

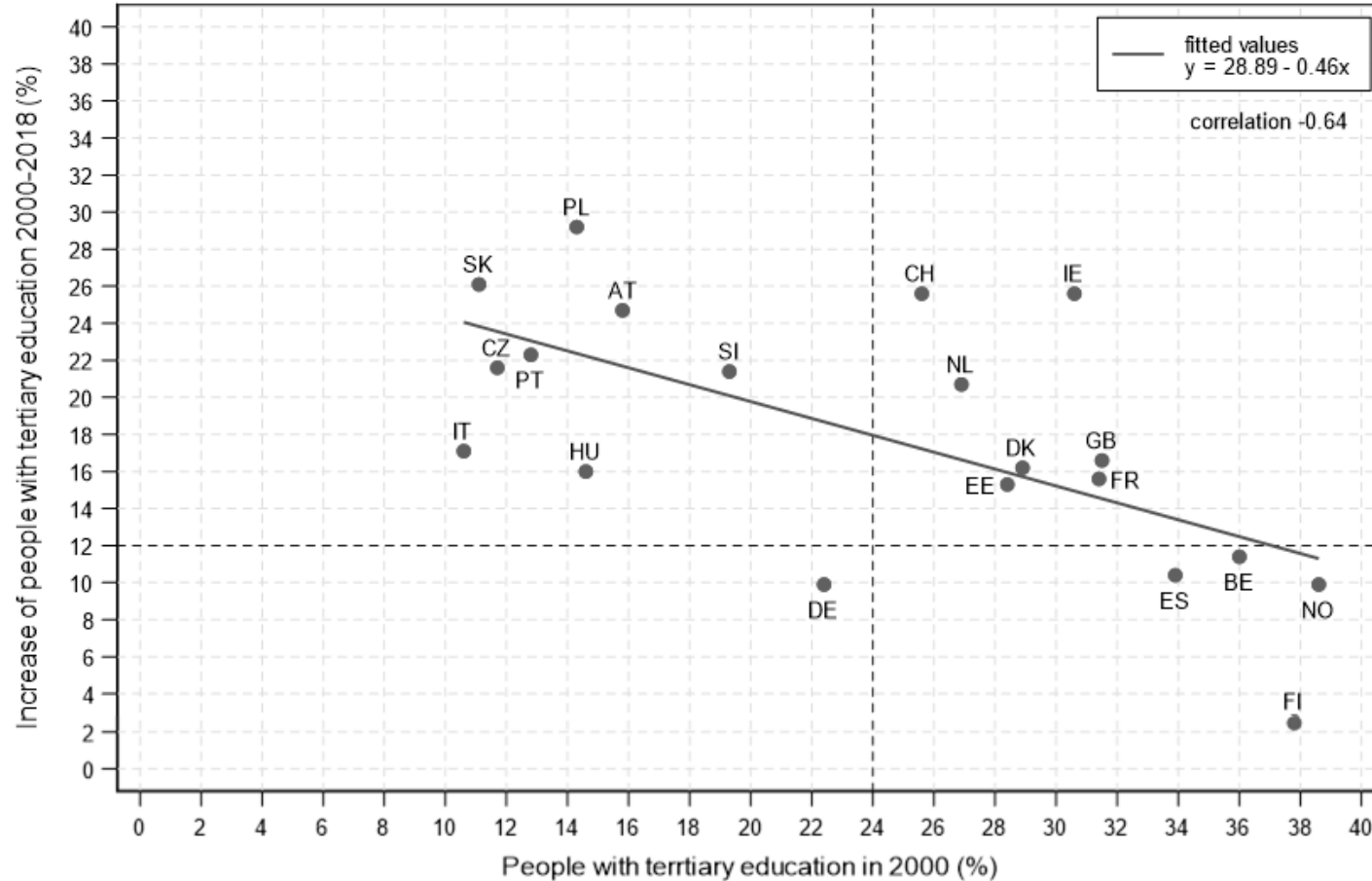
**Inequality of educational opportunity
empirical measuring
(and educational expansion)**

IEO and educational expansion

- IEO: chances to attain certain level of education by social origin (SO) - family background
- Educational expansion (EE) is seen as a social-political provision for change of IEO (*inequality of educational opportunity*)
- EE via IEO helps to increase social justice, equality and meritocracy
- The relationship between IEO and EE has higher relevance for academic research as well as for social policy and it is the source of legitimization of social systems.

