

International Charity Foundation
“International Foundation for Education Policy Research”

Monitoring Study

*MONITORING THE INTEGRATION
OF UKRAINIAN HIGHER EDUCATION SYSTEM
INTO THE EUROPEAN HIGHER EDUCATION
AND RESEARCH AREA*

Analytical Report

Kyiv * 2014



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Ukrainian Association of Students Self-Government

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RESUME

The purpose of this analytical report is to continue monitoring research of the system of higher education of Ukraine and its transformation processes in the context of accession to the European Higher Education and Research Area in 2012–2014. This period is divided into two completely different subperiods: before February 2014 and after February 2014, due to a clear choice by our country of the European integration after the victory in the Revolution of dignity. Specific references to earlier periods are associated with the need to demonstrate the genesis of processes and phenomena, as well as overview of the long-term trends in the transformation of the national higher education.

The structure of this analytical report focuses on the approaches of *The European Higher Education Area in 2012: Bologna Process Implementation Report*, which proposed a successful framework for similar monitoring studies of national systems of higher education. Thanks to it, the authors noticed quite a few interesting stories that usually are overlooked by local researchers.

This analytical report is the next step of monitoring studies on the subject, conducted by the International Charitable Foundation “International Foundation for Educational Policy Research” since 2011. It meets the guidelines of the Bucharest Communiqué of the Ministers of Education and Science of the European Region (April 2012).

The basis of this analytical report are the principles of interdisciplinarity and comparativity that allowed to combine the methods of actual, statistical and sociological studies, analysis of programs and regulations, large arrays of information from Internet and social networks, specialized and socio-political press. An important role was played by constant monitoring of real processes in the field during rapid changes.

Lack of national education statistics, its inconsistency with the European statistics made authors to do a lot of self-assessment and calculations of a number of important for analysis quantitative indicators. The work on the text involved the experts of the International Charity Foundation “International Foundation for Education Policy Research», social scientists, political scientists, economists and teachers, leaders of Ukrainian student association, which allowed, according to the authors, to get more independent, systematic and comprehensive view of the national high school considering the peculiarities of interests of different groups of stakeholders. The text of analytical report consists of a Resume, Preamble, seven chapters and a list of the main used sources.

Chapter 1. Context of the European Higher Education Area is devoted to the analysis of the main indicators and trends of development of higher education system in Ukraine, in particular, of the number of students, institutions and the expenses for higher education. There was conducted a comparison of basic indicators of the national and European educational systems. Particular attention was given to compatibility of statistics of higher education in Ukraine and the EHEA, private sector development, problem of optimization of the network of Higher Education Institutions and structure of funding of higher education.

Chapter 2. Degrees and Qualifications forms an idea of the real state of degrees' and qualifications' structure of higher education in Ukraine, their correlation with the recommendations of the EHEA. There was made a comparison of these structures in accordance with the law of Ukraine "On Higher Education" of 2002 and 2014. There was made an emphasis on practical use of the Bologna tools, including national qualifications frameworks, the European credit transfer system, results of studying, student central learning and diploma supplement in Ukraine.

Chapter 3. Quality Assurance discloses the content and structure of the European vision of its ensuring in Ukrainian higher education. There were used the results of the activities if the consortium Tempus project "The national system of quality assurance and mutual trust in the system of higher education "TRUST». The attention was focused on the interaction of external and internal quality assurance, institutional strategies for its improvement and involvement of stakeholders in the process.

Chapter 4. Social Dimension of Higher Education draws attention to this important aspect of educational policy. The issue of accessibility of higher education is analysed, including different categories of socially vulnerable people. There was made a thorough analysis of the issues of financial support of student learning, including the source of its origin in different dimensions. There was reflected a number of non-traditional subjects for national educational studies: the impact of parental education on higher education to children, alternative ways of access to higher education.

Chapter 5. Effective Results and Ability to Get Employed aims to demonstrate the true state of correspondence between the received education and labour market demands. Traditional and non-traditional trajectories to acquire higher education were analysed. Considering the rational behaviour of the entrants, there was suggested an approach to the analysis of payback period of investments in education, depending on its level.

Chapter 6. Lifelong Learning emphasizes the importance of building an environment that can stimulate the need for continuous learning. There were shown possibilities of promotion of flexible educational trajectories, including evening, part-time, distance learning and external studies. There was offered a method of calculating a share of persons, acquiring higher education immediately after completion of secondary education. There was outlined the place and perspectives of development of postgraduate pedagogical education in the context of educational reforms.

Chapter 7. Mobility covers a wide range of different forms and types of mobility of students, teachers and researchers. The evaluation of Ukrainian practice is carried through the prism of strategic perspectives outlined in the key documents of the EHEA by 2020. A classification of a division in mobility itself, "quasi"mobility and its substitutes was made. There was analyzed the conceptual development of the vision of mobility in the strategic documents of Ukrainian higher education system, both existing and those that are under development.

PREAMBLE

Formed during the period from 1991 to 2014, Ukraine's national system of higher education, on the one hand, inherited many features of the Soviet educational system, and, on the other hand, is a reflection of its own complex and contradictory evolution over this period of time. A significant influence on it was made by the adoption of the laws of Ukraine "On Education" (1996), "On Higher Education" (2002, 2014) and Ukraine's accession to the Bologna Process (2005). State educational policy always suffered significant fluctuations which, in turn, led to a change in attitude towards integration in the European Higher Education and Scientific Research Area: from a pure desire to imitation and conjuncture adaption.

The period from 2010 to early 2014 was marked by the proclamation of the right pro-European slogans and declarations of need for major changes, and at the same time, the inhibition of the adoption of new legislation, further centralization of sector management and bureaucratization of many processes in education. Studying the detailed political-economic analysis of this period by other researchers, we only note the absence of practical steps to reform higher education and the real fight against negative phenomena in it. Finally, it ended with mass protests and revolutionary events on the verge of 2013 and 2014 years not in vain.

Since March 2014 the vector of educational policy in Ukraine radically changed towards Europe. Not only the adoption of the new law of Ukraine "On Higher Education", the rejection of outdated or harmful regulations, changes in licensing and accreditation, but mostly important, changing the way of thinking from the proclamation of declarations to actions, from restriction to public openness, from centralization to autonomy have become the characteristics of events of 2014.

Work on this analytical report lasted from the late of 2013 to the end of November 2014 and during this period the authors witnessed or became part to many developments in the field of higher education, which has undergone quite rapid changes. The most important of these was the adoption of the new law of Ukraine "On Higher Education", which is now at the stage of slow but consistent implementation. Participation of a number of authors in drafting the Concept of Development of Education of Ukraine for the period from 2015 to 2025 and Strategy of Reforming Higher Education in Ukraine till 2020 enriched the research with new understanding of the perspectives of the industry development and making it possible to submit a number of proposals to these documents, aimed at solving the problems, outlined in the report.

When working on the text of a policy paper the authors set the following objectives:

- Improvement, considering the experience of the already conducted research, of the existing international and national monitorings, received "feedback", methodology of comparative monitoring of the education sector;
- Analysis of the existing legislation based on prepared (at that time) drafts of the law of Ukraine "On Higher Education", complex regulations and guidance documents of the Ministry of Education and Science on their compliance with the European guidelines and considering trends of European Higher Education and Scientific Research Area development;

- Analysis of the practices of central institutions of management of educational sphere and major groups of higher education institutions (universities, technical, medical, educational and other sectoral groups of Higher Education Institutions) with the introduction of new educational technologies and European approaches to educational and scientific research;
- Content analysis of policy documents, public statements of representatives of political parties, associations and organizations on the scenarios of development of the national higher education, in particular, of the prospects and mechanisms of its internationalization;
- Research of the level of inclusion of the main student organizations and civil associations in the management of higher education, processes of strengthening of civil grounds in academic self-government in accordance with the European traditions of university autonomy and student mobility schemes;
- Study of the degree of awareness of the academic community of the necessity of reforming the system of higher education on the way of Ukraine's integration into European cultural and economic space;
- Introduction of monitoring research results into the analytical field of the international community on the ways of transformation of the national, regional and global systems of higher education.

Special thanks goes to those who helped conduct the study, contributed to its comprehensiveness and objectivity: Minister of Education and Science of Ukraine Serhiy Kvit, Head of the Committee on Science and Education of the Verkhovna Rada of Ukraine Lilia Hrynevych, the key executives of the Ministry of Education and Science Inna Sovsun, Andriy Hevko, Pavlo Polyanskyi, Yurii Korovacheychenko, Andriy Shevtsov, Vyacheslav Suprun, executive director of the International Fund "Revival" Eugen Bystrytskyi, head of the Charity Foundation "Institute of Education Development" Georgiy Kasyanov, first vice-rector of the Ukrainian Catholic University Taras Dobko, vice-rector of the National University "Lviv Polytechnic" Yurii Rashkevych and Yegor Stadnyi (Society Research Center), Volodymyr Kovtunets (USETI), Volodymyr Lugovyi, Svitlana Kalashnikova and Zhanna Talanova (NAPS), Constantin Chabala (Education blog "Study").

CHAPTER 1. CONTEXT OF THE EUROPEAN HIGHER EDUCATION AREA

Indicator 1.1. Student population

1.1.1. Absolute indicators. Levels of education¹

The dynamics of the number of students in Ukraine in absolute terms reflects both demographic trends that always took place in the country, and the attitude of society towards higher education. The tendency of steady growth in the number of students that took place in the second half of the 1990s was primarily a manifestation of Ukraine's transition to mass higher education strategy. At the same time, starting in 2008, due to a drastic reduction in the number of people of school age, the number of students getting higher education started to decrease (see Figures 1.1 and 1.2).

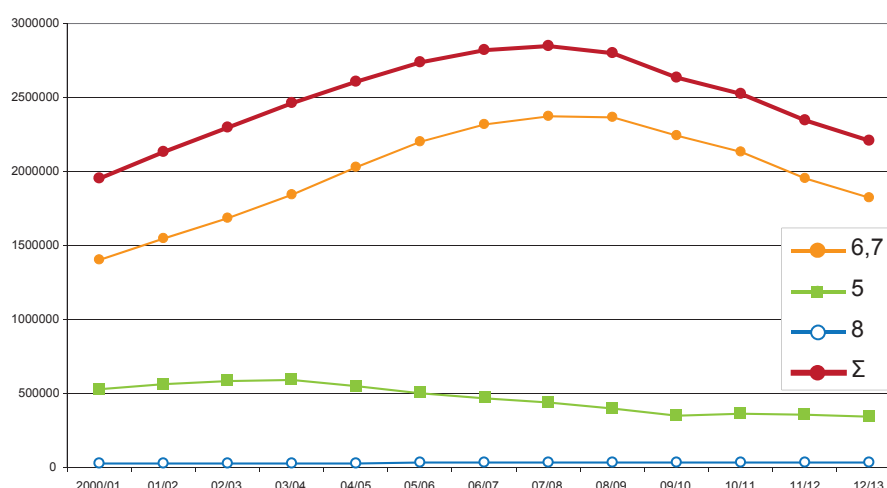


Figure 1.1: Dynamics of the number of students in Ukraine in general and according to the levels of ISCED 5-8.

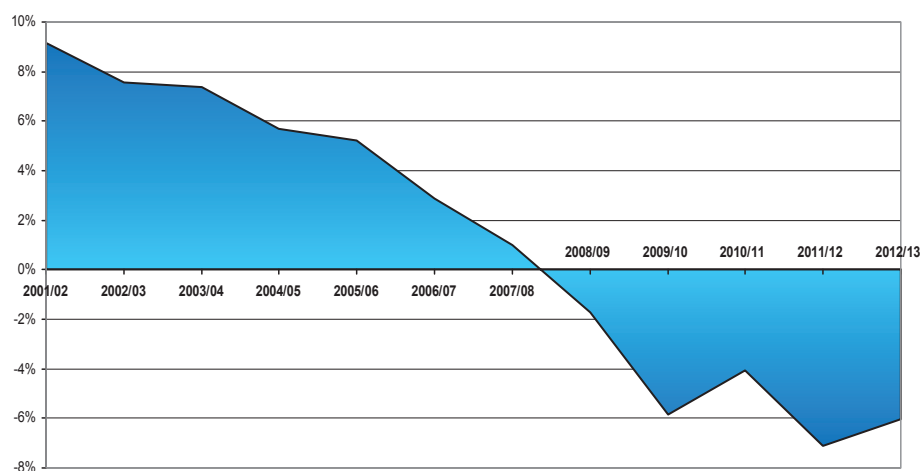


Figure 1.2: Dynamics of change of the total number of students in Ukraine

¹ The data of this unit is based on the Statistical Bulletin "Main performance indicators of Ukrainian higher education institutions at the beginning of 2013/14"/State Statistics Service of Ukraine. — Kyiv, 2014.

This trend is fair not only for the total number of students, but also for students of the levels 6 and 7 according to the International Standard Classification of Education 2011 [hereinafter — ISCED] (higher education institutions of III and IV accreditation levels)— there is a very strong direct correlation between them (0.99).

As for the level ISCED 5 (higher education institutions of I and II accreditation levels), the dynamics is of a slightly different nature: a decrease in the number of students took place back in 2003, thus displaying a noticeable drop in interest of students for the incomplete higher education (primarily blue collar majors). This trend continued until 2010, and then this figure increased for the first time (by 2%). An explanation for this may be, for example, a full transition to a system, where admission to the higher education institutions of III and IV levels of accreditation is based solely on the results of external independent testing, which is not needed to apply to higher education institutions of I and II levels of accreditation. Accordingly, the correlation between the dynamics of change in the total number of students, getting higher education, and the number of students of ISCED 5 level is low (0.37).

Speaking of post-graduate, doctoral and ISCED 8 level students (third stage of higher education (post-graduate, doctoral)), a minor decrease started only in 2011–2012 (–1%) and significantly accelerated in 2013 (up to –6%). The latter is, apparently, a consequence of the reduction of state order for post-graduates.

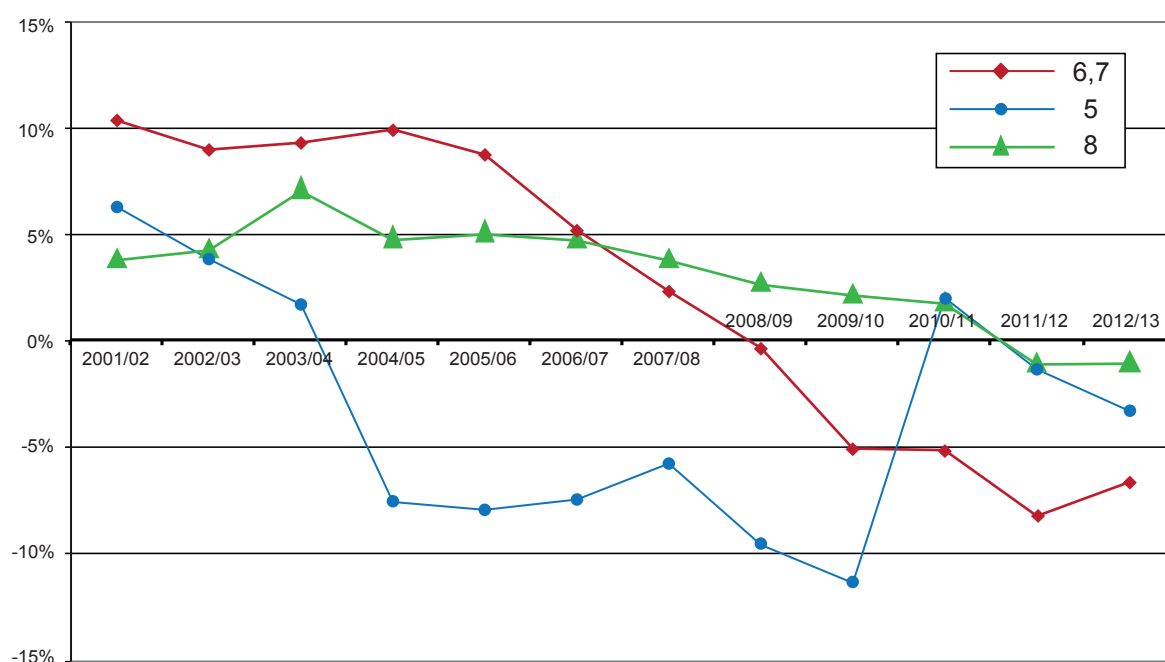


Figure 1.3: Dynamics of change of the total number of students in Ukraine (%) according to ISCED levels

1.1.2. Coverage of higher education²

The gross coverage indicator of higher education (ISCED 5 to 8 levels) is calculated as the number of students in higher education institutions, regardless of age, expressed as a percentage of the total population of the five-year age group continuing studies after high school.

² The data of this unit is based on: School enrollment, tertiary (% gross) / The World Bank. [Online] Available at: <http://data.worldbank.org/>

In Ukraine this indicator is constantly growing. Following the greatest fall in 1994 (40.3%), the indicator started displaying growing dynamics and in 2000 reached the level of the years 1989 and 1990. And, from the beginning of 2003, the value of this indicator exceeded similar indicators both in Poland, France, Italy (comparable countries) and in the European Union as a whole. As for 2012 (the last year with the data available at the moment of research) the value of the indicator in Ukraine is about 80%, which is 13% higher than in the EU.

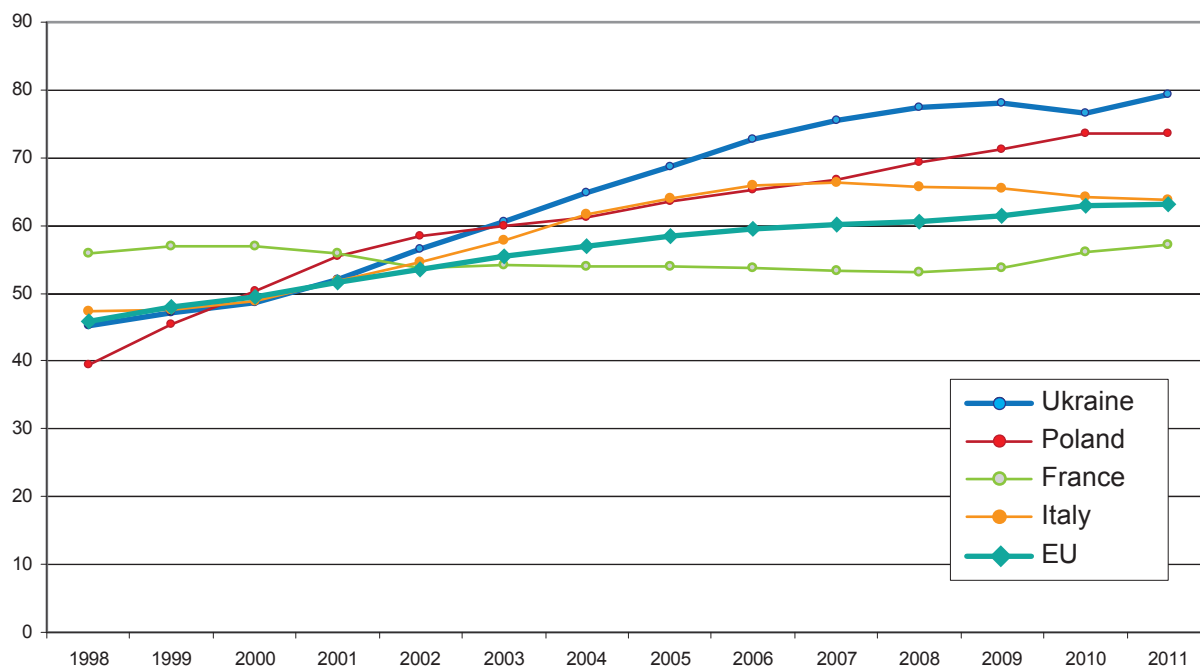


Figure 1.4: Gross coverage indicator of higher education

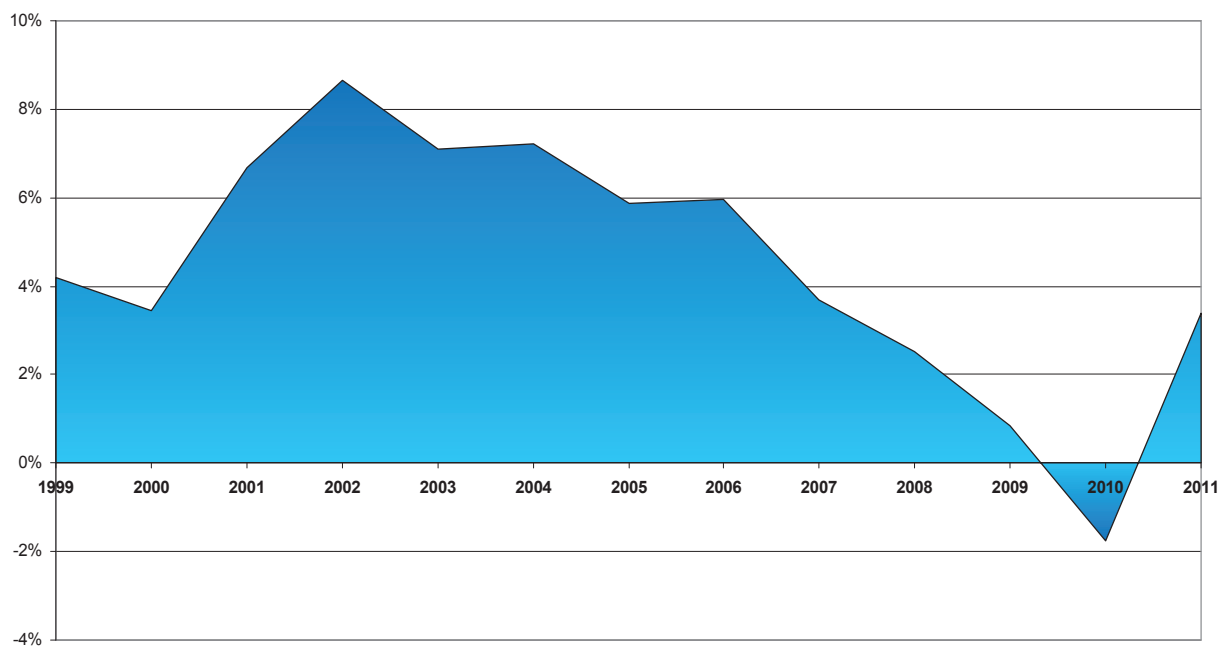


Figure 1.5: Dynamics of change of gross coverage indicator of higher education in Ukraine

The dynamics of correlation between the number of students and the total population of Ukraine (Table 1)³ is very indicative. It is noteworthy that the total number of students of ISCED 5 to 7 levels first decreased (between 1990 and 1993) by 7.8%, due to the economic problems during the early years of Ukraine's independence. Later, from 1994 to 2007 the total number of students increased steadily, reaching the levels of 1990 in 1997. There was an overall growth by 86.3% in the next 13 years. It is symptomatic that it took place at the same time of a significant decrease in population (11.2% between 1993 and 2007), and resulted in achieving a record of over 600 students of ISCED 5 to 7 levels per 10,000 people population in 2007. After 2007, these figures suffered a drastic decline (total number of students of ISCED 5 to 7 levels decreased by 27% and the number of students of ISCED 5 to 7 levels per 10,000 people population by 25.6%). This can be explained through a set of demographics (reduction in the number of young people in the population structure), economic (continued economic crisis) and administrative (introduction of admission based on the external independent assessment) factors.

Table 1.1: Number of Students in Ukraine in absolute numbers and per 10,000 people population

Academic years	Population (thousands of people)	Number of Students of ISCED 5 levels (thousands of people)	Number of Students of ISCED 6 and 7 levels (thousands of people)	Total Number of Students of ISCED 5 to 7 levels (thousands of people)	Number of Students of ISCED 5 to 7 levels per 10,000 population	Number of Students of ISCED 6 and 7 levels per 10,000 population
1990/91	51944.4	757	881.3	1638.3	315.4	169.7
1991/92	52056.6	739.2	876.2	1615.4	310.3	168.3
1992/93	52244.4	718.8	855.9	1574.7	301.4	163.8
1993/94	52114.4	680.7	829.2	1509.9	289.7	159.1
1994/95	51728.4	645	888.5	1533.5	296.5	171.8
1995/96	51297.1	617.7	922.8	1540.5	300.3	179.9
1996/97	50818.4	595	976.9	1571.9	309.3	192.2
1997/98	50340.8	526.4	1110	1636.4	325.1	220.5
1998/99	49918.1	503.7	1210.3	1714	343.4	242.5
1999/00	49429.8	503.7	1285.4	1789.1	361.9	260
2000/01	48923.2	528	1402.9	1930.9	394.7	286.8
2001/02	48457.1	561.3	1548	2109.3	435.3	319.5
2002/03	48003.5	582.9	1686.9	2269.8	472.8	351.4
2003/04	47622.4	592.9	1843.8	2436.7	511.7	387.2
2004/05	47280.8	548.5	2026.7	2575.2	544.7	428.7
2005/06	46929.5	505.3	2203.8	2709.1	577.3	469.6
2006/07	46646	468	2318.6	2786.6	597.4	497.1
2007/08	46372.7	441.3	2372.5	2813.8	606.8	511.6
2008/09	46143.7	399.3	2364.5	2763.8	599	512.4
2009/10	45962.9	354.2	2245.2	2599.4	565.5	488.5
2010/11	45778.5	361.5	2129.8	2491.3	544.2	465.2
2011/12	45633.6	356.8	1954.8	2311.6	506.6	428.4
2012/13	45553	345.2	1824.9	2170.1	476.4	400.6
2013/14	45440	329.0	1723.7	2052.7	451.7	379.3

³ <http://www.ukrstat.gov.ua/>

1.1.3. Forms of education⁴

The dynamics of changes in the number of students in various forms of education in general correlates with the demographic situation: there is a reduction in the number of students in all forms of education (see Figure 1.6). Moreover, the evening form of education is disappearing.

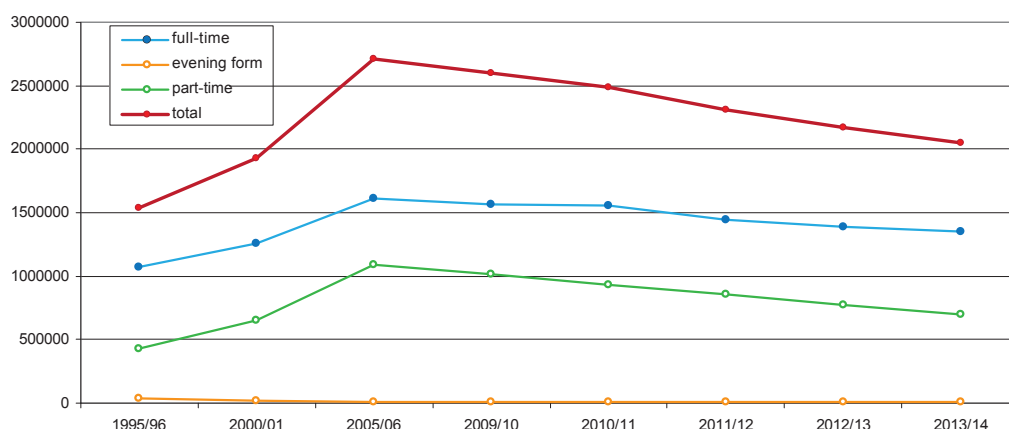


Figure 1.6: Change in the number of students in Ukraine (number of people) in general and in accordance with forms of education

Analyzing the change in the ratio of the number of students of different forms of education, we can see that by 2005 there was a gradual increase in the number of part-time students, caused by the decrease in the number of full-time students. Later, this trend was reversed.

By the 2013/14 academic year the distribution was as follows: full-time — 1,348,579 students (65.7%), part-time — 698,544 students (34%), evening form — 5,555 students (0.3%). In state and municipal institutions of higher education the number include: full-time — 1,254,656 students (67.4%), part-time — 601,566 students (32.3%), evening form — 5,378 students (0.3%). In private higher education institutions the number include: full-time — 93,923 students (49.2%), part-time — 96 978 students (50.8%), evening form — 177 students (less than 0.1%).

1.1.4. Fields of study⁵

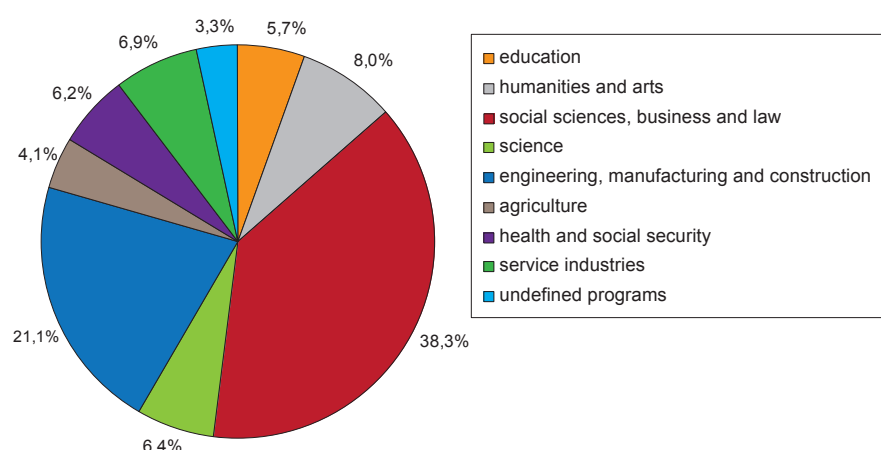


Figure 1.7: Structure of distribution of Ukrainian students by fields of study

⁴ The data of this unit is based on the Statistical Bulletin “Main performance indicators of Ukrainian higher education institutions at the beginning of 2013/14” / State Statistics Service of Ukraine. — Kyiv, 2014.

⁵ The data of this unit is based on: UNESCO Institute for Statistics. [Online] Available at: <http://www.uis.unesco.org/>

Distribution of the number of students by the fields of study (by ISCED wider groups 2011) by 2011 is as follows: the most popular majors are: social sciences, business and law (38.3%), followed by engineering, manufacturing and construction (21.1%). The share of each of the other fields is less than 10% (see Figure 1.7).

If we compare the structure of the distribution of students by fields of study in Ukraine, Poland, France and Italy, we see that the overall ratio is similar (see Figure 1.8).

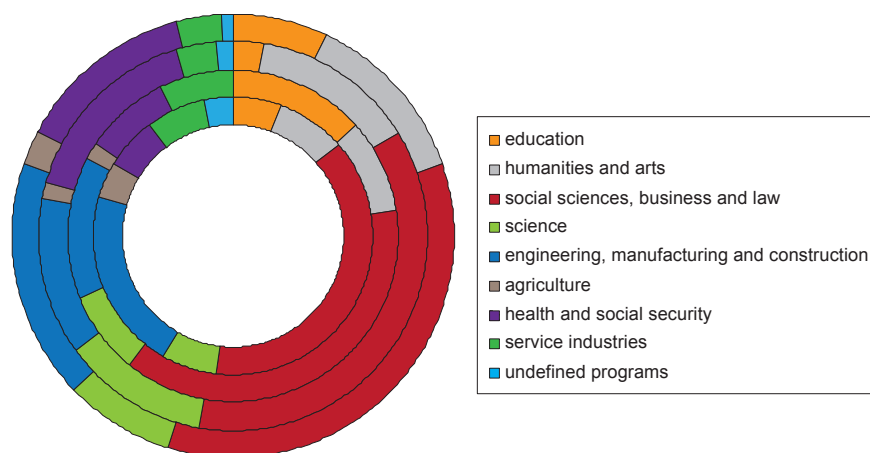


Figure 1.8: Comparison of the structure of distribution of students by fields of studying (inside-out: Ukraine, Poland, France, Italy)

The dynamics of change of the structure of distribution of Ukrainian students by fields of study between 2001 and 2011 has not undergone drastic changes. In most fields there was a slight increase or decrease (see Figure 1.9). In 2012 to 2014 this distribution, for the most part, didn't change.

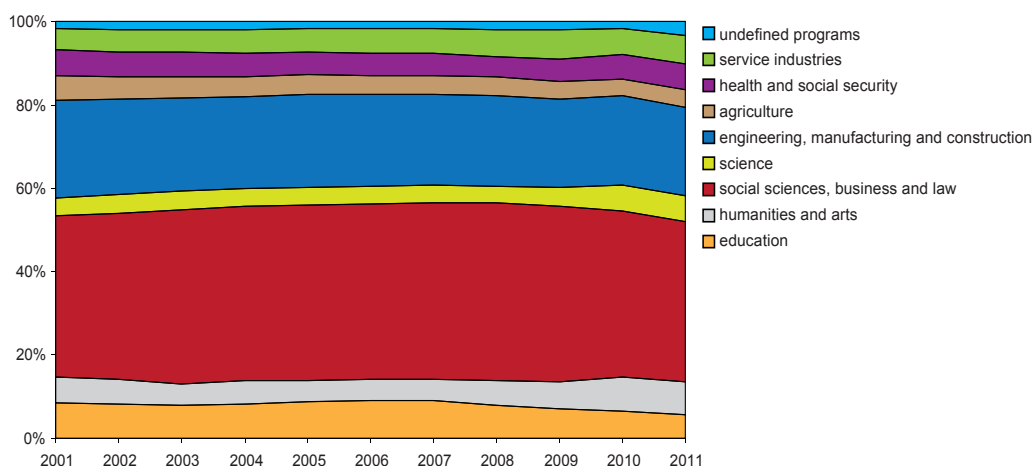


Figure 1.9: Dynamics of change of the structure of distribution of Ukrainian students by fields of study

In general, for the period between 1991 and 2013 the share of students who study social sciences, business and law in Ukraine significantly increased. The number of people who have chosen to pursue an education in the fields of engineering, manufacturing and construction, declined slightly in relative terms, but increased in absolute terms. The largest decline was recorded in military education, as a consequence of the demilitarization of the country.

Indicator 1.2. Higher education institutions

1.2.1. General indicators by the levels of accreditation⁶

In Soviet Ukraine there were 155 higher education institutions meeting ISCED 6 and 7. During the transition to mass higher education considering high demographics in the 80s, over the last twenty years approximately 110 to 120 state and municipal higher education institutions have been established, and a comparable number of private institutions of the same level have been founded. Beginning in the mid-90s, secondary specialized educational institutions were attributed to the higher education system (ISCED 5). Given the decreasing number of military schools, a number of short-lived higher education institutions, at the beginning of 2013/14 academic year, the network of universities, academies and institutes (ISCED 6 and 7) consisted of 325 higher education institutions (229 state and municipal, 96 private) and technical schools and colleges (ISCED 5) consisted of 478 institutions (407 state and municipal and 71 private).

Figure 10 displays the information on the number of higher education institutions in Ukraine during 1990/91–2013/14 academic years according to the State Statistics Service of Ukraine⁷ in the context of national accreditation: III and IV accreditation level — universities, academies and institutes (ISCED 6 to 8), I and II accreditation level — technical schools and colleges (ISCED 5). It should be noted that the number of universities, academies and institutes doubled between 1994 and 2000 and then began to drop after 2008.

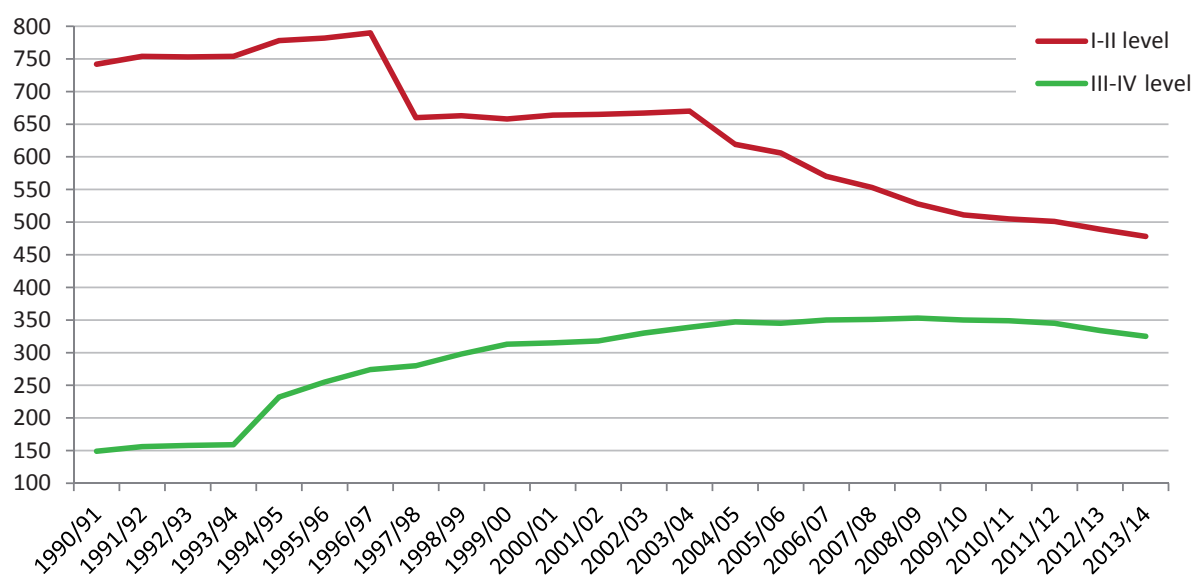


Figure 1.10: The network of higher education institutions in Ukraine

Currently, the number of higher education institutions in Ukraine is on the decrease. This is primarily due to the demographic and economic situation in the country.

