NATIONAL AGENCY
for HIGHER EDUCATION
QUALITY ASSURANCE
(UKRAINE)

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NATIONAL AGENCY FOR HIGHER EDUCATION QUALITY ASSURANCE

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Foreword

NAQA Head Sergiy Kvit

NAQA Achivements and chalenges in 2020

To fulfill its mission and strategic goals, the National Agency for Higher Education Quality Assurance (NAQA) in 2020 continued working on improving the procedures of study programs accreditation, development of internal qualityassurance systems of higher education, of advisory work with stakeholders aimed at disseminating the best practices in educational activities.

During 2020 NAQA continued to develop native quality assurance system, in the face of new threats and challenges. In particular, the COVID-19 pandemic had changed both the approaches to the organization of the educational process in higher education institutions (HEIs) and the accreditation procedures. During this year was supplemented the unique information system — online-platform, where everyone is allowed to access all documents of accreditation cases, which certifies unprecedented transparency of NAQAs policy.

There is no such system in any country in the European higher education area (EHEA), maybe due to the presence of trust between institutions and in society itself. Instead, in modern Ukraine such openness is a necessity. Creation of the above- mentioned online-platform involved a strong donor support (in the amount of over 4 million UAH).

In addition, NAQA joined the project of creating an online-platform " Ukrainian portal of student surveys", which was also established without attracting budget funds. This resource provides an opportunity to conduct valid student surveys, regarding the quality of teaching and the quality of training courses. The functionality of this platform will be useful in establishing institutional accreditation and the development of internal quality assurance systems in HEIs.

During the reporting year, the National Agency actively worked on further entry of Ukrainian higher education into the processes and structures of the EHEA. In particular, NAQA become an associate member of The European Association for Quality Assurance in Higher Education (ENQA) and a full member of three more international organizations in the field of quality assurance and academic integrity:The International Network for Quality Assurance Agencies in Higher Education (INQAAHE), the Central and Eastern European Network of Quality Assurance Agencies (CEENQA) and the International Center for Academic Integrity (ICAI).

This year, NAQA has prepared its own Self-Assessment Report, according to international practice. These steps are necessary for the future recognition of Ukrainian accredited programs and documents on higher education in EHEA countries.

In order to receive expert support, advice and suggestions, an international Advisory Board was established. This Advisory board consists of prominent specialists in the QA field from different countries all over the world.

An important aspect of NAQA activity is our cooperation with the Committee on Education, Science and Innovation of the Verkhovna Rada of Ukraine. Within the context of this cooperation, were constantly discussed and formulated specific proposals for amendments to the legislation of Ukraine. Especially, NAQA has repeatedly stressed the need for state financial support for the accreditation of educational programs. The practice of state reimbursement of accreditation costs for universities is also common in EHEA countries. The initiative of the Committee on Education, Science and Innovation of the Verkhovna Rada of Ukraine, regarding creation of a separate budget program, which is dedicated to cover the cost of accreditation, should also be noted.

This path is very promising. It needs broad public support, focused efforts, not only by politicians, but also of the entire educational community. Another way tofinancially support HEIs is to create a competitive environment in the market of accreditation services, through the establishment of independent organizations that would also conduct accreditation.

In conditions of the COVI 19 pandemic, NAQA was the first in the world to start conducting accreditation remotely in spring 2020. This practice has been successful. The mandatory video recording of all online meetings, which contributes to the greater objectivity in decision-making, is also worth mentioning. Due to the large number of study programs, we made every effort to ensure that students were able to receive a diploma in time.

To adjust the work in the new conditions, new algorithms of interaction between the units of the National Agency, recommendations and regulatory documents, public discussions and training of all participants of the accreditation process, were developed.

The quality assurance agencies of a number of countries, including the United Kingdom and Saudi Arabia, had acknowledged the success of Ukraine's experience of remote accreditations and sought advice on this issue, as they only switched to them inthe autumn of 2020.

The efforts of the National Agency were noted, in the context, of monitoring Ukraine's implementation of the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and by their Member States, on the other hand (hereinafter referred to as the Association Agreement. The Ukrainian Center for European Policy highlights the significant success of the National Agency (quality assurance in higher education is third of the eight obligations for Ukraine), compared to non-fulfilment of other obligations for our state.

It is important to emphasize that NAQA activity has a great social significance and exactaddressees, meaning the interests of students, their families and the whole Ukrainian society, which needs real professionals, leaders and scientists. All these aspects of quality education are the national interests of Ukraine. As the NAQA mission is to be a catalyst for positive changes in higher education, we always focus our attention on the importance of a strategic view on the future of Ukrainian education.

On the one hand, the quality of higher education depends on the modern system of quality assurance, the achievements of the academic autonomy of the HEIs, includingthe development of an internal culture of quality, which is, actually, the responsibilityof the National Agency.

On the other hand, it is necessary to assure that the future educational policy of Ukraine is going to stick to the previously chosen concept of reforms related to the implementation of comprehensive university autonomy. The next step in this directionis to ensure full financial autonomy of Ukrainian HEI's, rejecting the practice of outside interference in university activities.

Another strategic direction in the field of quality assurance in higher education, which should be mentioned, is the integration of higher education and research, overcoming administrative barriers on the way of research development, changing state priorities to increase funding for higher education and science. Relevant changes in public policy and the understanding of the high value of such investments in the future of Ukrainiansociety should become a national priority.

It is unfortunate to note, that since June 2020, the cooperation between the National Agency and the Ministry of Education and Science of Ukraine (hereinafter - MES) has ceased to be effective. This manifested itself in the disintegration of efforts aimed at inclusion of higher education of Ukraine into EHEA. With the initiation of the Acting Minister of Education and Science Serhiy Shcarlet of the bill On Amendments to SomeLaws of Ukraine (ref. 1 / 12-3604 of 30.07.2020), literally, repeated attempts were made to liquidate the National Agency as an independent collegial body, turning it intoa central executive body.

The purpose of such actions is to interfere with NAQA activities, to limit its authority and, ultimately, deprive the Agency of institutional independence. It is noteworthy that the concept of quality assurance in higher education in the EHEA relies on the cooperation of relevant independent agencies and autonomous HEIs,which are independent in making important responsible decisions.

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The attempts of theMinistry of Education and Science to limit university autonomy and preserve the practice of manual control are disturbing. For example, an attempt to

leave the functions of awarding scientific degrees to the Higher Attestation Commission. Such actions contradict the Association Agreement.

In fact, the National Agency was established to implement the Law of Ukraine On Higher Education (2014) and operates in the framework of standards and guidelines ESG-2015, which became part of the Association Agreement and identifies ways to implement the declared in the Preamble of the Constitution of Ukraine, the European and Euro-Atlantic course of our state.

In accordance with Annex II to the Association Agreement, the Recommendations of the European Parliament and of the Council of 15 February 2006 on further cooperation in the field of quality assurance in higher education(2006/143/) became mandatory for Ukraine. The recommendations require the signatory states to establish independent and reliable quality assurance agencies, with a purpose of their further inclusion in the relevant register (EQAR) and in accordance with the European Standards and Guidelines for Quality Assurance (ESG) developed by the European Network of Quality Agencies (ENQA).

In response to the above-mentioned steps of the Ministry of Education andScience, on September 29, 2020, ENQA President Christoph Grolimund appealed to the Chairman of the Verkhovna Rada of Ukraine and the Prime Minister of Ukraine to support the NAQA independence and preserve it's authority. On October 1, EQAR President Carl Dietrich addressed a similar letter to the Acting Minister of Education and Science of Ukraine. Also on November 5, the European Union of Students (ESU) published a Resolution on the activities of the Acting Minister of Education and Science, which, in their opinion, ignores Ukraine s European integration course, encroaches on the independence of the National Agency, ignores the opinion of higher education applicants and prevents students from NAQA membership, which also contradicts the guidelines of ESG-2015.

Finally, at the sixth meeting of theAssociation Committee between Ukraine and the European Union, held on November 13, 2020, the EU stressed that Ukraine must ensure the independence of the National Agency for Quality Assurance in Higher Education. There is every reason to believe that attempts to liquidate NAQA had a systematic approach. For example, on July 27, 2020 on the website of the National Academy of Pedagogical Sciences was published an Analytical Note On the prospects and problems of higher education in Ukraine. It stated: "In Ukraine there is an irrational and inefficient system of external evaluation of the quality of education.Currently, 1140 people work in this system, representing Ukrainian Centre of Education Quality Assurance, State Education Quality Service of Ukraine and National Agency for Higher Education Quality Assurance.

These organizations should be merged, and the members of this merged organization should be elected at the relevant congresses of educators and scientists. This, firstly, would increase the trust inthis body by the educational and scientific community, and secondly - would meet international requirements for such organizations"

It should be noted that all the judgments given in the quote are absurd. In fact, such

text was aimed to disorient Ukrainian society, regarding the state of affairs in the field of higher education and is designed to question the chosen path of development. Especially, the manipulative reference to international requirements.

In confirmation with the existing policy of determined discreditation of the modern European accreditation system, on August 4, during a press briefing on the modernization of the quality system of higher education, a number of false allegations and manipulative accusations were made against the National Agency.

Then, on August 13, the so-called message from educators-patriots was published on the MES website and social networks on behalf of the Council of Vice- Rectors for Research of Higher Education Institutions and directors of Scientific Institutions, which is a permanent advisory body of the MES. In an attempt to discredit the raft of the Procedure of Awarding degrees, which was already agreed with the working group of the Academic Council and put up for public discussion, the "educators-patriots spread completely false information of NAQA plans to gain a profit from it. In response, NAQA made its own statement in which it denied these unsubstantiated allegations.

It is unfortunate that instead of constructive cooperation, new MES team representatives addressed the NAQA activities with such manipulative publications in the press. However, it is still unclear whether they deliberately misled the mass audience or simply did not have a full understanding of what they were saying.

Attempts to vulgarize the concept of quality assurance in higher education (identified with examination) seemed odd. Specifically, it was claimed that the idea of NAQA was "put forward" in 2014, based on the recommendations of foreign think tanks and also the outrage was expressed to the fact that yet NAQA has not issued any permission to other legal entities for such work. In the process of questioning the NAQA authority, even the number of words in the relevant articles of the Law on Higher Education and the NAQA Charter was compared. Although, for some reason, theESG-2015 guidelines were not mentioned anywhere.

The need for institutional independence of the National Agency was repeatedly demagogically denied, deliberately false allegations of NAQA collecting extra fundswithout return were spread, such as paying twice for expert trips. The National Agencywas even required to report for 2016, 2017 and 2018 years, although the Agency actually started working in early 2019, after the approval of its composition by the Order of the Cabinet of Ministers of December 27, 2018, № 1063-p.

In addition, the members of a new MES team claimed that despite the quarantine and without the opportunity to be physically present at the accreditation procedures, the price for accreditation of educational programs had not changed, which did not correspond to reality. Also, in their opinion, the ESG-2015 guidelines for accreditation of educational programs, implemented by NAQA are not totally different from the practices used earlier in Ukraine. And it is not a complete list of manipulations being made. All of the mentioned above led to the "freezing" of the necessary workflow.

Speaking about the false accusations against the National Agency about it not "authorising" other institutions to conduct accreditation and the claims that independent higher education evaluation and quality assurance institutions, which do not currently exist, should provide accreditation services, I would like to note that the relevant regulations should be approved to establish such agencies.

Thus, on April 15, 2020, the Ministry of Education and Science, at the request of the National Agency, submitted for public discussion a draft of the Regulation On accreditation of independent institutions for evaluation and quality assurance of higher education. This regulation could already be put into action, if the Ministry of Education had not stopped communicating with the National Agency regarding the development of national legislation in this area of quality assurance in higher education. The Ministry put the regulation on hold, therefore, independent institutionsfor the evaluation and quality assurance of higher education in Ukraine still cannot be established.

The list of suspended documents should include a draft amendment to the RegulationOn accreditation of educational programs of the higher education applicants training" proposed by NAQA to the Ministry of Education for public discussion on February 10, 2020. As it has already lost its relevance, NAQA will submit a new draft amendment to the Regulation in early 2021.

NAQA also plans to submit to the Committee hearings (which had already been postponed twice due to the COVID-19 pandemic) a number of legislative proposals aimed at streamlining of accreditation procedures, improving higher education qualityassurance processes and enabling the preparation of institutional accreditation regulations, which will significantly increase the rights and opportunities of Ukrainian universities.

The most resonant normative document, the preparation of which is the responsibility of the National Agency is the "Procedure of revoking the decision of specialized scientific councils of awarding degrees". It was publicly discussed in April 2019 and was also reviewed by international colleagues. This project was already approved by the Ministry of Justice of Ukraine in July 2020, nevertheless, after a long period of correspondence, was also suspended by the Ministry of Education and Science.

Unfortunately, the MES not only does not clarify any of its own new (or updated) policies in the field of higher education, but also creates an atmosphere of ambiguity and chaos.

The only ministerial document of the last year that could be described as a strategic one, was the draft of the "Strategy for the Development of Higher Education in Ukraine for 2021-2031", which disappeared from sight of the educational community, after a public discussion in September 2020. This document was eclectic, it did not reflect the understanding of reforms in higher education and the approaches, which should be adopted to achieve this goal.

Trying to use pro-European rhetoric, the editors of the Strategy draft did not take into account the concept of comprehensive university autonomy, which is based on the

Law of Ukraine “On Higher Education” (2014). They demonstrated a misconception about how the system of quality assurance in higher education works inthe EHEA, in which direction the national legislation should be developed and why it is necessary to overcome the departmental nature of the so-called University science. In accordance with the established procedure, NAQA submitted its proposals to the Ministry of Education within the framework of the relevant working group activity and public discussion of this document.

The NAQA experience in upholding the principles of academic integrity during accreditation, in the public context and in the courts in 2020, led to the conclusion that modern Ukraine cannot dispense without a special law that would also contain some procedural norms. Therefore, the Agency developed a draft of the Law of Ukraine “On Academic Integrity”, which had already received positive feedback from experts of the National Academy of Legal Sciences and was submitted to the Committee on Education, Science and Innovation of the Verkhovna Rada of Ukraine.

After examining the experience of the first year of accreditation according to the principles of ESG-2015, the National Agency updated the Recommendations on the application of the criteria for assessing the quality of the educational program. Due to the certain problematic issues, the Recommendations for NAQA experts on accreditation of third-level educational programs, are to be improved. The results of NAQA accreditation activity proved that the increase in the number of third-leveleducational programs, which were accredited at the beginning of 2020-2021 academic year (before the beginning of the 2021 calendar year) led to an increase in positive decisions of the National Agency. The analyzed experience allowed us to understand that the accreditation of Ph.D. programs requires the development of new approaches to the methodological tools for the accreditation of the actual scientific component of Ph.D. programs.

In Ukraine, almost all HEIs that had such a desire had opened up structured post-graduate programs. On the contrary, EHEA countries have a demanding approach to determine which HEIs may have Ph.D. programs, to the presence of a critical mass of researchers, laboratory facilities, internationalization, evaluation of real scientific achievements, and so on.

Therefore, close cooperation of the National Agencywith the Ministry of Education and Science, the National Academy of Sciences of Ukraine and the Scientific Committee in this direction is crucial. Another problematic issue is the lack of attention to the research component in many university post-graduate schools and the corresponding mirror attitude to the educational component at the third level of education in the National Academy of Sciences ofUkraine institutes and branch academies.

Analysis of the development of the higher education system in 2020 showed that we should pay close attention to the necessity of synchronizing institutional cooperation, strengthen the position of Ukrainian higher education institutions in terms of increasing their real autonomy, self-management and social responsibility.

In my opinion, the implementation of the new approaches to quality assurance of higher education in Ukraine should be consistent with the opportunity for HEIs to capitalize their academic achievements, and consequently attract more resources for their development. The better the institution of higher education, the better it organizes the educational process, more solid it's capital of reputation — more resources it should get from different sources. Therefore, in addition to improving theapproach to the financing of higher education institutions, based on the analysis of their actual results, Ukraine should introduce full financial autonomy, should increase public funding of higher education and research, and open ways to attract private investments.

NAQA Head

Serhiy Kvit

REPORT ON THE QUALITY OF HIGHER EDUCATION IN UKRAINE

- Quantitative indicators of the Ukrainian higher education system development
- HEI s Internal Quality Assurance Systems
- Academic integrity: an internal and external view on the issue

PART 1.
Quantitative indicators of the Ukrainian higher education system development

1.1. Higher education institutes.

1.1.1. General figures

The number of higher education institutions is often the subject of many discussions, primarily related to the methods of their calculation and classification.

1251 institutions were represented in the Register of Entities of Higher Education Institutions of the Unified State Electronic database on Education (USEDE) in December 2020. 1089 of them belong to the category Institution of higher education, and 162 - to the category scientific institutes (institutions). The first category also contains of the following subgroups:

- universities, academies, institutes — 455 institutions;
- colleges, technical schools — 493 institutions;
- separate units — 140 institutions;
- other scientific institutions (organizations) — 1 institution.

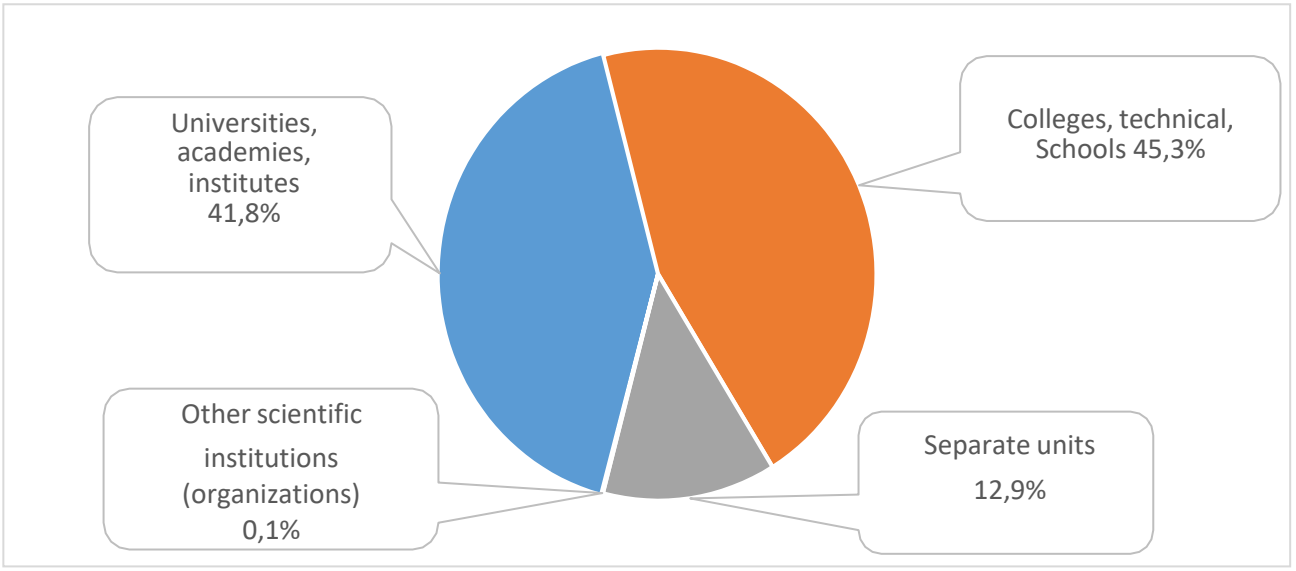


Fig. 1.1.1. Types of HEIs presented in the USEDE base

Institutions categorized in USEDE as HEIs by the form of ownership are divided into: 650 state-owned institutions, 344 private institutions, 94 communal and 1 institution of corporate ownership.

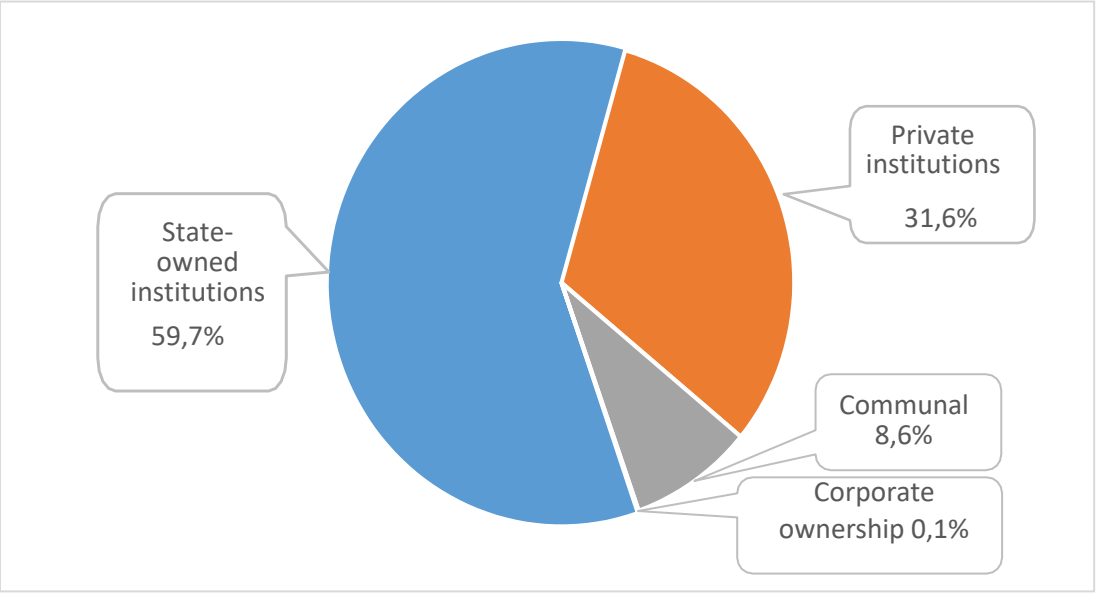


Fig. 1.1.2. HEIs by the form of ownership

The regional distribution demonstrates the concentration of the majority of higher education institutions in Kyiv, as well as Dnipro, Lviv, Odesa and Kharkiv region.(Fig. 1.1.3)

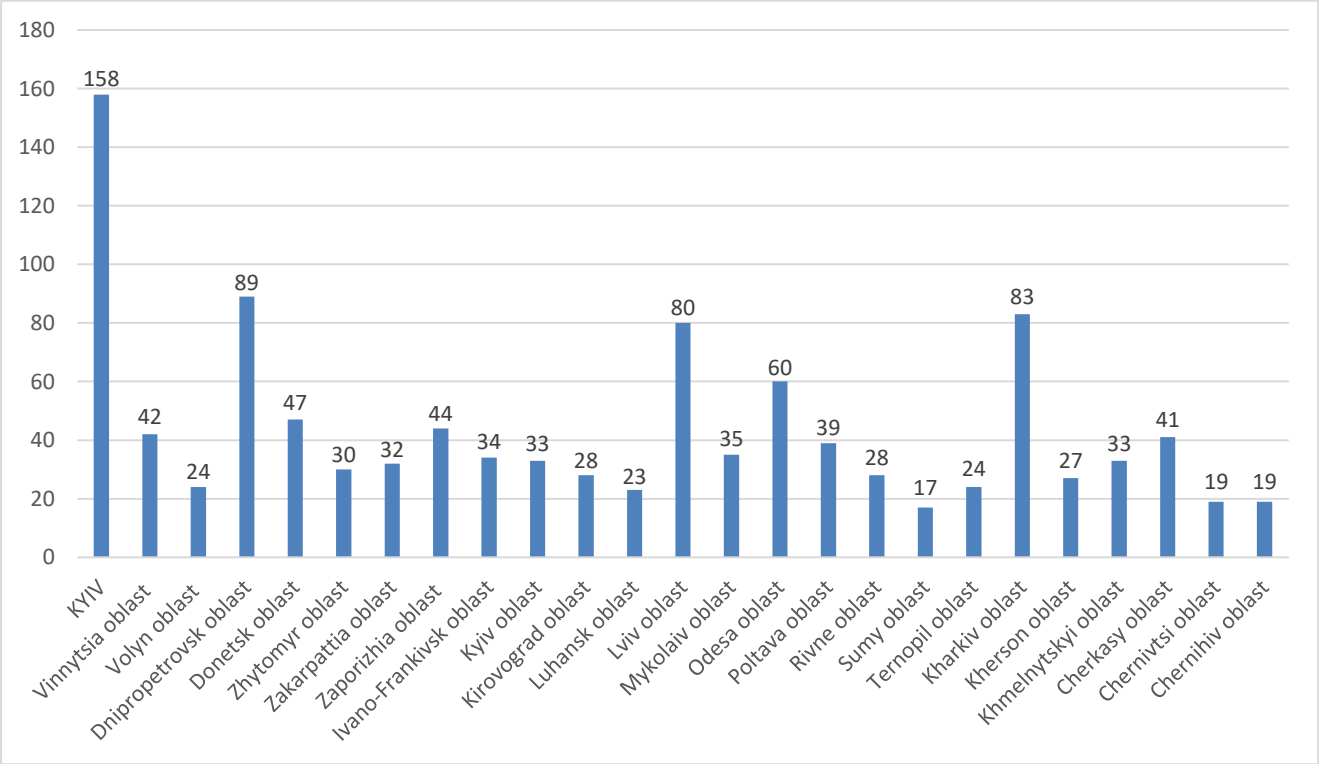
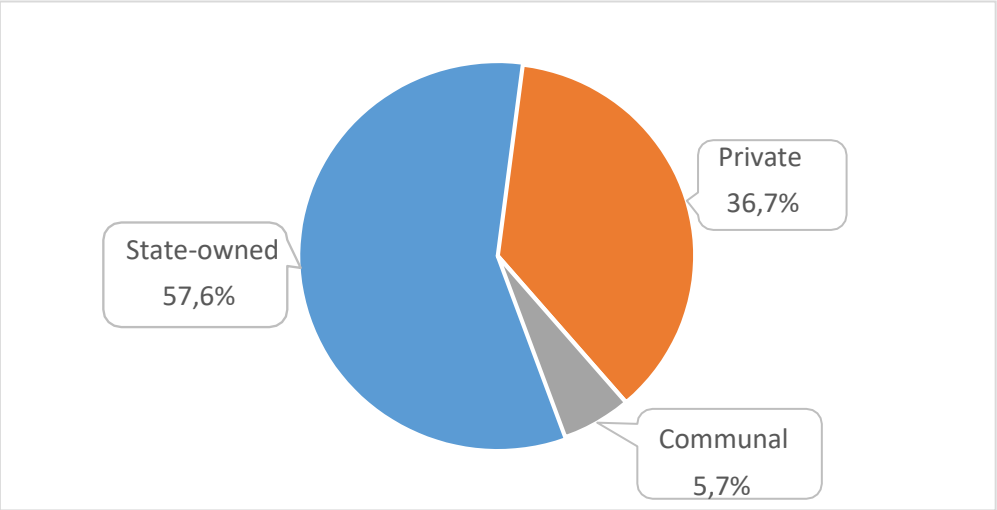


Fig. 1.1.3. Regional distribution

1.1.2. Universities, Academies, Institutes

This group consists of 455 institutions of higher education. Almost half of them are state-owned (262), more than a third of them are private (167) and 26 are communal.

Fig. 1.1.4. Universities by the form of ownership



The regional distribution of this group of HEIs is similar to the general distribution, leaders are: Kyiv, Dnipro, Lviv, Odesa and Kharkiv regions. More detailed analysis showed 5 cities, which are definite “university hubs”: Kyiv, Kharkiv, Lviv, Odesa and Dnipro.

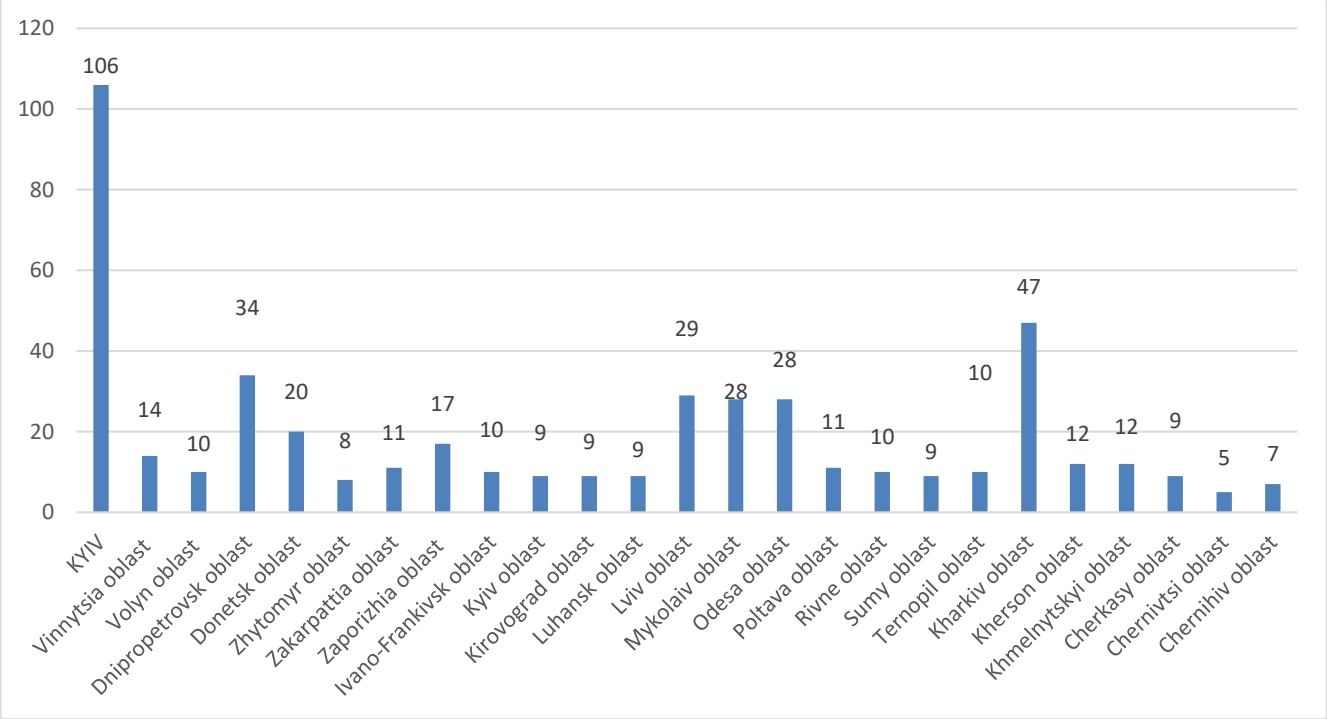


Fig. 1.1.5. Universities regional distribution

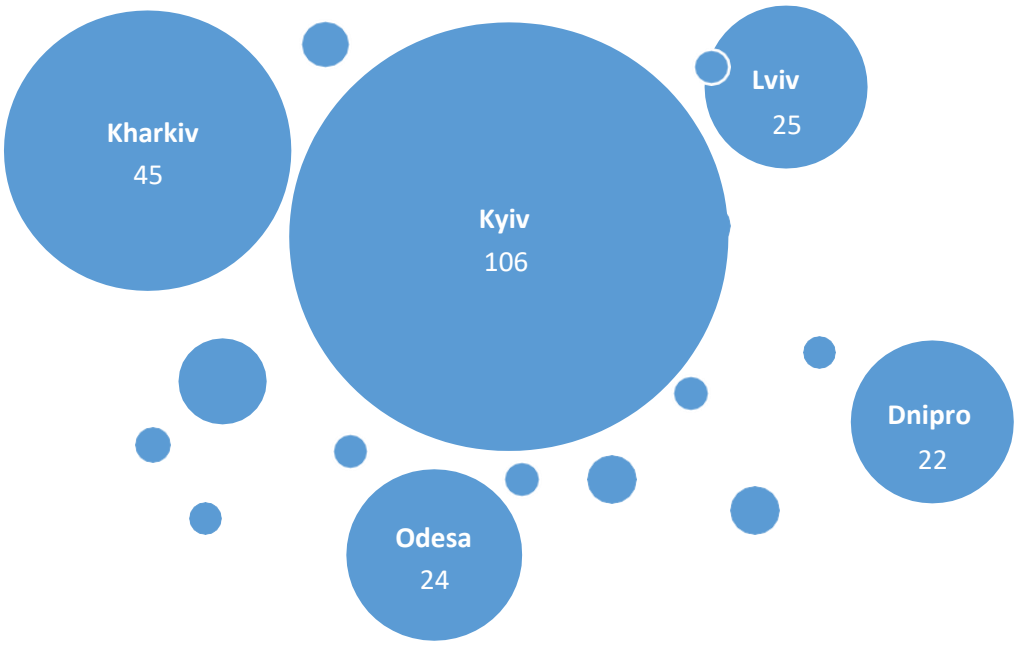


Fig. 1.1.6. The biggest university hubs

1.1.3. Separate structural units

There are 140 institutions marked as “Separate structural units” in USEDE base. The main part of this group is state-owned (80) and the others are private (60).

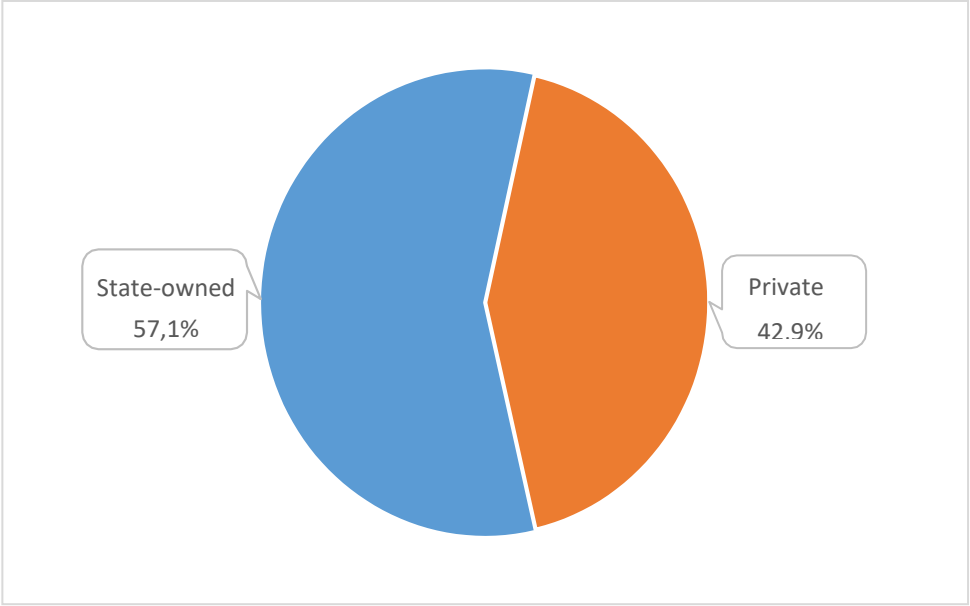


Fig. 1.1.7. SSU distribution by the form of ownership

Regional distribution: 1.1.8. Majority: (4 and more) are located in: Lviv (17), Vinnytsia(8), Zhytomyr (6), Mykolaiv (5), Zaporizhia (5), Bila Tserkva (4), Dnipro (4), Drohobych (4), Ivano-Frankivsk (4), Mariupol (4), Uzhhorod (4), Cherkasy (4).

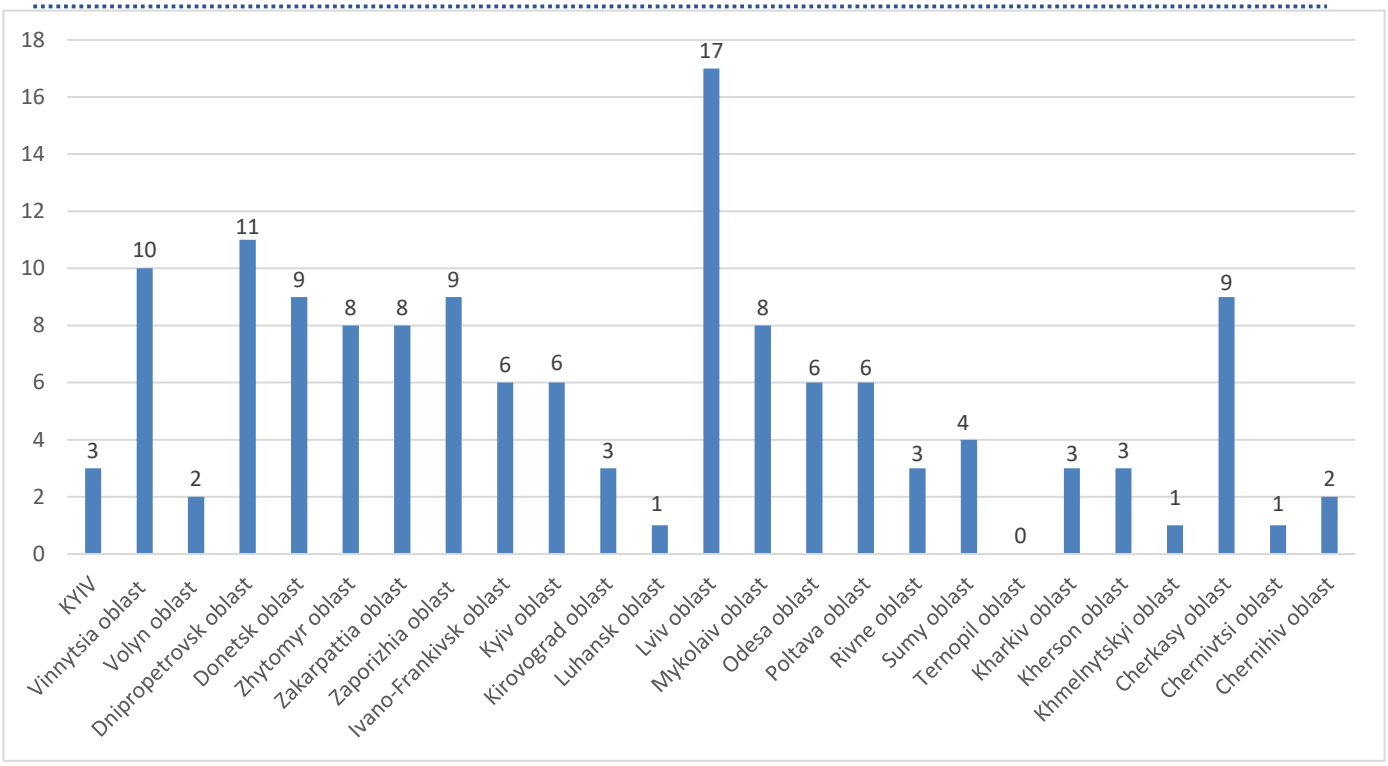


Fig. 1.1.8. SSU Regional distribution

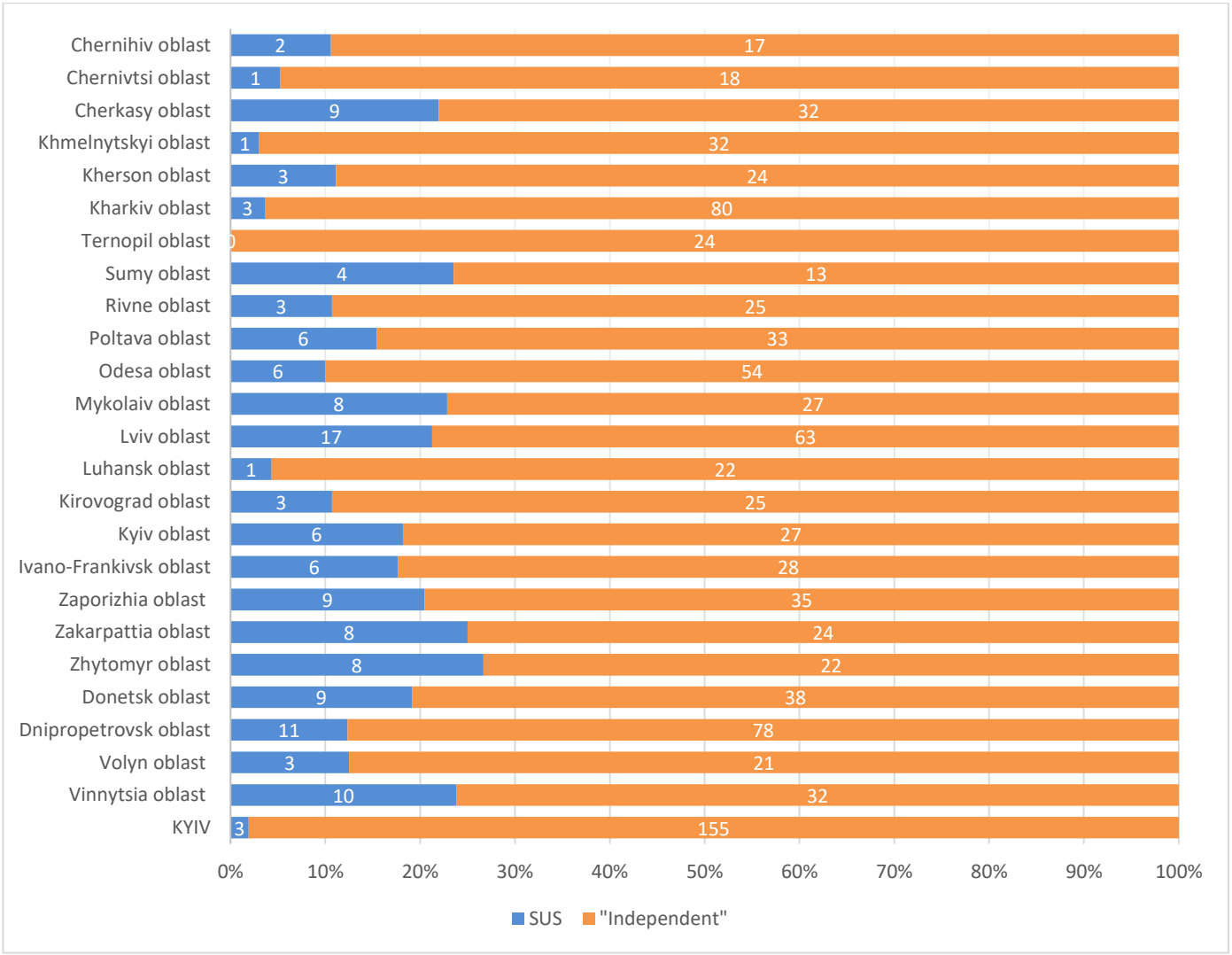


Fig. 1.1.9. Amount of SSU vs independent HEIs

It is worth noting that correlation between the amounts of separate structural units and independent HEIs in different regions are divergent. The biggest percentage of separate structural units is concentrated in Zhytomyr (26,7%), Zakarpattia (25%), Vinnytsia (23,8%) Sumy (23,5%), Mykolaiv (22,9%), Cherkasy (22%), Lviv (21,3%) and Zaporizhya (20,5%) regions; and the smallest percentage in Kyiv (1,9%), Khmelnytskyi (3%), Kharkiv (3,6%), Luhansk (4,3%), Chernivtsi (5,3%) regions, and in Ternopil region there is none separate structural units.

