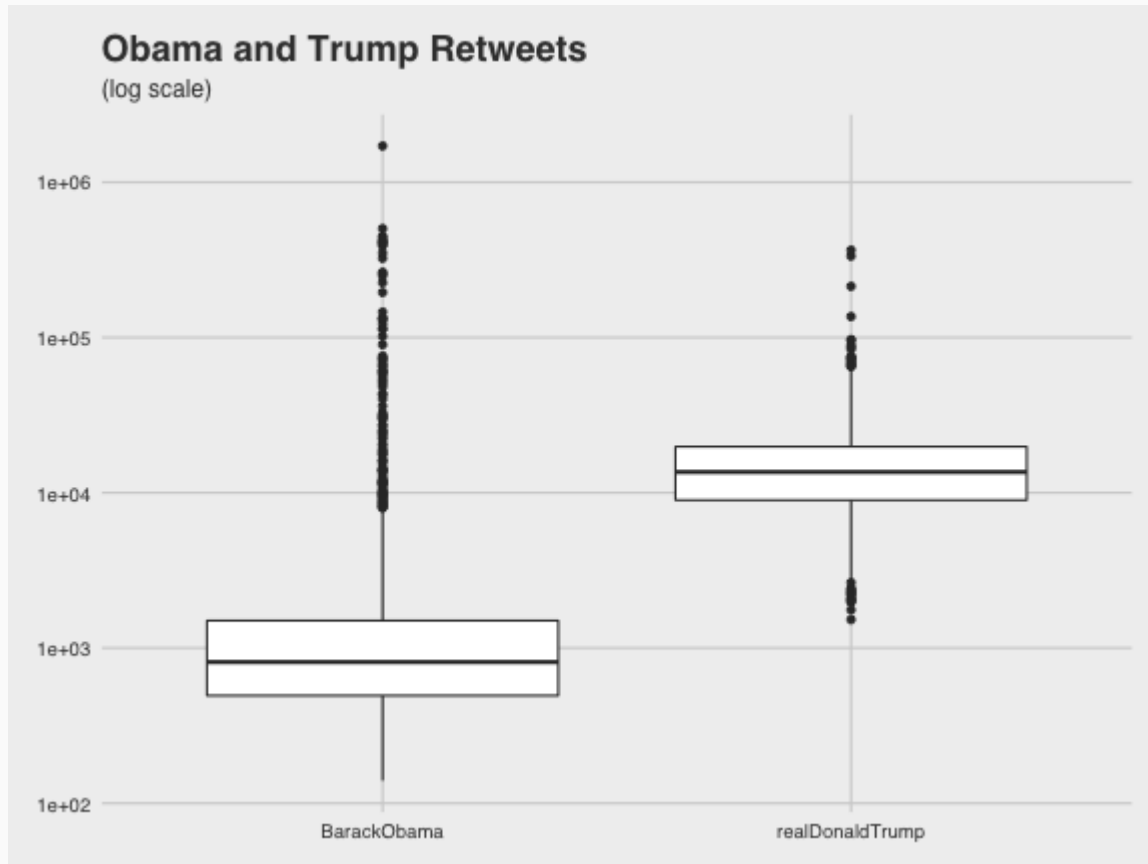
