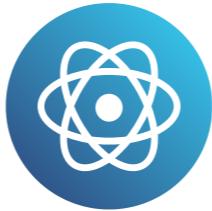


Polar coordinates

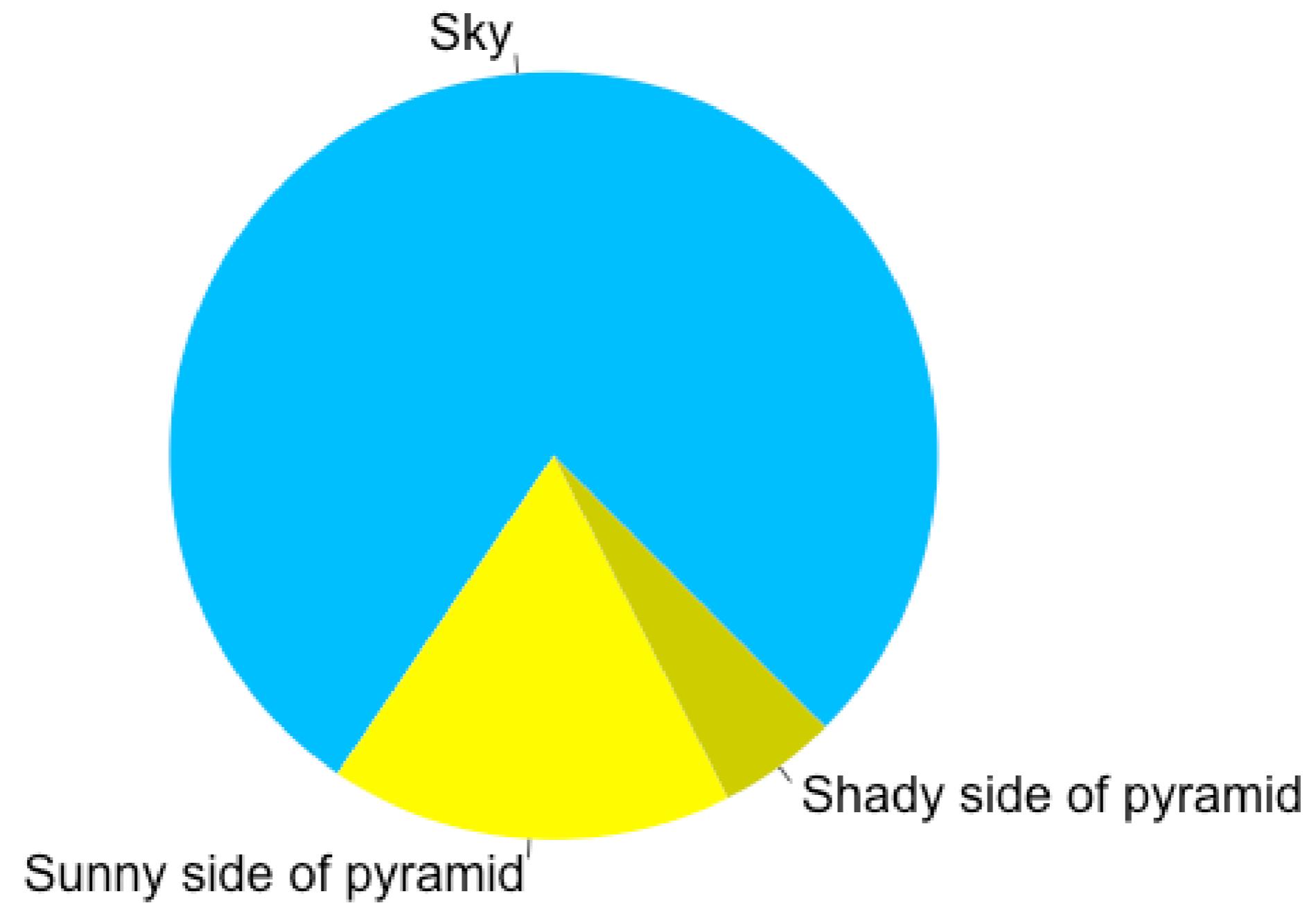
DATA VISUALIZATION FOR EVERYONE



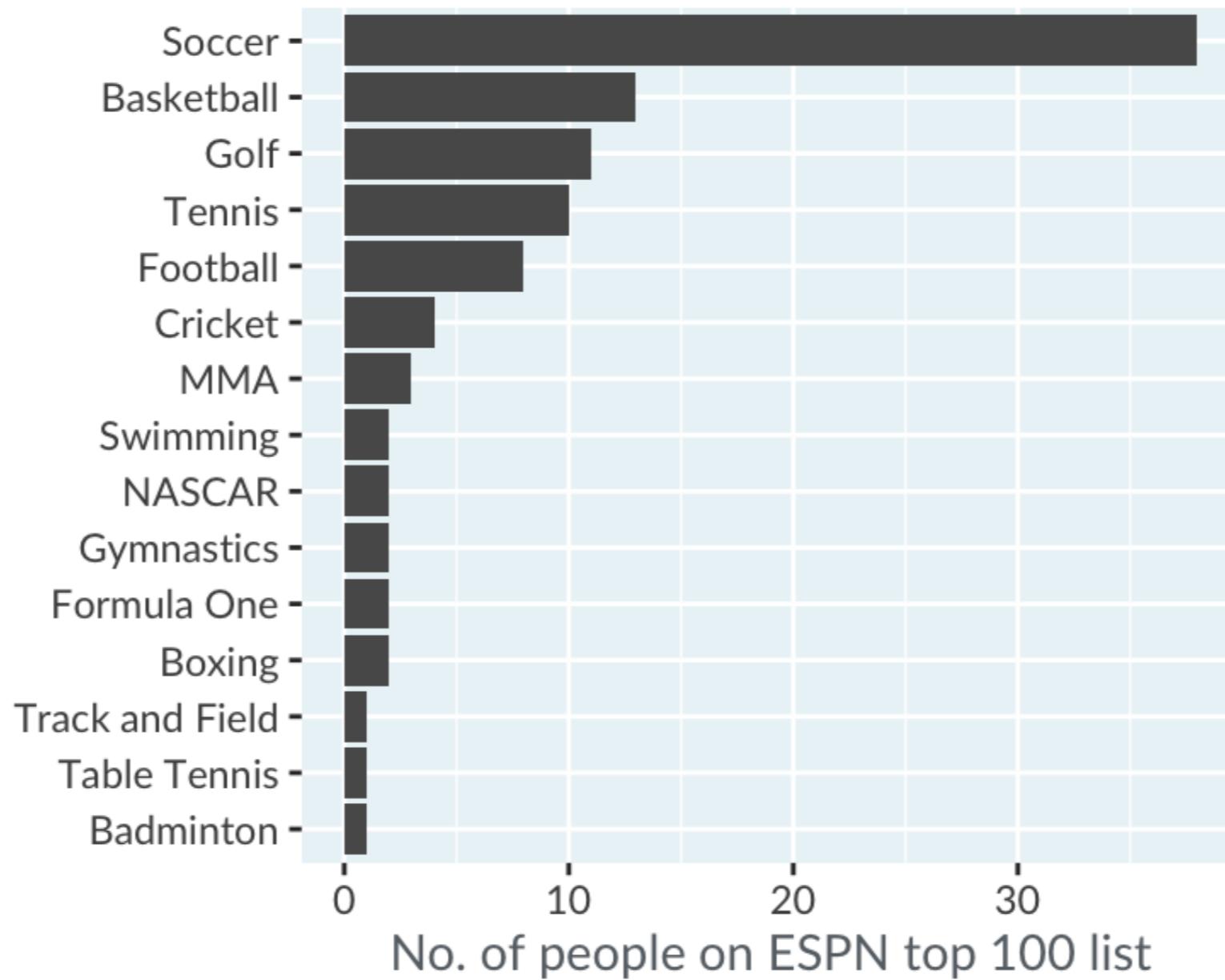
Richie Cotton

Curriculum Architect at DataCamp

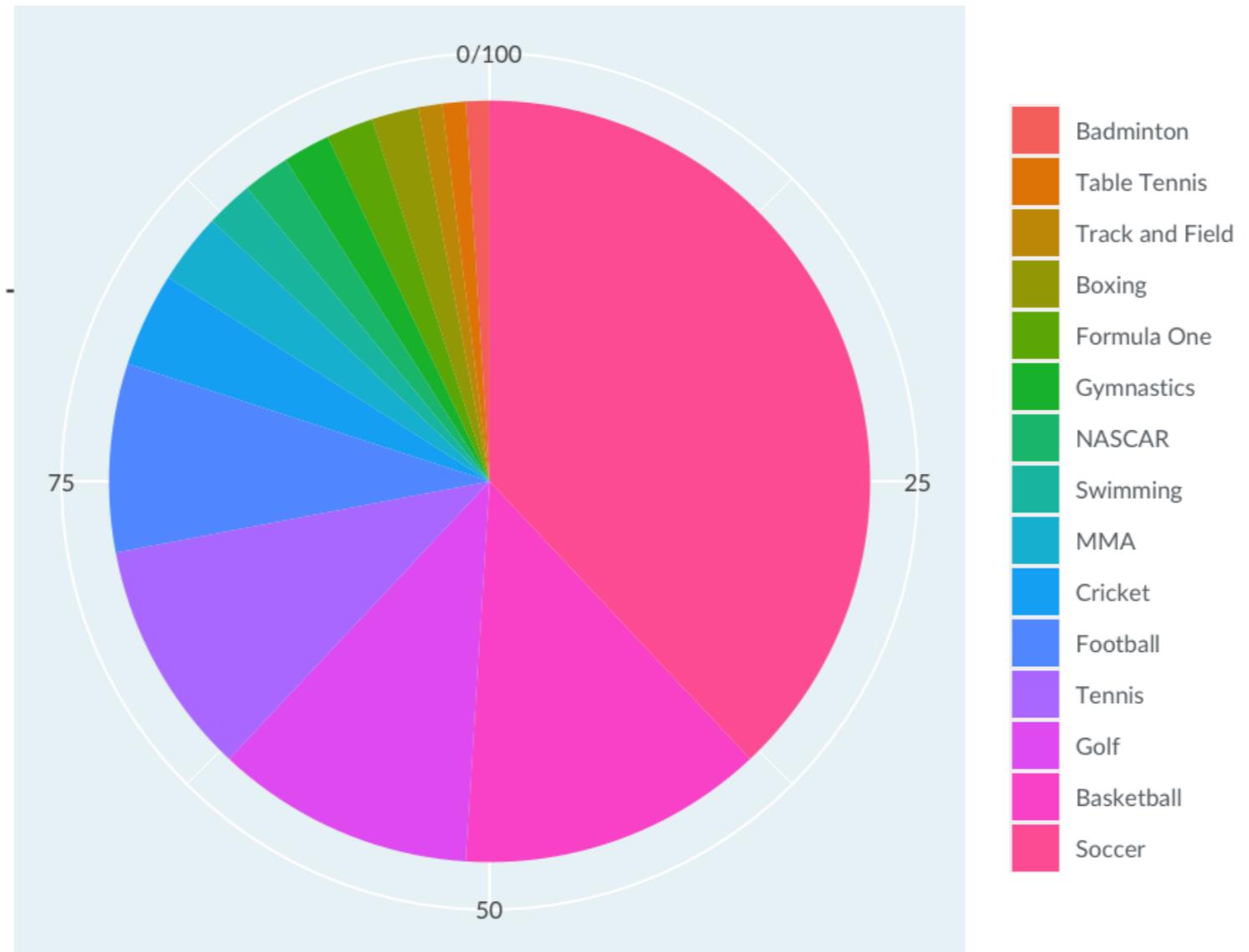
Pie plots



ESPN famous athletes, by sport



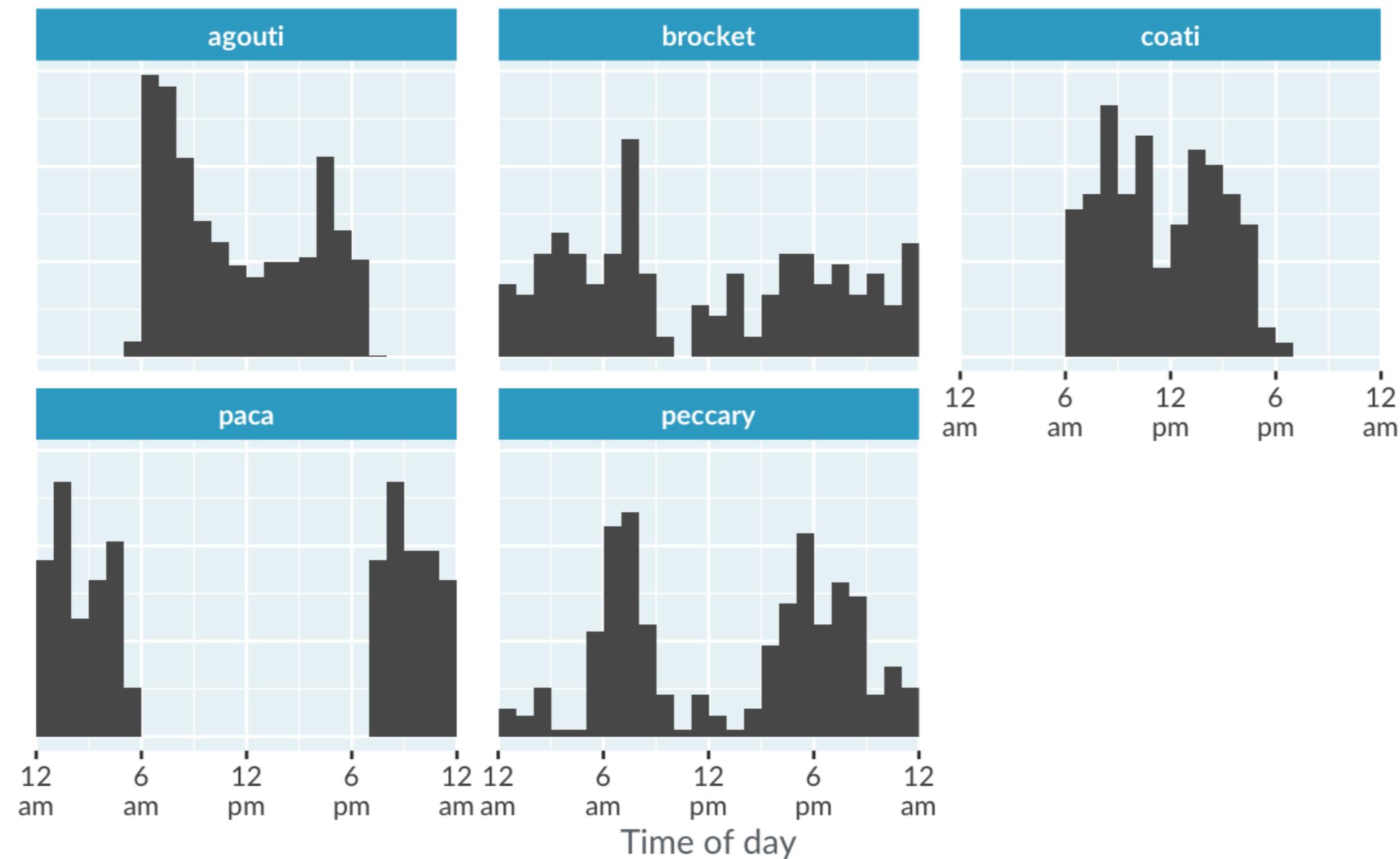
Bar plot + polar coords = pie plot



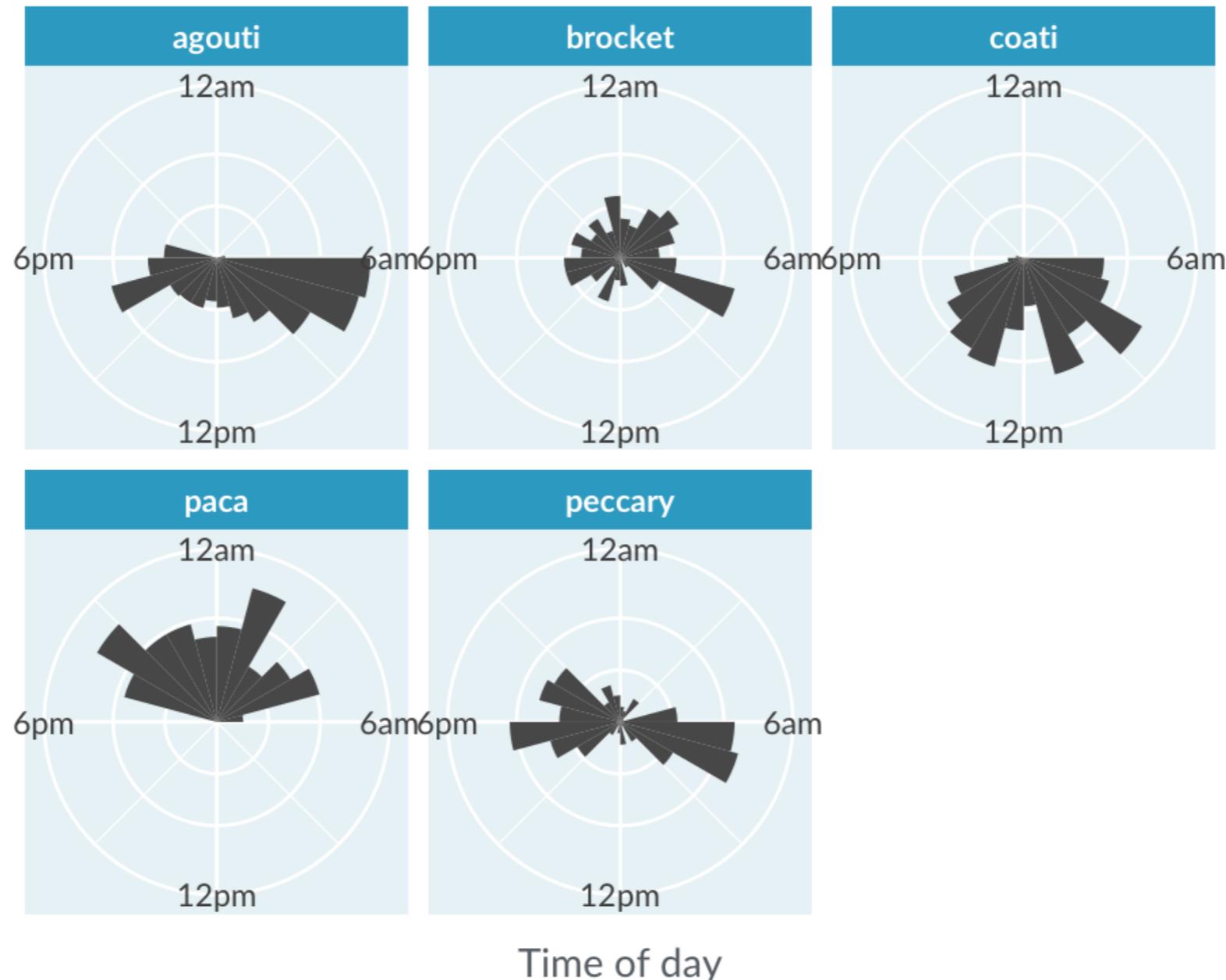
When should you use polar coordinates?

- Almost never.
