



F.R. ZAGIROVA

## Student Academic Diversity and University Administration

### Formation of a Research Agenda

*This article seeks to draw attention to the phenomenon of the academic diversity of students studying at universities and to articulate a research agenda for studying this phenomenon and its relationship with the university administration. We conducted a review of the existing literature and statistical data about Russia, which has allowed us to identify a range of possible reasons for why academic diversity is on the rise at universities and to offer a set of basic conditions for determining its level. The article first analyzes academic diversity as a contextual variable together with the organizational characteristics of the universities. We demonstrate its importance for university administration. The author also provides a range of theoretical frameworks that can be used to analyze university administration in the context of high academic diversity. A more detailed study of administrative practices at universities is needed as a follow-up to this article. The results of this study may be used to expand the existing research agenda in higher education as well as to analyze and plan measures at specific universities.*

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Farida Rinatovna Zagirova, Analyst at the Laboratory for University Development, the Institute of Education, National Research University Higher School of Economics, Moscow, Russia; Email: [fzagirova@hse.ru](mailto:fzagirova@hse.ru).

## Introduction

Back in 1973, Martin Trow wrote a famous paper on the challenges and problems that confronted many educational systems worldwide in transitioning from an elitist to a mass participation model [1]. The trend to expand access to professional education to as many people as possible continues to this very day: between 1972 and 2012 the international gross indicator of the reach of postsecondary education grew from 10 percent to 32 percent [2].

In some countries, including in Russia, almost everyone pursues a higher education. According to Trow, if under the old elitist system obtaining a higher education was the prerogative of the highest class in society and the most talented students, then under the mass education system (and in particular in accordance with the ideal of universal education) studying at a university has become an expected and even mandatory step for all students almost independent of their ability or social background. If previously access to education was limited, and universities could choose to admit relatively few students from their many prospective applicants, then now they are forced to accept students whose level of preparation even in the relatively recent past would have been unacceptable [3].

The massification of education has led to a situation where increasing numbers of students with completely different levels of socioeconomic and cultural capital and different degrees of academic training have received access to higher education [1]. Nor can it be argued that the stratification of institutions by level of prestige in high-participation systems of higher education [4] always distributes applicants by university in accordance with their level of their preparation. When large sections of the population are admitted to both leading universities as well as other institutions, a situation arises where students with completely different backgrounds may study together at the same institution.

The fact that members of the student population have dissimilar backgrounds has an effect on how the university performs its

fundamental function of providing a quality education. Universities must establish academic standards for working with students with varying degrees of preparation at the same time that they must meet expectations to personalize educational tracks. These factors can complicate the basic mission of ensuring such a quality education. Thus, we should conduct a more detailed study of the phenomenon of academic diversity by analyzing organizational and administrative practices together with the strategies that are being adopted by universities.

However, the goal of this article is not to provide answers to questions about how universities should be administered given the differences in academic preparation of their students. Rather, the article seeks to pose questions by analyzing the reasons and consequences of this phenomenon and to specify a research agenda for studying academic diversity and its interrelationship with university administration. To achieve this goal, the paper has relied on a wide range of existing studies in the field of higher education, statistical data from the Russian Population Census, and the Unified Information System of the Ministry of Education and Science of the Russian Federation. We have also analyzed data from the Monitoring Study of the Quality of the Admission Process that has been conducted since 2011 by the Higher School of Economics.

The article is structured as follows: the first part is devoted to a review of the existing literature on academic diversity, which clarifies the existing concept of varying levels of academic preparation from the point of view of the needs of university administrators to analyze the situation. In what follows we will present a detailed analysis of the possible causes of varying levels of academic preparation and a method for determining it at a particular university. In the next section, we will describe the theoretical framework that is relevant for addressing this phenomenon, and we will outline the challenges facing universities. In the concluding section, we will outline a prospective agenda for further research and analysis at the university.

## **What is academic diversity?**

The problem of social and academic heterogeneity of students is of active interest in the research community. It has long been accepted that certain personal indicators are responsible for the varying levels of student academic success. Such indicators have traditionally been considered to be the socio-economic status of the student [5–8], cultural capital [9], gender [10], ethnicity, and race [10–12]. Although these factors may be basically responsible for predetermining a certain level of academic preparation, the university is able to influence them only to a certain small degree.

