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The European Higher Education Sector Observatory

Individual and Institutional Characteristics related to temporary student mobility

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This document is published by the European Education and Culture Executive Agency (EACEA, Platforms, Studies and Analysis).

Please cite this publication as:

European Commission / EACEA (2025), Individual and Institutional Characteristics related to temporary student mobility. The European Higher Education Sector Observatory report. Luxembourg: Publications Office of the European Union.

European Education and Culture Executive Agency

Platforms, Studies and Analysis Boulevard Simon Bolivar 34 (Unit A6)
1049 Brussels
BELGIUM
E-mail: EACEA-HE-Observatory@ec.europa.eu
Website: https://national-policies.eacea.ec.europa.eu/eheso

Text completed in May 2025 and drafted by Inga Popovaite, Frans Kaiser, Hendrik Schirmer and Kristina Hauschildt.

The European Higher Education Sector Observatory, and this publication in particular, are possible thanks to funding from Erasmus+, the European programme for education, training, youth and sport. It is an initiative by the European Commission's Directorate-General for Education, Youth, Sport, and Culture. It is operated by a consortium under a service contract with the European Education and Culture Executive Agency (EACEA). The opinions expressed are those of the contractor only and do not represent the contracting authority's official position.

ISBN 978-92-9488-878-5 doi: 10.2797/8379926 EC-01-25-063-EN-N

The European Higher Education Sector Observatory

Individual and Institutional Characteristics related to temporary student mobility

2025

Contents

Abbreviations

Abbreviation	Definition
HE	Higher education
HEI	Higher education institution
SES	Socioeconomic status
ETER	European Tertiary Education Register
FTE	Full-time equivalent
ANOVA	Analysis of variance (statistical method)

Executive summary

This report examines which students in European higher education get to study abroad and what factors influence their opportunities. Drawing from data across 23 European countries[1], we found that:

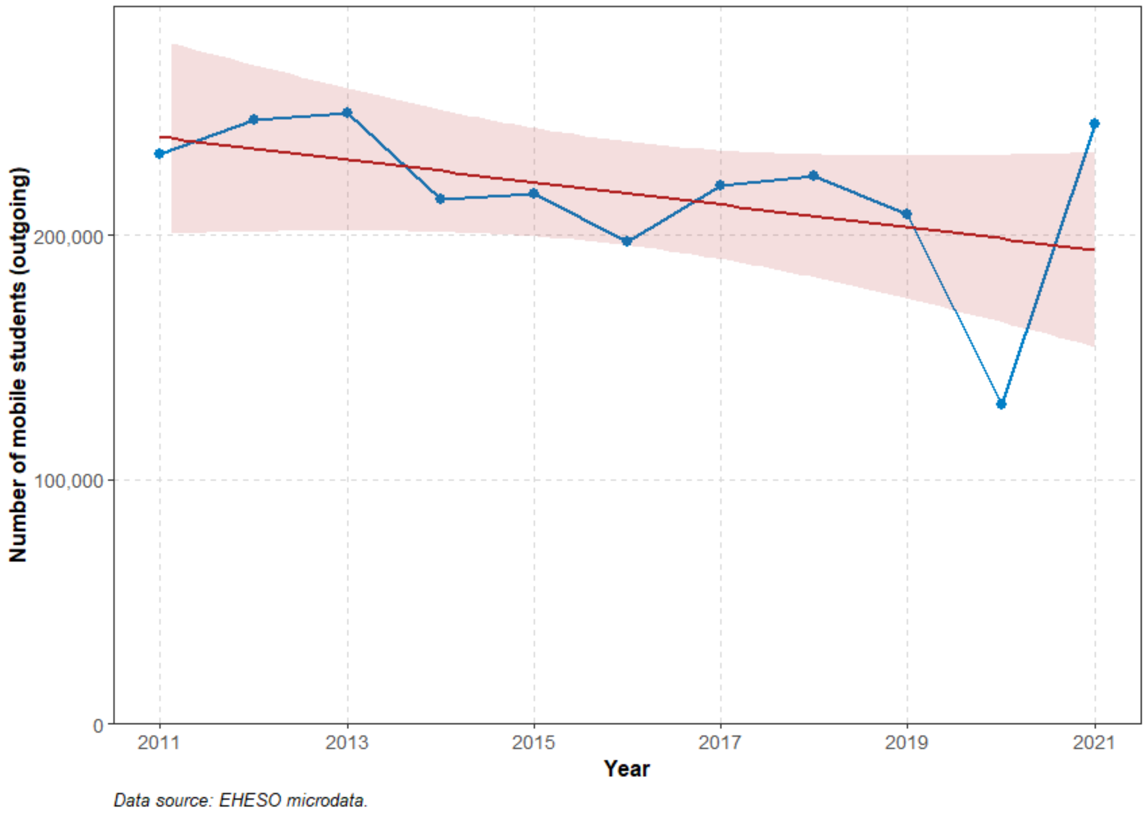
- Older students (30+ years) are less likely to study abroad
- Students from wealthier families have more opportunities to study abroad
- Students whose parents went to university are more likely to study abroad
- Research universities (those that can award PhDs) send more students abroad
- Research universities tend to have fewer older students and more students from privileged backgrounds.

[1] See more details in the methodology section.

1 Introduction

Studying abroad can be a life-changing experience that helps students develop new skills, expand their horizons, and improve their career prospects (Netz & Cordua, 2021; Roy et al., 2019). Stimulating international student mobility has been and still is a cornerstone of the higher education policy frameworks of the European Commission. However, not all students have equal access to these opportunities. Over the last decade, the number of students studying abroad (both in absolute numbers and as a percentage of total enrolment) has stagnated and declined (see figures 1 and 2).