Those separate structural units belong to 53 HEIs, including 39 state-owned institutions and 14 private ones.

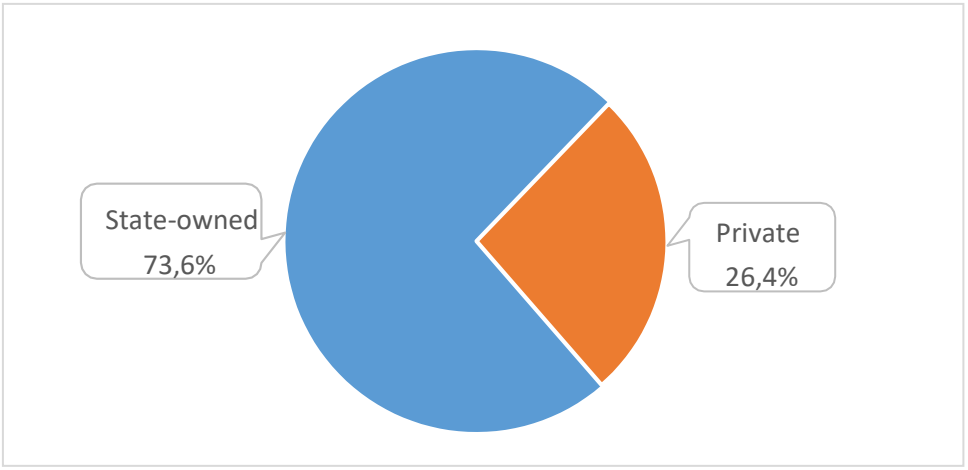


Fig. 1.1.10. HEIS (which have own SSU) distribution by the form of ownership

The biggest amount of separate structural units was created by HEIs in Kyiv (15), Kharkiv (6), Dnipro (5), Lviv (4) and Odesa (4). It means that the most active in forming separate structural units are HEIs, which are also the largest university centers in the country.

1.1.4. National HEIs

With the entry into force of the amendments to the Law of Ukraine "On Higher Education" on January 16, 2020, the status of a national institution of higher education became only honorable. Accordingly, the previously envisaged specific rights, the need for these institutions to prepare annual reports on the fulfillment of the criteria to grant and confirm the status of a national higher education institution, as well as forms of self-analysis of fulfilling the criteria have disappeared. In fact, we can state the freezing of the status: it is not taken away from those who have it, but also is not assigned to new institutions.

In numbers, 118 HEIs have this status, 117 of them are state-owned and one is municipal.

The distribution by region of national HEIs is similar to the distribution of all higher education institutions: most of these institutions are located in large cities university hubs. (Fig: 1.1.11)

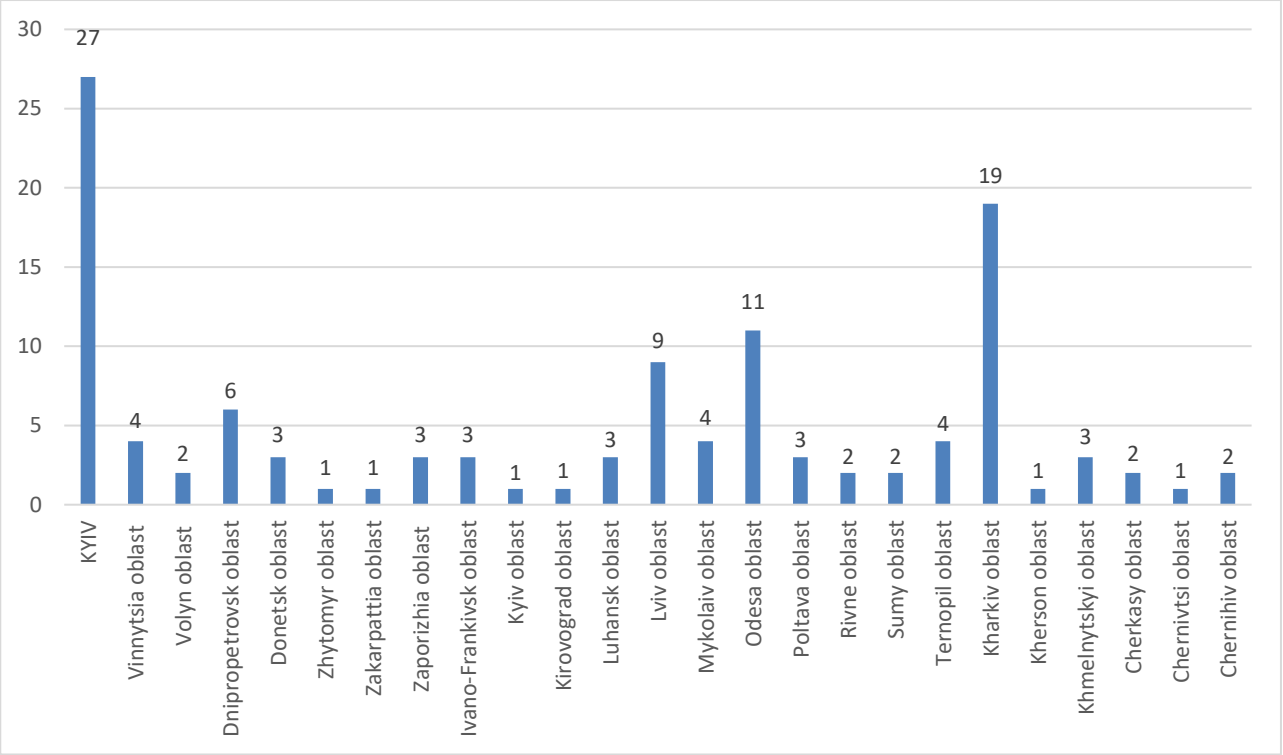


Fig. 1.1.11. National HEIs regional distribution

1.2. Higher education applicants

1.2.1. General figures

According to the USE E base as at October 1, 2020, there were 1,065,143 applicants for higher education degrees Junior Bachelor, Bachelor, Specialist and Master in Ukraine. Compared to October 1, 2019, this figure decreased by 6,49% (73 960 individuals).

Slightly more than a third of students are receiving higher education at the expense of the state or local budget (35,6 %). Compared to the last year, the balance remained almost the same, there is an increase in the share of higher education applicants receiving higher education at the expense of the state or local budget by 0.1 percentage points. There are 378 888 students on a state funding and 686 255 students studying at the expense of private or legal entities.

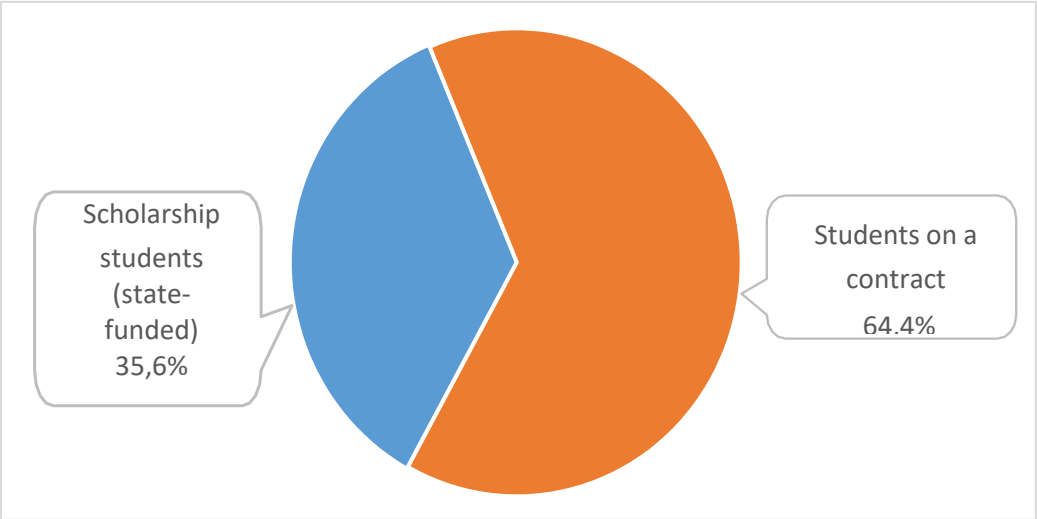


Fig. 1.2.1. Scholarship students (state-funded) vs Students on a contract (%)

Conforming to the forms of education, the distribution is: generally, more than two thirds of applicants' study full-time (757 638 individuals), however, the share of applicants on a state funding studying full-time is 91,2%, while the number of students on a contract is only 60%.

Instead, applicants on a contract are mostly studying part-time (39,8% vs 8,7% part-time students on a state funding); primarily, the share of part-time students is 28.72% (305,906 individuals). The number of applicants studying on the evening courses is extremely low (1,599), this form is used mainly by applicants on a contract.

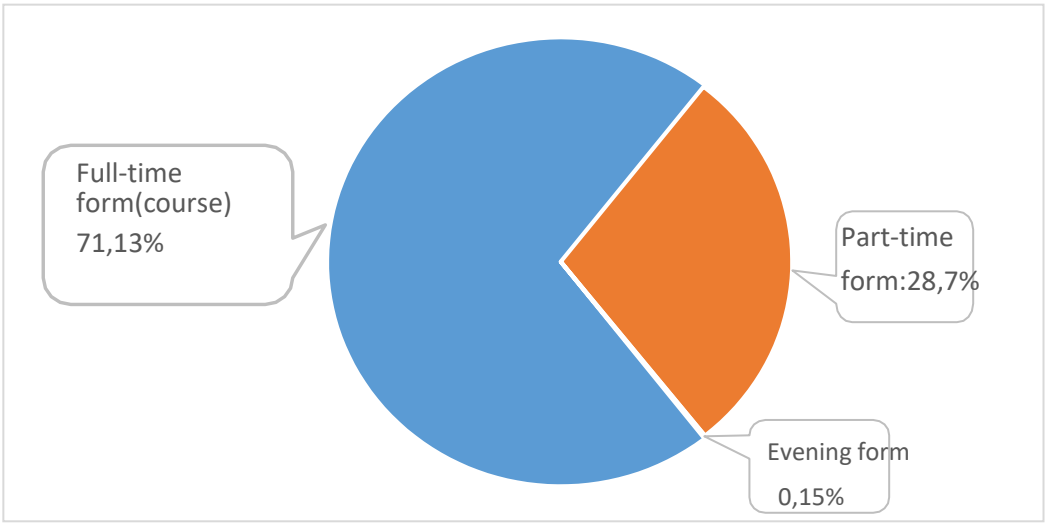


Fig. 1.2.2. The regional distribution of applicants

Quantitative indicators are presented in the Figure 1.2.3. Compared to the last year, there is an increase (by 3.62 percentage points) in the share of full-time applicants due to part-time and evening forms, and this trend occurs among applicantsstudying at the expense of the state (local) budget (an increase of 1 percentage points),as well as, among students studying at the expense of private (legal) entities (in this category there was an increase in the share of full-time form by 5 percentage points).

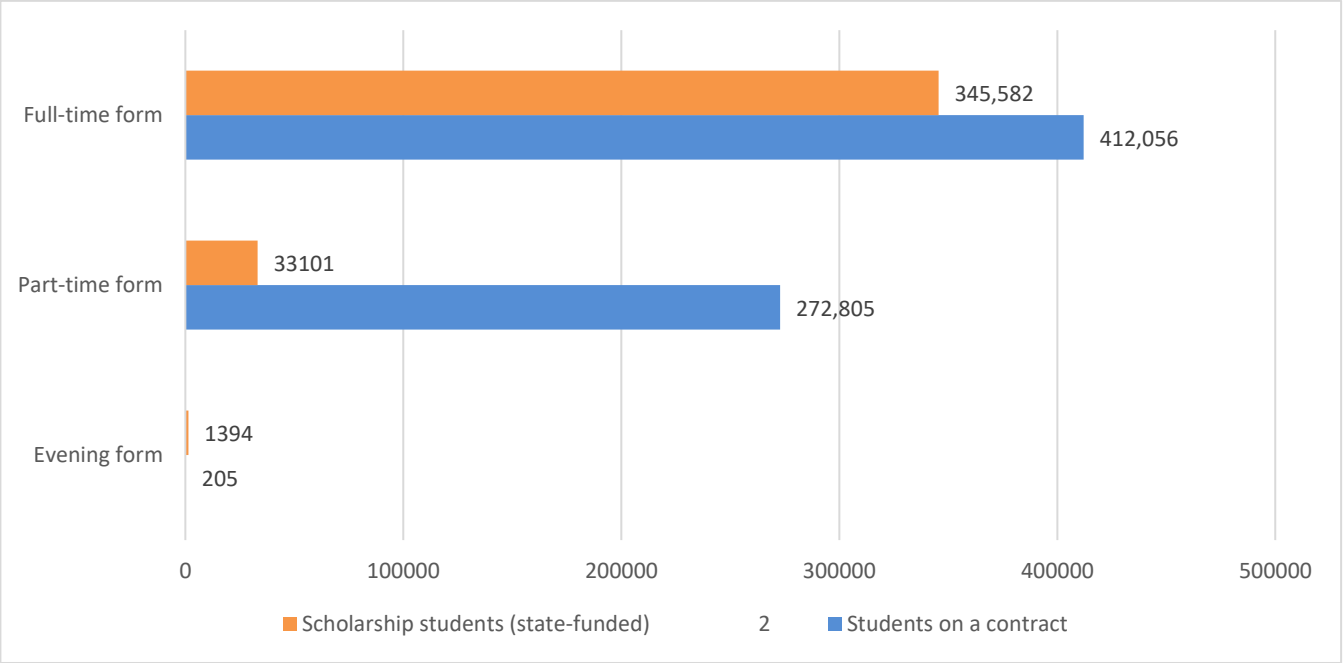


Fig. 1.2.3. Number of applicants present on different forms of education

The regional distribution of applicants is: almost a quarter of students' study in Kyiv (23.7%) and in the regions, whose city centers are university hubs (Figure 1.2.4).

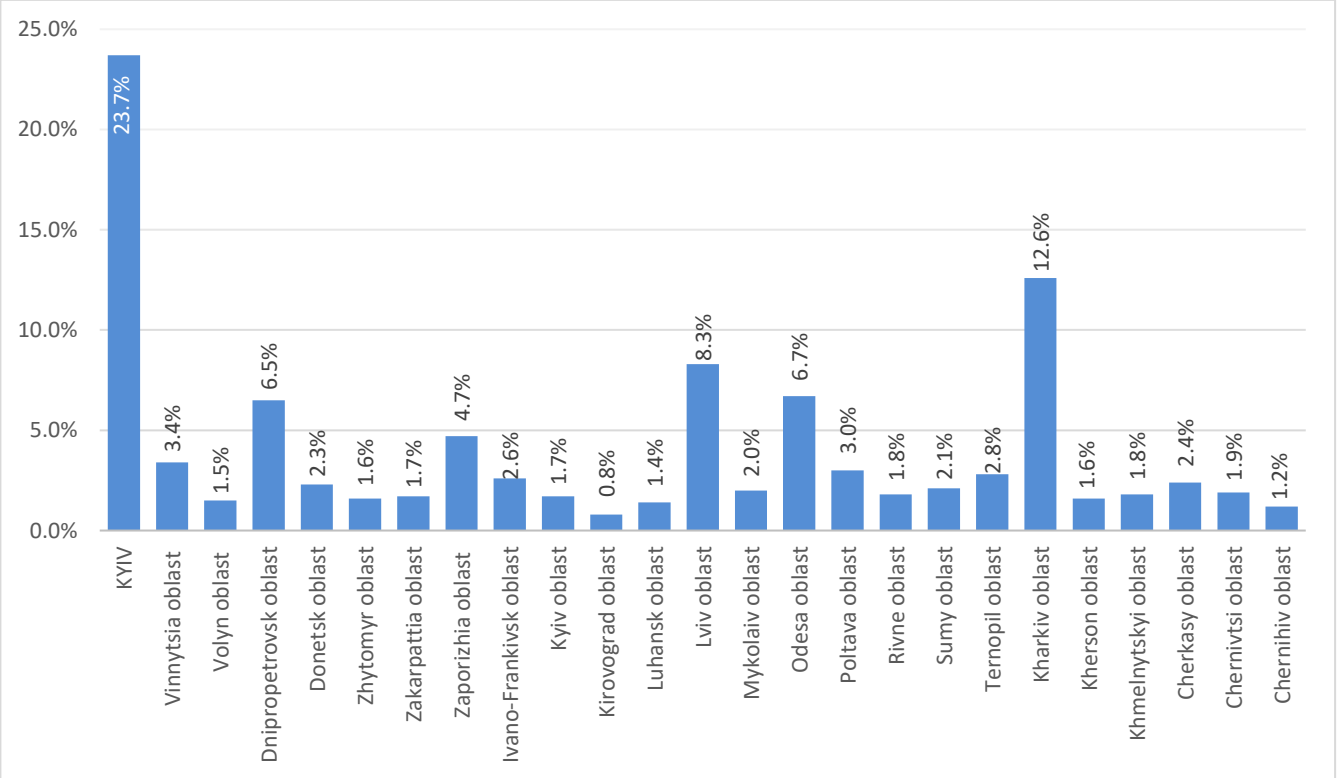


Fig. 1.2.4. The regional distribution of applicants

Applicants by levels of higher education

Based on the higher education qualification levels, the distribution of applicants is: for a Junior Bachelor's degree are studying 2198 individuals, for Bachelor's — 721 755, Specialist — 13 802 and Master — 327 388.

Compared to the last year, there is a natural significant decrease in the number of applicants for the degree of Specialist, due to the actual disappearance of the degree itself a year ago the number of such applicants was 30.8 thousand. Also, against the backdrop of the general decrease in the number of applicants, there was a slight decrease of applicants for the degree of bachelor (by 1.67%, 12.2 thousand individuals) and a more significant reduction of applicants for the degree ofMaster (by 12.36%, 46.2 thousand). Instead, there is a growth in the number of applicants for the degree of Junior Bachelor (by 203.59%, 1.5 thousand individuals).

The distribution of applicants by the qualification levels of higher education is presented in theFigture 1.2.5. Compared to the last year, the share of applicants for the degree of Master (by 2.06 percentage points) and Specialist (by 1.41 percentage points) decreased, while the share of applicants for the bachelor s degree (by 3.33 percentage points) and the Junior bachelor s degree increased (by 0.06 percentage points)

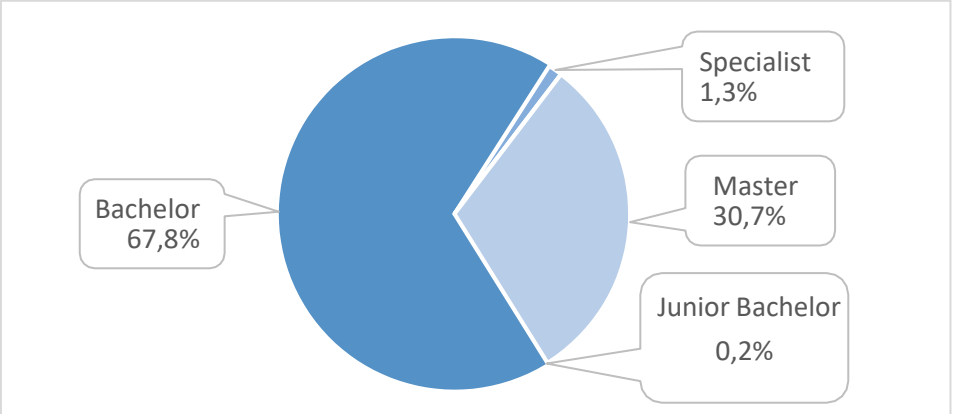


Fig. 1.2.5. The distribution of applicants by the level of higher education

In accordance with the forms of education the distribution of applicants is: 74.6% applicants for the degree of Junior Bachelor are studying full-time and 25.4% — part-time. A similar pattern is also present for Bachelor degree applicants: on a full-time form 73.5% of students, on a part-time basis — 26.4% and on the evening courses — 0.1%. In the case of Master's students there is a traditional slightly greater shift towards part-time form: 65.1% study full-time, and 34.7% — part-time.

Compared to last year's data, the share of full-time students increased: by 17.5 percentage points for the level of Junior Bachelor, by 3.6 percentage points for Bachelor level and 3.8 percentage points for the level: Master.

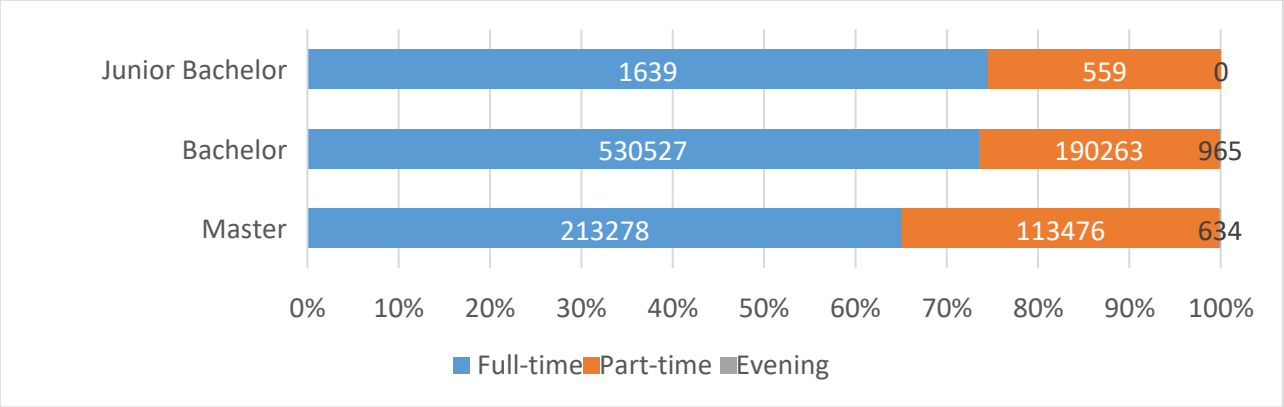


Fig. 1.2.6. Distribution of applicants for the degree: «Junior Bachelor», «Bachelor» and «Master» by the form of education

The distribution of applicants by the funding sources at the levels of higher education is: at the level of Junior Bachelor the share of state funded students is 21.1%, at the level of Bachelor — 35.6% and Master — 35.5%. In comparison with the last year, the appearance of applicants on a state funding is observed at the level of Junior Bachelor, at the Bachelor and Master levels the situation remained the same.

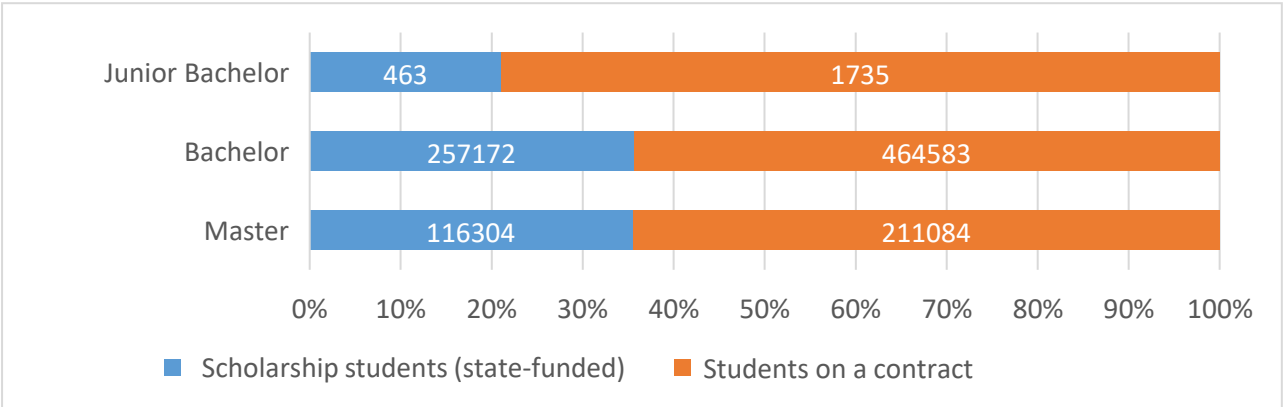


Fig. 1.2.7. Distribution of applicants for the degree: «Junior Bachelor», «Bachelor» and «Master» by the funding source

Table 1.2.1

Distribution of applicants by the educational levels

	Full-time (state-funded)	Full-time (contract)	Part-time (state-f.)	Part-time (contract)	Evening (state-f.)	Evening (contract)	Together
Junior Bachelor	61	1178	2	557	0	0	2198
Bachelor	236633	293894	20476	169787	63	902	721755
Specialist	4944	7250	5	1603	0	0	13802
Master	103544	109734	12618	100858	142	492	327388
TOTAL	**345582**	**412056**	**33101**	**272805**	**205**	**1394**	**1065143**

Source: USEDE base.

1.2.2. Applicants by specialties

The distribution of applicants by specialties are showing that the most popular ones are: 081 Law (74.1 thousand individuals, 7% of the total amount), 014 Secondary Education (63.9 thousand / 6%), 222 Medicine (54.8 thousand / 5.2%), 073 Management (52.3 thousand / 4.9%), 035 Philology (41.8 thousand / 3.9%), 053 Psychology (31.5 thousand / 3%), 122 Computer Science (29 thousand / 2.7%), 051 Economics (27.3 thousand / 2.6%), 072 Finance, banking and Insurance (27.1 thousand / 2.5%), 226 Pharmacy, Industrial Pharmacy (24.1 thousand / 2.3 %). Itshould be noted that these statistics completely repeats the previous one from last year.

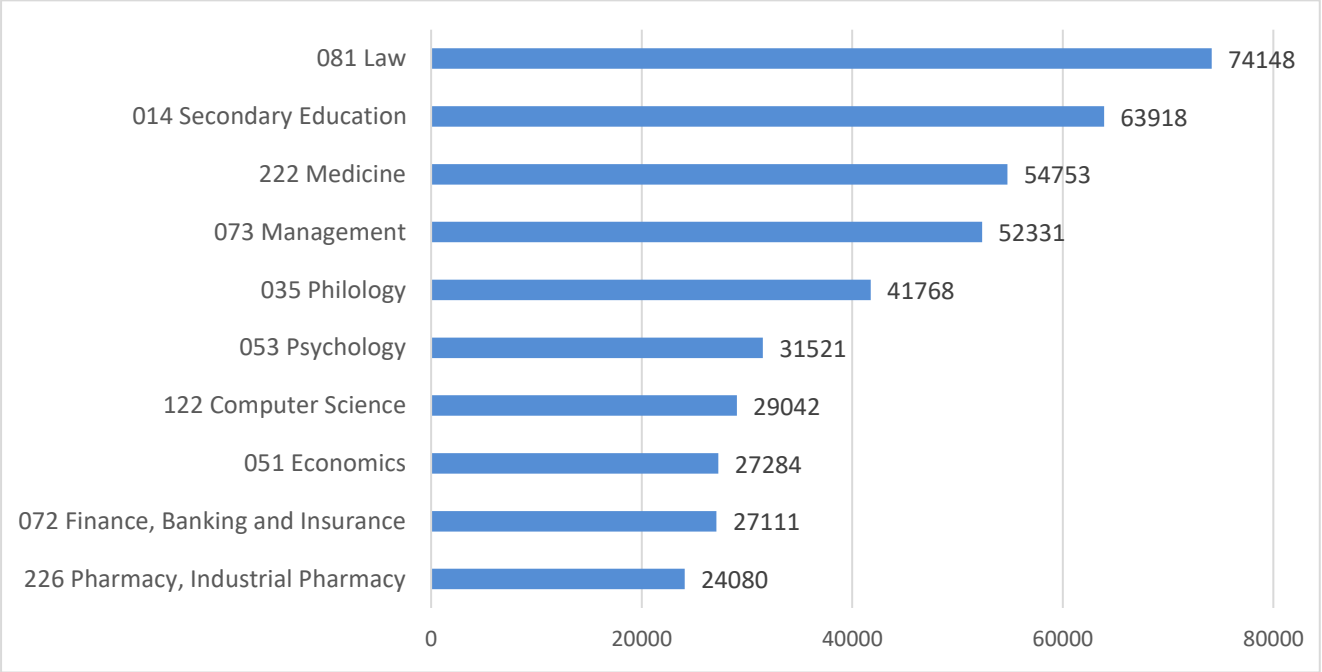


Fig. 1.2.8. TOP-10: Specialities

Distribution of applicants by specialities

Table 1.2.2

	Full-time (state-f.)	Full-time (contract)	Part-time (state-f.)	Part-time (contract)	Evening (state-f.)	Evening (contract)	Together
011 Education Sciences	508	838	145	1922	0	14	3427
012 Pre-school education	4654	2692	1780	6167	0	3	15296
013 Primary education	5712	2457	1680	7085	0	4	16938
014 Secondary Education	31863	13629	4279	14129	0	18	63918
015 Vocational education	3116	1879	618	1953	0	0	7566

016 Special education	2218	2284	422	3520	0	0	8444
017 Physical education and sport	5332	6931	774	4207	0	0	17244
021 Audiovisual arts and production	959	2214	103	528	0	0	3804
022 Design	3026	6379	7	1992	0	0	11404
023 Fine arts, decorative art, restoration	2363	1496	42	496	0	0	4397
024 Choreography	1062	1389	46	880	0	0	3377
025 Music	3836	2607	157	1597	1	2	8200
026 Performing arts	1216	1711	133	575	0	0	3635
027 Museum and monument studies	223	88	0	6	0	0	317
028 Socio-cultural event management	470	1429	33	504	0	0	2436
029 Information, library and archival studies	1348	1097	72	1078	0	0	3595
031 Religious studies	74	36	0	4	0	0	114
032 History andarcheology	2263	2388	261	612	0	0	5524
033 Philosophy	631	549	1	109	0	0	1290
034 Cultural studies	745	1296	7	389	0	0	2437
035 Philology	11554	23516	287	6205	0	206	41768
041 Theology	0	624	0	301	0	0	925
051 Economics	6760	11982	403	8124	0	15	27284
052 Political studies	839	2108	61	433	0	0	3441
053 Psychology	4134	11672	352	15170	0	193	31521
054 Sociology	1002	1373	29	284	0	0	2688
061 Journalism	2582	8192	85	2412	0	0	13271
071 Accounting and taxation	5091	6498	733	8437	0	3	20762
072 Finance, Banking and Insurance	6665	10375	799	9261	0	11	27111
073 Management	7161	24401	906	19808	0	55	52331
075 Marketing	2770	8388	352	3646	0	10	15166
076 Business trade and exchange	3166	8380	399	5186	0	14	17145
081 Law	11439	33637	726	28332	0	14	74148
091 Biology	3121	984	130	1593	0	0	5828
101 Environmental studies	4232	2495	596	2066	0	2	9391
102 Chemistry	1968	220	0	141	0	0	2329
103 Earth sciences	1816	266	85	181	0	0	2348

104 Physics and astronomy	1249	109	0	5	0	0	1363
105 Applied physics and nanomaterials	1509	99	0	2	0	0	1610
106 Geography	913	343	28	158	0	0	1442
111 Mathematics	1574	130	0	85	0	0	1789
112 Statistics	393	34	0	4	0	0	431
113 Applied mathematics	3047	619	1	33	0	0	3700
121 Software engineering	7462	8267	329	1860	0	0	17918
122 Computer Science	13967	11881	454	2732	0	8	29042
123 Computer engineering	8163	5057	308	1469	0	48	15045
124 System analysis	2173	873	10	106	0	0	3162
125 Cyber Security	4529	4257	78	747	0	0	9611
126 Information systems and technologies	2325	1998	72	368	0	0	4763
131 Applied mechanics	5208	1116	417	1033	0	0	7774
132 Materials science	1211	167	101	138	0	0	1617
133 Industrial machinery engineering	6343	1495	597	1736	0	0	10171
134 Aviation and aerospace technologies	1135	477	22	187	0	0	1821
135 Shipbuilding	388	214	48	545	0	0	1195
136 Metallurgy	1100	229	359	603	0	0	2291
141 Electrical energetics, electrical engineering and electromechanics	10236	2671	877	4872	0	1	18657
142 Power machinery	1019	236	91	201	0	0	1547
143 Nuclear power engineering	329	28	6	225	0	0	588
144 Thermal power engineering	1350	341	88	638	0	0	2417
145 Hydraulic power engineering	128	12	15	27	0	0	182
151 Automation and computer-integrated technologies	7504	1719	379	1489	0	0	11091
152 Metrology and information-measuring technology	1574	460	109	513	0	0	2656
153 Micro- and nano-system technologies	1238	130	2	19	0	0	1389

161 Chemical technology and engineering	3133	637	92	787	0	0	4649
162 Biotechnology and bioengineering	1763	831	19	544	0	0	3157
163 Biomedical engineering	594	636	1	131	0	0	1362
171 Electronics	1597	369	22	150	0	0	2138
172 Telecommunications and Radio engineering	5509	1474	128	1286	0	0	8397
173 Avionics	409	173	6	92	0	0	680
181 Food technology	4715	2617	426	4101	0	0	11859
182 Consumer industry technologies	689	191	91	609	0	0	1580
183 Environmental protection technology	726	215	109	186	0	2	1238
184 Mining	1886	243	248	1410	0	11	3798
185 Oil and gas engineering and technology	1002	780	30	888	0	0	2700
186 Publishing and printing	1210	420	47	194	0	0	1871
187 Woodworking and furniture technology	329	91	13	93	0	0	526
191 Architecture and town planning	2907	4446	0	659	0	136	8148
192 Building and civil engineering	9212	2754	870	5951	0	0	18787
193 Geodesy and land management	3394	1828	189	2079	0	8	7498
194 Hydraulic construction, water engineering and water technologies	304	90	79	101	0	0	574
201 Agronomy	5608	3077	1325	3056	0	0	13066
202 Plants protection and quarantine	733	245	86	191	0	0	1255
203 Hoticulture and viticulture	442	216	138	112	0	0	908
204 Livestock production and processing technologies of animal products	2676	1022	462	1557	0	0	5717
205 Foresty	1620	743	585	1687	0	0	4635
206 Landscaping	835	379	157	380	0	0	1751
207 Water bio-resources and aquaculture	517	293	289	286	0	0	1385
208 Agricultural engineering	4694	1872	1078	1984	0	0	9628
211 Veterinary medicine	3621	3835	0	0	0	0	7456

212 Veterinary hygiene, sanitation and expertise	415	371	0	0	0	0	786
221 Dental studies	522	12206	0	0	0	0	12728
222 Medicine	19101	35651	0	1	0	0	54753
223 Nursing	589	620	0	857	61	369	2496
224 Medical diagnostic and treatment technologies	222	666	0	0	0	0	888
225 Medical and psychological rehabilitation	35	509	0	0	0	0	544
226 Pharmacy	679	9023	41	14107	0	106	23956
227 Physical rehabilitation	1653	6545	160	2143	0	5	10506
228 Pediatrics	940	293	0	0	0	0	1233
229 Public Health	46	89	1	165	0	0	301
231 Social work	2964	2305	814	2484	0	0	8567
232 Social welfare	592	657	53	155	0	0	1457
241 Hotel, restaurant and catering	1228	8097	125	4641	0	0	14091
242 Tourism	2077	8488	156	3379	0	0	14100
251 State security	27	139	31	45	0	0	242
256 National security	0	274	0	188	0	0	462
261 Fire safety	180	797	32	1291	0	0	2300
262 Law enforcement	109	5067	28	3453	0	0	8657
263 Civil security	372	749	18	964	0	6	2109
271 Marine and river transport	2169	4615	20	6511	0	0	13315
272 Aviation transport	1128	1012	1	648	0	0	2789
273 Railway transport	1064	165	165	1708	0	0	3102
274 Motor vehicle transport	2549	1729	272	1610	0	0	6160
275 Transport technology	4783	2661	203	3892	0	0	11539
281 Public administration	1549	4216	3394	9823	142	109	19233
291 International Relations, Public Communications and Regional Studies	1530	6815	15	940	0	0	9300

292 International economics	1402	7092	32	1962	0	20	10508
293 International law	568	3342	0	527	0	0	4437

Source: USEDE base.

Analysis of the distribution of applicants by specialties in private institutions shows some differences for some specialties: for example, if in state HEIs the share of applicants in specialty 081 Law is 6.3%, in private — 13.7%, specialty 073 Management — 9.6% vs. 4.5% in state institutions, specialty 053 Psychology - 7.6% vs.2.5%, specialty 241 Hotel and Restaurant business — 4.2% vs. 1.1%. The specialties 10 Natural Sciences, 11 Mathematics and Statistics, 13 Mechanical Engineering, 14 Electrical Engineering, 15 Automation and Instrumentation Engineering, 16 Chemical and bioengineering, 17 Electronics and Telecommunications, 18 Production and Technology (except 181 Food Technologies), 20 Agricultural sciences and Provisioning, 21 Veterinary medicine.

Applicants divided by higher education institutions

According to the USEDE base, as of October 1, 2020 the training of applicants for the degree of Junior Bachelor is carried out by 53 institutions, Bachelor — 483 institutions, Specialist — 78 institutions, Master — 336 institutions. Last year the numbers were: 27, 481, 93 and 330, accordingly.

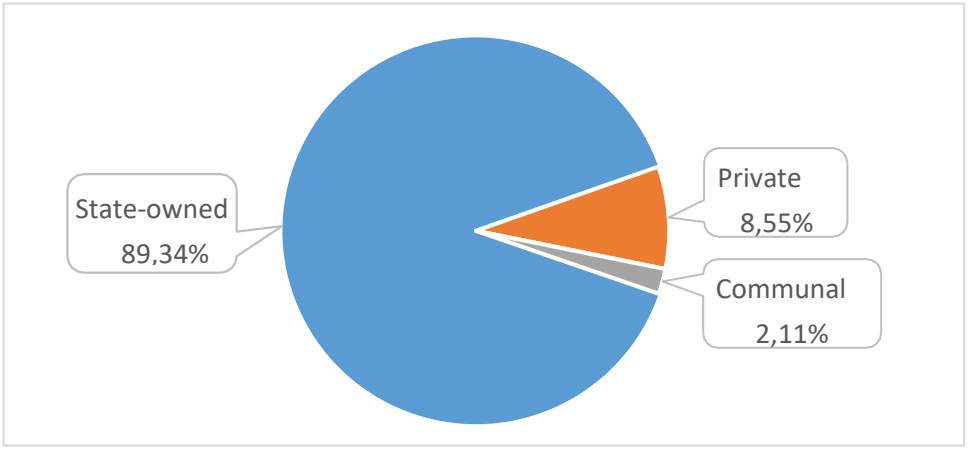


Fig. 1.2.9. The distribution of applicants by the HEIs form of ownership

The distribution of applicants by the HEIs form of ownership is: the vast majority — 89.34% — is studying in state owned HEIs (951 640 individuals), in HEIs with a private ownership are studying 8.55 % (91 077) applicants and in HEIs with a communal form of ownership — 2.11% (22 426). Compared to the previous year, therewas a slight (by 0.3 percentage points) decrease in the share of applicants in theprivate sector due to an increase in the share of applicants in state and municipal institutions.

Also, it should be noted, that on the backdrop of previously mentioned decrease (by 6.49%) of a total number of applicants compared to the last year, there is an increase in the number of applicants in HEIs with a communal form of ownership by 3.04 %. On the other hand, the decrease in the number of applicants in state-owned HEIs is 6.37% and in private — 9.79%.

In the Figure 1.2.10 displayed the distribution of students on a state funding and students on a contract by the HEIs different form of ownership.

Statistics reflect a typical situation in Ukrainian higher education: students on a state funding are studying only in state and municipal-owned HEIs (their share in these institutions is 38.8% and 45.7%, respectively); only three applicants chose private institutions to study. Compared to last year, statistics remained the same.

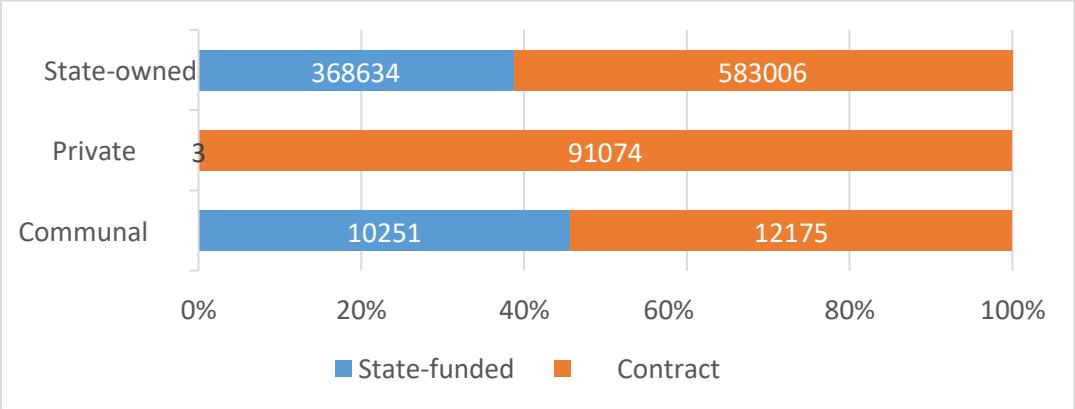


Fig. 1.2.10. Number of applicants on a state scholarship/on a contract in HEIs of different forms of ownership

Table 1.2.3

The distribution of applicants by the form of HEIs ownership and by the form of education

	Full time (state f.)	full time (contract)	part time (state f.)	part time (contract)	evening (state f.)	evening (contract)	Total
State-owned	335909	358420	32581	223839	144	747	951640
Private	1	47407	2	43415	0	252	91077
Communal	9672	6229	518	5551	61	395	22426
	345582	**412056**	**33101**	**272805**	**205**	**1394**	**1065143**

Source: USEDE base.

As shown in Figure 1.2.11, the majority (94.8%) of applicants, for the degree of Junior Bachelor, study in state HEIs, the participation of institutions of other forms of ownership is currently minimal. However, the distribution of applicants for the Bachelors degree by state, private and communal ownership is 88%, 9.6% and 2.4%, respectively, and for the Master s degree is 92.1%, 6.4% and 1.5%.

