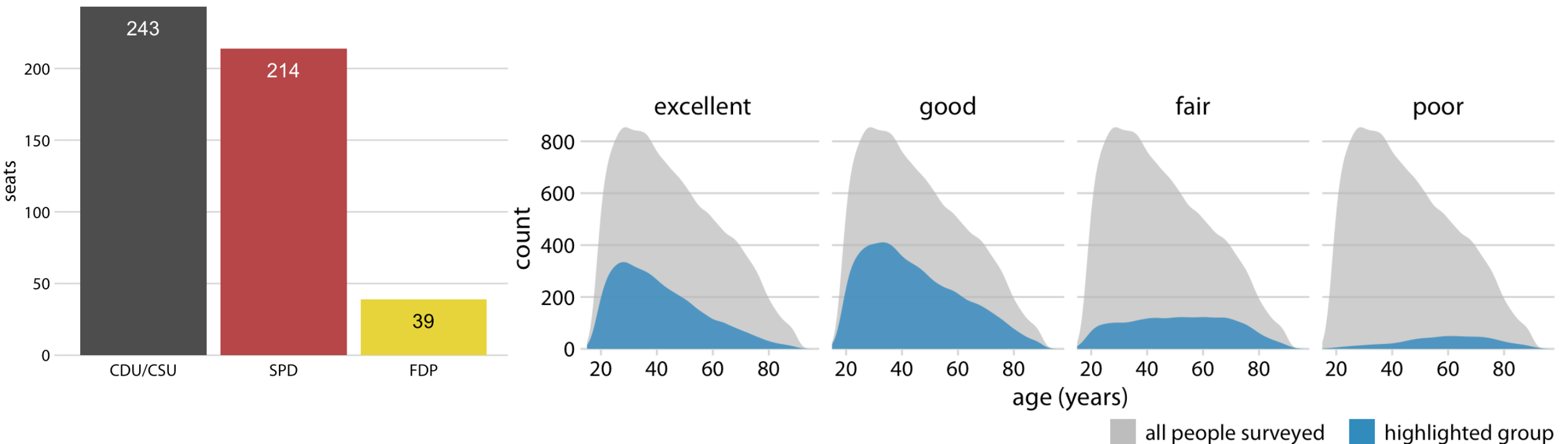


Relative Representation

Visualizing Nested Portions

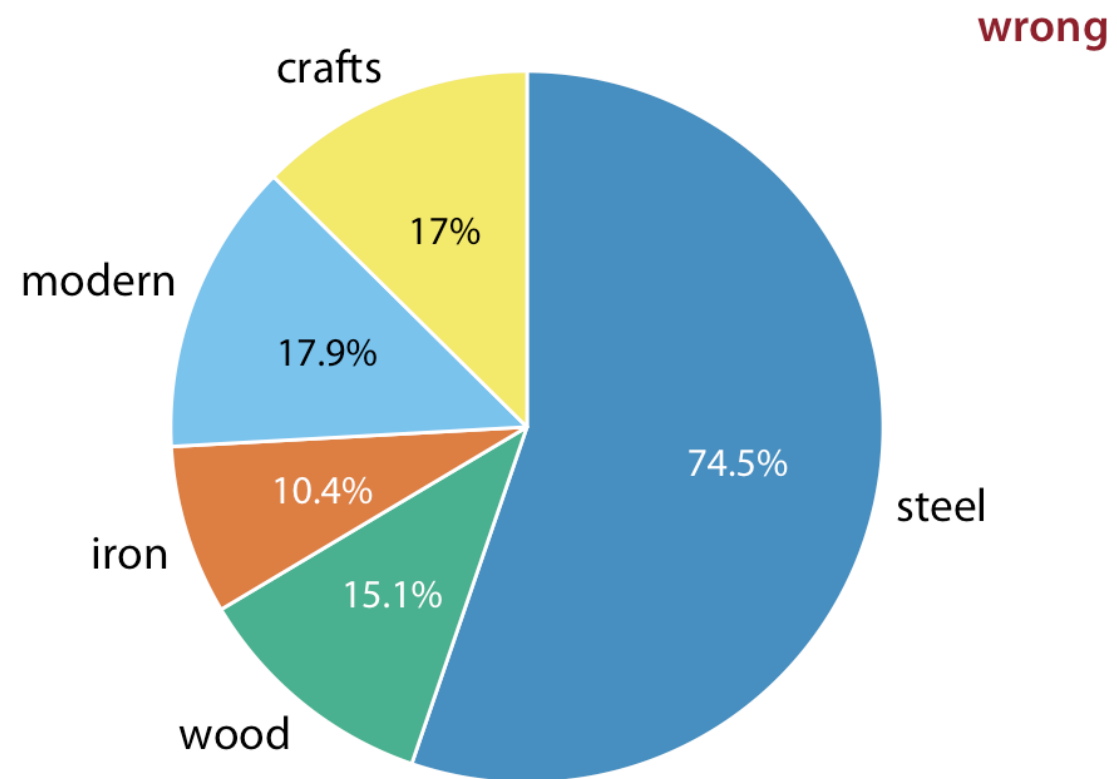
Introduction to Nested Proportions

- Nested proportions
- Example scenarios: parliamentary seats, health status breakdown

