

# Impact of Academic and Socioeconomic Factors on University Admission in Chile



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# Research question

- In addition to the academic factors, is there a relationship between socioeconomic attributes of students and the probability of being admitted to selective higher education in Chile?

If so,

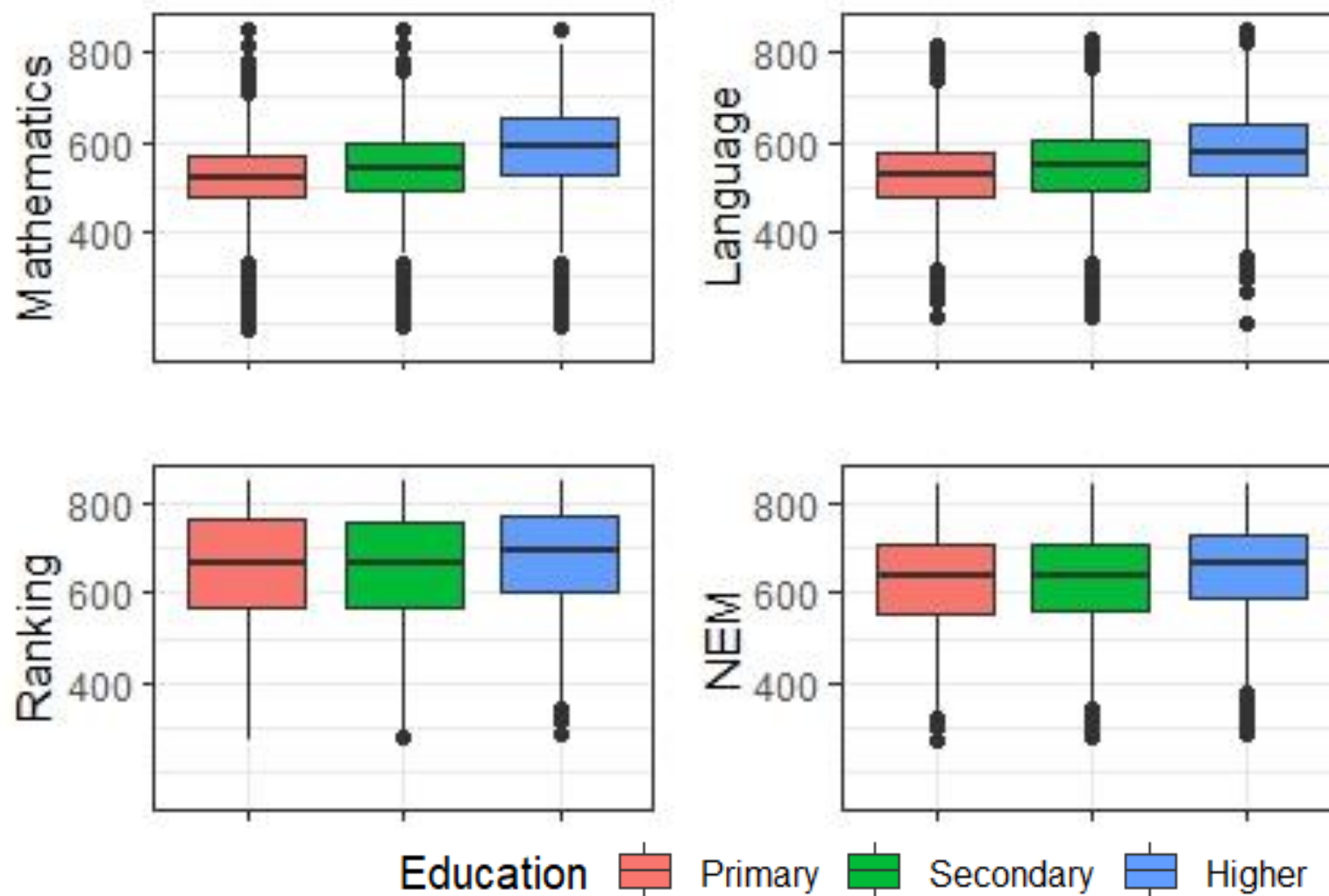
- How do the academic and socioeconomic factors influence the probability of being admitted into a selective university in Chile?