In the beginning of Ukraine's independence, there was an increase in the number of private higher education institutions — to 22% (maximum) in 2010. Further, this figure has slowly decreased (see Figure 1.11). By 2013/14, the share of public and municipal higher education institutions is 79.2%, private — 20.8%.

⁶ The data of this unit is based on the Statistical Bulletin "Main performance indicators of Ukrainian higher education institutions at the beginning of 2013/14"/State Statistics Service of Ukraine. — Kyiv, 2014.

⁷ <http://www.ukrstat.gov.ua/>

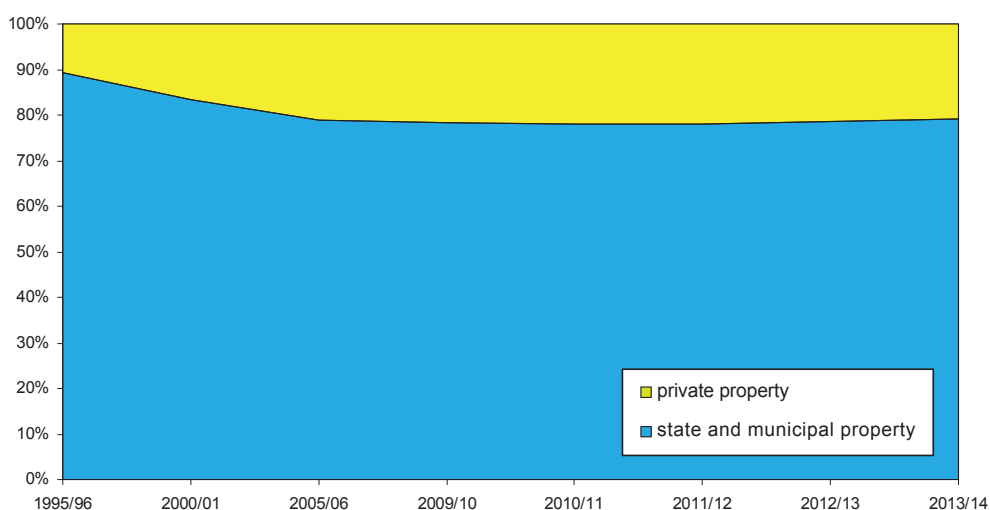


Figure 1.11: The change in the number of higher education institutions according to the form of ownership in Ukraine

1.2.2. Development of private education⁸

The distribution of students by the form of ownership of the higher education institution may be considered an indicator of the development of the private higher education sector as it competes with the state sector. In Ukraine, the number of students studying in private higher education institutions has increased since their establishment in the Ukrainian market of educational services. The maximum number of students enrolled in private universities was in 2005 (14.7%), and since that time it has started to decline (see Figure 1.12). The reason for this was both a decline in the number of students and increased public funding (which in Ukraine is given only to state and municipal institutions) and later, the policy of the Ministry of Education and Science of Ukraine, focused on various preferences of state higher education institutions. By the 2013/14 academic year the distribution was as follows: state and municipal higher education — 1,861,600 students (90.7%), private higher education institutions — 191,078 students (9.3%).

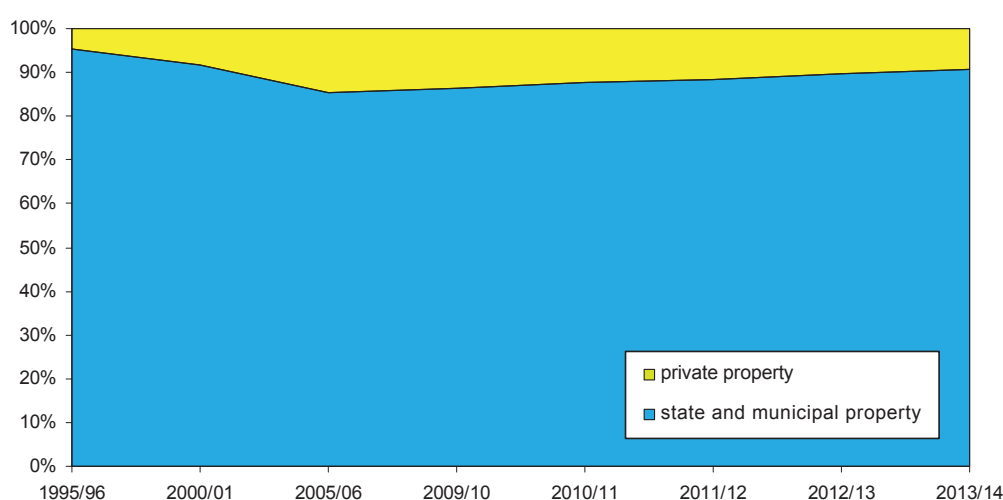


Figure 1.12: The change in the number of higher education institutions according to the form of ownership in Ukraine

⁸ The data of this unit is based on the Statistical Bulletin “Main performance indicators of Ukrainian higher education institutions at the beginning of 2013/14” / State Statistics Service of Ukraine. — Kyiv, 2014.

1.2.3. The Problem of optimization of the network of higher education institutions

To analyze the need for the optimization of the network of higher education institutions (which is often presented with a plan of improving the quality of higher education) it is interesting to compare the ratio between the population of one university in Europe and the CIS. This is due to a widespread speculation method in which the number of higher education institutions (ISCED 6 to 8 levels) in a number of European countries is compared with a number of Ukrainian higher education institutions of all levels of accreditation (ISCED 5 to 8 levels).

This approach is due to non-equivalence of determination of higher education institutions in national education laws. The Ukrainian Educational Blog “Uchys”⁹ combines data on the number of schools from the website of most universal and democratic international ranking on the degree of integration of the higher education institutions on the Internet — Webometrics¹⁰ and information on the population from the handbook The World Factbook on CIA website¹¹.

The comparison of European and CIS countries by population per each university is given in Table 2. Information on higher education institutions in Turkmenistan is absent in the Webometrics rating because the country in this comparison is not presented. The difference between the official statistics in Ukraine (325 higher education institutions of III to IV levels of accreditation) and data of Webometrics (306 participants) can be explained by the absence of some local educational institutions in the global information space.

Table 1.2: Comparison of European and CIS countries by population per each higher education institution

Rating	Country	Number of universities (Webometrics, July 2013)	Population (CIA, July 2013 r.)	Population per 1 university
1	Lichtenstein	3	37 007	12 336
2	Greenland	2	57 714	28 857
3	Monaco	1	30 500	30 500
4	San Marino	1	32 448	32 448
5	Estonia	34	1 266 375	37 246
6	Latvia	56	2 178 443	38 901
7	Iceland	8	315 281	39 410
8	Faroe Islands	1	49 709	49 709
9	Bosnia and Herzegovina	76	3 875 723	50 996
10	Slovenia	39	1 992 690	51 095
11	Denmark	84	5 556 452	66 148
12	Cyprus	17	1 155 403	67 965
13	Georgia	66	4 555 911	69 029
14	Norway	63	4 722 701	74 964
15	Croatia	59	4 475 611	75 858
16	Lithuania	46	3 515 858	76 432
17	Switzerland	104	7 996 026	76 885
18	Albania	38	3 011 405	79 248
19	Andorra	1	85 293	85 293
20	Poland	440	38 383 809	87 236

⁹ <http://www.uchis.com.ua>

¹⁰ <http://www.webometrics.info/>

¹¹ <https://www.cia.gov/library/publications/the-world-factbook/>

21	Ireland	49	4 775 982	97 469
22	Portugal	110	10 799 270	98 175
23	Malta	4	411 277	102 819
24	Austria	77	8 221 646	106 775
25	Finland	48	5 266 114	109 711
26	Macedonia	19	2 087 171	109 851
27	France	597	65 951 611	110 472
28	Armenia	26	2 974 184	114 392
29	Belgium	89	10 444 268	117 351
30	The Netherlands	141	16 805 037	119 185
31	Russian Federation	1188	142 500 482	119 950
32	Czech Republic	82	10 162 921	123 938
33	Bulgaria	56	6 981 642	124 672
34	Hungary	76	9 939 470	130 783
35	Greece	80	10 772 967	134 662
36	Moldova	26	3 619 925	139 228
37	Ukraine	306	44 573 205	145 664
38	Kazakhstan	114	17 736 896	155 587
39	Serbia	45	7 243 007	160 956
40	Belorussia	58	9 625 888	165 964
41	Slovakia	33	5 488 339	166 313
42	Luxembourg	3	514 862	171 621
43	Sweden	49	9 119 423	186 111
44	Germany	406	81 147 265	199 870
45	Romania	108	21 790 479	201 764
46	Great Britain	308	63 395 574	205 830
47	Spain	229	47 370 542	206 858
48	Montenegro	3	653 474	217 825
49	Israel	34	7 707 042	226 678
50	Kyrgyzstan	23	5 548 042	241 219
51	Azerbaijan	38	9 590 159	252 373
52	Italy	235	61 482 297	261 627
53	Uzbekistan	65	28 661 637	440 948
54	Turkey	164	80 694 485	492 040
55	Tajikistan	13	7 910 041	608 465
	Europe and the CIS	6 041	905 260 983	149 853
	CIS	1 857	272 740 459	146 872
	EU-28	3 555	509 365 627	143 281

Analysis of the data presented in this comparison shows that there is no outlined correlation between the number of people per each higher education institution and the quality of education in the country, and the vision of the optimal ratio is not observed.

Indicator 1.3. Public expenditure on higher education

1.3.1. Forms of higher education funding

Forms of funding of education in Ukraine are traditionally divided into public and private. Funding of state educational institutions is conducted at the expense of respective budgets (budget funding), entities and individuals (private funding). Private educational institutions have virtually no right to receive funding from the state budget. Forms of budget and private funding of higher education are presented in Table 1.3.

Table 1.3: Forms of funding of higher education in Ukraine

Budget funding of higher education	Private funding of higher education
<ul style="list-style-type: none"> - Direct budget funding of state order for training of specialists with higher education and research workers based on estimates or regulations; - Additional appropriations for specific programs, activities, etc. (e.g. best students support program); - Special programs funding (education lending, full state financial support of certain categories of learners, etc.); - Separate subsidies from local budgets; - Additional allocations associated with the infrastructure and considering certain quantitative and qualitative indicators of educational institution activities on the principle "starting from already achieved". 	<ul style="list-style-type: none"> - Payment for training, advanced training and retraining of specialists in accordance with the contracts concluded; - Charges for providing additional educational services; - Funds received for scientific and research work and other work, performed by an educational institution for enterprises, institutions, organizations and individuals; - Income from sales of products of training and production departments and enterprises of renting premises, facilities and equipment; - Bank credits and loans, dividends on securities and income from placing on deposit accounts of temporarily free off-budget funds, royalties; - Donations, material values received from enterprises, institutions, organizations and individuals.

The forms of private funding cannot be diversified due to the shortage of preferences for companies that direct part of their profits to finance educational programs and investments in education.

1.3.2. Volume of public and private funding of higher education

The amount of education funding as a percentage of GDP demonstrates how much attention is paid to education within the overall allocation of resources. It was provided in the Ukrainian Law "On Education" (1996) that funding of national education shall consist of at least 10% of GDP. Justification of this regulation has not been submitted. Ukraine never achieved this level of education funding. Table 1.4 provides information on public spending on education and higher education.

Table 1.4: Public expenses on education and higher education in Ukraine

Years	Public expenses on education, % of GDP	Public expenses on higher education, % of GDP
2000	4.2	1.3
2005	6.1	1.8
2010	7.4	2.3
2011	6.6	2.0
2012	7.0	2.0
2013 (01.10.2013)	7.3	2.1

In Ukraine there is a steadily increasing (with a tendency to further increase) level of public spending on education that meets the highest international standards. It is a pity that Ukraine's GDP is very low and it cannot reach the level of education funding to ensure its sustainable development.

Public spending on higher education peaked in 2010 (2.3% of GDP) and continues a downward trend given that the number of students is decreasing. It should be noted that, compared to the EU, the level of public spending on education and higher education in Ukraine (in %) is

relatively high. Only Denmark spends more (8.8% of GDP on education in 2010, 2.41% on higher education).

The level of private funding in Ukraine is (according to a very rough estimate) 0.7% of GDP.

Public funding of education still dominates in Ukraine. State budget expenditures on education in Ukraine have tripled between 2004 and 2012, reaching UAH 26.9 billion. (USD 3.36 billion according to currency exchange rate in 2012). It should be noted that the annual budget of many American universities exceeds this value.

In Ukraine there is no practice of state stimulation of corporate sector participation in funding of higher education. No real programs to encourage businesses are established: no tax benefits, no co-funding practice, no government guarantees for investment in education, and no bank loans for education guarantees. Funding of higher education from local budgets remains low.

1.3.3. Share of expenses for higher education¹²

The indicator “Expenses for Higher Education in percentage of total expenditure on education” provides data on the proportion of expenditure on higher education within total expenses for the educational sphere. In Ukraine this index over the research period fluctuated within 29 to 34% (the highest value — 34% — in 2002, the lowest — 29.5% — in 2005).

Comparing the data from Ukraine with the data from countries selected for comparison, we can see that this index is significantly higher in Ukraine than in other countries (on average of 10–15 percentage points) (see Figure 1.13). The explanation for this may lie in relatively undeveloped practice of diversification of sources of funding of high school (involvement of private sector, international sources etc.).

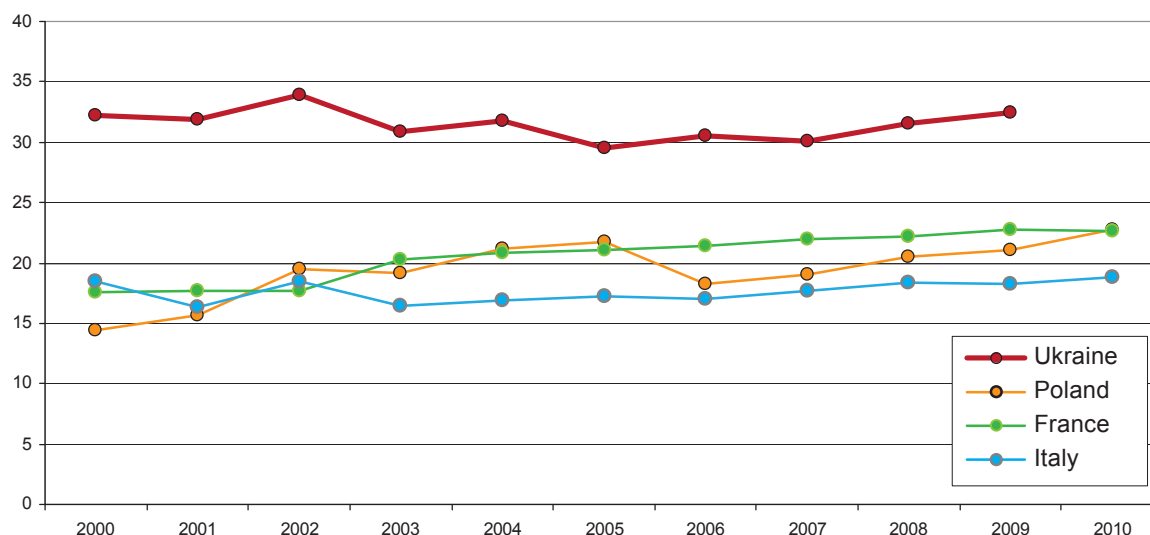


Figure 1.13: The Comparison of change of the indicator “Expenses for higher education in percentage of total expenditure on education”

¹² Educational expenditure in tertiary as % of total educational expenditure / The World Bank. [Online] Available at: <http://data.worldbank.org/>

1.3.4. Structure of expenses for higher education¹³

Expenses for education are composed of current and capital expenses. Capital expenses mean the expenses based on investment, which include the purchase of long-term goods and services: equipment, construction and overhaul. Current expenses include all expenses necessary for day-to-day work of the higher education institution; they provide wages, scholarships, utilities, study materials, social services (food, dormitories, medical services) etc. In OECD countries current expenses in the general structure of higher institutions expenses make up 80 to 96 per cent (see Table 1.5). An average index in this country is 90.9%. Capital expenses make up 9.1% accordingly. In Ukraine the index of capital expenses is 9.1%, which is two times lower than the average in OECD countries.

Table 1.5: International comparison of the structure of expenses for higher education

Country	Current expenses, %	Capital expenses, %
Australia	89.9	10.1
Austria	93.7	6.3
Belgium	96.7	3.3
Great Britain	94.4	5.6
Denmark	95.5	4.5
Spain	79.4	20.6
Italy	88.8	11.2
Canada	91.5	8.5
Netherlands	86.1	13.9
Germany	90.4	9.6
Norway	94.1	5.9
Poland	87.3	12.7
Portugal	92.5	7.5
Slovenia	87.1	12.9
USA	90.3	9.7
Hungary	91.0	9.0
Ukraine	95.9	4.1
Finland	95.8	4.2
France	91.3	8.7
Switzerland	91.1	8.9
Sweden	96.3	3.7
Japan	87.0	13.0
OECD average	90.9	9.1

Source: Education at a Glance, OECD 2011; Ministry of Education and Science of Ukraine

One of the main components of current expenses is wages for teachers and staff. In OECD countries, wages of all the higher education institution employees constitute 50% to 80% of current expenses (on average 68.5%). The lowest rate (about 50%) is typical for the Czech Republic, Slovakia, and the highest — for the UK (83%). For most Ukrainian universities it is in the same range.

¹³ The data of this unit is based on: School enrollment, tertiary (% gross) [Electronic Resource] / The World Bank. — Access mode: <http://data.worldbank.org/>

In the system of higher education there is also a generally accepted division into major educational expenses, research and support services costs. The main educational costs include all costs associated with the study process. Support services costs include, mainly, the costs of social services such as the provision of housing, food, and medical care. It should be noted that the OECD countries on average spend 25% of total costs of higher education institutions on research activities. In some countries, such as Sweden, Switzerland and the UK, expenses on research exceed 45%. In Ukraine — 3% (MES data for 2011). The difference compared to the developed countries stands for the poor state of research activities in Ukrainian universities.

An important factor in research funding in developed countries is the growing support of scientific research laboratories by business. In Ukraine, this practice is not widespread.

1.3.5. Some aspects of state policy in the sphere of higher education funding

In Ukraine, students acquire a higher education with the help of budget funding or funding by entities or individuals, however it is impossible to use both sources of funding simultaneously. The first category is studying for free (education institutions receive state financing through the mechanism of state order), has the right to apply for social, academic, nominal grants, participate in state-subsidized programs of foreign internships etc. The second category pays the full tuition fee and cannot rely on state scholarships. This does not comply with the European principle of equality and non-discrimination in education with the tools of differentiating students being not always perfect, and moving from the second to the first category is extremely difficult.

Overall, the system of relations between the state, citizens and corporate sector in the economy of higher education is not fair. Society has a crucial impact on the provision of social balance of the model of financial support of higher education. The state failed to prioritize the development of education and provide support, which resulted in a costly financing principle, which is not effective. Business sector has undertaken obligations and responsibilities using the sophisticated situation at the labour market. Households have to incur the expenses of higher education to the extent that is not justified in view of their real income.

CHAPTER 2. DEGREES AND QUALIFICATIONS

Indicator 2.1. Bologna structures

2.1.1. Structure and implementation of first-cycle higher education programs

At the stage of establishment of the national education system of Ukraine there was the transition from the Soviet one-stage to a multi-stage system of higher education. This was the result of a compromise between the borrowing of contemporary European patterns of higher education and the need to introduce a variety of forms of education acquirement under the changed circumstances.

Since 1996, the structure of the training of specialists includes the following educational levels: Junior Specialist; Bachelor; Specialist; MA (article 30 of the Law of Ukraine “On Education” (1996) and the Regulation on the educational levels (level education), approved by the Ruling of the Cabinet of Ministers of Ukraine of 20 January 1998 № 65). The structure of the higher education system and access to it before 2014 is shown in Figure 2.1.

The first cycle of higher education is the bachelor’s degree (education level) which is a four years program (240 ECTS credits) on the basis of a complete secondary education. This duration defined in course of the evolution of the Soviet five-year higher education system by extraction from the study programs of specialized programs, certain ideological disciplines and reduction of practical training. Since 1997, a three-year Bachelor’s degree (180 credits) is possible, but the practice of implementing such programs does not exist.

The curricula of preparation for a bachelor’s degree further preserves the traditional structure of division into humanitarian, natural, mathematical, general economic (fundamental), professional and practical training. The frame of communist ideological training in higher education institutions consisted of “History of the Communist Party,” “Marxist-Leninist philosophy,” “Political economy (capitalism and socialism),” “Scientific communism” and “Scientific atheism”. After the declaration of independence, this structure was preserved, although the content of disciplines was de-ideologized. Currently, they are called “History of Ukraine”, “Philosophy”, “Political Economy”, “Political Science”, “Religion”. It should be noted that the time of studying humanities at first gradually increased, reaching 25% of the overall time of Bachelor’s degree training, and only in 2009 it was reduced to 10–15% in favour of the time devoted to professional courses and practical training. Vestiges of the Soviet higher school remained in the curricula of “Physical Education”, “Life Safety”, “Civil Defence” and “Fundamentals of Labour Protection.” Hence it is clear that only a review of the content of curricula, removing irrelevant for training courses, can provide a transition to the traditional in most of Europe three-year Bachelor’s degree.

Bachelor’s degree training is conducted according to different areas of training. Classification of the areas of training is carried out on the basis of cognate content of higher education and training. The names and content of training areas must correspond to the titles of sections of the Statistical Classification of Economic Activities in the European Community (NACE). NACE has 62

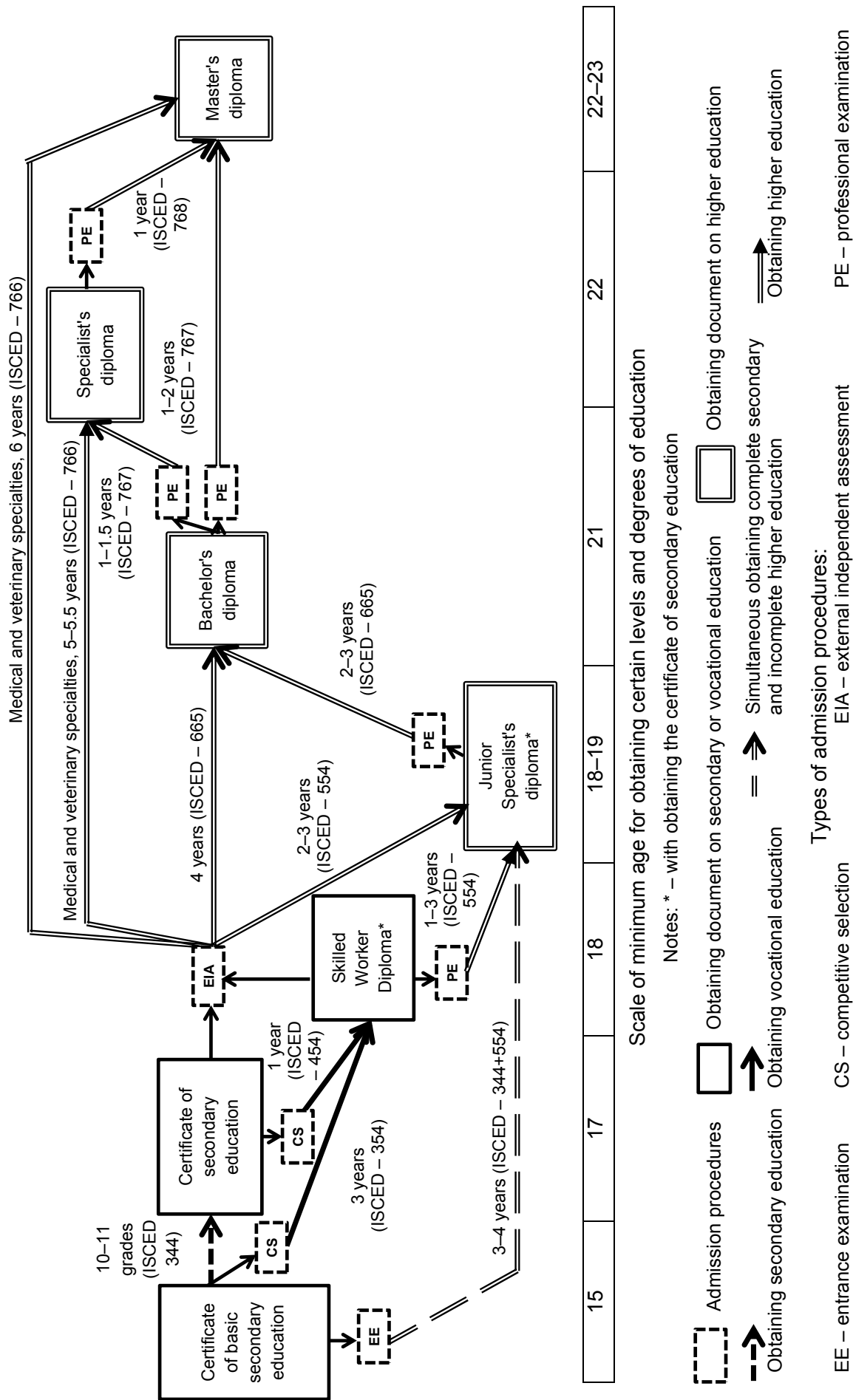


Figure 2.1: The structure of higher education system before 2014 (former law)

sections. The list of areas of bachelor's degree trainings in higher education institutions includes about 150 areas, which significantly exceeds similar lists in most countries.

The national labour market for a long time did not recognize a Bachelor's degree as complete higher education. This entailed record (compared with European practice) volume of specialists and masters training, which resulted in the devaluation of the differentiating value of the second cycle. In the past two or three years, there is a trend to recognize the qualifications of a Bachelor's degree in the private sector, but the National classification of professions still does not include Bachelors in the second category — "professionals". It is an obstacle on the way of proper recognition of Bachelors in the public sector of economy.

The new Law "On Higher Education" revives hopes to modernize the bachelor's degree. The actual prohibition of fixation in higher education standards and content of mandatory (normative) disciplines allows higher education institutions to introduce a model of curricula that concentrates resources on professional and practical training and complies with the modern world practices. In addition, it offers the perspective of finally building more compact plans of bachelors training (3–3.5 years).

2.1.2. Structure and implementation of second-cycle higher education programs

Formally, programs of the second cycle of higher education (master's degree) in Soviet higher education did not exist. In fact, this type of degree in some form existed to prepare economic, military, party, trade union and youth functionaries of the highest level. The conventional model of training at this level was not determined.

The first experimental masters programs in Ukraine were implemented by Kyiv-Mohyla Academy in the early 90's.

The master's program became systematized and widespread only in 1997–1998. At first, this was demonstrative rather than substantive. These programs were originally situational stratification disciplines (and answered subjective perceptions of compilers of educational programs), had no real scientific orientation, and did not have teachers and research tools.

The actual implementation of Master's programs started in the early 2000s. At this time, Master's programs for many professions were established, and included detailed list of normative disciplines and their contents, forms of state certification and its content. Traditional university autonomy, which is a classic reflection at this stage of training, has not been developed.

Standards for a master's program were a compromise between superficially studied international practice and a lack of qualified implementers. The master training cycle is very short (usually one year), which makes it impossible to provide proper content and quality of training. These programs are not focused enough on research and interdisciplinary nature of modern scientific inquiry; they do not provide opportunities for building flexible learning paths and student mobility. The Master's program is aimed at training scientific and teaching staff, while the international practice gives many models of use of these programs as school of leaders in professional and business activities.

Over the last decade a conceptual weakness of the introduced model of the Master's program became apparent. The first step of the transformation was the development in 2009–2010 of the Concept of training Masters in Ukraine and programs of its implementation. Its main innovations were the introduction of research, professional and career Master's programs, as well as increasing the duration of the training to 1.5–2 years. Mainly for political reasons, in spring 2010 the implementation of the Concept was suspended. However, all the new standards of training Masters of that time included the training period of 1.5–2 years. After the political changes in early 2014, the Master's Program on the basis of non-core Bachelor's Degree (cross entry) was permitted.

The new law "On Higher Education" provides a Master's degree in educational and professional scientific or educational programs. The first of them includes 90–120 ECTS credits, and the second — 120 ECTS credits. A research component of no less than 30% should be a necessary component of the education and research program.

Similar to global practices Ukraine provides continuous training for Masters of medical, pharmaceutical and veterinary disciplines on the basis of a complete secondary education (without awarding Bachelor's degree). For a long period there were attempts to expand the list of areas of cross-training Masters in areas of pedagogy, law, culture, etc., which had only limited success.

The creation of a Master's program did not lead to a denial of Specialist degree and appropriate training model, which was transformed into a minor degree of the second cycle. It can be viewed as a kind of bad copy of the second cycle, which was called to preserve the best achievements of the Soviet model of higher education.

The parallel existence of two stages of the second cycle of higher education gradually led to minor issues. Higher education institutions, students and employers began to prefer a more competitive Master's degree, which resulted in the loss of attractiveness of training programs for the most promising and trained groups of students. Due to response to this trend, educational institutions began to cut specialists training (replacing for the Masters), and employers started to prefer Master's degree professionals. Under the new Law "On Higher Education" the last selection for the level of Specialist will be held in 2016, and academic rights of Specialists will continue to be equivalent to the Master's.

2.1.3. Short-cycle higher education programmes

The idea of short cycle of higher education in the Bachelor program is relatively new both for European higher education, and post-Soviet educational traditions.

Ukraine inherited a developed system of secondary education, aimed at training professionals and managers on the executive level. Professional orientation dominated and fundamental component of high school education was virtually absent within their training. During the Soviet period, the system became widespread (over 500 educational institutions — colleges, pedagogical, medical, cultural, educational and music schools), popular (more than half a million students), gained close relationships and high demand for graduates in the real economy, which resulted in its self-sufficiency as a separate level of education. Vocational schools were systematically placed within the territory of the country, a sufficient number of them were placed in small towns and rural areas, and there was a significant concentration in industrialized regions. It is worth

mentioning, that for remote towns and regions vocational schools played a significant role in creating the local educational environment.

Economic transformations (deindustrialization, demilitarization and privatization) in the 1990s severed ties of vocational schools with the real economy, which resulted in their marginalization and the need for fast search of a new place in the national education structure. A solution was found in the integration of vocational schools into the higher education system and the introduction of new graduates for their degree of Junior Specialist. Many vocational schools were renamed into colleges, but it has not significantly affected the structure and content of their activities.

The inclusion of vocational schools and colleges into the system of higher education significantly improved formal education statistics. This resulted in the actual differentiation of this type of educational institutions: some of them remained focused on training practitioners of the lower level (in a remarkable reduction in demand for them), the second part was a substitute for first and second year of Bachelor's Program with some institutions being able to license and hold Bachelor's Program training on their own.

The emergence of the Junior Specialist degree has provided an excellent opportunity to introduce short-cycle higher education in Ukraine. However, this required the development of standards of training Specialists at this level that would ensure their meaningful integration with the Bachelor's program. Unfortunately, in most cases, these activities did not succeed; new standards were only a modification of the old "technical" methodological revision.

For many graduates of these programs it is difficult to continue their studies at the Bachelor's Program due to the lack of proper basic training, immaturity and absence of self-directed learning skills for Junior Specialists and Bachelors. Overcoming these constraints causes an increasing orientation of vocational schools and colleges to prepare graduates for further education instead of having practical activities. Particular success in it was achieved by education institutions that are at various levels of affiliation with universities and academies. In general, a logical and understandable model of a Junior Specialist as a short cycle of higher education has not been developed.

At present, the uncertainty about the place of Junior Specialist in the educational hierarchy is resolved by adding it to the system of vocational education. Instead, the new edition of the Law of Ukraine "On Higher Education" provides for the introduction of a new degree of "Junior Bachelor" as a short cycle of higher education. At present, the main difference between Junior Bachelor and Junior Specialist lies in impossibility of admission to these programs without a complete secondary education and successful completion of the External Independent Assessment. It is clear that the true validation of Junior Bachelor Programs as a short cycle of higher education requires further reflection and considerable organizational work. Logically, the law provides a long transition period for it.

2.1.4. Third-cycle programmes

Unlike educational programs of the short, first and second cycles, real programs of the third cycle in Ukraine have not been introduced. The post-graduate model, inherited from the Soviet Union, still exists. Some experimental programs carried out in collaboration with foreign universities, did

not become systemic and widespread, and the experience gained has been duly compiled and legitimized only in 2014. Most systematic and striking is the experience of establishment of the doctoral school of the National University of “Kyiv-Mohyla Academy”.

The traditional scheme of post-graduate studies and defending the thesis for academic degrees in Ukraine is significantly different from European practice. It provides for studying philosophy, foreign language and methods of research. First post-graduate students have their exams in foreign language, philosophy, and then the scientific major (“candidate minimum”). Methods of preparing the dissertation research mainly involve individual work with often formal management; post-graduate students are often devoid of productive research environment and have to perform many subjective and irrelevant requirements. For example, one such requirement prohibits thesis in two majors that demotivates students to conduct interdisciplinary research. The practice of dual leadership of graduate students is not common for financial reasons. There is no national mobility program for post-graduates, and the existing international mobility programs cover only a part of young researchers.

Unfortunately, a significant part of the research remains beyond the world “scientific mainstream.” The vast majority of scientific publications is in not very known local publications. Because of this problem, in October 2012 there were adopted the requirements for publication of the results of the thesis for a doctor’s degree and PhD. They have provided new elements such as necessity of publications in journals of foreign countries or in Ukrainian publications included in international databases based on formal requirements for the structure and volume of scientific publications. It should be noted that these innovations did not have a material impact on the scientific community and directly provoked unhealthy ingenuity in their “overcome.” Many researchers prefer not to meet these requirements, and find ways to circumvent them.

This procedure of awarding degrees in Ukraine is formalized, and decisions made by specialized academic councils of universities and research institutions, are not final. The final decision to award academic degrees is made by the Certifying Board of the Ministry of Education and Science of Ukraine.

The new version of the Law of Ukraine “On Higher Education” makes radical systemic changes that allow us to talk about the real intentions of the third cycle program implementation. Finally, instead of a scientific degree “Candidate of Sciences”, the first academic degree “Doctor of Philosophy” is introduced. A mandatory part of its implementation is the execution of educational and scientific programs of 30–60 ECTS credits and standard training period is increased from three to four years. The new structure of higher education in Ukraine and access to it is displayed in Figure 2.2.

The changes in procedures of thesis defence are very important. Instead of approval of each thesis by the Ministry of Education and Science of Ukraine accreditation by specialized academic councils is introduced (whose decisions to award academic degrees shall be final) by the National Agency for Quality Assurance in Higher Education, which will start functioning in 2015. The defence of the thesis not only in permanent but in single specialized councils will now be possible. It corresponds to modern global practice and allows evaluating the dissertation research in terms of narrow specialists of that problem.

The ethics of research was severely flawed. Academic plagiarism has been recognized as detrimental in the professional community, and it is being tackled by legal methods. The new Law of Ukraine “On Higher Education” expressly provides for severe penalties for the applicant’s academic degree, which will be disclosed in an academic plagiarism, as well as for supervisors, official opponents and academic councils.

