

*Addressed to  
IREG Secretariat*



**SELF-ASSESSMENT REPORT ON THE RATING STUDY PROGRAM OF AN  
INDEPENDENT AGENCY FOR ACCREDITATION AND RATING**

**Nur-Sultan**

**September 25, 2019**

## Content

List of symbols and abbreviations	3
1. Information about the ranking organization	4
2. Information on previous ranking experience	7
3. The purpose and main target groups of the rating	10
4. Rating area	10
5. Rating Methodology	15
6. Rating quality assurance	31
7. Publication and use of rating	38
8. The impact of rating	39

## List of symbols and abbreviations

**IAAR** - Independent Agency for Accreditation and Rating

**RK** - Republic of Kazakhstan

**KR** - Kyrgyz Republic

**MES RK** - Ministry of Education and Science of the Republic of Kazakhstan

**MES KR** - Ministry of Education and Science of the Kyrgyz Republic

**HEI** - Higher education institution

**EP** - Educational program

**Faculty** – Teaching staff

**ESG** – European Standards and Guidelines

**WFME** – World Federation for Medical Education

**АККОПК** –

**FIBAA** – Foundation for International Business Administration Accreditation

**ASIIN** – Accreditation Agency Specialized in Accreditation Degree Programs in Engineering, Informatics, the Natural Sciences and Mathematics)

**ACQUIN** – Accreditation, Certification and Quality Assurance Institute

**AAC-DEVA** – Andalusian Agency of Knowledge, Department of Evaluation and Accreditation

**ACBSP** – Accreditation Council for Business Schools and Programs

## ***1. Information about the ranking organization***

### *1.1. Name and address*

Independent Accreditation and Rating Agency

Baurzhan Momyshuly avenue 2, EP-4G.

Nur-Sultan city

+7 (7172) 768 561

### *1.2. Legal type*

Nonprofit Institution

The Independent Agency for Accreditation and Rating IAAR is a leading international accreditation agency for quality assurance in education (founded in 2011). IAAR conducts international institutional and specialized (program) accreditation in the European and Central Asian region, which is recognized at the national level (in Kazakhstan, Kyrgyzstan, Tajikistan, Moldova) and assigns its own quality mark in these countries. The IAAR has been conducting rating studies of HEIs in the Republic of Kazakhstan since 2014 and in the Kyrgyz Republic since 2018.

IAAR's strategic guidelines;

- ✓ Development of a quality assurance system using the best international experience;
- ✓ Conducting rating research;
- ✓ Creating public awareness about quality assessment results;
- ✓ Monitoring the national system for quality assurance in education.

IAAR was included in the Register of recognized accreditation bodies of the Ministry of Education and Science of the Republic of Kazakhstan in 2012 and re-included in the Register in 2017. On April 16, 2017, the IAAR was added to the Register of Accreditation Bodies by the Ministry of Education and Science of the Kyrgyz Republic. In 2018, the IAAR was recognized at the national level by the Ministry of Education and Science of the Republic of Tajikistan.

IAAR is included in the European Quality Assurance Agencies Register for Higher Education (EQAR) and is a full member of the European Association for Quality Assurance in Higher Education (ENQA), which gives the agency the right to conduct international accreditation of educational organizations.

IAAR is the first organization from the CIS countries, recognized by the World Federation of Medical Education (WFME). This gives the right to conduct international accreditation of medical organizations and programs abroad.

The IAAR is a full member of European, Asian and American networks and agencies for quality assurance in education and accreditation:

- International Observatory on Academic Ranking and Excellence (IREG);
- International Network of Quality Assurance Agencies in Higher Education (INQAAHE);
- The CHEA International Quality Group (CIQG);
- Association of Quality Assurance Agencies of the Islamic World (AQAAIW);
- Central and Eastern European Networks of Quality Assurance Agencies in Higher Education (CEENQA);
- Asia Pacific Quality Assurance Network (APQN).

The status of a recognized agency confirms the compliance of the IAAR operations with high international standards. Owing to full membership in international European networks, IAAR accredited educational organizations and education programs receive a high status of international accreditation.

The IAAR's operations are compliant with ESG and WFME standards. The IAAR's Standards and Guidelines have an exclusive copyright.

On December 14, 2018, the IAAR representative office was opened in the European Union in the city of Riga (Latvia). In the framework of strategic development, the representative office contributes to:

- ✓ Strengthening international activities;
- ✓ Active work in the European educational area;
- ✓ Expanding the range of partners in innovative projects.

The IAAR is in close collaboration with foreign quality assurance agencies: Rosakkredagentstvo, National Accreditation Center, AKKORK, FIBAA, ASIIN, ACQUIN, AAC-DEVA, RAEX Analytics, ACBSP, etc.

The IAAR assists educational organizations in raising their efficiency and in development of educational and scientific activities, cooperates by updating methodologies and best international practices of quality assurance, introducing effective mechanisms for quality improvement.

### *1.3. Funding Model / Rating Sources*

The fee for conducting annual ranking of HEIs comprise software maintenance costs, expenses related to holding a seminar for rating participants, consulting services to ensure the correct entry of data by HEIs, preparation and publication of a rating volume, preparation of certificates confirming the “1<sup>st</sup> ranking position” in the general and institutional ratings of HEIs and in ranking of education programs by the course levels - BA, MA, PhD, publication of the results in the republican newspaper and on the IAAR website. The fee as the total cost of ranking procedure is funded by the ranking participants.

### *1.4. Focal person*

Guiyash Niyazova, Project Manager for Institutional and Specialized Accreditation of Higher Education Institutions, +7 7172 786 561, +7 705 2934246, [gsh\\_niyazova@iaar.kz](mailto:gsh_niyazova@iaar.kz)

## **2. Information on previous ranking experience**

### *2.1. Date of first publication and brief history*

The Independent Agency for Accreditation and Rating (IAAR) has been conducting the “National HEIs demand ranking” at the state level since 2014 using a digital ranking program (technology) designed by a group of quality assurance experts, who fully delegated exclusive property rights on copyright items to the IAAR as provisioned by the copyright agreement. The IAAR is the sole copyright holder of the program, which is confirmed by the copyright certificate (Appendix 1.

Certificate on entering information into the state register on rights to an entity protected by the copyright No. 4081 dated June 16, 2019, Certificate on entering information into the state register on rights to an entity protected by copyright No. 4410 dated July 3, 2019). The ranking of HEIs is based on compliance with the Berlin principles, such as transparency, objectivity, verifiability and accessibility of information sources. The IAAR rating is focused on determining the quality of education programs by course areas.

The results of the first IAAR rating study were published in May 2014. The rating includes the result of comparing the indicators of 38 organizations of higher and postgraduate education of the Republic of Kazakhstan, including 5 national HEIs, 21 state, 10 private HEIs and 2 corporatized. The first three leaders among 103 BA degree education programs in 10 areas of training, 67 MA programs on 9 course areas, 9 - Phd on 6 course areas were published in the Republican newspaper "Kazakhstanskaya Pravda". The entire list of education programs and their rankings are available on the IAAR website (<http://www.iaar.kz/ru/rejting/rejting-vuzov-2014>). Since 2012, in Kazakhstan, the emphasis on master's programs has been shifted to technical course specialties. This was due to the state's development focus towards industrialization. As the published material shows, the largest number of BA programs that participated in the ranking relate to the course areas of "Technical Sciences and Technologies" (27 EP) and "Education" (23 EP), when in other areas indicators from 4 to 11 programs are analyzed. The same areas of MA level also remain leaders in the number of programs ("Technical Sciences and Technologies" - 20 EPs, "Education" –13 EPs).

Thus, the IAAR rating enabled evaluation of the implementation quality of the priority tasks of the education policy of Kazakhstan.

Since the first publication, the public has shown growing interest in the IAAR rating research (Figure 2.1.1), which is verified by the publication of material on ranking issues following the request from the editorial office of the republican educational socio-political newspaper Bilimdi EI/Educated Country, as well as the discussion of the functions and significance of the rating under the topic "Quality of HEI education" in the "Online" program of the national television channel "Khabar" on October 30, 2018 (<https://newsvideo.su/video/9596408>), presentation of the report "International accreditation and rating of IAAR - factors for the development of a quality culture at the Education Forum "Higher Education Quality is the main condition for Sustainable Development of the Country", organized by the Ministry of Education and Science of the Kyrgyz Republic and the Association of Higher Education Institutions of the Kyrgyz Republic and an

interview for the Kyrgyz television channel Kabar, Bilim AKIpress (<https://www.edu24.kg/ky/news/1307.html>).

As comparative material shows, 87 national HEIs took part in the "National demand ranking of HEIs - 2019". At the same time, obtaining and processing relevant and, most importantly, reliable data required for the study caused particular difficulties in ranking HEIs. Therefore, in connection with the submission of incorrect information, 28 HEIs were rejected. HEIs that became participants in the rating were selected based on qualification requirements. Thus, the rating includes 57 HEIs that have met all the requirements for participation in the ranking: 8 national HEIs, 21 state, 9 corporatized and - 19 private.