# Method

- Sample: 184,221 students in the 2021 admission process. Students had scores on both admission tests analyzed and learned from the general curriculum for secondary education.
- Model: Binary logistic regression:
  - Dependent variable = admission (0 = no, 1 = yes)
  - Predictors
    - **Academic** = scores in NEM, Ranking, and Language and Mathematics admission (shared range = 150 to 850).
    - **Non-academic** = Sex (binary), school Type (binary), Mother's education (3 categories), Quintile family income (5 categories), school Sector (3 categories).

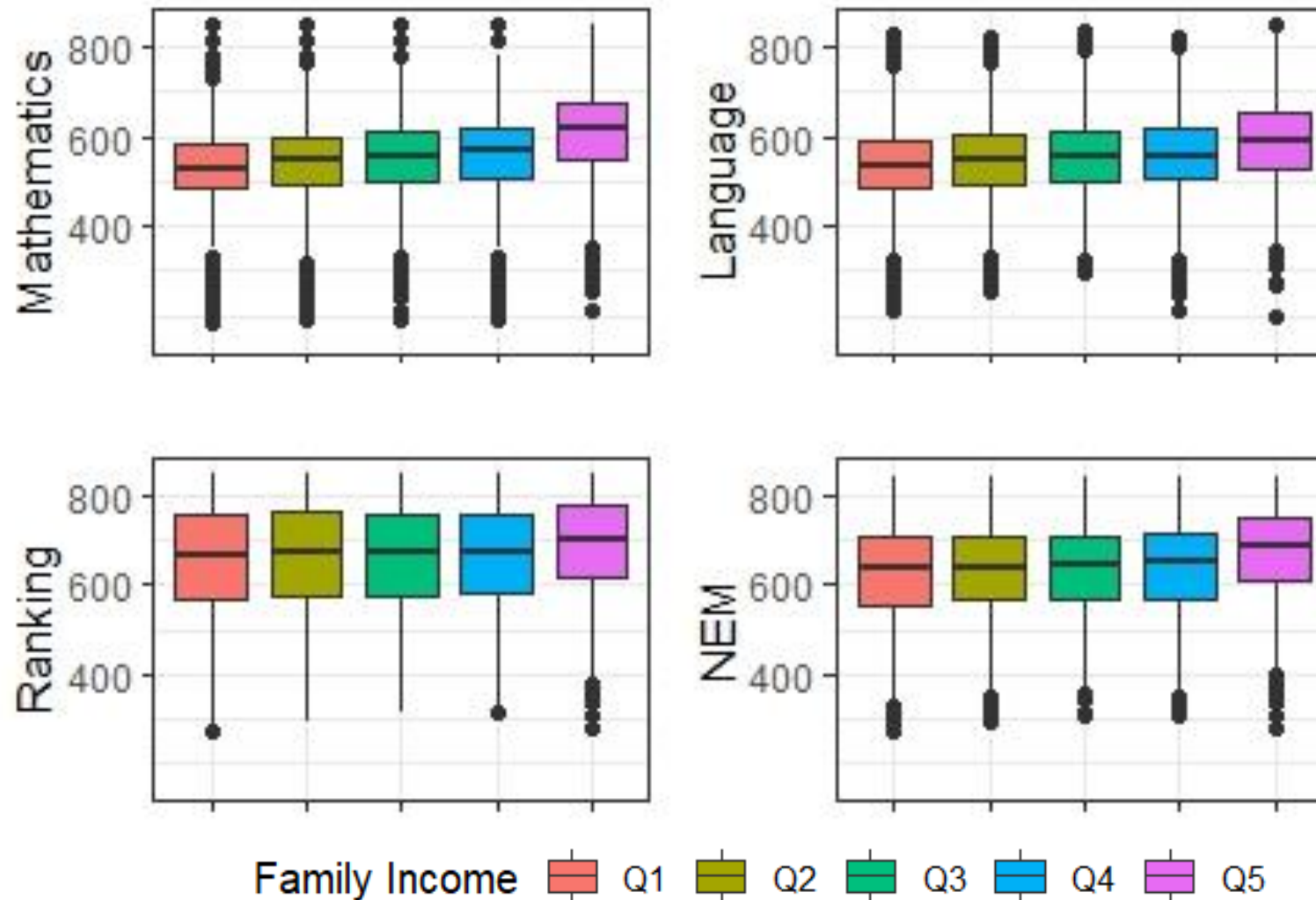
# Results

Figure 1. *Average scores in the academic factors by Mother's education level*



