
# Grants: A bridge to university access.
## The impact of an Information Intervention

*Federica Laudisa, Samuele Poy*

# Why Conduct This Research?

# Addressing EDISU Piedmont's Need for Knowledge

Do secondary school students know about student financial aid programs (and do they know EDISU Piedmont)?

# We already knew the answer

# A large percentage of eligible students do not apply for the scholarship

An analysis based on administrative data in 2016/17 showed that:

**58%** of those enrolled in the first year at two universities in Piedmont, within the economic threshold for access to the scholarship, did not apply for grant

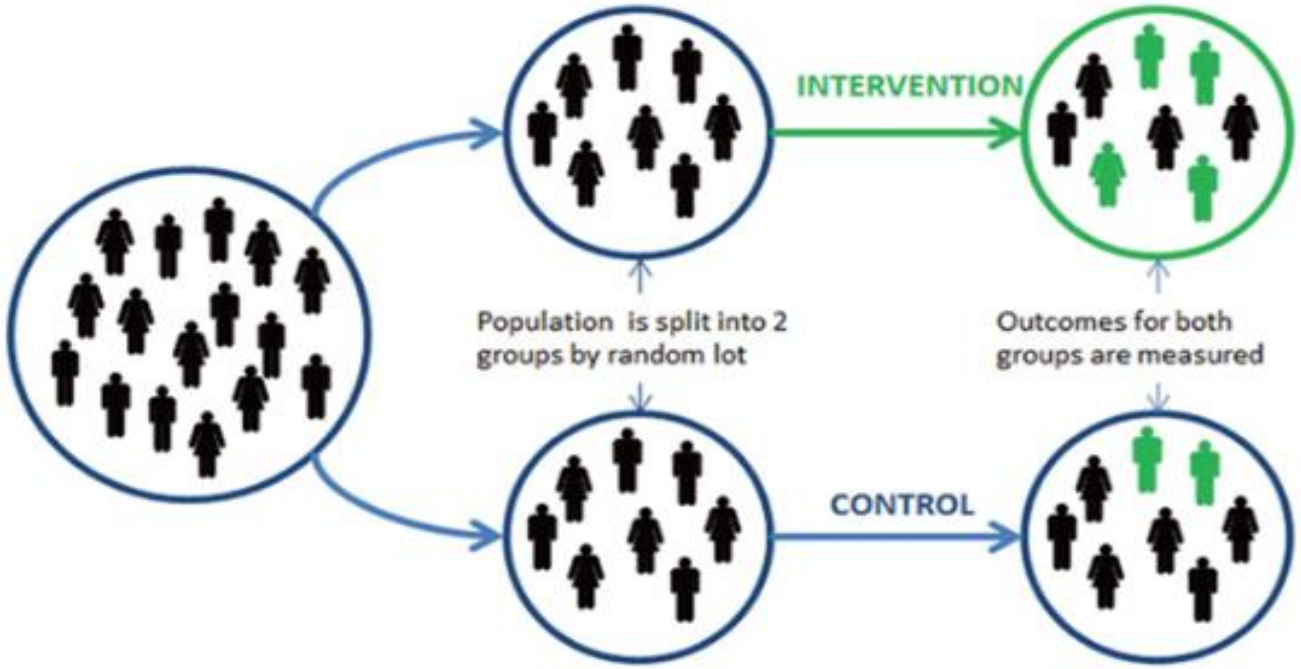
| Scholarship application | No. of eligible first-year students | % |
|---|---|---|
| YES | 1,093 | *41.8* |
| NO | 1,520 | ***58.2*** |
| TOTAL | 2,613 | *100.0* |

# A new research question

- Are 5th-year secondary schools students in Piedmont aware of student financial aid (scholarships, first and foremost)?

- Does informing them about available financial aid influence their decision to enroll in higher education?

# How Did we Address this Question?




# A randomized controlled trial

# The research steps/1

1. We randomly selected a **representative sample** of high school seniors in Piedmont

   *We selected 30% of high schools in Piedmont*

2. The sample was randomized into two groups: classes of "treated" students and control classes

   *15% in the treated group and 15% in the control group, about 8,800 students (out of almost 31,000 enrolled)*

We adopted a stratified sampling divided into two strata:

- School type (high schools, technical and vocational schools)
- Geographical area

# The research steps/2

3. **All students** were surveyed in class with a CAWI questionnaire between February and June 2023

*Gentile Studentessa/Studente,

l'Istituto di Ricerche Economico Sociale del Piemonte (IRES) attraverso questo questionario intende rilevare il grado di conoscenza degli aiuti che puoi ricevere se ti iscrivi ad un corso di livello universitario. Lo scopo è migliorare l'informazione in futuro.

Per rispondere al questionario occorrono circa 10 minuti. Ricorda: non ci sono risposte giuste o sbagliate.

Il questionario è anonimo. Le risposte saranno trattate esclusivamente in forma aggregata a fini statistici. I dati non saranno comunicati ad altri soggetti.

4. An informational meeting was held in the 'treated' classes, immediately after the administration of the questionnaire

The treatment group attended a 25-minute presentation providing detailed information about the grant (including eligibility requirements, application procedures and award amounts)

# The research steps/2

5. Follow-up interviews were conducted with all students after their graduation from high school, between December 2023 and mid-February 2024, to determine how many had enrolled in university and if they applied for a grant

6. Comparison of rates between the treatment and control groups

The impact of the informational session

# The sample: 6,560 students surveyed

68 schools took part in the research project, representing 85% of the initially selected students.

