

Performance Management

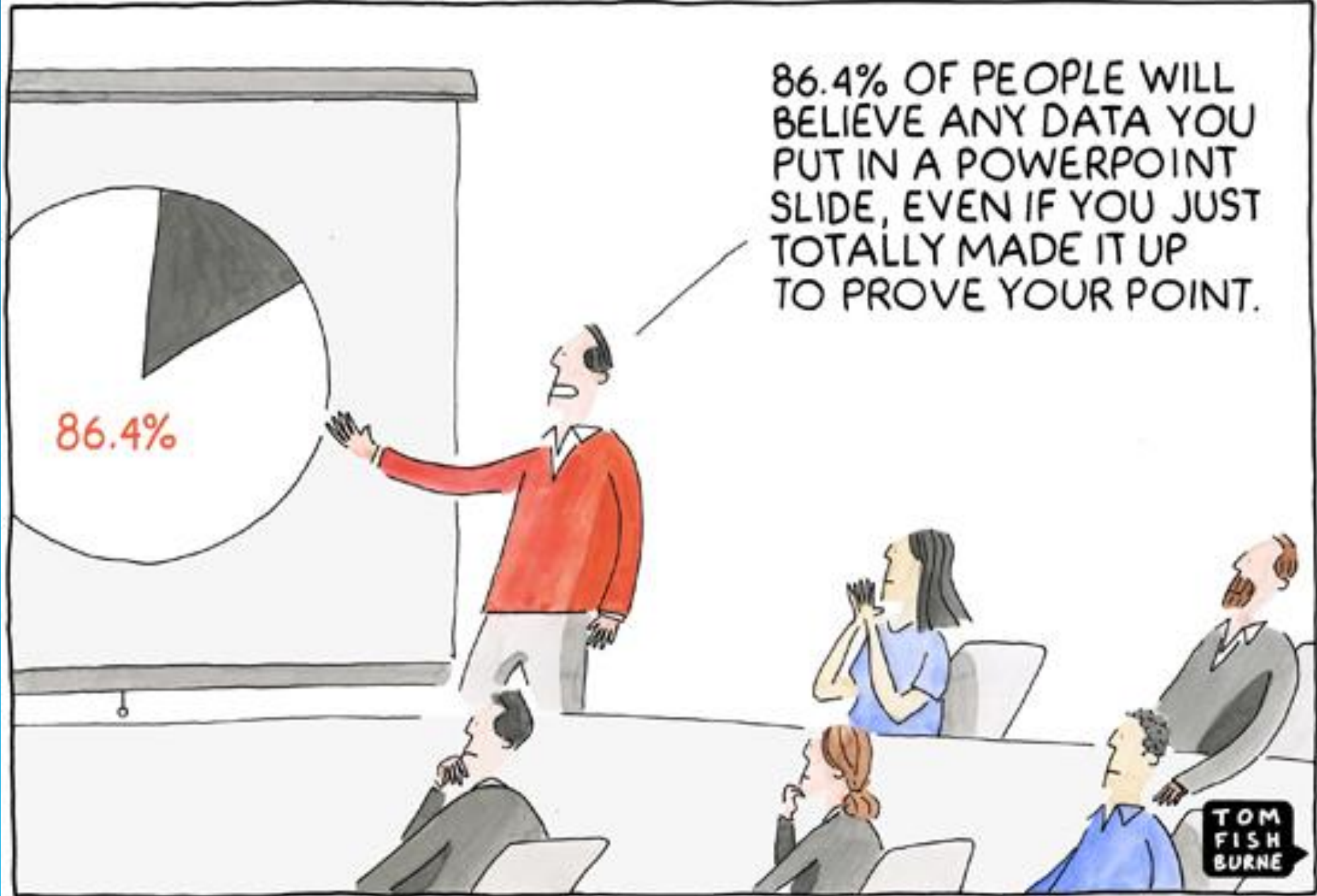
Improving confidence
in government

Dan Henderson, GISP, PMP
Esri, Local Government Team



esri

THE
SCIENCE
OF
WHERE™



86.4% OF PEOPLE WILL BELIEVE ANY DATA YOU PUT IN A POWERPOINT SLIDE, EVEN IF YOU JUST TOTALLY MADE IT UP TO PROVE YOUR POINT.

86.4%

TOM FISH BURNE



How do we measure ROI? Why?



"Maybe your gut feeling was just indigestion after all"

Every Community wants to be...

Sustainable

Transparent

Resilient

Livable

Healthy

Collaborative

Safe

Prosperous

Innovative

SOCIAL CONFLICTS

BIODIVERSITY

HOMELESSNESS

DEMOGRAPHIC SHIFTS



JOB LOSS

ECONOMIC PRESSURES

TRANSPORTATION

EPIDEMICS



DISASTERS

CLIMATE CHANGE

DROUGHT

FLOODING





1998-2015

2016

Archives

[March 2018](#)

[February 2018](#)

[January 2018](#)

[December 2017](#)

[November 2017](#)

[October 2017](#)

[September 2017](#)

[August 2017](#)

[July 2017](#)

[June 2017](#)

[May 2017](#)

[April 2017](#)

[More...](#)

Transportation Matters *for Iowa*



HOW MUCH DO YOU THINK IT COSTS TO CLEAR IOWA'S ROADS OF SNOW AND ICE?