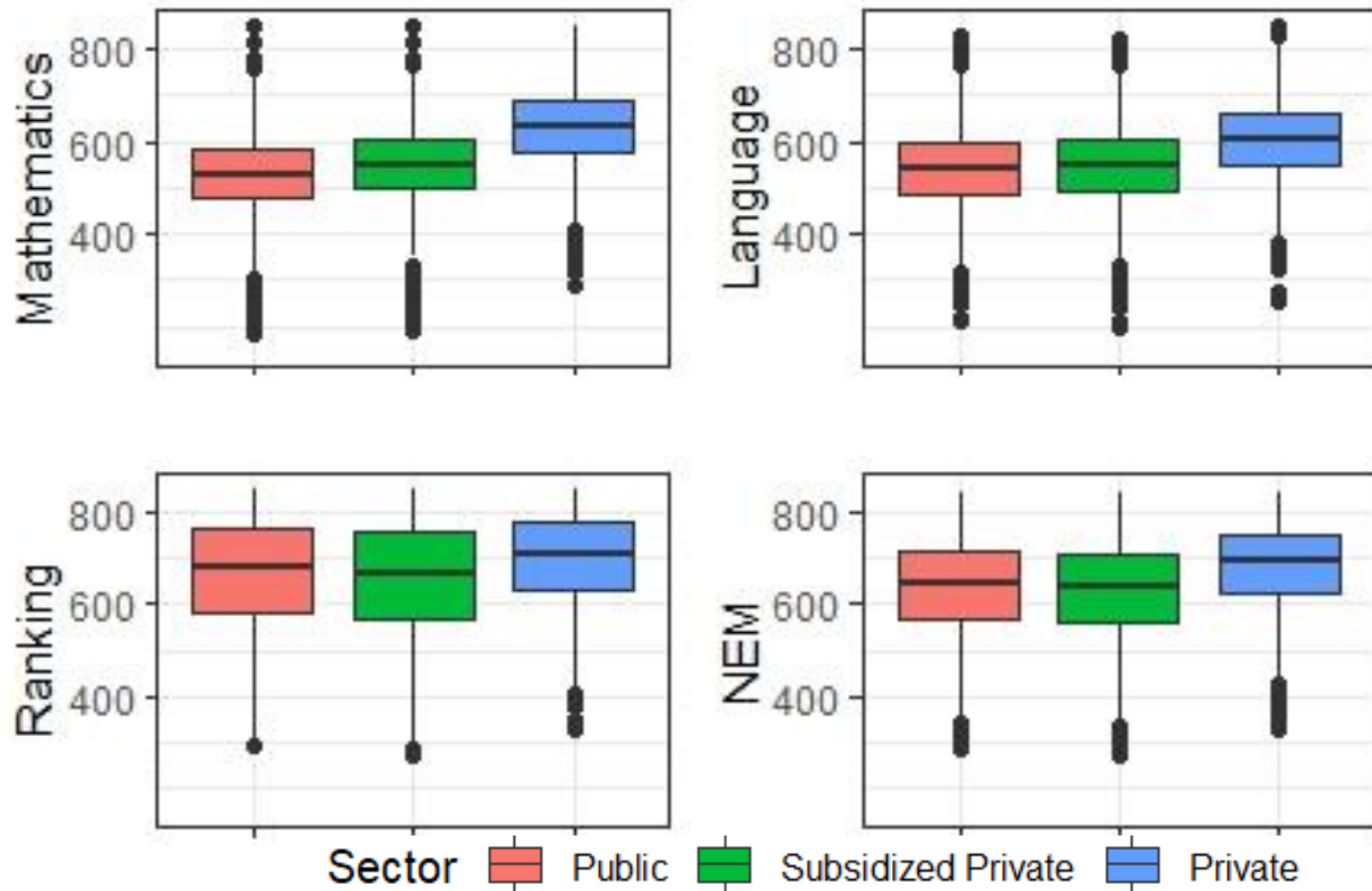
# Results

Figure 2. *Average scores in the academic factors by Quintile family income*



# Results

Figure 3. Average scores in the academic factors by school Sector



# Results

Table 1. *Binary logistic regression results*

Fixed effects	Estimates	SE	Odds Ratio
Intercept	1.352**	0.024	0.794 <sup>a</sup>
NEM_550	-0.011**	0.004	0.989
Ranking_550	0.022**	0.003	1.022
Language_550	0.024**	0.001	1.024
Mathematics_550	0.036**	0.001	1.037
Sex_Female	-0.335**	0.018	0.715
Income_Q2	-0.064**	0.023	0.938
Income_Q3	-0.075**	0.027	0.928
Income_Q4	-0.108**	0.027	0.897
Income_Q5	-0.023	0.029	0.978
Sector_Private_Subsidized	-0.071**	0.019	0.932
Sector_Private	0.165**	0.032	1.180