Figure 1: Number of mobile students sent out, EU, including EEA. Data shown for years 2011-2021 with linear trend line.



Note: If we take out the covid19 data, the downward trend in the number of students sent out in the EU is clear. There are marked differences between countries: in 13 countries[2] there is a (statistically) significant decrease in students sent out and six countries[3] where the number of students sent out has increased significantly.

Generally, students from lower socio-economic backgrounds are less likely to participate in international mobility programmes (Netz et al., 2015); and gender and impairment status can contribute to different rates of participation in temporary mobility abroad (Guðmarsdóttir et al., 2023; Schirmer, 2024). But individual characteristics are not the only drivers for inequality in international student mobility. Universities differ in their engagement in international networks and resources to facilitate student mobility, which may limit the student's opportunities to participate (Schnepf et al., 2024; Schnepf & Colagrossi, 2020). The availability

[2] AT, BE, BG, CZ, EE, FI, HU, LT, LV, PL, SI, SK, UK

[3] CH, HR, IT, MK, MT, NO

of EHESO microdata and Eurostudent data allows for addressing these questions, focusing on sociodemographic characteristics of students and attributes of higher education institutions. It contributes to the debate on the impact of student mobility programmes on the inclusiveness of higher education.

Figure 2: Mobile students sent out, as a percentage of total enrolment (ISCED 5-7). Data shown for years 2011-2021 with linear trend line.

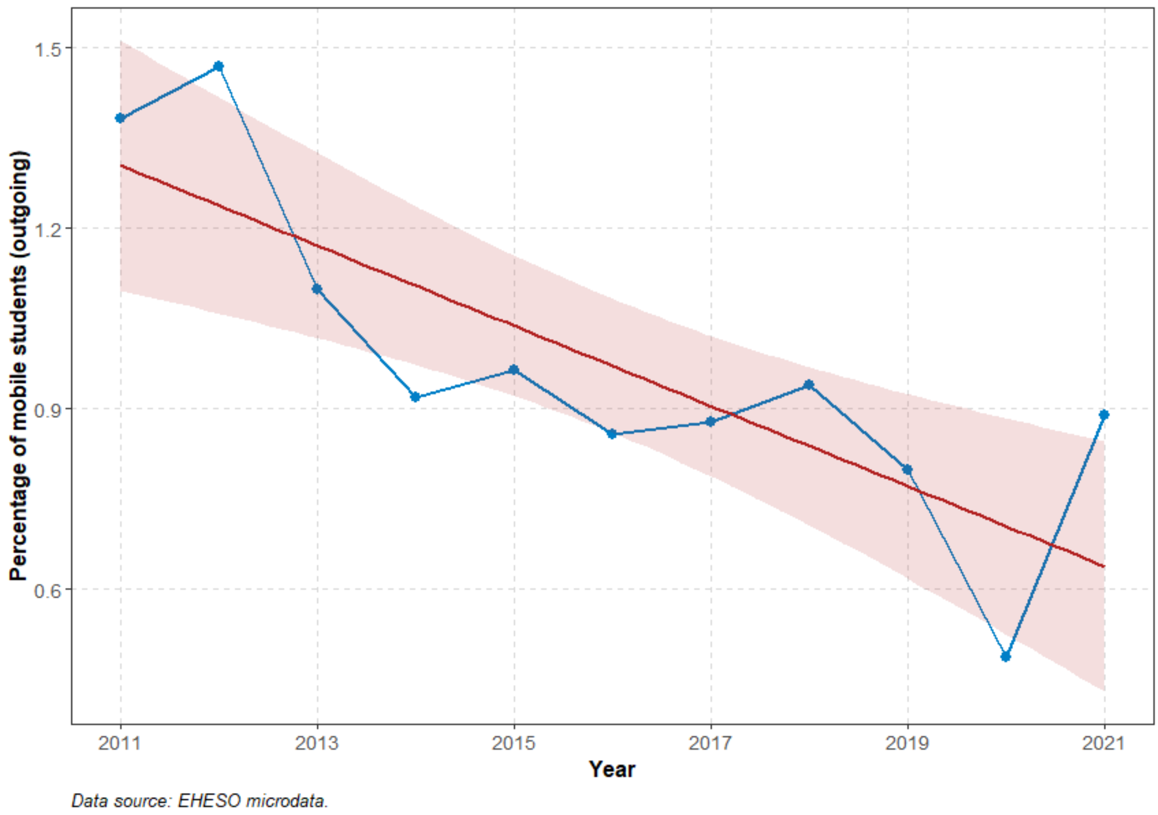


Figure 3: EHESO and EUROSTUDENT data description

EHESO microdata

EHESO microdata, formerly known as The European Tertiary Education Register (ETER), is a database of European Higher Education institutions (HEIs) delivering degrees at tertiary level. It provides data on descriptors and regulatory characteristics, geographical information, students and graduates, staff, HEI expenditures, research and transfer activities, as well as a set of pre-defined indicators characterizing relevant dimensions of HEI activities, like the extent of subject specialization, international mobility, gender balance.

EHESO microdata covers around 3 500 higher education institutions in the EU-27 countries, the United Kingdom, EFTA countries (Iceland, Liechtenstein, Switzerland and Norway), candidate and potential candidate countries to the European Union (Bosnia and Herzegovina, Montenegro, North Macedonia, Albania, Serbia, Türkiye, Kosovo*), as well as Andorra and the Holy See and spans from 2011 to 2022/2023.

Eurostudent

The EUROSTUDENT project collects and analyses comparable data on the social dimension of European higher education. A wide range of topics related to students' social and economic conditions are covered. The project strives to provide reliable and insightful cross-country comparisons. It does this through coupling a central coordination approach with a strong network of national partners in each participating country. Currently, the project is in its eighth round, which began in September 2021. The results have been published in fall 2024.

