

INTERNATIONALIZATION OF POLISH HIGHER EDUCATION IN THE CONTEXT OF DEMOGRAPHIC CHALLENGES. SELECTED ASPECTS

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Purpose: This article addresses selected aspects of internationalization of higher education (HE) in Poland in the context of demographic changes. The purpose of it is to analyze the dynamics of the number of foreign students studying at Polish Higher Education Institutions (HEIs) and their structure by type of HEI, field of study and origin.

Design/methodology/approach: A review of the literature on the subject and desk research with reference to data from the Statistics Poland were used. The analysis, covered the years 2004-2020, was based on selected methods of descriptive statistics.

Findings: Between 2004 and 2020, the number of foreign students increased almost 10-fold. The average growth rate in the analyzed time series was 15.2% for the group of HEIs and 21.5% for non-public HEIs. The choices of foreign students most often group fields of study in the areas of social sciences, economy and medicine. There has been an increase in interest in studies in technology and services, while there has been a marked decline in fields of study related to the humanities and education.

Research limitations/implications: The demographic perspective adds a new dimension to the issues of growth and development of HEIs, that is why this issue involves further in-depth analysis.

Practical implications: Despite the apparent positive change with regard to the number of student-foreigners studying at Polish HEIs, this statistic, compared to other European countries, is still unsatisfactory. In the face of projected further unfavorable demographic trends, countries with positive natural increase and younger age structures, become an opportunity to compensate for the loss of Polish students. Efforts by the entire HE sector are needed to seize these opportunities. It is necessary to further correlate sectoral policies — HE with population, foreign and social policies. HEIs should improve processes related to caring for the broader relationship with foreign students.

Originality/value: The paper is addressed to all interested in HE policy. The study should be seen as a contribution to the existing discussion in the issue of growth and development of HEIs.

Keywords: higher education, higher education institutions, internationalization, demography.

Category of the paper: research paper.

1. Introduction. Transformation in the higher education sector

It is estimated that higher education in Poland is one of the fastest developing areas of social life. After 1990, it underwent significant quantitative as well as institutional transformations, which primarily include the establishment of non-public higher education institutions (HEIs) and the creation of opportunities for part-time education. The last decade of the 20th century and the first five years of the 21st century were characterized by a very high momentum in the establishment of HEIs, and consequently an increasing number of students. After 2005, this momentum has clearly weakened (figure 1), which has to do with unfavorable demographic trends — a declining population of the age nominally assigned to the higher education level (figure 2) and the exhausting needs of working people to improve their professional skills by gaining higher education.

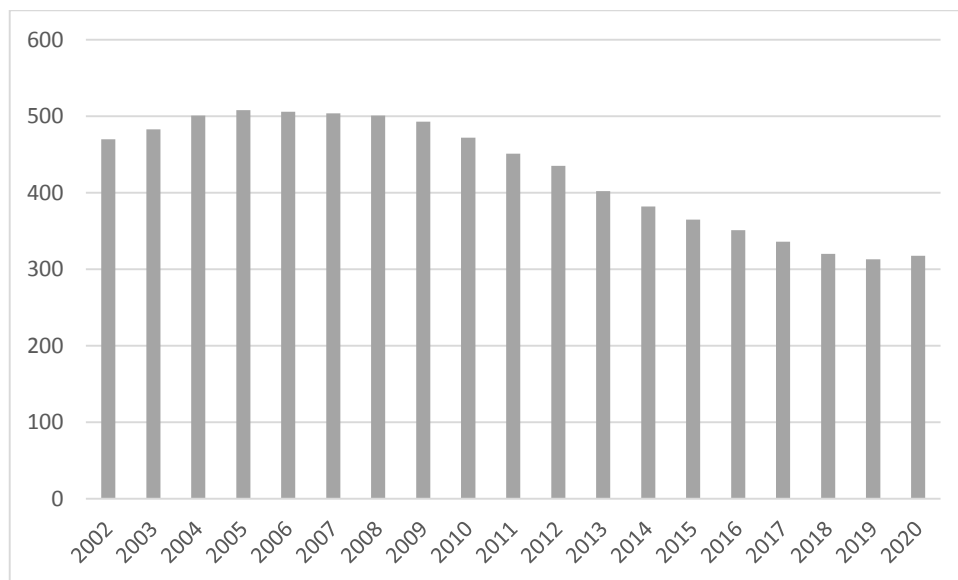


Figure 1. Number of students per 10,000 population in Poland in 2002–2020.