Not many researchers have previously investigated the problem of the varying level of academic preparation of university students. Most articles examine this phenomenon in terms of the K–11 educational process: scholars have studied the classroom practices of teachers [13], the impact of organizational decisions on student performance [14], the effects that the family has on child development [15, 16], and peer effects [17]. However, the results of the report that was prepared by Moon et al. [18] indicate that the existing practices that are designed to address the challenges of academic diversity have often failed to be applied in a consistent and robust fashion. Other researchers approach this phenomenon from the perspective of the psychological characteristics of students, their learning strategies [19], their goals for obtaining an education, and their level of self-confidence [20].

At the higher education level, a fairly wide range of studies cover questions of how students influence one another as a result of peer effects [17, 21, 22]. Studies show that students overall exhibit higher levels of academic achievement when they study in mixed groups than when studying in separate groups. The maximum added value, therefore, is achieved when students with varying levels of baseline ability study in the same educational groups and institutions. At the same time, some studies show that the peer effect may vary depending on the major program of study: thus, students in technical programs of study

receive more positive results from studying in mixed groups than humanities students do [23]. Other relevant studies in higher education include those that explore the practices of teachers that instruct heterogeneous groups of students [24].

There are only a few previous studies that examine academic diversity at the university and system-wide levels [25, 26]. These are studies of teaching methods that estimate academic diversity at specific Russian universities based on the results of the Unified State Exam (USE). Aleskerov et al. also attempted to assess their obtained results from the point of view of the “ideal” system of higher education [26]. However, the question of how to organize and administer university students with varying levels of academic preparation remains largely unaddressed by previous studies in the field of higher education.

When we consider the results of our literature review of studies on the academic diversity of schoolchildren and university students, we are able to arrive at a rather broad definition of the concept. Academic diversity occurs when students with varying levels of basic preparation and academic ability enroll at the same educational institution. Such students, accordingly, have different needs. The definition also encompasses students who practice different learning strategies and behaviors as well as students who pursue higher education for various reasons and for differing purposes. The concept of academic diversity that has been proposed in order to fill the existing gap in the literature is narrower. In this article, it is understood as varying levels of academic preparation possessed by students attending one university. They differ in terms of their background academic capital and ability to study at the university as well as to fulfill the requirements of course curricula and to achieve academic objectives. Proper academic preparation, in turn, is defined as achievement of the level of knowledge that is necessary to successfully study in classes as well as to master certain skills that are required in order to successfully study at university. This understanding allows us to simplify the task of analyzing administrative practices, since in this case the varying levels of academic preparation of students

can be determined by universities during the admissions screening process. This type of academic diversity may, on the one hand, be identified contextually, since it is determined by external conditions, such as the level of the preparation that students receive before matriculating in the university. On the other hand, it can be defined administratively due to the fact that prospective university students become a part of the educational institution after they matriculate.

Of course, students with varying levels of academic preparation are present at all universities to a certain degree. There is no such thing as institutions that enroll students with identical academic backgrounds if they have more than one student. Therefore, in the present article we will discuss universities whose students vary significantly in terms of their academic preparation.

### **Academic diversity: The reasons for the phenomenon**

The fact that academic diversity has been understudied is not evidence in favor of the claim that the phenomenon can be explained by reference to a specific list of causes. However, this does not prevent us from proposing hypotheses on the basis of previous studies. It is important to clarify the reasons why this phenomenon came about in order to understand the nature of the phenomenon. Such an explanation would allow universities to more clearly identify opportunities for remedying the problem that their students have varying levels of academic preparation. For example, it can help them understand how they should approach the problem in order to change it and how they can best adapt their strategies and practices. These reasons are rather varied in terms of the level by which they approach the problem, and they vary from global trends to the individual student preferences. We will discuss these reasons in this section starting with the most general and moving towards the more specific.

