Data Storytelling Studio

maps and creative maps

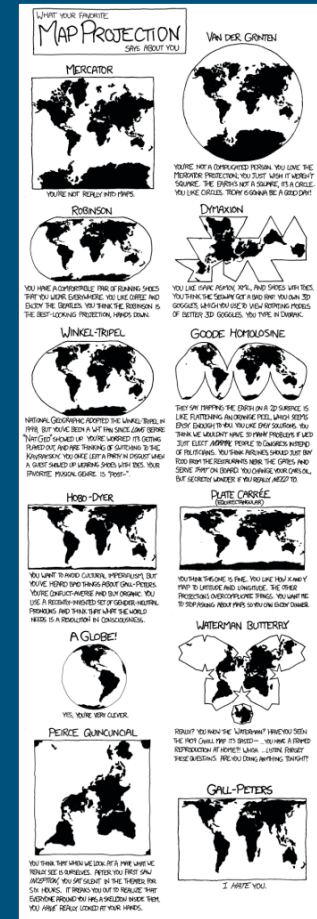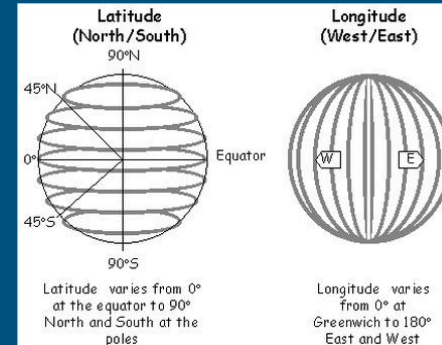CMS.631/831
Rahul Bhargava

Agenda

- [15] Fundamental Concepts / Readings

- [15] Teach to Learn sharing

- [30] Inspirational examples

- [15] Tools

- [15] Datasets and team-forming

Fundamental Concepts

Technical Concepts

- Earth is a bumpy egg

- Latitude, Longitude (decimal vs. degrees, minutes, seconds)

- Projections (making the world flat)

- Layers, Points, Polygons

- Various formats for storing info:

  - Shapefiles, GeoJSON, KML, TopoJSON

- Base Layers:

  - Google Maps, OpenStreetMap, Stamen

- Tiles vs. Vectors

Wikipedia
Public domain image.

Map Projections   XKCD

Maps are Political

The West Wing

Notes:

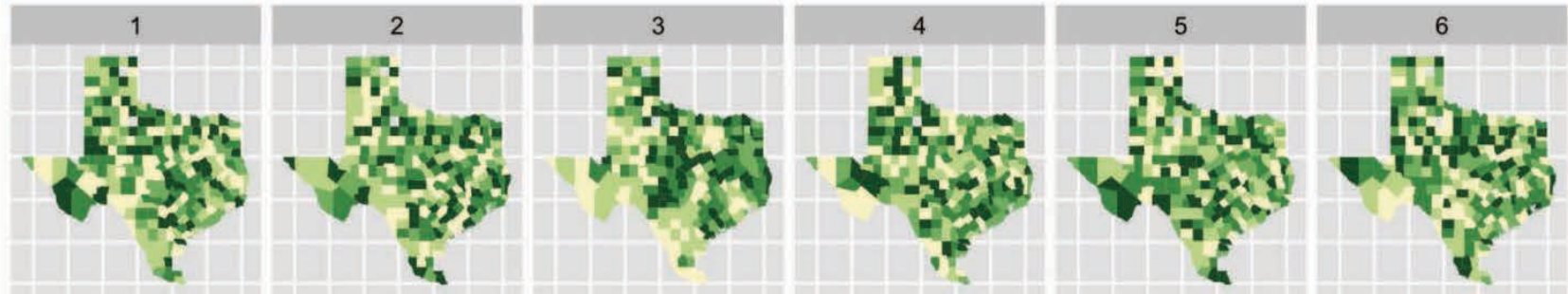"The Map is the perfect symbol of the state." - Mark Monmonier (How to Lie With Maps)

ThenMaps is a nifty tool for time-travelling…

But authorship is no longer a privilege!

