



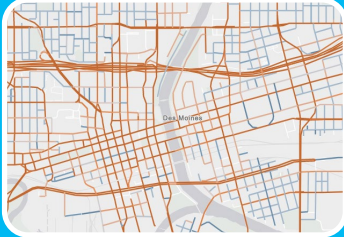
# ArcGIS Online: Exploring Your Data with Smart Mapping

Nick Wiegand

2019 ESRI  
FEDERAL GIS CONFERENCE  
WASHINGTON, DC

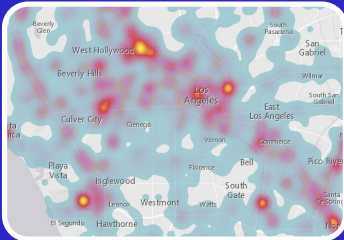
# Explore Your Data Like Never Before

No previous knowledge necessary!



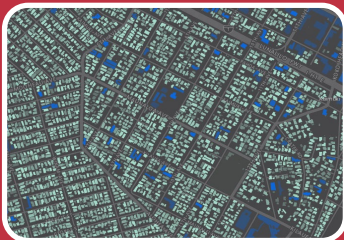
## What is smart mapping?

- Where to find it
- How to use it



## What rendering options are available?

- When to use each type
- Learn new things about your data as you map



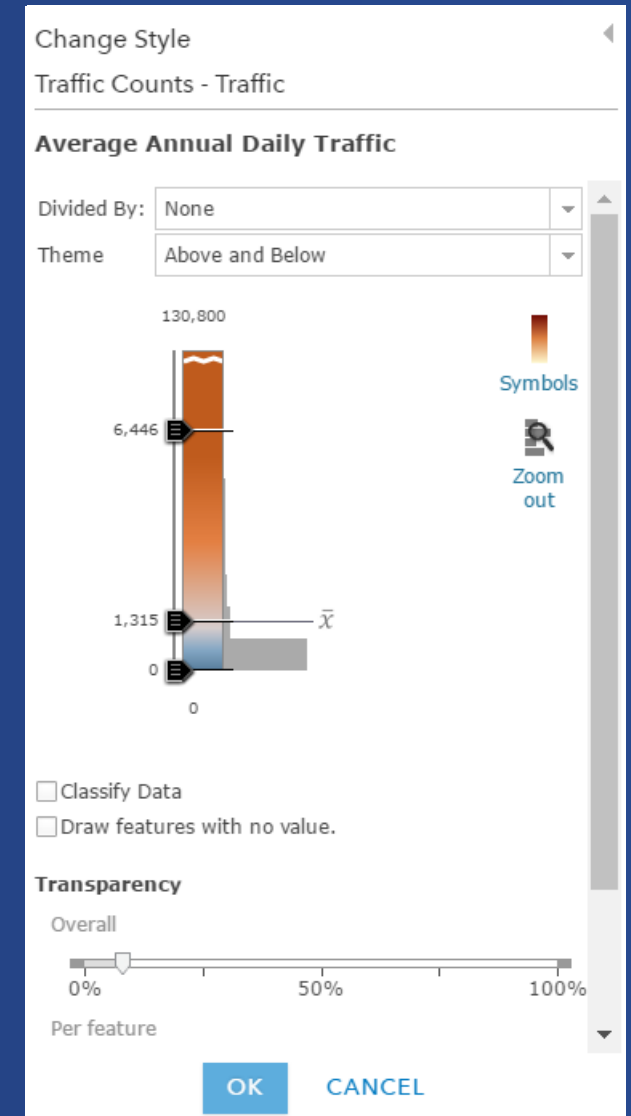
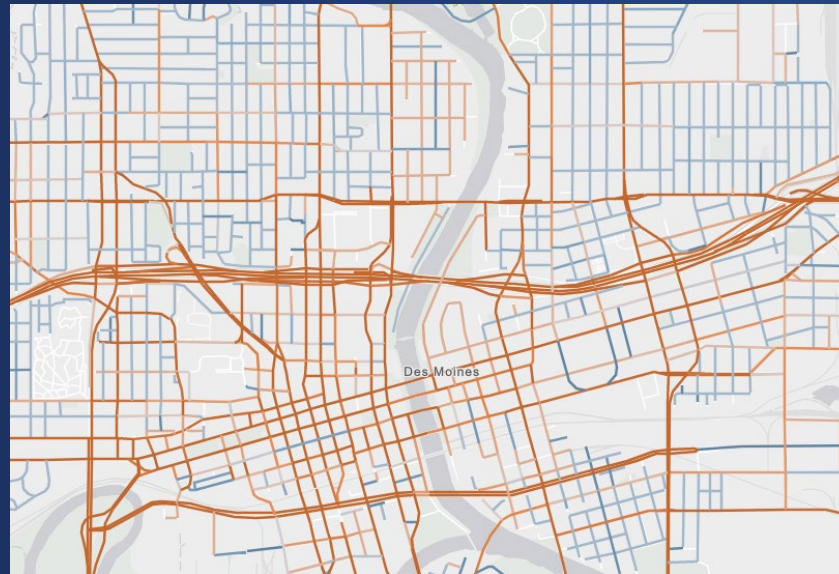
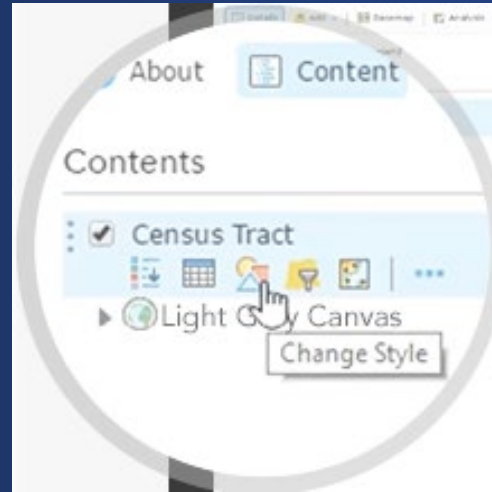
## Tips and Tricks