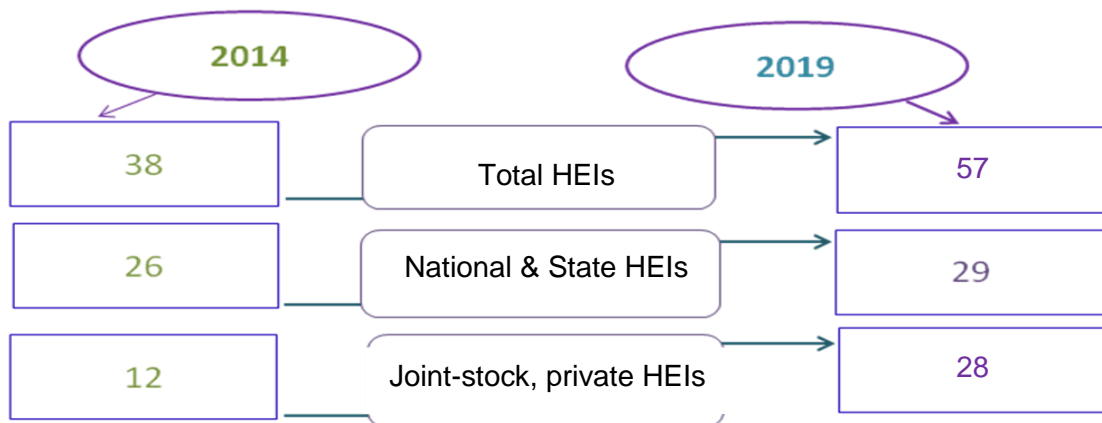


Figure 2.1.1 Statistics for IAAR Rating targets

Rating research data was used in the National report on the condition and development of the education system of the Republic of Kazakhstan in 2017 ([http://iac.kz/sites/default/files/nacionalnyy\\_doklad\\_za\\_2017\\_god\\_s\\_oblozhkami\\_dlya\\_sayta.pdf](http://iac.kz/sites/default/files/nacionalnyy_doklad_za_2017_god_s_oblozhkami_dlya_sayta.pdf) Date of request: 20.09.2019).

## 2.2. Publication Frequency

The IAAR rating is calculated once a year and published in May before the deadlines for the announcement of the state order for training, as well as the start of the Unified National Testing



for graduates of the Republic of Kazakhstan schools, and republican testing of schoolchildren of the KR.

### *2.3 Date of the last two publications*

The dynamics of the HEIs education programs indicators that participated in the ranking may be witnessed in the following media publications:

According to HEIs of the Republic of Kazakhstan in the newspaper "Kazakhstanskaya Pravda" dated May 15, 2019, the National ranking of demand for HEIs in the Republic of Kazakhstan for the year 2019 is given at the following link: <https://www.kazpravda.kz/fresh/view/natsionalnij-rejting-vostrebovanosti-vuzov-rk-2019> and dated May 15, 2018, the National ranking of demand for HEIs in the Republic of Kazakhstan - 2018 (<http://www.kstu.kz/wpcontent/uploads/2018/10/17/%D0%9A%D0%B0%D0%B7%D0%BF%D1%80%D0%B0%D0%B2%D0%B4%D0%B0%20Natrejting.pdf>).

The IAAR rating system is a digital technology for ranking education programs was adapted and approved by the Ministry of Education and Science, and was first applied in 2018 to determine the ranking of HEIs in the Kyrgyz Republic. The rating of HEIs in the Kyrgyz Republic was published in the «Kutbilim» newspaper dated June 19, 2018 <http://www.kstu.kz/wpcontent/uploads/2018/10/17/%D0%9A%D0%B0%D0%B7%D0%BF%D1%80%D0%B0%D0%B2%D0%B4%D0%B0%20Natrejting.pdf>, and dated May 25, 2019 (<http://kutbilim.kg/2019/06/25/nezavisimyj-rejting-vuzov-kyrgyzstana-2019/>).

## **3. The purpose and main target groups of the ranking**

### *3.1. Goal*

Higher education institutions are focused on promotion of a culture of quality assurance of education services, including the development of transnational education. The quality of education, as a key indicator of the country's sustainable growth, requires constant evaluation. IAAR rating is an assessment of the quality of education programs by levels and areas of training carried out with the aim to improve the quality, which contributes to the competitiveness of education services and provides the Kazakhstan community and stakeholders in Kyrgyzstan

with information on the degree of conformity of education quality to market requirements, teacher recognition and research performance of HEI. The IAAR rating, as a measure of the level of quality assurance in education, allows meeting the requirements of OECD countries and facilitates HEIs entering the international educational space. This is an important step towards Kazakhstan becoming one of the 30 most developed countries in the world.

### 3.2. Main target groups / users

The Ministry of Education and Science of Kazakhstan, the Ministry of the Kyrgyz Republic, HEI students, applicants, heads of education programs, organizations of higher and postgraduate education, employers, representatives of production companies.

## 4. Ranking area

### 4.1. Geographic coverage

Since 2014, the IAAR's digital program for education program ranking has been used as a barometer of success and as a tool for quantifying the effectiveness of the program, activities of the education organization, and the higher education system of HEIs in the **Republic of Kazakhstan**.

Table 4.1.1 Geographic profile of the IAAR's ranking

Region	Year / Number of HEIs			
	2016	2017	2018	2019
South Kazakhstan	24	30	32	33
Central Kazakhstan	3	2	3	3
Northern Kazakhstan	11	14	12	11
Western Kazakhstan	7	10	8	8
Eastern Kazakhstan	4	4	3	2
<b>Total</b>	<b>51</b>	<b>60</b>	<b>58</b>	<b>57</b>

As Table 4.1.1 illustrates, the number of HEIs involved in the IAAR ranking increased by 6 compared to 2016, but decreased by 3 HEIs compared to 2017 statistics.

The systemic participation of HEIs in the IAAR ranking is indicated in the table below.

Table 4.1.2 Continuous HEIs' participation in the IAAR ranking

№	HEI	2016	2017	2018	2019
South Kazakhstan					
1.	AL - FARABI KAZAKH NATIONAL UNIVERSITY	+	+	+	+
2.	ABAI KAZAKH NATIONAL PEDAGOGICAL UNIVERSITY	+	+	+	+
3.	KAZAKH NATIONAL WOMEN'S TEACHER TRAINING UNIVERSITY	+	+	+	+
4.	KAZAKH NATIONAL AGRARIAN UNIVERSITY	+	+	+	+
5.	T. K. ZHURGENOV KAZAKH NATIONAL ACADEMY OF ARTS	+	+	+	+
6.	KURMANGAZY KAZAKH NATIONAL CONSERVATORY	+	+	+	+
7.	NATIONAL MEDICAL UNIVERSITY (ASFENDIYAROV KAZAKH NATIONAL UNIVERSITY)	+	+	+	+
8.	KAZAKH ABLAI KHAN UNIVERSITY OF INTERNATIONAL RELATIONS AND WORLD LANGUAGES	+	+	+	+
9.	KAZAKH ACADEMY OF SPORT AND TOURISM	-	+	+	+
10.	KAZAKH ACADEMY OF TRANSPORT AND COMMUNICATION NAMED AFTER M. TYNYSHPAYEV	-	+	-	-
11.	KAZAKH AUTOMOBILE AND ROAD ACADEMY NAMED AFTER LB GONCHAROV	+	-	+	-
12.	KAZAKHSTAN UNIVERSITY OF INNOVATIVE TELECOMMUNICATION SYSTEMS	-	+	-	+
13.	KAZAKHSTAN ENGINEERING TECHNOLOGICAL UNIVERSITY	-	+	+	+
14.	ALMATY UNIVERSITY OF POWER ENGINEERING AND TELECOMMUNICATIONS	-	+	+	+
15.	ALMATY TECHNOLOGICAL UNIVERSITY	+	+	+	+
16.	CIVIL AVIATION ACADEMY	+	+	+	-
17.	ALMATY UNIVERSITY	+	+	+	+
18.	SULEYMAN DEMIREL UNIVERSITY	+	+	+	+
19.	UNIVERSITY OF FOREIGN LANGUAGES AND BUSINESS CAREER	+	+	+	+
20.	TURAN UNIVERSITY	+	+	+	+
21.	CASPIAN UNIVERSITY	+	+	+	+
22.	KAINAR ACADEMY	-	+	+	+
23.	ALMATY MANAGEMENT UNIVERSITY	+	+	+	-
24.	ALMATY ACADEMY OF ECONOMICS AND STATISTICS	-	+	+	+
25.	NARXOZ UNIVERSITY	+	+	+	+
26.	CENTRAL ASIAN UNIVERSITY	-	-	-	+
27.	EGYPTIAN UNIVERSITY OF ISLAMIC CULTURE "NUR-MUBARAK"	-	-	+	+
28.	UNIVERSITY OF INTERNATIONAL BUSINESS	+	-	-	-
29.	ZHETYSU STATE UNIVERSITY NAMED AFTER I.ZHANSUGUROV	+	+	+	-
30.	AHMET YESEVI KAZAKH-TURIK INTERNATIONAL UNIVERSITY	+	+	-	+
31.	INTERNATIONAL EDUCATION CORPORATION	+	+	+	+
32.	SOUTH KAZAKHSTAN STATE PEDAGOGICAL UNIVERSITY	+	+	+	+
33.	SOUTH KAZAKHSTAN STATE UNIVERSITY NAMED AFTER M.	+	+	+	-



