



**SBStat**

# Police

Q2 July 16, 2020

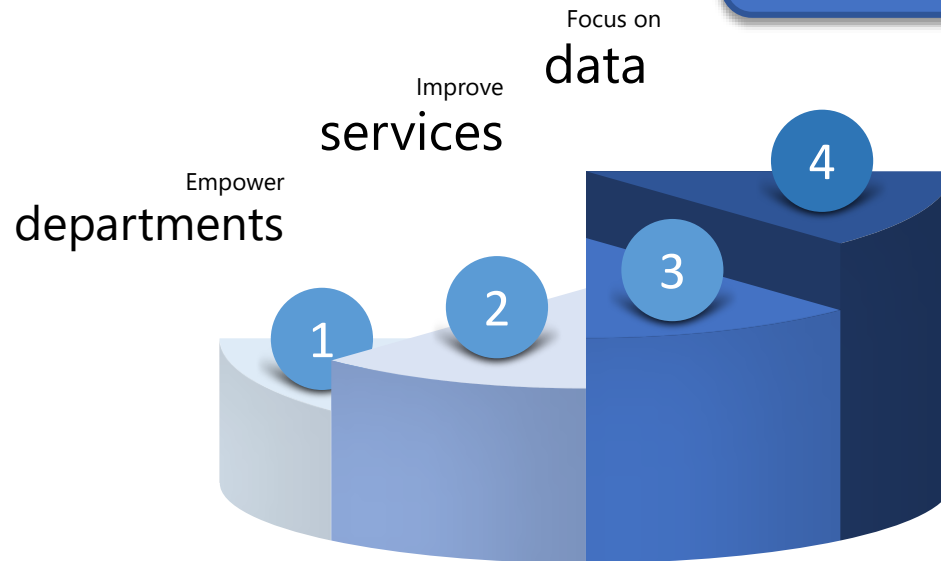
# Guidance for a Remote SB Stat Meeting

1. When you're not speaking, please mute your microphone
2. To ask a question, let the moderator know you have a question in the chat. This can be as simple as typing:
  - "Hi I have a question"
  - "I'd like to follow up on this"
3. The moderator will let the conversation breathe during discussion, but will step in if needed

Why we're here

# Citywide Performance Management

These are the SB Stat Program Goals in 2020. These goals serve as a roadmap for departments and guidance from the Mayor on priority areas of focus in 2020



# Today's Agenda

I. Welcome

II. Project Updates

III. Data Studies









IV. Celebrating our Values

# Project Updates


- Transparency Hub
- Crime Dashboard

# Police Stat Portfolio Summary

Status of SBStat projects and initiatives in the queue for 2020

Project	Brief Description	Status
Policy Reviews – ILEA, Beards, Shorts & Tattoos	Review and revision of various policies	
SBPD Youth Academy	A youth targeted curriculum of SBPD's Citizen Academy	
Home Grown Program	Rescoping of youth engagement and preparatory program	
Transparency		
Transparency Hub Changes	An open house where applicants can come to meet Training and practice for the physical exam	
Crime Dashboard	All new designs for and reignited attendance to local job fairs	
Data Studies		
Compensation Benchmarking	A comparative analysis of SBPD's compensation package to other agencies	
Staffing Analysis	A demand over supply analysis of SBPD workload over personnel	
Disciplinary Action Historic Report	A historic look at disciplinary action at SBPD	

## Legend

 Project on Schedule

 Project delayed

 Project cancelled

 Project under consideration

# 2020 Strategic Objectives

**1** **Trust**  
From the community & collectively

**2** **Crime Prevention**

**3** **Accountability**  
With discipline and results

**4** **Recruitment**  
In quantity, quality  
& diversity

# 1. Transparency Hub

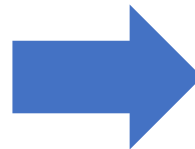


# Transparency Hub

*Direct response to feedback*

## Feedback

1. Hard to navigate
2. Disjointed organization
3. Long and text heavy
4. Participants enjoy the dashboards



## Changes

1. Clear navigation through-out page
2. Content organized by category
3. Reduction of and break-outs of text
4. Additional Dashboards and Maps

Trust + Accountability

# Transparency Hub

## *Walk-through*

### **Website Layout**

Three data categories; Recruitment, crime, and relations

1. Page navigation
2. External links to other resources
3. Dashboards with update schedule
4. Links to underlying data (where possible)
5. Maps

<https://southbendin.gov/transparency-and-performance/police-transparency-hub/>

# 2. Crime Dashboard

# Crime Dashboard

## Purpose

Reimagine the Crime Dashboard to better serve common metrics that residents request.