2.1.5. Common degrees and programs

At this time of common degrees in modern European sense in Ukraine there are no such degrees provided and the recognition of common diplomas is denied under the current regulatory framework (valid until 2014). The first joint programs with foreign universities were established on the verge of the 2000s and most of them focused on the model of “dual degree”. Cooperation with foreign partners contributed to substantial enrichment of curricula and programs of national universities, of professional development of teaching staff, the import of modern teaching technologies and schemes of training. The number of such programs has never been great, usually conducting a branding function for Ukrainian universities.

Most often, on the Ukrainian side, the partners of such programs were the largest public and private universities, and among foreign partners universities of Western (and after 2010 — Central and Eastern) Europe. The decisive majority of these programs were carried out in the areas of business, social sciences and engineering. The leading motive of the development of joint programs is to get alumni modern competencies that are not available in Ukrainian universities and diplomas that do not require additional procedures of recognition abroad.

Distribution and development of such programs is constrained by large expensive payment of services of foreign partners. Involvement of grant funding for conducting such programs is often limited in time (e.g. one training cycle) and often at the end of this period the program fades and disappears. Even those institutions that have long supported the existence of joint programs usually do not have a worked out mechanism for sustainable long-term self-financing. This means high tuition fees, which does not often exempt from subsidies from the institution, and a high risk of temporal cessation of the program.

In 2011–2013 the by-laws were amended, providing compulsory licensing of joint programs. However, licensing conditions of such programs have never been developed and approved, individual universities could obtain such licenses only in exclusive manner, and many universities had to hide the presence of joint programs in different ways.

The new Law of Ukraine “On Higher Education” provides an opportunity for acquiring higher education agreements between higher education institutions, including foreign, educational programs. Accordingly, these institutions can produce and issue common diplomas of their own design, information about which is submitted to the Single State electronic database in the field of education.

The general line to promote the internationalization of Ukrainian higher education is now reflected in changes in the Order of licensing of educational services approved by the Cabinet of Ministers of Ukraine in April 2014. According to these norms the activity programs of foreign institutions, carried out by domestic universities, academies and institutes within the accredited programs

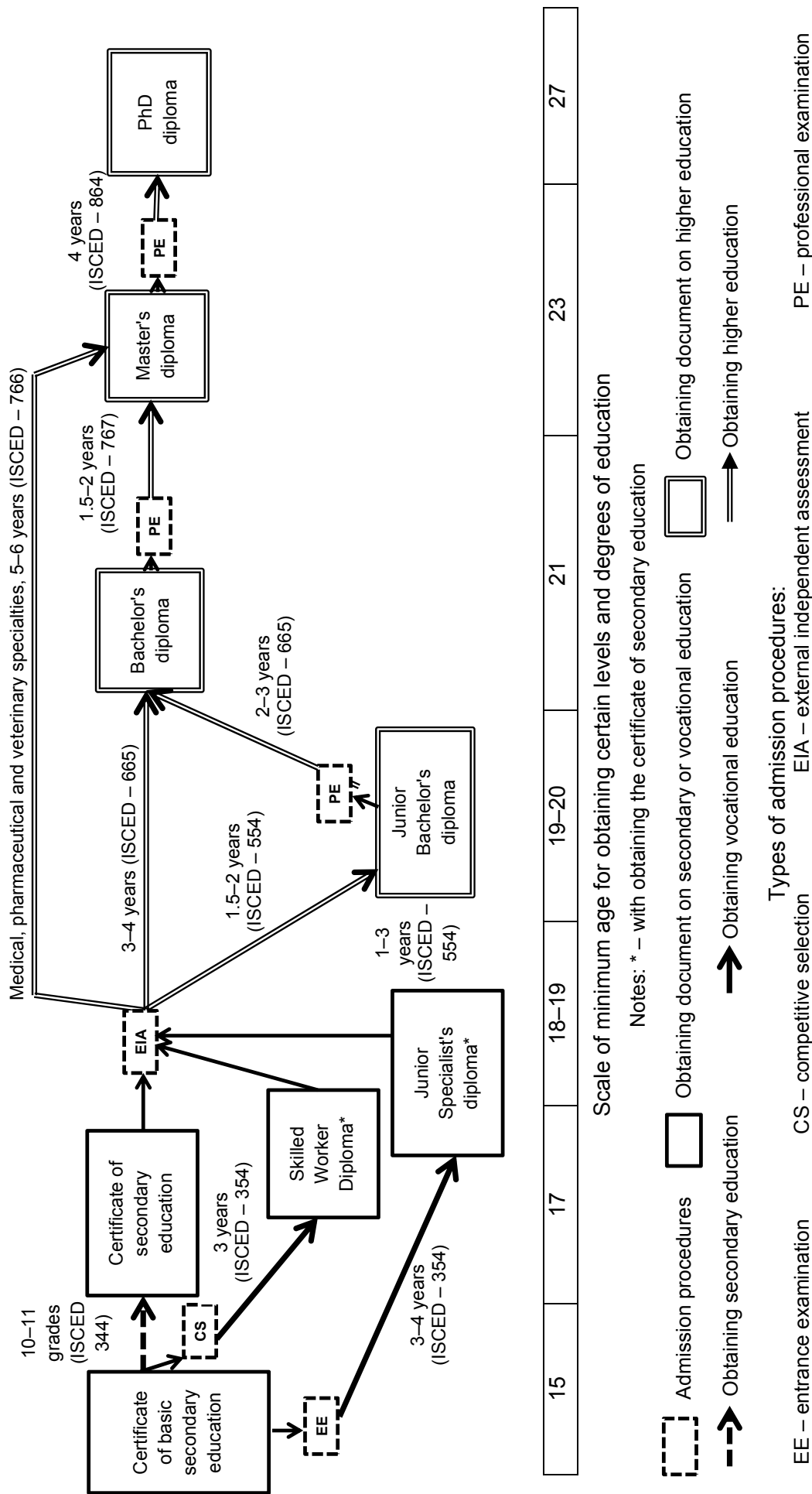


Figure 2.2: The Structure of Higher Education from 2015 (New Law)

of the EU countries. This creates a positive atmosphere for the educational cooperation of universities of Ukraine and the EU, eliminating artificial regulatory barriers of access to the European education, facilitates the implementation of educational innovations.

Indicator 2.2. Bologna Tools

In the European Higher Education and Scientific Research environment there is a set of tools aimed at harmonizing national education systems and developing academic mobility. These tools are implemented by states-members of the Bologna process in different ways and at different rates. This form of cooperation has led to a discussion concerning the Bologna process of “different speeds”. The main tools of the Bologna process include the National and European Qualifications Framework (hereinafter — NQF, EQF), European Credit Transfer and Accumulation System (ECTS), learning outcomes, student centred learning and diploma supplement.

In fact, the impact of the introduction of these tools in the Ukrainian educational practice is quite low. In the absence of political will and purposeful state policy towards European integration in education, the Bologna tools take effect only on paper, and their actual implementation is often replaced by imitation.

Indeed, the National Qualifications Framework (2011) in many aspects does not meet European standards, is not used in practice, requires long development and improvement. ECTS was introduced only in the autumn of 2009, but regulations on the organization of educational process in higher education institutions and practice of its use have not been adjusted to the system. The concept of learning outcomes has not acquired a core role in higher education. Student centred learning remains to be a motto. The belated attempt of the Diploma Supplement implementation in 2012–2013 gave numerous reasons for corruption claims.

2.2.1. National qualifications frameworks

After Ukraine’s accession to the Bologna process, it was important to match the educational approach of national legislation with European standards. One of the important directions of this activity was to create a national qualifications framework. This work started in 2008. The ruling of the Cabinet of Ministers of Ukraine on approval of the NQF was adopted in November 2011.

While working on a project of NQF, the interests of such stakeholders became apparent: highest state institutions responsible for European integration; governmental institutions in education and social policy; the organization of employers; some academic institutions and non-governmental organizations. Surprisingly, there was no real interest in the development of NQF by most higher education institutions, student communities and trade unions, employers’ organizations of small and medium business.

A special feature of the development process of NQF was the activity of organizations with large number employee who tried to assume the powers of recognition of professional qualifications, education and labour relations regulation and approval of professional standards. This attempt to monopolize the NQF contradicted the interests of the other stakeholders, both real and potential. This stimulated their activity and contributed to the adoption of NQF.

In general, NQF is similar to EQF. There are some differences, for example, ten instead of eight qualification levels. NQF included “zero” (for pre-school education) and “nine” (for doctors) level. Of course, states-members of the Bologna process have the right and opportunity to form their structure levels of NQF, but it should be understood that additional levels must be reasonable. Otherwise they will fail to play their crucial function — ensuring comparability with educational systems of other countries. Some descriptions of the levels of the National Framework (knowledge, skills, communication, autonomy and responsibility) are used in a different interpretation in the European Framework.

The lack of real practice of NQF in 2012–2014 shows that the approved document was solely declarative and did not really contribute to the process of European integration. The approved NQF did not solve the real problems of harmonization of national and European systems of qualification. Even the plan of the implementation of the National Qualifications Framework for 2012–2015, approved by joint order of the Ministry of Education, Youth and Sports and Ministry of Social Policy of Ukraine in April 2012 remained mostly on paper. For example, in 2013 neither the Strategy of national qualifications system development nor the National Standard Classification of Education was approved.

NQF implementation into the national law only began in 2014 with the adoption of the new Law of Ukraine “On Higher Education”.

Firstly, the basic law of Ukraine “On Education” was supplemented by article 27¹, which first determined the role and place of NQF in the national educational thesaurus:

“Article 27¹. National Qualifications Framework

1. The National Qualifications Framework is a systematic and structured description of competences of qualification levels.
2. The National Qualifications Framework aims to:
 - a) introduce of European standards and principles of quality with the requirements of the labour market to the competence of experts;
 - b) harmonize legislation in the field of education and social-labour relations;
 - c) promote national and international recognition of qualifications developed in Ukraine;
 - d) establish effective interactions between sphere of educational services and labour markets.
3. The National Qualifications Framework is developed with the involvement of employers’ associations and approved in accordance with the law. ”

Secondly, a strict concordance must be developed between the levels and cycles of higher education and skill levels of NFQ, which officially identified substantial qualification requirements for each educational level.

Thirdly, the task of developing a new generation of higher education in accordance with the competencies set out in the NFQ. This makes possible the real development of standards on a competency basis.

Fourthly, the coordination of NQF with the European Qualifications Frameworks defines a priority of state policy on international cooperation in higher education.

Only now have grounds been created for the further development of regulations of both education and industrial relations, ensuring their implementation, establishment of independent centres of professional development and qualification standards based on competence approach, centres of assessment (recognition) of qualifications (including those obtained through formal and non-formal education) etc. The creation of a corps of professional and educational standards of a competency-based approach requires long-term efforts and major funding, provided that there is political will by the country's leadership to find a constructive compromise between the stakeholders of NQF.

Today, the official recognition of the NQF of Ukraine in the European Higher Education is absent. This is caused by the slow implementation of NQF, making it impossible to assess its impact on the relationship between education and the labour market and of self-certification. Only the establishment of the National Agency for Quality Assurance in Higher Education, provided by the new version of the Law of Ukraine "On Higher Education", gives an opportunity to hope for progress in this area.

It should be noted that the transformation NQF into the real instrument for drawing up, identification, matching, recognition, planning and development of qualifications can be achieved only under conditions of mutual trust and cooperation between government, business, education and society.

2.2.2. ECTS, results of education, student centred learning¹⁴

ECTS. The first attempt of the introduction of ECTS in Ukraine in 2003–2005 was the establishment of credit and module educational system (hereinafter — CMES). This system was a hybrid of European recommendations and a national module-rating system. Higher education institutions acquired a tool, which, being similar to the ECTS, didn't have its functionality and perhaps allowed to solve only certain problems of formal comparability of education. It should be noted that in the absence of relevant stories in the law on higher education, full legitimization of the new system was not possible. In September 2014 ECTS was finally abolished.

At the end of 2009 in Ukraine there the next attempt to official introduce ECTS was made on the basis of ECTS Guide from 2009. Guidelines on implementation, developed in February 2010, ensured overcoming conflicts with the existing regulatory framework and the actual implementation of the transfer-storage functions.

Due to political reasons, this step was also not brought to its logical completion and this resulted in coexistence of several conflicting regulatory frameworks of learning activities. Due to such circumstances in the early 1990s, only the most archaic system remained fully legitimate. It is important to emphasize that the State Inspection on Education Institutions in Ukraine has conducted control on the basis of Regulation on the organization of educational process, which has not undergone changes since 1993 and does not provide any ECTS.

¹⁴ The data of this book is based on the book: Rashkevych Yu. Bologna Process and New Paradigm of Higher Education: monograph. – Lviv: Lviv Polytechnik University Publication, 2014. – 168 p. (in Ukr.)

At present there are three main problems associated with the implementation of ECTS in the higher education system in Ukraine:

1) the problem of transfer of educational content: development and placement on websites of universities and in printing of the course catalogues/information packets (absence of information, especially in English, is a key barrier to international academic mobility); non-use in describing programs and modules of universal formulations (European Bachelor's and Master's Programs, materials of QAA (UK), OECD, etc.);

2) the problem of transfer of credits: incorrect assessment of credit measurement of modules/subjects; a search for ways out of situations of credit measurement of modules/subjects differences in case of their reacceptance; fetishisation of formal temporal component of credit measurement of modules/subjects instead of meaningful evaluation of their complexity;

3) the problem of transfer of assessment results, inadequate use of ECTS grading scale (it is focused on large streams and may not be used for quota assessments within the academic group); unjustified refusal to recognize or under-estimation in foreign universities; absence of possibility of obtaining academic qualifications based on the accumulation of credits; strict regulation of title, content and credit measurement of normative disciplines, that often prevent recognition of credits accumulated abroad from related modules/subjects.

In 2014, with the adoption of the new Law of Ukraine "On Higher Education" ECTS in Ukraine finally gained due legitimacy:

1) ECTS is defined as "a system of transfer and accumulation of credits used in European Higher Education to provide recognition, verification of qualifications and educational components and facilitate academic mobility of higher education applicants. The system is based on the definition of the educational workload of students required to achieve specified learning outcomes recorded in ECTS credits";

2) Introduction of ECTS credit as a unit of measurement of the amount of educational workload. According to ECTS one credit is 30 hours. The school year load must meet 60 ECTS credits. Thus, one ECTS credit is unified and brought in the line with the European indicators;

3) Decision that the amount of educational programs at all levels are determined in ECTS credits (rather than hours, as before). ECTS credits became a key parameter in higher education standards needed to obtain the corresponding degree of higher education;

4) Higher education institute found rational replacement of regulatory disciplines by using descriptions of learning outcomes.

We hope that the implementation of the provisions of the new Law of Ukraine "On Higher Education" will create conditions for realizing the transfer potential of ECTS in domestic and international academic mobility. It should be noted that the use of ECTS requires additional regulation in educational programs that provide a combination of study and work (part-time program), to evaluate the practical training (including training of different nature) and performance of individual student tasks. Effective use of ECTS will neutralize some of problems that can cause certain scepticism among some groups of academic community to the Bologna Process.

Results of Education. In fact, Ukrainian universities still do not widely use the common concept of learning outcomes/competences.

The first approach to this subject provided guidelines on development of components of regional standards of higher education set forth in the letters of the Ministry of Education and Science of Ukraine of July 31, 2008. They attempted to implement a competency based approach to the development of higher education standards, and it should be noted that this step was a bit late, since European countries started this process in 2002–2005, and the Russian Federation in 2005.

The palliative scenario proposed in the document assumed mechanical integration of the competency approach to well-established standards of higher education structure that were built on a different methodological basis. Basic elements of higher education standards — educational qualification characteristics and educational and professional programs — oriented on operation with concepts of knowledge and splited skills, while competences are integral characteristics of learning outcomes.

This led to an organic impossibility of the execution of the task, and standards developers often were only able to declare the competence approach while maintaining the traditional approach to modelling activities and his professional training. A few universities have descriptions of the programs in terms of learning outcomes, but they were stimulated by international projects in Ukraine and, accordingly, after their completion, the system was not distributed.

Because of the challenges of the process of implementation of the results of studying at present we can state the unresolved key methodological issues:

- Object Classification (special) of competencies for different sectors of education was not processed at the Ministry of Education and Science;
- Recommendations for the use of best practices in the formulation of learning outcomes were not created;
- The discrepancy of educational terminology used in higher education system in Ukraine, modern terminology EHEA was not overcome;
- No efforts made to form a system and single methodical approach to training coordinators of ECTS in universities and faculties.

A real attempt to resolve accumulated problems and give a powerful impulse to the expansion of the use of learning outcomes in the national educational practice is the new version of the Law of Ukraine “On Higher Education”, which finally provides the official definition of “competence” and “learning outcomes”. Moreover, it was found that the standards of higher education should include a list of graduate competencies, and the normative content of training seekers of higher education must be formulated in terms of learning outcomes. This gives hope that a new generation of higher education standards will be based precisely on the competency approach and will correspond to the modern European practice.

Student Centred Learning. The concept of student centred learning in the last 10–15 years is becoming more popular and is being gradually transformed into one of the main principles of the Bologna process. This is due to the increasing role of education as a result of the general

intellectualization of social life and its entry to the whole range of fundamental human rights. These circumstances outline the orientation of education on openness, collaboration, activity, informality in the relations, student participation in shaping the studying programs and improving their dominance over the conditions of universal patterns, healthy pragmatism priority over administrative scope, and flexibility of educational strategies.

Unfortunately, in Ukraine, in the absence of public pressure on the transition to student centred learning, traditional educational models are dominant. In most education institutions the student continues to be seen as passive receiver of knowledge that does not provide for his active role in shaping the curriculum. Opportunities to influence student learning plans are minimal. The formation of the curriculum is conducted through two models that retain a monopoly of higher education institutions over determining a particular part of educational content.

The first model excludes the impact of the student on the content of the curriculum. Higher education institutions determine the list of subjects included in the variable component of the program, and impose these to students. It is often associated with the interest of the additional workload of a particular teacher or group of teachers, and this results in the inclusion into the elective component of irrelevant or untimely disciplines.

More common is the second model, which replaces the consideration of individual needs of students with a more or less manageable collective choice. Mostly, it partly provides students involvement in the selection, but only collective, that means that a group of students together choose separate subjects from the list offered by the higher education institution. Only in a few cases students are provided with an opportunity to form the elective component of their own curriculum individually.

Striving to create a system for measuring progress in implementing a student centred learning model of education in Ukraine, formulate its objectives, tasks and tools.

The objectives of a student centred learning model of education provide that each graduate of a higher education institution shall acquire:

- Extensive knowledge, providing the opportunity to quickly adapt to changes in society and the economy;
- Good basic skills and competencies that stimulate the desire for lifelong learning;
- Proper learning skills enhanced organizational thinking that can successfully operate under the circumstances of uncertainty, multivariate solutions, lack of complete information;
- Sufficient experience in the use of knowledge and competencies to solve unfamiliar problems and tasks;
- Skills and experience to choose and exercise the right to use their voice;
- Respect for different identities, as well as the general rules of civil behaviour that form the basis of trust and cooperation in society.

Achievement of the aforementioned objectives of student centred learning is possible following the solution of the following main tasks:

- Preparing students for life as active citizens of a democratic society;
- Laying the ground work to help students prepare for professional careers;

- Ensuring the personal development of students;
- Forming the need of lifelong learning.

Quantitative and qualitative tools that characterize successful implementation of student centred learning include:

- 1) The existence of a wide range of possibilities in shaping educational trajectories for students (different ways of access higher education, possibility of obtaining a second major, right of cross-entry to Master's and Doctoral Programs, the recognition of competencies acquired in practice, a wide range of options for obtaining postgraduate education, etc.)
- 2) The availability of students' training based on modern interactive techniques (learning partnerships instead of teaching, use of intensive and interactive learning technologies, choice of teacher and building communication with him/her in the electronic environment, etc.);
- 3) The assurance that active student participation helps in shaping the content of training (guaranteed right to choose subjects of variable part of the curriculum and the existence of real alternative, the ability to determine the direction of research work and receive seamless support in the form of qualified supervision and counselling, interactive process of learning content correction with the participation of all stakeholders, etc.);
- 4) Resource support in creating an environment of student centred learning (sufficient financial and personnel support for group and individualized training, availability of modern material and technical base and technical equipment, an offer of modern learning content and access to relevant scientific information, including information in other languages etc.);
- 5) Promotion of academic mobility and its organizational and financial support (an offer of programs of national and international mobility on satisfactory terms, preparing candidates to participate in academic mobility and trainings in cross-cultural adaptation, the recognition of credits obtained, periods of study and qualifications, etc.);
- 6) Formation of need and encouraging social participation of students (involvement in the management of the education institution and the national (regional) education system, contributing to social and political activities, including volunteering and educational activities, etc.);
- 7) Encouragement to pursue scientific work and the internal need for research (guaranteed access to laboratories, equipment and resources, an opportunity to participate in international and national research projects and forums, student start-ups and innovative initiatives support, etc.).

The desire to implement the model of student centred education into the national educational practice is one of the key objectives of the new Law of Ukraine "On Higher Education". It is reflected in different forms and in different parts of the text of the law. One of the most important parts is the formulation of student rights in Article 62. It is important to emphasize that this was the first time than a document of this level recognized the right of students to "choose subjects provided by the appropriate educational program and work curriculum, in an amount of not less than 25 percent of ECTS credits provided for this level of higher education. Students at a certain

level of higher education now have the right to choose subjects offered by other levels of higher education, in consultation with the head of the relevant department or faculty.” This allows a customized curriculum focused on an individual and opens the way of building integrated training programs with the ability to study certain subjects of the next cycle.

2.2.3. Diploma supplement

The Diploma Supplement or, as it is called in Ukraine, the Diploma Supplement of the European exemplar, is a recognized tool for the collective understanding of qualifications and competences within the European Higher Education and Scientific Research. Its issuance in all countries that signed the Bologna Declaration was provided by the decisions of the Berlin Conference in 2003.

Since the early 2000s, the traditional Ukrainian Diploma Supplement is a document on education issued by the holder of the Diploma to provide additional information about the extended national education system; rating of a higher education institution within it; level, content and scope of education; features of learning and academic achievement, skills and professional rights etc. This appendix issued on standardized forms of the state standard and it does not meet the requirements of the Diploma Supplement.

In 2006, the minister of Education and Science of Ukraine announced the transition to the issuance of the Diploma Supplement of European exemplar that would be formulated in English, free of charge for all graduates starting from the 2008/2009 academic year. The decision was adopted in October 2009 and the relevant order of introduction of the Diploma Supplement was signed only in April 2010. The order determined these documents to be produced centrally for accredited higher education institutions in a single form; their issuance is not mandatory (issuance of Ukrainian supplement preserves) and is carried out at the request of the graduate.

During 2010–2013, this process did not become widespread and there were only 17,000 Diploma Supplements issued. Only about 100 institutions of higher education started to issue these documents to their graduates. Most of the Supplements of European exemplar were issued in higher education institutions in the Kyiv, Odessa and Kharkiv regions, with most of them being issued to the graduates of the second cycle of higher education.

The number of issued Diploma Supplements of European exemplar in the regions of Ukraine in 2011–2013 is shown in Figure 2.3.

The limiting factor of the implementation of the Diploma Supplement was the lack of common understanding and application in the Ukrainian higher education system of a number of key concepts of educational thesaurus in terms of training using the competence-based approach: competence, learning outcomes, application of knowledge and understandings, making judgments etc.

The further evolution of the implementation of the Diploma Supplement in Ukraine became the object of an interesting plot at the end of 2013. In accordance with the decisions of the Cabinet of Ministers and the Ministry of Education and Science of Ukraine a mandatory issuance of Bachelor's and Master's Diploma Supplements of the European exemplar were introduced and were considered national, but the words “European exemplar” were deleted from their names. It should be noted that this decision was not properly administrated both organizationally

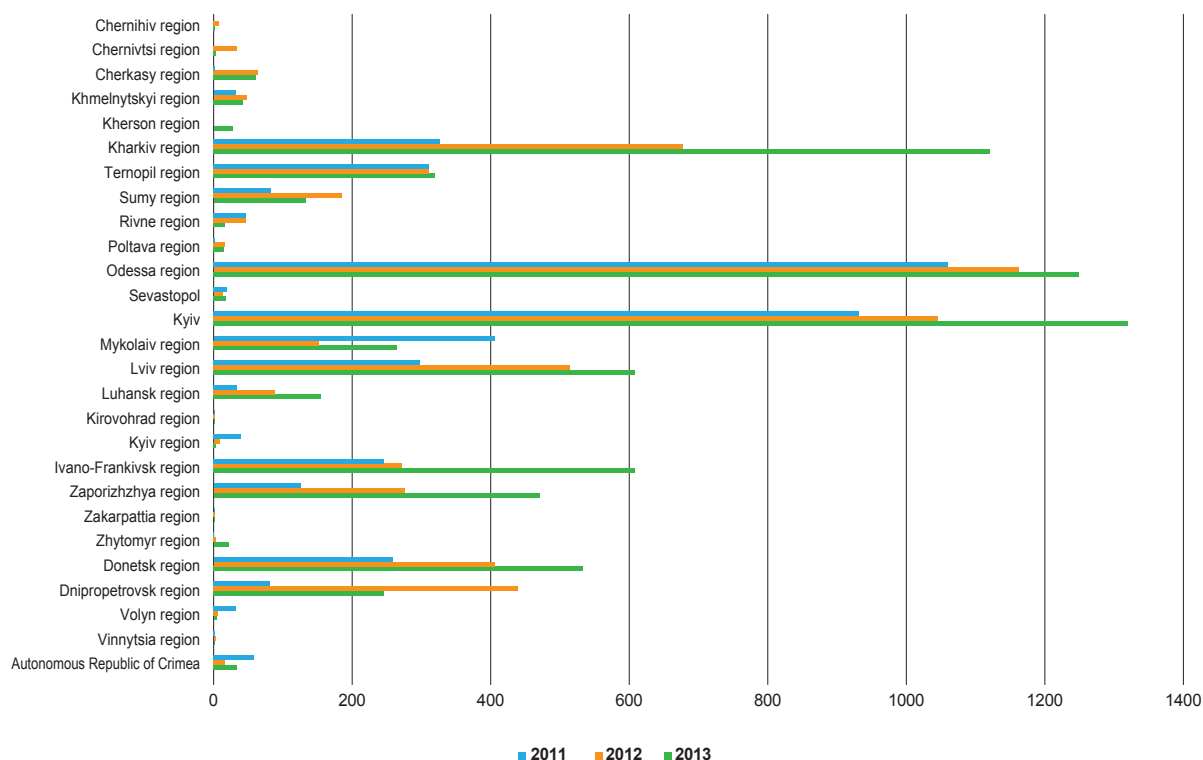


Figure 2.3: Issuance of European diploma supplements in the regions of Ukraine in 2011-2013

and technically, and the high cost of centralized production of the documents cast suspicion on the corrupt motives of the intrigue. As a result, in early 2014 the production of the Diploma Supplements was suspended and thousands of students were forced to wait for months for their diplomas. In May 2014 the previous voluntary procedure for issuing such supplements was resumed that has existed since 2010, and a real opportunity to order Supplements appeared in higher education institutions only in September 2014.

The new version of the Law of Ukraine “On Higher Education” provides for compulsory issuance of the Diploma Supplement of the European exemplar to Bachelors, Masters and PhDs, regulates the problems of thesaurus, and allows production of these documents directly to higher education institutions that meet international practice.

Now Ukraine has established an appropriate legislative framework for the issuance of Diploma Supplements. However, higher education institutions do not fully realize the potential of this tool and many students are still not aware of the possibility to receive it.

Indicator 2.3. Recognition of qualifications

Mutual Recognition of Diplomas and academic degrees (nostrification) serves as an important condition for academic mobility and estimate of qualifications acquired, promotes the use of international labour market opportunities. Ukraine, at some point, acceded to major international agreements on the subject, including the Hague Convention on the simplified procedure of recognition of foreign Diplomas and Lisbon Convention on the Recognition of Qualifications of Higher Education in the European Region.

Several core technologies are traditionally used for nostrification. These include: bilateral and multilateral agreements on mutual recognition and equivalence of Diplomas and academic degrees; domestic legislation on a simplified procedure for recognition of qualifications obtained in different countries or universities; expert assessment of foreign qualifications which is carried out in universities with or without the authorization by public authorities.

Ukraine has a certain system of bilateral agreements on mutual recognition and equivalence of documents on education and academic degrees, which primarily includes the former Soviet Union and Central and Eastern Europe. Unfortunately, in recent years, the rapid development of the system did not happen. For most foreigners who intend to continue their studies or work in Ukraine, the procedure of nostrification is conducted in full. Finally, even with the existence of agreements, simplifying procedure of nostrification is declarative.

Since 2011, the functions of the National Information Centre of Academic Mobility (ENIC-Ukraine) are the responsibility of the “Information and Image Centre”. This institution is an official representative of Ukraine in the ENIC-NARIC network. Its full powers include authentication of documents on education, issued by foreign educational institutions, and the organization of the examination of equivalence of qualifications that are granted by higher education institutions of foreign countries. The result of the control is issued in a form of a special decree by the Ministry of Education and Science of Ukraine on recognition of a foreign Diploma. Excessive centralization of the process of nostrification and monopoly of the “Information and Image Centre” significantly impede acceleration and price reduction of the procedures for recognition of foreign educational qualifications.

A painful problem of the national education system throughout the period of independence is the recognition of degrees, acquired abroad. By September 2014 getting a degree beyond the borders of Ukraine did not mean its automatic recognition in the country and required to repeat the thesis defence. There are two main reasons for this. Firstly, is the desire to restrict competition in occupying key positions in the science (scientific and administrative) field among the people who got degrees in other systems of scientific coordinates. Secondly, are financial considerations, as in Ukraine, the availability of a scientific degree entitles you to certain allowances to wages in the public sector. The greatest losses from the current practice were experienced by the most internationalized and open to the world educational and scientific space Ukrainian universities. As examples, National University of “Kyiv-Mohyla Academy” and Ukrainian Catholic University can be named.

Ukraine’s higher education institutions are not ready to assume responsibility over their own decisions; this is well demonstrated by the fact that in February 2010, research universities acquired the right to recognize foreign universities diplomas of Master, Doctor of Philosophy, Doctors of Sciences and academic titles of associate professor and professor for appointment as a scientific or scientific-pedagogical employee, but higher education institutions refrained from minimum displays of independence under the pressure of the openly negative attitude to it by the Ministry.

The new version of the Law of Ukraine “On Higher Education” radically solves these problems and provides academic councils of all higher education institutions with the right to make final decisions on the recognition of foreign higher education Diplomas and academic degrees during

the employment of pedagogical, scientific, educational and other employees, as well as at the moment of study enrolment.

However, the tradition of total distrust to the higher education institutions continues to exist. Only in this way one can explain the interpretation issued by the Ministry of Education and Science of Ukraine, that encourages higher education institutions to restrict the use only of right, provided by the law, only regarding diplomas, degrees and academic titles issued (awarded) by foreign higher education institutions of the Member States of the Organization for Economic Cooperation and Development (OECD). The limitation of this approach is clearly illustrated by the list of universities which are present in the Shanghai ranking.

CHAPTER 3. QUALITY ASSURANCE

The main axis of discussion on the development of higher education since the beginning of this century 2000s is a problem of quality, conformity with modern challenges and a vision for the future. The desire to improve the competitiveness of the European society has caused even fetishism in the quality of the Bologna process. Creating Standards and Guidelines for Quality Assurance in the European Higher Education Area (2006) has produced a unique international document that harmonizes the educational policies of the continent.

It is quite natural that countries which understand the need and have more opportunities to invest in quality assurance of higher education produce the best human capital, and are becoming more attractive for international students and contribute to the development of economic and social innovations. Unfortunately, at this time Ukraine can only dream of joining these countries. During the period of independence, the quality of national higher education did not become a national priority, although it was consistently declared in all doctrinal and strategic documents of the educational policy of Ukraine.

In Ukraine there is still an illusion that the sphere of education can be reformed from the inside, based on its own intellectual potential with limited external resource support. The practice denies this hope. In fact, without real involvement of external stakeholders the system of higher education will receive neither a guide for life, nor the necessary resources to achieve good quality.

Indicator 3.1. External quality assurance

3.1.1. Character and orientation of national quality assurance systems

The priority of state interests over the public till this moment is general practice in post-Soviet countries. In this regard, public authorities are the key quality agents who formulate the requirements and personally check and evaluate the activities of market participants. It is clear that the state-corporate interests of administrative establishment do not always correlate with the actual needs of other stakeholders.

This is the way in which the quality assurance system of higher education in Ukraine is built. Its main stakeholders are the citizens (entrants and their parents), public administration (the higher state authorities, Ministry of Education and Science, other state agencies that manage higher education, local government), the economy (employers, customers of educational services, market research, consulting and innovation), civil society (media, scientific, educational and business communities, civil, political and international organizations), internal higher education institutions community (administration, teaching and other staff). Governance plays a crucial role in the design of quality assurance system, while the importance of other stakeholders is quite nominal. Consequently the key guide for education institutions is successful formal reporting to the public control authorities, which, in the absence of motivation and transparency, in all likelihood nurtures corruption.

The national quality assurance system of higher education in Ukraine, in fact, has never been created. Its specific surrogate includes the systems of licensing and accreditation, inspection of higher education institutions externally and rector control internally. All of this together can provide a systematic influence on all processes of world educational activities and its content, and therefore does not stimulate continuous improvement of the quality of education.

In practice, higher education institutions face the following criteria of operation of this surrogate model:

- Creation of new generations of educational standards (which means preserving the old principles of education quality evaluation);
- Requirement of standards compliance;
- Regulation of educational content;
- Focus on formal indicators;
- “Dual” nature of the use of standards in public and private higher education institutions;
- Often unjustified fixing of standards of special national specifics and their orientation on the corporate interests of certain groups of influence.

The national system of licensing and accreditation traditionally performed solely the function of one of the main instruments of public sector management and only recently embarked on its transformation into the basic technology of stimulation of improvement of the quality of higher education. The main principles of the transformation of system of licensing and accreditation in higher education in Ukraine in 2014 were finally identified:

- 1) It should be simple, logical, clear and transparent;
- 2) Its regulations and requirements must be adequate, objective, measurable and subject to verification;
- 3) The basic indicators should be focused on the positive evaluation of dynamic of development of the institution as a feature of its competitiveness and adaptability;
- 4) A system of licensing and accreditation (indicators, procedures and processes) should encourage rather than inhibit the development of national high school;
- 5) Management of licensing and accreditation in Ukraine should aim for rapid integration into the national education system in the European Higher Education and Scientific Research Area;
- 6) Further development of licensing and accreditation is impossible without expanding the role and participation of the professional community and public control over it;
- 7) Licensing and accreditation system should be aimed at internal and external quality assurance of higher education;
- 8) Licensing and accreditation system should be a key factor in the transition from fragmented coordination to effective cooperation of higher education institutions, labour market, self-governing professional communities and other civil society institutions.

State inspection of educational institutions to date was aimed at identifying deviations from purely formal and often conflicting requirements to the activities of educational institutions

without considering real context of their activities and only in 2014, received the task to transit to the monitoring function, facilitate benchmarking and disseminate best practices. The main instrument of the internal university assessment of quality of education is rector control, which aims to prepare the institution to external control and provide impulse for short domestic resource mobilization of the academic community, but does not perform the function of internal quality assurance system.

The new version of the Law of Ukraine “On Higher Education” shows an awareness of the absence of alternatives for the European course to the priority quality assurance of higher education. The fifth chapter of the law is fully devoted to this problem and involves the actual creation of a national system of quality assurance of higher education in Ukraine. It provides for the establishment of internal quality assurance of higher education institutions, the establishment of the National Agency for giving it proper full powers on the external quality assurance of higher education and the formation of a network of independent evaluation institutions in this area.

3.1.2. Ability of higher education institutions to be evaluated by non-national agencies

The surrogate model of quality assurance, which was formed during the early years of Ukraine’s independence, was inherited from the Soviet past’s administrative tools, exclusively formal processes and procedures for external evaluation. Instead, the European education system formed a real competitive environment under the influence of the social state ideas and considering partnership of stakeholders. The differences in the formation of Ukrainian and European systems of quality assurance are shown in Figure 3.1.

