

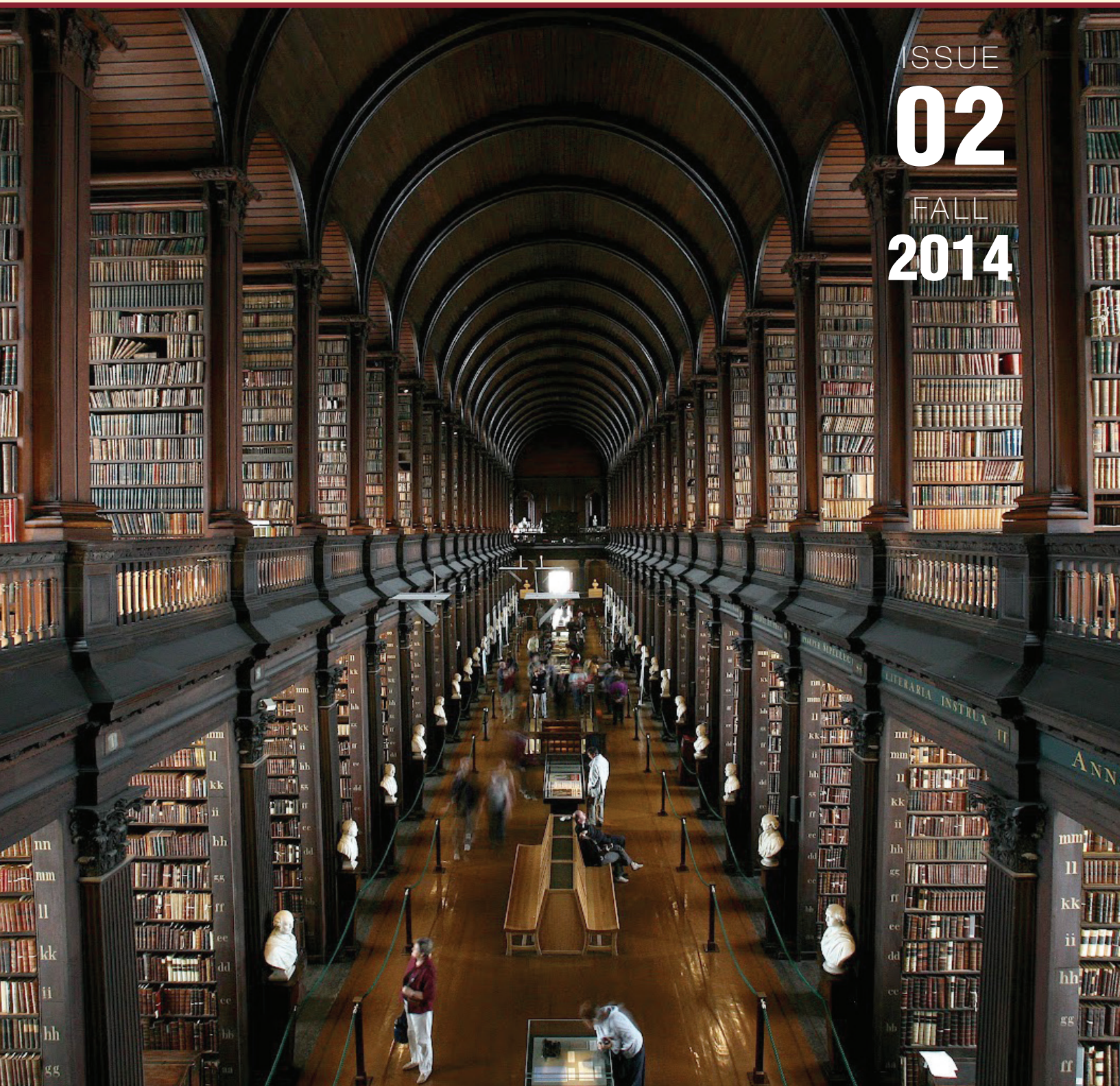
HERB

Higher Education in Russia and Beyond



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Academic Profession: Challenges of Transformation

ISSUE
02
FALL
2014





Dear colleagues,

We are happy to present the second issue of *Higher Education in Russia and Beyond*, a bulletin that is aimed at bringing current Russian, Central Asian and Eastern European educational trends to the attention of the international higher education research community. This issue's topic is the academic profession in transition. Universities can't maintain the status quo when nations undergo major transformations. Financial changes, labour market shifts, social perturbation — all this has an impact on both higher education institutions and people employed in the sphere. Their working conditions, potential career paths, and prospects change too, as well as the mechanisms of university governance and the opportunities and stimuli available to faculty, researchers and administrators. This alters the capacity of university sector on the whole, thus affecting the country's position in the global knowledge production.

Post-soviet transformations entailed financially and institutionally difficult conditions upon universities and faculty. Now it is already possible to analyze how particular countries and their academic systems responded to transition and evaluate the consequences. For example, one can track the changes in faculty's social status, research productivity and internationalization. The bulletin contains a number of short papers that present a comparative overview of these issues across some Eastern European countries.

The authors come from Russia, Macedonia, Poland, Croatia. Each of the states represents a certain region; altogether they outline the current state of the academic profession in the countries that have been in transition for a long time now already. We hope that learning about other nations' experiences will help our readers better understand the processes happening in their own countries and provide further food for thought regarding university development in the times to come.

'Higher Education in Russia and Beyond'
editorial team



HSE

National Research University Higher School of Economics is the largest center of socio-economic studies and one of the top-ranked higher education institutions in Eastern Europe. The University efficiently carries out fundamental and applied research projects in such fields as management, sociology, political science, philosophy, international relations, mathematics, Oriental studies, and journalism, which all come together on grounds of basic principles of modern economics.