- If you have a variable that is naturally circular (time of day, compass direction).

Histogram of animal activity



Histogram + polar coords = rose plot

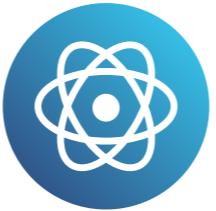


Let's practice!

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Axes of evil

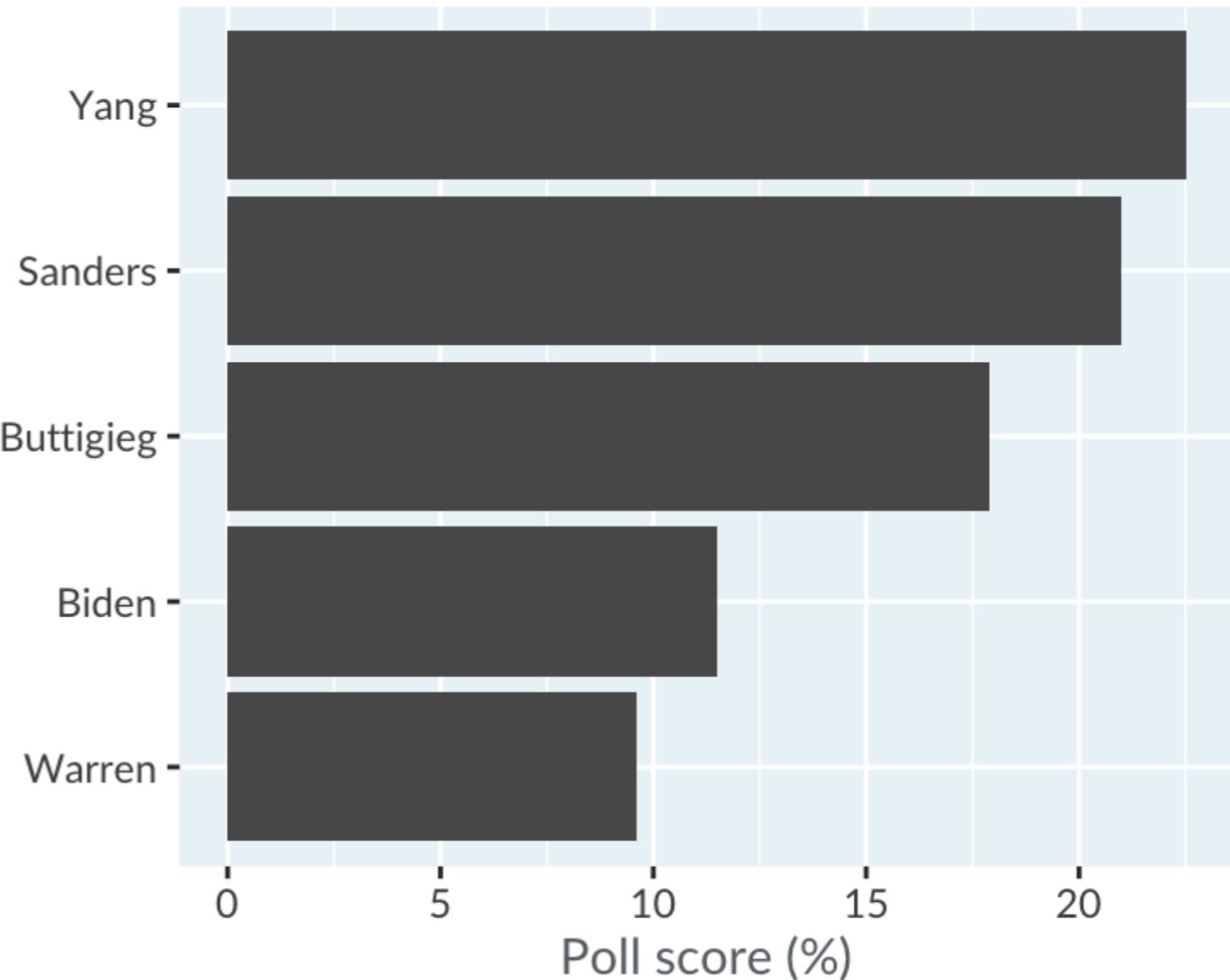
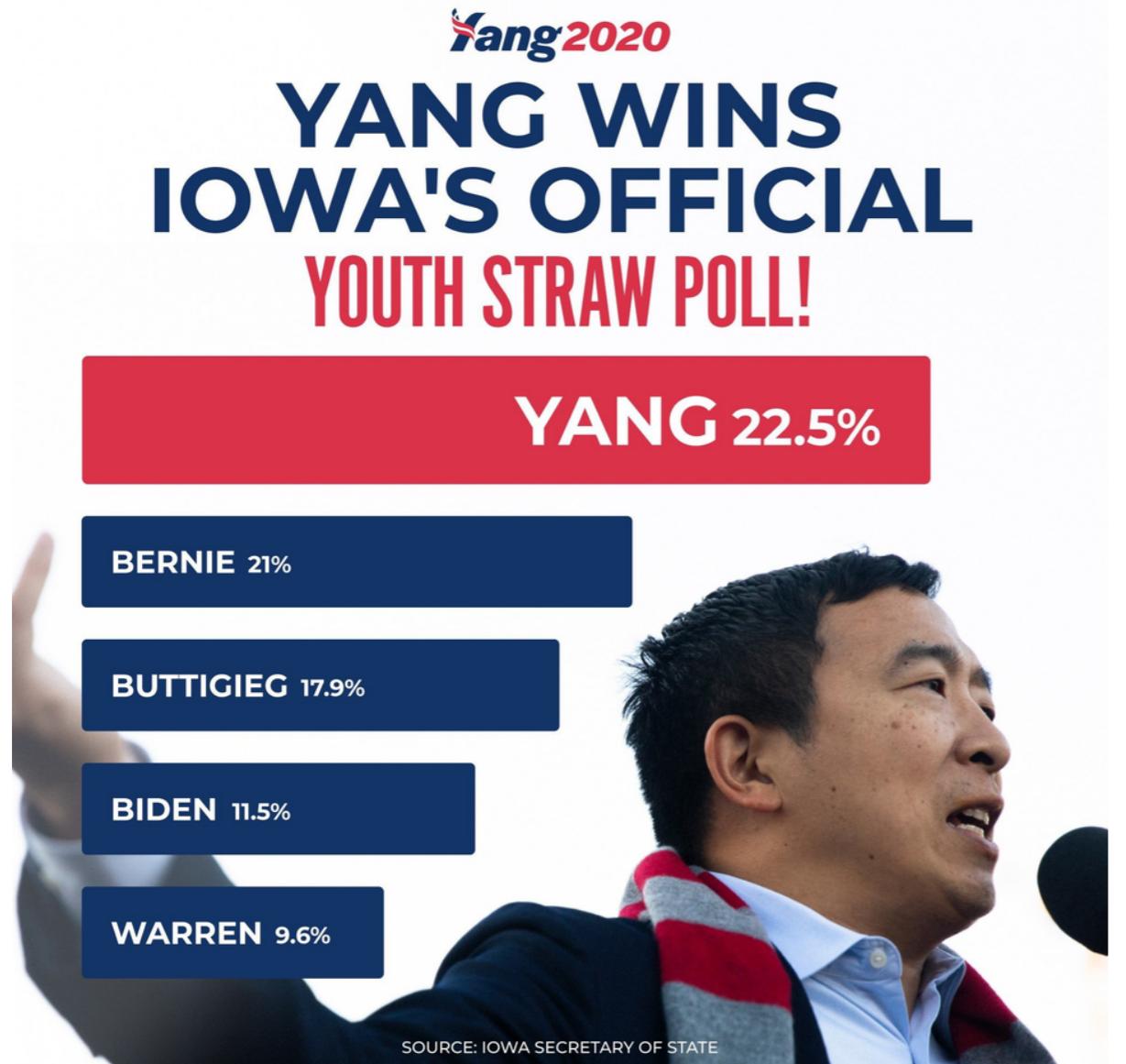
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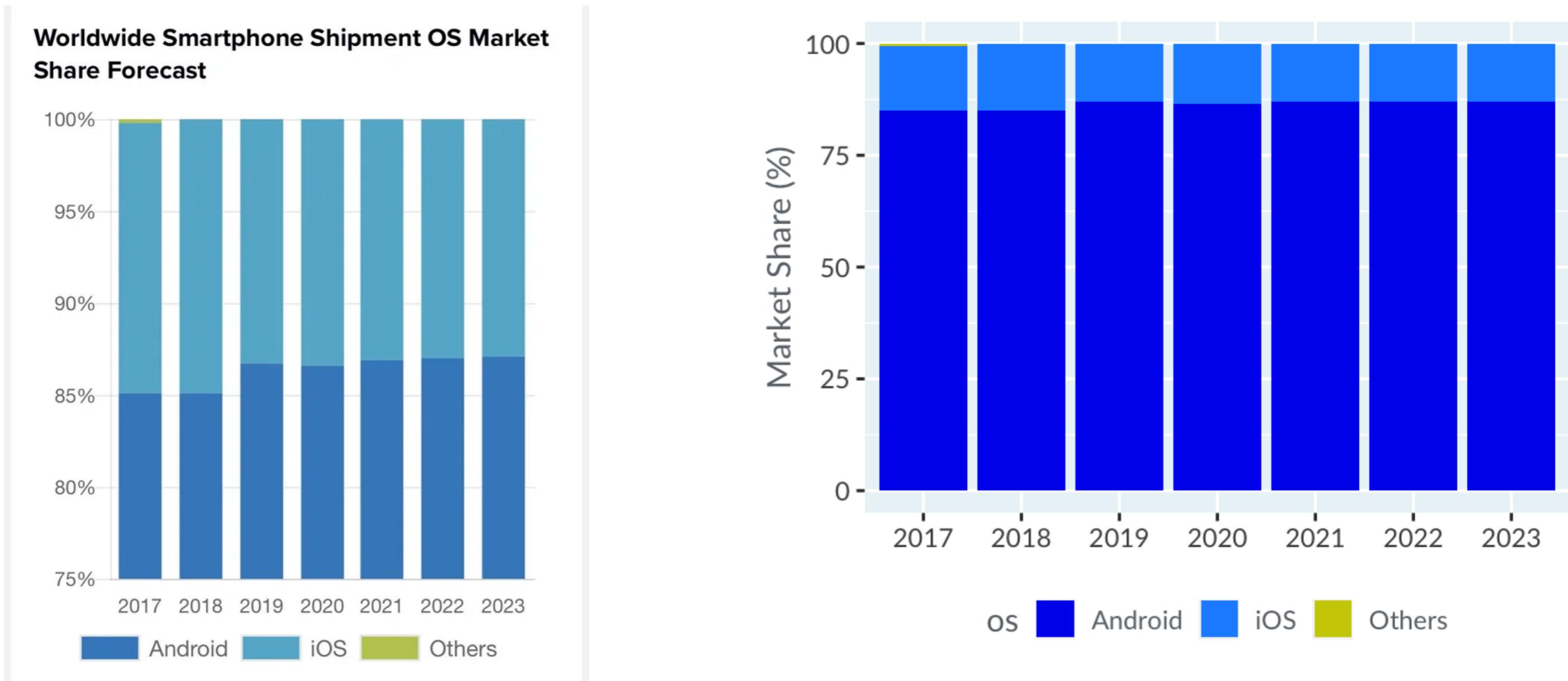
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Nonsense bar lengths