Source: own elaboration based on BDL.

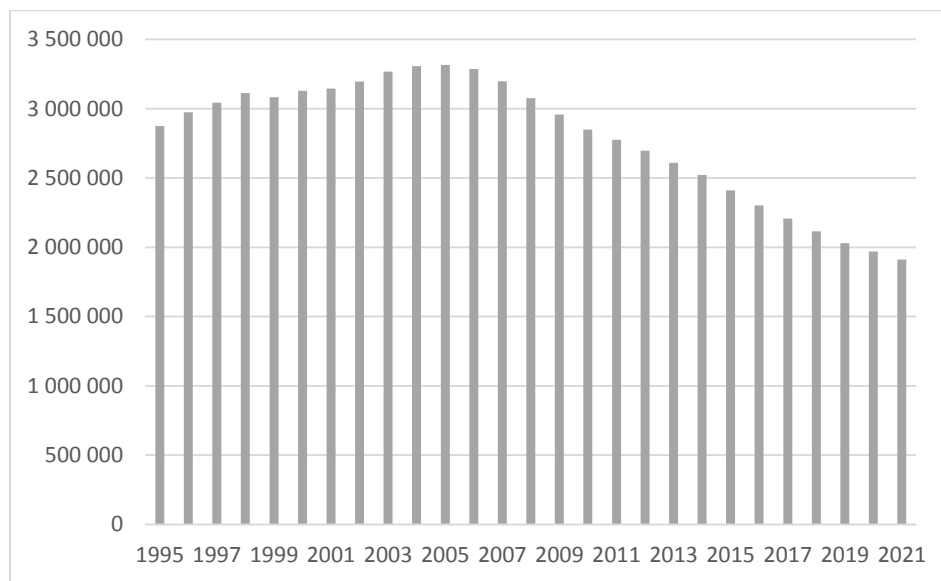


Figure 2. Population of people aged 20–24 between 1995 and 2021.

Source: own elaboration based on BDL.

After a period of dynamic growth and development, the present is a period of constant questioning about the direction of transformation in the Polish higher education system, both in terms of the educational model and the processes of HEI management¹ — which is reflected, i.a., in changes in legal basis and institutional governance. This is primarily related to the demographic conditions already mentioned (which was more visible in non-public sector), insufficient state expenditure on science and higher education funding² and the challenges to the education process posed by the labor market under conditions of globalization, the knowledge economy and the information society.

The scale and strength of the impact of the demographic decline on higher education is often referred to as a demographic tsunami (e.g.: Antonowicz, Gorlewski, 2011). On the other hand, period of HEIs development in the last decade of 20th century, due to favorable demographic trends, is often referred to as “the Polish educational miracle” (Anielska 2022, p. 14).

Since 1989, Poland has seen a continuous decline in the total fertility rate (below the level guaranteeing simple generational replacement), resulting in unfavorable changes in the structure of the biological and economic age groups of Polish society. Since 2006, there has been a declining population of people aged 20–24 (figure 2), and according to the Statistics Poland demographic forecast, this number will decrease further by nearly 58,000 in 2035 compared to 2021 (GUS, BDL).

¹ The discourse around the concept – the Humboldtian model of higher education vs. the entrepreneurial university model of B. Clark.

² The share of public expenditure on higher education in GDP in Poland in 2005 was at the level of 0.99%, in 2010: 0.71%, in 2015: 0.72%, and in 2018: 1.0%.

Opportunities to minimize the negative impact of the demographic decline in Polish higher education are seen in the influx of students from abroad (i.a.: Domański 2017, p. 67; Kubiciel-Lodzińska 2014, p. 135). The demographic perspective adds a new dimension to the issues of growth and development of HEIs due to the observed general increase in global migration movements and related processes. The changing patterns of social behavior are also not without significance — successive generations are characterized by increasing openness to new phenomena and ease of networking and functioning in global networks of social links.

This article addresses selected aspects of internationalization of higher education in Poland in the context of demographic changes. The purpose of it is to analyze the dynamics of the number of foreign students studying at Polish HEIs and their structure by type of HEI, field of study and origin. The analysis covered the years 2004-2020 — a time series that allows observation of long-term trends. In the article a review of the literature on the subject (including available reports) and desk research (with reference to data from the Statistics Poland) were used. The analysis was based on selected methods of descriptive statistics.

