



## Exercise 2

### Social Inequality

**Deadline:** Please upload your assignment by Tuesday (**February, 20**) 5 p.m. Upload one file only (pdf). Include the R-code into the Appendix. Do not forget to cite the data. Further, integrate at least one reading into your discussion (see moodle). Use APA-style when you cite the reading(s). Label all figures and tables.

**Data preparation:** Please download the data extract from the ISSP from the years 2009 and 2019 (from moodle). Load the data and select a country of your choice.

#### Exercise 2.1

You will investigate whether income inequality has increased over time in your country of choice. Formulate a testable hypothesis. Buttress your hypothesis (200-250 words). The readings on moodle may be helpful.

#### Exercise 2.2

- How did the median and mean equalized household change across time?<sup>1</sup> Do not forget to deflate the income before you conduct the analysis.<sup>2</sup>
- Did income inequality increase or decline between 2009 and 2019? Calculate the Gini-coefficients to answer the question.
- Plot the Lorenz Curves for both years in one figure.
- How large was the income share of the income elite (top 10%) in the two years? It is sufficient to “eyeball” the value from the figure. Do your estimations correspond to the values from the World Inequality Database? (<https://wid.world/>)

#### Exercise 2.3

Was your hypothesis supported? Discuss! Also point out potential limitations of your investigations. (200-250 words).

#### Variables in ISSP 2009/2019

Variable	Label
Country	Country <sup>3</sup> 36: Austria etc.
AU_INC	Household income Austria etc.
HOMPOP	Number of persons in HH

#### New Variables

Name	Label	Realizations	Type
WEIGHT	Number of persons in household	0, ...	Numeric
INCOME01	Household net income (in local currency)	0, ...	Numeric
INCOME02	Equivalent net household income	0, ...	Numeric
INCOME03	Deflated equivalent net household income	0, ...	Numeric

<sup>1</sup> Sadly, number of children is not included in 2009. Thus, we can only use the number of household members to standardize the household income.

<sup>2</sup> The inflation index is e.g. provided by Worldbank:  
<https://api.worldbank.org/v2/en/indicator/FP.CPI.TOTL?downloadformat=excel>

<sup>3</sup> 36. AU-Australia 40. AT-Austria 1152. CL-Chile 158. TW-Taiwan 191. HR-Croatia 203. CZ-Czech Republic 208. DK-Denmark 246. FI-Finland 250. FR-France 276. DE-Germany 352. IS-Iceland 376. IL-Israel 380. IT-Italy 392. JP-Japan 440. LT-Lithuania 554. NZ-New Zealand 578. NO-Norway 608. PH-Philippines 643. RU-Russia 705. SI-Slovenia 710. ZA-South Africa 752. SE-Sweden 756. CH-Switzerland 826. GB-Great Britain 840. US-United States 862. VE-Venezuela