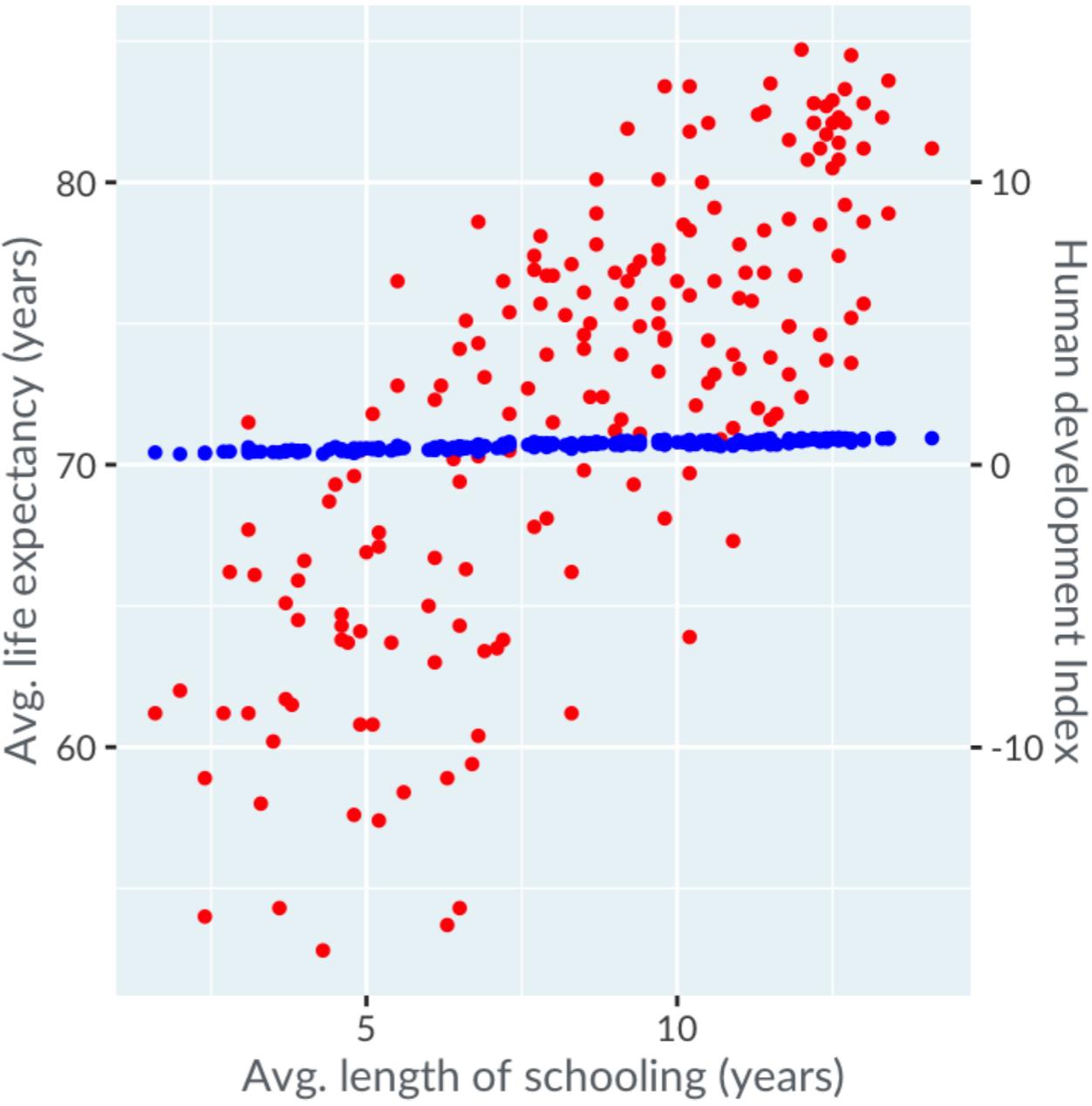
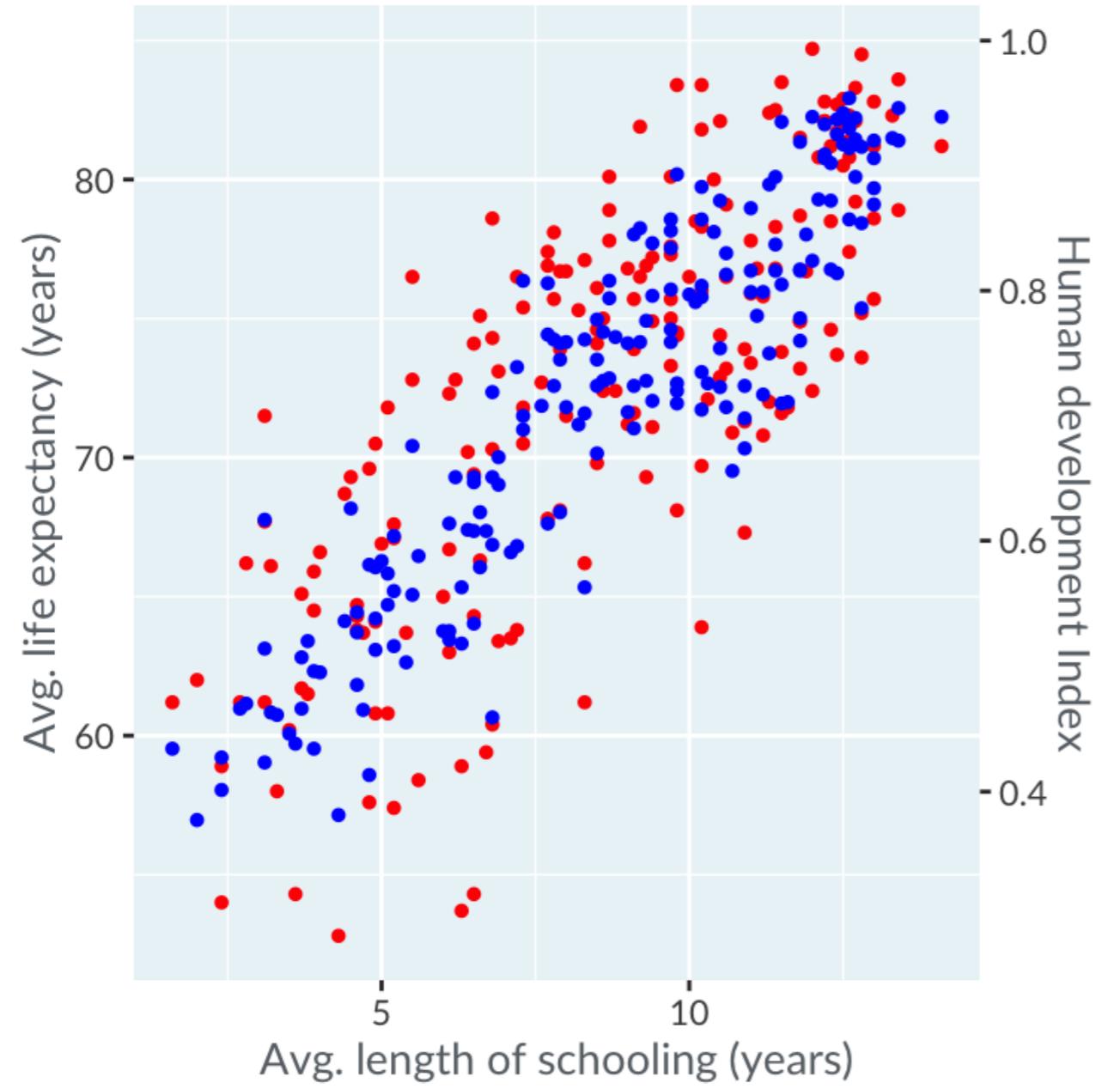
¹ https://www.reddit.com/r/dataisugly/comments/exewcc/thats Quite_a Large_15

The same applies to stacked bar plots

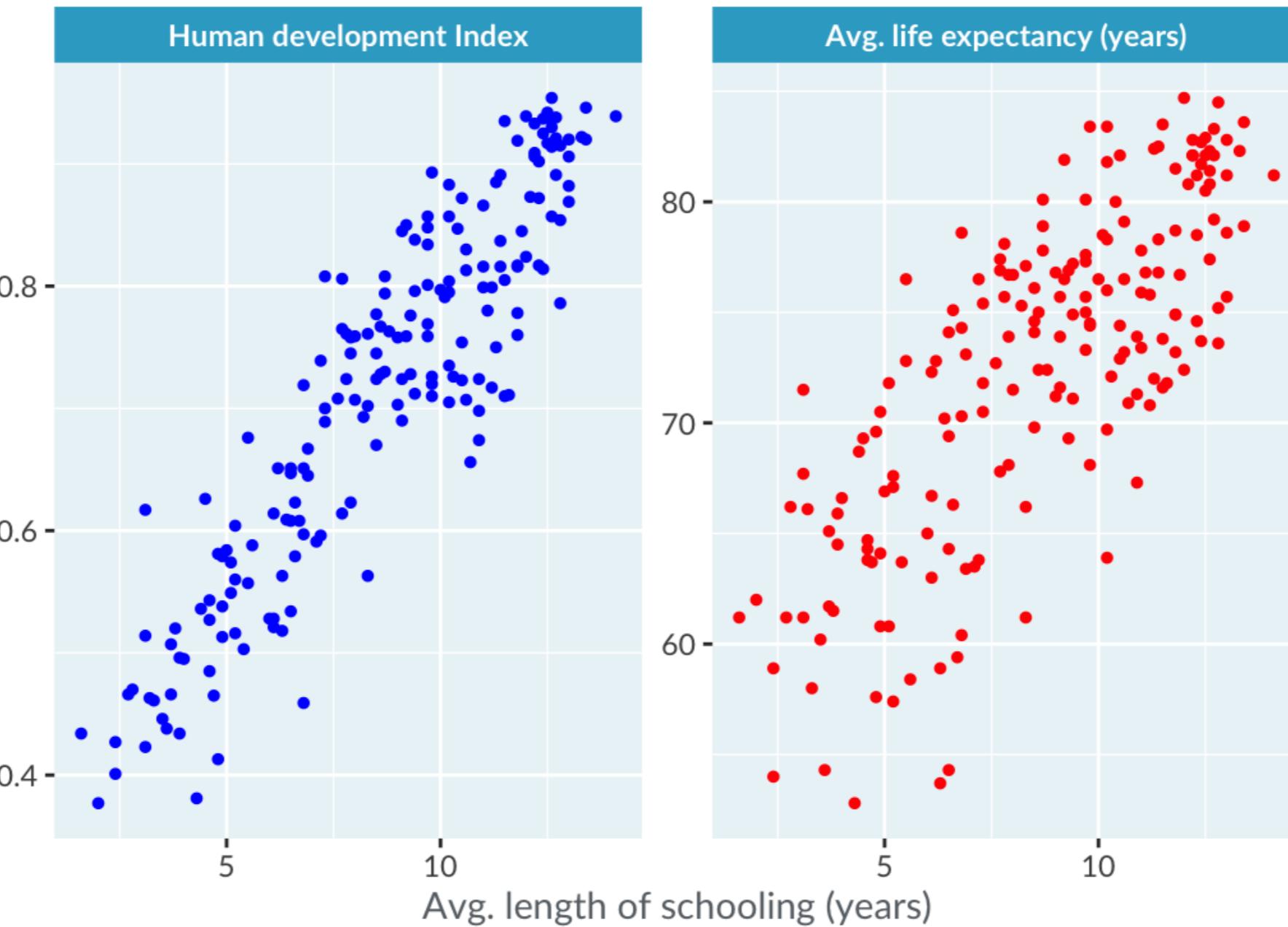


¹ https://www.reddit.com/r/dataisugly/comments/d76ixt/lets_make_13_vs_87_market_share_look_like_5050

Dual axes are misleading



Better to use multiple panels

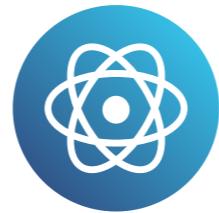


Let's practice!

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Sensory overload

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Measures of a good visualization

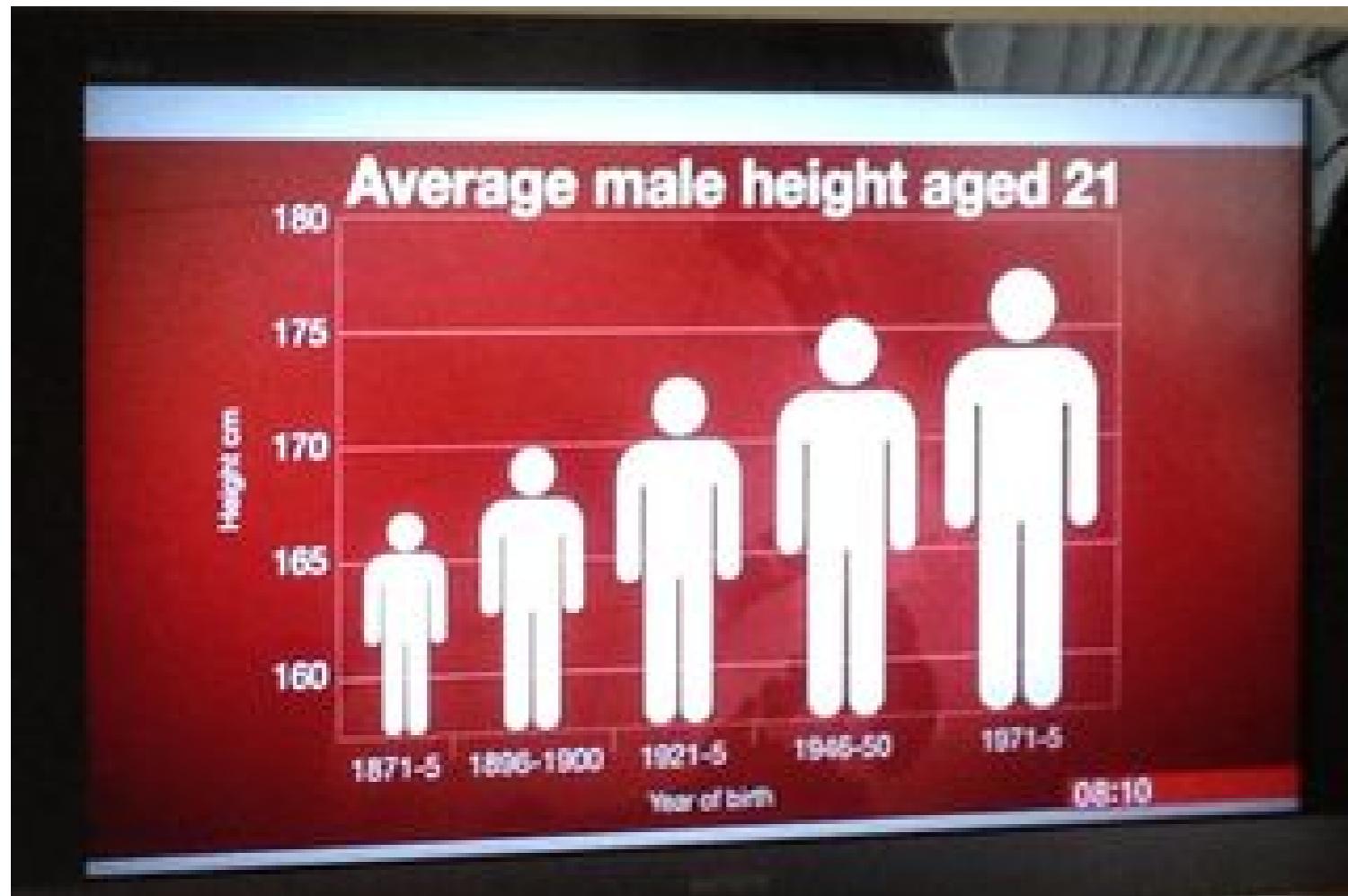
- How many interesting insights can your reader get from the plot?
- How quickly can they get those insights?