02/06/2018

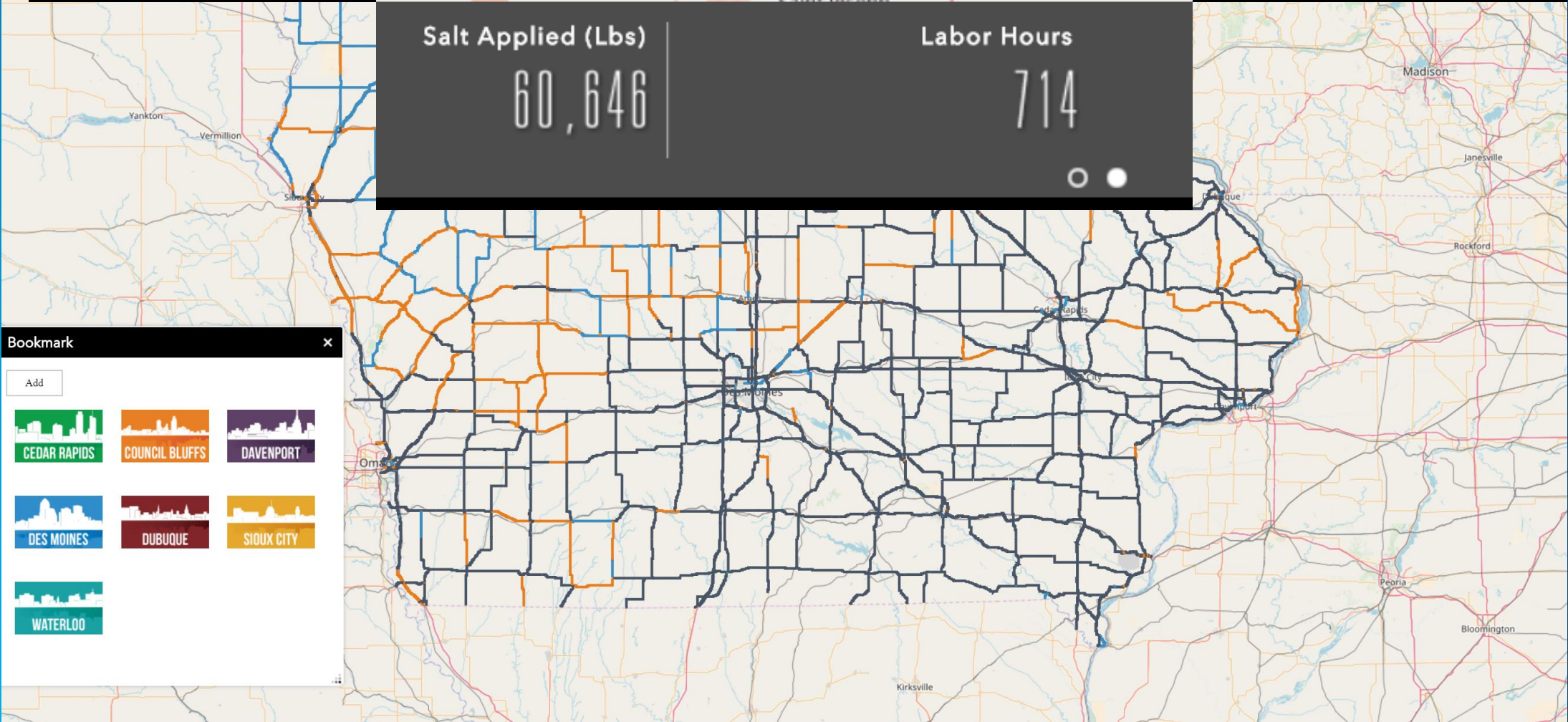


When you see a snowplow go by during a winter storm, do you ever wonder how much it costs to get Iowa's roads back in good shape during and after a storm? If you're a number cruncher or are just curious, you can see for yourself on a ["Winter cost calculator"](#) online tool developed by the Iowa Department of Transportation.

The tool was unveiled about a year ago. It lets users see the cost of material, labor, and equipment; pounds of salt applied; and labor hours expended for the previous 48 hours during winter weather road maintenance activities. Information can be found on the total cost of statewide cleanup efforts, or users can zoom to a specific area of the map to find costs associated with the area being displayed. Iowa's seven largest metro areas are preloaded in a bookmarks tab for easy viewing. Bookmarks can also be set to locations of a user's choice.

Total Cost (\$) 64,813	Material Cost (\$) 4,028	Labor Cost (\$) 33,008	Equipment Cost (\$) 27,560
----------------------------------	------------------------------------	----------------------------------	--------------------------------------

Salt Applied (Lbs) 60,646	Labor Hours 714
-------------------------------------	---------------------------



Bookmark [X]

Add

- CEDAR RAPIDS
- COUNCIL BLUFFS
- DAVENPORT
- DES MOINES
- DUBUQUE
- SIOUX CITY
- WATERLOO

Total Cost (\$) 2,226,351	Material Cost (\$) 1,176,632	Labor Cost (\$) 571,646	Equipment Cost (\$) 478,085
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Filters
Use the following to filter the dashboard elements to a specific police division, district, crime category, type, or a specific date. Note: this data is for demonstration purposes and is not real.

