# MAPPING CRIME RATES

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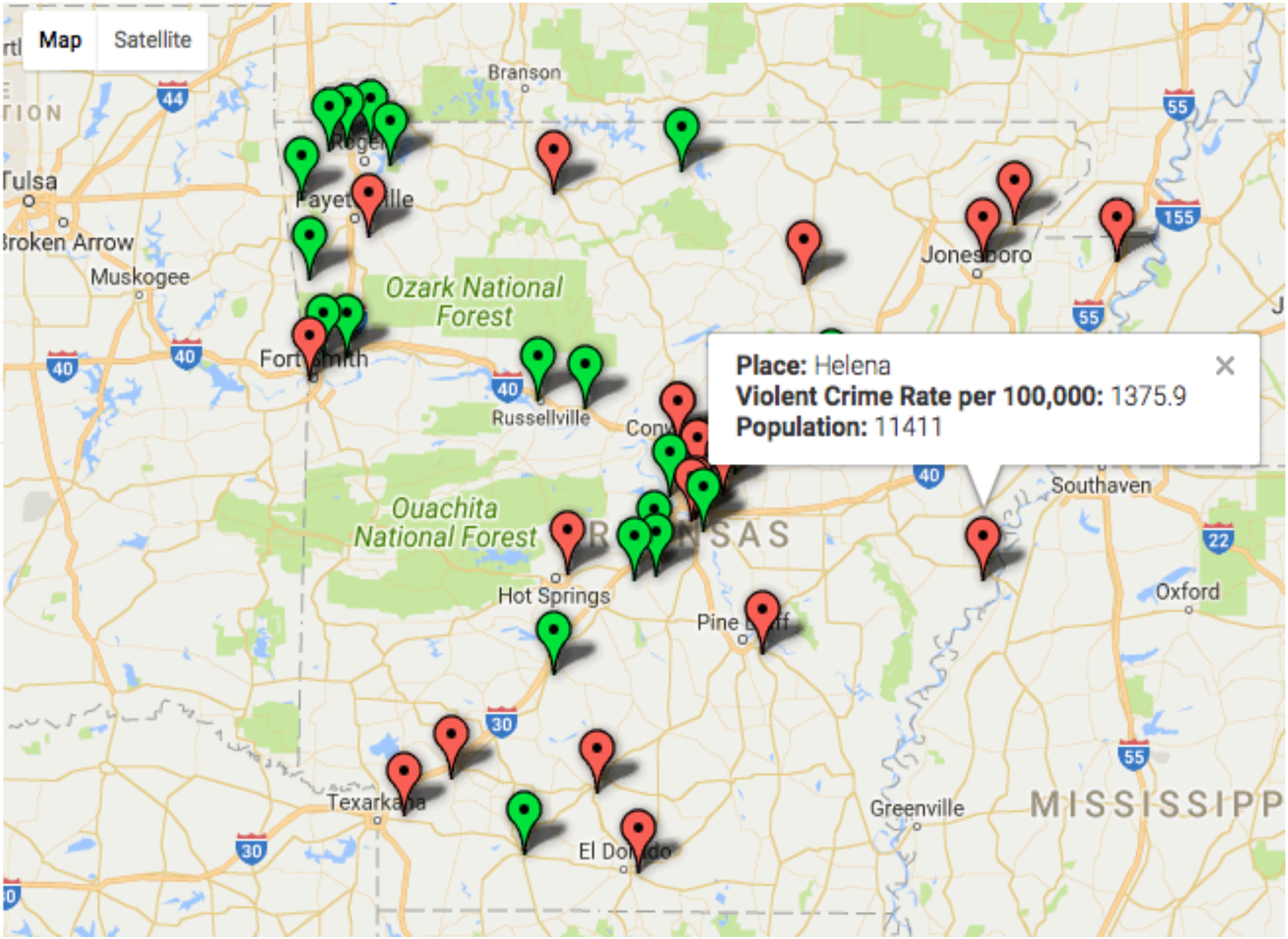

