

## Czech universities on the move: Changes in international student mobility and institutional preferences

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**Abstract:** *This study analyses the spatio-temporal and institutional patterns of long-term international student mobility in the Czech Republic between 2001 and 2024, with a particular focus on the relationship between numerical growth and nationality diversity. Using data from the Ministry of Education, Youth and Sports of the Czech Republic, the paper examines changes in the number of degree-seeking international students, their countries of origin, spatial distribution across university cities, and institutional preferences. The results confirm a more than sixfold increase in the number of international students, accompanied by a gradual diversification of source countries and a declining dominance of Slovak students. At the same time, the analysis shows that numerical growth does not necessarily correspond to higher diversity. While Prague represents a highly diversified and globally oriented centre, cities such as Brno or Zlín combine high concentrations of international students with relatively low nationality diversity, largely due to the strong presence of Slovak students. Based on the combination of quantitative and diversity indicators, the study identifies distinct types of internationalisation profiles across Czech university cities. These findings highlight the spatially and institutionally uneven character of internationalisation in Czech higher education and point to the importance of language policy, institutional strategies and geopolitical factors. The paper thus contributes to a more nuanced understanding of international student mobility in a Central European context, with implications for higher education policy and regional development.*

**Keywords:** *International student mobility, Diversity of student populations, Push and pull factors*

### Introduction

Over the last two decades, long-term international student mobility has become an increasingly important component of higher education systems across Europe. Beyond its educational dimension, international student mobility significantly influences institutional strategies of universities, spatial development of university cities, regional economies, and patterns of socio-cultural diversity. In Central Europe, these processes are particularly dynamic due to post-socialist transformation, European integration, and changing geopolitical conditions.

The Czech Republic represents a specific case within the European higher education space. Since the early 2000s, the number of international students enrolled in Czech universities has increased rapidly, driven by a combination of linguistic proximity to neighbouring countries, relatively low study costs, the expansion of English-taught programmes, and growing international visibility of selected institutions. As a result, international students now form a substantial and structurally diverse part of the Czech higher education population.

Despite the growing relevance of international student mobility, existing research on the Czech Republic has predominantly focused on national-level aggregates, short-term mobility

programmes, or individual institutions. Much less attention has been paid to the spatial differentiation of internationalisation processes across university cities, and particularly to the relationship between numerical growth and qualitative diversity of international student populations. Consequently, the uneven geography of internationalisation and its institutional implications remain insufficiently explored.

This article addresses this gap by analysing the spatio-temporal and institutional patterns of long-term, degree-seeking international student mobility in the Czech Republic between 2001 and 2024. The analysis is based on official performance statistics of public and private universities published by the Ministry of Education, Youth and Sports of the Czech Republic (MEYS) and focuses on long-term, degree-seeking international students enrolled in full study programmes, while short-term exchange mobility (e.g. Erasmus-type programmes) is not included in the analysis. The study examines how the number of international students has developed over time and how their spatial distribution differs across major university cities. Particular attention is paid to the relationship between numerical growth and nationality diversity of international student populations, to assess whether increasing international student numbers are accompanied by more diversified structures. Furthermore, the article explores institutional preferences of international students regarding public and private universities and seeks to identify distinct internationalisation profiles reflecting different combinations of concentration and diversity.

By combining temporal analysis, spatial comparison and diversity indicators, the paper contributes to a deeper understanding of how internationalisation unfolds unevenly across space and institutions in a Central European context. The findings are relevant not only for geographical research on student mobility, but also for higher education policy and regional development strategies.

## **Theoretical and conceptual foundations for the study of long-term mobility of foreign university students in the Czech Republic**

The process of internationalization of higher education in the Czech Republic in the last two decades has been closely linked to the dynamic increase in the number of foreign students coming to the country for long-term, full-time study programmes. This long-term mobility, as opposed to short-term Erasmus-type exchanges, affects not only the students themselves and their life trajectories, but also the institutional strategies of universities, the development of university cities, and the broader socio-economic context of Czech higher education.

## **Internationalisation of higher education and global trends in student mobility**

The internationalisation of higher education is currently one of the most significant trends in the global education system, fundamentally transforming not only the institutions themselves, but also the spatial and temporal patterns of student mobility. According to Knight (2004), internationalisation is the process of integrating international, intercultural and global dimensions into the aims, functions and delivery of higher education. This process is driven by the globalisation of the knowledge economy, increasing competition between universities and changing geopolitical relations (Altbach, Knight 2007, Marginson, Van der Wende 2007).

Within Europe, internationalisation is closely linked to the Bologna Process and the creation of the European Higher Education Area, which facilitates cross-border student mobility and the recognition of qualifications (Teichler 2012). International Student Mobility (ISM) is thus a multidimensional phenomenon that encompasses not only the movement of students across borders, but also their motivations, adaptation, institutional strategies and long-term impacts on individuals and society (Luo et. al. 2023). Systematic reviews of the literature (e.g.,

Brooks and Waters 2011, Findlay et al. 2012) show that ISM should be understood as a complex process where individual aspirations, institutional policies, and global structural factors intersect.

The Czech Republic occupies a specific position within these processes. According to DZS statistics (2023), 54,770 foreign students studied at Czech universities in 2022, representing 18% of the total number of 304,518 students. The Czech system is characterised by a high proportion of students from Slovakia, Ukraine and Russia, which is due not only to geographical and cultural proximity, but also language policy and relatively low cost of living (DZS 2023, Eurydice 2024). At the same time, on a general global level, English-taught programs are growing in importance, attracting students from Asia and other regions (Choudaha et al. 2013).

### **Theoretical models and determinants of long-term student mobility**

One of the most widely used theoretical frameworks for explaining students' decision-making processes is the push-pull model (Lee 1966, Altbach 2004). This model is based on the assumption that the decision to study abroad is the result of push factors in the country of origin (e.g., limited university capacity, low quality of teaching, political instability) and pull factors in the destination country (university prestige, quality of life, job opportunities, language offerings). In the Czech context, pull factors are represented mainly by the availability of free study in Czech, geographical proximity and cultural compatibility (Kahanec and Králiková 2011, DZS 2023).

However, this model is often criticised for its mechanical logic and lack of consideration of individual and cultural aspects of decision-making (De Haas 2009, Findlay et al. 2012). More recent literature has therefore extended the push-pull framework to include the importance of personal aspirations, family networks, previous mobility experiences and institutional strategies of universities (Chen and Zimitat 2006, Brooks and Waters 2011). In the Czech environment, this shift is particularly evident in the growing interest in English language programmes, which attract students from Asia, the Middle East or Africa, while Czech language programmes remain the domain of students from geographically and culturally close countries. Economic theories, especially human capital theory (Becker 1964), interpret long-term student mobility as a rational investment in future economic gain. Studying abroad is understood here as a pathway to increased employability, higher wages and professional growth. Empirical studies confirm that graduates of long-term study abroad programs have a higher chance of employment in international firms, faster job entry and often higher wages (Kratz and Netz 2018, Di Pietro 2013). However, this approach has come under criticism in recent years as it neglects the non-economic motivations and broader impacts of mobility on students' personal development and on society as a whole (Tokas et al. 2022).

Social science theories, particularly the concepts of Pierre Bourdieu (1986), provide deeper insights into the mechanisms of long-term student mobility that cannot be reduced to economic calculation. Here, study abroad is seen as a strategy for accumulating cultural, social and symbolic capital - resources that are crucial to an individual's future social performance (Brooks and Waters 2011). Empirical research shows that students from more privileged backgrounds are more likely to use long-term mobility to enhance their status, while students from less privileged groups face greater barriers, whether financial, linguistic or institutional (Beerkens et al. 2015, Beech 2015).

