SCHOOL OF
ECONOMICS AND
MANAGEMENT

Means Testing in BAföG

The Impact of Income Eligibility Thresholds on Student Labor Supply

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Abstract

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Keywords: 3 – 5 key words
JEL codes: Find appropriate codes at https://www.aeaweb.org/econlit/jelCodes.php?view=jel

1 Introduction

test XKCD (2024)

2 Related Literature

- What we provide to the literature (short)
  - What other studies have looked into

3 Data

- What source is the data from? - Describe the Sample - How many individuals in our sample? - Describe what data we have, what dataset, what variables from the dataset - Create a descriptive table over all variables used and the outcomes, sample sizes etcetera - Limitations of our data

4 The German Study Aid System

- Write about how pupils are funding their education

The German Study Aid System is

4.1 Federal Training Assistance Act ("Bundesausbildungsförderungsgesetz")

4.1.1 Reforms (any reforms relevant?)

4.1.2 Income Thresholds and Means Testing

- Write about the problem of students not applying for bafög

4.1.3 Grant and Loan Proportions

4.1.4 Loan Repayment Plan

4.2 Training Loans ("Bildungskredit")

5 Method

5.1 Individual Students' Monthly Requirement

The monthly requirement the student is eligible for is contingent on the financial support the student is currently receiving from his or her family. Firstly, the student receives a constant requirement of EUR 475, which is not contingent on the students' financial circumstances. To this basic amount the student receives requirements for **accommodation** (A), **health insurance** (HI), **long term care insurance**

(LTCI) and an additional amount per the **number of children** (C) the student has. The requirement received for health insurance, long-term care insurance and accommodation is contingent on whether the parents are already providing these benefits. The total requirement the student will receive is therefore

$$\mathrm{R} = 475 + \mathrm{A} + \mathrm{HI} + \mathrm{LTCI} + \mathrm{C} \tag{5.1}$$

where

Variable	Provided by parents	Not provided by parents
A	59	380
HI	0	102
LTCI	0	35

Table 1: Benefits contingent on parental provision (values in EUR).

5.2 Deductions from Requirement

Parental and Student Income.

$$PR = \text{Parental Reduction} = \begin{cases} 0 & \text{if } E_5 \text{ or } (T_3 \text{ and } E_3) \\ 0 & \text{if } \mathrm{Age}_{30} \\ 0.5 \times (\text{Parental Income} - \text{Exemption}) & \text{otherwise} \end{cases} \tag{5.2}$$

- E_5: Employed for 5 years after age 18
- T_3: Completed 3 years of vocational training
- E_3: Employed for 3 years after vocational training
- Age_{30}: Older than 30 at the start of training

Household Type	Exemption
Parents living together	2,540
Parents live separately	1,690
Spouse or Cohabiting Partner	1,690

Table 2: Tax-free amount contingent on household type (values in EUR).

Let

$$SR = \text{Student Reduction} = \begin{cases} 0.5 \times ((\text{Income} - 556) + \max(0, \text{Assets} - 15,000)) & \text{if } \mathrm{Age}_{30} \\ 0.5 \times ((\text{Income} - 556) + \max(0, \text{Assets} - 45,000)) & \text{else} \end{cases}$$

$$\mathrm{BAföG}_i^{\text{final}} = \max(0, R - (PR + SR))$$

Define a loss function out of the requirements and the deductions

$$L(R, PR, SR) = R - (PR + SR) \tag{5.3}$$

5.3 Construction of Fuzzy RD

Dummy variable for whether student loses any of his or her BAföG requirement

$$D_i = \begin{cases} 1, & \text{if } L(R, PR, SR) > 0 \quad \text{(Some BAföG deduction occur)} \\ 0, & \text{if } L(R, PR, SR) = 0 \quad \text{(No deductions, full requirement)} \end{cases} \tag{5.4}$$

REVISE THIS ENTIRELY! Use a logit/probit for the first step then use these fitted values as regressor for second stage! Look into assumptions of both models and determine according to the characteristics of our data.

