SBStat | Fire

2021 Quarter 1 June 10th 2021

City of South Bend

Ground rules for SB Stat Meetings

1. No stupid questions

Use this space to ask and address difficult questions safely

2. Data-driven decision making

Strive to make decisions based on whatever most recent data is available

3. Relentless follow-up

Identify clear action items and owners after each meeting

4. A bias towards action

Continuously seek to improve: our data, our ways of working, etc.

Good questions to be asking…

- What are the next steps on this project? Who's going to own it?
- Do we have the data we need to make a good decision? If not, how can we get that data?
- Is there a strategy or hypothesis on this issue we want to test during the next quarter?

Today's Agenda

I. Project updates from previous Stat meeting

II. Quarterly Statistics Review

III. Deep-dive analysis & discussion
- Fire Compensation Study
- Fire Operation Dashboard
- Fire Inspection Dashboard

IV. Taking action
- Identifying clear action items and owners

V. Celebrating our values

Fire Stat Portfolio Summary

Status of SBStat projects in the queue for 2021

Project	Brief Description	Status
Fire Inspection Dashboard	Visualizing data that summarizes the Fire inspection and prevention programs	
Fire Operations Dashboard	Visualizing data that summarizes basic Fire operations, including response time, incident types, etc.	
Fire Compensation Study	A comparative analysis of SBFD's compensation package to other agencies	

Legend Project on schedule Project delayed Project cancelled Project under consideration

Quarterly Statisitics Review

Summarizing data points and statistics related to core operations since the last Stat meeting

Quarterly Statistics Fire Stat

- Response Time
- Fire Prevention
- Programmatic Data

New in 2021: Quarterly Statistics Review

What's the Quarterly Statistics Review?

- New this year across all SB Stat Focus Areas is a review of recent data and statistics relevant to the Stat project portfolio.

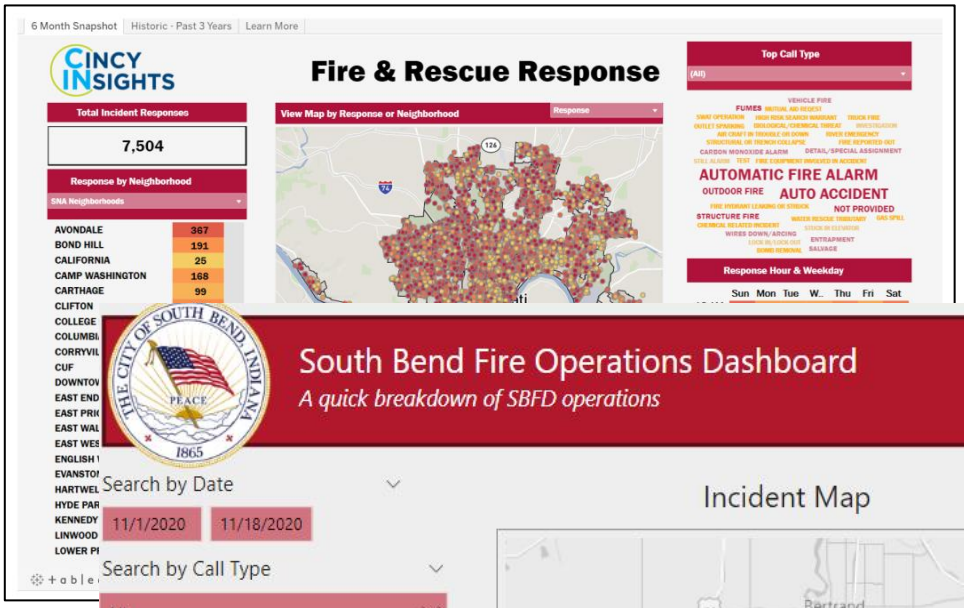
- These reviews will occur in every Stat meeting to help the audience be data-driven in their thinking and ensure data important to residents stay top of mind.