At the time of the survey, nearly 6,900 students were present in the classroom, with **6,560 responding:**

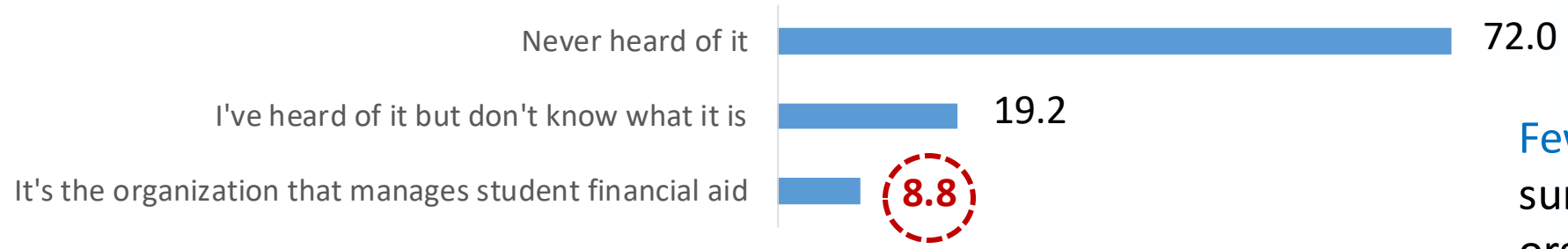
95.4% compliance rate

| | |
|---|---|
| N° TREATED | 3,102 |
| N° CONTROLS | 3,458 |

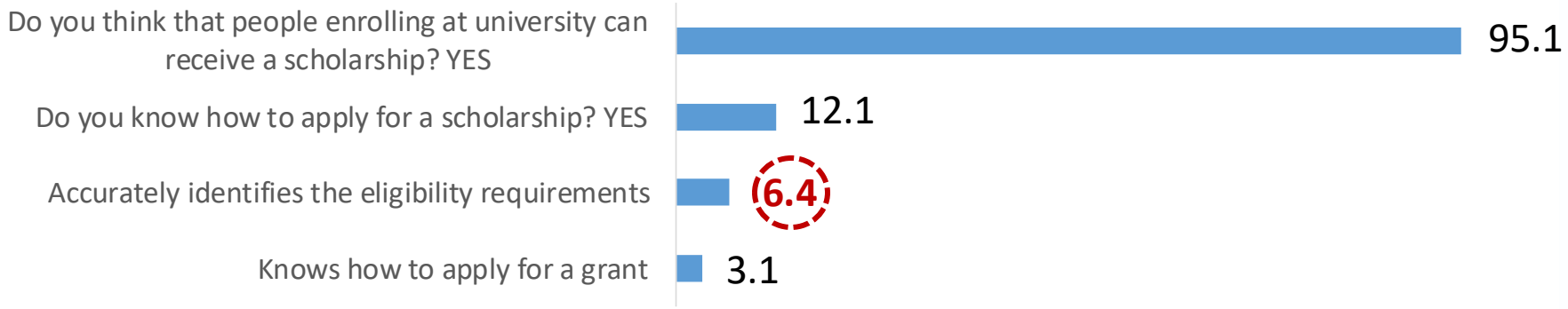
Ultimately, we interviewed 21% of all high school seniors enrolled in Piedmont in the 2022/23 academic year.

# Are Students Aware of the Scholarship and EDISU Piedmont?

# Merely 9 per cent know about EDISU Piedmont




Fewer than 9% of the surveyed students know the organization that manages and provides the scholarship.




**6%** accurately identify the eligibility requirements.

# Who intends to continue their studies?

| | Coeff. | *Std. Error* |
|---|---|---|
| *A. Gender (v. Male)* | | |
| Female | 0.093*** | *(0.012)* |
| *B. School district (vs. AL-AT)* | | |
| BI-NO-VC-VCO | -0.014 | *(0.027)* |
| CN | -0.010 | *(0.028)* |
| TO (town) | 0.090*** | *(0.030)* |
| TO (district) | 0.033 | *(0.026)* |
| *C. Migrant background (vs. Italian)* | | |
| 1st generation foreigners | 0.016 | *(0.025)* |
| 2nd generation foreigners | 0.049*** | *(0.014)* |
| *D. School type (vs. vocational school)* | | |
| Technical schools | 0.127*** | *(0.029)* |
| Other high schools | 0.299*** | *(0.035)* |
| Classic/scientific high schools | 0.399*** | *(0.029)* |
| *E. Average grade in the first quarter(vs. six or less)* | | |
| Seven | 0.139*** | *(0.013)* |
| Eight | 0.203*** | *(0.018)* |
| More than eight | 0.268*** | *(0.019)* |
| *F. Parents' education level (vs. Lower secondary education)* | | |
| Upper secondary education | 0.033** | *(0.014)* |
| Tertiary education | 0.099*** | *(0.016)* |
| I don't know | -0.029 | *(0.022)* |
| *G. Participation in guidance activities (vs. low)* | | |
| Medium | 0.088*** | *(0.012)* |
| High | 0.135*** | *(0.018)* |
| *H. Aware of EDISU grant* | 0.097*** | *(0.024)* |
| *I. Aware of tuition fee exemption* | 0.066*** | *(0.012)* |
| Numbers of observations | 6.559 | |

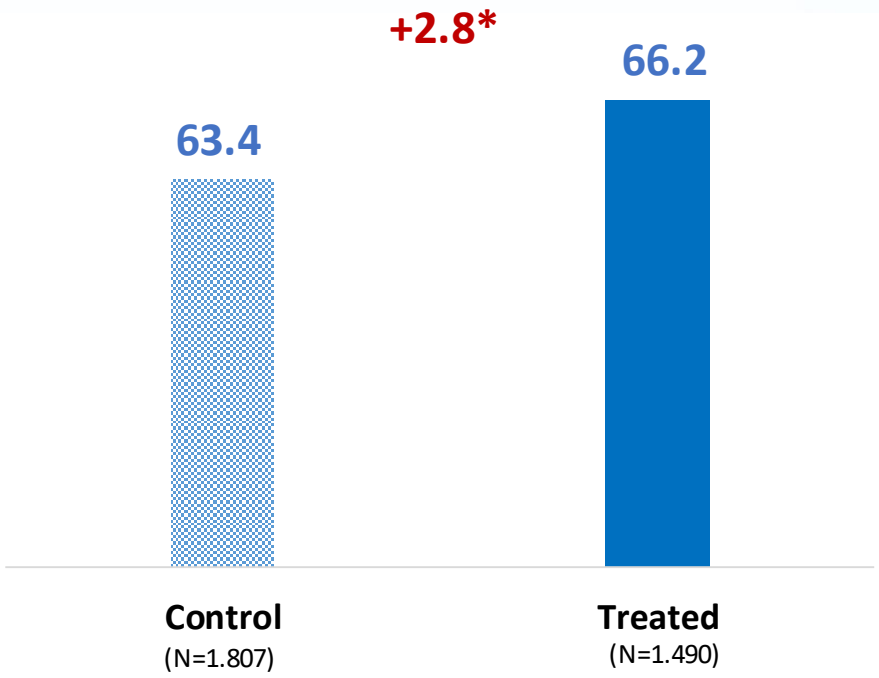
The **probability** of planning to **continue studies** at university level, *all other factors in the model being equal*, **is significantly higher for** those who:

- have participated in many guidance activities
- are aware of EDISU grant and tuition fee exemption

- Are female
- Are enrolled in a high school
- Have a high average grade
- Have parents with tertiary education

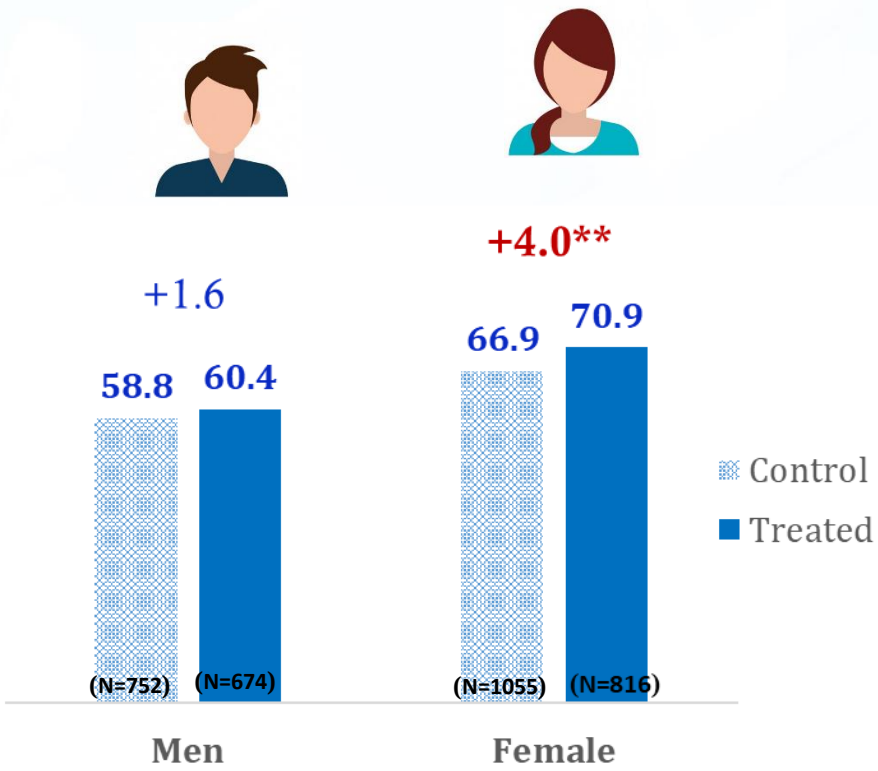
# Does Scholarship Awareness Influence Further Study?


Positive and significant impact on the probability of university enrolment of +2.8 percentage points.




Note: the figure shows the average marginal effects of a probit model. The covariates included in the regression: macro-area (quadrants of Piedmont), educational path (type of school), grade obtained at high school, intention to enroll in university (measured in the last year of high school), gender, migratory background, parent's education. Significance level: *10%, **5%, ***1%