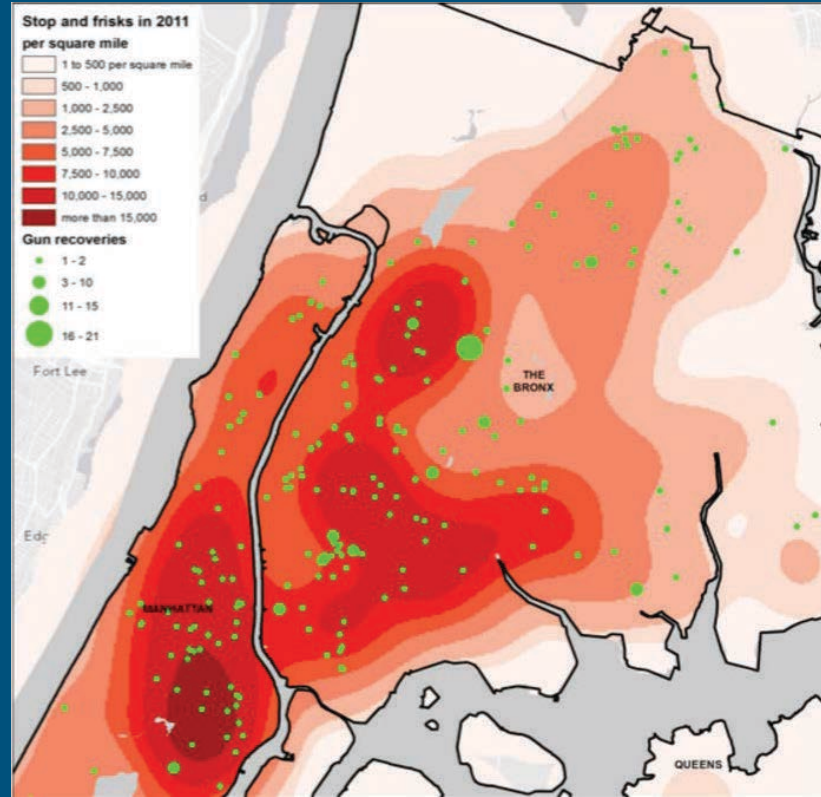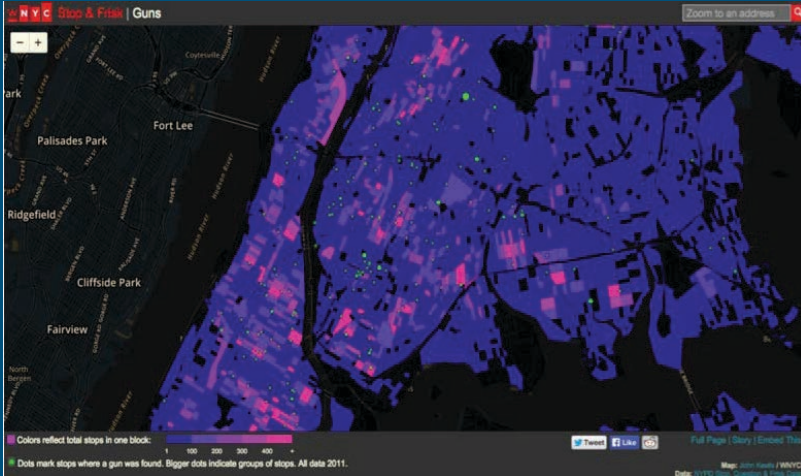# Graphical Inference for Infovis

Hadley Wickham, Dianne Cook, Heike Hofmann, and Andreas Buja

Hadley Wickham, Dianne Cook, Heike Hofmann, and Andreas Buja. 2010. "Graphical inference for infovis." *IEEE Transactions on Visualization and Computer Graphics* 16, 6 (2010), 973–979. DOI:http://dx.doi.org/10.1109/TVCG.2010.161 (PDF)

