Monitoring the Performance of Educational Institutions: A Spur for the Implementation of Systemic Changes in Higher Education

I.G. Karelina, A.B. Sobolev & S.O. Sorokin

Published online: 16 Dec 2016.

Submit your article to this journal ⬈

View related articles ⬈

View Crossmark data ⬈

> Routledge
> Taylor & Francis Group

I.G. KARELINA, A.B. SOBOLEV, AND
S.O. SOROKIN

Monitoring the Performance of Educational Institutions: A Spur for the Implementation of Systemic Changes in Higher Education

Part Two

The article discusses a comprehensive reporting and monitoring framework used to evaluate the performance of state and private higher education institutions. By analyzing diversified indicators including regulatory compliance, organizational and economic indicators, training and research, and other metrics, the authors spotlight key

> *developments taking place in the Russian higher education system as well as areas where reorganization/optimization measures are required.*

Monitoring the performance of higher education institutions in 2012: Project launch

In 2012, a total of 1,599 higher education institutions, including 502 public and 70 private ones, 930 branches of public universities and 97 branches of private universities, participated in the pilot monitoring of educational institution performance. In 2014, a total of 376 private higher education institutions and 564 of their branch campuses failed to submit their indicators in order to take part in the monitoring.

It is worth noting the number of higher education institutions involved in the monitoring study. State statistics, as a rule, report educational institutions together with their branch campuses that are located in the same area, and according to the monitoring study of universities conducted in 2012, there were 2,539 educational institutions (higher education institutions and their branch campuses in accordance with the number of "Monitoring-1" forms that were filled out) in the country, of which 1,432 were public institutions of higher education and 1,107 were private.

First, a monitoring study of the performance of public institutions of higher education was conducted. This study used the threshold values that were determined in the relevant samples while taking into account regional particularities. Next, a monitoring study of the performance of private institutions of higher education was conducted, according to the same criteria.

A total of 136 public universities and 450 of their branch campuses were classified as "at risk" on the basis of formal criteria. Of the public regional universities classified as "at risk" there were 30 teacher training and 23 agricultural institutions of higher education. A total of 165 and 163 branch campuses of engineering/technical colleges and classical universities, respectively, were also classified in this category.

In accordance with the rules for conducting performance monitoring studies each institution and its branch campus were discussed separately by experts of the Interagency Commission at meetings of working groups. One of the following three determinations was applied to each educational institution as a result of the expert analysis [1]:

—An educational institution fails to meet performance standards related to its specialized educational mission. Generally, these are architectural and fine arts colleges, schools for the performing arts, transport institutes, and other institutions that offer specialized training programs;

—An educational institution is generally inefficient and needs to optimize its activities. This determination presupposes that inefficiencies can be addressed by drafting a development program that has been approved with the founder and representatives of the regional authorities and that addresses the identified problems. This wording of the determination was criticized as entailing reputational risk during the 2014 monitoring study;

—An educational institution is generally inefficient and needs to be reorganized.

Members of the relevant working groups include prominent politicians and public figures as well as members of the regional council of rectors, the regional administration, and public interuniversity organizations in addition to representatives of the federal authorities and federal subjects of the Russian Federation.

The working groups discussed the individual situation of each institution of higher education in a broader context, relying on formal indicators used to conduct performance monitoring studies and the expert opinions of representatives of the higher education community as well as the federal subjects of the Russian Federation. As a result of expert discussion lists of universities were drafted, in which one of the three categories listed above was assigned to each institution. It was proposed that some institutions be removed from the group of universities that have

failed to meet performance indicators. For a number of educational institutions, and in particular their branch campuses, the experts from the working groups made a unanimous decision to reorganize these institutions.

The meeting of the Interagency Commission, where the performance monitoring indicators were announced regarding the activities of a number of public institutions of higher education, and especially for institutions where the expert opinion of the working groups was not unanimous, was broadcast online. According to the results of the meeting, 36 public universities and 59 public university branch campuses were recognized as offering specialized training programs and were therefore removed from the "at-risk" category; 70 public higher education institutions and 132 branch campuses of state universities were found to be in need of measures to optimize their activities; it was recommended that 29 public higher education institutions and 257 branch campuses of state universities be reorganized [2; 3]. We should note that during the course of this performance monitoring study six public institutions of higher education and six branch campuses of public universities were already in the process of reorganization. The list of private universities and their branch campuses that had failed to achieve performance indicators included 41 higher education institutions and 55 branch campuses [4].