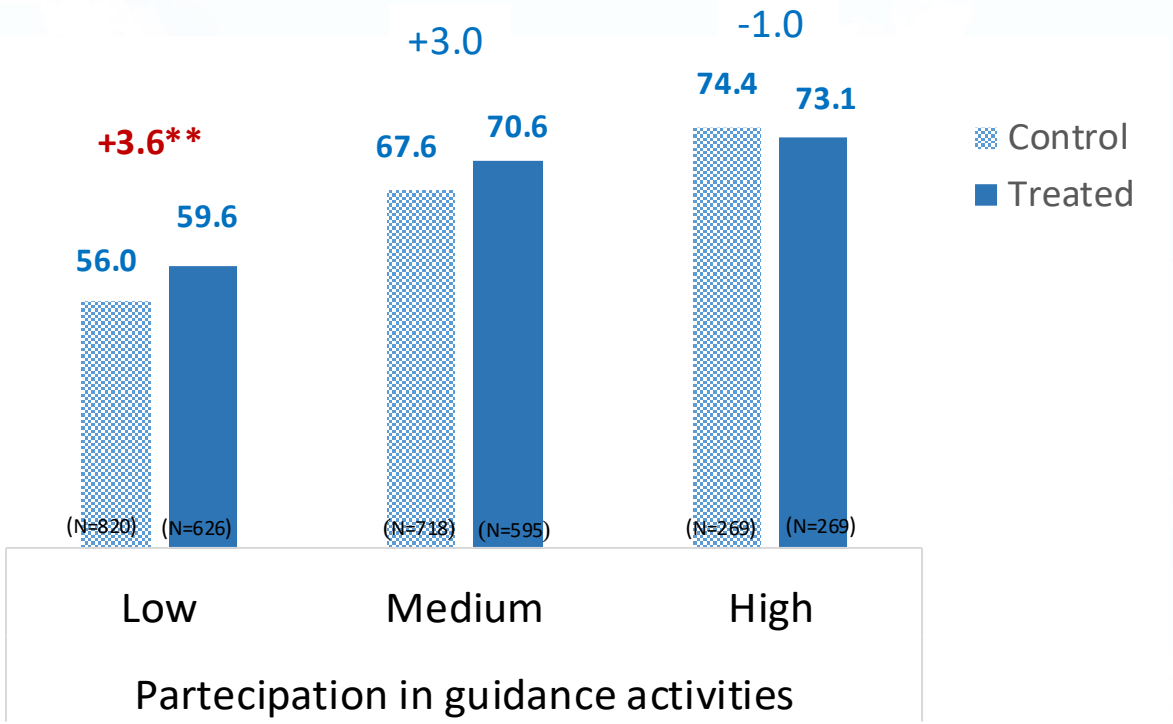
# Impact on female students




**Female students** have a **4.0** p.p. higher probability of university enrolment than the control group.

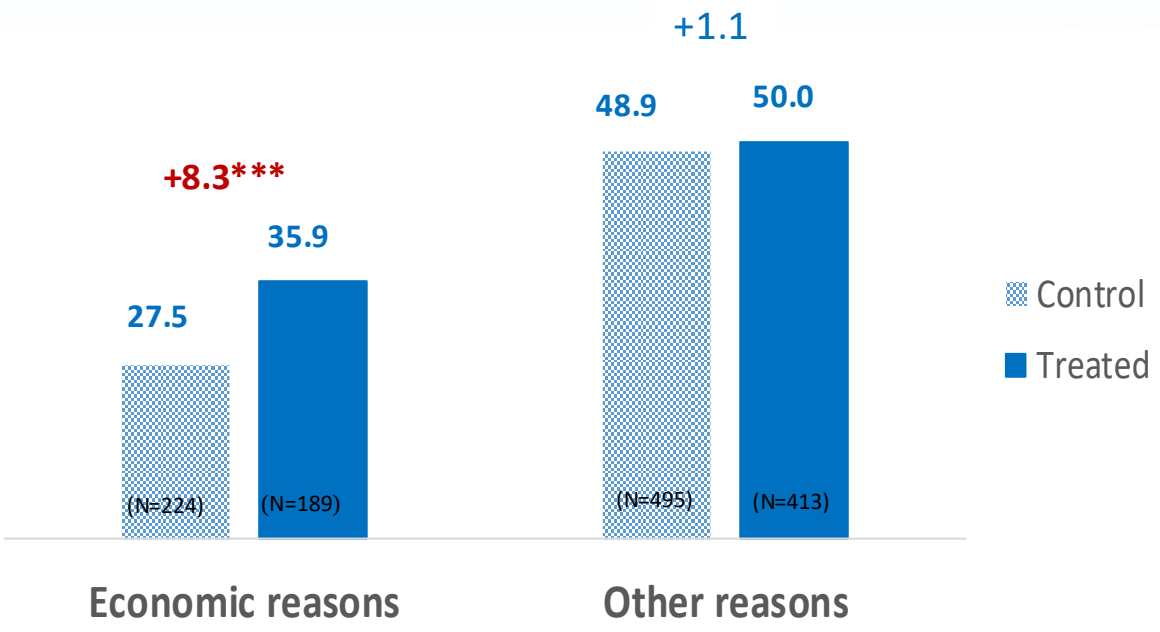
Note: the figure shows the average marginal effects of a probit model. The covariates included in the regression: macro-area (quadrants of Piedmont), educational path (type of school), grade obtained at high school, intention to enroll in university (measured in the last year of high school), gender, migratory background, parent's education. Significance level: *10%, **5%, ***1%

# Impact on those who were less informed and uncertain whether to continue for economic




Effect on those who participated in few guidance activities (**+3.6** p.p. ):

A single information meeting had an impact on those who were less informed



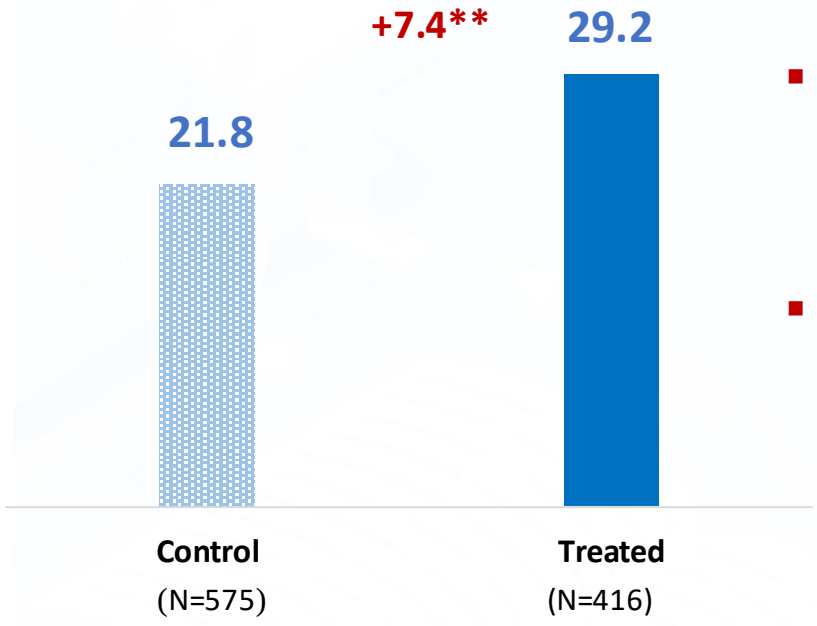

…and only on those who were uncertain to continue their studies for economic reasons: **+8.3** p.p.

No effect on vocational and technical track students

Note: the figure shows the average marginal effects of a probit model. The covariates included in the regression: macro-area (quadrants of Piedmont), educational path (type of school), grade obtained at high school, intention to enroll in university (measured in the last year of high school), gender, migratory background, parent's education. Significance level: *10%, **5%, ***1%

# Does Raising Scholarship Awareness Boost Grant Applications?


Positive and significant impact on the probability of applying for a grant of +7.4 percentage points




- +15.9** p.p. probability of applying for the grant for those whose parents have lower secondary education
- +13.8*** p.p. for those with a parental background of upper secondary education