	AUEZOV				
34.	MARDAN SPSRBAYEV INSTITUTE	-	-	+	+
35.	SOUTH KAZAKHSTAN MEDICAL ACADEMY	-	-	-	+
36.	SYRDARIYA UNIVERSITY	+	+	+	+
37.	UNIVERSITY OF FRIENDSHIP OF PEOPLES ACADEMICIAN A. KUATBECOV	-	-	+	+
38.	KORKYT ATA KYZYLORDA STATE UNIVERSITY	+	+	+	+
39.	TARAZ STATE PEDAGOGICAL UNIVERSITY	-	-	-	+
40.	M.KH. DULATY TARAZ STATE UNIVERSITY	-	-	-	+
<b>Central Kazakhstan</b>					
1.	KARAGANDA STATE INDUSTRIAL UNIVERSITY	-	-	+	+
2.	KARAGANDA STATE TECHNICAL UNIVERSITY	+	+	+	+
3.	KARAGANDA STATE UNIVERSITY OF THE NAME OF ACADEMICIAN E.A.BUKETOV	+	+	+	+
4.	BOLASHAK ACADEMY	+	-	-	-
<b>Northern Kazakhstan</b>					
1.	L.N. GUMILYOV EURASIAN NATIONAL UNIVERSITY	+	+	+	+
2.	S.SEIFULLIN KAZAKH AGROTECHNICAL UNIVERSITY	+	+	+	+
3.	KAZAKH UNIVERSITY OF ECONOMICS, FINANCE AND INTERNATIONAL TRADE	+	+	+	+
4.	M.KOZYBAYEV NORTH KAZAKHSTAN STATE UNIVERSITY	+	+	+	+
5.	KOSTANAY ENGINEERING AND ECONOMICS UNIVERSITY NAMED AFTER M. DULATOV	+	+	+	+
6.	RUDNY INDUSTRIAL INSTITUTE	+	+	+	+
7.	SH. UALIKHANOV KOKSHETAU STATE UNIVERSITY	+	+	+	+
8.	ABAY MYRZAKHMETOV KOKSHETAU UNIVERSITY	+	+	+	+
9.	TURAN-ASTANA UNIVERSITY	+	+	+	+
10.	KAZAKH UNIVERSITY OF TECHNOLOGY AND BUSINESS	-	+	+	+
11.	INNOVATIVE EURASIAN UNIVERSITY	-	-	+	-
12.	ARKALYK STATE PEDAGOGICAL INSTITUTE NAMED AFTER I. ALTYSARIN	-	+	+	-
13.	PAVLODAR STATE PEDAGOGICAL INSTITUTE	+	+	-	-
14.	ASTANA MADICAL UNIVERSITY	+	+	-	-
15.	FINANCIAL ACADEMY	-	+	-	-
16.	ASTANA UNIVERSITY	-	-	-	+
<b>West Kazakhstan</b>					
1.	K.ZHUBANOV AKTOBE REGIONAL STATE UNIVERSITY	+	+	+	+
2.	AKTOBE S.BAISHEV UNIVERSITY	+	+	+	+
3.	KAZAKH-RUSSIAN INTERNATIONAL UNIVERSITY	-	+	+	+
4.	WEST KAZAKHSTAN MARAT OSPANOV MEDICAL UNIVERSITY	+	+	+	+
5.	MAKHAMBET UTEMISOV WEST KAZAKHSTAN STATE UNIVERSITY	+	+	+	+
6.	WEST KAZAKHSTAN AGRARIAN AND TECHNICAL UNIVERSITY NAMED AFTER ZHANGIR KHAN	+	+	+	-
7.	WEST KAZAKHSTAN INNOVATION AND TECHNOLOGY UNIVERSITY	-	+	+	+
8.	YESSENOV UNIVERSITY (CASPIAN TECHNICAL UNIVERSITY)	+	+	-	+

9.	ATYRAU STATE UNIVERSITY NAMED AFTER H. DOSMUKHAMEDOV	-	+	-	-
10.	ATYRAU UNIVERSITY OF OIL AND GAS	+	-	+	+
<b>Eastern Kazakhstan</b>					
1.	SARSEN AMANZHOLOV EAST KAZAKHSTAN STATE UNIVERSITY	+	+	+	+
2.	EAST KAZAKHSTAN STATE TECHNICAL UNIVERSITY NAMED AFTER D. SERIKBAYEV	+	+	+	-
3.	SEMEY MEDICAL UNIVERSITY	+	+	+	+
4.	SHAKARIM STATE UNIVERSITY SEMEY	+	+	-	-
<b>Total</b>		<b>51</b>	<b>60</b>	<b>58</b>	<b>57</b>

As shown in the table, 69% of HEIs are consistent in their participation in the IAAR ranking. The 2019 ranking did not include 10% of the total number of HEIs with experience in using the ranking program, which is explained by a change in management of the state HEIs and their tight schedule due to subsequent changes in the type and form of organization. 7.5% of the total number of HEIs participate in the ranking occasionally. In 2018-2019, the number of participants in the ranking did not change due to HEIs (13.5%), which have submitted education programs for assessment for the first time.

For the first time, in 2018, the ranking of training programs made it possible to determine the level of program competitiveness in 31 specialties of 11 areas of 17 HEIs of the **Kyrgyz Republic**.

The first rating of HEIs of the Kyrgyz Republic showed that the largest number of competitive programs relates to the areas of "Pedagogical Education" (6 of 8 specialties), "Culture and Art" (4 of 9 specialties). The results of the first rating analysis of HEIs of the Kyrgyz Republic was discussed at a meeting of the National Accreditation Council chaired by the Minister of Education and Science of the Kyrgyz Republic G.K. Kudaiberdiyeva (Appendix 2. Extract from the minutes of the meeting of the National Accreditation Council of the Kyrgyz Republic as of June 8, 2018).

The "Independent Rating of HEIs of the Kyrgyz Republic - 2019" presents quantitative and qualitative indicators of 19 education institutions in 179 undergraduate (specialty) and master's programs in 19 course areas, while the first rating presents the results of ranking of a total of 51 specialist training programs.

The peculiarity of the independent ranking of HEIs in the Kyrgyz Republic in 2019 is that it contains the ranking results of previously not rated training programs for specialists in the

medical and agricultural sectors of the economy, and represents all the programs identified by HEIs as the most competitive. This data makes it possible to conclude that among the academic community of the Kyrgyz Republic, the IAAR ranking program is credible. According to the IAAR Strategic Development Plan for 2019-2023 (Appendix 3. Strategic Development Plan for 2019-2023) since 2020 the Independent Agency for Accreditation and Rating will be setting the task for conducting an Independent Central Asian rating with the involvement of education institutions from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, which is based on the Kyrgyzstan HEIs request to provide them with the opportunity to determine their level of competitiveness.

#### 4.2. Types of institutions, number of ranked institutions

For the period from 2014 through 2019, the education programs ranking allowed to determine the positions of HEIs in the ranking based on data entered by HEIs. Based on the comparative analysis results, it should be emphasized that the systemic participation of the same programs in the ranking allows the management of the education program and the HEI to correct, possibly, and revise strategies to increase the competitiveness of the program. Statistics by type of institution are given in tables 4.2.1. and 4.2.2.

Table 4.2.1. Statistics on HEIs of the Republic of Kazakhstan

Year	Data is provided correctly	Types of Institutions			
		National	Public	JSC	Private
2019	57	8	21	9	18
2018	58	6	21	7	24
2017	60	6	26	7	21
2016	51	6	24	5	16

Monitoring of IAAR rating research from 2016 through 2019 notes a steady increase in the quality indicators of HEIs: improvement of education programs, including the implementation of joint programs with HEIs of the Russian Federation, development of the faculty potential, expansion of internal and external academic mobility, as well as the responsibility of HEIs not only for training, but also for the graduates demand in the labor market.

Table 4.2.2. Statistics on HEIs of the Kyrgyz Republic

Year	Registered	Data is provided correctly	Types of Institutions	
			State	Private

2019	20	19	17	2
2018	19	17	15	2

## 5. Rating Methodology

*5.1. General approach, options include an overall aggregate score by determining fixed weights for different indicators, individual indicators that contribute to individual (optimized for customer requirements) ranking, other aggregation methods*

The technology is universal in that it allows setting the rating of the Republic of Kazakhstan HEIs, both in general and differentially for education programs by course areas of specialist training simultaneously in the format of a three-level structure of academic titles: bachelor - master - doctor of philosophy (PhD).

The rating of the faculty both in the Republic of Kazakhstan and in each HEI is also determined based on their contribution to the field of education and science.

As part of the rating research of HEIs, publicly available sources of the Ministry of Education and Science of the Republic of Kazakhstan and international e-resources were used: information on institutional and specialized accreditation of HEIs, on study grants, names of the “Altyn belgi” holders, state grant “The best teacher of HEI”, state awards and scholarships for the development of science of the Republic of Kazakhstan, scientific grants, patents and inventions, as well as publications on the Hirsch index (ISI Web of Knowledge, Thomson Reuters and Scopus).

