

DSBA 5122: Visual Analytics

Class 4: Time and Space

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September 16, 2019

Time and space



**2Chainz, baby, don't lie to me
Time and space don't apply to me**

Time: Wilke Chapters 13-14



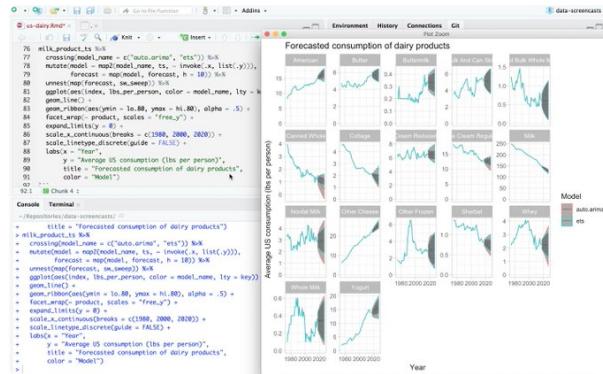
David Robinson

@drob



In this week's [#tidytuesday](#) screencast, I analyze and predict trends in US dairy consumption over time

In the process I learn to do tidy forecasting with the sweep and timetk packages from [@bizscienc](#) [youtube.com/watch?v=13iG_H...](https://www.youtube.com/watch?v=13iG_H...) #rstats



