

Transformations of Higher Education Landscape in Ukraine

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Introduction

The study of changes in institutional landscape of Ukraine’s HE is made by using analytical frame based on the horizontal system differentiation, vertical system differentiation and organisational interrelationships between HEIs (Teichler, 1988). We will focus in our analyses on the systematic analysis of statistical data, political, legislative and strategic documents, as well as the results of sociological and analytical studies on higher education reform and development in Ukraine.

The horizontal system diversification increased with the creation of the new private and public HEIs. The vertical system differentiation was strengthened especially at the beginning of 2010 because of government policies and introduction of national and international rankings that made the existing vertical diversity more visible. The organizational interrelationship between HEIs has also changed the logic of the market competition for the students and for the resources.

Higher Education in Ukraine. Short Historical Review

HE in Ukraine has a long and glorious history that has left its mark on the way HE system functions today. The first HEIs emerged in Ukraine during the late 16th and early 17th centuries (Ostrozhiy Greek-Slavic-Latin Collegium¹ (1576), the Kyiv Mohyla Academy (1632), Lviv University (1661)) similar to Western European HEIs of the time. More HEIs were founded in the 19th century, beginning with classic universities in Kharkiv (1805), Kyiv (1834), Odessa (1865), and Chernivtsi (1875) and a number of professional HEIs (Nizhyn Historical and Philological Institute (1805), Kharkiv Technological Institute (1885), Kyiv Polytechnic Institute (1898) etc.). Rapid growth followed in the Soviet period after World War II.

It is necessary to mention that post-secondary non-HE (so called “secondary special education”) in Ukraine developed to train technical professionals – junior specialists. It differed from primary vocational education (called “professional technical education”) based preferably on low secondary education thanks to elements of fundamental education in corresponding fields. That was not HE, but higher level of vocational training². Because in Ukraine part of institutions of secondary special education were included into the national system of HE, we will call them VETIs (vocational education institutions).

In 1960-1990, HEIs were located in 6 main regional university centres (Kyiv, Kharkiv, Odesa, Lviv, Donetsk, Dnipropetrovsk and respective regions) in Ukraine. HEIs were oriented towards the

¹ The Collegium was the first higher education institution at the Eastern Slavic territories.

² In some sense they are analogous to community colleges in the USA; award the junior specialist degree.

needs of the military industrial complex and support of the economically significant industries and regions. State funding supported HE in Ukraine.

In general, over 1960-1990 2 main periods in HE development in Ukraine may be distinguished:

1960-1969 – a period of its administrative-intensive development; number of students increased almost 2 times without essential increase in the number of HEIs; at the same time, the number of VETIs increased by approximately 25%.

- 1970-1990 – a structural stabilization period; a number of HEIs grew from 11 institutions up to 149 HEIs, while preserving the average size of the institution.

Generally, HE in Ukraine did not develop mass characteristics, but was rather elitist in nature (only 20-25% of secondary school graduates were able to continue studying in HEIs). This was largely due to the fact that during imperial times predominantly only individuals faithful to the communist party had access to post-secondary institutions that taught Law, History, sometimes Humanities. Access to postsecondary education in Math, Science and Engineering was more liberal, but a number of student seats was strictly limited, so competition was rather high.

In 1991/1992 academic year, there were 156 HEIs (universities and institutes) that obtained the status of III-IV levels of accreditation and 754 VET institutions that were granted the I or II level of accreditation [Fedorchenko, Yu.].

The structure of HEIs network was simple (horizontal differentiation). There were universities (i.e. classic universities) and institutes (sectoral HEIs). Before 1990-s, there were 10 classic universities (mostly oriented towards research activities) and 29 teacher training (pedagogical) institutes, dozens of polytechnic & technological, medical, agrarian, military and arts institutes.

Table 1
HEIs (III-IV accreditation levels), 1991/1992 academic year

| Type of HEI | Number | Location |
|----------------------------------|--------|--|
| Universities | 10 | Kyiv, Lviv, Kharkiv, Odesa, Dnipropetrovsk, Donetsk, Uzhgorod, Chernivtsi, Zaporizhzhia, Simheropol |
| Institutions, including: | 146 | |
| - pedagogical (teacher training) | 29 | appr. one per region |
| - polytechnic | 6 | Kyiv, Lviv, Kharkiv, Odesa, Donetsk, Vinnytsia |
| - medical | 13 | Kyiv, Lviv, Kharkiv, Odesa, Dnipropetrovsk, Donetsk, Vinnytsia, Ivano-Frankivsk, Ternopil, Simpheropol, Chernivtsi, Poltava |
| - agrarian | 17 | Kyiv and region, Lviv region, Kharkiv region, Odesa, Dnipropetrovsk, Vinnytsia, Khmelnytsky region, Crimea, Simpheropol, Kherson, Sumy, Poltava, Cherkasy region |

At this period, several highly specialized institutions (mainly technical) were founded by separation from the big mother HEIs.

In 1970-1990, regions became significantly closer to each other in a number of students in HE and VET. At the same time, the number of students of HEIs (totally 350 per 10,000 population) remained stable.

A growing crisis in the second half of 1980s urged for the system reform in HE and VET (in the frame of administrative-command mode of regulation and administration). However, the initiated reform of HE and VET was not completed due to the socio-economic and political crisis that resulted as the collapse of USSR and changes in the political and economic systems.

Extensive (massive) growth of HE in Ukraine in 1991–2013 after gaining the state sovereignty

In independent Ukraine, new public policy in HE originated with the adoption of **the Law of Ukraine on Education (1991)**. The Law eliminated soviet ideological obstacles for the development of education, but kept centralized control in education, including HE.

The right to establish non-state HEIs was a crucial novelty of the Law. Namely, equal requirements were set to all HEIs: licensing, accreditation of specialties (study areas), institutional accreditation of HEIs.

The Law also introduced 4 levels of HE corresponding to the degrees: junior specialist, bachelor, specialist and master³. The structure of HE was changed – institutions of VET (provided for training of professionals based mostly on completed secondary education (SE), and also non-complete SE (9 grade) gained the status of HEIs that trained so-called junior specialists.

Because of VET had been included into the system of HE, a new classification of HEIs was introduced to distinguish different types of institutions (horizontal differentiation):

- HEIs accredited at levels III and IV (universities, academies, institutes); mainly, these were HEIs or their branches before 1990;
- HEIs accredited at levels I and II (former VETIs).

Fig. 1 demonstrates the dynamics in the number of HEIs of the above two groups during 1990-2013.

