

### Part I: Context

Which data and information are available on your country's doctoral education? There is no need to provide details, a reference to the source suffices:

1. **History:** Who were/are the drivers of doctoral training over time (state/regional, federal government, religious institutions)? Do all institutions of higher education in your country award PhD/doctorate degrees? What types of doctoral degrees (professional doctorate, industrial doctorate) exist?

*Being a part of the Soviet Union, Kazakhstan practiced two-tier preparation of doctoral degree holders. Students studied at first in Aspirantura to obtain a Candidate of Science degree, and only after that could pursue research to be awarded a Doctor of Science degree. However, after joining the Bologna Process in 2010, Kazakhstan introduced PhD programmes and the PhD degree has replaced the previous two research degrees. The state was the key driver in introducing the PhD degree in the country with purpose to align research training to the international (Western) standards and integrate into the international scholarly community (e.g. EHEA, ERA).*

*In 2017, there were 128 higher education institutions (HEI) in Kazakhstan. According to the national statistics, only 70 of them provided PhD programmes. To have PhD students, universities have to receive a state license allowing to provide doctoral training.*

*There are two types of doctoral degrees in Kazakhstan – PhD (research based) and Professional doctorate including DBA.*

2. **Size and Demography of Doctorate Pool:** Data on the number of doctorate degrees awarded annually in 2005, 2010, 2015, (current, if available). The distribution of PhDs among your country's universities? The demographic characteristics? (% international students, women & men, major fields of study)

*Since the introduction of PhD programmes, the number of doctoral students has been growing steadily.*

Table 1. Number of doctoral students (PhD and professional doctorate) from 2010 to 2018

<b>Year</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>N</b>	960	1,337	1,588	1,892	2,063	2,219	2,710	3,603	5,609

Table 2. Doctoral students' enrolment and graduation from 2013 to 2017

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>N of doctoral students</b>	1,892	2,063	2,288	2,710	3,603
<i>Incl. professional doctorate</i>	170	101	122	93	113
<i>Incl. PhD</i>	1,722	1,962	2,166	2,617	3,490
<b>N of enrolments</b>	638	729	794	1,086	1,671
<i>Incl. professional doctorate</i>	31	-	32	25	51
<i>Incl. PhD</i>	607	729	762	1,061	1,620
<b>N of graduates</b>	373	503	533	619	721
<b>N of defences</b>	100	125	175	117	249

In 2017, the defence rate was 34,5%.

Table 3. Number of students by major field of study in 2017

<b>Major field</b>	<b>N of enrolments</b>	<b>N of students</b>	<b>N of graduates</b>	<b>N of defences</b>	<b>Defence rate (%)</b>
<i>Total</i>	1,671	3,603	721	249	34.5
<i>Education</i>	211	421	71	17	23.9
<i>Humanities</i>	210	406	72	-	-
<i>Law</i>	130	269	30	16	53.3
<i>Arts</i>	22	55	11	7	63.6
<i>Social sciences, Economics, Business</i>	307	633	87	28	32.2
<i>Natural sciences</i>	171	329	66	9	13.6
<i>Engineering and computer sciences</i>	381	855	198	99	50.0
<i>Agrocltural sciences</i>	53	130	66	-	-
<i>Services</i>	23	52	12	-	-
<i>Military and safety</i>	5	8	1	-	-
<i>Medicine</i>	110	295	85	58	68.2
<i>Veterinary</i>	25	52	13	-	-

There is no information on international students in doctoral programmes in Kazakhstan. The number of female doctoral students enrolled into universities was 695 in 2016, while the number of male students was 391. More information on doctoral education statistics can be found in the 2017 National Report on Science of the Republic of Kazakhstan (2018).

3. **Time-to-degree and Completion of Degree:** Data on expected time to completion and actual average time-to-degree? Does the time include the master's degree time? The average completion/attrition rate? Any major disciplinary differences?

*Doctoral students have to complete their studies and defend dissertation within 3 years irrespective of research area. However, because of various factors, including too high publishing requirements, for most students it takes more time to defence. 3-year period does not include the master's degree time.*

4. **Purpose and Goals of Doctoral Education:** If your country offers research (PhD) and professional doctorates, what is the purpose of each type of doctorate? Has the purpose changed in the last 20 years?