Map
Satellite
Branson
Tulsa
Broken Arrow
Muskogee
Fayetteville
Ozark National Forest
Fort Smith
Russellville
Jonesboro
Place: Helena
Violent Crime Rate per 100,000: 1375.9
Population: 11411
Ouachita National Forest
Hot Springs
Pine Bluff
Southhaven
Oxford
Texarkana
El Dorado
Greenville
MISSISSIPP

# Today's Class

1. FBI Unified Crime Report Data – What Is It?
2. Calculate A Crime Rate
3. Build an Awesome Map With Google Fusion Tables
4. **Revel in Our New Powers**

# Get The Stuff

http://bit.ly/2EVdJ5n

# FBI UCR Data for Arkansas cities:

https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/tables/table-8/table-8-state-cuts/arkansas.xls

1) Offenses Known to Law Enforcement
2) City Agency (Table 8)
3) Arkansas
4) Download to Excel

# Best Practices

Interviewing Data

Data Nerd Table

Read “Data Declaration”

What is in and What is **NOT** in this data?

# Data Nerd Table

"Data Declaration"

- **What could skew crime statistics?**

# FBI on Limits of UCR Data

- Voluntary Guidelines
- Not All Locales Report
- Not all Locales Are the Same – St. Louis is City/County
- Data users should not rank locales because there are many factors that cause the nature and type of crime to vary from place to place.
- Rankings ignore the uniqueness of each locale.
- Since crime is a sociological phenomenon influenced by a variety of factors, the FBI discourages ranking the agencies and using the data as a measurement of law enforcement effectiveness.

# FBI: Factors to Consider

- Population density and degree of urbanization.
- Variations in composition of the population, particularly youth concentration.
- Stability of the population with respect to residents' mobility, commuting patterns, and transient factors.
- Economic conditions, including median income, poverty level, and job availability.

# LOOK

# AT THE

# DATA

# Calculate a Crime Rate

Little Rock Has How Many Crimes?

Little Rock Has How Many People?

# Calculate a Crime Rate

## Per Capita Rates Level The Playing Field

--Example: 2.5 million people & 80,000 crimes.

--Divide: 80,000/2.5 million = 0.032 crimes per person.

