

# Homework #1: SOC 760 Social Inequality in the United States

Due: September 28, 2020

Table 1: Wage Distribution

i	Country A		Country B	
	Years of Schooling	Wage	Years of Schooling	Wage
1	2	2	10	5
2	3	6	11	8
3	4	8	12	11
4	3	7	16	18
5	5	8	12	10
6	6	9	9	4
7	4	8	13	19
8	7	12	17	20
9	9	16	18	24
10	3	9	8	6
11	4	10	9	7
12	2	2	10	5
13	3	6	11	8
14	4	8	12	11
15	3	7	16	18

1. What is the mean of the wage in Country A
2. Compute *COV*, *Gini Inequality Index*, *Theil Inequality Index* and *VarLog* for the wage in Country A
3. What is the mean of the wage in Country B
4. Compute *COV*, *Gini Inequality Index*, *Theil Inequality Index* and *VarLog* for the wage in Country B
5. Ceteris paribus, which country would you prefer to live in? Why?
6. Discuss advantage and disadvantage of *COV*, *Gini Inequality Index*, *Theil Inequality Index* and *VarLog* in terms of the scale invariance and the principle of transfer.
7. Prove that (using any set of data) *Theil* is scale invariant.

\* Note that Stata and R provide user-written programs that compute inequality indexes.