During 2013, it was decided to reorganize 23 universities and 116 branch campuses on the basis of the results of the completed monitoring study. For six institutions of higher education the decision about whether to pursue reorganization was postponed to 2014. A total of 141 branch campuses of institutions of higher education are scheduled to be closed between 2014 and 2018 on the basis of the decisions taken by the faculty senates of those institutions. To do this, starting with the 2013–14 academic year they must cease to accept enrollments by new students and ensure that those students who are already enrolled are allowed to complete their studies.

During the course of the performance monitoring study both the procedure itself as well as the accepted decisions were

subjected to critical discussion in the mass media. The decisions provoked negative public feedback at certain institutions. In response, the leadership of the Ministry of Education and Science of the Russian Federation issued public explanatory statements that made it possible to resolve the situation.

In order to defuse the social tension accompanying the first performance monitoring study, the Minister of Education and Science of the Russian Federation decided that the meeting of the Interagency Commission of the Ministry of Education should be broadcast live. Thus, all stakeholders would be able to watch the meeting on the internet.

The Federal Law "On Education in the Russian Federation" requires annual monitoring of the performance of educational institutions, including private universities and their branch campuses.

Monitoring the performance of higher education institutions in 2013: Key changes

In 2013, preparations for monitoring the performance of higher education institutions took into consideration the recommendations of the university community, experts, and the Interagency Commission as related to the indicators and decision-making principles expressed during discussion of the 2012 monitoring study results.

The academic community proposed the need to take account of the employment figures of graduates at a particular institution or its branch campus as well as the characteristics of the market demand for these graduates. The number of graduates who failed to find a job within the first year of graduating from the institution was used as the employment indicator for the monitoring study. Information was obtained from the Ministry of Labor of Russia, permitting verified data from external sources to be used when evaluating this indicator. Unfortunately, this approach does not take into account a number of important factors, such as graduates who have found employment outside the area of training they pursued at a higher education

institution, the employer's preference for graduates from a particular university, the career growth potential of graduates, and other factors. Currently, the Russian Ministry of Education and Science is working to improve the approaches to how this indicator is assessed. In order to obtain statistical data on the employment of university graduates and to allow the subsequent analysis of this information, mechanisms to provide for information exchange between the Federal Service for Education and Science Supervision (Rosobrnadzor), the Federal Tax Service of Russia, and the Pension Fund of the Russian Federation have been developed.

Based on the findings of the first performance monitoring study conducted in 2012, many universities belonging to government agencies were classified as being at risk under purely formal criteria. These include colleges of fine arts, agricultural colleges, and transport institutes in particular. The identification of educational institutions' area of specialization was initiated by the founders of these universities that are affiliated with a government agency together with the academic community as represented by the Association of Leading Universities, the Russian Union of Rectors, and the Association of Private Universities. The criteria used to classify higher education institutions as specialized institutions have been described above. Indicators that have been modified from the base indicators were used to create groups of specialized universities.

The group of universities and branch campuses whose indicators were used to conduct the monitoring study was significantly expanded through the inclusion of private higher education institutions. The Interagency Commission decided to keep the threshold values for all repeating indicators at 2012 levels, and the newly introduced performance indicators were accepted in accordance with the rules, that is, at the median value. In connection with this, the performance analysis was conducted over a larger number of observation parameters than were used in 2012. Different indicators were used depending on the specialization of the university.

To make the procedure used to monitor the performance of higher education institutions more transparent, the site http://miccedu.ru/monitoring/ had been launched as a platform for the performance analysis rapid publication of information about each educational institution that participated in the monitoring study before the Interagency Commission and its working groups started their work. It is noteworthy that the information on the website is published in a format that facilitates analysis. It is accessible not only to experts, but to anyone who wishes to analyze all aspects of a university's activities.

A total of 2,412 public, private, municipal, and regional educational institutions, including 934 universities and 1,478 branch campuses, participated in the 2013 performance monitoring study. We should clarify that the monitoring study was not carried out at colleges that train students in national defense and security and law enforcement. Educational institutions located outside the Russian Federation also did not participate in the study.

According to the monitoring results, 166 higher education institutions and 256 branch campuses, including 38 public universities and 85 of their branch campuses, failed to achieve target performance indicators. Eight universities and 67 of their branch campuses as well as 127 private institutions of higher education and 177 of their branch campuses were found in need of reorganization, and 24 state and municipal institutions of higher education together with 15 of their branch campuses as well as seven private universities were found in need of optimization.

The results of the 2013 performance monitoring study are publicly available. The summary information provided by the universities has been published on the website http://miccedu.ru/monitoring/.