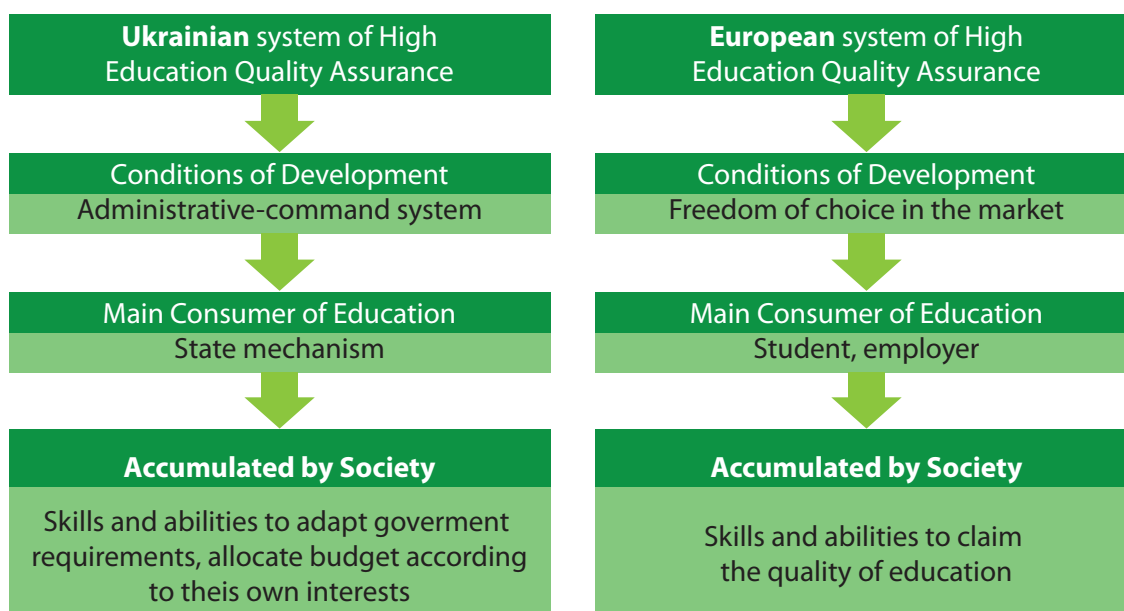


Figure 3.1: Differences in the formation of Ukrainian and European systems of Quality Assurance of Education¹⁵

The openness of the European education system caused the constant need for mutual evaluation, comparison, benchmarking and dissemination of best practices. On the other hand, the domestic

¹⁵ The Concept of Higher Education Assurance in Ukraine / Project “TRUST”. [Online] Available at: http://dovira.eu/images/QA_concept_Final.pdf (in Ukr.)

education system influenced by external circumstances accustomed to act in self-sufficiency, limited contacts and information secrecy. Because of it the area of educational statistics has not received proper development and educational audit has not found its place in real practice.

Doctrinal and strategic documents in the field of higher education developed in Ukraine, are beyond comparison with similar documents, both national and international, are not focused on the verification of their implementation. The practice of monitoring the implementation of plans, programs, doctrines and strategies, and making intermediate and final consequences on their implementation is not available. The change of generations of these documents happens too often and there is no continuity between them observed.

These problems can be overcome naturally in the process of internationalization of the competitive environment in higher education. This would open up the possibility for a direct comparison of Ukrainian and foreign universities, borrowing the best technology management practices of the educational process and research. Unfortunately, the existing barriers of entry of foreign higher education institutions in the domestic market do not provide protectionist security of domestic providers of higher education but discourage their self-improvement.

As a whole, the abovementioned obstacles make efficient use of traditional European mechanisms and instruments for external testing impossible and, in particular, of developments of European Association for Quality Assurance in Higher Education (ENQA) and European Quality Assurance Register for Higher Education (EQAR).

The basic technologies for the assessment of higher education institutions by foreign institutions are:

- Accreditation of the education institution (faculty) or individual educational programs in a foreign or international agency for accreditation;
- Certification of local quality management systems of higher education institutions authorized to do so in accordance with international rules and regulator structures;
- Recognition of bilateral or multilateral interuniversity compliance of educational programs for the development of joint educational programs and programs for a “double degree”;
- Evaluation of appropriate levels of educational programs for inclusion in the European programs of academic mobility.

From the abovementioned technologies the least common is the accreditation of Ukrainian education institution (faculty) or its individual education programs in foreign or international accreditation agencies. There are several exceptions for several business schools that are outside the field of licensing and accreditation in Ukraine.

The certification of systems of quality management of higher education institutions is not mandatory in Ukraine; it is voluntary and is often carried out in the framework of joint European projects that are seen by many as one-time event.

Recognition at bilateral or multilateral interuniversity basis of compliance of education programs for the development of joint educational programs and programs of “double degree” is the most common technology that has a positive dynamic performance. This is due to the gradual

inclusion of Ukraine's participation in European educational projects and the desire of Ukrainian universities to increase their own attractiveness through this type of programs.

Assessment of a proper level of educational programs for inclusion in the European programs of academic mobility still remains the prerogative of the largest public and private universities in Ukraine.

Unfortunately, the collection, analysis and tracking statistics evaluation of higher education institutions in Ukraine is not conducted by foreign institutions.

3.1.3. Evaluating national systems against ESG

Standards and guidelines for quality assurance in the EHEA (ESG) are intended to promote the "common creation of values, expectations and good practice regarding the quality and its assurance by different organizations and agencies across the entire European Higher Education Area". In the period between 2005 and 2009, standards and guidelines have undergone three editions, with the second edition (2007) being improved, and the third edition (2009) adjusted as compared to the second. They include: content, objectives and principles, standards and guidelines for internal and external quality assurance, European standards for agencies of external quality assurance, system of mutual verification of quality assurance agencies, vision of perspectives and difficulties of implementation and the theoretical model for cycle checking of quality assurance agencies.

In view of the Ukrainian reality, the functions of external quality assurance standards by 2014 were formally fulfilled by: the system of higher education standards, licensing terms of provision of educational services in higher education area, accreditation requirements to the field of study, training of experts according to relevant educational levels, certain other regulatory requirements of legal acts. Unfortunately, these documents in structure, focus and target setting do not correspond to the installed ESG frame, resulting in the lack of a coherent, adequate and appropriate model to European recommendations, system of quality assurance in Ukraine. We offer conformity assessment of the components of national practice of quality assurance with the Standards ESG.

European standards and recommendations concerning external quality assurance of higher education	Components of Ukrainian practice of external quality assurance of education and assessment of their effectiveness
Use of procedures of internal quality assurance	Use of these procedures is not systematic and widespread as they do not meet ESG at this stage.
Development of processes of external quality assurance	Objectives are defined in a generalized and abstract way; tasks do not correlate with their achievement. Procedures exist in administrative space and correspond to traditional control but not monitoring function.
Criteria for decision-making	Functions of criteria for making decisions about the evaluation of activities of educational institutions provide Licensed terms of educational services in higher education and requirements of major accreditation for relevant educational levels. Many indicators are archaic, illogical, not rationally spent that cause random interpretations and double standards in higher education institutions assessment.

Processes that correspond to their purpose	Imperfection of processes of external quality assurance prevents the realization of their potential, entailing discrepancy of the purpose.
Reporting	Reports of the external quality assurance in higher education include: the licensing and accreditation self-analysis of higher education institutions, conclusions of license and accreditation examination, acts of State Inspection of higher education institutions. Typically, these documents are not published. The form of self-analysis is strictly regulated by the Ministry. Conclusions and acts are understandable and accessible for the target audience.
Further procedures	During regular inspections of education institutions some remarks are made concerning non-completion of formal requirements and recommendations for improvement of higher education institutions activities, which later become the subject of the following checks. Remarks usually do not consider the context of the education institution activities, and recommendations do not reflect the real problems of their activities, but are focused on relatively easy accessible light changes. This algorithm is not able to ensure emergence of sustainable procedures aimed at continuous improvement process.
Frequency of examination	Domestic practice generally corresponds to European recommendations.
Overall analysis of systems	State quasi-agencies of quality assurance (Accreditation Commission of Ukraine and the State Inspection of Education Institutions) do not publish reports on the description and analysis of generalized results, assessments, etc. according to the results of their activities.

It should be understood that the establishment of external quality assurance system is inevitable, but not always welcome. There is no country in the world where the initiation of quality assurance programs would cause no concern or conflict. This threat, which allows to make the assessment of management of education institution more objective, is an integral part of the implementation of programs of quality evaluation. It is clear that no one likes having the quality of its activities assessed from outside.

Hope for change of the situation is generated by the new Law of Ukraine “On Higher Education”. The creation of a system of external assurance of quality of educational activities and of quality of higher education in general, provided by it, meets the guidelines of ESG. Key procedures are based on the monitoring activities; those efforts will be conducted by a new institution, the National Agency for Quality Assurance of Higher Education and by independent institutions of assessment. The licensing terms of provision of educational services in higher education area and accreditation requirements for the direction (major) of training of experts will be replaced by standards of quality of educational activities and higher education standards, which will be developed under the new procedure, which corresponds to the spirit and letter of the ESG. Reports on external quality assurance will become public that will significantly raise the responsibility for their preparation and improve the reliability of their content. There are circumstances under which the observations and recommendations should be more relevant and constructive with an overall decrease in the number of inspections. Finally, the abovementioned National Agency for Quality Assurance of Higher Education has a real chance to become a tool for implementing a strategy of continuous improvement of Ukrainian higher education.

3.1.4. Involvement of employers in QA

During the period of privatization most items of property in Ukraine were owned by private employers. During the 1990s and 2000s, the government as a major employer gave up concerns about the quality of education and the private owner was not ready to accept this responsibility.

Attempts to involve employers to support education, which were initiated by the academic community and state education authorities, failed. As examples we can mention the Law of Ukraine “On Amendments to Certain Legislative Acts of Ukraine (in higher education)” (2004) and “On providing young people who received higher or vocational education, with a first job, providing subsidies to employers” (2005).

The first of these, in particular, anticipated changes to the Law of Ukraine “On Profit Tax” that allowed the inclusion of gross expenditures of enterprises of up to three percent of payroll funds, invested by the employer in:

- professional training, education, retraining or further training of persons who are employed by the company;
- costs of education and (or) professional training in domestic higher and vocational education institutions of other people, who are not employed by the company, but concluded a written agreement (contract) on undertaken responsibilities to work at least three years upon the graduation from the higher and (or) vocational education institution and obtaining major (qualification) at least three years;
- costs of organizing training and production practices on the main activities of the company of people who are studying in higher and vocational education institutions.

This act was to motivate employers to invest in improving the quality of education of its staff.

The second law provided for subsidies to employers when hiring young people recommended by the public service of employment, who are given first job according to their respective profession (major), for two years. The subsidies were given to the employer during the year amounting to actual costs of basic and additional wages (but not above the average salary of the relevant region) and amounts of contributions to the mandatory state social insurance. The employer undertook the obligation to ensure a job to people with subsidies within two years.

A full range of these laws never worked, due to the lack of interest of employers in the quality of training young workers. Employers and their organizations showed no activity in supporting and promoting laws. Both acts were repeatedly suspended, fully changing and were finally abolished in 2012–2013.

The second involvement of employers to the subject of quality assurance was raised in 2009. Many meetings of the management of Ministry of Education and Science and employers’ organizations were held, and the practical result was the creation of the Intercorporate University.

It was the first model partnership project in Ukraine in education, uniting the largest employers and leading higher education institutions, providing integration of unique practical knowledge and experience of companies in the training of future experts. The aim of the project was to build an adaptive knowledge management system and improvement of quality of undergraduate

courses both technical and humanities to form necessary management and communication skills (soft skills) required by employers.

The participants of the Intercompany University are:

- Ministry of Education and Science of Ukraine;
- National University of “Kyiv-Mohyla Academy”;
- Kyiv National Taras Shevchenko University;
- Kyiv National Technical University of Ukraine “Kyiv Polytechnic Institute”;
- Wimm-Bill-Dann Ukraine;
- Kyiv Investment Group;
- METRO Cash and Carry Ukraine;
- MTS-Ukraine.

The Intercompany University was accepted as a member of the World Association for Cooperative & Work-Integrated Education (WACE) and the European Association for International Education (EAIE).

The increasing failure to provide effective communication between the parties has caused collapse of the project in 2012. One of the spin-offs of its implementation was drawing public attention to the topic of corporate social responsibility of business.

A manifestation of awareness of the necessity of building a system of partnership between business and education in improving quality of training was the SCM company initiative in 2010–2013 to develop a series of professional standards. This initiative was able to achieve the combination of the efforts of the Ministry of Education and Science of Ukraine, Confederation of Employers of Ukraine, the SCM Company and the academic community. With the participation of the Research Institute of Social and Labour Relations of the Ministry of Social Policy of Ukraine a methodological basis for the transition from professional to the qualification standards on the competency basis was first created. Thanks to this, the task of developing of professional standards according to such professional names of work was achieved for:

- Engineer of converter production;
- Master of converter production;
- Steelworker of converter;
- Apprentice of steelworker of converter production (converter).
- Electrical engineer in energy supply company;
- Mining engineer-electrician.
- Journalist of multimedia publications media;
- Editor of multimedia publications of media.

The examination of quality standards was conducted by the European Training Foundation and the Council of Europe. At present the work stopped in transition to educational standards as it required solution of complex contradictions between employers and higher education institutions.

In recent years, quite an active role in the development of cooperation between education and business has been conducted by the Federation of Employers of Ukraine. With the help of a

powerful parliamentary lobby a number of bills that were intended to transfer powers of awarding qualifications to graduates of education institutions to employers' organizations there were prepared and introduced. With the participation of employers, there the Law of Ukraine "On the formation and placement of the state order for training, of scientific, teaching and working staff, training and retraining" (2012) was adopted, which provided the participation of a joint representative body of employers at the national level in the formation and distribution of public order. From 2011–2012, representatives of employers' organizations are included in the Board of the Ministry of Education and Science of Ukraine and Accreditation Commission of Ukraine.

Drawing up the new Law of Ukraine "On Higher Education" was conducted with the participation of representatives of inter-sectorial employers' associations and representatives of certain professional associations. The National Agency for Quality Assurance of Education is expecting the election of three members from the joint representative body of national associations of employers. The National Qualifications Framework is being developed with the involvement of employers' associations. Representatives of employers and their organizations and associations should be part of the field panellists of the National Agency for Quality Assurance of Education, Scientific and Methodological Council and scientific-methodical commission on higher education of the Ministry of Education and Science of Ukraine, they can be incorporated into the higher education institutions academic councils, involved in the educational process and examination boards that carry certification for students.

Indicator 3.2. Internal quality assurance

By 2014, the system of internal quality assurance of higher education in Ukrainian higher education institutions was not established. At the same time part of the higher education institutions have self-developed various models of monitoring, auditing and quality control, which do not formed an efficient system within the state.

Finally in 2014, a new version of the Law of Ukraine "On Higher Education" provided for the creation of a harmonized system of internal quality assurance in the form of "system of insurance by higher education institutions of the quality of educational activities and the quality of higher education." The term "quality of education" being understood by the legislator as "the level of organization of educational process in higher education institution that meets the standards of higher education, provides qualitative higher education to people and promotes the creation of new knowledge." The term "quality of higher education" is defined as "the level of knowledge, skills and other competencies obtained by a person, that reflect its competence in accordance with the standards of higher education." In our view, these definitions are not perfect and do not meet the acknowledged thesaurus of ESG, but they give quite correct and clear content orientation to academic community.

3.2.1. Formal requirements for higher education institutions to establish internal quality assurance systems

The Law of Ukraine "On Higher Education" (new version), which came into force on September 6, 2014, defined certain procedures and activities that make up the system of assurance by

higher education institutions of quality of educational activities and assurance of quality of higher education (system of internal quality assurance):

- “1) defining of the principles and procedures for assurance of quality of higher education;
- 2) monitoring and periodic review of educational programs;
- 3) annually evaluating students, scientific and pedagogical staff of higher education institutions and the regular publication of the results of such assessments on the official website of higher education institution, on notice boards and in any other way;
- 4) providing training for pedagogical, scientific and teaching staff;
- 5) providing the necessary resources to organize educational process, including independent work of students at each educational program;
- 6) assuring of the availability of information systems for the efficient management of the educational process;
- 7) assuring of publicity of information on educational programs, higher education degrees and qualifications;
- 8) assuring an effective system of prevention and detection of academic plagiarism in scientific works of staff of higher education institutions and of students;
- 9) other procedures and measures.”

The analysis below describes the current state of the implementation of procedures and quality assurance measures in accordance with the algorithm proposed by the Law.

Since this system is just beginning to be implemented, we can expect the definition of the principles and procedures to ensure the quality of higher education nationwide after the establishment of the National Agency for Quality Assurance in Higher Education, and before it higher education institutions will be guided by their experience and benchmarking of the best educational practices. Monitoring and periodic review of education programs is already an achievement of best universities in Ukraine. But it requires harmonization with European practice, improvement of methodological apparatus and expanding over the system of higher education. The rating of students and teachers is quite common in many educational institutions, but mostly has no practical value, and is not a tool of analysis of the situation and motivation, no systematic statistical analysis of accumulated information is conducted and its dissemination is sporadic.

Especially important is the training of teaching staff. On one hand, there is a kind of a formal system of training, which is controlled during the process of licensing and accreditation of educational institutions and programs. On the other hand, the system is focused on a purely bureaucratic performance (organization of forms, lack of focus on the sources of best practice) and a simulation of execution of licensing and accreditation requirements. The international component in training is not significant.

In Ukraine there is no generally accepted concept of resource support for learning, especially within individual programs. Licensing conditions record part of personnel, teaching, information and logistics, but are beyond the issues of financial support. As a result, many claims are unbalanced, economically unreasonable and unstructured in time.

Domestic practice of using information systems to manage the educational process and education institutions shows that there is a lack of integrated systems combining learning management, library, HR, financial and economic activity. In fact, there is no proper system of transparency between the Single State Electronic Database in Education and many systems used in universities. Successful localization of foreign software requirements under an extensive system of national education legislation is also a problem.

System requirements for the publicity of information on different aspects of higher education institutions activities have not been put forward yet. It can be stated that among the official websites of educational institutions, which are the main source of publicity, there are completely different websites in view of completeness, relevance of information and the range of offered services.

The struggle for academic ethos has so far remained the prerogative of individual universities who care about their own reputation and national scientific education. The new law raised on the national level the task of combating academic plagiarism among students and researchers. The complexity of this problem is due to the wide prevalence of this phenomenon as a manifestation of corruption in education, especially considering that the generation of educators, who are quite freely “borrowing” scientific data/research, has already been formed.

The Law of Ukraine “On Higher Education” provides that “a system of higher education institution of assurance of quality of educational activities and quality of higher education (internal quality assurance system) ... is estimated by the National Agency for Quality Assurance of Higher Education or its accredited by independent institutions on evaluation and quality assurance of higher education concerning its compliance with the requirements of the quality assurance system of higher education approved by the National Agency for Quality Assurance of Higher education.”

Today it is becoming popular to build local quality management systems in many higher education institutions. It is reasonable to believe that the experience, gained, will be useful for the implementation of internal quality assurance systems in accordance with the requirements of the new legislation.

Appropriate quality assurance system is determined by the readiness of the state to create a modern experimental base for research, introduction of modern educational technologies and efficient management of the university. This requires a sustainable public policy and funding, of which was lacking over the years.

3.2.2. Responsibility for the focus of internal quality assurance systems

A key responsibility for the operation of various models of quality monitoring, that were still substituting internal quality assurance systems in Ukrainian universities, lies on the Ministry of Education and Science of Ukraine, the Accreditation Commission of Ukraine and the State Inspectorate for educational institutions. This situation is due to the complete subordination of the activities of educational institutions to the requirements of licensing, accreditation and inspection, traditionally left in the field of regulation of the abovementioned public bodies.

A striking example of the total external influence on internal quality assurance system is the order of the State Inspectorate of educational institutions of Ukraine of July 4, 2012 “On approval of the programs of state inspection of higher education institutions.” This document (85 pages) approves state inspection programs of higher education in the following areas:

- a comprehensive review of activities of higher education institutions;
- state management activities in higher education institutions;
- checking the completion by the higher education institutions of licensing terms of educational services in higher education;
- quality of students’ education in higher education institutions.

This scheme of inspections is focused on the formal monitoring of a large number of procedures and requirements of various regulatory documents. A significant part of inspection issues does not affect the quality of education and is often even insignificant to the overall content of activities of educational institution. The focus of the inspection and programming their results often depends on subjective interests or even specific orders (political, human, and economic in character). As a result, inspectors often applied double standards to inspections’ objects, and sometimes constructed complicated comprehensive programs of inspections that were not foreseen by the legislation on state control. For example, “Review of the implementation of Constitution provisions and laws of Ukraine, of other legal acts on education” that allowed to examine virtually all matters of educational institution.

The trend for total control over the activities of higher education institutions became complete with the approval of the ruling of the Ministry of Education and Science of Ukraine of May 20, 2013 “On the approval of the unified forms of acts”, which introduced forms of documents (35 pages of various tables that previously fixed the position of higher education institution as a priori) comfortable for the most petty control and very difficult to represent relevant information and argument on positions of higher education institutions.

Only the Revolution of Dignity and subsequent personnel changes in Ukrainian politics and in particular in the Ministry of Education and Science, prevented the realization of the full potential of these complex documents.

Under such conditions, university management had no more incentives and resources to build their own real quality assurance system. As a result, it was not able to take on real responsibility for accomplishing this task. The teachers, who were forced to produce a fantastic amount of useless records, had no physical strength and intellectual abilities to create real leverages of improving the quality of education. Unfortunately, the dominant trend in 2010–2013 to the growing indifference of students, led to an almost complete lack of interest in the matters of quality assurance of higher education.

Only the rise in social activism, which began in late 2013, spawned a sense of the possibility of overcoming the negative trend and a return to higher education in Ukraine to the European system of coordinates in relation to quality assurance.

3.2.3. Institutional strategies for continuous quality improvement

The use by higher education institutions of institutional strategies of different orientation is not a common practice in Ukrainian higher education. The traditions of national educational management do not rely on the development of the independent strategies and technologies for their implementation, and the relatively obedient performance of programs and directives, produced by public management on education. This is due to the underdeveloped system of social institutions, which causes weakness of the institutional framework of the educational sphere. Actually it determines the complete lack of conceptual documents on quality assurance that rise to the level of strategic vision on university prospects.

From a purely formal point of view, Ukraine is now in the group of countries that have 0–25% more higher educational institutions with the presence of institutional strategy of continuous quality improvement. In 2012, this group included Poland, Latvia, Portugal, Greece, Flemish Belgium, Armenia, Cyprus, Albania, and Andorra. Despite the heterogeneous composition of the group, its members can be characterized by the dominance of the training (not scientific) component in the educational system and the lack of recognized leaders of European higher education among them.

As part of the national education policy of the Government through the Ministry of Education and Science, despite the fact that it has never been given proper attention to support and now there is encouragement for the development by higher education institutions of their own institutional strategies. Only in 2014, after the adoption of the new Law of Ukraine “On Higher Education” began to form a new understanding of institutional autonomy as a prerequisite for creating individualized strategies. It is important to note that the attempts of some universities to act in this direction significantly increased the requirements for students and teachers. The positive impact of these efforts was almost automatically invalidated by the deteriorating competitive position of the institution at the education market, which is not focused on improving the quality of education in the absence of effective public demand for it.

To some extent, the role of substitute institutional strategies of universities to improve the quality of education belongs to:

- The concept of educational activities as part of the licensing and accreditation Affairs;
- Strategic plans/programs of development of higher education institutions (whose development is often associated with regular cadence of the Head of institution);
- Guidelines on quality, made in the certification of local systems of quality management;
- Available in separate institutions program measures to ensure the quality of education or equivalent documents.

It should be noted that the first two types of documents are very common, but do not meet the recommendations of the ESG and have little to do with European best practice examples.

Guidelines for quality formally meet both the recommendations of ESG, and the requirements of ISO. However, there deficiencies are often defined as the isolation from national academic context and little connection with the requirements of state education authorities.

An example of the latter type of documents can be called the Agenda for measures of quality assurance in Kyiv National Taras Shevchenko University, adopted in November 2011. It is important to emphasize that this document is long-term, it is subject to systematic performance monitoring, and the results are published in the annual reports of the Rector of the University. Both the agenda and annual monitoring reports on its implementation are public and available on the official website of the University, making them an effective instrument of institutional policy and a model of good practice.

The characteristic features of the current situation in higher education system in Ukraine is the practical absence of real involvement of external stakeholders in the development and implementation of institutional strategies of higher education institutions and their respective connection with the strategic documents because of national education policy.

3.2.4. Publication of critical and negative evaluation reports

Ukraine does not belong to the countries with a high degree of openness and transparency in society, so the publishing of critical and negative evaluations will probably cause significant damage to the image and reputation of the observed object (both fair and unfair). As a result, very popular is the only practice of criticism of higher education institutions activities by state authorities and, sometimes, by the third sector. The habit of publishing critical evaluations of their own activities outside their groups is not developed.

The authors of the research have monitored the publications of critical and negative evaluations of higher education institutions, which revealed that the main sources of their publication are: the Ministry of Education and Science of Ukraine; materials of the State Inspectorate of Educational Institutions; reviews and opinions of the Accreditation Commission of Ukraine. A lot of interesting information about the most outrageous cases can be received with some delay from the Unified State Register of Judgments. The remainder of the information array is made up of fragmented texts from books, reports on the implementation of projects, of materials of various roundtables, seminars, conferences and publications in the independent media and the Internet, including the participation of third sector organizations. Both the results of public opinion polls, and the value judgments are placed also on various websites, blogs, social networks and more. It should be considered that among them there are also openly sponsored materials that are often used both to discredit and to create the positive image of certain education institutions and their officials.

Unfortunately, there is no systematic activity on the publication of critical evaluations of education activities and the quality of higher education in Ukraine. Public monitoring and analysis of publications on the subject are not held.

3.2.5. Some observations regarding higher education quality assurance

This division is based on the Concept of Quality Assurance of Higher Education of Ukraine, developed under the Tempus project “National quality assurance system and confidence in higher education — TRUST” on the basis of studies that were conducted in 2011–2013.

The lack of a culture of implementation of needs and rights of participants of the educational process, combined with the outdated principles of educational system administration in Ukraine leads to the following negative phenomena in quality assurance of higher education:

- 1) Lack of motivation of students, teachers, employers, governmental and non-governmental organizations to improve the quality of education. There are no links between productivity of higher education institutions and resources, given by the state. Therefore, higher education institutions are not motivated to develop, objectively perform self-estimation etc.
- 2) The national quality assurance system is based on distorted and outdated “system of values” (meaning quality indicators); therefore, monitoring of the education system does not meet the objectives of improving quality. The normative definition of the term “quality of higher education” does not obtain necessary differentiation capacity; it is difficult to find a player within the system that can give a clear answer to the question: what is “good” and “bad” in higher education.
- 3) Complete and consistent system of quality assurance in the European sense, is absent in Ukrainian education. Higher education institutions partially implement it in the form of quality monitoring procedures that are performed on the basis of the same criteria for all universities, with their diverse nature not being included.
- 4) A system referred to as “quality assurance” in Ukraine, is aimed at control, pressure and punishing those who do not meet the set criteria instead of encouraging education institutions to improve it.
- 5) The existing quality assurance procedures are not transparent nor for the participants nor for the external observer.
- 6) Information about the higher education institution activities, is presented in various reports, is in most cases redundant, irrelevant and often outdated. In addition, its statistical nature does not reflect the real quality of higher education, merits and achievements of higher education institutions.
- 7) Almost all public commitments to higher education and science are not carried out as reported (financing, incentives, etc.).
- 8) All players in the quality assurance system depend on the government (i.e., created and funded by the state), their activities do not have enough trust in connection with large probability of biased decisions and actions on their part.
- 9) External stakeholders have no power in the national system of quality assurance and legal means to influence important decisions in the field of higher education.
- 10) The activities of the higher education institution staff is related to the extremely high volume of paper reports that are more important than the results of performance. The remaining time does not allow to work on improvement of the results.

These estimates relate to the period lasting up to the spring of 2014, when there real changes were launched in the system of higher education. Currently, there the transformation of the concept of quality assurance based on the autonomy of universities is being conducted and use of recommendations of the EHEA. The new version of the Law of Ukraine “On Higher Education” provided the main direction of changes, which, unfortunately, are still not fast enough.

CHAPTER 4.

SOCIAL DIMENSION OF HIGHER EDUCATION

The social dimension in the humanitarian field in general, in education and in higher education, in particular, has become increasingly important at the beginning of 21st century. If at the end of the 20th century the dominant trend was the spread, and later — the globalization of higher education, now this role is to some extent taken over by the policy aimed at combating social differentiation and building mechanisms to achieve social comfort for all participants of the educational process. Despite the fundamentally different scale and nature of social problems in the educational systems of different countries, the tendency to adapt them is universal. Ukraine is not an exception in this regard.

An active social policy of the European Union entails meticulous attention to the social dimension in the European Higher Education and Scientific Research Area, especially in the last decade. The striking evidence of global emphasis on human development is the increase of importance of social indicators in various international rankings.

In practice, our monitoring studies showed a fruitful approach that provides for the allocation of a certain socially important dilemma that could become the focus of consideration of social issues. In the monitoring study in 2012, when considering the problems of social measurement, the dichotomy between ensuring equal access to higher education and the need for positive discrimination of certain categories of citizens regarding the possibility of obtaining it were used. In this study, the authors propose to consider social issues through the prism of exercising the right for higher education using the state budget or personal funds.

The Revolution of Dignity focused public attention on the construction with the help of education of a system of social lifts and ensuring fairness in the distribution of public goods. One of the consequences of it was the saturation of the new Law of Ukraine “On Higher Education” with ideas and initiatives of social nature.

Indicator 4.1. Statistical information on the impact of students’ background on their participation in and attainment of higher education

4.1.1. Gender balance in higher education

Most of the information in this subsection is based on the analytical papers of the Research Centre of Society, based on statistical observations and opinion polls¹⁶.

The issue of gender equality in higher education is presently being actively studied in educational policy research. The focus of this research is the gender dimension in education, its content and, a bit less, the forms and methods of teaching. For adequacy of visions it is also useful to remember the gender component in various processes, practices and ideologies. But naturally

¹⁶ Kohut I. How Do Men and Women Differ: the gender (in)equality in higher education (July 2014). [Online] Available at: <http://www.cedos.org.ua/uk/discrimination/chym-vidrizniaiutsia-zhinky-i-choloviky-pro-hendernu-ne-rivnist-u-vyshchii-osviti> (in Ukr.)

the issues of the gender aspect in the administrative and academic hierarchy, particularly in higher education become noticeable.

In the Ukrainian higher education institutions totally work 158.5 thousand teachers, women make up 52.4%. Figure 4.1 provides information on the proportion of men and women at different stages of academic careers.

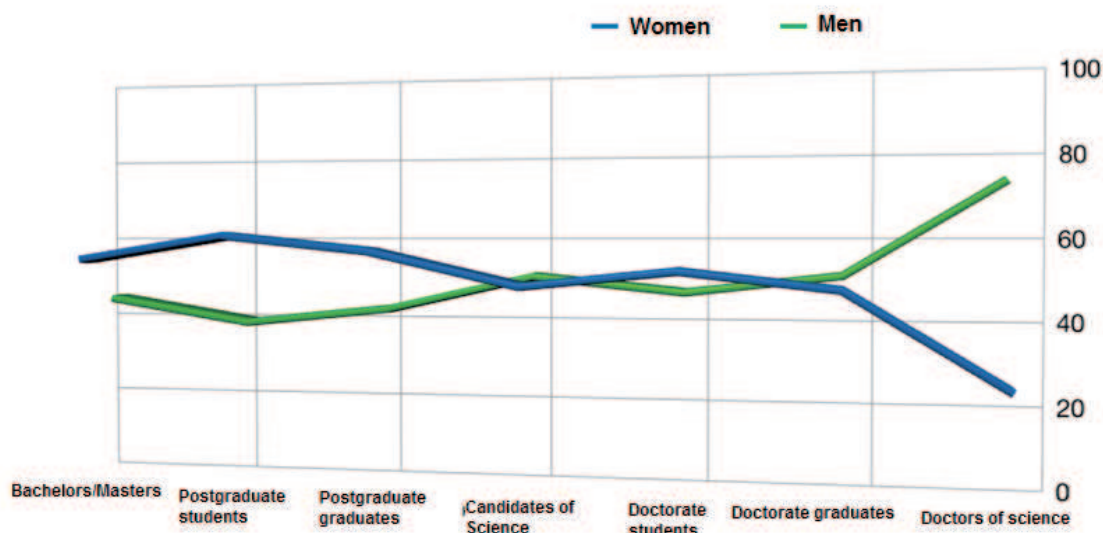


Figure 4.1: Share of men and women in a typical academic career

In the 2013/2014 academic year, women in Ukraine constituted 52.3% of all students. The Gender parity index, i.e. the proportion of women and men (determined by the method UNESCO) among students of higher education institutions of III–IV accreditation levels is 1.1, in higher education institutions of I–II levels of accreditation is 1.21. In general, it reflects the gender proportion in the respective age groups with a slight advantage in favour of women.

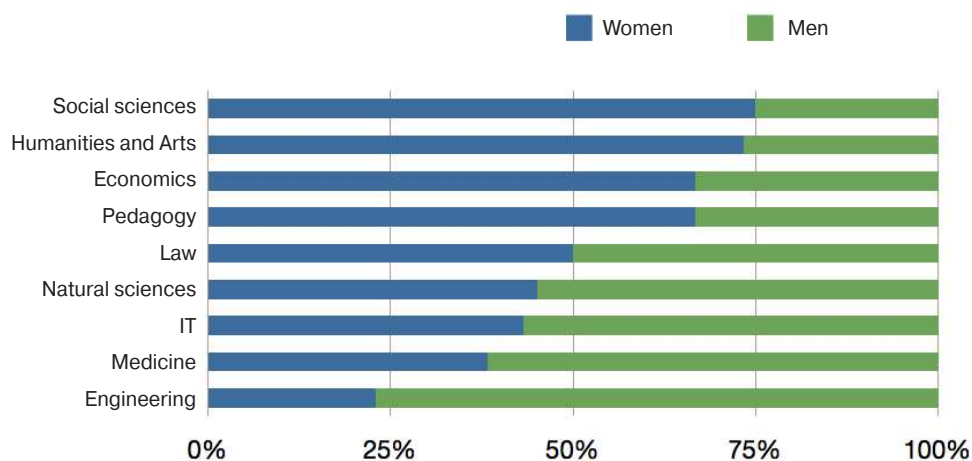


Figure 4.2: Distribution of teachers according to fields of knowledge and gender

Among teachers and students in higher education institutions are clearly distinguished “female” and “male” majors (horizontal segregation). Among teachers of higher education institutions of III–IV accreditation levels in majors in the field of social sciences women constitute — 75%, in

humanities — 73%, of economics, finance and pedagogy — 67%. In general, more than 60% of women — teachers in higher education institutions are concentrated in these fields.

The same trend, even more obvious, is typical for the division of students according to fields of knowledge (Figure 4.3).

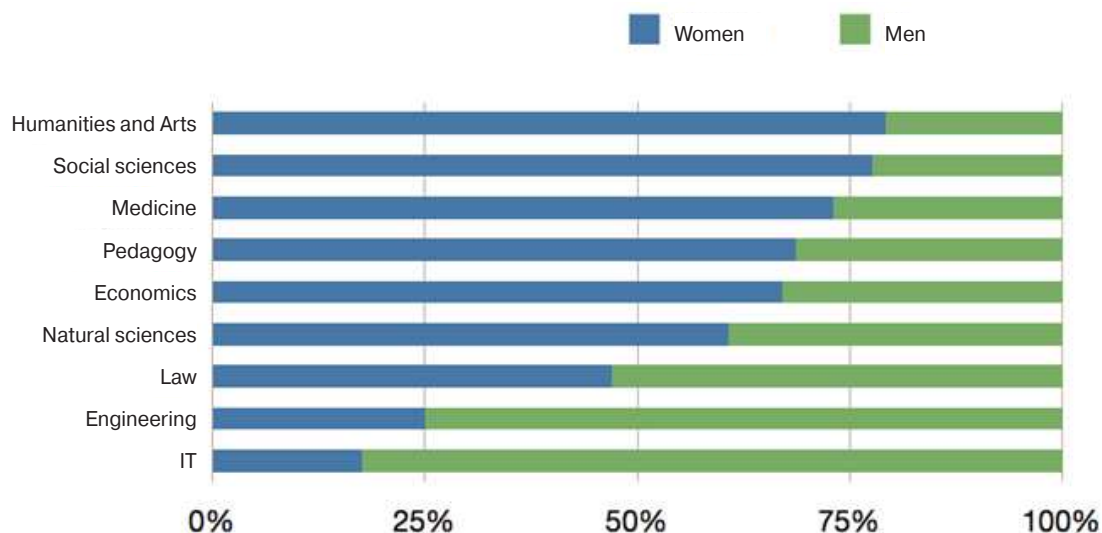


Figure 4.3: Distribution of students of higher education institutions of III–IV levels of accreditation according to fields of knowledge and gender (2013)

In Ukrainian higher education there is also vertical segregation, i.e. imbalance in the ratio of women on higher vocational levels of the administrative and teaching hierarchy.