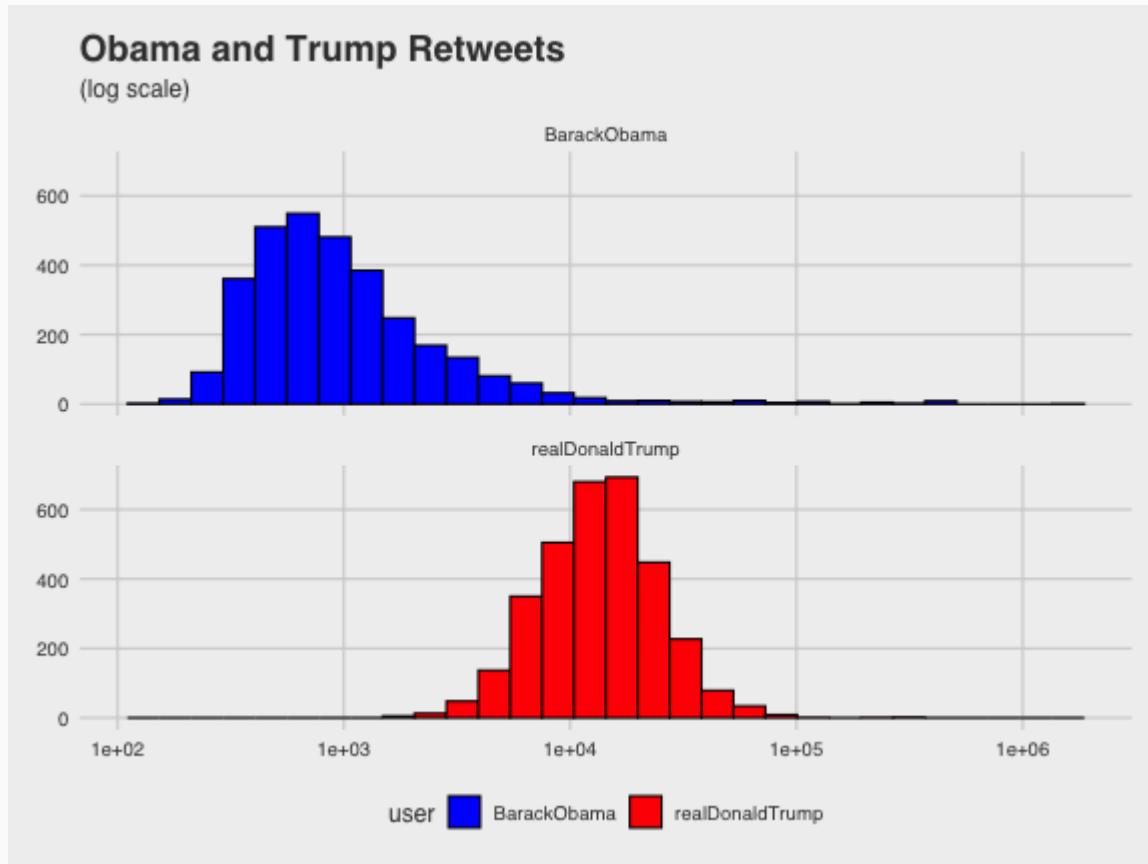