Educational expansion in European countries 2000+

Figure 1. Educational expansion in 20 European countries between 2000 and 2018

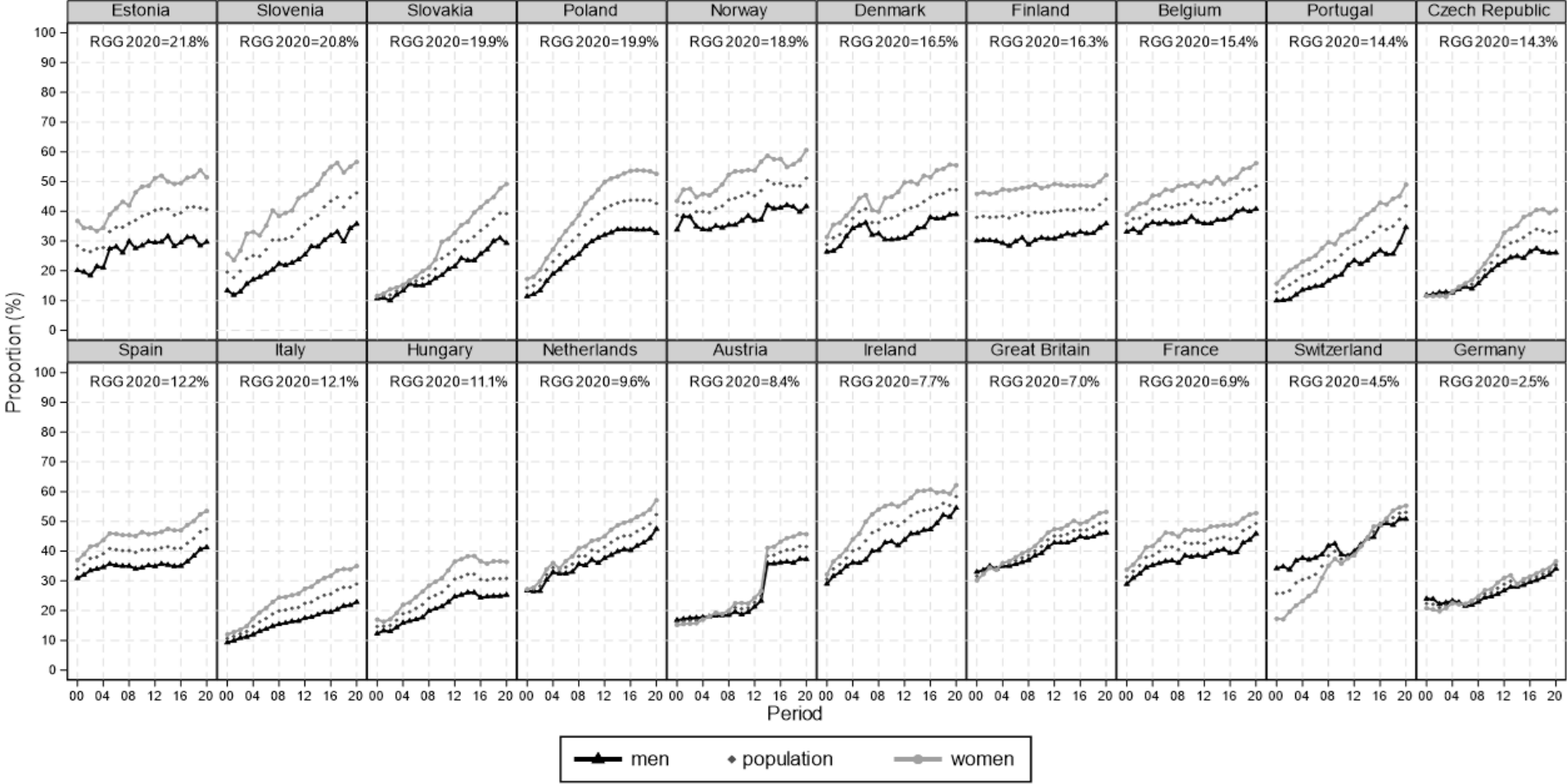


- Bologna process, declaration of European countries and the beginning of educational expansion in a year 2000
- EE is defined as: *the growth of the educational system. It means the increase of places in the educational system that is connected with increased rates of enrolment (Craig, 1981).*

Note: Tertiary education indicated by ISCED (levels 5-8) for the 25-34 age group.
Source: EUROSTAT (2020).