The structure of the criteria and indicators for all three levels is identical and consists of 5 indicators.

Institutional accreditation of HEI and specialized accreditation of education programs in three levels of specialist training (undergraduate, graduate and doctoral studies) are included as input indicators.

The indicator "high concentration of talented students, teachers and researchers" consists of two parts: students and teachers. All students of the specialty studying under the education grant (including the rural quota), Altyn Belgi holders and graduates with honors degree in the last three years are registered on a surname basis. In-service teachers and their achievements in the context of HEIs of the Republic of Kazakhstan: in terms of academic degrees, received state and

personal prizes, scientific scholarships, as well as “The best teacher of HEI” and the management of a scientific grant at the Ministry of Education and Science of the Republic of Kazakhstan, holders of the Republic of Kazakhstan President’s international scholarship “Bolashak” are registered by surname.

The academic mobility indicator mainly takes into account professors and students coming from far abroad to a HEI and visiting professors and HEI students travelling to distant foreign HEIs, as well as the availability of joint academic programs with distant foreign partners in double-degree education.

In the indicator “graduate competitiveness”, the main indicator is the employment of 2016 graduates who studied under the rural quota, study grant and on the basis of an agreement.

The indicator “competitiveness of scientific papers of course lecturers” takes into consideration the h-index as of the ISI Web of Knowledge, Thomson Reuters and Scopus, as well as patents and inventions. These indicators are absolutely independently determined from the mentioned international e-resources.

If, when ranking the bachelor's degree program, all indicators relate to students and teachers, when ranking the master's and doctoral programs, all indicators relate to master degree and doctoral students, respectively.

According to the ranking methodology of education programs, a special computer program has been developed to process the database and verify the reliability of indicators reported by HEIs.

The sum of indicators for bachelor's degree programs – I (B) is calculated using the formula:

$$I(B) = I_0 \sum_{i=1}^n N_n * k_n \text{ or } I(B) = I_0 +$$

$$N_1 * k_1 + N_2 * k_2 + N_3 * k_3 + N_4 * k_4$$

where  $\frac{N_1}{N_1} \frac{N_2}{N_2} \frac{N_3}{N_3} \frac{N_4}{N_4}$  - the sum of points scored by indicators  $I_1, I_2, I_3, I_4$ , respectively.  $I_0$  - HEI entrance data;  $I_1$  - a high concentration of talented students, teachers and researchers;  $I_2$  - academic mobility;  $I_3$  - competitiveness of graduates;  $I_4$  - competitiveness of scientific papers of course teachers;  $k$  - indicator weight coefficient (Table No. 1).

If we take the fact that all indicators, except  $I_0$ , are equal, i.e. their contribution to the total grade points is the same, then the coefficients will be  $k_1 = k_2 = k_3 = k_4$  and is equal to  $k_n = 0.25$ . If necessary, their priorities are controlled through the same factors.

The sum of the total grade points for master's degree - I (M) and doctoral degree - I (D) shall be



determined in a similar way. However, the content of the indicators will be mainly aiming to the master degree students' achievements (Table No. 2) and doctoral students (Table No. 3).

In general, the total score of the HEI's course (education program) is determined by summing up the points scored for undergraduate, graduate and doctoral studies:

$$I = I (B) + I (M) + I (D)$$

The computer program allows summarizing course grade points in a three-level structure (bachelor's degree - master's program – doctoral programme) and based on these data enables to determine the rating of the education program by areas of all HEIs training of the Republic of Kazakhstan.

Thus, from the resulting database, the program allows to set the rating of specialties (education programs):

- ✓ HEIs participating in the Rating.
- ✓ Rating of HEIs of the Republic of Kazakhstan for education programs in accordance with the levels and areas of training.
- ✓ General rating of HEIs of the Republic of Kazakhstan by areas of specialists training by levels: BA - MA - PhD.
- ✓ General rating of Kazakhstan HEIs' faculty (TOR-50).

The objectivity of the data is ensured through a computer program from the database of national and international information resources, and therefore, their paper support is not required (Appendix 4. Technology of program and institutional ranking of HEIs of the Republic of Kazakhstan by course and levels of training)

## *5.2. Measured indicators (research, teaching and learning, third mission, etc.)*

The methodology for the rating of universities based on the main criteria:

First, information on institutional and specialized accreditation by levels of training: bachelor - master's and doctoral degrees. At present, in terms of entering the world educational space, the quality of higher education should be assessed taking into account the competitiveness of educational programs. International accreditation is a key tool for assessing the quality of education.

Secondly, the employment of graduates and their demand in the labor market. An important indicator of the effectiveness of a university is the recognition by stakeholders of the quality of educational programs and the competitiveness of educational services of the university to the needs and requirements of the labor market.

Thirdly, the level of development of human resources. The main indicators of the authority of the university are the presence of students-holders of "Altyn Belgi" and winners of competitions/Olympiads, highly qualified professors and active researchers; the qualitative composition of professors and scientists (their recognition and contribution to science), as well as quantitative indicators (state and nominal awards, scientific and educational scholarships, the title of "Best University Professor", scientific and international projects).

Fourth, the internationalization of education and the development of academic mobility. The exchange of students and professors, the availability of joint educational programs with the best international partner universities, scientific internships of teaching staff and young researchers, the involvement of foreign professors allow to evaluate the quality of education and the effectiveness of research at the university.

Fifth, the scientific publication activity of professors, undergraduates and doctoral students, which is a reflection of the effective scientific activity and potential of the university. Evaluation of research results is carried out taking into account the h-index (Hirsch index) of professors, undergraduates and doctoral students, based on the analysis and evaluation of Thomson Reuters, Scopus, ISI Web of Knowledge database. Conduct of rating studies shows the growth dynamics of scientific publications at international sites, which has a positive effect on the quality of educational programs.

### *5.3. Indicators (relevance, definitions, weights, etc.)*

Behind ranking technology is an adequate quantitative theory for assessing the quality of education programs. The technology excludes expert judgment and presents an objective picture, which arouses the trust of education organizations. The objectivity of the methodology is determined by summing up the indicators according to five criteria that are identical across all three levels, taking into account the information entered by the HEI itself.

The ranking technology of HEIs has been developed as an innovative mechanism for quality assurance, bringing the training system closer to the labor market, taking into account global ranking trends, graduate requests, stakeholder requirements and public interests. When conducting the rating in 2019, the Independent Agency for Accreditation and Rating improved the methodology of the digital HEI ranking program based on the use of the modern edition (Appendix 5. Extract from the minutes No. 4 of the meeting of the Consultative Council on ranking issues as of January 19, 2018).

The relevance of determining indicators emanates from strategic objectives of the state educational policy of Kazakhstan and Kyrgyzstan. The indicators “High concentration of talented students, teachers and researchers”, “Competitiveness of scientific publications of teachers, undergraduates and doctoral students of the specialty” and “Academic mobility” are structured based on the analysis of the current state of higher education, modernized according to the principles of the Bologna process. Main criteria for assessing the success of education program of higher education in the State programs for the development of education and science in Kazakhstan and Kyrgyzstan are the recognition of the program by the best representatives of the academic community, and selection of a HEI by gifted school graduates. Three indicators include 14 key parameters. The relevance of the graduate competitiveness indicator is due to the fact that the graduate of the education program is the main indicator of the presence or absence of quality.

In the Republic of Kazakhstan, the demand for a specialty (education programs) is assessed by analyzing data on graduates’ employment in the year of graduation from higher education institutions. The employment of graduates is under special scrutiny of the Ministry of Education and Science and the Government of the Republic of Kazakhstan to forecast the demand for a range of education programs. In this direction, there are a number of

policy documents at the level of the Ministry of Education and Science and the Government of the Republic of Kazakhstan (Law "On Education" of the Republic of Kazakhstan dated July 4, 2018 No. 172-VI LRK).

With no such guiding policy documents, at the onset of academic programs ranking first time conducted in the Republic of Kazakhstan in 2014, the IAAR considered “graduate employment” indicator necessary to fully determine the quality of education programs.

In the IAAR rating, “graduate employment” is divided into three categories depending on the financial resources expended. The local context of Kazakhstan is defined as the one with underfilled schools, in some regions their share reaches up to 60-70% of all rural schools. This trend is characteristic for the Western and Northern regions of Kazakhstan. Therefore, the Ministry of Education and Science of the Republic of Kazakhstan awards a special study grant “Rural Quota” for applicants coming from rural areas. The "rural quota" is distributed among pedagogical specialties.

In this regard, the first category of “graduate employment” is comprised of HEIs graduates enrolled through the “Rural Quota”. Their share, as a rule, is within the range of 90-97%. Such a high degree of their employment is due to the essence of the Rural Quota program itself, which requires compulsory employment in a rural area. In reality, graduates are employed in their district area or “ayul”, i.e. from where they came to go to college.

The second category of “graduate employment” is comprised of HEIs graduates who have been enrolled under the Republican educational grant. These graduates are also required to work on their specialty. The percentage of employment ranges from 70 to 80%.