EUROSTUDENT data used in this report come from the following countries: Austria, Azerbaijan, Switzerland, Czechia, Denmark, Estonia, Spain, Finland, France, Croatia, Hungary, Ireland, Iceland, Lithuania, Latvia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Sweden, and Slovakia.

2 Key findings

The results of the Eurostudent survey, published in 2024, allow for a detailed analysis of the impact of student characteristics on the decision to go study abroad, in the framework of a student mobility programme.

We focused on the number of mobile students sent out and distinguished three categories of mobility: study-related enrolment abroad (including any type of activity), students going abroad for enrolment in programmes (excluding going abroad for internships) and students going abroad for internships.

Based on the literature on the impact of individual background characteristics on student mobility, we analysed the impact of the age of the student, gender, disability status, migration status, and the background of the parents of the student (both their wealth and their education).

Figure 4: Methodology

Methodology

We conducted explanatory analysis to identify patterns and trends, followed by statistical tests to assess differences between groups.

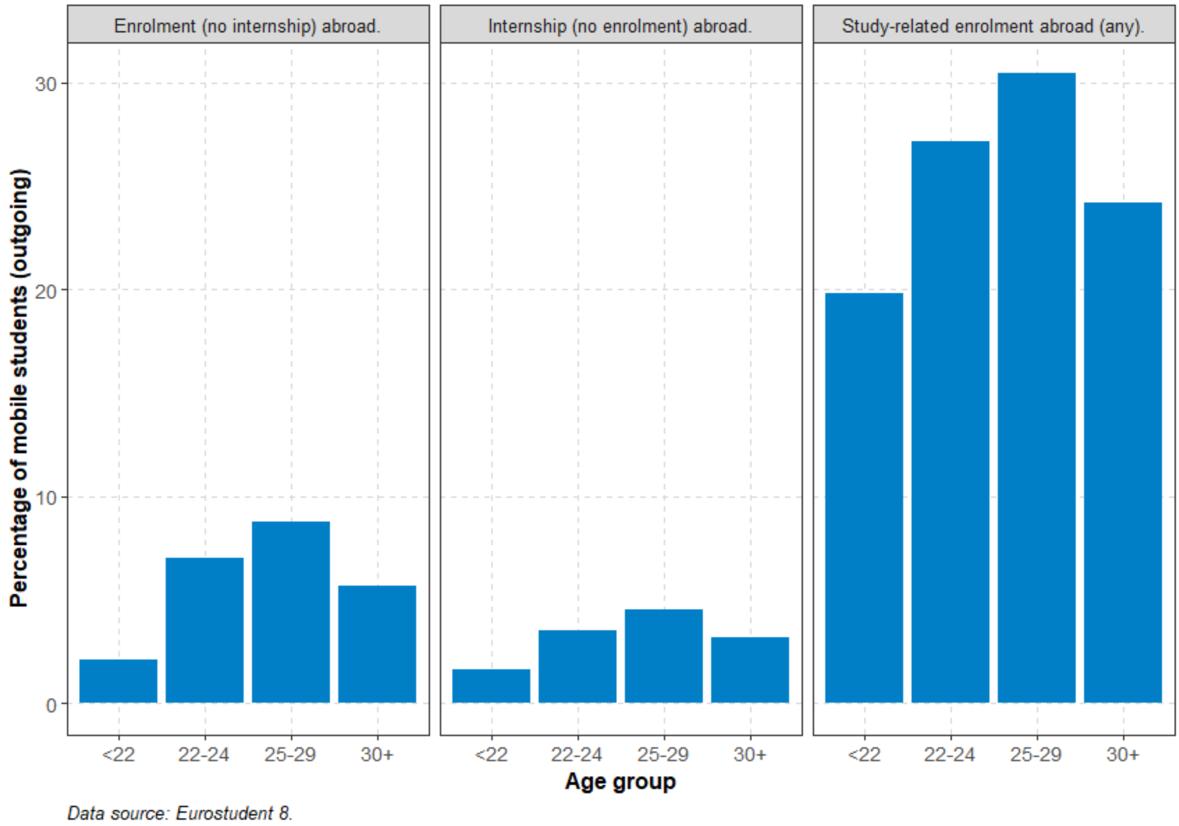
The indicators from EHESO have been aggregated and integrated with the EUROSTUDENT data, which allowed to combine information on higher education institutions from EHESO with individual students' experiences from EUROSTUDENT.

All analyses were performed on country-level aggregates. We used statistical tests to assess differences between groups. These included ANOVA with post-hoc analyses, independent sample t-tests, and Chi-Square tests for categorical data. Detailed results can be found in the appendix. Indicators with missing values and those derived from raw counts under 30 were excluded from the analysis.

2.1 Age matters

Our analysis revealed an interesting pattern when it comes to age and studying abroad: students aged 25-29 are the most likely to have studied abroad. Young students (aged 22 or below) are least likely to study abroad. This is likely due to the fact that they have not yet accumulated enough time in university to take part in such opportunities. When we think along this line, we would expect the proportion of older students (30+) who have been mobile to be the highest, but that is not the case. It may be that older students enter at a later age or experience different types of obstacles for being mobile than students from the other age groups. Similarly, students with children tend to participate less in international mobility (Favier et al., 2022). Whether such a "maturity penalty" exists is difficult to prove based on our data and warrants further investigation.