The process of the massification of tertiary education represents an international trend that has prompted the level of

academic diversity to increase. Countries in which a significant proportion of the population enrolls in tertiary programs of study (highly participated systems), including the United States, Norway, Canada, Australia, as well as Russia [4], are systems of universal tertiary education [1]. The ongoing process of massification has led to a situation where by 2012 the share of the population enrolled in tertiary education programs was at least 50 percent in 54 national systems, and in 14 of these systems, including in Russia, this share was more than 75 percent [4]. We can see the trend towards the massification of the Russian higher education system in how various age cohorts have tended to receive more education over time (Figure 1).

According to UNESCO data, the number of people who pursue tertiary education, including those enrolled in vocational education and higher education programs of study, increased in Russia by more than 25 percent between 2000 and 2016. However, the system of higher education in Russia is currently contracting and not expanding: the share of youth between the ages of 17 and 25 who are enrolled in higher education programs has consistently fallen since 2009, from 35.9 percent to 31.8 percent by 2016 [28]. However, despite this trend, Russia remains one of the world leaders in terms of the number of young people that pursue tertiary education [2], with more than 7.267 million students enrolled in tertiary education programs in the country.

Another global phenomenon that may affect the increase in academic diversity at universities around the world is internationalization [29, 30]. The existing literature explores the challenges and stressors that international students face [31, 32]. These primarily include language issues followed by cultural differences and financial difficulties. Fluency in English, academic skills, and educational experience all affect student performance. In other words, from an organizational point of view, the challenge for universities is to provide foreign students with successful learning conditions that are able to help them overcome the difficulties that are associated with the difference in

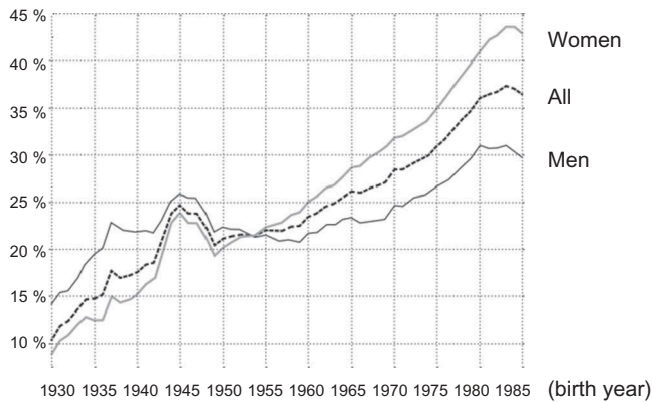


Figure 1. **Share of People with Higher Education in Various Age Cohorts [27]**

national education systems, the content and principles of education, cultural differences, and, above all, language barriers.

The issue of internationalization is also very pressing for Russia. If we take note of international statistics about the number of foreign students, then according to UNESCO, in 2016 the share of foreigners enrolled in tertiary education programs in Russia was 3.9 percent [33]. The Federal State Statistics Service collects data about higher education: in 2016, the share of international students enrolled in full-time programs was seven percent [34]. In 2017, over 142,000 foreigners studied in full-time Bachelor's and Specialist's programs, representing about 6.7 percent of the total number of students [35]. Given such indicators, Russia places among the top 10 most attractive countries for students from abroad according to the Organization for Economic Cooperation and Development (OECD).

In addition to global trends that influence the growth of academic diversity, there are also local features of education systems that can exacerbate the severity of this phenomenon. The trend towards the massification of education by itself is not a reason for academic diversity. The quality of K–11 education plays an important role in the formation of academic diversity.

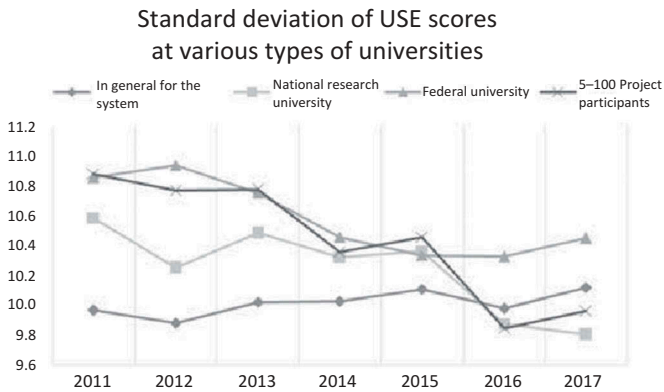


For example, according to the results of the PISA international survey,<sup>1</sup> almost 20 percent of Russian schoolchildren fail to achieve even a basic level of literacy in mathematics, which is necessary in order to fully participate in modern society. At the same time, only nine percent of them scored a high result that demonstrated an ability to develop models for solving complex problems and work with such models.<sup>2</sup>