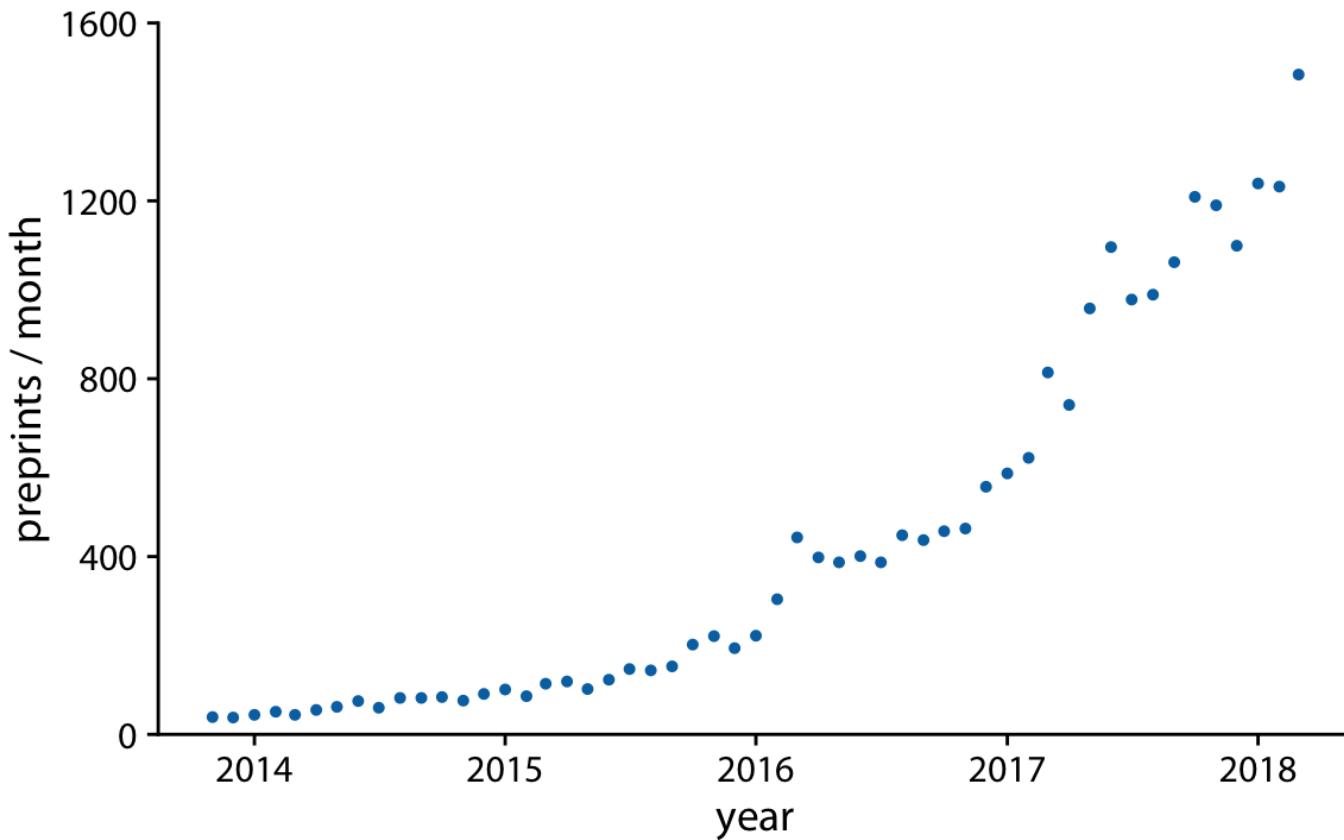
Heart 178 3:51 PM - Jan 29, 2019



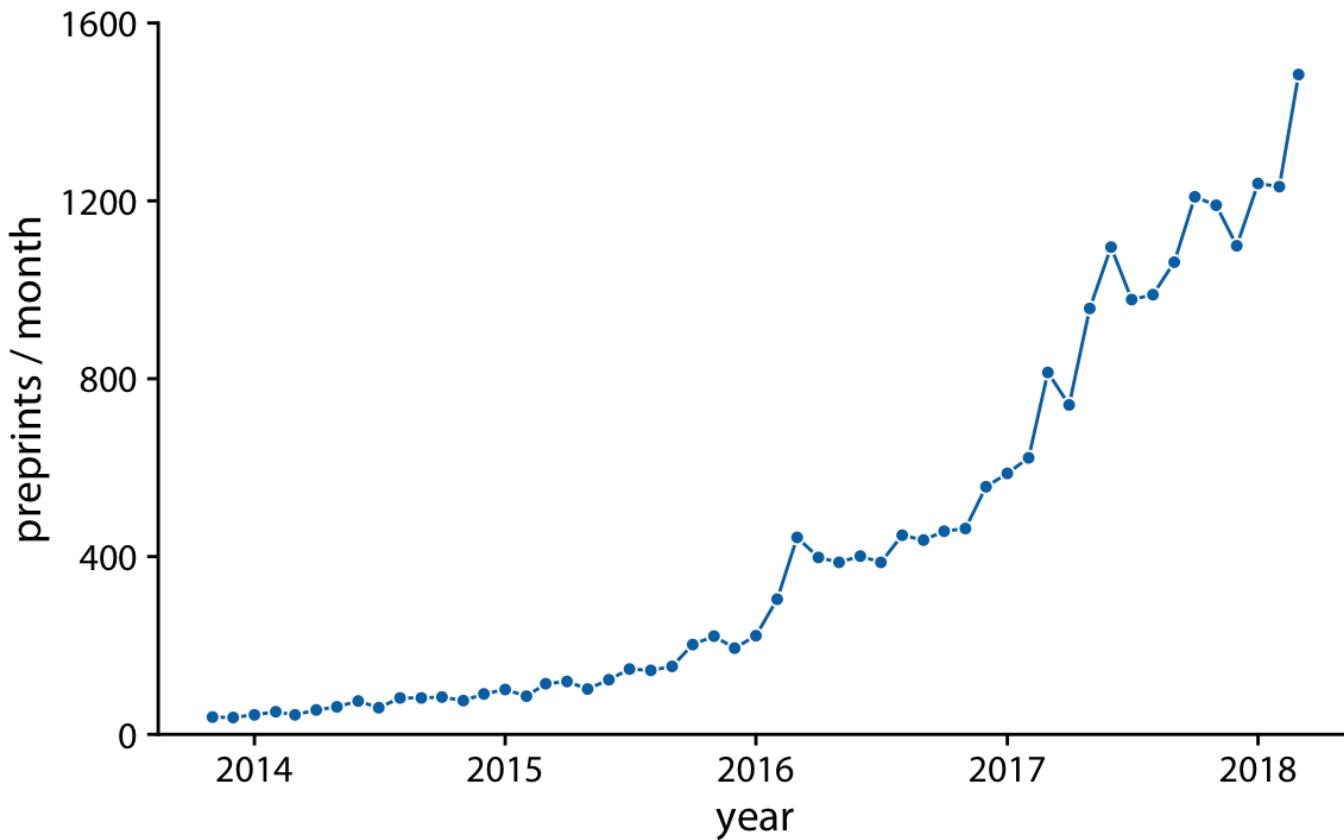
46 people are talking about this



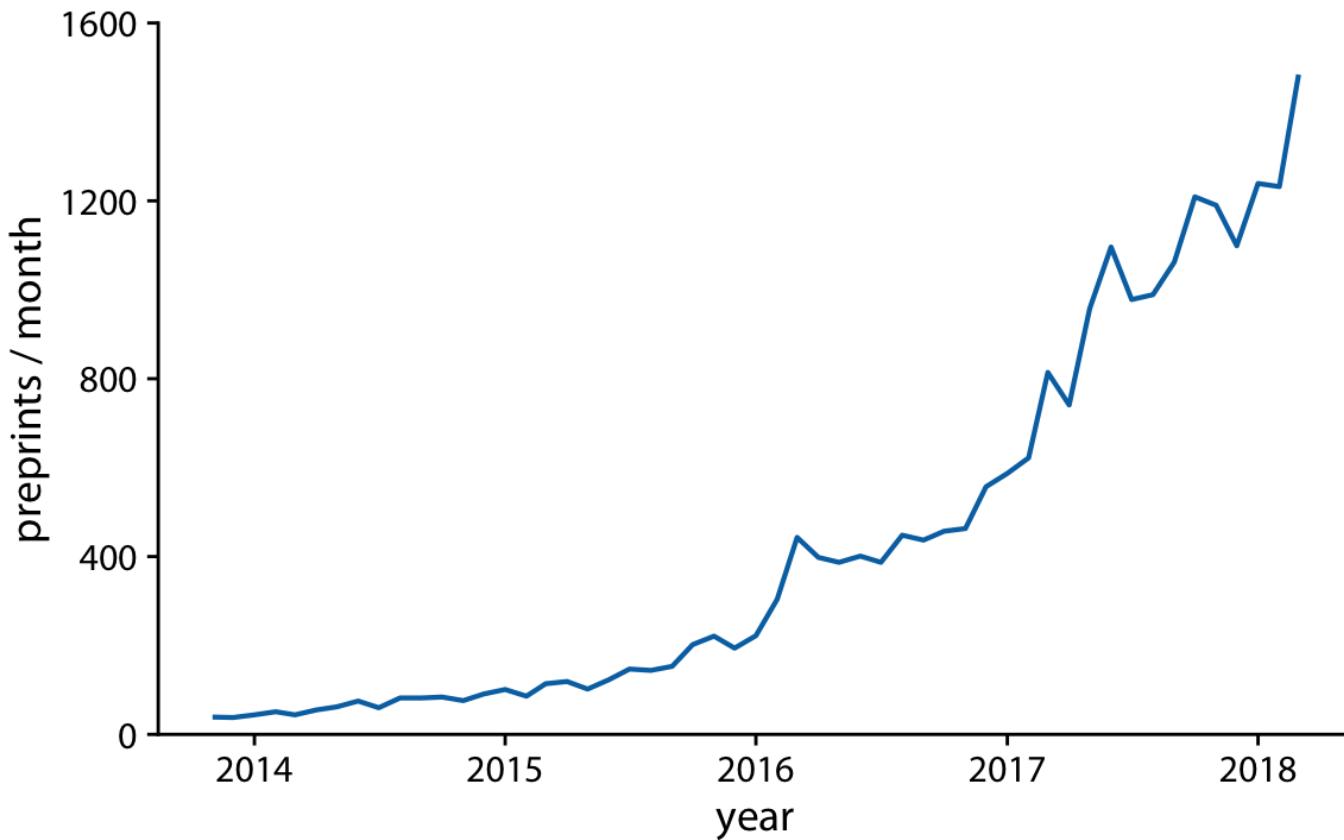
Visualizing one temporal variable



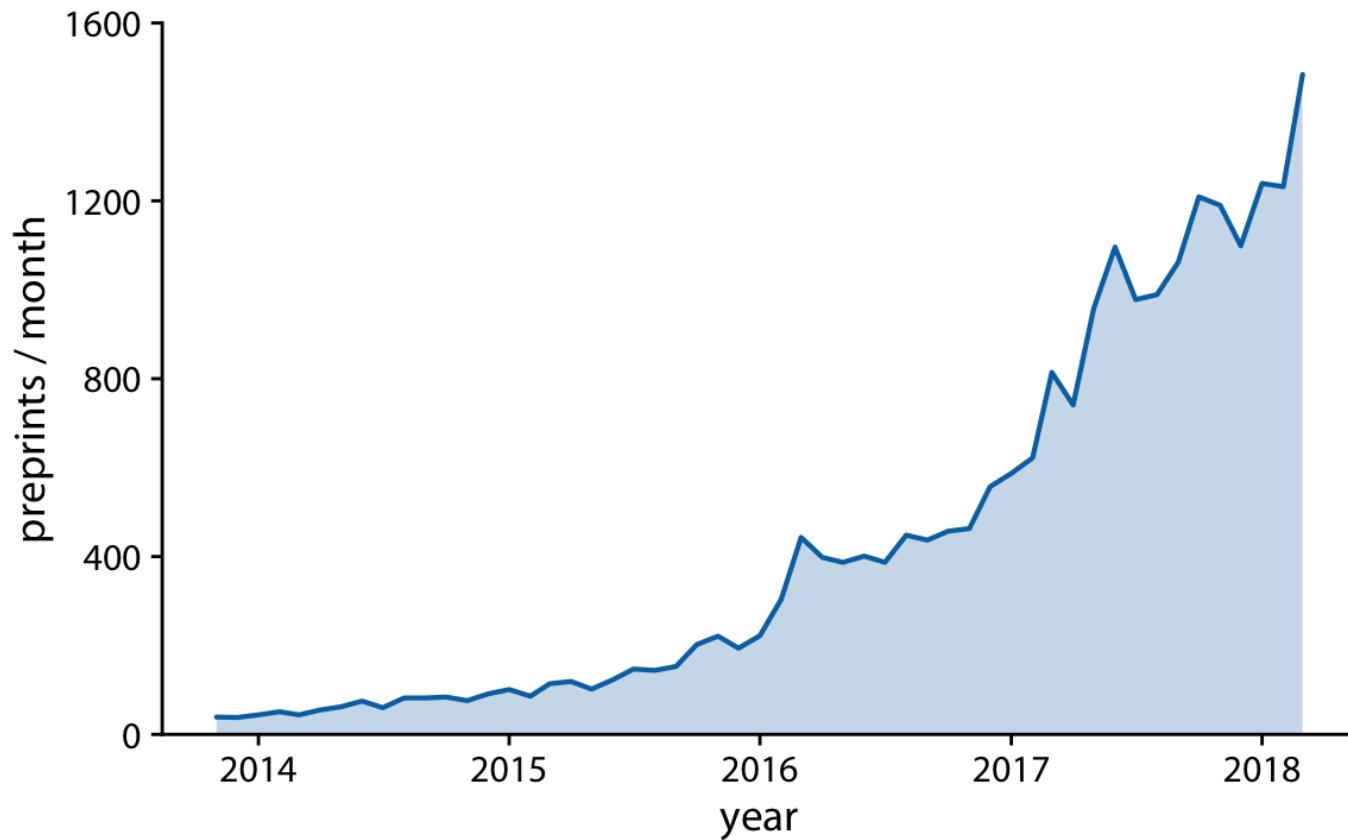
