
STUDENT ASPIRATIONS AND EDUCATIONAL PATHWAYS: A STATISTICAL REVIEW OF HIGH SCHOOL GRADUATE CHOICES IN NORTH MACEDONIA

Arta Tika Bekteshi

Mother Teresa University, North Macedonia, arta.bekteshi@unt.edu.mk

Majlinda Axhiu

Mother Teresa University, North Macedonia, majlinda.axhiu@unt.edu.mk

Abstract: This study presents a comparative analysis of the university study choices of high school students from North Macedonia in 2024 and 2025. The research is based on 424 students' survey responses in both years, analyzing key trends in higher education background, university field selection, financial influence and migration intentions. Through statistical analyses, we have detected the preferences in the study fields, variations in the impact of socioeconomic factors, and evolving student perspectives on studying abroad vs. staying in North Macedonia. In order to have a representative sample, we have collected data from students from 8 different cities around North Macedonia. By conducting some statistical tests, we have tried to identify the dependent and independent variables that could be extracted from the survey questions.

Considering the type of universities in which the students may study here and abroad, the initial findings indicate that public universities remain the dominant choice, with 73% of students choosing them in 2024 and 72% in 2025. Regarding study fields, Medicine experienced a notable rise in popularity, increasing from 24% in 2024 to 39% in 2025. Besides that, the fields that maintained their positions in the most preferred fields are Economics Law and Architecture and Construction.

Migration trends also shifted significantly. The proportion of students intending to remain in North Macedonia increased from 34.9% in 2024 to 45.7% in 2025, while those considering moving abroad dropped from 33.3% to 23.5%. The percentage of undecided students remained stable at around 31% across both years.

By conducting several chi-square tests for different pairs of variables we have found out that the only significant relationship is the one between the high school background and the university study fields. On the other hand, there is no significant relationship between the family income and the type of the university (public or private). The same is valid for the variables of family income and the intention to migrate or stay in the country.

These valuable insights contribute to understanding the dynamics of higher education decision-making and offer recommendations for policymakers and educators to improve career guidance strategies. We consider that it is of a great importance the students to have professional guidance while deciding on their profession, depending on their skills, the need of the professions in the labor market, etc. because the impact of only family and friends sometimes may be misleading in the process of choosing the right profession.

Keywords: study field, university education, high-school, profession, migration, North Macedonia.

1. INTRODUCTION

Choosing the field of study at university is one of the most important decisions a high school student should make. This decision not only impacts their future career but also shapes their financial stability and social mobility. Many factors can take part, including personal interests and talents, high school background, financial situation, and external influences like family and society (Kazi & Akhlaq, 2017). In North Macedonia, these considerations are particularly relevant due to changing trends in higher education, shifts in labor market demands, and increasing migration aspirations among young people.

Previous studies have identified several key factors that influence students when selecting their field of study. Family and friends often play a major role in shaping these decisions (Bers & Galowich, 2002), (Alika, 2010). In many cultures, including North Macedonia, parental expectations strongly influence students' academic paths. Friends and peers also have an impact, as their choices and recommendations can influence decisions on universities and study programs (Putri et al., 2022).

Economic factors are another crucial aspect. Studies suggest that students consider job prospects and potential earnings, when deciding on a university (Andonova & Mojsoska-Blazevski, 2015). In North Macedonia, many students choose fields they believe will provide them with better job opportunities, whether within the country or abroad, since the migration trends are very impactful (Petreski, 2021).

Personal interest remains one of the strongest motivators. Students who are passionate about their chosen field tend to perform better and feel more satisfied with their studies (Institute, 2023). However, the quality and reputation of the university also play a role in their decisions (Jain, 2014). Research suggests that students are more likely to

enroll in institutions that align with their career goals while also providing financial stability and job security (Yusuf, 2024).

Our focus of the study is to identify the dependent factors on the choice of university studies, so in this direction is the built the questionnaire.

2. DATA COLLECTION AND METHODOLOGY

The data was gathered through a questionnaire, which was distributed to high school seniors from multiple cities across North Macedonia, ensuring representation from both urban and rural areas. In both years we had a similar sample size, where a total of 230 students participated in 2025 and 194 students in 2024.

The questionnaire consisted of 7 multiple-choice and Likert-scale questions covering the following key variables: gender, hometown, total monthly income, high school background, intended field of study, university type (public or private), and migration intentions.