Chartjunk

Any element of the plot that distracts from the reader getting insight

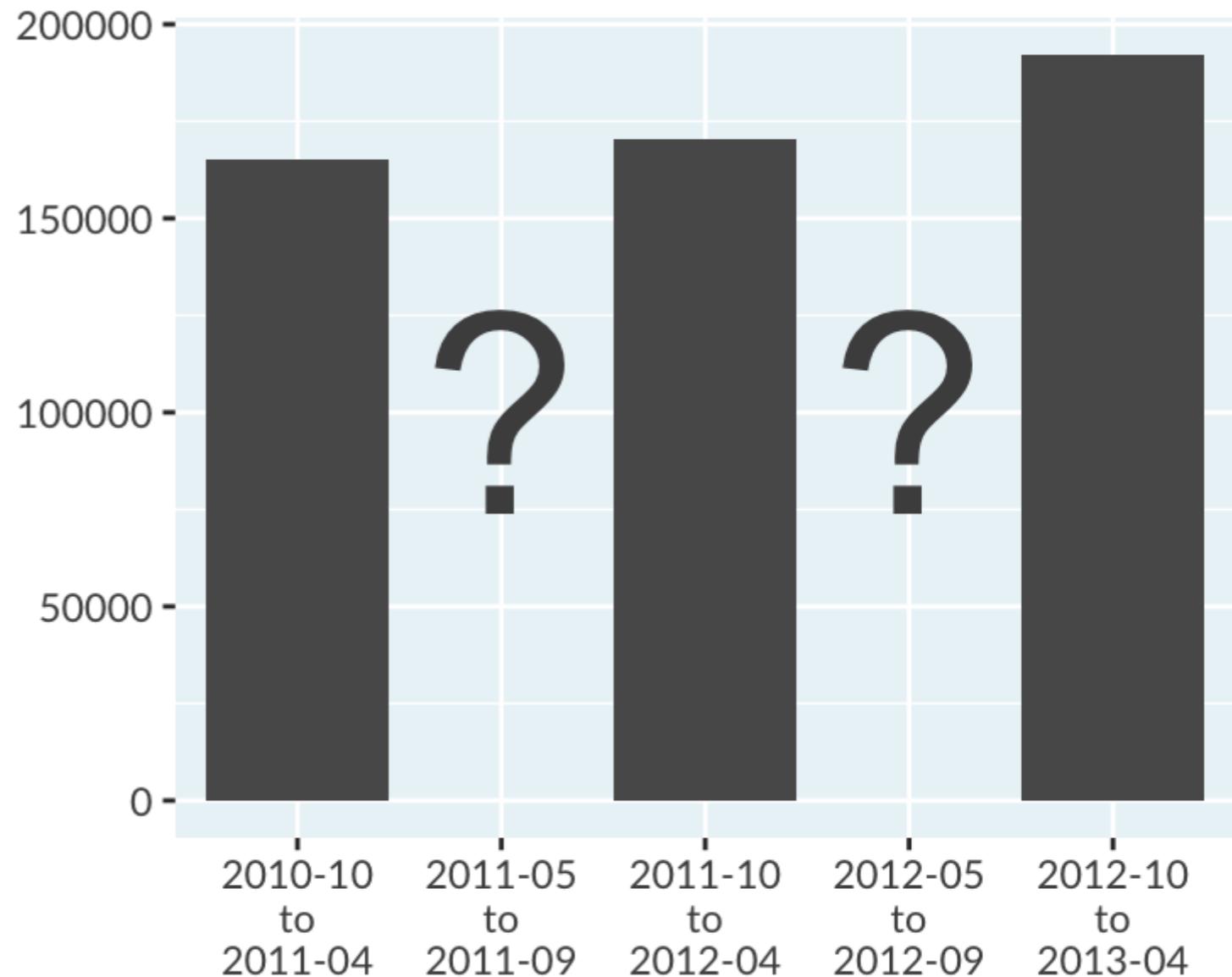
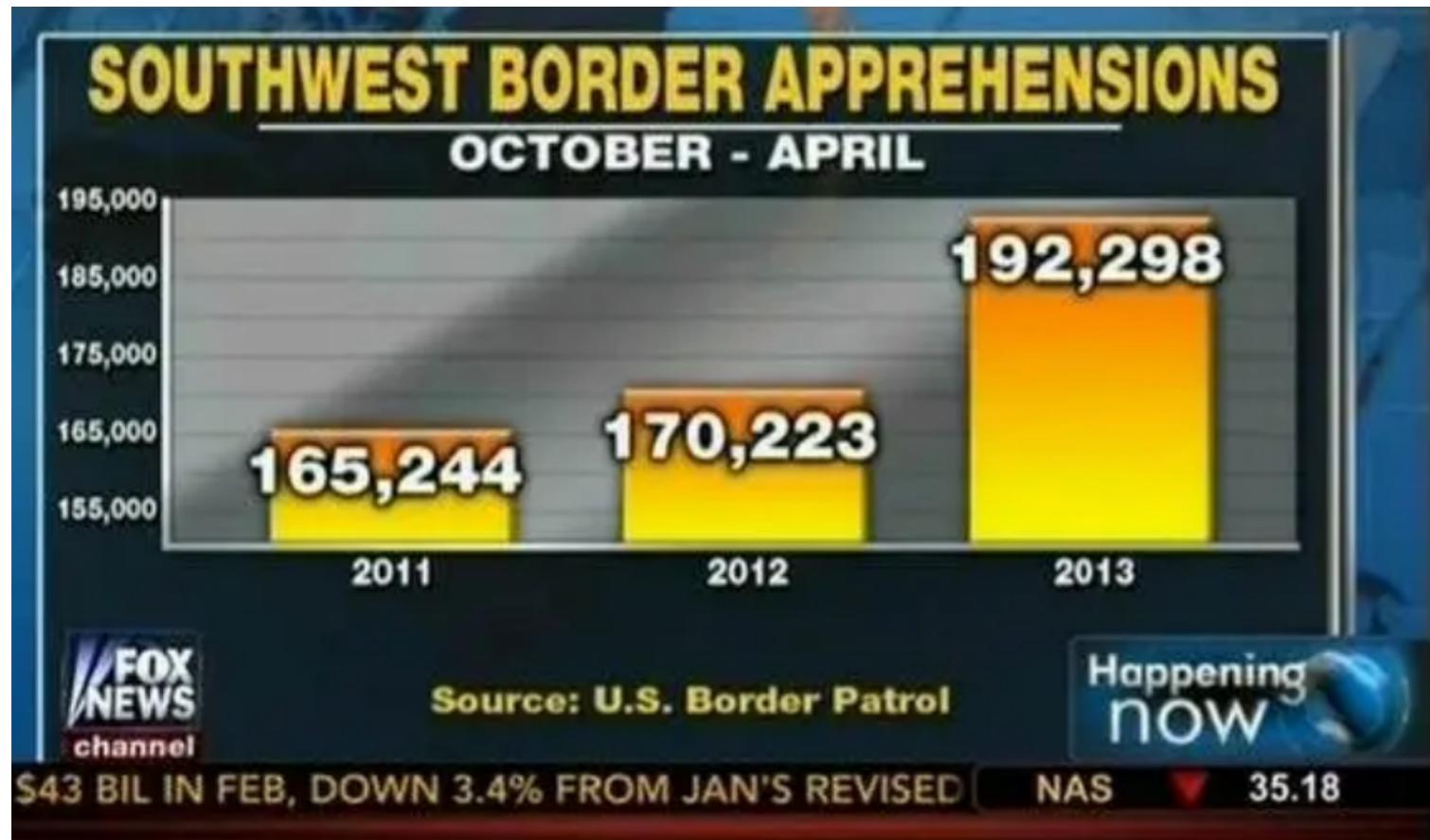
- Pictures
- Skueomorphism: reflections, shadows, etc.
- Extra dimensions
- Ostentatious colors or lines

Pictures



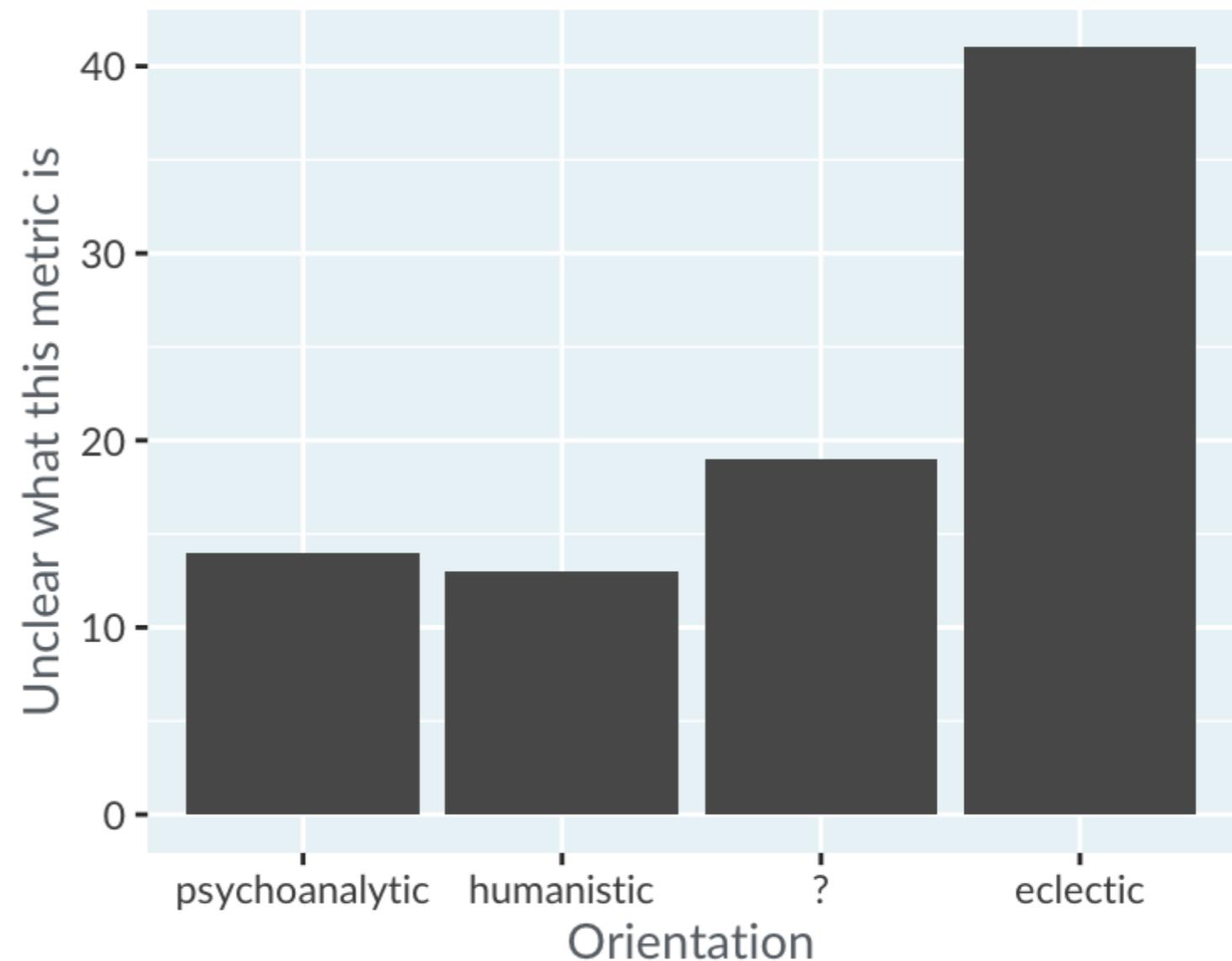
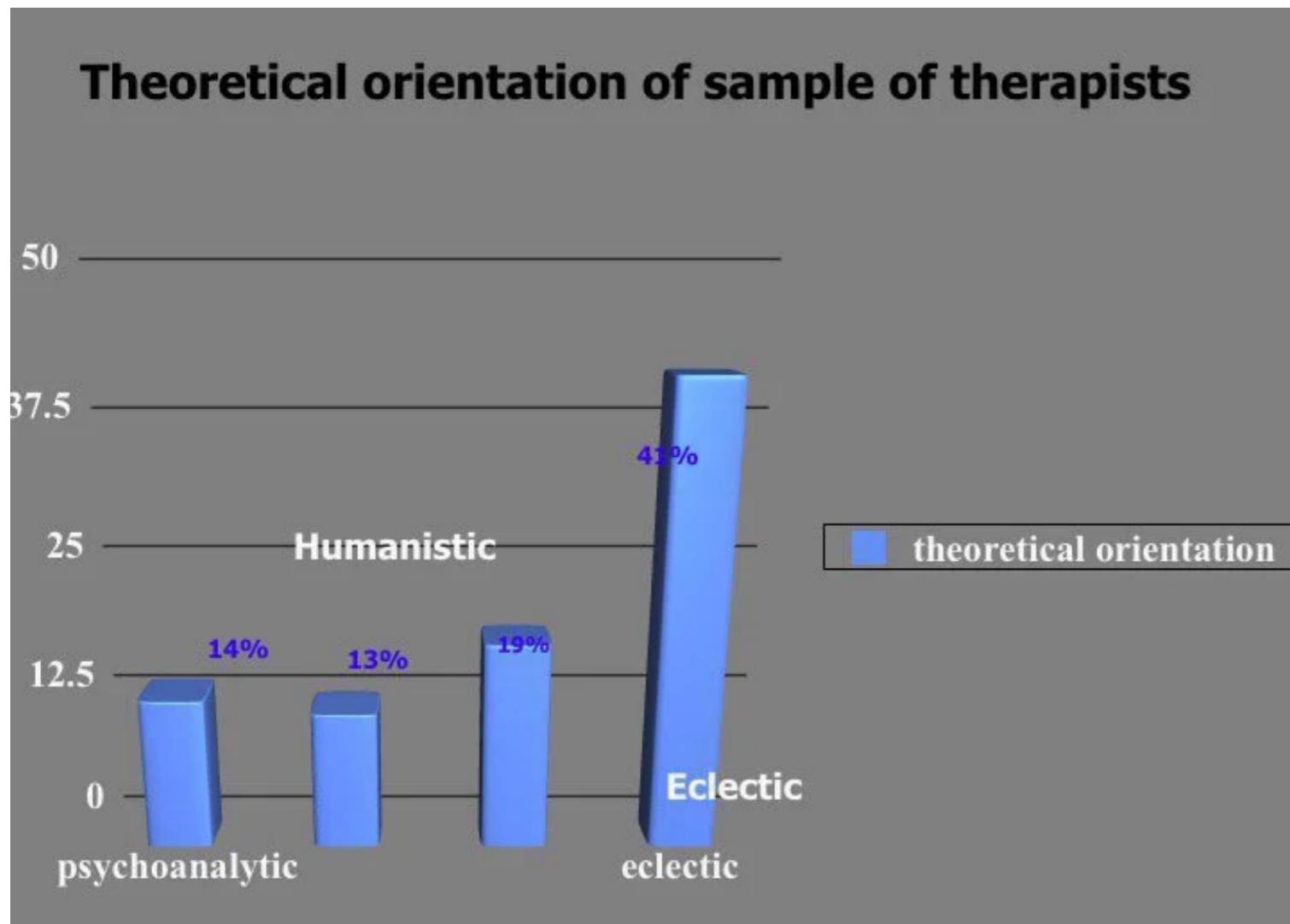
¹ https://junkcharts.typepad.com/junk_charts/2013/09/the-incredibly-expanding-male.html

Skeuomorphism



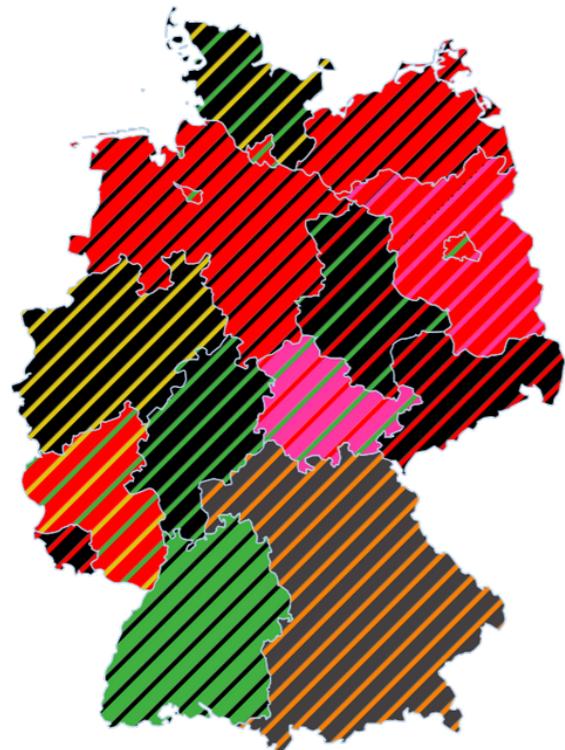
¹ <https://www.mediamatters.org/fox> ² news/fox ³ news ⁴ newest ⁵ dishonest ⁶ chart ⁷ immigration ⁸ enforcement

Extra dimensions

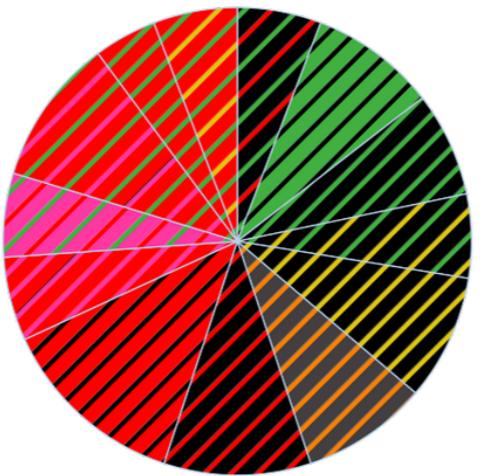


¹ https://www.reddit.com/r/dataisugly/comments/dh6yra/an_actual_graph_presented_in_my_psychology

Ostentatious colors and lines



| | | | |
|---------------------|---|---------------------|---|
| SPD + CDU | 9 | CDU + GRÜNE | 5 |
| CDU + SPD | 7 | SPD + FDP + GRÜNE | 4 |
| SPD + LINKE + GRÜNE | 7 | CDU + SPD + GRÜNE | 4 |
| GRÜNE + CDU | 6 | SPD + LINKE | 4 |
| CSU + FW | 6 | LINKE + SPD + GRÜNE | 4 |
| CDU + FDP | 6 | CDU + GRÜNE + FDP | 4 |
| | | SPD + GRÜNE | 3 |



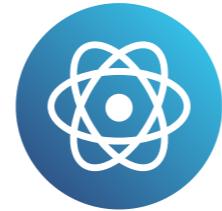
¹ https://www.reddit.com/r/dataisugly/comments/cyhle4/wikipedias_image_of_the_distribution_of_seats_in/ ² <https://imgur.com/y27mRLj>

Let's practice!