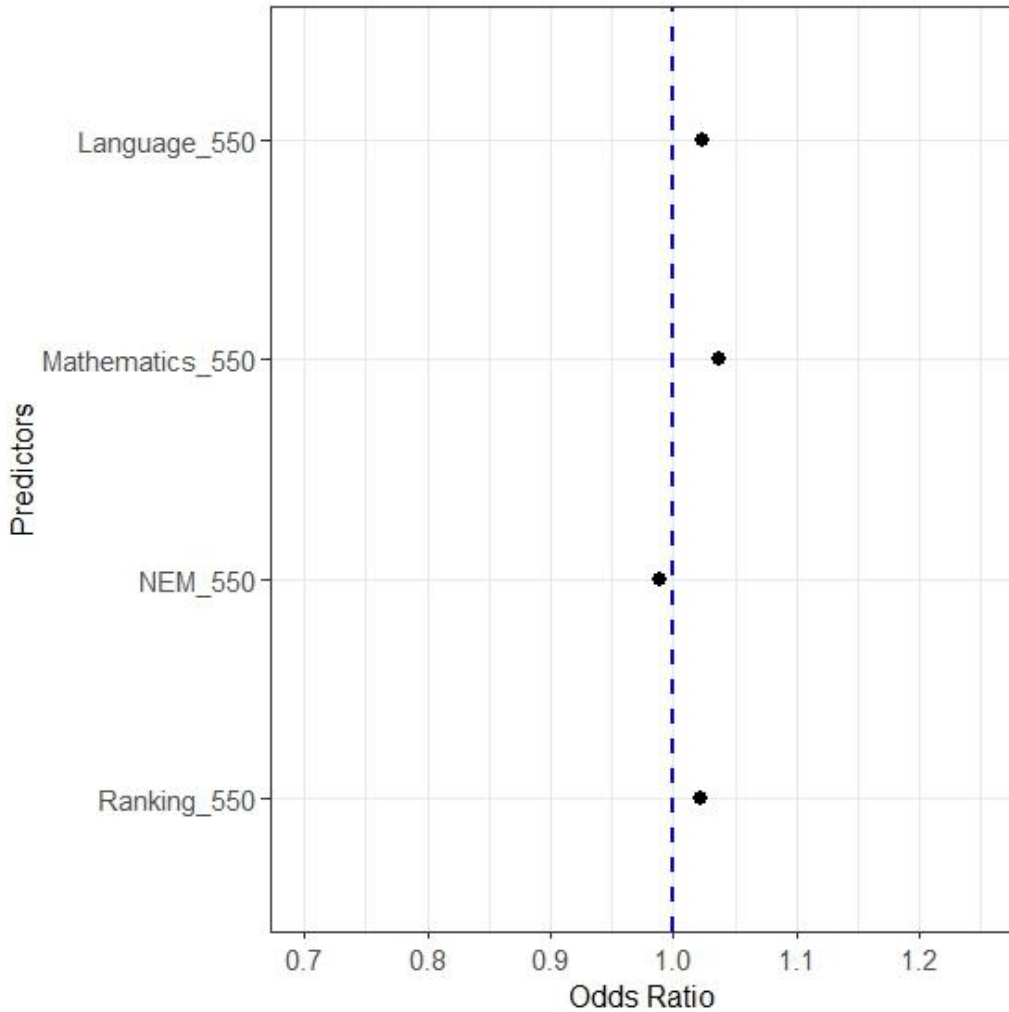
Surrogate R<sup>2</sup>:  
.102



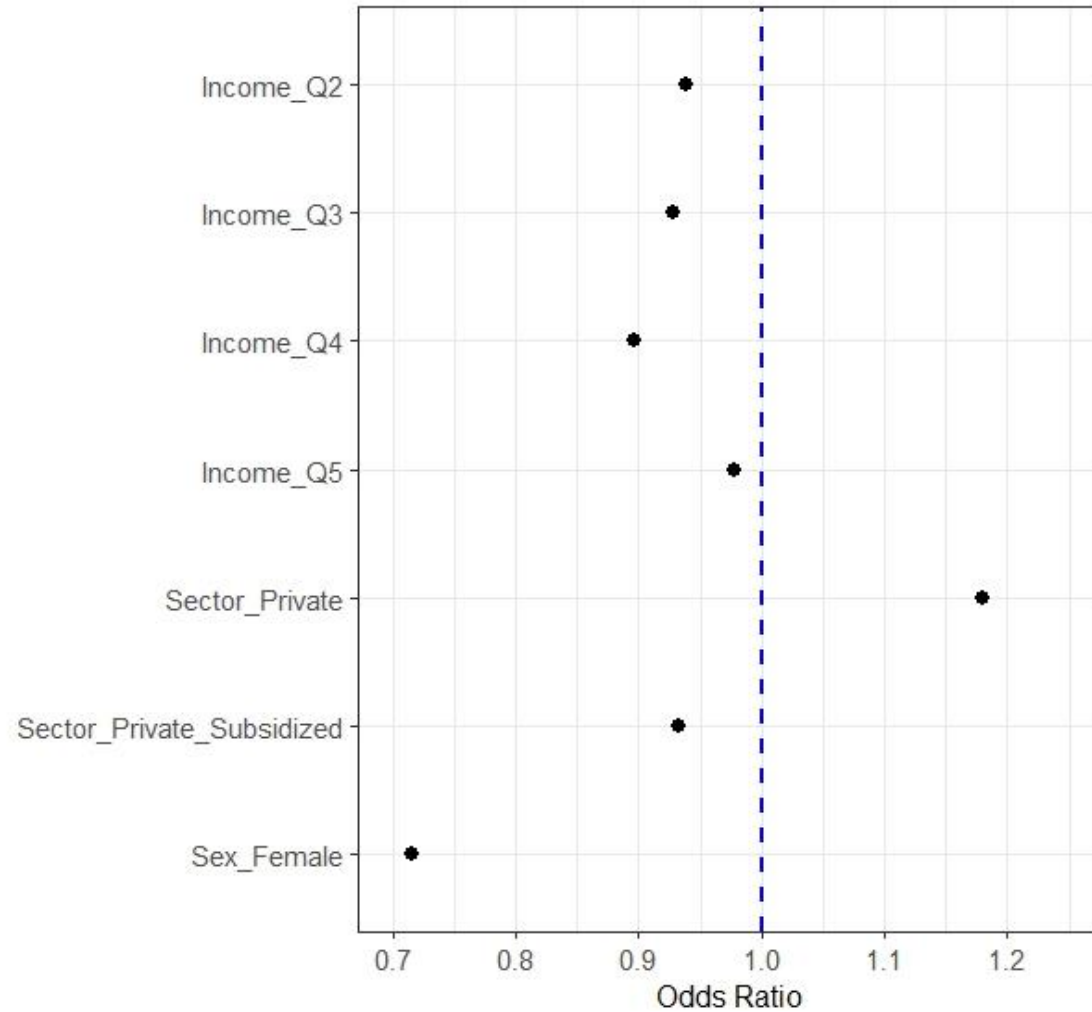
# Results

Table 4. *Odds Ratio of Binary logistic regression*

Academic factors