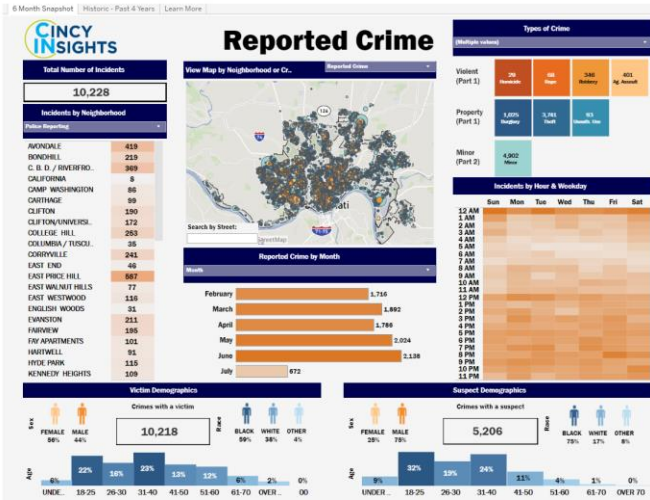
## Goals

1. Simplify data reporting
  - Reduce data overcrowding with content that can be grouped together
  - Make more understandable
2. Ability to troubleshoot in-house
  - Unlike with CrimeReports/City Protect
3. Continuous improvement
4. Offload frequently asked for data onto the dashboard