Institutional approaches analyse how the characteristics of universities (prestige, size, foreign language curricula) and regions (urbanization, job opportunities, quality of life) influence the spatial patterns of long-term student mobility. Sá and Sabzalieva (2018) and Marginson (2017) point out that long-term mobility is concentrated in a few metropolitan centres and

institutions with high reputations, while smaller regional universities tend to attract students from geographically and culturally close countries. In the Czech Republic, this trend is quite clear: Prague, Brno, Olomouc and Ostrava are the main destinations for international students, with the highest concentration in Prague, where the universities with the largest number of international students are located, such as Charles University, the Czech Technical University and the Czech University of Agriculture.

### **Spatial patterns, institutional preferences and the new challenges of international student mobility**

Regional differences in the distribution of international students in the Czech Republic are significant and are exacerbated by socio-economic and demographic factors. While in Prague foreign students make up almost a quarter of all students, in some regions their share is significantly lower. This has a major impact on the local economy, cultural diversity and the long-term development of university towns (Benneworth et al. 2010). The presence of international students generates a multiplier effect for the local economy: each international student contributes an average of 189,000 CZK to regional GDP annually (DZS 2023). However, these benefits are unevenly distributed - smaller cities lack the capacity to integrate students into the local labour market.

Spatio-temporal patterns of long-term student mobility in the Czech Republic are sensitive to external shocks and global events. These effects can be illustrated by the case of China, where available research shows that student mobility was strongly influenced by travel restrictions, health concerns and uncertainties related to studying abroad (Mok et al. 2021). The war in Ukraine has led to a dramatic increase in the number of Ukrainian students and a corresponding decline in students from Russia, which is reflected in institutional statistics and university strategies (DZS 2023; Eurydice 2024).

An interesting perspective on the evolution of international student mobility is provided by Wen et al. (2020), who use social network analysis to explore the evolution of the structure of the international student mobility network between 2001 and 2015. The results show that international student mobility is not limited to a few Western developed countries as commonly assumed. The authors found that the clustering coefficient of the international student mobility network steadily declined during the study period and its community differentiation was highly significant, suggesting that regionalization has become more important.

Long-term mobility has major benefits for students, which vary according to the type of study. As the study by Guo et al. (2023) shows, international student mobility helps general talents to further their education and skilled talents to find employment. Moreover, for general talents, short-term experiences have a greater impact on continuing higher education than long-term ISM, while for skilled talents, long-term experiences have a greater impact on finding employment.

The analysis of long-term student mobility in the Czech Republic shows that none of the theoretical frameworks is sufficient on its own. The push-pull model provides a basic overview of the structural factors, human capital theory explains the economic motivations and impacts, while social science and institutional approaches allow understanding the cultural, network and regional aspects of mobility. In the Czech context, it is necessary to combine these approaches, as long-term mobility is shaped by the interplay of individual aspirations, institutional strategies and global events. The result is a highly diversified structure of international students, significant spatial differences and specific institutional preferences that need to be taken into account in both academic research and educational policy making.

Based on the reviewed theoretical approaches, international student mobility can be understood as a multidimensional phenomenon shaped by structural, institutional and individual factors. In this study, internationalisation is operationalised through three interconnected dimensions: (1) numerical growth of international students, (2) spatial concentration in university cities, and (3) nationality diversity of student populations. This conceptual framework allows the analysis to move beyond descriptive trends and to capture qualitative differences in internationalisation patterns across space and institutions.

## **Methodology and data sources**

The analysis of spatial and institutional patterns of international student mobility in the Czech Republic is based on a secondary analysis of statistical data from the Ministry of Education, Youth and Sports of the Czech Republic (MEYS), specifically the Performance Statistics of Public and Private Universities. The study covers the period 2001–2024, allowing for the identification of long-term trends in the number of international students, their countries of origin, spatial distribution across university cities, and institutional preferences.

The analysis focuses exclusively on degree-seeking international students enrolled in full study programmes at Czech public and private universities. Short-term exchange mobility (e.g., Erasmus-type programmes) is not included in the dataset. This distinction is important, as the term “internationalisation” is often used more broadly, while this study captures only long-term structural mobility.

It is also important to note that the statistics used record the number of study programmes rather than individual students. As a result, a single student may be included more than once if enrolled in multiple programmes simultaneously. Although this may slightly inflate the total numbers, it does not significantly affect the overall spatial and institutional patterns observed in the analysis.

The diversity index (IDZS) used in this study was constructed by the author as a synthetic indicator capturing the heterogeneity of the international student population in each university city. The index is based on the relative distribution of students by nationality and reflects the degree to which different national groups are evenly represented. Conceptually, the index follows the logic of commonly used diversity measures, where higher values indicate a more balanced representation of multiple groups, while lower values reflect the dominance of a single nationality (most often Slovakia in the Czech context).

The index is calculated using the relative shares of individual nationalities within the total number of international students in a given city. It is used to complement purely quantitative indicators and to distinguish between numerical internationalisation (growth in student numbers) and structural internationalisation (diversification of national composition).

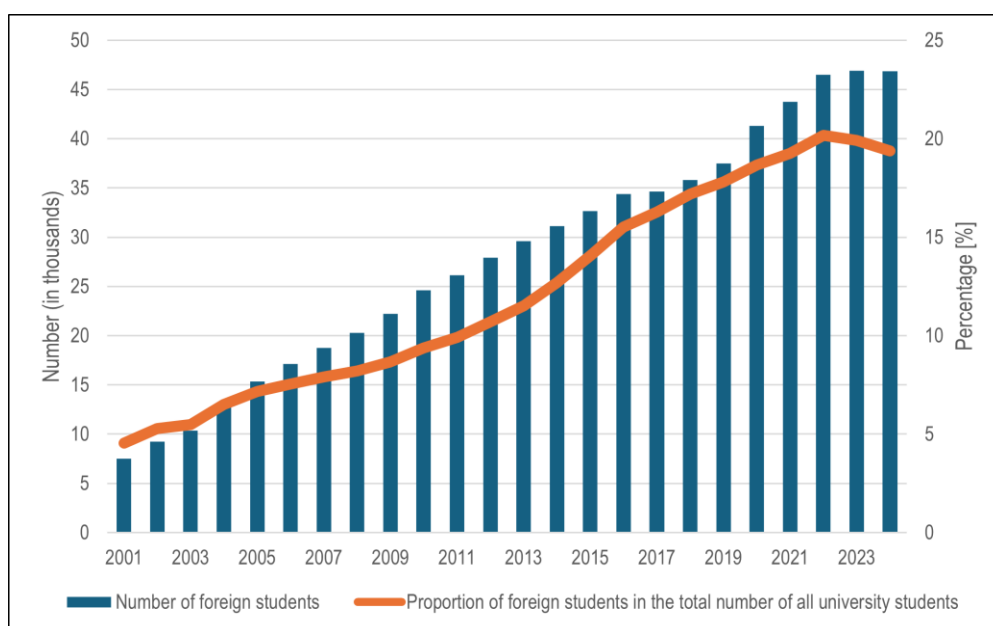
Institutional preferences were analysed based on the distribution of international students across individual public and private universities. In addition, selected external factors (such as the COVID-19 pandemic and the war in Ukraine) were taken into account when interpreting observed trends, as they significantly influenced the structure and dynamics of international student mobility.