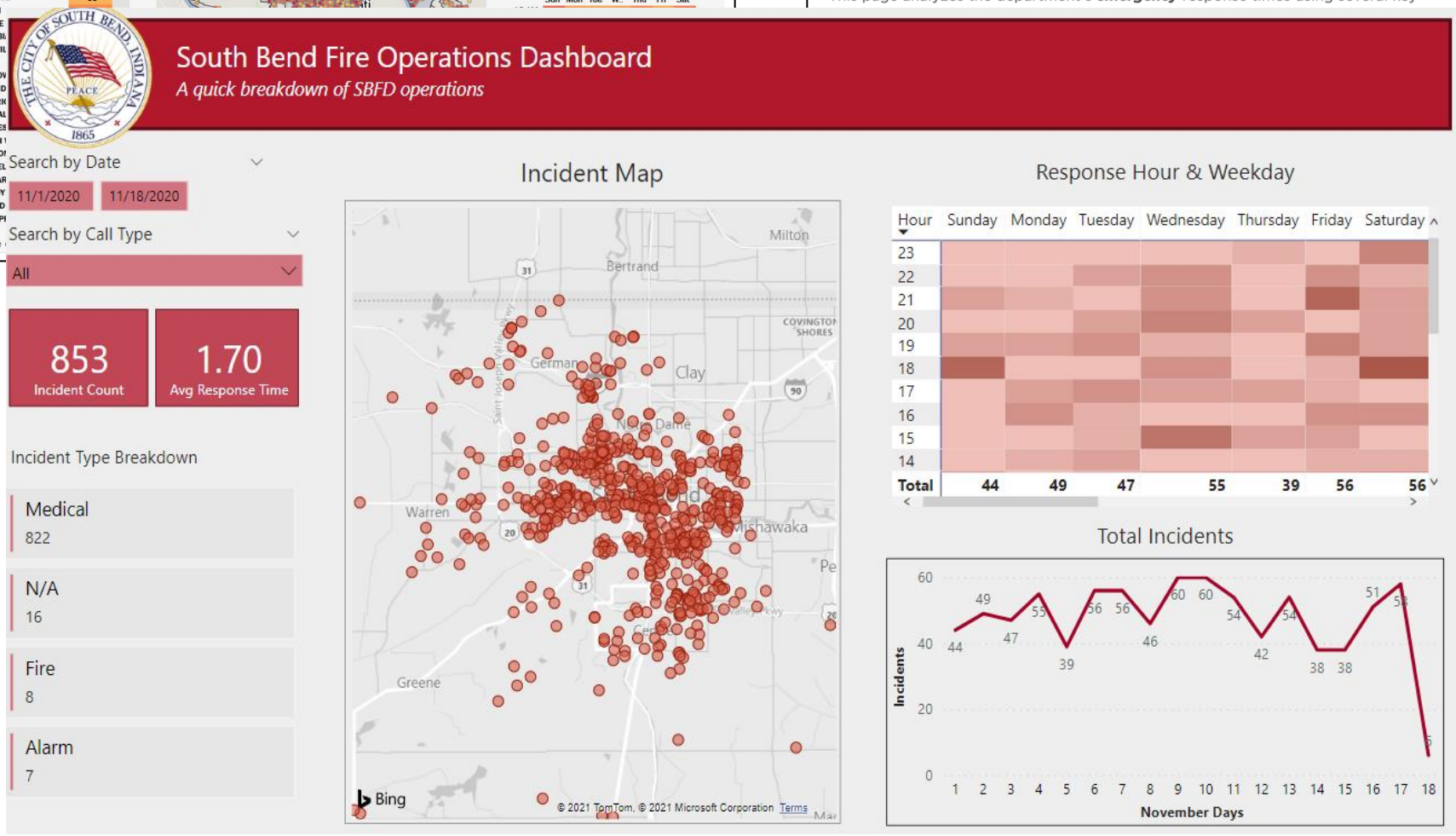
How does this data help the City manage performance?

- Revisiting data frequently across departments helps the City develop common language for asking questions and working together.

- For Fire Stat, this data will help City Leadership understand fire operations in South Bend and inform how city actions may affect outcomes.
  - Including how other departments can collaborate with SBFD to affect those outcomes

Existing Use Cases





Initial metrics and geographic units of analysis

Initial Metrics

- Response Time
  - NFPA targets
- Incident Details

Units of analysis

- By Station
- By Shift
- Census Tract

Discussion questions before closing out the topic

1. Is there anything missing from the initial metrics list that should be included?
2. What metrics would you love to see more analysis on?

Deep-dive analysis & discussion

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

- Fire Compensation Study
- Fire Operations Dashboard
- Fire Inspection Dashboard

Fire Compensation Study

Preliminary Analysis

- Background / context
- Available data & analysis
- Next steps

Fire Compensation Study – Preliminary Analysis

Background/Context

Purpose

The study will follow the same methodology as the 2020 Police Department compensation study that was performed in early 2020

Methodology

- Easily comparable incentives
- Cities of similar size or population
- Averaged out through a 10 and 20 year time horizon

Fire Compensation Study – Preliminary Analysis

Background/Context

- Gathering information from comparable Indiana and out of state cities, such as:

Indiana cities

- Elkhart
- Carmel
- Lafayette
- Noblesville
- Greenwood
- Mishawaka
- Franklin
- Kokomo
- Valparaiso
- Michigan City
- Anderson

Out-of-state cities

- Rockford, IL
- Green Bay, WI
- Toledo, OH
- Grand Rapids, MI
- Madison, WI
- Parma, OH
- Rochester, MN
- Ann Arbor, MI

- Study Limitations
  1. Staff are still waiting to receive firefighter salary information from the following cities: Bloomington, Evansville, and Fort Wayne
  2. SBFD typically offers more services than fire departments in other cities
  3. Data has not been vetted by Human Resources staff

Indiana city comparisons by total pay after 10 years

The table below compares South Bend with other Indiana cities for total annual pay after 10 years for a first-class firefighter. Total annual pay includes the firefighters' annual salary, uniform allowance, and longevity payment

	City	Total Annual Pay after 10 years	Difference from South Bend	Total Annual Pay after 10 years (adjusted for COLA)
1	Carmel	$78,471	$15,816	$75,983
2	Elkhart	$73,240	$10,585	$72,825
3	Lafayette	$69,509	$6,854	$68,329
4	Noblesville	$66,734	$4,079	$64,618
5	Greenwood	$64,981	$2,326	$62,920
6	**South Bend**	**$62,655**	**$0**	**$62,655**
7	Mishawaka	$62,540	($115)	$62,540
8	Franklin	$63,031	$376	$61,033
9	Kokomo	$58,542	($4,112)	$60,465
10	Valparaiso	$69,785	$7,130	$58,325
11	Michigan City	$55,350	($7,305)	$57,669
12	Anderson	$53,535	($9,120)	$51,837

Note: The City of South Bend is still waiting to receive firefighter salary information from the following cities: Bloomington, Evansville, and Fort Wayne.

