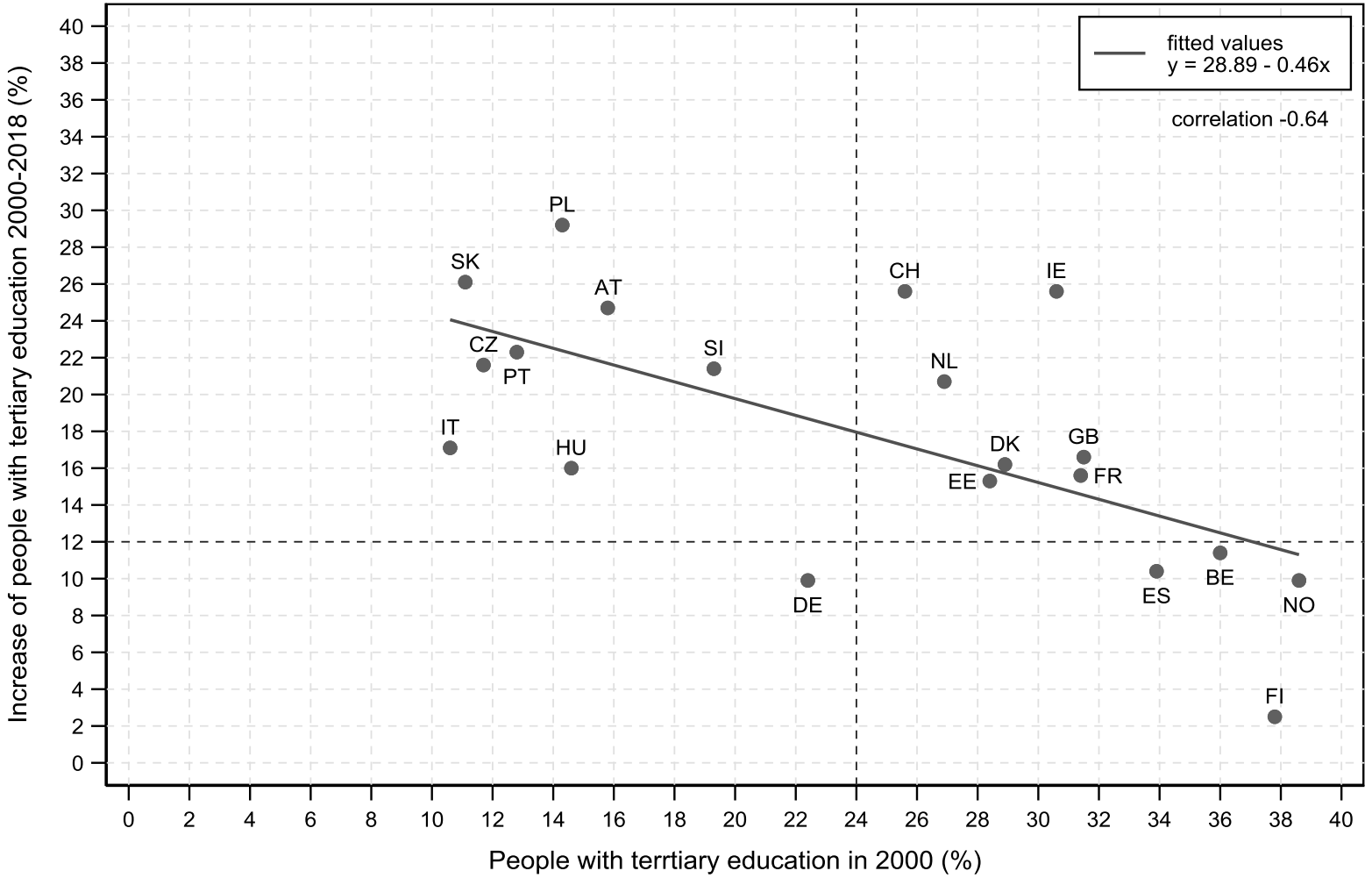
Inequality of educational opportunity empirical measuring