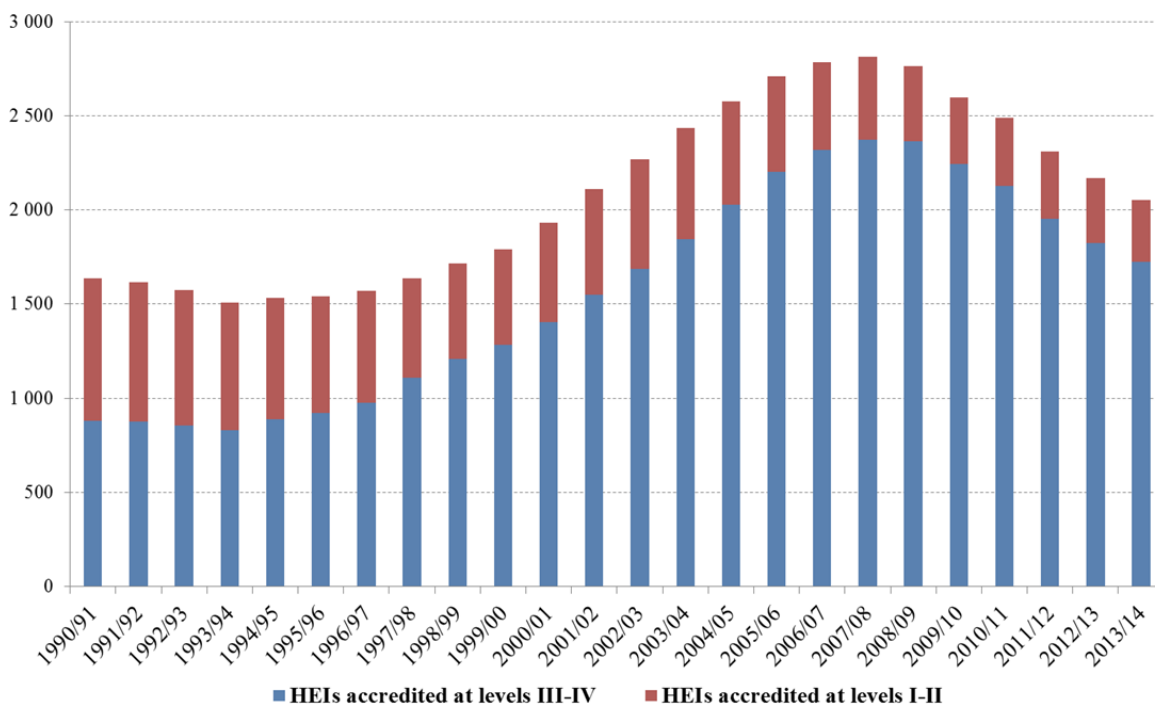


Fig. 1. Number of students (thousand) and their allocation between HEIs accredited at different levels, 1990-2013

The adoption of *the Constitution of Ukraine in 1996* created principally new framework for regulation of HE. First of all, the Constitution provides for the principles of the rule of law and direct application of the constitutional norms. Article 53 guarantees a right to obtain free HE on a competitive basis. In addition, the Constitution provides two important norms that are relevant to education:

- human rights (including the right to education) should be regulated exclusively by laws of Ukraine;
- equality of different types of ownership;
- principles of education are regulated exclusively by laws of Ukraine.

A real attempt of HE reform was performed by adopting the Law of Ukraine on HE in 2002. The law did not change significantly the structure of HE and types of HEIs, but specified licensing and accreditation procedures.

During this period, the *increase in number of HEIs* accredited at levels III and IV and their students was the main trend of HE development (Fig. 2). The period was characterized by a massive distribution of licenses for higher education activities provided by the Ministry of Education and

³ Before 1990, there was only one degree – specialist – that was considered full (complete) HE; junior specialist meant non-higher vocational education.

Science of Ukraine (MoESU): as a result, in 2013 HEIs obtained licenses for more than 1 million student-places, while the number of school graduates decreased several times.

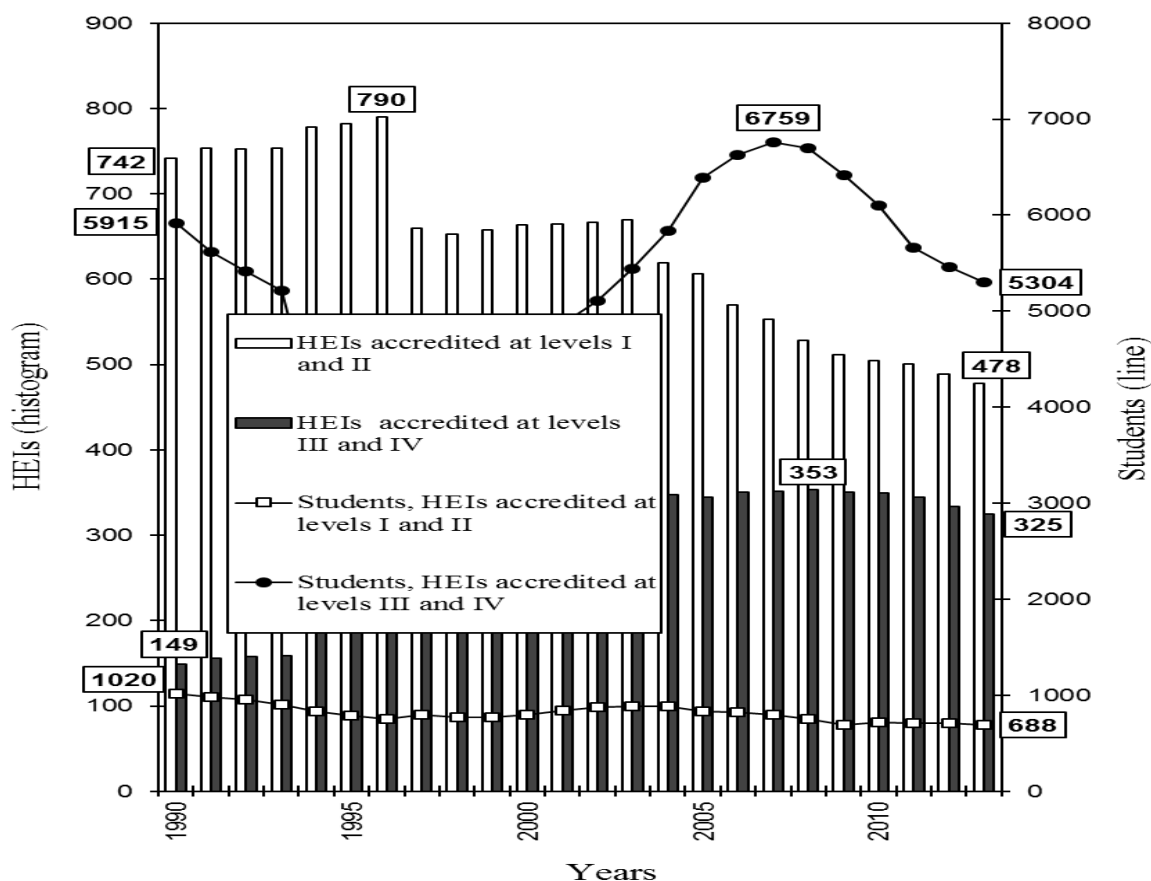


Fig. 2. Number of HEIs and the average number of students per HEI, 1990-2013

Despite a slight reduction in the number of HEIs starting from 2009 (mostly via their mergers), in 2013 most of them were smaller than in 1990, which did not contribute to accumulation of important university capacity. Number of HEIs accredited at levels I and II decreased due to:

- transformations instigated to change the status of an institution (obtain accreditation at level III);
- affiliation with HEIs accredited at levels III and IV;
- merger or liquidation usually initiated by the government.