2. Institutional aspects of internationalization of higher education in Poland

Internationalization of higher education according to B. Siwińska (2016, p. 39) — an expert in this field — is the purpose, function and mode of operation of institutions in this sector characteristic of operating in a globalized world. Processes that have been natural to businesses for a number of years now are slowly becoming a component of the growth and development of HEIs. They are also an increasingly important element of public policies in higher education and science in the broadest sense. Individual countries are developing strategies and programs to attract international students. What is apparent in this “market” is the strong concentration of the effects of these activities — 40% of foreign students are hosted by a total of four countries: Australia (a country with one of the highest rates of internationalization of studies), Canada, the United Kingdom and the United States (Fundacja Edukacyjna Perspektywy, 2021, p. 8).

One form of internationalization is the internationalization of educational programs — teaching in foreign languages (by native and foreign lecturers) and educating foreign students. The benefits of these processes are multifaceted and unquestionable (table 1).

Table 1.*Benefits of internationalization of higher education programs*

For the country hosting foreign students	For the HEI hosting foreign students
<ul style="list-style-type: none"> - filling shortages and enrichment of resources (supply) in the internal labor market - penetration of cultural patterns and increase in social competence of residents - increase in the level of innovation (penetration of knowledge, technology) - financial benefits (consumer spending of foreign students) - dissemination of a positive image of the country in the foreigner's country 	<ul style="list-style-type: none"> - image benefits - financial benefits (a source of revenue³ and a "bonus" in the basic grant algorithm for the so-called internationalization component⁴) - positive impact on the quality of education (stimulation of foreign language learning, internal competition, the need to improve internal processes) - development of social skills (in students, academic staff, administrative staff) - participation in international research project

Source: own elaboration.

The chief government administration body responsible for implementing policies related to the education of foreigners at Polish HEIs is the Minister of Higher Education and Science. The stimulation of internationalization processes in education was and is evident in various development strategies and programs (*explicit* and *implicit*), i.a.: "Strategy for Responsible Development until 2020 (with an outlook until 2030)", "Polish Foreign Policy Strategy 2017–2021", "Long-term Development Cooperation Program 2016–2020" and "Government Program for Cooperation with Poles and Polish Community Living Abroad in 2015–2020", "Human Capital Development Strategy 2030" (which aims to increase the percentage of foreigners studying in Poland in 2030 to 12.2%⁵).

Currently, the key entity supporting the processes in question is the Polish National Agency for Academic Exchange (Narodowa Agencja Wymiany Akademickiej, NAWA), established in 2017, which replaced the Bureau for Academic Recognition and International Exchange (established in 1999). The need to establish NAWA arose from the lack of an institution that would implement a comprehensive long-term state policy in support of individual academic mobility aimed at increasing academic and research potential, as well as support the development of HEIs in internationalizing their educational offerings and promoting Polish higher education abroad (Najwyższa Izba Kontroli, 2020, p. 18). As we read in the agency's action plan for 2021–2027, its activities are aimed at (Narodowa Agencja Wymiany Akademickiej, 2021a, p. 4):

- strengthening international cooperation of scientists from Polish HEIs and scientific institutions,
- strengthening international cooperation of Polish HEIs and scientific institutions,
- increasing the number of outstanding foreign students at Polish HEIs,

³ In some countries, hosting foreign students is even becoming a separate industry (Bień, 2018, p. 1).

⁴ The component was introduced in the 2016 grant algorithm, and is calculated based on, i.a.: the number of foreign students, the number of foreign doctoral students, the number of foreign students receiving scholarships from the Polish National Agency for Academic Exchange.

⁵ Area: Human Capital, Objective 1: Increase the level of competence and qualifications of citizens, including digital competences.

- disseminating information about the Polish system of higher education and science,
- expanding the international community of people familiar with the Polish language and culture.

In the context of the directions formulated in this way, NAWA is part of the system of support for the development of Polish HEIs and scientific units, interacting with government administration, as well as with the National Science Center, the National Center for Research and Development, the Foundation for Polish Science, the Łukasiewicz Research Network, the Foundation for the Development of the Education System and other entities working for the development of science and higher education (Narodowa Agencja Wymiany Akademickiej, 2021b, p. 6).