The collected responses were first cleaned from non-valid data, then transformed to the needed data type and analyzed using statistical methods to identify tendencies and shifts between the two years. Descriptive statistics were used to summarize the data, while comparative analysis was conducted to assess changes in student preferences.

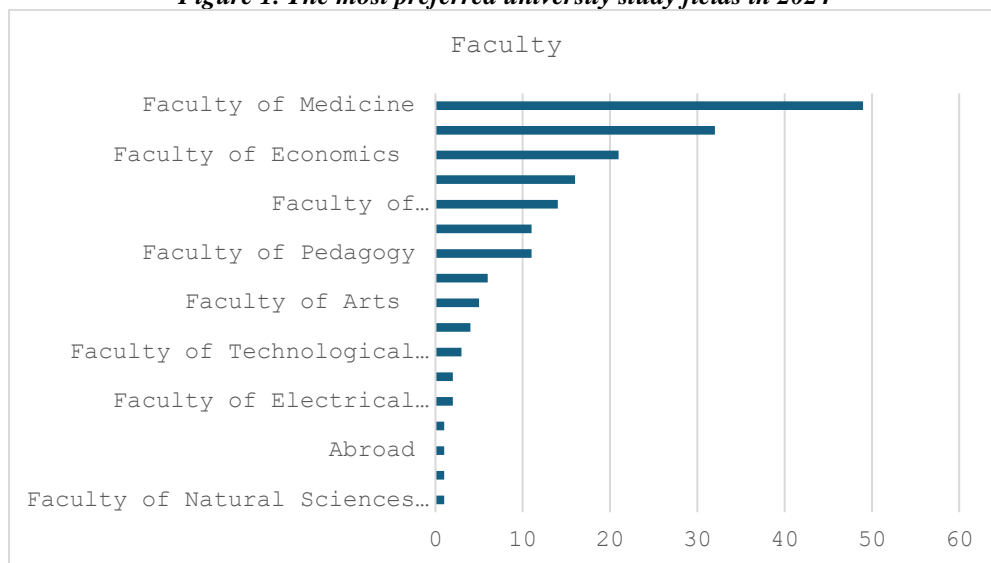
Since the data are mainly categorical, we have applied Chi-square tests to determine the associations between key variables.

3. RESULTS AND DISCUSSION

The respondents of the survey were from 8 different cities and from more than 10 different high schools. Our aim was to get answers from students of different high school backgrounds so that we can widen the scope of university study fields. The most common fields of high schools were gymnasium, medical school, natural sciences, technical school, mathematics and computer science, economics school, etc.

Regarding the students' interests in their university studies, in the below figures, we can see the most preferred fields for 2024 and 2025.

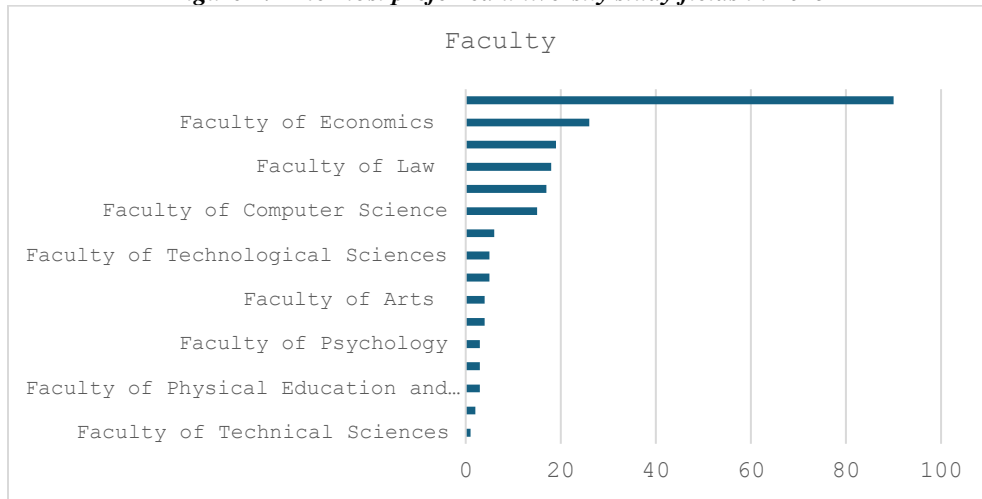
Figure 1. The most preferred university study fields in 2024



Source: Visualization based on survey data collected in 2024. Created by the authors.