Police Division
All

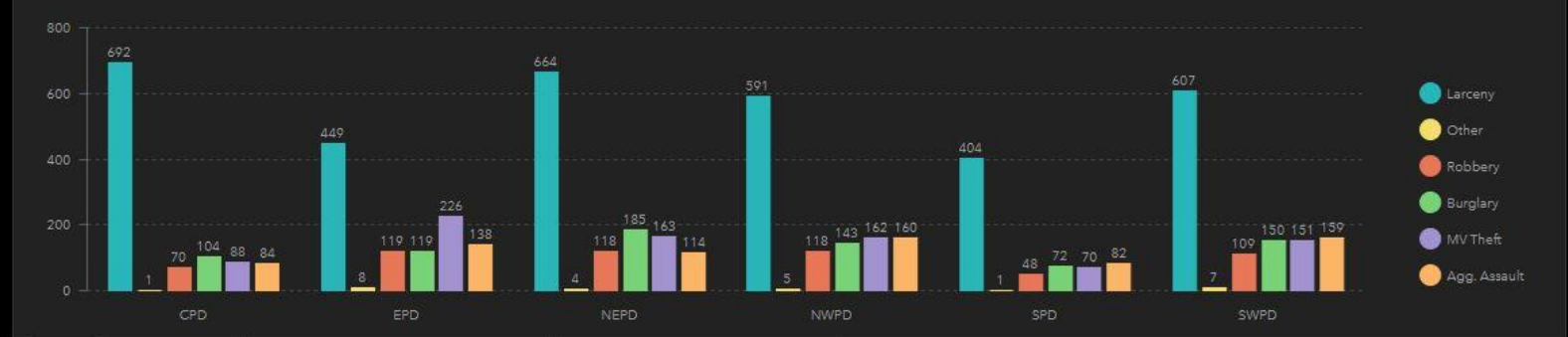
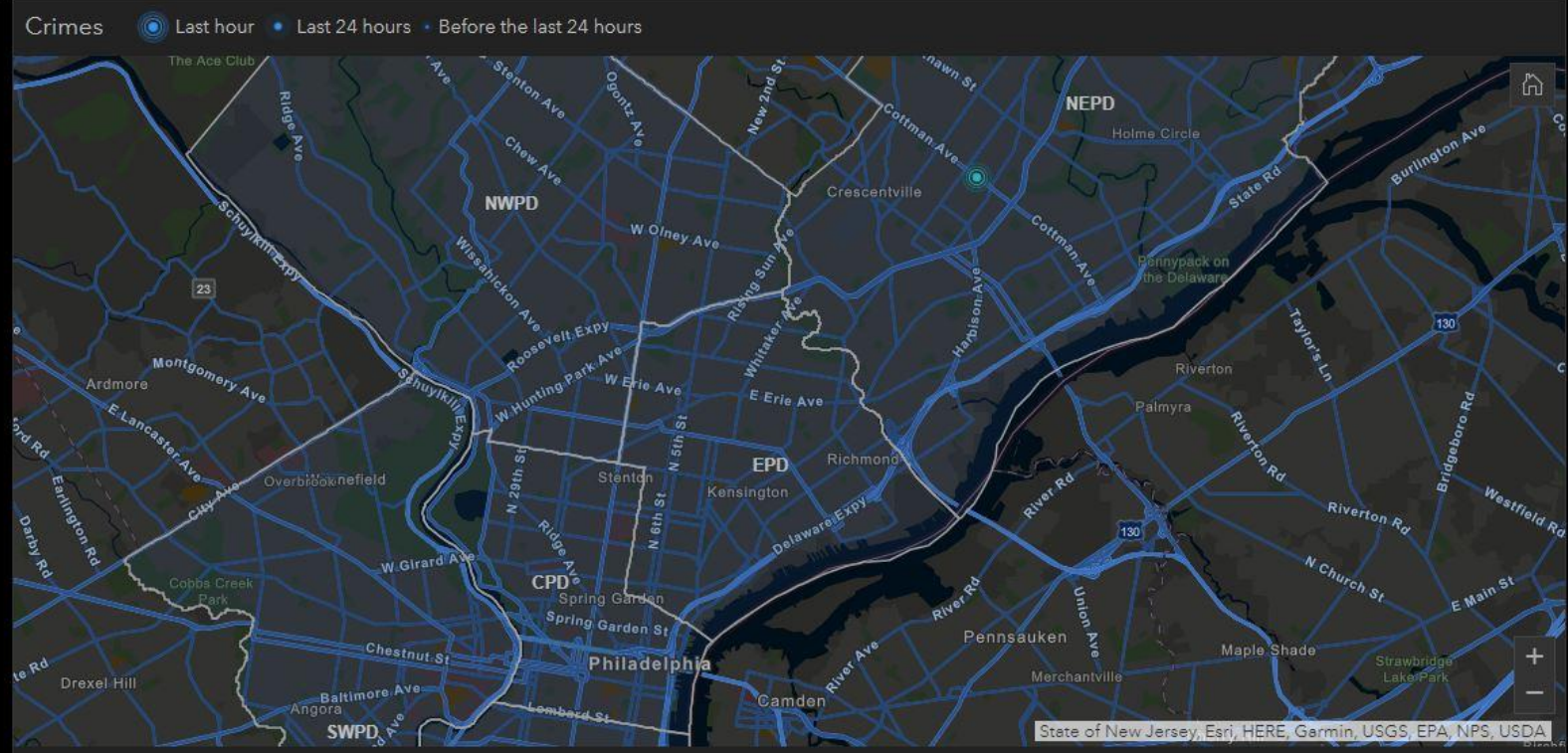
Police District
All

Crime Type

- All
- Agg. Assault
- Burglary
- Larceny
- MV Theft
- Other
- Robbery

Day of Week
All

Time of Day
All



Crime Feed

6,385

- Larceny** 6/28/2018, 1:20 PM
6200 BLOCK GERMANTOWN AVE
- Larceny** 6/28/2018, 1:12 PM
2800 BLOCK MUTTER ST
- Larceny** 6/28/2018, 1:06 PM
4600 BLOCK E ROOSEVELT BLVD
- Larceny** 6/28/2018, 12:41 PM
2100 BLOCK COTTMAN AV
- Larceny** 6/28/2018, 12:31 PM
1800 BLOCK W NEDRO AVE
- Larceny** 6/28/2018, 12:27 PM
300 BLOCK SHEDAKER ST
- Larceny** 6/28/2018, 12:22 PM
8100 BLOCK E ROOSEVELT BLVD
- Robbery** 6/28/2018, 12:13 PM
300 BLOCK N 55TH ST
- Larceny** 6/28/2018, 12:05 PM
9600 BLOCK BUSTLETON AV
- Larceny** 6/28/2018, 12:00 PM
200 BLOCK S 17TH ST
- Larceny** 6/28/2018, 11:54 AM
800 BLOCK CHESTNUT ST
- Agg. Assault** 6/28/2018, 11:52 AM
2900 BLOCK N STILLMAN ST
- Burglary** 6/28/2018, 11:48 AM
600 BLOCK N 32ND ST
- Agg. Assault** 6/28/2018, 11:47 AM
2800 BLOCK N HOWARD ST

Last update: a few seconds ago

Connected Citizens Program

The Waze Way of free data exchange, yielding actionable insights and improved mobility on a local and global scale

[APPLY NOW](#)

[PARTNERS PORTAL](#)

[HELP CENTER](#)

Take part in the smart solution

The Connected Citizens Program (CCP) is proof that we already have the answers to some of today's mobility challenges. The Waze map strengthens with every data point contributed across our vast community of everyday drivers and volunteer map editors. Via the CCP, hundreds of international cities, departments of transportation and first responders have built meaningful relationships and regularly knowledge share to identify creative solutions. From road management to measurable congestion reduction, these are the initiatives building cities of tomorrow.