Analysis of *the specialization of HEIs (fields of study)* indicated the absence of structural proportions uniformity for certain areas of education and training. For instance, the dominant positions in HEIs accredited at levels I-II in academic year 2013/14 belonged to:

- Engineering, Manufacturing and Construction (28% of total number of students in HEIs);
- Health and Welfare (24%);
- Social Sciences (16%).

HEIs accredited at levels III-IV demonstrate somewhat different trends in their specialization (as of 2013/14):

- the biggest share falls on Social Sciences (36%);
- Engineering, Manufacturing and Construction (22%);
- Arts and Humanities (10%).

Despite the decrease in a total number of students, structural proportions among most areas of training remained relatively stable for the period of 2007-2014.

The largest number of HEIs accredited at levels I-II and students enrolled in those institutions are concentrated in central (Kyiv) and western regions (Lviv). Importantly, this trend has

been observed during all years of independence of Ukraine since 1990, despite the general reduction in the network of such HEIs. The data shows that HEIs accredited at levels III-IV and students enrolled mostly concentrate in central (Kyiv), western (Lviv) and Kharkiv regions. Private HEIs exist all over Ukraine, although most prestigious ones are located in large cities.

Despite changes in the number of HEIs and respective student population, interregional proportions of their distribution remained relatively stable since 1990 in Ukraine.

Important dimension of the horizontal diversification of institutional landscape is performed through *the division of HEIs according to the form of ownership*, namely into: public (state and municipal) and private. Fig. 3. demonstrates changes in HE institutional landscape in Ukraine by ownership criteria [State Agency].

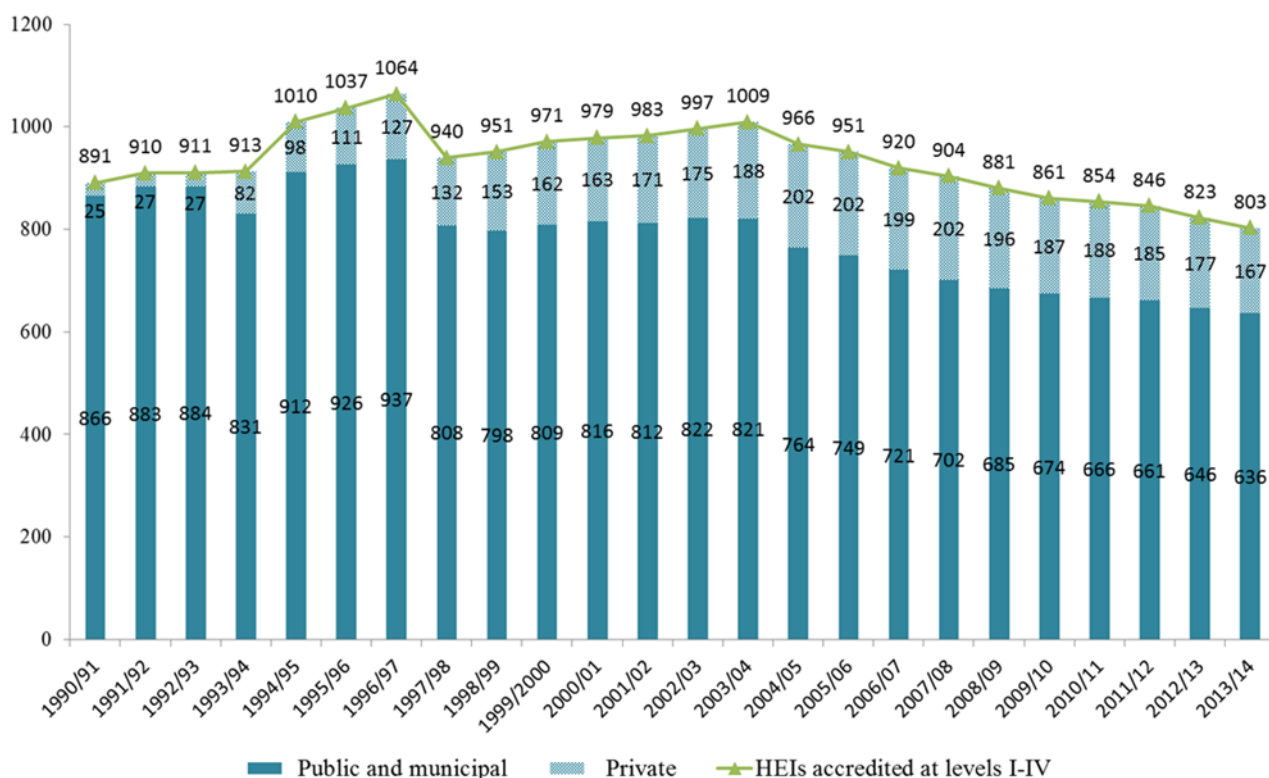


Fig. 3. Number of public (state and municipal) and private HEIs in Ukraine, 1990-2013

Distribution of HEIs by forms of ownership has significantly changed during the period of Ukraine's independence: a portion of public HEIs decreased from 97% in 1990 to 79% in 2013 (a portion of private HEIs increased from 3% to 21%). In addition, around 167 private HEIs (26.3 % of the total number of HEIs in 2013) have been created since 1991. Such growth in private sector of HE falls largely in the period of 1993-2007, which is related with general liberalization of the system of socio-economic relations in Ukraine and departure from a model of total governmentalization (government ownership) of educational domain that existed in the Soviet era.

According to the official data on HEIs and student enrolment presented by the State Service of Statistics of Ukraine, there were 636 public HEIs in academic year 2013/14:

- HEIs accredited at levels I or II – 478 (407 public, 71 private);
- HEIs accredited at levels III or IV – universities, academies and institutes – 325 (229 public, 96 private).

In academic year 2013/14, a number of students enrolled in private HEIs stood for 191 078 (9.3 %). The distribution of students in private HEIs was as follows: 93 923 (49.2%) were full-time students, 96 978 (50.8%) – part-time students, and 177 (less than 0.1%) part-time students of evening form of study [State Agency].

Financial aspects of HE. Due to the shortage of financial and human resources, public (state and municipal) HEIs increased the scope of commercial educational services. As a result, students became the weighty contributor of funds to HEI budgets; a portion of revenues coming to HEIs from students and legal entities became equal to public funding.

Starting from the year 2000 (**Law on State Budget for 2000**), all non-public revenues of public HEIs for commercial educational services were to be treated as “public earnings” and interpreted as the revenues from the State Budget. Consequently, they were to accumulate on the Special State Fund in the State Treasury. This essentially limited financial autonomy of HEIs. Nevertheless, HEIs had a bit more freedom to use their own earnings compared to handling of their public funds, accordingly they were crucially interested to obtain these additional funds.

