



**Bachelor Seminar
WS 2020/21
in Applied Statistics and Econometrics
Empirical Labor Economics**

General Description

The bachelor seminar serves as a preparation for the bachelor thesis, which is written directly after the seminar. During the processing period, students are expected to write an exposé of their bachelor thesis and to present it at the seminar. The aim of the seminar and of the bachelor thesis is to enable students to conduct an empirical analysis applying the statistical and econometric skills obtained throughout the bachelor program.

In the course of the seminar, students are expected

- to become familiar with the literature from the relevant field
- to precisely define the research question to be analysed in the bachelor thesis
- to prepare the data for the bachelor thesis
- to present first regression estimates
- to present an outlook for the bachelor thesis (i.e., students specify which further analysis they intend to carry out)

Requirements

While knowledge from the obligatory lectures *Statistik I*, *Statistik II*, and *Empirische Wirtschaftsforschung* is required, further statistical skills are not necessary. Instead, general interest in statistics and empirical economics and the willingness to conduct one's own empirical analysis as well as basic knowledge of Stata are essential.

Please note that the seminar will be held in English.

Contact

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Topics Overview

Students are expected to investigate empirically the following topics, based on the cited references:

1. Gender differences in training participation.
2. The wage penalty for motherhood.
3. Overeducation and job satisfaction.
4. The effect of household work on wages.
5. Do personality traits explain the gender wage gap?
6. The impact of health on wages.

Detailed Topics and Literature

1. Gender differences in training participation

Work-related training may enhance productivity, resulting in wage increases and lower unemployment risk for workers. Therefore, less investment in further training may lead to a wage disadvantage for workers. The economic literature has often found that women invest less in work-related training than men because they anticipate career breaks for childbearing, reducing the returns to training. As possibilities for childcare have improved in the last several years, career breaks have become shorter, which should lead to higher investment by women in further training.

The seminar topic analyses gender differences in the probability of participating in training measures and how they evolve over time. It uses OLS and Fixed Effects regressions.

Literature

Arulampalam, W., Booth, A. L., & Bryan, M. L. (2004). Training in Europe. *Journal of the European Economic Association*, 2(2-3), 346-360.

2. The wage penalty for motherhood

Employed mothers often experience additional wage losses compared to non-mothers, which is called the wage penalty for motherhood. This kind of wage disadvantage is also an essential component of the gender wage gap. The mechanisms driving mothers' wage disadvantages have already been the subject of much research. Usually, motherhood leads to job interruption due to childbirth and more time spent taking care of children. Besides that, it is worth analyzing if there exist other reasons for the wage penalty for motherhood, and based on these factors, how policymakers should react to support mothers in the labor market. This topic focuses on the relationship between motherhood and women's labor market income using OLS and Fixed Effects regressions.

Literature

Budig, M. J. (2001). The Wage Penalty for Motherhood. *American Sociological Review*, 66-Number 2, 204-225.

3. Overeducation and job satisfaction

With higher educational attainment, workers may experience education-job mismatch, i.e., overeducation, which means that the worker obtains a level of education in excess of that which is required for their particular job. Some previous studies show that overeducated workers are less satisfied with their job, and an education-job mismatch leads to lower productivity and profit for firms. In this topic, we are interested in whether overeducation leads to a reduction in job satisfaction in Germany. Students are expected to use Pooled OLS regressions and Logit models to conduct the analysis.

Literature

Bauer, T. K. (2002). Educational mismatch and wages: a panel analysis. *Economics of Education Review*, 21(3), 221-229.

4. The effect of household work on wages

How much time individuals spend on household work may affect their wages. When employers decide on hiring workers, they might consider that higher household working hours could decrease an employee's effort in the workplace. The question then arises whether household work reduces a worker's wage. Previous studies also show that women spend significantly more time on household work than men worldwide. Household work might be a potential factor that causes gender differentials in wages. Therefore, it is also interesting to examine whether household work affects the wages of married men and women differently. Students are expected to use OLS and Fixed Effects regressions to investigate these issues.

Literature

Bryan, M. L., & Sevilla-Sanz, A. (2011). Does housework lower wages? Evidence for Britain. *Oxford Economic Papers*, 63(1), 187-210.

5. Do personality traits explain the gender wage gap?

There is a large literature seeking the reasons behind the persistent gender wage gap. Most studies investigate the differences in job characteristics or cognitive skills among men and women, but less attention is paid to the psychological traits of workers. For example, are women more likely than men to be agreeable, and would a more agreeable person receive a wage penalty in the labor market?

This topic investigates whether personality traits can contribute to explaining the gender wage gap. We use variables of the big five factors of personality and locus of control. The estimation methods are Pooled OLS regressions and a Oaxaca-Blinder decomposition.

Literature

Nyhus, E. K., & Pons, E. (2012). Personality and the gender wage gap. *Applied Economics*, 44(1), 105-118.

6. The impact of health on wages

Traditionally, the human capital theory focuses on the education and skills of individuals. However, health is also an essential component of human capital. There are several potential channels through which health could have an impact on labor market behavior and outcomes. An increase in health leads to an increase in productivity and, therefore, wages. Moreover, unhealthy workers may be subject to discrimination irrespective of their productivity. And health might correlate with unobserved attributes that affect productivity. Consequently, firms may offer higher wages for healthier workers.

This topic aims to investigate whether health has a positive impact on wages. The main independent variable is self-assessed health status. The methods used are Pooled OLS and Fixed Effects regression.

Literature

Pelkowski, J. M., & Berger, M. C. (2004). The impact of health on employment, wages, and hours worked over the life cycle. *The Quarterly Review of Economics and Finance*, 44(1), 102-121.

Organisation of the Seminar

You can apply for the seminar via Jogustine. Further information on the registration procedure and the registration period is provided by the *Studienbüro*. You receive the final admission to the seminar from the *Studienbüro*.

All topics will be assigned to groups of two or three students directly after the first meeting (Wednesday, November 11th). Please send a transcript from Jogustine to sekretariat.schank@uni-mainz.de prior to the first meeting in order to inform us of which courses you have participated in.

Group members present their results jointly on Thursday, December 17th. However, note that each student writes her / his exposé independently. The bachelor thesis will be written in the eight weeks following the seminar.

Time Schedule for the Bachelor Seminar and Bachelor Thesis

Events	Date	Time	
Introduction of the topics, topic assignment and beginning of the processing period	Wednesday, November 11 th 2020	14:00- 16:00	Via Microsoft Teams
Deadline for exposés submission	Friday, December 11 th 2020	until 12:00	Via e-mail to: sekretariat.schank@uni-mainz.de .
Presentation of the exposés	Thursday, December 17 th 2020	9:00- 18:00	Via Microsoft Teams
Beginning of processing time of the bachelor thesis	Friday, December 18 th 2020	–	–
Deadline for bachelor thesis submission	Friday, February 12 th 2021	until 12:00	Official submission to the Studienbüro. Supplementary material via e-mail to sekretariat.schank@uni-mainz.de

The attendance of the introductory session (first session) and the presentation of the exposés are mandatory. In the case of non-attendance (without presenting valid reasons to the Exam Office), the seminar will not be passed. Due to the Corona situation, the introductory session and the exposé presentation (as well as the meetings with the supervisor) will take place via video conferences.