# Data Visualization in Practice

# Fine-tuning graphics



# Fine-tuning graphics

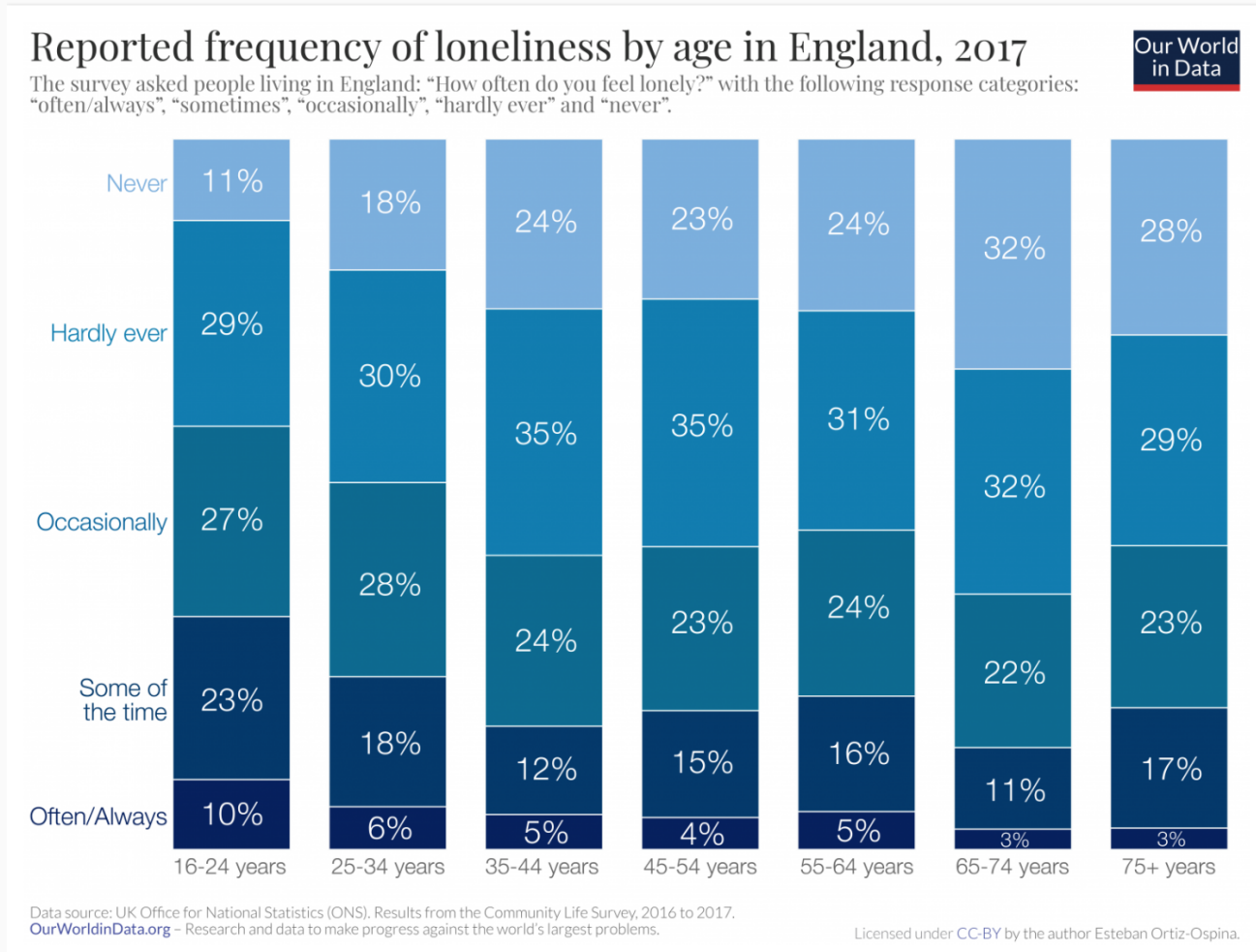


# Lessons in Practical Data Viz

1. Compare multiple `geoms` to see which one captures best the structure you're looking to emphasize.
2. Add clear/informative axis labels (or titles).
3. Think carefully about your scales (log-transform, palettes)
4. Don't be constrained by your code - ask for help!

# Your turn

Sketch the data frame and code that would create:



# Lessons in Practical Data Viz

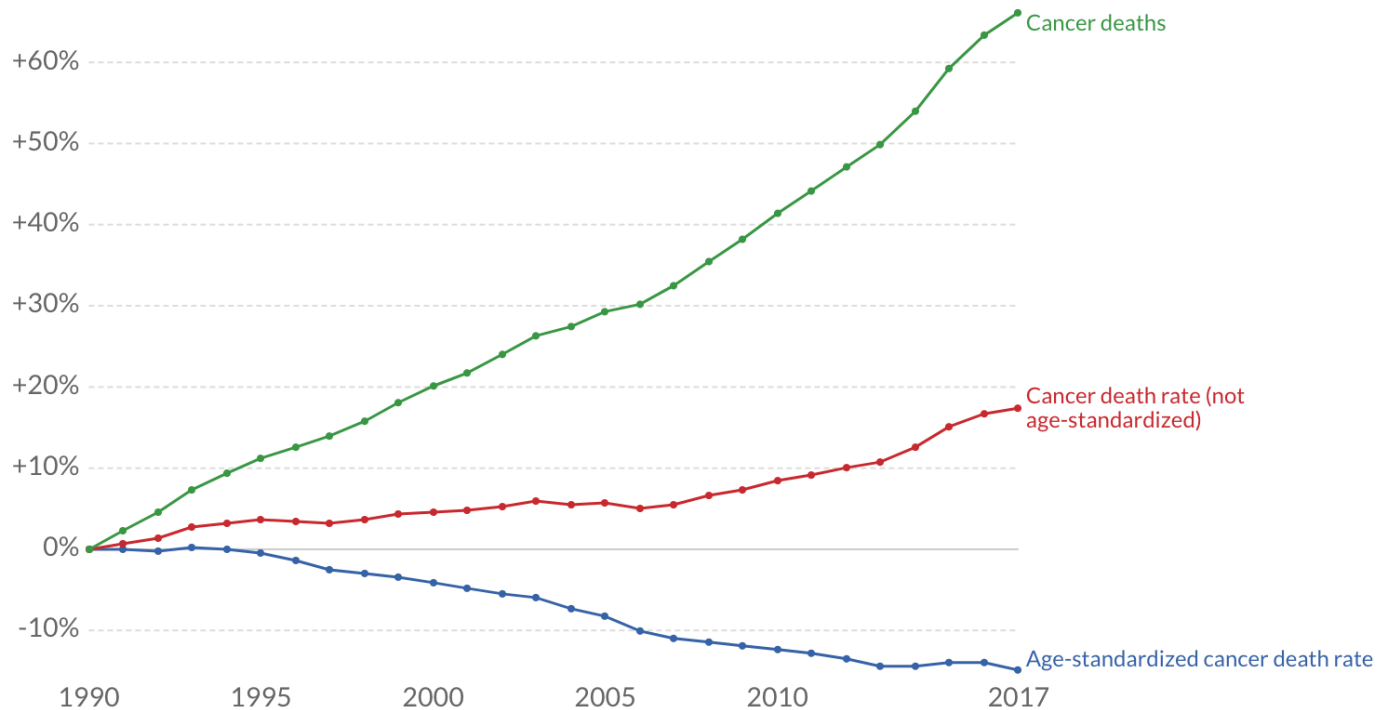
1. Compare multiple `geoms` to see which one captures best the structure you're looking to emphasize.
2. Add clear/informative axis labels (or titles).
3. Think carefully about your scales (log-transform, palettes).
4. Don't be constrained by your code - ask for help!
5. Be sure you understand - and faithfully convey - the unit of obs.
6. Use the taxonomy of data to guide your viz.

# Which line is the most meaningful?

## Change in three measures of cancer mortality, World

This chart compares cancer deaths, the cancer death rate, and the age-standardized death rate.

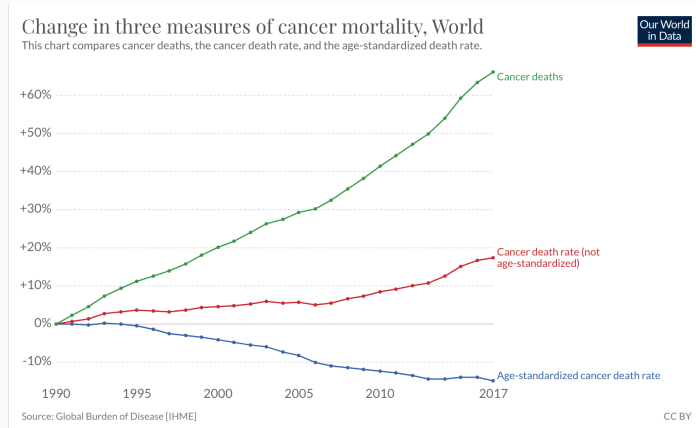
Our World  
in Data



Source: Global Burden of Disease [IHME]

CC BY

# Which line is the most meaningful?



**Cancer Deaths:** sheer number of people that have died each year of cancer worldwide relative to the number in 1990.

**Cancer Death Rate:** number of people that die of cancer in a year divided by global population.

**Age-standardized Death Rate:** adjusts the death rate to account for changes in the age-demographics.



# Trump's Boom



**Donald Trump**

stated on February 4, 2020:

**"Years of economic decay are over" because Trump "reversed the failed economic policies of the previous administration."**