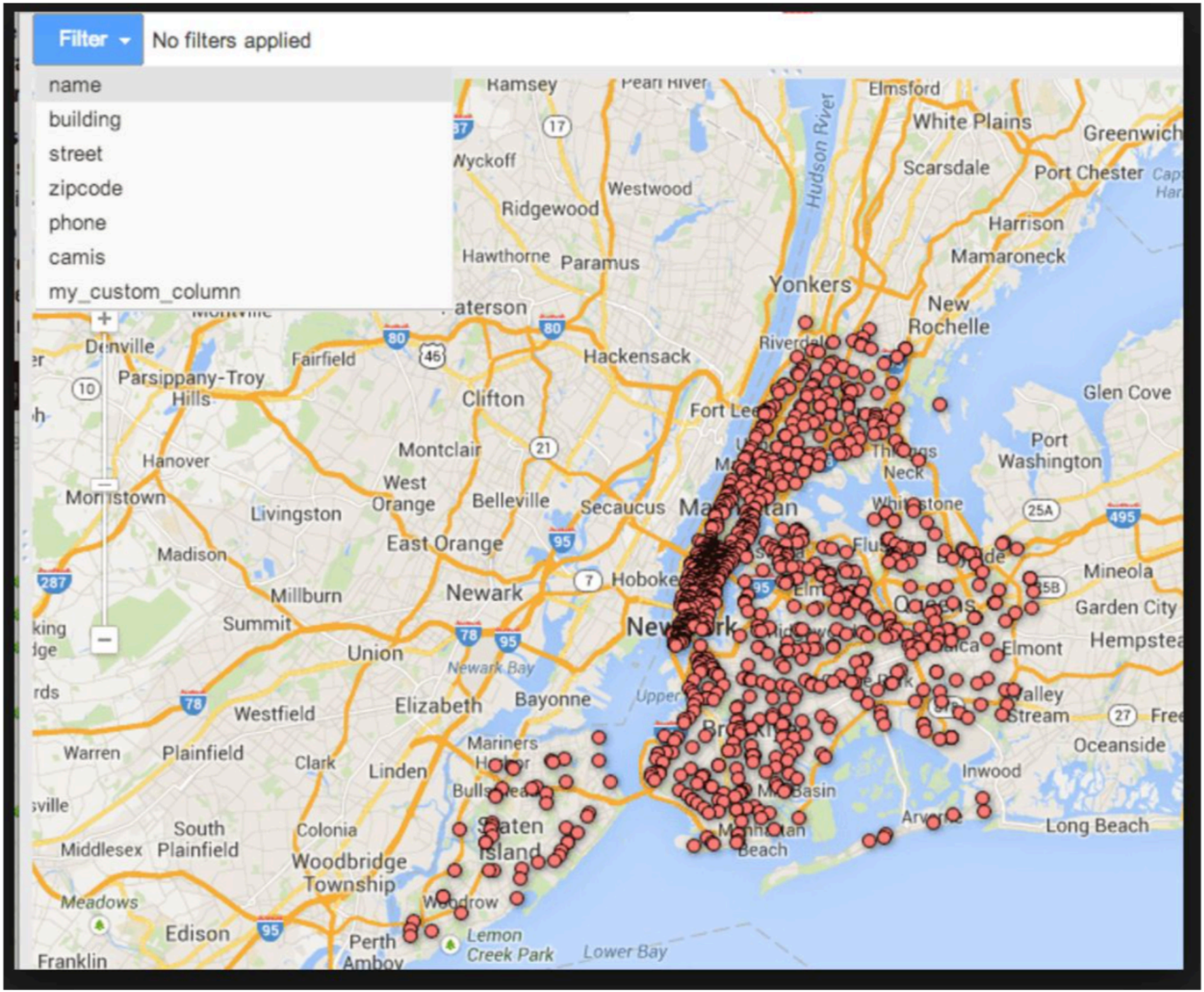
--Multiply 0.032 rate x 1,000 and you get:

**32 crimes per 1,000 people**

# Let’s Map This Sucker

# Fusion Tables basics

App you can install in Google Drive (fusiontables.google.com)
Create embeddable, updatable maps from a single spreadsheet or two or more tables that relate to each otherPoint maps or choropleth maps (aka heat map) with customizable colors, markers, info windows
Basic FT easy to learn, larger curve to use developer tools