Compared to last year's situation, there was a decrease in the share of applicants in private institutions (by 0.2 percentage points at the bachelor's level and by 0.7 percentage points at the Master s level) in favor of state and municipal HEIs.

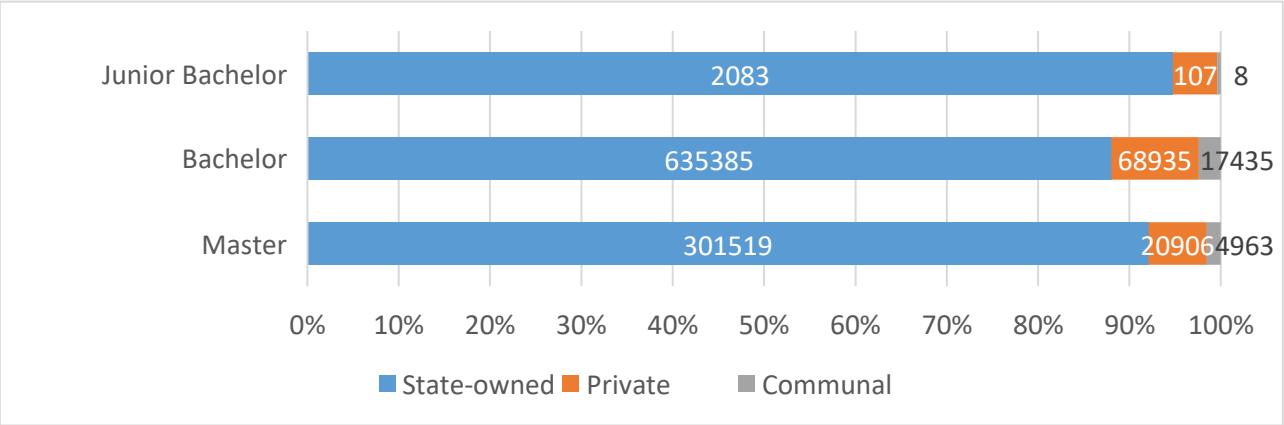


Fig. 1.2.11. Number of applicants studying at HEIs of different forms of ownership

Table 1.2.4

Applicant's distribution by the form of HEIs' ownership

	State-owned	Private	Communal	Total
Junior Bachelor	2083	107	8	2198
Bachelor	635385	68935	17435	721755
Specialist	12653	1129	20	13802
Master	301519	20906	4963	327388
	951640	**91077**	**22426**	**1065143**

Source: USEDE base.

Socio-demographic characteristics of applicants

According to the State Statistics Service of Ukraine, as of January 1, 2020, the share of female applicants in universities, academies and institutes was 51.4% (48.7% in full-time education). In most regions, including Kyiv, the gender balance is similar to the national one. However, in Zakarpattia, Zaporizhia, Ivano-Frankivsk, Rivne, Cherkasy and Chernivtsi oblast there is an imbalance in favor of women (more than 55%), and in Kirovohrad and Kherson oblast — in favor of men. (Fig. 1.2.12.)

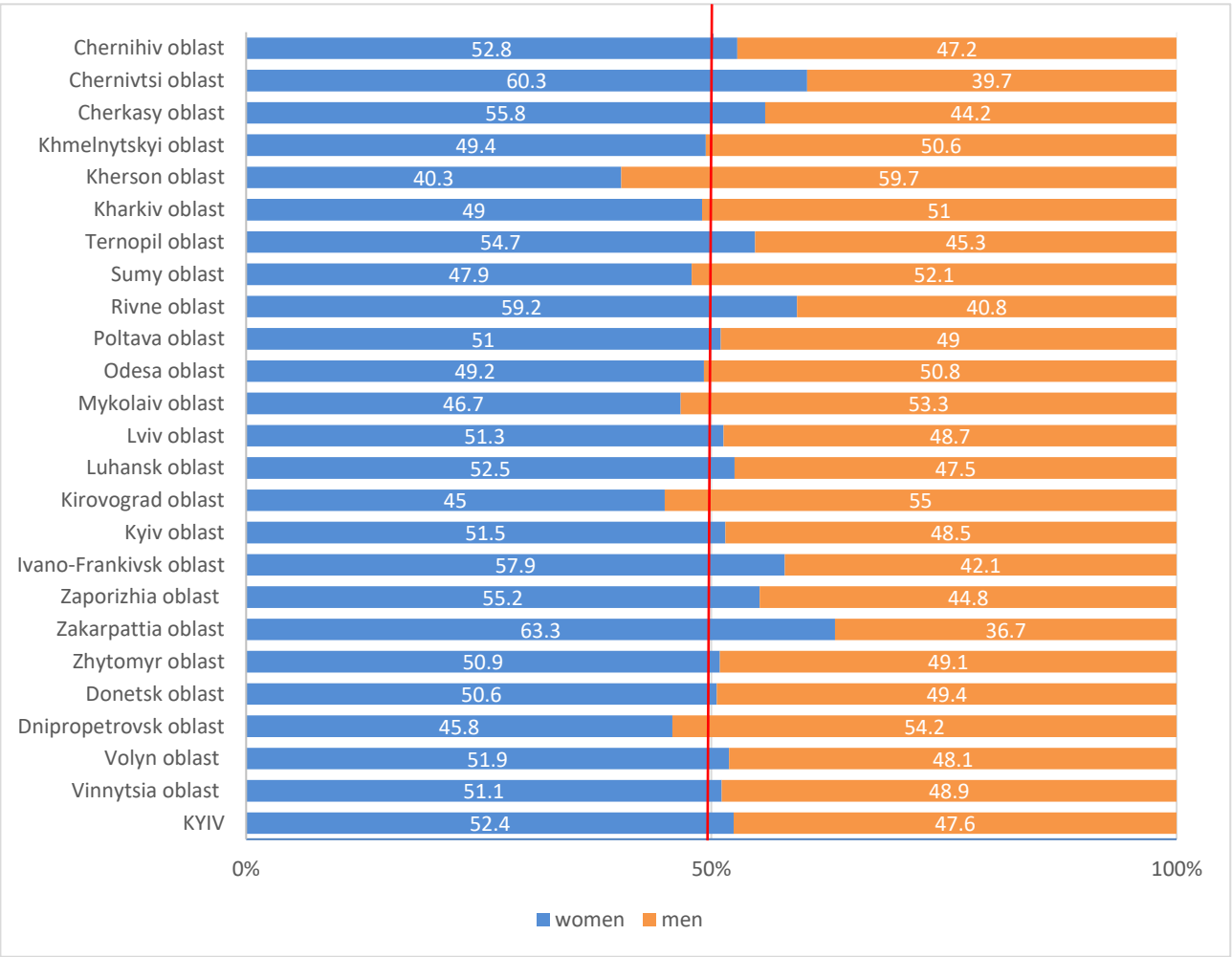


Fig. 1.2.12. Gender balance of applicants in Ukraine (universities, academies, institutes)

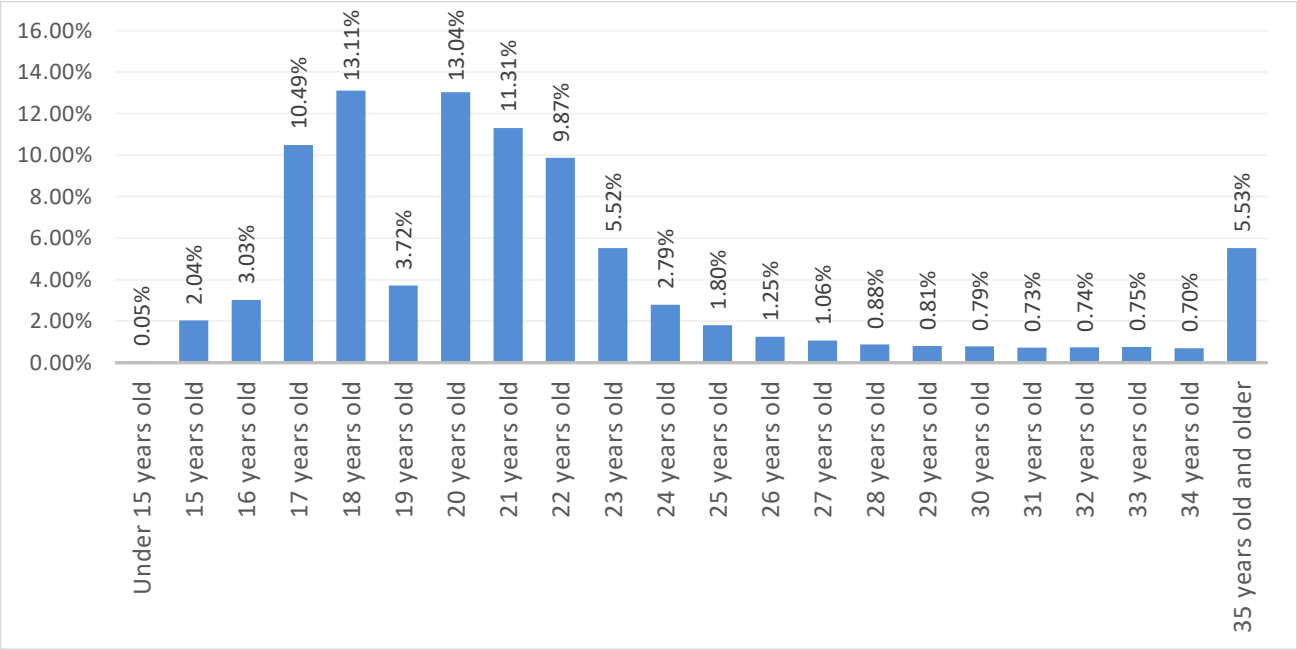


Fig. 1.2.13. Age of applicants (universities, academies, institutes)

It is quite natural that more than 70% of higher education students in universities, academies and institutes are aged 17-22 years (Figure 1.2.13.).

The share of specific categories of applicants in universities, academies and institutes was:

- orphans and children deprived of parental care — 1.05%;
- persons with disabilities — 0,79%;
- persons recognized as participants in hostilities — 0,8%;
- children of persons recognized as participants in hostilities — 1,36%.

University Admission Campaign — 2020

The 2020 admission campaign took place in difficult conditions due to the COVI -19 coronavirus pandemic, preceded by a nationwide quarantine, which causeda shift in campaign timing.

According to the portal Vstup.OSVITA.UA during the admission campaign in 2020 were submitted more than 976 thousand applications for bachelor's and Master s degrees in Medicine (admission on the basis of complete general secondary education (CGSE)) and more than 2478 thousand applications for the degree Master (excluding the candidates applying on a CGSE basis).

Table 1.2.5

Distribution of submitted applications by regions 2020

Region	Bachelor and medical Master	Master
Kyiv	333 653	68 739
Vinnytsa oblast	30 484	5 938
Volyn oblast	14 426	4 589
Dnipro oblast	62 489	13 211
Donetsk oblast	10 258	4 112
Zhytomyr oblast	13 366	4 822
Zakarpattia oblast	13 103	3 577
Zaporizhia oblast	26 655	9 472
Ivano-Frankivsk oblast	25 945	5 518
Kyiv oblast	8 211	4 922
Kirovohrad oblast	4 802	1 652
Luhansk oblast	4 877	3 693
Lviv oblast	110 064	21 775
Mykolaiv oblast	10 480	3 860
Odesa oblast	58 381	15 501
Poltava oblast	16 499	5 399
Rivne oblast	14 354	4 775
Sumy oblast	11 148	5 919

Ternopil oblast	19 408	7 268
Kharkiv oblast	124 486	31 971
Kherson oblast	9 180	3 355
Khmelnytsk oblast	13 455	4 270
Cherckasy oblast	14 179	6 637
Chernivtsi oblast	16 630	4 333
Chernihiv oblast	9 718	3 316
TOTAL	**976 251**	**248 624**

Source: portal «Vstup.OSVITA.UA»

The regional distribution is: more than a third (34.2%) of school graduates applied to the HEIs in Kyiv. HEIs of Kharkiv (12.8% of applications), Lviv (11.3%), Dnipro (6.3%) and Odessa (6.0%) regions are the leaders in the number of applications submitted. A similar situation is observed with applicants for Master degree. Ingeneral, the distribution of applications correlates with the distribution of the number of higher education institutions (Figure 1.2.14.).

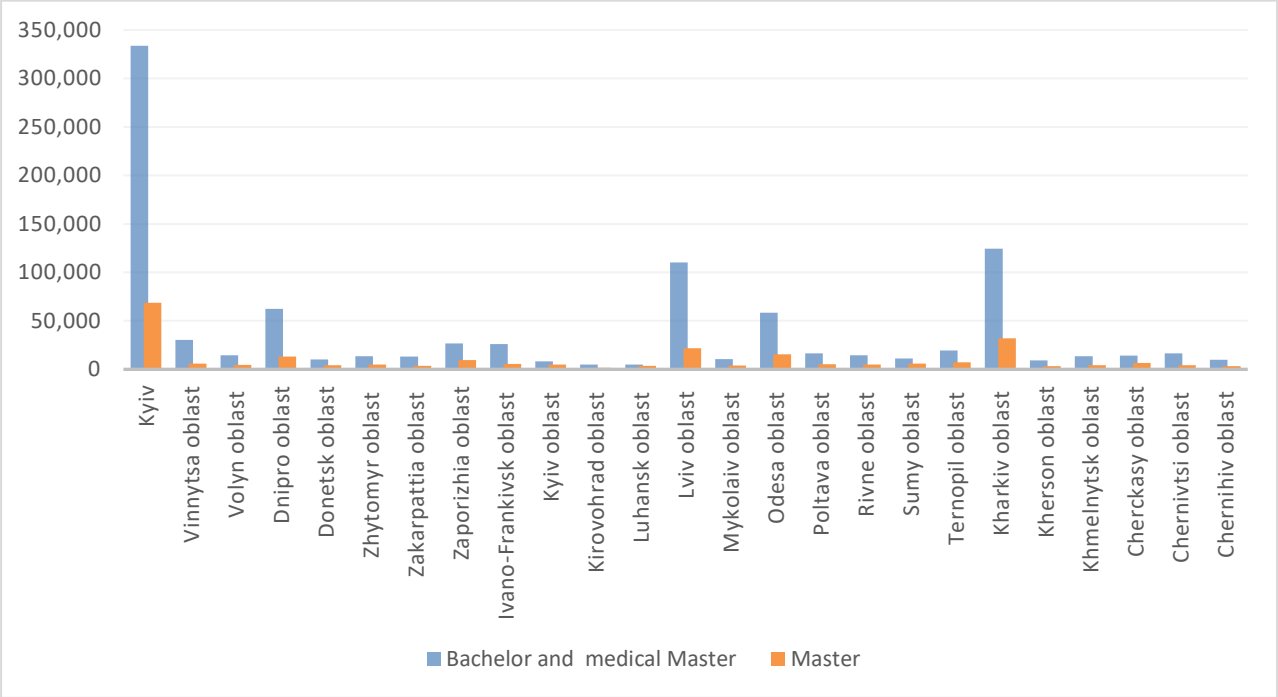


Fig. 1.2.14. Distribution of submitted applications by regions 2020

According to the Ministry of Education and Science of Ukraine, the ten most popular specialties in terms of the number of applications submitted were:

- 081 Law — 116 689;
- 073 Management — 92 147;
- 035 Philology — 76 708;
- 122 Computer Science — 63 410;
- 014 Secondary education — 62 676;
- 051 Economics — 50 841;

- 121 Software engineering — 47 038;
- 072 Finance, banking and Insurance— 46 844;
- 053 Psychology — 43 791;
- 075 Marketing — 42 379.

If we compare these figures with the admission campaign of 2019, we can see specialty 035 Philology now ranks third, behind specialty 081 Law; specialities 061 Journalism and 221 Medicine disappeared from the conditional TOP-10, instead it included 072 Finance, banking and Insurance and 075 Marketing.

By the number of applications submitted, to the TOP-ten most popular HEIs were included:

- Taras Shevchenko National University of Kyiv — 56 336;
- National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" — 46 714;
- The Ivan Franko National University of Lviv — 46 268;
- Lviv Polytechnic National University — 42 451;
- Kyiv National University of Trade and Economics — 40 818;
- National Aviation University — 33 056;
- Kyiv National Economic University named after Vadym Hetman — 27 775;
- V. N. Karazin Kharkiv National University — 27 625;
- National Pedagogical Dragomanov University — 23 541;
- The National University of Life and Environmental Sciences of Ukraine — 22 013.

Compared to last year, the leadership of the Taras Shevchenko National University of Kyiv has been preserved. The list of HEIs that took places from 2nd to 8th also did not change, although in some cases the places occupied changed insignificantly (by one position). As for positions 9 and 10, last year they were held by Borys Grinchenko Kyiv University and Oles Honchar nipro National University.

In 2020, 84.6 thousand places for the Bachelor's degree (including full-time — 77.6 thousand), which is 5.9% more than in 2019 were created by a state order in Ukraine. In addition, at the educational level Master (Masters of Medicine, Pharmacy or Veterinary specialties) on the basis of CGSE, were created 6.04 thousand places by a state order (number of places of study at the expense of the state or local budget). Also, in 2020, by a state order 45 thousand places of study for level Master were created on the basis of Bachelor's and Specialist's degrees.

A special attention deserves the quality of organization of the HEIs admission campaigns, conducted by the HEIs themselves. Therefore, a study conducted by the State Service for the Quality of Education of Ukraine regarding the organization and conduct of higher education and professional pre-higher education admission campaigns in 2020 showed that a number of institutions carried it out with violations. In particular, 16 educational institutions (including 9 separate structural units) did notupload their

admission rules to USEDE, and only 70% of the educational institutions inspected by the State Service for the Quality of Education of Ukraine provide sufficientinformation for applicants on their websites; not all institutions provided complete and correct information for foreign applicants.

1.2.7. Post-graduate Students

According to the State Statistics Service of Ukraine, as of January 1, 2020, 25,245 Ph.D. students were studying in Ukraine (excluding post-graduate students from foreign countries), including 23,023 post-graduate students in higher education institutions and 2,211 in scientific institutions. 15 902 post-graduate students (63%) were studying on state scholarship. 15 447 post-graduate students were studying full-time (61.2%).

Almost a third (33.2%) of post-graduate students studied in Kyiv institutions. Kharkiv (13.8%), Lviv (7.5%), Odesa (6.9%) and Dnipro (5.7%) regions were also the leaders interms of the number of post-graduate students.

In general, 417 institutions had a post-graduate program, including 226 HEIs and 191 scientific institutions.

Conforming to the existing “List of fields of study and program subject areas in higher education” (hereinafter — the List-2015), which is used to train higher education applicants, as of the beginning of 2020, 24 038 individuals were studying on a post-graduate program (95.2% of the total number of post-graduate students), on a full-time basis — 14 799 individuals, on a part-time basis and Evening courses — 9 239. The training of post-graduate students according to the List-2015 was carried out by 391 institutions, including 224 HEIs and 167 scientific institutions.

The most popular fields of study, which have post-graduate programs are: 08 Law, 50 Social and behavioral Studies, 01 Education/Pedagogy, 03 Humanities, 22 Health, 07 Management and Administration (Fig. 1.2.15.).

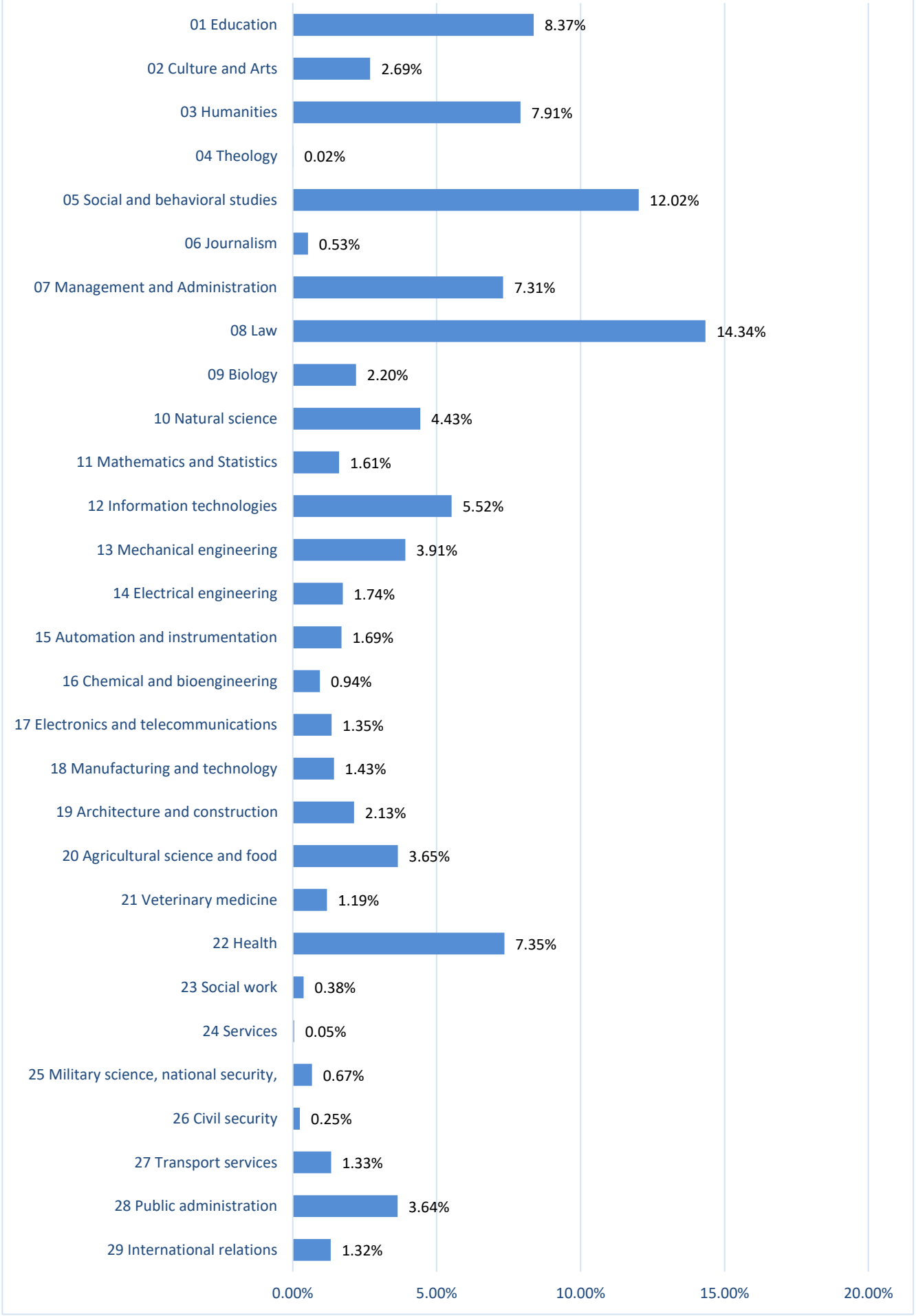


Fig. 1.2.15. Post-graduate students divided by their fields of study (List-2015)

Table 1.2.6

Post-graduate students divided by speciality and form of education

Field of study	Full time	Part time and evening	Total
01 Education	1 052	959	2 011
02 Culture and arts	566	81	647
03 Humanities	1 313	589	1 902
04 Theology	6	0	6
05 Social and behavioral studies	1 746	1 143	2 889
06 Journalism	90	38	128
07 Management and administration	1 138	619	1 757
08 Law	956	2 491	3 447
09 Biology	412	118	530
10 Natural sciences	917	148	1 065
11 Mathematics and statistics	357	31	388
12 Information technologies	1 037	290	1 327
13 Mechanical engineering	767	172	939
14 Electrical engineering	346	73	419
15 Automation and instrumentation	343	64	407
16 Chemical and bioengineering	187	40	227
17 Electronics and telecommunications	254	71	325
18 Manufacturing and technology	256	88	344
19 Architecture and construction	367	145	512
20 Agricultural science and food	653	225	878
21 Veterinary medicine	243	42	285
22 Health	941	826	1 767
23 Social work	55	37	92
24 Services	11	0	11
25 Military science, national security, state border security	117	44	161
26 Civil security	33	28	61
27 Transport services	200	119	319
28 Public administration	281	595	876
29 International relations	155	163	318
	14 799	9 239	24 038

Source: State Statistics Service of Ukraine.

1.2.8. Foreign applicants

According to the Ukrainian State Center for International Education, 80 470 foreign students from 158 countries are studying in Ukraine (last year — 75,605 students from 154 countries).

The majority (70 796) of foreign students are studying for an academic degree, 6 949 study in preparatory departments, 2 814 are getting postgraduate education and 11 people are in Ukraine within the framework of academic mobility programs.

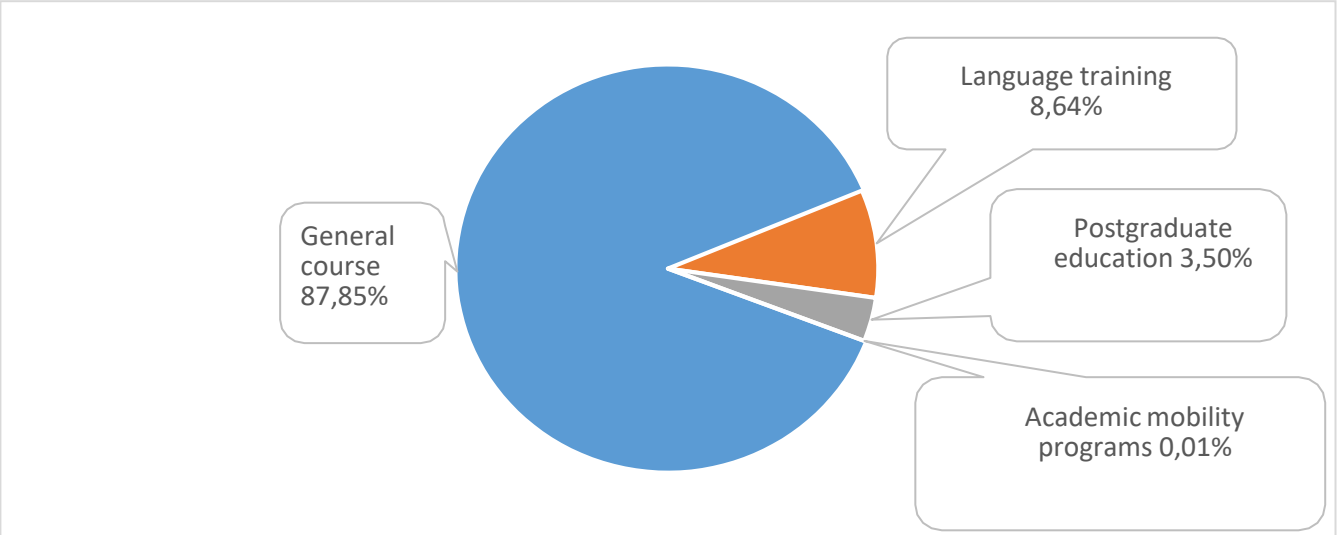


Fig. 1.2.16. Foreign applicant's distribution

The TOP-10 countries by the origin of foreign students are: India, Morocco, Azerbaijan, Turkmenistan, Federal Republic of Nigeria, Turkey, China, Egypt, Israel and Uzbekistan.

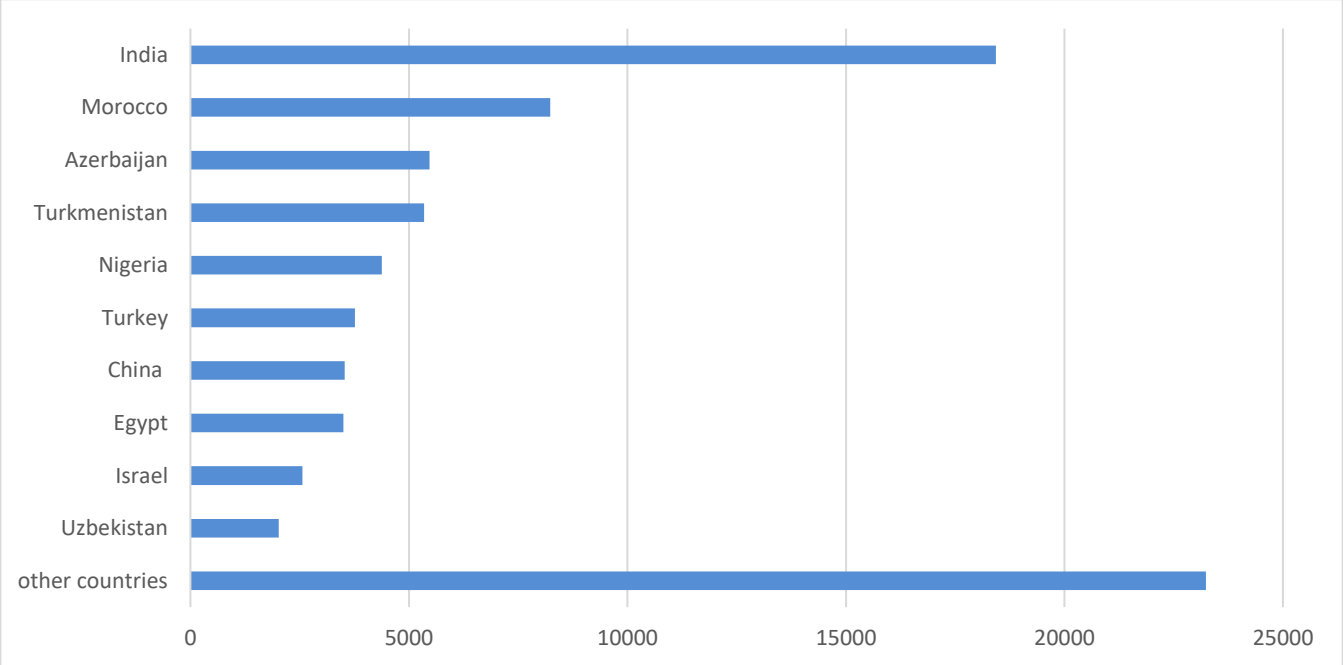


Fig. 1.2.17. Number of foreign applicants by their country of origin

In 2019, the total amount spent on education, accommodation, insurance, paperwork, food, transportation and other needs of foreign students studying in Ukraine reached more than 570 million US dollars. If the average duration of study is 5-6 years, then in general the income of Ukraine from foreign students for this periodis more than 3 billion US dollars.

Almost half of the foreign students (39 841) choose medical specialties to study in Ukraine.

The most popular HEIs among foreign students are:

- Kharkiv National Medical University — 4355 students;
- V. N. Karazin Kharkiv National University — 4351;
- Odesa National Medical University — 4234;
- Bogomolets National Medical University — 3378;
- Zaporizhzhia State Medical University — 2981;
- National Pirogov Memorial Medical University — 2815;
- Horbachevsky Ternopil National Medical University — 2414;
- Dnipro State Medical University — 2385;
- Bukovinian State Medical University — 1869;
- Taras Shevchenko National University of Kyiv — 1849.

The COVID-19 pandemic has made adjustments to international student mobility, significantly limiting it. However, as of November 1, 2020, 27 440 invitations to study for foreigners have already been registered.

The results of a marketing study, which involved foreign students from all over Ukraine, conducted by the Ministry of Education and Science of Ukraine from July to August 2020 in cooperation with the Ukrainian State Center for International Education and Simon Kuznets Kharkiv National University of Economics, shows the following. In response to the question why did you choose Ukraine, the option Quality of education was chosen by 43.5% of foreign students, who filled out the survey in Ukrainian language, in Russian language almost as many (43.2%), and only 23.7% — in English. Criteria Opportunity to gain practical experience was not popular among respondents neither (34.8 %, 27.3 % and 18.9 %). A special attention deserves the criteria " Recognition of a diploma in a country of origin".

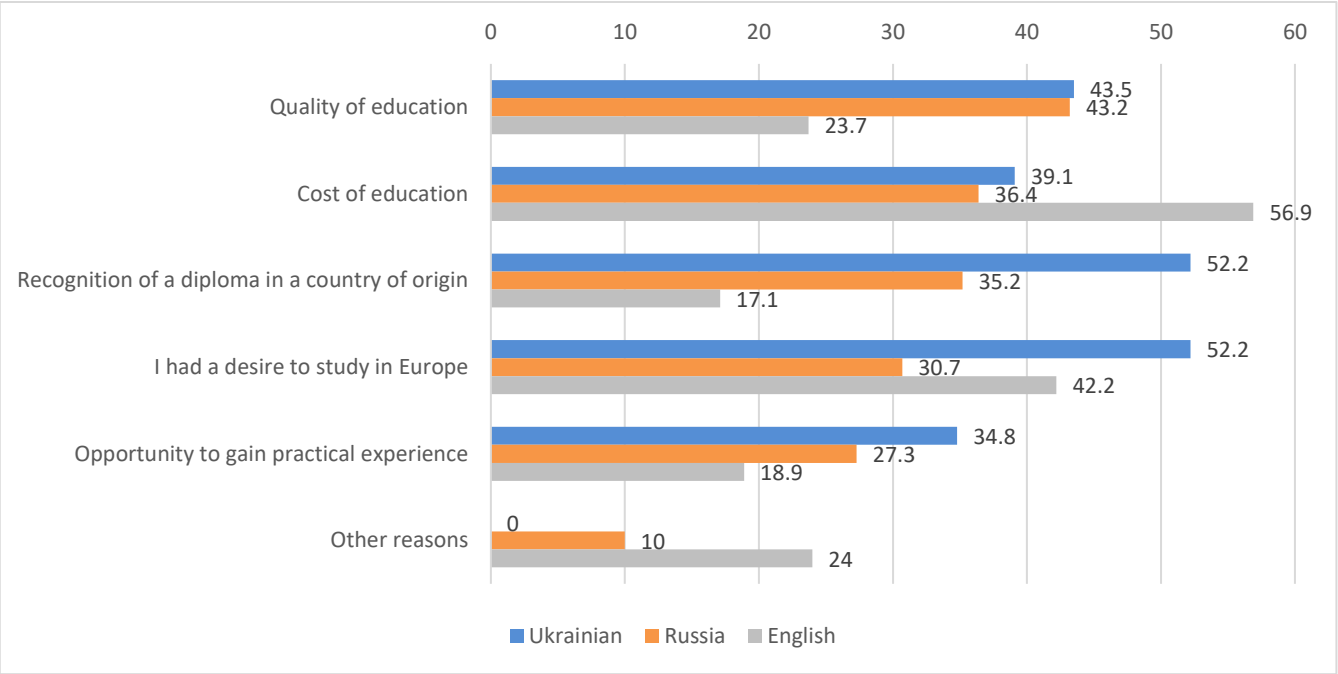


Fig. 1.2.18. Answers to the question "Why did you choose Ukraine?", %

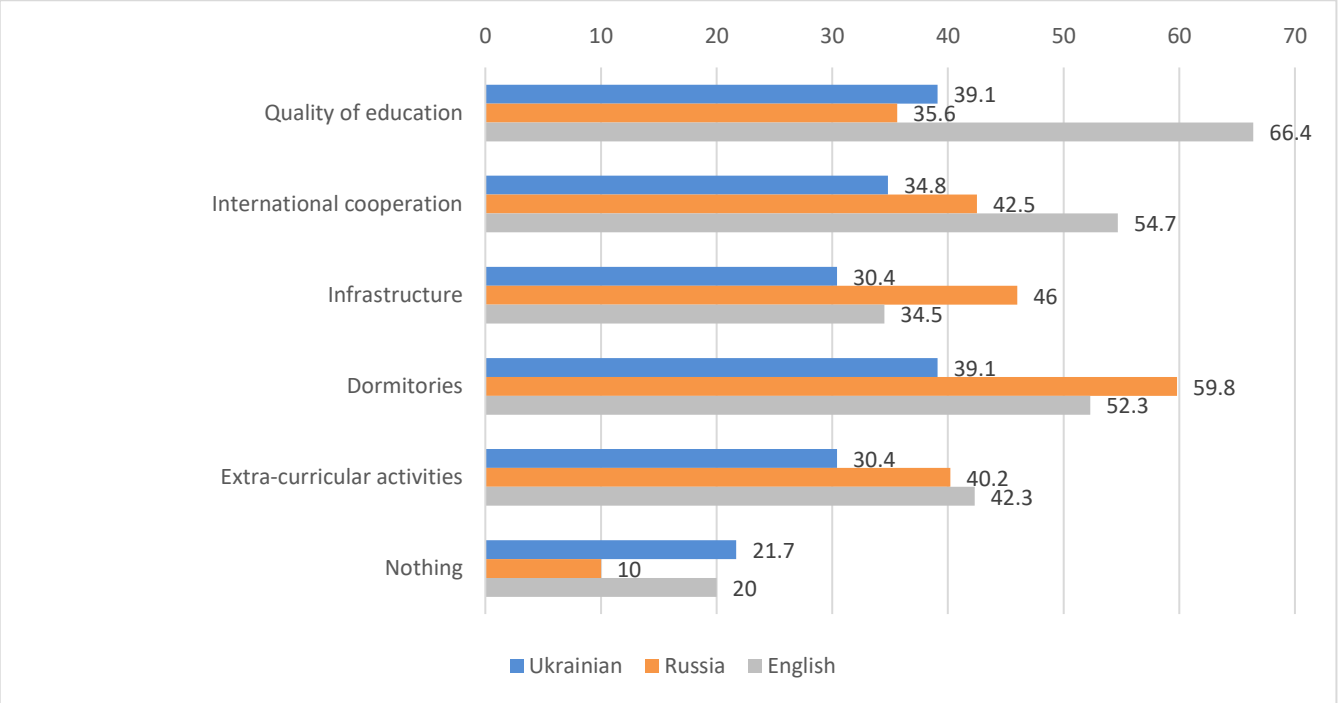


Fig. 1.2.19. Answers to the question "What do you would like to improve?", %

The answers to the question what would you like to improve in the system of education of foreigners according to the criteria Quality of education shows: just over a third of students who filled out the survey in Ukrainian and Russian language would like to improve the quality of Ukrainian higher education (consequently, they are to some extent dissatisfied with it), while there are almost two-thirds of those, whofilled out the survey in English language, would like it too. The rather high share of those foreign students, who do not want change at all, attracts attention — it is unlikelythat such passivity is explained by the brilliant conditions and quality of education. The outlined results of the survey can be interpreted as evidence that the vast majority of foreigners do not see Ukraine as a place for higher education, but as a country where they can emigrate or use as a temporary stay. And obtaining the student's status is required for a legal stay in a country.

1.3. HEIs' Academic Staff

According to the State Statistics Service of Ukraine, at the beginning of the 2019/20 academic year, the academic staff of universities, academies, institutes consisted of 133 459 individuals, including scientific and pedagogical staff — 104 710 individuals, researchers — 5 966, pedagogical workers — 22 783.

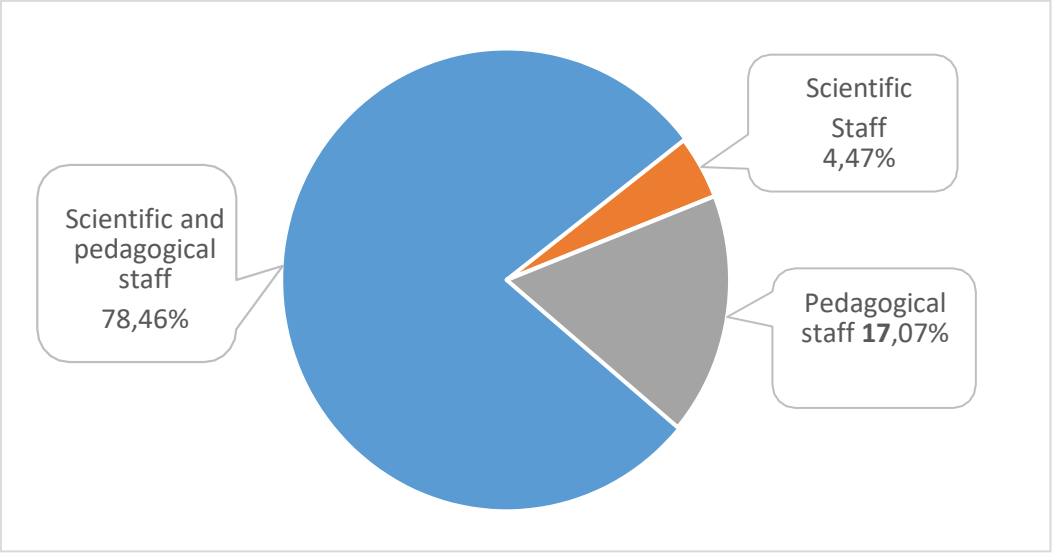


Fig. 3.1. (Universities, academies, institutes) Academic Staff structure (At the beginning of 2019/20 academic year)

116 222 individuals (87.1%) were full-time employees. But the situation is different for certain categories of teaching staff: if the share of full-time scientific and pedagogical staff and pedagogical staff is 88% and 90.2%, respectively, the share of full-time researchers is only 59.2%.

Table 1.3.1

Number of HEIs' Academic Staff by categories

(At the beginning of 2019/20 academic year)

	Total	Full-time staff	Part-time
Scientific and pedagogical staff	104 710	92 130	31 870
Scientific staff	5 966	3 531	3 039
Pedagogical staff	22 783	20 561	4 758
	133 459	**116 222**	**39 667**

Source: State Statistics Service of Ukraine.

78 680 individuals (59% of their total number) of HEI's teaching staff have a scientific degree, including Doctor of Science degree — 15 584 (11.7%), Ph.D. — 63 096 (47.3%).

Table 1.3.2

Number of HEIs' Academic Staff with a degree

(At the beginning of 2019/20 academic year)

Degree	Scientific-pedagogical staff	Scientific staff	Total
Ph.D.	60 364	2 732	**63 096**
Doctor of science degree	14 558	1 026	**15 584**
	74 922	**3 758**	**78 680**

Source: State Statistics Service of Ukraine.

The academic rates are attached to the 55 346 individuals of HEI's teaching staff(41.5% of their total number), including Professor — 12 402 (9.3%), Associate Professor — 41 548 (31.3%), Senior Researcher — 1396 (1%).

Table 1.3.3

Academic qualifications **(At the beginning of 2019/20 academic year)**

	Scientific-pedagogical staff	Scientific staff	Total
Professor	11 699	703	**12 402**
Associate professor	40 679	869	**41 548**
Senior Researcher	756	640	**1 396**
	53 134	**2 212**	**55 346**

Source: State Statistics Service of Ukraine.