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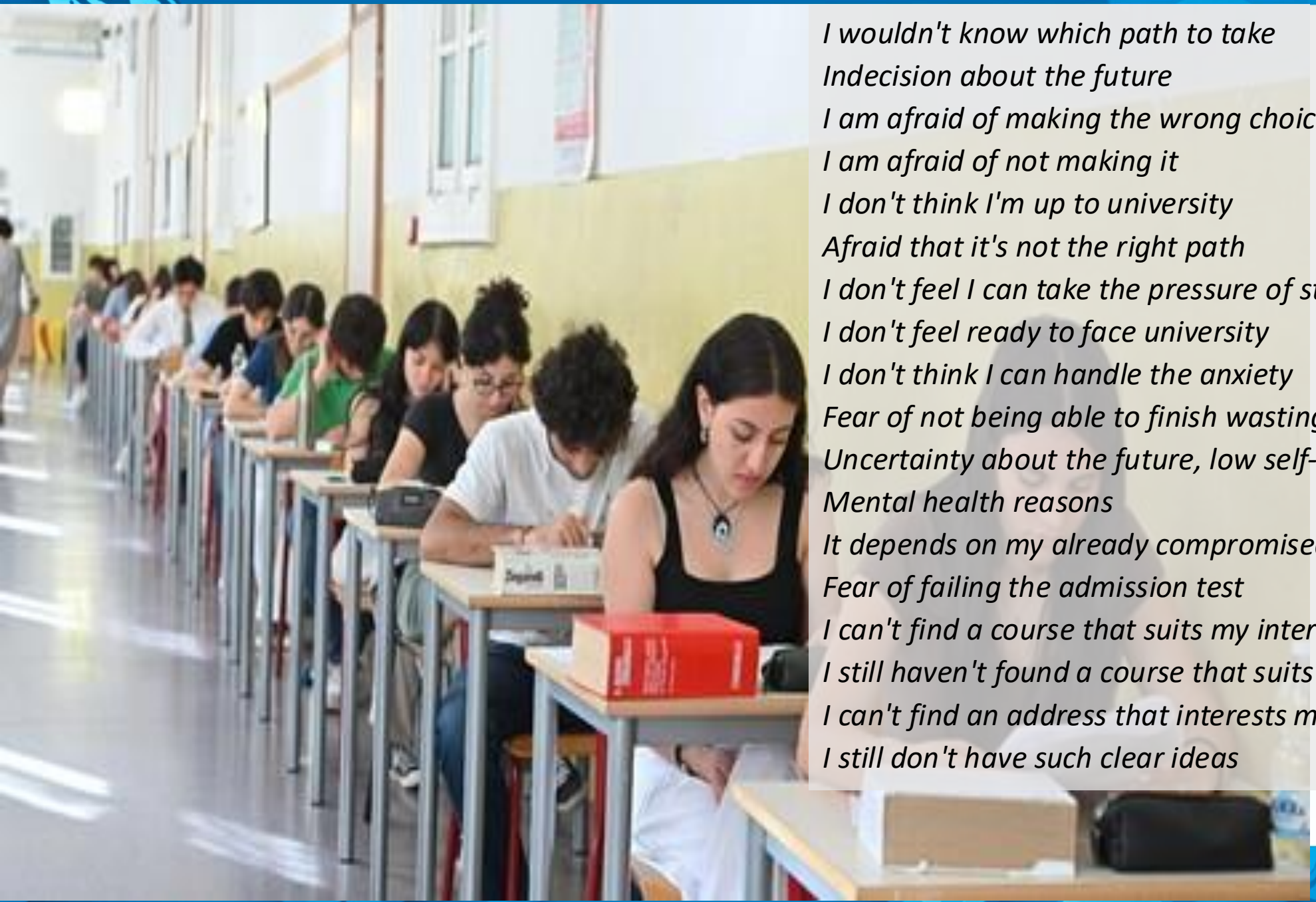
# In conclusion


- Information gaps on student financial aid are relevant
- It’s necessary to increase students' awareness of scholarship opportunities, as they significantly influence university enrollment, especially for those who are undecided for economic reasons
- For those undecided for reasons other than economics and for vocational graduates, other types of support should be put in place

# Why are you undecided to continue your studies?


OTHER REASONS

- Indecision on which course of study to choose
- Not being able to find the right course for one's aptitudes or interests
- Fear of not succeeding, insecurity about one's abilities, anxiety



*I wouldn't know which path to take*
*Indecision about the future*
*I am afraid of making the wrong choice*
*I am afraid of not making it*
*I don't think I'm up to university*
*Afraid that it's not the right path*
*I don't feel I can take the pressure of studying anymore*
*I don't feel ready to face university*
*I don't think I can handle the anxiety*
*Fear of not being able to finish wasting money*
*Uncertainty about the future, low self-esteem and stress*
*Mental health reasons*
*It depends on my already compromised mental health*
*Fear of failing the admission test*
*I can't find a course that suits my interests*
*I still haven't found a course that suits me best*
*I can't find an address that interests me fully*
*I still don't have such clear ideas*

# THANKS!

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# Does financial aid matter for academic experience? Evidence from the Eurostudent survey

**Loris Vergolini**

Eurostudent Talks

14 November 2024

# Summary of the presentation

1. What we know so far (in a nutshell)
2. Research questions
3. Data, variables and methods
4. Main results
5. Discussion and conclusions

# Here is what we know so far (1)

Stable increase in **educated workforce**:

- Share of college-educated workers in developed economies has steadily increased.
- Significant rise among 25–34-year-olds in OECD countries: from 27% in 2000 to 48% in 2021.

Persistent social inequalities:

- Enrolment and completion disparities remain a concern.

Financial aid as a key policy tool:

- Financial aid are often used to address educational inequalities in Higher Education.
- Extensive literature highlights overall positive effects of financial aid.

# Here is what we know so far (2)

Different type of **measures** can be linked to financial aid:

- Grants; loans; tax relief and incentivised saving (i.e., asset building).

**Grants** versus **loans**:

- Grants improve academic performance both in the US (Dynarski & Scott-Clayton 2013) and in Europe (Herbaut & Geven 2020).
- Loans (at least in some contexts) seem also to be effective in boosting university enrolment (Wiederspan 2016).
    - Loans carry the risks of default (Dynarski 2016).
    - Research is needed on the costs and benefits of student loans (Chapman & Doan 2019).

# Theoretical framework

Probability of success

Utility of a degree

Costs (direct and opportunity)

$$U = f(B \cdot P - C)$$

Expected benefit

# Theoretical framework

Probability of success

Utility of a degree

Costs (direct and opportunity)

$$U = f(B \cdot P - C)$$

Expected benefit

**Financial aid**

**Reduction of the costs connected to Higher Education**

**Less need to work during the lecture period**

**More time for studying**

**More time to attend lectures**

**Academic experience**

# Research questions

*H1) Does grants and loans have the same effects on academic experience?*

*H2) Is there a mediating effect of work activity and study intensity?*

# Data, variables and methods

**Data**:

Data used in this paper come from the 7th round of **Eurostudent** survey administered in **13 European countries** in 2019 (Austria, Croatia, Denmark, Estonia, Finland, Georgia, Hungary, Ireland, Lithuania, Luxembourg, Netherlands, Poland, Slovenia).

A **Wide set of information** on several aspects of the "university life" has been collected:

- Current study situation.
- Study background.
- Study conditions.
- Living conditions.
- International mobility.
- Socio-demographic characteristics.
- Socio-economic background.