Visualizing one temporal variable



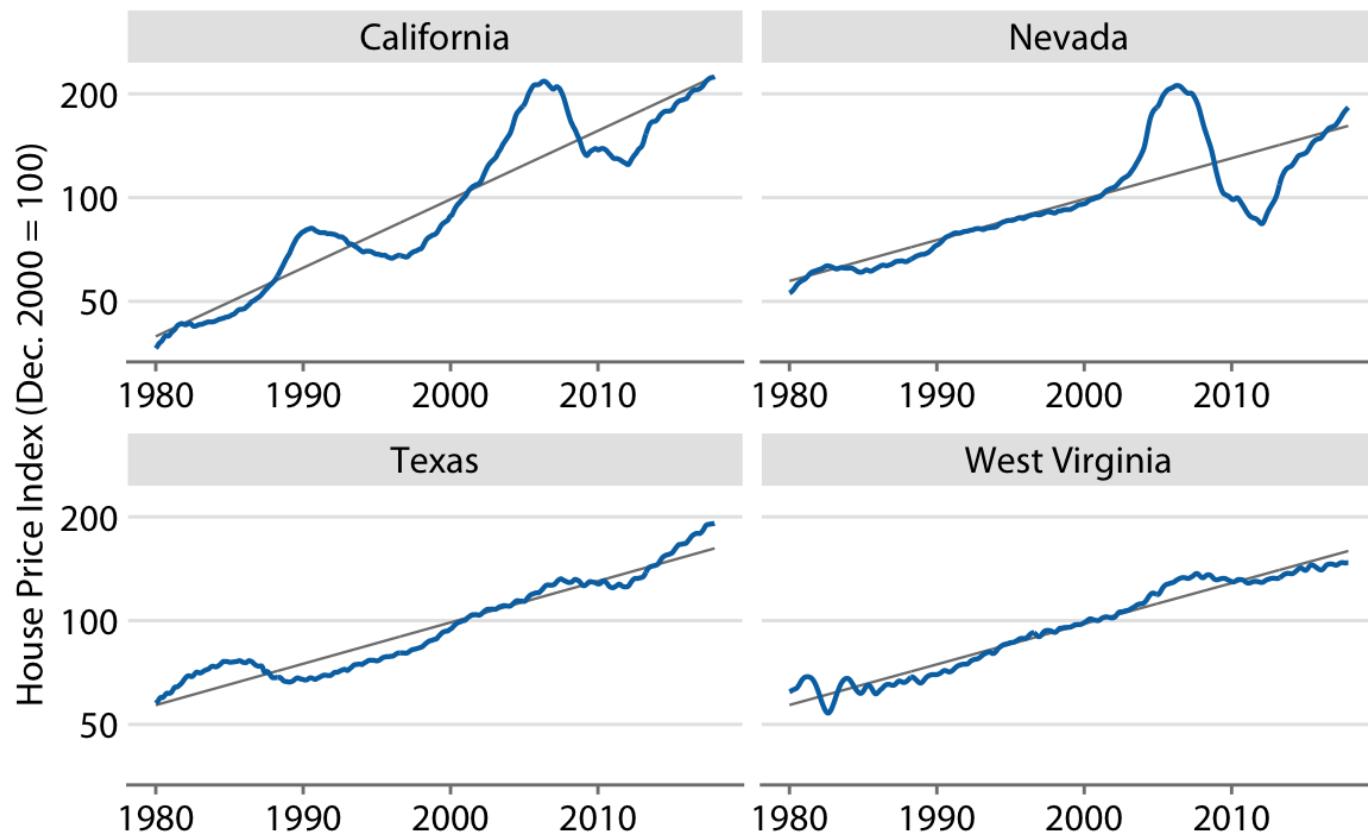
Visualizing one temporal variable



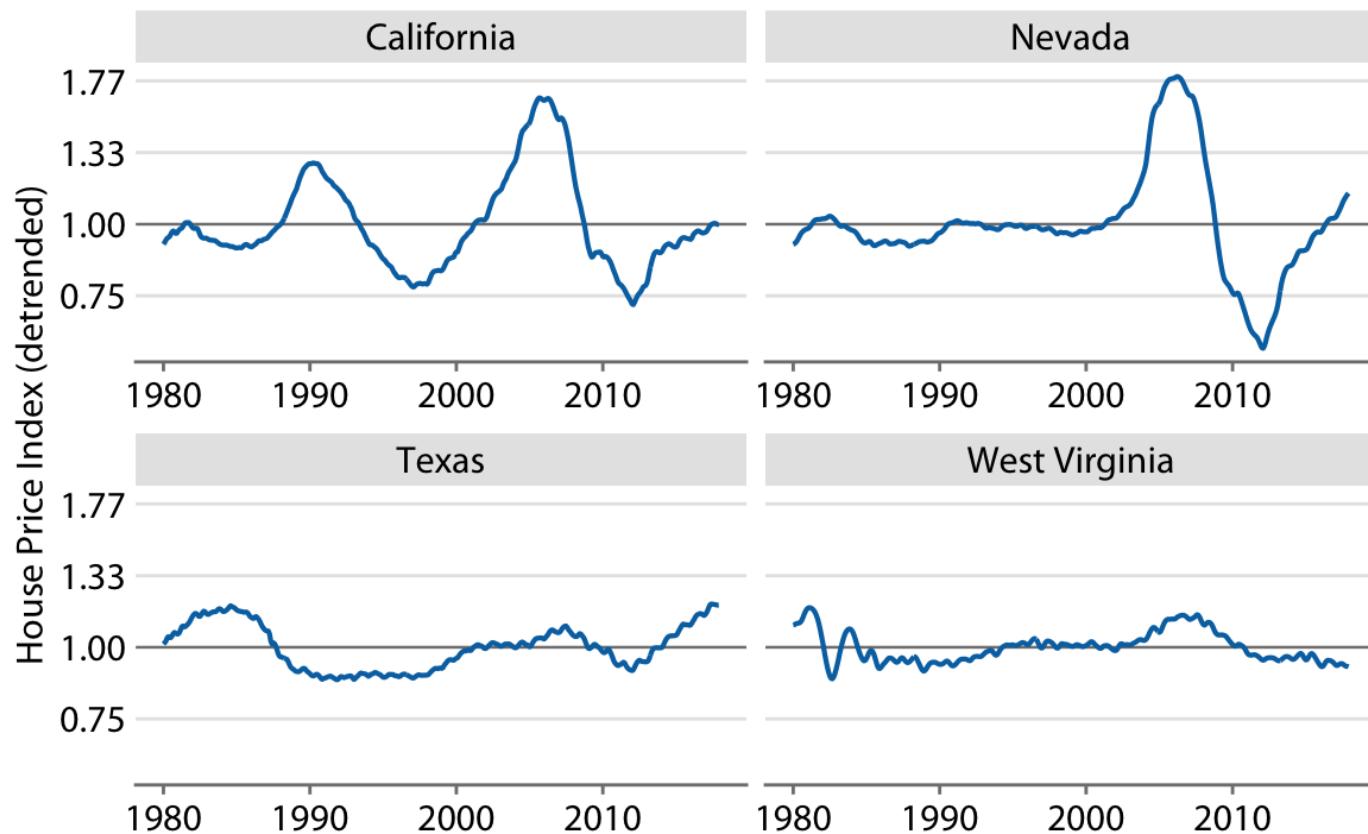
Visualizing one temporal variable



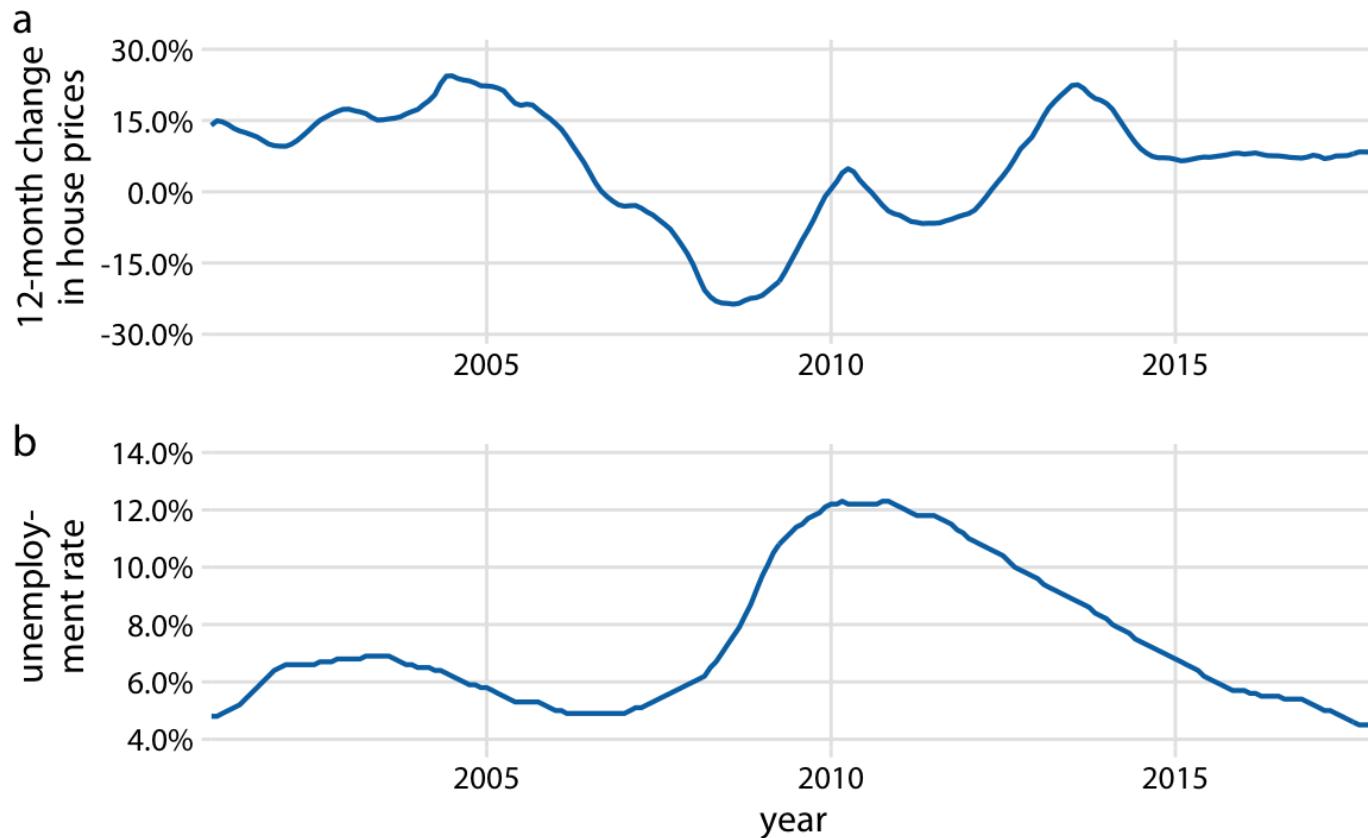
Visualizing Indexes



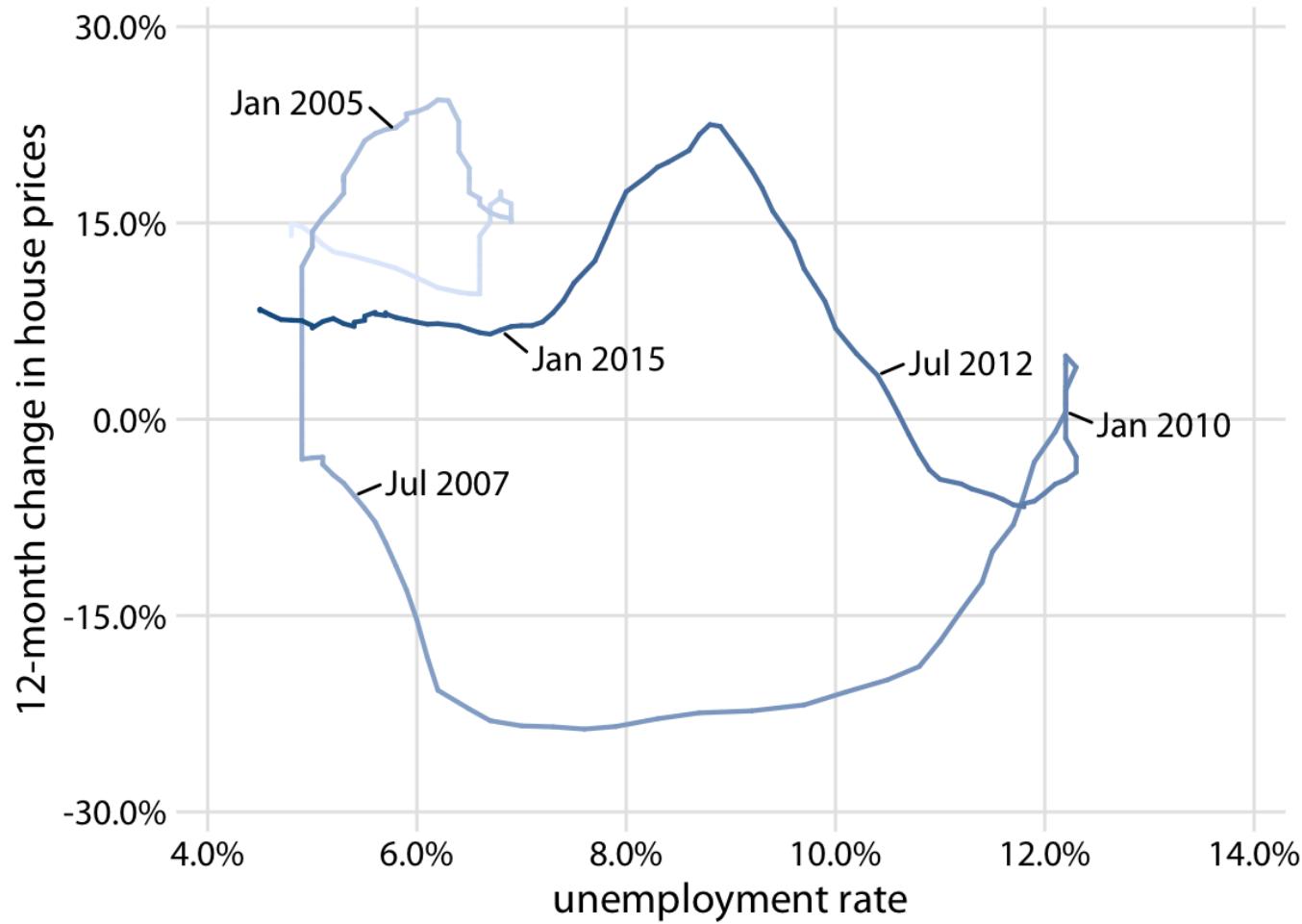