National policy in higher education is also a factor that influences the development of academic diversity within the student cohort [1]. This policy can set or reflect expectations about higher education, and it can respond to global trends in the massification and internationalization of education. Measures to stratify or vertically differentiate students in particular have reduced the level of academic diversity at the leading Russian universities. However, the general level of academic diversity of students entering universities has exhibited an upward trend due to inadequate K–11 preparation (Figure 2).

Thus, no matter how paradoxical it may sound, measures that are designed to create a hierarchy of universities to stratify the system do not in fact decrease the level of academic diversity at all institutions. The expectation that students will be divided between universities in accordance with their degree of preparedness, so that, for example, the strong students will end up at leading universities and the rest will be evenly distributed throughout the lower tiers of the system, is not borne out by evidence.

Another national trend that has contributed to the growth of academic diversity in Russia may be the demand from students for secondary vocational education, which presents another way to gain admission to universities [36, 37]. According to the team of researchers led by Aleksandrov and Yastrebov, college students pursue this education trajectory in order to gain access to higher education without having to pass the USE. Thus, universities admit graduates of institutions of secondary vocational education in addition high school graduates. Although the country as a whole has experienced a decrease in the total number of



**Figure 2. Dynamics of Change in the Dispersion of Scores of Students at Various Types of Universities, 2011–2017 (on the Basis of Data from the Monitoring Study of the Quality of Admissions)**

students,<sup>3</sup> which is primarily due to demographic trends, the proportion of young people opting to attend secondary vocational education programs has been steadily increasing. There are increasingly more and more students coming to university after attending such colleges: between 2013 and 2016, the share of graduates of secondary vocational education programs for training skilled blue-collar and white-collar workers entering university increased from 5.2 to six percent, whereas the share of people with secondary vocational specialist diplomas increased from 23.4 to 28.6 percent [35]. Most of them choose to pursue distance education programs, but more students are opting for on-campus programs: if in 2013 only 10.2 percent of graduates of secondary vocational education programs entering universities enrolled in on-campus programs, then in 2016 the share of such students was already 17.5 percent. For universities, the increasing number of students with secondary specialist education is interesting because it has allowed institutions to increase the passing score for prospective students enrolling on the basis of their USE score by reducing the number of government-funded scholarship seats.

Although there are no studies that compare the level of preparation of students with a completed secondary general education with those with secondary vocational education, no one would claim that they have the same level of preparation [38]. This can primarily be attributed to the varying goals and, accordingly, training programs for high school students and students with completed secondary vocational education.

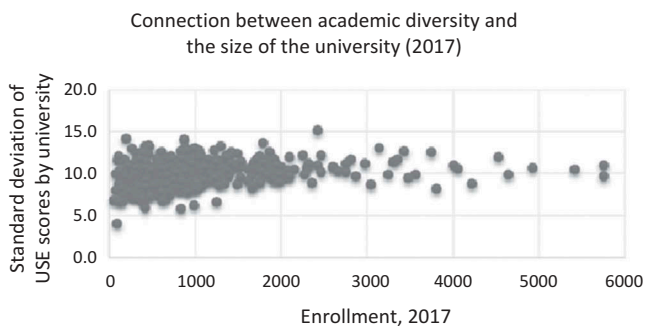
Academic diversity may also vary depending on the region where the university is located. If the USE pass rate varies widely in a particular region, and high-achieving high school students decide to stay in their home region when choosing a university, then the likelihood that regional universities will enroll students with varying levels of academic preparation increases. The type of region also plays a role in helping to determine the academic trajectories that high school students choose: does the region attract the best students from other regions, such as Moscow and St. Petersburg? Or is the opposite the case, in which the strongest children tend to leave the regions in search of better higher education opportunities in the capitals [39]?