The third category of “graduate employment” is made up of HEIs graduates who have completed education on a contractual basis. Their percentage of employment is the lowest, and varies from 30% to 50%. This category of students pays for their studies on their own or at the expense of sponsorship organizations that require these specialists.

*5.4 Data source, options suggest a third-party database (data was not provided by HEIs), data received from HEIs by third-party organizations, data received from HEIs by rating organizations (or their representatives), a survey of HEIs employees or students by a ranking organization collaborating with HEIs, the survey is conducted exclusively by rating organizations, etc.*

Feedback with HEIs on ranking issues is supported in the framework of annual seminars based on ranking outcomes and clarification of the IAAR rating methodology. Discussions are organized at the seminars, during which HEIs representatives, those responsible for the rating receive instructions on how to fill out the program correctly, and, if necessary, present their proposals for revising some indicators.

Over the entire period of the ratings, IAAR held 15 seminars and one webinar organized by the Bologna Process and Academic Mobility Center under the Ministry of Education and Science of the Republic of Kazakhstan.

Currently, a questionnaire is being drafted to determine the satisfaction of HEIs with the IAAR's ranking methodology.

### *5.5. Transparency of methodology*

The key parameters of the criteria “High concentration of talented students, teachers and researchers” are checked by analyzing publicly available data of the Ministry of Education and Science of the Republic of Kazakhstan, and “Competitiveness of scientific publications by teachers, master degrees and doctoral students” by comparing HEI’s information with the Thomson Reuters, Scopus, ISI databases Web of knowledge indicators.

The reliability of the information on the criteria of "Academic mobility" and "Competitiveness of graduates" is verified through the links provided by HEIs allowing access to regulatory and organization’s documents (orders of the rector, agreements with organizations). The reference on the ranking criteria is presented in table 5.5.1.

The effectiveness and importance of the IAAR ranking technology is confirmed by the fact that the annual rating promotes and allows the HEI:

- ✓ improve development strategies and identify new priorities;
- ✓ stimulate the participation of educational programs in rating research at the national and international levels;
- ✓ provide an effective algorithm for the interaction of HEIs and employers in order to improve the quality of training and practical orientation of graduates;
- ✓ increase the share of foreign students and faculty in the educational process, aiming to raise the export potential of the Kazakhstan education sector;

Table 5.5.1 Methodological reference of the IAAR ranking

Criteria	Key parameters	Assessment outcome
<b>High concentration of talented students, teachers and researchers - 25 %</b>	<ul style="list-style-type: none"> <li>✓ «Altyn belgi» holders</li> <li>✓ Prizewinners of the Republican Olympiad in the subject</li> <li>✓ Graduates with honors degree</li> <li>✓ Full-time teachers</li> <li>✓ Laureates of personal prizes from the MES RK</li> <li>✓ State scientific scholarship holders</li> <li>✓ Owners of the "Best University Teacher" MES RK</li> <li>✓ Project managers of scientific grants from the MES RK.</li> </ul>	Statistics reflecting the attractiveness of the HEI for school graduates, students of other HEIs, foreign students, the quality of teachers
<b>Academic mobility - 25%</b>	<ul style="list-style-type: none"> <li>✓ A visiting teacher (professor or PhD) from a foreign country, conducting classes and taking an exam on the taught basic discipline (BD) or profile (PD) cycle of the specialty</li> <li>✓ Lecturer (with a degree) of a specialized department holding classes at HEIs or research at research centers of far abroad countries</li> <li>✓ Students from non-CIS countries and students studying at HEIs of non-CIS countries</li> </ul>	Indicators, including the effectiveness of educational services, research efficiency, successful fulfillment of educational obligations, taking into account the internationalization factor (defined degree of attractiveness of a HEI at the international level)
<b>Graduates competitiveness -25%</b>	<ul style="list-style-type: none"> <li>✓ Employment of graduates (including the year of graduation)</li> </ul>	Indicators of HEI recognition by employers, the quality of educational services with market requirements
<b>Competitiveness of scientific publications of teachers, undergraduates and doctoral students in the specialty - 25%</b>	<ul style="list-style-type: none"> <li>✓ Publications according to the Hirsch index (h-index) in the Thomson Reuters, Scopus, ISI Web of Knowledge databases</li> </ul>	Indicators of research effectiveness, quality of educational services, recognition of teachers, students

- ✓ increase the number and ensure the quality of joint education programs with foreign HEIs as part of the implementation of double-degree education;
- ✓ demonstrate the dynamics of quality growth of education programs;
- ✓ establish a mechanism to increase the competitiveness of publications (growth of the Hirsch index) by teachers, doctoral and master degree students.

Rating studies in the field of higher and postgraduate education, as well as creating public awareness on the quality of education services' assessment results, are focused on provision of systematic support to HEIs in achieving the main national goal – to increase the competitiveness of graduates and the export potential of the educational sector, as defined in the Nation Plan - 100 steps to implement the five institutional reforms.

#### *5.6. Presentation of rating results (ranking tables, groups or clusters, mixed method)*

The main **object** of the rating study is the **education program** (BA, MA, Phd) by course areas listed below, on pages 25-26, and **subject is quantitative and qualitative indices** on key parameters of rating indicators given in the table above “5.5.1 Methodological Reference of IAAR’s Rating”, page 22.

The course areas and levels correspond to the State Compulsory Standard of Higher and Postgraduate Education (the main document of the organization of education in the Republic of Kazakhstan). There are 180 education programs by course areas.

The IAAR rating is formed based on the ranking results of education programs of Kazakhstan HEIs and includes the following types:

General rating of HEIs in Kazakhstan "TOP-20"

Institutional ranking of HEIs by areas of specialist training.

Rating of education programs by BA, MA and PhD.

Rating of teachers of HEIs in Kazakhstan "TOP-50".

Based on the ranking results of study programs of Kyrgyz HEIs, three types of ratings are formed:

Institutional ranking of HEIs by areas of specialist training.

Rating of education programs by BA, MA and PhD.

Rating of HEI teachers in Kyrgyzstan "TOP-30".

The IAAR rating is published in a table format and informs applicants, parents, employers, general public and other stakeholders about position of HEI, or study program. An example of the IAAR’s rating representation is shown in Figure 5.6.1.

(level) <b>BACHELOR</b> (area) <b>EDUCATION</b>		
(title of study program) <b>5B010100 – PRE-SCHOOL AND EDUCATION</b>		
Position	HEI’s title	Score
1	AKTUBINSK REGIONAL STATE UNIVERSITY NAMED AFTER K. ZHUBANOV	1184
2	АБАЯ АБАЯ КАЗАХ НАЦИОНАЛ ПЕДАГОГИКАЛ УНИВЕРСИТЕТ	961
3	NORTH KAZAKHSTAN STATE UNIVERSITY NAMED AFTER M. KOZYBAEV	614
..	...	...

Figure 5.6.1 from the Rating of BA study programs

The first column shows the position of HEI in terms of quality of the education program, the second column indicates the title of the HEI, and the third column represents the number of final scores obtained by summing up the score for each key parameter of the IAAR rating indicators.

Consider the methodology for the formation of each type of rating.

**The general rating of HEIs in Kazakhstan "TOP-20"**. This type of rating, based on quantitative scoring methods, was first compiled in 2018 at the request of HEIs. The rating position is determined by totaling scores gained by the HEI based on quality of indicators in accordance with the key parameters of the evaluation indicators for all education programs by areas and levels (BA, MA, PhD) presented by HEI. The number of education programs submitted by HEIs varies. One HEI submits for a ranking 200 education programs, and the other - 20. The general ranking of HEIs in Kazakhstan “TOP-20” represents a cluster of HEIs placed at the same position, holding the same number of scores or with a slight difference in scoring. HEIs with the highest number of scores (with a difference in scoring of more than 50%) occupy the first three ranking positions. An example is presented in Figure 5.6.2. The figure illustrates the first five HEIs.



Место	ВУЗ	Итоговые показатели (Баллы)
1	КАЗАХСКИЙ НАЦИОНАЛЬНЫЙ УНИВЕРСИТЕТ ИМЕНИ АЛЬ-ФАРАБИ	295327
2	ЕВРАЗИЙСКИЙ НАЦИОНАЛЬНЫЙ УНИВЕРСИТЕТ ИМЕНИ Л.Н.ГУМИЛЕВА	152765
3	КАЗАХСКИЙ АГРОТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ ИМЕНИ С.СЕЙФУЛЛИНА	68944
4	КАРАГАНДИНСКИЙ ГОСУДАРСТВЕННЫЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ АКТЮБИНСКИЙ РЕГИОНАЛЬНЫЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ ИМЕНИ К. ЖУБАНОВА	44957-40262
5	КАЗАХСКИЙ НАЦИОНАЛЬНЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ КАЗАХСКИЙ НАЦИОНАЛЬНЫЙ ПЕДАГОГИЧЕСКИЙ УНИВЕРСИТЕТ ИМЕНИ АБАЯ АЛМАТИНСКИЙ ТЕХНОЛОГИЧЕСКИЙ УНИВЕРСИТЕТ	37372-32767

Figure 5.6.2 from the General ranking of HEIs "TOP-20"

A general ranking of HEIs in Kyrgyzstan has not been performed, as 42% of the total number of HEIs in the country so far participate in the IAAR rating study. According to the IAAR policy, this type of rating will appear more objective if indicators of more than 60% of the total number of HEIs in the country are compared. Today, work to increase the number of Kyrgyz HEIs to participate in the ranking is ongoing.