The gender balance of the teaching staff is slightly shifted in favor of women, whose share is 56.5%. However, the situation also differs for certain categories of teachers: if the share of women among scientific and pedagogical staff and pedagogical staff is 56% and 63.5%, respectively, the share of women among researchers is only 37.6%

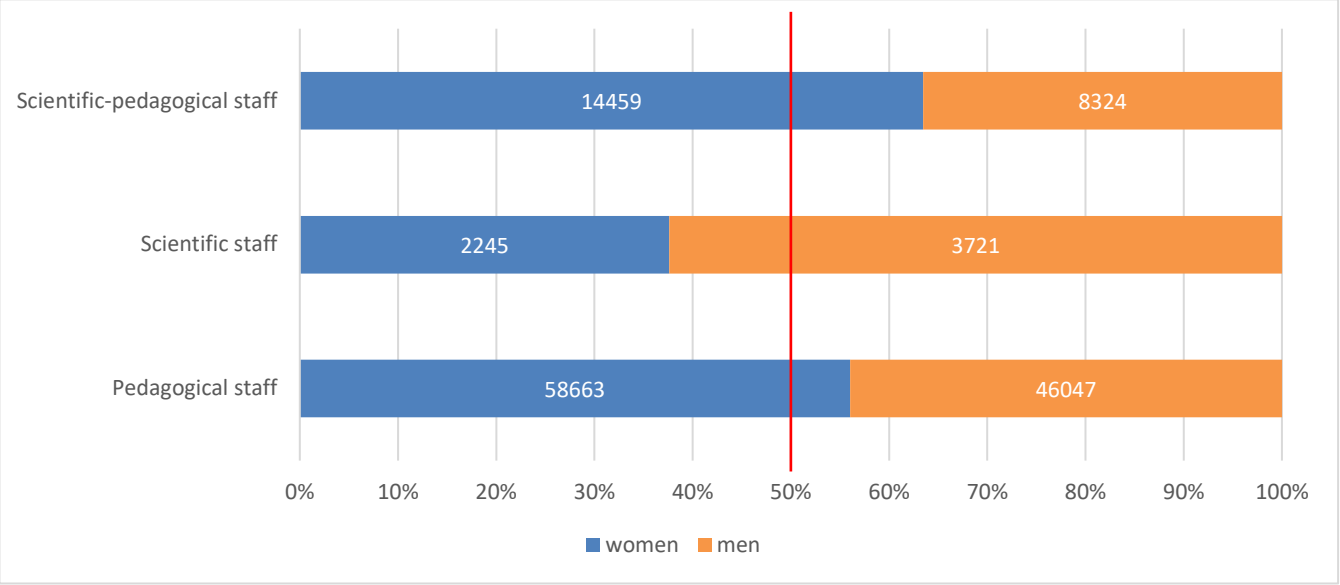


Fig. 1.3.2. Gender balance of HEIs' Academic staff
(At the beginning of 2019/20 academic year)

PART 2.

HEI'S INTERNAL QUALITY ASSURANCE SYSTEMS

2.1. General information on higher education institutions that took part in the survey

183 HEIs took part in a survey (in the Survey-2017 — 124). The composition of higher education institutions that took part in the survey looks like this.

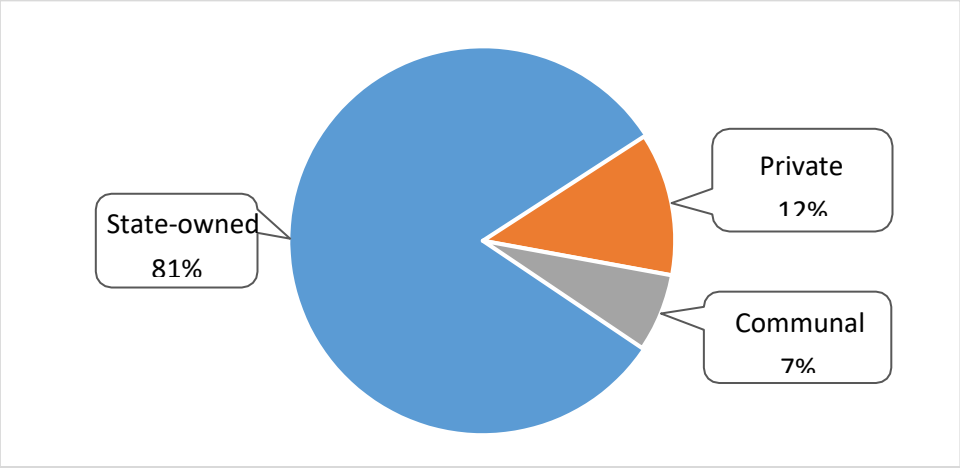


Fig. 2.1.1. HEIs distribution by the form of ownership

State-owned HEIs are leaders by the form of ownership (81%), but institutions of communal (7%) and private (12%) forms of ownership were better represented this time, which allows us to speak of a higher level of representativeness of the results.

All regions of Ukraine were relatively equally represented in the survey (Fig. 2.1.2.).

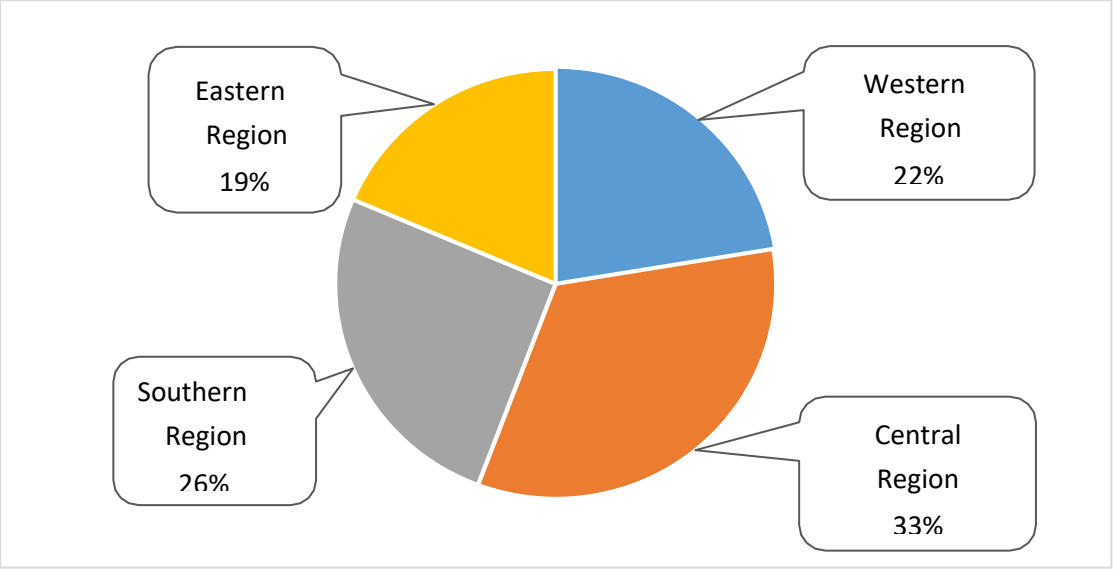


Fig. 2.1.2. HEIs by their location region

Compared to the Survey-2017, the representation of institutions of Eastern regions decreased slightly, while the share of HEIs in the Central region increased. Especially increased the share of Kyiv universities (18% compared to 11% in Survey-2017).

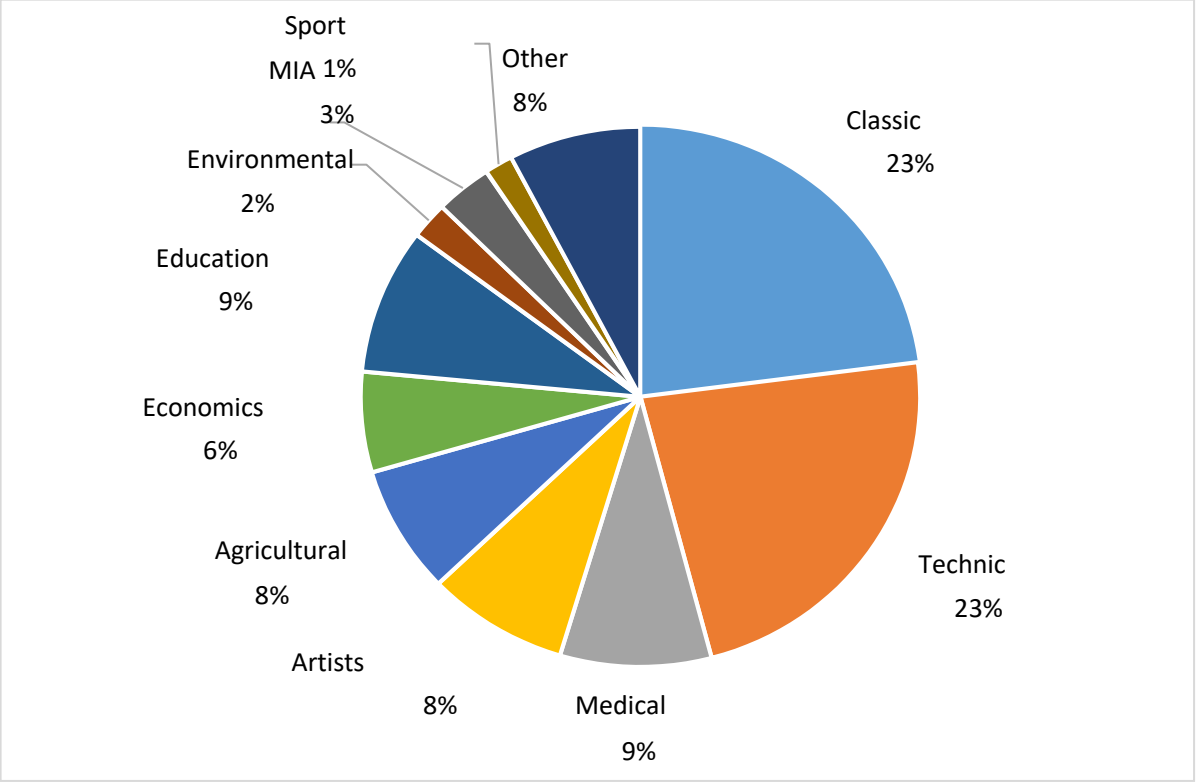


Fig. 2.1.3. HEIs by the specialization

It is important to emphasize that the participants of the survey were HEIs of different program subject areas and of different subordination areas (Fig. 2.1.3.). It, to some extent, corresponds with the real distribution of institutions by specialization in Ukraine.

2.2. Availability of internal quality assurance system

Conforming to the self-assessments of the HEIs, the vast majority of them believed that **they have a system of internal quality assurance of education** — 125 (68.3%) out of 183 stated its existence, and 58 stated the presence of some of its elements (Fig. 2.2.1.).

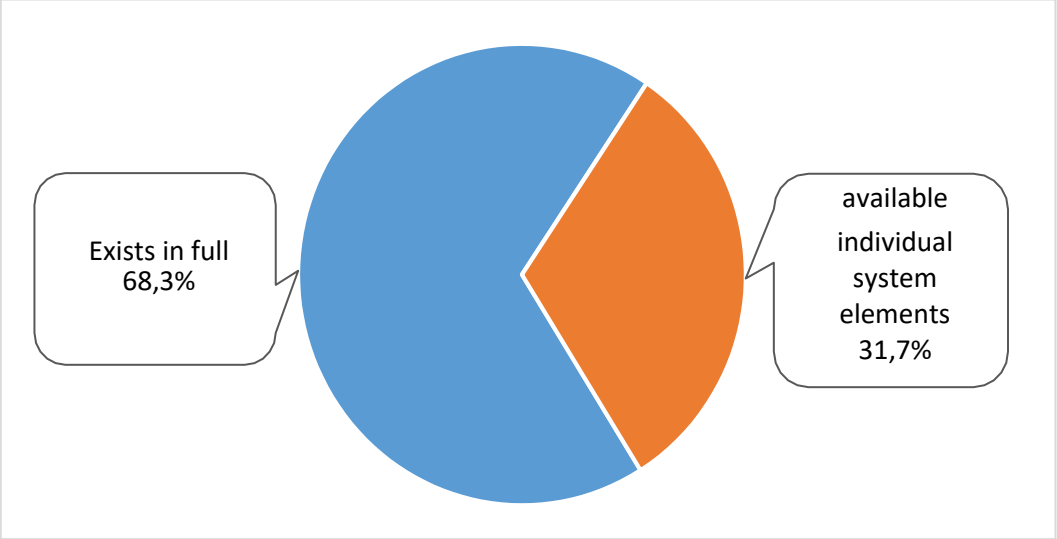


Fig. 2.2.1. Internal quality assurance system existence

It is worth noting that, unlike the Survey-2017, no institution reported the absence of such a system or its individual elements. Compared with that study, there was a shift in the balance of responses. A bigger number of institutions have acknowledged that they do not have a full-fledged system, but only some of its components. We can see the fact that at least some universities are aware that such a system is much more complex than they previously thought. Obviously, it was significantly influenced by the launch of the National Agency for Quality Assurance in Higher Education.

Table 2.2.1

Answers, regarding the internal quality assurance system existence, comparison 2017 vs. 2019

	Survey-2017	Survey-2019
Exist	88,7 %	68,3 %
Only elements	9,7 %	31,7 %
No answer	1,6 %	–

If we divide the HEIs by the form of ownership and their specialization, we can observe the following. The share of HEIs, who declared the availability of a full-fledged internal quality assurance system are: for state-owned — 70,5%, and 66,7% for communal ones. Instead, private HEIs were more self-critical, their share is 54.5%.

If we consider the situation in institutions of different specializations, the attention is drowning to the, probably, overly optimistic self-assessment of agricultural (85.7%) and economics (81.8%) institutions of higher education, on the opposite, classical universities (54.8%) have a much more realistic vision.

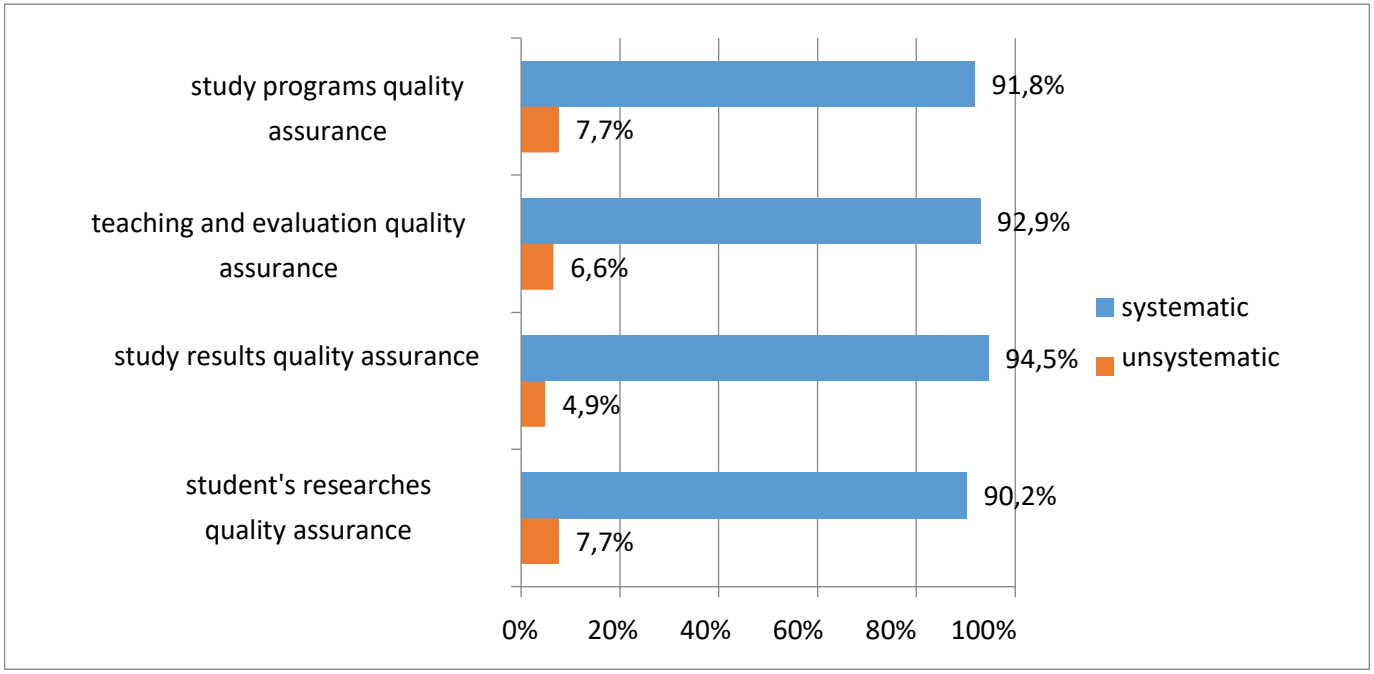


Fig. 2.2.2. Elements of internal quality assurance usage (%)

The analysis of the survey results showed that in reality we can talk about the existence of an internal quality assurance system in a fewer number of institutions.

Comparison with the data of the Survey-2017 shows insignificant differences. At the same time, it is noteworthy that for such a key element as Study programs quality assurance, the share of universities that declare its systematic implementation has even decreased (90.2% vs. 96.7% in 2017). In addition, none of the institutions declared the absence of such an element altogether (in 2017 there were two such institutions).

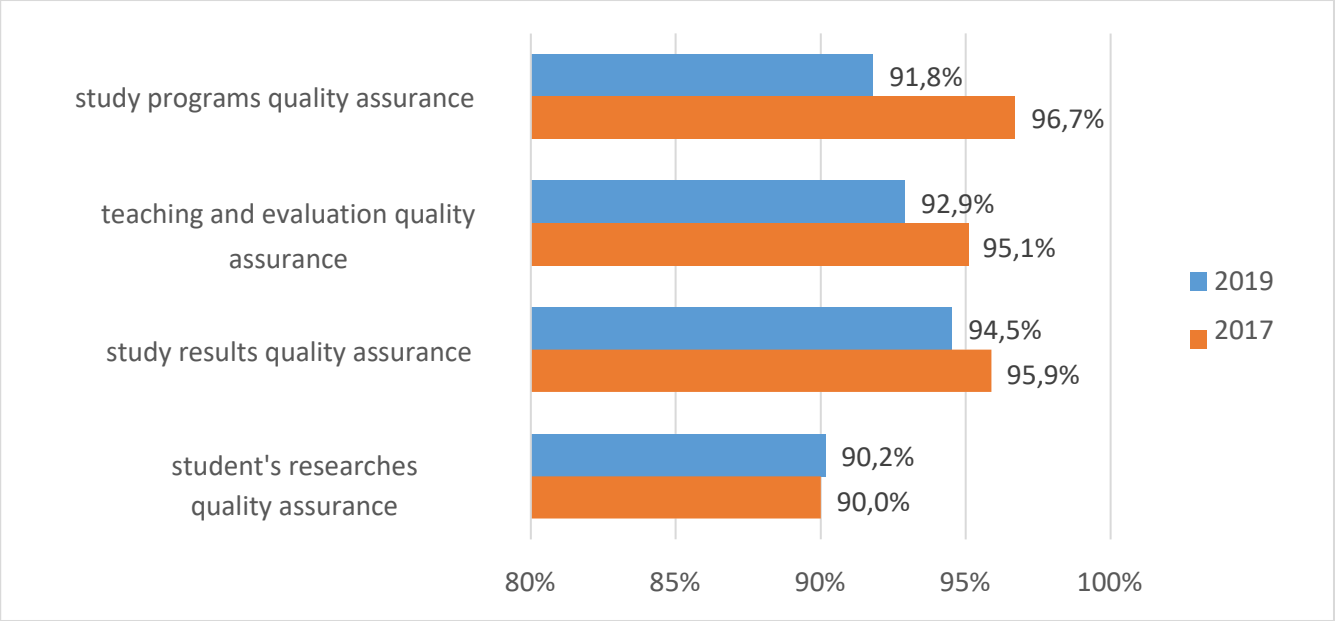


Fig. 2.2.3. Elements of internal quality assurance usage (compared to the Survey-2017)

Analysis of the survey results confirmed that all the participants agreed that building an internal quality assurance system is impossible without creating a set of documents that define the vision, goals, content, procedures, etc., of quality assurance within the institution. However, the majority prefers the idea ofdevelopment of an integrated document (79.8%), which would regulate the relevant processes, and this distribution is also fair in terms of institutions divided by the form of ownership and specialization. Compared to the results of the Survey-2017, thisindicator demonstrates a significant increase (it was 66%), consequently, we can talk about a certain trend.

It is interesting to compare the answers to this question and to the question of the existence of an internal quality assurance system in the institution. Thus, 111 institutions (60.7% of the total number of survey participants) declared the existence of an integrated document and a full-fledged system; at the same time, the presence of such a document, but the absence of a full-fledged system takes place in 35 institutions (19.1%). Instead, 14 institutions (7,7%) declared the availability of a system, without the presence of an integrated document. The situation when there is no such a system and no document was observed in 23 institutions (12.6%).

Table 2.2.2

Internal quality assurance system existence vs Integrated document existence

	integrated document	separate documents
The system exists	60,7 %	7,7 %
Available individual elements	19,1 %	12,6 %

An attempt to find out when the problem of quality assurance came into the focus of HEIs management was made. According to the survey results, we can distinguish three periods of local quality management systems formation. In the first period — until 2000 inclusive — such systems were implemented only by separate institutions-enthusiasts, able to realize the systemic impact of such systems on the progress of the institutions themselves (this answer was given by 6 HEIs).

The second period covers the years 2001 2014, when the range of such institutions widened, under the influence of Ukraine joining the Bologna Process (56 institutions witnessed the start of relevant processes during this period). The quality assurance process became comprehensive after the adoption of the Law of Ukraine On Higher Education in 2014, one of the main goals of which was to create local quality management systems. As a result, in the following years (2015 2019) such systems, in one form or other, began to appear in dozens of institutions (this answer was given by 107 HEIs).

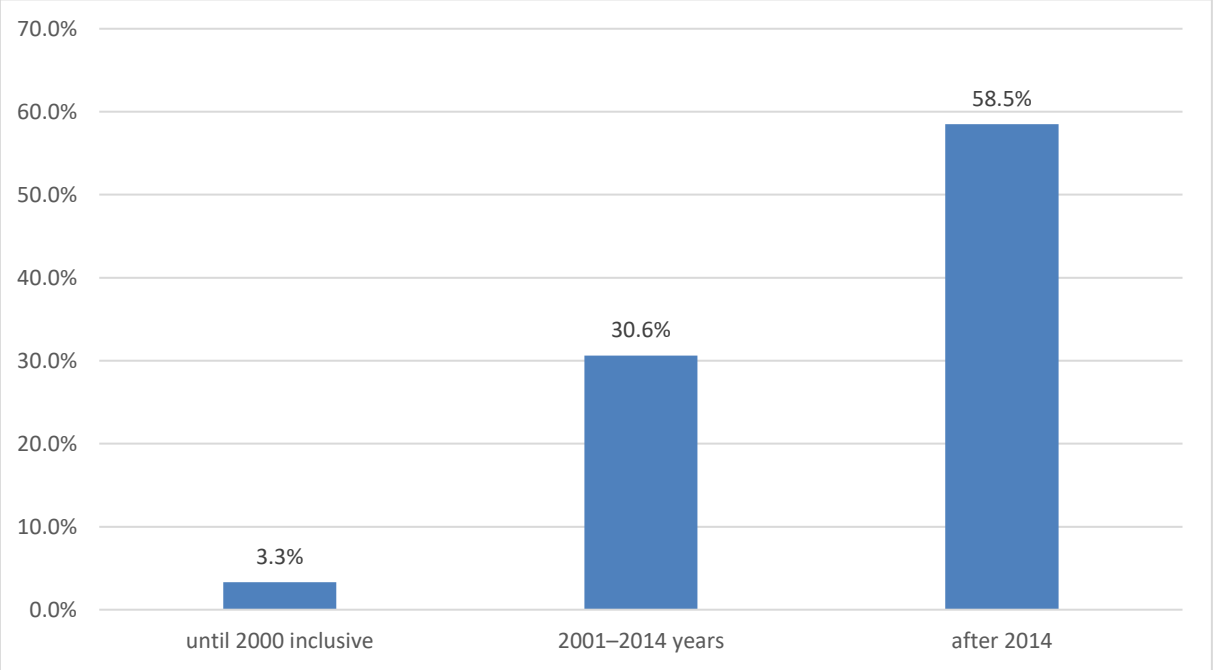


Fig. 2.2.4. Year, when the internal quality assurance system implementation begun in HEIs

Modern approaches to quality assurance systems of higher education focus on the establishment of modern standardized management models of the organization, aimed at improving the effectiveness of management processes, promoting sustainable development of the organization, achieving transparency in university management, increasing its competitiveness and more. The effectiveness of the establishment of such models can be verified, in particular, by the presence of certificates issued by the recognised authorities.

Therefore, one of the purposes of the survey was to find out the share of HEIs which have already got such a certificate, are in the process of certification or preparing for it. The survey results show that only 50 institutions (27.3%of the total number of survey participants) had such certificates, and 2 institutions (1.1%) were in

the process of certification. At the same time, 105 HEIs (57.4%) stated that they are only preparing for certification. Obviously, such a promise should be treated with a great caution, as this process does not have agreed deadlines and clear commitments.

It is worth noting that out of 50 institutions with certificates of quality, 46 are owned by the state, 3 are private and 1 is communal. If we analyze the situation in terms of HEI's specialization, the most active were medical and technical institutions (50% and 45.2% of institutions of relevant specializations were certified). Instead, only 14.3% of classical universities can report they passed certification.

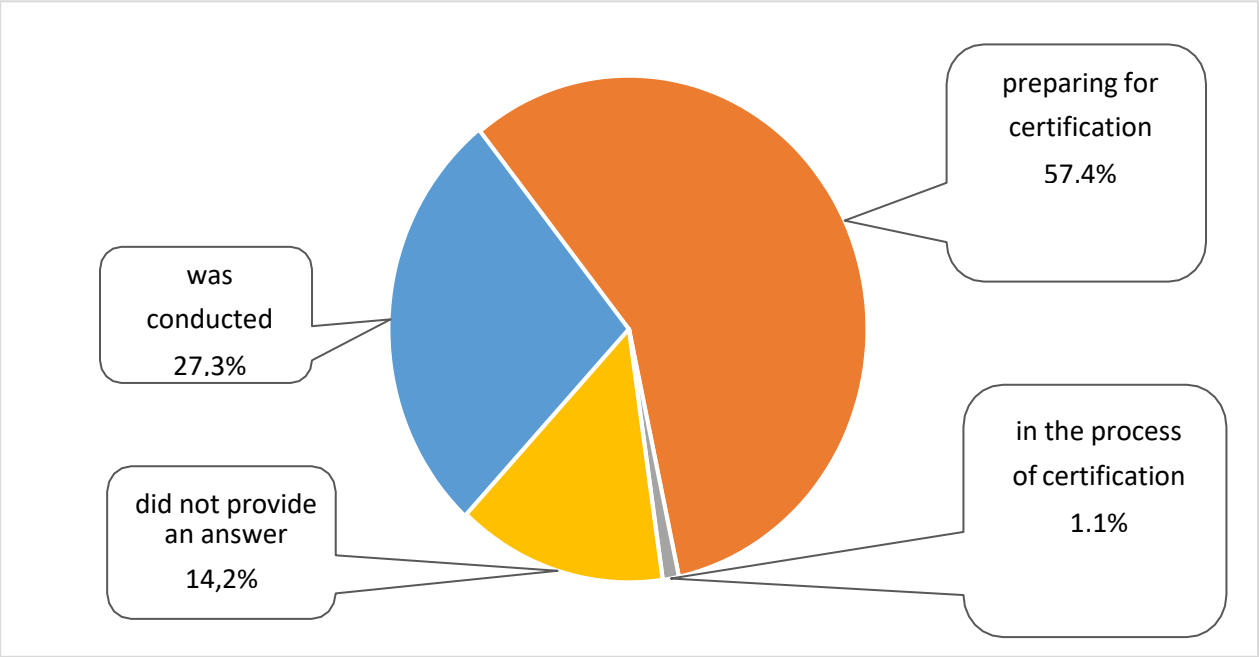


Fig. 2.2.5. Internal quality assurance system' certification

According to the survey results, 45 HEIs (24.6 %) declared to have an existent full-fledged system of internal quality assurance and a passed certification. At the same time, 5 institutions declared to have only a certification, without a system of internal quality assurance.

The majority of HEIs were certified in accordance with ISO 9001 (ISO 9001:2008 and ISO 9001:2015) standards. Almost all of them were certified during 2017-2019 years. The problem is that such certification does not quite correlate with the comprehensive perspective of ESG-2015, which is related to the concept of university autonomy — the unique internal culture and the responsibility of the entire HEIs for their own quality.

The answers to an additional question, regarding the reasons of certificate's absence,made it possible to see that most institutions explain this by the lack of state or departmental requirements for the mandatory nature of such actions. Twice the

smaller share of HEIs are referring to the lack of necessary funds. Unfortunately, the possibility to fill in their own reason, which was used by 44 institutions, did not demonstrate any rational explanations (except for one institution, which referred to its status of temporarily displaced institution).

The classification of the key problems of quality assurance systems implementation, indicated by the respondents, allows us to identify several of their groups (Fig. 2.2.6.). To the group of objective factors were included: the lack of financial resources, permanent changes in the system of higher education, regulations, etc., as well as low motivation of scientific and pedagogical staff. Subjective factors included: lack of human resources, reference to the lack of clear instructions from the Ministry of Education and Science of Ukraine and methodological materials on the implementation of such a system.

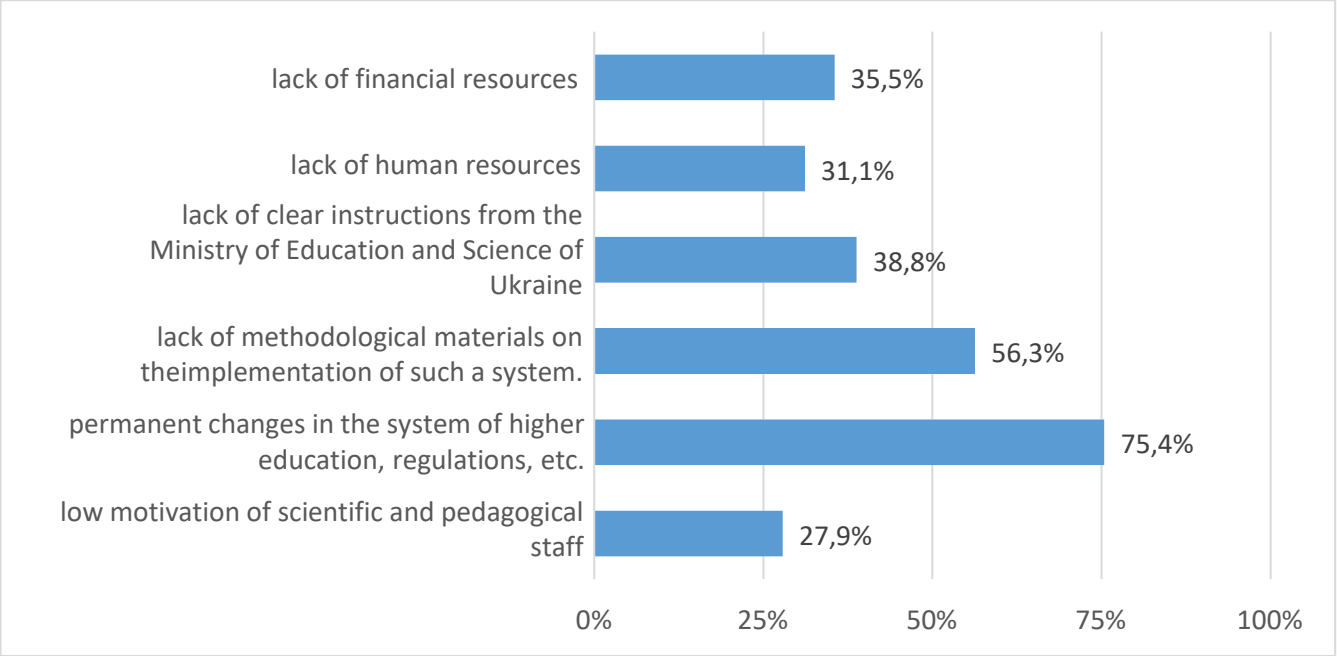


Fig. 2.2.6. Obstacles faced during the internal quality assurance system implementation (%)

This allows us to conclude that some higher education institutions still do not strive to move beyond the model of prescriptive management and are unprepared to make their own decisions, take responsibility for evaluation of their work and the quality of services provided and instead are speculating on the lack of various instructional and normative materials.

It should be noted that these results are completely corresponding to the results of the Study-2017, which indicates certain inertia in the perception of the need to introduce internal quality systems.

An important element of the survey was to find out how the local quality management systems are structured and who coordinates them.

Thus, only in the half of institutions were created separate structural units for this purpose; in the 8.7% of institutions was created a separate work-position. In 30.1% of universities these functions are transferred to Educational and Methodical departments, in 13.7% — to the Deans. This practice reveals that in a significant part of HEIs there is no real understanding of the importance of this area of work, as educational and methodological units are traditionally overloaded and do not have any sufficient resources, as well as, human resources. It should be noted that this situation has remained unchanged in institutions of various forms of ownership and specialization. Compared to the Survey-2017 situation almost had not changed.

Among 19.8% of institutions that had chosen their option, an interesting by its systematic approach is the following: "1. A Quality Coordination Board has been established. 2. The responsible executor for improvement of the quality assurance system is appointed. 3. QMS Coordinator has been appointed. 4. The department of quality monitoring is created".

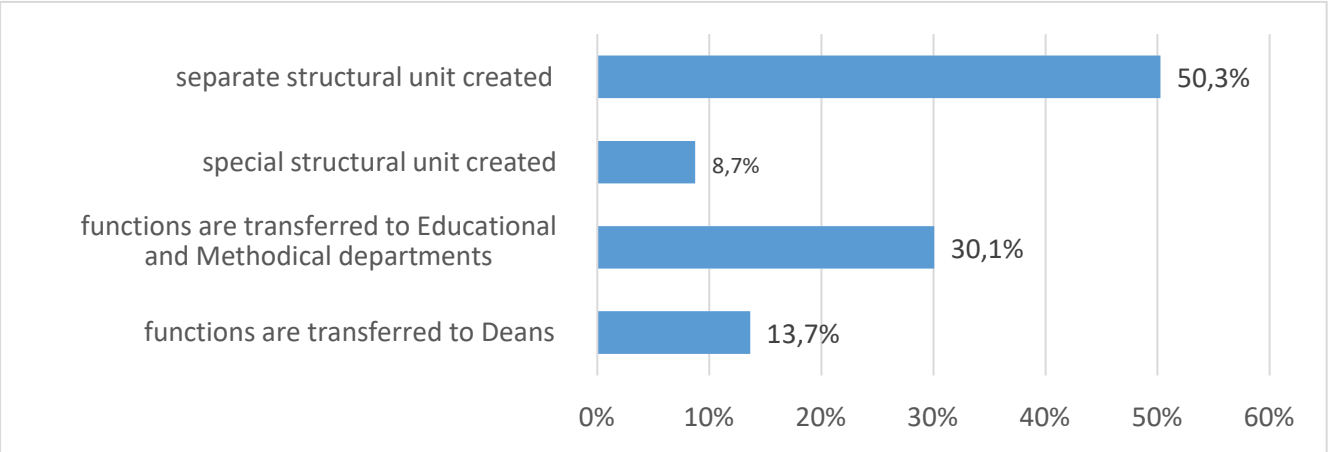


Fig. 2.2.7. Coordination structures of internal quality assurance system (%)

Answers to questions about who in the institution coordinates the work of the internal quality assurance system are carrying out important details. Most of these functions are the responsibility of Rector or Vice-Rector for Academic Affairs. This is common for 70% of the HEIs. The involvement of the Rectors in this kind of work attracts special attention, since it demonstrates the extent to which they are ready to focus their personal efforts on this. Thus, the answers that Rectors are engaged in such coordination were given by 27.9% of institutions, and in half of them Rectors conduct it on their own.

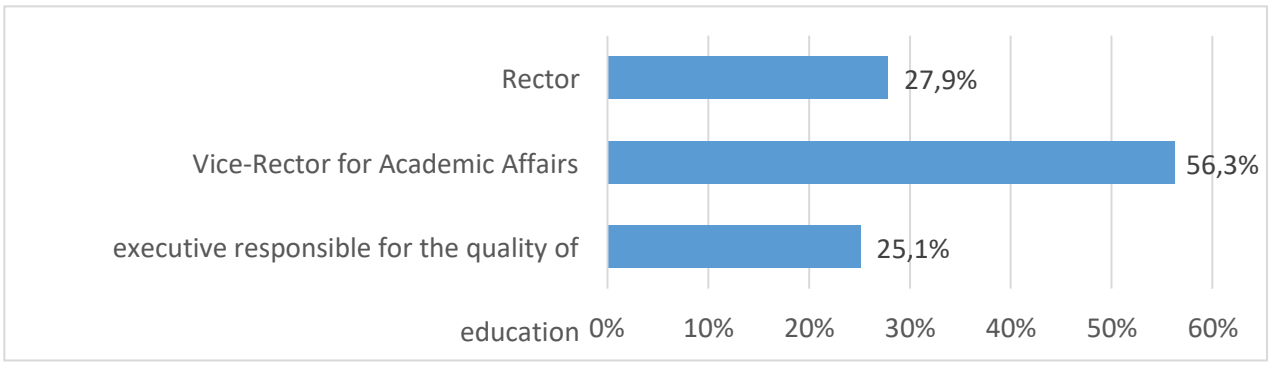


Fig. 2.2.8. Coordinators of internal quality assurance system (%)

2.3. Quality of Study Programs

One of the key factors that demonstrate the commitment of educational institutions for change is the regular review of the list of study programs. Thus, the vast majority of institutions (74.9%) stated that they are reviewing the list of available study programs every year (Fig. 2.3.1.). In the Survey-2017 this figure was 82.4%. It could be observed that in the first years after the adoption of the new Law of Ukraine "On Higher Education" the process of launching new programs was abrupt and even chaotic, due to the subjective desires to create study programs for someone's individual purposes or because of their hypothetical attractiveness. The reality of the educational services market, as well as the need to accredit each existing program forced the HEIs to radically revise their list, and this, obviously, led to both these high figures and the downward trend.

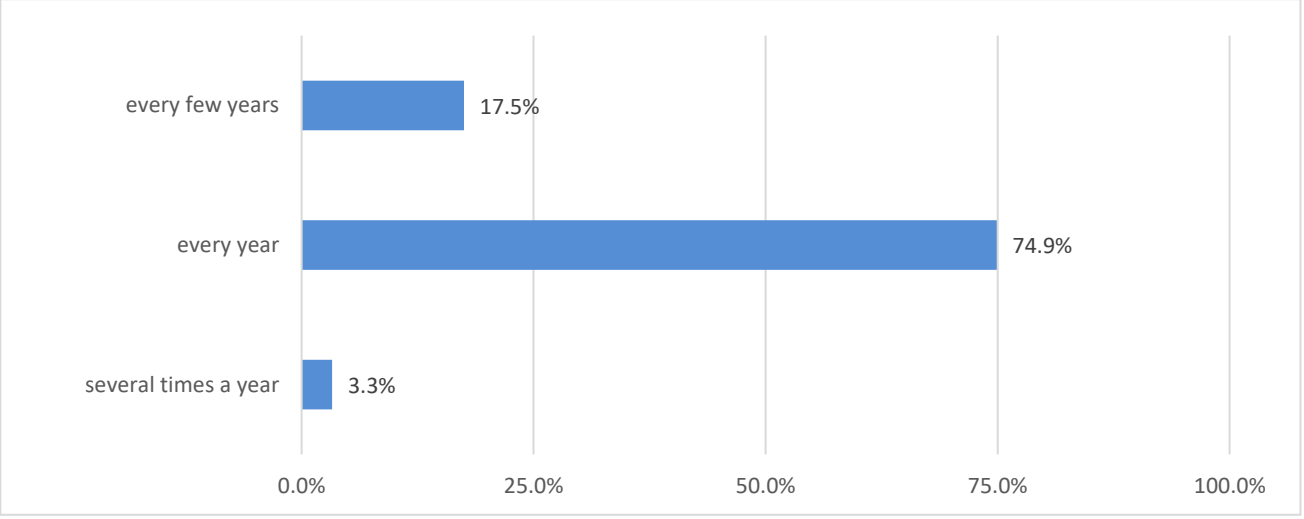


Fig. 2.3.1. Regularity of Study Programs List revisioning (%)

The reasons for the launching and closing of study programs are characterised by the following. The results of the survey showed that when launching new study programs, almost all HEIs (95.1%) focus on market conditions. However, it should be emphasized that it is not always based on a real analysis of the labor market situation,

but it is largely focused on following the successful practices of recruiting students in HEIs (a third of institutions gave such an answer). On the positive side, a large proportion of HEIs (65%) are willing to follow their teachers' initiatives to open new study programs.

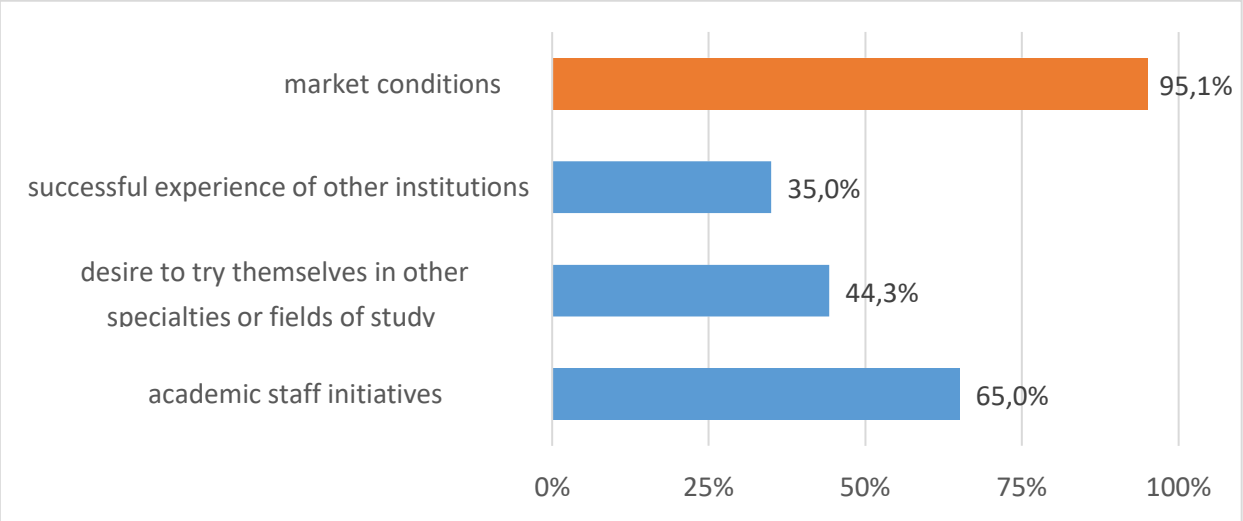


Fig. 2.3.2. Factors causing launch of new study programs (%)

An important component of success in modern education is the willingness to take risks by launching new programs in those subject areas or specialties that have not been presented in institutions yet. It would not be an exaggeration to say that until recently such a proactive position was not common for the vast majority of HEIs. Currently, according to the survey, 44.3% of institutions are demonstrating a desire to try themselves in other specialties or fields of study.