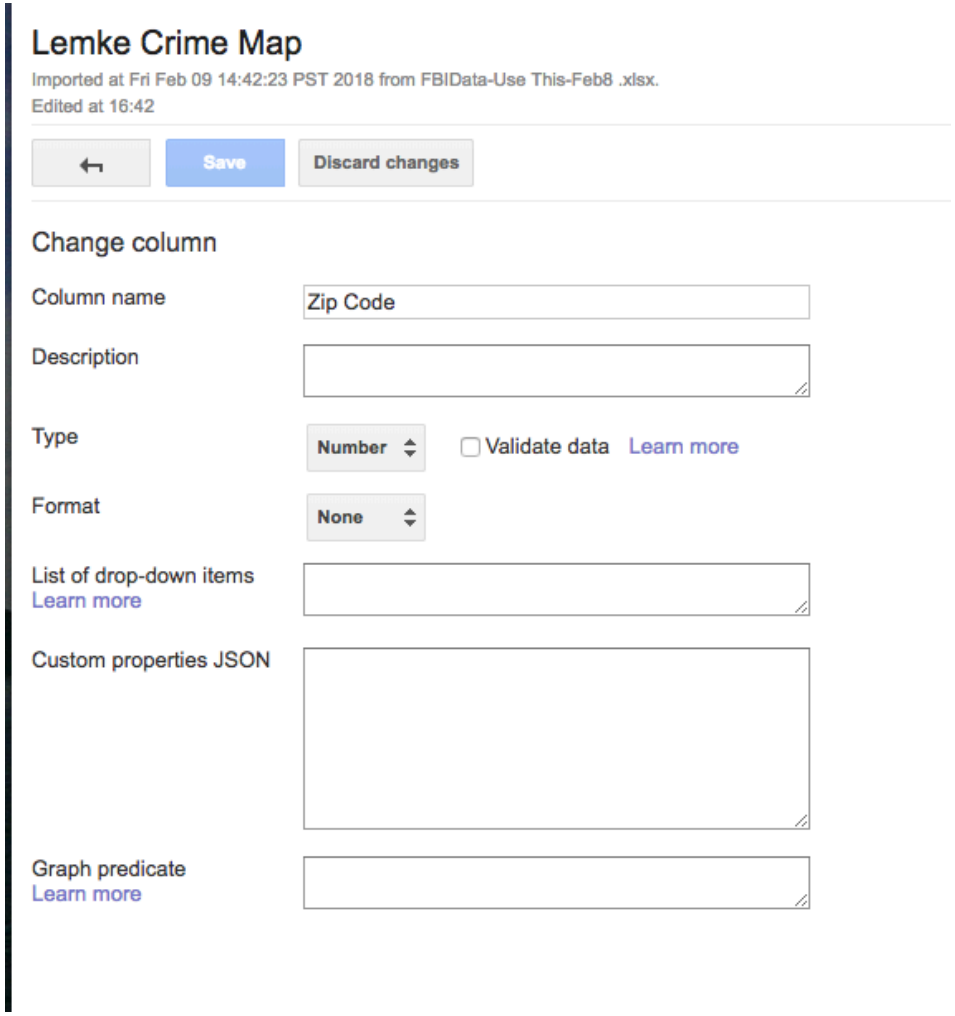

Filter
No filters applied
name
building
street
zipcode
phone
camis
my_custom_column
Ramsey
Pearl River
Elmsford
White Plains
Greenwich
Hudson River
Nyckoff
Westwood
Ridgewood
Scarsdale
Port Chester
Harrison
Hawthorne
Paramus
Mamaroneck
Yonkers
New Rochelle
Denville
Fairfield
Hackensack
Parsippany-Troy Hills
Clifton
Glen Cove
Fort Lee
Port Washington
Montclair
Hanover
Neck
West Orange
Belleville
Secaucus
Morristown
Livingston
East Orange
Madison
Mineola
Garden City
Millburn
Newark
Hoboken
Summit
Union
Newark Bay
Elmont
Hempstead
Elizabeth
Bayonne
Westfield
Valley Stream
Warren
Plainfield
Clark
Linden
Mariners Harbor
Oceanside
Inwood
Bull's Head
Jamaica Bay
South Plainfield
Middlesex
Colonia
Staten Island
Long Beach
Woodbridge Township
Meadows
Woodrow
Edison
Perth Amboy
Lemon Creek Park
Lower Bay
Franklin