- Make your maps more clear
- Make your maps meaningful

# What is Smart Mapping?

## Smart mapping is a tool for setting your cartography

- Looks at your data, and offers mapping types based on the attribute(s) you select
- Allows you to make adjustments and immediately see the map change
- Use as an exploratory tools by trying the different options

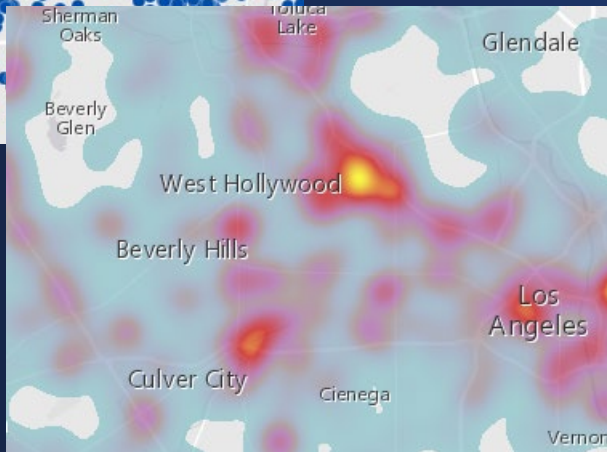


# Let the Data Speak for Itself

## Show Location



Location only

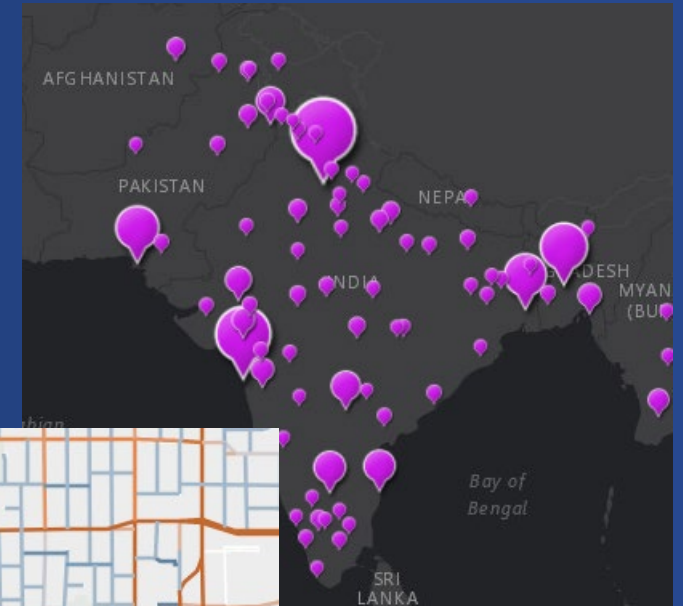


Heat map (points)