Reported Traffic Accidents

5

Increase: 0

Last update: a few seconds ago

Reported Traffic Jams

164

Decrease: -2

Last update: a few seconds ago

Reported Road Closures

58

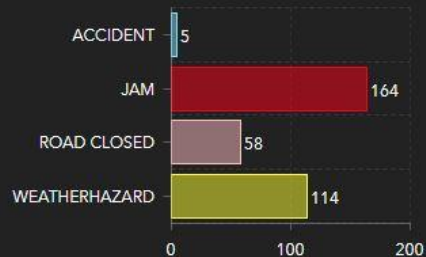
Increase: 0

Last update: a few seconds ago

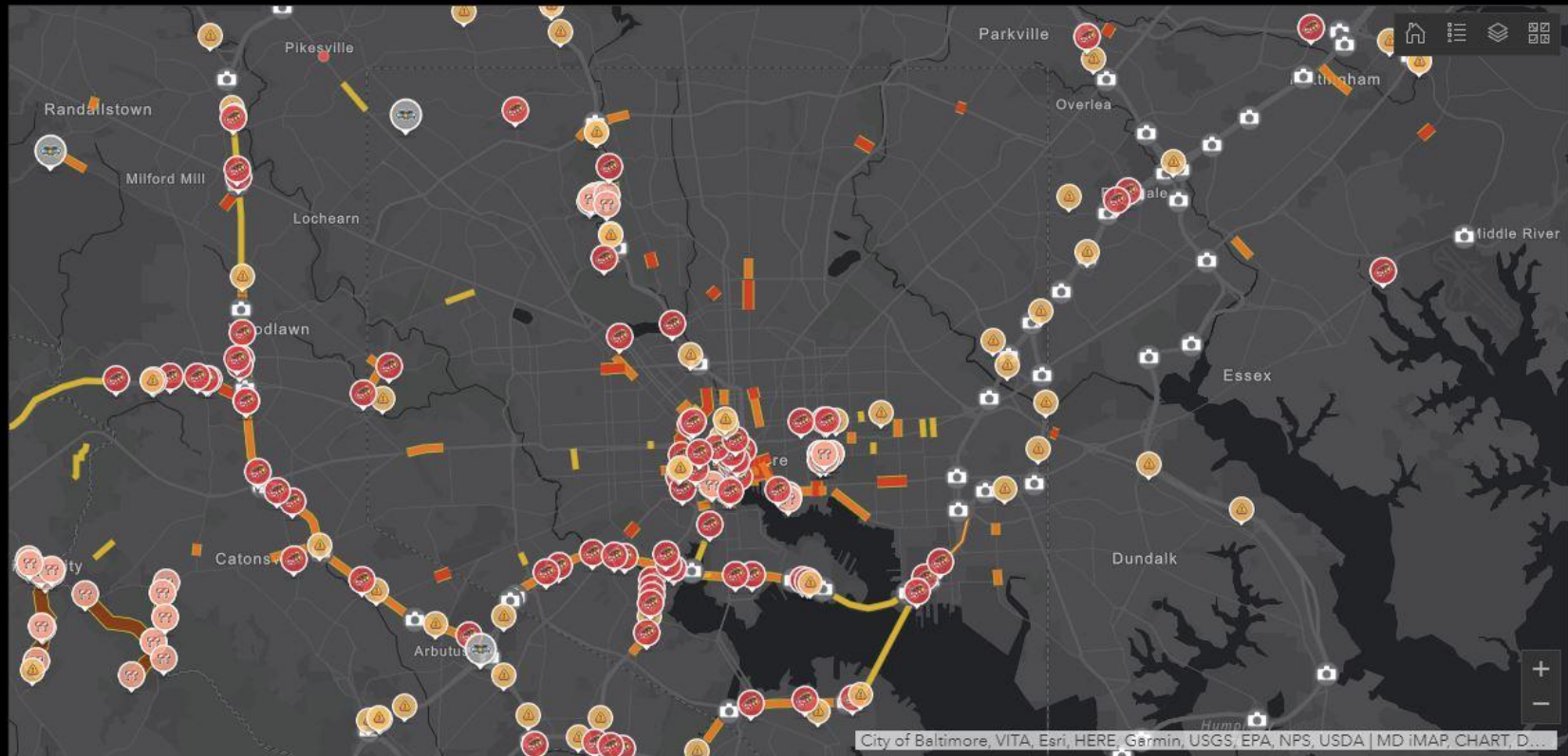
Recent Reports

- WEATHERHAZARD** | White Marsh Blvd
HAZARD ON SHOULDER CAR STOPPED
6/28/2018, 1:32 PM
- JAM** | Eastern Blvd
JAM HEAVY TRAFFIC
6/28/2018, 1:32 PM
- JAM** | I-95 N
JAM STAND STILL TRAFFIC
6/28/2018, 1:32 PM
- WEATHERHAZARD** | I-895 S
HAZARD ON SHOULDER CAR STOPPED
6/28/2018, 1:32 PM
- WEATHERHAZARD** | I-83 N
HAZARD ON SHOULDER CAR STOPPED
6/28/2018, 1:32 PM
- JAM** | E Monument St
6/28/2018, 1:32 PM
- JAM** | E Conway St
JAM STAND STILL TRAFFIC
6/28/2018, 1:32 PM
- JAM** | I-695 W
JAM HEAVY TRAFFIC
6/28/2018, 1:32 PM
- WEATHERHAZARD** | Waterloo Rd
HAZARD ON SHOULDER CAR STOPPED
Last update: a few seconds ago

Waze Alert Summary

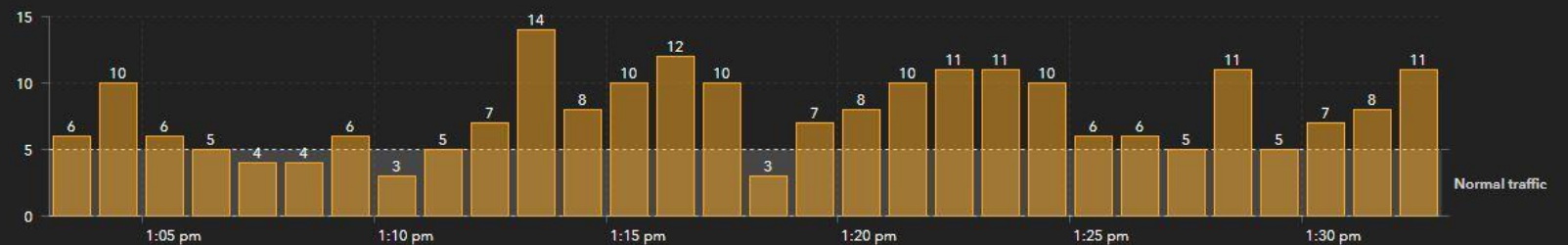


Last update: a few seconds ago



City of Baltimore, VITA, Esri, HERE, Garmin, USGS, EPA, NPS, USDA | MD iMAP, CHART, D...