The dataset includes only public and private higher education institutions. Data on state universities are not included, as they are not publicly available and could not be obtained in a consistent form for the entire period analysed. Given their relatively small share in the total number of international students, their exclusion does not affect the overall conclusions of the study.

## Spatio-temporal and institutional analysis of international students in the Czech Republic (2001-2024)

### Development of the number of foreign students in the Czech Republic (2001-2024)

The development of the number of foreign students at universities in the Czech Republic over more than the last two decades shows a significantly increasing trend, which is clearly visible in Fig. 1. While in 2001 there were approximately 7.5 thousand foreign students studying in the Czech Republic, in 2024 their number reached almost 47 thousand, which represents a more than sixfold increase. The share of foreign students in the total population of higher education students has increased from 4.6% to almost 19.4% in the same period, and this share has stabilised around 20% in the last five years. Not only the absolute growth in the number of foreign students in the Czech Republic, but also the relative shares clearly indicate that Czech higher education has undergone a significant process of internationalisation in the new millennium.

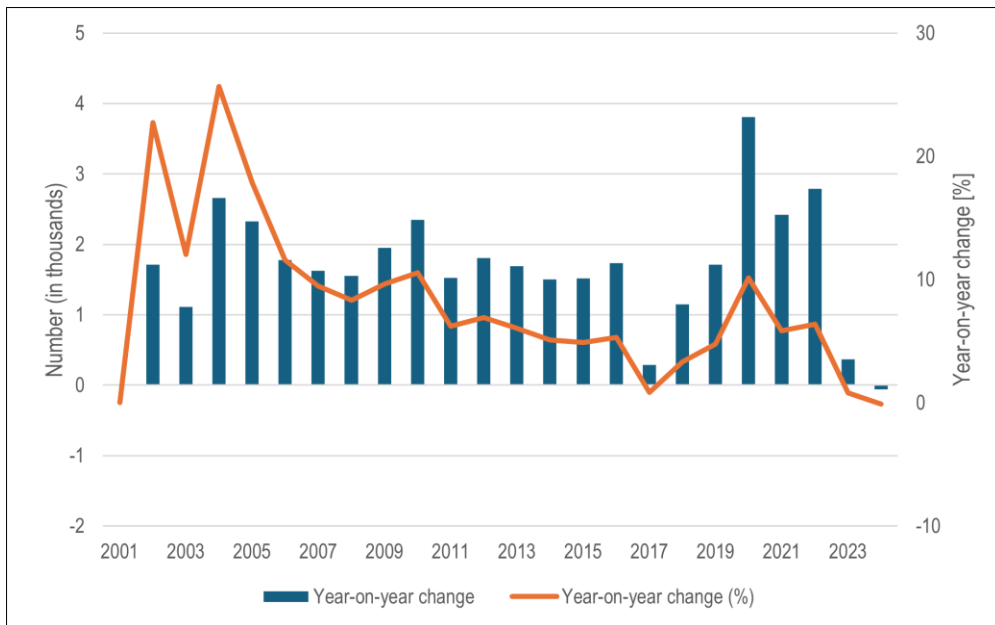


**Fig. 1.** Development of the number and share of foreign students in the Czech Republic between 2001 and 2024

Source: MEYS (2025), own elaboration

Fig. 2 shows that the growth dynamics were not entirely uniform over the period under review. The highest annual growth rates were recorded in the first decade of the new millennium, when annual increases often exceeded 10%, and even 25% in 2004. This growth can be attributed to several key factors. Among the most important were the gradual opening and lowering of barriers for Slovak students during the 1990s through intergovernmental agreements. From a global perspective, the opening up of the Czech higher education space after the accession to the European Union in 2004, which removed administrative barriers especially for students from EU countries, was also a significant factor. The internationalisation of the higher education environment, the development of English-taught programmes and targeted

recruitment activities of universities, which began to actively reach out to students not only from neighbouring European countries, but also from Asia and the post-Soviet space, also played a significant role (DZS 2023).



**Fig. 2.** Year-on-year change in the number of foreign students in absolute and relative terms  
*Source: MEYS (2025), own elaboration*

In the second decade of the period under review, the rate of growth slowed down slightly, which can be seen in the lower annual growth rates, which ranged from 3-7%. Nevertheless, no significant decline was recorded, even during the COVID-19 pandemic. The data show that in 2020 and 2021, there was only a slight slowdown in growth, not a discontinuation – for example, in 2021, almost 2.5 thousand international students were added, representing an annual increase of 5.9%. This development can be explained by the ability of universities to quickly switch to distance learning and maintain the interest of international students even in times of global mobility restrictions.

In 2022, there was again a small increase in the number of international students, with annual increases exceeding 2,500, corresponding to a growth of more than 6% per year. However, in the last two years under review, the growth slowed down, with only 365 foreign students added in 2023 and even a single, albeit slight, decrease in 2024 over the whole period under review. However, this change is marginal in the context of the long-term trend and overall dynamics. It can also be interpreted as a consequence of the extraordinary increase in 2022, which was significantly influenced by the arrival of Ukrainian refugees after the outbreak of the war. In the following years, such a strong surge did not occur again and therefore the annual increases were lower or stagnant. Other short-term factors, such as temporary capacity saturation in some sectors or changes in the migration policies of source countries, may have played a role. Wider global factors such as war and related constraints may also be at play. Evidence of this can be seen in the significant decline of students from the Russian Federation - while in 2021 there were more than eight thousand Russian students studying in the country, by 2024 there were less than five thousand.

In the long term, the growth in the number of foreign students in the Czech Republic is the result of a combination of several factors. In addition to the internationalisation of the higher education environment and targeted recruitment activities of universities, economic aspects also play a significant role - relatively low tuition fees and living costs compared to Western Europe make Czech universities attractive to students from the wider region and non-European countries. Another factor is the demographic development in the Czech Republic, where the number of domestic students is declining due to an ageing population, which is partly compensated by the influx of foreign students. The presence of foreign students has a positive impact not only on the economy and demographics, but also on the international reputation of the Czech higher education system and its ability to remain competitive in the European and global context (MEYS 2024).

In the future, it can be expected that the importance of foreign students for Czech higher education will continue to grow, not only in terms of absolute numbers, but also in terms of diversification of source countries and disciplinary structure. The key challenge remains the ability of universities to adapt to the changing needs of this group of students and at the same time ensure their integration into the academic and wider social environment in the Czech Republic. At the same time, institutional efforts are significantly influenced by external factors, particularly visa policy towards students from third countries, which has been repeatedly identified as a major barrier affecting both recruitment and long-term integration.