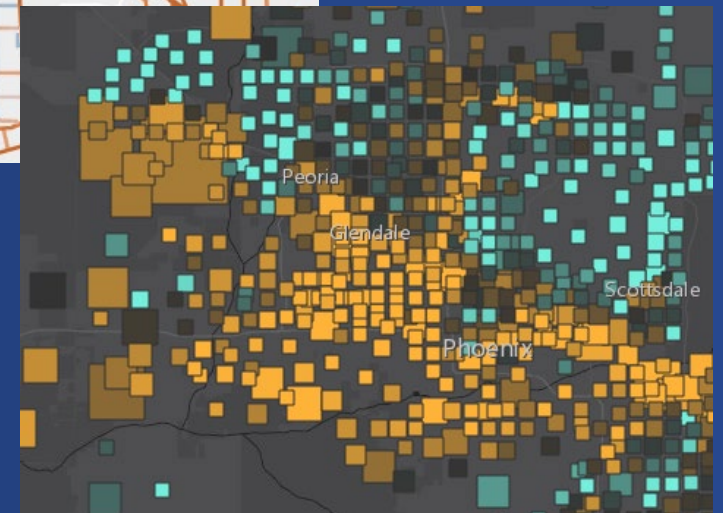
## Counts and Amounts



Color



Size



Color and Size



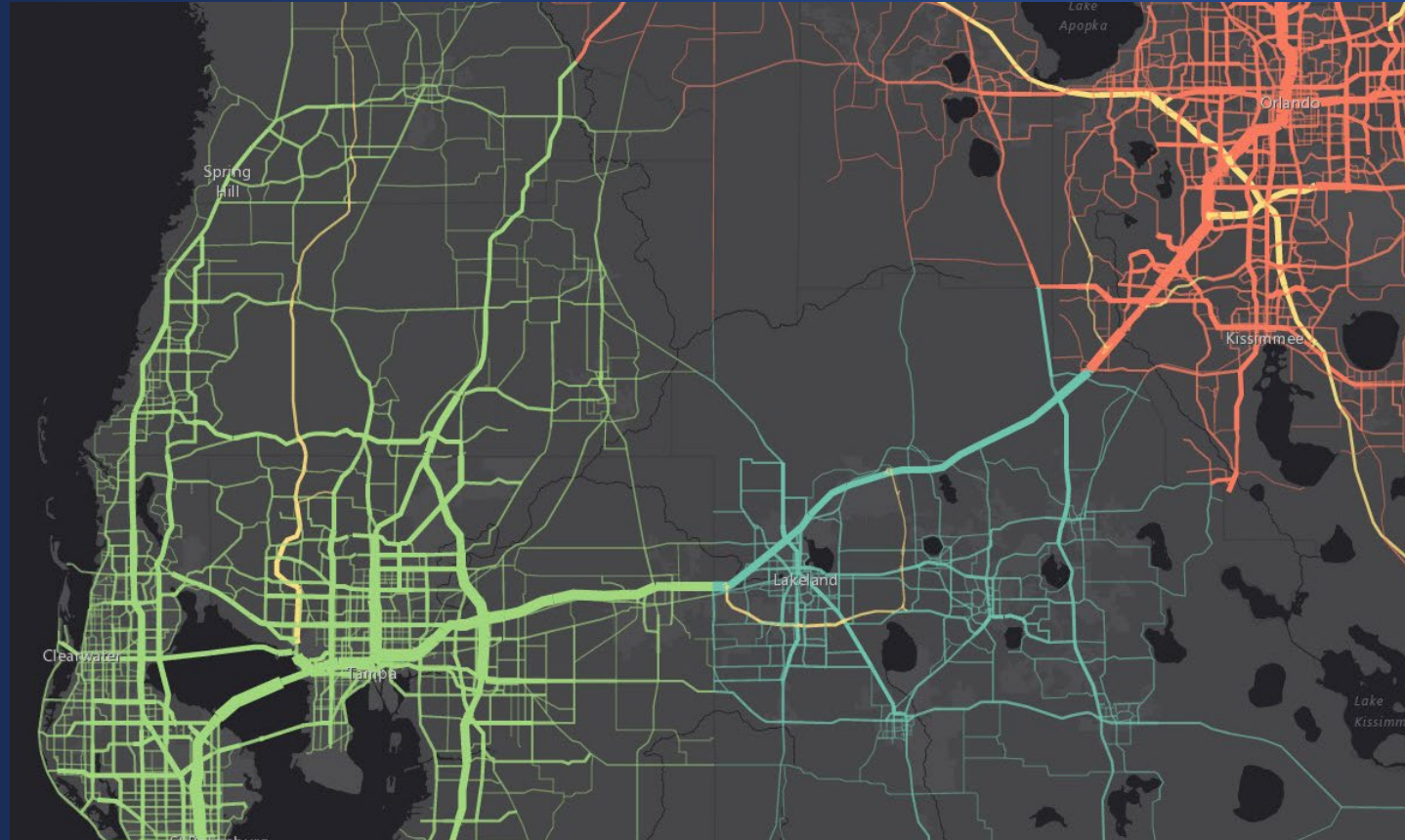
# Let the Data Speak for Itself

## Unique Symbols and Size

Mapping categorical data alongside meaningful numeric data

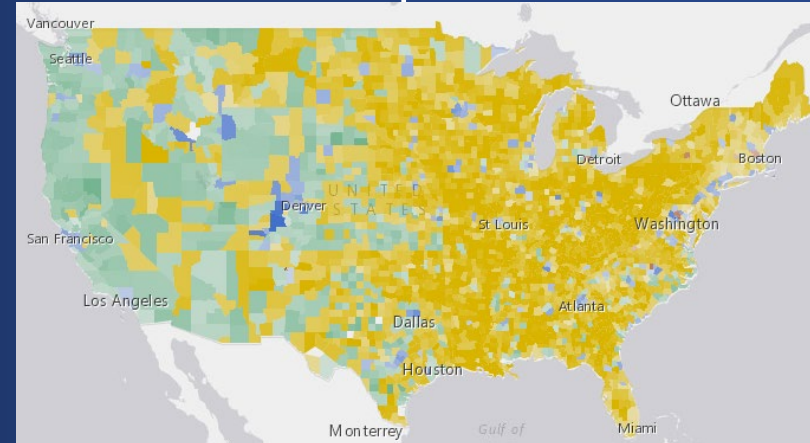
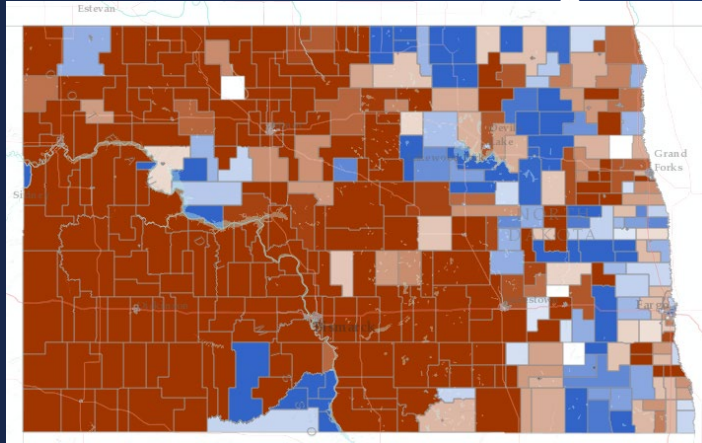
## Color and Size