# Data, variables and methods

**Variables**:

The **dependent** variable (**academic experience**) is the result of a factor analysis on the following set of items (measured according to a 5-point Likert scale from “Strongly agree” to “Do not agree at all”):

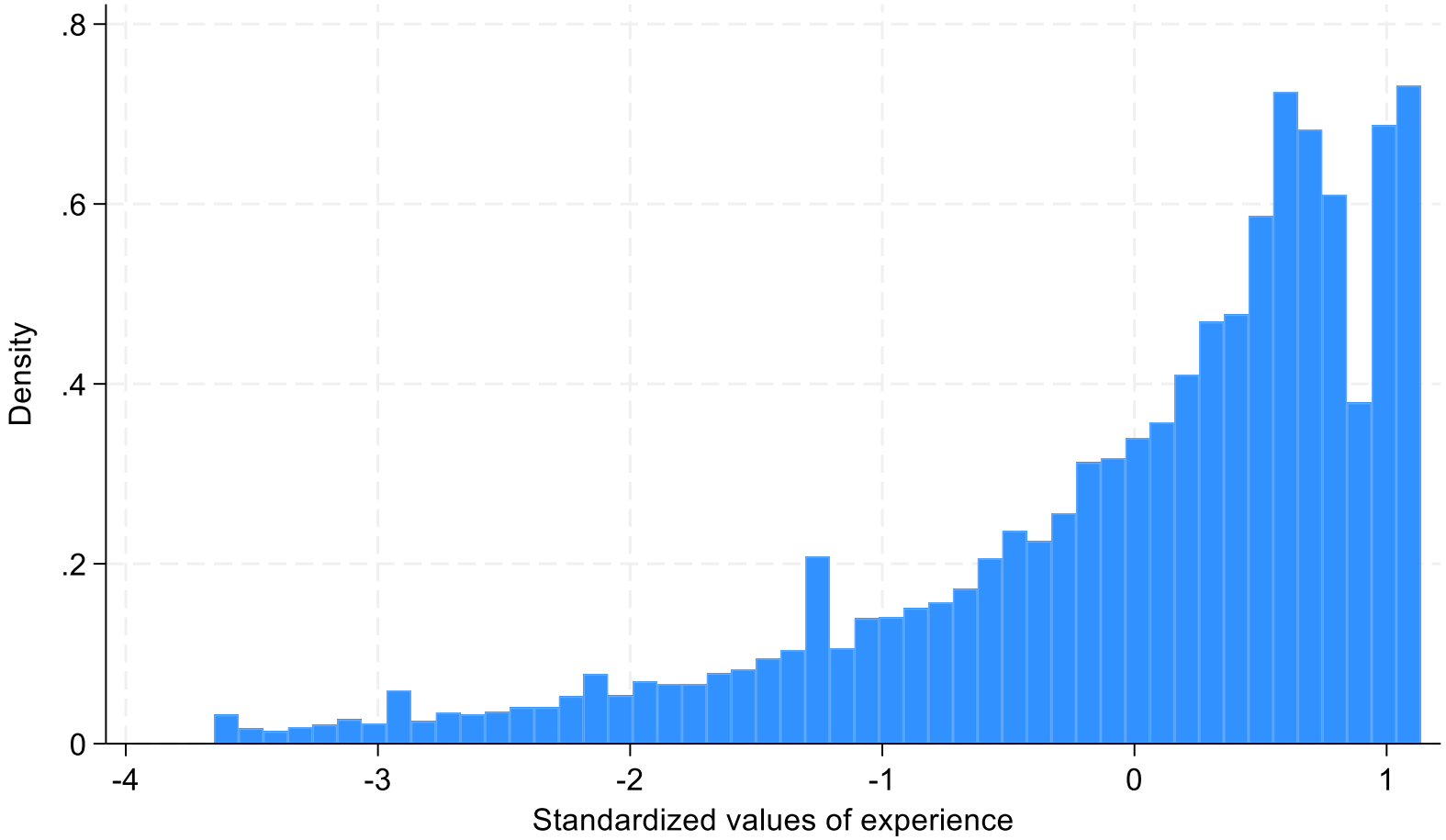
- It is often hard to discover what is expected of me in my current study programme.
- I would recommend my current study programme.
- I often have the feeling that I don’t really belong in higher education.
- I am seriously thinking about changing my current study programme.
- I am seriously thinking of completely abandoning my higher education studies.

# Data, variables and methods

**Variables**:

The factor analysis clearly indicates a **one factor solution** (high values of this index represents a positive academic experience):

| Items | Factor loadings |
|---|---|
| V1 | 0.427 |
| V2 | 0.513 |
| V3 | 0.633 |
| V4 | 0.673 |
| V5 | 0.701 |
| % explained variance: 49.35 | |



# Data, variables and methods

**Variables**:

The **main independent** variables (grants and loans) are derived from the following question:

- *Are you receiving a public grant/scholarship or a public loan during the current lecture period?*

Overall, we have **32.5**% of students with a grant and **7.6**% with a loan (the vast majority in the Netherlands).

The **mediating variables** are:

- Work activity → *Do you have (a) paid job(s) during the current lecture period?* About **60**% of students experienced some kind of work activity.
- Study intensity → *variable provided by Eurostudent*. About **30**% of students declare to have a high study intensity.

# Data, variables and methods

**Methods**:

OLS regression to identify the influence of financial aid (grants & loans).

- $Y_i = \alpha + \beta Grant_i + \gamma \boldsymbol{X} + \theta Country_i$
- $Y_i = \alpha + \beta Loan_i + \gamma \boldsymbol{X} + \theta Country_i$
- $Y_i = \alpha + \beta_1 Grant_i + \beta_2 Loan_i + \beta_3 (Grant_i \cdot Loan_i) + \gamma \boldsymbol{X} + \theta Country_i$

Academic experience ($Y_i$) has been standardised to facilitate the interpretation of the results.

Mediation analysis, via structural equation model (SEM), to identify the role played by intervening variables such as working activity and study intensity.

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# Main results: first hypothesis (selected parameters)

| | Academic experience | | | |
|---|---|---|---|---|
| | Model 1 | | Model 2 | |
| | Coeff. | S.E. | Coeff. | S.E. |
| **Grants** | 0.094*** | 0.012 | | |
| **Loans** | | | 0.007 | 0.015 |
| **N** | 68,821 | | 56,327 | |
| **$R^2$** | 0.058 | | 0.056 | |

*Note*: $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.
The models control for socio-demographic characteristics; social origins (parental education) and university related variables and for country fixed effects.