The critical need for additional funding under the economic crisis caused the following negative trends:

- HEIs started to focus on atypical training/educational programs, for instance, universities that specialized in technical, agricultural, pedagogical programmes started to provide HE in Law, Economy, International Relations etc.;
- entry requirements for foreign HE students were lower than for national ones⁴;
- the number of academic staff (with academic degrees of candidates and doctors of sciences, as well as professors and assistant professors) was not enough to satisfy the growing number of HEIs (and their students).

Being deprived of almost any state support, private HEIs develop mainly “low-cost”, but popular study programs. The range of courses offered by private HEIs reflects commercial considerations. In general, private HEIs offer market-friendly courses that require less investment in terms of infrastructure and equipment and cater mainly for private businesses.

It will be fair to mention that public HEIs increased the number of students studying at their own expense to compensate for the lack of public funding and to get at least minimal financial autonomy. With some public funding, they could use dumping prices for market-friendly educational programs mentioned above.

Scarce financial resources of the state, dumping of public HEIs at the market of HE services, the demographic crisis and introduction of EIA with a goal of ensuring equal and fair access to quality education, as well as marketing policy of public HEIs led to the reduction of students eager to study at private HEIs.

The Law of Ukraine on Formation and Placement of the State Contract for Training of Professionals, Scientific, Academic and Trade Personnel, Professional Development and Retraining of Personnel (2012), aimed to solve the problem of fair distribution of state funds for education and training of professionals. At the same time, issues of HEI autonomy, academic freedom and academic mobility, HE orientation towards the labour market remained unsolved. In fact, this law predetermined in some sense the distribution of public funds among HEIs.

Fig. 4 demonstrates the data on public funding of HE in Ukraine (State Agency). The data shows that HE financing reached the highest absolute and relative levels since independence.

But in actual terms, funding for student training in Ukraine is non-competitive. If calculated per student basis, the indicator is 7-10 times lower than in the developed states, even if calculation is based on the purchasing power parity (1,000 US dollars, or 1,900 dollars in PPP), which corresponds to the level of underdeveloped states. Contribution of the private sector to financing of degree training is below 0.5%.

⁴ Admission of international students to HEIs is based on an interview and submitted documents of previous education.

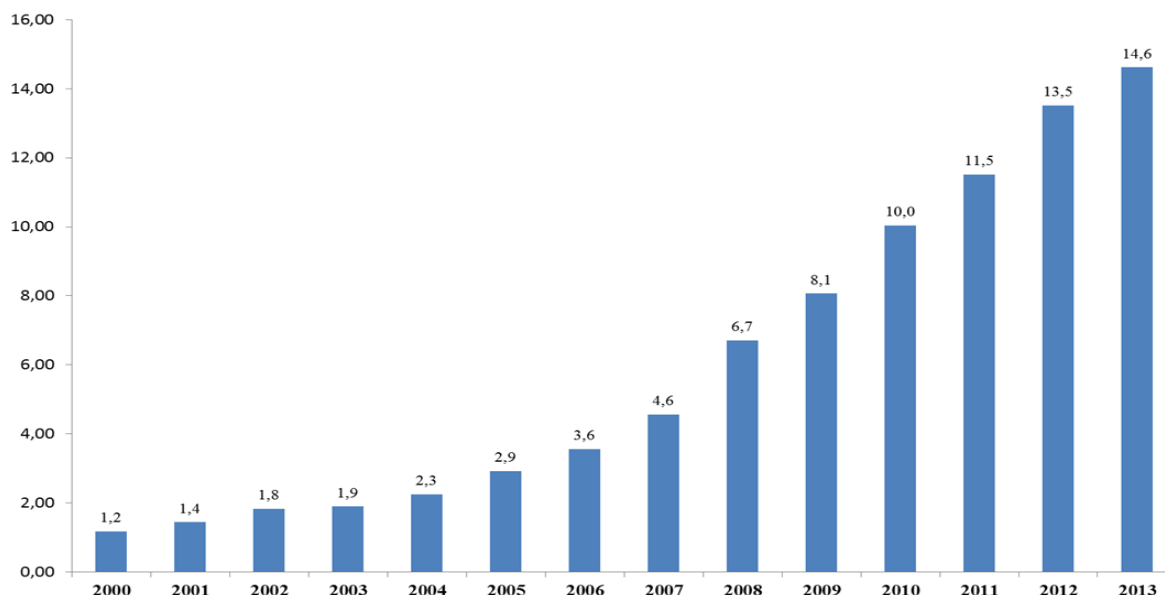


Fig. 4. Public funds for HE in Ukraine, 2000-2013, thous. hrn per student

At the break of the new century, Ukraine was a world leader (38%)⁵ among 90 states (17% on average) by a portion of adult population (25 years and higher) with HE⁶. Ukraine was among a small group of states⁷ that annually produced the highest number of academically trained professionals per 100 thousand people (a sample of 104 states) – over 1,200, with 580 being the world average.

Fig. 5 presents the dynamics of changes in the number of international students in Ukraine's HEIs. The data shows that:

- Ukraine is still attractive for international students considering a level of tuition fees and quality of educational services.
- Internationalization of Ukrainian HE is unbalanced: among 59 thousands of international students (3.5 % of the whole student body), representatives of Turkmenistan, Azerbaijan, Russia, China and Uzbekistan dominate – over 49 % in total.

During 1991-2014, a gap between HE and needs of the labour market was recognized one of the key problems of HE. That is why, business sector actively seeks to stimulate reforms in HE⁸. New Law on Higher Education of 2014 allows for participation of employers in the National QAA in HE, governing bodies of HEIs, development of new HE standards in line with the best European and world practices.

However, lack of fair competition in many sectors of economy reflected negatively on HE: the labour market often fails to stimulate quality education. Cooperation between HE and business sector is hampered due to the absence of the national system of qualifications, undefined role of professional standards in shaping the content of HE. The above problems are expected to be settled by the new version of the Law of Ukraine on Education (which is now under development).

⁵ together with Israel (40%) and Canada (38%)

⁶ leaving behind the USA (36%), Norway (32%), Denmark, Finland, Japan (30% each) and other developed countries

⁷ Ireland, Lithuania, Republic of Korea, New Zealand

⁸ In the process of developing the last version of the 2014 Law of Ukraine on HE, experts of the Confederation of Employers actively cooperated at all stages.