1) **Institutional rating of HEIs by areas of specialist training.** When estimating the institutional rating of HEIs, the indicators of all study programs levels (BA, MA, PhD) of a certain course areas are summarized. Course areas of education:

- 1 Education
- 2 Humanities
- 3 Law
- 4 Art
- 5 Musical art
- 6 Social sciences
- 7 Economics and business
- 8 Natural sciences
- 9 Technical sciences and technologies
- 10 Agricultural sciences
- 11 Services

- 12 Warfare and Security
- 13 Health and social services
- 14 Veterinary
- 15 Computer technologies

The institutional ranking of HEIs by fields of specialist training in 2020 will be constituted as per the classifier of fields of study with higher and postgraduate education in 2018 and the State Compulsory Standard of all levels of education dated October 31, 2018. An additional 12 fields of education will be added to 2020 institutional rating (Table 5.6.1).

Table 5.6.1 Course areas of higher and postgraduate education of the Republic of Kazakhstan

No.	Code and classification of the field of education
Course areas in higher education - undergraduate	
1	6B01 Pedagogical sciences
2	6B02 Arts and humanities
3	6B03 Social sciences, journalism and information
4	6B04 Business, management and law
5	6B05 Natural sciences, mathematics and statistics
6	6B06 Information and communications technology
7	6B07 Engineering, manufacturing and construction industries
8	6B08 Agriculture and bioresources
9	6B09 Veterinary Medicine
10	6B10 Healthcare and social welfare (medicine)
11	6B11 Services
12	6B12 National Security and Warfare
Course areas in postgraduate education – Master degree level	
1	7M01 Pedagogical sciences
2	7M02 Art and humanities
3	7M03 Social sciences, journalism and information
4	7M04 Business, management and law

5	7M05 Natural sciences, mathematics and statistics
6	7M06 Information and communication technologies
7	7M07 Engineering, manufacturing and construction industries
8	7M08 Agriculture and bioresources
9	7M09 Veterinary Medicine
10	7M10 Healthcare and social welfare (medicine)
11	7M11 Services
12	7M12 National Security and Warfare
Course areas in postgraduate education – Master degree level	
1	8D01 Pedagogical sciences
2	8D02 Arts and humanities
3	8D03 Social sciences, journalism and information
4	8D04 Business, management and law
5	8D05 Natural sciences, mathematics and statistics
6	8D06 Information and communications technology
7	8D07 Engineering, manufacturing and construction industries
8	8D08 Agriculture and bioresources
9	8D09 Veterinary Medicine
10	8D10 Healthcare and social welfare (medicine)
11	8D11 Services
12	8D12 National Security and Warfare

**3) Rating of BA, MA and PhD education programs.** This type of rating is formed by summing up scores for each indicator in accordance with the key parameters of indicators, calculated automatically in the electronic program for ranking of education programs. For a deeper understanding, key parameters related to specific levels are presented.

**Key parameters used to calculate the rating of education programs by BA level:**

*Information on specialized accreditation* is an auxiliary indicator reflecting assessment of the quality of educational services under study programs implemented by educational organizations, based on current IAAR standards.

1) *High concentration of talented students, teachers and researchers*

1.1 *Students*

- The total number of students, indicating the number of students in the full-time department (grant, contract), part-time department (grant, contract), department of evening studies (grant, contract).

- Holders of the “Altyn belgi” mark (Gold mark, assigned to a graduate who has completed school with honors and received more than 120 scores based on the results of a single national testing)

- Winners of the Republican Student Olympiad by subject (over the past three years)

- Winners of the International Student Olympiad by subjects (over the past three years)

- Graduates graduated with honors (over the past three years).

1.2. *Teachers*

- The total number of teachers, indicating the number of teachers with an academic degree.

2) *Academic mobility*

2.1 A visiting teacher (professor or PhD) from a foreign country, who gave classes and took an exam in the readable discipline of the basic (BB) or profile (PD) cycle of the specialty in the previous two academic years.

2.2 A teacher (doctor of sciences, candidate of sciences or PhD) of the main department, who conducted classes at HEIs or research at research centers in the previous two academic years;

2.3 Foreign students studying for one semester in the previous two academic years

2.4 Students of the specialty who studied for one semester at a HEI in foreign countries in the previous two academic years

2.5 Joint educational programs with foreign partners in double degree education.

3) *Competitiveness of specialty graduates*

3.1. The number of graduates in the previous year, indicating the form of study (contract, grant, rural quota), and accordingly the number of those employed.

*4) Competitiveness of scientific publications of professors*

4.1 Publications according to the Hirsch Index of ISI Web of Knowledge, Thomson Reuters

4.2 Publications of teachers according to the Scopus Hirsch Index

4.3 Patents and inventions of teachers.

**Key parameters used to estimate the rating of education programs by MA level:**

Information on specialized accreditation is an auxiliary indicator showing the assessment of the educational services quality of education programs implemented by educational organizations, based on current IAAR standards.

*1) High concentration of talented master degree researchers*

1.1 A high concentration of talented master degree researchers. The total number of master degree students, indicating the number of forms of study (grant, contract).

*2) Academic mobility*

2.1 Master degree students from abroad who studied for one semester in the previous two academic years

2.2 Master students who studied for one semester at a HEI in the previous two academic years

2.3 Joint educational programs with foreign partners in double degree education.

*3) Competitiveness of graduate students*

3.1. The number of graduates in the previous year, indicating the form of study (contract, grant), and accordingly the number of those employed.

*4) Competitiveness of scientific publications of master degree students*

4.1 Publications according to the Hirsch Index of ISI Web of Knowledge, Thomson Reuters

4.2 Postgraduate publications according to the Scopus Hirsch Index

4.3 Patents and inventions of master degree student.

**Key parameters used to calculate the rating of educational programs by PhD level:**

*Information on specialized accreditation* is an auxiliary indicator illustrating assessment of the quality of educational services of educational programs implemented by educational organizations, based on current IAAR standards.

1) *High concentration of talented doctoral students*

- Doctoral students. The total number of doctoral students, indicating the quantity by forms of study (grant, contract).

- Scientific adviser for the Republic of Kazakhstan
- Foreign scientific adviser
- Graduates graduated with a thesis defense in the previous three years.

2) *Academic mobility*

2.1 Doctoral students from far abroad who studied for one semester in the previous two academic years

2.2 Doctoral students who studied for one semester at a higher education institution in the previous two academic years

2.3 Joint educational programs with foreign partners in double degree education

3) *Competitiveness of graduate students*

3.1. The number of graduates in the previous year, indicating the form of training (contract, grant), and accordingly the number of those employed

4) *The competitiveness of scientific publications of doctoral students in accordance with the Hirsch index*

4.1 Publications according to the Hirsch Index of ISI Web of Knowledge, Thomson Reuters

4.2 Publication of a doctoral student according to the Scopus Hirsch Index

4.3 Patents and inventions of a doctoral candidate.

**Key parameters used to estimate the rating of teachers of higher educational institutions of Kazakhstan “TOR-50”.**

- availability of an academic degree (Ph.D., Doctor of Sciences, PhD)
- Laureate of the State Prize of the Republic of Kazakhstan

- Laureate of nominal prizes of the Ministry of Education and Science of the Republic of Kazakhstan (Prizes named after K. Satpayev, Ch.Ch. Valikhanov, Y. Altynsarin, Kul-tegin, D.A. Kunaev, M.O. Auezov)

- holder of a state scientific scholarship

- holder of the title "Best University Teacher" Ministry of Education and Science of the Republic of Kazakhstan

- Head of the scientific grant of the Ministry of Education and Science of the Republic of Kazakhstan

- holders of the international scholarship of the President of the Republic of Kazakhstan “Bolashak”

- Hirsch index for ISI Web of Knowledge, Thomson Reuters

- the availability of the Hirsch index for Scopus;

- availability of patents and copyright certificates

- scientific supervisory of a doctoral candidate.

The rating of HEIs teachers “TOR-50” is formed by the quality indicators introduced by HEIs according to the key parameters of the indicators for assessing the competitiveness of the BA and PhD educational programs.

## **6. Rating quality assurance**

### **6.1. Ensuring the quality of data collection and processing**

The main advantage of the IAAR ranking is the objectivity of indicators that maximally reflect the activities of the HEIs in the quality training of specialists, which are analyzed in a computer program from a database of national and international information resources where paper support is not required.

The national rating of the demand for HEIs of the Republic of Kazakhstan in 2018 was compiled using an improved edition of the digital ranking program, which corresponds to the goals and objectives of the State program “Digital Kazakhstan”, approved by Decree of the Government of the Republic of Kazakhstan dated December 12, 2017 No. 827.