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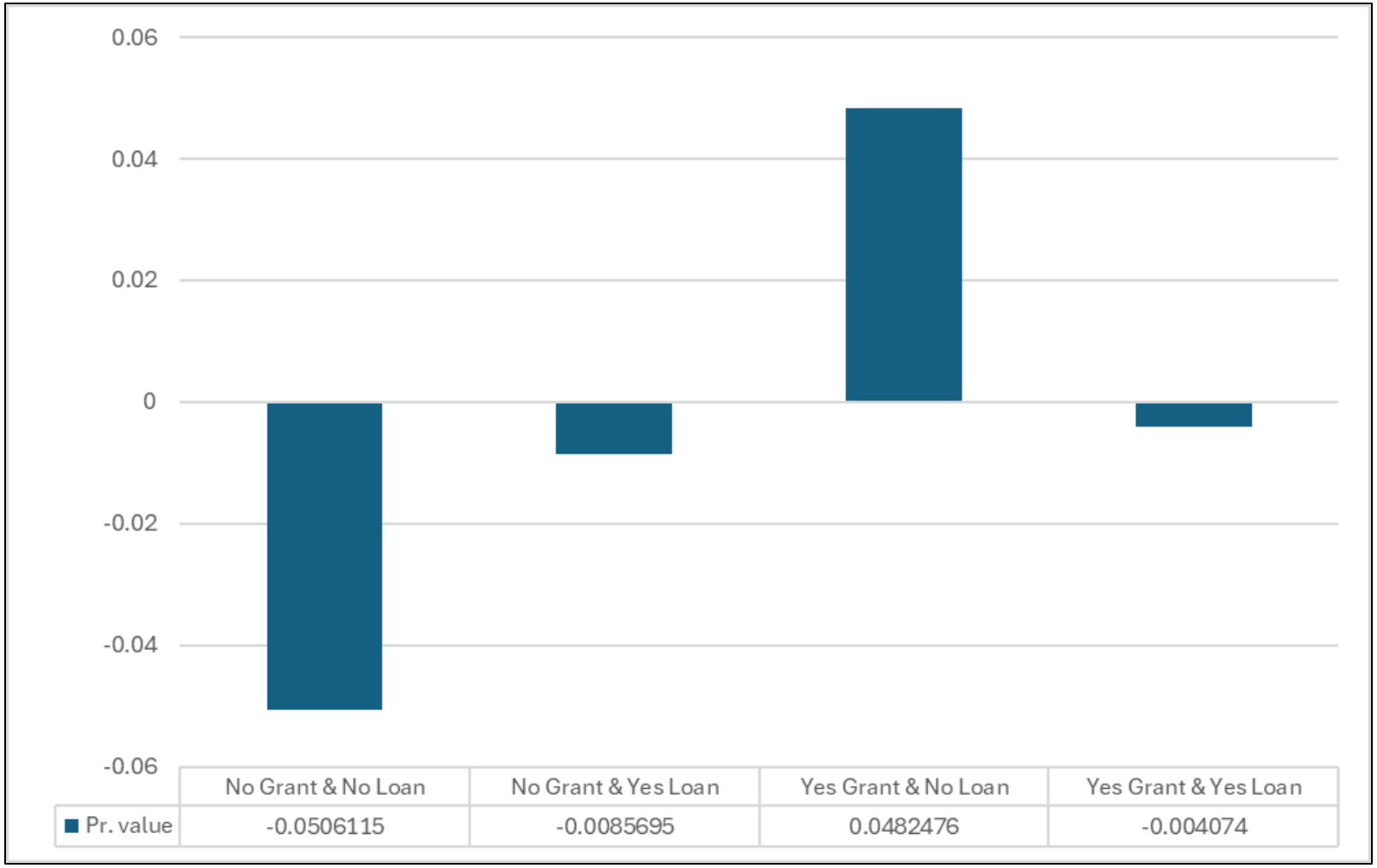
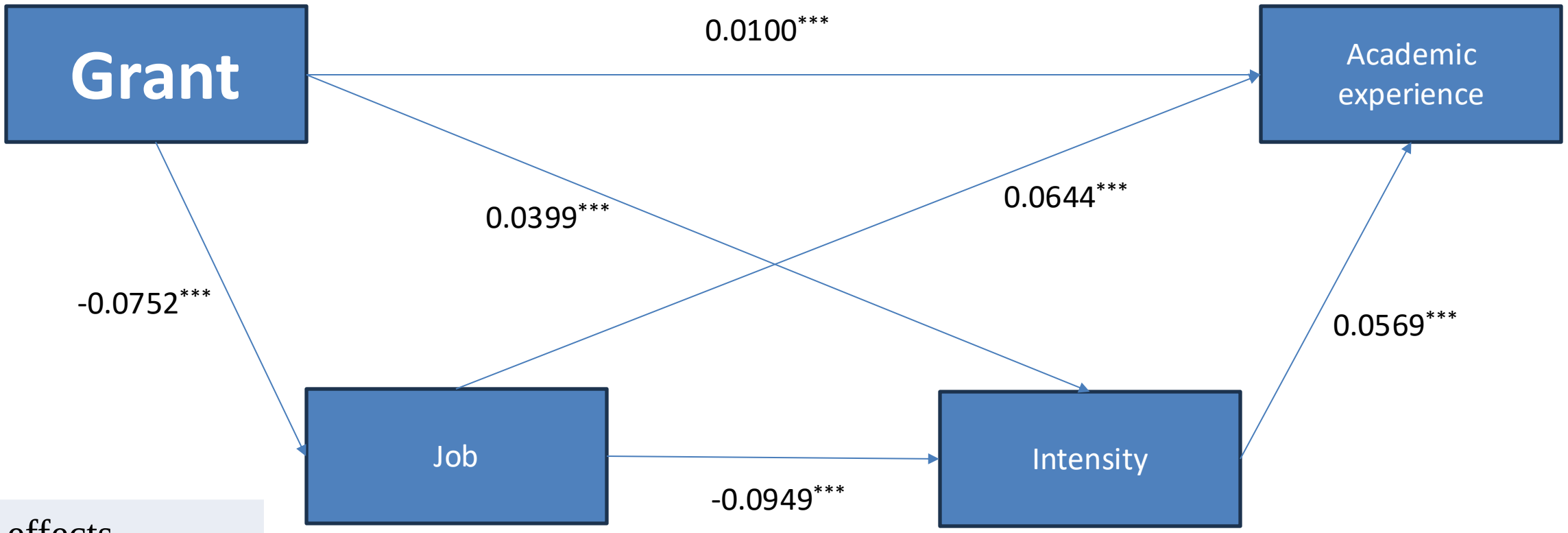
# Main results: : first hypothesis (interaction effect)