Educational expansion in European countries 2000+

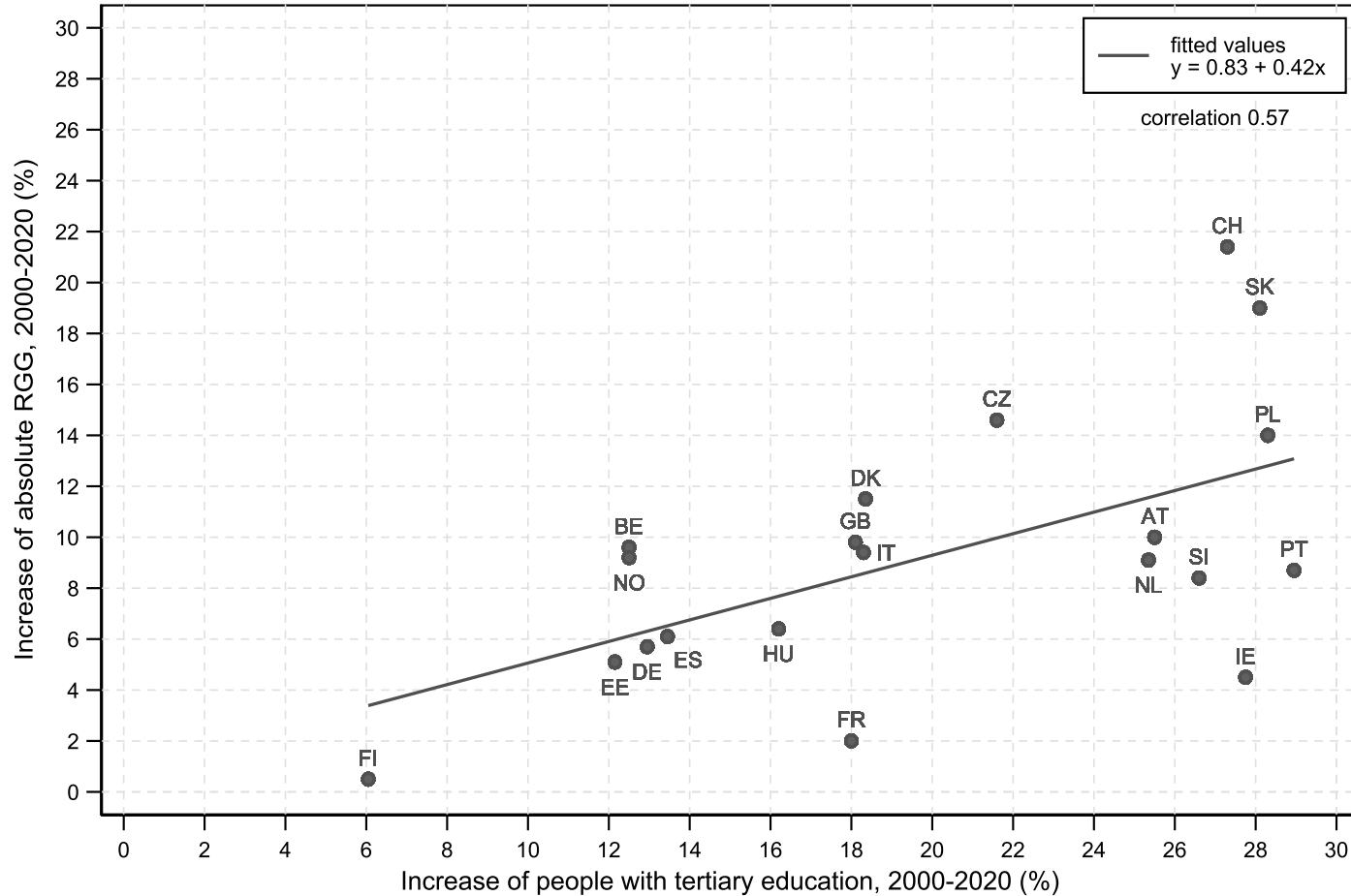
Figure 1. Proportion of men and women with tertiary education in 20 European countries from 2000 to 2020 (aged 25-34)



Note: Tertiary education is indicated by ISCED (levels 5-8) for the 25-34 age group. RGG (the reversal of the gender gap) shows the difference in proportions between men and women in year 2020. |
 Source: EUROSTAT (2020).