In addition to these external causes, which potentially affect the level of academic diversity, there are also internal causes for the phenomenon. For example, an organizational factor that can influence academic diversity is the university's student admissions strategy [40]. Of course, we are not claiming that applicant recruitment depends only on the wishes of the universities. The student admissions policy is also largely governed by the educational policy of the state, which we just mentioned above. In Russia, the Ministry of Education and Science of the Russian Federation establishes quotas for public scholarship admissions, and it also determines the level of funding. The universities are increasingly functioning within an environment dominated by academic capitalism [41]. They are adapting themselves to meet the demand for educational programs. However, they still reserve a certain amount of room to maneuver, and this is especially true of selective institutions. In Russia, for example,

universities can vary the number of paid tuition seats and the cost of tuition, determine the ratio of students accepted on the basis of USE score, as well as the number of graduates of secondary vocational education programs that they will accept.

Another organizational feature, which researchers frequently investigate, is the size of the university. However, a basic analysis has shown that there is no significant relationship between institutional size and academic diversity (Figure 3).

An important internal institutional feature that increases the level of academic diversity on campus is the presence of weak and strong academic departments [fakultety] within the same university. This phenomenon is particularly relevant for so-called “multiversities,” or integrated research universities that cover a wide range of disciplines [42]. These institutions are often created through the joining together of multiple universities. In this case, expanding disciplinary coverage may increase the level of academic diversity. When some departments attract strong students and others weak ones, a situation may arise where the university will become heterogeneous in the terms of the quality of the preparation of the overall population students. For example, an analysis of the data collected by the Monitoring Study of the Quality of Student Admissions showed a significant difference in how students were recruited into



**Figure 3. Connection Between Academic Diversity and the Size of the University (2017)**

different groups of major programs of study at some Russian universities. Out of 447 state universities that were analyzed, in 2011 there were 36 institutions (40 in 2014 and 33 in 2017) at which the difference in average entrance exam scores by students in different major programs of study (according to the ISCED classification) varied by more than 20 points. It would seem that this situation is better than high academic diversity within individual departments. This situation is simpler for academic departments to handle, since it allows instructors to institute more homogeneous teaching practices. It is also simpler for the university to handle, since it simplifies how it assesses its activities. However, this situation may complicate the creation of a common organizational culture [43], which is important for the sustainable development of the university.

The individual preferences of students are also a factor shaping academic diversity within a particular university [44]. The criteria that influence student decisions about which institution to attend vary: a decision, for example, may be made financial (not enough money to live in a large city), family (the need to care for young children or relatives with disabilities), psychological (lack of confidence in one's own abilities) or social (the desire to enter the same university as one's friends) reasons. I.A. Prakhov also notes that academic performance, family and regional characteristics, school characteristics, and whether students sought additional training all influence the decisions that students make [45]. They can affect both educational mobility and whether students choose a selective or non-selective university.

### **How can the level of academic diversity at the university be determined?**

The results of our analysis indicate that three groups of students are responsible for determining the level of academic diversity at Russian universities. The first group consists of students who enter university immediately after graduating from a Russian high school on the basis of their USE scores. This is the largest

group of students whose level of academic preparation may be assessed by analyzing their entrance scores on the USE.

The second group consists of students with secondary vocational education who most frequently enter university on the basis of the results of interviews and/or their scores on internal entrance exams that are held at the university. Finally, the third group consists of international students who make up a small number of students but have a certain impact on the operation of the university due to their educational needs and the requirements of the law governing foreign citizens. Other groups of students, including those who enter on a preferential basis or on the basis of their results participating in academic Olympiads, make up an insignificant share of the student body. The university often considers these results together with the USE score.

Thus, academic diversity can be defined as the ratio of three groups: foreign students, students who enrolled after completing a secondary vocational program, and students who enrolled after high school graduation on the basis of their USE scores. Despite the constant controversy surrounding the USE and skepticism about how well it measures the level of preparation of high school graduates, studies show that USE scores are still a fairly good predictor of student academic success during their studies at university [46, 47]. According to their results, 23–37 percent of the academic achievement of freshmen can be attributed to USE scores, making it a pretty good indicator. Therefore, it can be argued that the discrepancy between USE scores within one university is also an indicator of academic diversity within the university.