In Ukraine, over the past 23 years, since the country's independence there has not been a single woman Ministers of education (education and science), and there have been 8 holders of this position. Only three women were appointed as deputy ministers (O.Savchenko, I.Zaytseva, I.Sovsun). Among the rectors of universities, academies and institutions of state and municipal ownership there are 20 women (9% of the total), half of whom are the heads of pedagogical higher education institutions or universities.

Slightly better is the situation at the next level — among deputy rectors of higher education institutions of III–IV accreditation levels, about 23% are women, although this figure is far from satisfactory.

According to statistical data in Ukrainian higher education institutions there is a gender pay gap — differences in salaries received by men and women. The difference in the average salary is not due to gender discrimination — women receive equal pay for equal work with men under the Unified Tariff. But this is due to a decrease in the proportion of women at each higher level of academic career and better mobility of men in the search for additional earnings outside the main job.

For some generalizations regarding gender situation in higher education area in Ukraine we will use materials of the National Ranking of Higher Education Systems “Universitas 21”¹⁷. Ukraine in 2013 took only 35th place among 50 comparable countries, but the highest value out gender

¹⁷ <http://www.universitas21.com>

components of rating are: the share of female students in higher education (100 points out of 100) and the proportion of women among academic staff in higher education (82.1 points).

We can conclude that gender issues in higher education in Ukraine is not urgent and not in the focus of public discourse. There is no public discrimination by gender, and certain elements of inequality are caused by constant cultural traditions and behavioural practices. This situation, despite some disproportions, does not place Ukraine negatively in the EHEA. Thus, as in other European countries, the transition from the principle of equal treatment to the strategy of positive action is important. This strategy involves the transfer of emphasis on providing equal opportunities to ensure equal social conditions that would contribute to the strengthening of actual gender equality.

4.1.2. Migrants in higher education

Ukraine is not among the countries that are particularly attractive for immigrants. This is due to the relatively low standard of living, economic instability, not being a party to the European Union and other political and economic organizations that have an established policy of support workers.

According to the State Statistics Service of Ukraine, the number of foreign immigrants in 2010 was 30,810 people, in 2011 — 31,684 people, in 2012 — 76,361 people, 2013 — 54,100 people. Among them up to 2,000 people per year are applying for asylum. This data reflects only registered foreigners in Ukraine, while the actual numbers, according to experts, are higher. The peculiarity of the structure of the national statistical observations makes it impossible to complete the comparison of information on migrants in higher education with other countries of the EHEA.

Due to the temporary occupation of the Autonomous Republic of Crimea, and the city of Sevastopol, absence of control of Ukrainian authorities over some areas of Donetsk and Luhansk regions, the data available in 2014 can hardly be considered as thorough.

Unlike most European countries, the largest group of immigrants in Ukraine consists of the people, who came seeking higher education. In the 2010/11 academic year in Ukrainian higher education institutions there were about 37 thousand foreign students from 128 countries, in the 2011/12 academic year — 42 thousand foreign students from 134 countries, in the 2012/13 academic year — 60 thousand foreign students from 146 countries, in the 2013/14 academic year — 59 thousand foreign students from 138 countries. Also, about 1.5 thousand people are getting postgraduate or doctoral degree or having internships.

In 2011–2012 the number of foreign students in Ukraine finally exceeded the best performance of the USSR (the Ukrainian Soviet Socialist Republic) within the USSR (the Union of Soviet Socialist Republics). While there is a steady trend of growth of both the number of foreign students and the range of their origin, we hope that the events at the end of 2013–2014 years in Ukraine will not have lasting negative consequences for the further internationalization of Ukrainian higher education.

In the 2013/14 academic year almost 53% of foreign students in Ukraine were the came from countries of the former Soviet Union. It is noteworthy that people from Turkmenistan constitute 23.4% of all foreign students. There are also a lot of students from Azerbaijan, Russia, Uzbekistan,

Moldova and Georgia. About 25% of foreigners in Ukrainian higher education institutions are representatives of Asia (excluding the former USSR countries). Among them people from India, Iraq, China, Jordan and Turkey dominate. Around 16% of foreign students are from African countries (Nigeria, Morocco, etc.).

Most foreigners in Ukraine (40%) study medicine, engineering, finance and economic disciplines. Most foreigners are studying in the recognized university cities: Kharkiv, Kiev, Odessa and Dnipropetrovsk. By 2014 almost one fifth of foreigners were studying in the higher education institutions of the Autonomous Republic of Crimea, Donetsk and Luhansk.

By 2014, the practice of inviting foreign teachers to work in Ukrainian universities was not widespread because of resource constraints and the difficulties of official recognition of their academic qualifications. Exceptions were made for those teachers, who came to the country at the expense of international exchange programs and technical assistance. The new version of the Law of Ukraine "On education" actually removed administrative barriers for attracting foreign teachers.

The rapid increase in the number of Ukrainian citizens who are pursuing higher education abroad is very noticeable. Their numbers are comparable with the number of foreign students in Ukraine. Most Ukrainian students are studying in higher education institutions in Poland, Russia and Germany. In recent years, there the number of Ukrainian students going to Poland has significantly increased, being actively supported at different levels by the local government and the academic community. There is a trend of increase of the number of representatives of Ukraine in the universities of countries with the main concentration of domestic labour diaspora.

In fact, foreigners make up about 3% of the students in Ukraine. This figure is quite low as compared to the leading countries which already operate with numbers between 10–20% and try to increase the number of international students to 25–35%. The presence of foreigners in Ukrainian universities should become an important indicator of development and attractiveness of the country, which requires compliance of the national educational system with the best world standards, of the major trends in educational transformation and research and attracting investment resources for its further development.

Among foreign students in Ukraine there are very few representatives of developed countries. Among the representatives of OECD countries in Ukrainian higher education institutions citizens of Poland and Israel study, due to the specific nature of relations with these countries.

Many obstacles in attracting students from Asia and Africa are connected with unjustified limitations in granting invitations and visas. Most of them are due to static thinking of Ukrainian migration officials who still consider preserving barriers to access of foreign students to be a form of protecting public interest, rather than inhibition of high-tech exports.

A key prerequisite for significant expansion of the number of foreign students in Ukraine is the diversification of learning languages not only by increasing English language programs, but by implementation of educational programs in major European and most widespread Oriental languages.

A great opportunity to increase the attractiveness of higher education in Ukraine is to create opportunities for international students to get along with Ukrainian higher education a diploma of one of the EU countries, to have an opportunity to participate in various international mobility programs, including continuing education in Europe and getting the Diploma Supplement of European example.

Real progress in this direction is possible only with the creation and subsequent implementation of a long-term governmental strategy of internationalization of Ukrainian higher education, which should be based on consensus of the main political actors of the country.

4.1.3. Influence of parental education on higher education attainment

It should be noted that the subject of the impact of parents' education on obtaining education of various levels and directions by their children has not found adequate expression in the works of Ukrainian scientists. Sociological studies in neighbouring countries with similar models of social organization and development of education (Poland, Russia, the Baltic countries) illustrate the validity of the hypothesis of the presence of a statistically significant link between social and professional status of parents and children.

The transition to mass higher education in Ukraine during the independence period facilitated the access to it of all groups of the population. Of course, the best opportunities were gained by children whose parents have a high social and professional status, but relatively bigger growth of chances to receive higher education was gained by the children of parents, who have a lower social status. It should be noted that the stronger influence on educational perspectives of children has the educational status of father and the social status of mother. This concerns the established perception the prestige of higher education that has caused persistence of parents of all social groups in educating children and comprehensive support of it.

In today's Ukrainian society there is a tendency of grouping children according to the social and professional status of the parents, starting with the level of primary school. This causes a major impact in the selection on the level of training, social relations and culture of behaviour of the younger generation. In higher education, this is reflected in the choice of the education institution, major and form of learning.

Humanization of higher education formed a new structure of supply at the labour market, at which there significantly increased the percentage of citizens with economic, legal and humanitarian education. This contributed to a substantial increase of the general cultural level, adaptive capacity and entrepreneurial initiatives of population. However, the level of professionalism in the field of natural sciences and engineering remained unchanged or even decreased. At the same time, the structure of professional employment has not undergone radical changes. As a result, the importance of such skills of youth as computer training and communication skills has increased. The acceleration of career growth at the early stages is promoted with the combination of education and work in the major, but, subsequently, lower quality of training, caused by it, can play an inhibitory role in achieving higher levels in the professional hierarchy.

The presence of a higher education diploma gradually transformed from being a sufficient factor of achieving (comparative) material well-being to being a necessary one. Currently, the lack

of higher education is virtually impenetrable barrier to professional and career success, but its presence does not guarantee its achievement. Under such circumstances, a higher social and professional status of parents provides best welfare of the younger generation that inherits necessary for their own success social relationships and behavioural standards. Moreover, a higher educational level of the parents and their cognitive activity and commitment to lifelong learning, determined by it, have a positive effect on increasing the effectiveness of transfer of knowledge and useful skills to children.

Connection between the level of education of younger generation and material well-being is weaker compared to its connection with the social and cultural context of the family (family cultural capital, development of social relationships).

Indicator 4.2. Policy approaches to widening access to and participation in higher education

4.2.1. Overview of the main approaches

One of the basic landmarks of modern higher education is its mass character. It provides access to higher education to the public through an extensive network of higher education institutions of different forms of ownership, low competitive barrier and excess volume license, a sufficiently large number of state order and affordable prices of contract training, especially for those who study part time. Thus, we can state that there is broad access to higher education in accordance with the Constitution of Ukraine. The expansion of access to higher education is an urgent problem for certain specific categories of citizens.

The selection of the major and form of higher education is largely determined by social stereotypes of public regarding its prestige as a whole, the attractiveness of individual disciplines and professions. The practice of opening new educational programs proves that accent is made not so much on the situation at the labour market, but on the popularity of specific educational programs among applicants and their parents.

A key problem of the limited access to higher education is widespread poverty in Ukraine. This is due to the fact that obtaining an education requires not only formal tuition (not paid by the students on budget funding), but also other kinds of expenses associated with living (especially in another city), food, clothing, transportation, literature etc.

The world practice knows many forms of financial compensation for the worst starting conditions of education. In Ukraine, unfortunately, most of these mechanisms (grants, loans, transfers, and subsidies) are not available. Under these conditions, students often resort to finding work in their free time from or instead of training, taking up part-time education, or having repeated breaks in obtaining an education. For a substantial part of youth the economic factor is decisive, when choosing higher education institutions and a major.

For poor families even such compromises do not really make higher education affordable. The most problematic category is young people from families with low income combined with socialization difficulties, as well as orphans and partial orphans. Though, adaptable citizens are able to find budget-funded studies and also plans, on at least some solutions to other material

problems through their own work or different types of social support from the government, trade unions or sponsors. However, the price of such solutions can be a significant prolongation of training and the poor quality of achieved education.

Fortunately, for many parents it is very important to have motivation for providing higher education to children. They are willing to give up many of their own needs in order to provide their children with this opportunity.

Rural youth has greater difficulties to access higher education. It is caused by low levels of available funds, some social isolation and limited access to additional educational services (pre-university preparation, tutoring). Special attention is needed for ensuring fair conditions of obtaining higher education for the disabled, who must overcome both difficulties with the preparation and admission to higher education institutions, and lack of an adequate learning environment, special pedagogical techniques and lack of public attention to them. One cannot ignore the specific difficulties of some representatives of national minorities, who due to compact living and learning in national schools often do not have the necessary degree of Ukrainian (or even Russian).

An important mechanism to compensate this provides a systematic impact on the achievement of real accessibility of higher education, consists of legally established procedures for non-competition entry of a great number of categories of socially vulnerable young people. This tool was inherited from the Soviet educational system, significantly enriched and developed in the last twenty years. There was more information about it in the Monitoring Research of 2012. After the introduction of the new Law of Ukraine “On Higher Education” the number of privileged categories was somewhat reduced, due to a provision of equal access requirements, and numerous abuses in this area. This step is pretty bold considering long-term habit of populist practices that were used by the main political parties, and highly paternalistic ideology of the public consciousness.

We hope that in the future the practice of positive discrimination of certain categories will be replaced by conventional mechanisms of compensation for lesser starting conditions for education.

4.2.2. Monitoring

The implementation of any policy, as well in higher education, requires an integral component of continuous monitoring of appropriate management practices. Monitoring of access to higher education can be effective if in case of clear establishment of objectives, institutional certainty and resource support. A certain system of such monitoring has been developing in Ukraine over the past decade.

The main participants of this system are:

- Public institutions: Committee on Science and Education of the Verkhovna Rada of Ukraine (regularly conducts parliamentary and committee hearings on various aspects of national education, including this perspective), the Ministry of Education and Science of Ukraine (which controls the observation of rights of citizens through the approval of admission to universities and support cases of each applicant through the Single National Electronic Database on Education, Department of higher Education periodically summarizes

educational practice and prepares information and reference materials for the board of Ministry of Education and Science), State Inspectorate of Educational Institutions (performs scheduled and unscheduled inspections of violations of legal and regulatory provisions relating to the rights of entrants and participants of the educational process, summarizes the results of the checks and sends them to the Ministry of Education and Science and the Accreditation Commission of Ukraine), Ukrainian centre for Educational Quality Assessment (UCEQA) (administered by an external independent assessment, which allows monitoring of the educational level of the entrants and analyse current condition of quality of secondary education);

- Institutions of civil society: Civil network OPORA (non-governmental, non-partisan and financially independent nationwide network of civil society activists, which makes direct observation of human rights of citizens at the most vulnerable points of the admissions process to higher education institutions, including holding the External Independent Assessment), Alliance Programs to assist external testing in Ukraine (Alliance USETI) and Information System “Konkurs” (www.vstup.info) (regularly publishes information from the Single State Electronic Database on Education about the submission of documents to higher education institutions and student enrolment status, allowing every person to check the observation of rights of citizens in this area), expert and analytical centres: Centre of Study of Society, ICF “International Foundation on Research of Education Policy,” Charity Foundation “Institute of Education Development,” East Ukrainian Foundation for Social Research and other (perform diverse research and monitoring analysis of educational policy and its implementation in Ukraine).

Monitoring programs of governmental organizations are mostly formal, not coordinated within a common education policy, often using unreliable statistics and not working on the development of research methodology. Monitoring programs of independent institutions are characterized by fragmentation, large difference in the depth of analysis and levels of methodology, lack of resources.

Indicator 4.3. Opening access routes to higher education and providing adequate student services

4.3.1. Non-traditional access routes to higher education

According to the understanding, which was established in modern European educational practice, the ways of access to higher education, which allow to enter the educational program without having full compliance with the traditional set of requirements are considered to be non-traditional.

In Ukraine traditionally a mandatory prerequisite for obtaining a higher education is the presence of a secondary education diploma. This document can be obtained both after graduating from senior secondary school (full-time, evening, external studies and distance learning) and after graduating from vocational school or an institution of higher education (college). In the latter case, it is possible to complete a secondary education and getting an initial degree of higher

education (Junior Specialist Degree) simultaneously. Moreover, the access to higher education is open to holders of secondary education foreign diplomas, which is the equivalent to Ukrainian diploma on secondary education.

In 2008, Ukraine introduced an External Independent Assessment, which serves as an admission test to higher education institutions on the basis of a complete secondary education. During this time there was a particular evolution of admission requirements: in the beginning the admission to the Bachelor's program two tests had to be passed, later — three. In the first years of admission only those, who had two test certificates with the scores below 124 points (including certificate of Ukrainian language and literature test), could not enter higher education institutions. Later this number increased to three (including certificate of Ukrainian language and literature test), but one of them (core subject) had to be at least 140 points. In practice, this meant the elimination of 10–15% of applicants at the first stage and 15–20% today. Some prestigious universities in recent years practiced more stringent conditions of selection of applicants (setting a minimum score of 150, 160 or even 170 for the core subject for all or specific programs).

Between 2008 and 2014 the External Independent Assessment status had no legislative provisions and was regulated only by documents of the Government and the Ministry. One of the results was the emergence of a number of algorithms, which provided many exceptions from the general scheme of requirements for certain categories of applicants. The new version of the Law of Ukraine “On Higher Education” (2014) sets the External Independent Assessment to be obligatory for admission to higher education programs. It should be understood that in the transition period a number of exceptions will be preserved.

Foreigners and stateless people, who are eligible to join Ukrainian higher education institutions without passing External Independent Assessment, constitute an exception. The results of similar assessment procedures in other countries are not taken into consideration.

However, a number of graduates of Ukrainian schools that have failed to pass the External independent assessment, or decided not to try their luck in recent years have chosen the path of obtaining a higher education abroad. Those who wish, have the opportunity to transfer to the Ukrainian higher education institutions.

The introduction of the External Independent Assessment is considered to be the most successful reform in education during the period of independence which allowed to substantially reducing the level of corruption during university admissions, more or less ensuring equal access to higher education. Universalism of the External independent assessment is quite justified and understandable in the selection of applicants for standard educational programs and budget funding. At the same time, when it comes to obtaining a higher education at their own expense or admission to educational programs or non-standard forms of content, the compulsory testing, according to the authors, may unduly restrict access to higher education.

4.3.2. Student services

The system of student services in the EHEA is regarded as an important integral part of the social dimension that can influence the quality of education, student experience and access to higher education. There are three main types of student services, which include: academic tutoring,

assistance in career building and psychological consulting. Additional types of student services are: health care, housing, athletic programs, social and cultural activities. Special attention in a number of countries is paid to a number of people with disabilities and young talents.

There is no established system in Ukraine for these types of student services.

Formally, the practice of academic tutoring in Ukraine was introduced in 2005 together with the credit-module system of organization of education process. However, the lack of a clear understanding of the tasks of this institution and the virtual absence of opportunities for student to form individual educational trajectory made this intention stillborn. This does not cancel individual success of tutoring in Ukraine, but it should be connected with initiative and personal qualities of the individual members of the academic community.

Departments of career development were established in most higher education institutions on direct orders from the Ministry. Their activities are not coordinated and have no appropriate personnel and financial support at the national level. The main functions of these units include developing soft skills by students, organizing various fairs and career days, establishing contacts between students, recruiters and employers. The success of this work is fairly associated with the profile of the education institution and personal skills of the personnel of the department.

According to the order of the Ministry of Education and Science of Ukraine, psychological services should have been established in all higher education institutions of Ukraine. Special budget funding for their operation was not provided even for state higher education institutions. This entailed the vision of such higher education institution departments to be an additional financial burden without awareness of use of this service. In most higher education institutions psychological services didn't start to work at all.

The situation with additional student services is more optimistic.

In Ukraine a leftover of the Soviet era system are medical, and health care institutions for students. They are actively working in large university centres. There should be no illusions about the quality and possibility of providing by them of high-tech medical services because of the general crisis in the Ukrainian health care system. However, this system can provide primary care, outpatient care, anti-epidemic and, sometimes, and recreational activities.

An important type of student services provides a comfortable stay in dormitories during training. In Ukraine, about one third of all full-time students are living in dormitories, with the demand for dormitories not being fully satisfied. The cost of living in dormitories is usually socially acceptable, but the conditions in most of them are far from European standards. Most students live in rooms with 3 and 4 beds, there are equipped places for collective cooking, toilets are often designed for floor residents, and a quite common problem is the lack of hot water on a regular basis or during a long period of time. This kind of service corresponds to the current state of housing and communal services in the country and we hope for its improvement in the context of reform in municipal as well as educational spheres.

Sports life at a Ukrainian university students starts with mandatory physical education classes during the full Bachelor program with annual credits. Of course, this entails the availability of professional teaching, coaching staff and certain sports infrastructure in education institutions,

which is provided by licensing requirements. Some universities have highly developed sport facilities, which include large stadiums, multipurpose sports complexes, swimming pools etc. Due to it there are systems of student sports clubs, sections, amateur and semi-professional (sometimes — professional) team sports, student competitions at local, regional and national levels. The level of this work is proved by high results of performance by Ukrainian students at the World Universiades.

In fact, Ukrainian students have the opportunity to realize, to some extent, their own sports preferences. However, their personal achievement, in most cases, does not provide for a special status or position, does not give rise or a privileged position in education institution or any benefits. A greater role of sporting life can be observed in specialized sports and athletic or military education institutions or faculties, and in some universities with a long tradition of the cultivation of sport. It is interesting, that sociological studies show no significant effect of students' sports activities on their healthy lifestyles.

The social and political activity of students in Ukraine is traditionally high. Despite the fact that the vast majority of universities are trying to comply with the legal requirements being apolitical and not welcoming political activities in campuses, Ukrainian students traditionally are at the forefront of the participants of mass social and political events (including successful revolutionary actions of 1990 ("Revolution on Granite"), 2004 ("Maidan"), 2013–2014 ("Euromaidan" or "Revolution of Dignity")). Students actively participate in various political campaigns, election campaigns, social and environmental movements etc. Many political parties in Ukraine have their youth organizations and centres, in which the leading role is played by current students or graduates. Inside the university students social activity appears in the work of the student government, autonomy and powers of which is embodied in the Law of Ukraine "On Higher Education". Student government is conducted in various forms at the levels of academic groups, faculties, dormitories, higher education institutions. Another activity of student government are student scientific societies, bringing together young researchers and assist in the implementation of their projects. Considerable importance belongs to national student organizations, including the Ukrainian Association of student government, which was accepted to the European Community of Students, who are involved in projects and programs supported by the European Union.

A very important role in the life of Ukrainian students is given to cultural and artistic initiatives. The desire of students to self-realization in this area has a long tradition in Ukraine, with this being applied to students who are obtaining higher education in education institutions of various profiles. The rich traditions of national folk art, which are passed from generation to generation, cause hereditary predisposition to vocal, dance, arts and crafts. Development of traditional and modern art at universities is favoured by specialized units in this area that have highly qualified artistic and pedagogical staff and the necessary facilities and equipment. It is worth mentioning the significant role of student cultural and artistic activity in the formation of national identity, aesthetic taste, creative abilities and imagination and enriching national creative elite with new content, faces and accents.

People with special needs (disabled people) have always had a privileged right to obtain higher education, but the creation of special conditions and using their methods of teaching have not received proper distribution. The state traditionally supports the activities of a number of higher

education institutions of pre-university level (colleges) which are specialized in teaching various categories of disabled people. In most universities training of disabled people is possible due to volunteer help of fellow classmates, teachers and administration. One should recall the attempt to create a specialized university for this category of students — the Open International University of Human Development “Ukraine”, in which was established a necessary nationwide branch network. Unfortunately, this educational institution was not given systematic state or municipal support, preventing the realization of plans and ideas. However, in Ukraine there are quite actively developing special techniques for teaching the blind, deaf and other categories of people who realize themselves mainly at pre-school and secondary education levels. The new version of the Law of Ukraine “On Higher Education” provides additional requirements for higher education institutions regarding the establishment of appropriate special conditions of inclusive education.

Ukraine has a developed network of student competitions, contests and other intellectual competitions, which allow to effectively identify talented and promising students. The persons so identified receive certain advantages in the selection of applicants for the next educational level, as well as advanced educational programs. A National system that would concentrate on the most talented youth in innovative scientific and technological areas in the leading universities does not exist.

Indicator 4.4. Fees and financial support

4.4.1. Students’ expenses

Expenses for students in Ukraine include the following basic components:

- tuition fees;
- additional expenses associated with education;
- cost of living and food;
- cost of transportation, social and cultural needs etc.

People, who, by competitive selection, are entitled to study on state budget funding, do not pay formal tuition fees in Ukraine. Moreover, they, unlike other students, are eligible for state scholarships (details are provided below).

The official tuition fee is paid by students, who have not earned the right to study on budget funding. Thus, education is paid for all students of private and a part of students of municipal higher education institutions. Payment is made on the basis of contracts.

It has become common practice that students can be easily transferred from budget funding to contract basis. However, the reverse transformation is very problematic and often has corrupt component.

The following tables provide information on the sources of funding of education of students and applicants of 2011/12–2013/14 academic years:

Table 4.1: Number of students of higher education institutions according to the sources of funding of their education

	In Higher Education Institutions of I-II levels of accreditation			In Higher Education Institutions of III-IV levels of accreditation			In Higher Education Institutions of I-IV levels of accreditation		
	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14
Total number of people	356768	345235	328993	1954789	1824906	1723685	2311557	2170141	2052678
Including those, who are funded by									
State budget	128468	125634	124347	777379	767596	750434	905847	893230	874781
Local budgets	79601	77950	76976	18372	18379	18815	97973	96329	95791
Public authorities, legal entities	391	340	314	8886	6519	7870	9277	6859	8184
Individuals	148308	141311	127356	1150152	1032412	946566	1298460	1173723	1073922
Proportion of students (%), funded by									
State budget	36.0	36.4	37.8	39.8	42.1	43.5	39.2	41.2	42.6
Local budgets	22.3	22.6	23.4	0.9	1.0	1.1	4.2	4.4	4.7
Public authorities, legal entities	0.1	0.1	0.1	0.5	0.3	0.5	0.4	0.3	0.4
Individuals	41.6	40.9	38.7	58.8	56.6	54.9	56.2	54.1	52.3

Table 4.2: Admission of students to higher education institutions for an initial cycle according to funding sources of their education

	In Higher Education Institutions of I-II levels of accreditation			In Higher Education Institutions of III-IV levels of accreditation			In Higher Education Institutions of I-IV levels of accreditation		
	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14
Total number of people	105086	99807	93888	314530	341290	348051	419616	441097	441939
Including those, who are funded by									
State budget	38635	37654	35338	145113	169811	166170	183748	207465	201508
Local budgets	22909	22883	21851	3830	4326	3959	26739	27209	25810
Public authorities, legal entities	120	127	73	977	811	947	1097	938	1020
Individuals	43422	39143	36626	164610	166342	176975	208032	205485	213601
Proportion of students (%), funded by									
State budget	36.8	37.7	37.6	46.2	49.8	47.7	43.8	47.0	45.6
Local budgets	21.8	23.0	23.3	1.2	1.3	1.1	6.4	6.2	5.9
Public authorities, legal entities	0.1	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.2
Individuals	41.3	39.2	39.0	52.3	48.7	50.9	49.5	46.6	48.3

It should be noted that there are four sources of funding of education for students in Ukraine. Funding from the state and local budgets are included in the budget funding (students do not pay tuition fees). Funding by public authorities and legal entities constitutes education on contract basis, but the related costs are not carried by households (The number of students, who belong to this category is not great, that is why the authors will not analyse it separately). Funding by individuals is a classical tuition, which is done by households.

Due to demographic processes there is an obvious reduction in the total number of students. Long tradition of national public policy is to restrain or reduce budget places, but always slower than reducing the number of potential applicants. As a result, the absolute number and proportion of students studying at the expense of individuals is gradually reducing, though remains at the half the total enrolment (minimum proportion of budget places was about 35% in the mid-2000s).

The following table provides information on the funding of education for students and applicants of 2013/14 academic years according to forms of ownership of higher education institutions:

Table 4.3: Number of students of higher education institutions at the beginning of 2013/14 academic year according to funding sources of education and forms of ownership of higher education institutions

	In Higher Education Institutions of I-II levels of accreditation			In Higher Education Institutions of III-IV levels of accreditation			In Higher Education Institutions of I-IV levels of accreditation		
	Ukraine	State and Municipal Higher Education Institutions	Private Higher Education Institutions	Ukraine	State and Municipal Higher Education Institutions	Private Higher Education Institutions	Ukraine	State and Municipal Higher Education Institutions	Private Higher Education Institutions
Total number of people	328993	296215	32778	1723685	1565385	158300	2052678	1861600	191078
Proportion of students (%) according to forms of ownership of higher education institutions	100.0	90.0	10.0	100.0	90.8	9.2	100.0	90.7	9.3
Including those, who are funded by									
State budget	124347	124235	112	750434	750286	148	874781	874521	260
Local budgets	76976	76976	0	18815	18805	10	95791	95781	10
Public authorities, legal entities	314	179	135	7870	7661	209	8184	7840	344
Individuals	127356	94825	32531	946566	788633	157933	1073922	883458	190464
Proportion of students (%), funded by									
State budget	37.8	41.9	0.3	43.5	47.9	0.1	42.6	47.0	0.1
Local budgets	23.4	26.0	0.0	1.1	1.2	0.0	4.7	5.1	0.0
Public authorities, legal entities	0.1	0.1	0.4	0.5	0.5	0.1	0.4	0.4	0.2
Individuals	38.7	32.0	99.2	54.9	50.4	99.8	52.3	47.5	99.7
Proportion of students (%) funded by state and local budgets according to forms of ownership of higher education institutions									
	100.0	99.9	0.1	100.0	100.0	0.0	100.0	100.0	0.0
Proportion of students (%) funded by individuals according to forms of ownership of higher education institutions									
	100.0	74.5	25.5	100.0	83.3	16.7	100.0	82.3	17.7

**Table 4.4: Admission of students to higher education institutions for an Initial cycle
in 2013 according to funding sources of their education and forms
of ownership of higher education institutions**

	In Higher Education Institutions of I-II levels of accreditation			In Higher Education Institutions of III-IV levels of accreditation			In Higher Education Institutions of I-IV levels of accreditation		
	Ukraine	State and Municipal Higher Education Institutions	Private Higher Educa- tion In- stitutions	Ukraine	State and Municipal Higher Education Institutions	Private Higher Educa- tion In- stitutions	Ukraine	State and Municipal Higher Education Institutions	Private Higher Educa- tion In- stitutions
Total number of people	93888	83666	10222	348051	322647	25404	441939	406313	35626
Proportion of students (%) according to forms of ownership of higher edu- cation institutions	100.0	89.1	10.9	100.0	92.7	7.3	100.0	91.9	8.1
Including those, who are funded by									
State budget	35338	35338	0	166170	166170	0	201508	201508	0
Local budgets	21851	21851	0	3959	3959	0	25810	25810	0
Public authorities, legal entities	73	42	31	947	923	24	1020	965	55
Individuals	36626	26435	10191	176975	151595	25380	213601	178030	35571
Proportion of students (%), funded by									
State budget	37.6	42.2	0.0	47.7	51.5	0.0	45.6	49.6	0.0
Local budgets	23.3	26.1	0.0	1.1	1.2	0.0	5.8	6.4	0.0
Public authorities, legal entities	0.1	0.1	0.3	0.3	0.3	0.1	0.2	0.2	0.2
Individuals	39.0	31.6	99.7	50.8	47.0	99.9	48.3	43.8	99.8
Proportion of students (%) funded by state and local budgets according to forms of ownership of higher education institu- tions									
	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0
Proportion of students (%) funded by individu- als according to forms of ownership of higher edu- cation institutions									
	100.0	72.2	27.8	100.0	85.7	14.3	100.0	83.3	16.7

One third of students at state and municipal higher education institutions of I–II levels of accreditation and 1/2 — of III–IV accreditation levels, have to pay tuition fees, with these numbers tending to decrease due to the above reasons. It is clear that in private higher education institutions almost all students are to pay tuition fees (by 2009 there was a practice of allocating long-term state soft loans for student learning that were accessible regardless of the form of ownership of higher education institution, which later was suspended).

The greatest part of the tuition fees of students is given to the state and municipal higher education institutions (74.5% of students studying on a contract basis in higher education institutions of I–II levels of accreditation, 83.3% — of III–IV accreditation levels, 82.3% total). A small portion of the funds goes to the private sector (25.5% contracted at universities and II levels of accreditation, 16.7% — III–IV accreditation levels, 17.7% overall), with the cautious growth on the I–II levels of accreditation, and on the III–IV levels of accreditation but totally in the higher education system

there is a steady reduction in revenues from the students studying on a contract basis in private higher education institutions. It can be noted that the lack of training opportunities in private higher education institutions on state funding is the main reason for their rapid degradation and by now the number of students there constitutes only 9.3% of the total number, and in 2013 set even 8.1% (in better times achieved 15%).

Long-term policy of guidance of all household spending on higher education in state and municipal higher education institutions causes systemic impact on the industry, which can be seen in the following consequences:

- rough distortions of competition in favour of public sector of higher education;
- leaching financial resources of independent educational institutions that reduces the potential of creativity and development of national higher education system;
- degradation of the private sector, which impoverishes the diversity of the educational landscape and offers innovative and non-conventional education programs.

The understanding of the disastrous nature of such a policy led to the establishment in a new version of the Law of Ukraine “On Higher Education” of rights of private higher education institutions to receive budget funding, which could become a reality in 2015–2016.

The priorities of choice by households of the directions of funding higher education through the studying on contract basis are interesting. At the level of Junior Specialist the most popular is Pharmacy (87.9% of students study at the expense of individuals), Law (78.1%) and Services (62.8%). At the level of Bachelor and cross-cutting Specialist/Master the most attractive are: Pharmacy (98.5%), Services (80.7%), Veterinary (79.5%), Journalism and Information (78.1%), Economics and Business (76.7%), Social and Political Sciences (71.4%) and Social Security (71.1%). At the other extreme are the specialties with the lowest proportion of students studying on contract basis. At the level of Junior Specialist — Marine Engineering (1.7%), Electronics (6.2%), Natural Sciences (7.6%), Chemical and Engineering (9.8%). At the level of Bachelor — Physics and Mathematics (5.7%), Aviation and Rocket-space equipment (5.8%). It is clear, that the choice is determined by today’s real labour market needs and minimality of period of return on investment.

The amount of tuition fees at higher education institutions depends on a set of objective and subjective factors. These include: major, location and status (brand) of the higher education institution, form and language of training, competitive state of the local markets of labour and education. Tuition has a differentiated nature, not easy to objectify, and the proposed methods of calculation are still not able to take into account all the factors of pricing in a balanced way. It should be noted that the Laws of Ukraine provide that the amount of tuition fees shall be determined for each level of education in the national currency — hryvnia and can be changed only within the official inflation index (for a long period its change was forbidden and that this caused considerable damage to the resource base of higher education institutions).

The tuition fee in Ukraine is not too high, even compared with low income families. There is no clear and sustainable proportion between the value and quality of education, so there is no direct link between them, it is possible to get a decent education for little money and vice versa, and there are elements of manipulating the price of the quality indicators on behalf of the brand state

universities. The devaluation of currency in 2014 led to lower prices of educational services by 30–40% in currency terms. The current economic situation does not allow higher education institutions to compensate for these losses in full. The annual average price of prestigious full-time Bachelor's program in the metropolitan higher education institution (Fall 2014) is 700–800 euros and part-time studying — 300–400 euros. According to expert estimates, tuition of similar programs in other major university centres constitutes 70–80% for full-time studying and 80–90% for part-time studying as compared to the relevant capital indicators. In smaller cities you can find offers that make up 50–60% for full-time studying and 65–75% for part-time studying.

It should be noted that the amount of tuition fees does not depend or weakly depend on the material wealth of the family and student academic achievement.

Individual attention is paid to learning environment of foreigners in Ukrainian universities. The general rule is that they cannot expect to study on budget funding and also pay for educational services more as compared to local students. Differentiation of tuition between different majors, as well as the capital and the regions for foreign students is significantly lower. The price usually increases when the training is conducted not in Ukrainian (Russian) languages but in English or another foreign language.

Other costs associated with university studies include the purchase of books, a personal computer, stationery, supplies, and sometimes additionally paid educational services. The structure and the amount of these costs are highly individual and can be both either small or infinitely high. This category of spending often includes corruption component (e.g. bribes for exams and tests are common in great part higher education institutions, etc.).