First Stage (REVISE! Make into Logit/Probit)

$$\text{BAF}\ddot{\text{O}}\text{G}_i = \alpha + \beta D_i + \gamma X_i + \varepsilon_i$$

Second Stage

$$\text{LabourSupply}_i = \delta + \lambda \widehat{\text{BAföG}}_i + \mu X_i + \nu_i$$

λ coefficient for whether BAföG receipt reduces labour supply

References

XKCD (2024). Physicists. https://xkcd.com/793/. Accessed 2024-05-22.

Appendix A: Tables

Year	(%) Supported Students			Avg. Monthly Payment (2023 prices)
	Partially	Fully	Total	
1998	13	5	19	498.34
1999	13	6	19	502.83
2000	14	6	19	503.90
2001	15	7	22	553.19
2002	15	9	23	554.36
2003	15	9	24	547.26
2004	16	10	25	539.85
2005	16	10	26	536.96
2006	16	10	25	528.53
2007	16	10	25	516.68
2008	14	11	25	534.48
2009	16	10	26	580.82
2010	16	10	27	577.54
2011	17	10	27	586.09
2012	17	10	27	570.14
2013	16	10	25	559.06
2014	15	9	24	556.19
2015	14	8	22	553.24
2016	12	8	21	569.99
2017	12	8	20	604.08
2018	10	8	18	586.47
2019	10	7	17	602.85
2020	9	7	16	669.86
2021	9	7	16	655.38
2022	8	8	17	647.04
2023	9	9	17	663.00

Table A1: Descriptives from 1998–2023 showing the fraction of HE students partially and fully supported by BAföG, along with the average monthly payment adjusted for the German Consumer Price Index (CPI) from Destatis.

Appendix B: Figures

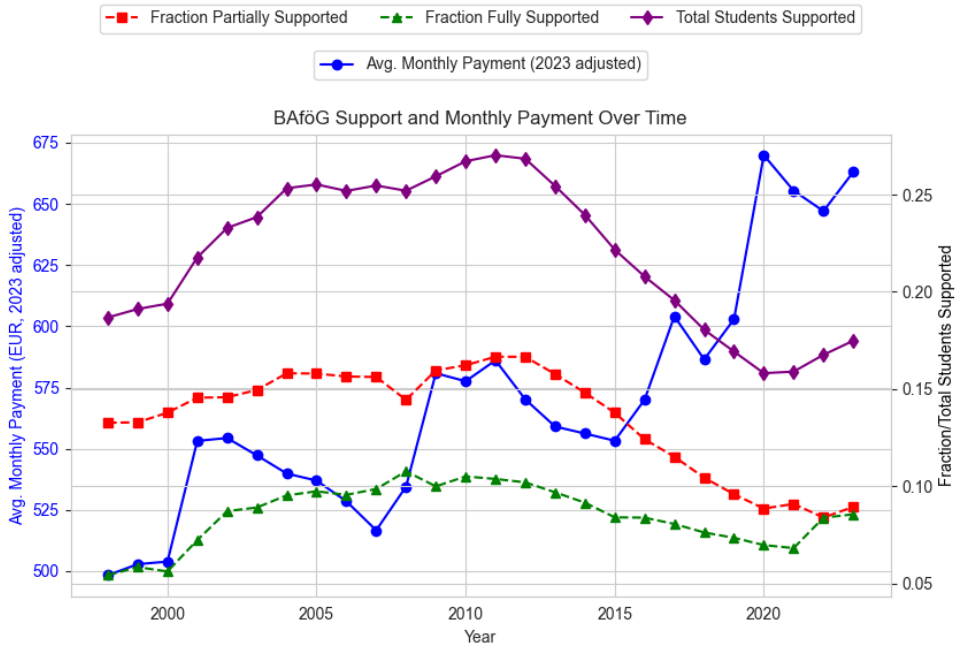

Figure B1: Trends in CPI-adjusted average monthly payments from 1998 to 2023, expressed in 2023 prices. The figure also illustrates the fraction of enrolled students in Germany receiving partial, full, or combined partial and full loans and grants over the same period.