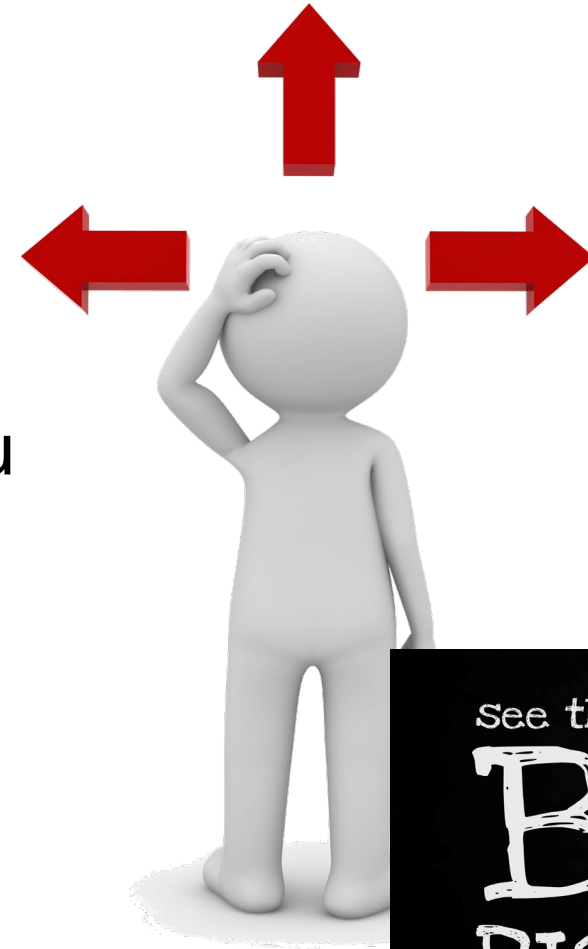
- Be visible, conduct foot patrols, monitor specific areas of concern, including:
  - 115 Madison St (mental health)
  - 120 Madison St (drug activity)
  - 150 Madison St (mental health, drug use, overdoses)
  - 160 Madison St (mental health)
  - 175 Madison St (mental health & criminal activity)
  - 118 Phelps St (mental health)
  -
- Interact with residents, businesses, customers, etc., ask about the area and their views and concerns. Note any feedback, concerns, issues, suggestion, etc.
- Note any CPTED issues and how it can be addressed.
- Take any enforcement action when possible
  - Parking tickets, dis con, open containers, etc.
- Assist patrols when possible.
- Note interactions/enforcement on detail activity sheet
- **BE PROACTIVE!**

Date	Time	Area	Officer
8/10/2024 Saturday	1900-2300 (4hrs)	B	
8/12/2024 Monday	1500-1900 (4hrs)	B Citywide	W/ Mobile Crisis (polo, tac pants, unmarked car)
8/13/2024 Tuesday	1500-2300 (8hrs)	B	
8/14/2024 Wednesday	1800-2200 (4hrs)	B	
8/15/2024 Thursday	1100-1500 (4hrs)	B	W/ FCCS (polo, tac pants, unmarked car)
8/16/2024 Friday	1500-1900 (4hrs)	B	
8/19/2024 Monday	1500-1900 (4hrs)	B Citywide	W/ Mobile Crisis (polo, tac pants, unmarked car)