However, the academic diversity of students who enroll in university after graduation also often consists of the ratio between the following different groups of students: those enrolled in seats supported by state scholarships or seats on a contract basis that are awarded through a main competition or on the basis of sponsored enrollment. Therefore, according to the data of the Monitoring Study of the Quality of Education, in 2017 the difference between the average USE scores of those students enrolling on a government scholarship and those paying tuition was 6.4 points

on average. At the same time, this gap could be as wide as 25 points at individual universities. Many universities do not see an obvious difference between the scores of sponsored students and students who gain admission as the result of a competition according to an analysis of the data of the Monitoring Study. This question deserves a more careful analysis. Most likely, the gap in scores may only be characteristic of specific departments within the university.

### **An analysis of how academic diversity is being managed: A theoretical framework**

Universities may have their own reasons why they want to directly or indirectly or more or less consciously address the problem of academic diversity. Various theories that consider the behavior of universities in light of external conditions may also be applied for the purposes of analyzing the varying levels of academic preparedness of students. Institutional theory [48], for example, proposes explaining the actions of universities through the need to legitimize their activities and adjust their behavior to what society and the state expect of them, even if it requires them to pretend to take action. This is due to the fact that it can be difficult for organizations to change established practices: they follow the familiar ways of doing things (they exhibit path dependence). The concept of isomorphism is known within neo-institutional theory. This describes the situation when weaker universities adopt the organizational theory and functional system of leading universities with the goal of legitimizing them [49]. Therefore, it can be expected that different types of universities will use a rather similar set of strategies and practices for working with academic diversity despite the difference in goals and missions of these institutions as well as the difference in average scores of their students.

The theory of resource dependence, in turn, allows us to consider how universities adapt in accordance with the need to maintain access to resources, including particularly financial resources

[50]. If a university is able to increase its revenue by addressing the problem of academic diversity, then it will be more likely to address it. In Russia, the state acts as the main agent responsible for distributing funds, providing 55.7 percent of university funding (for 2016). Therefore, we can expect that the requirements that the state establishes for working with cohorts of students with varying levels of academic preparation will be met by the universities. A university can also manipulate academic diversity if it is financially advantageous for it to do so: for example, by increasing the average USE score that is required for admission by reducing the number of available seats for those students seeking admission on the basis of their USE score and increasing the number of students who completed secondary vocational programs of study.

Agency theory analogizes the administration of the university with the management of a company where the managers seek to maximize their own personal utility while leaving the task of situation monitoring and control to the owner (the government) [51]. When we apply this theory to the higher education system, we can say that universities strive to minimize the costs of educating students and working with them. Therefore, the government needs to establish mechanisms by which it can supervise and exert control as well as to monitor the progress that universities make towards achieving the goals that have been assigned to them. If the universities realize that it is not worth it to directly work with certain groups of students or to address the overall problem of academic diversity, then the universities will not undertake a solution to the problem. Stewardship theory, in contrast to agency theory, may also be applied to the analysis of the reasons that motivate universities to work with students with varying levels of preparation and varying needs [51]. Universities in this case may be considered as dutiful agents that seek to achieve maximum results from their activities. Therefore, accordingly, they are interested in working with all students and ensuring that they achieve the maximum level of academic achievement.

Thus, all of these theories complement each other. They allow us to consider the behavior of universities and their



administrators in the context of academic diversity, which can have both its advantages and disadvantages. However, it is a definite challenge for universities that they must reckon with.

### **Academic diversity: A challenge to the status quo at universities**

According to Trow [1], the task of responding to the high level of academic diversity of the student body is complicated by the fact that states that wish to control the effectiveness of their higher education systems seek to impose uniform educational quality standards on universities. This task is complicated by the fact that universities are also forced to address the expectation and sometimes also the demand for individualized educational study plans as well as student-centered education [52]. In other words, on the one hand, universities are asked to ensure the achievement of uniform educational standards, and, on the other hand, they are tasked with providing students with a variety of different paths to the desired result. At the same time, the massification of education creates a wide variety of starting points in terms of the level of academic preparation of students. These three factors, which contradict each other, make the fundamental mission of teaching students and reproducing human capital extraordinarily difficult for universities to carry out.