*According to national policies and educational standards, the purpose of PhD programmes is to prepare primarily (1) research cadres for academia and research institutes/centers and as a secondary goal (2) specialists with excellent research skills for promoting innovation in various professional areas beyond academia.*

*In 2017, the ratio of academia with research degrees (Candidate of Science, Doctor of Science, and PhD) in Kazakhstani universities was 48.7%.*

*Professional doctorate pursues a narrow aim, mainly to train specialists for various professional fields, so that they could innovate practices in industries and businesses.*

## Part II: Structure of Doctoral Education

Please provide brief information on the **structure of doctoral education** and **weblinks to National Policies and QA frameworks**: What is the predominant model of doctorate education (structured with courses and thesis; in a cohort; only dissertation; only apprenticeship model working with the adviser)? What are admission and degree requirements? Do your institutions have central campus units that are advocating for and providing services to doctoral students? i.e. a central graduate school, training centers, etc.

*Doctoral programmes in Kazakhstan are structured. They have coursework (first year of study), international research internship (up to three months), teaching internship (up to 1 month), research internship (in home country) and thesis. Before being admitted to defence, PhD students have to pass state examinations (usually 2), publish 7 articles (incl. 2 papers in conference proceedings and 1 paper in a peer-reviewed non-zero impact-factor journal). PhD defence (viva) is public. Defences take place at universities having dissertation committees. Each dissertation committee specializes in a certain research area (History, Biology, Physics, etc.). Final decision on awarding a research degree is made by the Committee for Control in Education and Science of the Republic of Kazakhstan. This Committee is responsible for final review of dissertations. In 2018, Kazakhstan introduced some amendments regarding the research degrees awarding process, particularly, universities with special status (e.g. national) have been given a right to award their own PhD degrees.*

*PhD curricular consist of mandatory (prescribed by the state) and elective courses (developed by universities). In 2018, Kazakhstani universities have been given more academic freedom. Since that time 90% of PhD courses can be designed by universities themselves. This was done with purpose to increase competitiveness of academic programmes and as a result their quality.*

*PhD programmes in Kazakhstan practice joint supervision. The principle (main) supervisor is a researcher/scholar from a home institution located in the country, while the co-supervisor is attracted from abroad, mainly partner-universities. PhD students also spend up to 3 months with their co-supervisors from partner-universities during their international research internships.*

*To be admitted to a PhD programme, applicants have to take English examination (IELTS or TOEFL, or any other foreign language, such as German or French) and one subject-specific examination. Universities are responsible for admission and selection procedures, as well as for developing examination tasks/papers.*

*PhD programmes are managed differently in different universities. Some institutions have established Graduate Schools that incorporate master and doctoral programmes, whereas others have established special Departments responsible for monitoring PhD programmes run by Schools or Faculties.*

- a. **Main National Policies/Reforms Affecting Doctoral Education:** Is policy for doctoral education developed by a Ministry or others?

*Key policies on doctoral education are developed by the Ministry of Education and Science of the Republic of Kazakhstan. However, the opinion of universities is taken into consideration. University experts take part in discussions and writing up nation-wide policies. The country's quality assurance agencies, as well as research centers, are also attracted to contribute to the policy writing process.*

*Key national policies/reforms that affected doctoral education in Kazakhstan are:*

- 2025 Strategic Development Plan of the Republic of Kazakhstan (SDP)
- 2010-2014 State Program of Forced Industrial and Innovative Development of Kazakhstan (SPIID)
- 2015-2019 State Program of Industrial-Innovative Development of Kazakhstan (SPIID-2)
- Strategy Kazakhstan 2050: New Political Course of the Established State (SK2050)
- 2016-2019 State Program of Education Development of the Republic of Kazakhstan (SPED)
- State Standards on Postgraduate Education (2016, with amendments in 2018)
- Rules on Awarding Research Degrees (2011, with amendments in 2018)

*Sources:*

[http://www.akorda.kz/ru/official\\_documents/strategies\\_and\\_programs](http://www.akorda.kz/ru/official_documents/strategies_and_programs)

- b. **Funding:** What is the relative support for PhD candidates through various kind of support mechanisms (individual fellowships, project funding, structured PhD funded programs/Doctoral Schools, Industry PhD's, Inter Institutional Collaborative doctoral program, etc)

*There are two funding mechanisms for doctoral education in Kazakhstan. Most students are supported by the government that allocates funds to universities to cover tuition fees, international research internship and students' monthly stipends. The small % of students pay for their education themselves.*

*The government also provides additional financial support for home graduate students and early-career researchers in the form of individual or group research grants that can be used to participate in international conferences/forums, to do fieldwork or conduct research abroad (in partner-universities' laboratories).*

*Finally, to increase quality of research in the country, the government has established international scholarship BOLASHAK that fully funds those who want to pursue a PhD degree abroad, particularly in top world universities.*

- c. **Quality Assurance/control:** Are there national guidelines? What role do the universities and possibly funding agencies play in the setting and monitoring of quality?

