#### **Effective Programming Practices for Economists**

## **Plotting**

What to plot?

Janoś Gabler and Hans-Martin von Gaudecker

# **Reading list**

- Calling Bullshit (Carl Bergstrom & Jevin West), Chapter 7
- How Charts Lie (Alberto Cairo).
- Better Data Visualizations (Jonathan Schwabish)
- The Functional Art (Alberto Cairo)
- Show Me the Numbers (Stephen Few)

### Data types (Schwabish)

- Categorical
  - unordered
  - ordered
- Quantitative
  - discrete
  - continuous
    - interval scale
    - ratio scale

## Some (too) simple recipes

- Raw data (continuous): Scatterplots
- Fractions of categorical / discrete variables: Bar charts, potentially stacked
- Levels: Bar charts (including zeros!), unless interval scale
- Changes over time: Line charts
- **-** ...

# Five guidelines (Schwabish)

- 1. Show the Data
- 2. Reduce the Clutter
- 3. Integrate the Graphics and Text
  - Label data directly (remove legend)
  - Write the title like a newspaper headline
  - Add explainers
- 4. Avoid the Spaghetti Chart
- 5. Start with Grey