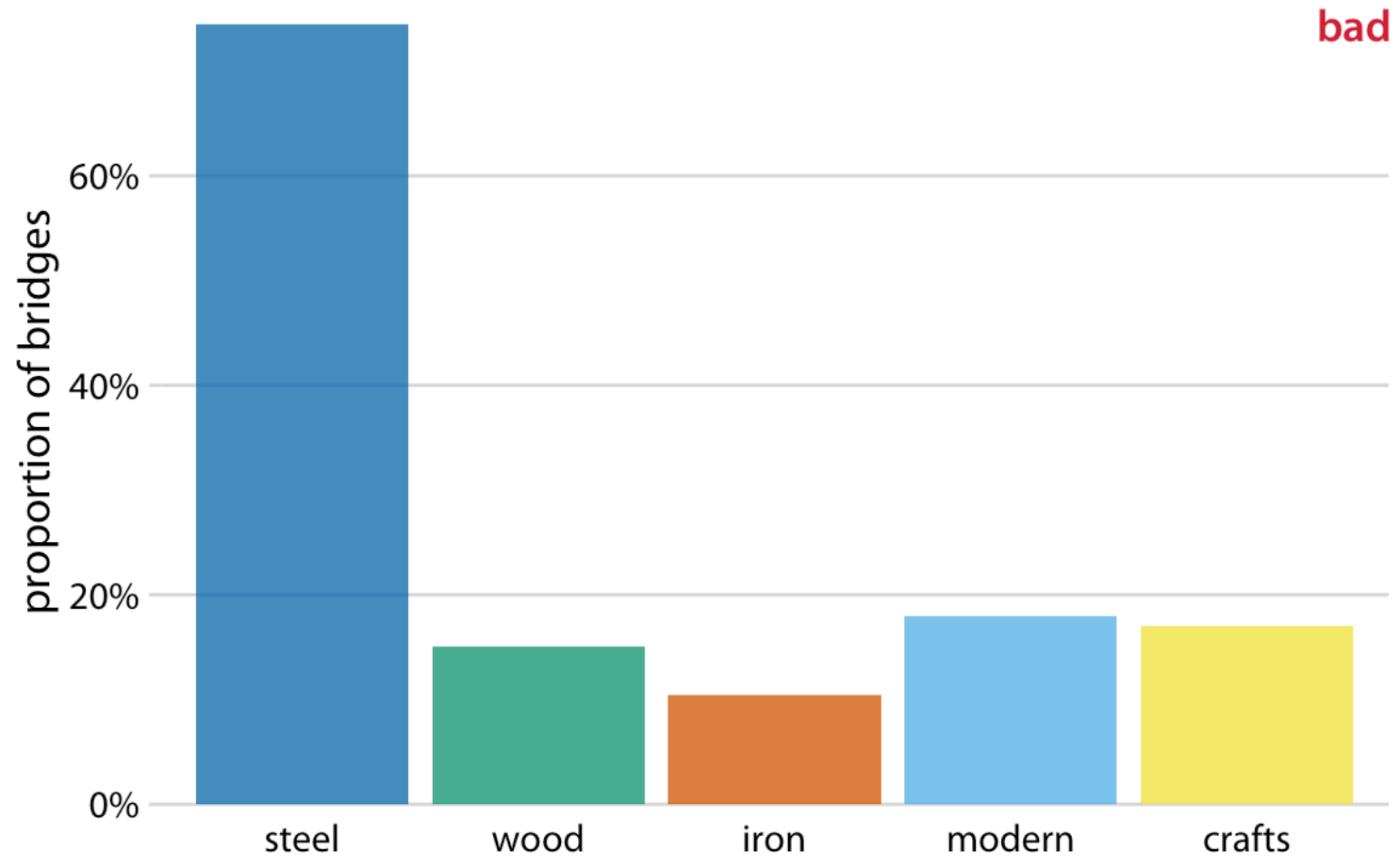


Flawed Approaches

- Description of flawed approaches: combined pie chart and side-by-side bars
- Example dataset: 106 bridges in Pittsburgh