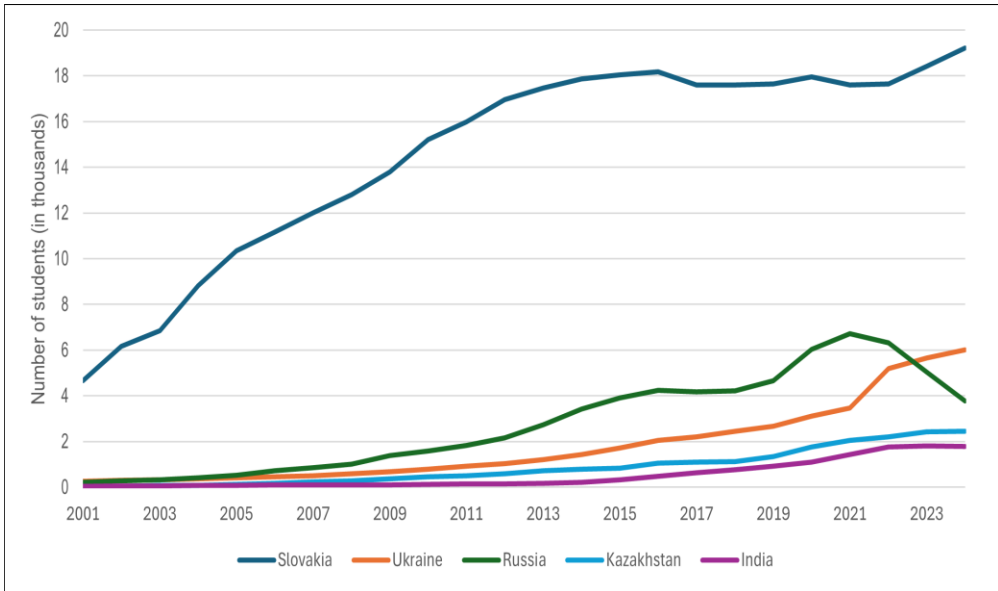
### **Structure of foreign students by nationality**

The structure of foreign students in the Czech Republic has undergone a major transformation in the last two decades, which can be illustrated in detail on the basis of time series, graphs and country-specific data (Fig. 3). The most striking feature is the long-standing dominance of the Slovak Republic, whose citizens form the largest group of foreign students in the Czech Republic. In 2024, 19,222 Slovaks studied at Czech public universities, representing approximately 41% of all foreign students.

However, the share of Slovak students is declining in the long term - in 2004 it exceeded 67%, while in 2024 it has already fallen below 42% (Fig. 4). This trend is the result of a gradual saturation of demand and a simultaneous increase in the number of students from other countries. One of the key factors explaining the high and stable representation of Slovaks is the linguistic and cultural proximity, the compatibility of educational systems and the fact that studying in Czech is free and administratively easy for Slovak students (Myšák 2023).

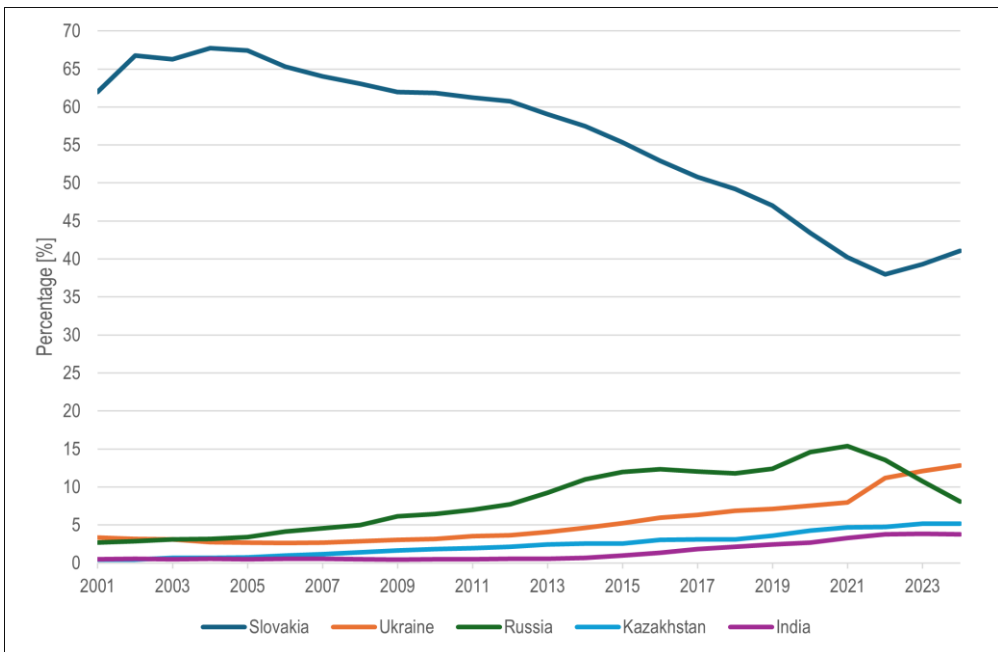
The second largest group is currently students from Ukraine, which will reach almost 6,000 in 2024. The evolution of the Ukrainian student population is characterised by a gradual growth in the first decade of the period under review and a subsequent acceleration after 2014, culminating in the period 2022-2024. The largest increase was recorded after the outbreak of the war in Ukraine in 2022, when annual increases exceeded 500 students per year. The share of Ukrainian students in the total international student population has thus increased significantly in recent years, reaching over 12% in 2024. This shift is the result not only of the migration wave, but also of targeted scholarships and support programmes by Czech universities and the state.

On the other hand, there has been a significant decline in the number of students from the Russian Federation in recent years. While in 2021 there were 6,725 Russian students studying in the Czech Republic, in 2024 there were only 3,781. This decline is also evident in relative terms - the share of Russian students has fallen from over 15% in 2021 to less than 8% in 2024. The main reasons for this change are geopolitical circumstances, in particular the deterioration of relations between the European Union and Russia, the tightening of visa policy and sanctions after 2022, which have severely limited the opportunities for Russian citizens to study in European countries (CzechUniversities 2024).



**Fig. 3.** Absolute number of international students by the five most represented nationalities in 2024

Source: MEYS (2025), own elaboration



**Fig. 4.** Relative frequencies of foreign students by the five most represented nationalities

Source: MEYS (2025), own elaboration

Students from Kazakhstan and India are an equally important and steadily growing group. The number of students from Kazakhstan in 2024 was 2,436, an increase of almost 30 times compared to 2001, when there were only 32 students. The trend for Indian students is very similar, with 1,769 in 2024 compared to 37 in 2001. The increase has been driven by the expansion of programmes taught in English or increased outreach to students in Asian countries (MEYS 2021).

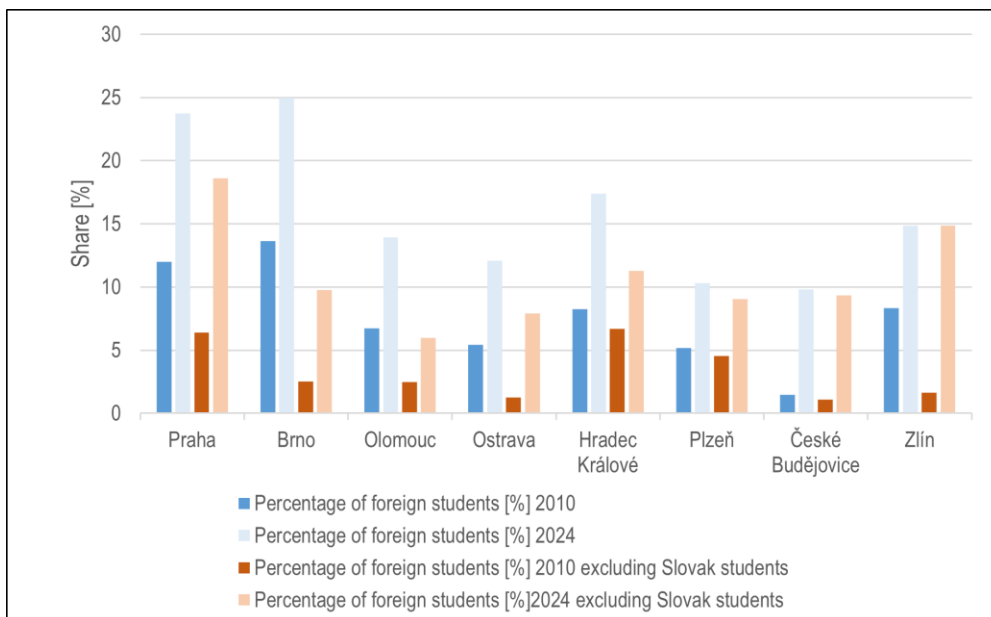
Students from Italy, Germany, Turkey, Belarus and Iran also regularly appear in the top ten most frequently represented nationalities. These countries show either a stable or slightly increasing trend, which indicates the gradual globalisation of the Czech higher education environment and the increasing attractiveness of the Czech Republic for students from different regions of the world. However, in terms of the relative share of the total foreign student population, none of these countries exceeds the 2% threshold.