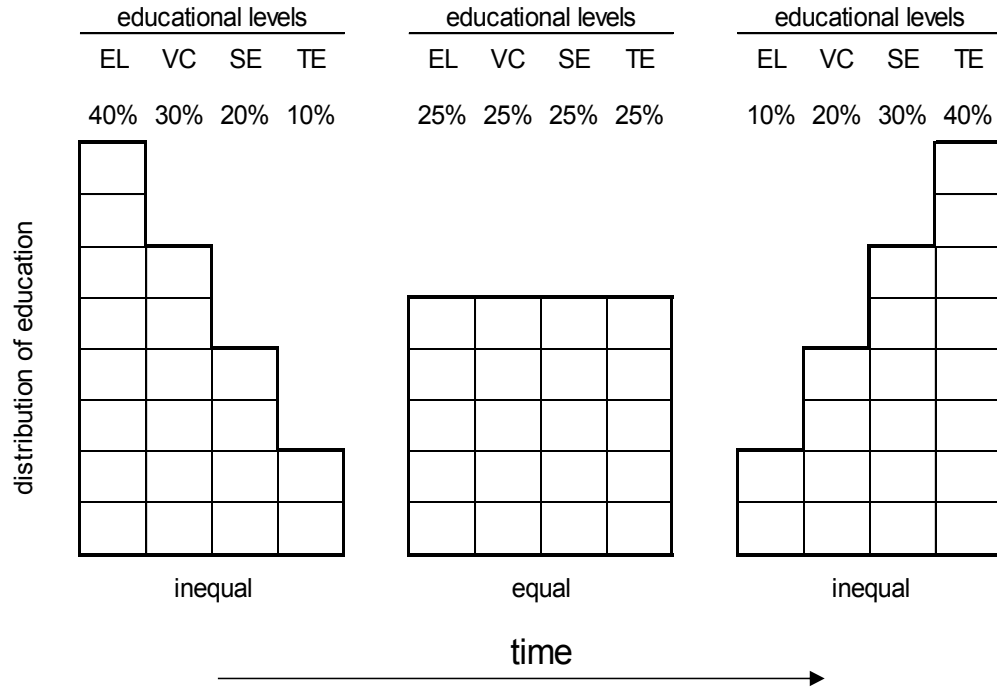
Educational expansion and the reversal of gender gap (RGG)

Figure 2. Expansion of tertiary education and increase of RGG in tertiary education between 2000 and 2020 in 20 European countries

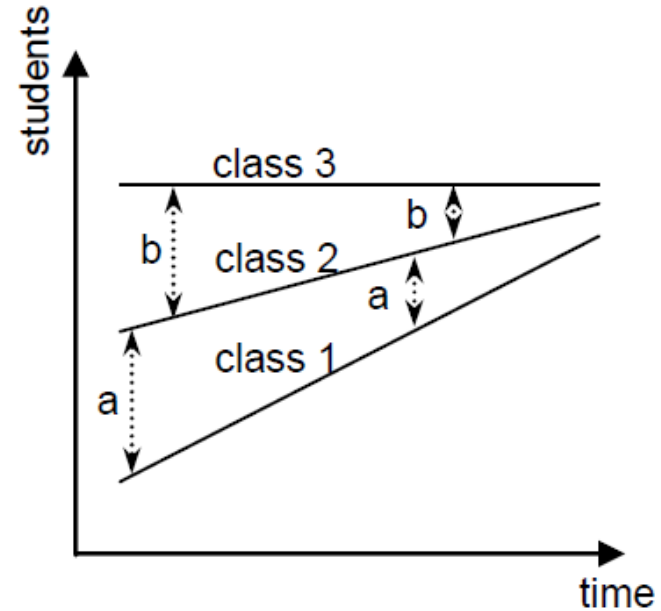


- Why RGG happens?
- changes in the labour markets, marriages and in family lives (DiPrete and Buchman, 2013) = more incentives for women to obtain more education
- economic and social returns to higher education
- the labour force participation of women increases, because the labour markets demand specific occupations requiring higher education.
- higher education means a greater insurance against poverty, high standard of living
- parents' incentives into children by gender have been equalized inside families
- girls perform better than boys in colleges (higher level of their preparedness, differences in school-related attitudes and lower dropout rate)