The cost of accommodation and food depends on many factors, but considering Ukrainian reality can be effectively minimized to UAH 2000–3000 in the capital and UAH 1500–2000 elsewhere. Moreover, these amounts may include some costs for transport services and even social and cultural needs.

4.4.2. Student income and public support

The income of students in Ukraine consists of several sources:

- social and academic scholarship, which is received by most students of state and municipal higher education institution, studying on budget funding;
- financial support from their families;
- personal income from employment and entrepreneurship;
- benefits in pay for transport, cultural and educational services (museums, theatres, etc.);
- grants, donations and other types of community support.

Financial support for students from the state is carried out mainly through the payment of student scholarships that have social and academic nature.

Social scholarships are given to seven main categories of students studying on budget funding. The amount of social scholarships is defined by the Cabinet of Ministers of Ukraine depending on the level of accreditation of the higher education institution. Since 2012, their amounts are given in the table below:

Table 4.5: The amount of social scholarships since 2012 (monthly; UAH)

Category	Higher Education Institutions of I-II levels of accreditation	Higher Education Institutions of III-IV levels of accreditation
orphans and persons deprived of parental care, as well as students who during studying at the age of 18 to 23 years were left without parents	850	1760
students and cadets from low-income families	599.5	795.7
students who have the status of disabled children and belong to I-III disabled groups	599.5	795.7
students who are disabled because of problems with ability to see and hear	825	1095
students from among the soldiers who are war invalids	825	1095
students who according to the Law of Ukraine "On the status and social protection of citizens affected by the Chernobyl disaster" have guaranteed benefits in the setting of grant	550	730
students who chose mining majors, whose parents have died or became disabled due to injuries at work	550	730

In addition to the usual social scholarships are paid social scholarships of Verkhovna Rada of Ukraine for students-orphans and children from poor families. Each year relevant grants are allocated to the appropriate 150 persons, including 50 students from higher education institutions of I–II levels of accreditation in the amount of UAH 750 per person and 100 scholarships to students from higher education institutions of III–IV levels of accreditation in the amount of UAH 900 per person.

Academic scholarship acquired specific features under local conditions. It is obtained by 50–70% of students studying on budget funding (official sources tend to the upper limit and sociological researches record lower rates).

The amount of academic scholarships is set according to the average score of student. The following table shows the current amounts of academic scholarships that have not increased since 2012:

Table 4.6: The amount of academic scholarships since 2012 (monthly; UAH)

	Higher Education Institutions of I-II levels of accreditation	Higher Education Institutions of III-IV levels of accreditation
Single academic scholarship (average score 4.0–4.99)	550	730
High academic scholarship (average score 5.0)	620	830

The main factor for the increase of academic scholarships is the active work of student organizations that have achieved considerable success in 2000–2012. An indication of this is a higher level of scholarship support for students in Ukraine than in Russia.

In order to motivate students to choose certain majors there is a system of allowances to academic scholarships:

- 10% increase of scholarships for students enrolled in pedagogical education programs, in particular, teachers in areas of physical education, dance, music, fine and decorative applied art, history, philology, chemistry, biology, geography, computer science;
- 18% increase of scholarships for students enrolled in the following directions: physics, applied physics, mathematics, mechanics, mining;
- 21% increase of scholarship for students who study physics, mathematics, and, simultaneously, gain the qualification of teachers.

To support students with significant academic achievements, a system of state scholarships (of the Cabinet of Ministers of Ukraine, of the Verkhovna Rada of Ukraine and of the President of Ukraine), as well as nominal scholarships of Academic Councils of higher education institutions was established. Scholarships for the senior state bodies are received by about 1,200 students annually.

It should be noted that the lack of social and academic scholarships for all students of private higher education institutions, all students studying on contract basis in the state and municipal institutions, persistent problems with transparency in the allocation of available scholarship fund and insufficient level of motivational differentiation of its size. Eventually, this scholarship can not only solve but also create noticeable tension in educational groups.

The new version of the Law of Ukraine “On Higher Education” declares that the amount of the social and academic scholarships should be equal (a bit deferred) to a living wage and the number of appointed scholarships shall constitute 67 to 75% of full-time students studying on budget funding (excluding people receiving social scholarships).

Material support provided to the students by their families is directly related to their level of well-being and has a differentiated nature. At one extreme there are students from low-income families, whose aid does not exceed the regular set of food essentials. At the other extreme there are students, who receive sufficient support for having a secular lifestyle, purchasing cars, real estate etc. from their families. The income of students living with their parents (more than half of the students) cannot be adequately distinguished and evaluated as they constitute an integral part of the budgets of the relevant households.

A substantive part of the students cannot exist without the income from their own work. In many cases, students work on temporary work, part-time, often performing low-skilled tasks and working in the vacation period. In the best case, the work performed by student is related to his future profession (up to 15% of the number of working students) and allows you to gain at least partially necessary practical competences. Most students can expect to be paid UAH 1000–2500 per month. Significant number of students find their perk outside the formal economy.

Modern Ukrainian students are rather actively trying to find themselves in business. It is interesting that, many students realize their start-ups in service, high-tech and creative sectors. In some cases, such initiatives develop into medium or large business, and in other cases bring to its owners valuable experience and/or certain fortune. System Support of Business Initiatives of students at the national level does not exist, although some higher education institutions, businesses and venture capital funds realize their projects in this area.

A specific form of income of students is benefits in paying for transport, cultural and educational services (museums, theatres, etc.). Benefits for public transportation and museums are provided by the state. Spectacular institutions are seeking to attract young people to their halls and offer benefits regardless of the form of ownership.

Quite important, though not too common, is a set of grants, donations and other community support that are available for students. The common prerequisite for access to them is to identify the activity and ingenuity. No attempts to assess the scope and size of this component of income of students were found.

CHAPTER 5.

EFFECTIVE OUTCOMES AND EMPLOYABILITY

Indicator 5.1. Higher education output: higher education attainment levels

Ukraine inherited from the Soviet Union an extended system of statistical records of students and graduates of higher education institutions, which was built for the needs of a planned economy and one-level higher education. During the years of independence, the system has not undergone radical changes, without being adapted to the modern multilevel higher education system. An example of this is a range of interpretations of the number of graduates. On the one hand, this is considered to be a number of people who have completed appropriate training cycles (gained relevant diplomas); on the other hand, it is considered to be a number of people who did not continue their education in order to obtain a higher educational level.

This research is based on official data of the State Statistics Service of Ukraine, but it should be kept in mind that it is not always precise and reliable. The main form of state statistical reporting is “2-3-nk”, which should be completed by the conflicting requirements of the State Statistics Service and the Single State electronic database in the field of education. The latter causes some differences in the information files, used by the State Statistics Service and the Ministry of Education and Science of Ukraine.

The last period, which is fully represented in the statistical references, is 2013, so we will talk about graduates of higher education institutions of the 2013 calendar year. The absolute numbers of this year are large, due to graduates, who entered the university in the past (demographically more favourable) years.

In general, diplomas of all educational levels in 2013 in Ukraine were granted to 793,751 people. Among them: 94,723 Masters, 214,663 Specialists, 328,775 Bachelors, and 155,590 Junior Specialists.

94,042 people of 94,723 Masters have graduated and the rest (681 people) are likely to continue with another Master study program. 212,173 people of 214,663 Specialists have graduated and the rest (2490 people) are most likely to have decided to acquire a Master’s degree at the Specialist basis. Specialist and Master levels stand for complete higher education, so it is natural that after gaining this vast majority of graduates continue training in high school. Continued post-graduate studies to gain scientific degree prior to entry into force of the new Law of Ukraine “On Higher Education” were not considered to be a continuation of higher education.

120,356 people (36.6%) of 328,775 Bachelors have graduated and the remaining 208,419 (63.4%) decided to continue training to acquire the degree of Specialist or Master. Despite the fact that professional request for Bachelors has not yet been formed at the regulatory level, employers are increasingly satisfied with this level of training. In recent years, this trend is becoming more popular, especially in the private sector of economy.

According to official statistics, 149,688 people (96.2%) of 155,590 young professionals have graduated, which seems completely impossible. Expert observations show that at least 40–50% of Junior Specialists continue their education to obtain a higher education level. This statistical phenomenon can be explained by the fact that the vast majority of Junior Specialists cannot get Bachelor's degree in technical schools or colleges, and have to change school, being added to the statistics as graduates.

We will further focus on the analysis of graduates, i.e. those who did not continue their education. In 2013 there were 576,259 persons in all educational levels (54.2% of women), including 94,042 Masters (59.6% of women), 212,173 Specialists (54.4% of women), 120,356 Bachelors (51.3% of women), 149,688 Junior Specialists (52.9% of women). These figures demonstrate the lack of gender equality at the stage of acquiring higher education, while due to the desire of women to become competitive at the labour market and the need for the part of men to participate in supporting families, the percentage of women getting a second cycle of higher education is slightly higher than average, and first cycle and short cycle — slightly below the average. This allows to make consequences about the real gender parity in acquiring higher education in Ukraine.

In the course of further analysis attention will be focused on the graduates of the first (Bachelor) and second (Master, Specialist) cycles of higher education. Very notable is the fact that among the total number of graduates of both cycles 426 571 people are Specialists and 306 215 people are Masters and this constitutes 71.8%. This figure is unusually high according to the European standards, due to several reasons:

- slow formation of demand for Bachelors in the labour market;
- the desire to become most highly qualified and maximize the time spent in higher education institution under poor economic conditions (in the current system Specialist's or Master's Diploma or can be obtained at the age of 22–23).

The distribution of higher education institutions graduates in different regions of Ukraine is very interesting. The leading position is occupied by the capital (Kyiv city), which stands for 22.7% of the total number of graduates, and even 31.7% of Masters. Other regions can be clearly divided into two groups: university centres and other territorial-administrative units. The first group includes Kharkiv, Dnipropetrovsk, Donetsk, Lviv, Odessa, Luhansk and Zaporizhzhya regions (from 10% to 4.2% of all graduates). The second group includes regions with 2.5% to 0.7% graduates.

Let's consider a more detailed distribution of graduates by educational levels and regions in the capital and university centres (the first group) (Table 5.1):

Some disproportions in the distribution of graduates of different levels in these regions are interesting. The situation in the Kyiv and Zaporizhzhya regions corresponds to their place in the national university hierarchy, and the rest regions given in Table have different characteristics.

In the Kharkiv region a very small proportion of Junior Specialists did not continue their education; it may be associated with a wide range and reasonable cost of educational services in the regional centre. It is worth mentioning that during the Soviet era Kharkiv was the largest university centre in Ukraine.

Table 5.1: Distribution of graduates by educational levels in the capital and in the university centres

	Total	Place according to quantity	including educational levels							
			Master	Place according to quantity	Specialist	Place according to quantity	Bachelor	Place according to quantity	Junior specialist	Place according to quantity
Ukraine	576 259		94 042		212 173		120 356		149 688	
Kyiv city	130 618	1	29 816	1	39 912	1	37 849	1	23 041	1
Kharkiv Region	55 524	2	10 718	2	27 620	2	10 414	2	6 772	7
Dnipropetrovsk Region	39 677	3	4 638	6	17 769	3	5 382	7	11 888	3
Donetsk Region	38 879	4	5 110	5	14 015	4	7 065	5	12 689	2
Lviv Region	36 563	5	7 897	3	11 531	6	6 773	6	10 362	4
Odessa Region	32 877	6	5 281	4	12 652	5	7 806	4	7 138	6
Luhansk Region	30 750	7	2 982	8	9 311	8	10 323	3	8 134	5
Zaporizhzhya Region	24 324	8	3 240	7	10 066	7	4 980	8	6 038	8

In the Dnipropetrovsk region a low level of interest in obtaining a new graduate educational level of Bachelor and Master is observed, which might be due to the dominance at the local labour market of large industrial enterprises, which have traditionally focused on the holders of Diplomas of Junior Specialists and Specialists.

In the Donetsk region there is a disproportionately large amount of graduates, who finished their education by obtaining a Junior Specialist Diploma, which correlates with a great offer of jobs with low qualification requirements.

In Lviv region there is a “high demand” for Master’s Degrees, which is likely to be connected with the aspirations of a large number of graduates for employment in the European labour market.

In the Odessa region Bachelor’s and Master’s Degrees are popular, corresponding to the transport and service orientation of the labour market in the region.

In the Luhansk region there is a disproportionate amount of people who agree to be satisfied with a short or first cycle of higher education. In our view, this can be explained by the current economic situation of their families, which requires speedy inclusion in employment.

Describing the distribution of graduates according to the forms of education, the degradation of evening classes should be indicated (popular in the Soviet era). In 2013, there were no graduates of this form of education among higher education institutions of the I and II levels of accreditation in 12 regions and universities of the III and IV levels of accreditation in 19 regions. After the introduction of the External Independent Testing in 2008 a significant reduction of the number of entrants to part-time learning form began and that already affects the share of external students among the higher education institutions graduates.

Among all graduates of state and municipal education institutions Bachelors constitute 19.9%, private institutions constitute 28.0% and the national average constitutes 20.9%. This may be due to a greater focus on students of private universities on practical and entrepreneurial activities and the absence of state funded learning there.

Among the wide palette of sectors of education there can be distinguished six leaders in most educational levels and one sector which are among the leaders in the preparation of Masters. Summary on the distribution of higher education institutions graduates in these sectors by educational levels is contained in Table 5.2.

Table 5.2: The distribution of higher education institutions graduates in the most widespread industries by educational levels

Fields/Levels of Education	Master	Specialist	Bachelor	Junior Specialist	All levels
Economy and Entrepreneurship	26 973	41 198	25 236	33 862	127 269
Law	8 913	16 182	18 735	7 310	42 227
Medicine	96	5 730	844	19 495	26 069
Pedagogical Education	2 709	11 906	6 185	7 915	26 006
Transport and Transport Infrastructure	1 526	9 562	5 423	10 908	25 893
Management	6 058	14 556	8 158	1 587	24 301
Humanity Sciences	6 603	13 696	7 348		21 044
Specific Categories	6 081	1 001			1 001
Ukraine as a whole	94 042	212 173	120 356	149 688	576 259

In Ukraine, in general, the most popular is economic education (Economic and Business Industries, Management and Administration) which constitutes the total number of 26.3% of the total number of graduates. Legal education is in second place with of 7.3% of the total number of graduates. Traditionally, many teachers and doctors are prepared in the country. One of the leading engineering specialties is Transportation, but if all engineering majors are calculated, the cumulative result can claim second place. Preparation of the humanities has grown in the last twenty years.

Attention is drawn to a small number of Masters of Medicine, due to the dominance of training of cross Specialists in the recruitment in 2006. High popularity of Specific Master's programs is interesting, indicating a rapid growth in demand for interdisciplinary training.

Indicator 5.2. Completion rates and policies for improvement

In the previous sections much statistical information was cited about the system of higher education in Ukraine, most of which is sufficiently reliable and relevant. However, in the process of working on this section the authors were able to make sure that information available is only on the most general level. With the growing complexity and increasing requirements to the structure of information the possibilities to obtain and use the information are constantly decreasing. An example of this is the statistics of the level of completion of higher education, which reflects only the formal number of degrees awarded and the number of people who did not continue their education after obtaining the next level of higher education. These figures do not contain any real data on educational trajectories of graduates, the duration of their studies on different trajectories,

recovery after being expelled etc. Official state statistics do not collect such information, and the Single State Electronic Database in the field of education is in operation only during the last 2–3 years and is still unavailable to researchers.

It is encouraging that the management at the Ministry of Education and Science is aware of the abovementioned problem and is taking vigorous measures to modernize and expand the knowledge base in educational research. In this context, the initiative on the establishment of the Institute of Education Analytics of the Ministry of Education and Science may be approved. It was being prepared for approval by the Government of Ukraine at the moment of writing this section.

5.2.1. Completion rates

The described circumstances indicate that the level of completion of higher education in Ukraine can currently be estimated only by experts.

The main reason which prevents the use of simple statistical information for educational research is outdated standards of statistical records that do not match the complexity of multi-level system of higher education and the diversity of educational trajectories. The situation is even worse with statistics concerning people who get second, third and subsequent education.

An example of the difficulties may be statistics of the contingent of graduates of the second cycle of higher education (Specialist and Master), consisting of persons that:

- obtained a Master's degree on the basis of a Bachelor's;
- obtained a Master's degree on the basis of Specialist's, and before that obtained a Specialist's degree on the basis of a Bachelor's;
- obtained a Specialist's degree on the basis of a Bachelor's and did not continue further education;
- obtained a Specialist's degree or a Master's degree in Medical or Veterinary medicine on the basis of a completed secondary education;
- obtained a Specialist's degree or a Master's degree in Medical or Veterinary medicine on the basis of a Junior Specialist degree;
- obtained a Master's degree on the basis of previously acquired Master's degree;
- obtained a Specialist's degree on the basis of an previously acquired Specialist's or Master's degree (in order to receive second (next) higher education or the so-called re-training with or without awarding qualification).

The contingent of the first cycle (Bachelor) consists of persons:

- obtained a Bachelor's degree on the basis of a completed secondary education;
- obtained a Bachelor's degree on the basis of a Junior Specialist's degree, which was obtained on the basis of basic or complete general secondary education or previously acquired degree of Junior Specialist;
- obtained a Bachelor's degree on the basis of a Junior Specialist's degree, which was obtained on the basis of qualified worker, which, in turn, was obtained on the basis of basic or complete general secondary education;
- obtained a Bachelor's degree on the basis of the previously obtained Bachelor's degree.

It is clear that all these trajectories have different characteristics of dropouts and relevant terms of training. The structure of information will be additionally complicated by parallel studying of two majors and, at times, at two different stages of education. Some graduates (who consistently get a Specialist's and Master's degree) will be taken into account twice, and some categories (retraining) will not be included in the statistics at all. The research is possible only in the case of available statistics on every single of these groups of seekers of higher education, but such information is not officially gathered.

The main causes of temporal expulsion of students:

- one's own desire (often caused by material difficulties of the student or his family, relocation, continuing studying abroad, disappointment in the major or institution);
- refusal to continue education after interruption (absence from training after the completion of academic leave or military service in case of call-up, etc.);
- failure to complete the curriculum;
- breach of contract (for contract students).

The number of dropout students is quite different and generally can be described in the following manner:

- dropout students of technical and natural majors is higher than the dropout rate of students who are social and humanitarian majors;
- dropout rate is greater in big higher education institutions than in small education institutions;
- dropout rate at shorter educational programs is lower than at longer programs (based on the same period of time);
- dropout rate reduces at each subsequent level of higher education;
- dropout rate of contract students in private higher education institutions is higher than in state and municipal institutions and etc.

Most of the expelled students continue and eventually successfully complete their education, including other forms, majors or higher education institutions. Very often deduction applies only to the loss of one or more years of renovation in training.

Therefore, the dropout rate is different in different institutions, but nationally it is not significant. Experts estimate that the average annual dropout rate in most higher education institutions, majors and forms constitutes 5 to 15%, and is dominated by its smaller values in the named range. The main reasons for the relatively high proportion of individuals who successfully complete higher education are:

- prestige of higher education;
- the link between studying in higher education institutions and obtaining a postponement of military service for young men;
- dependence of budget financing on the implementation of the admission plan and graduation plan (graduation plan — vestige of the Soviet planned economy);
- direct relationship between the number of teachers' jobs and the number of students;
- dependence of higher education institutions on tuition fees.

The first two reasons that motivate students to complete their higher education and the last three demotivate higher education institutions to increase the quality of estimate of students' excellence.

5.2.2. Entry and graduation rates

At the end of the Soviet era less than 25% of high school graduates obtained a higher education. After the transition to the model of mass higher education and adding the level of Junior Specialist to it, Ukraine confidently reached indicators the most developed countries. Currently, 70–80% of graduates of basic and complete secondary education enter higher education institutions, and before the implementation of the mandatory External Independent Assessment this figure was even higher than 80%. Of course, due to the dropout rate no more than 50–55% of young people graduate, with the highest rates (both quantitative and qualitative — obtaining higher degrees and levels) being a characteristic of the capital and major cities, and the lowest value (again, quantitative and qualitative) being fixed in small south-eastern towns and rural areas.

More reliable information about the relationship between the proportion of entrants and the proportion of those completing their education is hard to obtain because of the abovementioned reasons. Also one should keep in mind the phenomenon of striving to obtain high degrees and levels of education, which is described below.

A characteristic of Ukraine (and post-Soviet countries) is the desire to obtain the highest educational degrees and levels at any circumstances. After equating Specialists to Masters Diplomas Ukraine will possess an outstanding place among the European leaders in the share of holders of diplomas of the second cycle among the economically active population. It's not only a direct consequence of the high prestige of higher education in society, but also evidence of the desire of citizens to maximize competitiveness by obtaining the highest formal recognition in education. Public opinion still evaluates of the high quality of five-six years of higher education in the USSR and questions the adequacy of three or four years bachelor program of the European type.

5.2.2. Entry and graduation rates

In many countries of the EHEA the focus on completion of higher education is an important element in ensuring the effectiveness of the national education policy. Currently, this problem does not exist in Ukraine, which obviously does not require construction of a special policy of increasing the number of graduates. Additional measures of such kind are quite effective within the overall education policy and can be consciously focused on the interests of certain categories of citizens:

- people with special educational needs (disabled);
- people from poor and socially vulnerable families;
- participants of anti-terrorist operations;
- people who combine education with work.

There is a growing problem of obtaining a higher education for people, who have received a secondary education of insufficient quality, especially in small towns and rural areas. It is quite

difficult to obtain a higher education for people, who have been convicted of a crime, including teenagers.

Indicator 5.3. Graduates on the labour market: unemployment and transition from education to work

To understand the current problems with the employment of higher education institution graduates it will be useful to briefly review the trends in this area that were formed in the previous cycle of economic growth, which coincided with the experience of transition from education to work in the context of mass higher education (2001–2008).

At that time, there formed the standard mechanism of preparation of higher education institutions graduates to enter the labour market, which included the acquisition by the majority of students of practical experience at the time of studying, without interrupting it. The reasons for the formation of such a mechanism were:

- Conjuncture expansion of many businesses in course of the economic boom that led to the growth of the number of young and middle office staff with functions that do not require serious training and the availability of higher education becoming a merely traditional requirement. This formed the established requirements of employers for higher education institutions graduates: the availability of job experience as a sign of labour socialization and initial understanding of the business; computer skills as a basic production skills, which no one is going to teach; less often — foreign language skills as a special competitive advantage or a tool for selecting most qualified young people. In the period of rapid economic growth constant labour shortages could be felt, resulting in the formation of the labour market and thereby blurring of the distinction in terms of salaries between the beginning and the middle level of personnel;
- Increase of the separation of higher education institutions from the real economy that appeared in a distorted structure of training of specialists (e.g. engineers are being prepared now almost at the same level as in Soviet times, despite a significant de-industrialization) and the difficulties of manufacturing experience in the field of student access to important commercial and technological information. In connection with this, profound special training depreciated, because employment according to the acquired profession became unrealistic (engineers, agronomists, etc.) or unpromising (doctors, teachers, etc.) for many graduates, as well as reduced the impact of university teachers on the content of practical training with the transition of students to individual search for practice objects;
- The transition from elite to mass higher education has led to a significant intensification of youth competition for promising employment and the gradual formation of excessive demands on the educational level of applicants.

The continued financial and economic crisis caused major changes in the Ukrainian and international labour markets. According to surveys conducted by the Centre “Corporate Social Responsibility Development” in 2014¹⁸ referred to as “Employer brand through the eyes of students: how to attract Generation Y” every fifth student does not plan his career and does

¹⁸ Malyk I. Business and Higher Education Institutions: How to Attract and Keep Youth. [Online] Available at: <http://ubr.ua/labor-market/education/biznes-i-vuzy-kak-privlech-i-uderjat-molodej-313284> (in Ukr.)

not know the place of employment during the last year of education (Author — but 80% know). However, strong paternalistic illusions and the influence of infantilism remain. Thus, 77.1% of students believe that their first job should be provided by state and 62.2% of respondents refer to lack of experience as a key barrier to get employed.

Currently, we observe the following trends of employment among higher education institutions graduates:

- Continued dominance of employers' labour market caused much smaller initial payments and a slower rate of growth;
- Multi-stage crisis weakened the stability of the national economy (in 2014 the consequences of the Crimea annexation and occupation of Donbass appeared), limited job creation and restrained staff change, which limits the possibilities of youth at the time of entering the labour market;
- An outdated laboratory and production base of higher technical education institutions does not provide competitiveness of their graduates compared to colleagues from foreign universities in the struggle for engineering positions in modern technological production;
- Trends of development of political processes and geopolitical realities are promoting the militarization of the country, improving career opportunities for university graduates as in most military structures and the military-industrial complex enterprises;
- Gradual withdrawal from active employment of the generation of 40–50 years of the twentieth century creates attractive opportunities for employment of young professionals in the manufacturing sector.

It should be noted that higher education institutions do not provide adequate support in preparation for entering the labour market and employment of students and graduates. According to the results already mentioned in this section survey 54% of students are unaware of the existence of university services on practice and employment. Only 45% of students said that universities provided their places of practice that is an integral part of the curriculum. Despite the fact that 56.8% of respondents confirmed that their departments collaborate with business, such relationships are often not long-term and do not strongly affect employment. Among the factors that can cause the failure of higher education institutions to effectively promote employment, students call weak physical and technical infrastructure, research separated from practice, outdated knowledge of teachers and excessive scale of preparation of many types of professionals.

Unfortunately, the domestic educational tradition prefers formal, short-term and multidirectional types of practical training during their studies. The lack of long-term (e.g., semester) focused practices, particularly outside the city, region or country of study do not allow most students to acquire the necessary professional, social and communicative skills for confident employment.

Under such circumstances, the main problems of transition from education to work in higher education institutions include¹⁹:

¹⁹ Alabjeva S., Koval K., Menzul O. Employment of Graduates of Higher Education Institutions: Problems and State Instruments of Solution // Herald of Vinnytsia Polytechnic Institute, 2014. № 1. – pp. 128-133. [Online] Available at: <http://visnyk.vntu.edu.ua/article/viewFile/3526/5232> (in Ukr.)

- The lack of jobs in their major due to an imbalance of supply and demand at the labour market, which accounts for a massive retraining of graduates of higher education institutions (in the most unexpected combinations);
- “Closed circle” in which the applicant from the very beginning requires experience in a related field that is overcome either by intern (free) work during studies or by starting career from the lowest position;
- Psychological inability to professional practical activities that is associated with the actual separation of high school from the real economy.

Unemployment in Ukraine is not high by European standards and did not exceed 9% in 2014 according to methodology of the International Labour Organisation. An important factor of it is the low minimum and average wages in Ukraine. Registered unemployment is often within 2%, due to the widespread practice of part-time, week and self-employment and informal employment.

Citizens with a higher education have more opportunities for employment. The unemployment rate among graduates is less than among their peers who did not get higher education. Therefore, the problem of transition from education to work is not perceived by society as fatal.

Work not connected with the university major is normal in Ukraine. The survey of focus groups suggests, for example, that most graduates of pedagogical universities will never work in this field. This is true for many engineering and agricultural occupations. Most of these experts get positions that correspond to an education in the fields of business, economics and law, as well as service. By the way, it significantly increases the competition for attractive jobs in these areas and causes relatively more unemployment in these. Authors do not know any serious studies of the economic consequences of work not in major.

Indicator 5.4. Private returns on education: income and educational attainment

In Ukraine, as in most countries of the world, the existence of a higher educational level often means a higher income. This statement is purely statistical in nature, since you can specify a sufficiently large number of the opposite examples. Please note that the authors used the most recent and officially available statistics.

The educational level of employment in the economy of Ukraine can be considered quite high. At the end of 2013, people with a higher education constituted 59.2% of the number of full-time employees, including 23.6% of Junior Specialists and Bachelors (incomplete and basic higher education) and 35.6% of Specialists and Masters (complete higher education). In some economic activities employees with a higher education constitute dominant category: in financial and insurance activities — 87.8%; public administration and defence, compulsory social insurance — 84.8%; professional, scientific and technical activities — 79%; information and telecommunications — 76.3%; education — 72.9%²⁰.

High employment of specialists with higher education in the fields of industry (1 252.4 thousand people), education (1 270.5 thousand people) and health care (817.5 thousand people) is a

²⁰ Labour of Ukraine in 2013. Statistical Catalogue. – State Service of Statistics of Ukraine, 2014. – 336 p. [Online] Available at: http://ukrstat.org/uk/druk/publicat/kat_u/2014/zb/07/zb_prU_2013.zip

Table 5.3: Distribution of employees according to the level of education and types of economic activity (31 December 2013) (thousands of people)

Types of economic activities	Total number of full-time employees	Have higher education of the relevant levels								
		Incomplete and basic higher education	In % to total number of full-time employees	In % to number of employees with incomplete and basic higher education	Complete higher education	In % to total number of full-time employees	In % to number of full-time employees with complete higher education	All levels of higher education	In % to total number of full-time employees	In % to number of full-time employees with higher education
Total:	10 348.3	2 442.6	23.6	100.0	3 684.8	35.6	100.0	6 127.4	59.2	100.0
A. Agriculture, forestry and fisheries	512.6	88.0	17.2	3.6	76.5	14.9	2.1	164.5	32.1	2.7
B+C+D+E. Industry	2 669.4	594.6	22.3	24.3	657.8	24.6	17.9	1 252.4	46.9	20.4
F. Construction	276.7	51.6	18.6	2.1	78.5	28.4	2.1	130.1	47.0	2.1
G. Wholesale and retail trade; repair of motor vehicles and motorcycles	930.6	219.5	23.6	9.0	331.1	35.6	9.0	550.6	59.2	9.0
H. Transportation, warehousing, postal and courier activities	820.8	185.1	22.6	7.6	175.1	21.3	4.8	360.2	43.9	5.9
I. Temporary accommodation and catering	102.3	27.9	27.3	1.1	26.7	26.1	0.7	54.6	53.4	0.9
J. Information and telecommunications	186.8	37.3	20.0	1.5	105.3	56.4	2.9	142.6	76.3	2.3
K. Financial and insurance activities	308.3	64.0	20.8	2.6	206.7	67.0	5.6	270.7	87.8	4.4
L. Operations with immoveable property	128.8	25.2	19.6	1.0	37.4	29.0	1.0	62.6	48.6	1.0
M. Professional, scientific and technical activities	320.7	51.0	15.9	2.1	202.2	63.0	5.5	253.2	79.0	4.1
N. Activities in administrative and support services	235.2	52.2	22.2	2.1	59.1	25.1	1.6	111.3	47.3	1.8
O. Public administration and defence; compulsory social security	624.7	110.4	17.7	4.5	419.3	67.1	11.4	529.7	84.8	8.6
P. Education	1 742.8	329.1	18.9	13.5	941.4	54.0	25.5	1 270.5	72.9	20.7
Q. Health care and social assistance	1 260.4	537.7	42.7	22.0	279.8	22.2	7.6	817.5	64.9	13.3
R. Arts, sports, entertainment and recreation	181.1	58.2	32.1	2.4	72.0	39.8	2.0	130.2	71.9	2.1
S. Providing other services	47.1	10.8	22.9	0.4	15.9	33.8	0.4	26.7	56.7	0.4

legacy of the Soviet planned economic system, which still exists. Dominance of such employees in wholesale and retail trade (550.6 thousand people), financial and insurance activities (270.7 thousand people), transport and logistics sector (360.2 thousand people) can be considered as achievement of mass higher education during the period of independence of Ukraine. The distribution of workers by educational level and economic activities on December 31, 2013 is presented in Table 5.3.

The average salary in the country in 2012 was UAH 2,830 (€ 276 at the average annual rate of NBU). Under these conditions, full-time staff with higher education, on average, earn UAH 3,726 (+ 31.6% to the average wage), with basic higher education — UAH 2,582 (–8.8%), incomplete higher education — UAH 2,509 (–11.3%), vocational education — UAH 2,281 (–19.4%), secondary education — UAH 2,240 (–20.9%), basic secondary education — UAH 2,047 (–27.7%), below the baseline average — UAH 1,726 (–39%)²¹. It is noteworthy that all educational levels except complete higher education tend to have lower than average remuneration, while employees with vocational and secondary education receive almost the same salary (Figure 5.1).

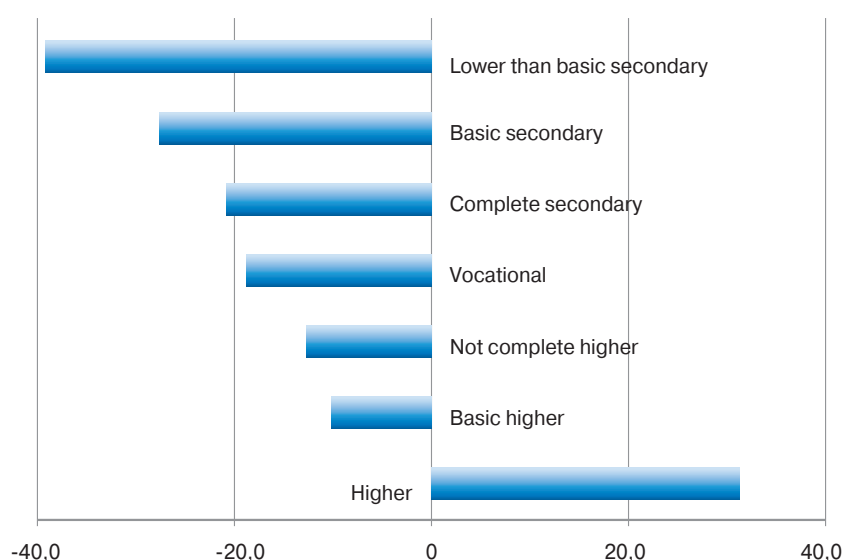


Figure 5.1: Difference of wage from the average depending on the level of education

Information on the average wages of workers of enterprises in 2012 depending on the level of education and gender, as well as in relation to average wages shown is shown in Table 5.4. It is significant that the smallest is the size of the gender gap between workers with full and basic higher education.

An important issue is the return on investment in higher education. Calculate the period for which the average total income of a specialist with higher than secondary education will reach the total income of the person who is constantly working after obtaining a full general secondary education (Table 5.5). It should be noted that only obtaining complete higher education provides a real chance of return on educational investment, and to stop on the basic higher education is unreasonable (it gives economic explanation to the general desire to obtain the highest educational levels). Women have less payback period of investment, but it will be delayed for the

²¹ Wages according to working groups in 2012 (materials of random survey). Statistical Catalogue. – State Service of Statistics of Ukraine, 2013. – 167 p. [Online] Available at: http://ukrstat.org/uk/druk/publicat/kat_u/2013/sb/12_13/zb_prof_12.zip (in Ukr.)

duration of leaves to care for children. Men who obtain a vocational education do not pay off at all, though wages of skilled workers are much higher than wages of unqualified personnel. This statistical phenomenon, in our opinion, can be explained by a fairly high risk of gaining antisocial habits and preferences among students of vocational schools.

Table 5.4: Average monthly salary of employees of enterprises in 2012 depending on the level of education and gender

Level of Education	Charged in average for a month to a full-time employee, UAH			Gender Gap (%)	In % to average wage in Ukraine		
	Total	Men	Women		Total	Men	Women
Complete Higher	3726	4273	3333	28.2	131.7	151.0	117.8
Basic Higher	2582	3008	2317	29.8	91.2	106.3	81.9
Incomplete Higher	2509	3059	2221	37.7	88.7	108.1	78.5
Vocational	2281	2564	1884	36.1	80.6	90.6	66.6
Full general secondary	2240	2643	1773	49.1	79.2	93.4	62.7
Basic general secondary	2047	2442	1609	51.8	72.3	86.3	56.9
Lower than basic secondary	1726	2040	1431	42,6	61,0	72,1	50,6

Table 5.5: Education investments payback period considering the level and gender

Level of Education	Duration of Studying	Charged in average for a month to a full-time employee, UAH			Payback period (in years) after finishing school		
		Total	Men	Women	Total	Men	Women
Complete Higher	5	3726	4273	3333	12.5	13.1	10.7
Basic Higher	4	2582	3008	2317	30.2	33.0	17.0
Incomplete Higher	2.5	2509	3059	2221	23.3	18.4	12.4
Vocational	1	2281	2564	1884	55.6		17.0
Full general average		2240	2643	1773			

Statistics on the average salary of employees of enterprises in 2012 in the context of professional groups reflect the impact of education on income (Table 5.6). Among occupational groups, as defined by the National classification of professions in Ukraine (SCE 003-2010) can be distinguished legislators, senior officials, executives, managers (most have complete higher education); professionals (all have complete higher education); professionals (dominated by people with incomplete and basic higher education, but there are workers with complete higher education). In other occupational groups people with a higher education do not dominate.