1

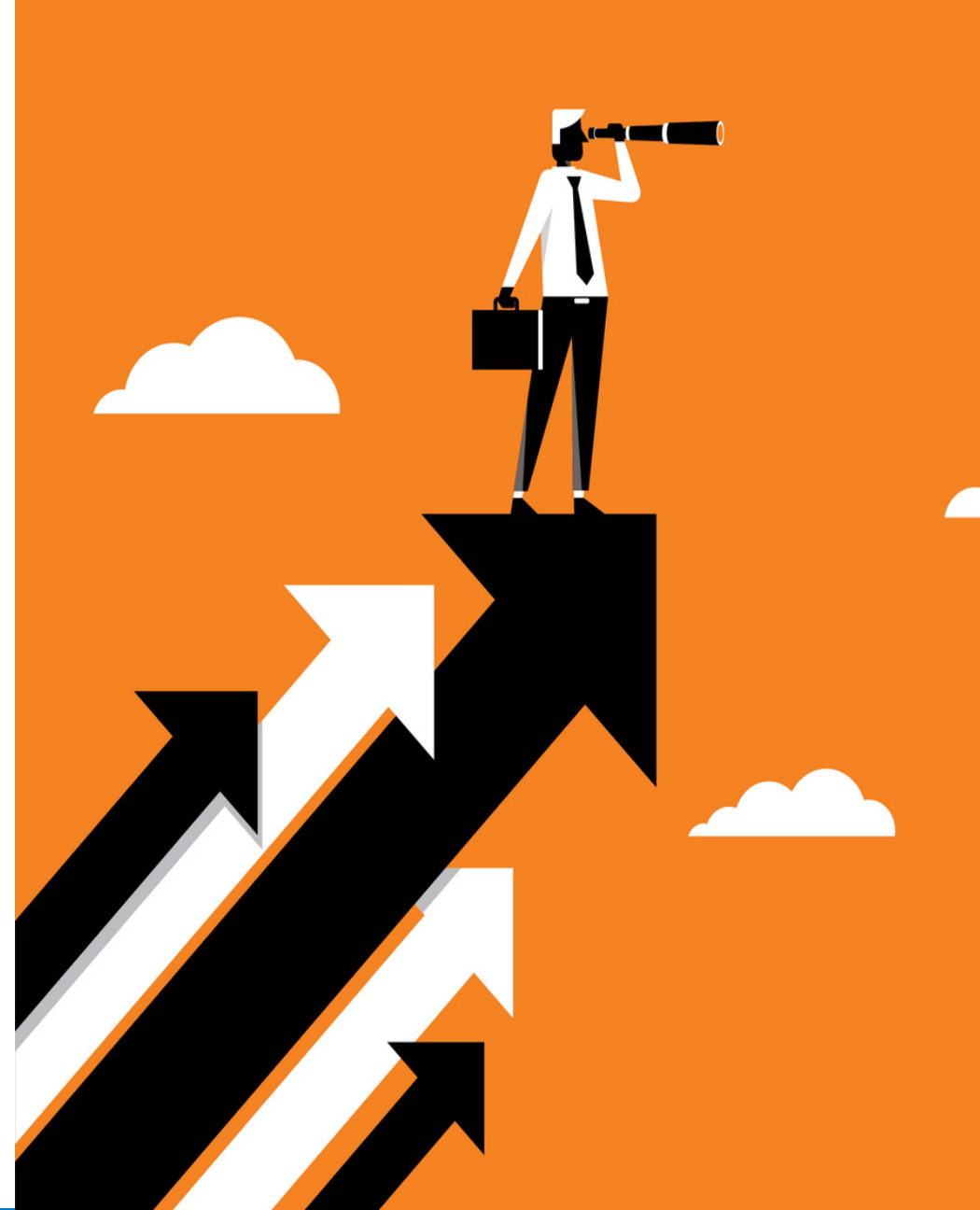
# Getting Started with Crime Analysis

- Do Research
  - Understand the data you do have available
  - Ask city IT or your department's IT to see what programs are available to you
- Don't touch the Master Data!
- Start simple – play around with reports
  - See what hole there is with understanding your crime



# How can we help?

- Training
  - We can provide an individualized training for you and your department
- Strategies
  - Help you develop a crime analysis strategy







*Your Questions?*





**Thank You!**

**Contact Information:**

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- Mike Green – [mgreen@justicestrategies.com](mailto:mgreen@justicestrategies.com)  
[info@srtvcr.com](mailto:info@srtvcr.com)