

# The effects of financial aid on university participation and academic performances in times of economic recession

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# Outline

- 1 Introduction
- 2 Data and identification strategy
- 3 Empirical results: enrolment
- 4 Conclusions

# The programme

- **Grant 5B** was established by the local government of the province of Trento to favour university enrolment and academic performances of worthy students from disadvantaged background.
- Eligibility criteria:
  - **residence** in the province of Trento for at least 3 years.
  - household equivalent **income below** €30,000.
  - passing the *Esame di Maturità* with **final score** above 93/100.

# The programme

- It can be **cumulated** with the national scholarships provided under the programme known as *Diritto allo studio* (Right to study)
- The amount is quite **generous**: from €1,200 to €6,000 per year on top of other monetary aid.
- In our data more than 80% of the recipients receive more than €4,500 through quarterly payments made to the students.

# The role of liquidity constraints and time allocation

- The idea behind the implementation of Grant 5B is to increase university enrolment and improve academic performance **reducing direct** and **indirect costs** connected to the university attendance.
- The main assumption at work is that students from low-income families suffer from **liquidity constrain** and that this is the main obstacle for their enrolment decision.
- The reduction of costs might change recipients' **time allocation**, enabling students to spend more time on their coursework (instead of working).

# The role of liquidity constraints and time allocation

- What happen to the possible effects of the financial aid in a context of persisting **economic crisis**?
- Also in Italy and in the province of Trento the consequences of the economic crisis have been severe.
- In this situation we could observe a **reduction in disposable income** especially for families from lower social backgrounds.
- As a consequence the loss in disposable income could play a role in the **cost/benefit evaluation** of lower social background students when they have to make enrolment choices.

# Data

The final dataset results from the linkage among:

- a set of *ad hoc* survey on high school graduates (2009-2012);
- the archives for the administration of the programme;
- the databases of the local agency in charge of gathering information on income and assets of families;
- others: Censis Italian university guide, maps.google.it, etc.

# Identification strategy

- Conditioning on being below the income threshold, **eligibility** is determined by an administrative rule:

$$E = \begin{cases} 1, & \text{if } final\ score \geq 93 \\ 0, & \text{if } final\ score < 93 \end{cases}$$

- Given this framework, we implement a **Regression Discontinuity Design**, comparing students just above and just below the merit threshold.
- $\delta = \mathbb{E}[Y|final\ score = 93^+] - \mathbb{E}[Y|final\ score = 93^-]$



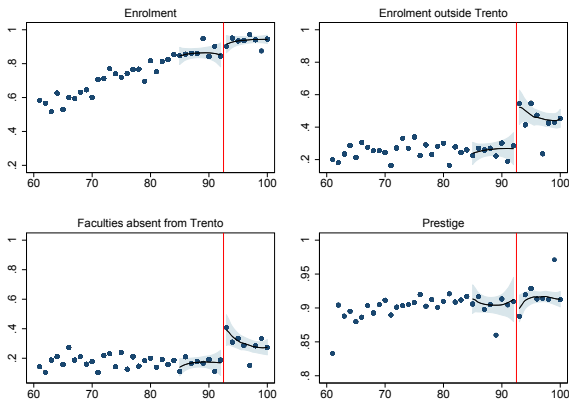
# Outline of the results

The main results are presented as follows:

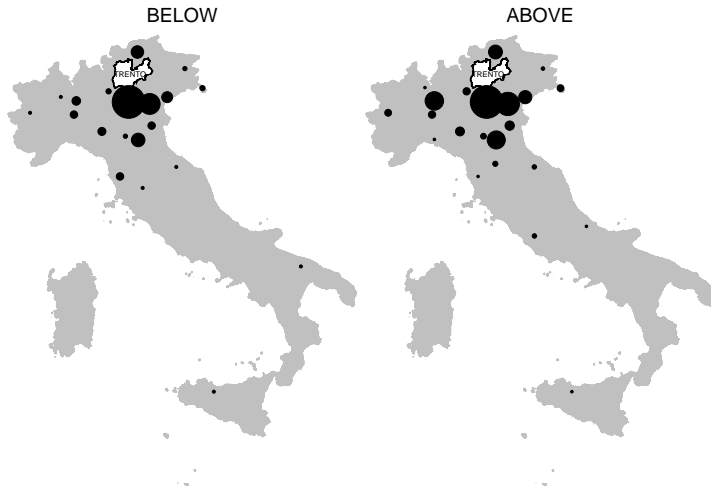
- Overall picture emerging from pooled data (2009-2012).
- Trend over time: stratification according to enrolment cohort
- Heterogeneous effect: stratification according to parental education.

## Pooled data

Figure: Effects of Grant 5B

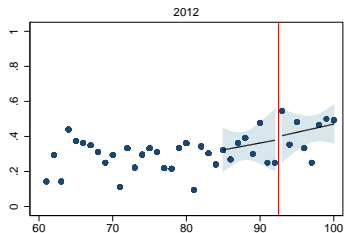
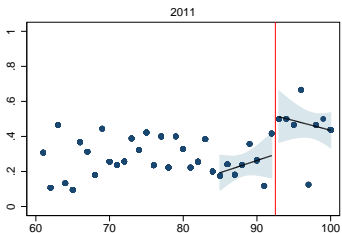
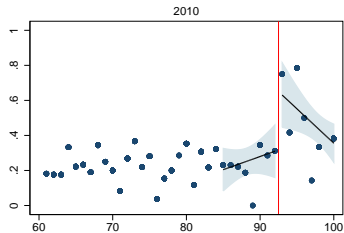
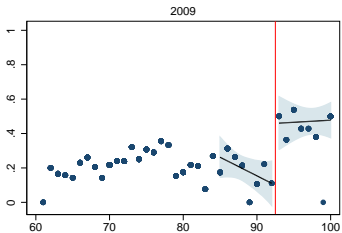