The drive to intensify internationalization processes is also evident in the strategic documents of Polish HEIs — strategies, the preparation and implementation of which have been the responsibility of HEI rectors since 2011. Among the strategic goals and actions of Polish HEIs we find: increasing the participation of foreigners in education and research processes, increasing the number of foreign-language education programs or introduction of “double degree” programs. HEIs seek international certifications and prestigious accreditations (for example, in the case of business schools: EQUIS European Quality Improvement System, AACSB (Association to Advance Collegiate Schools of Business) or AMBA (Association of MBAs). It also happens that strategies/programs in this area are developed at the level of organizational units of HEIs (e.g. “Strategy for internationalization of the Faculty of Political Science at Marie Curie-Sklodowska University in 2016–2021”).

An example of an initiative born out of the academic community's sense of the need for joint action on the internationalization of Polish HEIs is the Association of Polish Universities for Internationalization, founded in 2017. The Association's activities are aimed at (Stowarzyszenie na Rzecz Internacjonalizacji Polskich Uczelni, <https://apui.edu.pl/pl/statut/>):

- conducting activities aimed at internationalization of HEIs,
- inspiring and assisting HEIs in the process of development of international exchange of students and academics,
- promotion of Polish HEIs outside Poland,
- participation in building a European and global knowledge-based society,
- integration of the academic community and cooperation in building academic mobility strategies by HEIs,
- acting for the development of higher education,
- conducting activities for the education of the student as a citizen with a broad international and intercultural experience.

3. Dynamics of change in the number of foreign students

Observation of the share of foreign students in the total number of students (Figure 3) indicates an increasing interest in Poland as a place to study and, at the same time, is a result of ongoing public activities and the activation of Polish HEIs in this area.

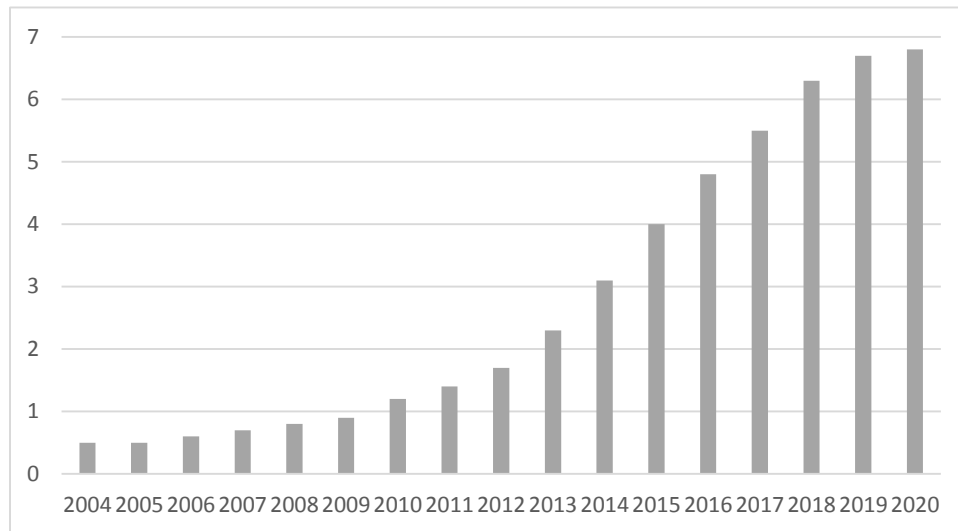
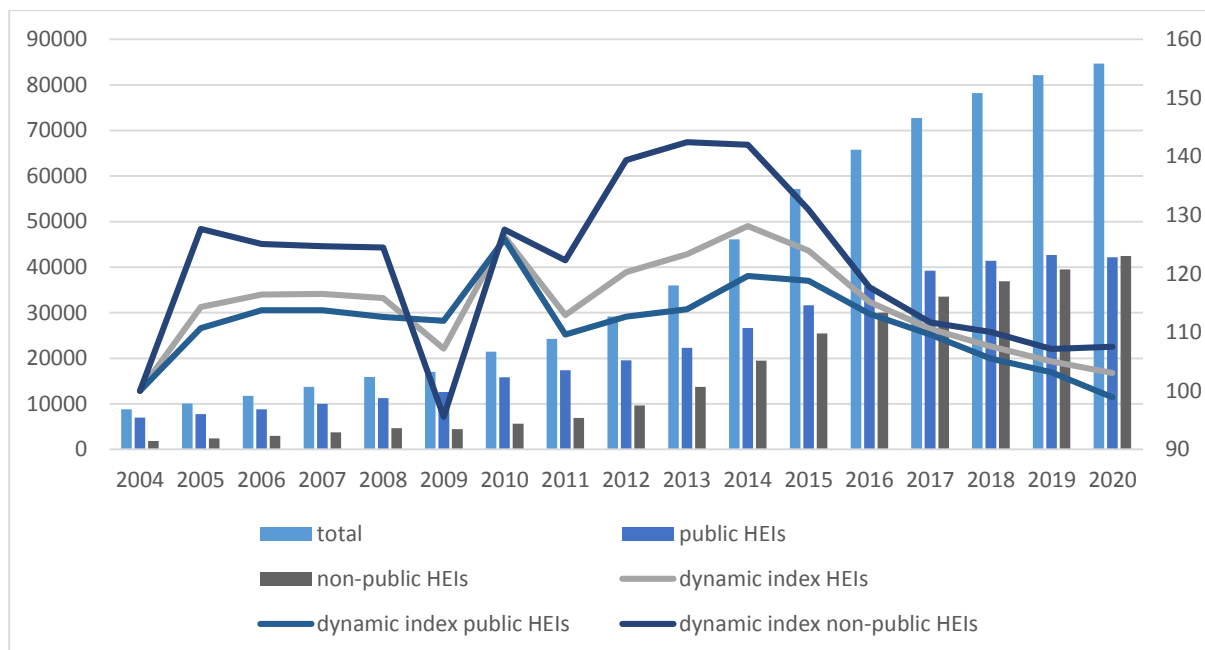