The enrollment of students with different academic backgrounds may also present a moral and financial challenge to the university. On the one hand, what should universities do with different groups of students: focus on pulling up weaker students to the detriment of the needs of the strong students, or work to maximize the outcomes for the strong students? And is there a way of balancing the interests of all groups? On the other hand, the academic diversity of students makes it difficult to evaluate their educational outcomes: dumbing down the curriculum to satisfy weaker students can demotivate strong students and maintaining rigorous standards to suit the needs of strong students can leave weak students behind.

The problem of students who drop out, in turn, is not only a moral dilemma for the university, but it also presents a financial problem for the institution. Countries around the world, including Russia, have been devoting increasing amounts of attention to the problem of students who drop out of university [10]. This is largely due to the modern concept of the role that universities play in society: It is assumed that higher education is capable of ensuring that students are able to climb the socioeconomic ladder. In this case, each student who drops out is viewed by the system as a loss of the money that was invested in his/her education and a loss of human and social capital. From the point of view of the university, student dropout is also directly connected with the loss of sources of income, regardless of whether former students were on government scholarship or paying tuition.

High academic diversity is thus associated with a high degree of student dropout and low rates of student satisfaction. Correctly chosen practices for working with students not only within main educational programs, but also outside of them, can allow the university not only to improve dropout and satisfaction rates, but also to improve the quality of education in general. Moreover, efforts to ensure that both weak and strong students receive a superior level of education helps protect the value of the degree from the particular university in the eyes of employers [49]. If the university seeks not only to prepare the strongest students who will be largely responsible for representing the university in the future, but also to provide quality education to the rest of the student body, this can increase the legitimacy of the university in the eyes of the wider society as well as the main stakeholders. The answer to the question concerns the prestige of the institution as a whole and its ability to attract additional resources. Employers and the state experience low satisfaction with students who are allowed to graduate with weak skills (employment outcomes are one of the main indicators that are used not only to monitor performance, but also in a number of other state programs).

An analysis of the underlying reasons for academic diversity has shown that the only factor that the university can control in order to respond to academic diversity is its own strategies. They are a fairly strong tool in the hands of deft administrators. Therefore, it is impossible to claim that universities are helpless when it comes to providing students with high-quality education and helping them achieve their potential. Already at the admissions stage, universities can analyze how much the level of preparation of incoming students varies, predict what potential challenges they will face, and plan what measures should be taken on the basis of these challenges. Moreover, since the level of student preparation is an external factor from the point of view of the university, it can control the level of academic diversity through the use of certain strategies at the admissions stage [39]. Thus, for example, Michael Crow has noted that the admissions policy of selective universities is based on “mass rejection” and an unwillingness to expand their admissions [53]. The high variability of student preparation simply requires the university to apply a particular approach in order to manage it.

Academic diversity may be an indicator of the diversity of the educational needs of students: the higher the level of academic diversity, the wider their range of needs. University strategies and practices, therefore, can (and ideally should) respond to the academic diversity of students. It would be logical to assume that the measures that universities adopt to work with academic diversity together with their practices should vary depending on their goals and missions. This is particularly true insofar as they are related to the place of the university within the higher education hierarchy, particularly in systems that encompasses a large range of postsecondary programs.<sup>4</sup> However, no scientific proof of this hypothesis is yet available.

Studies of foreign universities have shown that there are many practices for working with students with varying levels of academic preparedness. These include, for example, remedial courses for weak students [54] and advanced studies programs [55, 56] for students with high academic ability. Various courses

and workshops can be held to support students who experience problems applying any skills. Current research is making an enormous contribution to our understanding of how universities work with students with various levels of preparation and those with different needs. Nevertheless, these two groups of students are separate puzzle pieces that are difficult to fit together to form a unified picture. We need to conduct studies that are able to generalize and analyze university practices as a whole. This is necessary to identify certain models that universities use to work with students with different degrees of preparation as well as to assess the quality and effectiveness of the employed practices.