DATA VISUALIZATION FOR EVERYONE

Congratulations

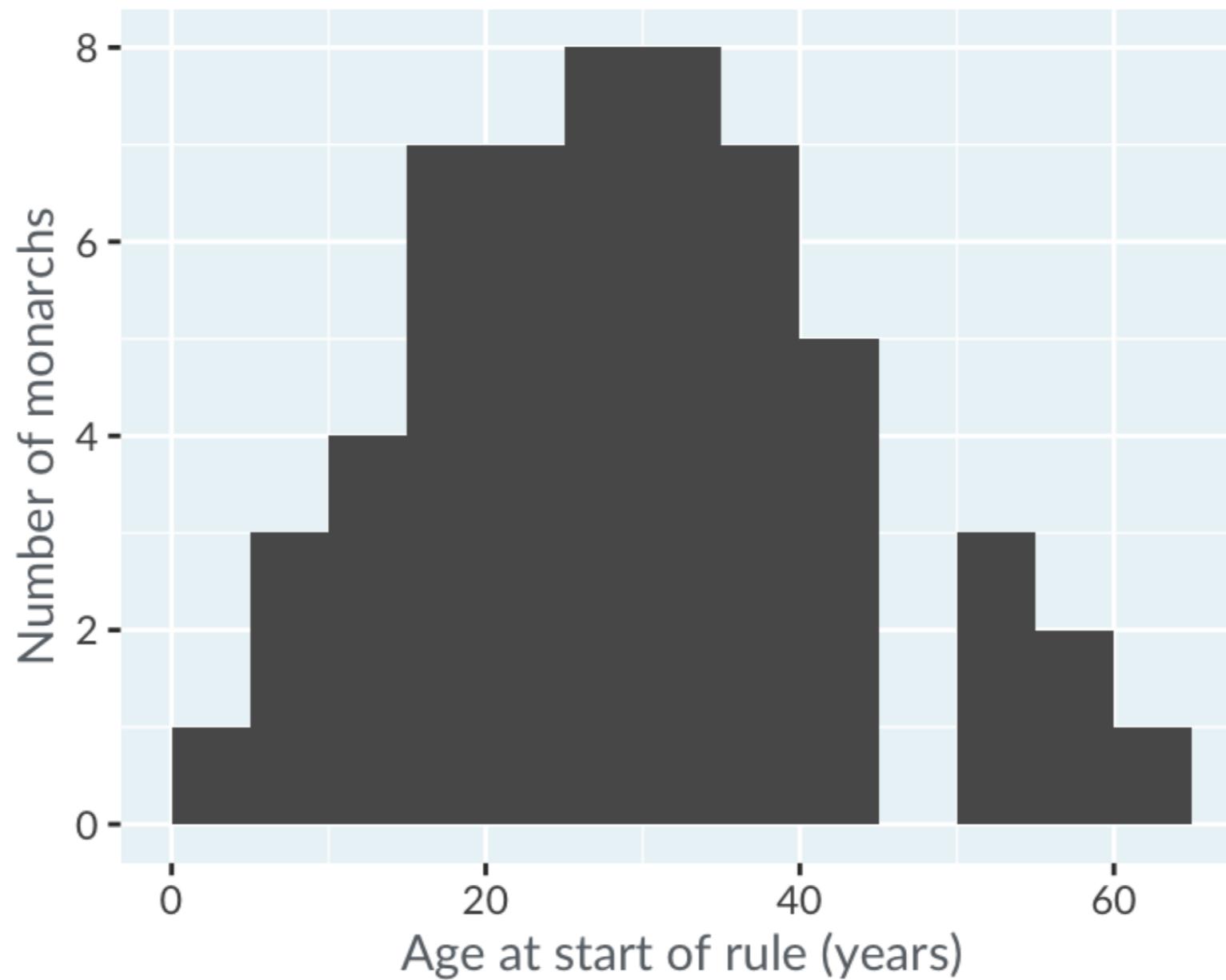
DATA VISUALIZATION FOR EVERYONE



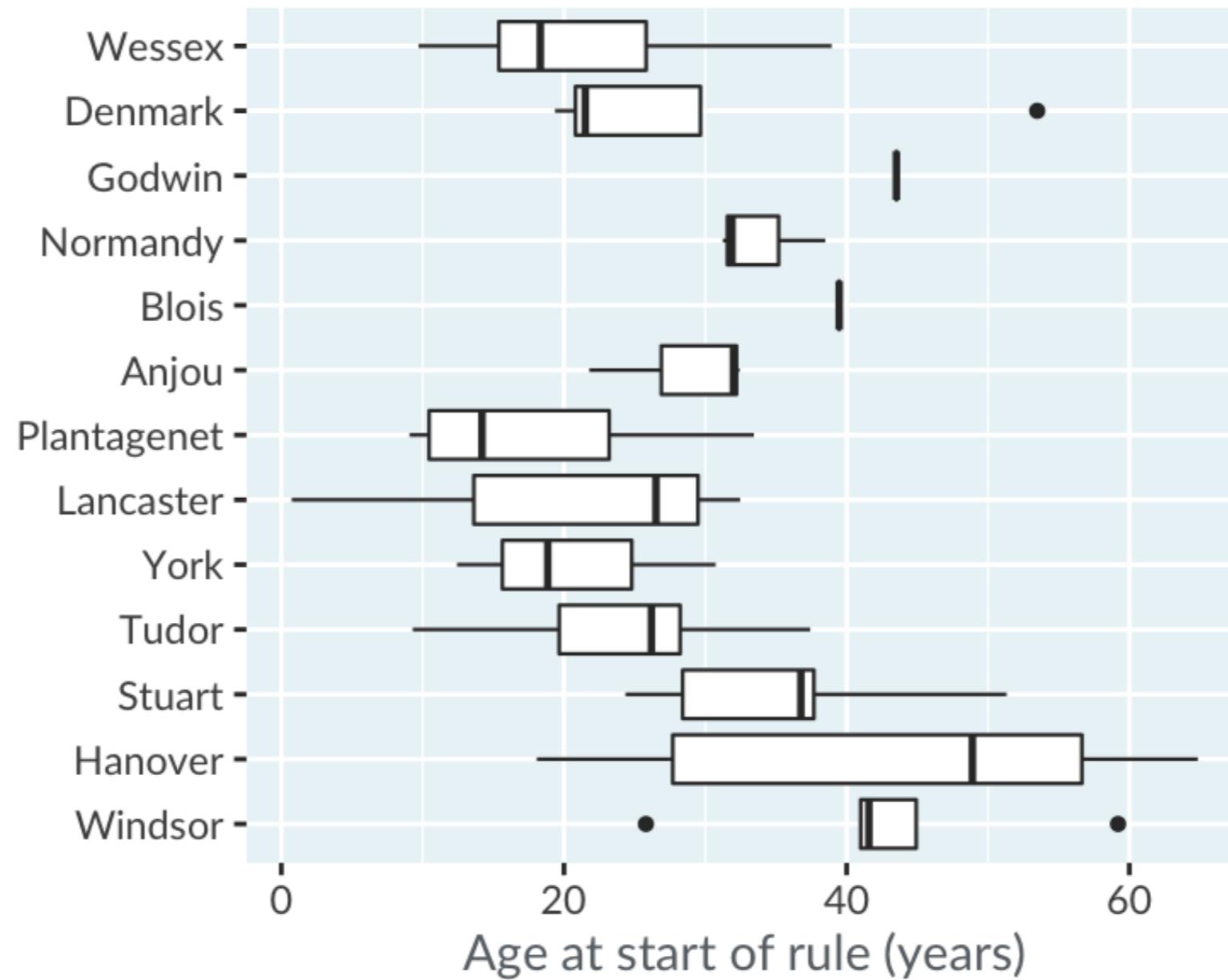
Richie Cotton

Curriculum Architect at DataCamp

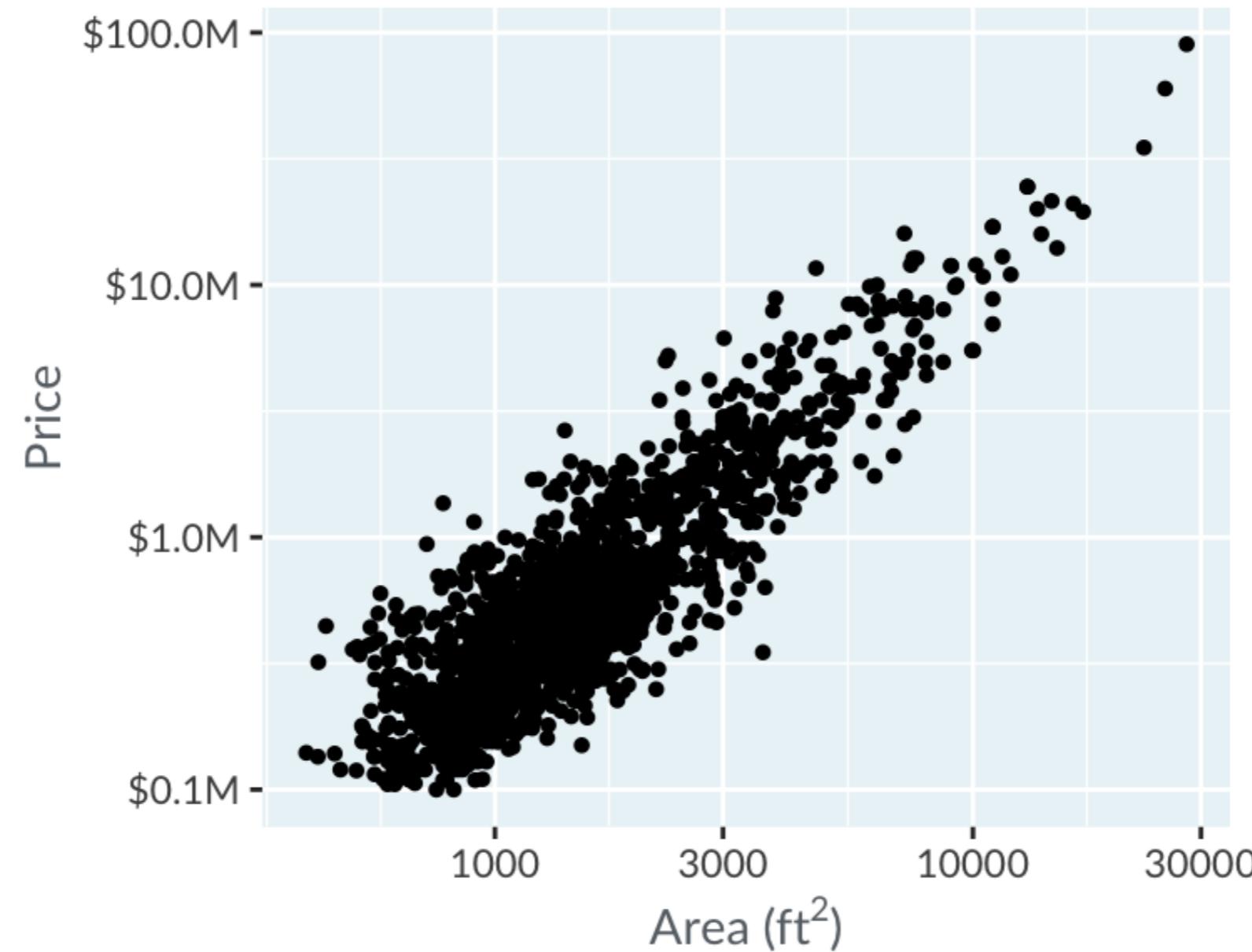
Histograms: show a distribution



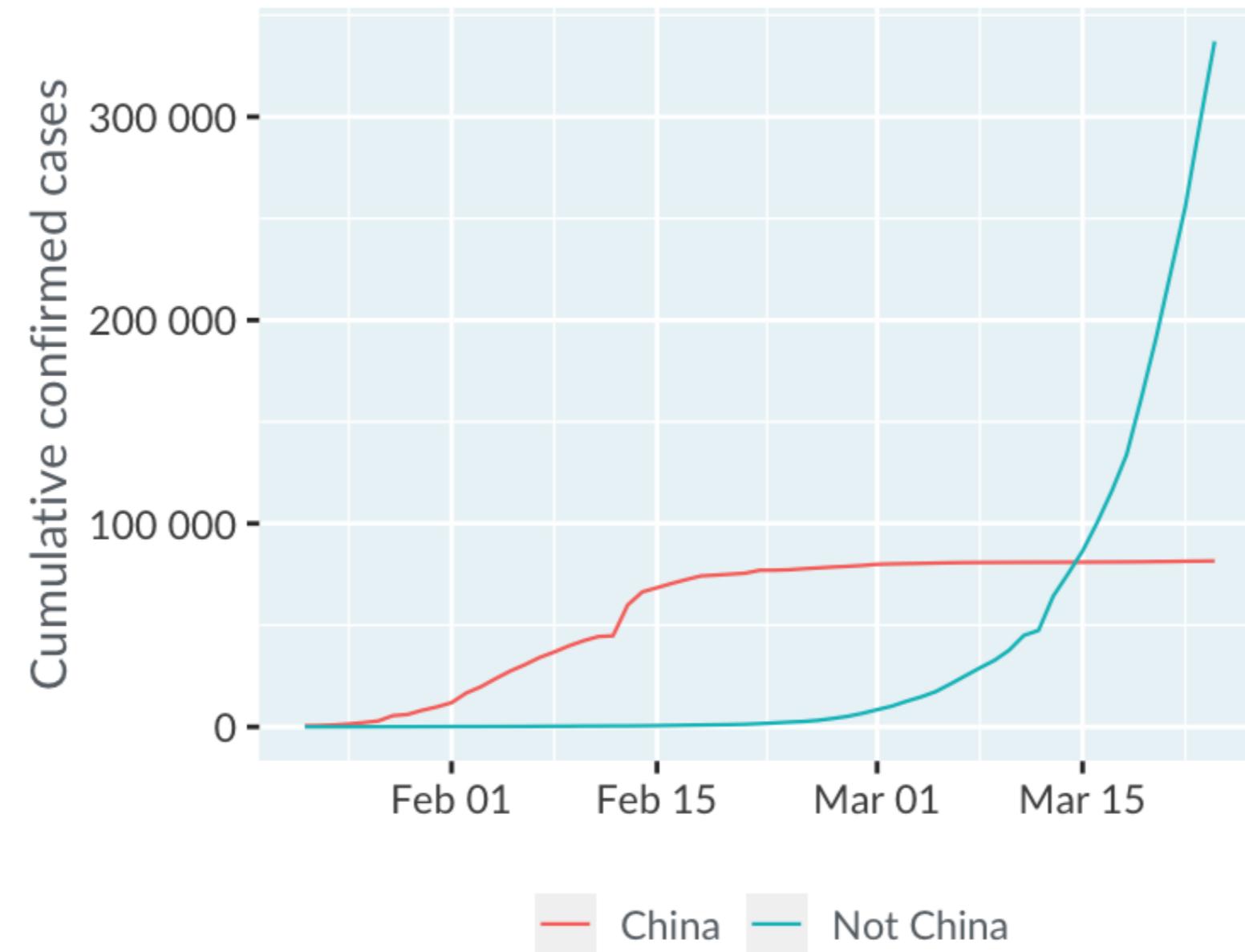