The changes in the structure of international students have several causes. In addition to the aforementioned geopolitical events and the targeted recruitment strategies of universities, economic factors such as the availability and cost of study, language policies and the possibility of entering the labour market after graduation also play a role. The consequence of these changes is not only the growing diversity of the student population, but also the transformation of the academic environment and the strengthening of the international reputation of Czech universities. The increasing representation of students from non-European countries brings new challenges in terms of integration, language support and cultural adaptation, but also opportunities for the development of international cooperation and innovation in the educational process. Developments in recent years show that the structure of international students in the Czech Republic is dynamic and responsive to external political, economic and social impulses, which is likely to remain true in the years to come.

### **Regional distribution of foreign students in the Czech Republic and its development over time**

Between 2010 and 2024, the Czech Republic has seen a significant increase in the proportion of international students in most university towns. However, this development does not show a uniform trend - the intensity of growth and the structure of the foreign student population varies from city to city. The following two subsections analyse the development of the share of foreign students in selected cities of the Czech Republic and at the same time the difference between the total share and the share adjusted for Slovak students. Attention is paid in particular to the actual values of the shares as recorded in the performance statistics of the Ministry of Education, Youth and Sports for years 2010 and 2024.

Based on a comparison of the values from 2010 and 2024 (Fig. 5), it can be concluded that in all cities surveyed there has been an increase in the share of foreign students. The highest absolute shares in 2024 were recorded in Brno (25.0%) and Prague (24.0%), followed by Zlín (19.6%) and Hradec Králové (17.5%). In 2010, these shares in the same cities were 13.5%, 12.3%, 9.3% and 8.3% respectively. The largest relative increases were thus recorded in Brno (+11.5%) and Prague (+11.7%), the most important academic centres in the country.



**Fig. 5:** Share of foreign students in selected cities of the Czech Republic in 2010 and 2024  
 Source: MEYS (2025), own calculations

### Diversity of international students by place of study

Higher education institutions with foreign involvement in the Czech Republic are predominantly concentrated in a few key urban centres, whose geographical and institutional characteristics are reflected in the intensity and structure of the foreign student population. Cities with more higher education institutions, or where institutions are profiled in technical, medical or economic fields, are naturally more attractive to international students.

According to the data for 2024, the highest share of foreign students was recorded in Brno (25%), followed by Prague (23.8%) and Hradec Králové (17.4%). A significant share of foreign students was also recorded in Zlín (14.9%), Olomouc (13.9%) and Ostrava (12.1%). Although the absolute and relative number of foreign students may be high in some cities, their structure often strongly reflects the dominance of a single nationality - usually Slovak.

To gain a deeper understanding of the level of true international diversity, an additional metric was used - the proportion of international students without Slovak nationality. The highest values were achieved in Prague (18.6%) and Hradec Králové (11.3%), where it can be assumed that there is a more structured international demand and a stronger internationalisation strategy. In Brno (9.8%), Plzeň (9.1%) and České Budějovice (9.3%) the share was also above average, which indicates a relatively diverse foreign population, although less so than in the case of the capital city. A completely different situation was observed in Zlín, where the overall share of foreign students was 14.9%, but the share of students without Slovak nationality was only 6.4%. This disproportion indicates the strong dependence of the regional university on students from Slovakia, which was further confirmed by the very low value of the diversity index ( $ID = 0.428$ ). Similarly low values of the diversity index were recorded in Olomouc ( $ID = 0.430$ ) and Brno ( $ID = 0.391$ ), suggesting that the high overall share of foreign students may be accompanied by low diversity of nationalities.

At the other end of the spectrum was České Budějovice, where the highest diversity index ( $ID = 0.949$ ) was recorded (tab. 1), although the overall proportion of foreign students was

relatively low. Highly diversified structures were also found in Plzeň (0.878) and Prague (0.782), where, in addition to a large absolute number of students, there was also a high variability in their national origin.

**Tab. 1.** Diversity index in selected university towns in the Czech Republic

City	Foreign students [%]	Foreign students excluding Slovak students [%]	Diversity index (IDZS)
Brno	25.0	9.8	0.391
Prague	23.8	18.6	0.782
Olomouc	13.9	6.0	0.430
Ostrava	12.1	7.9	0.654
Hradec Králové	17.4	11.3	0.649
Plzeň	10.3	9.1	0.878
České Budějovice	9.8	9.3	0.949
Zlín	14.9	6.4	0.428

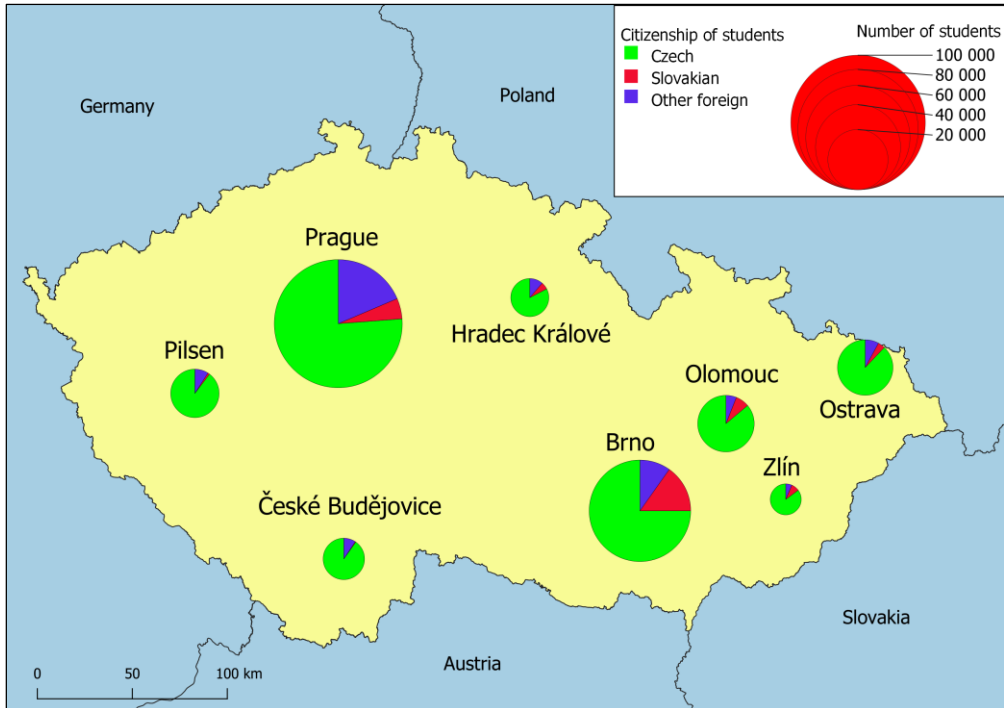
Source: MEYS (2025), own calculations

The results show that the geographical distribution of international students is uneven and regionally determined. The diversity of foreign populations does not show a direct link to the total number of foreign students - while large cities such as Brno have a high absolute number of foreign students, their diversity of nationality is relatively low. Conversely, cities such as České Budějovice and Plzeň show relatively lower overall numbers but significantly higher diversity.