Distribution of education

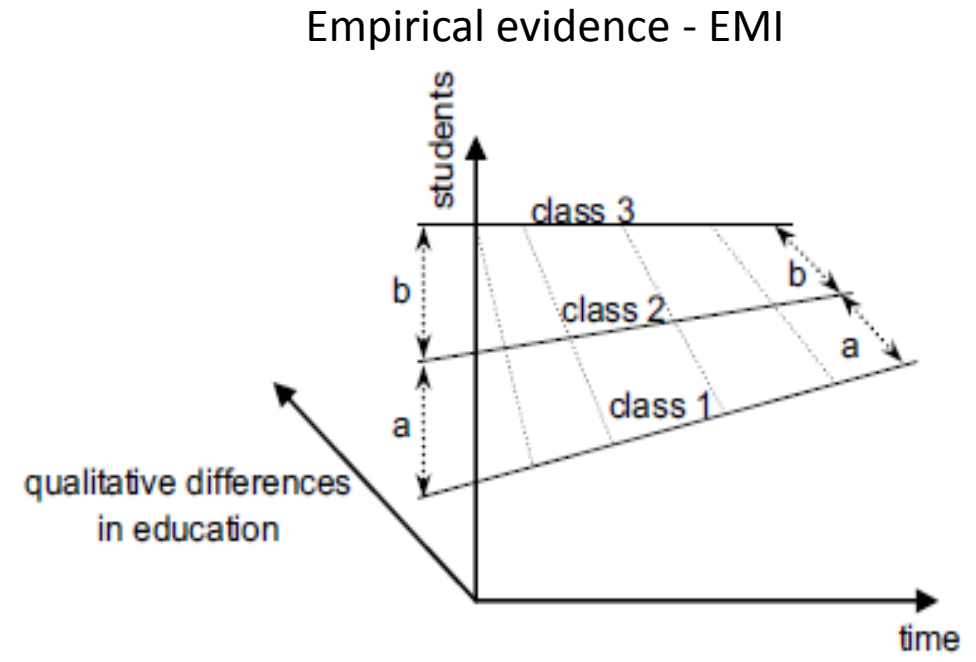
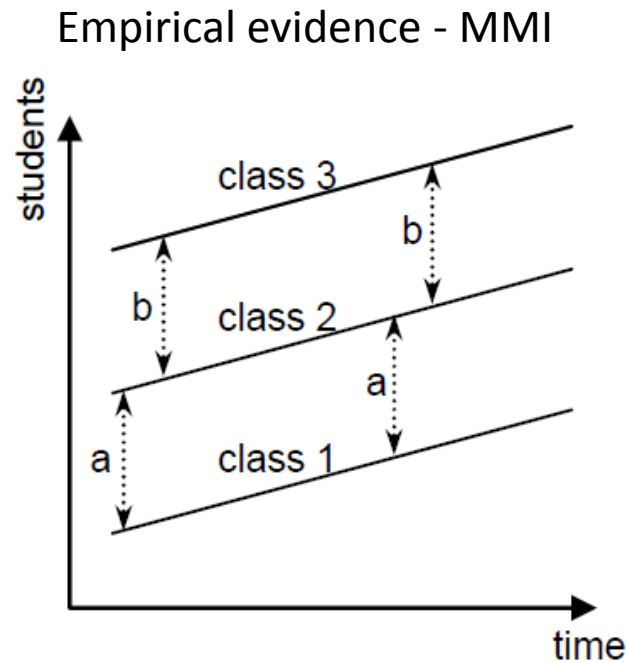
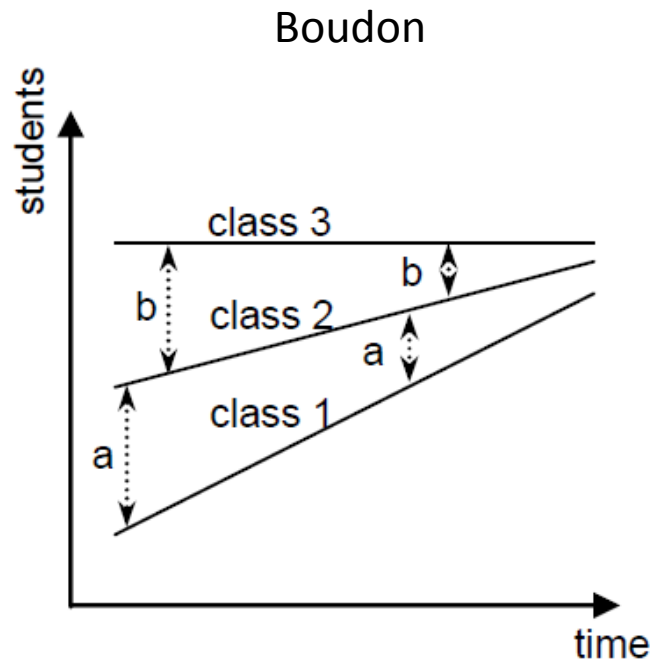


Raymond Boudon in *Education, Opportunity and Social Inequality* (1974) says: If school attendance rates increase over time, then inequalities in educational opportunity will steadily decline, because the lower socioeconomic classes can increase their attendance rates by more proportions than the upper classes whose proportions are already high and constrained by ceiling effects.