Indiana city comparisons by total pay after 20 years

The table below compares South Bend with other Indiana cities for total annual pay after 20 years for a first-class firefighter. Total annual pay includes the firefighters' annual salary, uniform allowance, and longevity payment

	City	Total Annual Pay after 20 years	Difference from South Bend	Total Annual Pay after 20 years (adjusted for COLA)
1	Carmel	$81,571	$17,316	$78,984
2	Elkhart	$73,600	$9,345	$73,183
3	Lafayette	$72,759	$8,504	$71,523
4	Franklin	$68,689	$4,434	$66,511
5	Noblesville	$68,064	$3,809	$65,905
6	**South Bend**	**$64,255**	**$0**	**$64,255**
7	Greenwood	$65,731	$1,476	$63,647
8	Mishawaka	$62,540	($1,715)	$62,540
9	Kokomo	$60,239	($4,016)	$62,217
10	Valparaiso	$70,685	$6,430	$59,078
11	Michigan City	$56,700	($7,555)	$59,076
12	Anderson	$55,535	($8,720)	$53,774

Note: The City of South Bend is still waiting to receive firefighter salary information from the following cities: Bloomington, Evansville, and Fort Wayne.

Out of state cities comparisons by total pay after 10 years

The table below compares South Bend with other Indiana cities for total annual pay after 10 years for a first-class firefighter. Total annual pay includes the firefighters' annual salary, uniform allowance, and longevity payment

	City	Total Annual Pay after 10 years	Difference from South Bend	Total Annual Pay after 10 years (adjusted for COLA)
1	Rockford, IL	$85,244	$22,589	$86,596
2	Green Bay, WI	$71,550	$8,895	$70,415
3	Toledo, OH	$66,449	$3,794	$68,029
4	Grand Rapids, MI	$66,515	$3,860	$63,728
5	**South Bend**	**$62,655**	**$0**	**$62,655**
6	Parma, OH	$62,410	($245)	$61,279
7	Madison, WI	$62,715	$60	$56,962
8	Rochester, MN	$59,749	($2,906)	$56,636
9	Ann Arbor, MI	$58,452	($4,203)	$50,310

Out of state cities comparisons by total pay after 20 years

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	City	Total Annual Pay after 10 years	Difference from South Bend	Total Annual Pay after 10 years (adjusted for COLA)
1	Rockford, IL	$86,596	$22,617	$86,624
2	Green Bay, WI	$70,415	$9,135	$70,652
3	Toledo, OH	$68,029	$5,465	$69,740
4	Grand Rapids, MI	$63,728	$4,460	$64,303
5	**South Bend**	**$62,655**	**$0**	**$62,655**
6	Parma, OH	$61,279	$555	$62,064
7	Madison, WI	$56,962	$2,988	$59,622
8	Rochester, MN	$56,636	-$2,906	$56,636
9	Ann Arbor, MI	$50,310	-$4,203	$50,310

Indiana benchmarks by other modes of comparison

The table below compares South Bend with other Indiana cities for total annual pay after 10 years for a first-class firefighter. Total annual pay includes the firefighters' annual salary, uniform allowance, and longevity payment

City	Total Population	Total Square Miles	Total Sworn Firefighters	Total Annual Incidents	Total Annual Pay after 10 years (adjusted for COLA)
Carmel	97,464	50.17	154	7,321	$75,983
Elkhart	52,257	28.45	129		$72,825
Lafayette	72,581	27.74	149	11,973	$68,329
Noblesville	63,071	32.79	140		$64,618
Greenwood	59,458	27.91	54	7,218	$62,920
South Bend	102,037	42.40	260	~15,770	**$62,655**
Mishawaka	49,245	17.97	115	7,432	$62,540
Franklin	25,106	13.44		~2500	$61,033
Kokomo	58,145	36.79	90		$60,465
Valparaiso	33,355	16.36	73		$58,325
Michigan City	31,118	20.59			$57,669
Anderson	54,513	14.63			$51,837

Note: The City of South Bend is still waiting to receive firefighter salary information from the following cities: Bloomington, Evansville, and Fort Wayne.