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+

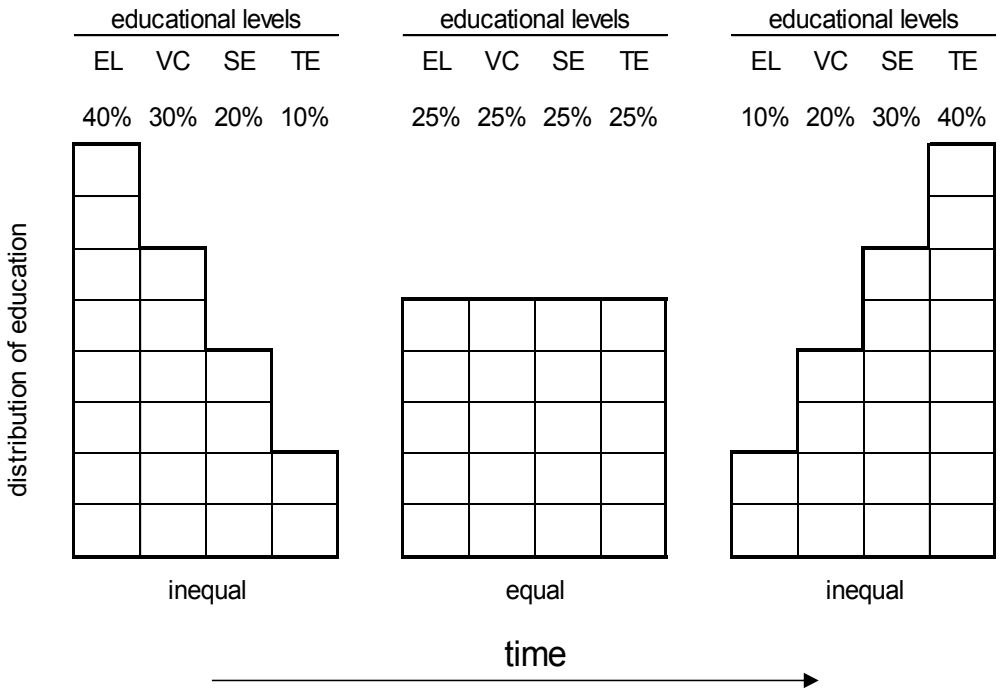
Figure 1. Educational expansion in 20 European countries between 2000 and 2018



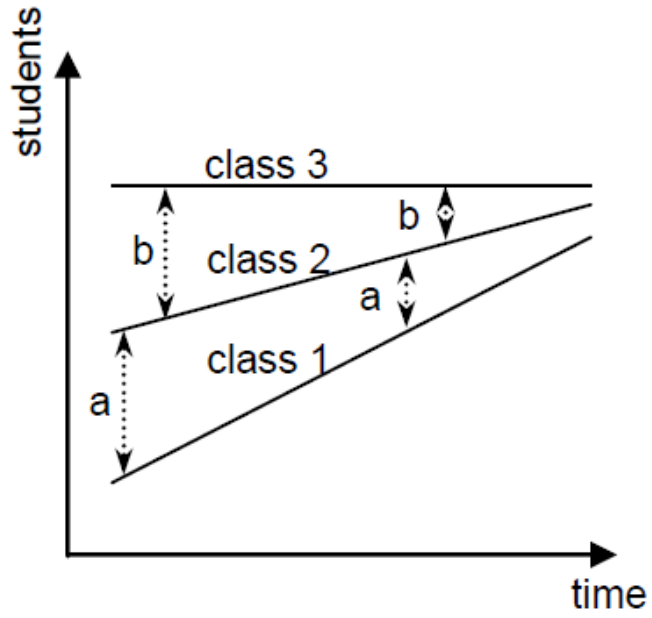
- Bologna process, declaration of European countries and the beginning of educational expansion in a year 2000

- 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)*.