Design Decisions

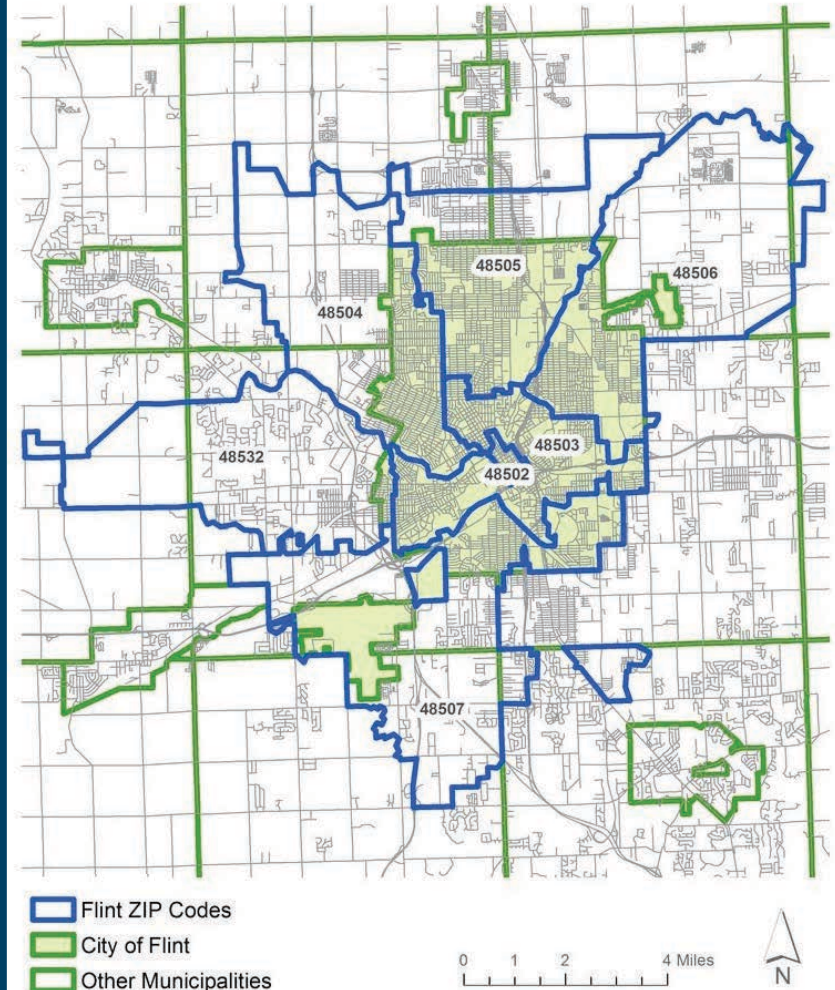
Jake Porway. 2016. The Trials and Tribulations of Data Visualization for Good. Markets For Good (March 2016).
Courtesy of Jake Porway. Licence CC BY NC.

Choose Your Polygons Wisely

Richard Casey Sadler. "How ZIP codes nearly masked the lead problem in Flint." *The Conversation.* September 19, 2016.

Misalignment between Flint ZIP Codes and City of Flint

Flint ZIP Codes
City of Flint
Other Municipalities

Readings

Teach to Learn

Mapping in Tableau and Carto

- Find a partner that used the tool you didn't

- Take turns spending 7 minutes showing them how it works

  - *Interrupt a lot with questions*

- Switch

Inspirations

Traditional Maps

A visual representation of a set of geographic features based on their physical aspects.
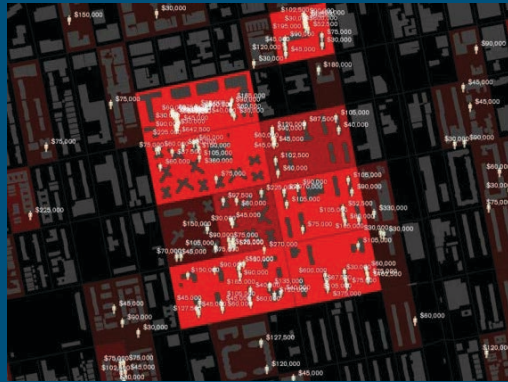
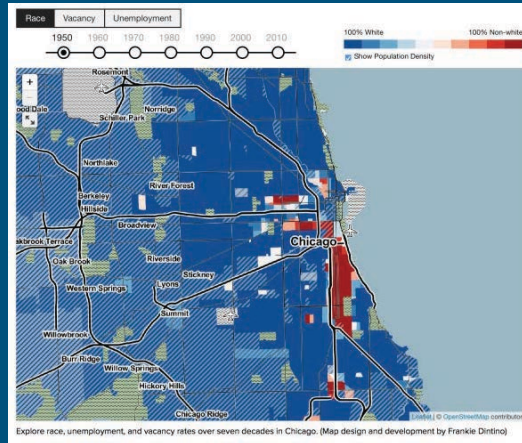*choropleth maps, dot maps, etc*

Creative Maps

A visual representation of a set of geographic features based on some attributes you specify.