Out of State benchmarks by other modes of comparison

The table below compares South Bend with other out of state cities for total annual pay after 10 years for a first-class firefighter. Total annual pay includes the firefighters' annual salary, uniform allowance, and longevity payment

City	Total Population	Total Square Miles	Total Sworn Firefighters	Total Annual Incidents	Total Annual Pay after 10 years (adjusted for COLA)
Rockford, IL	147,070	65.39	246	29,621	$86,596
Green Bay, WI	104,777	55.76	187	13,574	$70,415
Toledo, OH	276,614	83.83	475	60,662	$68,029
Grand Rapids, MI	198,401	45.63	200	24,124	$63,728
South Bend	**102,037**	**42.40**	**260**	**~15,770**	**$62,655**
Parma, OH	79,091	20.07	119		$61,279
Madison, WI	254,977	101.50	258	25,646	$56,962
Rochester, MN	115,557	55.69	101	~10,000	$56,636
Ann Arbor, MI	120,735	28.79	83	7,318	$50,310

Note: The City of South Bend is still waiting to receive firefighter salary information from the following cities: Bloomington, Evansville, and Fort Wayne.

Services provided by respective departments

The table below compares South Bend with other Indiana cities for the type of services the department offers.

City	ALS Transport	Haz mat	River Rescue	Drone	Community Paramedicine	Total Annual Pay after 10 years (adjusted for COLA)
Elkhart		x				$75,983
Carmel		x			x	$72,825
Lafayette		x		x		$68,329
Noblesville	x	x			x	$64,618
Greenwood		x				$62,920
South Bend	**x**	**x**	**x**	**x**	**x**	**$62,655**
Mishawaka		x				$62,540
Franklin						$61,033
Kokomo		x				$60,465
Valparaiso	x					$58,325
Michigan City		x				$57,669
Anderson		x				$51,837

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Green Bay, WI		x				$70,415
Toledo, OH	x	x				$68,029
Grand Rapids, MI	x	x				$63,728
South Bend	**x**	**x**	**x**	**x**	**x**	**$62,655**
Parma, OH		x				$61,279
Madison, WI	x	x				$56,962
Rochester, MN	x	x				$56,636
Ann Arbor, MI	x	x				$50,310

Taking Action

Fire Compensation Analysis

Next Steps	• Business Analytics to share the analysis in-depth with HR, other key negotiators • Business Analytics will prepare an overview on compensation analysis (memo) • HR to review preliminary analysis, validate

Fire Operations Dashboard

- Background / Context
- Available data & analysis
- Options to improve performance

Fire Operations Dashboard Background/Context

Last quarter, we produced a prototype dashboard that communicates precise data with improvements to the visualizations.

In 2021 SB Stat

the main focus is:

Improve visualizations, remove technical jargon for better understanding of the data

Scale the prototype to include more data

Fire Operations Dashboard

Industry Best Practices

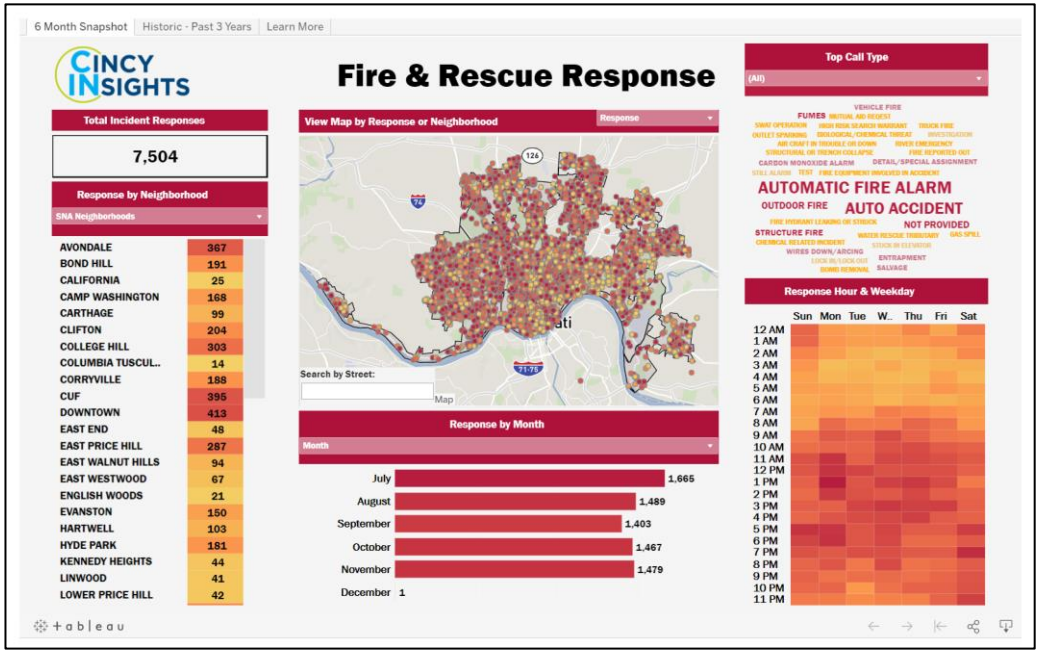
- Cincinnati's dashboard is understandable and very user friendly for residents to use.