- Pie chart is invalidated by percentages totaling over 100% due to overlap between construction material and date.



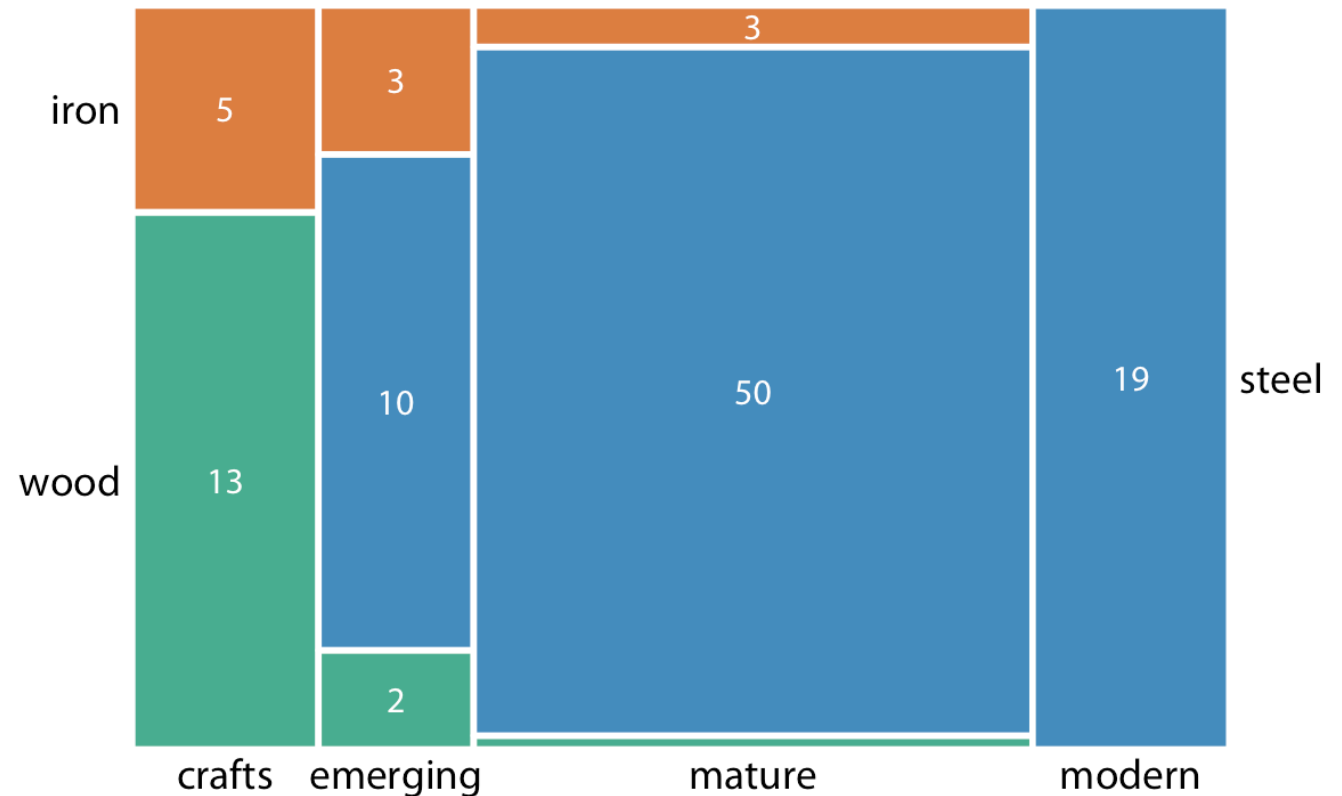
Flawed Approaches (continued)