In 2024 the top 5 Faculties that are chosen are: Faculty of Medicine, Law, Economics, Computer Science and Architecture. However, in 2025 the situation changed, and in the top 5 now have entered the Faculty of Pedagogy, and also, we have some shifts in the positions of Architecture and Law. What remains static is the great interest in medical studies. Another surprising shift is the low preference of the Faculty of Computer Science, while it is well known that the ICT professions are the most paid in North Macedonia for the last several years (*Salaries in Macedonia, 2025*).

Figure 2. The most preferred university study fields in 2025



Source: Visualization based on survey data collected in 2025. Created by the authors.

We have analyzed the relationship between the high school background and University field selection and the results of the Chi-square test are as follows:

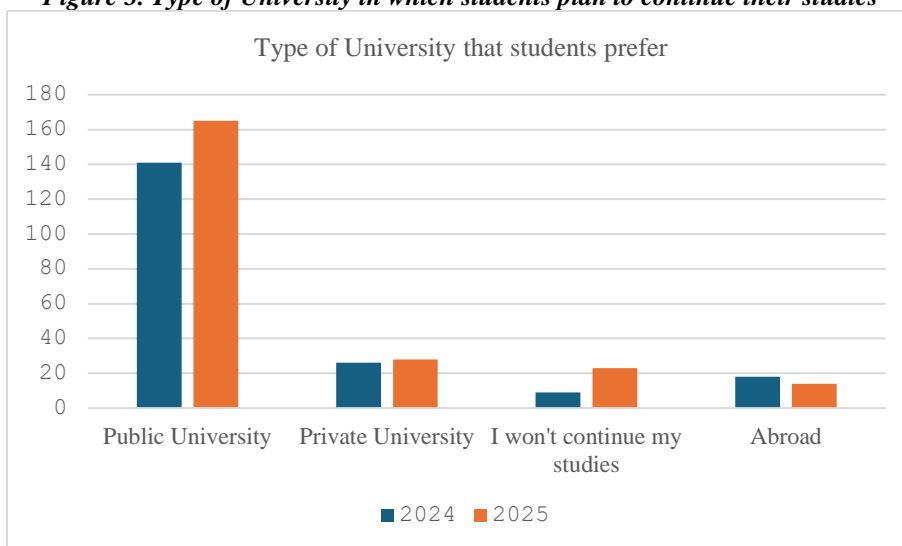
- **Chi-Square Statistic = 1221.82**
- **p-value = 4.24×10^{-39}**

These results show that there is a statistically significant relationship between these two variables. Namely, the type of high school a student attends has a big influence on their choice of University field of study.

Students from specialized high schools (e.g., medical, technical, economic) are most likely to choose related university fields, while gymnasium students are spread across different fields. However, often there are some unexpected deviations where students select university fields unrelated to their high school background. This may happen due to other external factors and their interests.

After analyzing the interest in the study fields we asked the students for the type of University in which they would like to study. The findings show that the top choice is the public universities with more than 70% in both years. In the following figure, we can see the other choices as well. The option of studying in private universities has not a significant change among the years, however as it can be noticed it has a drastic difference from the public universities. What is important to be mentioned is also the fact that in 2025 the choice of not continuing their university studies has increased. We consider that in the future the factors affecting this decision should be analysed as well.

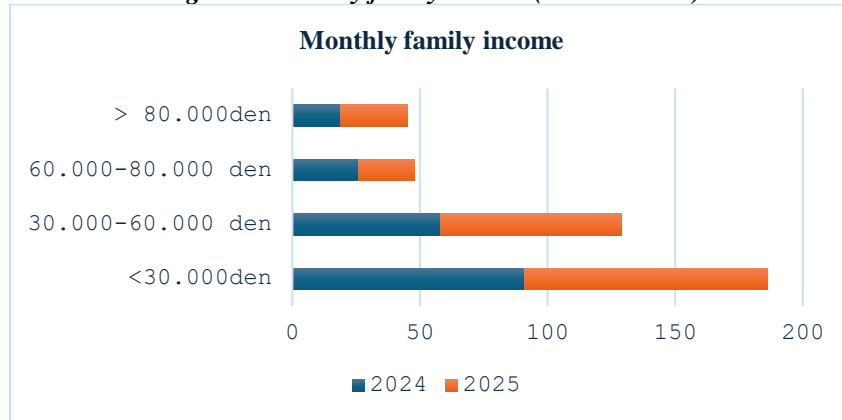
Figure 3. Type of University in which students plan to continue their studies



Source: Visualization based on survey data collected in 2024 and 2025. Created by the authors.