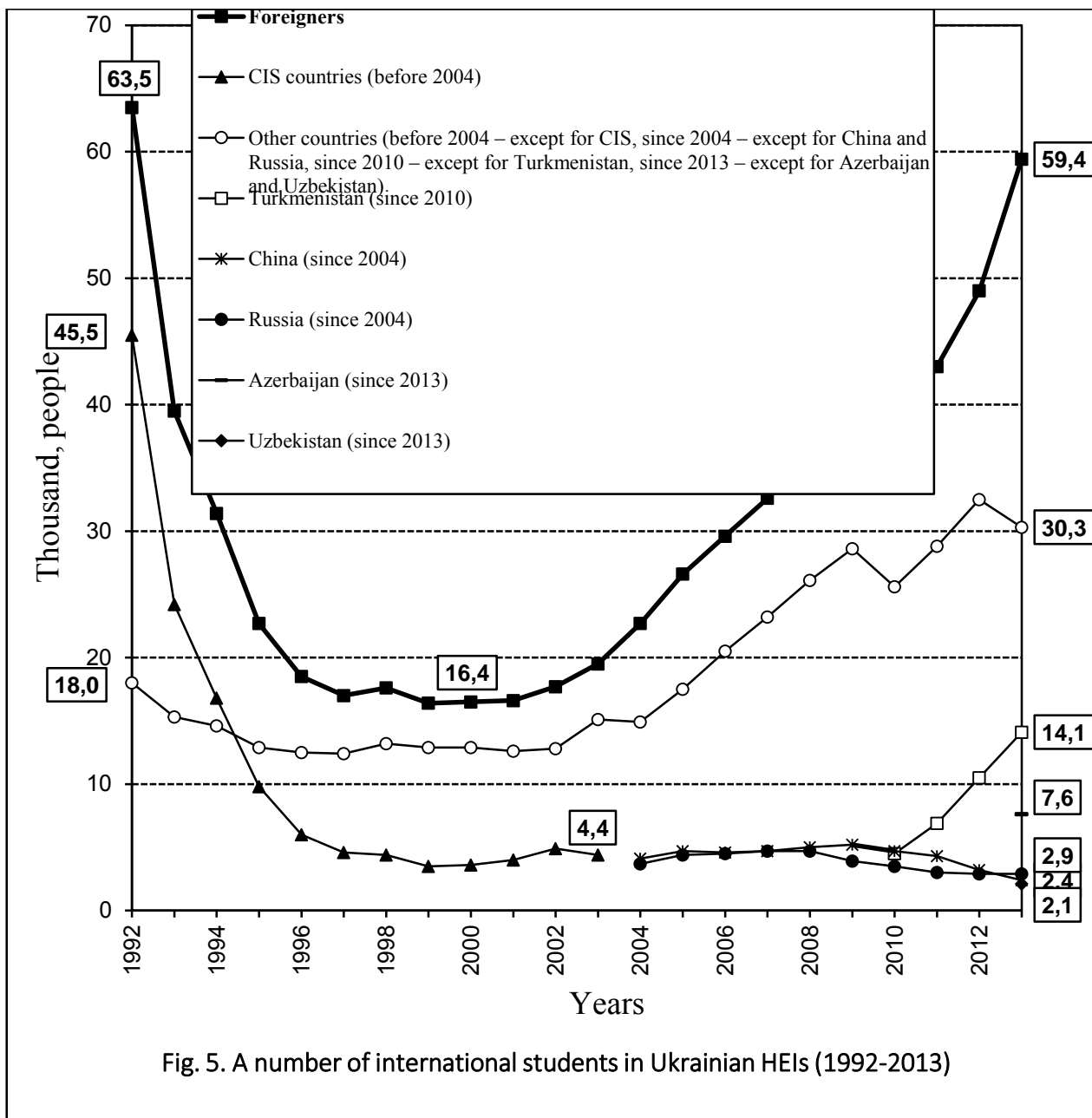


Fig. 5. A number of international students in Ukrainian HEIs (1992-2013)

The role of the stakeholders. Local authorities do not exercise any significant influence on HE. The number of municipal HEIs is relatively small. Lacking responsibility for the state contract funding, local authorities, as a rule, support offers solicited by local HEIs without assessing a real situation and needs. Local authorities are interested only in getting more funds for regional HEIs and do not care if HEIs' services match labour market needs.

HEIs rectors have established All-Ukrainian Union of Rectors - an NGO capable to influence government's policy on HE. In particular, in 2010 the Union significantly influenced the protection of the implemented reform, namely, via introducing EIA as HEI admission tests⁹.

EIA secured more freedom of choice for applicants/students, which enforced the government to modernize the structure of state contract for HE reducing the number of places for non-popular and non-critical for the labour market specialties and reducing the number of students in some weak regional HEIs.

Students' organizations are getting increasingly influential with regard to public policy in HE. Students' associations significantly influence the protection of a fair system of admission to HEIs based on EIA results. They made an important contribution to the development of the new Law:

⁹ The government appointed in 2010 tried to restrict the role of EIA in admission to HEIs in accordance with the President's electoral program.

students' demands are reflected in the procedures of state financing, state contract, support to students' self-governance, academic mobility, accessibility and quality of HE. At the same time, students' organizations have produced some populist influence on public education in HE, for instance demanding to increase the number of students and their stipend provision in HEIs funded by the Government.

Ukraine's accession to the Bologna Process in 2005 at the Conference of European Ministers Responsible for HE (held in Bergen (Norway) on May 19, 2005), had not led to any real and significant changes in modernization of Ukrainian HE until 2013. The main reason for this was a superficial (non-systemic) implementation of the main principles of Bologna Process.

Since then, the following important steps were realized:

- the National Team of Bologna Promoters was created in Ukraine comprised of specialists from leading Ukrainian universities (2006);
- the All-Ukrainian Council of Students was nominated a candidate to the European Students' Union (ESU) and has become a member in 2007;
- draft Diploma Supplement was developed in the EU/CoE/UNESCO format with guidelines (in 2010);
- NQF has been developed and consultation process with regard to its implementation launched (2011);
- adoption of the new Law of Ukraine on HE and its further implementation (2014).

Autonomy of HEIs. The structure and indicators of the Autonomy Scorecard 2010 suggested by the European University Association was used to assess the level of autonomy of Ukrainian HEIs and its transformations at different stages of the period under consideration (1991-2014) (Estermann et al. 2011). To identify the indicators for the state - HEIs relations, the analysis of four key normative acts was done.

The following conclusions can be drawn:

1. The organizational autonomy of HEI has undergone transformations in the directions of:
 - increasing influence of the university community on the appointment and dismissal of the head of a HEI (Rector);
 - expanding HEIs' rights in establishing / appointing the Board of Trustees and strengthening the powers of the latter;
 - setting requirements to the candidates for the position of the head of a HEI and restricting its term of office (two consecutive terms only);
 - granting HEIs the right to be a founder (co-founder) of legal entities.
2. The financial autonomy of HEI was transformed in terms of:
 - legitimizing property right on estate;
 - granting HEIs a right to borrow funds;
 - granting intellectual property rights.
3. The academic autonomy of HEIs was transformed in terms of:
 - granting HEIs the right to shape the content of study programs;
 - granting them the right to publish textbooks independent of the Ministry
 - forming a new independent QA system in HE.