While bar plot while not technically wrong as it doesn't imply that the bar heights need to add up to 100%, is labeled "bad" due to its failure to clearly indicate the overlap among different groups.

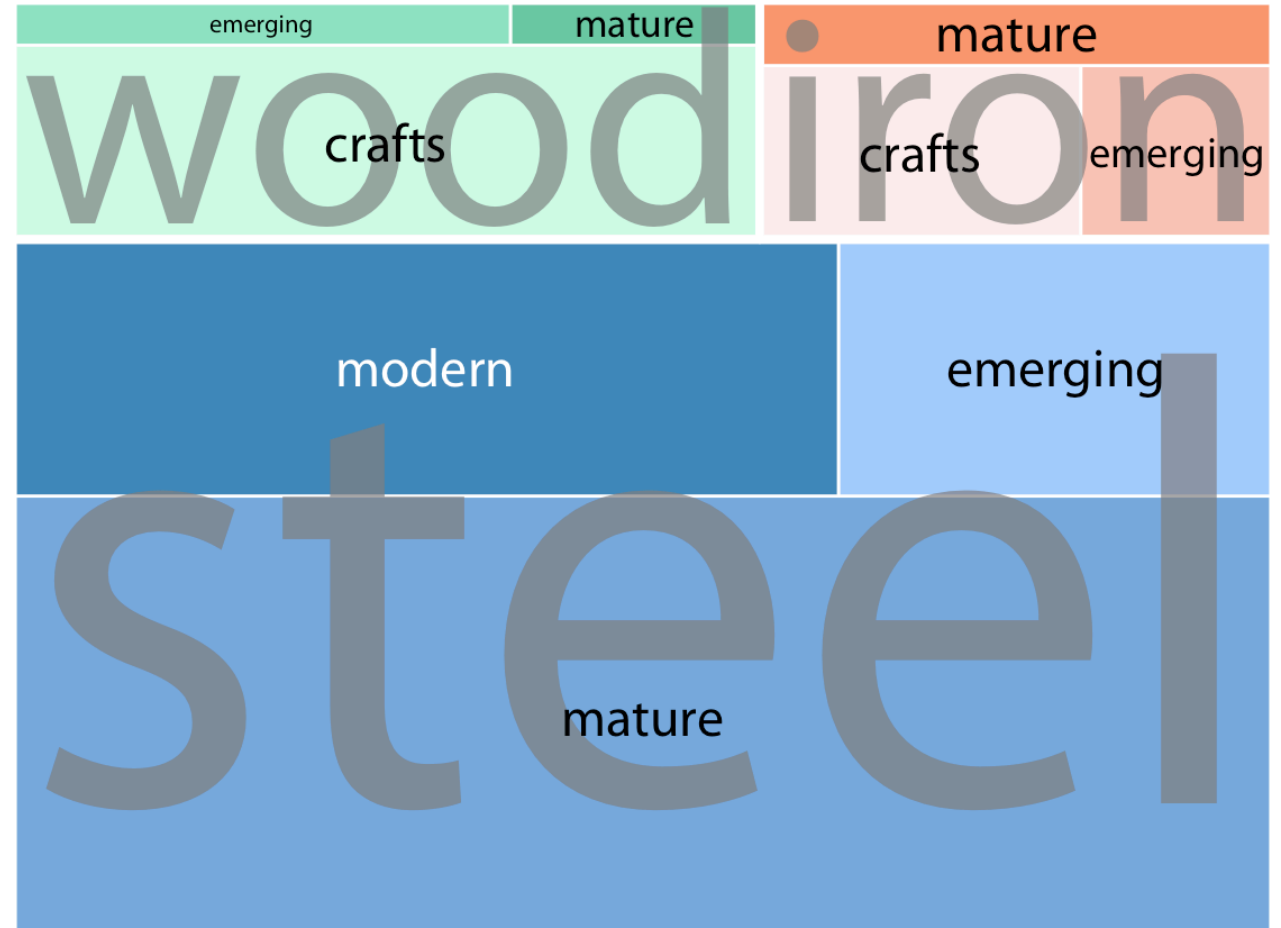
Mosaic Plots

- Explanation of mosaic plots
- Example mosaic plot: breakdown of bridges by construction material and era of construction