Visualizing Indexes: Detrending



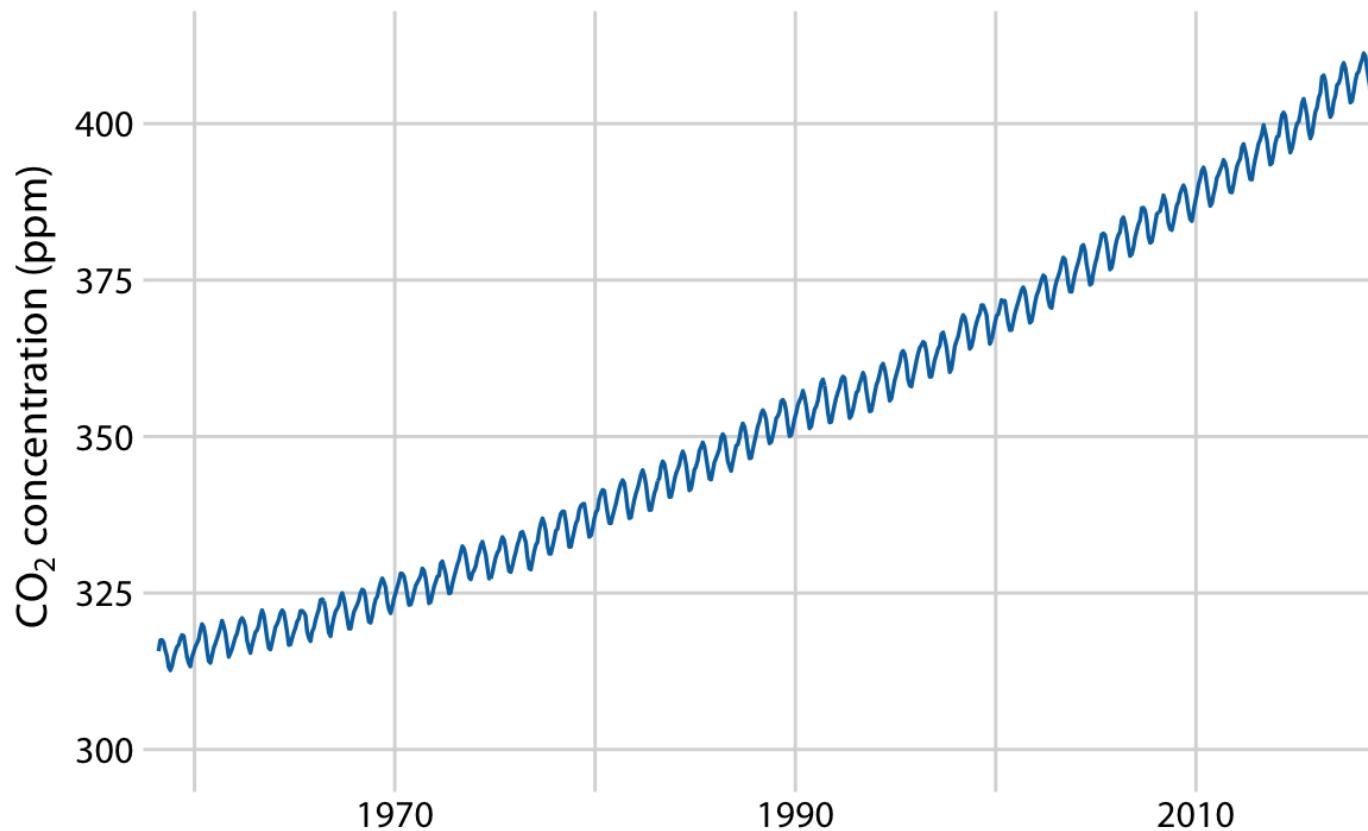
Visualizing two temporal variables



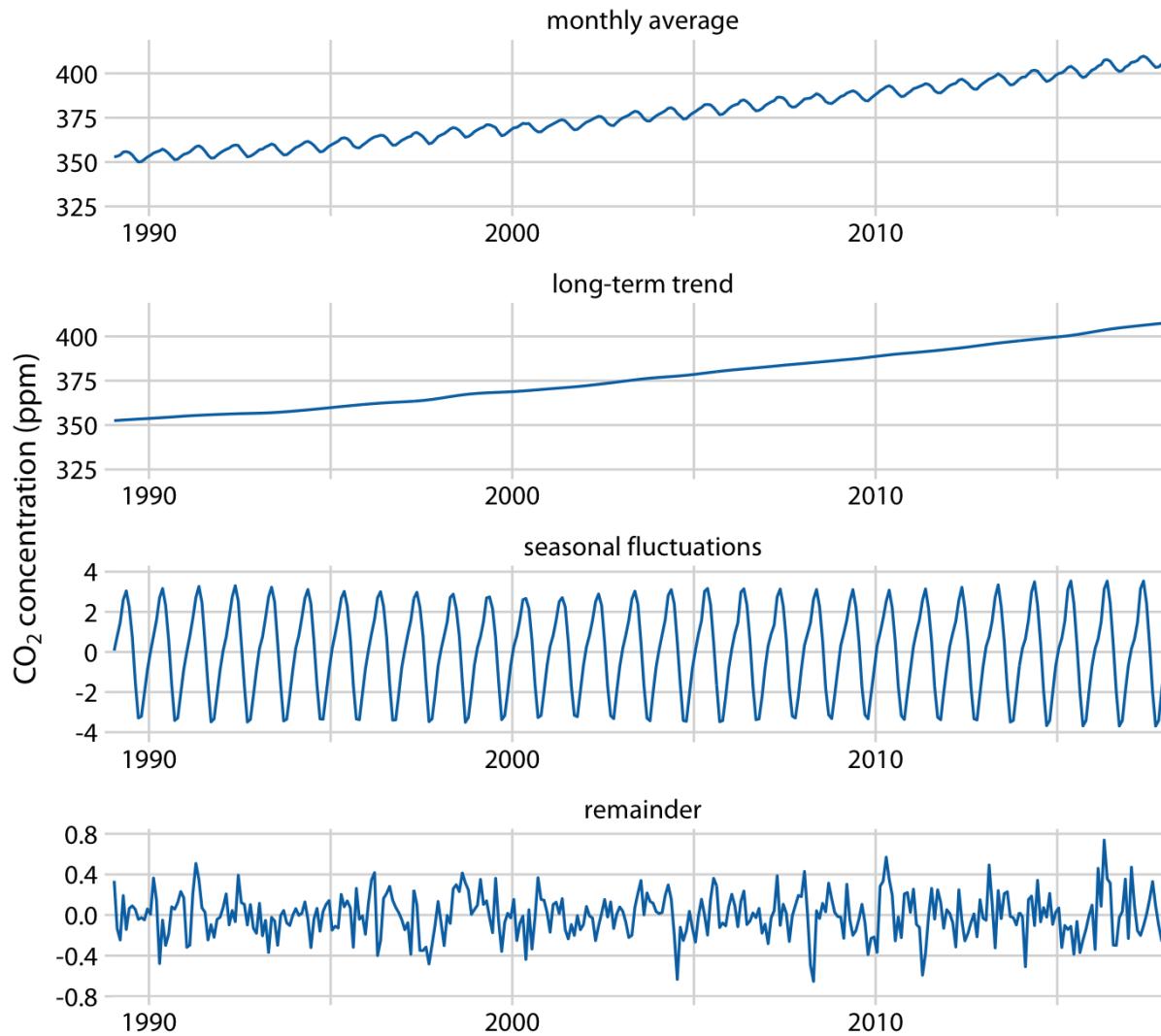
Visualizing two temporal variables



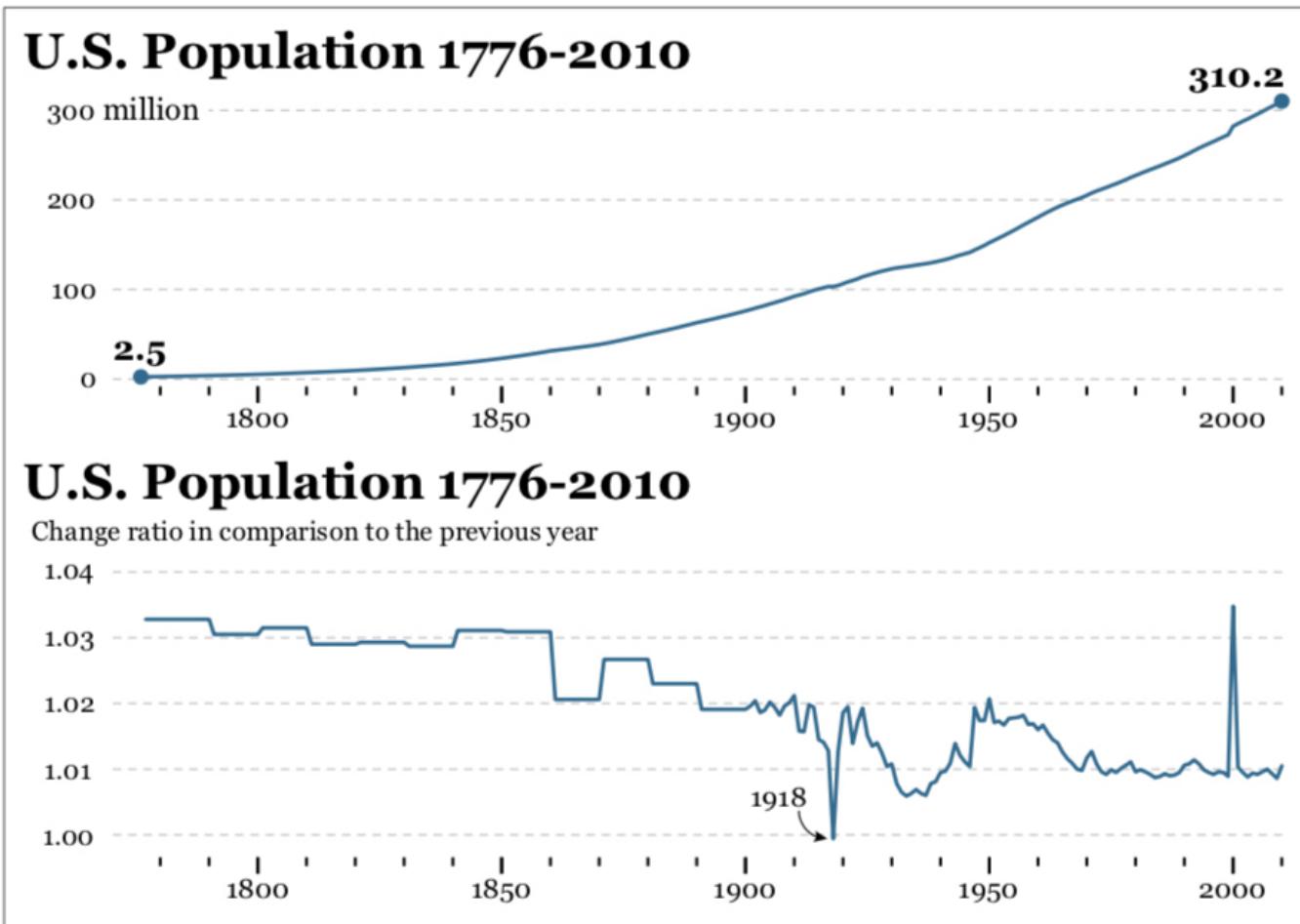
Keeling Curve: What do you notice?