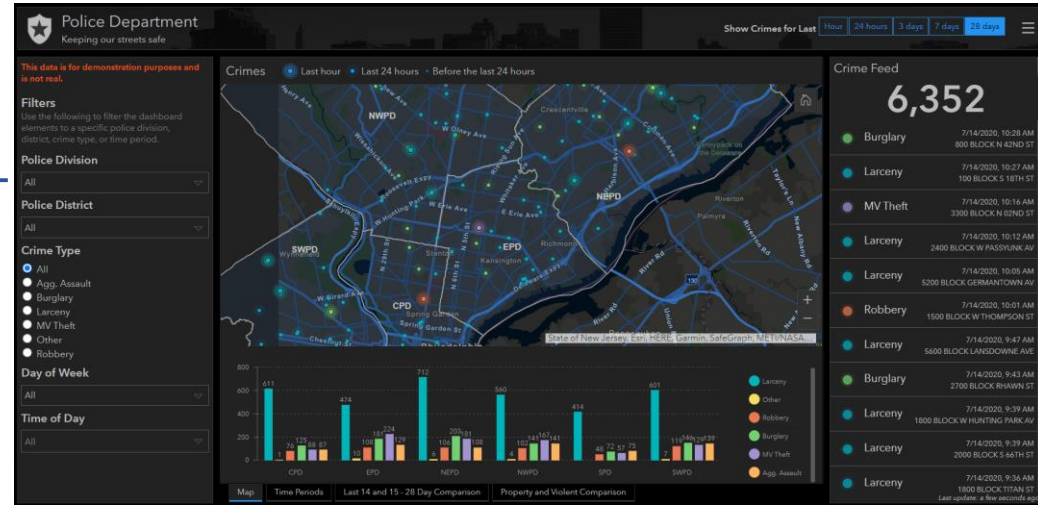
# Crime Dashboard

## Inspiration

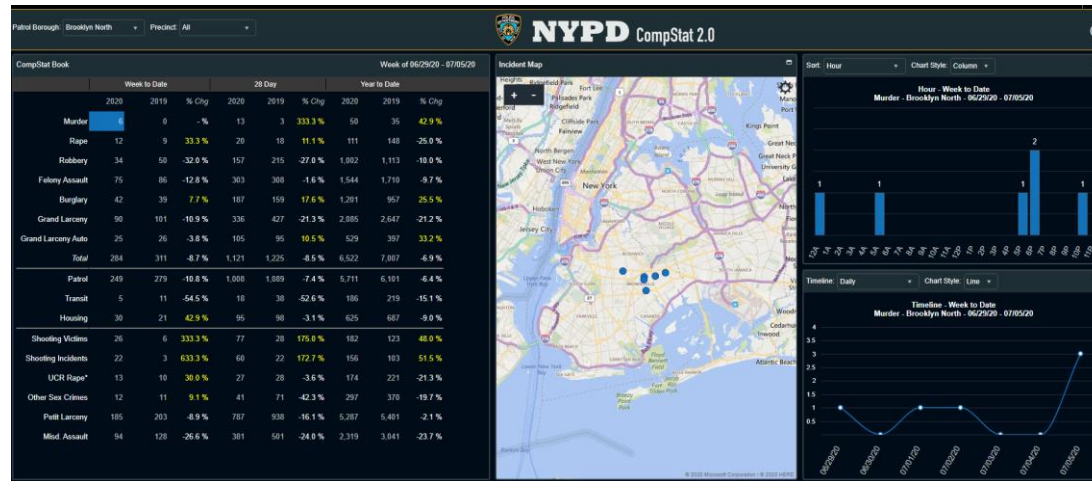
Cincinnati



ArcGIS Template



New York



# Crime Dashboard

## DATE RANGE

Today 7 Days **30 Days**

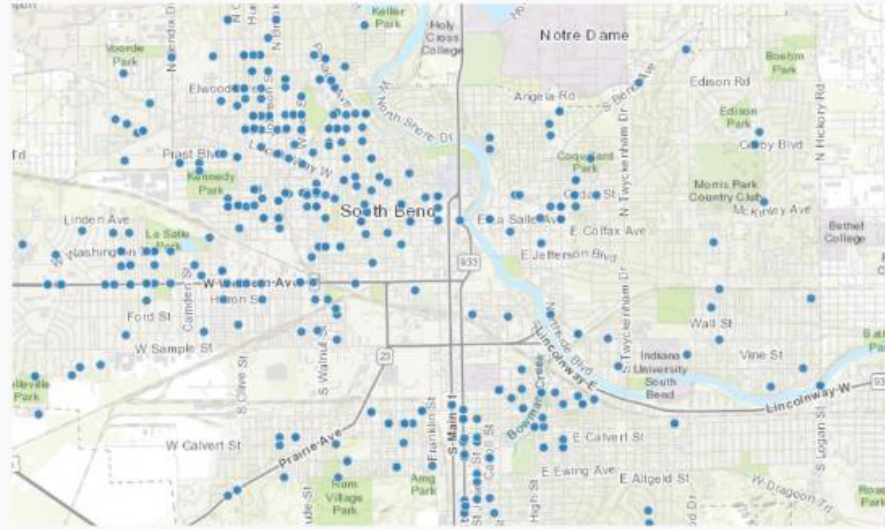
## INCIDENT TYPE

Agg Assault  
MVT  
**Burglary**  
Rape

## AREA

NW  
**Downtown**

## INCIDENT MAP



## INCIDENTS DETAILS

**MVT** 7/1/2020  
100 N Main St

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**Agg Assault** 7/2/2020  
200 W 1st St

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**Shots** 7/3/2020  
600 E College Ave

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**MVT** 7/4/2020  
100 E Douglass Rd

## INCIDENTS BY MONTH



## INCIDENT %

**1%**

## INCIDENT COUNT

**100**

## TOTAL 2020 INCIDENTS

**10,000**

DATA  
DICTIONARY



ANNUAL  
TOTALS



# Crime Dashboard

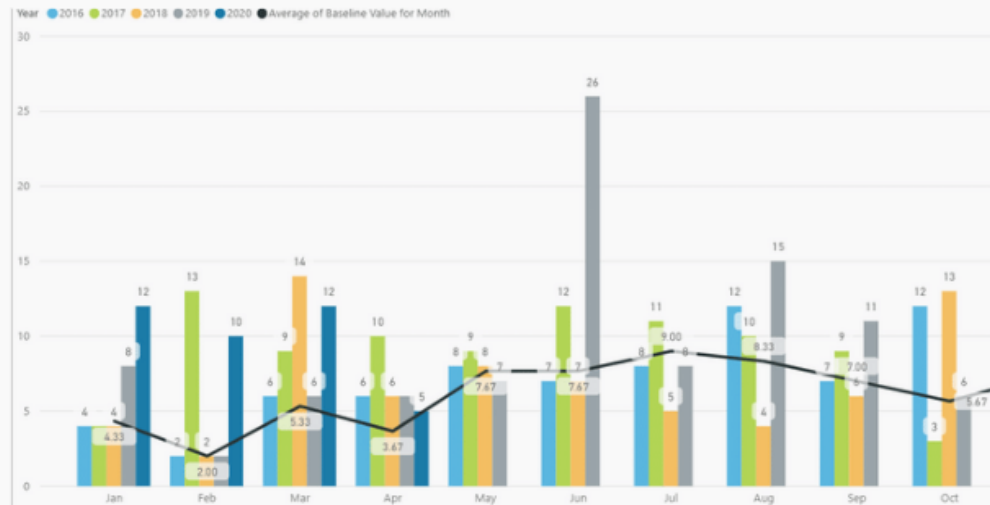
## Criminally Assaulted Shootings

Year	Fatal Shootings	FatalShootingsYTD	CAS Victims	VictimsYTD
2020		11		39
2019	11	4	109	22
2018	9	3	78	26
2017	16	8	102	36
2016	11	2	81	18

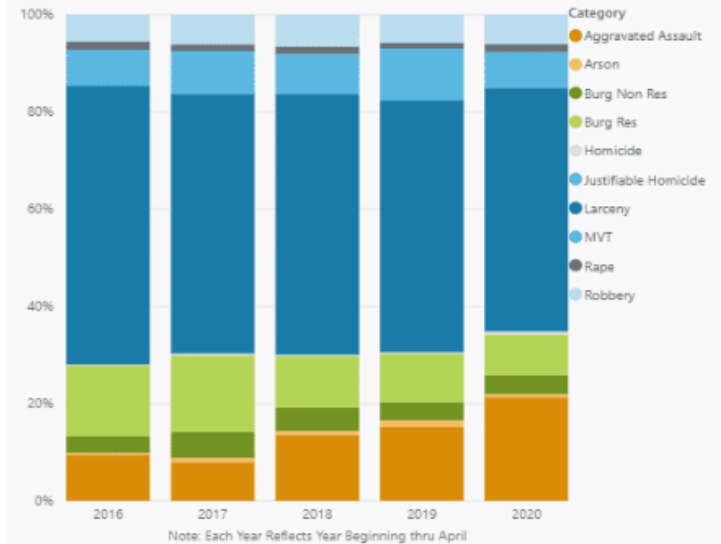
## Service Summary

Year	Total Calls for Service	Cases	Arrests
2020	29,822	5,140	643
2019	98,536	19,377	2,109
2018	96,853	20,035	2,594
2017	99,542	22,022	2,229
2016	103,183	23,702	2,552