Figure 5: Mobile students (sent out) as a percentage of the total number of students (average), by age group and type of mobility

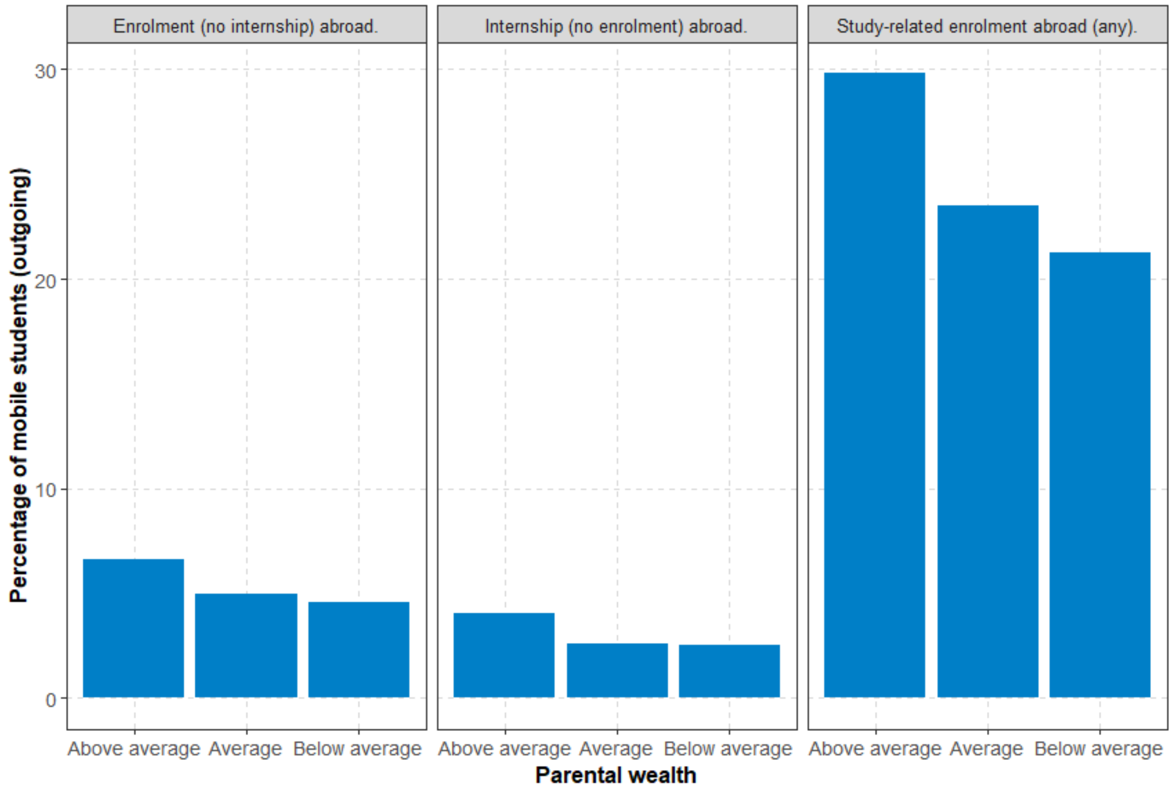


2.2 Money makes a difference

Going abroad to study for a couple of months can be costly. Travel cost, (double) housing costs and costs of living can be an obstacle to go abroad. Having parents that may contribute to covering such costs, or providing financial backup (if needed) may lower this threshold.

The Eurostudent data show that money makes a difference: having wealthy parents increases the likelihood that students go abroad. It does not matter whether parents score average or below average on wealth; students from both backgrounds are not in a privileged position. The pattern is consistent across the different types of mobility.

Figure 6: Mobile students (sent out) as a percentage of the total number of students (average), by parental wealth and type of mobility



Data source: Eurostudent 8.

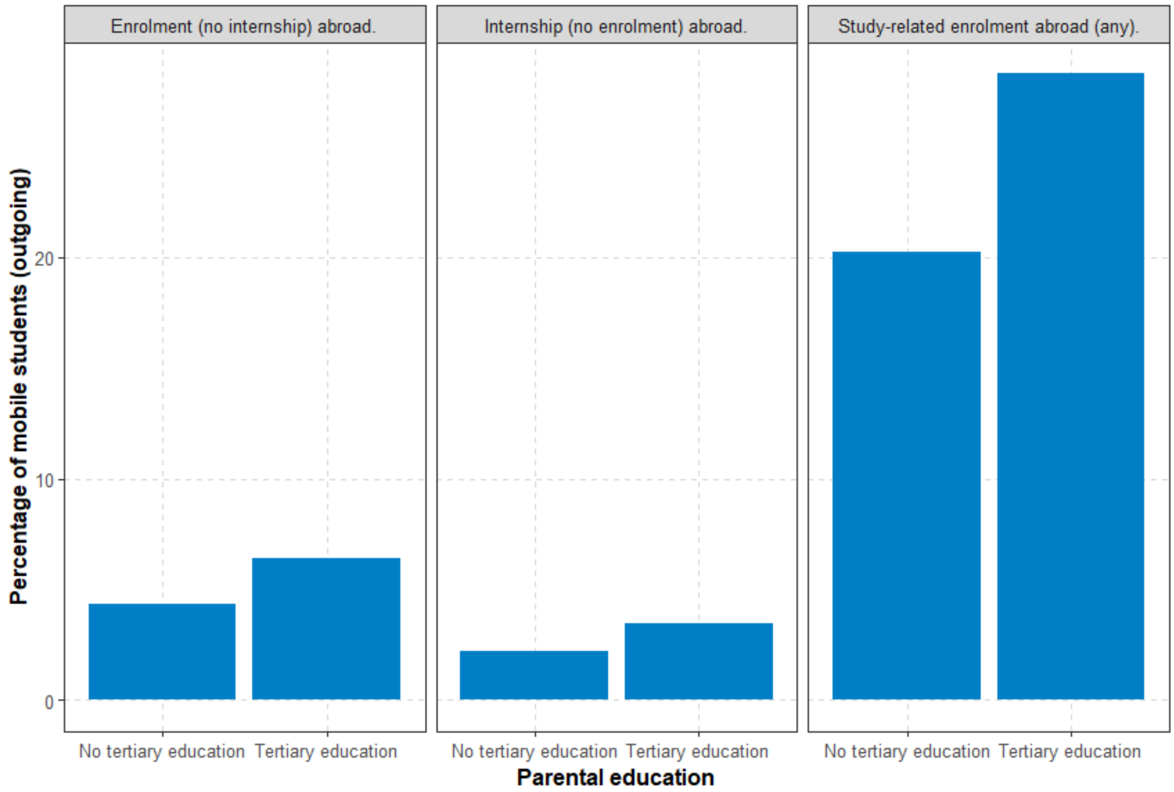
2.3 Family background influences opportunities