If we divide the institutions by the different forms of ownership, we can say that the general trend is not apparent for HEIs of communal ownership: only one institution of that kind claimed to study the successful experience of other institutions, and one institution reported its readiness to try other specialties/fields of study.

It has already become a trend for classical universities to systematically reduce the enrollment in a number of their traditional specialties. It forces them to become more proactive in implementing programs in the new specialties that have not been in their focus previously, as evidenced by the higher rates of readiness to try themselves in other specialties or fields of study (61.9%) against the backdrop of the average rate (44.3 %).

Speaking about the practice of closing the study programs, we should note that, just like in the case of the Study-2017, this practice is still uncommon, and a significant proportion of institutions do not do it at all. As then, the key reason in most cases is the unprofitability of programs (82 institutions), due to the low demand. Only a small share of the HEIs justified the closing of study programs by the lack of qualified staff to

support the program (24 institutions), negative feedback from employers employing graduates (14 institutions) and negative feedback from students/graduates (13 institutions). It clearly shows the unwillingness of universities to respond quickly to the major stakeholders needs.

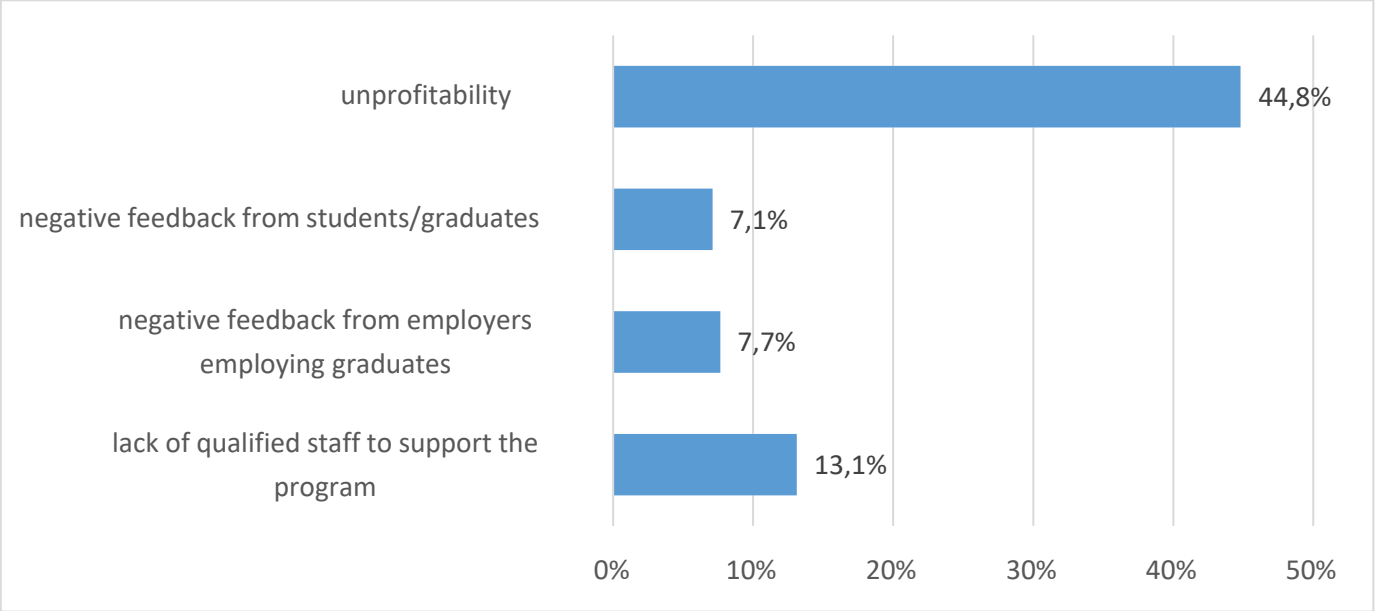


Fig. 2.3.3. Factors causing closing of study programs (%)

During the survey a specific attention was paid to the analysis of the nature of stakeholders' interest investigation, made by educational institutions throughout the process of adjusting the list of study programs. Based on the data obtained, we can note that, finally, the first place of importance went to the survey of employers (93.4% of institutions). Also, most institutions declared that they take into account the academic staff and students' opinions (81.4% each), as well as, the administration of the institution (77%). Compared to the results of the Survey-2017, these figures are lower (for the categories of "administration of the institution" and "academic staff" — significantly lower — Fig. 3.4.). It is, obviously, linked to the launch of the National Agency for Higher Education Quality Assurance, whose accreditation requirements put the relationship with stakeholders in the right place during the evaluation.

Comparing the indicator of academic staff influence on the study program list revision, it should be noted that it is significantly lower (than average) in technical and agricultural universities (69% and 64.3%, respectively), while it is higher in classical, economic and pedagogical (90.5%, 90.9% and 93.8%, respectively).

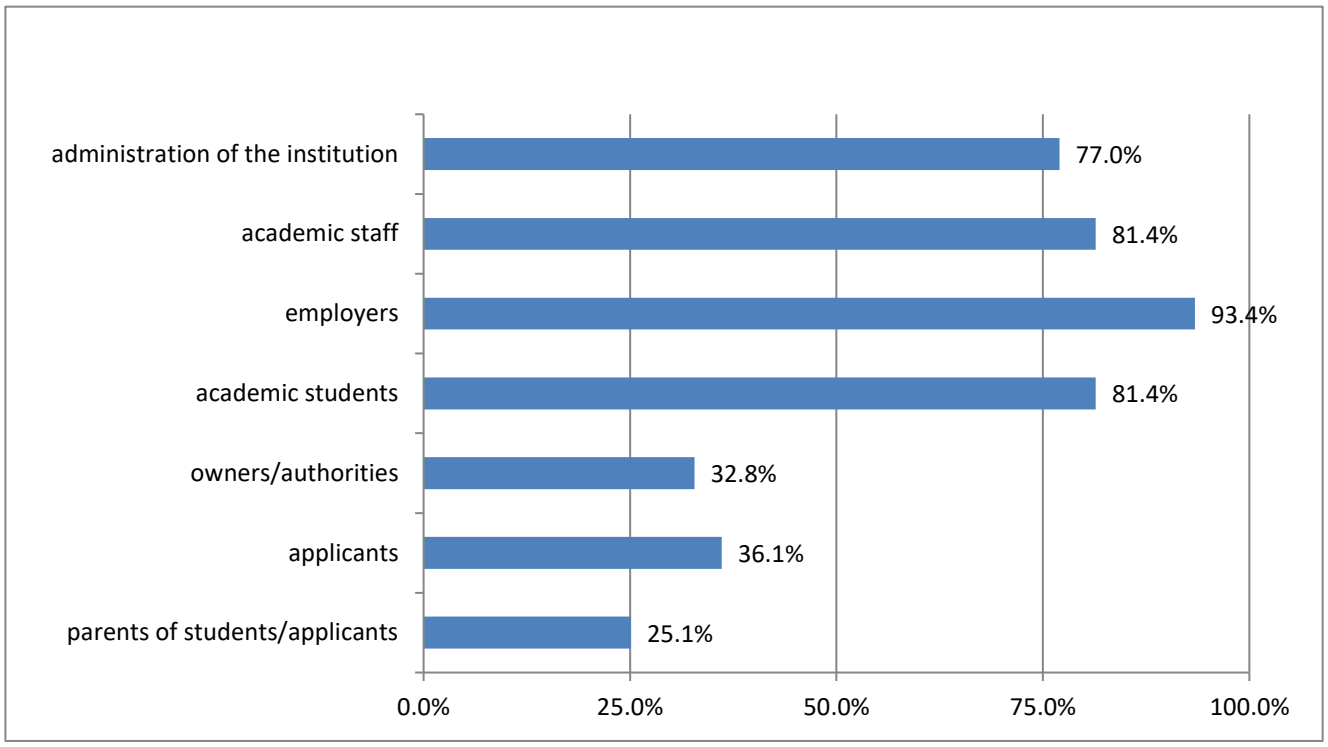


Fig. 2.4. Stakeholders, who are influencing the Study Programs List's revision (%)

The next step was to find out how the stakeholders thoughts were studied. The main tools that are present in the practice of universities today have been identified. All of them are still used quite often. The most common one is the HEI's Scientific Committee discussion (practiced in 93.4% of HEIs), the analysis of the labor market (90.7%); conducting various surveys (83.1%) also remains popular. The level of attention to cooperation with student's government bodies became much higher compared to the Survey-2017 (82.5% vs. 3.2%). In our opinion, it is also the result of the new format of accreditation procedures launched, which has made the participation of students and student government very influential in the evaluation process.

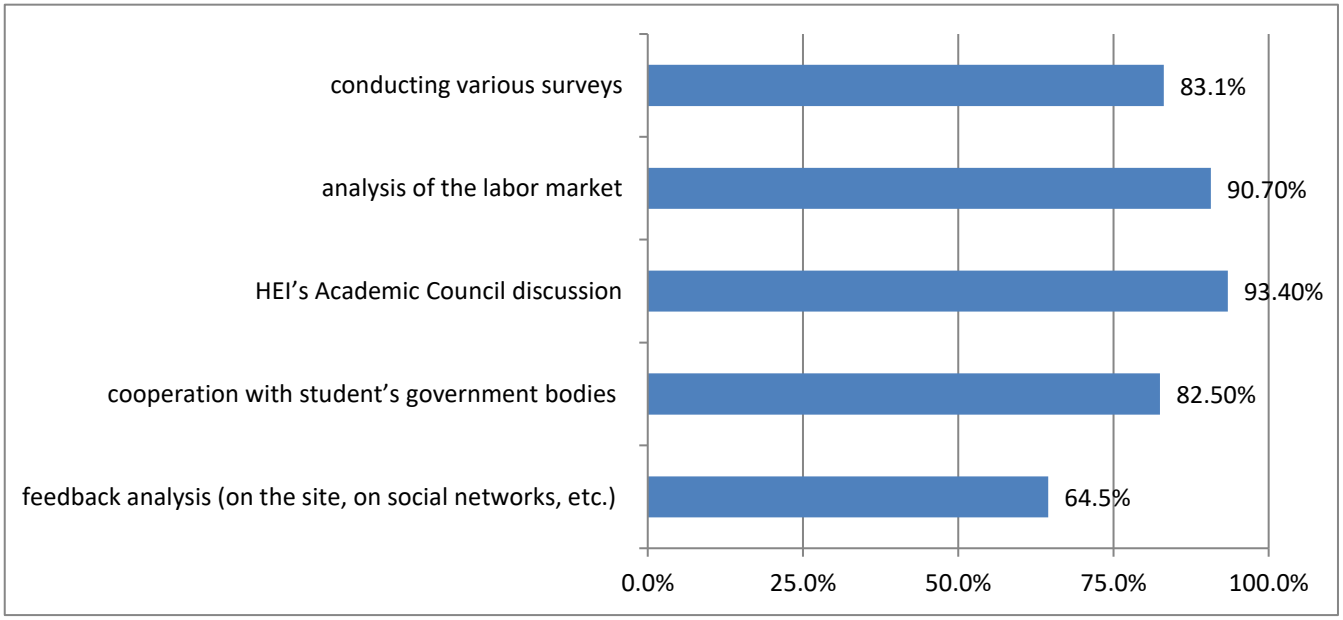


Fig. 2.3.5. Tools, used by HEIs to investigate stakeholders' interests (%)

The popularity and regularity of the tools used to evaluate study programs is presented at the Figure 2.3.6. The range of tools was based on international experience. We can observe that, in general, HEIs prefer regular student's surveys on the quality of study programs (75.4%), student's surveys on the level of their satisfaction with the content of curricula (73.2%), and comparison of the study programs' content with similar programs in other local HEIs (61.2%). y the way, the last indicator was dominant in the Survey-2017 and was then 72.4%. An increase inthe level of attention paid to the student's surveys is quite understandable, given the above considerations. It is worth to be noted that if we combine the figures of systematic and unsystematic tools we will get a figure of 97-98%, which is the same forthe Survey-2017.

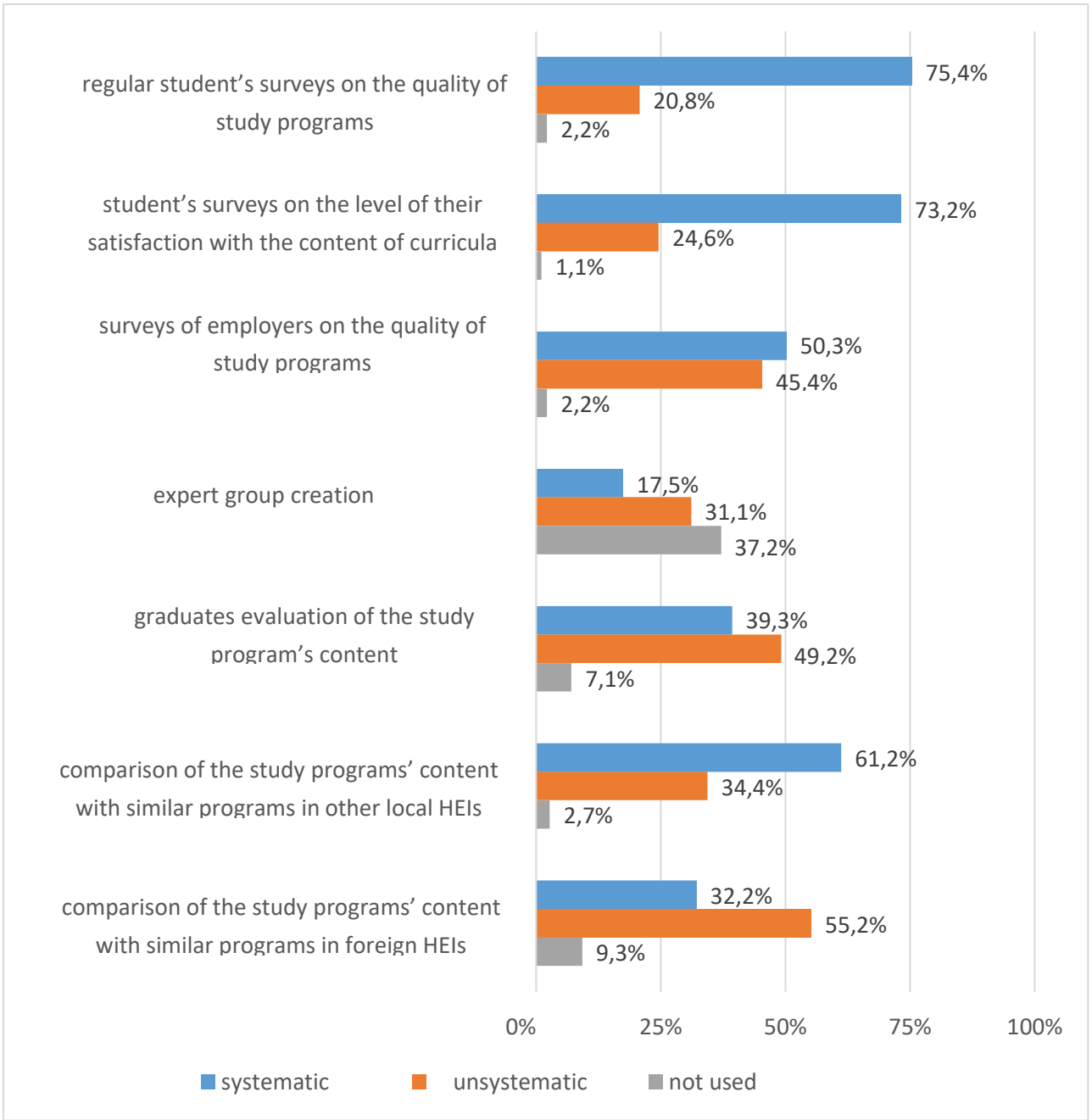


Fig. 2.3.6. Tools, used to evaluate the quality of study programs (%)

We can talk about a certain increase in attention to surveys of employers: if in 2017 this tool was ignored by 8.7% of institutions, in 2019 the ignorance of it was admitted by only 2.2%. The situation is similar, though appears more vividly, with such a tool as comparison of the study programs' content with similar programs in foreign HEIs: in 2017 it was not used by 35.5%, and in 2019 — only 9.3%.

Compared to the Survey-2017, the situation with the tool "A graduate's evaluation of the study program's content" remained more or less unchanged: 88.5% of institutions use it systematically or unsystematically (in 2017 — 88.7%).

Unfortunately, traditionally, the most effective, although the least used, according to international observations, tool — creation of the expert group of professionals in a particular field was not involved by more than a third of respondents(37.2% in 2019 and 35.5% in 2017).

7 institutions took the opportunity to provide their answer, giving a total of 13 answers. The ones among them, such as: "Internal audit of the relevant processes", "Monitoring of the process indicators", " Risks analysis and evaluation", " Analysis of quality management system processes", "Focus on international standards attract attention the most".

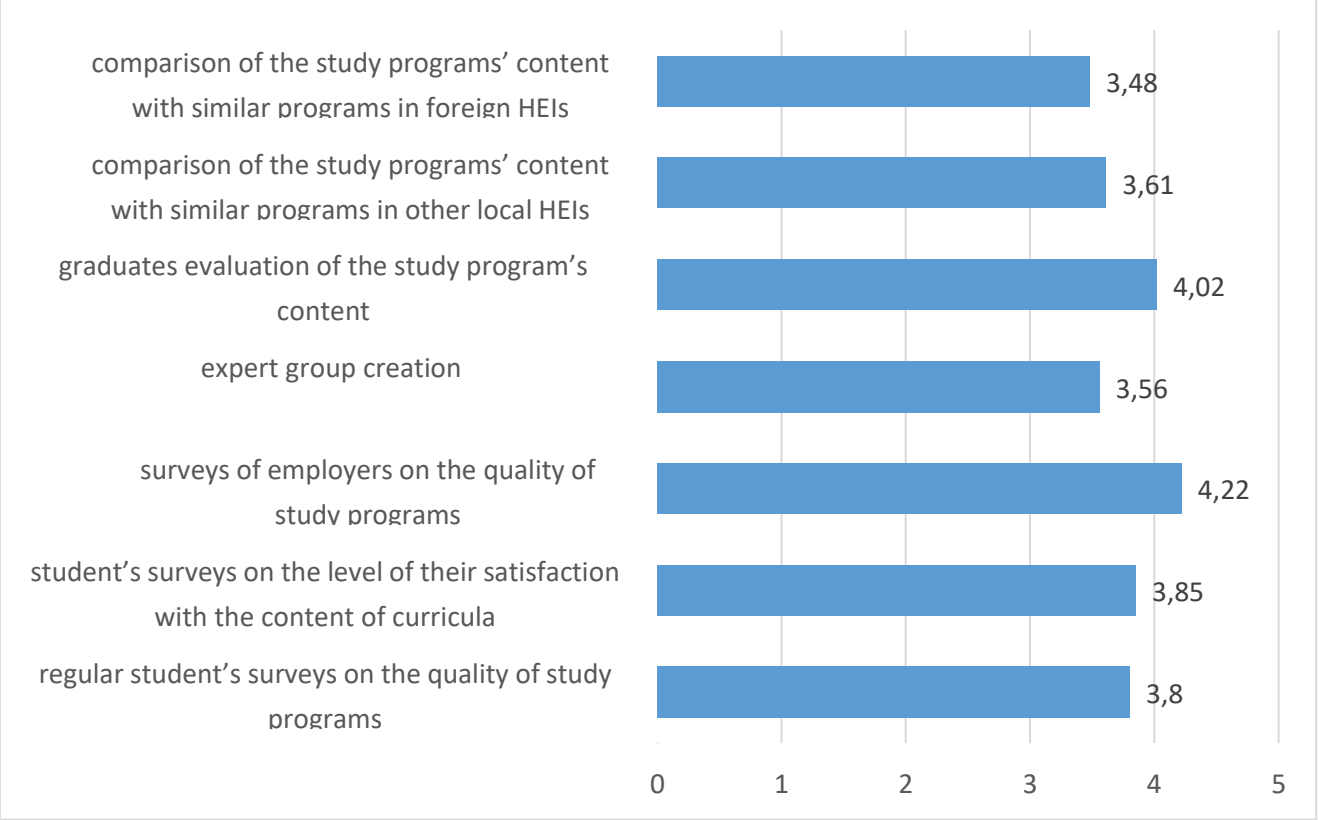


Fig. 2.3.7. Tools' effectiveness in quality of study programs investigation (average score)

The answers to the questions about the effectiveness of these tools create a slightly different Figure. It is noteworthy that the most highly rated (on a five-point scale, where 1 — completely ineffective, 2 — rather ineffective, 3 — effective and ineffective to the same extent, 4 — rather effective, 5 — very effective) tools Survey of employers on the quality of existing study programs (average score 4.22) and "A graduate's evaluation of the content of study plans/programs" (4.02).

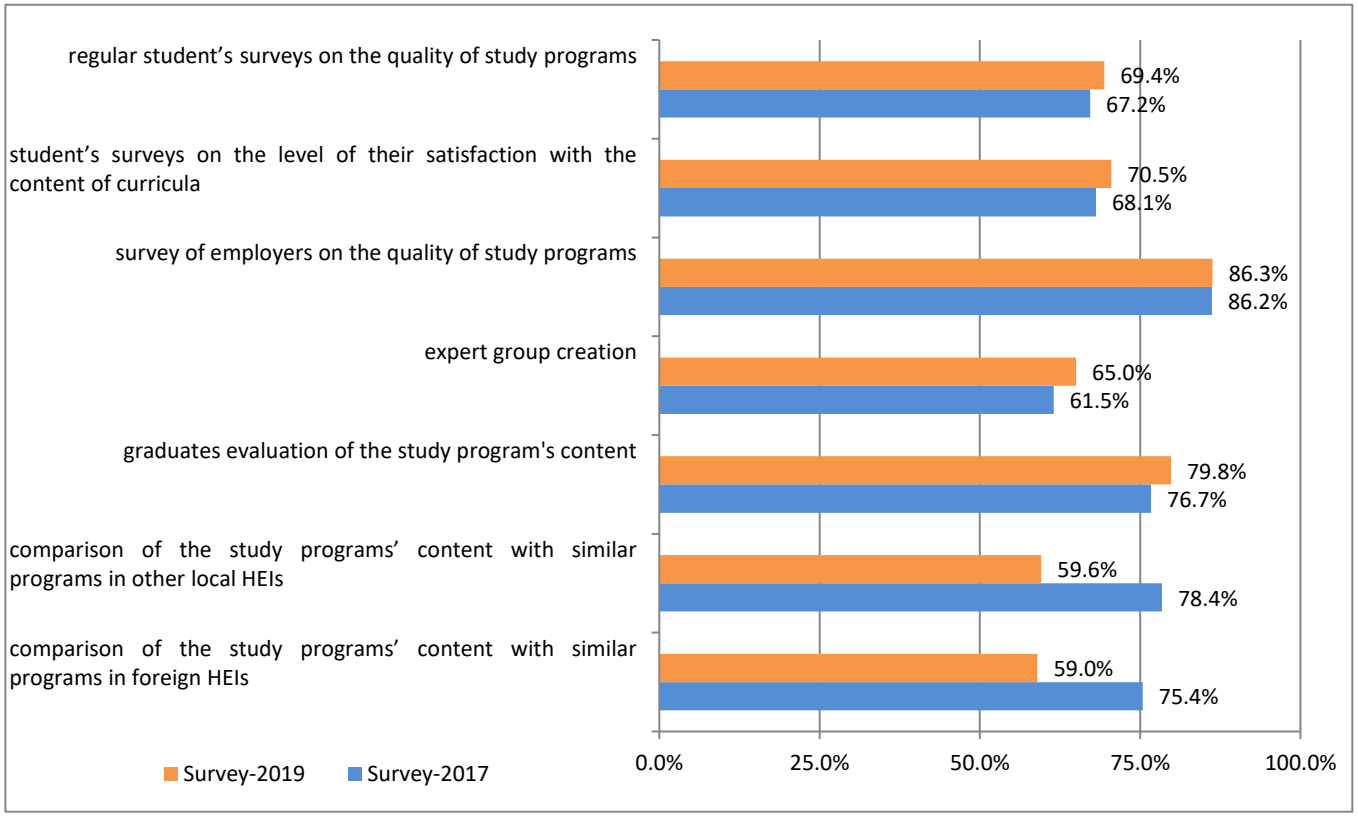


Fig. 2.3.8. Tools' effectiveness in quality of study programs investigation: dynamics (% out of all answers with scores: 4/ 5)

Compared to the Survey-2017 results (Fig. 2.3.8), the situation has not changed much. The thing that attracts attention is the decline in evaluation of the effectiveness of such tool as comparison of the study program's content with the similar programs in local or foreign HEIs — in 2017 they were considered effective by 78.4% and 75.4% of surveyed institutions, respectively, while in 2019 — 59, 6% and 59.0% respectively.

In the case of comparisons with the programs of local institutions, the fact that the number of really worthy examples of such programs is extremely small, became visible. But in the case of comparison with the programs of foreign universities, the situation can be explained by an understanding of the fundamental impossibility of a mechanical transfer of many foreign approaches to the local educational practice.

As in the Survey-2017, the fact that the usage of certain tools and evaluation of their effectiveness differ, also attracts attention. Traditionally, the most popular tools are those that are more accessible and are easier to implement, although they have significantly less potential.

Answers to the question of how the results of quality evaluation, using the tools outlined above, affect the changes in the content of study programs (using a five-point scale, where 1 — do not affect, 2 — rather do not affect, 3 — affect and do not affect to the same extent, 4 — rather influencing, 5 — very strongly influence), demonstrated the following (Fig. 2.3.9.). Tool: "Survey of employers on the quality of existingstudy programs" (average score 4.16) comes to the fore again. The following positions were taken by "A graduate's evaluation of the study plans/program's content" (3.93), "Students survey on the level of their satisfaction with the content of curricula" (3.87), "Regular students surveys on the quality of study programs in general" (3.79).

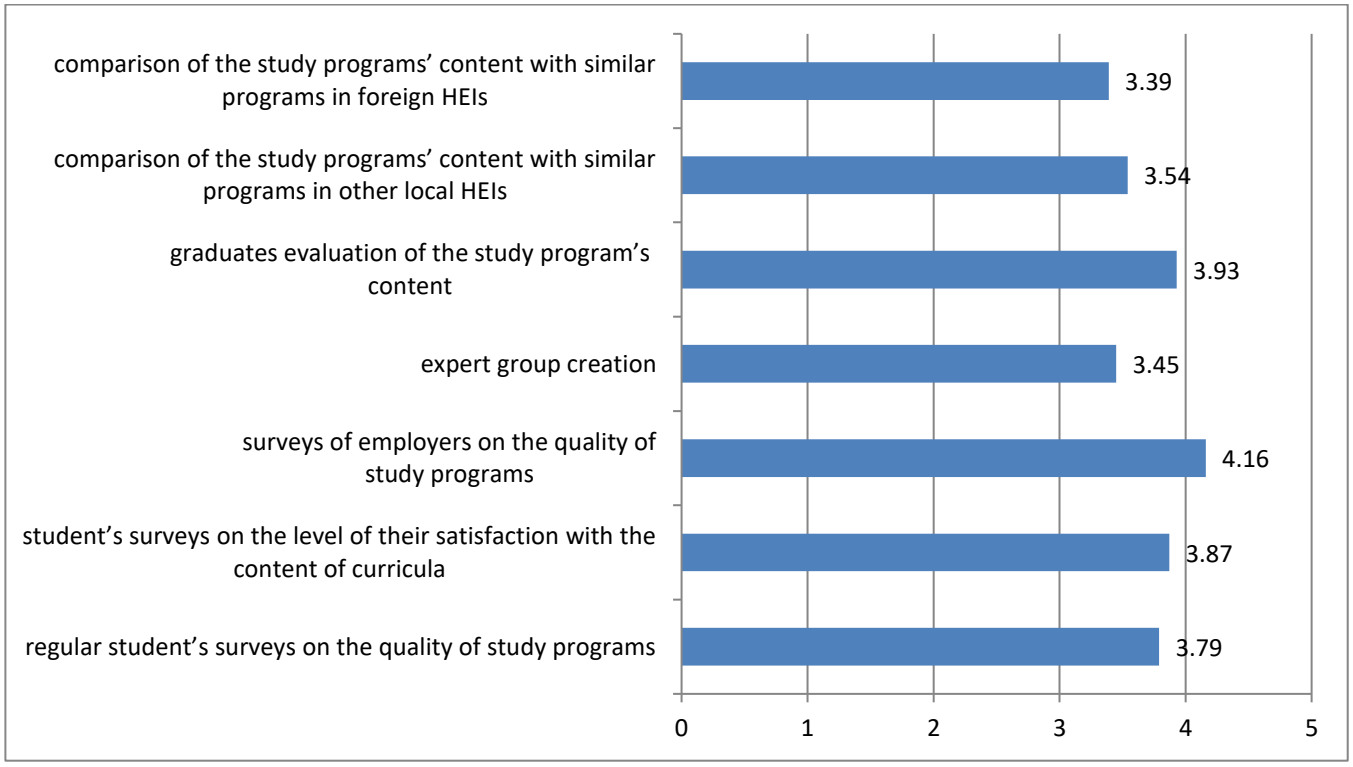


Fig. 2.3.9. The influence of study programs evaluation results on their quality correction (%)

It is symptomatic that, answering the question that allows us to form an idea of the tools effectiveness for evaluation of the study programs quality, and the other question that allows us to evaluate the effectiveness of these tools within particular institutions, HEIs gave almost the same answer.

According to the logic of the PDCA cycle, after the quality control, certain actions should be taken to improve the quality assurance system. The main way to respond to the results of the quality of study programs evaluation is to review the content of existing disciplines — it is systematically practiced by more than 90% of institutions.

The next one is “Expanding the list of disciplines of free choice” (70.5% of surveyed institutions do it systematically and another 23.7% — unsystematically). About a half of the institutions systematically practice a more radical approach: 58.5% are removing unnecessary disciplines (and another 36.1% do so unsystematically); 46.4% are introducing new compulsory subjects (and the same number does so unsystematically).

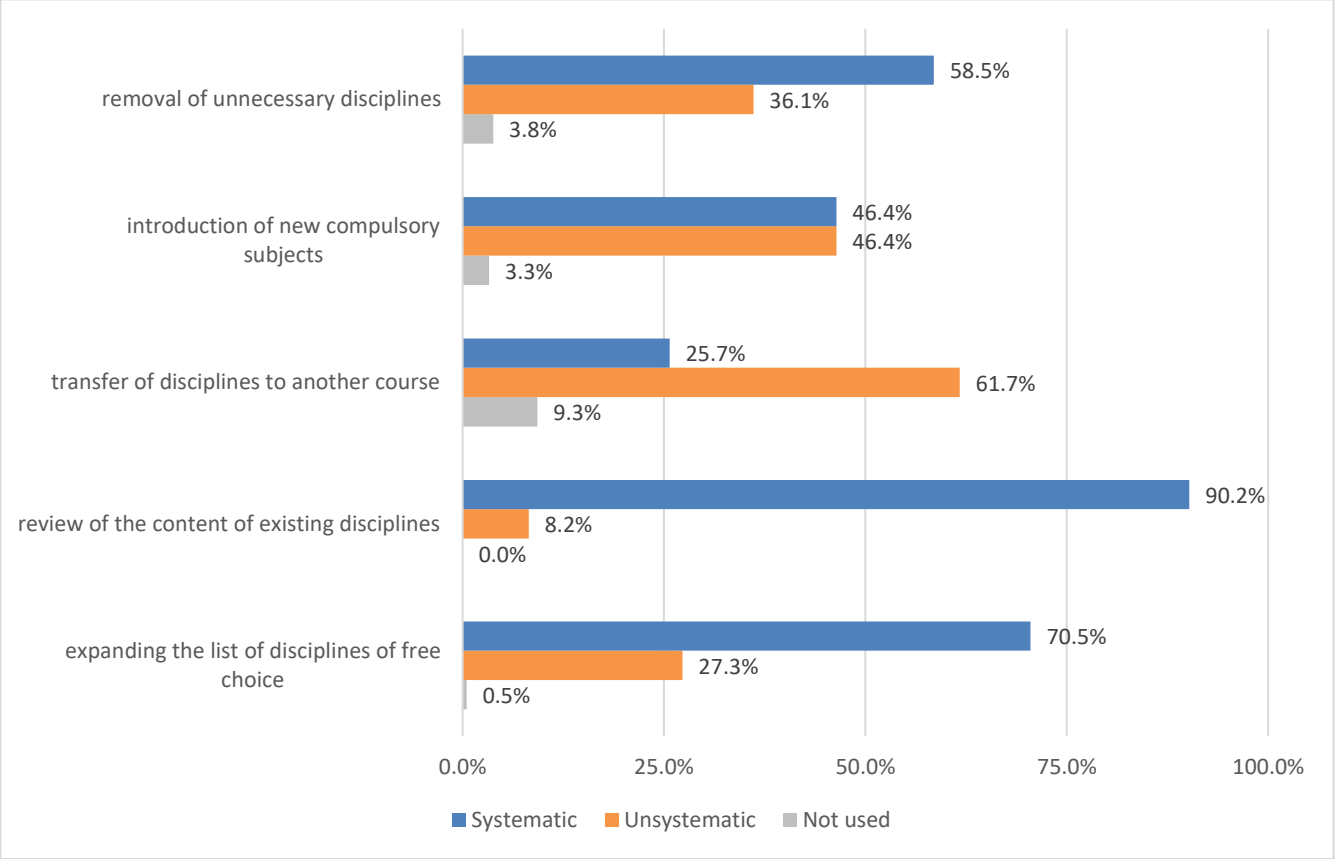


Fig. 2.3.10. Measures taken by HEIs in response to study programs’ evaluation results (%)

A sign of the modern educational process should be the model of a flexible study plan, which allows to promptly making necessary adjustments to the list of disciplines, aswell as the modernization of studying course results. Equipping universities with such a model would finally make it possible to apply the tools of tactical change in study plans more easily, and, in a broader sense, to make a full use out of the opportunitiesoffered by the new format of educational standards.

The scores of effectiveness of the outlined above measures to improve the quality of existing study programs were the following (on a five-point scale, where 1 — completely ineffective, 2 — rather ineffective, 3 — effective and ineffective to the same extent, 4 — rather effective, 5 — very effective).

The highest results were demonstrated by a measure: “Review of the content of existing disciplines” (average score 4.66). The similar scores have Expanding the list of disciplines of free choice and “Unnecessary disciplines removal” measures (4,23 and 4,21 respectively).Therefore, we can talk about two parallel approaches: maintaining the existing list ofdisciplines, in combination with the content change of

disciplines, and modification ofthe list itself (sometimes without changing the content of disciplines).

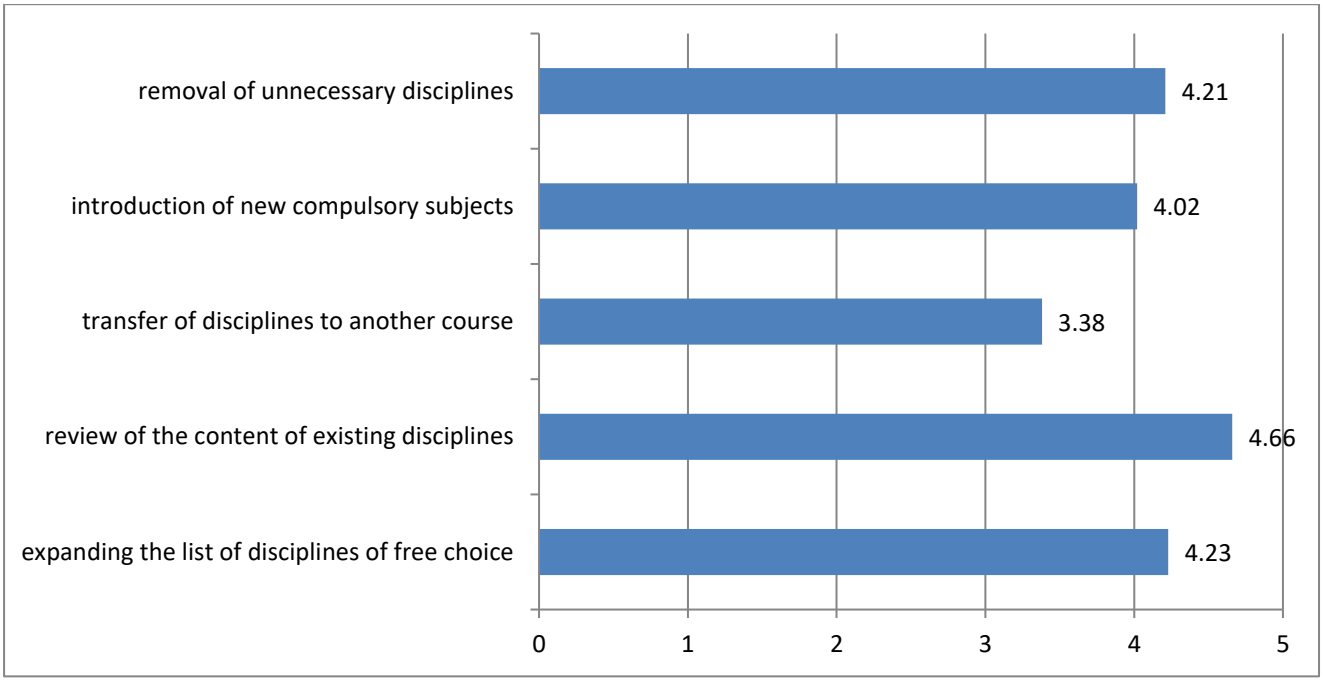


Fig. 2.3.11. Measures' effectiveness in improving the quality of existing study programs (average score)

2.4. Quality of teaching

According to the survey results, the main tools used in the quality of teachers work evaluation, which are forming the first conditional cluster are: " Teachers scientific activity evaluation (number of scientific publications, participation inscientific conferences, etc.)" — is systematically practiced by 96.7% of institutions, "A scope and quality evaluation of the teacher s educational and methodological support of the discipline (textbooks/manuals/workshops/tests/etc.)"(91.8%) and "Teachers extracurricular activities' evaluation (conducting competitions and contests, management of scientific clubs, etc.)" (86.9%). It must be admitted that these measures hardly define the quality of teaching.

The second cluster includes the following tools: "Regular student's surveys on the quality of work of specific teachers" (68.9%) and "Rector's tests" (66.7%). If there are no arguments against the relevance of using the first tool, there are some doubts about the second, both in terms of methodology and the objectivity of these works.

The third cluster consists of "Conduction of a discipline final assessment (test/ exam) performed by another teacher" (34.4%). Yet, half of the institutions are using this tool unsystematically.

The fact that measures: "Conduction of a discipline final assessment (test/exam) performed by another teacher" and "Rector's tests" are not practiced at all by a significant share of institutions was of great interest. Unexpectedly low interest in improving the procedures of final assessment in Ukrainian educational practice contrasts sharply with the extreme attention to the assessment and encouragement of

student's achievements in the practice of the most developed systems of higher education.

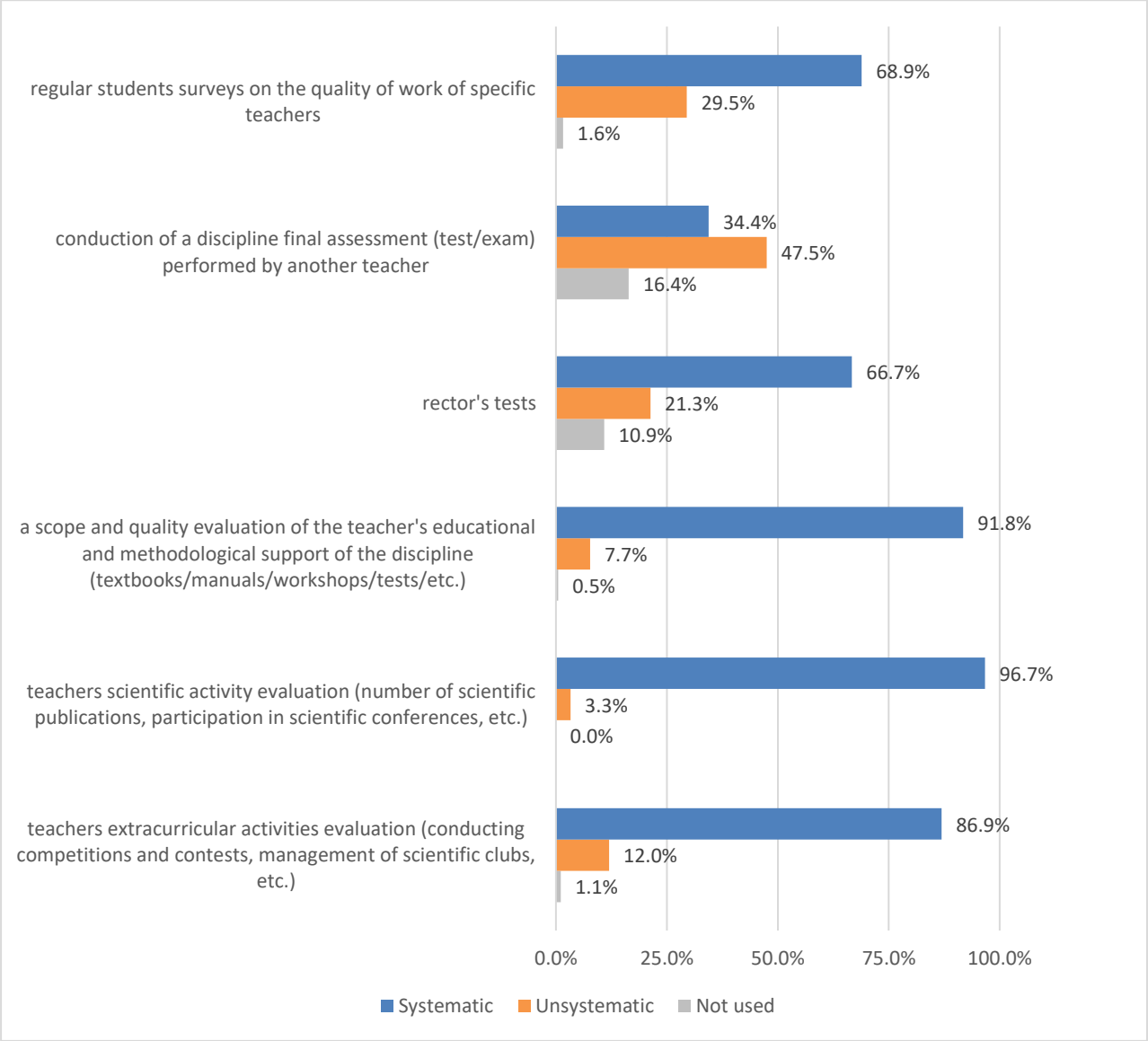


Fig. 2.4.1. Tools, used in quality of teachers' work assessment (%)

The analysis of the options provided by the institutions showed an increase in attention to the tool of teacher rating.