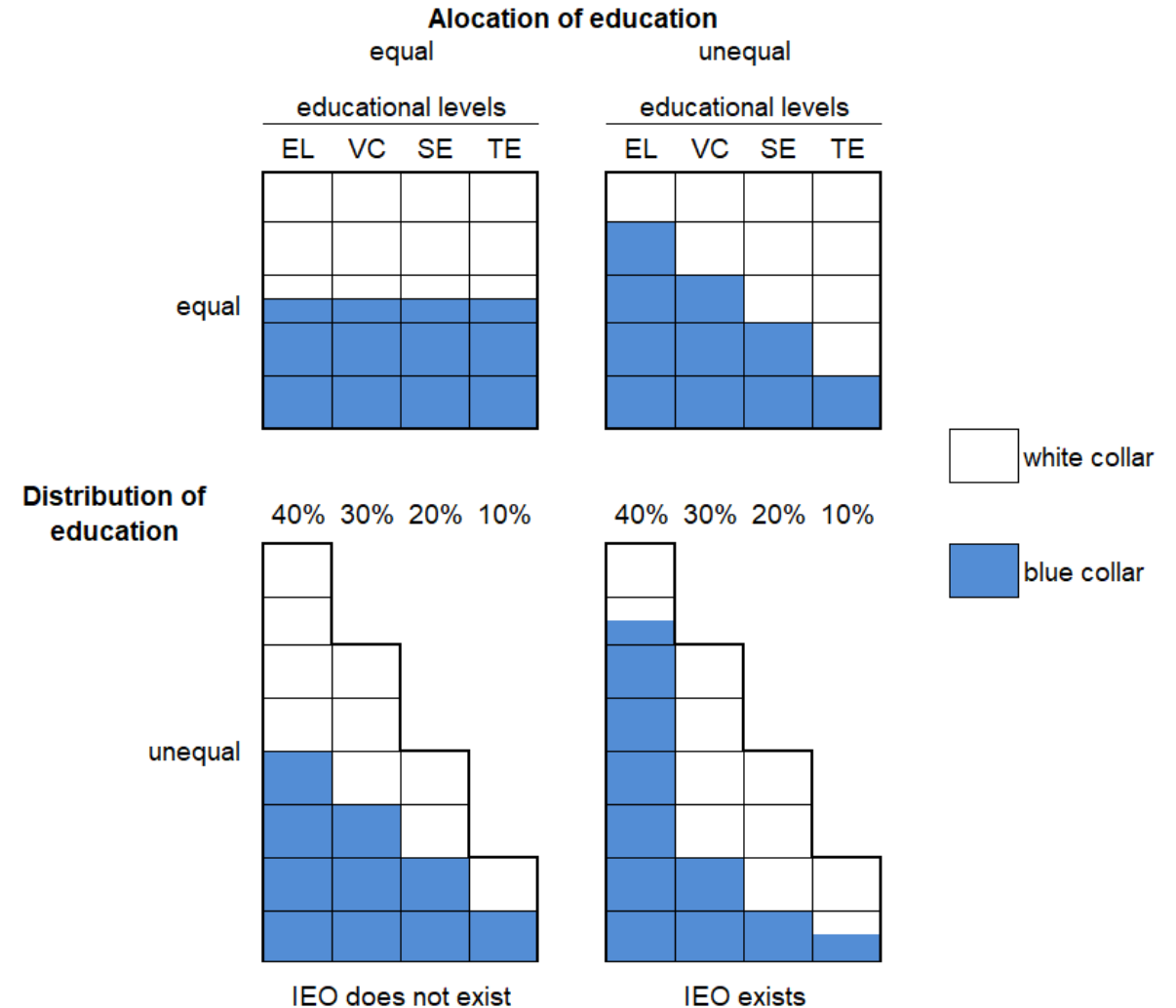
Empirical anti-evidence to Boudon

- MMI (Raftery, Hout, 1993): differences in social origin effects on educational attainments do not change during EE
- Persistent inequality (Blossfeld, Shavit, 1993) – no change in IEO
- EMI (Lucas, 2001)
- *Why? Problem in measurement of IEO*