Money is not the only parental attribute that has an impact on students' mobility behaviour. Having parents who went to university makes a difference. Children from families with no academic tradition have a much smaller chance of reaching a high level of education than children from academic backgrounds (Nancy Kracke & Daniel Buck, 2018). The reasons are manifold. First-generation students usually have no-one in their family who encourages them in their education. They have no-one in their family who could explain how degree programmes are organised or why studying abroad can be beneficial (Katja Urbatsch, n.d.).

The Eurostudent data show a clear gap between first-generation students and students with parents with a higher education background. The latter are more likely to participate in international student mobility than first generation students (28 % versus 20 %). This holds for all three types of mobility.

This gap can be seen as problematic, as first-generation students clearly benefit from education abroad, even more so than non-first-generation students (Ogden et al., 2024).

Figure 7: Mobile students (sent out) as a percentage of the total number of students (average), by parental educational background and type of mobility



Data source: Eurostudent 8.

2.4 What about other student characteristics?

We conclude that for several underrepresented or underprivileged groups the odds of going abroad in the framework of student mobility schemes are lower than for other students.

Interestingly, several of the aforementioned factors don't seem to affect students' chances of studying abroad when we look at the country-level aggregates:

- Gender doesn't make a significant difference[4].
- Having a disability[5] doesn't affect participation rates.
- Having a migration background[6] doesn't impact participation.

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[4] Cross-country averages can obscure significant variations within- and between- countries. Thus, while we observe no difference between women's and men's participation in mobility when we pool all the data from Eurostudent countries, this does not mean that this pattern is uniform across all countries. For example, existing research shows that women in Western Europe are more likely to participate in mobility than men (Guðmarsdóttir et al., 2023).

[5] Groups were defined as follows: students having any impairment limiting in studies and students having no impairments limiting in studies. Cross-country averages can obscure significant variations within- and between- countries.

[6] Migration background is distinct from international student status. Migration background is a category based on students' own and their parents' place of birth.

2.5 Type of university matters

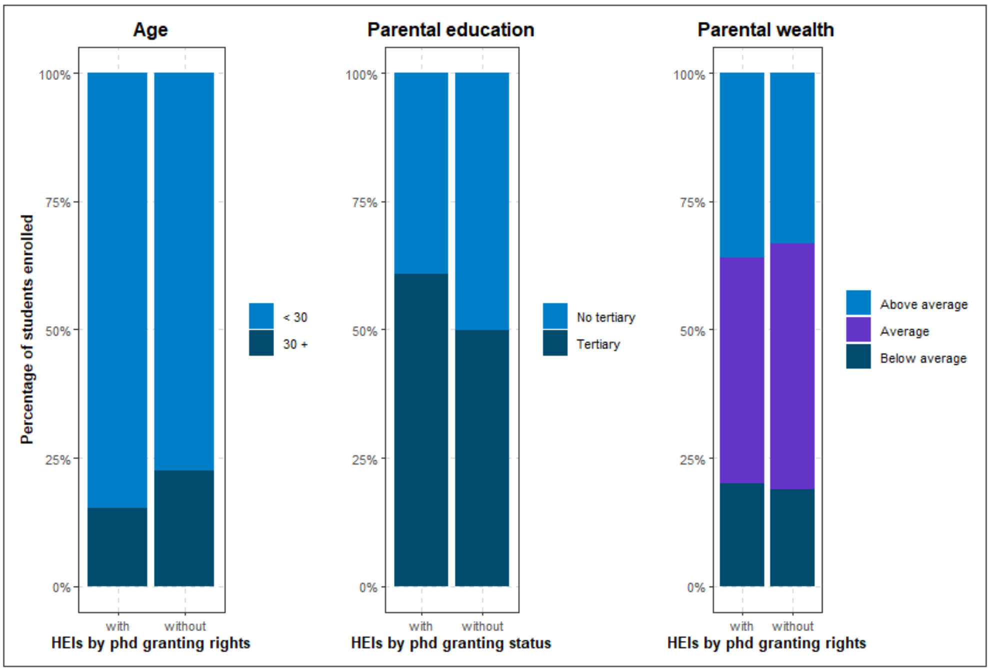
As mentioned before, there are several indications that the type of university a student is enrolled in does matter as well. There is one characteristic that comprises a number of other relevant characteristics: the research intensity of a university. Research intense universities are more likely to be engaged in international cooperation and part of existing networks, they have larger resource pools (due to their size), and their staff (and student body) is more international. All these elements contribute to an environment in which international student mobility is highly valued and facilitated.