- Valparaiso's dashboard was more designed for internal use for the actual fire department
  - Potentially designing an internal dashboard for only the fire department to utilize

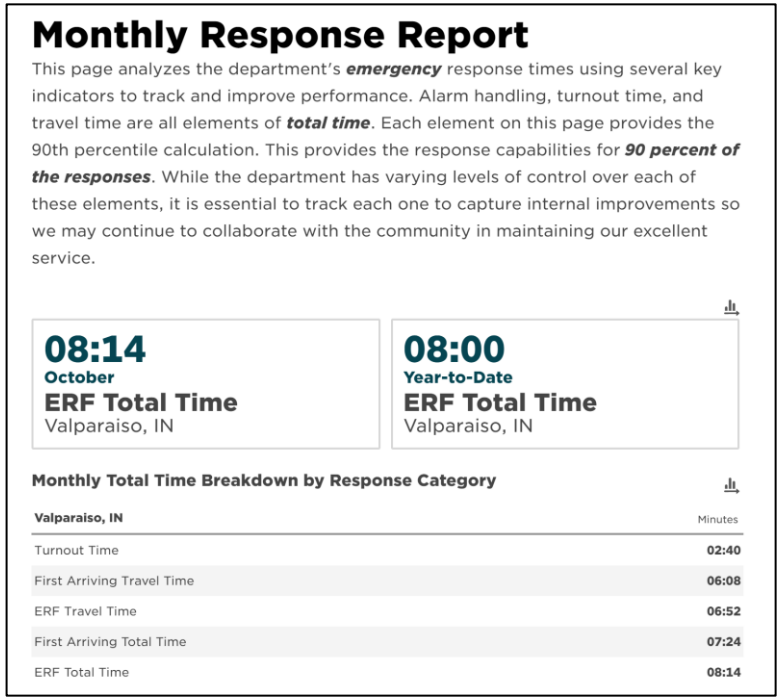
Fire Operations Dashboard

Industry Best Practices

Cincinnati, OH



Valparaiso, IN



Monthly Response Report

This page analyzes the department's ***emergency*** response times using several key indicators to track and improve performance. Alarm handling, turnout time, and travel time are all elements of ***total time***. Each element on this page provides the 90th percentile calculation. This provides the response capabilities for ***90 percent of the responses***. While the department has varying levels of control over each of these elements, it is essential to track each one to capture internal improvements so we may continue to collaborate with the community in maintaining our excellent service.

08:14
October
ERF Total Time
Valparaiso, IN

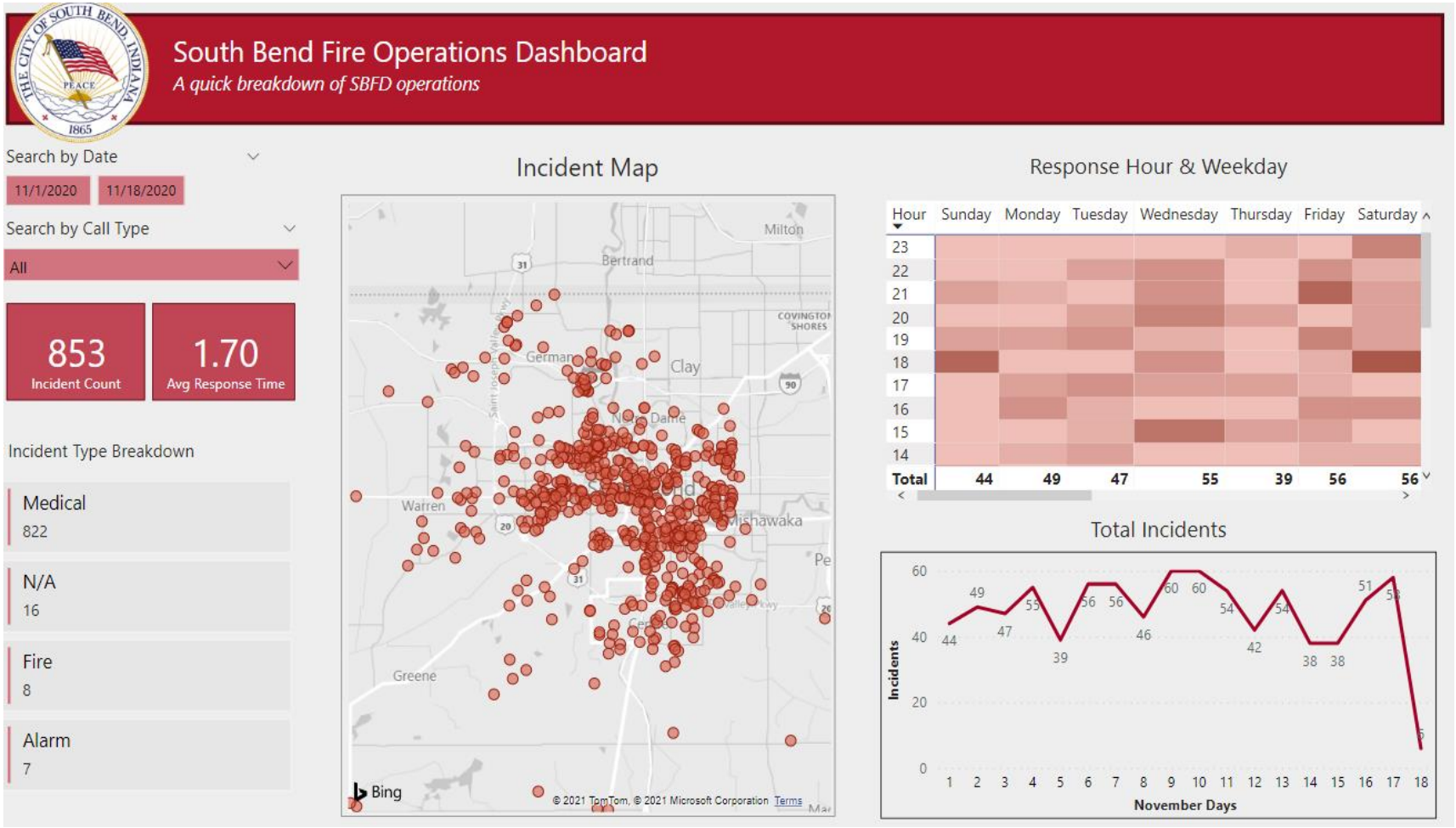
08:00
Year-to-Date
ERF Total Time
Valparaiso, IN