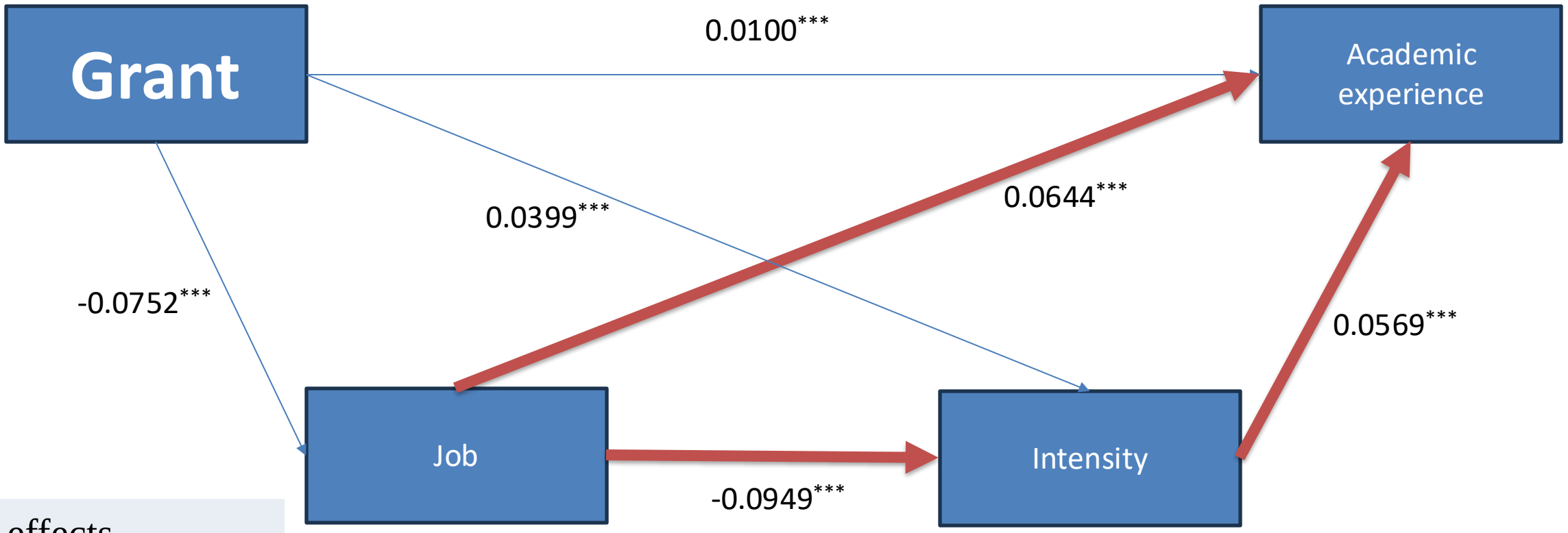

*Predicted values of academic experience according to the* ***interaction*** *between grants and loans*

# Main results: second hypothesis (Grant)



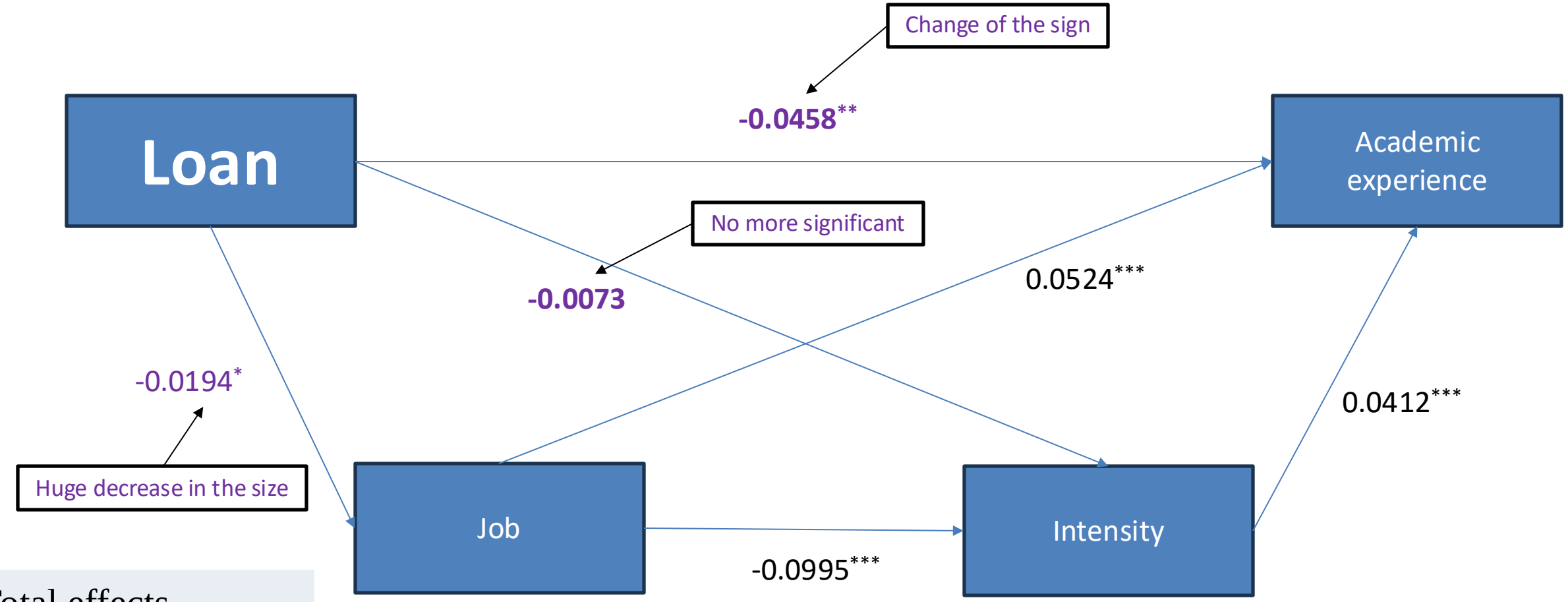

| Total effects | |
|---|---|
| Job | 0.0590 |
| Intensity | 0.0569 |
| Grant | 0.0979 |

# Main results: second hypothesis (Grant)




| Total effects | |
|---|---|
| **Job** | **0.0590** |
| Intensity | 0.0569 |
| Grant | 0.0979 |

# Main results: second hypothesis (Loan)




| Total effects | |
|---|---|
| Job | 0.0483 |
| Intensity | 0.0412 |
| Loan | -0.0470 |

# Conclusions and discussion

- The analyses show that:
  - Grants seem to be better than loans in producing a **positive academic experience**.
  - There is a **mediation** effects of job activity and study intensity (even if not always in line with my expectations).
- Future improvement:
  - The role of **job activity** should be deeper analysed considering further variables (i.e., coherence between the job and the field of study).
  - From a methodological point of view → implementation of a **counterfactual** approach.

# Thank you for your attention!

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