Figure 3. Percentage of foreign students studying at Polish HEIs in 2004–2020 (%).

Source: own elaboration based on BDL.

Between 2004 and 2020, the number of foreign students increased almost 10-fold (figure 4). At the same time, globally it has slightly more than doubled (from 2.8 million to 6.1 million). Among the reasons why student-foreigners are increasingly willing to choose education in Poland are (in their opinion): high quality of education, diverse educational offerings, willingness to learn a new culture, international recognition of Polish diplomas, and good career prospects after studies (Stasiak, p. 9).



* Chain dynamics index.

Figure 4. Number (left axis) and dynamics of change* (right axis) of foreign students in Poland by public and non-public HEIs in 2004–2020.

Source: own calculations and elaborations based on: Główny Urząd Statystyczny, 2005, p. 56; Główny Urząd Statystyczny, 2006, p. 176; Główny Urząd Statystyczny, 2007, p. 172; Główny Urząd Statystyczny, 2008, p. 168; Główny Urząd Statystyczny, 2009, p. 223; Główny Urząd Statystyczny, 2010, p. 233; Główny Urząd Statystyczny, 2011, p. 239; Główny Urząd Statystyczny, 2012, p. 241; Główny Urząd Statystyczny, 2013, p. 121; Główny Urząd Statystyczny, 2014, p. 123; Główny Urząd Statystyczny, 2015, p. 117; Główny Urząd Statystyczny, 2016, p. 123; Główny Urząd Statystyczny, 2017, p. 119; Główny Urząd Statystyczny, 2018, p. 148; Główny Urząd Statystyczny, 2019, p. 131; Główny Urząd Statystyczny, 2020, p. 98; Główny Urząd Statystyczny, 2021, p. 46.

Interestingly and noteworthy — by far the better results are observed in the group of non-public HEIs. In 2004, only slightly more than 20% of all foreigners studying in Poland were educated at non-public HEIs, and 16 years later the statistic amounted to more than 50%. In 2020, among the 50 HEIs with the largest number of foreign students, 25 were public HEIs (in this group, the largest number of foreigners studied at Jagiellonian University and Warsaw University, and the largest percentages were at Nicolaus Copernicus University and University of Opole) and the same number of non-public HEIs (in this group, the largest number of foreigners studied at the Vistula University in Warsaw and the largest percentage was at the University of Information Technology and Management in Rzeszów). The average growth rate⁶ in the analyzed time series was 15.2% for the group of HEIs and 21.5% for non-public HEIs.

Despite the apparent positive change with regard to the number (percentage) of student-foreigners studying at Polish HEIs, this statistic, compared to other European countries, is still unsatisfactory. Poland is still one of the least internationalized countries in the European Union and the OECD. According to OECD data, among the leading European countries in 2019 are: the UK, Austria, the Czech Republic and Hungary (OECD, 2022).

⁶ Average rate of change for chain indexes in 2004–2020.