The ranking technology of the IAAR, which includes certain aspects of web metrics, excludes expert judgment and presents an objective picture, ensuring trust of the public and education organizations.

Quality of the rating is ensured by observing the principles of verifiability and accessibility of data sources to be verified in the ranking program itself. Access <http://rating.iaar.kz/> is available with the login *///* and passwords *///*

### 6.2. Organizational measures to ensure quality (consultants, advice, etc.)

The IAAR's ranking study process includes 3 stages with certain mechanisms, the application of which has a time frame.

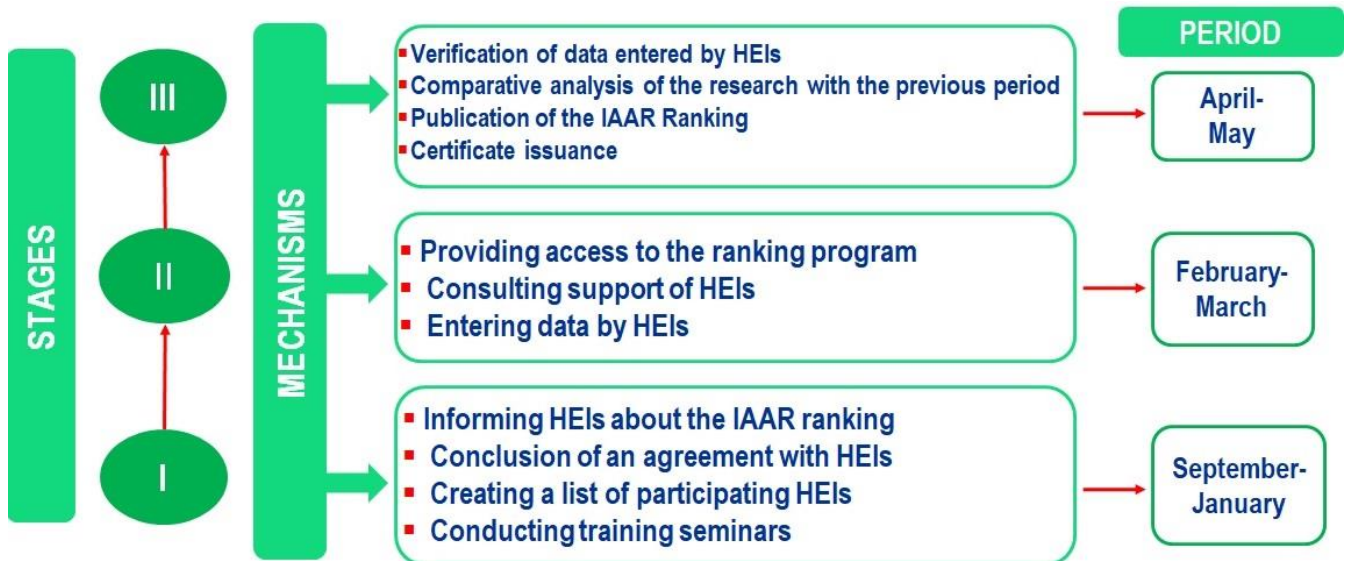


Figure 6.2.1 The sequence of the IAAR's ranking process

Figure 6.2.1 shows the three stages of the IAAR's ranking study conducted in the Republic of Kazakhstan and the Kyrgyz Republic over 9 months. Each stage includes mechanisms that are executed sequentially. For better understanding, we have presented a more detailed description of the mechanisms used in the framework of the IAAR's ranking study, starting with informing HEIs about the beginning of the next rating study to presenting their results by applying the Digital Technology for ranking educational programs.



**Stage I includes four mechanisms recognized as organizationally important in conducting ranking study:**

**1) Informing HEIs about the IAAR’s ranking.** Every year, at the beginning of the new academic year, in September-October, the IAAR sends an information letter to HEIs of Kazakhstan and Kyrgyzstan on the next rating study. The information letter contains information on the launch and completion dates of the ranking programs for educational programs by level (BA, MA, PhD) and fields of study, the amount of expenses for participation depending on the number of programs, contact details of IAAR’s ranking focal points and programmers for advice on the application issues for ranking.

**2) Conclusion of agreements with HEIs.** This mechanism is implemented by the departments of legal affairs and public procurement of the IAAR and HEIs. As practice shows, the conclusion of contracts is done from September to January.

**3) Formation of a list of participating HEIs.** Despite the fact that the IAAR forecasts a certain number of HEIs as potential participants in the ranking study, an accurate list of HEIs is compiled after the conclusion of agreements with them. Annually on January 28-30, the IAAR draws up a list of HEIs and identifies responsible experts - IAAR employees to provide consultancy advice to HEIs according to their requests.

**4) Conducting training seminars.** The main objective of the training seminars is to present the methodology for calculation of the multidimensional IAAR ranking, to explain indicators for quality assessment of the educational program and their indicators. Presentation of instructions on how HEIs are requested to enter data in accordance with indicators, and training on the correct completion of the educational program ranking program. Training seminars are held annually from January 19, when the approximate list of participants has already been determined, until February 9, when HEIs are already entering data into the ranking program for educational programs.

**Stage II consists of three mechanisms that provide a high-quality result of ranking study. It is through these mechanisms that one can see compliance with the Berlin principles by HEIs and the IAAR.**

**1) Providing access to the rating program.** After conclusion of agreements with HEIs, the IAAR presents a “digital key” to HEIs for access to the electronic program for

ranking educational programs, which is used by the IAAR as a multidimensional mean of the rating calculation. Access of Kazakhstani and Kyrgyz HEIs to the ranking program is open from February 1 to March 31.

**2) Consulting support of HEIs.** This mechanism stipulates provision of technical support (consultancy advice on the correct entry of data in the program cells) to HEIs when entering data into the electronic program for ranking of educational programs. This mechanism is implemented by programmers and the author of the electronic program itself. As practice shows, HEIs, in most cases, request assistance when there are problems importing data in Excel format into the program.

**3) Entering data by HEIs.** The HEI after receiving the "digital key" creates its own username and password, with which any number of persons from among the representatives of educational programs participating in the ranking study at a convenient time and place can log in and enter data on key indicators.

**Stage III includes four mechanisms and is characterized as the stage of verification and the formation of the ranking study results.**

**1) Verification of data entered by HEIs.** To understand the significance of this mechanism, we should consider, as an example, the verification process of data entered by HEIs using the key parameters of the indicator “High concentration of talented students, teachers and researchers (25%)”, shown in table 6.2.1

**Table 6.2.1. Data verification**

Key indicators	Supporting data	HEI action	IAAR’s action
Holders of “Altyn belgi (Sign of Excellency)” Prizewinners of the Republican Olympiad on the subject Graduates with honors	- holders of the Excellency award, students of the BA educational program, students of 1-4 courses who are prize-winners of the Republican subject Olympiad held by the Ministry of Education and Science of the Republic of Kazakhstan - surnames of graduates of the BA educational program who have completed “with honors”,	- entering data or importing it from the HEI’s own platform into the ranking program of the educational program	- checking through the HEI’s web link the availability of diplomas of the olympiad winners, Rector’s orders on issuing diplomas to graduates of the educational program

	diploma number		
Full-time teachers	- names of the teachers included in the staff of the BA educational program	- entering data or importing from the HEI's own platform into the ranking program of the educational program	- identifying facts of duplication of the same teacher by different HEIs, using the additional function of the ranking program; - sending official letters to HEIs to obtain confirmation that the teacher is part of the HEI
Laureates of personalized prizes of the Ministry of Education and Science of the Republic of Kazakhstan Holders of state scientific scholarship Owners of the "Best HEI's Teacher" Ministry of Education and Science of the Republic of Kazakhstan	- names of teachers	- defining teacher from the database of the Ministry of Education and Science of the Republic of Kazakhstan, previously entered by the IAAR into the ranking program of educational programs	IAAR is not checked, the program contains a reliable, annually updated database of the Ministry of Education and Science of the Republic of Kazakhstan

**1) A comparative analysis of the study with the previous period.** This mechanism is characterized by IAAR comparison of HEI results based on the outcomes of a rating study for the previous and current years. A comparative analysis is carried out in order to ensure the objectivity of ranking study and allows the HEI to see its strengths and weaknesses in accordance with key indicators. The results of the comparative analysis are presented to HEIs in the form of a report, and are also considered at seminars and forums on the issues of quality assurance in higher education in Kazakhstan and Kyrgyzstan.

**2) Publication of the IAAR ranking.** This mechanism is carried out annually in May to create public awareness about the quality of educational programs and the recognition of teachers before students recruitment campaign starts at HEIs and the educational program participates in the competition of the Ministry of Education and Science of the Republic of Kazakhstan for the distribution of grants, state orders for training personnel. The publication of the IAAR ranking in national newspapers shows the completion of the next rating study.

**3) Issue of certificates.** This final mechanism provides HEIs with certificates confirming that the educational program (BA, MA, PhD) occupies a leading, first position among similar programs implemented by other HEIs in the country. The issuance of certificates may be performed officially with the invitation of representatives of HEIs.