Nevertheless, real financial autonomy of public HEIs is still a dream. By the time of the completion of this text, public HEIs remain budgetary organizations: i.e. they are non-profit and tax exempt, but their financial activity, including their own earnings, is being strongly and meticulously controlled by the State Treasury).

Despite the absence of a national strategy for HE reform, one extremely important reform concerning **access to HE was conducted – EIA**. Preparation for the reform was launched in 2001 with the support of the International Renaissance Foundation¹⁰. This reform was actively supported by the society. In 2007, a number of leading Ukrainian universities supported the pilot project of

¹⁰ An affiliate of George Soros Foundation

admission to HEIs. In 2008, EIA was introduced nationwide as entrance exams to HEIs. At the same time, HEIs have the right to hold their own entrance exams for individuals who were not able to participate in EIA for health reasons, or to perform additional creative tests in fine arts, journalism and sports.

The study conducted during 2008-2011 showed high predictive validity of EIA (Kovtunets, Rakov 2015: 16-45). It proved that admission to HEIs based on EIA outcomes ensures a high level of social fairness for different social groups of population: chances of being admitted are almost independent from sex, place of residence, type of the SE institutions, etc. The only category, whose opportunities to access HE may be seen as somewhat limited, are those who completed the SE earlier than the year of entrance.

Starting from 2008, when nationwide EIA tests were introduced for HEIs admission, it became possible to define the so-called “market ranking” of universities (precondition for vertical differentiation). This ranking shows the quality of applicants who try to enter HEIs (calculated by an average score of EIA certificates). Such “market” ranking defined the list of TOP-10 with regard to the total sum of positions (Tab. 2)¹¹. Table 2 shows that classic universities as well as those specializing in economics are leaders.

Table 2
TOP-10 HEIs to have best applicants, 2010-2015

| <i>No</i> | <i>HEI</i> |
|-----------|--|
| 1 | National University of “Kyiv-Mohyla Academy” |
| 2 | Taras Shevchenko National University of Kyiv |
| 3 | Kyiv National Economic University named after Vadym Hetman |
| 4 | Lviv Banking Institute of the Banking University of the National Bank of Ukraine, Kyiv |
| 5 | Kyiv National Linguistic University |
| 6 | Ivan Franko National University of Lviv |
| 7 | Kyiv National University of Trade and Economics |
| 8 | Lviv State Academy of Finance |
| 9 | V.N. Karazin Kharkiv National University |
| 10 | National Technical University of Ukraine “Kyiv Polytechnic Institute” |

The above mentioned reform has had a significant influence of HE landscape allowing leading HEIs located at major academic centres to select the best students. Consequently, weak HEIs lost and sometimes were not able to enrol students even for vacancies funded by the government.

Vertical differentiation of HEIs. Number of classic universities was constantly increasing. At early 1990-s Kyiv-Mohyla Academy and Ostroh Academy were renovated as classical universities. Leading technical universities in Kyiv, Lviv, Kharkiv, Odesa, Donetsk expanded their specialization (fields of study) including economy, humanities, law and became in fact classical universities. Former pedagogical institutes (approximately one per each administrative region) were transformed mainly into classical universities in the regions that lack classical universities (Volyn’, Zhytomyr, Cherkasy, Luhansk, Sumy).

The steering philosophy of the government

In the USSR, a distinct and rigid state model of HE was in place. HE had to supply work force for the “builders of communism.” That is why, all HEIs had to work according to standard curricula.

With proclamation of independence in 1991 and adoption of the Law of Ukraine on Education, HEIs received some level of autonomy. In early 1990s, the influence of the Government on HE activities was minimal: it only provided funding. This was during that period that most private HEIs were established.

¹¹ Based on data of Konkurs (Competition) information system – <http://vstup.info>

Starting from mid-1990s, the Government gradually introduced licensing and accreditation of HEIs, in a certain way influencing the provision of a certain formal level of quality in HE. Government control procedures from the USSR times partially returned to HE: mandatory normative disciplines, mostly for the Liberal Arts. Such policy was justified from the perspective of the state building: a significant portion of young people lacked the knowledge of Ukrainian; until 1991, the history of Ukraine had not been studied virtually at all; there was an obvious need to enhance education in Liberal Arts, that, until early 1990s, had not been provided at the secondary school.

With the adoption of *the Law on Higher Education in 2002*, that practice became legislatively formalized. The educational content, list of educational disciplines by 70-80% was determined by the Government via the state and sectoral standards or by other normative acts (for most fields of training, state standards were developed due to requirements of excessive detailing HEI educational process). HEI autonomy was virtually minimized. The level of academic freedoms of teaching staff and students to a large extent depended on a HEI administration. As was stated earlier, due to granting HEIs the status of state-funded institutions, the latter completely lost their financial autonomy.

That is why the period of 1995-2014 may be characterized only as sovereign, rationality-bounded state with minimal autonomy.

From the very beginning, *the State played the key role in HE development*. Besides the law, the government has passed other education legislation of strategic nature.

Firstly, *the State National Program "Education" ("Ukraine XXI Century") (3.11.1993)* determined strategic tasks of HE reform:

- transition to the degree system in training;
- formation of a HEI network that would meet the needs of individuals, as well as the needs of each region and the State in general, in education and qualification levels, types of HEIs, forms and length of study, funding sources;
- bringing Ukrainian HE to the level of the developed states and HE integration into the international academic and scientific community.

Secondly, *the National Doctrine of Development of Education (17.04.2002)* identified priority areas for the development of public policy in education:

- creation of the market of educational services, development of its methodological framework;
- integration of Ukrainian education into European and world education areas.

Priority tasks included ensuring equal access to quality education and providing opportunities for lifelong learning. In the sphere of HE, the Doctrine envisaged the state contract financing according to the established specified standards based on quality of education.

The third document – *National Strategy of Education Development in Ukraine for 2012–2021 (25.06.2013)* determined the following tasks:

- further improvement of procedures and techniques / technologies of External Independent Assessment (EIA) as a precondition for ensuring equal access to education at HEIs;
- central control over HE, reform and optimization of HEIs network by mergers, bringing it in line with the development needs of the national economy and requirements of the labour market;
- establishment of research universities;
- expanding autonomy of HEIs.

Regrettably, the above mentioned documents were not supported by concrete steps towards implementation, no resources were provided for their attainment.

Accession to the Bologna Process in 2005, emigration of the best scientists to Europe states, US and Israel (where they were able to continue their research and receive adequate reimbursement for the work), study of Ukrainian students at universities of the above countries

formed requirements to a new educational policy. As a result, the *new Law on Higher Education was adopted in 2014*.

The new educational policy stipulated by the new Law of 2014, may be characterized as the one oriented towards institutional autonomy and development. However, low legal, political and administrative qualifications of the officials in HE system, as well as those of HEI administrations, constantly block efficient implementation of the new policy, while trying to reverse to the previous status. So, the Government often initiates incompliance with provisions of the Law. Introduction of the policy is also constrained by the lack of financial autonomy, as the new Law retained the status of state-funded institutions for HEIs. Introduction of the status of non-for-profit organizations – recipients of state funding is impeded by a whole number of factors: unsatisfactory qualifications of officials, lack of transparent rules for state funding of HE. Inability to solve this problem in the nearest years will bring Ukraine's public policy on HE to its previous level of total government "ownership" and monopolization.