Mapping two numeric attributes together

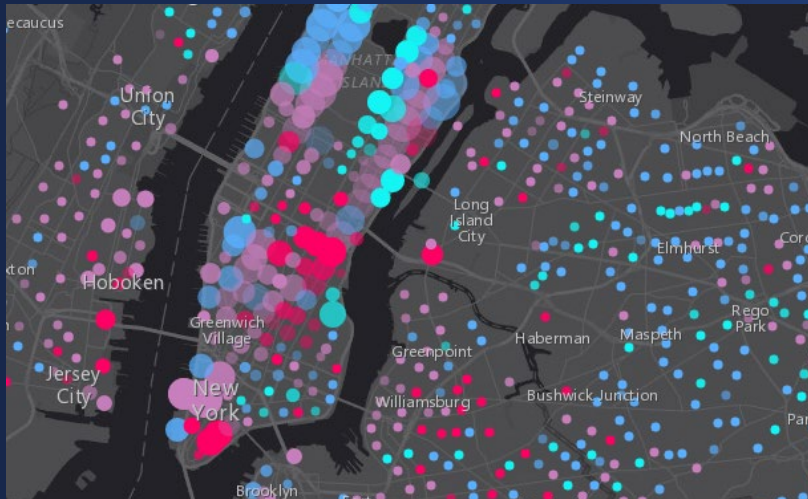


# Predominance

What is the largest value between multiple fields?



What is the sum value of those fields?