Top salaries are received by workers in positions such as legislators, senior officials, executives, managers (50.5% above average) and professionals (16.9%). Among blue-collar workers only skilled workers with tools (workers of toughest professional competences) receive wages by 7.3% above average.

The difference in salaries among the first two professional groups (28.7%), which are actually of the same educational level, is notable. This is caused by a certain change in remuneration of employees after getting “managerial” status. This fact explains the increased desire of many compatriots to occupy leadership positions, providing not only professional recognition, but also significant additional remuneration.

Table 5.6: Average monthly salary of employees of enterprises in 2012 depending on the professional groups

Professional groups	Charged in average for a month to a full-time employee, UAH			In % to average wage in Ukraine		
	Total	Men	Women	Total	Men	Women
1. Legislators, senior government officials, leaders, managers (administrators)	4259	4706	3804	150.5	166.3	134.4
2. Professionals	3308	3739	3113	116.9	132.1	110.0
3. Experts	2681	3446	2398	94.7	121.8	84.7
4. Technical staff	1981	2310	1927	70.0	81.6	68.1
5. Employees of trade and services	1609	1825	1514	56.9	64.5	53.5
6. Skilled workers of agriculture and forestry, fish farming and fishing	1912	1867	1944	67.6	66.0	68.7
7. Skilled workers with tools	3037	3216	2238	107.3	113.6	79.1
8. Workers in service, operation and control of the work of technological equipment, assembly of equipment and machinery	2656	2771	2310	93.9	97.9	81.6
9. Elementary occupations	1551	1627	1503	54.8	57.5	53.1

Table 5.7: Average monthly salary of employees of enterprises in 2012 depending on their education level

Level of Education	Charged in average for a month to a full-time employee, UAH	including (%)					
		Basic salary	Allowances for work in many shifts and continuous mode of production at night	Additional payment for work in difficult and hazardous conditions and in severe and particularly harmful conditions	Prizes and awards	Payment for not worked time (including vacation)	Material support
Complete higher	3726	61.6	2.6	0.3	14.9	8.8	2.8
Basic higher	2582	64.4	4.0	0.7	13.3	8.6	2.4
Incomplete higher	2509	63.0	4.8	1.2	12.7	9.0	2.4
Vocational	2281	67.1	4.5	1.1	12.5	8.1	1.4
Complete general secondary	2240	65.6	5.0	1.1	12.8	8.5	1.4
Basic general secondary	2047	67.5	5.4	1.1	11.3	8.3	1.3
Lower than basic secondary	1726	72.7	4.1	1.1	8.8	7.8	0.8

The structure of the average wage of workers of enterprises in 2012, depending on their level of education (Table 5.7) is interesting. Let's start with the last line: receiving material assistance in the largest amount by the highest paid and educated workers is a regularity. The situation

of bonuses for workers looks similar, although it is not as obvious. It would be desirable to be considered as the assessment of complex intellectual work, but most likely, these are personal payments and immodesty of managers. Proportion of allowances and bonuses for hazardous work (of various types) is low due to the nature of the dominance of office workers with higher education.

In Ukraine public sector wages are determined in accordance with the unified tariff. It establishes a system of coefficients to the salary of the first tariff category. Employees without a higher education in the public sector can count on salary within two minimum wages, and those with higher education levels may receive different salaries from 150% to 300% of the minimum wage.

Now, according to expert estimates, half of Ukraine's GDP is outside the formal economy. State statistics do not have information on the distribution of the income of the "shadow sector" activities. The authors are willing to assume that this part of income is more available to people with a high educational level, because it will lead to the growing influence of the education level on income differentiation.

Indicator 5.5. Higher education qualifications and labour market demand: qualification mismatches

The Law of Ukraine "On Higher Education" of 2002 (ch. 2, art. 11, ch. 1, art. 12) provided the development of a special part of the state standard of higher education "List of qualifications relevant to educational levels." It was to include "a list of names of qualifications which are determined through professional titles of works which are to be performed by experts of specific educational level on the primary positions." However, this document has never been established.

In fact, the developers of education standards in recognition of specific qualifications or professional titles followed the work referred to in different generations of National Classifier of Ukraine "State classification of occupations" (003-95 SC, SC 003-2005, SC 003-2010), or a combination of education level and title of major (field of study). In an effort to eliminate this ambiguity in the Law of Ukraine "On Higher Education" of 2014 (ch. 3, Article 7) finally determined that qualification of an individual with higher education "consists of information on the higher education degree, major and specialization acquired by a person, and in some cases — professional qualifications."

The current National Classifier of Ukraine "State classification of occupations" (SCO) was adopted in 2010 and last amended in August 2012. The basis of its development was adopted by the International Standard Classification of Occupations (ISCO 88: International Standard Classification of Occupations / ILO, Geneva). Unfortunately, the technology did not allow the creation of SCO considering the latest international innovations that are reflected in the International Standard Classification of Occupations (ISCO 08). This makes the SCO a bit outdated; it partially remained at the level of perceptions of the labour market of 80–90 years of the twentieth century. In addition, the National Classification includes not only the names of occupations (which generally corresponds to ISCO), but also sets the professional titles of work. There are many names and they are too limited, even though they were proposed for use by the Law of 2002 in determining the qualifications of specialists with higher education diplomas.

Since 1996, Ukraine adopted a four-level system of higher education, which consists of educational levels of Junior Specialist, Bachelor and Master. During the years of independence, the list of majors (fields of study) of experts with a higher education in Ukraine has evolved and is temporarily in force, “List of majors of higher education institutions for the level of Junior Specialist” (2007). “List of majors of higher education institutions for the level of Bachelor” (2006), “List of majors of higher education institutions for the level of Specialist and Master” (2010) with the following amendments and additions. In general we can say that the lists are too petty, many directions and majors are focused on a very limited domain, do not support the possibility of expansion, do not provide professional development prospects for a long time.

The main reason for the numerous discrepancies between the classification of professions and list the areas of training and specialties is departmental fragmentation when the preparation of the first of the documents by the Ministry of Social Policy (previously — Ministry of Labour and Social Policy), and the second — the Ministry of Education. As a result, SCO has inherited a lot of professions of the Soviet era that had disintegrated because of structural crisis, minimizing of engineering, MIC, bankruptcy of many businesses and other light manufacturing. Changes in it are overdue and do not correspond to the dynamics of the labour market and mainly reflect the employment policy of state monopolies, major corporations and certain lobby groups, while maintaining the priority of the production sector over the service sector. However, the lists of directions and majors develop in the context of the education market, corporate interests of higher education institutions, controversial ideas about prestige and perspectives of occupations, isolation scope and quality of training from the needs of the national economy. Compared with SCO, the lists are more dynamic, focused on technological innovation and global trends, but less balanced and sometimes contradictory.

Here are two facts that indicate the extent of the inconsistency:

- SCO is largely focused on experts of levels of Junior Specialist and Specialist (corresponding to the Soviet education system structure), considering the Master as up-grade Specialist and virtually ignores Bachelors (which had long hindered their acceptance at the labour market);
- No direct analogues in the SCO 190 (67.0%) majors of Junior Specialist and 48 (34.0%) directions for Bachelors.

In such circumstances, talking about the correspondence between levels of higher education levels and requirements of the labour market is problematic. In general we can talk about 50% (non)compliance of SCO and a lists of directions and majors.

This causes mass employment out of majors, and hence low productivity of young workers, necessity of additional training, inefficient use of resources (especially budget) in the higher education system. The solution to this problem is prevented by the detachment of employers (with some exceptions) from the training process, the formation of the state order, career counselling, physical fitness and professional adaptation of youth. Still, priority selection criteria for these workers are communication skills, corporatization and managerial skills, study skills, initiative, commitment to career and professional growth, and eventually the presence of professional competence and a certain major of diploma (field of study).

An additional consequence is the loss of quality characteristics of educational services in many education institutions, youth which is unmotivated and focuses on learning outcomes, prompting it to find alternative forms of education (abroad, self-education, etc.).

All of the above circumstances against the backdrop of the global and local economic crisis lead to undergoing a radical change in the qualification policy of the state. Bringing SCO in line with ISCO 08 lists the development of new industries and specialties for all levels of higher education (Revised Law of Ukraine “On Higher Education” requires consolidation and compliance with the International Standard Classification of Education), establishment of professional standards by employers’ organizations and next generation of standards of higher education based on them, changes in national qualifications framework for an effective tool of managing the content of education which helps to harmonize levels of higher education qualifications and requirements of global and national labour markets.

CHAPTER 6.

LIFELONG LEARNING

Indicator 6.1. National understanding of the concept of lifelong learning

The national understanding of the concept of lifelong learning in Ukraine is in the stage of its shaping, corresponding to the real situation in the EHEA. A signpost along the way can be a Charter of European universities regarding lifelong learning, which defined a system of cooperation coordinates between universities, governments and stakeholders.

The predecessor of the concept of lifelong learning in Ukraine can be considered post-graduate education, which has emerged during the period 1996–2010 with an additional set of sectorial systems of additional education, training and a hypertrophied system of re-training (getting second higher education within a shorter period of time). The common feature of different types of a postgraduate education is its formal type: higher education institutions must obtain licenses for all these activities, and graduates obtain a paper on education issued by the state.

Meanwhile, it should be noted that various forms of not full-time higher education in Ukraine (part-time, evening study, distance learning and external studies) is still not included in the national understanding of the concept of lifelong learning.

The difference between the types of post-graduate education can be defined in terms of obligation and funding. Periodically (every five years) professional development of civil servants, teachers and doctors in the form of training is required and is funded by the state. Moreover, there are monopoly systems of regional and interregional training institution for officials, teachers and health workers.

Instead, retraining is almost entirely carried out on the initiative and by cost of the learners themselves, and is aimed at mastering new major to start or continue a career is not corresponding to the earlier achieved education. It should be noted that within the previous 15 years retraining became a successful form of activity of many higher education institutions, as well as specialized institutions for postgraduate education. Most often, re-training is conducted in the fields of economic and management profile, but there are no reliable statistics on this type of educational activities in the country. However, in 2013 under the new Law of Ukraine “On Employment” a mechanism of voucher funding of re-training was established for individuals who fall under the definition of “non-competitive at the labour market citizens.” At the time of this writing, this form of budget funding has not yet become widespread, so it’s quite difficult to assess its effectiveness.

The most interesting type of postgraduate education can be considered Master of majors of (so-called) specific categories. Dozens of universities train Masters of nearly two dozen interdisciplinary majors on the basis of any Bachelor major. Training programs in project management, pedagogy, intellectual property, management of financial and economic security or media communications, etc. not only meet the latest needs of the labour market, but also motivate to deepen perspective researches at the junction of various sciences.

Postgraduate education in Ukraine has quite fragmented legislative provisions that create opportunities for certain autonomy for providers of these activities. The Law of Ukraine “On Higher Education” (both of 2002 and 2014) provides just a general definition of traditional types of postgraduate education. During the period from 2002 to 2014 there was a series of attempts of complex regulation of this activity, but none of them succeeded. In 2002, the Ministry of Education and Science developed a draft Regulation on postgraduate education, and later (2014) they offered several versions of the draft Law of Ukraine “On post-graduate studies” that have not been approved. One reason for the failure of these legislative efforts was the resistance of higher education institutions to welcome limitation on their academic autonomy. There were continuously developed approaches to the development of postgraduate education. For example, the Concept of preparation of masters in Ukraine (2010) proposed to introduce career Master’s as a generalization of the ideas of Master of Business Education without issuing a state certificate about education. In April 2014, amendments to the Procedure of licensing of activities on provision of educational services were introduced. They significantly simplified licensing the procedure of postgraduate education.

Currently, the term “lifelong learning” or “lifelong education” (hereinafter — LLL) is used more often. Scope of LLL should cover not only traditional postgraduate education for Ukraine, but also a number of relatively new types of educational activities. These include: non-formal and informal education, including mechanisms of its formal recognition; business education; education not for purposes of professional activities, teaching people of the “third age”; a wide range of programs of formal and informal distance education. These types of education programs are actually integrated into the national understanding of the concept of LLL, but are not yet officially recognized. Normative regulation is also needed for goals, level, resources of LLL, its budget support and tax benefits for learners. It will be useful to introduce, following the European example, a National Qualifications Framework of LLL. Outside the national education practice remains module education, which provides mastering of fragments of educational programs without acquiring formal status of student.

The new version of the Law of Ukraine “On Higher Education” (2014) identifies the need to rethink the notion of re-training. This type of postgraduate education has to be replaced by getting a second higher education with individualized curriculum. This practice has always existed, but the real individualization of learning has not been yet anticipated.

A key factor in the development of LLL in Ukraine should be a broad understanding of the necessity of continuous learning. On the one hand, it depends on the ability of providers to form a really tempting offer, but on the other hand, requires targeted incentives to public education, which is possible only by joint efforts of the state, educational institutions and civil society. An important activity may be the inclusion of Ukraine to the popular European projects on development of LLL, which will enrich the national practice with the best international achievements better and more effectively counter the inevitable external expansion in this market.

Indicator 6.2. Lifelong learning as a recognised mission of higher education institutions

The incomplete formation of a national understanding of lifelong learning makes no legislative requirements concerning the reflection of LLL in missions, visions and other strategic documents of Ukrainian higher education institutions. In this case:

- The vast majority of higher education institutions in formulating their missions, goals or major problems are paying attention to LLL in a wide variety of formats;
- Progressive part of the university management is committed to the development and diversification of the types of lifelong learning, its transformation into one of the drivers of development of educational institutions;
- Inert part of the academic community considers LLL only as a minor species of additional income.

Specialized educational institutions of post-graduate education and training companies more openly stress their awareness of LLL, but they are difficult to relate to traditional notions of institutions of higher education.

This situation is caused by the coincidence of a number of objective factors:

- universities have just undergone adaptation to a mass higher education model, and the transition to it occurred amid growing contingent of student age youth, and this led to a sufficient amount of easy, not individualized academic work for them;
- the state motivates education institutions to implement long-term programs with a rather important fundamental component and obtaining by the graduates of diplomas on education of the state example, and employers are interested in short and very short training programs aimed at the formation of specific practical competency, which are realized mostly outside the traditional higher education institutions that causes small business participation in the financing of programs of LLL in the universities;
- low level of well-being of vast majority of the population who cannot spend money on expensive educational services not related to the calculation of quick returns on investment in themselves.

Currently there are some grounds for optimism, which concern attracting higher education institutions to LLL:

- convergence of economic and demographic crisis caused a rapid reduction in contingent of traditional students, forcing education institutions to find alternative contingent;
- the threat of expansion of foreign providers of educational services, which starts with LLL, but can spread to all stages of education mobilizes domestic institutions to competitive confrontation;
- the promotion of the concept of corporate social responsibility of business can count on a gradual increase in corporate orders for training, and, above all, in the sphere LLL;

- public dissatisfaction with the quality of higher education has transformed into the need for continuous training, that only in this way can be reached greater competitiveness at the job market.

One should not ignore the powerful influence of integration of higher education in Ukraine into European Higher Education and Scientific Research Area, which will increase the diversity, attractiveness and practical direction of lifelong learning programs. In order to enter the current level of implementation of the mission of higher education institutions in LLL we also need an effective transfer of best practices, policies and resources.

Achievement of success in integration of LLL to mission of higher education institution provides:

- awareness of the modern national understanding of the concept of lifelong learning;
- formation of the expanded offer of programs of LLL, which take into account demographic realities, trends in development of economy and labour market;
- integration of formal and informal (non-formal) education, of traditional and distance learning, combining the needs of career and personal growth;
- individualization of learning in the broadest sense of the term.

At this stage, you can expect students to capture, while learning, the algorithms of planning and management of their own careers, creating the need for ongoing education and awareness and realization by teachers of the practical direction of all academic disciplines, formation of interdisciplinary thinking of students, of the ability to work effectively with a great variety sources and experience.

Indicator 6.3. Financing lifelong learning

The funding system of lifelong learning in Ukraine was gradually formed on the following basis:

- diversification of sources;
- minor status among the other branches of education;
- luxurious funding of certain educational programs.

The high level of diversification of funding sources caused pragmatic orientation of the programs of LLL. In most cases, adult education is financed by the party interested in its results. That is, the employer or the person who studies (relevant household). The state takes care of adult education in the following main cases: regulates, fully or partially funds training of specialists of the regulated professions; cares for retraining of redundant military personnel; provides social services on professional training to unemployed citizens. Obtaining a second higher education from budget funding only in case if the person due to health issues has lost the ability to perform official duties on previously obtained qualifications, as evidenced by the findings of medical-social expert commission, and in cases specifically provided by the law. In particular, for the “non-competitive labour market citizens” special vouchers are used.

There are concrete funding sources for different types of postgraduate education. Statistics on private funding is not available to the authors, that is why we will focus on state expenses for this sector of education.

The concept of budget expenditures for post-graduate education can be found in the report on budget implementation by Ukraine in 2013 (see Table 6.1)²². It should be noted that the cost of the training of contract students in the state and municipal educational institutions are classified as the special fund of state budget and are also present in this data.

Table 6.1: Budget expenses on education and some of its fields in 2011–2013

	2011	2012	2013
Expenditures of the consolidated budget of Ukraine (UAH, thousands)			
Education	86 255 389.2	101 561 441.6	105 540 756.6
including:			
Higher education	26 619 616.3	29 335 159.5	30 003 303.9
Post-graduate education	865 524.1	938 003.8	994 557.5
Expenditures of the state budget of Ukraine (UAH, thousands)			
Total:	338 174 428.8	399 499 182.9	403 933 570.4
including:			
Education	27 234 230.0	30 243 233.8	30 944 851.2
including:			
Higher education	24 205 467.5	26 430 233.8	27 036 098.9
Post-graduate education	546 526.4	564 022.5	617 629.0
Expenditures of the regional budgets of Ukraine (UAH, thousands)			
Total:	181 030 699.5	222 613 921.4	219 903 023.6
including:			
Education	59 021 159.2	71 318 207.8	74 595 905.4
including:			
Higher education	2 414 148.8	2 904 925.7	2 967 205.0
Post-graduate education	318 997.7	373 981.3	376 928.5

From these data it is clear that the budget funding of a postgraduate education constitutes only about 3% of higher education and less than 1% of education expenses in general, illustrating the secondary importance of this sector in the modern educational system. Moreover, it has a decentralized nature: more than 33% of expenditures are carried by regional budgets, although in higher education they account for no more than 10% of the costs. An important factor of it is funding of a network of regional institutes of postgraduate education of teachers and medical workers, who are responsible for the systematic training of specialists of regulated professions in public institutions.

At the same time, Ukraine has a number of specialized institutions of a restricted or semi-restricted type, providing luxurious conditions of postgraduate training for civil servants of individual departments. These include: the National Academy of Public Administration under the President of Ukraine, University of National Bank of Ukraine, National Academy of Prosecution of Ukraine etc.

In turn, the State Employment Service provides to unemployed citizens opportunities to:

if you do not have a profession:

²² Budget of Ukraine 2013: Statistical Bulletin. – Ministry of Finance of Ukraine, 2014. [Online] Available at: <http://www.minfin.gov.ua/file/link/404609/file/Budget%20of%20Ukraine%202013.zip> (in Ukr.)

- undergo training in blue-collar jobs needed at the labour market — both in a group or individually, including the use of modern innovative technologies;

if the profession (major) is no longer relevant in the labour market:

- undergo professional training in blue-collar jobs both in group or individually, including the use of modern innovative technologies;
- undertake training as a worker or specialist, including an internship directly in the workplace;
- to increase their qualification level;
- pass the course of purpose appointment in order to gain new competencies;

if expressed a desire to start their own business:

- gain entrepreneurial knowledge.

During the training the unemployed receive:

- unemployment help in the amount established under the laws of Ukraine;
- reimbursement of actual expenses for travel to and back from the place of training and pay for the accommodation, when the training is organized not at place of habitual residence.

Professional training is carried out on a contractual basis by the Fund of compulsory state social insurance of Ukraine in case of unemployment. After graduation, the State Employment Service helps to find further employment.

According to the procedure approved by the Cabinet of Ministers of Ukraine, vouchers may be issued to maintain competitiveness of people at the labour market they are issued to citizens aged over 45 years with the insurance experience of not less than 15 years on the identified list of professions, majors and areas of training. Since the implementation of the program (from April 2013 to July 2014), 23.7 thousand people received vouchers for training, but only 7.2 thousand of them already studying. It should be noted that the rather low level of implementation of vouchers (not used vouchers are returned to the State Employment Centre) is associated with excessive clearance of formalization of such learning and difficulties in coordination of social protection of citizens and education institutions.

Very often, due to election campaigns, there are interesting social initiatives in the field of LLL. These include the “Universities of the Third Age” that occasionally occur (and then often fade) with the support of influential officials and deputy candidates. These institutions offer additional education programs for people of retirement age without awarding qualifications. However, in some higher education institutions, there are similar programs on a regular basis, but their operation is completely dependent on the capacity (in general, poor) students to pay tuition fee.

Indicator 6.4. Promoting flexible delivery of higher education programmes

By now, the majority of students obtaining a higher education in Ukraine prefer the full-time form of study in the traditional higher education institutions. This reflects the established social values and place of higher education in the professional and personal development of the human, assessment of the impact of the quality on career perspectives for professionals. Other ways to obtain a diploma of higher education are often seen as compromise, intended for those people, who for various reasons cannot study full-time. From the Soviet era there inherited part-time and

evening education that were created, at one time, for obtaining higher education by workers' and peasants' youth without pausing in work and, as a rule, in related to their work majors. Currently, there is development and diversification of flexible forms of higher education studies (Flexible learning), with their social significance and relationship with the achievement of professional success gradually changing.

6.4.1. Policy approaches targeting flexible delivery of higher education programmes

Approaches to flexible provisions of higher education programs can be divided into those that provide or not provide obtaining the diploma on higher education.

The first category includes forms of studying in higher education institutions, which are different from full-time education: evening, part-time, distance, a combination of these or with full-time study, external. There is a wide variation of the implementation of these forms of education, which is associated with the desire of higher education institutions to meet the demand of different categories of people to higher education. For example, part-time studying may take form of training on the weekends.

The success of these forms of flexible learning can be directly attributed to their degree of reglamentation and the ability to receive certain benefits provided by the law for persons who combine studying with work. Evening and part-time classes are not very regulated by the state, and the corresponding categories of students may be eligible for additional leaves, provided by the Code of Laws of Ukraine on labour. This allows a part-time form of studying to be quite massive and popular and evening form of education slowly disappearing due to the dominance of not regulated working hours for young workers and complications of crime situation in the evening. External studying is strictly limited by relevant regulations and its students cannot actually expect preferential treatment by the state, which leads to minimal interest in such programs. Distance learning was given a new chance after the adoption of the new Regulation on Distance Learning in 2013, which significantly liberalized the rules. Availability of employment preferences for those who study on the distance form of learning, allows to hope that there will be an increase the popularity of this type of training.

The dual training is traditionally kept in the medical, agricultural and art universities. During the post-Soviet period the developments concerning dual training in industrial fields were actually lost.

The second category includes programs that do not involve obtaining an educational degree. These can be mandatory internships or trainings (clinical residency), and conditionally mandatory or voluntary trainings (long-term and short-term) or internships. In such cases, the participants of the programs can obtain a paper on post-graduate education of state example (other than training).

On the other side of the second category are very diverse informal learning programs that include open public lectures, seminars, conferences, workshops, training sessions, roundtables, workshops and more. The results of these programs are the different competences acquired by the participants, and the supporting document is a certificate. The personification of individualization of flexible training programs are consulting services and tutoring, when the curriculum is

specifically created to meet the needs of the customer and executors work individually with each customer. Access to the libraries of higher education institutions, their sports and other infrastructure (for an additional fee for people, who are not students or employees of these institutions) creates another class of flexible educational programs.

Some types of flexible educational programs that are found in some European countries or groups of countries did not become widespread in Ukraine.

The need for recognition of prior learning (previously acquired competencies), including the informal and non-formal training, is increasingly needed. At the time of writing this report a legislative rule on it for vocational education already exists, and we hope for similar developments in higher education.

There is considerable interest in module training programs that provide educational degrees for passing a set of modules. Currently, this approach has not received legal recognition and can be realized only through a very difficult scheme of distance learning, which significantly affects the confidence and purchasing power.

In some countries, education without admission to the higher education institution is popular, which can be regarded as a kind of module training. Participants of the program personally determines the timing and sequence of studying subjects and may claim for receiving an educational degree after completing certain formal requirements for it. Unfortunately, this approach does not fit the national educational legislation today.

Open media programs of mass online education (e.g., Coursera) have become increasingly popular. They already have some courses in Ukrainian language from local universities. It is interesting, that projects of support to participants in such programs on the way to successful completion of training (probability of successful completion of these courses without additional support may be about 1%) are also being developed. For example, the project MOOCology, whose goal is to create a new eco-system of support of professional education in Ukraine and provide participants with a massive open online software platform for communication and consultation. However, it must be recognized that open training remains terra incognita for the majority of Ukrainian universities.

6.4.2. Studying in higher education with a formal status other than the status of a full-time student

In Ukraine, each form of training for students has a separate status. At the level of the Law “On Higher Education” and regulations they vary in their set of rights and responsibilities for students who are full-time, evening, part-time and distance learning, cadets (those studying in military higher education institutions), external students (those enrolled by the external tuition), listeners (those who receive postgraduate education) and graduate students, adjuncts, doctoral students (those who get scientific degrees), assistant trainees (at art institutions), interns, medical residents, clinical residents (persons who receive postgraduate medical or pharmaceutical education). We will stop at comparing the two most popular categories of people enrolled in higher education institutions: full-time students and part-time students.

A different formal status of full-time students and part-time students is reflected in student identity cards, Diploma Supplements and official business correspondence (orders in higher education institutions and in Single State Electronic Database of Education). In most of diplomas form of studying is not specified.

The difference in the regulation of the learning process for full-time and part-time students is somewhat controversial. The list of subjects and the total amount of credits in educational programs of part-time learning coincide with the requirements for full-time education. The only exception is non-credit discipline "Physical Education" (which is not studied by part-time students). With the training week of full-time students constituting 54 hours (including self-education), part-time must constitute 27 hours. However, the duration of full-time learning may not exceed the duration of part-time training for more than 20%. We hope that the controversy will be resolved, because the regulations containing these rules must be cancelled after the entry into force of the new Law of Ukraine "On Higher Education".

The course of study lasts 36–40 weeks (theoretically possible up to 44 weeks), includes periods of theoretical education, examinations, practical training, periods of independent work (for part-time students) etc. The distribution of weeks between the forms of educational process is determined by the higher education institution curriculum.

In most higher education institutions the full-time students (having courses that do not provide practical training) study 32–35 weeks a year and have auditorium classes in the amount of 24–30 hours per week in obtaining a Bachelor's degree, 14–18 hours per week in obtaining a Master's degree. Classroom teaching for part-time students is tied to the amount of additional paid leaves, provided by the Code of Laws of Ukraine on labour, and constitute up to 30 days for I–II years, and 40 days for III–IV years of Bachelor and Master degree. It should be noted that during the days of classes part-time students are offered to the external 6–8 hours of training or exam (except on Sundays and holidays). Thus, the amount of classroom work of part-time students is 20–30% of full-time education at the undergraduate level and 25–50% — at the graduate level. Part-time students are also entitled to additional paid leaves for 30 days for passing final exams and up to four months for writing the thesis. In addition, they are entitled to a certain number of days free from work without pay (and in some cases preserving 50% of salary). According to our observations, part-time students do not always manage to receive the incentives provided by the state from the employer.

Students, who are studying on the budget funding, do not pay tuition and full-time students can apply for a scholarship (while there is a lack of budget funding for part-time students). Tuition for contract part-time students is lower than for full-time students. Full-time students also have benefits using public transport and some types of commuter and intercity transport (e.g. rail), and the right to provide dormitories for visitors from other places. Benefits in cultural and educational institutions can be provided with or without considering the form of learning.

Young men who are full-time students are eligible for deferment from military service to complete the training and part-time students can be called up and, in this case, get an academic leave.

Students of all forms of learning have equal rights to participate in student government and university administration, but in fact part-time students do not participate.

The part-time students reasonably count for a more permissive attitude towards their academic achievements in most universities.

6.4.3. Provision of part-time studies by higher education institutions

Part-time studies in Ukraine are possible for the overwhelming majority of training areas and majors in higher education institutions regardless of their type, status, ownership and location. Most of the exceptions are medical majors that you can get only by full-time study. Part-time military majors are available only for those, who are actually performing military service or work in law enforcement. Study programs for training Junior Specialists in conjunction with the full general secondary education is allowed only for full-time study. Some universities on their own refuse to have part-time students in cases of technological impossibility of providing conditions for a good education (e.g. training of translators or engineers of the areas that require powerful laboratory preparation).

There are also forms of a soft limit of part-time education. The license to have such a form of study is issued by the decision of the Accreditation Commission of Ukraine (usually) after the accreditation of the field of study or profession for full-time study. The licensed amount of part-time education (usually) does not exceed the amount of the possible set of full-time study.

In Soviet times, the vast majority of part-time students could pursue higher education only in a major that is related to their practical activities. This limitation is not provided by the current Ukrainian legislation.

The volume of budget funding of part-time study is not significant, but its current tuition fee is acceptable for most categories of working people.

The Law of Ukraine “On Higher Education” provides for the right of students to choose their form of study. It is difficult to change the form of study preserving budget funding, but contract students can do it without any specific restrictions.

Admission to higher education institutions to a part-time study form starting in 2015 will be possible only on the basis of the results of the External Independent Assessment, creating a significant barrier for people, who graduated from school many years ago and have to work hard to restore the knowledge of general subjects. The lack of alternative ways of access to higher education for those who have long finished school education and gained some experience is practically the only real limit of access to distance part-time studying in higher education institutions.

6.4.4. Statistical data on student participation in part-time studies

Using the data of the State Statistics Service of Ukraine the authors have picked up information on the total number of students and number of part-time students in different periods from 1995/96 to 2013/14 academic years. On the basis of this information a calculation of the share of part-time students among all students and proportion of part-time students contingent relation to the level of the maximum number, achieved in the 2007/08 academic year was conducted (Table 6.2).

Table 6.2: Statistical data on part-time higher education of students

1995/96	2000/01	2001/02	2005/06	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number of students — total, number of people										
1540498	1930945	2109314	2709161	2813798	2763873	2599426	2491288	2311557	2170141	2052678
Part-time students:										
427414	656525	749476	1089596	1175782	1130751	1019441	929230	861462	771567	698544
Proportion of part-time students to the total number of students:										
27.7%	34.0%	35.5%	40.2%	41.8%	40.9%	39.2%	37.3%	37.3%	35.6%	34.0%
Proportion of part-time students to their maximum amount (2007/08 academic year)										
36.4%	55.8%	63.7%	92.7%	100.0%	96.2%	86.7%	79.0%	73.3%	65.6%	59.4%

This statistics shows that in the last twenty years, two opposing trends were observed in relation to the dynamics of the number of part-time students. First it is necessary to note a faster growth of 427,414 to 1,175,782 (+175%), and later dramatic decrease to 698,544 (–40.5%), which continues till now. The first trend was caused by the transition to mass higher education, and the desire of people who graduated from schools 5–20 years earlier, to pursue a higher education and to compete in the labour market.

The second trend coincides with a significant increase in the proportion of people with a higher education in the age group of 20–40 years, the effects of demographic and economic crisis and the introduction of External Independent Assessment, which made the preparation of young workers to join higher education institution more complicated. Changes in the number of part-time students in both periods is much higher than similar indicator for full-time students and for students in general, due to the higher elasticity of demand for studying without quitting the job (depending on the earnings of young workers, a small amount of budget funding, etc.).

In regions dimension part-time studying was traditionally more popular in industrial regions (Donetsk, Luhansk, Zaporizhzhya, Kharkiv region). This form of education is the least popular in some agricultural areas (e.g. Khmelnytsky, Chernivtsi region). Obviously, this is due to the employment of youth in the factories and offices with the level of payment, which allows students to pay tuition on their own.

A rather high percentage of dropouts for part-time students are due to academic failure and failure of contract, interruption of training because of the birth of a child, family circumstances, call-up for the Armed Forces, lasting business trips, temporary unemployment, diseases etc. Therefore, the expected duration of study of part-time students is higher than in full-time education. Moreover, the number of graduates of the part-time study form often exceeds the admission, due to the transition of students from full-time form of study.

6.4.5. Postgraduate pedagogical education

Both research and practical interest provide more detailed consideration of separate segments of the national area of lifelong learning. An example of this segment for regulated professions can be the system of post-graduate pedagogical education.

This network is inherited from the Soviet era and consists of regional Institutes of Postgraduate Education. The main institution is the University of Education Management of the National Academy of Pedagogical Sciences of Ukraine and the Central Institute of Postgraduate Pedagogical Education within its structure.

Traditionally, the main objective of the system is to provide regular (every five years) training for pre-school, after-school and secondary educational institutions employees. Such training is mostly formal, not focused on the latest knowledge and technology, and does not ensure the dissemination and implementation of the best examples of national and world educational practice. Scientific-methodical publications of these institutions are often too theoretical or limited in character. The real needs for the development of education require an understanding of their role as centres of transfer of innovative educational practices, their adaptation to the opportunities of domestic (pre-, after-) school structures, transition to anticipatory activities in terms of fast changes in the external environment.

The sign of a certain desire of the system to adapt is the introduction of various forms of education: full-time, part-time, distance, studying on individual schedule (in fact external students), internship. But the content of educational curricula, that is created and used in these structures, is usually concentrated around best experiences of already established practice. Unfortunately, the task to prepare the modern teacher to rapidly changing field of knowledge and educational technologies is not considered. Open educational opportunities of real and virtual space, including involvement of international projects and resources are not very popular.

At the strategic level the system of postgraduate pedagogical Education:

- does not ensure the realization of the potential that is inherent in the system of LLL, including non-formal and informal education;
- does not use the power of modern part-time learning, does not form a national resource base of part-time learning courses, webinars, networks, etc.;
- administratively ties the teachers to regional institutions, without the right to choose their training institution, course, teaching staff, resulting in limited prospects for professional development and loss of motivation to it;
- remains captured by the focus on universal theoretical “timeless” courses, that are likely to deprive quick arming with the most relevant content and modern technologies of self-education;
- does not create mass readiness of teachers to work in the anticipatory, adaptive and innovative education.

At the same time, the current educational situation calls for a transformation of the traditional course preparation within the permanent environment master classes, workshops, panel discussions of new issues, that has just became or becomes actual. And this work must begin with the awareness and rapid reconstruction of strategies of actions and concentration on the modern thinking parts of the employees of the system. A prerequisite for the success of these transformations will be the focus on those, who demonstrated in their publications, by their teaching and managerial activities, the capacity to tackle burning educational issues and commitment to innovation.

The next step should be liberalization of relations within the system and of the principles of funding of training that will allow the teacher to choose the institution, form of education and teachers. It is important to create a portal of courses offered in the system of postgraduate education, and widely introduce the practice of remote participation in the educational courses.

Indicator 6.5. Recognising prior learning

The subject of recognition of prior learning is becoming more relevant in terms of accelerated aging, competences acquired during studying in higher education institutions, the need to constantly acquire new knowledge and professions, and do it as soon as possible at a minimal cost.

Recognition of prior formal education in Ukraine is included in the powers of higher education institutions, and in 2014 they even have the right to recognize foreign diplomas on higher education. However, this process has not gained proper formalization and structuring. The result was excessive somewhat negative subjectivity that often causes unnecessary obstacles in the recognition of prior learning.