ECONOMY

JOBS

 DONALD TRUMP



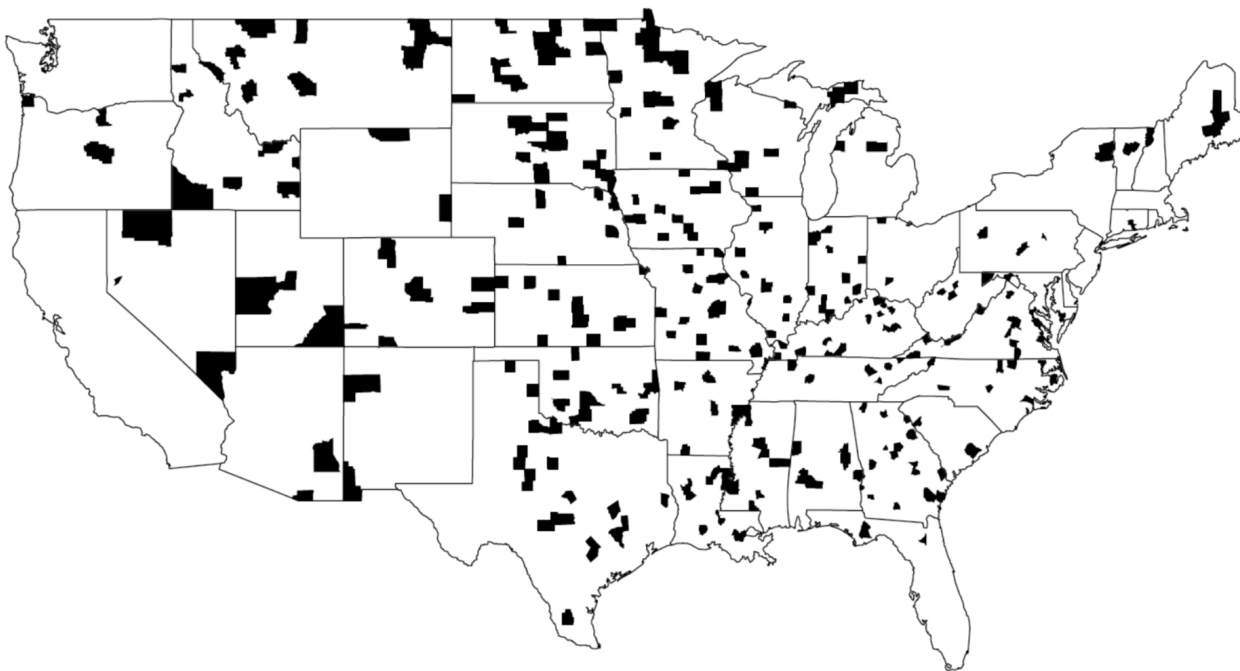
# Trump's Boom

# Lessons in Practical Data Viz

1. Compare multiple `geoms` to see which one captures best the structure you're looking to emphasize.
2. Add clear/informative axis labels (or titles).
3. Think carefully about your scales (log-transform, palettes).
4. Don't be constrained by your code - ask for help!
5. Be sure you understand the unit of observation.
6. Use the taxonomy of data to guide your viz.
7. Context effects interpretation: normalize data, don't cherry pick