The spatial distribution of international students in the Czech Republic, as illustrated in Figure 6 below, confirms the significant concentration of international students in a few key university centres. The largest circles on the map representing the number of students are located in Prague and Brno, which corresponds with previous statistical findings on the dominant position of these cities in international education. Significantly smaller but still meaningful concentrations of international students are evident in Ostrava, Olomouc, Hradec Králové and Zlín, while other university cities show relatively low international participation.

The composition of students by citizenship reveals the identified regional differences. While Czech students (green) predominate in most cities, the share of Slovak students (red) is most pronounced in Brno, where they form a significant part of the international community. The greatest diversity is evident in Prague, where, in addition to a significant proportion of Slovak students, there is also the largest group of students from other countries (purple), confirming the capital as the most cosmopolitan university centre in the country. Smaller cities such as České Budějovice or Plzeň show a relatively more homogeneous structure with a predominance of Czech students, but also a demonstrable presence of international students, indicating the gradual internationalisation of regional universities as well.

The strategic position of the Czech Republic within Central Europe and its historical links to neighbouring countries are also clearly visible here. The high proportion of Slovak students, particularly visible in Moravian cities, confirms the importance of cultural and linguistic proximity as an important factor in the choice of study location. At the same time, however, the growing share of students from other countries, concentrated mainly in Prague and partly in Brno, may be indicative of the successful internationalisation strategies of universities in these cities and their ability to address the global higher education market.



**Fig. 6.** Geographical distribution of foreign students and their share in the total number of students  
 Source: MEYS (2025), own elaboration

The results reveal that the degree of internationalisation differs substantially across Czech university cities, not only in terms of absolute numbers but also with regard to nationality diversity. Importantly, this allows the identification of distinct patterns of international student mobility, reflecting different combinations of concentration and diversification.

Based on the combination of the share of international students and the diversity index, three basic types of internationalisation profiles can be identified, representing specific spatial and institutional configurations of international student mobility in the Czech Republic.

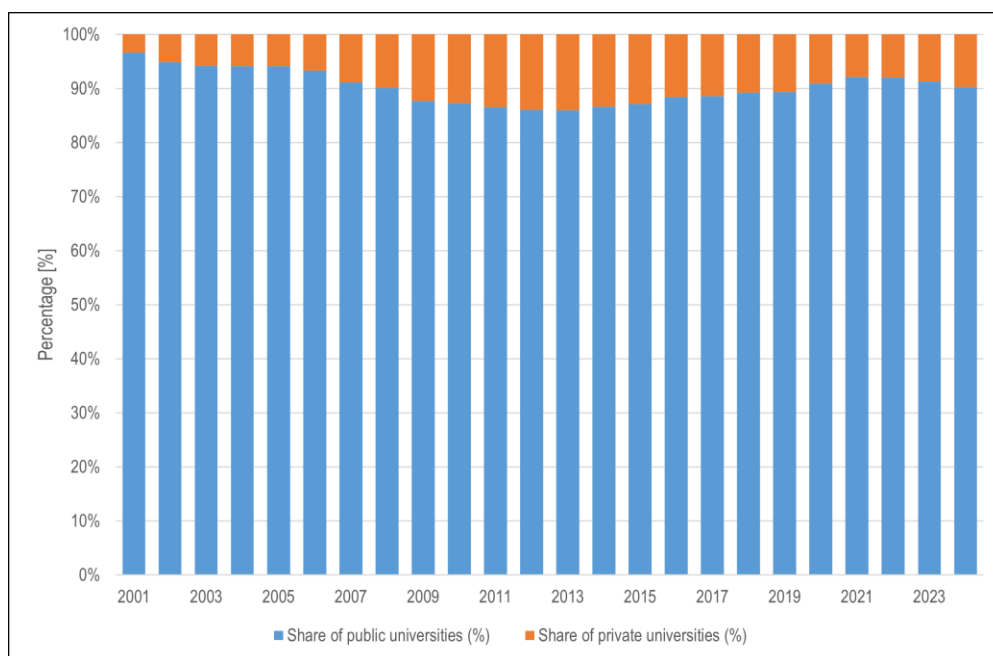
- Type A – high numerical concentration and low diversity – is represented by cities such as Brno and Zlín, where internationalisation is driven primarily by students from culturally and linguistically close countries, particularly Slovakia.
- Type B – high numerical concentration and high diversity – is characteristic of Prague, where international students originate from a wide range of countries, reflecting a more global orientation of institutions and study programmes.
- Type C – low numerical concentration but high diversity – includes cities such as České Budějovice and Plzeň, where international student numbers remain relatively low, yet the structure of nationalities is more balanced.

These types illustrate that international student mobility in the Czech Republic is not uniform, but follows distinct spatial and institutional patterns, shaped by a combination of proximity effects, institutional strategies and global recruitment dynamics.

## Institutional preferences of international students

Institutional preferences of international students in the Czech Republic represent a key element in shaping the current shape of the higher education sector and fundamentally influence not only the diversity of the student population but also the development strategy of individual institutions. The choice of a particular school for international students is the result of a complex interaction between prestige, quality and breadth of programme offerings, language accessibility, financial costs and the level of support services (Myšák 2023). Over the last twenty years, the Czech Republic has seen a significant concentration of foreign students in a few institutions, with public universities maintaining a dominant position for a long time.

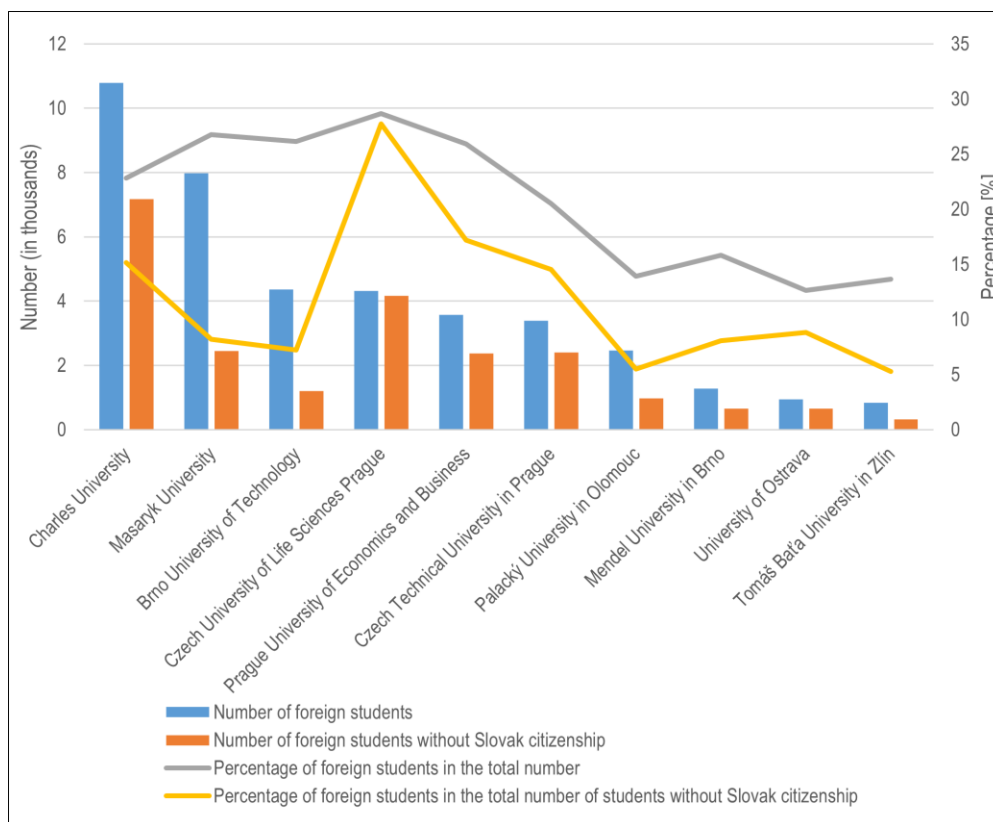
The basic framework of institutional preferences can be seen in the graph below (Fig. 7), which shows the evolution of the share of public and private universities in the total number of international students between 2001 and 2024. It is clear from the graph that public universities maintain a completely dominant position, with their share in the total number of international students steadily exceeding 90%. The exception is the period between 2012 and 2016, when the share of private schools temporarily increased due to the expansion of the private sector and changes in legislation, but this trend was subsequently corrected again in favour of public institutions.