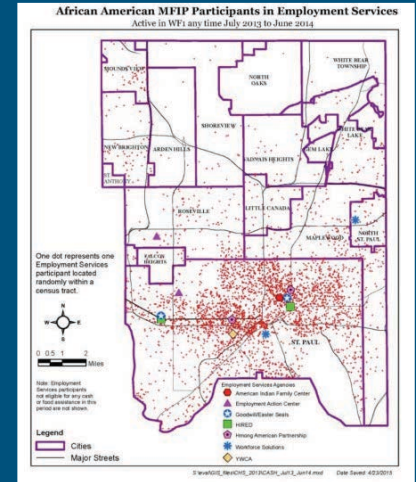*cartogram, altered maps, etc*

Inspirations: Traditional Maps

Spatial Image Design Lab

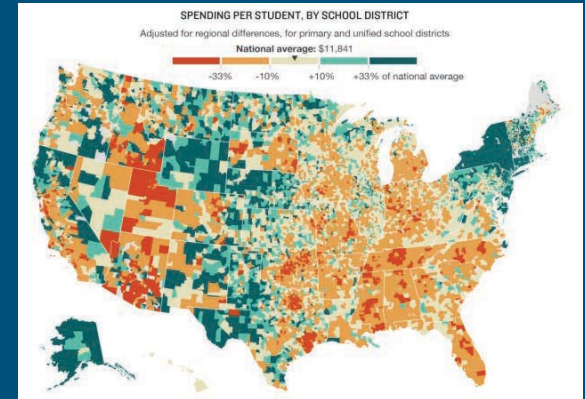The Case for Reparations *Ta Nehisi Coates* (The Atlantic)

Bleeding Infestation *Stephanie Evergreen*
Courtesy of Mark Herzfeld. Used with permission.

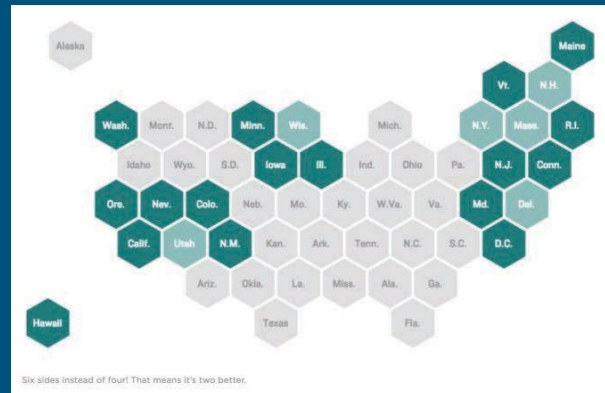Why America s School have a Money Problem (NPR)

Inspirations: Creative Maps
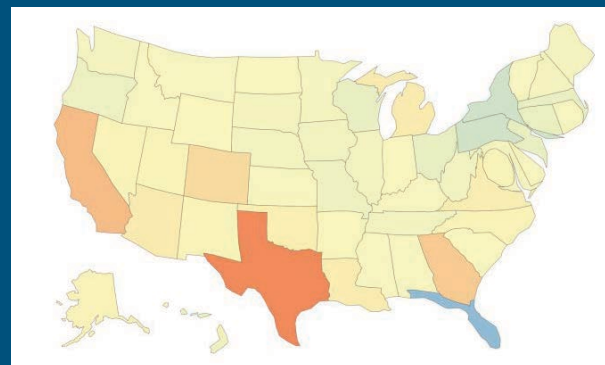

Geography of Incarceration
Josh Begley

Redlining in Real Life
Jamaica Plain News

The Archipelago of Palestine
Julien Bousac

Let s Tessellate   *Danny DeBelius (NPR)*

Cartograms in d3.js *Shawn Allen (Stamen)*

Tools

easy to learn

ColorBrewer

Google Maps

snapsat

CartoDB
Tableau

does lots of things   *does one thing*

Mapbox
TileMill

StoryMap

heatmap.js

Leaflet

DataMaps

QGIS   ArcGIS

Kartograph

hard to learn

tools for making maps

Datasets

Somerville Tree Data

New York City Tree Data

Bee Colony Data (2017, historical)

NStar Gas Data leaks

NASA Artic Sea Ice (csv or geo)

Team Forming

Find people to work with

What do you know?

What do you want to make?

What dataset are you interested in?

CMS.631 Data Storytelling Studio: Climate Change
Spring 2017