- Widths represent the number of bridges constructed, while heights the number of bridges constructed from that material, with numbers indicating counts within each category.



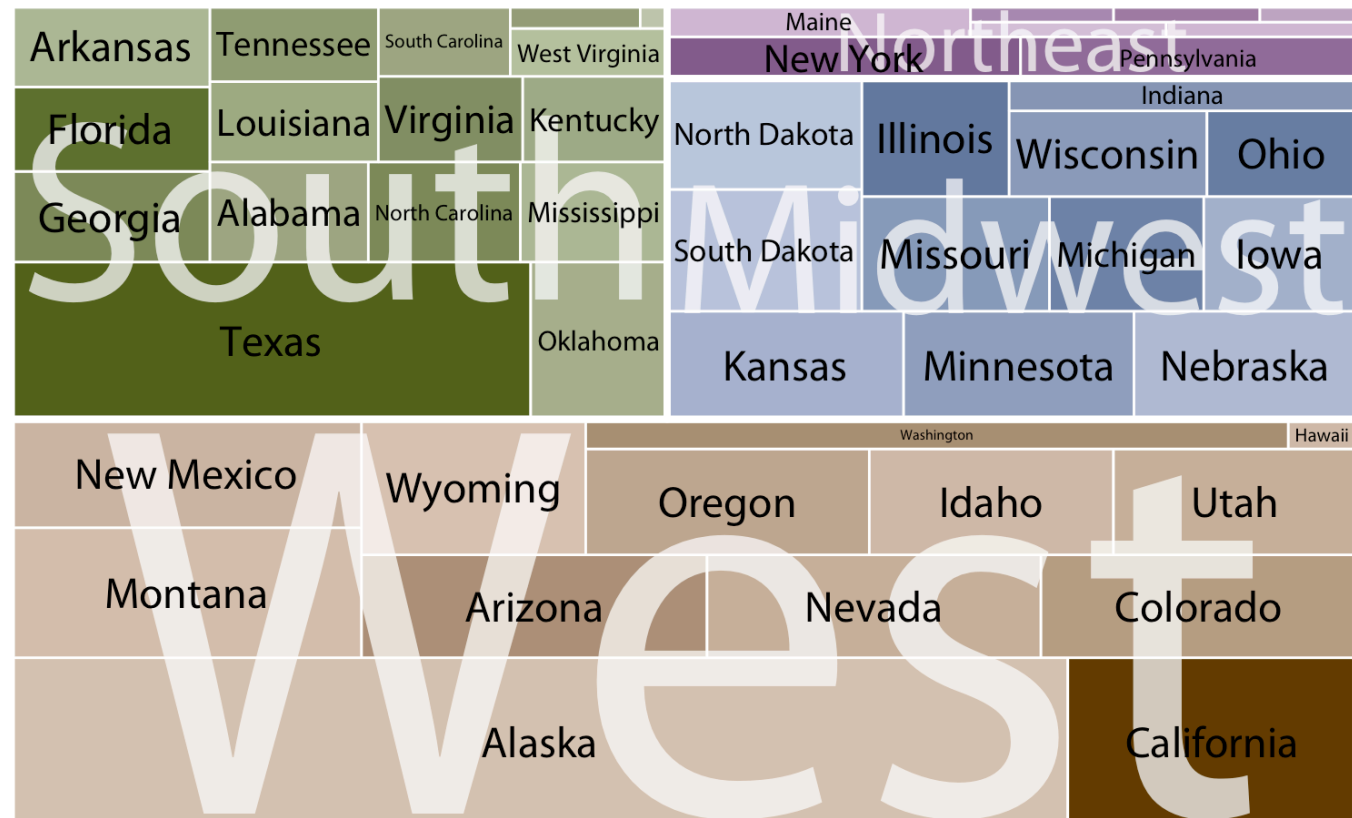
Treemaps

- Explanation of treemaps
- Example treemap: breakdown of bridges by construction material and era of construction
- Area of each rectangle is proportional to number of bridges of that type.