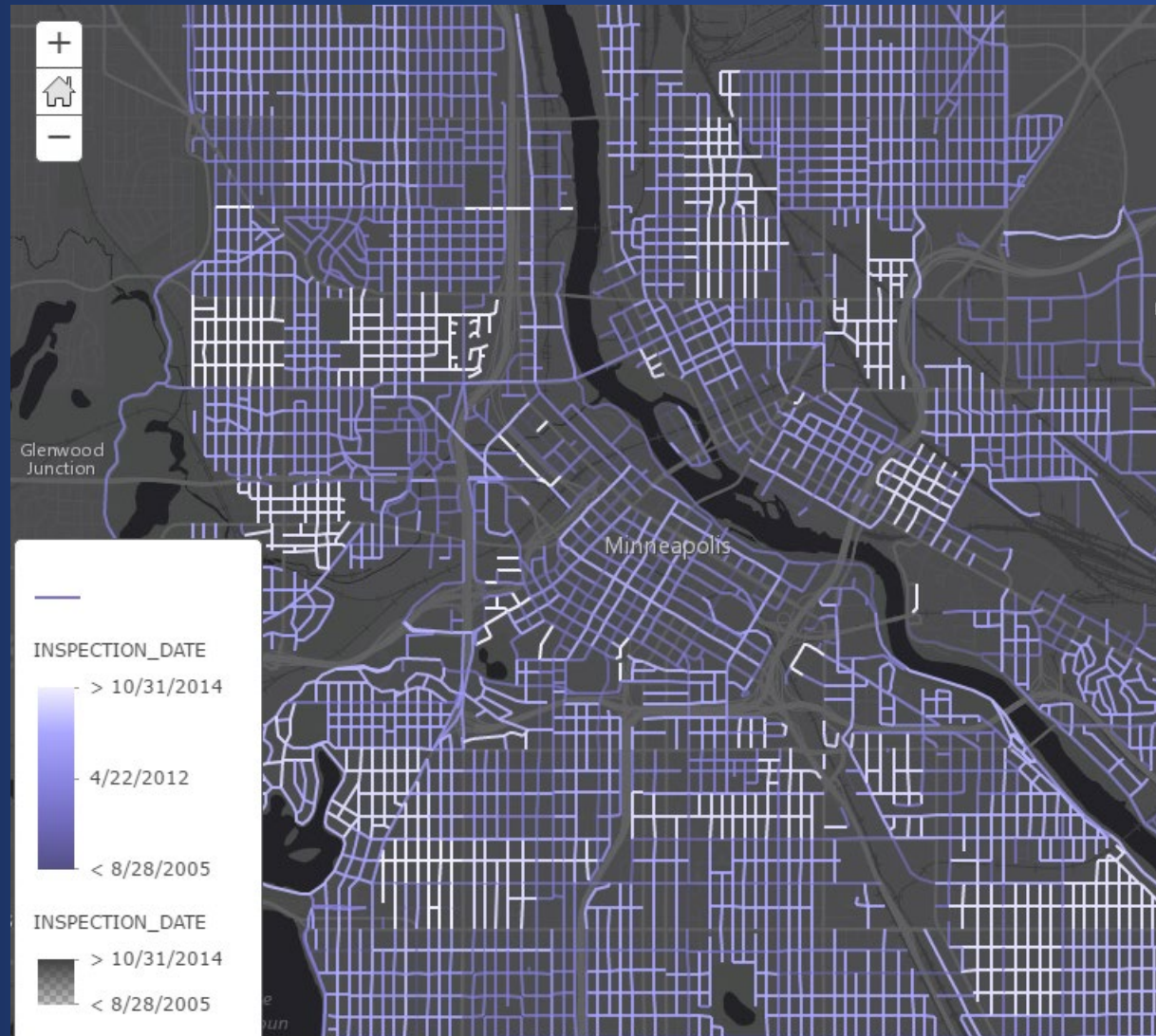




# Time

## Show patterns of time

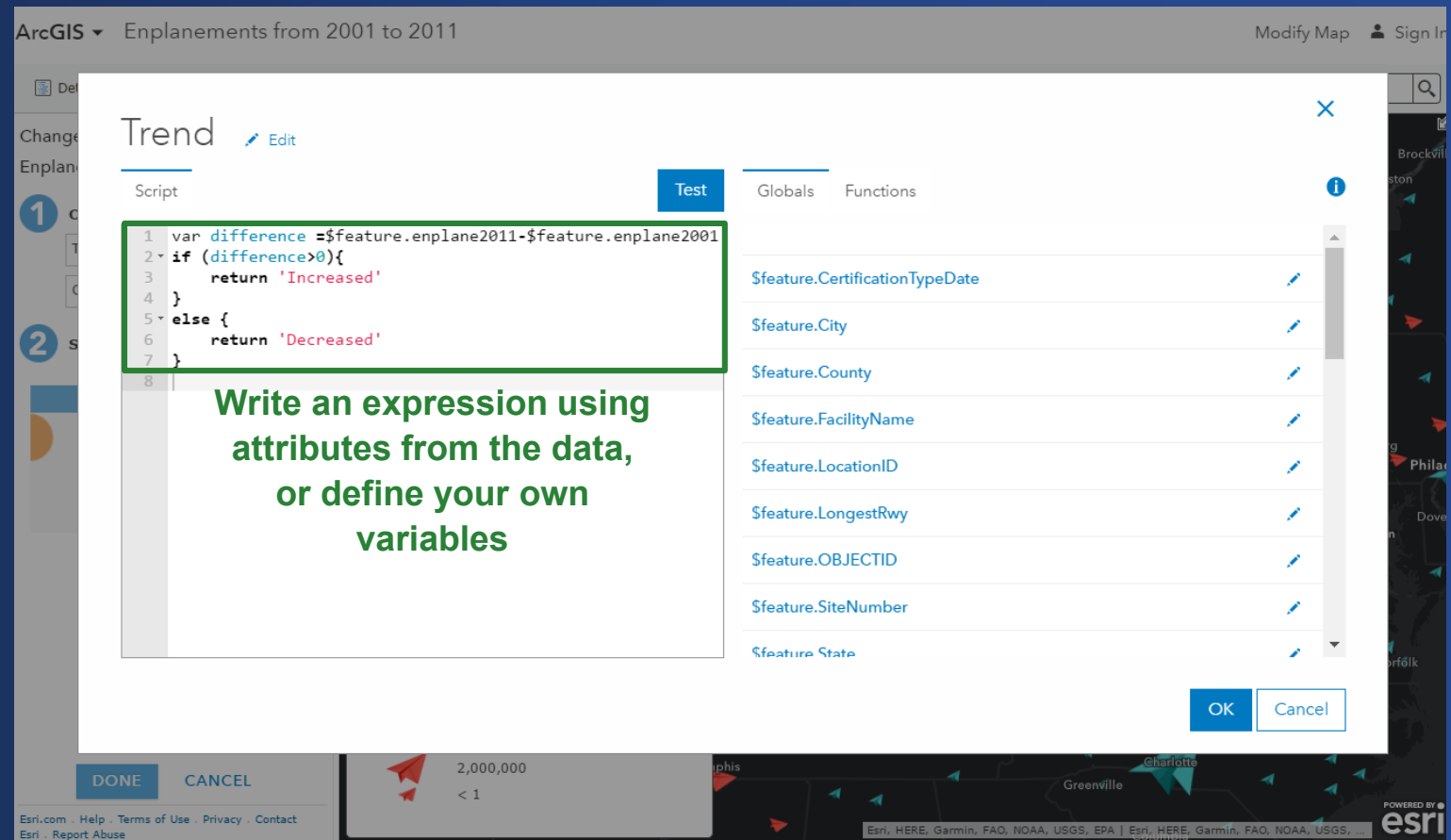
- Time over a continuous spectrum
- Time by age from a certain date
- Use time for the color or the size of the features