# Pooled data

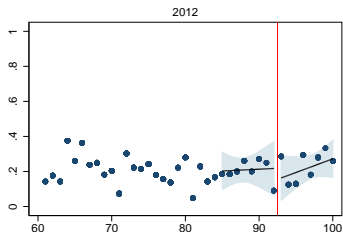
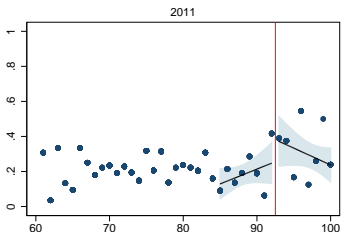
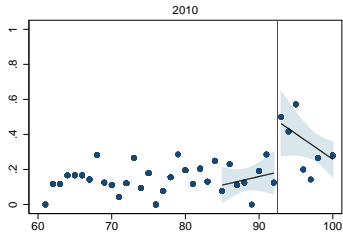
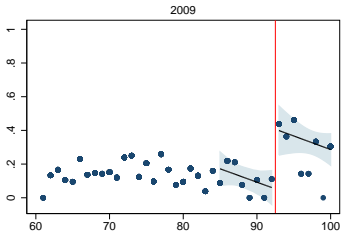


## TREND OVER TIME

# Enrolment outside Trento over cohorts



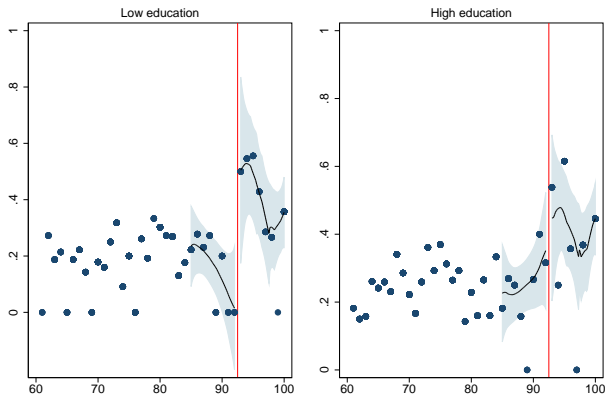
# Enrolment in faculties absent from Trento over cohorts



## ROLE OF PARENTAL EDUCATION

# Parental education: enrolment outside Trento

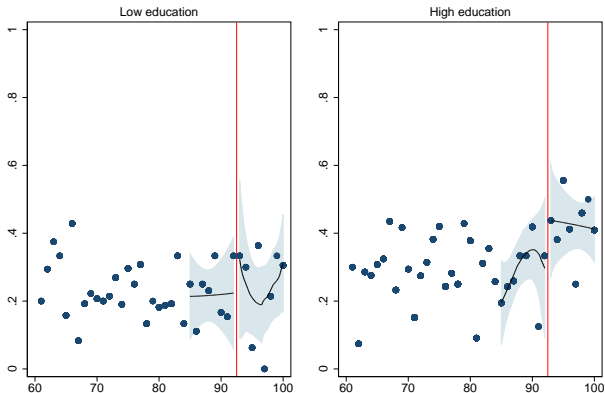
2009-2010





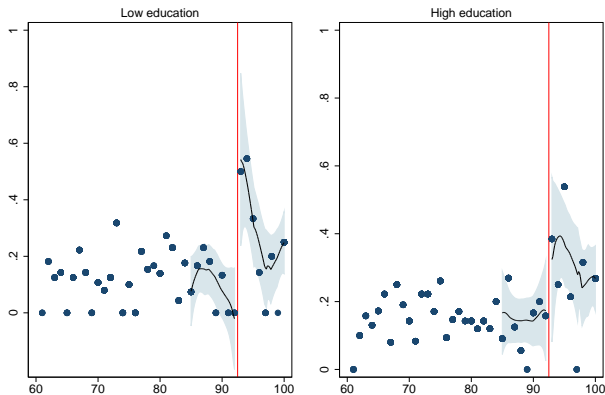
# Parental education: enrolment outside Trento

2011-2012



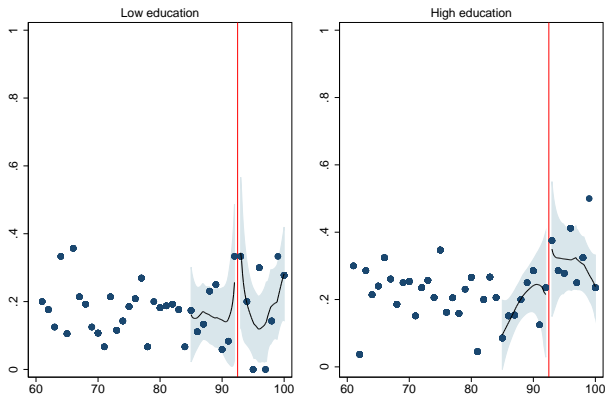
# Parental education: enrolment in faculties absent from Trento

2009-2010



# Parental education: enrolment in faculties absent from Trento

2011-2012



# Conclusions

- Null effect on **enrolment probability** (maybe due to the policy design).
- Huge effects on the choice of the university location (presence of **liquidity constrain**).
- Vanishing of the effects with the persistence of economic crisis (decrease in the **disposable income** for disadvantaged students).

THANK YOU FOR YOUR ATTENTION

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