Comparison of the 2017 and 2019 survey results highlights several interesting points. If the three tools, which formed the first cluster maintained their leadership positions, the measure "Rector's tests" significantly lost its popularity (in 2017 it was systematically used by 88.6% institutions). Instead, the share of HEIs, which systematically practice regular student's surveys on the quality of work of specific teachers, increased.

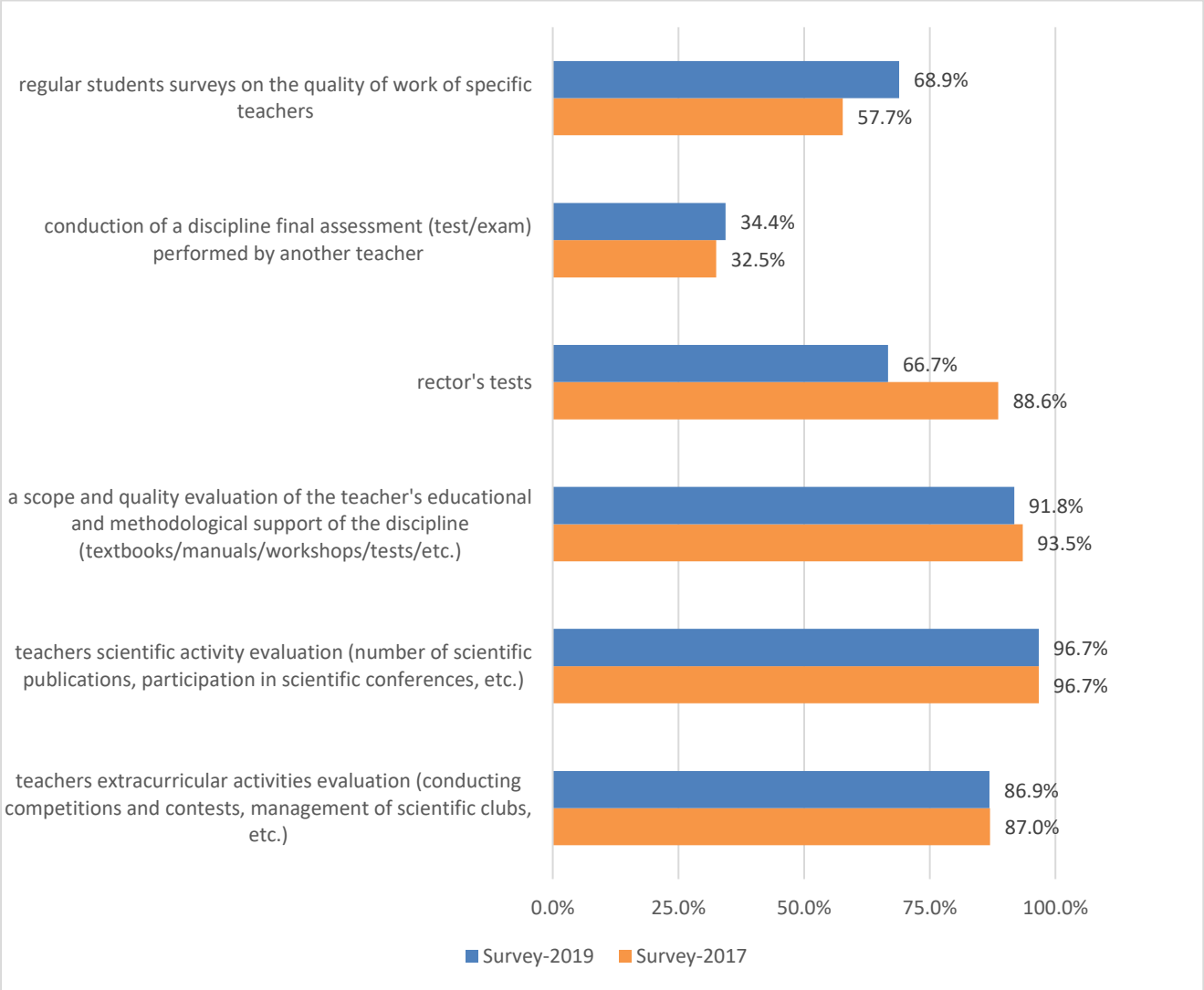


Fig. 2.4.2. Tools usage's regularity in teachers' work assessment: dynamics (%)

In the opinion of survey participants, the most effective tools of quality of teaching evaluation are: "A scope and quality evaluation of the teacher s educational and methodological support of the discipline (textbooks/manuals/workshops/tests/ etc.)" (average score 4.39), "Teachers scientific activity evaluation (number of scientific publications, participation in scientific conferences, etc.) (4.25), Teachers' extracurricular activities evaluation (conducting competitions and contests, management of scientific clubs, etc.)" (4.17). Only in fourth place, in terms of efficiency,

is the tool “Regular student’s surveys on the quality of work of specific teachers” (4.08). This totally lines up with the tool s popularity.

It is noticeable that the evaluation is carried out on the basis of indirect, formal indicators (the amount of methodological or scientific work, the number of students prepared to participate in the competition, etc.). In fact, a developed system of tools for the actual teaching skills evaluation in our system is almost non-existent. Probably, a partial solution could be to conduct the evaluation by an expert panel of institution’s administration representatives and external (for the teacher s unit, and, ideally, — for the institution) specialists.

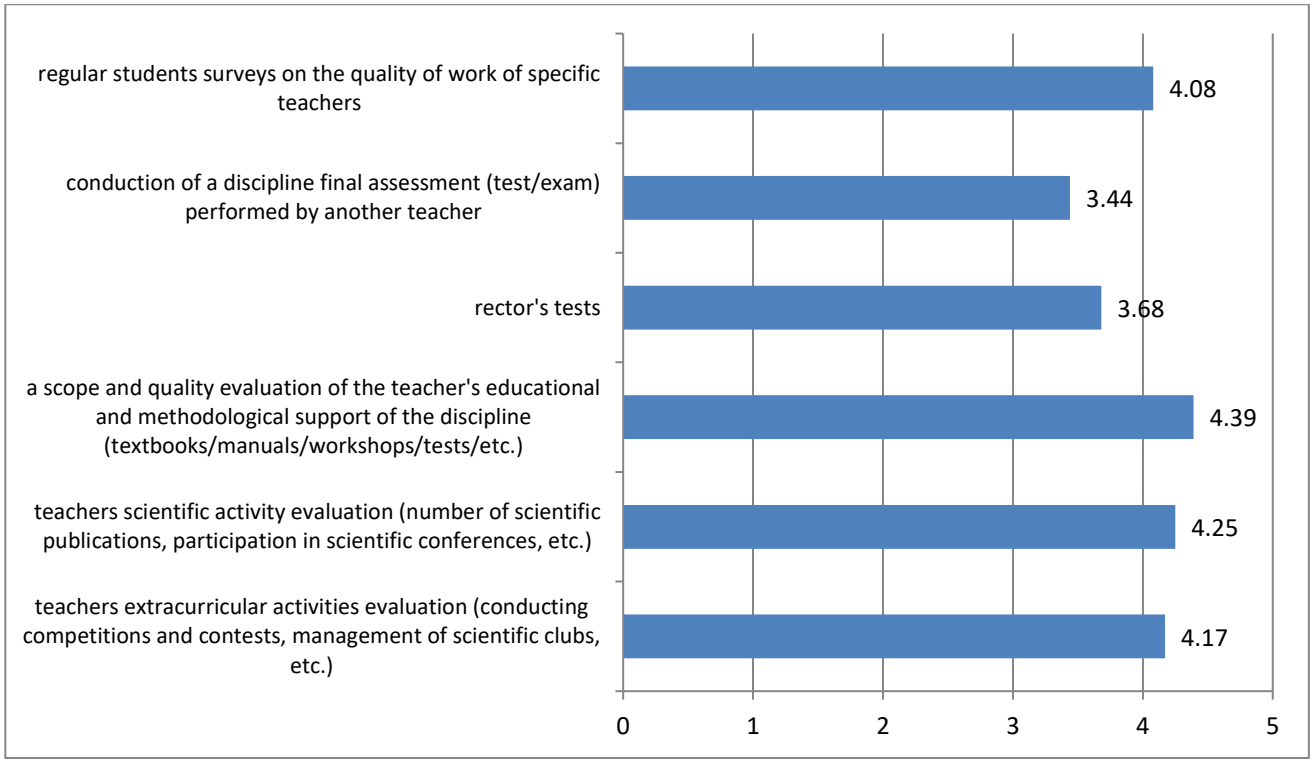


Fig. 2.4.3. Tools effectiveness in teachers’ work quality investigation (average score)

Compared to the Survey-2017, a clear change in the scores of the outlined tools’ effectiveness can be observed. The scores of the tools: “Conduction of a discipline finalassessment (test/exam) performed by another teacher” (91,1 % 53.6 %) and “Rector’s tests” significantly decreased (84,6 % 66,7 %), instead the score of the tool Teachers extracurricular activities evaluation (conducting competitions and contests, management of scientific clubs, etc.)” increased radically (51,2 % 83,1 %). It means that support of the students’ educational and scientific activities and implementationof a student-centered approach is encouraged.

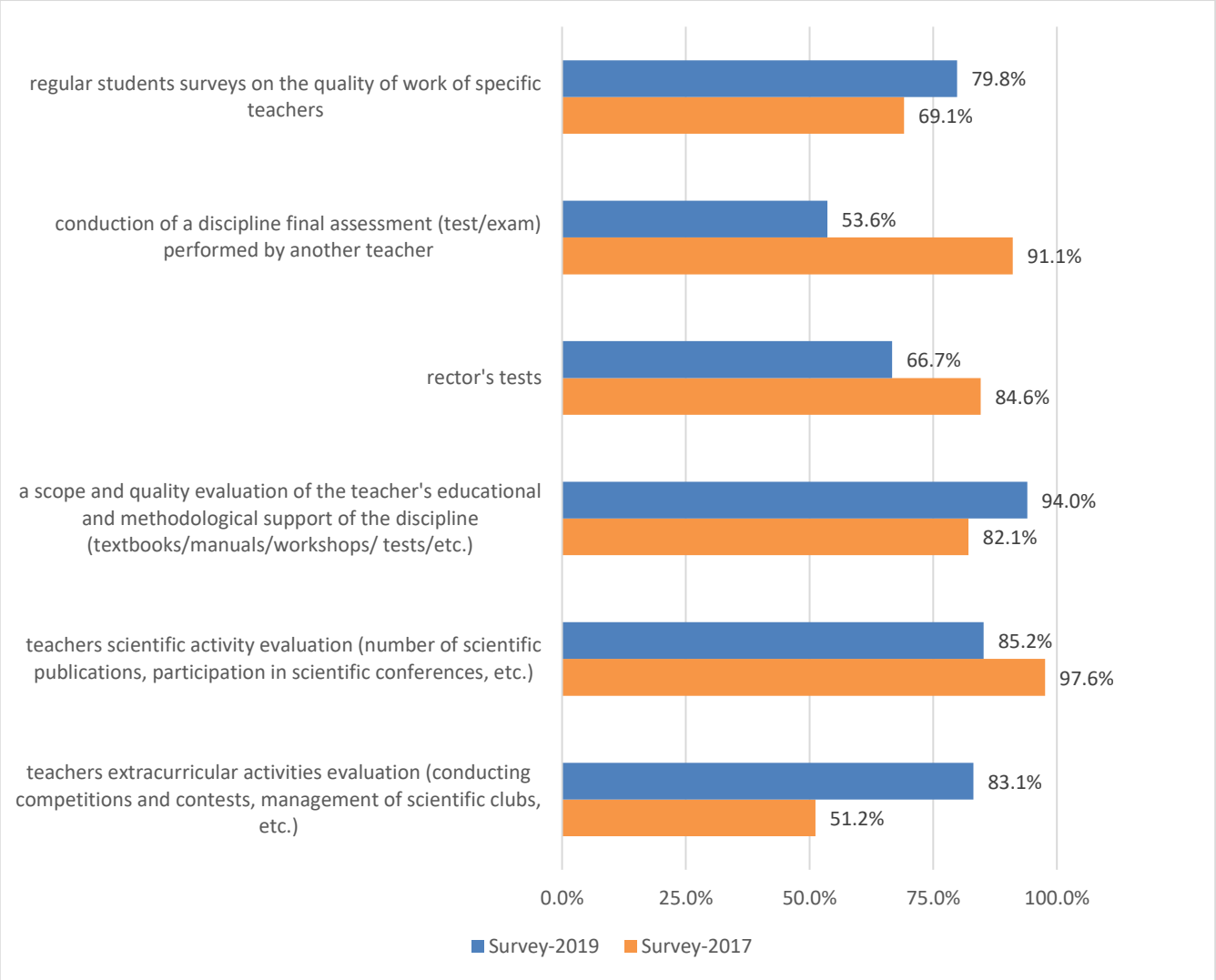


Fig. 2.4.4. Tools effectiveness in teachers' work quality investigation: dynamics (% out of all the answers with scores: 4/ 5)

Evaluation results of how the outlined tools implementation influences the correction of the quality of teaching show a high correlation with the evaluations of these tools effectiveness. In particular, evaluation of a scope and quality of teacher's educational and methodological support of the discipline, holds the first positionsagain. The teaching evaluation is largely formed under the influence of the amount of methodological support produced by him, which, in fact, does not reflect the level of his teaching skills.

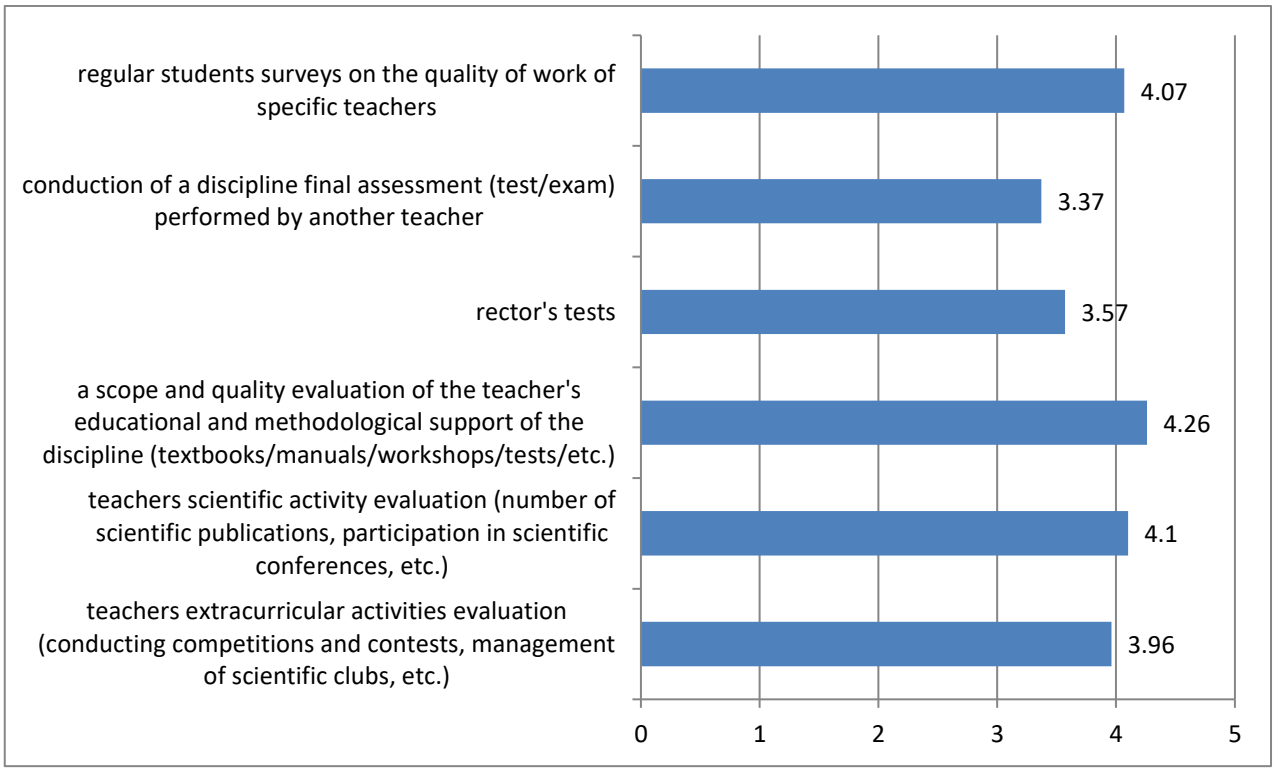


Fig. 2.4.5. The influence of teachers' work evaluation results on the quality of teaching (average score)

Comparison with Survey-2017 showed that, in general, the situation remained the same.

The obvious result of the quality of teaching evaluation, is the introduction of the set of measures, which encourage the best ones and stimulate the self-improvement of those, whose figures are far from desirable. To the most systematically used measures were included the following: "Head — teacher individual interviews" (practiced by all institutions, and almost three quarters of them do it systematically), "Creation and publication of teacher's ratings" (is practiced in most institutions, and almost two thirds do it is systematically), "Teacher's obligation to take the courses of qualification advancement, trainings, etc." (Almost all institutions do this, and more than a half — on a systematic basis).

Instead, such an effective tool as "Awarding the best teachers" is systematically used by only a half of the institutions (although very few institutions have stated to not implement it at all). We almost failed to indicate any positive dynamics (compared to the Survey-2017) in the popularity of the usage of such an effective tool as "Differentiation of the salaries depending on evaluation results" (13.7% vs. 13% in 2017).

The practices of a number of institutions, in both the public and private sectors, have vividly proved that the motivational power of this tool is difficult to overestimate. The least used is the “Teacher dismissal” tool, which was allowed to practicing systematically by only 4.9% of the institutions (and almost 40% do not use it at all).

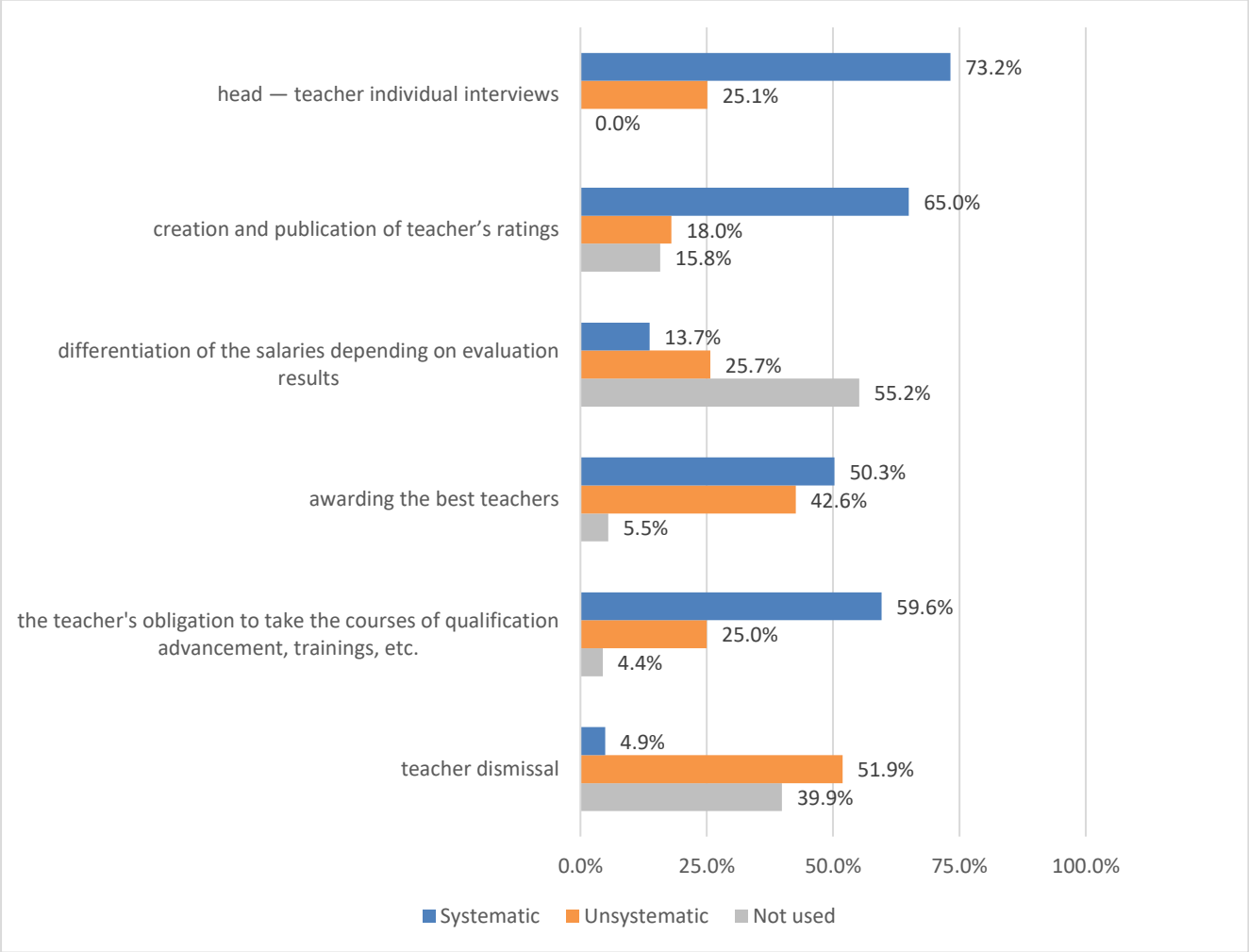


Fig. 2.4.6. Measures, taken by HEIs in response to teachers’ work quality investigation (%)

The analysis of the assessment scores of potential effectiveness in improving the quality of teaching confirmed the undeniable lead of the “Financial awarding of the best teachers” tool (average score 4.56). The second place is occupied by the "Head — teacher individual interviews" tool (4.23). The third and fourth places were taken by the following tools: "Creation and publication of teacher’s ratings" and "The teacher's obligation to take the courses of qualification advancement, training, etc.” (3.97 and 3.84, respectively).

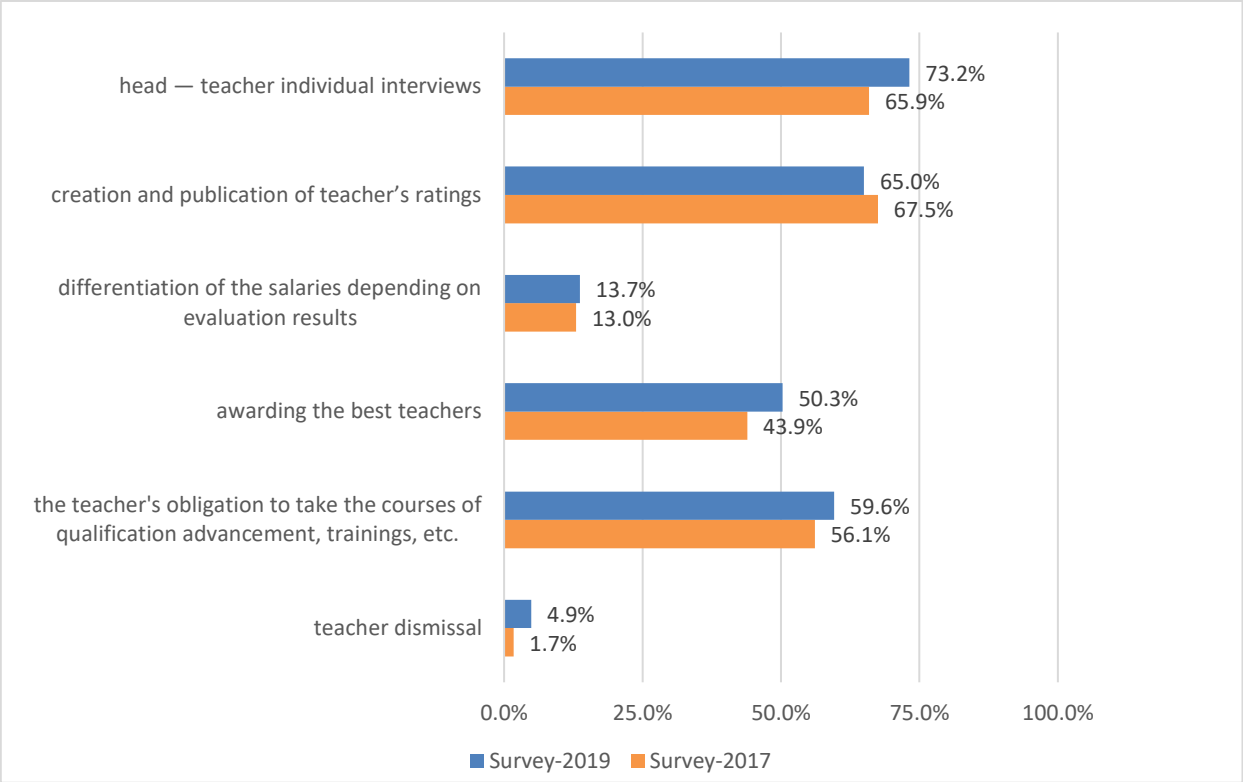


Fig. 2.4.7. Regularity of measures taken by HEIs in response to teachers' work quality investigation: dynamics (%)

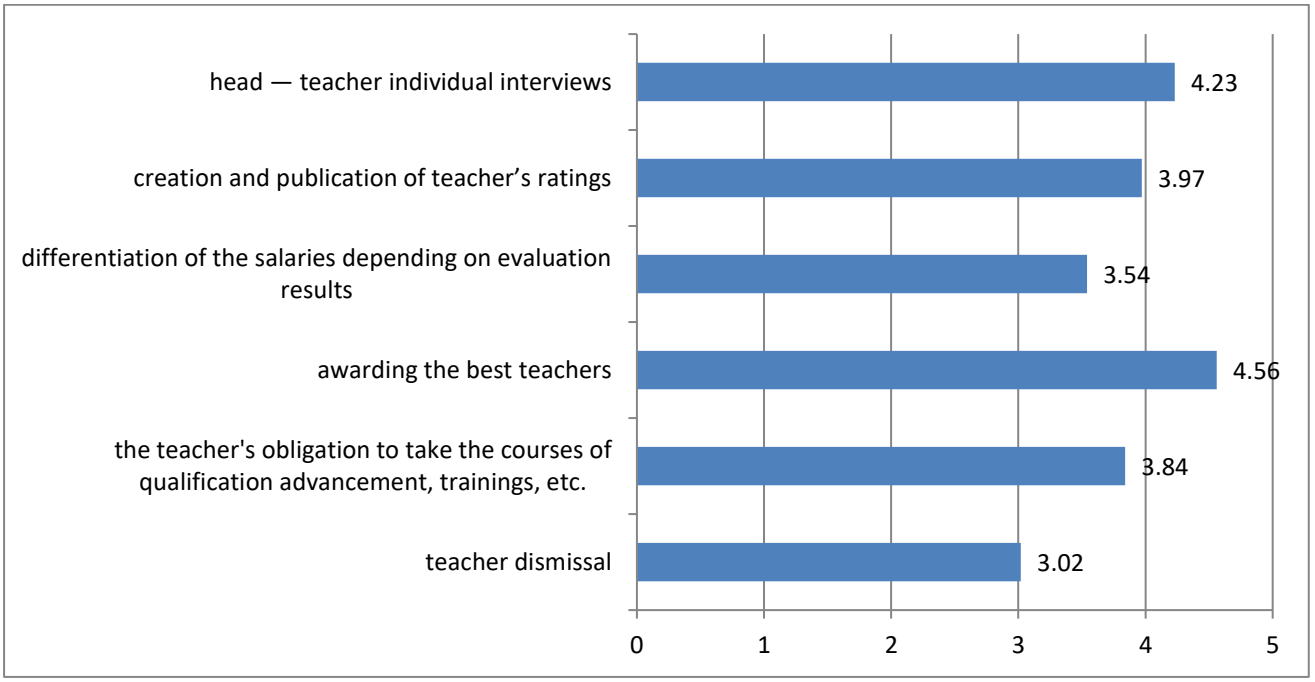


Fig. 2.4.8. Tools' effectiveness in improving the quality of teaching (average score)

An understanding of the motivational potential of the financial awarding is significantly inconsistent with the regularity of its usage (the effectiveness of this measure is recognized by almost all institutions, but only a half of them use it systematically). The situation is similar with the salaries' differentiation, depending on the evaluation results: while 65% of institutions consider it effective, only 13.7% systematically do so.

It is important to notice the continuation of the trend towards, in general, not very active usage of the most effective tools to encourage the improvement of teachers' quality work. The significant increase in the assessment scores of the effectiveness of salary differentiation can not be ignored (65% vs. 48% in 2017), it indicates a gradual awareness' rise of the need to overcome the egalitarian approach to teachers' remuneration, which, however, is not accompanied by a real practical steps.

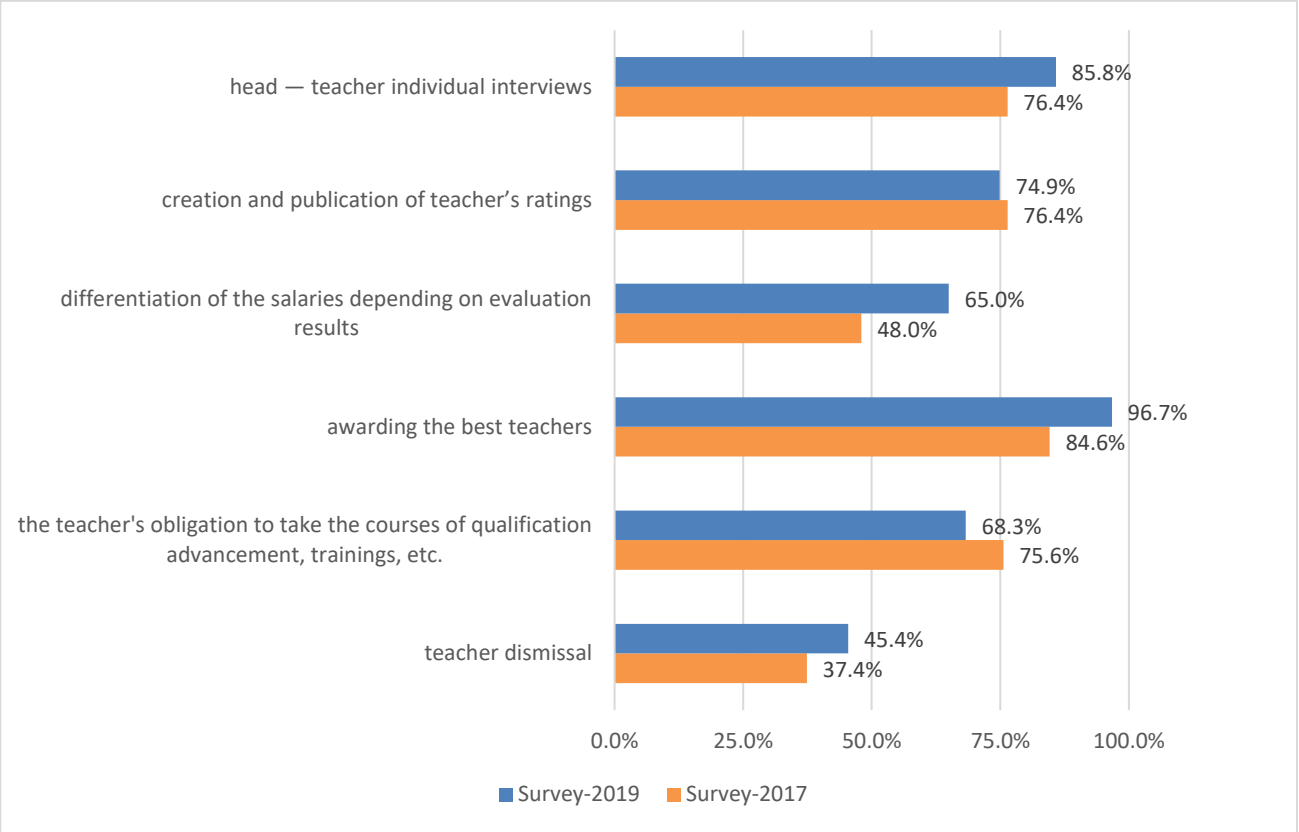


Fig. 2.4.9. Tools' effectiveness in improving the quality of teaching: dynamics (%out of all the answers with score 4/ 5)

2.5. Quality of learning outcomes

In the modern educational model, the achievement of a certain program's learning outcomes is a basic indicator used to determine the success or failure of educational activities conducted.

Among the tools used to evaluate the quality of learning outcomes, as evidenced by the results of the survey, the most widely and systematically used is: "Conducting internal knowledge measurements" (it is practiced by all institutions, including 83.6% — who do it systematically). At the same time, the external knowledge measurements are conducted systematically by 55.2 % of the institutions, and unsystematically

— 41%, it happens mainly at the level of the peer-review of students' final works.

The usage of such important indicators as "Receiving feedback from graduates' employers' organizations and enterprises" and "Receiving feedback from graduates", unfortunately, indicates a systematic approach to that in less than a half of the institutions (43.2% and 39, 3% respectively). Perhaps, this demonstrates a lack of the skills of the HEIs quality assurance structural units to correlate the learning outcomes formulated in study programs, with the real needs of the labor market and professional expectations of employers from the holder of the formal qualification. In addition, not all of the HEIs have established a sufficient relationship between graduates and employers, required for it.

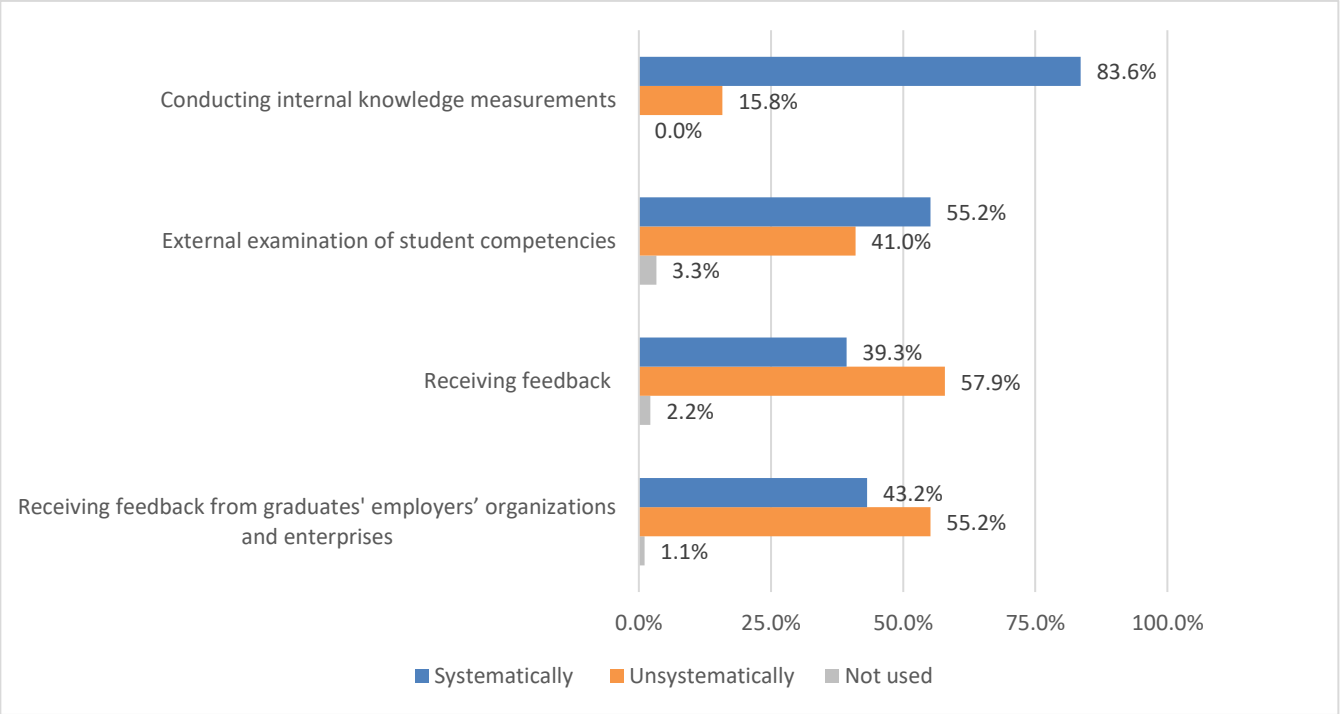


Fig. 2.5.1. Tools, used in learning outcomes' quality evaluation (%)

Among the few tools offered by institutions, "External examination of student competencies" deserves attention.

The introduction of additional elements of learning outcomes external evaluation would significantly objectify both: the evaluation process and its results. A clear evidence of this is the high score of effectiveness of the tools: "Receiving feedback from graduates' employers' organizations and enterprises" (average score 4.31) and "Receiving feedback from graduates" (4.15). The similar score has a tool: "Conducting internal knowledge measurements" (4.17).

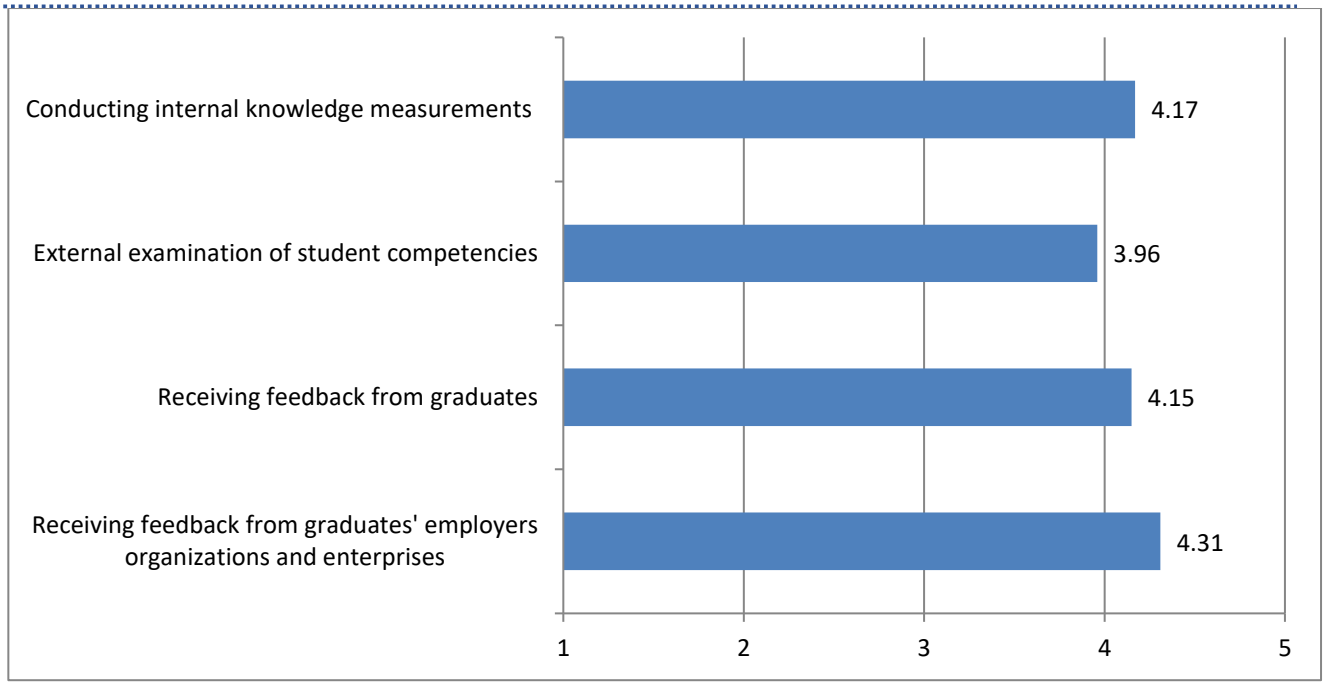


Fig. 2.5.2. Tools effectiveness in learning outcomes' quality evaluation (average score)

The same is also for a situation with the influence of learning outcomes evaluation results on the quality of learning outcomes themselves. (Fig. 2.5.3.).