Continuous Time (color)

# Arcade Expressions

- Full customization
- Map attributes you don't have
- Calculate values on the fly (even if you don't own the layer!)
- Use in your symbology, transparency, pop-up, rotation, labels



**1 Choose an attribute to show**

Trend (Expression)

Change in Enplanements between 2001 and 2011 (Expression)

**Attribute Expressions**

Adding expressions allows you to create new information from existing fields for use in pop-ups.

**ADD**

Custom

☒ Rotate symbols (degrees)

Custom (Expression)

☐ Clockwise from 12

☒ Counterclockwise from 3

☒ Label Features

Text: Custom (Expression)

13 **B** *I* U

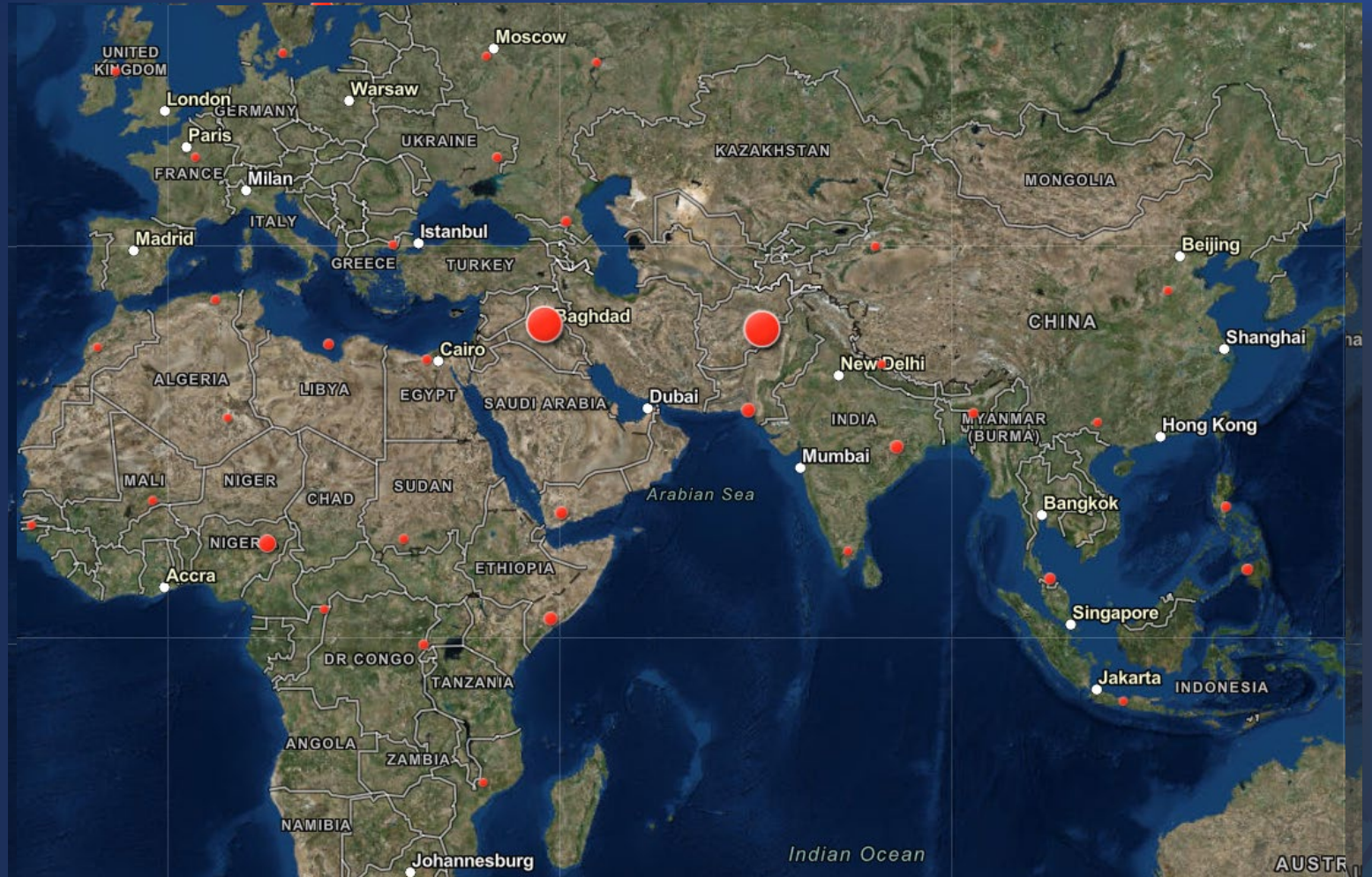
Apply transparency to each feature based on the attribute values in a field or an expression.