*There are no national guidelines on QA system in doctoral programmes. Most universities follow ESG as a basis for establishing internal quality assurance systems and undergo international accreditation process. Independent Agency for Quality Assurance in Education (IQAA) established in Kazakhstan has recently developed its own standards and guidelines for doctoral programmes. More information can be found here [https://c3-qa.com/wp-content/uploads/2017/03/Guideline-for-quality-assurance-of-doctoral-education\\_IQAA.pdf](https://c3-qa.com/wp-content/uploads/2017/03/Guideline-for-quality-assurance-of-doctoral-education_IQAA.pdf)*

- d. **Career paths of doctorate recipients:** Who collects data doctoral recipients' career path? data website? What level of career support for doctoral candidates is available in universities?

*As mentioned earlier, doctoral degree holders can follow two major career paths – in academia or outside it. There is no national statistics on doctoral graduates' job placement. Such information is usually collected by universities themselves.*

*As doctoral students (especially PhD students) are prepared for careers in academia, universities do not pay much attention to equipping graduates with knowledge and skills required in other professional fields. For example, there is no specific agenda of soft skills for PhD graduates. Soft skills are strongly emphasized at the undergraduate level.*



## Part III: Trends

1. **International Collaboration:** Is collaboration in PhD training encouraged? What are the trends? (intersectoral - industry/government/non-profit collaboration; inter-institutional collaboration within the country). Are joint degrees and co-supervision with other universities encouraged?

*Mostly international collaboration (with Western countries/institutions) is highly emphasized in PhD programmes. By developing international collaborations through attracting foreign professors for co-supervision, universities strive to increase quality of research training and doctoral students' theses, as well as establish new links for doing collaborative research in future. Collaborations with industries in the field of research and research training are limited.*

2. **Equal Opportunities:** Are there policies in your country aiming at diversity and inclusion in doctoral education focusing on overcoming inequalities in the larger social structure?

*There is no specific policy on inclusion in doctoral education. Any citizen of the country or any other country can apply to PhD if he/she meets admission requirements (master's degree, English knowledge, subject-specific examination). However, there is an opinion that the increased English language requirements since 2018 (IELTS not less than 6.0 or any other equivalent language test), can create inequalities among applicants. Applicants with poor foreign language skills (mainly from small cities or low-income families) will probably have less chances to gain state funding for PhD education.*

3. **Digital Transformation:** How has digital transformation influenced the process of doctoral education and training (e.g. MOOCs, live streaming of dissertation defense, new forms of digital dissertations, open science policy)?

*Computerization and digitalization of higher education are key priorities in Kazakhstan. Due to these processes, Kazakhstan has expanded its library resources. Universities are striving to gain access (by subscribing) to international scholarly databases as it has direct impact on the quality of research and research training. Moreover, foreign co-supervisors and dissertation committee members can participate in PhD defence online if they cannot be present in person. Finally, viva is recorded and uploaded on the website of a university. Thus, anyone who is interested in a certain PhD defence can watch it via the internet.*

4. **Most Important Aspects for Your Country:** Currently what are the most burning issues in doctoral education in your country? For example, working conditions, job insecurity, and other pressures on doctoral students? Which issues in doctoral education does your country plan and/or need to address in policies for the future?

*Key issues of doctoral/PhD education in Kazakhstan are:*

- *Quality of research training (low quality of training in research methodology/methods, particularly in social sciences and the humanities)*
- *Quality of supervision (local supervisors' knowledge of research and methods needs to be updated, teaching loads have to be decreased)*
- *Quality of dissertations (theses fail to integrate international research findings, methodology and theories)*
- *Internationalization of research (lack of knowledge of research practices and scholarly writing standards of Western countries)*
- *PhD defence (in most universities dissertation committees do not ensure quality, viva is sometimes viewed as a formal procedure, some dissertation committee members have low competence and are not active researchers)*
- *University-industry partnerships in research (industries and businesses should be attracted to sponsor collaborative research under which PhD students can write their own dissertations)*
- *Lack of interdisciplinary research*
- *Better infrastructure and resources do to research (laboratories are old, limited access to scholarly databases, especially to high quality journals)*
- *Lack of PhD students' funding (small stipend, students work part-time that increases time to defence or results in low quality theses, opportunities for international conference participation is limited)*
- *Bureaucracy at the university level (PhD students have to teach instead of their faculty when for example they are ill, PhD students are forced to participate in conferences and seminars not relevant to their theses or their development as researchers, PhD students are forced into administrative work of their departments, e.g. writing accreditation self-assessment reports, preparing documentation and meeting delegations).*