

The background is a dense collage of various data visualizations. It includes a map of the United States in the top right, a bar chart with blue bars in the middle right, a network graph with yellow nodes and edges in the center, a heatmap with green and red patterns in the bottom left, and a map of the world in the bottom right. Other visualizations include a pie chart, a line graph, a scatter plot, and a map of the United Kingdom. The text "Visualization reduces cognitive efforts to understand and reason about data" is overlaid in the center in a large, white, sans-serif font.

**Visualization** reduces cognitive efforts to understand and reason about data

[D3.js]



# Anscombe's Quartet



F. J. Anscombe, 1973

<i><b>A</b></i>		<i><b>B</b></i>		<i><b>C</b></i>		<i><b>D</b></i>	
X	Y	X	Y	X	Y	X	Y
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.8

## Summary Statistics

$$\mu_X = 9.0 \quad \sigma_X = 3.317$$

$$\mu_Y = 7.5 \quad \sigma_Y = 2.03$$

## Linear Regression

$$Y = 3 + 0.5 X$$

$$R^2 = 0.67$$