## CRIMINALLY ASSAULTED SHOOTINGS



## Rolling Year-to-Date Part I Crimes Comparison, 2016-2020



Incident  
Map

DATA  
DICTIONARY



# Using data to drive performance

Diving deep into a few key initiatives being undertaken to improve city performance

- Compensation Benchmarking - Out-of-State
- Discipline Matrix – Public Reception
- Staffing Analysis



# 1. Compensation Benchmarking

# Compensation Benchmarking

## Recap

Next steps from Q1: complete the out-of-state analysis and adjust for cost of living

## About the Data

- Chose cities of comparable population
  - Exceptions – Akron, Grand Rapids, Madison & Toledo
- Indiana has a unique pension system
- Other states allow vesting after 4, 5, or 10 years.
- COLA Information comes from the Bureau of Economic Analysis and utilizes 2017 numbers

# Compensation Benchmarking

## *Explanation of pension calculations*

### Final Average Salary:

Out of state pensions typically use a Final Average Salary calculation for pension purposes. This is typically a certain amount of the officers highest earning years. These highest earning years are then averaged. Some include overtime, some do not

<b>OT addition of 12%</b>	\$98,798.34	\$96,822.37	\$94,885.92	\$92,988.20	\$91,128.44
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Salary of a 20 year officer</b>	\$88,212.80	\$86,448.54	\$84,719.57	\$83,025.18	\$81,364.68
<b>Final Avg Salary</b>	\$94,924.65				

### Pension Calculation:

Final Average Salary	\$50,000.00
Years of Service Multiplier x	3%
Years of Service x	20
Pension =	\$30,000.00

# Compensation Benchmarking

*Out-of-state with COLA for pension*

Rank	Municipality	Pension Cap		Years of Service Multiplier
		Vesting Estimate Adjusted for COLA	20 Year comparison Adjusted for COLA	
1	Cedar Rapids	\$69,053.32	\$52,684.84	3.00%
2	Davenport	\$66,606.51	\$50,852.53	3.00%
3	Rochester	\$88,205.31	\$50,004.00	3.00%
4	Duluth	\$81,416.85	\$47,528.17	3.00%
5	Grand Rapids	\$64,343.84	\$44,833.79	2.80%
6	Peoria	\$69,421.52	\$44,252.28	2.50%
7	Parma	\$56,599.50	\$39,715.36	2.4% up to 25 years
8	Ann Arbor	\$51,545.69	\$39,295.71	2.75%
9	Lansing	\$50,527.32	\$38,998.68	2.50%
10	Dayton	\$55,015.99	\$38,510.46	2.4% up to 25 years
11	Akron	\$51,886.88	\$36,449.67	2.4% up to 25 years
12	Springfield	\$49,322.90	\$36,424.91	2.50%
13	Toledo	\$52,191.63	\$35,662.85	2.4% up to 25 years
<b>14</b>	<b>South Bend</b>	<b>\$51,293.16</b>	<b>\$35,095.32</b>	-
15	Kenosha	\$53,986.21	\$33,222.28	2.00%
16	Champaign	\$49,565.04	\$33,043.36	2.50%
17	Green Bay	\$54,889.00	\$31,606.29	2.00%
18	Madison	\$48,124.31	\$28,310.19	2.00%