The combination of the EHESO microdata and the Eurostudent data allows cross referencing the university characteristics and the individual characteristics. This analysis shows that research universities sent out more students than other universities (6.2 percent versus 4.5 percent). At the same time, we see that the profile of the student body of research universities is more favourable for participating in international student mobility than of non-PhD granting higher education institutions. In figure 7 we show that research universities tend to have:

- Fewer students over 30.
- More students from wealthy backgrounds.
- More students whose parents went to university.

This suggests that institutional advantages compound existing social inequalities[7].

Figure 8: The percentage of students by age group, parental educational background, parental wealth, and by type of HEI (with and without rights to grant PhD)



Data source: EHESO microdata, EUROSTUDENT 8.

[7] Here we explore bivariate relationships between categorical groups (for example, student age and type of HEIs). While these analyses show statistically significant differences, it is possible that there are other related variables that influence these relationships. A more rigorous multivariate models can be used to control for confounding variables and to understand the relationship better, but this goes beyond the scope of current exploratory analysis.

3 Methodology

This analysis uses data from EHESO microdata and EUROSTUDENT. The indicators from EHESO microdata have been aggregated and integrated into EUROSTUDENT data (Hendrik Schirmer, 2023), which allows to combine information on HEIs with students' actual experiences coming from EUROSTUDENT.

EHESO microdata, formerly known as The European Tertiary Education Register (ETER), is a database of European Higher Education institutions (HEIs) delivering degrees at tertiary level. It provides data on descriptors and regulatory characteristics, geographical information, students and graduates, staff, HEI expenditures, research and transfer activities, as well as a set of pre-defined indicators characterizing relevant dimensions of HEI activities, like the extent of subject specialization, international mobility, gender balance.

It covers around 3 500 higher education institutions in the EU-27 countries, the United Kingdom, EFTA countries (Iceland, Liechtenstein, Switzerland and Norway), candidate and potential candidate countries to the European Union (Bosnia and Herzegovina, Montenegro, North Macedonia, Albania, Serbia, Türkiye, Kosovo*), as well as Andorra and the Holy See and spans from 2011 to 2022/2023.

The EUROSTUDENT project collects and analyses comparable data on the social dimension of European higher education. Survey target group includes all enrolled students, mostly at ISCED levels 5, 6 and 7. A wide range of topics[8] related to students' social and economic conditions are covered. The project strives to provide reliable and insightful cross-country comparisons. It does this through coupling a central coordination approach with a strong network of national partners in each participating country[9].

The EUROSTUDENT target group includes all students that are at that point enrolled in any national higher education study programme. Excluded from the target group are students on temporary leave, students on credit mobility, doctoral students, distance learning students, students in very specialized higher education institutions, such as police academies, and students in programmes that are not regarded as higher education in the national context (Hauschildt, 2024, p. 27).

EUROSTUDENT data used in this report come from the following countries: Austria, Azerbaijan, Switzerland, Czechia, Denmark, Estonia, Spain, Finland, France, Croatia, Hungary, Ireland, Iceland, Lithuania, Latvia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Sweden, and Slovakia. Total sample size is 194, 758.[10] We use aggregated country-averages, and not individual level data.

An exploratory analysis was conducted to identify patterns and trends, followed by statistical tests to assess differences between groups. These included ANOVA with post-hoc analyses, independent sample t-tests, and Chi-Square tests for categorical data. Detailed results can be found in the appendix. Indicators with missing values and those derived from raw counts under 30 were excluded from the analysis.

[8] https://www.eurostudent.eu/topics

[9] https://www.eurostudent.eu/members

[10] https://metadata.fdz.dzhw.eu/public/files/data-packages/stu-es8$-1.0.0/attachments/es8_Overview_en.pdf

Limitations

The current analyses have a couple of limitations. First, using country-level data provides a sufficient general overview but may hide important differences within countries. Thus, a lack of statistically significant relationship between certain indicators on a cross-country level does not mean that such relationship does not exist within a given country context.

Second, pairwise comparisons, are useful for showing differences between groups, but may miss other factors that could influence the results. Future research could address these issues by using micro-level data.

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Appendix: statistical tests

Table 1: Sociodemographic characteristics and student mobility indicators' summary, based on country-level averages

		Study-related enrolment abroad (any).			Enrolment (no internship) abroad.			Internship (no enrolment) abroad.		
		n	mean	SD	n	mean	SD	n	mean	SD
Age group	<22	23	19.86	10.50	23	2.14	1.33	23	1.64	0.99
	22-24	23	27.14	10.48	23	7.04	3.23	23	3.54	2.22
	25-29	23	30.46	8.81	23	8.81	3.34	23	4.53	2.48
	30+	23	24.19	8.57	23	5.71	2.86	23	3.21	1.87
Sex	Female	23	24.51	9.41	23	5.63	2.23	23	2.68	1.69
	Male	23	25.05	9.40	23	5.45	2.26	23	3.31	1.78
Students with impairments	No	23	24.45	9.07	23	5.52	2.17	23	2.95	1.60
	Yes	23	25.68	10.26	23	5.48	2.84	23	2.89	1.82
Parental wealth	Above average	42	29.82	10.72	42	6.64	2.75	42	4.08	3.60
	Average	22	23.49	9.08	22	5.00	2.10	22	2.60	1.50
	Below average	44	21.23	8.44	44	4.55	2.73	44	2.51	1.54
Parental education	No tertiary education	23	20.21	8.56	23	4.34	1.98	23	2.22	1.34
	Tertiary education	23	28.30	10.38	23	6.39	2.34	23	3.44	1.84
Migration background	No	23	23.02	9.39	23	5.53	2.26	23	1.98	1.04
	Yes	59	26.74	11.04	59	6.80	3.90	59	3.14	2.62
International background	International	22	40.36	10.39	22	6.08	2.54	22	11.16	5.58
	Domestic	23	23.21	9.26	23	5.56	2.20	23	2.10	1.06