The concept of the new reform in HE in Ukraine in 2014-2015

Liberal-democratic development of HE in Ukraine over 1991–2013 finally emphasized the need in urgent comprehensive modernization of HE for the purposes of quality enhancement and increasing competitiveness in the context of European integration and globalization. A respective concept of the reform for HE is being implemented in the *new Law of Ukraine "On Higher Education"* (entered into force on September 6, 2014), the main goal of the Law being achieving quality transformations in HE.

Reforms introduced by the Law were forced by internal demands as well as external demands to implement Bologna principles. Internal reasons for HE reform include low quality of HE; non-recognition of Ukrainian diplomas abroad; discrepancy with labour market demands; centralization of HE management that generates corruption.

It is necessary to mention that fight against corruption was one of principal demands of the Revolution of Dignity (2013-2014), and successful passing of the new Law was considered a successful reform performed by new government.

The Law introduces main principles and key elements of the Bologna Process:

1. Modern HE organization was established (including structuring of HE levels, orientations (types of educational programs) and fields as defined by ISCED 2011 and ISCED 2013). Namely, three levels of HE are introduced (bachelor/junior bachelor, master and PhD.); junior specialist returned to VET.

2. The university autonomy and academic freedom were recognized as fundamental principles and inalienable attributes for HE development.

3. Establishment of the national QA system in HE (according to the Standards and Guidelines for Quality Assurance in the European Higher Education Area, ESG) that includes external independent and internal (institutional) QA systems and national Quality Assurance Agency (QAA) in HE. As soon as the national QAA in HE comes into force, the MoESU Accreditation Commission is to delegate to it the responsibility for drafting regulation and carrying out the accreditation process, as well as drafting regulation on accreditation of specialized Academic Councils empowered to grant PhD. and Dr.S. degrees.

4. Development of new HE standards should be performed on the competence-based approach (according to the National Qualifications Framework (NQF).

5. HEIs are empowered to develop study programs and issue their own (non-state) diplomas; state diploma may be issued only if study program is accredited;

6. The Law establishes a clear classification of HEIs into types:

- universities, academies, institutes that provide HE at all levels;
- colleges that carry out education activity related to junior bachelor and/or bachelor degree studies.

7. The Law provides for distinguishing leading universities among HEIs by granting the statuses – a national university and research university.

After the new Law (2014) came into force, the accreditation levels of HEIs lost official status.

The Law of 2014 introduces a ***new structure of HE levels and their correspondence to levels of qualifications of the NQF***. The following levels are present:

- initial (short cycle) – corresponds to NQF level 5;
- first (bachelor) – NQF level 6;
- second (master) – NQF level 7;
- third (education and research) – NQF level 8;
- scientific – NQF level 9.

The HE system includes degrees – Junior Bachelor, Bachelor, Master, Doctor of Philosophy (PhD), Doctor of Sciences (Dr. Sc.). Additionally there are the following academic statuses – Senior Researcher, Associate Professor (Docent), Professor.

The sectoral organization of HE in Ukraine is also transforming:

- Before 2015, the list of educational sectors (fields of study) included over 150 fields, over 500 specialties (subject areas) and over 3,000 occupations (in the sense of specialization). Scientific degrees granted in 27 scientific fields covered about 500 scientific specialties.

- Currently, the new List of fields of knowledge and subject areas defines 27 fields of knowledge and 114 subject areas; it has been prepared by merging and consolidating the educational and scientific sectors.

Governance in HE. Central executive bodies charged with HE supervision include:

- the MoESU (until 1999, the Ministry of Education);
- ministries, other central authorities in charge of subordinate educational institutions;
- Higher Attestation Commission (HAC) that operated until 2011.

The MoESU has an Attestation Collegium that considers attestation cases for granting:

- academic titles of the associate professor, professor, and senior researcher;
- academic degrees of the candidate of sciences and doctor of sciences (under the new Law, specially accredited academic councils will be empowered to grant PhD. and Dr.S, degrees at HEIs).

There is the State Inspection of Educational Institutions of Ukraine, a central executive body that provides implementation of the public policy in the education by means of state supervision (control) over activities of educational institutions regardless of their subordination or form of ownership.

State education authorities interact with bodies of self-governance in HEI, such as general meeting (conference) of the HEI community, the All-Ukrainian Congress of Educators, students' self-governance bodies etc.

Current landscape of HE in Ukraine

In 2015, the Global Competitiveness Index rated Ukraine 76th among 140 countries in the World¹². The HE and Training (as the 5th pillar among 12 competitiveness indices of the state) has a crucial impact on the economic development and people's wellbeing. Ukraine is rated 34th by this component. At the same time, quality indices are low. For example, Ukraine occupies the 87th position on the quality of school administration.

Currently HE system is in transformation process presented by the Law on Higher Education. Previous HEIs accredited at levels I-II have to choose a path for their further development: 1) either return to VET system or 2) get a license for the first level of HE (bachelor and junior bachelor degree). Up to 2019, HEIs may preserve their current status.

¹² 82nd in 2009, 72nd in 2008, and 69th in 2006

According to the State Statistic Agency data, there are 659 HEIs¹³ in the academic year 2015/2016: 525 public and 134 private, with totally 1.6 million students. 288 HEIs were accredited at levels III or IV before 2014 and have the status of HEI with regard to new Law. 208 of them are public. 185 have university status. 371 (317 of them are public) HEIs were accredited at I or II level before 2014 and approximately 90 of them have a chance get a status of HEI according to new Law.

So while talking about HEIs, we first and foremost mean those institutions that have preserved their status according to the new Law.

Average number of students per institution accredited at levels III or IV is 4775, in private HEIs this indicator is near 1500, in municipal – over 2000 and in state – 6300. For HEIs accredited at I or II levels – respectively 620 and 440.

In 2015, the total of 323064 students were admitted to HEIs and 447418 graduated.

Over 52% of admitted students were funded from the state budget, and nearly 48% had to pay tuition [State Agency].

Horizontal differentiation of current landscape of HE in Ukraine is determined by art. 28 of the *Law on Higher Education* that introduces the following classification of HEIs:

- universities (classical and sectoral);
- academies and institutes;
- colleges.

Status of HEI is determined by two factors:

- 1) level of specialization (universities vs. academies and institutions) ;
- 2) degrees that a HEI is entitled to award.

The current structure of HE system (table 3) should be harmonized according to the Law during 2014-2017.