Traffic reports (last 30 min)



Last update: a few seconds ago

Filter Options

Age Range (select one or more)
 select age range(s) ▼

Group (select one or more)
 select group(s) ▼

Month (select one or more)
 select month(s) ▼

Day of Week (select one or more)
 select day(s) ▼

Gender
 select gender ▼

Select Date or Date Range

Calendar icon | Clock icon

Calendar icon | Clock icon

Opioid Abuse Probabl

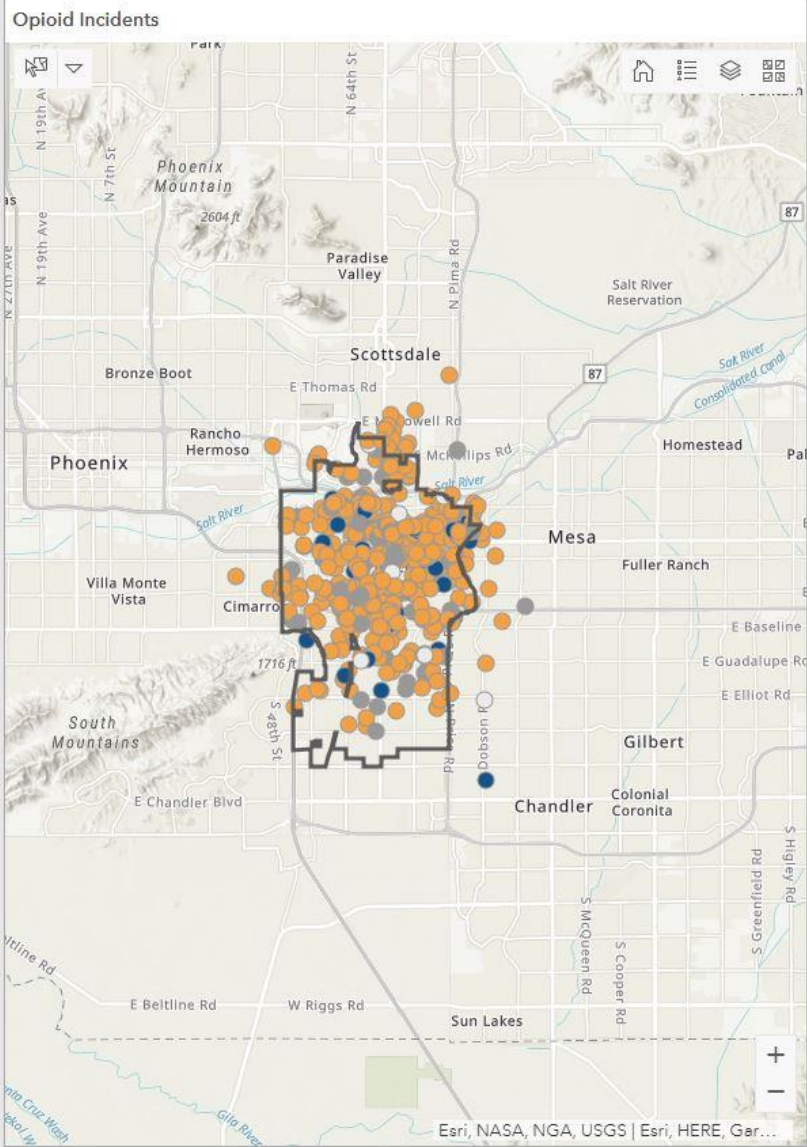
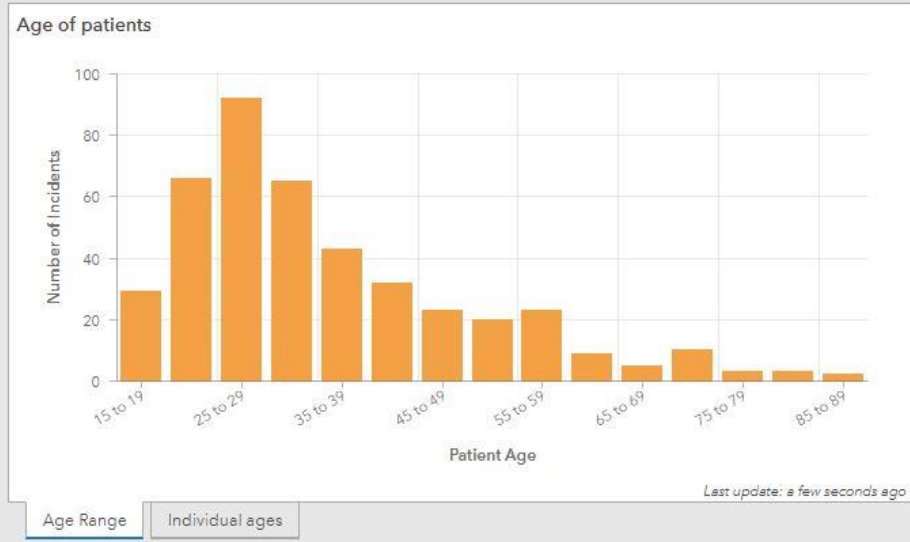
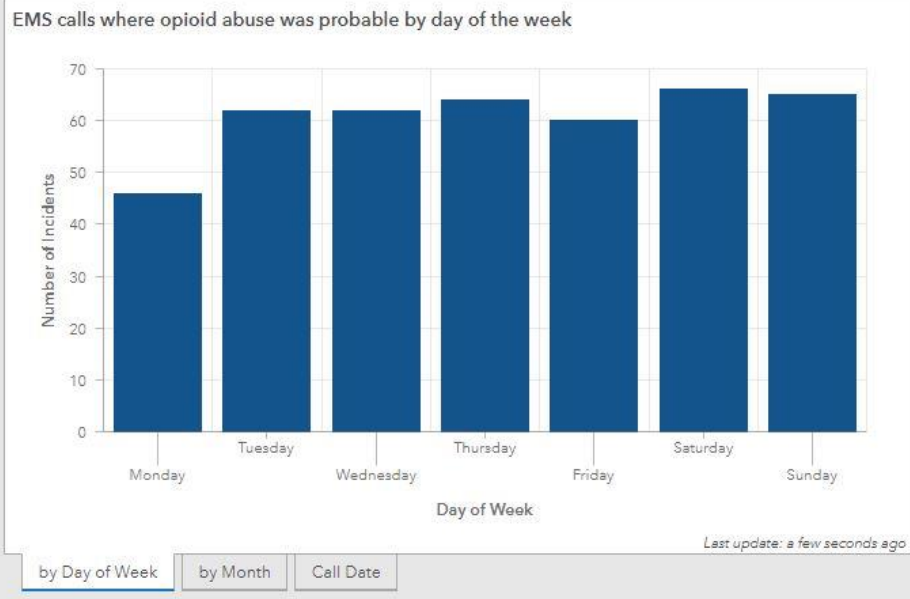
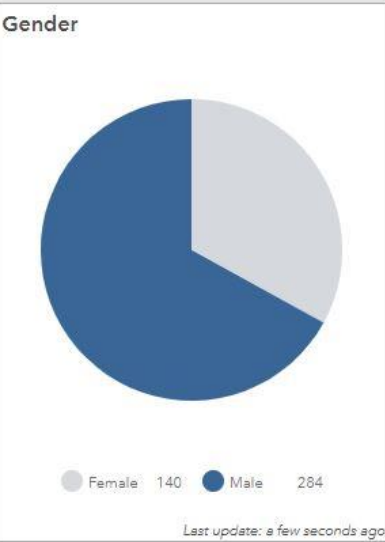
425
 out of 583