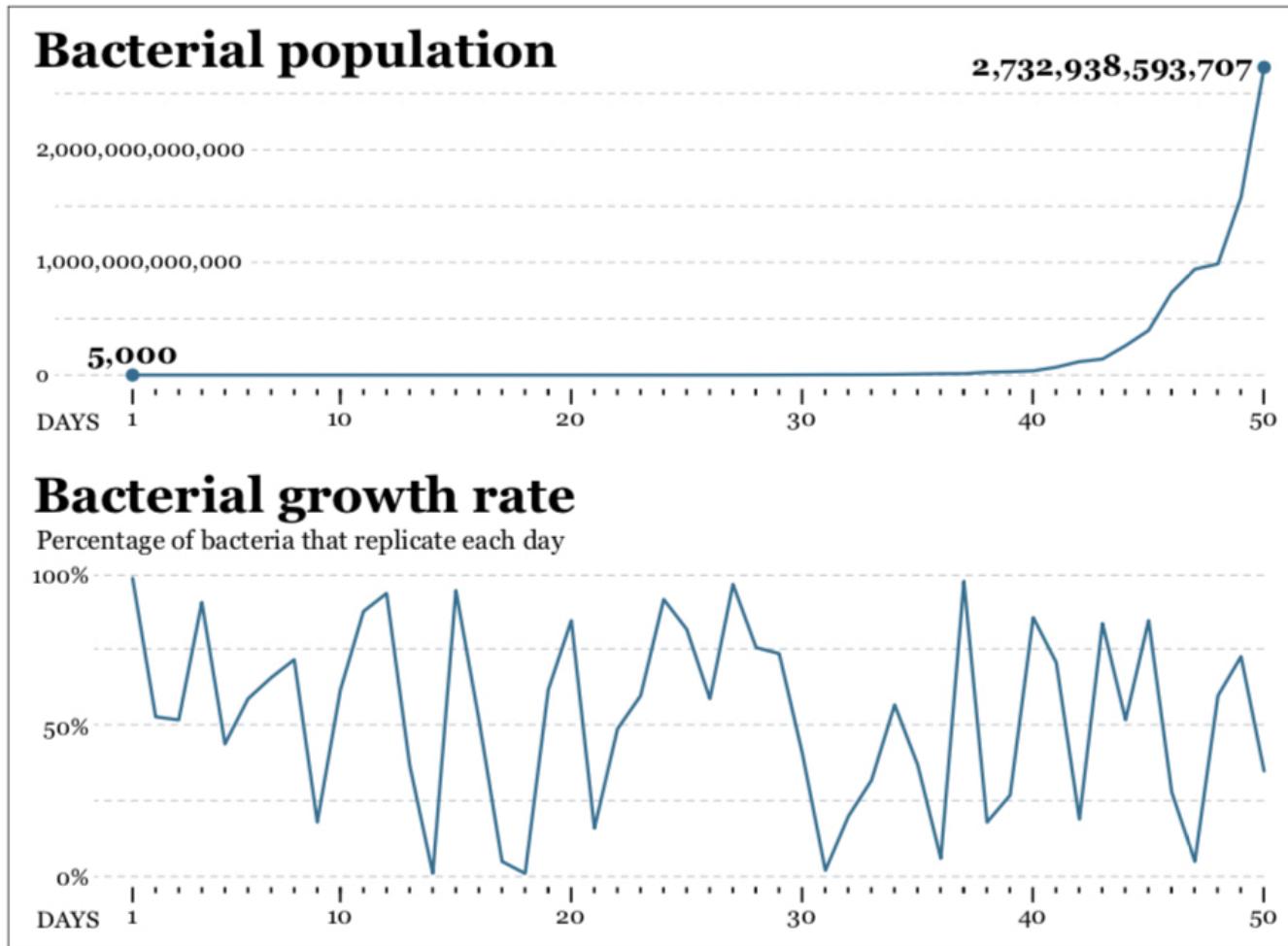
Trend + Seasonal + Noise



Ratios to log



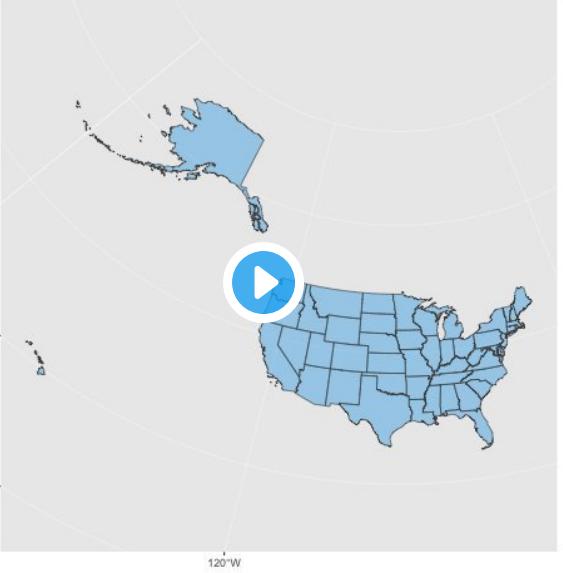
Ratios to log



Spatial/Maps: Wilke Chap. 15 and Healy Chap. 7

 Claus Wilke 
@ClausWilke

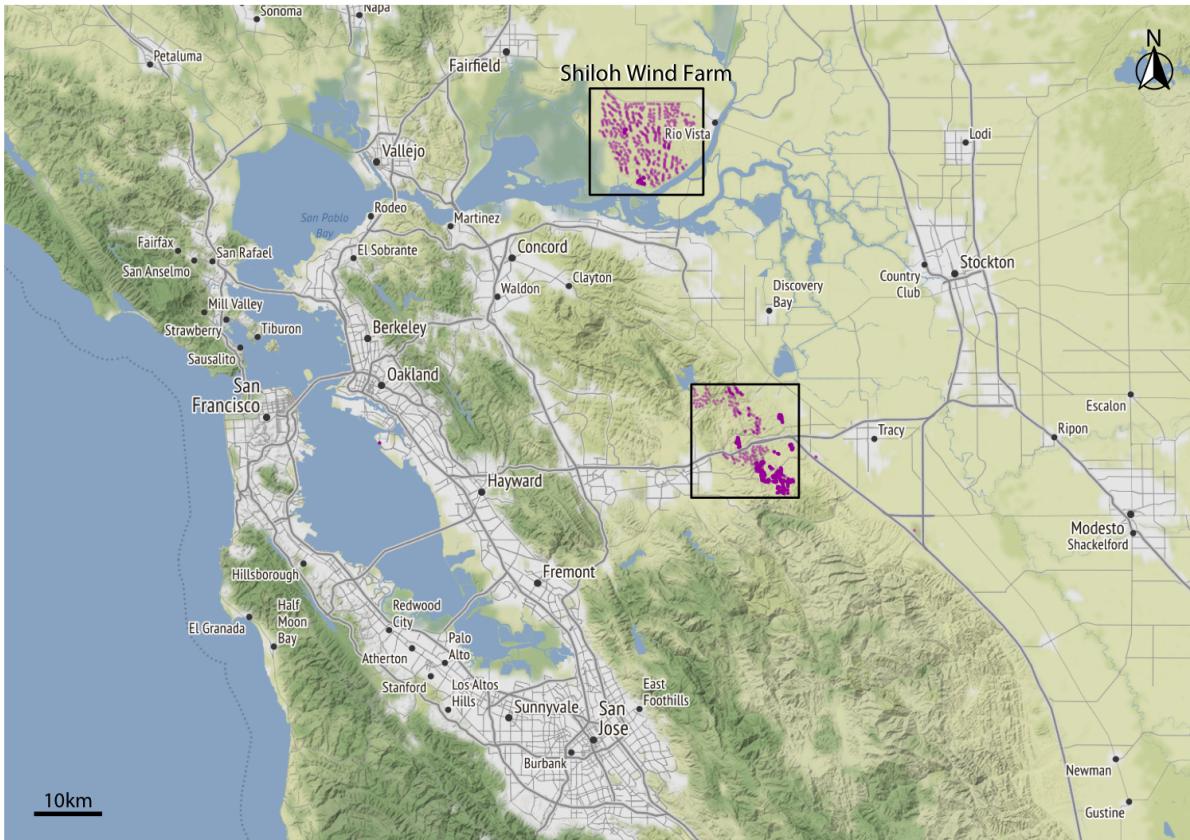
Putting Hawaii and Alaska into their place.
#rstats #dataviz #gganimate