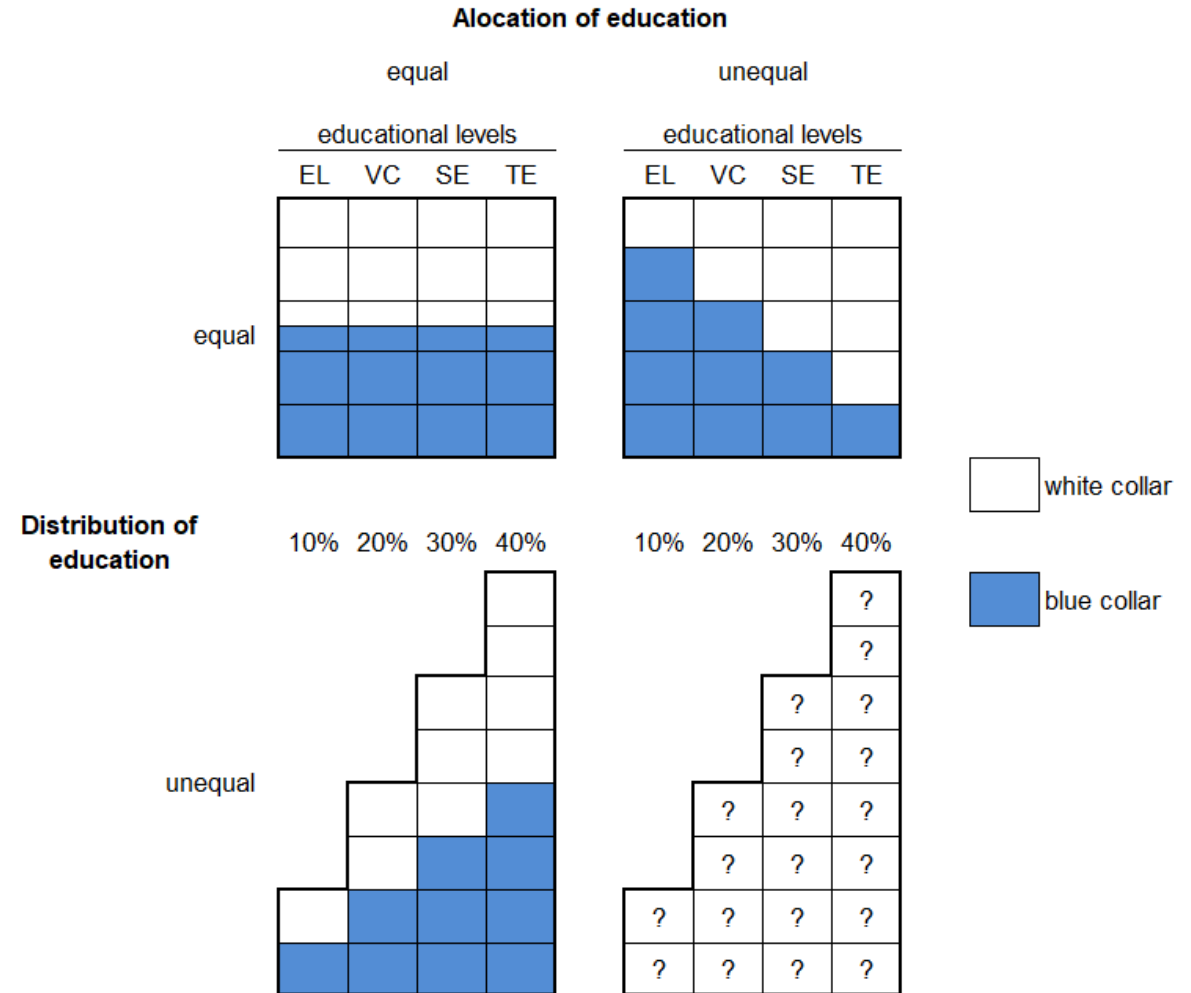
Distribution and allocation of education

- Robert Mare (1980, 1981): the concept of *distribution of education* has to be completed by the concept of *allocation of education*
- Changes in distribution of education does not mean the changes in allocation of education



Distribuce a alokace vzdělání – výzkumná otázka

- How does the change in distribution of education influence the allocation of education?
- How does educational expansion influence IEO?
- Is the educational expansion the social political provision for the change of IEO?



Empirical measurement of IEO in SSR

- Two ways of measurement of IEO
 - *IEO in educational attainment*
 - differences in completed (final) education levels by social origins (Blau and Duncan, 1967; Hauser and Featherman, 1976)
 - linear models
 - *problem: SO effects and effects of changes in educational distributions are mixed*
 - *IEO in educational transitions, that lead to final education levels (Mare, 1980, 1981)*
 - final education is disaggregated into individual educational transitions between educational stages
 - differences in completed individual transitions by social origin
 - sequential logit models - “true” transitional SO effects based on the odds ratios, not influenced by changes in marginal distributions
 - *problem: connection between “true” transitional SO effects and SO effects on final education level (these effects are usual different in empirical analyses)*

