

# **Effective Programming Practices for Economists**

## **Plotting**

### **What to plot?**

Janoš 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