94 3:38 PM - Aug 5, 2018 

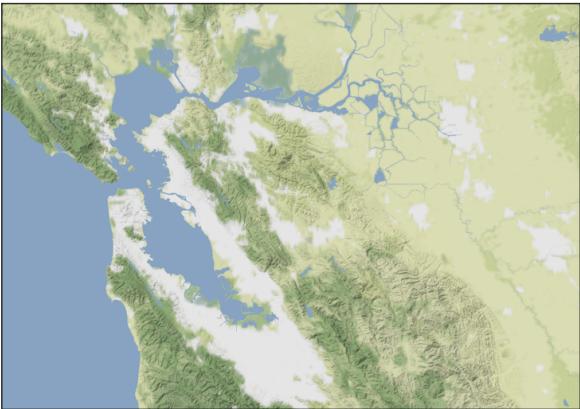
20 people are talking about this >

Scale



Scale

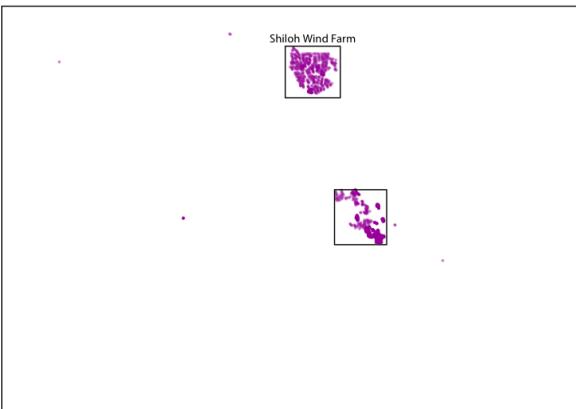
terrain



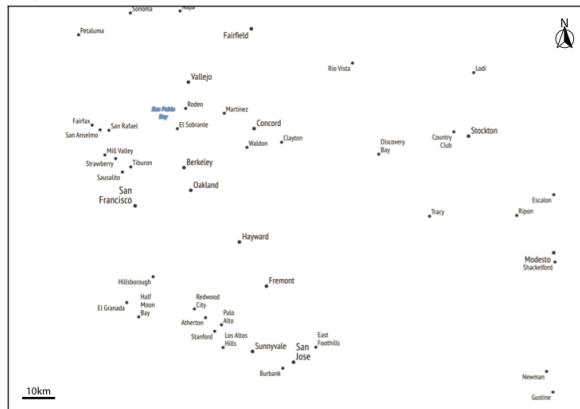
roads



wind turbines



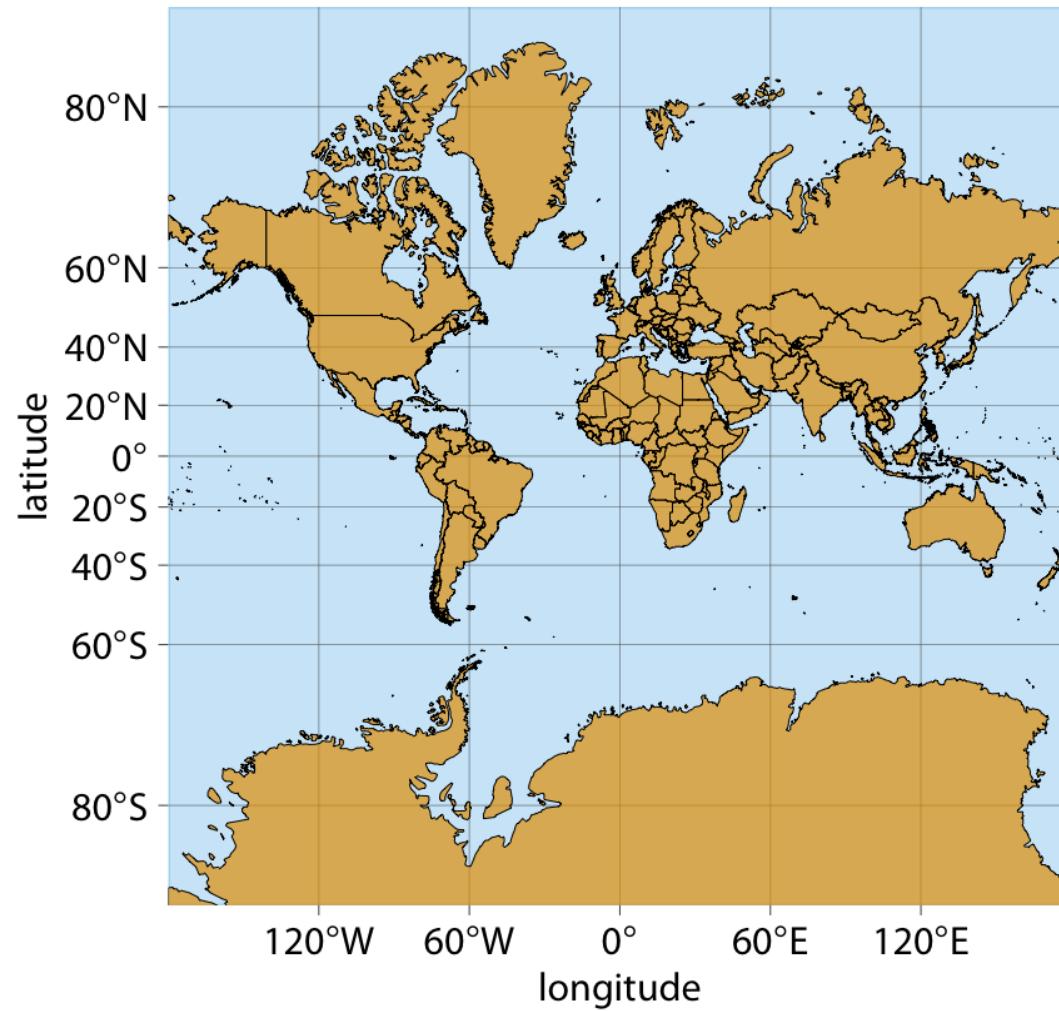
city labels, scale bar



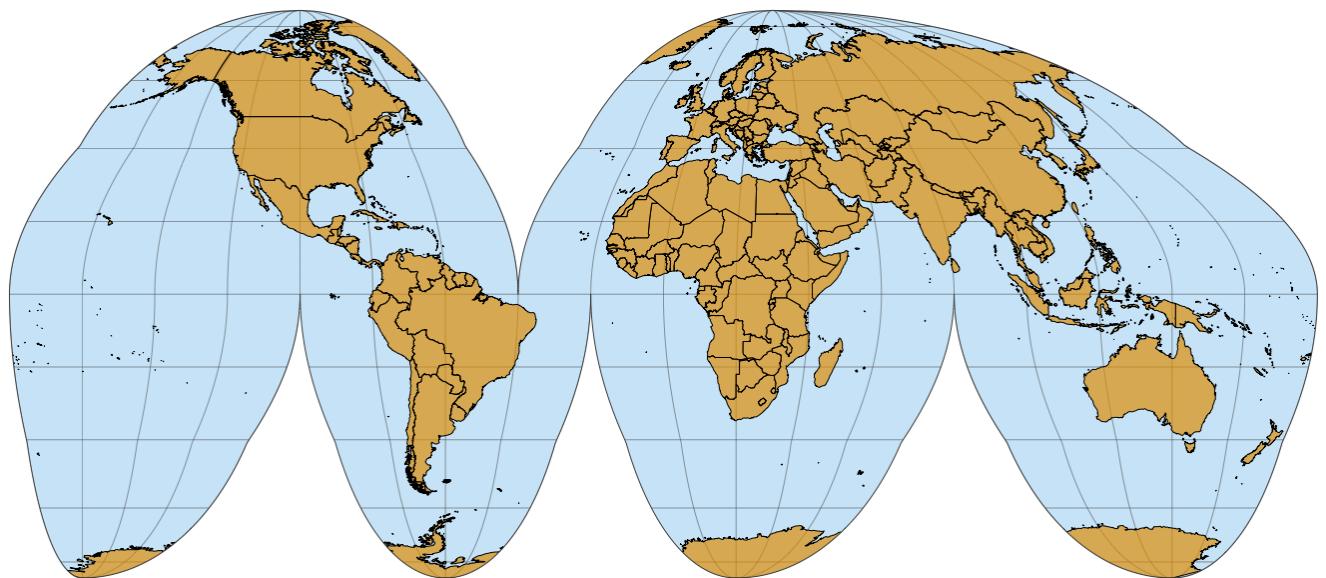
Projections



Projections



Projections



Map encoding

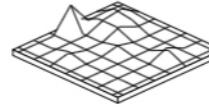
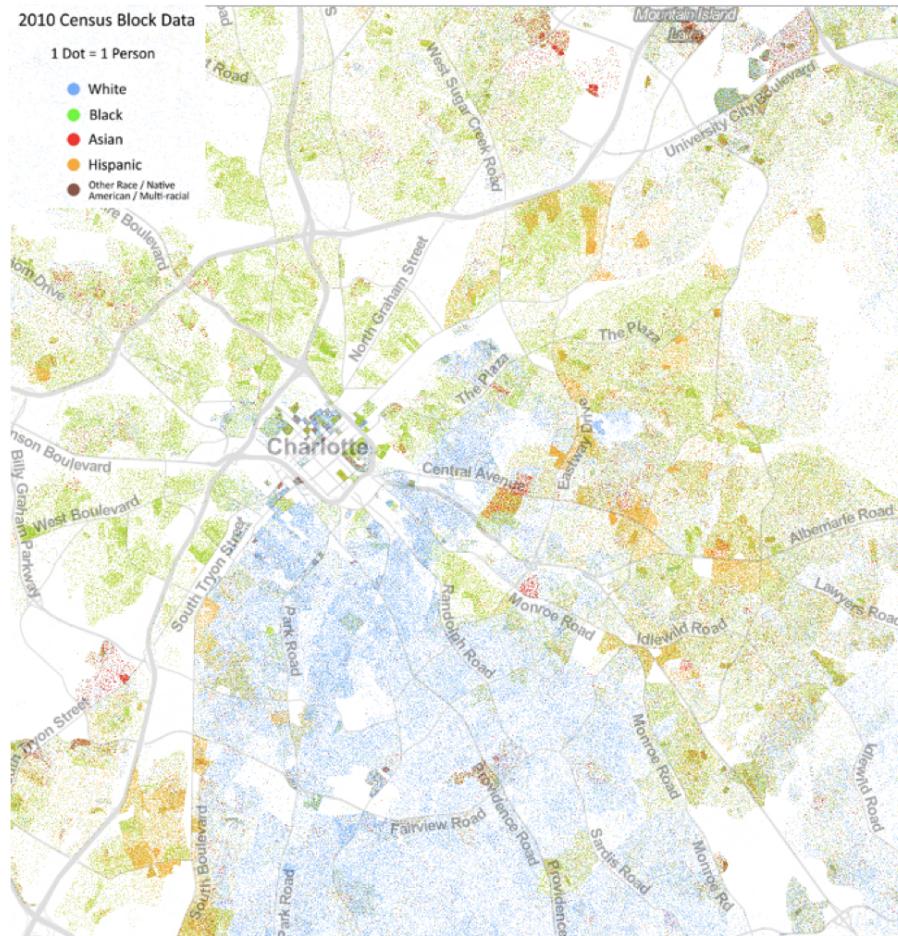
Point	Line	Area	Volume
Qualitative 	Qualitative 	Qualitative 	Qualitative NONE
Quantitative  	Quantitative 	Quantitative 	Quantitative 