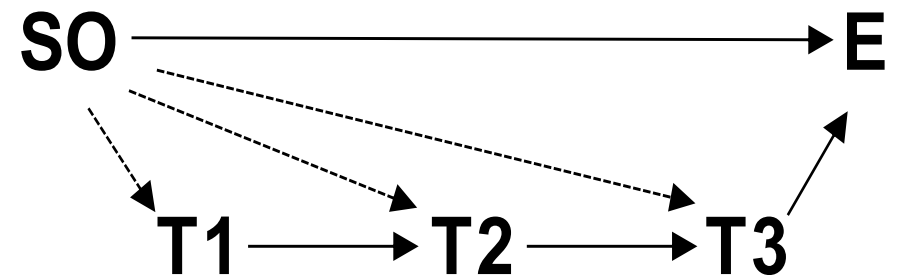
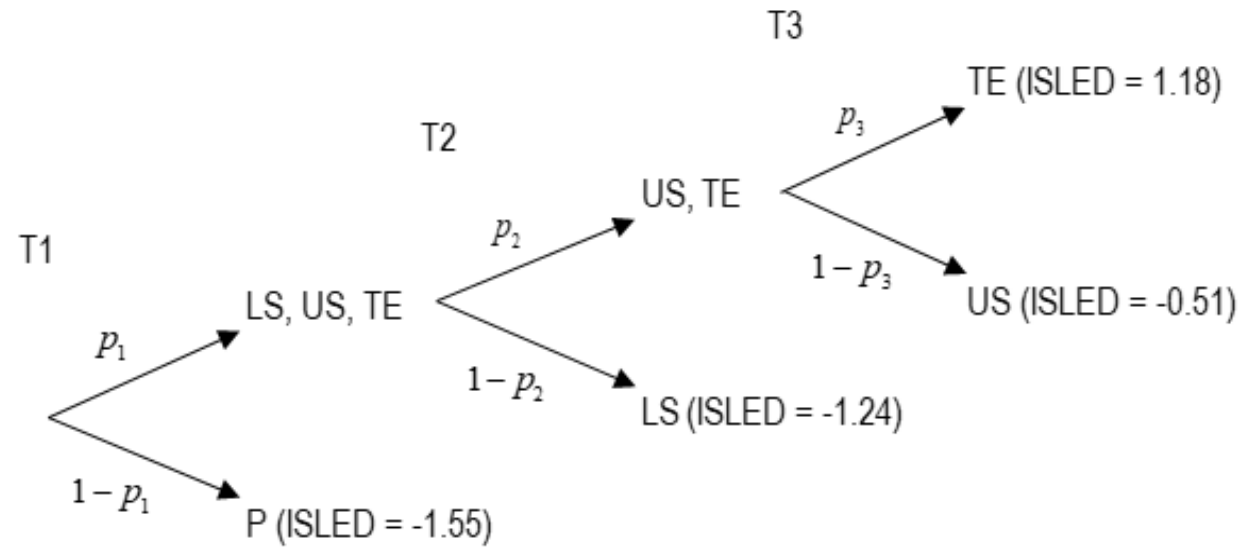


Figure A1. Three educational transitions (T1, T2, T3) delimited by four ISCED97 levels



Note: Four levels of ISCED97: P (primary), LS (lower secondary), US (upper secondary), TE (tertiary).

Completed education $E(L_i)$ can be measured as the sum of the conditional probabilities of attaining each educational grade (Mare, 1981)

Connection between two approaches of IEO measurement

- SO effect on completed education (IEO) is a *weighted sum of SO effects on passing each educational transition* (Mare, 1981, Buis, 2010, 2017)

- Completed education by SO is disaggregated into (conditional) probabilities to pass educational transitions by SO

- Conditional probabilities are decomposed into:

- weights of transitions
- effects on passing educational transitions

$$\frac{\partial E(L_i)}{\partial x_i} = \sum_{t=1}^T (w_{it} \times \beta_t)$$

- Weights of transitions = changes in transitional distributions given by educational expansions
- Both the social stratification and the structural features of IEO are considered

Conclusion

- Three empirical measures in IEO:
 - the 'true' origin effect on passing educational transitions
 - the weight of educational transitions
 - the contribution of transitions to IEO in completed education (weighted origin effects)
- SO effect on completed education = linear models
is a weighted sum of SO effects on passing
each educational transition = transitional models.

Educational expansion in the CR in last 20 years II

- What does educational expansion mean for transition to labour market?
 - Can we talk about the inflation of diploma/certificates?
 - If yes, is it good strategy to invest to education and increase number of young people in universities?
- What happens with returns to higher education?
 - In status consistency society they should be higher and increase
 - Yes, returns to higher education increase