# Compensation Benchmarking

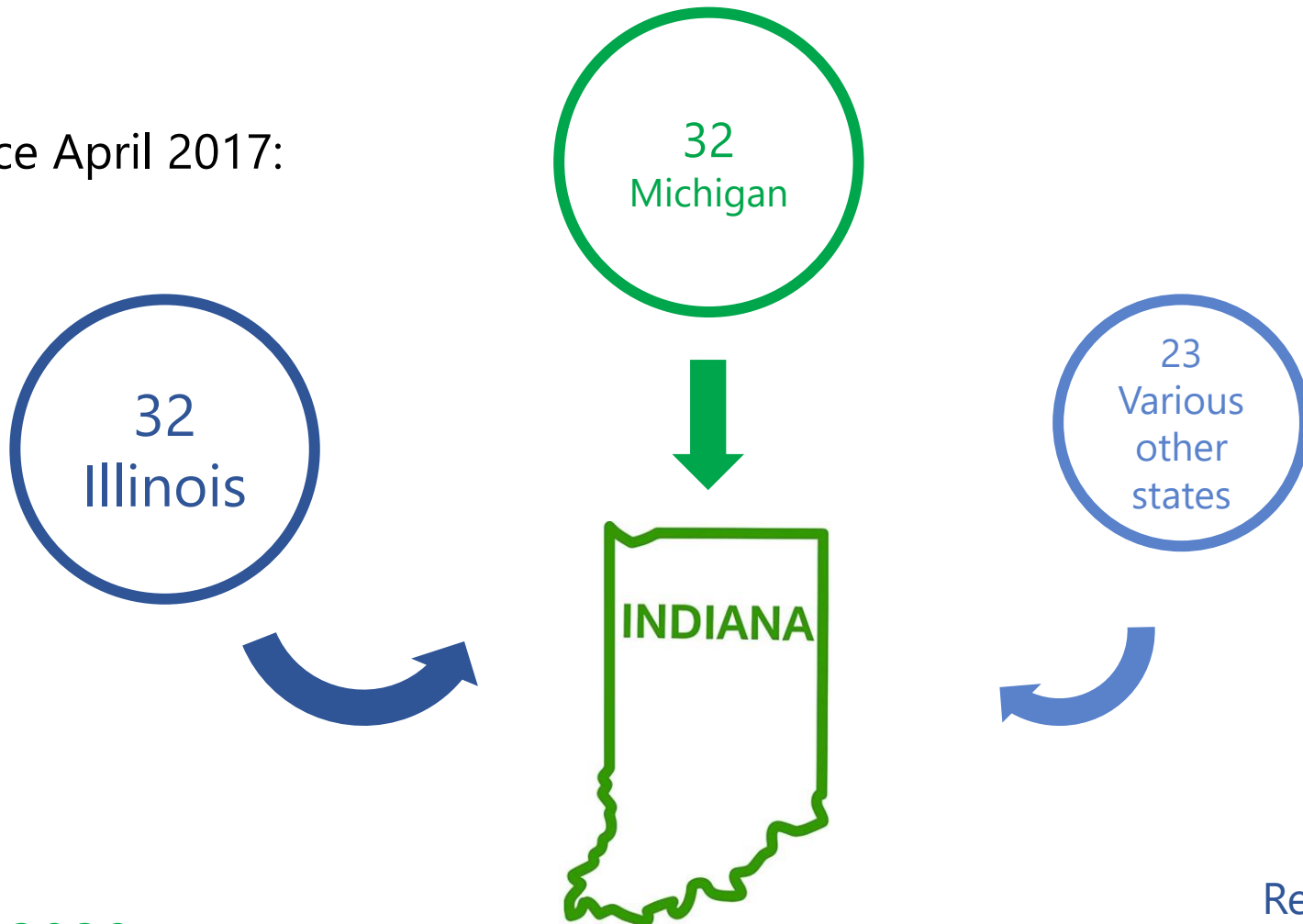
*Out-of-state with COLA for salaries*

Rank	Municipality	COLA %	10 Year Pay Adjusted for COLA	Actual 10 Year Pay Difference with COLA
1	Peoria	1.71%	\$94,887.54	\$27,396.54
2	Cedar Rapids	0.68%	\$81,443.53	\$13,952.53
3	Davenport	0.91%	\$78,601.13	\$11,110.13
4	Springfield	2.28%	\$78,103.87	\$10,612.87
5	Rochester	6.14%	\$77,447.26	\$9,956.26
6	Kenosha	N/A	N/A	\$9,419.00
7	Parma	1.00%	\$73,814.40	\$6,323.40
8	Duluth	2.16%	\$73,612.66	\$6,121.66
9	<i>Grand Rapids</i>	5.46%	\$72,931.36	\$5,440.36
10	Green Bay	2.16%	\$71,979.75	\$4,488.75
11	Dayton	1.25%	\$71,574.98	\$4,083.98
12	Champaign	5.92%	\$70,852.92	\$3,361.92
13	Lansing	4.78%	\$70,343.94	\$2,852.94
14	<i>Akron</i>	2.84%	\$67,744.84	\$253.84
<b>15</b>	<b>South Bend</b>	-	<b>\$67,491.00</b>	-
16	Ann Arbor	15.70%	\$66,394.95	-\$1,096.05
17	<i>Toledo</i>	-0.23%	\$66,282.47	-\$1,208.53
18	<i>Madison</i>	9.90%	\$64,473.26	-\$3,017.74

# Compensation Benchmarking

*Relationship to recruiting*

Since April 2017:



Recruitment

# Compensation Benchmarking

*Potential for separation*

**66**

individuals are currently vested with a pension and **could leave the department**

**6**

additional officers **could retire within the next year** and draw a non-penalized pension.



**33**

are age 52 or older. They could **retire now** and draw a pension

**22**

officers are between the age of **42 and 49**

**11**

are age 50 or 51

# Compensation Benchmarking

## *Out-of-state takeaways*

### Pay

South Bend sustains it's lower rank relative to other comparable cities in the Midwest.

- Also low recruitment from neighbor states
- 

### Pension

Indiana has a longer pension period than other states

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### Culture

Non-monetary factors which, influence the perceived value of the salary and pension, should be considered in parallel

- Schedule
- Shift length
- Time off
- Etc.