Field: Custom (Expression)



# Clustering

- Make it easier to visually extract meaningful information from large datasets
- Groups point features within a certain distance from each other
- Applied dynamically





# Resources

Check these out later!

[Change Style Help Pages](#)

[Smart Mapping](#)

[How to Smart Map series](#)

[6 Easy Ways to Improve Your Maps](#)

ArcGIS Online Help

Search ArcGIS Online Help

Home Get Started Create Analyze Share Administer Reference Apps

Create / Create maps / Change style

Choose basemap

Add layers

Change style

Style location

Style categories

Style numbers

Style time

Change Style reference

Configure pop-ups

Save maps

## Change style

Maps are powerful because they allow us to visualize our data in a variety of ways. For example, population data for countries can be visualized as a sequence of colors, such as from light-to-dark, or as proportional circles, such as from small-to-large. This flexibility allows us to tell different stories and discover hidden patterns depending on how the data is presented. But because map making is so flexible, it requires making decisions when there isn't always a single best answer.

Fortunately, the map viewer allows you to explore different styling options using smart mapping defaults. When you use **Change Style**, the nature of your data determines the **styling suggestions** you see by default. Once you have decided how you want to present your layer—for example, circles or colors to show population—you can make changes to its appearance that are immediately reflected on the map. The map viewer gives you control over graphic elements

In this topic

- [Change Style workflow](#)
- [Change Style quick reference](#)

esri Industries Products Support & Services About Community

## ARC GIS BLOG

Search posts

### 6 Easy Ways to Improve Your Maps

by Lisa Berry on April 12, 2016

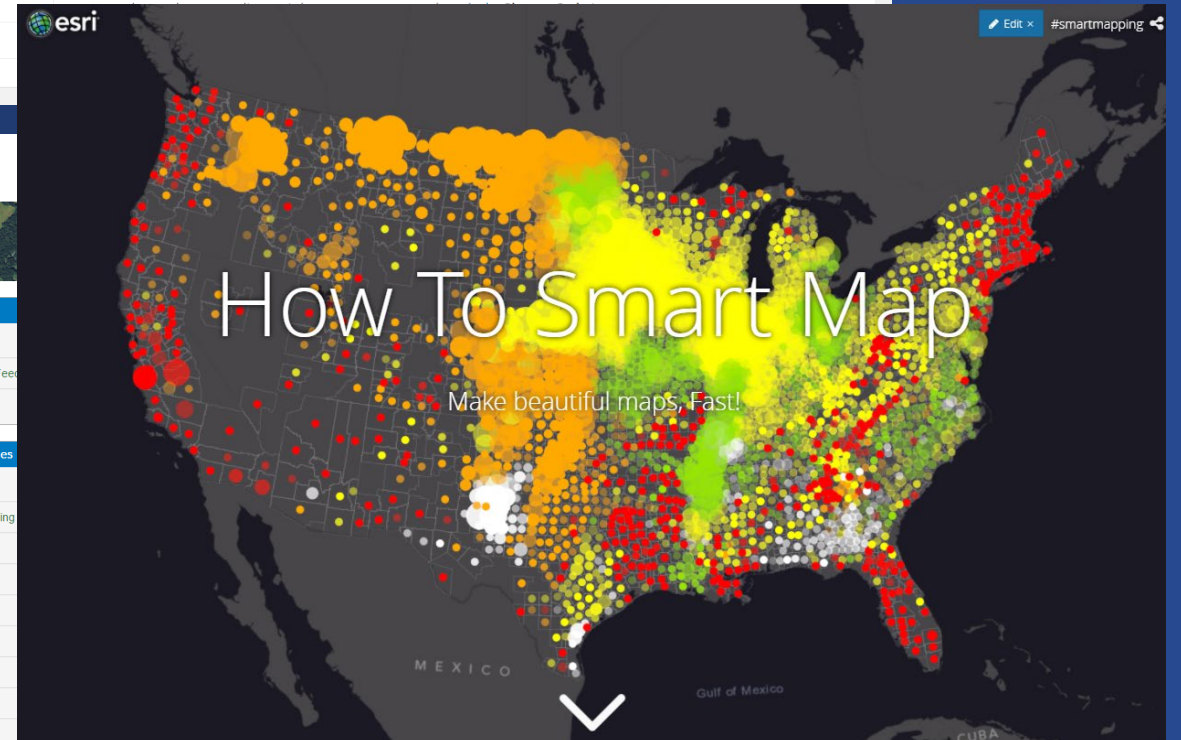
Share 15 Tweet 31 Share 349

ArcGIS allows you to explore your data and make useful maps of it. When you choose "Change Style" in ArcGIS Online or Portal for ArcGIS map viewer, smart mapping analyzes your data, and provides suggestions based on the fields and values within your data. These defaults can help you produce an effective map quickly, but if you have a few more minutes to adjust, you can make some subtle changes that reveal and enhance the story hidden within your data.