**Fig. 7.** Share of public and private universities in the total number between 2001 and 2024  
Source: MEYS (2025), own elaboration

The following Fig. 8 focuses on the dominant group of public universities and offers a detailed view of their ability to attract international students. Charles University has the highest absolute numbers of foreign students, followed by Masaryk University, Brno University of Technology and the Czech University of Agriculture in Prague. The data shows that some institutions, such as the Czech University of Agriculture in Prague, have an exceptionally high proportion of foreign students in the total number of students, which indicates a strong orientation towards international clientele and an active recruitment policy. It is also interesting to compare the number of foreign students without Slovak nationality, which shows that at some schools Slovaks make up a significant part of foreign students. However, at Charles University and the Czech University of Agriculture in Prague, even after subtracting Slovak

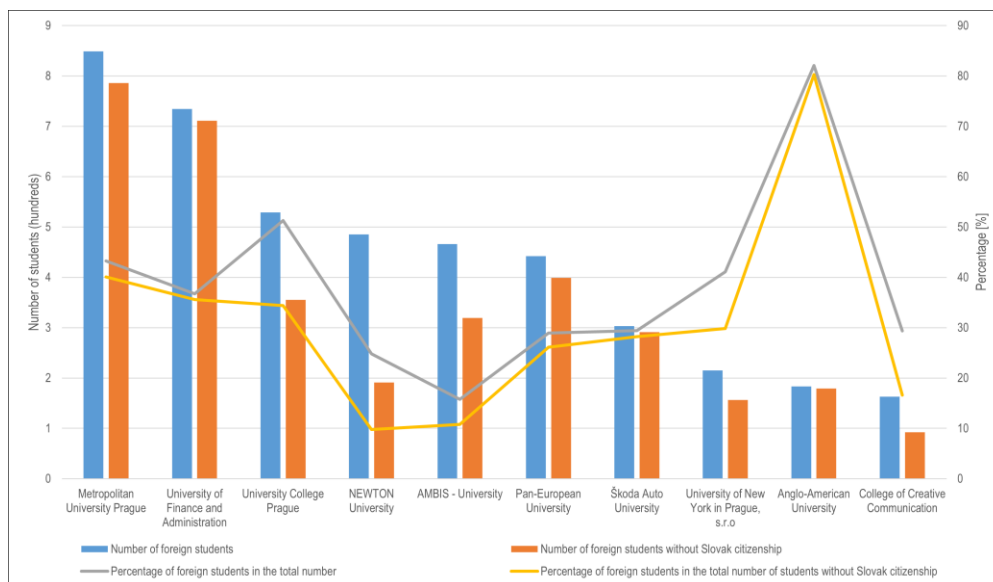
students, the foreign community is very large, which confirms their international prestige and ability to reach students from different regions of the world. On the contrary, some regional universities, such as Tomáš Baťa University in Zlín or the University of Ostrava, have a lower share of foreign students in the total number, which can be explained by a more limited offer of programmes in foreign languages, lower international visibility and lower investment in internationalisation. A special group are the universities in Brno, namely Masaryk University and Brno University of Technology, where the number of foreign students is relatively high, but after subtracting Slovak students, the share of the remaining foreign students is significantly lower. This can be attributed mainly to the geographical proximity to Slovakia and the general prestige of Brno universities among Slovak students.



**Fig. 8.** Dominant groups of public universities in the Czech Republic in 2024  
 Source: MEYS (2025), own elaboration

On the other hand, private universities have significantly smaller absolute numbers of students (Fig. 9), but the relative proportions of foreign students are clearly higher than those of public universities. The Metropolitan University Prague, the University of Finance and Administration and University College Prague have the highest absolute numbers of foreign students, with each of these institutions hosting between 500 and 900 foreign students. A significant finding, however, is that the share of international students in the total school population is between 30 and 40% at most of these institutions, while at the Anglo-American College it exceeds even 80%. This exceptional proportion is mainly due to the focus on teaching in English and the targeted recruitment of students from the global market. If the statistics exclude students of Slovak nationality, who are the dominant group of international students at some private schools, the proportion of students from further afield drops significantly. This

phenomenon can be interpreted as a consequence of the linguistic and cultural proximity of Slovakia, but also as a result of the active recruitment policy of some schools that focus specifically on the Slovak market. An example of this is the participation of universities in Slovak university fairs for high school graduates, etc. Overall, however, private universities can be assessed as less focused on Slovak students than public ones. This is due to several factors, but probably the biggest one is the overall higher focus on global study programmes.



**Fig. 9. Dominant groups at private universities in the Czech Republic in 2024**  
*Source: MEYS (2025), own elaboration*

It is clear from these data that the institutional preferences of foreign students in the Czech Republic have long been shaped by the predominance of public universities, which maintain a stable and dominant position thanks to a combination of prestige, quality and accessibility. The private sector is particularly important for specific segments of students, especially those from English-speaking countries, but its ability to compete with public institutions is limited by a narrower range and higher financial costs. The language policy of schools and the degree of internationalisation of study programmes are also important factors which have a major impact on the structure and diversity of the international student population.

## Discussion

The findings confirm that the long-term mobility of foreign university students in the Czech Republic is the result of a combination of structural, institutional and individual factors, the interaction of which was previously conceptualized in the theoretical part of this paper. A spatio-temporal analysis of the development showed not only a significant increase in the total number of international students, but also major changes in the structure of their nationality and institutional preferences, which confirm the assumptions of several theoretical models.

These patterns should also be interpreted in relation to broader structural changes affecting Czech higher education. In particular, demographic decline in the domestic student population, the expansion of English-taught programmes, visa policy towards students from third countries, the temporary disruptions associated with the COVID-19 pandemic, and geopolitical developments affecting key source countries have all contributed to shaping the volume, composition and spatial distribution of international students. The observed trends are therefore not

only an outcome of institutional attractiveness, but also of changing policy, demographic and geopolitical conditions.

First, the observed regional concentration of international students in a few cities – notably Prague and Brno - is consistent with the findings of institutional approaches (Marginson 2017, Sá and Sabzalieva 2018), which highlight the spatial centralisation of international student mobility within metropolitan and high-profile institutions. At the same time, the observed differences between the absolute number of international students and their diversity suggest that the intensity of international presence does not necessarily correspond to the degree of internationalisation. For example, the high proportion of Slovaks in Brno and Zlín confirms the importance of ‘proximity mobility’ within culturally compatible regions, as described by authors such as Brooks and Waters (2011) and Findlay et al. (2012).