Recruitment



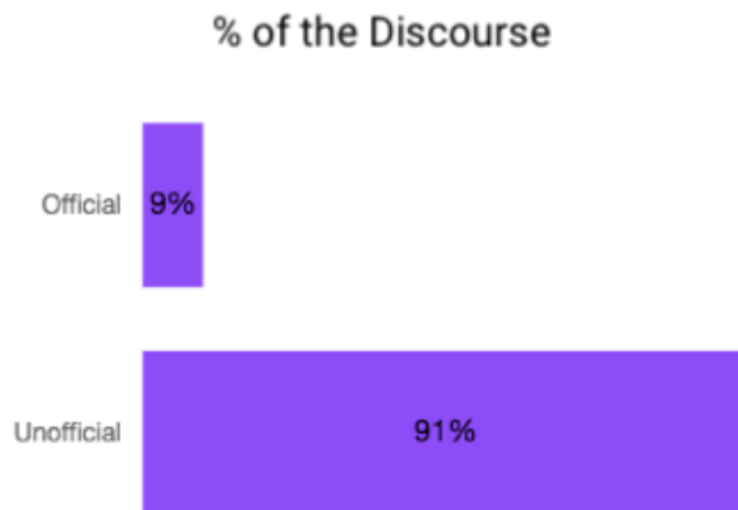
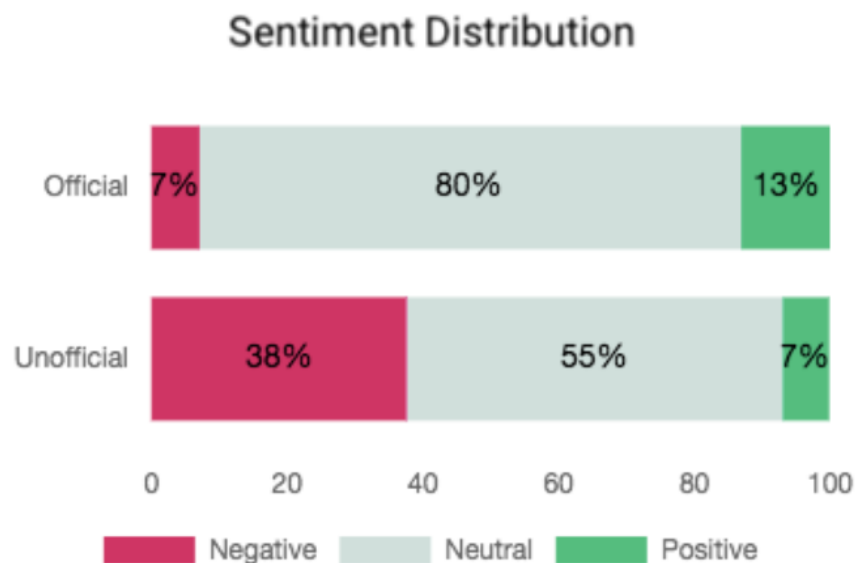
# 2. Discipline Matrix Reception

- Overview
- Observations
- Insights

# Zencity - Discipline Matrix

## Insight Overview

### Comparison of Official and Unofficial Sources



# Zencity – Discipline Matrix

## Observations



1,000

### **Interactions**

between June 16-21.  
Accounting for 8% of  
total interactions.



98%

### **Of Commentary**

was on unofficial  
channels, indicating  
that official channels'  
reach was limited, and  
thus the effect on the  
residents as well.



31%

### **Greater Negative Sentiment**

on unofficial channels  
which bears greater  
weight by proportion  
than the slightly more  
positive sentiment on  
official channels.

# Zencity - Discipline Matrix

## Takeaways

1

Much of the resident commentary on unofficial channels (the bulk of interactions) focused on **debates** whether the discipline matrix would harm the police department's effectiveness or is needed for officers to do a better job.

2

On official channels the commentary focused on **requests** for more information or debates on how residents can get more involved but had little **reach**.

# 3. Staffing Analysis

# SBPD Staffing Analysis

*An analysis of SBPD service call data to determine staffing needs and current workload*

## Research Questions

- Is the police department adequately staffed based on the number of calls we receive?
- Are we deploying officers in an efficient way?

## Background

- Analysis follows methodology from 2012 ICMA White Paper
  - 62 Police agencies analyzed
- Analysis is comprised of two data sources:
  - Motorola CAD
  - New World CAD
- Most data is from 2019 calendar year

An ICMA Center for Public Safety Management White Paper

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## **An analysis of police department staffing: How many officers do you really need?**

A Review of 62 Police Agencies Analyzed by the ICMA / CPSM

By  
Professor James McCabe, Ph.D.  
Senior Associate  
ICMA Center for Public Safety Management