Box plots: show lots of distributions



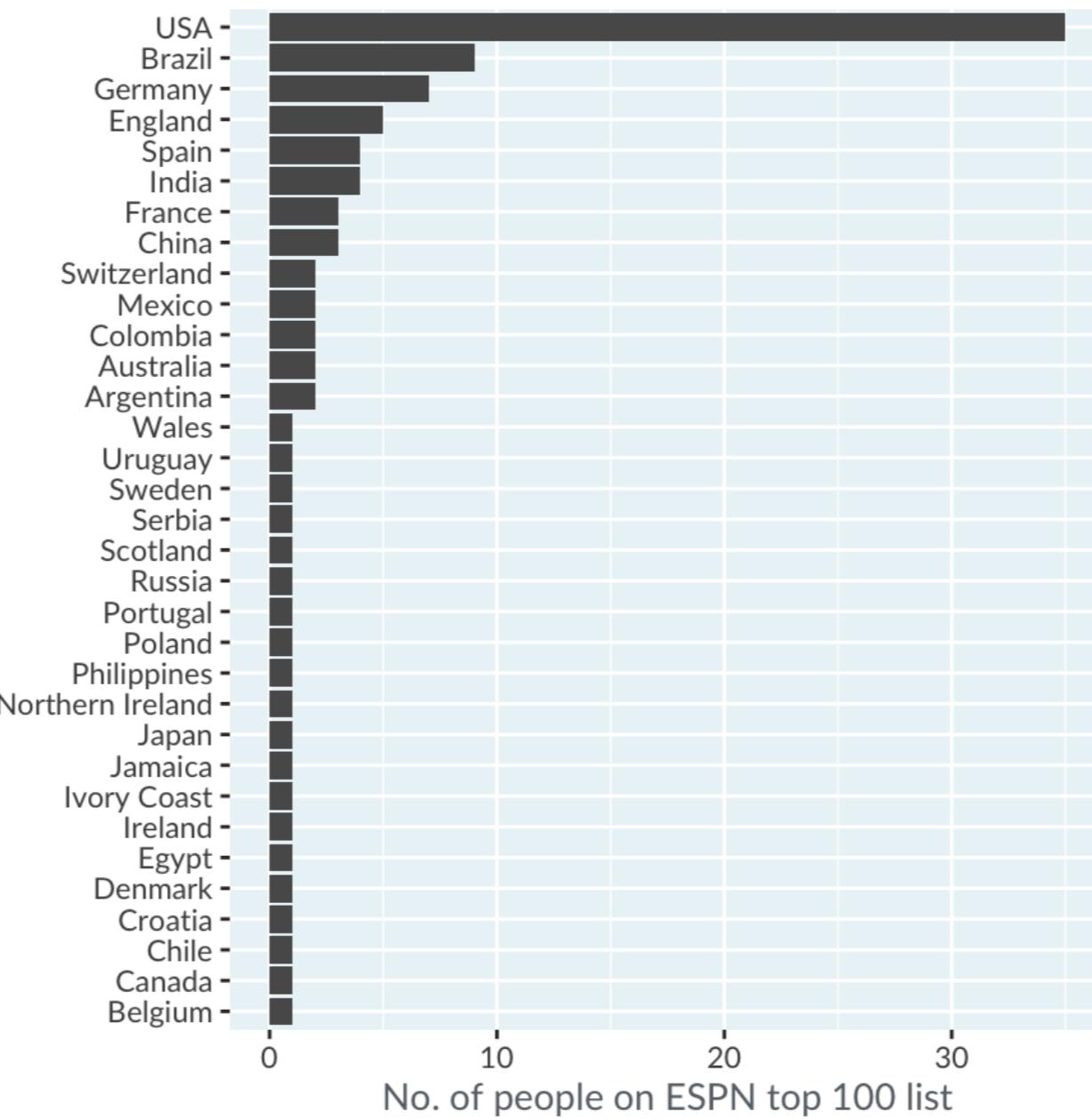
Scatter plots: compare two numeric variables



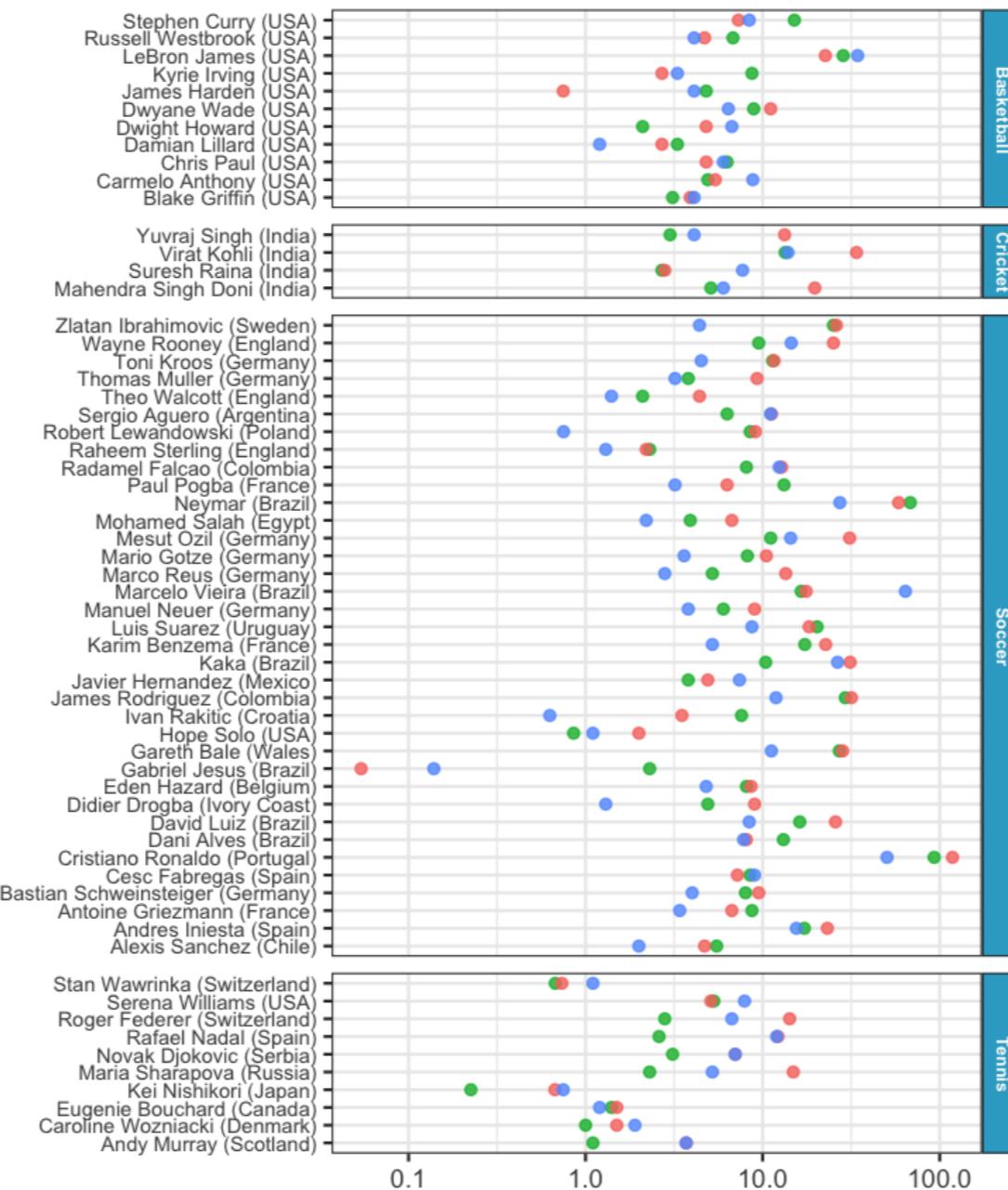
Line plots: show trends over time



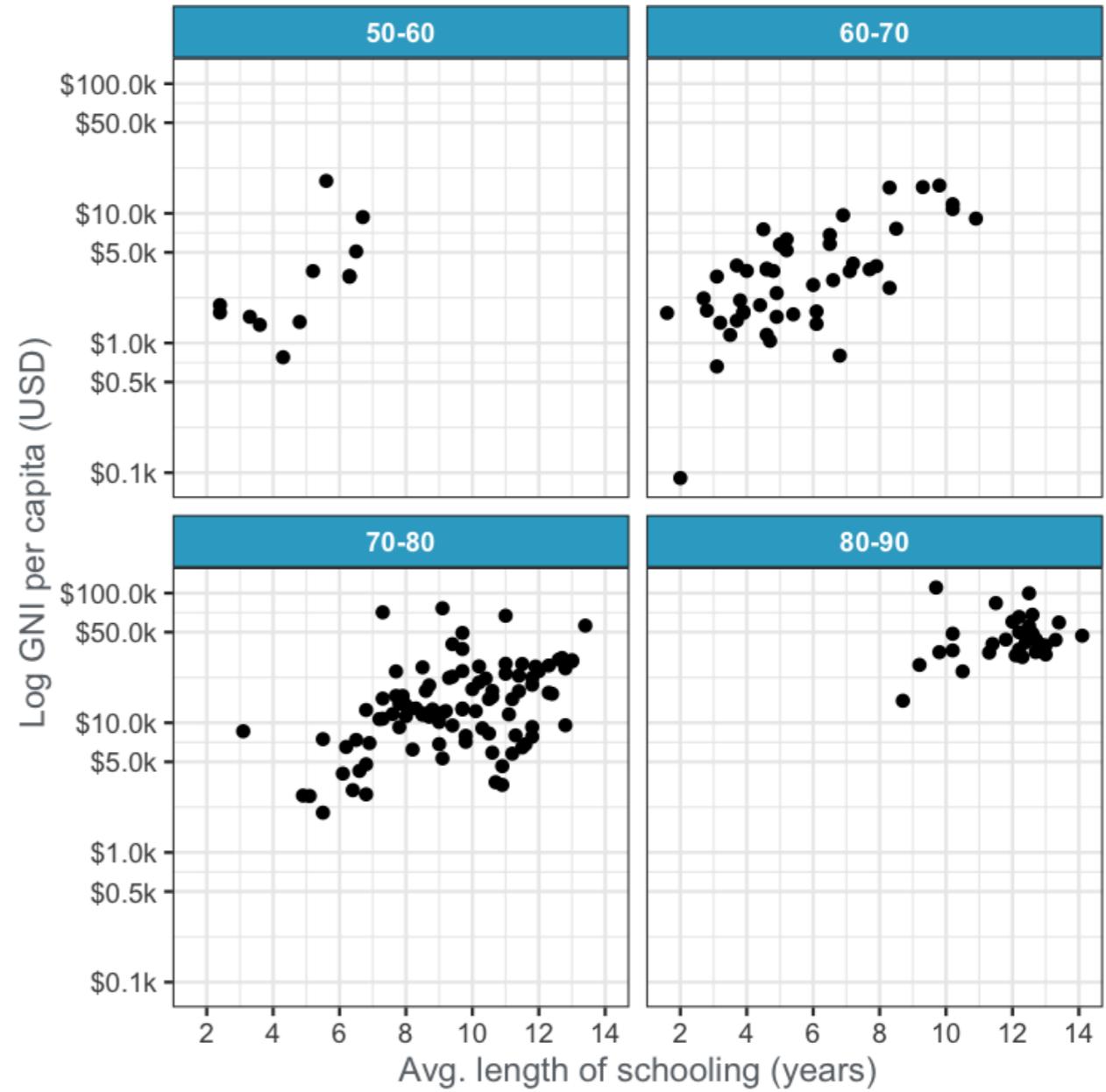
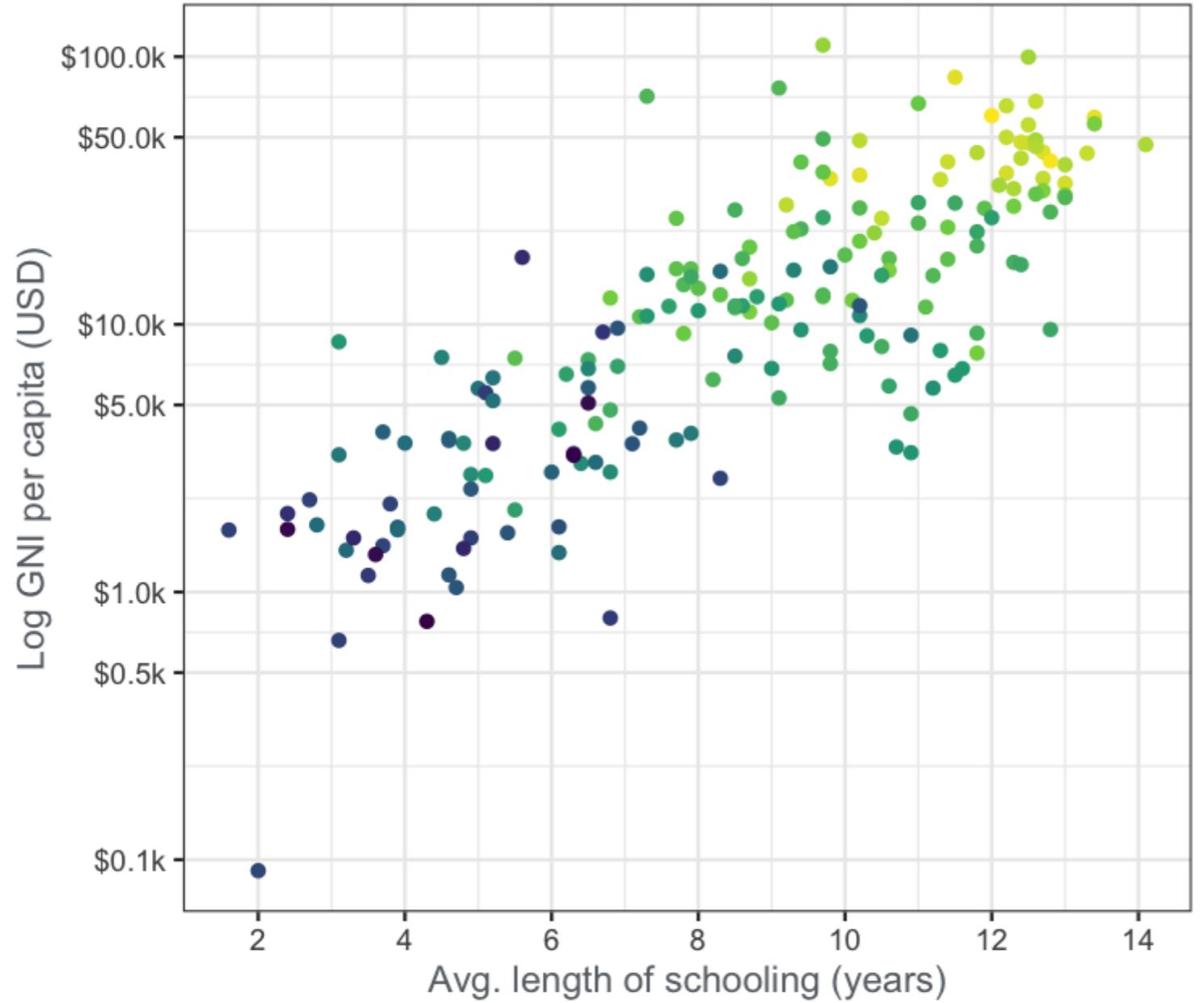
Bar plots: show counts by category