## **Conclusion**

The massification of higher education in Russia and the unevenness of academic preparation of entering students have created a situation where universities now must address a student body with varying levels of academic preparation. The current situation in higher education indicates that the state does not intend to reverse the course of expanding access to the higher education system. In accordance with the global trends toward greater inclusiveness in higher education [2], Russian educational policy is regulating the admission process for students by establishing very minimum level requirements. The minimum test scores for university admissions that have been established by Rosobrnadzor exclude only the weakest prospective students. However, even they still have the option of entering university by completing a secondary vocational education program. The ongoing modernization of the secondary vocational education system as well as attempts to popularize it among young people are not designed to curtail the higher education system, but rather to attract an even greater number of Russian citizens to tertiary education. A common educational path for graduates of secondary vocational education programs is continue their studies at university. Moreover, the Russian higher education system is attractive to foreign students.

Ultimately, the responsibility for working with a cohort of students with varying levels of academic preparation falls on the universities. It is the universities that are directly responsible for conducting the educational process. They are able to have a direct impact on whether a wide range of students are able to achieve their maximum potential. By clearly articulating the phenomenon of academic diversity, we are able to allow universities to more competently manage both their main programs of study as well as secondary educational activities. It can help them to more intelligently build mechanisms for responding to external challenges as well as to improve the organizational structure and climate within the university. Therefore, we should start our study of academic diversity with universities that operate within the context of high academic diversity. Because academic diversity, in turn, is a contextual framework and organizational characteristic, it should be considered as one of the factors that affects educational strategies and the practices of universities.

This article provides a possible set of reasons for why student academic diversity has emerged at universities. It has also proposed starting points for measuring academic diversity and analyzing the administration of universities facing this phenomenon. Thus, we are able to identify the following range of issues that should be included in the research agenda of higher education studies in order to fill identified gaps in the academic literature as well as in the research agenda of universities that are seeking to conduct a deeper analysis of their activities:

- How can we measure academic diversity?
- How does the fact that students have varying levels of academic preparedness affect the functioning of universities and how they should be managed?
- How does academic diversity affect educational programs, student support services, and the managerial aspects of the organization?
- How is the academic diversity of university student populations different in the Russian regions?
- How different is the level of academic preparedness to study at university of high school graduates from that of students with secondary vocational education?

- How do universities work with sponsored students?
- What is the decision-making process that universities use to select practices and strategies for working with academic diversity?
- What are the factors that influence how universities choose and implement strategies and practices for working with academic diversity?
- How are the concepts of the “multiversity” and academic diversity interrelated? Does the creation of large multidisciplinary universities increase the level of academic diversity within them?
- What is the relationship between the strategies and practices for working with academic diversity that universities apply and student success? Which practices are the most effective?
- How do university practices and strategies vary depending on their institutional mission?
- What is the relationship between the practices that are applied to work with academic diversity at the university and the organizational climate (and organizational culture) within the university?

By answering these questions, we are not only able to shed light on a wide range of theories that underpin research in the field of education, but also to expand and develop university practices for working with various groups of students.

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## Notes

1. PISA (Programme for International Student Assessment) is an international educational monitoring study, which has been carried out among 15-year-old students at high schools and vocational institutions every 3 years since 2000. It includes tests in mathematics, natural sciences, and reading. It also includes questions for students and school administrators. See <http://www.oecd.org/pisa>.

2. [https://www.oecd-ilibrary.org/docserver/9789264266490-en.pdf?expire-s=1531126650&id=id&accname=oid008831&checksum=FD 62836CFD 8E 474A4236424AA1414D 00](https://www.oecd-ilibrary.org/docserver/9789264266490-en.pdf?expire-s=1531126650&id=id&accname=oid008831&checksum=FD%2062836CFD%208E474A4236424AA1414D%2000)

3. [http://www.gks.ru/bgd/regl/b16\\_13/Main.htm](http://www.gks.ru/bgd/regl/b16_13/Main.htm)

4. S. Marginson, "High participation systems (HPS) of higher education," in B. Cantwel; S. Marginson; and A. Smolentceva (eds.), *High Participation Systems of Higher Education*, forthcoming.

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