4. Directions of education of student-foreigners

The factors that prospective students consider when choosing a foreign HEI are primarily its program offerings, tuition fees, scholarship assistance⁷, the complexity of the admissions procedure, and the possibility of pursuing further education or obtaining a job during and after graduation. Students' motivations for studying at a foreign HEI vary depending on their country of origin, field of study and educational cycle. Different types of HEIs and fields of study are characterized by varying "susceptibility" to internationalization processes — from very high in the sciences and medical sciences to relatively low in the legal sciences.

The structure of student-foreigners by groups of fields of study in selected years from the adopted time series is presented below (figures 5⁸ and 6⁹). The choices of foreign students most often group fields of study in the areas of social sciences, economy and medicine. There has been an increase in interest in studies in technology and services, while there has been a marked decline in fields of study related to the humanities and education. In 2020, the largest number of foreigners studied management, medicine and computer science (respectively: 15.9%, 9.0%, 7.6% of total foreigners at Polish HEIs).

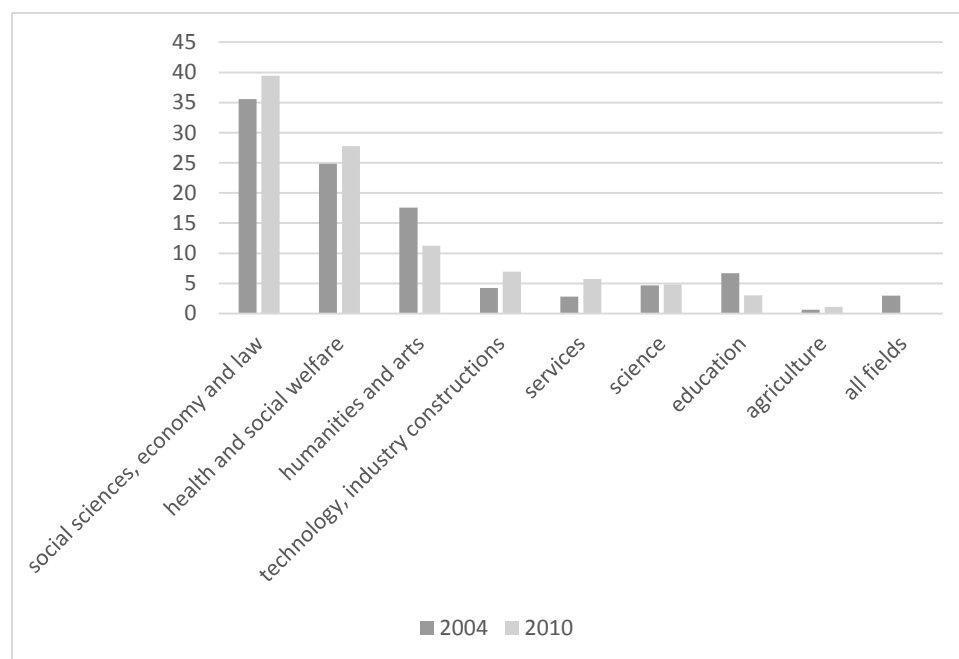


Figure 5. Structure of student-foreigners by groups of fields of study in 2004 and 2010 (%).

Source: own calculations and elaborations based on: Główny Urząd Statystyczny, 2005, pp. 56-57; Główny Urząd Statystyczny, 2011, pp. 240-241.

⁷ In Poland foreign students can apply for, i.a., a resettlement allowance for the first year of study and an allowance for the preparation of a thesis.

⁸ In 2010, no data were available for the "all specialties" group.

⁹ In 2013, the international classification of fields of study (ISCED 2013) changed, therefore data for 2020 is presented in a separate figure.