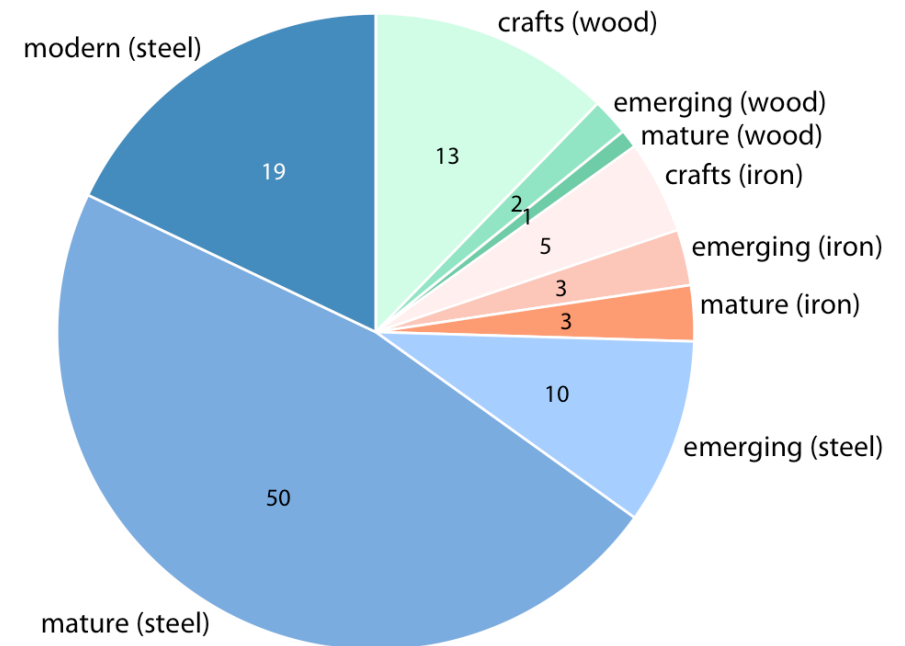
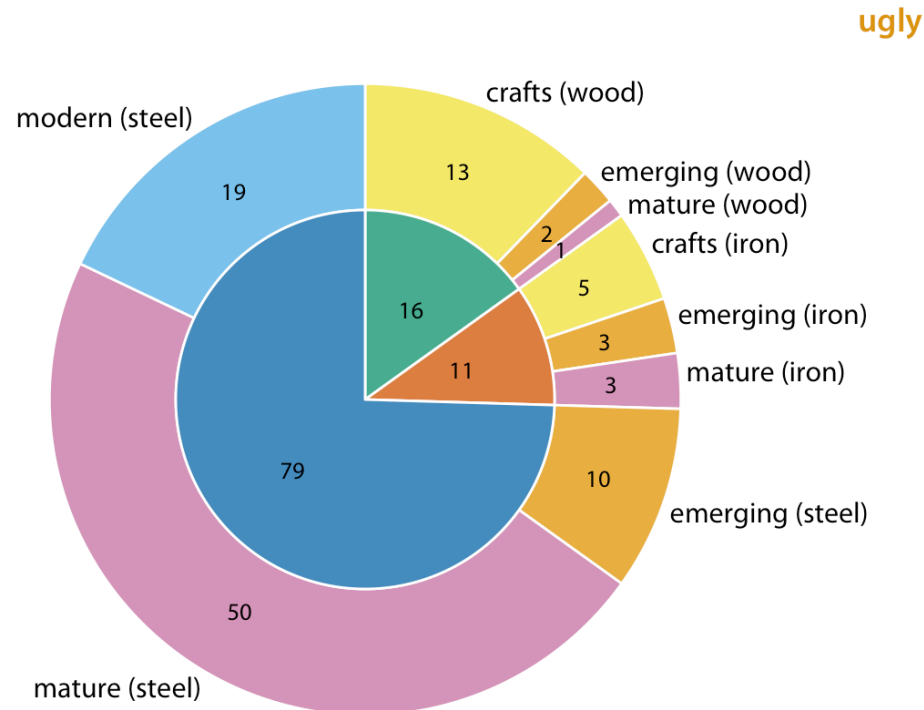
Comparing Mosaic Plots and Treemaps