An independent IAAR rating is conducted in accordance with the objectives of the IAAR's Strategic Plan. Organizational measures for quality assurance of ranking studies include the following IAAR activities:

- informing stakeholders about the IAAR's ranking by publishing information and analytical materials on the ranking of educational programs in journals and national newspapers, as well as presenting the ranking methodology on the IAAR's web resource;
- training HEI representatives to work with technology for ranking educational programs through training seminars;
- consideration of the IAAR's rating methodology and discussion of the results of the ranking study at the meetings of the Consultative Council (Appendix 6. Regulations on the activities of the Consultative Council for IAAR rating), sections of the Central Asian International Forum held by the IAAR annually and other events of national and international scales.

Throughout the period from 2014 to the present, the IAAR systematically conducts workshops and training seminars to ensure the quality implementation of ranking procedures. Training seminars are held with the purpose of presenting the national ranking technology of the demand for HEIs in Kazakhstan and Kyrgyzstan by course areas and levels of specialists training, with the aim to discuss criteria and parameters, issues of correctly filling out the ranking program.

During the period under review, 15 seminars were organized for representatives of HEIs of the Republic of Kazakhstan, the Kyrgyz Republic in the person of vice-rectors, heads of structural

divisions and other representatives appointed for participation in rating studies (tables 6.2.2. and 6.2.3.).

Table 6.2.2. Some information about training seminars on IAAR rating issues

Date and venue	Organizer	Participants	Reference
09.02.2018 Aktobe Regional State University named after K. Zhubanov Aktobe city	IAAR	Representatives of HEIs in the western and central regions of the Republic of Kazakhstan	-
19.01.2019 Kyrgyz Economic University named after M. Ryskulbekova, Bishkek city	Review of outcomes of the rating study titled “Demand Rating of HEIs of the Kyrgyz Republic - 2018” and discussion of the updated parameters of digital technology for ranking programs by course areas and levels of specialist training.	Representatives of the Deputy MES KR, vice-rectors, heads of structural units of HEIs of the Kyrgyz Republic	<a href="http://www.iaar.kz/ru/65-0-novosti/news-all/1515-rejting-vostrebovannosti-vuzov-kyrgyzskoj-respubliki-2019">http://www.iaar.kz/ru/65-0-novosti/news-all/1515-rejting-vostrebovannosti-vuzov-kyrgyzskoj-respubliki-2019</a>

Table 6.2.3. Participation in international and national events on issues of rating studies

Date and venue	Organizer	Participants	Reference
27.10.2017 “Improving the rating system of HEIs of the Republic of Kazakhstan taking into account	Center for the Bologna Process and Academic Mobility	Deputy Director of the Department of Higher and Postgraduate Education of the MES RK, representatives of the Center for the	<a href="http://www.iaar.kz/ru/65-0-novosti/news-all/1171-uchastie-predstavitelej-naar-v-rabote-seminara-sovershenstvovanie-rejtingovoj-sistemy-">http://www.iaar.kz/ru/65-0-novosti/news-all/1171-uchastie-predstavitelej-naar-v-rabote-seminara-sovershenstvovanie-rejtingovoj-sistemy-</a>

international experience” Kazakh National University named after al-Farabi, Almaty city		Bologna Process and Academic Mobility, IAAR, HEIs of Kazakhstan, QS	<a href="#">vuzov-rk-s-uchetom-mirovogo-opyta</a>
---	--	---	---

## 7. Publication and use of rating

### 7.1. Type of publication (printed, online version, or both)

In 2014 to 2016, the result of the ranking of education programs was published in printable format as collected volume titled as "Independent Rating", since 2017 "Rating of the HEIs' demand in the Republic of Kazakhstan". For the general public of Kazakhstan, the IAAR rating is annually presented on May 15 in the Republican socio-political newspaper “Kazakhstanskaya Pravda”, in the Kyrgyz Republic in the newspaper “Kutbilim” (<http://kutbilim.kg/2019/06/25/nezavisimyj-rejting-vuzov-kyrgyzstan-2019/>).

The rating is published online on the websites of the IAAR (<http://www.iaar.kz/ru/rejting>) (since 2014), the newspaper “Kazakhstanskaya Pravda” (<https://www.kazpravda.kz/news/obshchestvo/nazvani-lideri-natsionalnogo-reitinga-vostrebovannosti-vuzov-rk--2019>), in the “Kutbilim” newspaper (<http://kutbilim.kg/2019/06/25/nezavisimyj-rejting-vuzov-kyrgyzstana-2019/>), IREG observatory (<http://ireg-observatory.org/en/1004-kazakhstan-top-20-ranking>).

In addition, the raking positions of each education program according to the results of a 2019 study are presented in the state language in the IAAR Education QA journal (<http://iaar-education.kz/%d0%b6%d1%83%d1%80%d0%bd%d0%b0%d0%bb-%d0%bd%d0%b0%d0%b0%d1%80-2-2019/>).

### *7.2. The language of publication (main language, other available language)*

The rating is published in the state and Russian languages, starting from 2018, with the aim of informing internationally about the general rating of Kazakhstani HEIs and since 2019 about the rating of programs of Kyrgyz educational institutions by course areas in English language.

The rating guide is published in the state and Russian languages.

(<http://www.iaar.kz/ru/rejting/rejting-vuzov-2014>, <http://www.iaar.kz/ru/rejting/rejting-vuzov-2019/respublika-kazakhstan> ).

### *7.3. Access for users of the rating (registration, fees)*

The ranking program is open for entering the HEI application based data from February 1 to March 31 annually.

The HEI that submitted the rating application receives a key for registration and further entry of data on all required indicators.

The fact of registration and participation of a HEI may be verified: by accessing the link <http://rating.iaar.kz/> with the login *///* and passwords *///*

## ***8. The impact of rating***

The ranking technology of the IAAR, as a methodology for the comprehensive analysis and assessment of the competitiveness of the education program, helps institutions of education to identify promising mechanisms for improving the quality of the program, promote the professional and research activities of the teaching staff, and improve the career orientation of HEI's interaction with the public. The level of impact of ranking technology as a system for monitoring the success of an ongoing program on the educational services market is determined by the annual rating.

The national rating of HEIs, as an effective tool for assessing the relevance of education programs in order to raise the competitiveness and growth of the export potential of educational services, aims to support and promote a quality culture of Kazakhstan education, contributing to

the promotion of Kazakhstan HEIs on the global educational area and for global academic ratings.

**Thus, the IAAR's task of expanding the capacities of the digital program is currently relevant. A criteria analysis of the recognized ratings for assessing the best HEIs in the world revealed new criteria that take into account the unique facets of education programs, the demands of potential students and, obviously, the successful practice of each Kazakhstan HEI.**

### *8.1. Personal influence (students, parents, researchers, etc.)*

The faculty rating is recognized as a tool for determining the success of a HEI's teacher. The rating for the teacher performs the following functions:

verification of the competitiveness of the results of scientific research, publication activity;  
indicator of the level of teaching;  
personal growth portfolio indicator.

### *8.2. Influence at the institutional level (higher education institution as a whole, rectors and presidents, deans, students, administration, etc.)*

The effectiveness and importance of the IAAR rating is confirmed by the fact that the annual rating promotes and allows HEI:

- ✓ to improve development strategies and identify new priorities;
- ✓ to stimulate the participation of education programs in rating research at the national and international levels;
- ✓ to provide an effective algorithm for the interaction of HEIs and employers in order to improve the quality of training and practical orientation of graduates;
- ✓ to increase the share of foreign students and faculty in the educational process, focused on the growth of export potential of the educational sector of the Republic of Kazakhstan;
- ✓ to increase the number and ensure the quality of joint education programs with international HEIs in the framework of double-degree programs;
- ✓ to demonstrate the dynamics of growth in the quality of education programs;



✓ to develop a mechanism to enhance competitiveness of publications (growth of the Hirsch index) by teachers, doctoral and master degree students.

Thus, the IAAR rating is an effective tool for ranking and evaluation, which helps to raise the competitiveness and growth of the export potential of educational services, aiming to support and promote a quality culture of Kazakhstan education. The multi-vector rating of the IAAR, covering various areas of HEI, allows to receive a detailed picture of the potential, resources and priorities of its further development, and also helps to enhance the prestige and recognition of the institution. All this is a fundamental factor of choice in terms of selecting a place to study for applicants, and of greater confidence for parents, employers and society!

### *8.3. Impact on higher education system*

The IAAR rating at the institutional level is viewed as a mechanism to improve the internal system and as a means for quality assurance, a motivation and monitoring tool of educational services, of programs and teaching staff recognition.

At the national level, an instrument to improve public opinion about HEI and attract talented youth, recognized scientists - representatives of the scientific and academic fields.

At the international level, it serves as an indicator of the competitiveness of the country's education system, the HEI's readiness for the integration and export of educational services, a mechanism for monitoring educational services, recognition of programs and faculty.

The IAAR rating is included by the Ministry of Education and Science in the list of indicators for assessing Kazakhstan HEIs' performance (Appendix. Reference form template on HEI's activities), and is also included in the number of elements of the Passport of the education program and is taken into account in the process of grants distribution among state applications by HEIs for programs of personnel training at the Bachelor, MA and PhD levels.