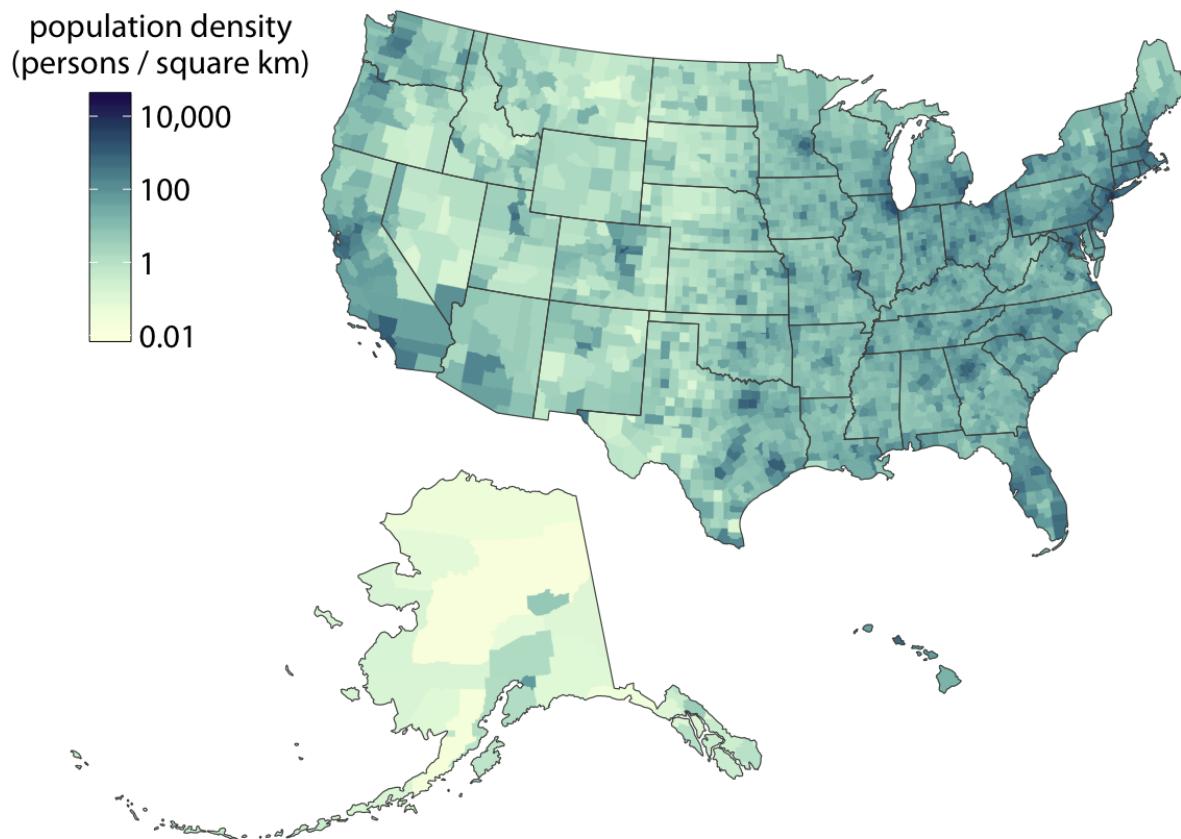
Figure 10.9 Symbols to encode data on maps.