Monthly Total Time Breakdown by Response Category

Valparaiso, IN	Minutes
Turnout Time	02:40
First Arriving Travel Time	06:08
ERF Travel Time	06:52
First Arriving Total Time	07:24
ERF Total Time	08:14

Fire Operations Dashboard

Previous Prototype



Keeping the data up-to-date

On-the-ground data entry to the operations dashboard in the cloud

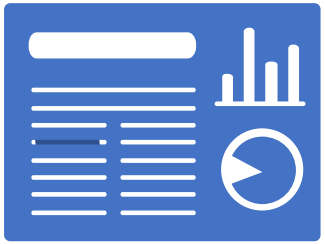
1. Fire captain enters incident data in ESO

2. ESO data is locked

3. A weekly ESO report is pulled into reporting server

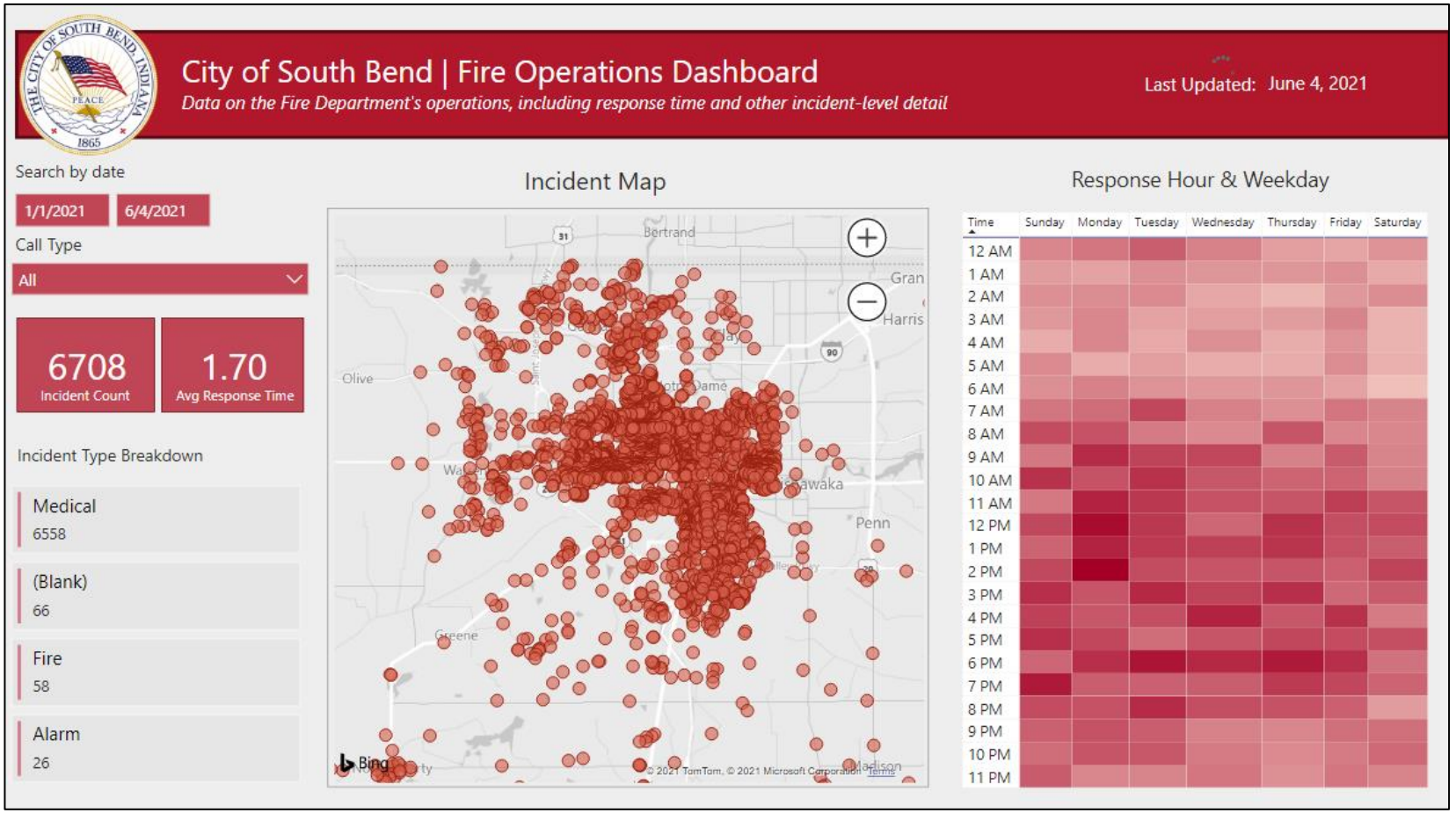
4. Weekly ESO report integrated with historical data