Here are some tips and tricks for getting the most out of your smart mapping experience:

#### 1) Think About Color

ArcGIS contains many basemap-specific color ramps to help showcase your data, many of which are color-blind friendly. When switching the basemap, smart mapping automatically suggests a color ramp suitable for the basemap you select. Designed to draw focus to your data, the Light and Dark Gray Canvas basemaps are a good place to start. To enhance your story, choose an alternative color ramp that matches the context of your data. For example, the following map shows change in water usage in Atascadero, CA after the California governor proclaimed a 25% necessary reduction in water usage. Areas in **blue** used more water after a year, while the areas in **brown**





esri

THE  
SCIENCE  
OF  
WHERE



# Print Your Certificate of Attendance

Print Stations Located at L Street Bridge

## Tuesday

12:30 pm – 6:30 pm

**GIS Solutions Expo**

**Hall D**

5:15 pm – 6:30 pm

**GIS Solutions Expo Social**

**Hall D**

## Wednesday

10:45 am – 5:15 pm

**GIS Solutions Expo**

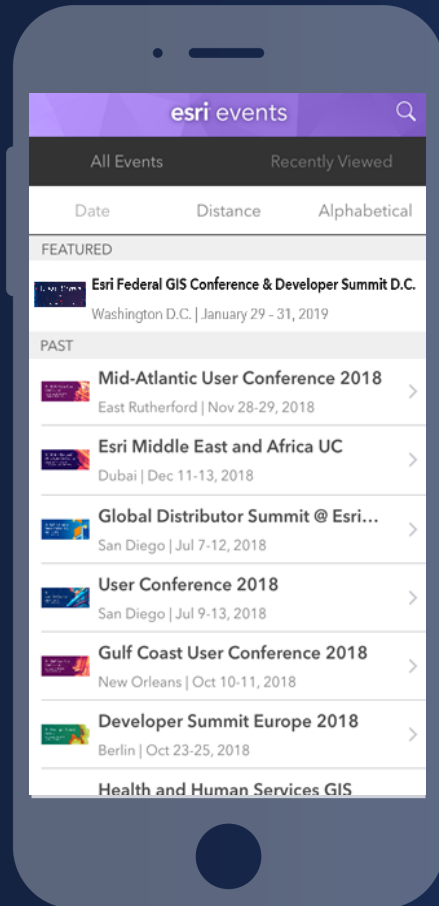
**Hall D**

6:30 pm – 9:00 pm

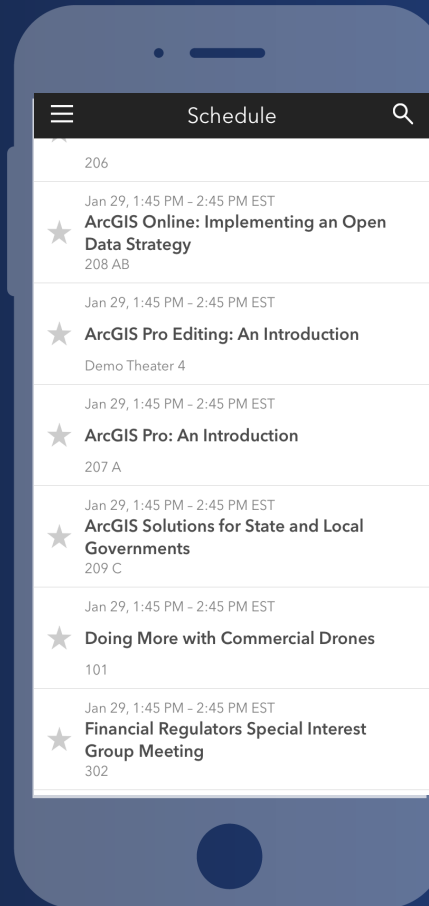
**Networking Reception**

# Please Take Our Survey on the App

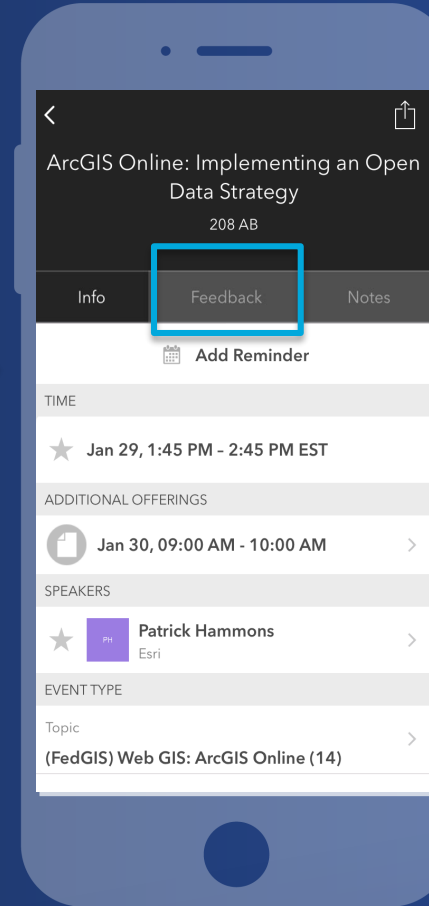
Download the Esri Events app and find your event



Select the session you attended



Scroll down to find the feedback section



Complete answers and select "Submit"