Another factor that we wanted to consider was the economic state of the students' families. So, we included a question about their total family income, and as it can be noticed in both years more than 40% of the students are coming from low-income families.

Figure 4. Monthly family income (2024 vs. 2025)



Source: Visualization based on survey data collected in 2024 and 2025. Created by the authors.

We analyzed the correlation between the family income and the type of university that the students have chosen. The chi-square test results are as follows:

- **Chi-Square Value:** 13.64
- **p-Value:** 0.136

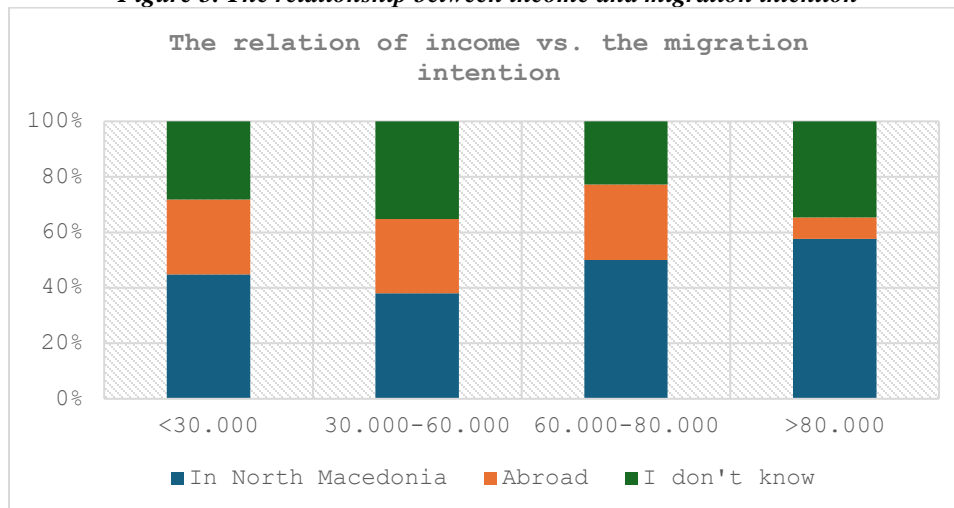
Since the p-value is greater than 0.05, it means that there is no significant relationship between the stated variables. So, the total family income has little to no direct impact on whether a student chooses a public university or private university, the option to study abroad, or to not continue their studies.

Besides this, we wanted to check the impact of the monthly income into the intention to migrate or stay in the country. In the following graph we have visualized the relation between those two variables, and as it can be noted, due to the wide spread of samples in all categories, it looks like there is no dependency among each other. To evaluate this we have conducted the statistical tests and here are the results:

- **Chi-Square Statistic (χ^2) = 6.55**
- **p-value = 0.365**

Since the p-value is much greater than 0.05, we conclude that there is no statistically significant relationship between income and migration intention.

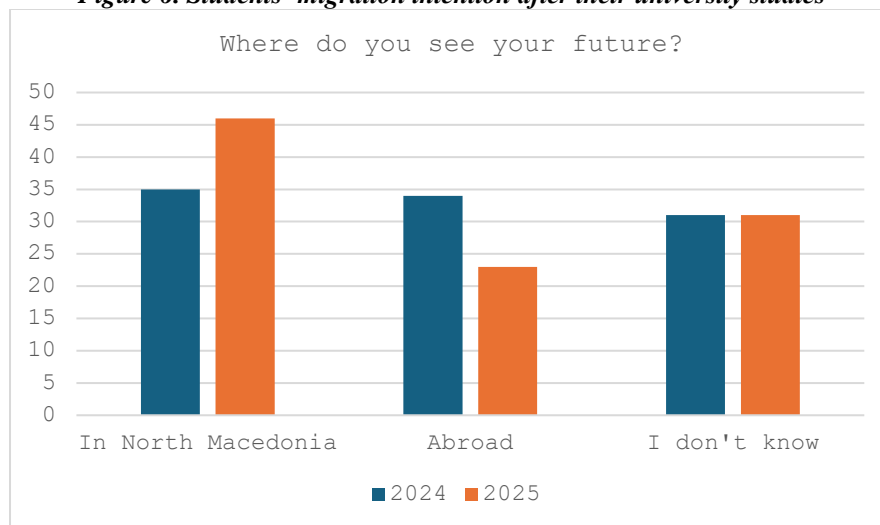
Figure 5. The relationship between income and migration intention