Practice of recognition of prior non-formal and informal learning in the system of higher education in Ukraine does not exist. The main reason for this situation is the total mutual distrust between the main groups of participants in the educational process. In our case there is an outright failure of the system to enter the area where the “rules” should be formulated at the level of providers of educational services without receiving instructions of governing bodies. Equally important is the lack of understanding of the competence approach in a wide academic community. At the level of utilitarian considerations institutions interested in providing long and preferably not cheap educational services, and recognition of previously acquired competences in a simple procedure threatens to reduce their income. The idea of partial delegation of functions of assessment of these competencies by independent agencies is perceived negatively because of possible abuse of monopoly of higher education institutions on higher education provision.

The sign of positive dynamics in the recognition of prior non-formal and informal studying was settling this issue in the system of vocational training by the employer’s initiative. In 2012, was adopted the Law of Ukraine “On the professional development of workers” which provided for organization of confirmation of the results of the informal vocational training of employees in specially created centres (on the contrary to the European practices such centres had no independent status, but were to act as part of the State Employment Service).

Subject to this Law in June 2014 the Ministry of Education and Science of Ukraine approved the Procedure of control of input knowledge and skills of individuals who are enrolled for training programs in vocational education institutions. Its purpose is to optimize the use of time and financial resources through recognition of formal, non-formal education, work experience (including informal training). This allows combining state requirements for vocational education with the needs of individuals, employers and society, determines the mechanism of application of means and methods of discovery of knowledge techniques and skills of specific level of professional competence. Input control can be a tool of individualization and enhancing quality of learning. We should note that the right to conduct it was passed to vocational schools that can enhance their abilities as educational institutions.

Transfer of the idea of recognition of prior learning from the professional area to the higher education area may provide the following opportunities:

- add to the individual curriculum of the graduate practically oriented competences that cannot be earned during formal training;
- minimize the time and cost of training;
- create new mechanism of objectification on the assessment of learning outcomes;
- promote the creation of a holistic understanding of the concept of competency training.

The European experience shows that the recognition of results of non-formal and informal learning can be used to facilitate access to higher education, and to reduce the time of its receipt. One can expect the cumulative effect of such recognition in terms of obtaining by the person of second, third, etc. education. Clearly, this most often refers to approval of a part of the educational program, but in some cases it entails obtaining full qualification.

Indicator 6.6. Participation of mature students and delayed transition students in formal higher education provision

At first glance, the question posed in the indicator seems trivial. Indeed, it is easy to compare information about high school graduates who have received a diploma on general complete secondary education and were accepted to the higher education institutions this year (Table 6.3).

Table 6.3: Ratio of people obtaining higher education immediately after graduating from secondary school

School graduation year	Graduated from the high school (gained a diploma on complete general secondary education)	Entered a higher education institution at the year of graduation from the high school with a diploma on complete general secondary education	A ratio of people, obtaining higher education immediately after graduation from secondary school
2010	363 751	271 455	74.6%
2011	214 902	183 567	85.4%
2012	328 549	219 914	66.9%
2013	303 644	200 508	66.0%

Such results are most widespread in different studies. Significant fluctuations in the proportion of people who get higher education immediately after graduating from secondary school in 2010–2012, has a rational explanation. In 2011, the number of high school graduates was relatively low due to the results of the transition from ten- to eleven-year education in secondary schools. This opened the possibility of admissions almost everyone, as a corresponding reduction of public order did not happen. Instead, in 2012, a requirement was introduced for the External Independent Assessment certificate testing with a score of at least 140 in core subjects (previously was required at least 124 points in all disciplines), which resulted in a noticeable reduction in the number of people who were able to go to enter higher education institution.

In fact, everything is much more complicated. In order to have adequate statistical calculations one must take into account the diversity of educational trajectories by which graduates of primary school (nine grades) come to higher education institutions. The most widespread trajectory is

graduating from high school (eleven grades), followed by admissions to the higher education institution on the basis of External Independent Assessment score. However, some graduates of the ninth grade enter vocational education institutions at this point are separated into two streams: those, who gain a diploma of a qualified worker together with a diploma on secondary education in three years, and those, who only obtain working qualification. Information on vocational education institutions graduates, who obtained a diploma on secondary education, and were accepted to higher education institutions during the current year, is shown in Table 6.4.

Table 6.4: Share of vocational education institutions graduates, who obtained a diploma on secondary education, and were accepted to higher education institutions during the current year

Vocational education institution graduation year	Graduated from vocational education institution on the basis of 9 grades, having complete general secondary education	Entered a higher education institution at the year of graduation from the vocational education institution with a diploma on complete general secondary education	A ratio of people, obtaining higher education immediately after graduation from vocational education institution
2010	84042	17805	21.2%
2011	82918	16097	19.4%
2012	60477	9468	15.7%
2013	95048	11622	12.2%

It is clear that for vocational education institutions graduates obtaining higher education is not a priority. They are focused on professional activities. Some of them eventually obtain a higher education, but not more than 12–20% of them do it immediately after graduation from vocational education institution. Studying in the system of vocational education does not provide the necessary preparation to undergo External Independent Assessment, because of it a significant part of those wishing to pursue higher education choose the way to be accepted to the colleges on the basis of the results of specialized tests. Constant falling of the share of graduates of vocational schools that immediately enter higher education institutions, is connected on the one hand, with the increasing requirements to the results of External Independent Assessment on the relevant disciplines, and on the other hand, with the establishment of control of compliance with the rules of admission to vocational education institutions and colleges through the Single State Electronic Database on Education.

One of the features of the national higher education system is the possibility of obtaining a complete general secondary education and incomplete higher education (short cycle) based on primary school (nine grades) that is stored by 2016. Information on primary school graduates, who have received a certificate of basic general secondary education, and were accepted to higher education institutions, is shown in Table 6.5.

There is a temptation to add the absolute figures on all three paths towards higher education and get the answer to the question in the indicator. Unfortunately, this approach cannot be considered valid. The fact is that admission of peers to higher education institution is conducted in different terms. Therefore, the authors dare to offer a certain coordinate system that lets you to perform the assessment in a relatively correct way.

Table 6.5: The proportion of primary school graduates, who have received a diploma on basic secondary education, and were accepted to higher education institutions in the school graduation year

Primary school graduation year	Graduated from the primary school (gained a diploma on basic secondary education)	Entered a higher education institution at the year of graduation from the primary school with a diploma on basic secondary education	A ratio of people, obtaining higher education simultaneously with complete general secondary education
2010	566 435	128 906	22.8%
2011	479 784	109 465	22.8%
2012	440 753	93 617	21.2%
2013	410 747	87 633	21.3%

The beginning of this coordinate system is the year of completion of primary school (for the calculations we have chosen 2010). In this year there was an admission to vocational education institutions and colleges for simultaneous competition of Junior Specialist and complete general secondary education. So, out of 566,435 graduates of ninth grade (this number was due to the fact that in 2001, all seven-year old children and a significant number of six-year old children went to school) 128,906 or 22.8% entered such higher education institutions.

Those, who continued studying in high school, got diplomas for a complete general secondary education in 2012. Out of these 328,549 people 219,914 entered higher education institutions, constituting 66.9% of graduates of eleventh grade and 38.8% of the original contingent of primary school graduates of 2010.

Finally, in 2013 graduates of vocational education institutions got diplomas on complete general secondary education, which had started studying in 2010. Out of these 95,048 people 11 622 entered higher education institutions, representing 12.2% of the graduates of vocational education institutions and 2.1% of the original contingent of primary school graduates of 2010.

Thus, out of 566,435 graduates of ninth grade in 2010, 360,442 persons or 63.6% of the initial contingent entered higher education institutions during 2010–2013 at the year of obtaining (or simultaneously with obtaining) a complete general secondary education. This is the proportion of people, who received a higher education immediately after completion of secondary education, for primary school graduates of 2010.

It is clear that the calculations conducted have a model character, as the authors have no available statistics on interruption of training, entering vocational education institutions and colleges not in the year of completing nine grades, etc.

Unfortunately, making calculations of the proportion of people who are obtaining a higher education after a break after completing secondary education is not possible using the existing statistical database.

CHAPTER 7. MOBILITY

Since independence, Ukrainian higher education institutions, their students and have staff constantly sought to participate in training programs and internships abroad and, above all, in the European Union. During the financial crisis, the first half of the 1990s, such programs could be solely funded by foreign partners. Only by the Ruling of the Cabinet of Ministers of Ukraine of March 4, 1996 № 287 a Regulation on conditions of funding of persons admitted to study abroad was approved regarding internships and training. Later, a certain financial contribute to the development of academic mobility was made by the state budget and most higher education institutions, although foreign grants have always remained the dominant source of funding.

Despite accession to the Bologna Process in 2005 and the formal introduction of ECTS in 2009, the concept of mobility in Ukrainian education legislation for a long time has not been identified²³, and its practical implementation was carried out with reference to the rather abstract section XII “International cooperation” of the Law of Ukraine “On Higher Education” in 2002. Some scientific publications on this topic were devoted to reporting on the implementation of specific international projects or preserved general mulling over this issue.

Only in the Regulation on academic mobility of higher education institutions’ students in Ukraine approved by the ruling of the Ministry of Education and Science of May 29, 2013 № 635, it was recorded that “academic mobility involves students in the learning process of higher education institution (in Ukraine or abroad), conducting academic practice, research with the ability of re-admission in the prescribed manner of mastered disciplines, practices, etc.”. There was nothing about the academic mobility of teachers in the document. Only the new Law of Ukraine “On Higher Education” (2014) finally provided a definition: “Academic mobility means the opportunity for participants of the educational process to study, teach, have internship or conduct research activities in another institution of higher education (academic institution) in Ukraine or abroad. “For its verification we will give a definition of the Supervisory Group of Bologna Process (BFUG): “student mobility encompasses the period of studying in a country different from the country of residence or prior education (completed or not completed), for obtaining higher education or training for a certain period” and “mobility of teachers encompasses working period in a country different from the country of residence or work, for a specified period.”

We see that the principal difference is recognizing national mobility, which is quite logical in quite large heterogeneous cultural understanding in Ukraine.

It is noteworthy that the absence of an official definition does not interfere with student projects and teaching mobility that are constantly carried out in higher education institutions. Some experience of government support of academic mobility has been accumulated in 2011–2013 after the approval of the Ruling of the Cabinet of Ministers of Ukraine of April 13, 2011 № 411 “On student and graduate learning, training of scientific and teaching staff at leading higher education institutions and research institutions abroad.”

²³ Zhyliaev I.B., Chyzhevskiy B.G. A Dictionary of the Main Terms and Definitions of Ukrainian Educational Legislation. – K.: Nora-Druk, 2011. – 112 p. (in Ukr.)

Indicator 7.1. Types of mobility

In fact, in Ukraine there are different types of mobility:

- On the basis of the subject of mobility (the main categories of participants of the educational process):
 - scientific, pedagogical and teaching staff (teaching and research mobility);
 - students and other persons enrolled in higher education (student mobility);
- On the basis of geography of mobility (national within Ukraine and international, including within or outside the EHEA, within Central and Eastern Europe);
- On the basis of the period of mobility (short define as less than three months or one year and long-term);
- On the basis of funding source and/or initiator of the project (international projects and grants, university, government or personal funds);
- On the basis of the expected result (credit, degree, degree with two diplomas, degree on a joint diploma) (for learners).

Unsystematic types of mobility may include conferences, symposiums, seminars, summer/winter schools, language courses, research tours, volunteer work, foreign training/practice, programs like Work and Travel, Au Pair, etc. Obtaining higher education abroad without training in domestic higher education institution can be considered academic mobility, although this type it does not fit the definition given by the Law.

The prefix “quasi” characterizes remote or virtual mobility, which is based on receiving educational services from a foreign provider with remote technologies in Ukraine. These include the publication of scientific publications abroad without physically visiting these countries.

The mobility of teachers and researchers does not include departure for permanent residency abroad (“brain drain”), mostly because it does not involve returning home with the gained experience and knowledge.

In general, academic mobility is positively evaluated by the university community as an effective tool of transfer of know-how, advanced research, teaching and management technologies that allow to approach national scientific and educational sphere to the global mainstream. Unfortunately, the financial position of the Ukrainian state now makes it impossible to rely on its more active support of mobility.

Indicator 7.2. Transfer of Students

7.2.1. Within European higher education area

Information on the real extent of student mobility in Ukraine is limited.

An appropriate national mobility system in Ukraine has not been created. There are only a few examples of such practice. In particular, in 2010, the Foundation of Svyatoslav Vakarchuk “People of the Future” organized a contest “Education across the country” where thirty winners

of received a grant for two-months of study at leading universities in Kyiv, Lviv, Kharkiv, Donetsk, Odessa and Chernivtsi. A certain substitute for national mobility may be a practice of transition of students to higher education institutions in other regions.

Such information in the last two or three years is available in Single State Electronic Database of Education, but it is not public. In 2014, a powerful factor of forced national mobility of students, teachers and universities themselves became the temporary occupation of Crimea and the impossibility to control areas of Donetsk and Luhansk regions.

Data on the student international mobility in Ukraine has not been collected. According to a rough estimate of the authors of the research, international mobility of students of Ukrainian universities, academies and institutes in the EHEA countries lies within 5 000–10 000 people per year (0.5–1.0% of the number of students of higher education institutions of III–IV accreditation levels, full-time), but considering the summer schools, language courses, volunteer work, foreign practice etc. may exceed 20 000 (2%). It should be noted that among the university students of I–II levels of accreditation and the part-time students' participation in mobility programs is virtually absent.

The expert estimate of the number of students from the EHEA in Ukraine on programs of academic mobility is less than 2 000–3 000 people a year. This data is often replaced by information on the number of students among foreigners or stateless persons who are studying in Ukrainian higher education institutions. In the Chapter 4.1.2 of this analytical report it is noted that in 2013/14 academic year in Ukraine there were 59,391 foreign students from 138 countries and about 1.5 thousand people enrolled in graduate, doctoral studying and internship. Less than 20 000 people among them are citizens of countries — members of the EHEA, and most of them come from post-Soviet countries (Azerbaijan (7599), Russian Federation (2930), Moldova (1703), Georgia (1517), Armenia (604)), as well as neighbouring Turkey (1 186) and Poland (871). There are only 1 576 students from the EU-28, of which 55% are from Poland.

In turn, there is a comparable number of Ukrainian students studying abroad. In 2012, according to Online map of international student mobility of UNESCO Institute for Statistics²⁴ nearly 40 000 students from Ukraine were pursuing an education abroad. Among these, more than 37 thousand people studied in the higher education institutions of the EHEA and over 23 thousand — in the EU-28. Over the past two years there has been a significant increase to the number of students in the EU, especially in Central and Eastern Europe. In Poland, the Ukrainian contingent of students during this period almost doubled.

Additional information that demonstrates the dynamics of these processes is given in the Report of the Centre of Society Research “Academic migration” (I. Svityaschuk, E. Stadnyi).

7.2.2. Degree mobility flows from inside the EHEA to outside the EHEA

According to a quite a rough estimate of the authors of the research, international mobility of students from Ukrainian universities, academies and institutes outside the EHEA is within 1 000 people per year (0.1% of the number of students of higher education institutions of III–IV accreditation levels, full-time). The majority of these students go to the United States and Canada. Given summer schools, language courses, volunteer work, foreign practice etc. their number can

²⁴ <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx?SPSLanguage=EN>

exceed 5000 (0.5%) people, and geography significantly expands and includes Israel, Egypt, Thailand etc.

About 2 000 Ukrainian students (according to UNESCO) obtain higher education outside the EHEA. Their greatest number is observed in the United States (about 1.500), Canada and Belarus (about 250 people in each of these countries).

Countries of Latin America, Africa, Australia and Oceania did not become a popular destination for Ukrainian students. This is due to the relatively low quality of education in a part of these countries and the high cost of tuition and accommodation due to the large distance in the other part. In recent years there is increasing popularity of education in the East Asia (primarily in the Republic of China, Japan and Korea).

7.2.3. Degree and credit mobility flows within the EHEA

For the European observer, Ukraine has quite a respectable member of mobility programs. Indeed, the percentage of mobile students meets the European average, and their absolute number makes Ukraine (along with Germany, France, Russia, Italy and Poland), one of the leaders in this process. In fact, comparatively successful percentage of students is due to consideration of statistics of the number of students among foreign and stateless people in Ukraine and studying of Ukrainian students in foreign higher education institutions, as well as very large total population of the country.

The dominance of outbound mobility over inbound mobility is a common feature of educational systems in Eastern and Southern Europe. In such circumstances, Ukrainians are desirable students for universities in Central Europe, which, in turn, act as donors of higher education systems in Northern and Western Europe.

Still, the percentage of citizens in Ukraine who are pursuing a diploma abroad within the EHEA is small, but it tends to rapid growth (primarily due to graduates of Polish higher education institutions). A significant increase in Ukrainian students is observed in Poland since 2012, which will lead to a rapid increase in the number of graduates of 2015–2016.

It should be noted that the majority of Ukrainian graduates of European and American universities are planning to pursue a career in the European Union, the USA and Canada.

One of the few conservation algorithms dealing with the departure of students has become wider offer of Ukrainian higher education institutions of programs of double and joint degrees from universities in the EU.

7.2.4. Balanced vs. imbalanced mobility

The most popular countries among Ukrainian students are Germany, Russia and Poland. During 2012–2014 the number of students, who went to study in Poland increased, making it the leading country with the highest number of Ukrainian students. On the other hand, there is a notable decreasing in the interest of education in post-Soviet countries, particularly in Russia and Moldova.

At the same time, Ukraine is gradually becoming more attractive for foreign students, particularly at the beginning of the 2013–2014 academic year, the number was just over 59 thousand according to the State Statistics Service of Ukraine. So, during 2011–2013 in higher education institutions in Ukraine there were almost 30% more foreign students and the admission in 2013 increased to 11 thousand people. The largest number of foreign students in Ukraine continues to come from Turkmenistan (generally has more than 14 thousand students), and the second number is Azerbaijan (over 7500).

Thus, the number of mobile students from Ukraine remains below 4% rate, and input mobility is close to 3% of the total number of students in the country. These figures are far from the targets of the Bologna process and the current state of affairs in the leading European countries. Understanding the need to reach European levels of mobility is present in the circle of people, who determine the agenda of Ukrainian higher education. Mobility issues found a prominent place in the draft strategy of reforming higher education in Ukraine through 2020²⁵, which, at the time of writing this report, was on the public discussion.

By now, the development of mobility programs relies mainly on external resources (especially projects and grants of the EU, Europe and the United States). It is clear that achieving the ambitious goals is possible only in the case of gradual substantial increase of state support for academic mobility.

Another problem is the return to Ukraine of people who have graduated abroad. At present, the mechanism of their motivation to continue a career in Ukraine is not established, despite repeated discussion of this topic at various levels over the past decade. Activation of this discussion gradually became perceived as an attribute change of power in the country (2005, 2010, 2014, ...). However, attractive offers for employment for Ukrainians with a foreign education are offered, perhaps, by medium and large companies that orient their activities on innovative business models. The public sector and academic sphere have their own resources and do not receive adequate support from the government.

Balancing mobility in the current political and economic situation does not seem to be realistic. However, the dominance of an outbound mobility to Europe and North America, and the inbound — from Asia to Ukraine is due to the geographic location, geopolitical orientation and economic situation of the country and allows to approach the balance of mobility.

Indicator 7.3. Measures to promote and support student mobility

Materials of this subsection are based on information from the website of the National Tempus/Erasmus + office in Ukraine.

Measures to promote and support student mobility in the EHEA are organized within various programs and partnerships of the European Union and aims to: provide greater opportunities to develop skills and competencies for students; attract the best talents from around the world.

The principal activities of the European institutions in this area are as follows:

- Credit mobility, including internships abroad;

²⁵ http://www.mon.gov.ua/img/zstored/files/HE%20Reforms%20Strategy%202011_11_2014.pdf

- Stage mobility: exemplary joint master's programs offered by universities of member programs and, in some cases, the partner countries programs that are attractive to students from around the world.

7.3.1. Programmes at European level

For Ukraine, a central role to support mobility is taken by the European program “Erasmus Mundus” which has been operating since 2004. In 2014, it was transformed into “Erasmus +: Educational mobility.”

For higher education institutions of Ukraine as a partner (Partner Country) Erasmus + opens opportunities for cooperation with educational institutions of member countries (Programme Countries) regarding the organisation of education mobility (mutual exchange) on the directions of credit and degree mobility.

The form of participation of higher education institutions of Ukraine in the program is conclusion of agreements with other universities of the States-members to the program, in which they can send their own students, graduate students, doctoral students and/or employees (with scholarships) for short-term mobility (12 months) to partner universities. Ukrainian universities undertake to recognize credits accumulated by students while studying abroad. Mobility must necessarily be bilateral.

National Agencies of the States-members to the program have budget for the credit mobility for the states of the European Neighbourhood countries (East) — ENI East, including Ukraine in the amount of: Austria — 65 mobilities; Belgium — 79; Bulgaria — 49; Cyprus — 13; Czech Republic — 82; Germany — 409; Denmark — 43; Estonia — 27; Spain — 327; Finland — 57; France — 332; Croatia — 38; Hungary — 71; Ireland — 42; Italy — 307; Lithuania — 43; Luxembourg — 8; Latvia — 34; Malta — 8; Netherlands — 103; Poland — 226; Portugal — 85; Romania — 118; Sweden — 62; Slovenia — 30; Slovakia — 47; UK — 258; Iceland — 9; Liechtenstein — 2; Norway — 39; Turkey — 114; Macedonia — 1.

Another form of participation for Ukrainian universities in the degree mobility are consortia of higher education institutions realization of joint programs on obtaining Master's level. All members of a consortium develop and offer a curriculum and students study or do research in at least two of these institutions. Thus, the Ukrainian education institution will participate in teaching courses and the selection and placement of students. At the end of training consortium provides a joint or dual/multi diploma.

In the Erasmus Mundus program there were envisioned three components: 1) Joint courses and programs; 2) Erasmus Mundus Partnership; 3) Projects to promote education in general and international cooperation in education in particular.

According to the first component in the competition for the 2012/13 academic year 54 Ukrainian scholars were recommended for funding. In total, since 2004, scholarships for studying at Master's and Doctoral courses of Erasmus Mundus were received by 194 Ukrainian students and for teaching — 27 scientists from Ukraine.

In the competition of 2013 within the first component for study in a Master's programs of Erasmus Mundus 87 Ukrainians were selected; another 7 Ukrainians will study in Doctoral programs (PhD).

In the competition of 2012 according to the component of "Partnership" the winners were nine consortia involving seventeen Ukrainian higher education institutions, most were from Kyiv and Odessa. In 2012–2016 the program of academic mobility with a total funding of over 35 million euro will involve students, teachers, administrative staff of universities of Azerbaijan, Belarus, Georgia, Moldova and Ukraine; their host universities in the UK, Ireland, Spain, Italy, the Netherlands, Germany, Poland, Portugal, Romania, Slovakia, Finland, France and Sweden.

In the competition of 2013 according to the component "Partnership" the winners were nine consortia involving 25 Ukrainian higher education institutions with more diverse regional office (including Kyiv, Kharkiv, Donetsk, Crimea, Lviv, Chernivtsi, etc.).

During 2013–2017 Ukrainian students, bachelors and masters, graduate students, teachers, and administrative staff of universities — 299 people will be participants of programs of academic mobility in universities in Austria, Bulgaria, Great Britain, Greece, Estonia, Ireland, Spain, Italy, the Netherlands, Germany Latvia, Lithuania, Poland, Portugal, Romania, Slovenia, Hungary, France, Czech Republic, Sweden, together with participants from other Eastern Partnership countries: Azerbaijan, Belarus, Armenia, Georgia and Moldova. Partnerships of projects-winners are based on different principles; traditional interdisciplinary consortia complement specialized partnerships: humanities (HUMERIA); unions of medical universities (MEDEA); Consortium of technical universities (ACTIVE).

Among the ten projects of Erasmus Mundus, according to the third component, there are no projects involving Ukrainian universities.

As a result, it should be noted that the total participation of Ukrainian members in the European programs is quite small, although in recent years it has seen a significant increase (largely due to the introduction of the Eastern Partnership). After the adoption of the new Law of Ukraine "On Higher Education" at last, one can count on the expansion of the joint doctoral training. This was made possible by the introduction in Ukraine of third cycle programs harmonized with the EHEA. We hope that the intellectual potential of Ukrainian universities will allow them to eventually offer competitive projects according to the third component of Erasmus.

7.3.2. Programmes and strategies at national level

Specific strategic documents on the development of academic mobility in Ukraine at the time of writing this report have not been created.

The National Education Development Strategy in Ukraine through 2021, which was approved by the Third Ukrainian Congress of Educators in October 2011 and approved by the President of Ukraine on June 25, 2013, the term "mobility" is mentioned only once in the context of "introduction of two cycle training of teaching staff at educational levels of bachelor's and master's and ensuring mobility of domestic teachers and teachers of higher education institutions in Europe." In our view, such an understanding of mobility is very limited.

After the Revolution of dignity and determination of the European course of Ukraine's development, mobility immediately came into focus in many conceptual documents in the field of education. The Law of Ukraine "On Higher Education" provided a definition of academic mobility in the draft Concept of Education of Ukraine for the period 2015–2025²⁶, formulated task "to implement during 2015–2020 measures aimed at encouraging systematic research and professional activities of teachers and their academic mobility (international and domestic), expansion of practice of creative holidays and training (as well abroad) ...".

Moreover, the draft Strategy for Higher Education Reform in Ukraine by 2020²⁷ mobility of students, graduates and teachers is mentioned several times in very different ways. Among the priorities of development there is integration of higher education and science, particularly by "raising academic mobility" to upgrade the content of higher education on the basis of domestic and foreign studies. It is emphasized that one of the objectives of the national education policy is to develop a comprehensive strategy of internationalization of higher education, including the development of scientific and educational mobility.

We recommend using "parameters of international academic mobility" as one of the key indicators determining the amounts of public funding of higher education institutions. It emphasizes that international mobility should be an important factor in rating local universities.

The importance of the professional development of the higher education institutions' staff is emphasized in "capacity to work in institutional openness of higher education, good language skills and in academic mobility." The specified current low level of national and international mobility requires effective measures for its promotion.

In particular it should be noted that in the present situation, the development of national mobility is a key instrument in the consolidation of Ukrainian society.

Understanding the importance of academic mobility causes the active drafting of concept papers nationwide on its development, and higher education institutions increasingly reflect this story in their own educational concept.

7.3.3. Target setting

The Regulation on academic mobility of students in higher educational institutions of Ukraine defines its goals and objectives.

According to this document, the main objectives of academic mobility of students are to:

- improve the quality of higher education;
- improve the efficiency of research;
- increase of the competitiveness of higher education institutions graduates at the Ukrainian and international market of educational services and labour;
- enrich personal experience of students on other models of creation and dissemination of knowledge;

²⁶ <http://www.mon.gov.ua/ua/pr-viddil/1312/1390288033/1414672797/>

²⁷ http://www.mon.gov.ua/img/zstored/files/HE%20Reforms%20Strategy%2011_11_2014.pdf

- attract the global intellectual capacity to the national educational process through bilateral and multilateral agreements between universities-partners;
- establish internal and external integration ties;
- harmonize educational standards of higher education institutions-partners.

The main objectives of academic mobility of states include:

- improvement of theoretical and practical training of students, conducting research using modern equipment and technology, mastering the latest research methods, gaining experience of research work and implementation of its results;
- gain professional experience during the educational practices;
- possible simultaneous obtaining two documents on higher education with the relevant supplements of universities-partners and information about the assessment system of academic achievements of students in there institutions for students;
- the level of knowledge of foreign languages;
- the integration of education and science, the development of further research, improve knowledge of national cultures of other countries and promote knowledge on the language, culture, education and science of Ukraine;
- social, economic, cultural, political relations and relations with other countries.

The proposed set of goals and objectives clearly demonstrates “the old regime”, the generally positive, Document of 2013. The content and structure of formulations illustrate the lack of knowledge of modern European education thesaurus, despite many unsuccessful borrowings from the documents of the EHEA.

7.3.4. Obstacles to student mobility

To assess the impact of interference into student mobility to/from Ukraine we will use the basic list, used for research by the Supervisory Bologna Process Group (BFUG): lack of funding, problem recognition, language barriers, training, legal issues, lack of information about opportunities, personal circumstances of students.

Based on a survey of two focus groups (domestic students who were going to spend a semester in Europe, foreign students studying in Ukraine), the authors of the research found:

- Lack of funding is a major factor limiting the mobility of Ukrainian students (at least in relation to neighbouring countries and more concerning EU-15), and for most foreign students Ukraine is a financially affordable alternative to learning in Western Europe;
- Recognition problems are the “headache” for both categories of students, as a culture of recognition of the results of the included studies, as well as the design of appropriate documents on education in Ukraine is insufficient;
- Language Barriers constitute a major obstacle to mobility, but frighten less and less people, due to both focused study of foreign languages necessary for Ukrainian students and the possibility for foreigners to learn Russian in Ukraine, and sometimes even English (unfortunately, that there are no offers to study in other languages);

- Problems of studying abroad for Ukrainian students do not frighten them at all, but foreigners in Ukraine increasingly express dissatisfaction with the quality of education (which can lead to problems with the recognition of diplomas obtained);
- Ukrainian students sometimes are refused visas to the Schengen countries; foreign students from certain countries in Africa and Asia have systematic problems with Ukrainian visas;
- Ukrainian universities have systemic problems with the submission of information on learning opportunities for foreign students.

In 2014, a new challenge to attract foreign students in Ukraine became a struggle in the Donetsk and Luhansk regions, resulting in the evacuation of the vast majority of international students and precautions in the choice of country studies.

7.3.5. Financial measures to support student mobility

Financial measures to support student mobility in Ukraine are very limited. In 2011–2013 there operated a government program of undergraduate and postgraduate teaching, training of scientific and teaching staff at leading foreign universities and research institutions. The list of such institutions included more than 170 universities from 23 countries. Most of them were universities of France, Germany, USA, and UK. Among foreign universities were also present other countries of Europe, Asia and America.

In 2011, the study or internship in leading foreign universities under this program 275 peoples were sent: 106 students, 82 graduates and 87 teachers. In 2012 — 353 people, among them: 180 students, 73 graduate students and 100 teachers. In 2013 — 305 people, including 138 students, 75 graduate students and 92 scientific and teaching staff.

There is also a number of small programs to train students abroad in the form of intergovernmental agreements (e.g. the Vishegrad Scholarship Program). Periodically, contests to participate in bilateral cooperation programs are announced by MES of Ukraine.

The rest of mobility programs are carried out by project grants and grants provided by foreign countries or alliances, international (and sometimes national) donors or in accordance with the agreements concluded between universities. The most famous of these is the Erasmus+ (EU), the Fulbright Program (USA) etc.

An example of national support programs is the “WorldWide Studies” of Victor Pinchuk Foundation, which has operated since 2010 and has annually 15–20 individual grants for graduates of undergraduate programs of study in master’s programs in most universities in the world ranking. It should be noted that the grant provides tuition fees, purchase of textbooks and medical insurance and usually covers 60% of the necessary costs.

Unfortunately, this list includes all systemic measures of financial support of student mobility in Ukraine. Statistics of providing financial support for mobility from private funds, foreign universities and loan programs in Ukraine is not collected.

7.3.6. Other measures to support student mobility

Other measures to support student mobility include the systematic work of a number of leading public and private universities networking partnerships with educational institutions, primarily with the EU, providing the possibility of student mobility through inter-university agreements. Some of these documents provides for partial covering of costs associated with mobility at the expense of the host country (reduction or abolition of tuition fees, benefits in paying for the accommodation, provision of scholarships, grants or soft loans, etc.).

An example of active fundraising activities to support international student mobility is the work of the Ukrainian Catholic University. A large part of its best Bachelor and Master alumni are able to obtain next educational or scientific degree in foreign universities (mostly in Italy, Germany, Austria, Poland, USA, Canada). This effectively uses the resources of religious and charitable organizations, individuals, aid of partner universities and government grants in many countries.

Among the most promising approaches is the conclusion of inter-university agreements aimed at simultaneous getting by the students of two or more Higher Education diplomas and in the future — joint degrees of Ukrainian and European universities.

7.3.7. Monitoring

Currently, the monitoring of student mobility in Ukraine has not been carried out in accordance with the common European methodology, and was limited by the number of observations and the dynamics of the number of students of foreign citizens and stateless persons that were mentioned in documents of the Bologna process. The real information on income mobility (with certain conventions) can be obtained from foreign sources. Let's hope for significant improvements in this area due to the adoption on November 25, 2014 by the Cabinet of Ministers of Ukraine of a decision to establish the Institute of Educational Analytics subordinated to Ministry of Education and Science of Ukraine.

Indicator 7.4. Staff mobility

The need for the development of teaching and research mobility does not meet opponents in Ukraine, though, in fact, this problem has been articulated only after the Leuven Conference of European Ministers responsible for higher education in 2009. Even the most orthodox supporters of the “best in the world Soviet education” consider teaching and research mobility to be an important factor in the development of higher education, although willing to argue about the content and address of the best experience.

It should be noted that traditionally there is distinguished inbound and outbound mobility of academic staff. Moreover, the right for mobility in Europe is understood quite widely and it is believed that it should be provided to teachers, researchers and other categories of university staff.

In Ukraine there obviously dominates outbound university staff mobility. Creating favourable conditions for it is an important competitive advantage in attracting the best teachers and researchers in the most progressive institutions. This causes their interest in the implementation of powerful institutional initiatives in this direction and allocation of considerable resources.

Social dimension of mobility, which is popular in the EHEA (pension rights, health and social security, etc.), is ignored by the Ukrainian educational community.

The national peculiarities of university staff mobility include a disproportionately high share of participation in these programs academic advanced management and practical impossibility for the employees of the academic libraries and university support units.

7.4.1. Concept

In fact, the first attempt of a conceptual understanding of the mobility of teachers and researchers is a draft Concept of Education of Ukraine for the period of 2015–2025. In this document a great strategic task of activation of the inbound teaching mobility is set, which can bring to Ukrainian educational practice new interactive, personalized, team and project learning technologies of joint production of new knowledge. There are formulated very ambitious indicators of desired participation of foreign teachers in the educational process of Ukrainian universities: by 2020 15% of educational programs must have foreign teachers, and by 2025 their share will reach 30%. There is separately emphasized the priority of attracting mobile teachers from the EU and the OECD.

A real positive trend can be ensured only after Ukraine becomes a full member of European mobility programs, such as “Erasmus+” and “Marie Skłodowska-Curie actions” as a part of the “Horizon 2020”.

A common problem of both European and Ukrainian higher education is the lack of adequate statistics on the mobility of teachers and researchers, as well as monitoring of its effectiveness and success.

7.4.2. Obstacles and measures to staff mobility

The obstacles on the way to the mobility of university staff in Ukraine, in general, are similar to European issues. The main groups of obstacles include: language barriers, legal restrictions and personal circumstances. National characteristics of mobility restrictions include: limited financial capacity of both educational institutions and their employees; a certain fear of new experiences as well as educational space and unfamiliar cultural context; lack of skills of fast establishment of communications and teamwork. Inbound mobility is largely limited due to a failure to guarantee foreigners a familiar for them level of wages, comfortable living and social security. There is no systematic approach to overcome the obstacles of mobility in Ukraine. The language barrier remains the most significant obstacle, especially for university employees in middle and old generations. Special courses and programs of teaching foreign languages to facilitate mobility virtually do not exist. If knowledge of English (less German, French, and Spanish) is formed by many students in education and research activities, then the level of other European languages (except as neighbouring countries) is very low. For inbound mobility a limiting factor is the lack of knowledge of Ukrainian and Russian languages that are not widely studied in Europe.

The second obstacle is the existence of legal restrictions. Citizens of Ukraine are not eligible for visa-free entry to the EU, which significantly limits the possibility of movement in the EHEA. Only in 2014 the barriers to the recognition of qualifications obtained abroad were removed. That for a long time limited inbound mobility. In Ukraine work permits are still required for highly qualified

foreign specialists in the universities. The norm in many European countries does not require work permits.

Another obstacle is the personal circumstances that are often caused by family responsibilities, career motives and bad financial and information support. It should also be noted that for the citizens of many European countries post-Soviet space remains terra incognita, a high-risk area, and now also a military threat.

Understanding of the importance of efforts to overcome the above obstacles in academic management and state education authorities has already been formed. But the pace of the possible change is determined by the possible resource constraints. The organization of monitoring of various factors that influence the teaching and research mobility remains a dream.

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