# First: Can I map my data?

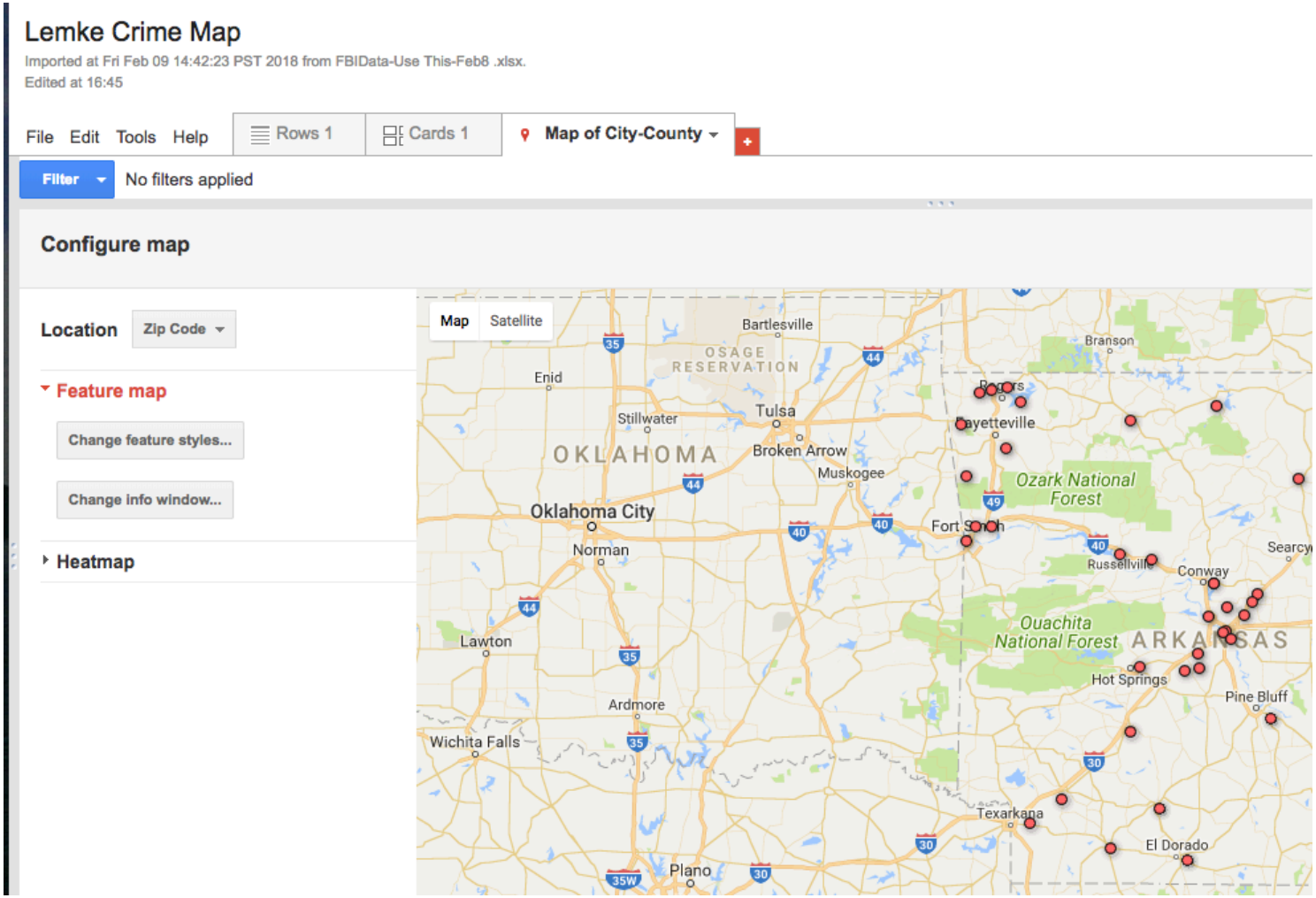
For a point map:

- Must have addresses, including city, state, zip
- Addresses need to be fairly clean and specific
- Even better if it includes exact latitude, longitude

# Change the Zip Code to Location



# Change Location to Zip Code



## Change info window layout

Automatic | Custom

Select the columns to include in your map's info window.

- [x] City-County
- [ ] Zip Code
- [ ] State
- [ ] Agency
- [x] Population
- [ ] Violent crime total
- [x] Violent Crime rate per 100000
- [ ] Murder and nonnegligent Manslaughter
- [ ] Revised rape /2
- [ ] Robbery
- [ ] Aggravated assault
- [ ] Property crime total
- [ ] Burglary
- [ ] Larceny-theft
- [ ] Motor vehicle theft

```
<div class='googft-info-window'>
<b>City-County:</b> {City-County}<br>
<b>Population:</b> {Population}<br>
<b>Violent Crime rate per 100000:</b> {Violent Crime rate per 100000}
</div>
```