5. ESO data fed into PowerBI dashboard



Fire Operations Dashboard

Current Prototype

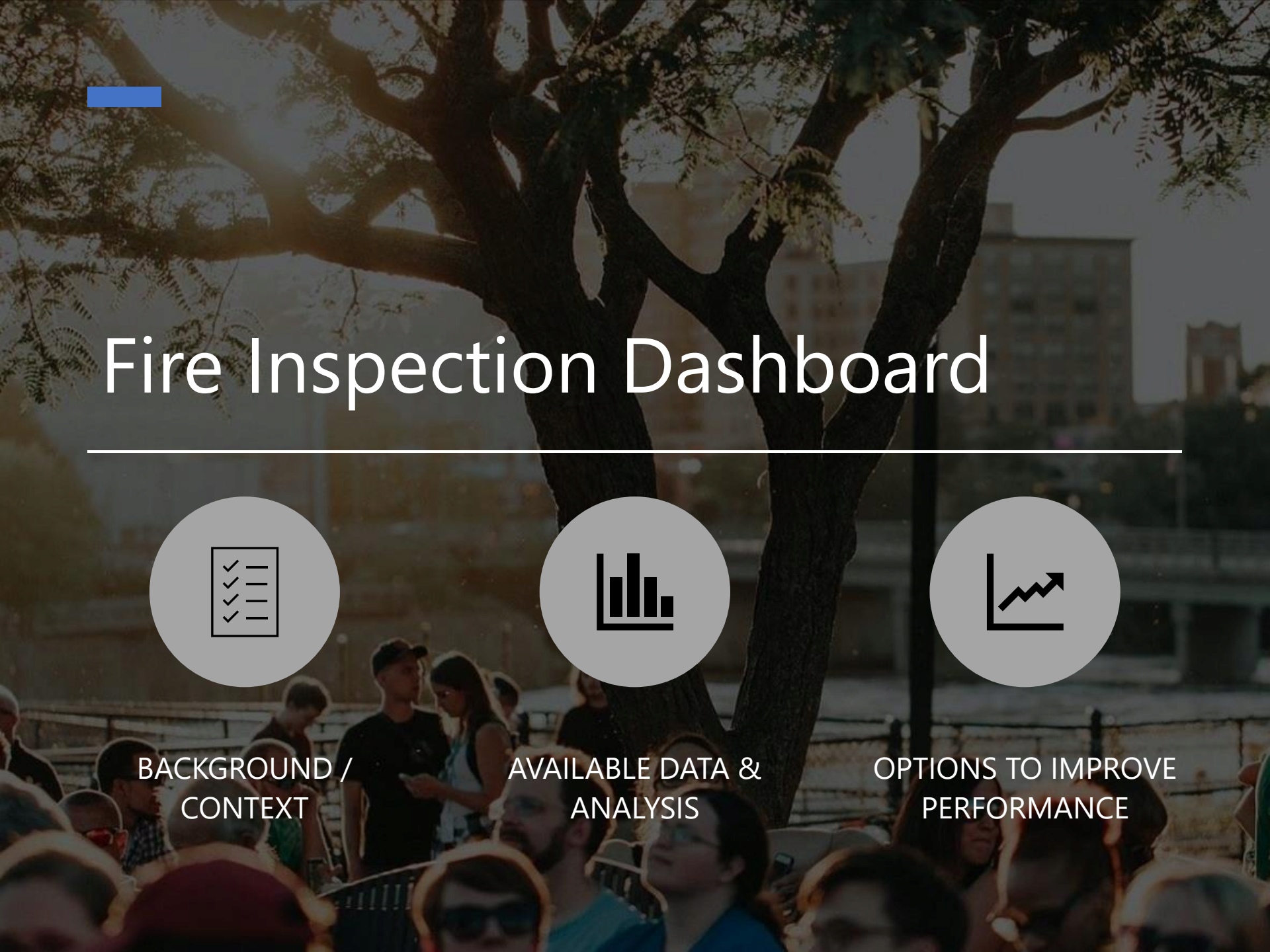


Fire Operations Dashboard

Discussion Questions

- What are the next steps you see for the prototype?
- Should the prototype be added to the City's public transparency portal and be available to residents?
- What metrics would you like to see in an internal dashboard?