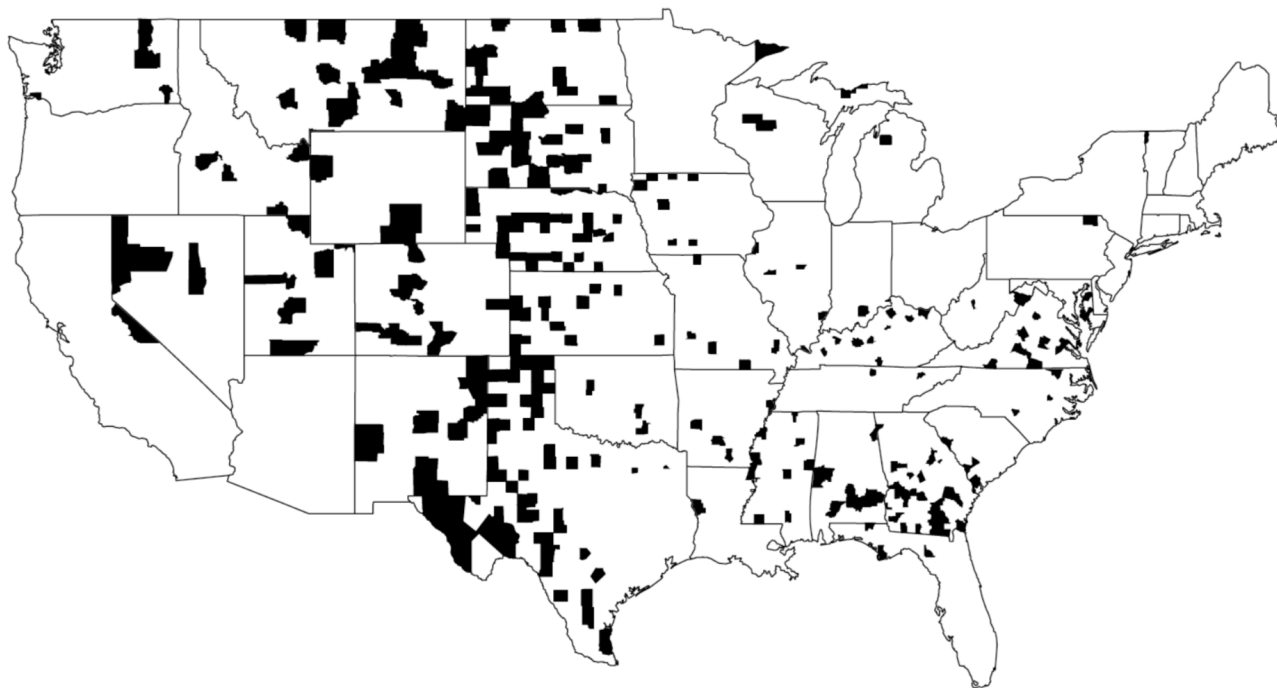
# What is the cause of this structure?