Table 3
Structure of HEIs network (2014) [Konkurs]¹⁴

| <i>Type of HEI</i> | <i>Number</i> | <i>Location</i> |
|------------------------------------|------------------------------------|--|
| Universities (classical) | 42 | All regions, two or more universities located in academic centres: Kyiv, Kharkiv, Lviv |
| Sectoral universities, including: | 126 | |
| - pedagogical | 18 | In some regions where former pedagogical institutes didn't became classical |
| - polytechnic | 17 | At least one per region |
| - technical specialized | 25 | |
| - medical | 15 | Kyiv, Lviv, Kharkiv, Odesa, Dnipropetrovsk, Donetsk, Vinnytsia, Ivano-Frankivsk, Ternopil, Simpheropol, Chernivtsi, Poltava |
| - agrarian | 18 | Kyiv and region, Lviv region, Kharkiv region, Odesa, Dnipropetrovsk, Vinnytsia, Khmelnytsky region, Crimea, Simpheropol, Kherson, Sumy, Poltava, Cherkasy region |
| - business (economics, management) | 33 | At least one per region |
| Academies | 69 – mainly business and technical | In all regions |
| Institutes | 79 – mainly business | In all regions |
| Colleges and professional schools | 459 | In all regions |

According to the vertical differentiation of institutional landscape, 20 HEIs can be considered leaders, i.e. the most competitive in the national HE system that represent the elite sector of

¹³ The data do not take into account HEIs at occupied territories; leading HEIs were evacuated from occupied districts of Donbas

¹⁴ List of HEIs copied from official government database servicing admission process in 2014

Ukrainian HEIs. Tab. 2 presents the list of elitist universities of Ukraine for the present. Fourteen of them are classical in their nature, despite their official name (Slyusarenko 2015: 324-338).

Table 4

The elite sector of HEIs in Ukraine due to the rankings, 2015

| HEI | HEI position in national rankings | | | | HEI position in international rankings | |
|---|-----------------------------------|-----------------------------|--------------------------------|-------------------------------|--|--|
| | TOP-200 Ukraine, 2015 | HEI ranking in Scopus, 2015 | Conditional aggregate position | Conditional aggregate ranking | QS World University Rankings 2015/16 | Times Higher Education World University Rankings 2015-2016 |
| Taras Shevchenko National University of Kyiv | 1 | 1 | 2 | 1 | 421-430 | 601-800 |
| V.N. Karazin Kharkiv National University | 3 | 2 | 5 | 2 | 491-500 | 601-800 |
| National Technical University of Ukraine "Kyiv Polytechnic Institute" | 1 | 6 | 7 | 3 | | |
| Ivan Franko National University of Lviv | 9 | 3 | 12 | 4 | | |
| National Technical University "Kharkiv Polytechnic Institute" | 4 | 9 | 13 | 5 | 701+ | |
| Lviv Polytechnic National University | 6 | 10 | 16 | 6 | | |
| Oles Honchar Dnipropetrovsk national university | 10 | 8 | 18 | 7 | | |
| Odessa I.I.Mechnikov National University | 18 | 4 | 22 | 8 | | |
| National O.O. Bohomolets Medical University | 8 | 16 | 24 | 9 | | |
| National University of "Kyiv-Mohyla Academy" | 5 | 23 | 28 | 10 | | |
| Yuriy Fedkovych Chernivtsi National University | 26 | 5 | 31 | 11 | | |
| Kharkiv National University of Radio Electronics | 16 | 19 | 35 | 12 | | |
| Sumy State University | 21 | 15 | 36 | 13 | 701+ | |
| National Aerospace University "Kharkiv Aviation Institute" | 15 | 22 | 37 | 14 | | |
| M. Gorky Donetsk National Medical University | 30 | 7 | 37 | 15 | | |
| Donetsk National University | 25 | 14 | 39 | 16 | 701+ | |
| National University of Life and Environmental Sciences of Ukraine | 12 | 28 | 40 | 17 | | |
| Donetsk National Technical University | 20 | 20 | 40 | 18 | | |
| National Aviation University | 14 | 31 | 45 | 19 | | |
| Vasyl Stefanyk Precarpathian National University | 38 | 11 | 49 | 20 | | |

Five Ukrainian universities are included into the international QS World University Rankings of 2015/16, with 2 in TOP-500, namely:

- Taras Shevchenko National University of Kyiv,
- and V.N. Karazin Kharkiv National University.

In 2015, the above mentioned universities were also included into the extended Times Higher Education World University Rankings (TOP-601-800 positions).

The key factor that impedes a process of integrating Ukrainian universities into international rankings is insufficient publication activities of Ukrainian scholars in journals indexed by international scientometric databases and low citation indices of their scholarly works.

Conclusions

1. The main changes in the institutional landscape in HE in Ukraine can be described by the several time periods and a number of dimensions.

Before 90th – Horizontal differentiation:

- universities (10);
- teacher training (pedagogical) institutions (29);
- polytechnic institutes (7);
- other sectoral institutions (110).

1991-2014 – Horizontal differentiation (see fig. 1 and 2):

- HEIs I-II accreditation levels;
- HEIs III-IV accreditation levels.

1991-2015 – Horizontal differentiation (see fig. 3 and p. 14):

- public HEIs;
- private HEIs;

2008-2015 – Vertical differentiation (tab. 1 and 2):

- leading universities by the national and international rankings;
- leading HEIs according to the EIA results.

From 2014 - Horizontal differentiation (see tab. 3):

- universities;
- academies and institutes;
- colleges.

2. Several major factors have made principal impact on HE area landscape development:

Internal factors: resources for extensive development were exhausted as a result of the demographic crisis; public funding was limited; low salaries of the academic staff and, respectively, aging academic staff in HEIs.

External factors included dissatisfaction of the society with low quality of education and corrupt practices in the system; increasing demands of the labour market for HE quality; inconsistency between the structure of the state contract for university-trained professionals and the labour market demands.

3. Currently, the main strategic areas of HE modernization include:

1. Reorganization of the HEI network

- First, a HEI capacity should be developed, its proper concentration ensured leading to the increase of global competitiveness;
- Second, it is important to balance territorial disproportions in HE (regions differ 12-fold by a number of students per 10,000 population) through providing respective subsidies and incentives;
- Third, given the world trend towards an increasing portion of highly intellectual work, development of postgraduate and doctoral training should be provided in HEIs.

2. The body of students, post-graduate and doctoral students should be brought in line with the real HE funding base. Its capacity is highly overestimated: a number of licensed places for applicants is higher than a total size of population of the respective age. A disadvantageous situation of significant decrease (due to demographic and organizational reasons) of a number of secondary school graduates in the current and following years should be used to an advantage.

3. Public funding of HEIs should be reformed with regard to current experience of European countries. Performance-based funding should be introduced. At the same time, HEIs have to get more financial autonomy and to become more accountable.

4. Effective quality assurance mechanisms should be established in Ukraine (including an independent QAA and the NQF), that are to be transparent, easy to understand, evidence-based and recognized in Ukraine, Europe and all over the world. A *national ranking system for HEIs* should be introduced as an objective basis for HEIs concentration, competitive selection and liquidation of the weak ones by means of closing or merging with strong ones.

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