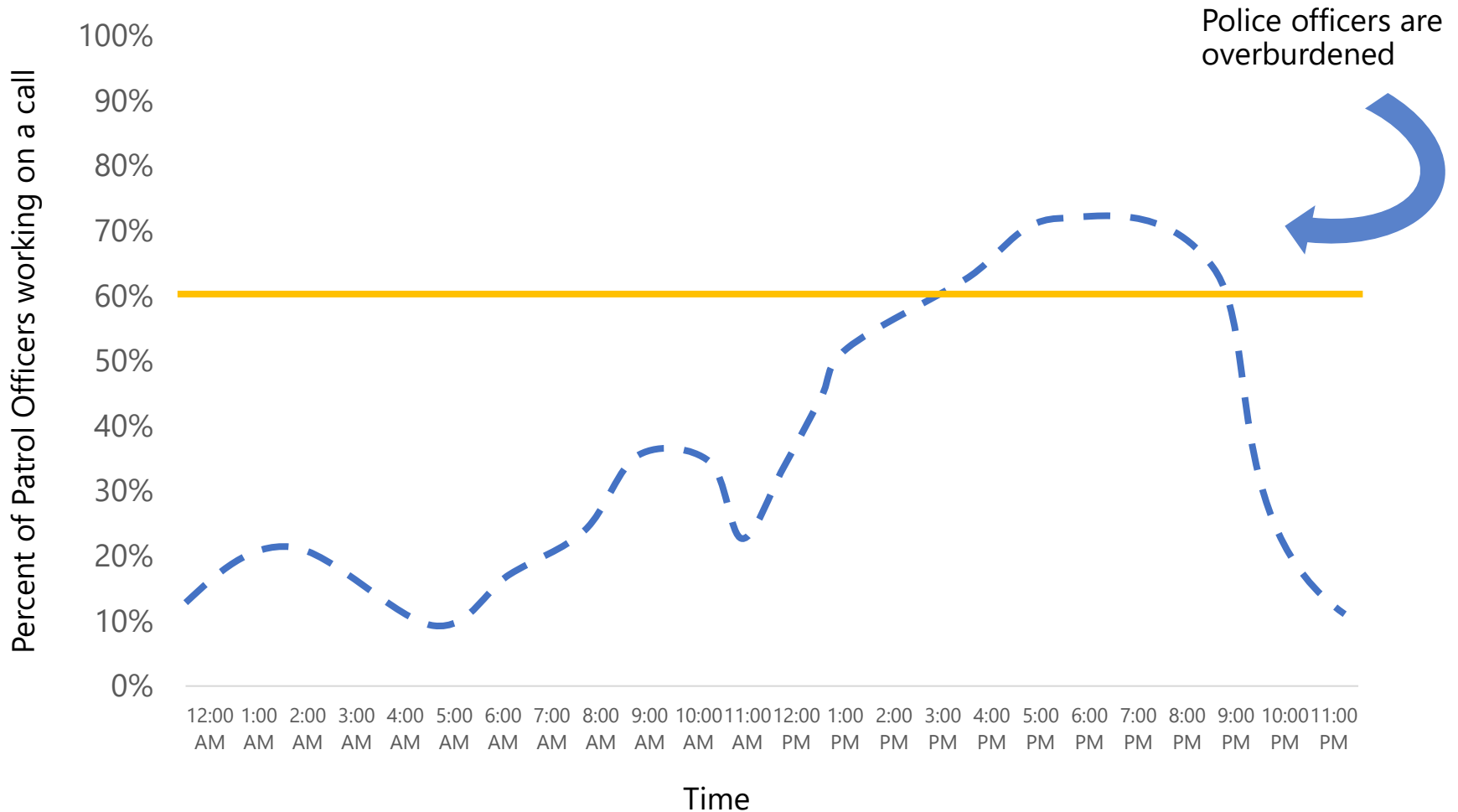
# Staffing Analysis Benchmarks

*Key findings from 2012 ICMA White Paper*

- ICMA Recommendation: Rule of 60
  - No more than 60 percent of available patrol officer time should be spent responding to service calls
    - The remaining 40 percent of the time is discretionary time for officers to be available to address community problems and serious emergencies.
  - This is referred to as the saturation index (SI). An SI greater than 60 percent indicates that the patrol is largely reactive, and overburdened with service calls
- Using the rule of 60, the SBPD staffing analysis projects how many officers we need to meet service demands.

# Staffing Analysis

*How the rule of 60 works*



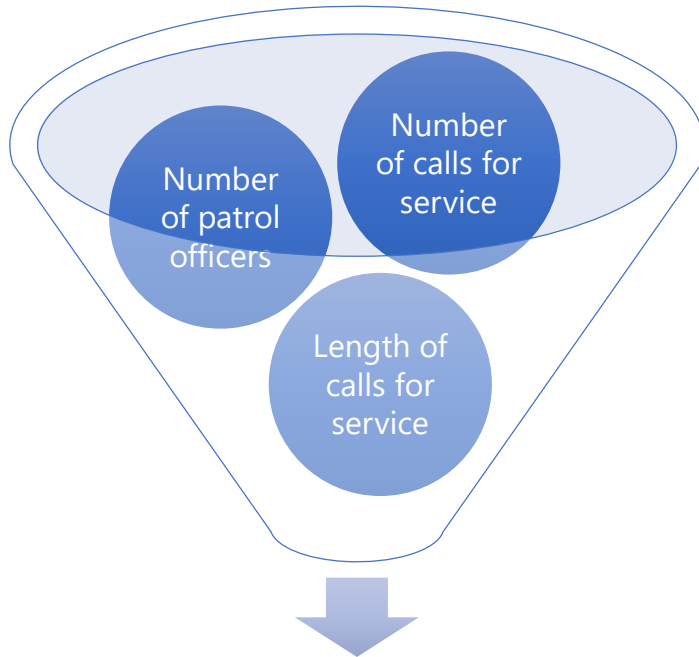


# Staffing Analysis

## *Data and Data Limitations*

### Data being analyzed

- Time Horizon:  
January 2019 - June 2020



Analysis Results

### Limitations of data

- New World CAD
  - Data from January 2019 – October 2019
- Model relies on some assumptions due to poor data quality
  - “Time on Call” is taken from the average time an officer spends on a call from Motorola applied to the full call length
  - “Average Officers per Call” is derived from Motorola CAD and applied to each New World call to Sum the total time