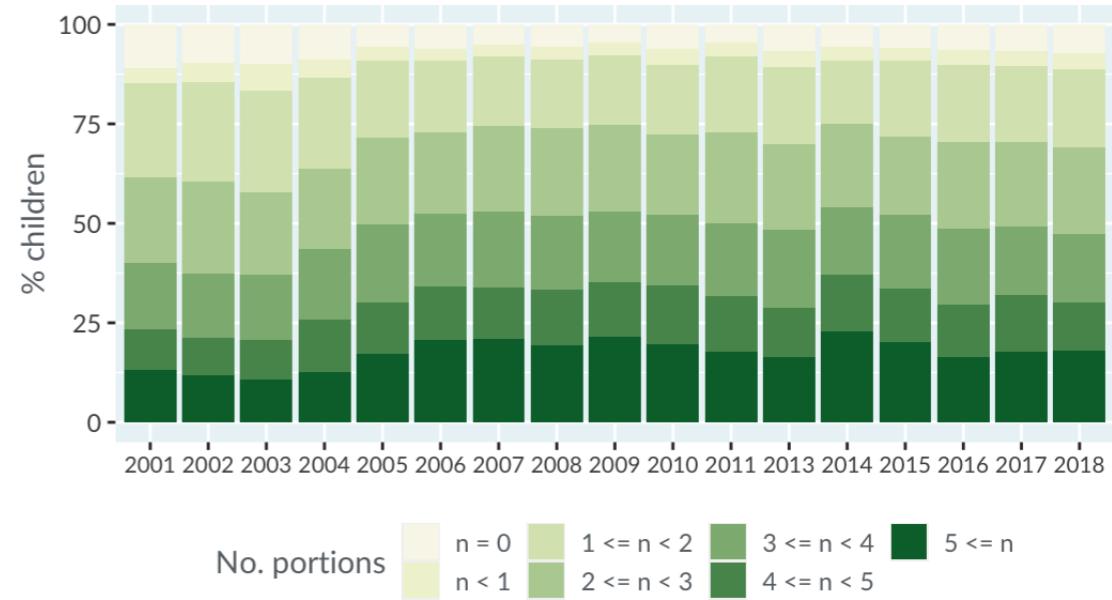
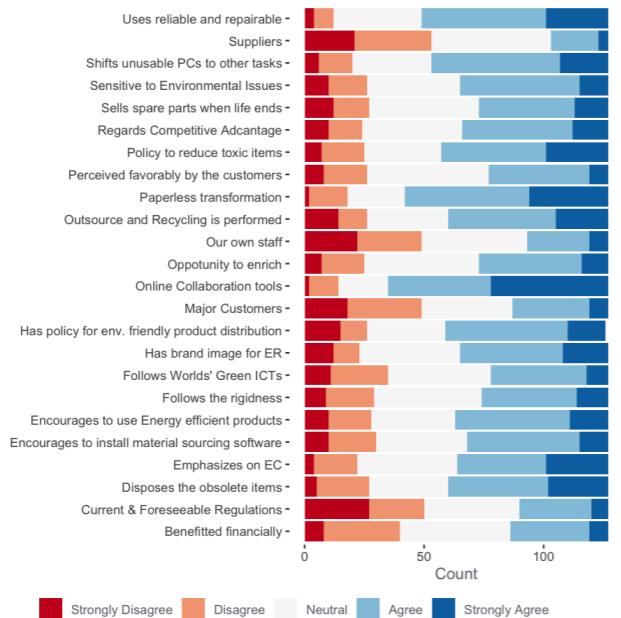
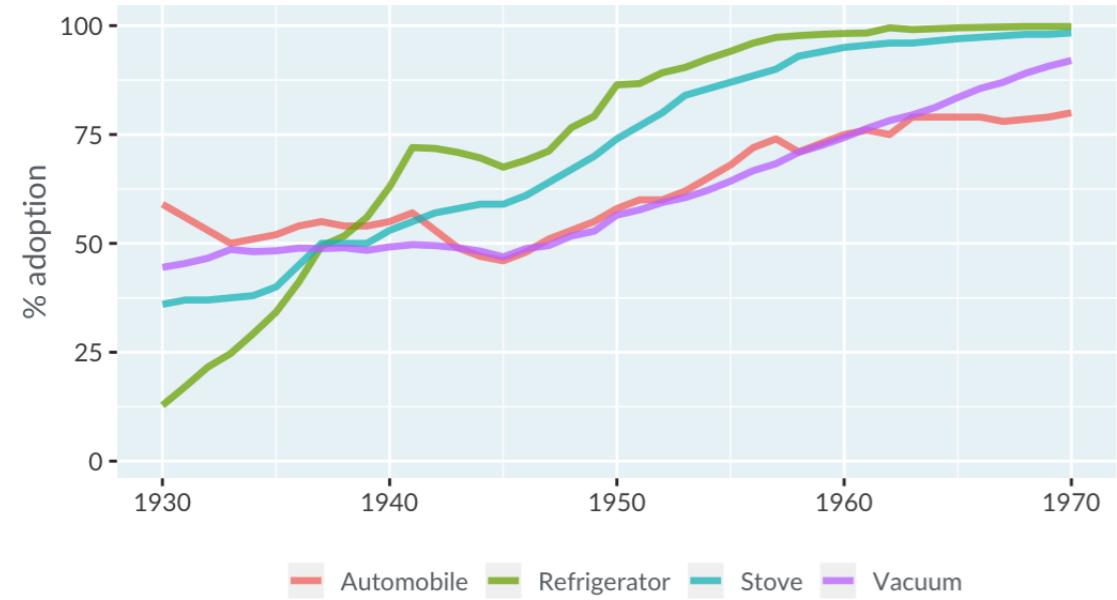
Dot plots: show log scale metrics by category