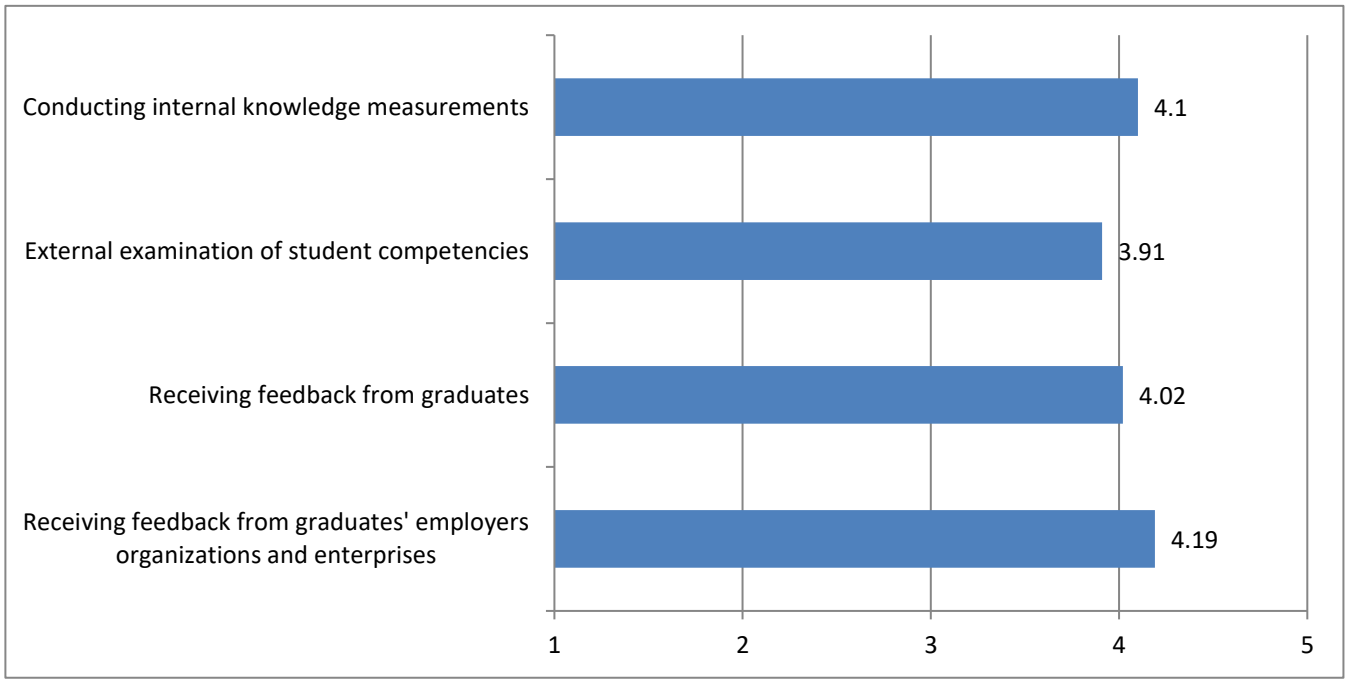


Fig. 2.5.3. Influence of learning outcomes evaluation results on the quality of learning outcomes themselves (average score)

The most popular measures taken after the learning outcomes evaluation are: "Academic staff revision" (70,5% of HEIs stated to do it systematically) i "Reviewing the feasibility of maintaining education on the study program" (66,1%). Instead, only 19,7% of HEIs

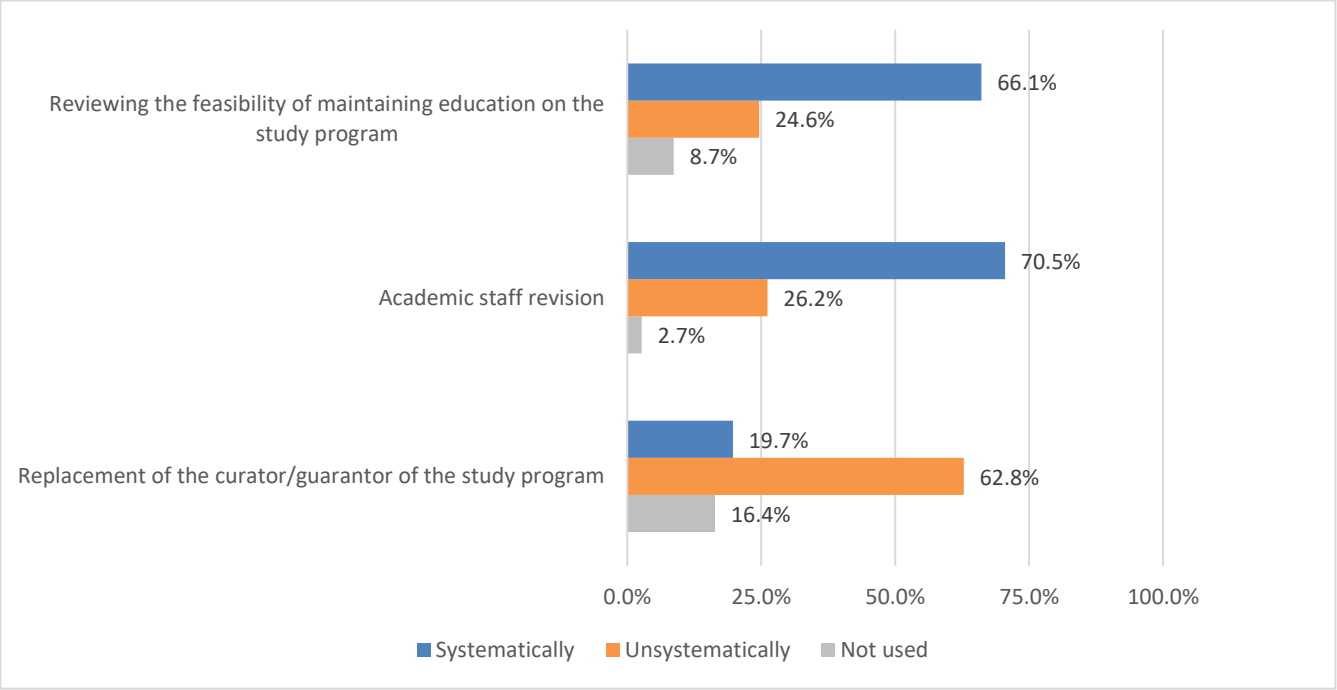


Fig. 2.5.4. Measures taken in response to learning outcomes evaluation (%)

Among the own HEIs answer options given, the accent on the review and renewal of the study programs is standing out.

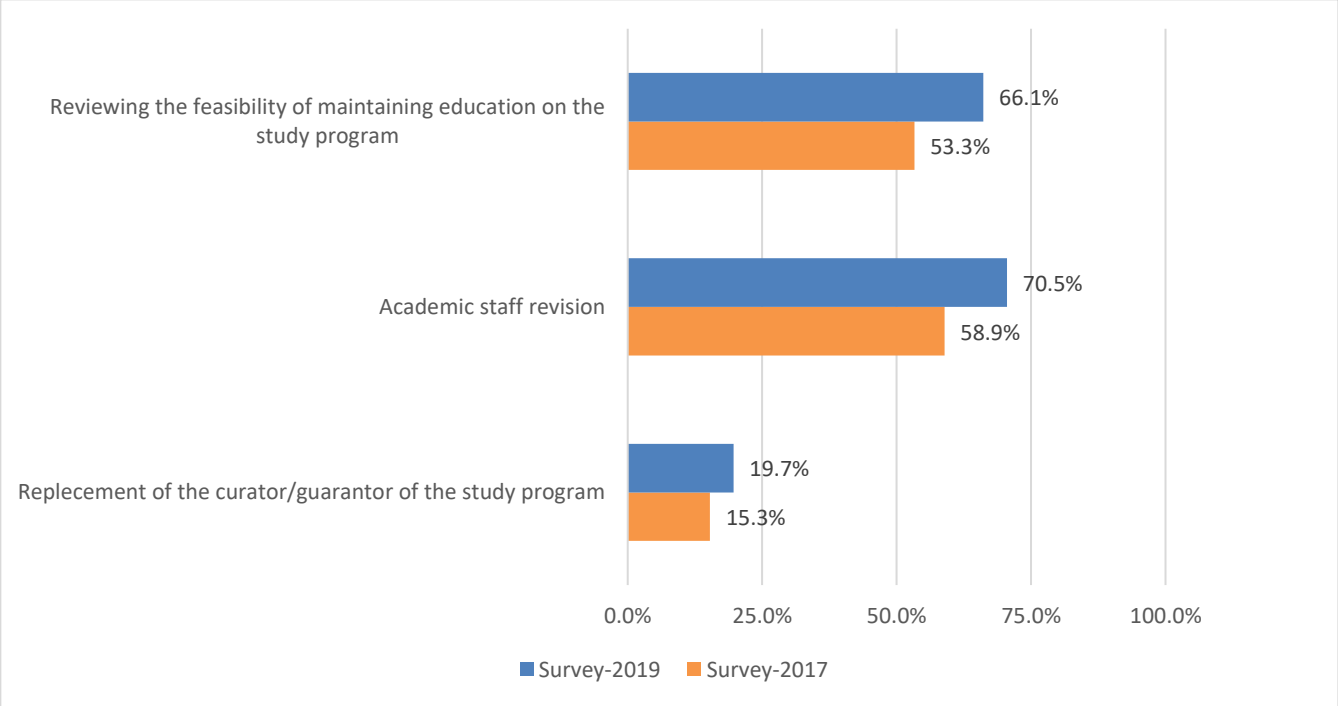


Fig. 2.5.5. Measures taken in response to learning outcomes evaluation: dynamics (%)

Comparing the survey results, we can see an increase in the usage regularity of the measures: "Reviewing the feasibility of maintaining education on the study program" and "Academic staff revision". (Fig. 2.5.5).

We can note a change in the scores of effectiveness of these measures, compared to the Survey-2017. In particular, the effectiveness of the measure: "Reviewing the feasibility of maintaining education on the study program" (62,8 % → 81,4 %) and "Academic staff revision" (50,4 % → 68,3 %). It shows that HEIs are ready to close the irrelevant study programs and replace the curators/guarantors.

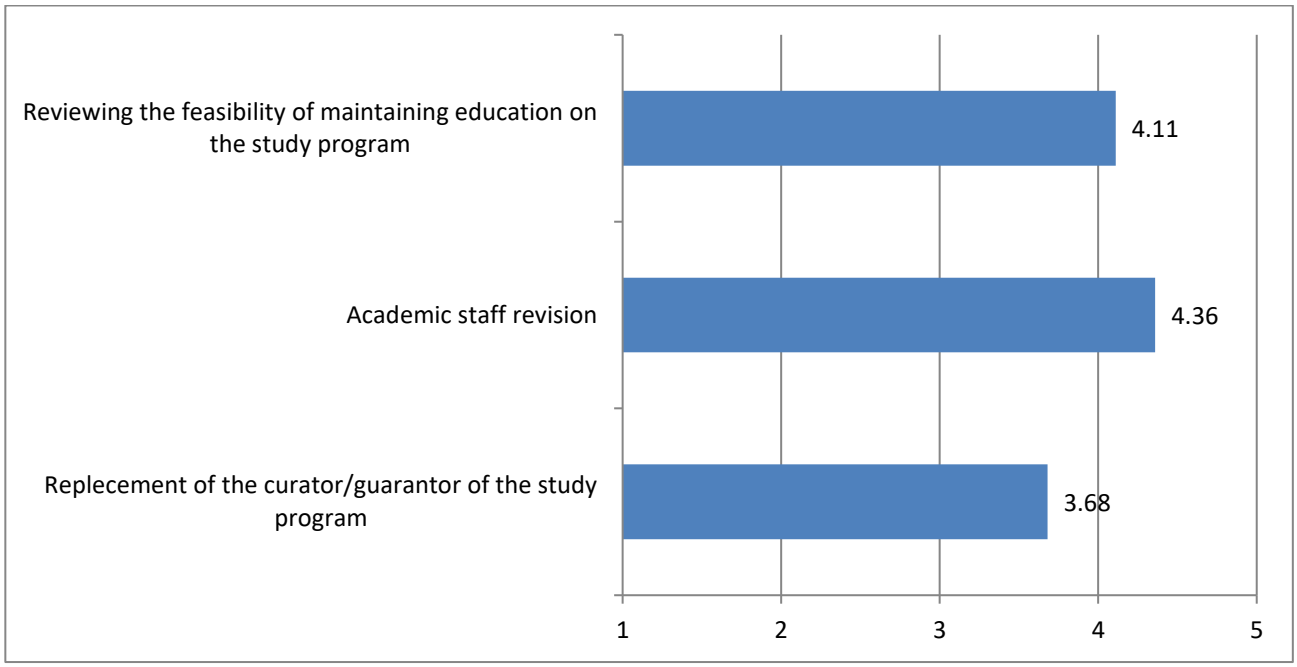


Fig. 2.5.6. Measures' effectiveness in improving the quality of learning outcomes (average score)

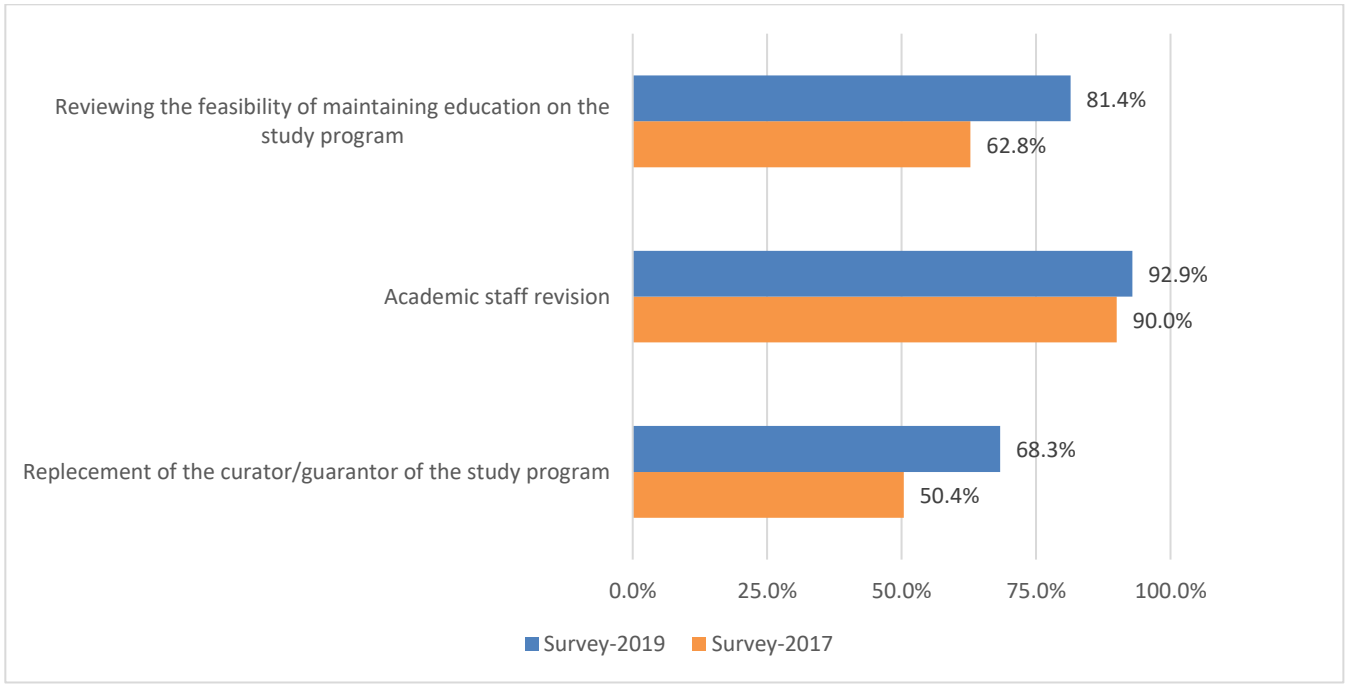


Fig. 2.5.7. Measures' effectiveness in improving the quality of learning outcomes: dynamics(%)

2.6. Quality of students' work

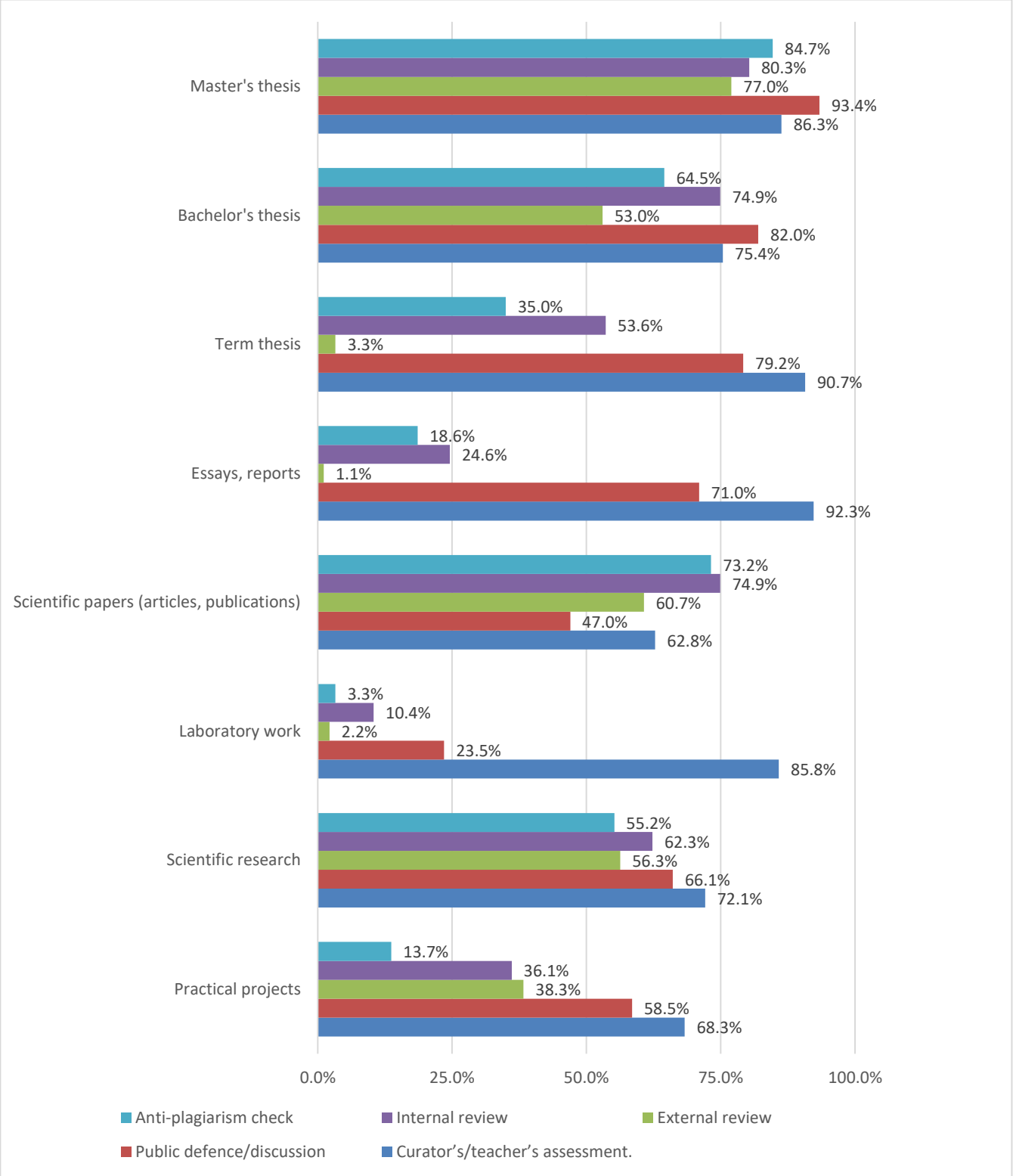


Fig.2.6.1.Forms of evaluation (assessment), which are applied to different types of applicants' work(%)

According to the survey results, the main part in assessment of the majority of students' work plays the teachers' opinion. The exception is degree thesises (Bachelor/Master), where the main decision is made by Committee, during the public defense. (Fig.2.6.1.). Compared to Survey-2017, the role of anti-plagiarism checks rapidly changed: for master's thesis — from 14,9 % to 84,7 %, bachelor's — from 10,7 % to 64,5 %, term thesis — from 8,3 % to 35 %, for scientific papers (articles, etc.) — from 19,3 % to 73,2 %, for scientific research — from 9,5 % to 55,2 %. It happened due to the provoked by NAQA, increase in the level of attention to academic integrity.

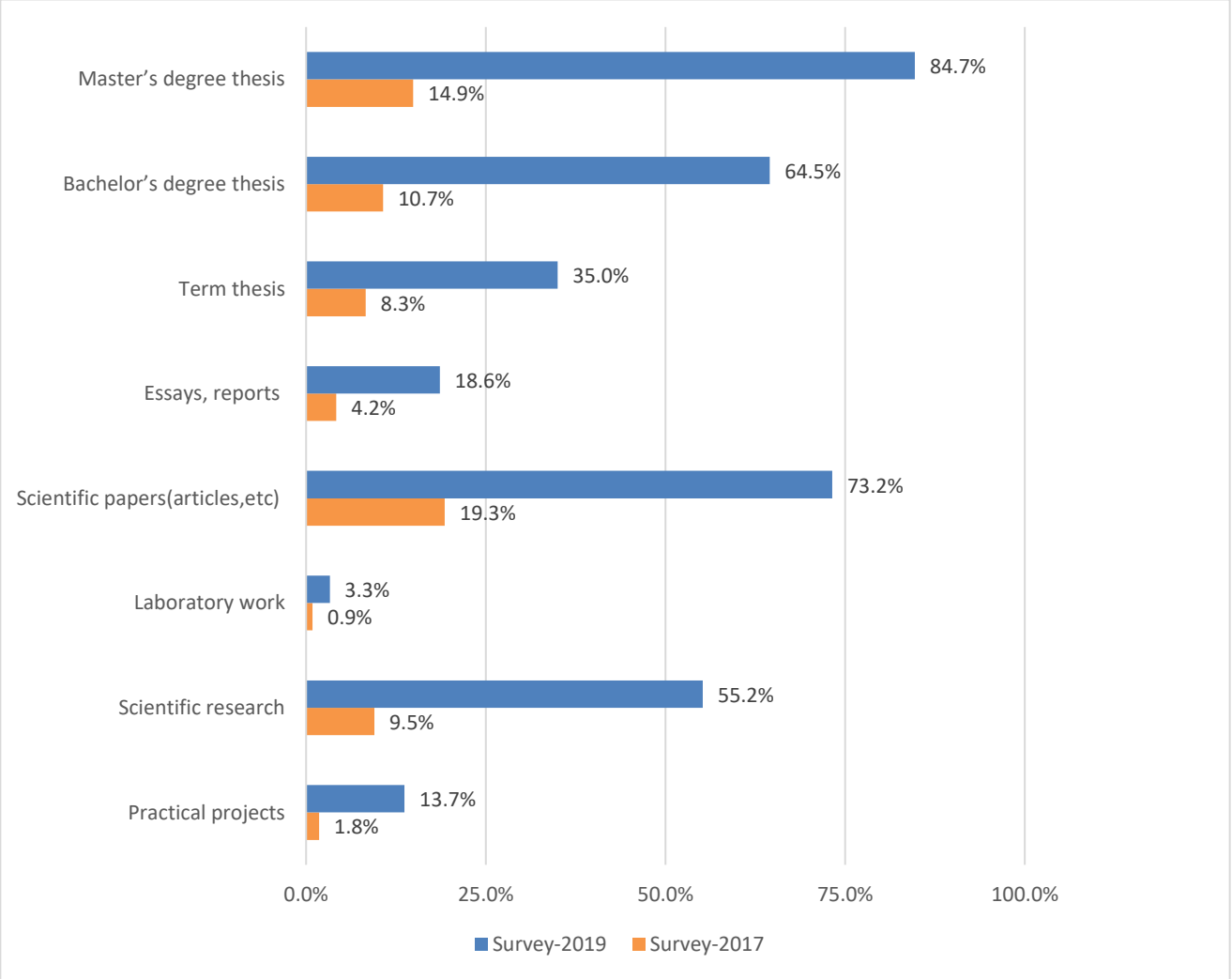


Fig. 2.6.2. Anti-plagiarism check usage in students' work assessment:dynamics (%)

We can also state an increase of external assessment's popularity: for Master's thesises — from 10,7 % to 77 %, Bachelor's — from 6,6 % to 53 %, scientific papers — from 20,2 % to 60,7 %, scientific research — from 15,5 % to 56,3 %.

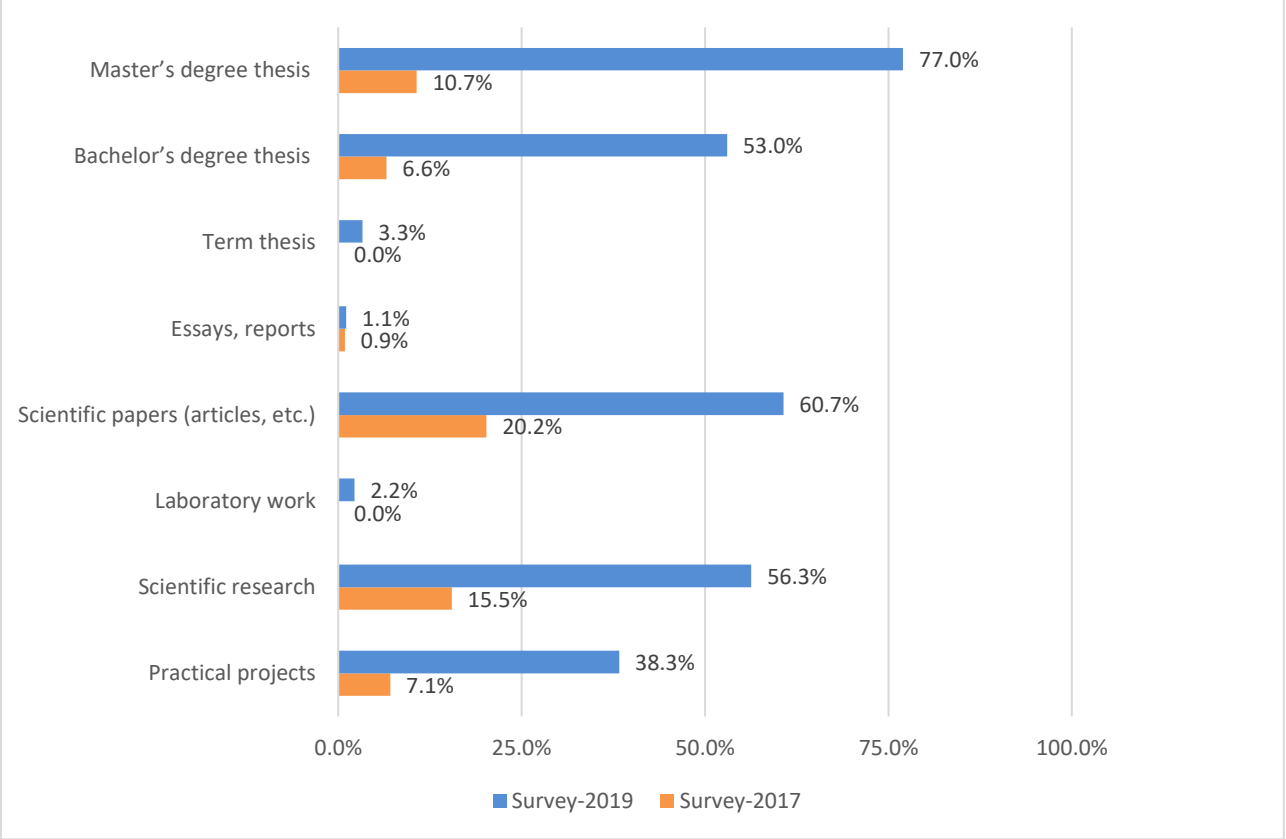


Fig. 2.6.3. External assessment's usage in students' work evaluation: dynamics (%)

The next Figure shows, that HEIs assume all the outlined before, tools as effective. (Fig. 2.6.4). The highest score got the public defense tool, (average score 4,74), which proves the understanding of collective assessment's importance. Also, high scores got anti-plagiarism check (4,61). In addition, compared to Survey-2017 this tool demonstrated positive dynamics: (93,4 % vs. 79,8 % in Survey-2017).

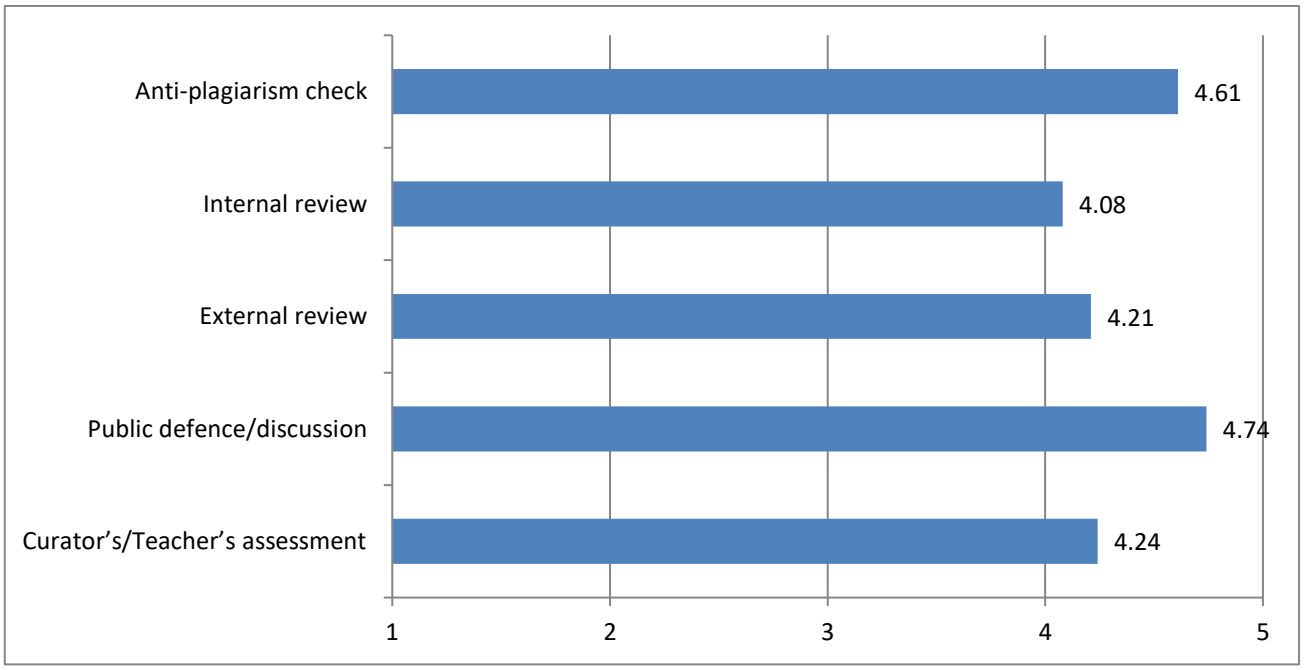


Fig. 2.6.4. Tools effectiveness in students' work assessment(average score)

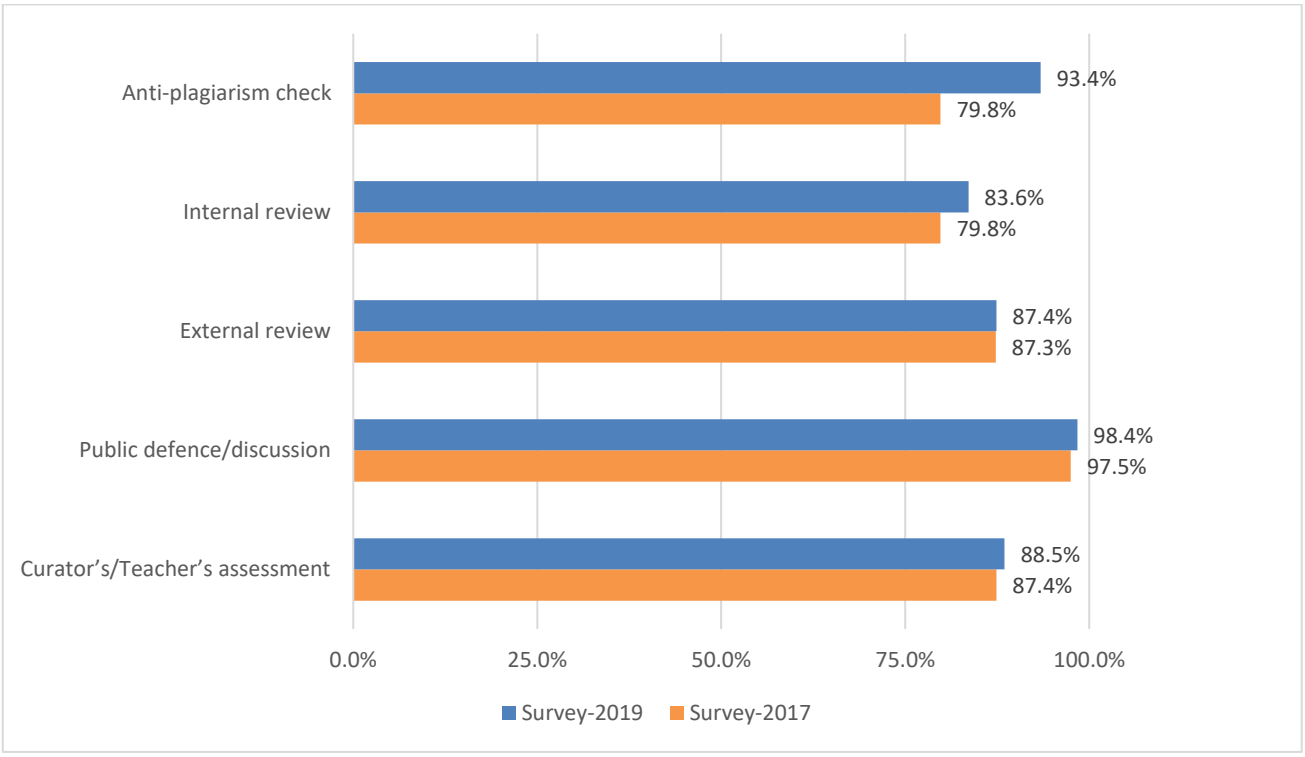


Fig.2.6.5. Tools effectiveness in students' work assessment: dynamics (%)

2.7. Quality of HEIs' infrastructure

One of the most important components of quality assurance is compliance with modern requirements for HEIs' infrastructure. In this study an attempt was made to focus on subjective HEIs' understanding of their own infrastructural capacities.

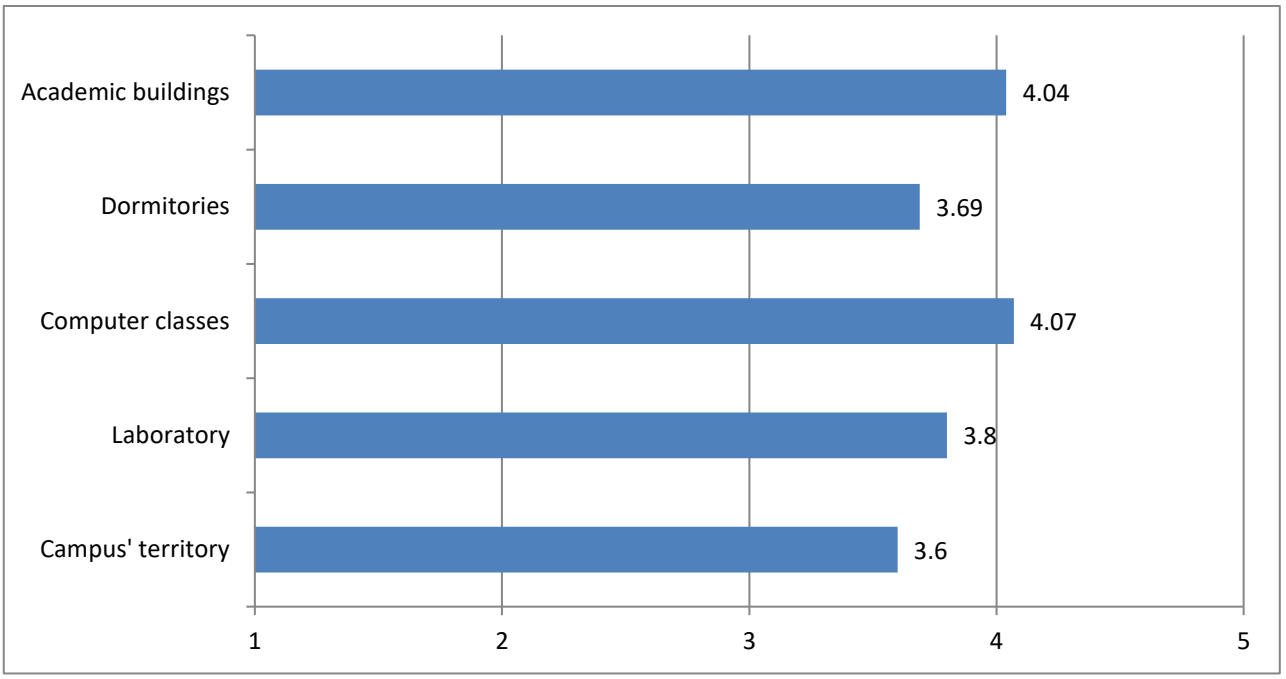


Fig. 2.7.1. HEIs self-assessment results, regarding their infrastructural capacities (average score)

Given the many years of insufficient funding, it is quite natural that HEIs are not satisfied with their infrastructure. Predictably, the best, though not excellent, condition of computer equipment's (4,07) and academic buildings (4,04). In the worst condition are laboratories (3,8), dormitories (3,69) and surprisingly campus' territory (3,6).

If we divide HEIs by the form of ownership, we can see that private HEIs are assuming their infrastructural capacities higher (from 4 to 4,55), then others, which can be explained by three factors: firstly, their infrastructure has been creating during the last 15-20 years, so it is more modern; secondly, they have broader financial opportunities; thirdly, it is common for HEIs of this category to demonstrate their capacities more. Logically low is the score of infrastructural potential of communal HEIs (average score out of three factors is lower than 4). This is probably due to both: funding from local budgets, which did not always provide sufficient funds, and the focus of these institutions on the local entrants. We want to believe that this situation is going to change in the decentralization process.

HEIs of different specialization results' comparison showed the better conditions (compared to average results) in classical and medical institutions, and a bit worse conditions in technical ones.

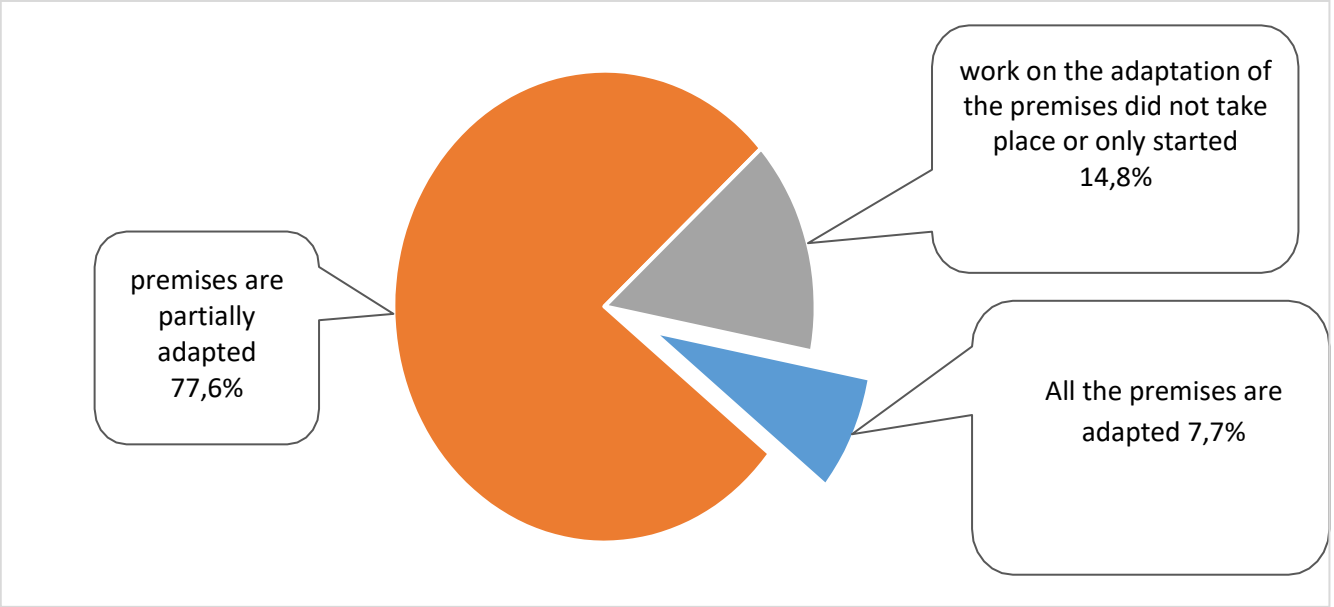


Fig. 2.7.2. Premises' adaptation for people with special needs.

During the survey, was made an attempt to identify to what extend Ukrainian universities are involved in the process of premises' adaptation for people with special needs. Analysis stated that, to some degree, these measures are implementing 85,2% of HEIs. However, only7,7% of HEIs declared their readiness to comply with requirements. The fact that almost 15% of HEIs did not start this process at all, seems to be alarming (state-owned institutions are dominating among them).

2.8. Student-centeredness

Achieving a proper quality higher education is impossible without student-centered approach implementation. The survey revealed some parameters that characterize the spread of this approach in the Ukrainian educational environment.

The most obvious proof that indicates the presence of a systematic reference to student's opinion, is the presence of a mechanism for filing and reviewing their complaints. In general, 67,2 % of HEIs stated to have a document, which regulates student complaints procedure and policy and is available for public. Instead, a quarter of institutions honestly admitted not having such a document, and 3.3% avoided answering (the rest of the HEIs answered that such a document exists, but is available only to HEIs' employees). These results can be interpreted as the fact that about a third of HEIs do not offer their applicants transparent algorithms of actions, in case of problematic situations, preferring to solve them "manually".