Distribution of education



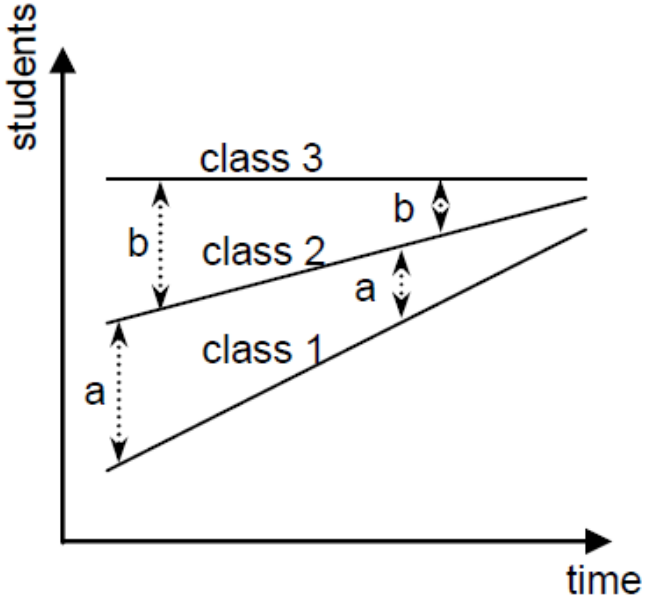
Raymond Boudon in *Education, Opportunity and Social Inequality* (1974) says: If school attendance rates increase over time, then inequalities in educational opportunity will steadily decline, because the lower socioeconomic classes can increase their attendance rates by more proportions than the upper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



