



Decomposition methods in the social sciences

Instructors: Professor Ben Jann, University of Bern, Institute of Sociology

Time: Thursday, June 7, 2018: **09:00 – 17:00**

Friday, June 8, 2018: **09:00 – 17:00**

Place: Feldkirchenstr. 21, BAGSS seminar room RZ/00.06

Registration: Please send a mail to Julian Hohner (julian.hohner@uni-bamberg.de) to register.

Registration Deadline: **Friday, May 18, 2018 – Maximum of 20 participants**

Description

Is the difference in wages between men and women (the gender wage gap) due to less labor market experience of women compared to men, or is it due to discrimination against women, for example because labor market experience of women is valued less than labor market experience of men? How much of the gender wage gap can be “explained” by differences in endowments such as education, skill, or experience? How much do changes in educational attainment and general trends in earnings inequality contribute to the change in the wage gap over time? How would test scores of pupils with and without migration background compare if there would be no differences in average socio-economic status? What role did de-unionization and the decline in real minimum wages contribute to rising wage inequality? How high would the mortality rate in country A be if it had the demographic composition of country B?

Decomposition methods can help finding answers to such and other questions by providing insights into the mechanics of group differentials (such as earnings differences between men and women). Based on methodological developments mostly in labor economics (and some parallel developments in demography), these methods are increasingly popular in various fields of the social sciences. The workshop introduces the statistical concepts of decomposition methods, provides an overview of various approaches, and makes students familiar with the application of the methods and the interpretation of their results. Theoretical inputs and practical exercises (using Stata) will be alternated throughout the course.

Prerequisites

Solid knowledge of statistics (including linear regression and regression models for categorical data); experience with Stata.

DAY 1 – Blinder-Oaxaca decomposition

- 09:15 - 10:45 Introduction; the basic Blinder-Oaxaca decomposition for continuous dependent variables; overall and detailed decomposition; statistical inference
- 11:00 – 12:30 Problems and solutions: index problem, transformations, base category of categorical predictors, functional forms, Heckman selection correction
- 12:30 – 13:30 Break
- 13:30 – 15:00 Blinder-Oaxaca decomposition for categorical (and other) dependent variables
- 15:15 – 16:45 Decomposition of the difference in differences (e.g. over time or between countries).

DAY 2 – Beyond the mean

- 09:15 - 10:45 Juhn-Murphy-Pierce approach; re-weighting approach
- 11:00 – 12:30 Approaches based on quantiles
- 12:30 – 13:30 Break
- 13:30 – 15:00 Approach based on recentered influence functions; approach based on distributional regression
- 15:15 – 16:45 Final discussion

Recommended readings

Fortin, N., T. Lemieux, S. Firpo (2011). Decomposition Methods in Economics. P. 1-102 in: O. Ashenfelter, D. Card (eds.). Handbook of Labor Economics. Amsterdam: Elsevier.

Jann, B. (2008). The Blinder-Oaxaca decomposition for linear regression models. The Stata Journal 8(4):453-479.

Further references will be provided during the workshop.