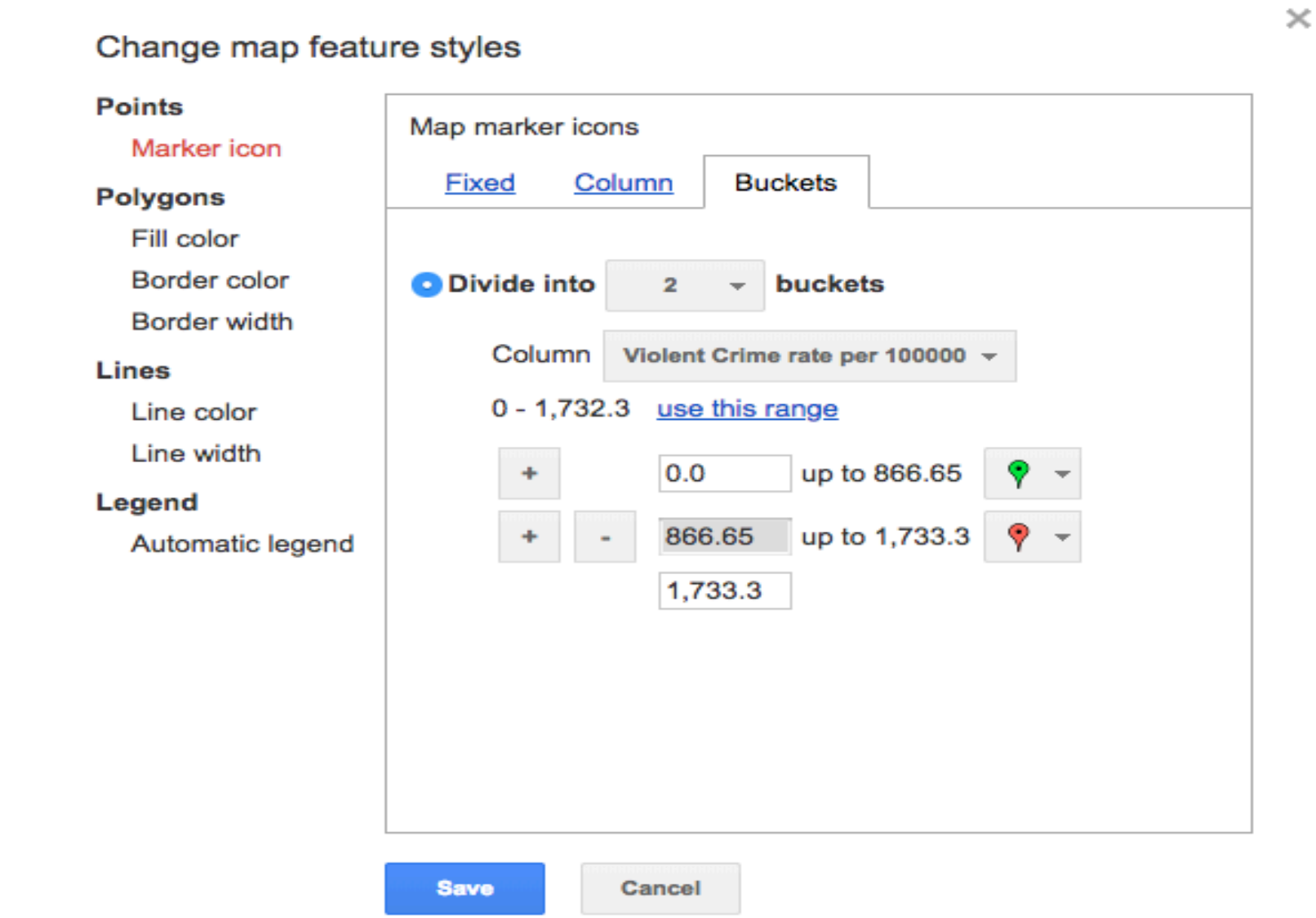
Save | Cancel

# Filters

- Violent Crime Rate:
- Under 100
- Over 1,000
- Average: 487

- Add Population
- Under 20,000
- Average: 62,000

# Buckets


Change map feature styles
Points
Marker icon
Polygons
Fill color
Border color
Border width
Lines
Line color
Line width
Legend
Automatic legend
Map marker icons
Fixed
Column
Buckets
Divide into
2
buckets
Column
Violent Crime rate per 100000
0 - 1,732.3
use this range
+
0.0
up to 866.65
+
-
866.65
up to 1,733.3
1,733.3
Save
Cancel

# 866?

- What is the Median Crime Rate?
- Median Population?

REVEL IN YOUR NEW POWERS