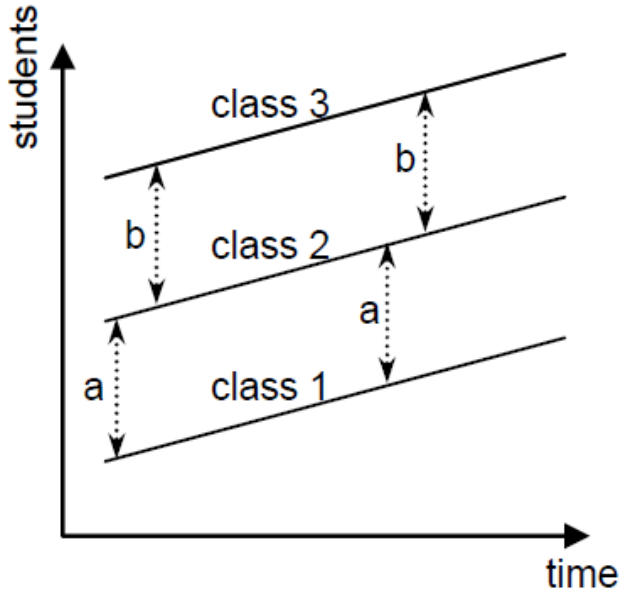
Empirical anti-evidence to Boudon

- 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*

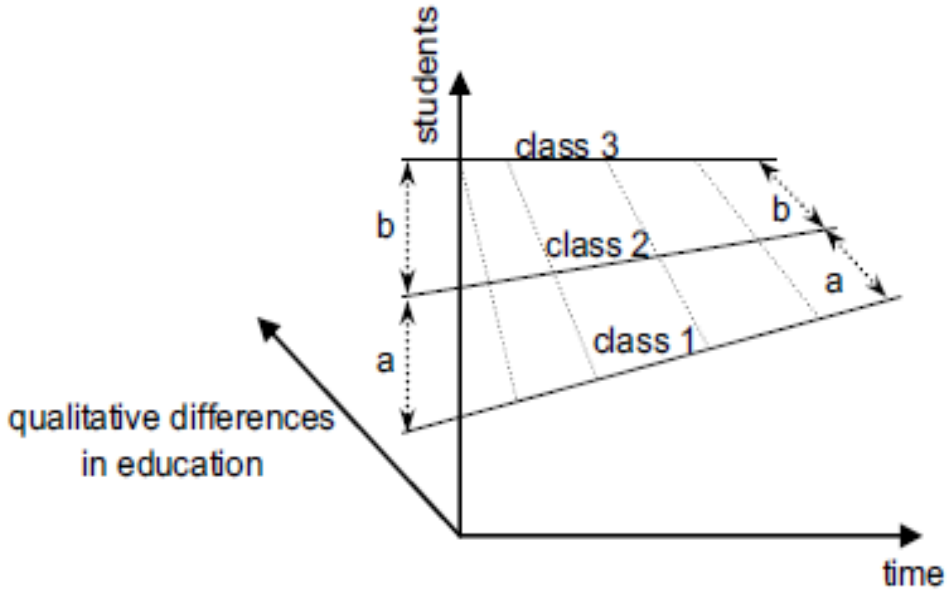
Boudon



Empirical evidence - MMI



Empirical evidence - EMI



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)*

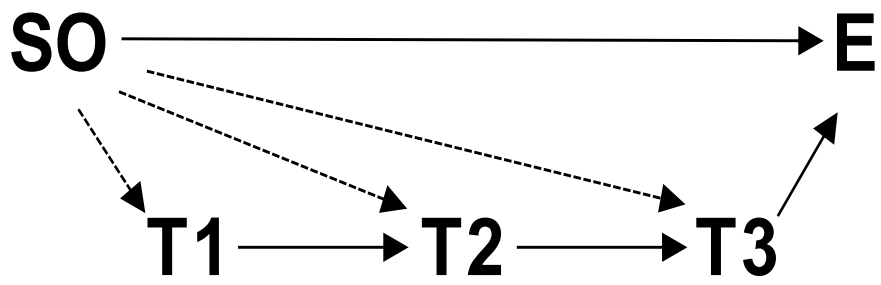
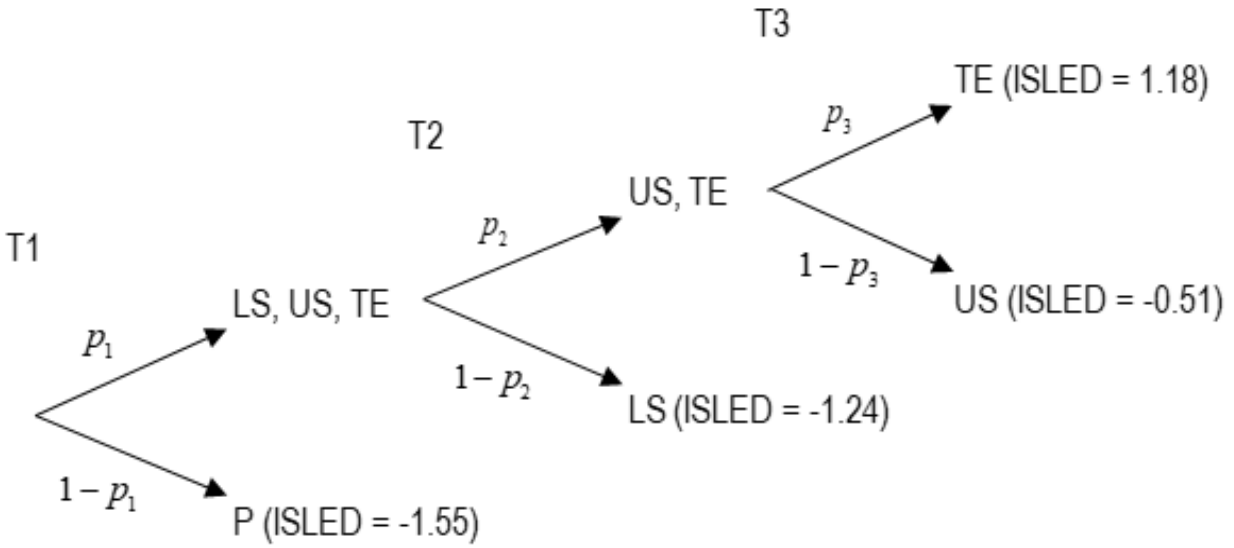


Figure A1. Three educational transitions (T1, T2, T3) delimited by four ISCED97 levels



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 disagregated into (conditional) probabilities to pass educational transitions by SO
  - Conditional probabilities are decomposed into:
    - weights of transitions
    - effects on passing educational transitions

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

  - 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.