Monitoring the performance of higher education institutions in 2014: Optimizing the results

While in previous years university performance monitoring studies were conducted using "year old" data, that is, 2011 data

would be reported in September 2012, and 2012 data would be reported in September 2013, in 2014 it was decided that university data should be collected in tandem with the annual reporting deadlines for universities using the VPO-2 federal statistical observation form. Thus, 2013 data from the reports submitted by educational institutions were already partially present in the system when data began to be collected for the monitoring study. This is particularly true of data from the VPO-1 form, which allowed some of the reporting burden placed on the universities to be lifted.

A rule was introduced whereby samples of educational institutions were taken to determine threshold values while taking into account two requirements: gross regional product (in thousands of rubles) and the number of students per 1,000 residents between the ages of 17 and 36, where each of these indicators achieves values greater than the median [5]. Gross regional product demonstrates the economic potential of the region, while the second indicator characterizes the availability of higher education in the region. Thus, four regional samples were created, and the threshold parameters of the indicators were calculated for them. These samples were formed on the basis of data about institutions of higher education that were located in the following federal subjects of the Russian Federation:

1. Moscow
2. St. Petersburg
3. Belgorod, Irkutsk, Kaliningrad, Nizhny Novgorod, Omsk, Samara, Sverdlovsk, Tomsk, Tyumen, Chelyabinsk, Yaroslavl, Primorsky, Khabarovsk, and Krasnoyarsk regions, the Republic of Sakha (Yakutia), Tatarstan, and the Republic of Udmurtia
4. Universities from the remaining federal subjects of the Russian Federation.

With respect to the threshold value for each indicator, in each sample universities were divided into two subsets, one of which

corresponds to the educational institutions that have not reached the threshold values for this indicator (see Figure 1).

In addition, the number of indicators used to determine "at-risk" specialized and non-specialized educational institutions was synchronized as part of the university performance monitoring study. This made it possible to establish a uniform set of indicators and criteria used to classify educational institutions in the "at-risk group."

As per the decision of the Interagency Commission of the Russian Ministry of Education and Science, the requirements for higher education institutions and their branch campuses have been unified. This meant that median values were calculated for the full sample of public and private universities and their branch campuses, in which all educational institutions were included, in order to determine the threshold values.

The Interagency Commission revised its decision-making policy with respect to institutions of higher education. The Commission decided not to issue specific recommendations in relation to particular educational organizations, and it transferred the responsibility for decision making in relation to institutions of higher education that had been classified as at risk to the founder, which is obliged to perform this function in accordance with the Federal Law "On Education in the Russian Federation" that regulates the function of monitoring the decisions taken by founders in relation to these institutions.

A total of 2,324 public, private, municipal, and regional universities, including 968 universities and 1,356 of their branch campuses, participated in the 2014 performance monitoring study [6]. It should be noted that 20 universities and 38 branch campuses, details of which can be found in the license register, failed to submit information about their activities. These included both private as well as a number of municipal institutions.

A total of 1,006 educational institutions, including 235 institutions of higher education and 771 of their branch campuses, including 76 public and municipal institutions and 488 of their branch campuses as well as 159 private universities and 283 of their branch campuses, were classified as being at risk.
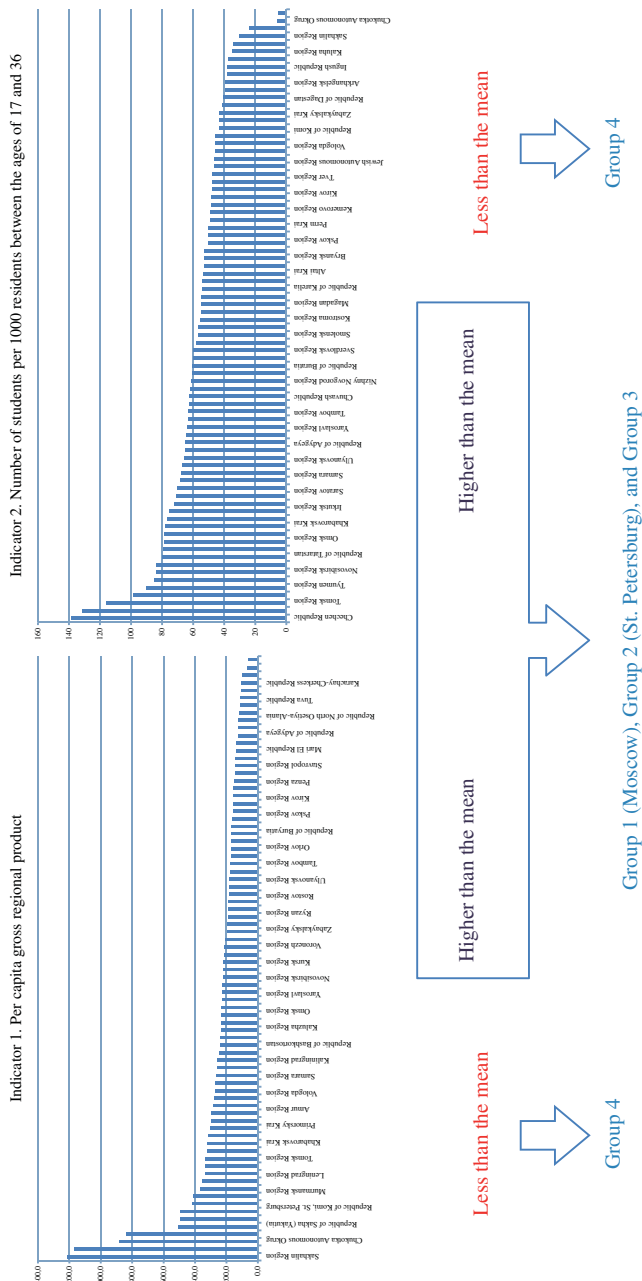
Figure 1. **Illustration of the regional university cluster formation principle**