UVA's Racial Dot Map

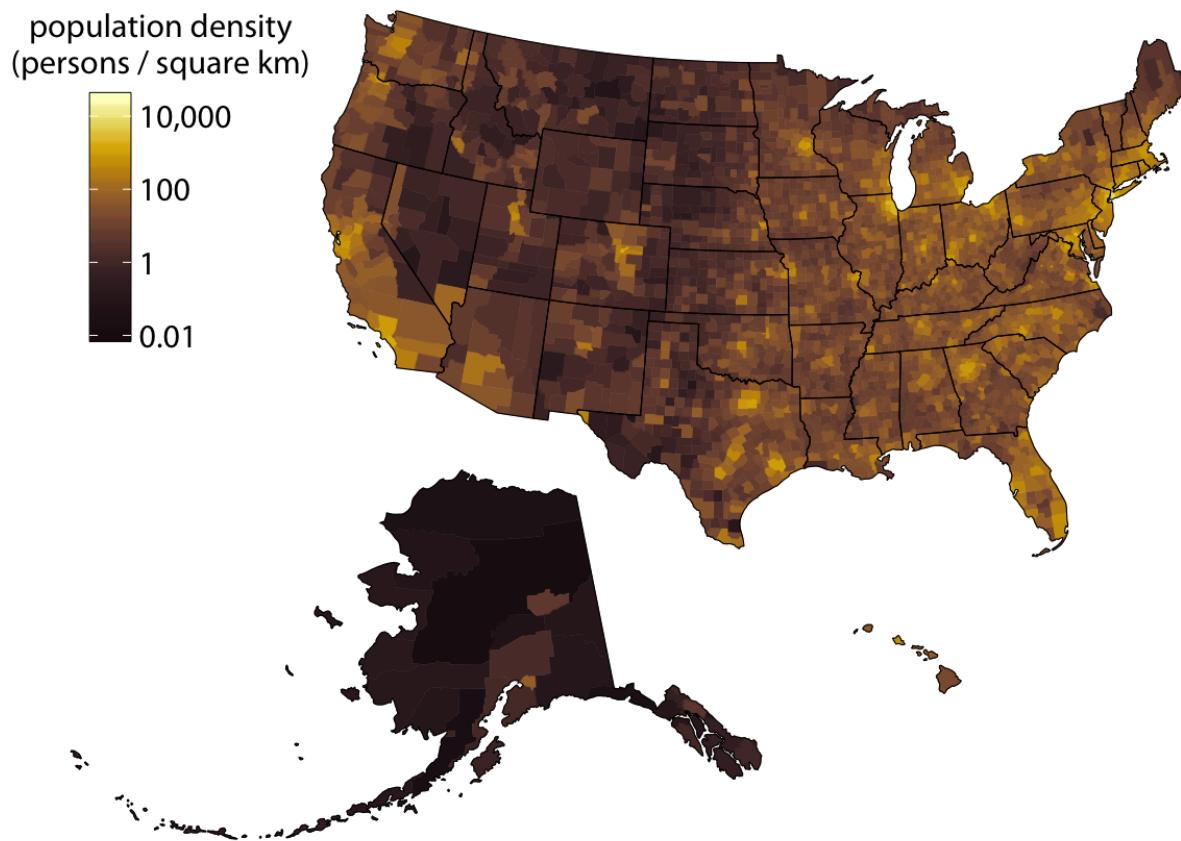


<https://demographics.virginia.edu/DotMap/index.html> 23/30

Chloropleths



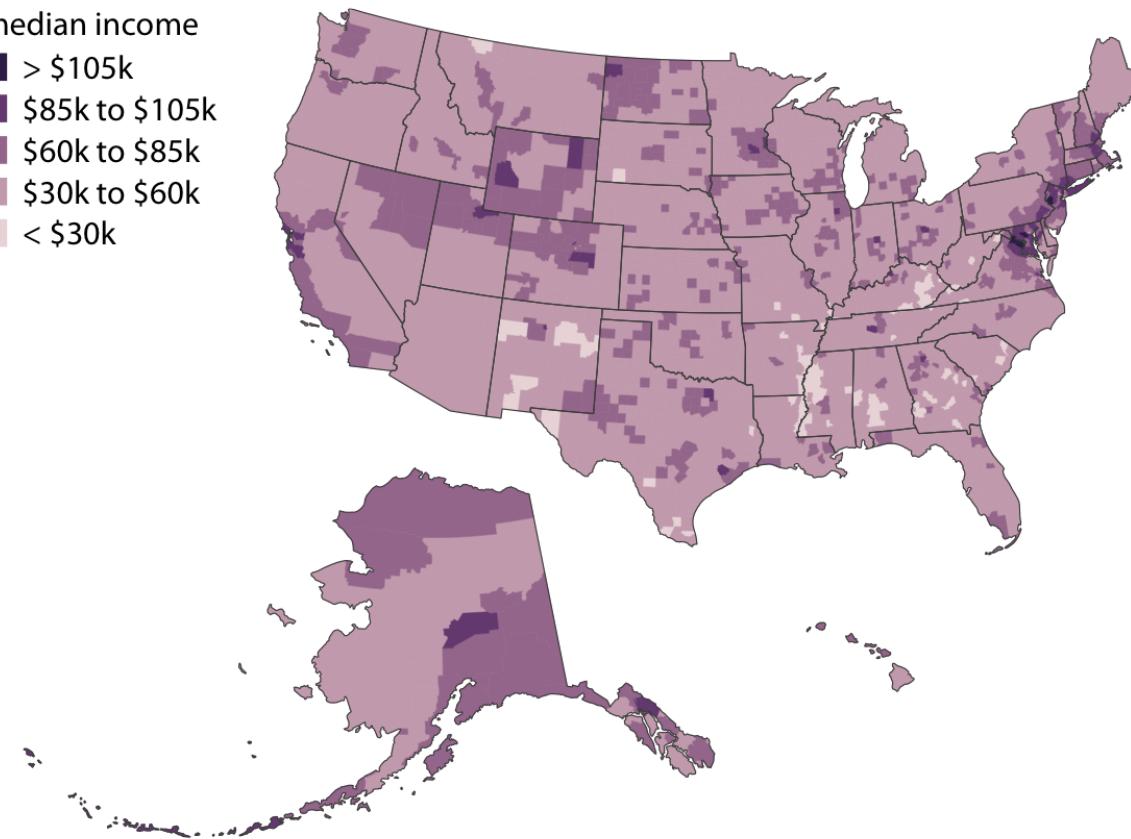
Chloropleths



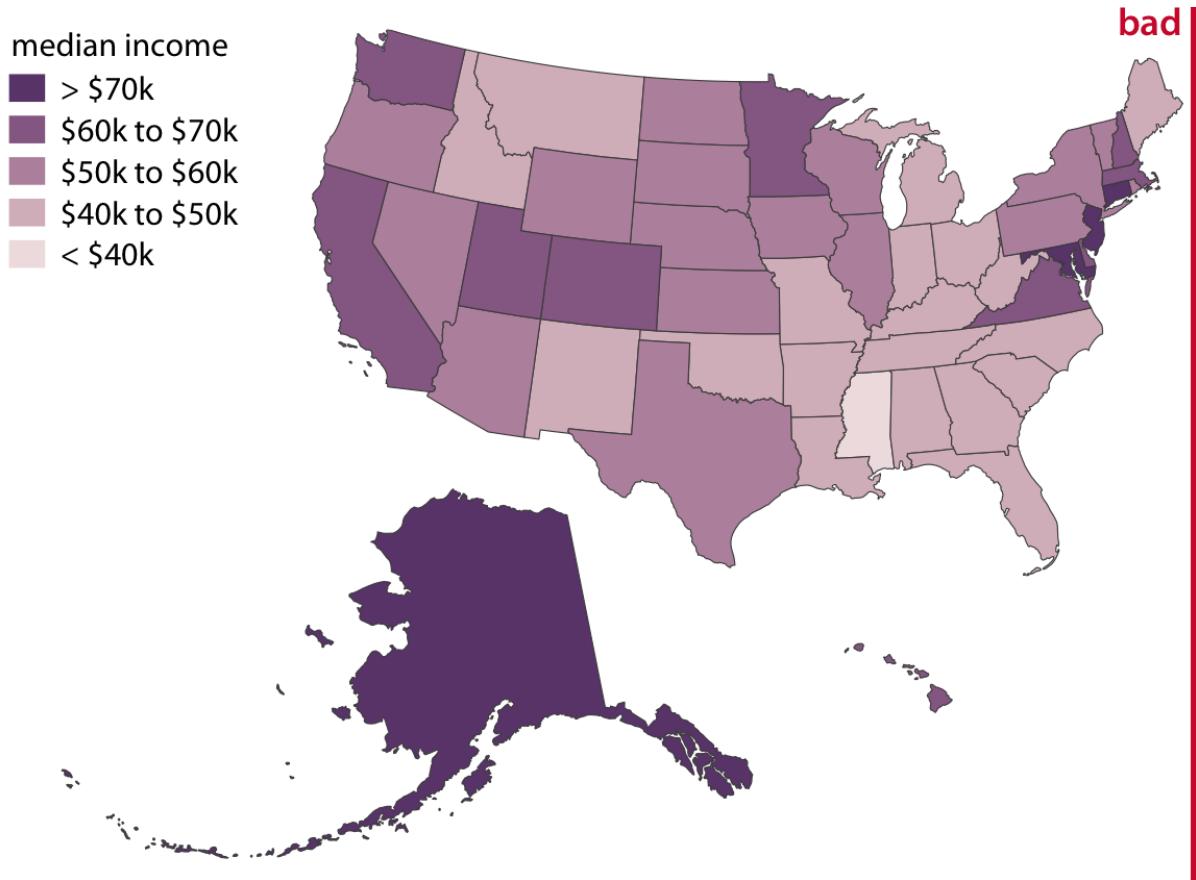
Chloropleths

median income

- > \$105k
- \$85k to \$105k
- \$60k to \$85k
- \$30k to \$60k
- < \$30k



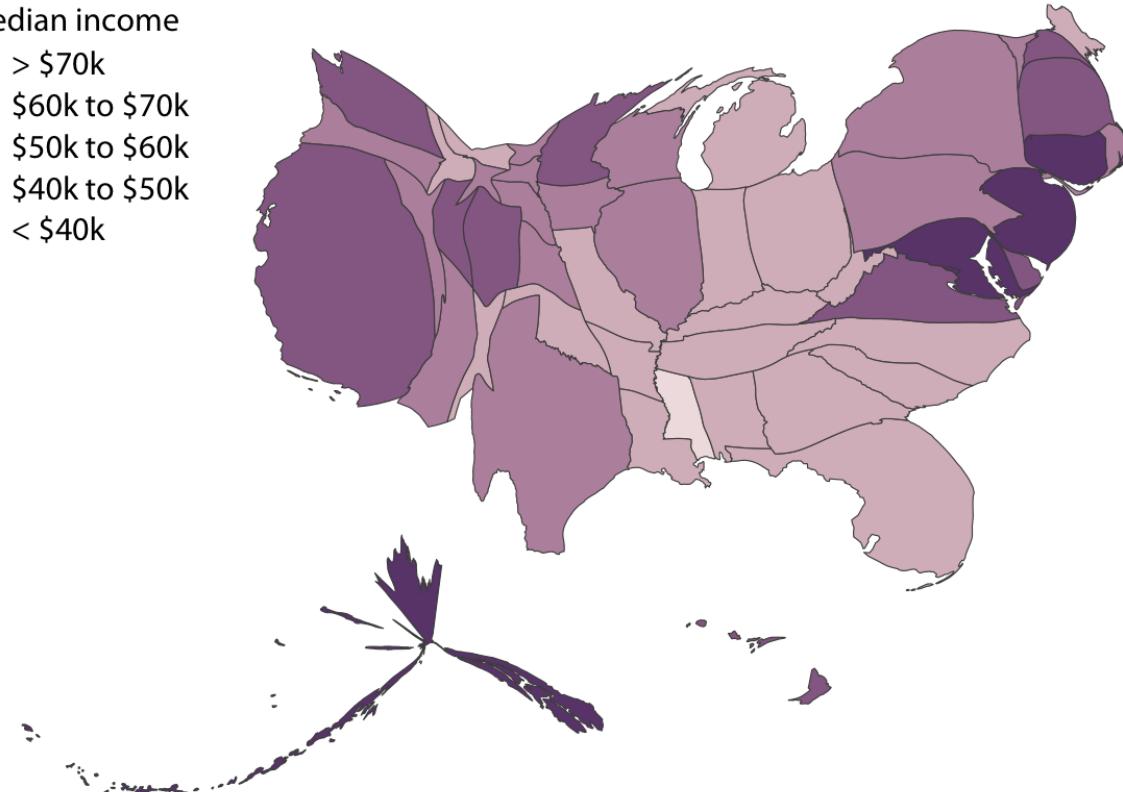
Chloropleths



Cartograms

median income

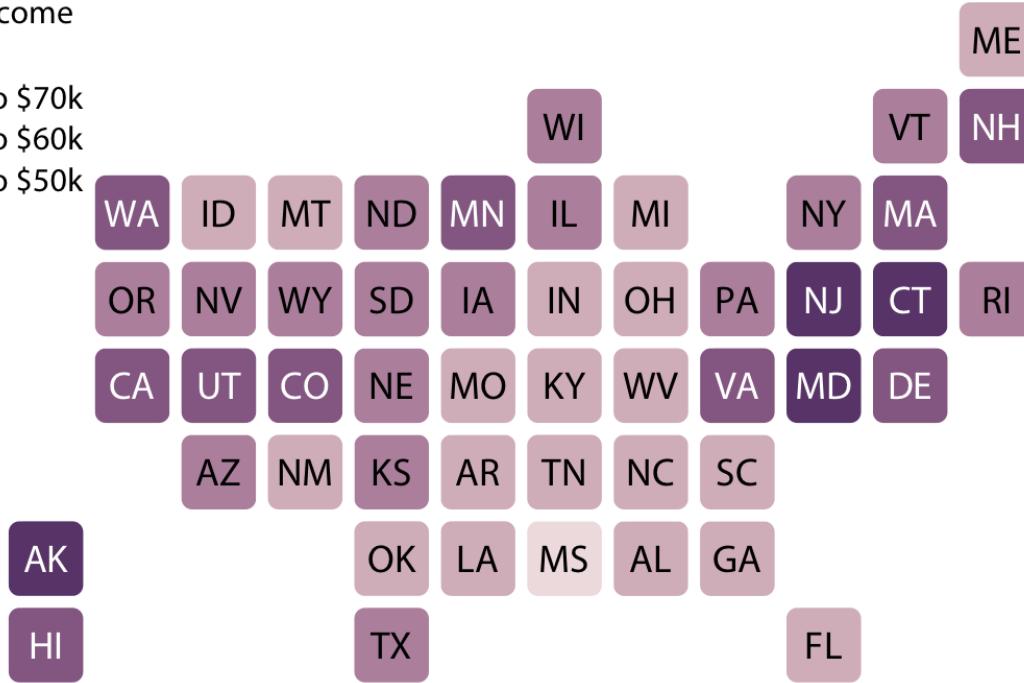
- > \$70k
- \$60k to \$70k
- \$50k to \$60k
- \$40k to \$50k
- < \$40k



Cartograms

median income

- > \$70k
- \$60k to \$70k
- \$50k to \$60k
- \$40k to \$50k
- < \$40k



Small multiples: Time & Space

