Doctoral Education: Global Perspectives

Victor Rudakov and Maria Yudkevich

Abstract
Doctoral education worldwide is characterized by parallel trends toward diversity and, at the same time, toward unification. There is no such thing as a standard doctoral education model. The landscape of doctoral education across the world is quite diverse and there is a considerable rise in its variations and flexibility. However, doctoral education has become a global market with flows of international students, faculty, and graduates who create a demand for unification of standards and benchmarking.

Doctoral education worldwide is characterized by parallel trends toward diversity and, at the same time, toward unification. These trends are influenced by massification and internationalization, growing research requirements, labor market challenges, and changing purposes of doctoral education. On the one hand, there is a tendency toward increased flexibility, as illustrated by the development of professional and work-based doctorates, of distant and part-time forms of PhD programs, and variations in terms of types of PhD programs, supervision, and study processes. On the other hand, the formation of global doctoral education systems with worldwide flows of students, faculty, and graduates, and the development of world-class universities contribute to unifying the enrollment and study process of doctoral education, and lead to similar requirements for those intending to pursue careers at world-class universities. However, this process of unification affects only top universities, frequently leaving national doctoral education systems intact—which also creates institutional differentiations within countries.

The Origins of Global Differences

The patterns of doctoral education in a given country depend considerably on the model that was chosen during its emergence and the implications of subsequent reforms. During the formation of their system, countries adopted models or elements of doctoral education of other countries with mature academic systems. For instance, some countries adopted the German model, with its strong focus on research work during the doctorate. Some went for a two-step doctoral education system as in the Soviet Union and some post-Communist countries (requiring two dissertations). Later, others adopted the US model, which is more structured and includes considerable coursework.

During the nineteenth and twentieth centuries, there were several different national leaders in the sciences, and as a result doctoral education in many countries is a mix of best practices of these leading countries, adopted to fit internal realities and national institutions. In our publication *Trends and Issues in Doctoral Education: A Global Perspective* (2020), we analyze key trends in doctoral education around the world.

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Scale of Labor-Market Outcomes

During the past two decades, there has been massive growth in the number of PhD holders, caused by increasing research ambitions of universities and the need for more faculty as higher education systems expand. It is frequently mentioned that there is an oversupply of PhD graduates globally. However, one must differentiate between the situation in many lower-income countries with expanding tertiary education systems, where there is a dire need for PhD graduates, and most higher-income countries, where doctoral graduates are indeed in excessive supply and face employment problems in academia. Due to a shrinking academic labor market in these countries, the employment prospects of doctorate holders, especially in the humanities and social sciences, are getting worse, which explains the spread of postdoc formats of employment and emphasizes the importance of industry as an employment destination for doctoral graduates.

Internationalization

In terms of internationalization, English-speaking countries and countries providing an option to write and defend one's thesis in English have an important competitive advantage in attracting international doctoral students. A long history of doctoral education, as in Germany, or a past as a colonizing power, as in the case of France—which provides massive flows of students from former colonies with expanding higher education

systems—are other predictors of high numbers of international doctoral students. Countries like Brazil, China, and Russia are regional powers in terms of higher education and mainly attract students from neighboring countries.

Processes and Types of PhDs

There are considerable differences between doctoral program processes, namely in program length, levels, and intermediary exams, affecting PhD completion and attrition rates, as well as between types of PhDs, dissertations, and supervision. There is a stable increase of part-time and distant formats of PhD programs all over the world, which, however, raise issues of quality and learning outcomes. There is some heterogeneity in terms of program length, although in general programs last between three and five years depending on country and subject. Despite the fact that in several countries (e.g., Germany, Poland, and Russia) there are still some elements of two-step doctoral degrees, with the implementation of the Bologna reform these systems are gradually disappearing. There is a differentiation between research-based (mainly in Europe) and course-based (mainly in the Unites States) approaches to doctoral education, but most countries gradually move toward course-based PhDs. Another clear trend is a change in dissertation requirements, namely the increasing significance of research publications.

A need for new leaders in the knowledge-oriented economy, the importance of industry–university partnerships, a shrinking academic labor market, and wide criticism against a lack of attention to skills have led to a change of purpose of doctoral education. PhD programs are no longer limited to nurturing new scholars for the academic labor market. This leads to the development of professional and work-based doctorates, especially in fields like accounting, finance, law, medicine, and nursing.

Funding and Status of Students

There is a wide diversity in funding models of doctoral education: free, tuition based, supported by scholarships and loans, or paid with a salary. In China, Japan, South Korea, the United Kingdom, and the United States, tuition costs are high and financial help depends on funding from programs, research projects, or universities. Germany provides students with the necessary support during their studies, making doctoral education there an attractive option for talented youth from around the world. In Kazakhstan and Russia, some doctoral students pay tuition fees, but these are quite low. In the majority of doctoral systems, including in the United Kingdom and the United States, doctoral candidates are considered students, while in Germany, the Netherlands, and some of the Scandinavian countries, doctoral candidates have the status of university employees.

The Impact of the Pandemic

As all other students, doctoral students are affected by the current pandemic. Many are not able to work on their projects, especially where equipment is involved. Some suffer from lack of communication and support from their advisers and departments. For those who are entering the job market this year, the situation is extremely uncertain and insecure. The negative effects of the pandemic are likely to increase: Some doctoral schools at several major US universities have already announced that they will not admit PhD candidates into their programs next year in order to "concentrate resources on their work with existing doctoral students." Universities will definitely need time to return full scale to their function of preparing new academics. ◢

Victor Rudakov is a research fellow at Center for Institutional Studies, National Research University Higher School of Economics (HSE), Moscow, Russia. Email: vrudakov@hse.ru. Maria Yudkevich is director of the Center and vice-rector of HSE. Email: yudkevich@hse.ru.

This article gives an overview of results from the recent book Trends and Issues in Doctoral Education: A Global Perspective, *edited by M. M. Yudkevich, P. G. Altbach, and H. de Wit. Sage, 2020.*