This time, the Interagency Commission decided to direct the attention of the university founders to the status of their institutions of higher education and the need to develop measures to optimize and improve the performance of these institutions or to decide to close or reorganize these institutions.

Performance monitoring results

1. The development of a comprehensive toolset for university performance monitoring, the implementation of mechanisms for verifying the indicators presented by universities and deployment of an advanced interactive data collection system at the Ministry of Education and Science altogether enabled the formation of a unique database, which is used for analysis and decision making at the Russian Ministry of Education and Science and Rosobrnadzor.
2. While a number of experts argue in favor of the need to factor all 50 indicators in multi-faceted monitoring of university performance, it is nevertheless obvious that a sound overall monitoring framework has already been established. The initial analysis of the activities of educational institutions can be conducted across the full set of indicators, and the criteria used to produce findings are concentrated in a small selected set of indicators with a clear and simple clusterization algorithms, which facilitates the classification of educational institutions into the "at-risk" group. This makes it possible to conduct a formal assessment during the first phase of the analysis and to provide more detailed materials for experts to work with. It would be expedient to maintain the existing schema for conducting monitoring studies in order to ensure the comparability of data and the ability to analyze changes in the system of higher education.
3. The information received improves the accuracy of statistics coming from other forms of reporting due to the ability to cross-check, and it makes it possible to evaluate long-term trends in higher education.

4. The information supplied by educational institutions that is used in performance monitoring and is made available to Rosobrnadzor allows not only drafting an audit plan that takes into account an institution's multiyear performance indicators, but also gives experts an opportunity to become thoroughly acquainted with the institution's activities before their audit fieldwork commences.

5. The resulting database is used by the Ministry of Education and Science to verify the data submitted by higher education institutions to the contest to distribute university admission quotas and when evaluating higher education institutions during reviews of candidates for rector positions by the Evaluation Commission of the Russian Ministry of Education and Science.

6. The unprecedented level of openness and objectivity of data, and the accessibility of information on the activities of higher education institutions and all of their branch campuses for applicants and their parents allows a situation where the consumers of educational services can now make more conscientious decisions about where to pursue higher education. Provided that school-leavers apply on the basis of their Unified State Exam (USE) results, this factor expands the range of enrollment options they can consider and enhances the attractiveness of competitive universities and educational programs in particular.

7. The received data, such as the average USE score earned by applicants enrolling on a scholarship or for-fee basis as benchmarked against various trends in enrollee and student metrics, allows a qualitative analysis of admissions (i.e., the most/least competitive programs/majors, etc.) at educational institutions. This information also helps determine the minimum USE score required for admission.

8. Existing regulatory, organizational, and substantive mechanisms for monitoring the performance of universities have made it possible for founders (the Russian Ministries of Sports, Transport, Healthcare, Agriculture, and others) to formulate a unified policy in relation to the structural changes taking place within the network of educational institutions

that are affiliated with their government agencies. All decisions of the Interagency Commission of the Ministry of Education and Science of Russia have been approved in accordance with objectives and key results. There are examples where decisions to reorganize branch campuses and main campuses of universities were made in order to pool the resources of educational institutions with various government agency affiliations.

9. The results of the university monitoring conducted in 2013–2014 showed poor performance of the private sector and the branch campus network of the Russian university system.