Source: Visualization based on survey data collected in 2024 and 2025. Created by the authors.

Regarding the plans for leaving the country, in the following graph, we have visualized the results for both 2024 and 2025. Surprisingly, in 2025 there is an increase in the percentage of students whose plan is to stay in the country and a decrease in the intention to migrate. However, in both years around 1/3 of the students are not decided whether to leave the country or not.

Figure 6. Students' migration intention after their university studies



Source: Visualization based on survey data collected in 2024 and 2025. Created by the authors.

All these results regarding the factors that may affect the decision for the higher education of our youth should be considered by the high school career consultants, in order to be more helpful in the guidance of the high school seniors about their career plans.

5. CONCLUSIONS

Understanding the factors that have an impact on students' university choices is of great importance for educators, policymakers, and institutions aiming to support them in making the right decisions. This study highlights how high school background, economic situation, and migration aspirations may have or have not an impact on these choices in North Macedonia. As higher education continues to evolve, addressing students' needs through improved career guidance and labor market alignment can help ensure that their decisions lead to both academic success and career fulfillment. The main findings of the study are the dependency of the high school field in the choice of university fields and also the fact that low income is not the main reason for choosing public universities (where the costs are lower) and for intending to migrate. Future research should continue to monitor these trends, and deepen the research on the other factors that affect the students on their decisions.

REFERENCES

- Alika, I. H. (2010). Parental And Peer Group Influence As Correlates Of Career Choice In Humanities Among Secondary School Students In Edo State, Nigeria. *Journal of Research in Education and Society (JRES)* , 1(1), 178–185. Retrieved from <https://icidr.org.ng/index.php/Jres/article/view/1118>
- Andonova, M. and Mojsoska-Blazevski, N. (2015) 'Factors influencing the earnings expectations among Macedonian students: A comparative perspective with the EU students', *Croatian Economic Survey*, 17(1). doi:10.15179/ces.17.1.3.
- Bers, T.H. & Galowich, P.M. (2002). 'Using survey and focus group research to learn about parents' role in the community college-choice processes, *Community College Review*, 29(4)
- Institute, K.Y.U.R. (2023) *Should students choose a course that they love or one that provides the best job prospects?*, *Medium*. Available at: <https://medium.com/@kyrinstitute/should-students-choose-a-course-that-they-love-or-one-that-provides-the-best-job-prospects-1c2fcdf7e7a>
- Jain, V. (2014) 'The Impact of choice factors affecting students' selection of higher education institutions: An Empirical study.', *Common wealth journal of commerce& management research* , 1(1).

- Kazi, A. S., & Akhlaq, A. (2017). Factors Affecting Students' Career Choice. *Journal of Research and Reflections in Education*, (2). Retrieved from https://www.researchgate.net/publication/325987918_Factors_Affecting_Students'_Career_Choice
- Putri, N.E., Mardi, M. and Pratama, A. (2022) 'Student interest in continuing their studies to Higher Education', *Romeo Review of Multidisciplinary Education Culture and Pedagogy*, 1(4), pp. 43–58. doi:10.55047/romeo.v1i4.251.
- Petreski, M. (2021) How Migration, Human Capital and the Labour Market Interact in North Macedonia, <https://www.etf.europa.eu/>. Available at: https://www.etf.europa.eu/sites/default/files/2021-05/migration_north_macedonia.pdf (Accessed: 21 March 2025).
- Salaries in Macedonia (2025) Paylab - Salary survey, Compare salary, Salary data*. Available at: <https://www.mojaplata.mk/en/salaries-in-country> (Accessed: 21 March 2025).
- Yusuf, A.A. (2024) 'Factors Affecting Students' Choice of Universities', *International Journal of Contemporary Applied Researches*, 11(1).