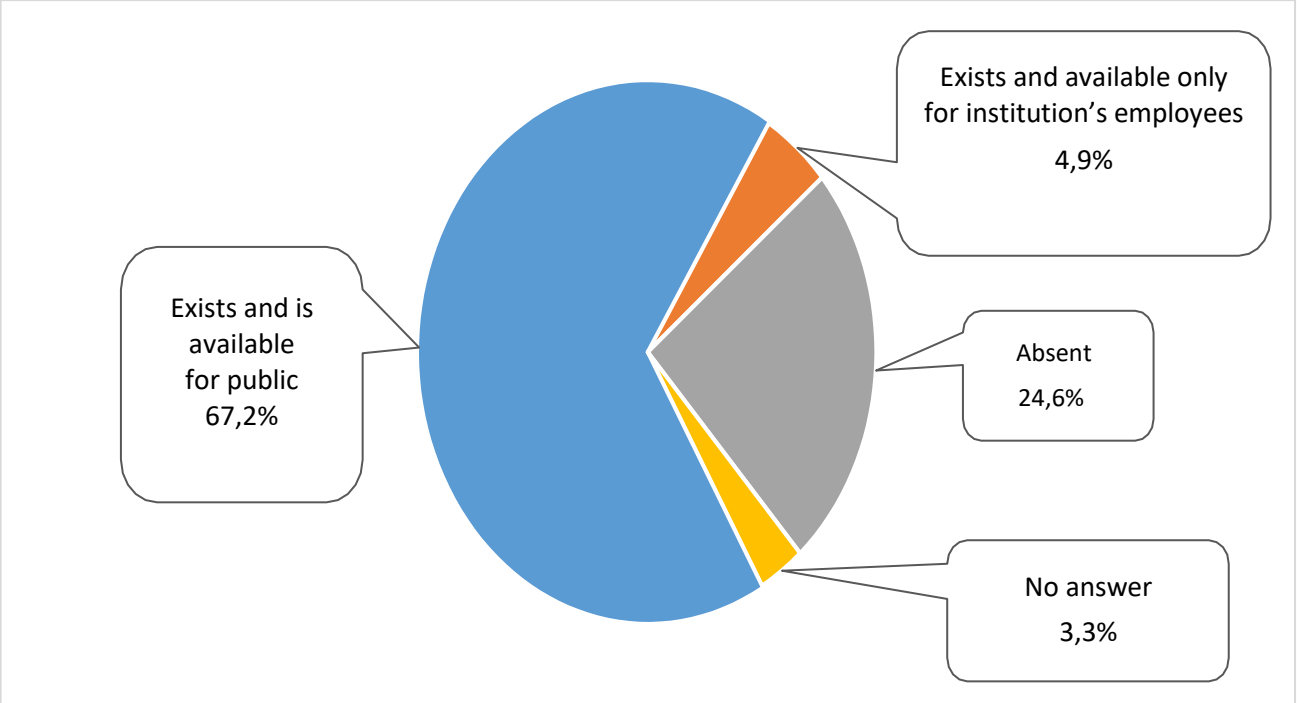


Fig. 2.8.1. The existence of document, which regulates student complaints procedures and policy.

The next factor is **the presence or absence of a person, who controls the students' rights observance.** A separate position of such an "educational ombudsman" is present in only 8.7% of institutions. However, as a more detailed analysis has reviled that in fact, in four institutions these duties are performed by the Vice-Rector, and in another one — by the deputy dean. Accordingly, we can talk about only 6% of HEIs understanding the necessity of such position.

The majority of HEIs decided to assign these responsibilities to one of the existing university officials. In most cases, to Vice-Rectors, responsible for educational work, Heads of departments responsible for educational work, Rector's assistants, leaders of student government, students' trade unions.

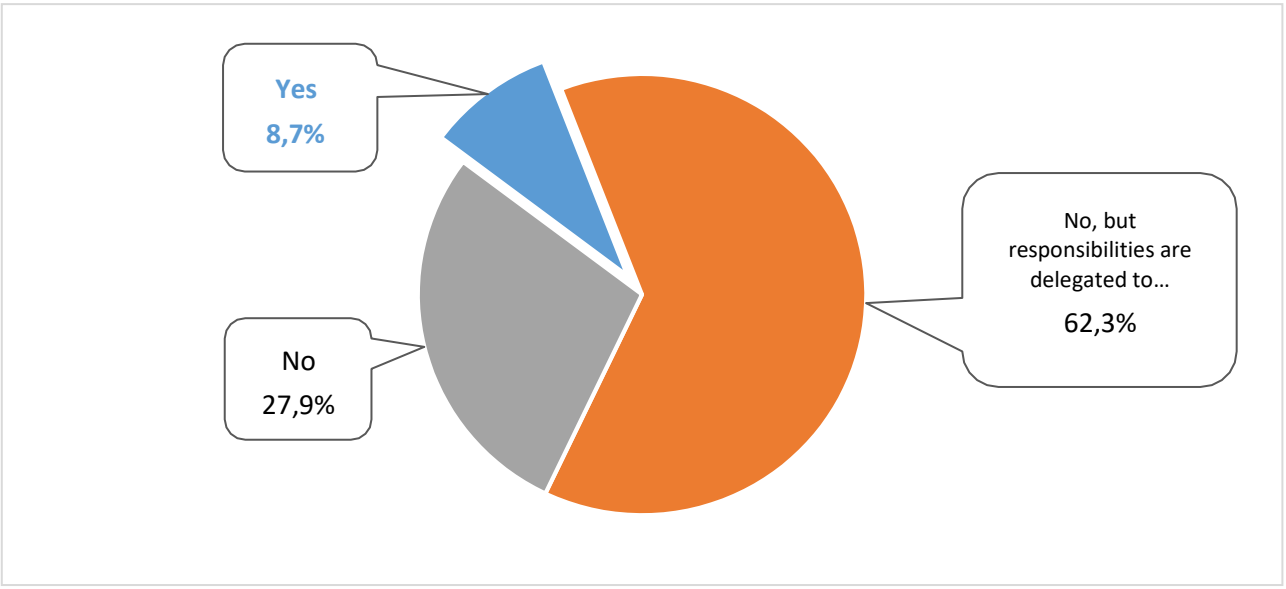


Fig. 2.8.2. The "educational ombudsman" position's existence

It is symptomatic that the share of HEIs, which are still ignoring this issue, remains big: 27,9 % declared the absence of such position, and two institutions gave no answer, which practically means the same.

The most interesting indicator of HEIs' student-centeredness is the tools, they are using to receive students' feedback. To the most popular ones is included a systematic students' survey, which, recently, have been taken place mainly in electronic format. Survey results are demonstrating that HEIs are conducting them with a regularity of once in term/academic year. Some of them are practicing freshman' and graduate' surveys. In the focus of attention of such surveys lays the quality of teachers' work.

Also, we have to mention the 8,7% of HEIs that provided no answer. It can mean, that they are not conducting such surveys. A slightly less popular instrument was arrangement of "trust boxes" — 79,2% of HEIs have them arranged and 10% established it online. Electronic tools in student's online personal accounts come in a fairly wide range of forms — from special e-mail boxes for different university officials, to different online-forms on universities' official web-sites, faculties' and departments' pages.

PART 3.

ACADEMIC INTEGRITY: AN INTERNAL AND EXTERNAL VIEW ON THE ISSUE

In terms of ensuring academic integrity, the areas of NAQA work were:

- new accreditation system's improvement, adding the elements of university's academic integrity systems assessment;
- stimulation of the Ethics Committee to consider the academic integrity violations' complaints;
- work on the regulatory frameworks of academic integrity improvement;
- series of seminars "Academic integrity successful practices' evaluation during accreditation procedures", "University's system of academic integrity: HEIs' and NAQA views", "Research integrity: regulatory framework or / and / versus effective mechanisms", etc.

NAQA work, in the reporting year, was aimed at developing the system of academic integrity assurance. 2020 year was marked by systemic changes in the organization of study programs accreditation at all levels. At the same time, expert groups, as it had been seen during the online-observations (a new tool in accreditation that has proven itself), in communication with all stakeholders paid great attention to the academic integrity issues.

At the first stage of accreditation examinations, we observed that study programs' guarantors, experts, members of Specialized Expert Councils are not immediately accustomed to the importance of noting the effectiveness / inefficiency of university quality assurance systems, in terms of academic integrity.

«…It is worth noting that there were no cases of academic integrity violations on the study program …» — this statement is present in almost all study programs' self-assessment reports and goes to the report of the expert group. Violation of academic integrity is not limited to plagiarism, which detection procedure is clear, due to the availability of assessment tools. Instead, experts are often confusing the absence of plagiarism in students' work with the absence of academic integrity issues in general. It is not surprising, given the fact that other violations do not have a written equivalent and are identified by teacher.

In 2020, despite the tangible progress of all participants in the educational and scientific process, in identifying the main violations of academic integrity, academic dishonesty continued to be associated mainly with plagiarism.

To find out how the concept of integrity is interpreted by HEIs, and whether it is necessary to improve their regulatory framework at this stage, NAQA conducted a survey in December 2020, on the state of academic integrity, and its' prospects. In addition, respondents were asked to evaluate the conditions and prospects of the regulatory framework development at the national level and provide suggestions for improving or creating national regulations governing academic integrity.

It should be noted that the survey results, which were received at the end of 2019, showed the existence of an academic integrity regulatory framework, in one form or another, in the vast majority of HEIs. Survey-2020 results allowed us to describe development tendencies of academic integrity system improvement in detail.

Already at the beginning of the survey, information about the position of the respondent is noteworthy. A list of some of them is given below. Obviously, it indicates that general approaches to this process are not standardised.

- Academic secretary of the Academic Council.
- Head of the Commission on Academic Ethics.
- Head of the Commission on Ethics and Discipline of the University Academic Council, Deputy Head of the Commission on Academic Integrity.
- Director of the Educational and Scientific Institute of Quality Education.
- Director of the Scientific Library.
- Head of the postgraduate and doctoral department.
- Head of the scientific research department.
- Head of the scientific and organizational department.
- Head of the higher education quality assurance department.
- Head of the Academic Integrity Promotion Group.
- Head of the Staff Development and Academic Integrity Practices sectors.
- Head of the Center for Certification, Academic Integrity and Education Quality Monitoring.
- Researcher of the department of scientific activity organization and intellectual property rights protection.
- Head or employee of the educational and methodical department.
- Head of Analytics and Information Management department.
- Head of the internal audit and educational activities' quality department.
- Vice-Rector.
- Rector's assistant for Strategic Development and Education Quality Assurance.
- Academic staff member.
- Leading legal adviser.
- Vice-rector for educational work.
- Vice-rector for scientific research.

- Vice-rector for scientific and pedagogical work.
- Rector (director).
- Person responsible for Prevention and Detection of Corruption.
- Legal adviser of the Department for Monitoring the Internal Quality Assurance of Education.

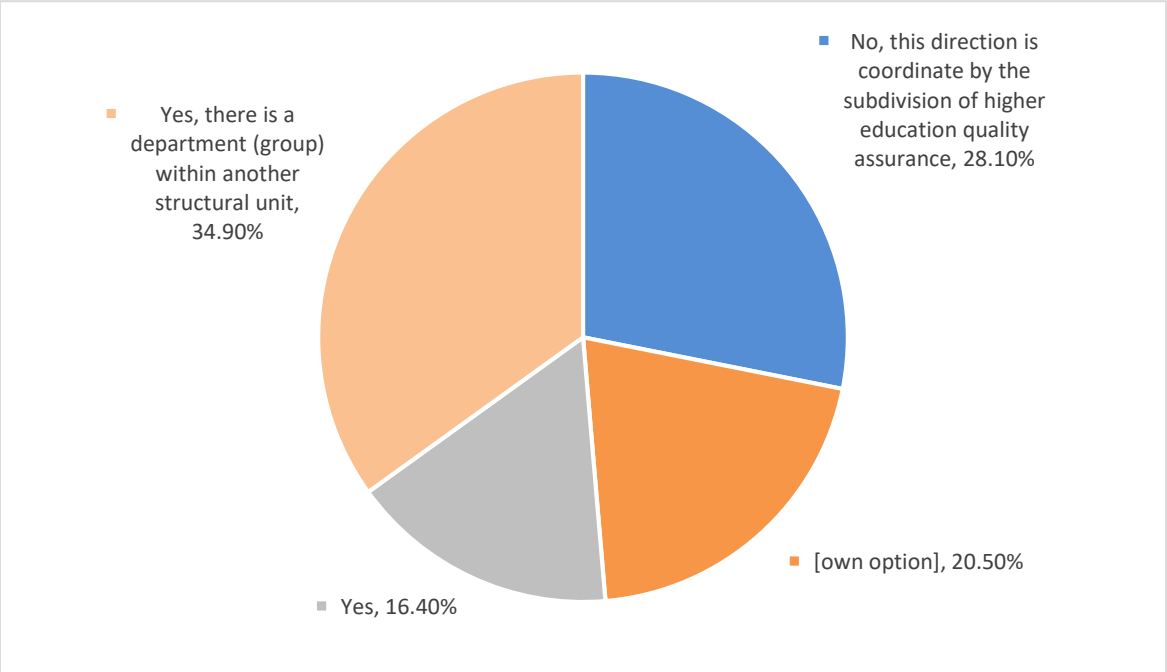


Fig. 3.1. Answers to the question: "Is a separate structural unit that takes care of academic integrity issues, present in institution?"

Given the university academic integrity system broad structure, the respondent who filled in the questionnaire, had to understand the activities of all structural units of the institution or to head a university-wide structural unit (ideally a separate structural unit responsible for building an academic integrity system). Also, given that the list above includes respondents, who are also narrow-profile specialists, we can talk about the level of systematicity and consistency of the process of academic integrity system building, even before the answers' analysis. In the future, based on a deeper analysis and comparison of answers, it becomes possible to develop recommendations for the HEIs' further work on building an effective academic integrity system.

Survey results analysis demonstrates that majority of HEIs are implementing academic integrity approach on a university level. In some cases, such management functions are performed by other officials or departments:

- Vice-rector for educational work;
- Rector's assistant for Strategic Development and Education Quality Assurance;
- An expert who checks all works for plagiarism;
- In each case the functions are assigned to different persons;
- Educational and methodical department;

- A group within the department;
- A group of people from different departments of the university (faculties, research department, scientific library);
- a group of volunteers, elected by the Academic Council from candidates delegated by the faculties and the student community;
- cooperation of scientific research and quality of education departments;
- cooperation of higher education quality assurance department and scientific council/library;
- Commission on Academic Ethics and integrity;
- Specialized Academic councils and scientific publications editorial boards and committees of scientific events organization.

As can be seen from the open questions' answers, there is sometimes no clear division of management functions and direct academic integrity violation issues consideration. In addition, as it has been observed in recent years, violations of academic integrity are identified only with plagiarism. Some answers to open questions are creating doubts of the effectiveness of the academic integrity system.

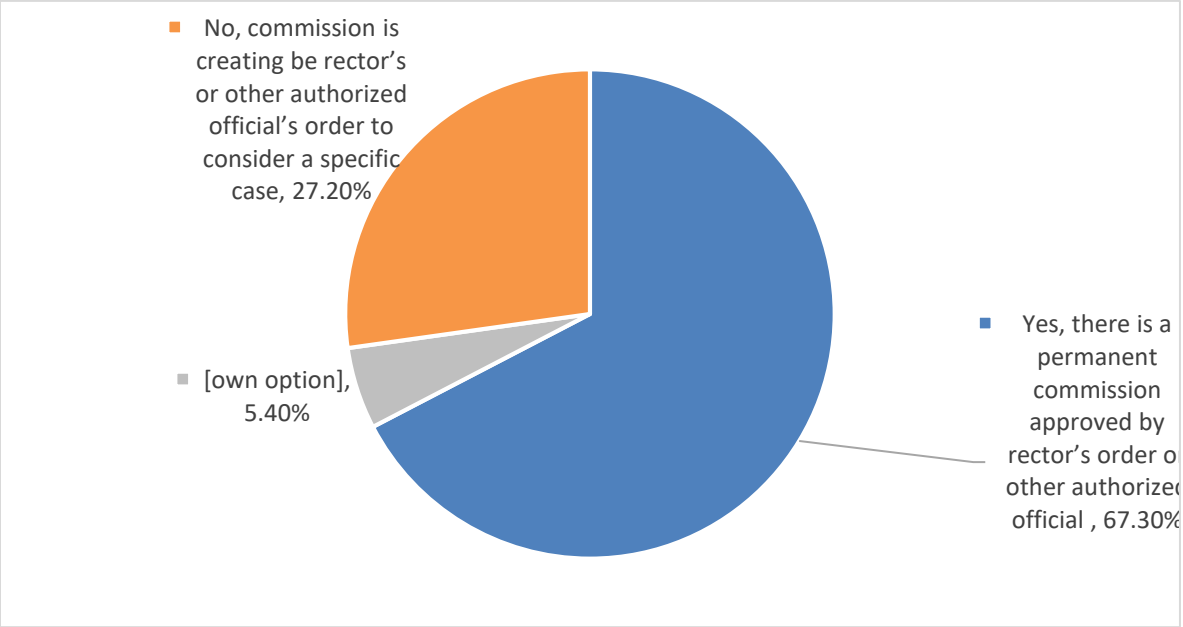


Fig. 3.2. Answers to the question "Does your institution have a commission for academic integrity violations consideration?"

Answers' analysis allows us to state that at the regulative level the issue of cases consideration of academic integrity violations, with the involvement of a separate responsible unit, is possible for almost all respondents.

Among the other answers, the ones worth mentioning are:

- The University Quality Council has been established and is functioning, its' competences include a consideration of issues related to the violation of

academic integrity. If it is necessary to conduct an official investigation, a commission is created by rector's order;

- For the cases of academic integrity violations consideration is responsible — Commission for quality of education monitoring;
- in the structure of faculties' academic councils there are committees, responsible for academic integrity violations consideration by scientific and pedagogical staff or higher education applicants;
- cases consideration is delegated to the scientific and technical council;
- a commission is created at each faculty (department), its' composition is approved by the faculty (department).

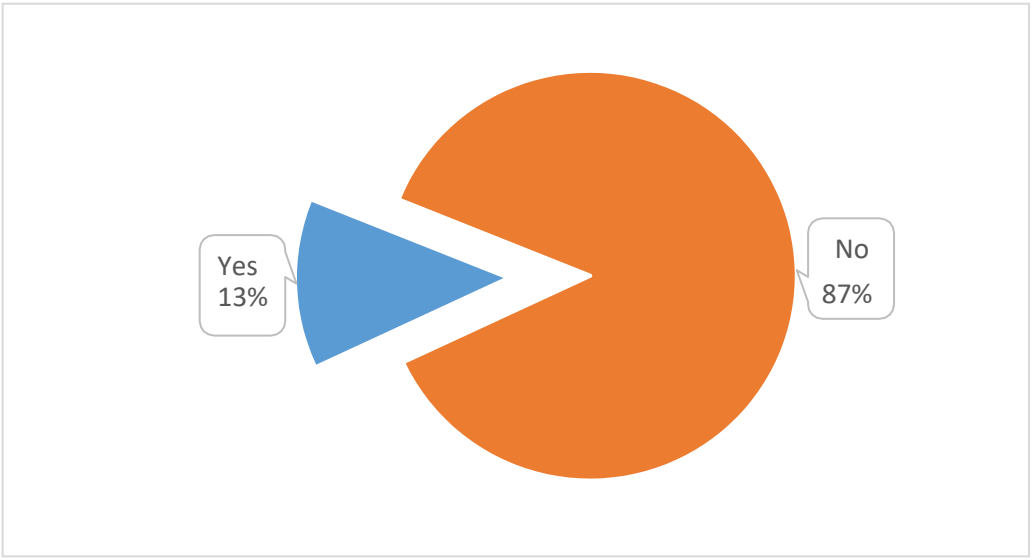


Fig. 3.3. Answers to the question "Does the list of academic integrity violations, which is given in Article 42 of the Law of Ukraine "On Education", need to be expanded?"

Answers statistics to this question is quite interesting. Despite the large number of unacceptable practices in educational and scientific field, which are not regulativelly enshrined in law, the vast majority of respondents are not active in proposing regulatory framework improvements. Given the fact that, for example, HEIs are suffering from the performance of research work and papers on demand, stakeholders of the educational and scientific process do not report violations, the reluctance to expand the list of violations, is an alarming signal. Nevertheless, some respondents identified a list of violations that, in their opinion, would "strengthen" national legislation. Question was formulated the following way: "Provide a list (maximum 5) of academic integrity violations, which should be included to the existing list given in Article 42 of the Law of Ukraine "On Education"?"

Some respondents' suggestions:

- attitudes that degrade human dignity or discriminate any participant of the educational process or violate any human rights;
- unprofessional attitude to the provision of educational services;
- violation of the educational services' content (insufficient in volume, inadequately

simplified)

- improper use of terms when providing information;
- obtaining and presenting false documents of scientific results implementation;
- presentation of hypotheses and possibilities as proven actual results;
- falsification of scientific reports;
- nepotism (granting positions to relatives or acquaintances regardless of their professional abilities) and abuse of power;
- forced charitable contributions and forced labor;
- academic sabotage;
- conflict of interests;
- purchase of HEIs' teachers' publications, as a kind of bribery;
- submission of purchased scientific researches, as own results of educational and scientific activity;
- ignoring alleged violations of the academic integrity by others or taking actions aimed at concealing the violation;
- intentional accusation of violating academic integrity;
- manipulation of authorship or role of other authors neglection in publications;
- influence on results of student's survey on quality of higher education;
- publication of fake research results;
- personal interest;
- scientific advisory of the thesis research, providing a positive conclusion on the thesis research (in particular, but not exclusively, by the opponent), the preparation process of it, and/or the text of which contains obvious signs of academic integrity violations or reasonable doubts about its uniqueness;
- part-time teachers' scientific profiles usage, in order to increase HEIs' ratings;
- teachers', who are no longer working, scientific profiles usage, in order to increase HEIs' ratings;
- lack of monitoring of the working group composition, which performs all the HEIs' scientific duties at all stages: application, implementation and reporting;
- text manipulations to hide plagiarism;
- an ability to plan and conduct learning activities that effectively help students avoid plagiarism;
- knowledge of writing assignments and exam tickets with appropriate task, which will not lead students to plagiarize;
- to give a moral assessment of one's own actions, and to correlate them with moral and professional norms;
- estimate examples of human behavior in accordance with the norms of academic integrity;
- to expand the concept of biased evaluation to scientific activity (for example, artificial increase of scientific reports' KPI, due to inclusion to their results of

works, which subject has no relation to the general concept of work;

- violation of the professional ethics principles, general norms of morality, the principles of independence and objectivity, professional competence in the implementation of educational and scientific activities;
- violation of the principles of confidentiality and professional secrecy in the implementation of educational and scientific activities.

It should be noted, that some of the proposed violations do not apply to academic integrity violations, but are a violations of the academic relations ethics. This fact can be the basis and reason for creating a regulatory framework that combines the problems of academic integrity and ethics of academic relations. Some definitions are difficult to attribute to violations at all, most likely, they are suggestions for improving the learning process. Some of the proposed violations have to be elaborated, in terms of correct formulation or are characterizing a low level of teacher training and cannot be interpreted as a violation of academic integrity.

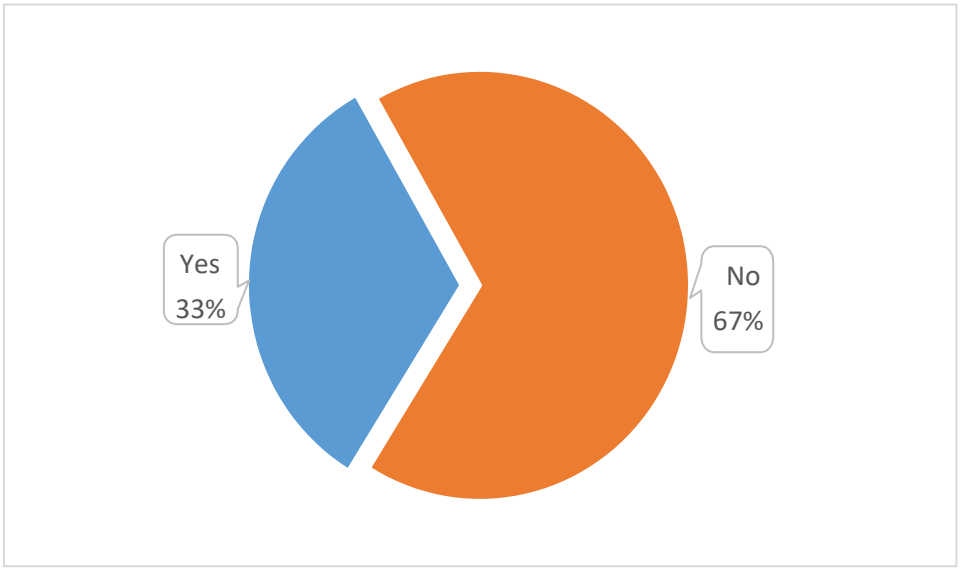


Fig. 3.4. Answers to the question « In your opinion, does the current HEIs' regulatory framework on academic integrity have to be improved? »

Two thirds of the respondents believe that the regulatory framework that exists in their HEIs, does not need to be improved. This survey results can be explained by the fact that, in specific cases of academic integrity violations, regulatory framework was not applied by the algorithm "detection — statement — case of violation consideration — setting the type of academic responsibility" or the violation was already included in the relevant list in Article 42 of the Law of Ukraine "On Education". It is difficult to find other explanations for the lack of desire for improvement. Those respondents who intend to improve their regulatory framework are on the right track. In this part, NAQA has developed documents of a recommendatory nature, which do not force higher education institutions to strictly comply with the requirements.

Below are some of the survey results on the open question: "Briefly describe what needs to be improved in the current HEIs' regulatory framework on academic integrity" and

the HEIs' proposal to improve their own regulatory framework on academic integrity.

Some suggestions:

- Inconsistency of requirements for higher education institutions with funding and other resources for higher education and science.
- Mechanisms for preventing academic dishonesty and clarifying the options of actions and responsibilities related to the students' academic dishonesty and formed in general secondary education institutions, need to be detailized and disseminated in accordance with the amount of financial support of such activities in a particular educational institution.
- To improve the "Regulations on the academic integrity of students and research and teaching staff": 1) to establish a clear correspondence between a specific violation and the type of responsibility for it; 2) prescribe a step-by-step procedure for identifying and stating the facts of academic integrity violations.
- Part of the Article 42 on academic responsibility should be specified, for HEIs to have a clear legal basis in addressing these issues.
- Improve the mechanism for prosecuting violations of academic integrity. The process of informing the stakeholders of the educational process about the principles and rules of academic integrity defined by law.
- It would be beneficial to adopt a regulative legal document and determine additional types of violations of academic integrity, in addition to those provided in Article 42 of the Law of Ukraine "On Education".
- Procedure determining the fact of violation of academic integrity. Creating a detailed list "type of violation — type of responsibility"
- Improvement is necessary in the regulatory framework governing: bringing participants of the educational process to justice for academic integrity violations; students' involvement in the process of creation of academic culture, introduction of the Declaration on commitment to academic integrity principles to all participants of the educational process.
- The existence of contradicting views on the types and mechanisms of punishment for academic integrity violations.
- Clear grounds for action in case of violations of academic integrity.
- Insufficient preventive measures, such as special integrity training programs and targeted conferences.
- Clear justification of mechanisms for implementing the principles of academic integrity.
- Elimination of conflicts in legislation: specification of terminology, distribution of powers and procedures for prosecution.
- Creation of separate regulative documents on academic integrity issues adjustment.
- Improvement of regulative legal documents on systematic detection of facts of

academic integrity violation, procedure and mechanisms of prosecution.

- Prescribe in detail the procedures for identifying and enforcing sanctions for academic integrity violations.
- Systematization of criteria for the nature of academic plagiarism assessment and other types of academic integrity violations.
- To elaborate the procedure of academic integrity observance to its final condition, in particular, the final stage of the procedure of final qualification works' internal verification for plagiarism.
- In the existing regulatory framework are no information on how academic integrity is regulated, related to the realization of research to topics.
- To regulate issues regarding the use of plagiarism detection software.
- System of popularization of ideas of academic integrity.
- The current HEIs' regulatory framework needs to be improved by changing the statutes introducing to them issues of academic responsibility.
- Concretization of the official responsibilities of the group members dealing with issues of academic integrity.
- Responsibility for violating the principles of academic integrity.
- Anonymous student's survey on the presence/absence of academic integrity violations, measures to prevent violations of the educational process, spreading information to promote the principles of academic integrity (a set of recommendations for plagiarism prevention — separate guides for students and teachers to prevent plagiarism, specific instructions for university staff to fight student's plagiarism).
- It is necessary to establish the quantative indicator of originality of scientific papers on a regulatory level.
- The concept of "self-plagiarism" needs to be clarified.
- It is necessary to develop a comprehensive regulatory document that would control and prevent all types of violations of academic integrity.
- To improve the regulatory documents of the procedures for academic integrity assurance at the University, taking into account the implementation of measures to promote it among applicants and research and teaching staff.

Some of these suggestions are too general. For the most cases, such suggestions are an option for issues like "something needs to change" and also expectation of orders and recommendations from the national level authorities, which should propose certain algorithms, procedures, clarifications, etc. (NAQA, Ministry of Education and Science of Ukraine and its subcommission "Academic Integrity" as a part of one of the scientific and methodical commission, the National Academy of Legal Sciences of Ukraine or other legal entities).

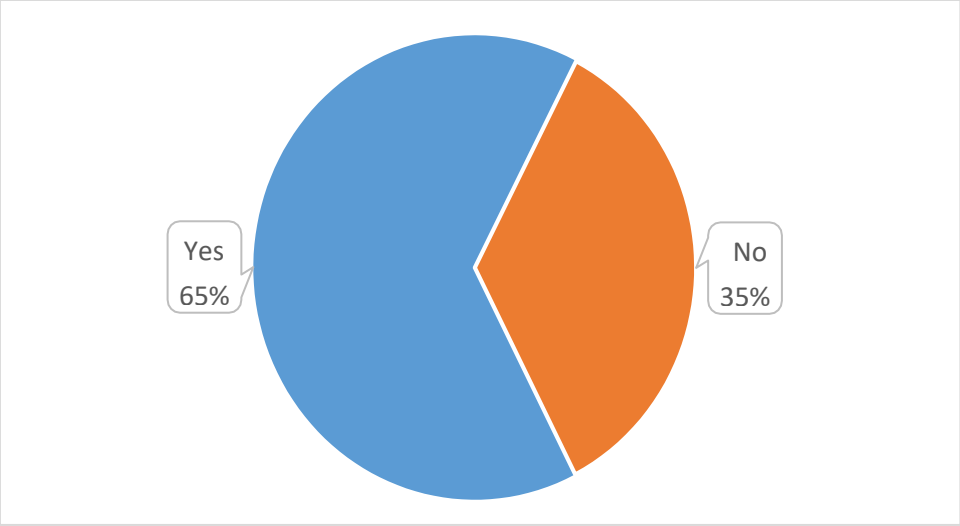


Fig. 3.5. Answers to the question "Is there a need to create a separate regulatory document that would regulate the issue of academic integrity at the national level"

In fact, two thirds of respondents understand the importance of the academic integrity assurance issue, and the algorithms' imperfections and limitations in the existing regulatory framework. For this purpose, in response to the respondents' expectations, development of the draft Law of Ukraine "On Academic Integrity" continues.

The final series of questions was devoted to find out the attitude of respondents to academic integrity violations, committed by different participants of the educational and scientific process (for Academic staff — separately for educational and scientific activities). The results of the survey are given below.

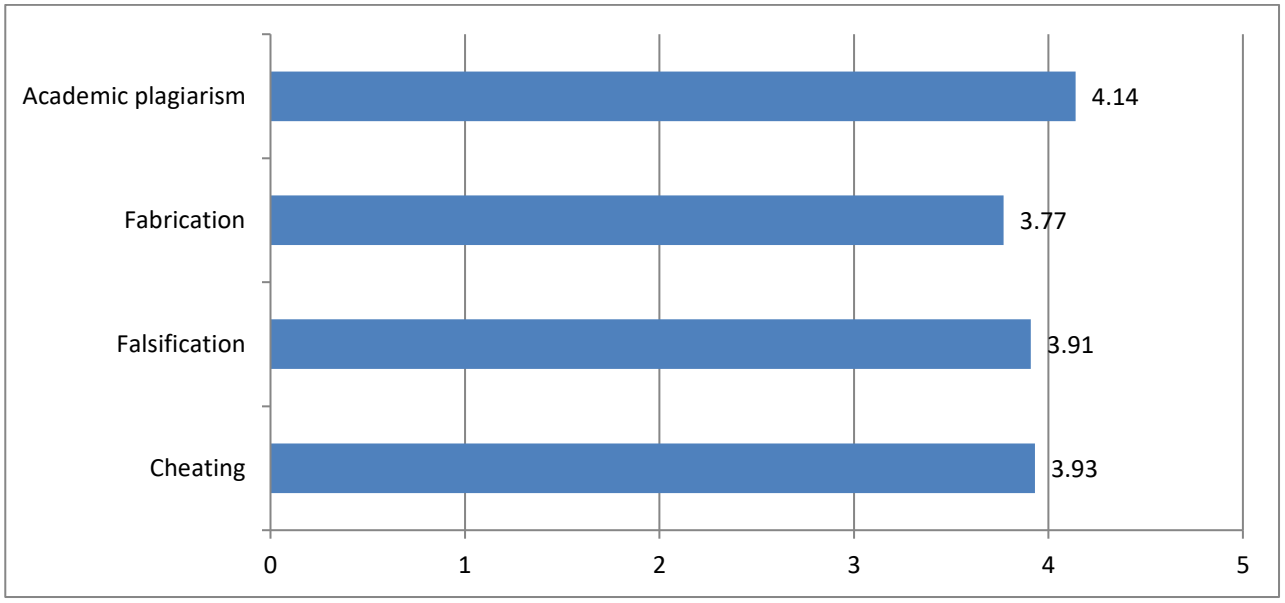


Fig. 3.6. Answers to the question "Please rate the impact of different types of student's academic integrity violations on the quality of their training (use a five-point scale where 5 is a very significant impact, 1 is a minimal or no impact)"

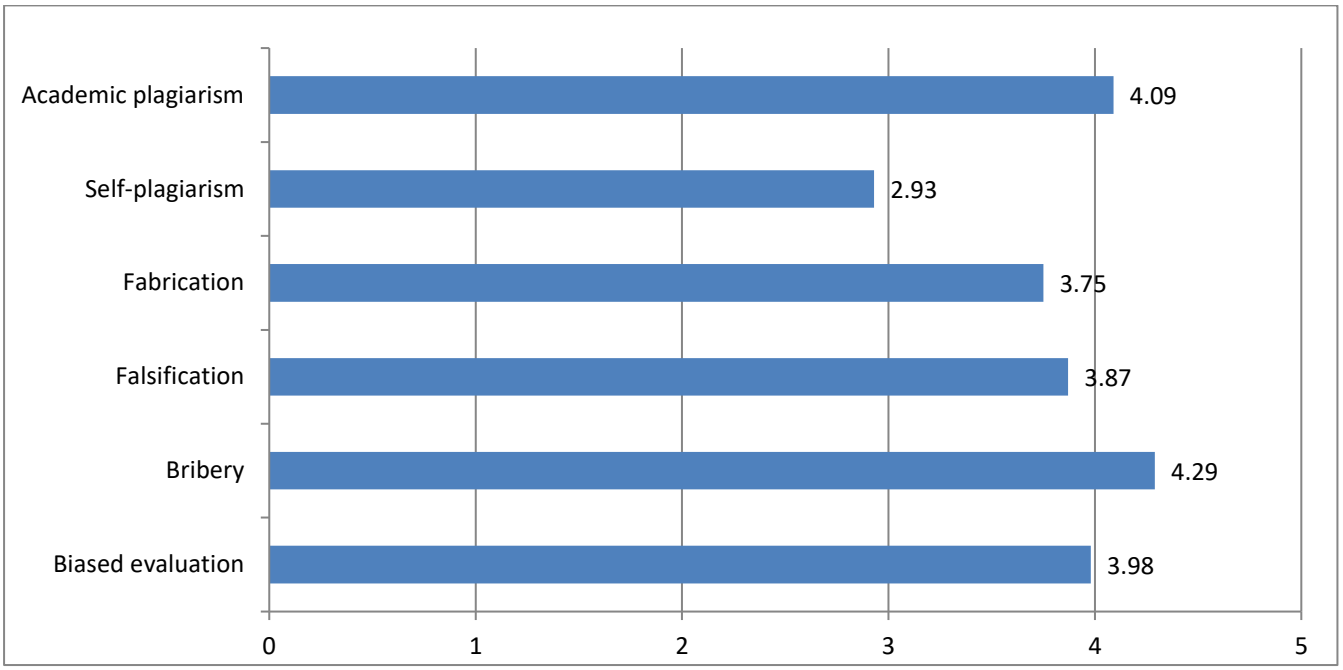


Fig. 3.7. Answers to the question "Please rate the impact of different types of academic staff' academic integrity violations on the quality of education (use a five-point scale where 5 is a very significant impact, 1 is a minimal or no impact)"

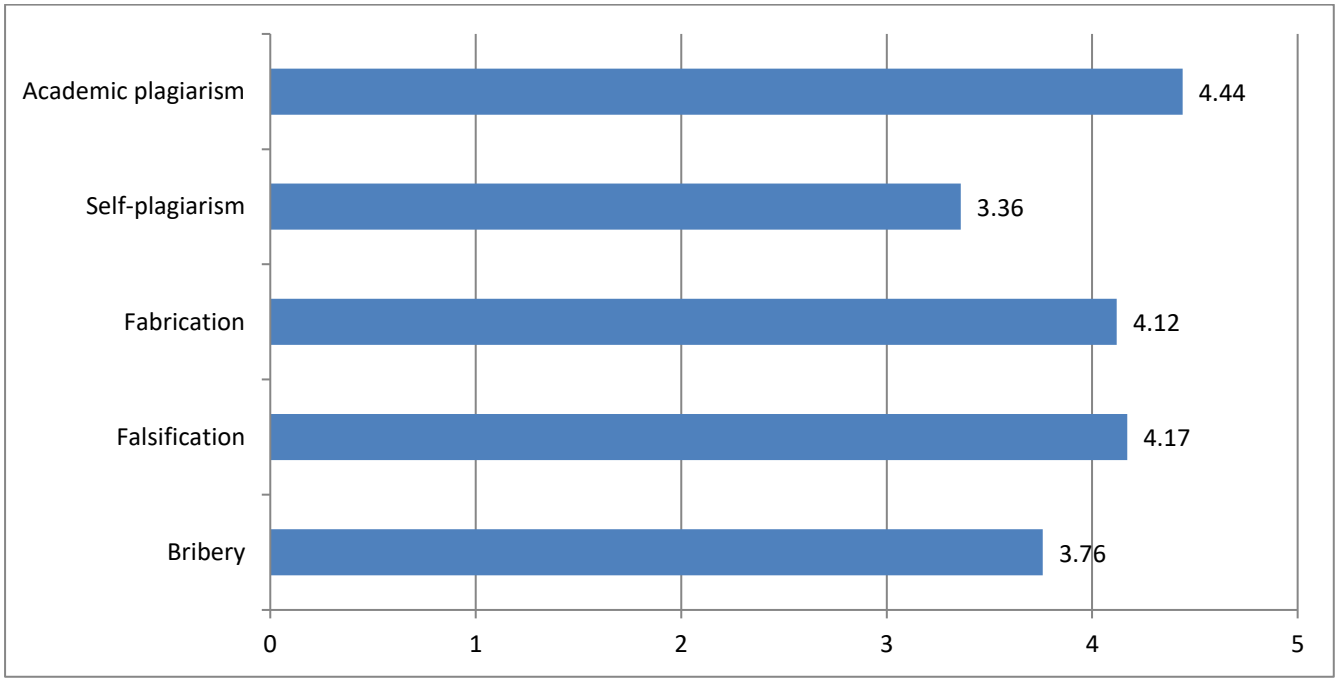


Fig. 3.8. Answers to the question "Please rate the impact of different types of academic staff' academic integrity violations on the quality of scientific research and publication of its results (use a five-point scale where 5 is a very significant impact, 1 is a minimal or no impact)"

For different cases, with different violations, the respondents highly rated the degree of their influence, although there were exceptions. For example, there is a rather low rate of such a violation as self-plagiarism, which indicates the unwillingness of society to eradicate self-deception and the misconception that using your own work is not a violation, and self-plagiarism has an aspect of image.

A scientific society representative, who reuses his own works to replicate publications (without referring to previous work) discredits himself in the eyes of publishers and foreign colleagues. Yes, the national regulatory framework of other countries may not highlight self-plagiarism as a violation of academic integrity, but in the Law of Ukraine "On Education" such a violation is specified and this fact must be taken into account.

Respondents' answers to the above mentioned three questions on the impact of different types of academic integrity violations on the quality of different activities prompted the need to publish information, regarding the NAQA activities in dealing with complaints of possible academic integrity violations.

Complaints of the educational process outsiders and organizations regarding academic integrity violations by HEIs employees and scientific institutions are considered by the Ethics Committee of the National Agency, within the framework of the Law of Ukraine "On Higher Education". The preparation of the decisions of the Ethics Committee of the National Agency is carried out by the members of the Committee.

Due to the limited list of academic integrity violations defined in Article 42 of the Law of Ukraine "On Higher Education" the Ethics Committee was also using international documents, which define other unacceptable practices in the implementation of educational and scientific activities.

Including:

- "**European Code of Conduct for Research Integrity**"
- "**Ethical principles**", "**Codes of conduct for teachers in Europe**", "**A background study South-East European Project on Policies for Academic Integrity**";
- "**Fundamental Values of Academic Integrity**";
- "**General Guidelines for Academic Integrity**";
- **The Singapore Statement on Research Integrity**;
- **Questionable Research Practices: Definition, Detect, and Recommendations for Better Practices**;
- Oermann M. **You cited which paper? Reference errors are more common than many realize**;
- Sacco D.F., Bruton S.V., Brown M. **In Defense of the Questionable: Defining the Basis of Research Scientists' Engagement in Questionable Research Practices**.

Based on consideration of complaints results, in case of establishing the fact of violation, the Ethics Committee issues a request for:

- NAQA support for the decision of the Ethics Committee;
- recommendation for NAQA, to take into account the relevant decision on the consequences of identifying academic integrity violations, after approval by the Cabinet of Ministers of Ukraine of the "Procedure for revoking the decision of the specialized scientific council of awarding a degree";
- recommendation for HEIs or scientific institutions to initiate the procedure of case consideration on the revealed academic integrity violation and establishment of the type of academic responsibility, in accordance with the national and internal regulatory framework;
- recommendation to take into account the fact of academic integrity violations during accreditation in HEIs and research institutions.

Unfortunately, at the end of 2020, at the NAQA Meeting, was decided to suspend the consideration of complaints, allegations and reports of academic integrity violations by the Ethics Committee. Flaws of the regulatory framework, at the national and local levels, continuance of the difficult process of perceiving the need to build an effective system of academic integrity, reluctance and sometimes outright disregard for the academic integrity principles — the main challenges that confirm the relevance of the NAQA tasks, in terms of academic integrity assurance in higher education.