For example, a typical portrait of a branch campus of a public university is as follows: there are up to 30 full-time faculty members, no more than 200 full-time on-campus students and 1,000 distance students; more than 70 percent of the institution's program offerings are in the fields of law, economics, and management. A typical branch campus of a private university can be characterized as follows: there are up to 20 full-time faculty members, no more than 50 full-time students and 500 distance students, about 90 percent of the program offerings are in the fields of law, economics, and management; no Master's and postgraduate training programs are offered.

The results of monitoring the performance of higher education institutions with regard to the activities of their branch campuses and private sector institutions are correlated with the available results on the distribution of admission quotas.

It is well known that 12 main indicators that characterize the research and training activities of educational institutions (Resolution of the Government of the Russian Federation dated April 17, 2013, No. 350, as amended on March 28, 2014) form the basis for competitive distribution of admission quotas. Although in terms of the number of educational institutions the private sector is comparable to the public one, the total number of state-financed scholarships they offer that can be won on a competitive basis is only about 1 percent of the scholarship quotas allocated to public-sector institutions.

10. For the first time in recent years university founders have taken systemic measures to restructure the branch campus network of Russian higher education that are aimed at increasing performance and improving the quality of educational services.

    Following the results of monitoring the performance of higher education institutions, more than 200 branch campuses of public universities were found in need of reorganization. At the present time measures are being taken with respect to these branch campuses that are aimed at suspending their higher education programs and reorienting their activities toward offering secondary professional education or supplementary vocational training programs. In some cases, these branch campuses are being eliminated altogether.

    As a result of the 2014 performance monitoring, university founders and administrators of 250 branch campuses together with the regional authorities were tasked with drafting a development program aimed at achieving the required performance indicators and increasing the quality of educational services.

11. Monitoring the performance of higher education institutions and ensuring that the results of such monitoring are made available to the general public forces the administrators of higher education institutions to reshape and update the existing conservative system of university administration. The need to achieve established target indicators for research and educational activities has led to a situation where new wage systems as well as structures for the efficient allocation of resources that are directly tied to individual faculty staff performance have been implemented. Development programs are being drafted, and external funding is being raised to finance them.

    Based on the monitoring studies performed, it may be noted that the amount of funds received by public institutions of higher education from all sources has increased in comparison with 2012 by more than RUB 30 billion. There has also been growth in scientometric indicators. Thus, in 2013 the number of publications by public universities' faculty in journals indexed by the Russian Science Citation Index rose by 23 percent to a

total of 281,886 publications. The number of articles published in journals indexed in the Scopus and Web of Science databases increased by 18 and 16 percent (30,168 and 22,158 publications, respectively). In 2013, universities concluded more than 2,500 licensing agreements and received more than 13,500 research grants.

12. Measures have been completed to synchronize the procedures in the state regulation of educational activities and procedures to monitor the performance of universities. The Russian government has taken measures to improve the funding and staffing of Rosobrnadzor. The utilized resources are aimed primarily at ensuring inspections at those educational institutions that did not participate in the monitoring study and remain closed to public scrutiny as well as those institutions that have been classified as at risk. The inspections carried out by Rosobrnadzor in 2014 showed a significant correlation between the results of the monitoring study and the results of supervisory measures to ensure the quality of education. Institutions where the monitoring study exposed a lack of proper conditions for the performance of research and educational activities also failed to provide an adequate quality of specialist training.

13. Information that had previously been provided by educational institutions using official statistical reporting forms (VPO-1, VPO-2, 2-Nauka, etc.) was used when assembling data to conduct performance monitoring of universities. When it comes time to draft the report in the online accounts assigned to each university, data is automatically imported from statistical reporting forms.

In accordance with the Federal Law "On Education in the Russian Federation," starting in 2014 an annual self-auditing procedure was implemented for educational institutions. In order to increase the transparency of the higher education system and to ensure public control over the activities of universities, self-auditing and performance monitoring indicators were synchronized in terms of their reporting deadlines and calculation procedures. Special software was created that makes it possible to automatically

calculate self-auditing indicators from the "Monitoring-1" form that is used to collect data when conducting performance monitoring studies of educational institutions.

Thus, the approaches implemented when monitoring the performance of higher education institutions have been able to avoid duplicating data collection procedures, and they have ensured applicants have timely access to data when deciding which university to attend. These approaches have also assisted in the performance of state regulatory procedures.

References

[1] http://минобрнауки.рф/новости/2826/файл/1327/12.11.20-МВК_Справка.pdf
[2] http://минобрнауки.рф/новости/2826
[3] http://минобрнауки.рф/новости/2847
[4] http://минобрнауки.рф/новости/2906
[5] http://минобрнауки.рф/документы/4079/файл/3010/DL-8_05pr_ot_17.03.2014.pdf
[6] http://минобрнауки.рф/новости/4215