# Staffing Analysis

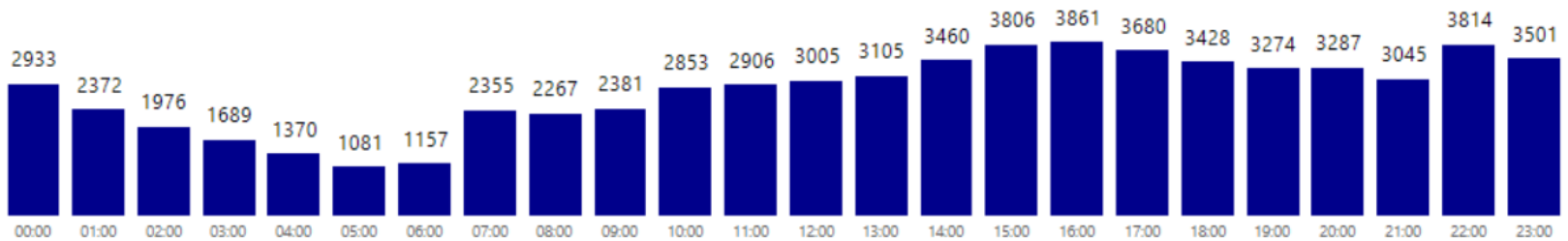
## *Quick stats*

Variable Name	Calculation
Population	101,860
Officers	227
Officers to Resident Ratio	222.85
Patrol Percent	64%
Adjusted Service Demand Rate	1081.34
Avg. CFS Service Time Public	0:33:32
Avg # of CFS Responding Officers Public	2.26
Total Service Time Public CFS (officer-min.)	119017:06:56

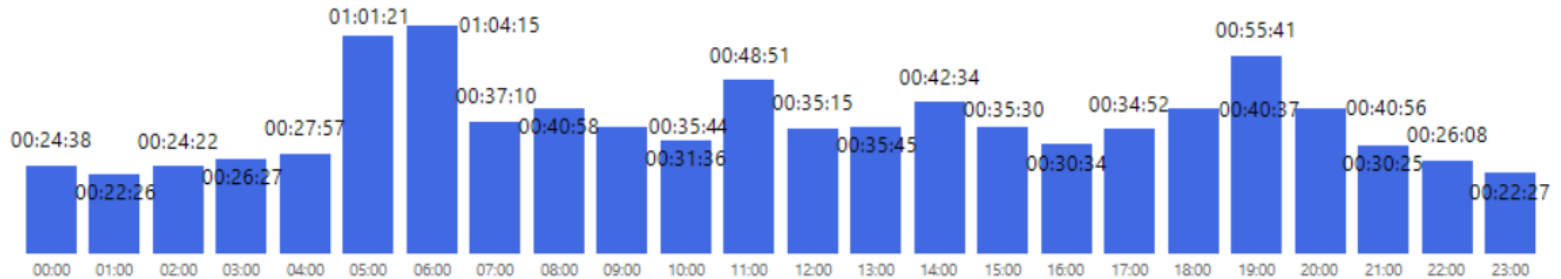
# Staffing Analysis

*Dynamic dashboard demonstration*

### Hourly Call Volume



### Hourly Average Time on Call



Call Dispatch to Close Time Statistics

Total Calls: 66616

Total Officers: 34

Avg Time: 00:35:31

Avg Officers: 2.26

# Staffing Analysis

## *Takeaways*

1

Although our patrol percentage is 64%, the current proportion is not enough to meet demand requirements

2

Call volume and average time alone are not indicative of actual demand. Type of incident is more contributed

3

Based on an ideal utilization of 60%:

- 1<sup>st</sup> shift is slightly above target
- 2<sup>nd</sup> Shift (afternoon) is severely overburdened
- 3<sup>rd</sup> shift is moderately overstaffed

# Taking action

Offering policy alternatives, data-based frameworks, and decision points that take action in improving the lives of South Bend residents

# Next Steps + Considerations

*Transparency Hub*

## Next Steps

- Revise and approve current version of the Transparency Hub with PD + Mayor's Officer
  - Data categories
  - Contents
- Send a memo to SB UX participants + gather their feedback

# Next Steps + Considerations

## *Crime Dashboard*

<b>Next Steps</b>	<ul style="list-style-type: none"><li>• Determine update schedule of incident page</li><li>• Identify metrics or visualizations that are missing, if any</li></ul>
<b>Considerations</b>	<ul style="list-style-type: none"><li>• How to develop an extract and update process to match the update schedule</li><li>• Reviewing the current dashboard visualizations to confirm their relevancy</li></ul>

# Next Steps + Considerations

## *Compensation Benchmarking*

<b>Next Steps</b>	<ul style="list-style-type: none"><li>• Release final write-up of findings</li></ul>
<b>Considerations</b>	<ul style="list-style-type: none"><li>• Is there a way to make pensions more attractive for applicants?</li><li>• If the ability to effect pay is limited, are there other strategies that we can implement/adopt to attract applicants?</li></ul>



# Next Steps + Considerations

## *Staffing Analysis*

### Next Steps

- Complete joining New World data to full analysis
- Release link to live report

### Considerations

- With 33 officers able to retire at any time, the potential for an even smaller work force is on the horizon
  - Scheduling – reallocate the officers we currently have to more efficiently match shift demands
  - Demand:

\_\_\_\_\_ Workload \_\_\_\_\_

Officers

# Celebrating our values

This section highlights exemplary work happening in the City to improve performance that may otherwise go unnoticed





**SBStat**

# Police

Q2 July 16, 2020