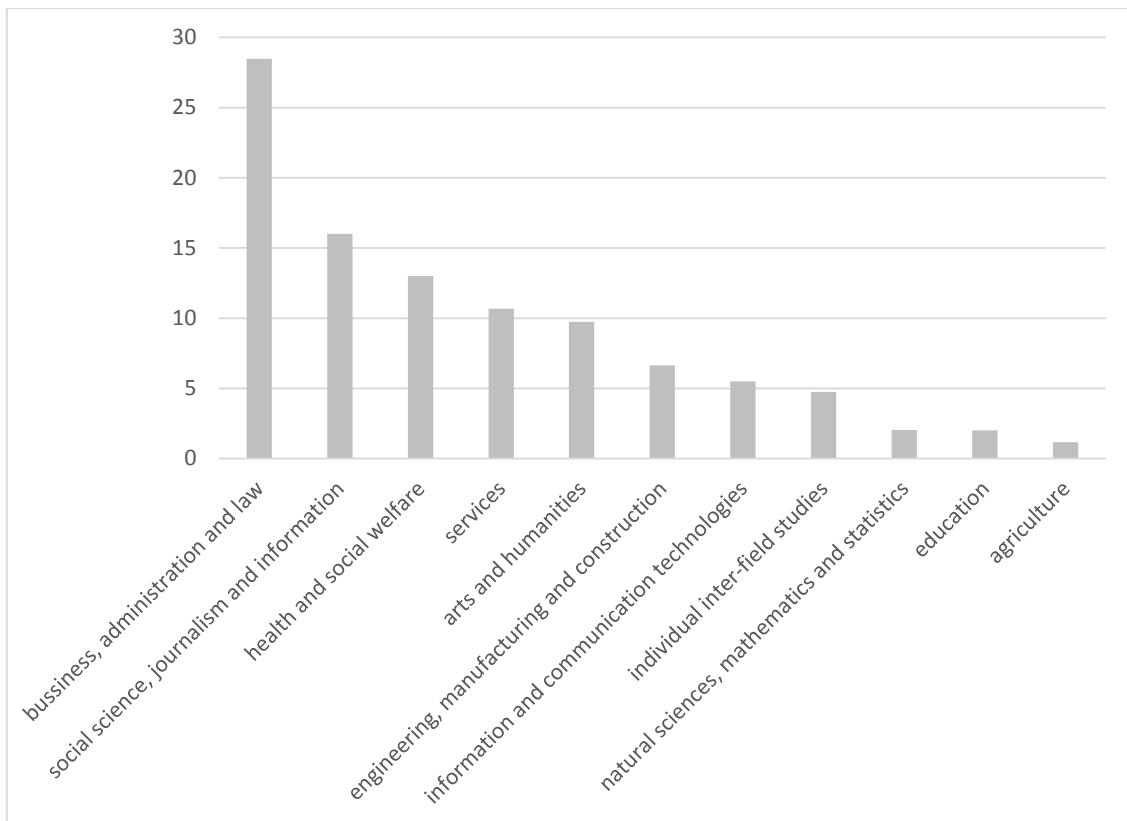


Figure 6. Structure of student-foreigners by groups of fields of study in 2020 (%).

Source: own calculations and elaborations based on: Główny Urząd Statystyczny, 2021, pp. 47-48.

A phenomenon worth noting is the clear interest of certain nationalities in certain fields of study. For example, medicine in Poland is most likely to be chosen by Swedes, students coming from the United States, Norway and Germany.

Related to the choice of the field of study by a prospective foreign student is the decision regarding the type of HEI. Table 2. presents the structure of student-foreigners by type of HEI in selected years from the analyzed time series¹⁰. In this case, however, the analysis, due to institutional transformations in higher education (changes in the academic status of certain HEIs, consolidation processes or changes in their profiles), is hampered. In addition, the assignment of HEIs to a particular type is based on its declaration in the reporting year and the current classification of the Ministry of Higher Education and Science. Therefore, it should be assumed that the results presented are illustrative.

The largest increase in the percentage of students is observed in the examined time series for the group of so-called other HEIs (22.05 pp), economic HEIs (9.46 pp) and technical HEIs (3.76 pp). Universities and medical universities, on the other hand, have seen the largest decline (respectively: 18.83 pp and 10.80 pp).

¹⁰ Due to the change in 2019 in the classification of HEIs in Statistics Poland data, for comparable data, 2018 was chosen for analysis instead of 2020.

Table 2.*Structure* of student-foreigners by type of HEI** in: 2004, 2010, 2018 (%)*

Type of HEIs	2004	2010	2018
universities	41.10	29.95	22.28
academies of economics (higher schools of economics)	15.71	15.68	25.17
technical universities (higher schools of technology)	8.31	9.11	12.07
medical universities	20.61	23.75	9.81
agricultural academies (higher schools of agriculture)	2.96	2.28	2.16
higher teacher education schools (higher schools of pedagogy)	1.09	0.78	1.84
fine arts academies (higher schools of art)	2.25	1.78	1.25
maritime universities	0.25	0.58	0.51
physical academies	0.63	0.51	0.45
theological academies (higher schools of theology)	1.99	0.66	0.28
other higher education institutions	5.08	14.91	24.16

*Due to the rounding adopted, the structures do not add up to 100.