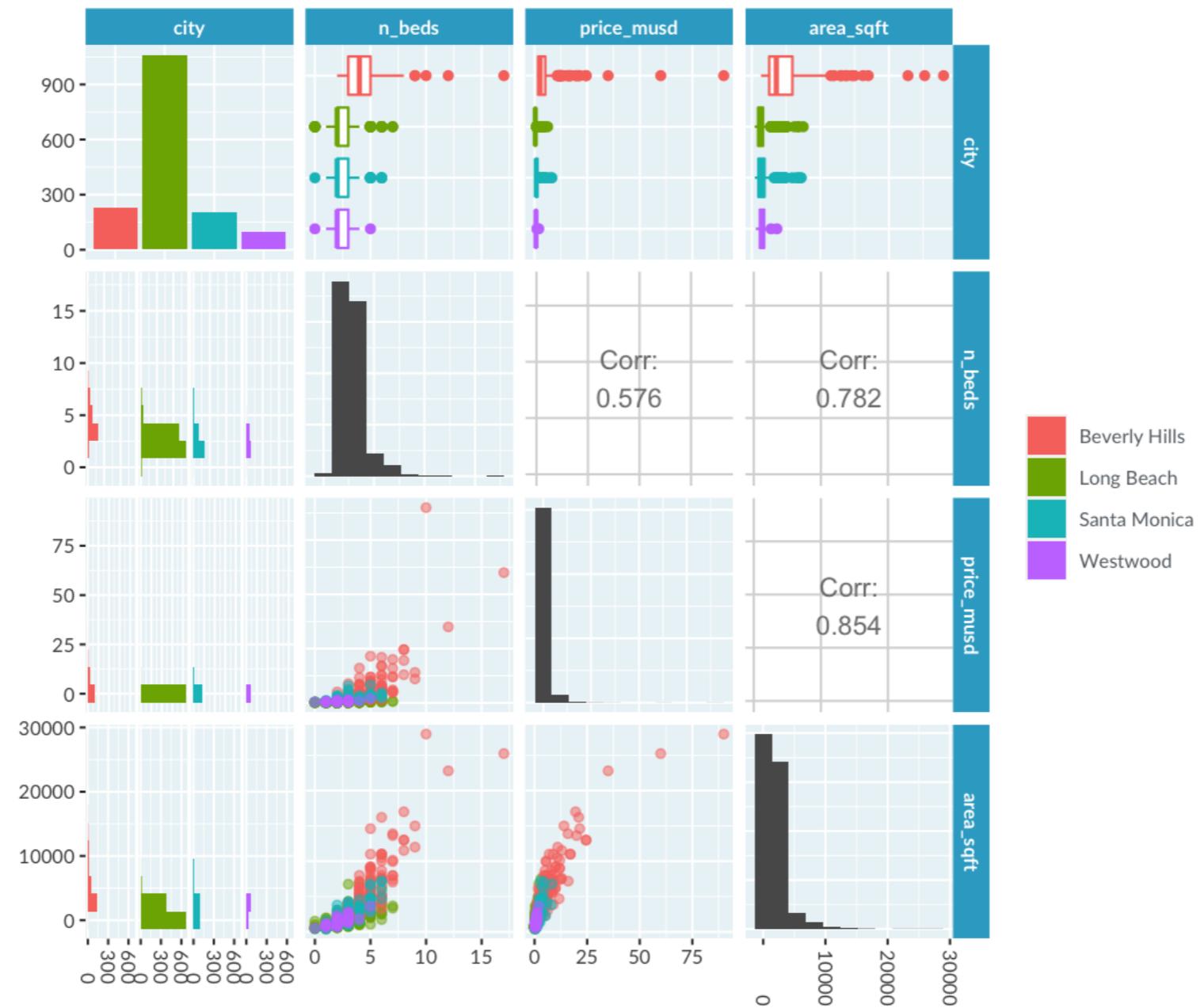
Extra dimensions



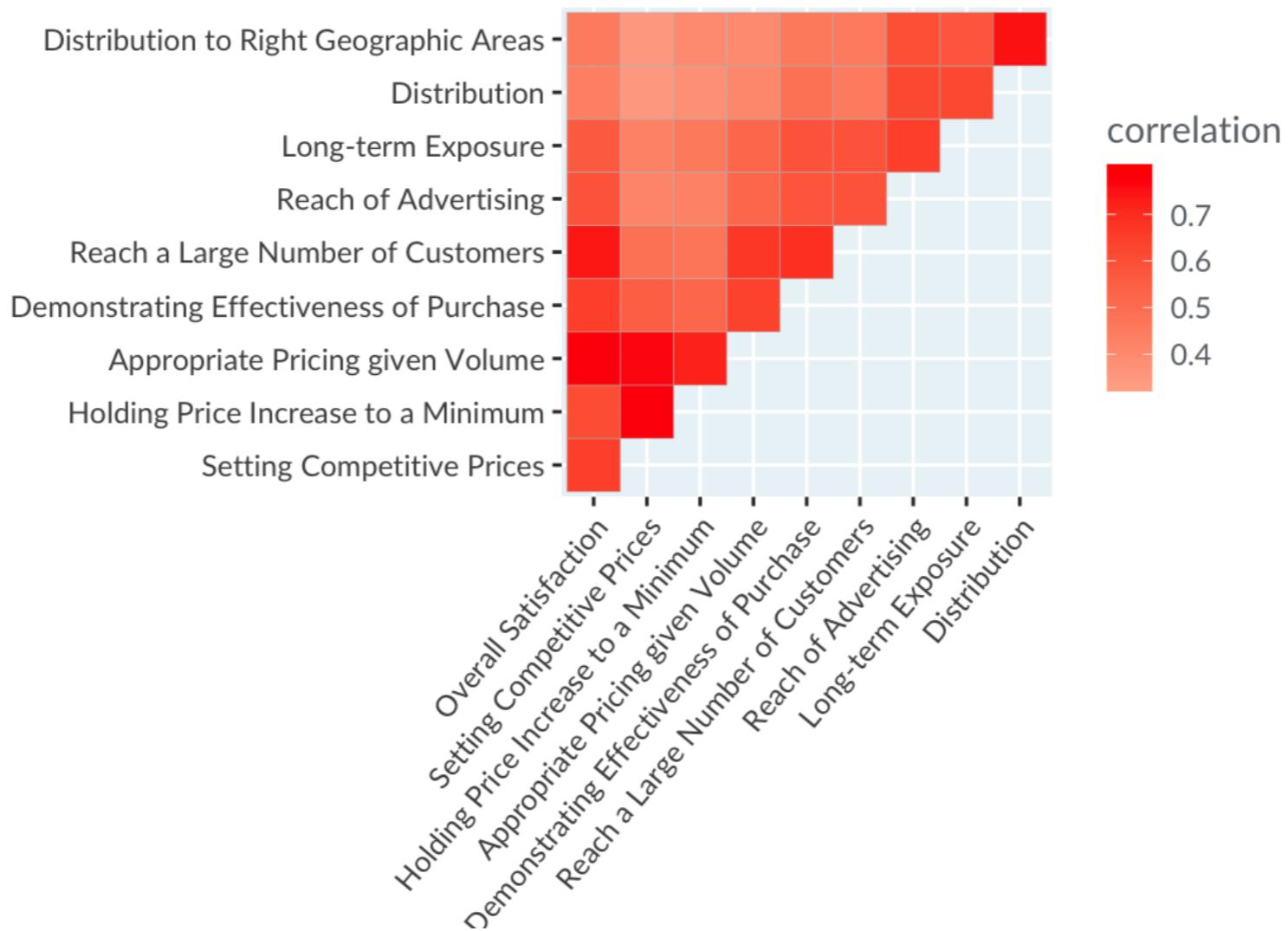
3 types of color scale



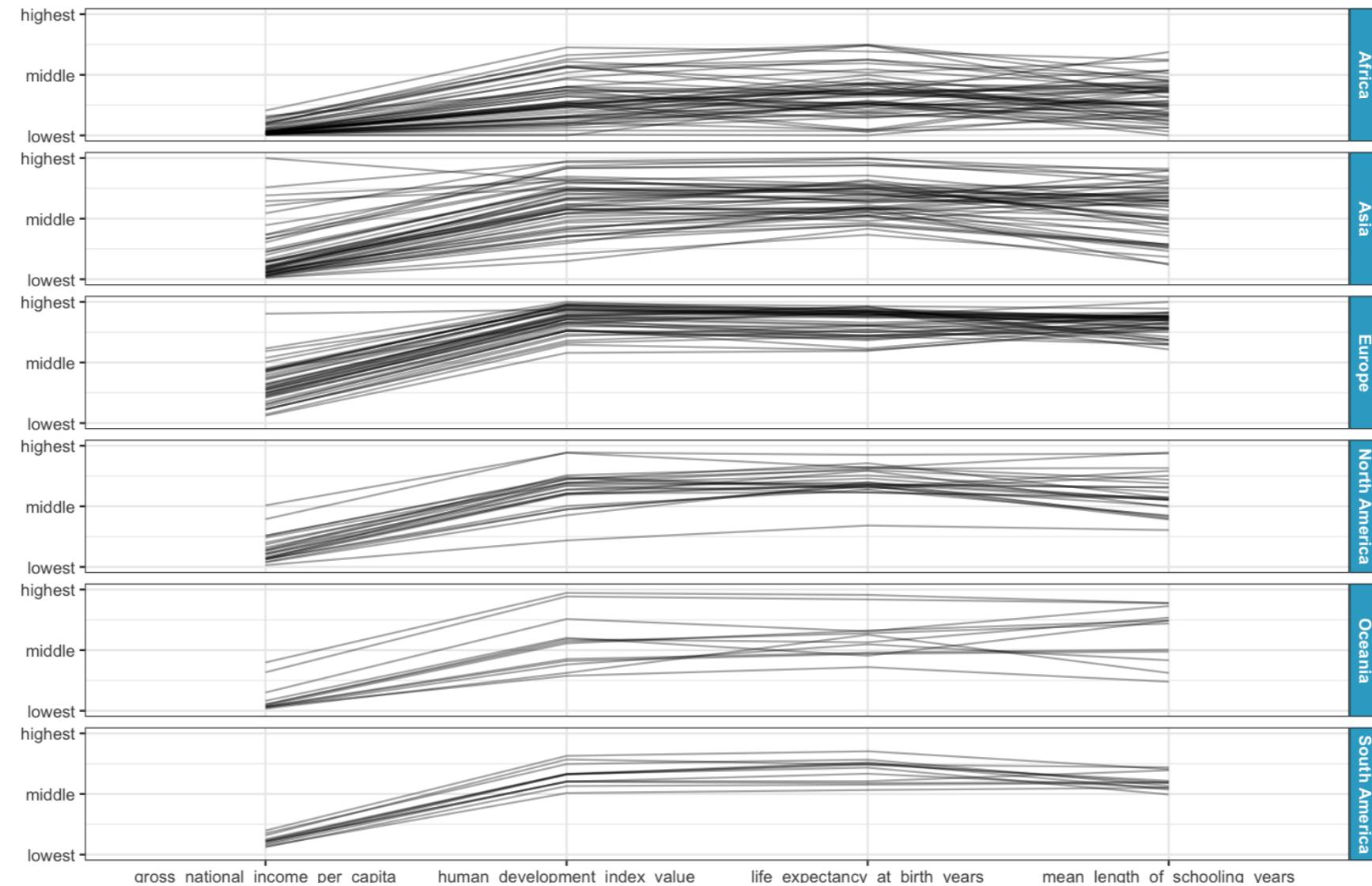
Pair plot: compare many variables



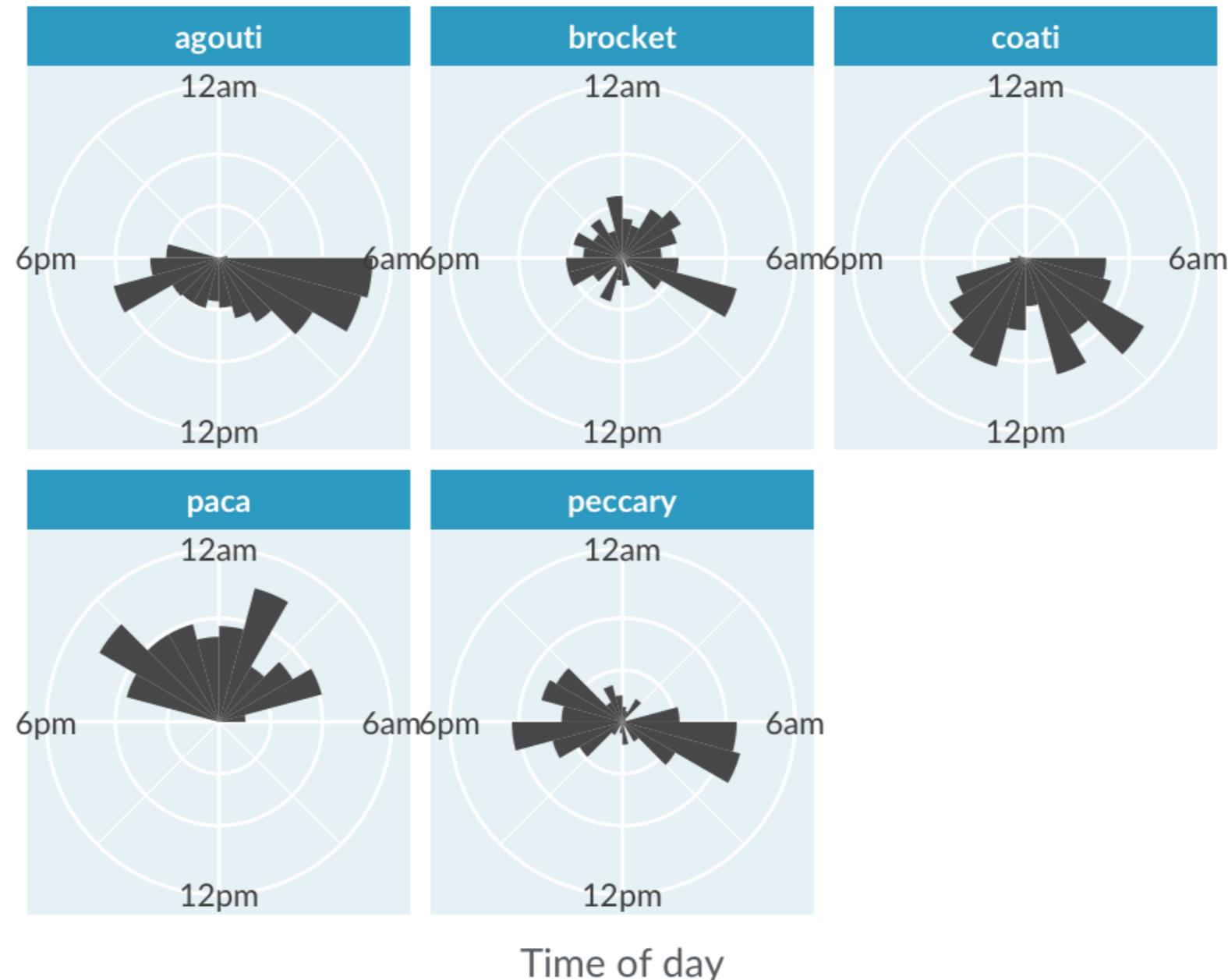
Correlation heatmap: show related variables



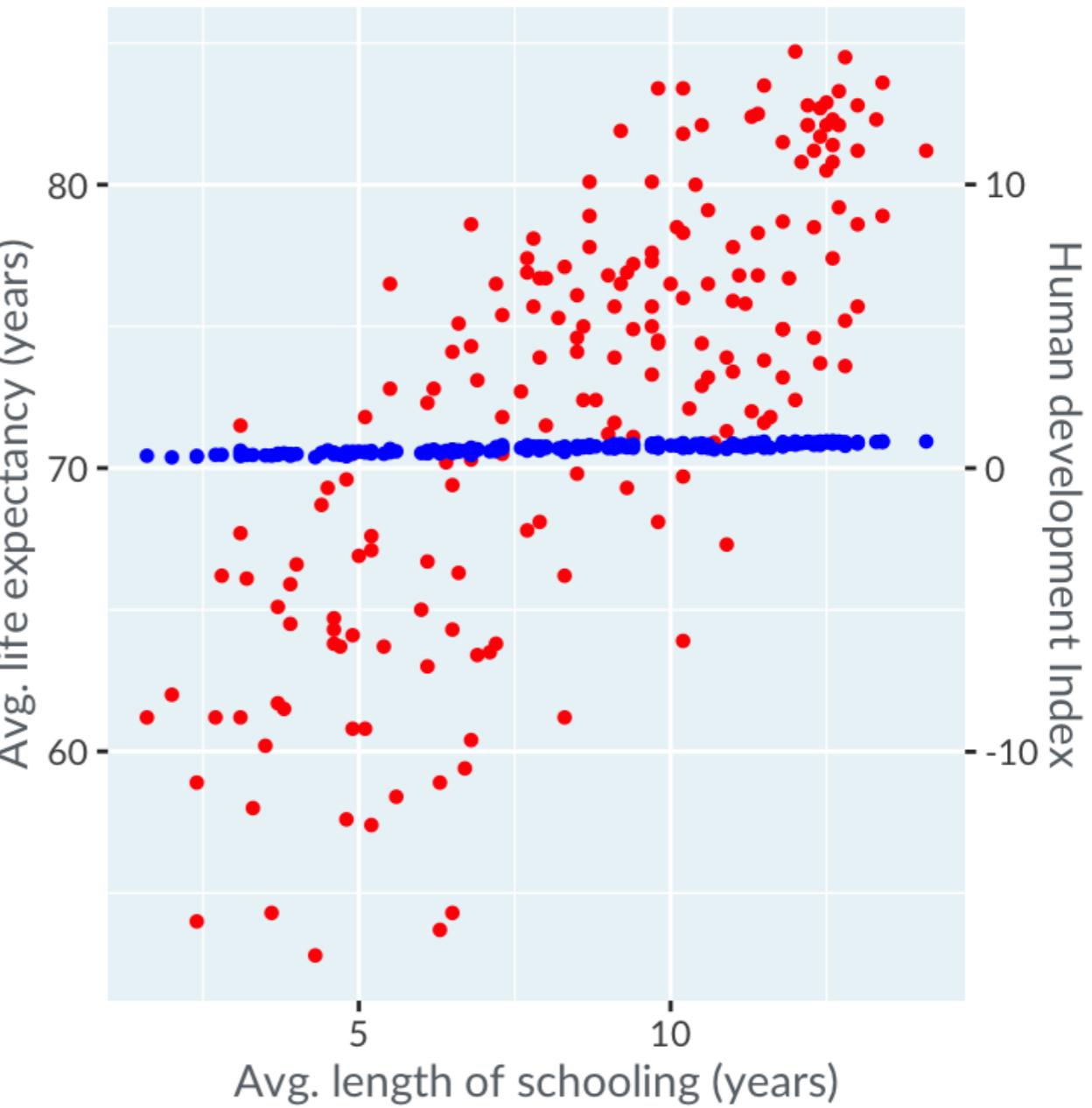
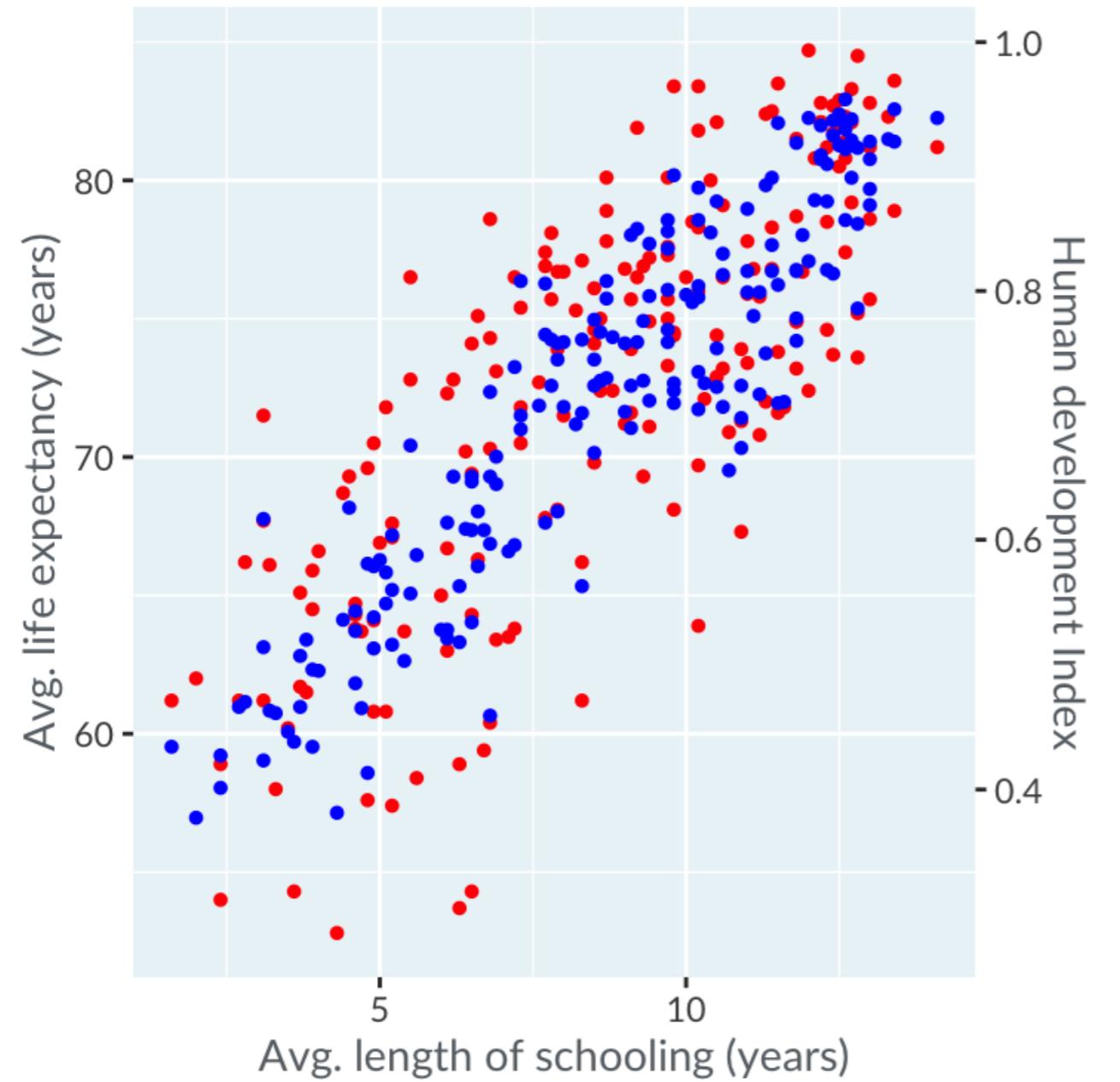
Parallel coordinates plot: find patterns across variables



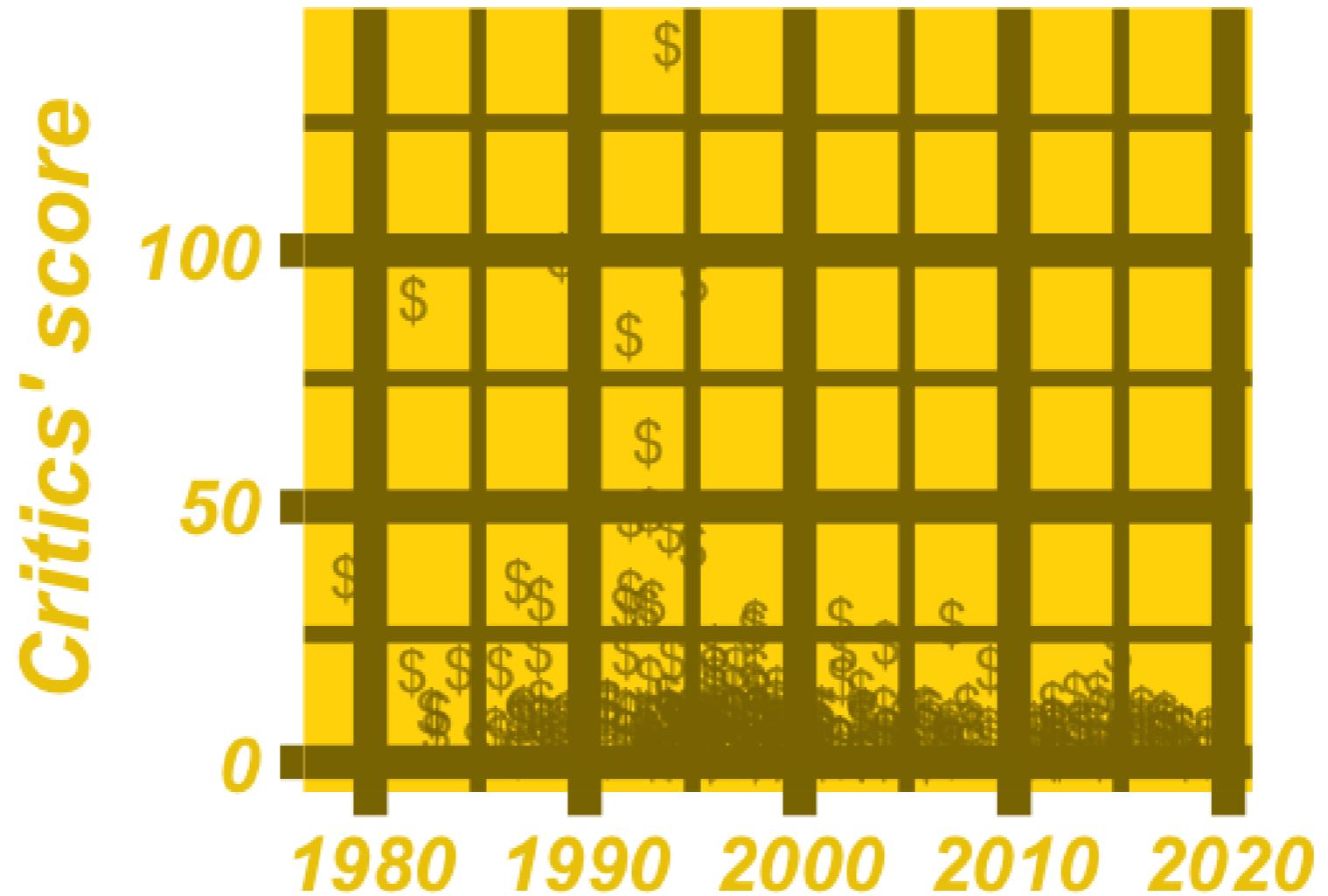
Rose plot: show a cyclical distribution



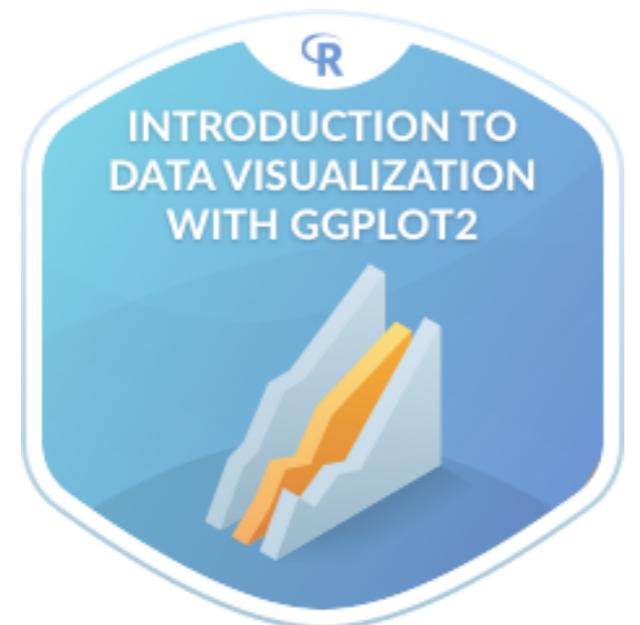
Dual axes are bad



Eliminate chartjunk



Next steps



You made it!

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