Last update: a few seconds ago

Narcan/Naloxone Give

179
 out of 425

Last update: a few seconds ago



New dashboard features include interactive charts! Click on a chart to filter the data shown

This data is available for download at <https://data.tempe.gov/dataset/opiod-ems-calls>

Tips on interacting with the dashboard and information about the data included is found at <http://bit.ly/2swqhNR>

Operations dashboard is best viewed using Google Chrome, Firefox, or Safari web browsers

Johns Creek DataHub

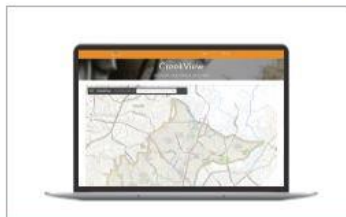
Open Data, Dashboards, and Mapping Apps

The "DataHub" is the City of Johns Creek's central location for open data, dashboards, and interactive mapping applications.

Through this Hub, you can visualize City data in maps, charts, and dashboards. Developers can even tie their own applications and services into City data.

Visualize Data in Dashboards

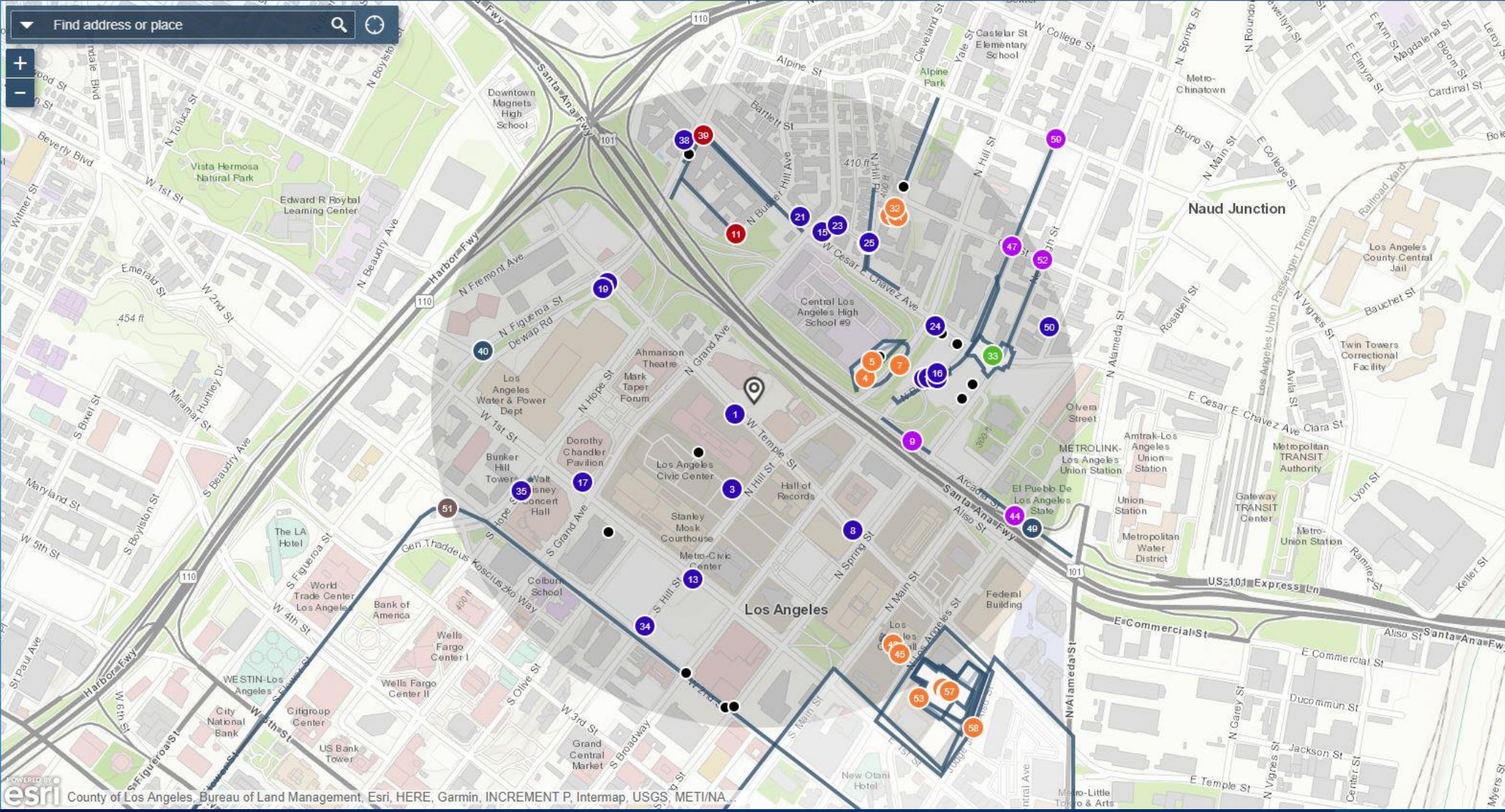
Use a dashboard to visualize and understand information in the Johns Creek DataHub.