** In parentheses is the name of the type of HEI used by the Statistics Poland for the data presented in 2018.

Source: own calculations and elaborations based on: Główny Urząd Statystyczny, 2005, p. 56; Główny Urząd Statystyczny, 2011, p. 240; Główny Urząd Statystyczny, 2019, p. 131.

These results correspond with the results of the analysis of the number of students studying at public and non-public HEIs. While in 2004, almost 80% of foreign students studied at public HEIs (including universities, medical universities), in 2020, it was at non-public HEIs that the most foreign students studied (50.17%), whose domains include economics and management-related fields of study.

5. Origins of student-foreigners

Polish HEIs most often host young people from Europe (table 3), mainly Ukraine and Belarus. This phenomenon is observed throughout the time series. Prospective markets are students from Africa and Asia¹¹ (increase of 2.78 and 1.26 pp in structure, respectively).

In 2020, Polish HEIs educated students coming from 189 countries, with a high concentration visible (almost 75%) of foreign students come from 9 countries (Ukraine, Belarus, India, Turkey, Norway, Germany, China, Kazakhstan, and Russia). This phenomenon is even more pronounced in the case of BA/BSc studies. In this case, 75% of student-foreigners come from 4 countries: Ukraine, Belarus, India, and Turkey (Study in Poland, 2021, p. 4.).

¹¹ According to OECD data, Asians account for the largest number of international students (Ośrodek Przetwarzania Informacji – Państwowy Instytut Badawczy, 2021, p. 2).

Table 3.*Structure* of student-foreigners according to the continent of origin in: 2004, 2010, 2020 (%)*

Continent	2004	2010**	2020
Europe	68.83	72.73	73.14
Asia	16.94	16.21	18.20
North and Central America	9.53	7.10	1.38
South America	0.64	0.44	0.53
Africa	3.92	3.38	6.70
Australia and Oceania	0.13	0.12	0.04

* Due to the rounding adopted, the structures do not add up to 100.

** In 2010 0.03% students-foreigners were described as „without citizenship”.

Source: own calculations and elaborations based on: Główny Urząd Statystyczny, 2005, p. 56; Główny Urząd Statystyczny, 2011, p. 240; Główny Urząd Statystyczny, 2019, p. 131.

A disturbing phenomenon is the significant decline in the number of students-foreigners of Polish origin¹², i.e., people who, regardless of their country of birth and knowledge of the Polish language, declare Polish origin, interest in Polish culture and Poland as the country of their origin. In 2004, the percentage of such students in the total number of foreigners studying in Poland was 42.9%. In 2010 and 2020, these statistics were respectively: 19.17% and 8.8%.

6. Conclusions

The internationalization of higher education has important positive effects on the educational system, but also on global and intra-state social processes. In a world of global processes, the “university without walls” has become a reality, and internationalization has become the standard of higher education. A fundamental dimension of the internationalization of higher education is the education of foreign students. However, one should not forget about other equally important dimensions, i.e., the mobility of Polish students and research and teaching staff or cooperation in the research field with foreign partners (which are not considered in this article).

Undoubtedly, the visible increase in the number of foreign students at Polish HEIs is an expression of systemic measures within the framework of public policy in higher education in general, as well as specific activities of Polish HEIs, which have included this area in their development strategies. Internationalization brings unquestionable benefits in terms of increasing the quality of education and the potential of HEIs (educational, research, organizational). However, it should be realized that these processes should be carefully planned and controlled, as they may also cause adverse effect and negative consequences (e.g. in case of non-fulfillment of foreign language requirements by students or lowering the examination requirements for them).

¹² Observed as early as 2001.

In the face of projected further unfavorable demographic trends, countries with positive natural increase and younger age structures, become an opportunity to somewhat compensate for the loss of Polish students. Further efforts by the entire higher education sector are needed to seize these opportunities. Within the framework of the broader state action, it is necessary to further correlate sectoral policies — higher education with population (especially migration), foreign and social policies.

HEIs should improve organizational processes related to caring for the broader relationship with foreign students (from promotion, recruitment, teaching process, administrative service to assistance related to job search after graduation). It is also worth underlining that establishing an organizational unit dedicated to serving foreign students is of course necessary, but not sufficient. This is because the awareness and effort of whole HEI community is needed to make the processes of internationalization a strategic and real direction of development.

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