Fire Inspection Dashboard



BACKGROUND / CONTEXT

AVAILABLE DATA & ANALYSIS

OPTIONS TO IMPROVE PERFORMANCE

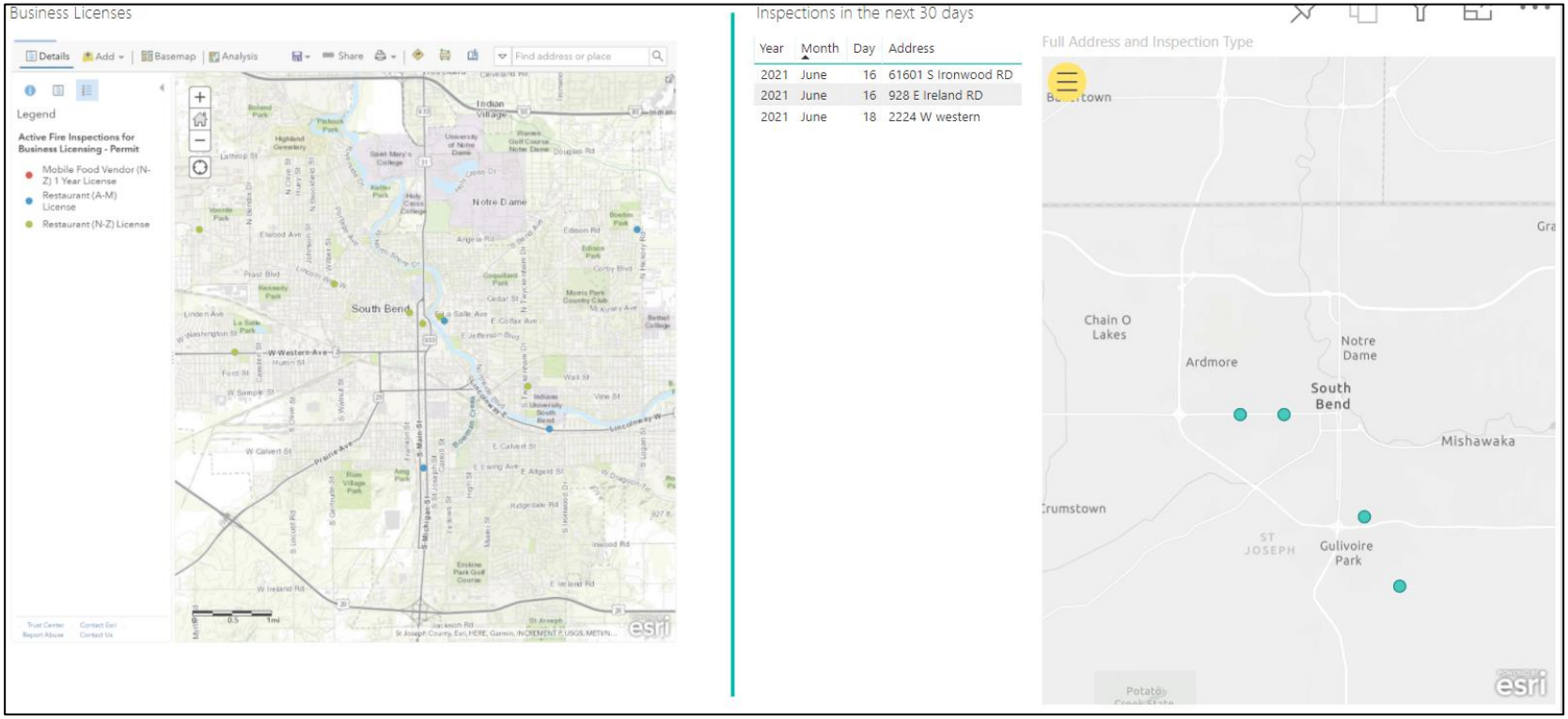
Fire Inspection Dashboard Background/Content

1. Last quarter, we incorporated the previous year's data

2. This quarter we are continuously focusing on the business license map to be added to the data source that interacts with PowerBI

Fire Inspection Dashboard

Available Data & Analysis



[Dashboard Link]

Fire Inspection Dashboard

Options to Improve Performance

- The ulimate goal is to consolidate both the reinspections and business inspections into one map
    - By adding the business license map as a data source for PowerBI

Discussion questions before closing out the topic

- Should any other metrics be added to the final Fire Inspection dashboard?

- Do you see this dashboard being used for residents, internally, or both?

Taking action

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

Taking Action

Next Steps Summary

Fire Compensation Study	• Business Analytics to share the analysis in-depth with HR, other key negotiators • Business Analytics will prepare an overview on compensation analysis (memo) • HR to review preliminary analysis, validate
Fire Operations Dashboard	• Explore adding dashboard to City transparency portal • Develop internal version of operations dashboard that drills down to station-level views
Fire Inspection Dashboard	• Consolidate both the reinspections and business inspections into one map by adding the business license map as a data source for PowerBI

Fire Stat Portfolio Summary

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Legend Project on schedule Project delayed Project cancelled Project under consideration

Celebrating our values

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

Celebrating our Values

SBStat | Fire Stat

2021 Quarter 1 June 10, 2021

City of South Bend