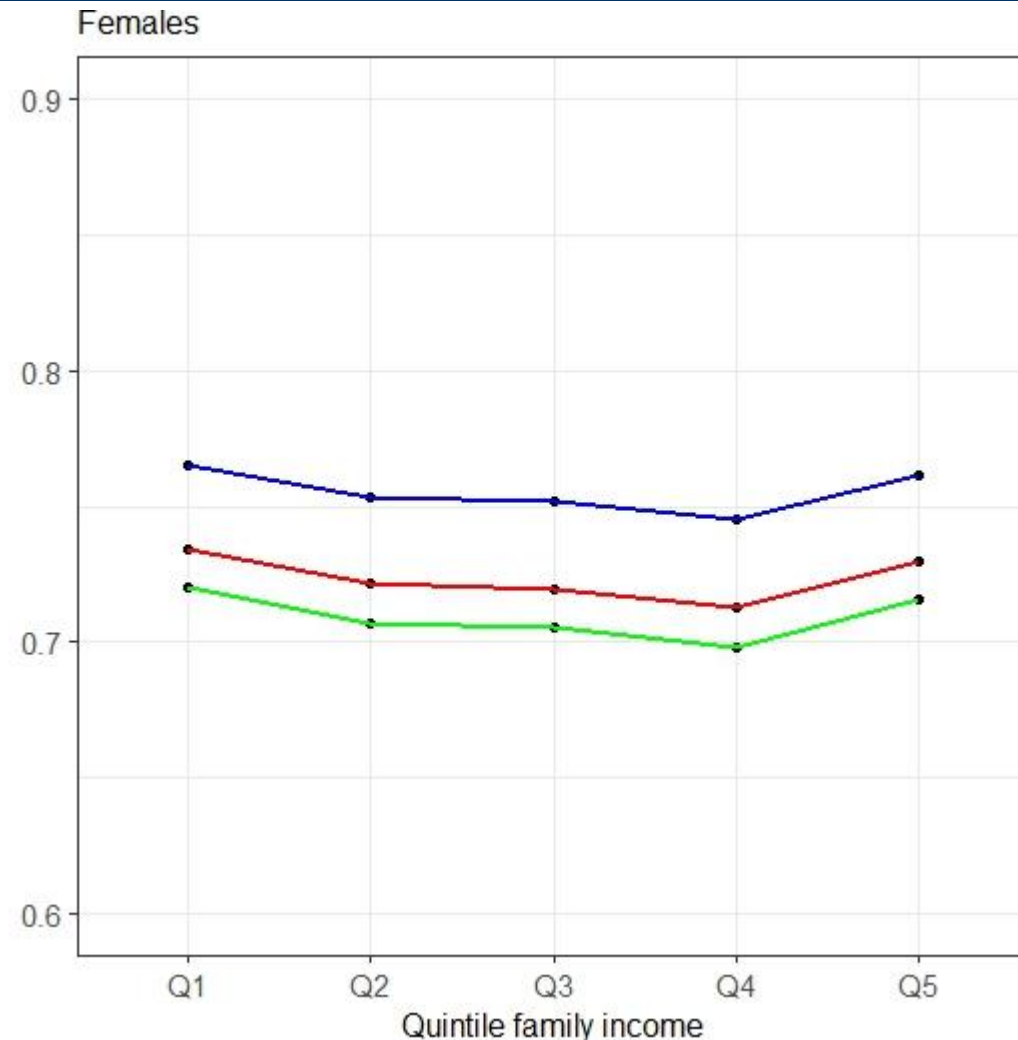
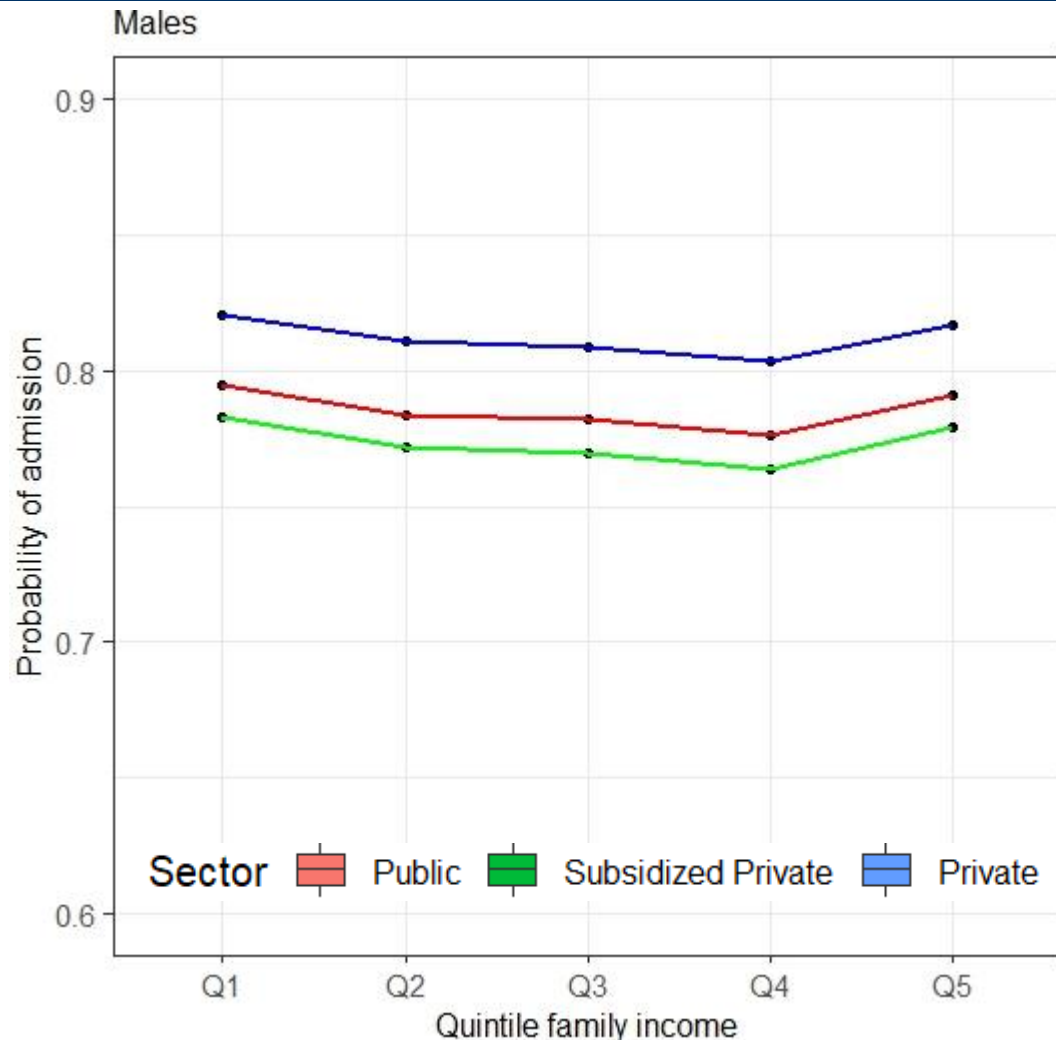
Non-academic factors





# Results

Figure 5. *Estimated probabilities of being admitted into higher education in the 2021 admission process according to Sex, school Sector, and Quintile family income*



# Conclusion

- Academic factors had a positive impact on the probability of admission. However, so do the school sector and gender.
- Assumptions that admission depends solely on academic factors and that all students have a similar chance of being admitted are debatable.

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