Street Wize

Legend

Current Work
Upcoming Work



60

Projects

Search Radius (0.5 mi)

1	Street Excavation	0.03 MILES	Remaining: 3 months
2	Curb and Sidewalk Projects	0.11 MILES	Remaining: 5 months
3	Street Excavation	0.13 MILES	Remaining: 9 months
4	City Capital Improvement Projects	0.18 MILES	Remaining: 6 months
5	City Capital Improvement Projects	0.2 MILES	Remaining: 6 months
6	Curb and Sidewalk Projects	0.21 MILES	Remaining: 6 months
7	City Capital Improvement Projects	0.23 MILES	Remaining: 6 months
8	Street Excavation	0.25 MILES	Remaining: 4 months
9	Resurfacing	0.25 MILES	Remaining: 2 days
10	Street Excavation	0.27 MILES	Remaining: 0 days



A GIS Story

History of GIS at City of Boise, Idaho, USA



Performance Management

[Home](#)[Get Started](#)

Overview

Performance Management is a configuration of Operations Dashboard for ArcGIS that can be used by government agencies to monitor key performance metrics and communicate progress made on strategic outcomes to the general public and other interested stakeholders.

Performance is measured using metrics and organized in to a series of dashboards categorized by community indicator and their related community contributions.

Each dashboard allows users to visualize performance for the entire community and focus in to a location within the community, like a neighborhood, council district, or service area.

Community indicators measure things that are beyond the direct control of a government agency, but directly impact people in the community and indicate whether the quality of life is improving. Community contributions measure a government agency's contributions toward a stated strategic outcome. These metrics likely involve data that is collected by the government agency and illustrate whether the agency's programs and policies positively move the needle on one, or more, community indicators.

[REQUIREMENTS](#)[WHAT YOU GET](#)[WHAT'S NEW](#)[VIEW APPLICATIONS](#)

New automated deployment option

This ArcGIS Solution can now be quickly deployed in your organization with the ArcGIS Solutions Deployment Tool.

- [ArcGIS Solutions Deployment Tool](#)

You may be interested in

ArcGIS for Local Government includes several related maps and apps that also can be configured in your organization:

- [Blight Status Dashboard](#)
- [Daily Activity Dashboard](#)
- [Fatal and Serious Injury Dashboard](#)
- [Fire Incident Dashboard](#)
- [Opioid Response Dashboard](#)

Requirements

To deploy Performance Management with the ArcGIS Solutions Deployment Tool requires specific software.