Highest kidney cancer death rates



# What is the cause of this structure?

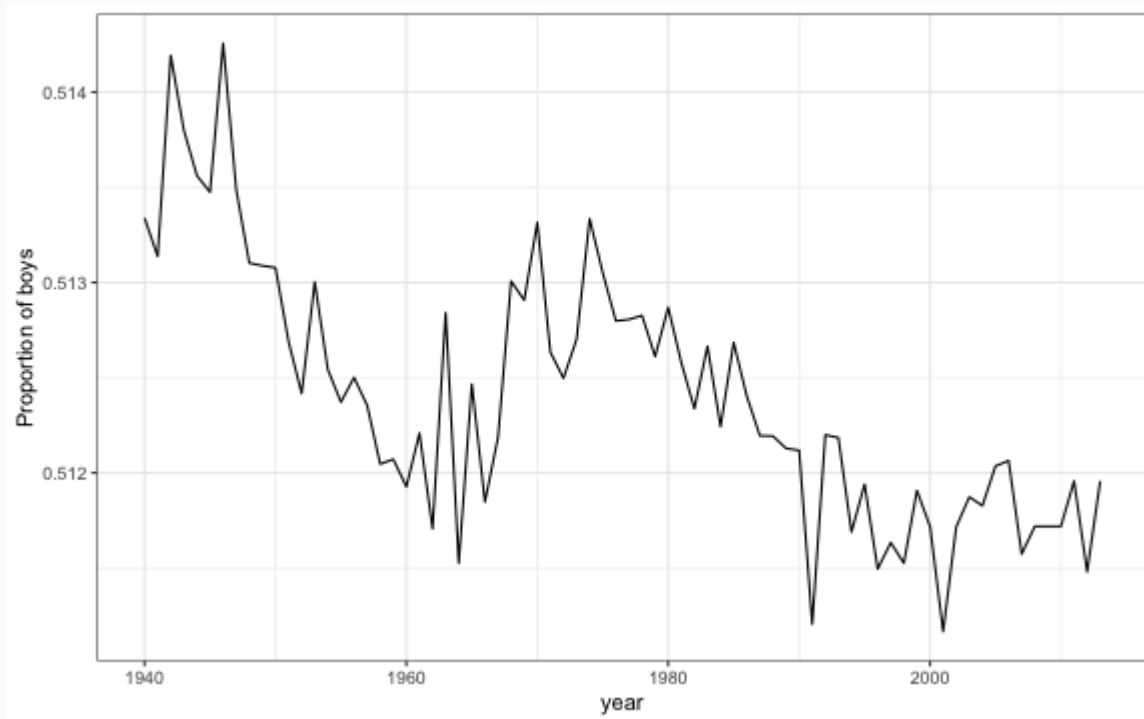
Lowest kidney cancer death rates



# Lessons in Practical Data Viz

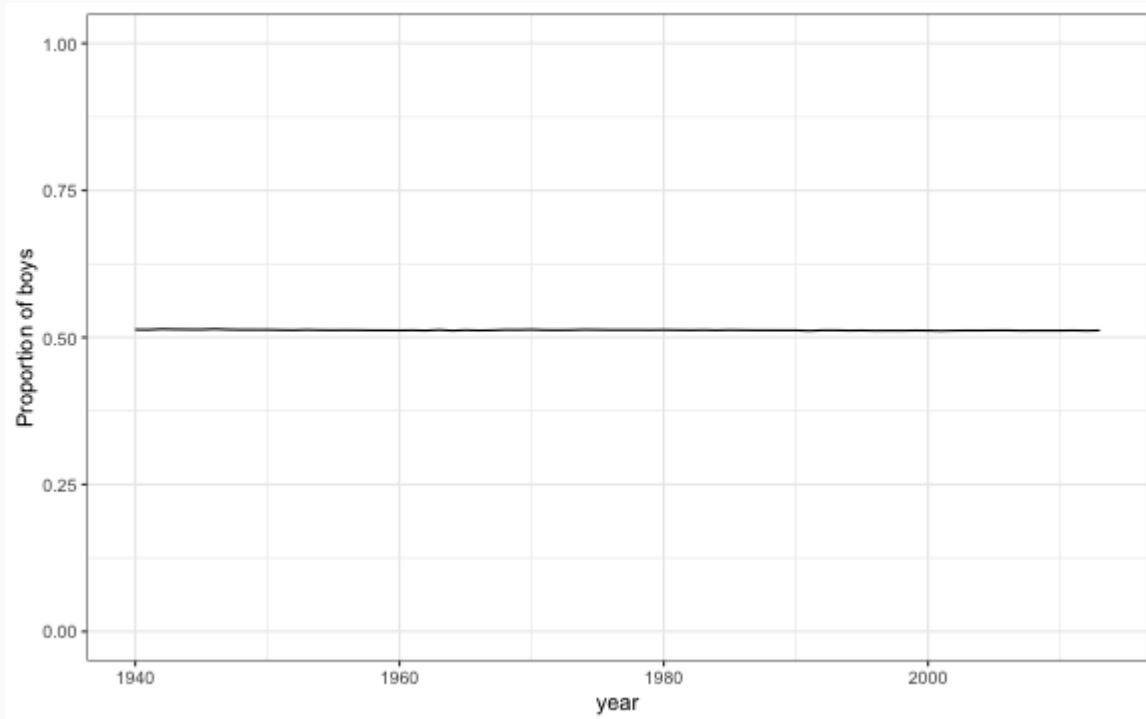
1. Compare multiple `geoms` to see which one captures best the structure you're looking to emphasize.
2. Add clear/informative axis labels (or titles).
3. Think carefully about your scales (log-transform, palettes).
4. Don't be constrained by your code - ask for help!
5. Be sure you understand the unit of observation.
6. Use the taxonomy of data to guide your viz.
7. Context effects interpretation: normalize data, don't cherry pick.
8. Be sure the structure in your visualization is the structure you want to convey.

# Proportion of boys born in the US



**Story:** The proportion of boys has been dropping over the last 60 years.

# Proportion of boys born in the US



**Story:** There have consistently been more boys born in the US than girls.