Data: EUROSTUDENT 8. Country-level aggregates

Table 2: One-way ANOVA comparing different age group country-level aggregate participation levels

	<22		22-24		25-29		30+		F (p-value)
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Study-related activity abroad (any)	19.86	10.50	27.14	10.48	30.46	8.81	24.19	8.57	5.01* (0.00)
Enrolment (no internship) abroad	2.14	1.33	7.04	3.23	8.81	3.34	5.71	2.86	23.29* (0.00)
Internship (no enrolment) abroad	1.64	0.99	3.56	2.22	4.53	2.48	3.21	1.87	8.45* (0.00)

Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. ** Significant at p<0.05 level.*

Post-hoc comparisons using the Tukey HSD test(Abdi & Williams, 2010) indicated that 25–29 years old students reported any study-related activity abroad **significantly** more often than students 22 years old and younger.

For enrolment abroad, there were **statistically significant** differences between students 22 years old and younger and all the other groups (2.1 % vs 7 %, 2.1 % vs 8.8 %, 2.1 % vs 5.7 %). Additionally, there was a **statistically significant** difference between 25-29 years old students and 30+ years old students (8.8 % vs 5.7 %).

Similar pattern emerged regarding internship abroad: participation in internship abroad was lowest in the youngest group, **statistically significant** differences observed between this and all the other groups (1.6 % vs 3.6 %, 1.6 % vs 4.5 %, 1.6 % vs 3.2 %).

Table 3: Independent t-test comparing country level aggregates of mobility abroad by students' sex

	Female		Male		t (p-value)
	mean	SD	mean	SD	
Study-related activity abroad (any)	24.51	9.41	25.05	9.40	-0.20 (0.85)
Enrolment (no internship) abroad	5.63	2.23	5.45	2.26	0.28 (0.79)
Internship (no enrolment) abroad	2.68	1.69	3.31	1.78	-1.23(0.22)

*Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. * Significant at p<0.05 level.*

Independent t-test was used to compare female students' and male students' temporal mobility abroad patterns. There was no statistically significant ($p<0.05$) difference between female and male students' participation in any study related activity abroad, enrolment, or internship abroad.

Table 4. Independent t-test comparing country level aggregates of mobility abroad between students with and without impairments

	Without impairments		With impairments		t (p-value)
	mean	SD	mean	SD	
Study-related activity abroad (any)	24.45	9.07	25.68	10.26	0.43 (0.67)
Enrolment (no internship) abroad	5.52	2.17	5.48	2.84	0.06 (0.95)
Internship (no enrolment) abroad	2.95	1.60	2.89	1.82	0.12 (0.90)

*Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. * Significant at p<0.05 level.*

Independent t-test shows no statistically significant difference in these groups regarding temporal mobility abroad.

Table 5: One-way ANOVA comparing country level aggregates of student participation in mobility abroad by self-reported parental wealth

	Below average		Average		Above average		F (p-value)
Study-related activity abroad (any)	21.23	8.44	23.49	9.08	29.82	10.72	9.13* (0.00)
Enrolment (no internship) abroad	4.55	2.73	5.00	2.10	6.64	2.75	7.23* (0.00)
Internship (no enrolment) abroad	2.51	1.54	2.60	1.49	4.08	3.6	4.69* (0.01)

*Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. * Significant at p<0.05 level.*

Parental wealth indicator has three categories (above average, average, below average), recoded from original five categories (very well-off, somewhat well-off, average, not very well-off, not at all well-off) in the EUROSTUDENT survey data. One-way ANOVA showed that parental wealth is related to patterns of participation in mobility abroad.

Post-hoc comparisons using the Tukey HSD test indicated that students with above average parental wealth reported any study-related activity abroad **significantly** more often than students coming from families with average or below average wealth (29.8 % vs 23.5 % and 29.8 % vs 21.2 %).

For enrolment abroad, there was a **statistically significant** difference between students with above average parental wealth and students with below average parental wealth (6.6 % vs 4.6 %). Same pattern emerged regarding internship abroad: students with above average parental wealth report **statistically significantly** more internships abroad than students with below average parental wealth (4 % vs 2.5 %).

Table 6: Independent t-test comparing country level aggregates of mobility abroad between students by parental education levels

	No tertiary education		Tertiary education		t (p-value)
	mean	SD	mean	SD	
Study-related activity abroad (any)	20.21	8.56	28.30	10.38	-2.89* (0.00)
Enrolment (no internship) abroad	4.34	1.98	6.39	2.34	-3.20* (0.00)
Internship (no enrolment) abroad	2.22	1.37	3.44	1.84	-2.57* (0.01)

Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. ** Significant at p<0.05 level.*

Parental education indicator has two categories: whether any of the parents have tertiary education (ISCED 5-8), or not. Independent t-test was used to compare whether there is a difference in temporal mobility abroad patterns between first-generation and not first-generation students.

20.2 % of students whose parents have no tertiary education participated in any study-related activity abroad, in comparison to 28.3 % of students whose parents have tertiary education. This difference is **statistically significant**, $t(44) = -2.89$, $p = 0.00$.

4.3 % of students whose parents have no tertiary education have enrolled abroad, in comparison to 6.3 % of students whose parents have tertiary education. This difference is **statistically significant**, $t(44) = -3.20$, $p = 0.02$.

2.2 % of students whose parents have no tertiary education have participated in an internship abroad, in comparison to 3.4 % of students whose parents have tertiary education. This difference is **statistically significant**, $t(44) = -2.57$, $p = 0.01$.