Second, the observed spatial differences between cities with a high proportion of foreign students without Slovak state affiliation and those that are heavily dependent on the Slovak population confirm the importance of the push-pull framework (Lee 1966, Altbach 2004) in combination with cultural and institutional factors. The high proportion of diversified students in Prague, Plzeň or České Budějovice can be explained by ‘pull’ factors such as language offer, availability of English programmes or specific recruitment strategies, while in Zlín and Olomouc cultural and linguistic affinity, i.e. elements of the push-pull model in its culturally modified form, play a crucial role (Chen and Zimitat 2006). The role of Slovakia represents a specific case within the Czech higher education system and requires particular attention. Due to strong linguistic, cultural and institutional proximity, Slovak students differ significantly from other international students in their motivations, study conditions and integration patterns. Their dominant presence, especially in certain university cities, may therefore partially influence indicators of internationalisation, particularly those related to nationality diversity. For this reason, the analysis also considers indicators excluding Slovak students, allowing for a more nuanced interpretation of internationalisation processes.

Thirdly, the diversity of nationality, captured by the IDZS index, made it possible to confront quantitative indicators with the quantitative dimension of internationalisation. For example, Plzeň or České Budějovice achieved high diversity despite lower absolute numbers of students, which corresponds to approaches emphasizing the importance of institutional strategies and network capital (Bourdieu 1986). The results thus confirm that diversity is not linearly related to the size or tradition of the institution, but can also be achieved through targeted internationalization strategies.

Fourth, the analysis of institutional preferences confirmed the dominant position of public universities, which can be interpreted in light of human capital theory (Becker 1964) as a consequence of the perceived return on investment in education - public schools are often perceived as more prestigious, stable and internationally recognised. Conversely, the higher relative representation of international students in some private universities, although their absolute numbers remain low, is indicative of the existence of a parallel institutional regime focused on specific markets and forms of mobility. This market segmentation confirms the presence of multiple parallel mobility trajectories (Gérard and Lebeau 2023). An important factor shaping these institutional differences is the language of instruction. While public universities in the Czech Republic offer tuition-free study programmes in Czech, they also increasingly provide English-taught programmes, which are typically fee-based. This creates a dual structure of internationalisation: students from linguistically and culturally close countries (especially Slovakia) are more likely to enrol in Czech-language programmes, while students from more distant regions are often attracted to English-taught programmes despite higher costs. This distinction helps to explain both the dominance of public universities and the differences in the composition of international student populations across institutions.

In terms of methodology, certain limitations should be noted. The data used, although comprehensive, does not capture in detail the motivations of students, the quality of their experience

or the actual level of integration. It also does not fully capture the dynamics of short-term or irregular mobility, which may have specific spatial and institutional patterns. Although the analysis has been extended to include a diversity index and per capita calculations, some qualitative aspects of internationalisation remain beyond the scope of this research. The findings thus confirm the importance of a combined approach that integrates structural, cultural and institutional factors. The Czech case shows that long-term student mobility is strongly dependent on the spatial and institutional context and that successful internationalisation requires not only quantitative growth but also well-thought-out strategies to diversify and integrate international students into the academic and local environment. Another important dimension not captured in the available dataset is the field of study. Different disciplines (e.g., medicine, technical fields, or social sciences) are associated with distinct motivations, recruitment strategies and spatial distributions of international students. The concentration of specific programmes in particular university cities may therefore significantly influence both the volume and structure of international student mobility. This aspect represents an important direction for future research.

Additional insights from surveys conducted by the Czech National Agency for International Education and Research (DZS 2023) indicate that factors such as study satisfaction, perceived quality of education and post-study opportunities also play an important role in shaping international student mobility decisions. These findings complement the structural patterns identified in this study and suggest that individual motivations and experiences should be further explored in future research.

## **Conclusion**

The aim of this research was to identify and interpret the spatiotemporal and institutional patterns of long-term mobility of international students in the Czech Republic in the period 2001-2024. The findings showed a significant transformation of the Czech higher education system, which was reflected not only in the absolute increase in the number of international students, but also in increased national diversity, regional distribution and institutional preferences. The number of foreign students has increased sixfold from 7.5 thousand in 2001 to almost 47 thousand in 2024, and their share in the total student population has exceeded 19%. This growth was the result of a combination of factors: the Czech Republic's accession to the European Union, the development of English-taught programmes, geopolitical events (especially the war in Ukraine) and the relative affordability of Czech higher education. The analysis revealed a three-phase growth dynamic: an expansionary period (2001-2010), a stabilisation phase (2011-2019) and a phase affected by external shocks (2020-2024), characterised by a significant increase in Ukrainian students and a decrease in students from Russia.

The structure of international students has undergone a significant change. While Slovaks remain the largest group (41% in 2024), their relative share has fallen from the original 67% in 2004, reflecting the increasing diversification of source countries. Significant increases were recorded for students from Ukraine (12% in 2024), India, Kazakhstan and other countries, while the number of Russian students decreased significantly after 2022 due to geopolitical tensions. This change confirms the sensitivity of student mobility to global events and the ability of Czech universities to respond to new challenges. Research on regional distribution shows a strong concentration of international students in Prague (24%) and Brno (25%), where public universities with a wide range of programmes and international prestige hold a dominant position. Smaller cities, such as České Budějovice, show lower absolute numbers but higher national diversity. The diversity index has shown that a high number of international students does not necessarily correlate with their diversity - for example, in Brno, Slovaks make up 61% of international students, while in České Budějovice the diversity index reaches 0.949 due to a more equal representation of students from different countries.

Institutional preferences confirmed the dominance of public universities, which host 90% of international students. The key role is played by Charles University, Masaryk University and CTU. Private schools (9.7% share) have a smaller presence, with typical English-taught programmes, but their capacity is limited by higher costs and lower reputation. A key finding is that language policy and internationalisation strategies directly influence the structure of international students – while public schools attract mainly Slovak students, private institutions target the global market.

The impact of these trends is not negligible. Foreign students can contribute to the growth of the economy, and can also partially compensate for the demographic decline if they decide to stay in the Czech Republic after graduation. They also strengthen the international image of the Czech Republic. However, they also generate challenges in the form of language barriers, capacity congestion in large cities and cultural homogenisation in some regions. While diversification of source countries increases the resilience of the system, it requires a flexible approach to integrating and supporting students from different backgrounds.

The main contribution of this study lies in showing that the internationalisation of Czech higher education is not a uniform process: numerical growth in international student enrolment does not necessarily translate into greater nationality diversity, and distinct spatial and institutional profiles of internationalisation can be identified across university cities.

In the future, it will be important to strengthen language training and expand targeted support – for example, through scholarships – especially for students from non-European countries where barriers to entry into the Czech higher education system are higher. Strengthening regional centres remains an important challenge, as their greater involvement could reduce the current concentration of foreign students in a few cities. At the same time, it is necessary to continuously monitor geopolitical developments and create adaptation mechanisms in case of sudden changes in migration flows. Czech higher education has a strong position in the Central European area, but its further development will depend on the ability to balance the growth in the number of international students with the quality of educational and support services. Therefore, internationalisation should be seen not only as a means of increasing statistics, but above all as a thoughtful tool for cultural openness, academic cooperation and strengthening institutional competitiveness.

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