Economic Opportunity and Affordability: Community Indicators

Naperville ▼ ☰

Unemployment Rate

 **3.0%**

✓ Target: <3.1%
December 2017

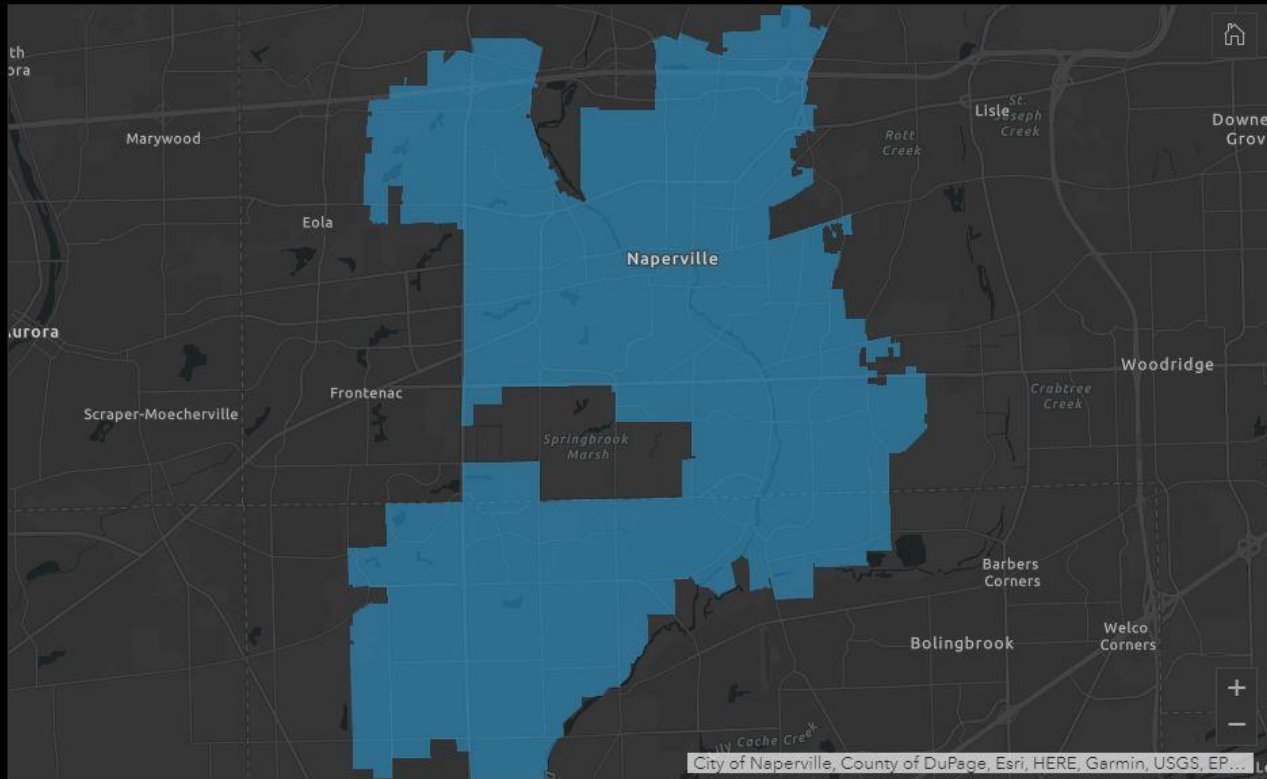
Current History Detail

Graduation Rate

 **98.8%**

✓ Target: >95.0%
May 2018

Current History Detail



Businesses per 1000 People

 **39**

→ Measured
December 2017

Current History Detail

Living Wage

 **\$13.47**

→ Measured
December 2017

Current History Detail

Homeless Individuals

 **232**

→ Measured
January 2018

Current History Detail

Median Household Income

 **\$114k**

✓ Target: >\$100k
December 2017

Current History Detail

Median Home Value

 **\$393k**

→ Measured
December 2017

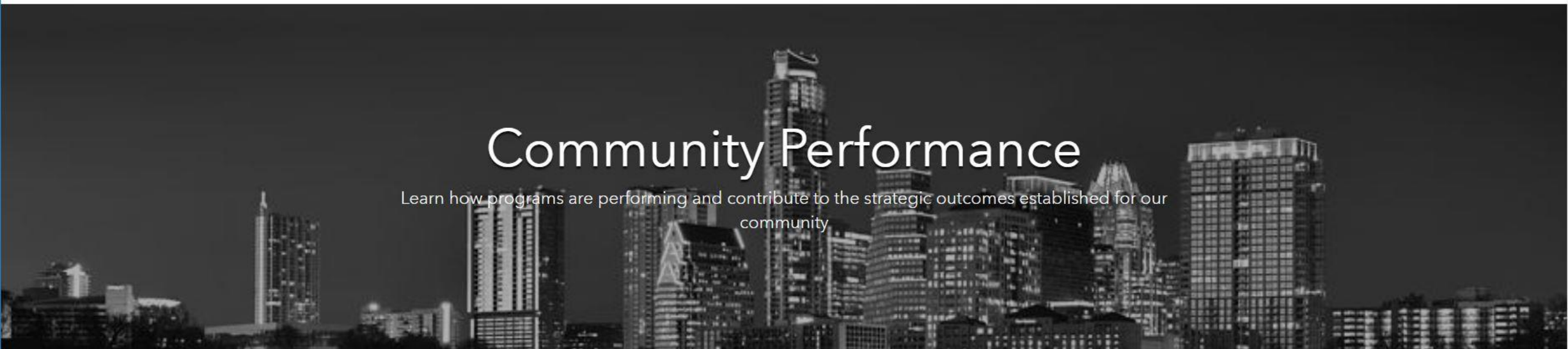
Current History Detail

50% Income Toward Housing

 **7.6%**

! Target: <7.0%
December 2017

Current History Detail



Community Performance

Learn how programs are performing and contribute to the strategic outcomes established for our community

Delivering Results

In our community, we organize performance around a series of strategic outcomes and share the results with the community so residents can discover how their neighborhood is performing. At times, council and the executive branch will focus on several key indicators and monitor the impact programs and services have. Here are several important indicators we are focused on across the community in this reporting period.



Economic Opportunity and Affordability Outcome

This strategic outcome ensures we have appropriate economic opportunities and resources that enable our community to thrive.

Performance Management Dashboards



Economic Opportunity and Affordability: Community Contributions i



Economic Opportunity and Affordability: Community Indicators i



Health and Environment: Community Contributions i



Health and Environment: Community Indicators i



Public Safety: Community Contributions i



Public Safety: Community Indicators i

Questions? Thanks for attending!

Dan Henderson

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@hendomap

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THE SCIENCE OF WHERE™

Transforming the world by unlocking data's full potential

Links

Iowa Cost Calc -

<http://iowadot.maps.arcgis.com/apps/webappviewer/index.html?id=fa8e84ffc4694acb9f06c054798af562>

Global Value of GIS

https://storage.googleapis.com/valueoftheweb/pdfs/GeoSpatial%20520FA_Pages-compressed%2520%25282%2529.pdf

Philadelphia PD -

<https://www.arcgis.com/apps/opstdashboard/index.html#/9ef296f66f724c36bc9f01fc69768ecd>

Waze Connected Citizens - <https://www.waze.com/ccp>

Real Time Traffic -

<http://arcgisforem.maps.arcgis.com/apps/opstdashboard/index.html#/601adbd67c8e49e6b85dc4037b42e403>

Tempe Opioid Abuse -

<http://tempegov.maps.arcgis.com/apps/opstdashboard/index.html#/374b80b6ab65483e8ea4d30bf0100c23>

Links

Johns Creek GA Data hub - <http://datahub.johnscreekga.gov/>

Austin Sidewalks -

<http://austin.maps.arcgis.com/apps/webappviewer/index.html?id=02eecf190f5241f19f92492d63ba5ce2>

LA Street Wize - <http://laways.s3-website-us-west-1.amazonaws.com/>

Boise GIS -

<https://boise.maps.arcgis.com/apps/Cascade/index.html?appid=9cd5de5b07864fb6987efd1d550c8089>

Esri Performance Management - <http://solutions.arcgis.com/local-government/help/performance-management/>

Economic Affordability -

<https://www.arcgis.com/apps/opstdashboard/index.html#/8a4ac286b13b4b5d8288755fcf4dfca6>

Community Performance - <http://community-performance-statelocaltryit.opendata.arcgis.com/>

Performance Dashboards -

<https://www.arcgis.com/apps/MinimalGallery/index.html?appid=d714a06570f543ecac57d90388ec7567>