Table 7: Independent t-test comparing country level aggregates of mobility patterns between students without and with migration background

	No migrant background		Migrant background		t (p-value)
	mean	SD	mean	SD	
Study-related activity abroad (any)	23.01	9.39	26.74	11.04	1.43 (0.16)
Enrolment (no internship) abroad	5.53	2.26	6.80	3.90	1.47 (0.15)
Internship (no enrolment) abroad	1.98	1.04	3.14	2.62	1.47 (0.15)

Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. ** Significant at p<0.05 level.*

Independent t-test results indicate that there are no statistically significant differences in temporal mobility patterns between students with and without migration background. The following table summarizes the results.

Table 8: HEIs characteristics and student mobility indicators' summary, based on country-level averages

	Study-related enrolment abroad (any). % of students.			Enrolment (no internship) abroad. % of students.			Internship (no enrolment) abroad. % of students.		
	n	mean	SD	n	mean	SD	n	mean	SD
HEIs without PhD rights	21	24.28	9.92	21	4.48	2.26	21	3.74	4.52
HEIs with PhD rights	22	26.15	8.76	22	6.16	2.29	22	2.99	1.73
HEIs with <100 FTE	16	26.40	10.49	16	4.94	3.66	15	3.91	4.08
HEIs with 100-499 FTE	18	26.21	11.56	18	5.23	2.61	18	3.44	2.64
HEIs with 500-1499 FTE	18	26.25	9.44	18	5.95	3.36	18	2.85	1.62
HEIs with 1500+ FTE	16	26.64	9.17	16	6.01	2.38	16	1.86	0.98

Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates.

Table 9: Independent t-test comparing country level aggregates of student mobility abroad in HEIs with and without PhD rights

	HEIs without PhD rights		**HEIs with PhD rights**		**t (p-value)**
	mean	SD	mean	SD	
Temporary mobility abroad	24.28	9.92	26.15	8.76	-0.51 (0.61)
Enrolment (no internship) abroad	4.48	2.26	6.16	2.29	-2.5* (0.02)
Internship (no enrolment) abroad	3.74	4.52	2.99	1.73	0.72 (0.47)

Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. ** Significant at p<0.05 level.*

Using aggregated country averages, the analysis examined whether significant differences exist in temporary student mobility participation between research-oriented HEIs (with PhD-granting rights) and those without such rights HEI size.

4.5 % of students in HEIs without PhD rights have enrolled abroad, in comparison to 6.2 % of students from HEIs with PhD rights. This difference is **statistically significant**, t (40) =-2.5, p=0.02.

Table 10: One-way ANOVA comparing country level aggregates of student participation in mobility abroad in different size HEIs

	<100 FTE		100-499 FTE		500-1 499 FTE		1500+ FTE		F (p-value)
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Study-related activity abroad (any)	26.40	10.49	26.21	11.56	26.25	9.44	26.64	9.17	0.01 (1.00)
Enrolment (no internship) abroad	4.94	3.66	5.23	2.61	5.95	3.36	6.01	2.38	0.50 (0.68)
Internship (no enrolment) abroad	3.91	4.08	3.44	2.64	2.85	1.62	1.86	0.98	0.59 (0.62)

Data: EUROSTUDENT 8, EHESO microdata. Country level aggregates. **Significant at p<0.05 level.*

There was no statistically significant (at p<0.05 level) difference in student engagement in temporary international mobility across different size HEIs – all groups averaged just over 26 %.

Table 11: Crosstab of HEI type (with/without PhD rights) and age group.

	<30 years old		30+ years old		Total (n)
	n	%	n	%	
HEIs without PhD status	39 740	78 %	11 537	22 %	**51 277**
HEIs with PhD status	173 815	85 %	31 140	15%	**204 955**

Data: EUROSTUDENT 8, EHESO microdata.

To see whether research intensive institutions attract less mature students, we use student counts by their age (split into two groups, under 30 and 30+) in HEIs with and without PhD rights and performed a chi-square test for independence. Results show that there is a relationship between students' age group and HEI type: $\chi^2(2)= 1577$, p =0.00.

Table 12: HEI type (with/without PhD rights) and parental wealth

	Above average		Average		Below average		Total (n)
	n	%	n	%	n	%	
HEIs without PhD rights	12 435	33 %	17 917	48 %	7 043	19 %	**37 395**
HEIs with PhD rights	62 324	36 %	76 254	44 %	34 511	20 %	**173 089**

Data: EUROSTUDENT 8, EHESO microdata.

To see whether research intensive institutions attract more students from wealthier backgrounds, we used student counts by their parental wealth in HEIs with and without PhD rights across countries and then performed a chi-square test for independence. Results show that there is a relationship between HEI type and parental wealth: $\chi^2(2)= 186.95$, p =0.00.

Table 13: HEI type (with/without PhD rights) and parental level of education

	No tertiary education		Tertiary education		Total (n)
	n	%	n	%	
HEIs without PhD rights	22 988	50 %	22 881	50 %	**45 869**
HEIs with PhD rights	71 820	39 %	111 156	61 %	**182 976**

Data: EUROSTUDENT 8, EHESO microdata.

To see whether research intensive institutions attract more students with parents that have tertiary education, we used student counts by their parental education in HEIs with and without PhD rights across countries and then performed a chi-square test for independence. Results show that there is a relationship between HEI type and parental education level: $\chi^2(1)= 1783.94$, $p =0.00$.

EC-01-25-063-EN-N

About the European Higher Education Sector Observatory

The European Higher Education Sector Observatory (EHESO) is a user-centred data and information platform on the higher education sector in Europe. The Observatory enables the comparison, analysis, and showcasing of the sector's performance across multiple levels, actors, and themes.

Publications Office
of the European Union

ISBN 978-92-9488-878-5
doi: 10.2797/8379926