- Comparison between mosaic plots and treemaps
- Advantages and limitations of each visualization
- Each rectangle representing one state and its area proportional to land surface area, grouped by region, and colored based on population density.



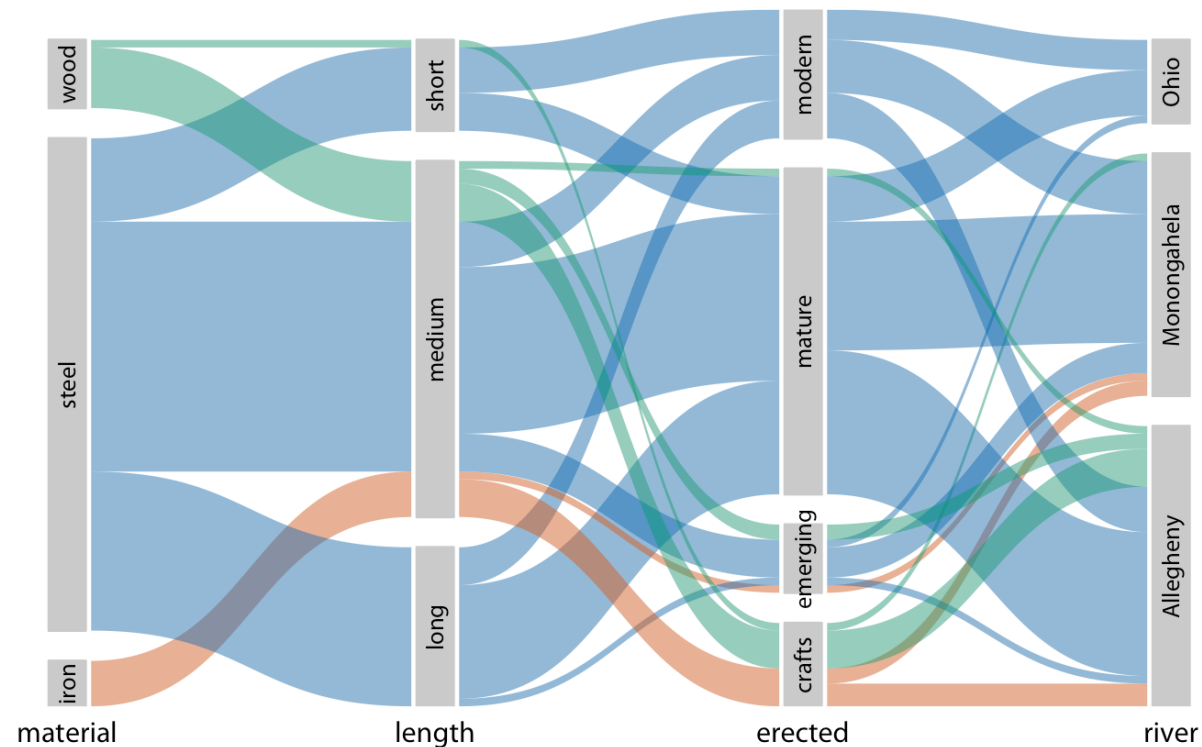
Nested Pies

- Description of nested pies concept
- Example nested pie chart: breakdown of bridges by construction material and era of construction



Parallel Sets

- Factors to consider when selecting a visualization for nested proportions
- Recommendations based on dataset complexity and interpretability



Parallel Sets (continued)

- Figure illustrates breakdown of bridges in Pittsburgh by river, era of construction, length, and construction material, with a modified order enhancing readability and reducing visual clutter.