HSE professors and researchers contribute to the elaboration of social and economic reforms in Russia as experts. The University transmits up-to-date economic knowledge to the government, business community and civil society through system analysis and complex interdisciplinary research.

Higher School of Economics incorporates 47 research centers and 25 international laboratories, which are involved in fundamental and applied research. Higher education studies are one of the University's key priorities. This research field consolidates intellectual efforts of several research groups, whose work fully complies highest world standards. Experts in economics, sociology, psychology and management from Russia and other countries work together on comparative projects. The main research spheres include: analysis of global and Russian higher education system development, transformation of the academic profession, effective contract in higher education, developing educational standards and HEI evaluation models, etc.

CInSt

The Center for Institutional Studies is one of HSE's research centers. CInSt focuses on fundamental and applied interdisciplinary researches in the field of institutional analysis, economics and sociology of science and higher education. Researchers are working in the center strictly adhere to the world's top academic standards.

The Center for Institutional Studies is integrated into international higher education research networks. The center cooperates with foreign experts through joint comparative projects that cover the problems of higher education development and education policy. As part of our long-term cooperation with the Boston College Center of International Higher Education, CInSt has taken up the publication of the Russian version of the "International Higher Education" newsletter.

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Teaching and Research: The Typology of Russian University Teachers' Secondary Employment

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Combining teaching and research at higher education institutions can be both fruitful and problematic at the same time. On the one hand, university teachers need to find time to do both; on the other hand, research helps them accumulate human capital that is beneficial to their teaching skills. One should also bear in mind that those who work at HEIs in Russia often show high flexibility in terms of their employment: they perform professional duties of different types, participate in or initiate research projects with a limited time frame, do grant work, write papers and books, etc. In our research, we offer two typologies: one focused on the kinds of secondary employment, the other one – on university teachers' researcher style (either "diversification"-oriented or more "specialised"). Our hypothesis is that different types will be prevalent in different universities (public or private, those based in Moscow or in the regions), and that teachers will also differ in terms of their publishing activity depending on their "professional profile".

Our research is based on the Economics of Education Monitoring data for the period of 2010-2013 by Higher School of Economics. Over 1000 university teachers across all Russia are surveyed annually as part of the monitoring. We will only analyse the responses of those staffers for whom teaching is their main occupation. On the whole, there were 3474 such respondents in 2010-2013. 63% of them were women; 51% were over 40. There were fewer women staffers and young employees in Moscow; no age- or gender-related differences were detected between public and private HEIs. 8% of our respondents held an advanced post-PhD degree ("doctor of sciences", equivalent to the German "Habilitation"), 45% had a PhD (or "candidate of sciences"); in Moscow the figures were 13% and 58% respectively, in private institutes – 5% and 37% respectively.

The Typology of Secondary Employment

The share of staffers involved in any kind of (paid) secondary employment decreased from 69% in 2010 to 55% in 2013. Most of them took additional teaching positions: 30% at public universities, 16% at private universities (2013 data). Nearly one out of five also worked as private tutors, another 16% taught at other, non-degree educational programmes. Conducting paid research as a form of income is less common: 19% of the respondents were paid for writing articles or books, 17% participated in grant research projects, 10% received individual research

grants, and 9% provided other private services unrelated to teaching. No more than 5-6% of the respondents stated that they had their own business or were employed at other research institutes, centres or state organisations where they had nothing to do with teaching.

K-means cluster analysis of the different types of secondary employment as variables allowed us to split the respondents into four groups depending on their employment structure. Group's number 1 and 3 are teaching-oriented in terms of secondary employment. Those who fell in the first group teach at state universities (31%), private universities (46%) or other educational programmes (66%), i.e. their strategy can be called "diversifies teaching". Those in group 3, on the other hand, manifested a "centralisation" strategy: 64% of them teach at state HEIs, 46% work as private tutors. Members of both groups rarely do research to increase their income.

Groups 2 and 4 can, unlike the previous two, be called research-oriented. Yet if all those who fell in group 2 actually earn money by writing articles, books, etc., the situation in group 4 is completely the opposite. Moreover, nearly none of the latter takes up teaching as their secondary employment, while among the former it is rather common (25% of those in group 2 teach at state HEIs and 18% -at private HEIs, 12% also work as tutors).

There are some discrepancies between HEIs. For example, those whose main job is with a private university are more teaching-oriented, while those at state universities are more research-oriented. In Moscow, 26% of all staffers choose to enhance their income by writing articles in books; in other regions, this is only true for 12% of the respondents. On the other hand, such forms of secondary employment as teaching at state universities or tutoring are more common in the regions (36%) than in Moscow (23%).

Professional field is one of the factors that determine the type of secondary employment. Those specialising in social sciences often go for "diversified teaching", language instructors prefer tutoring; those who specialise in humanities manage to earn by publishing articles and books, while in natural sciences and engineering it is common to do unpaid research.

Research Typology

The share of staffers who said they had participated in research projects in the two years prior to the survey grew from 78% to 82% in 2010-2012 but fell back to 77% in 2013. Doing research is less common among the employees of private and regional universities, as well as universities providing education in the sphere of culture and arts, and more common in medical and pedagogical HEIs (over 85%). Those involved in research either participate in team projects or work their own; most of their research (39%) is conducted within the university of their primary affiliation. Such a form of secondary employment is more common in state university rather than private ones, and more often practised in Moscow rather than in the regions. 15% of the respondents (especially at public universities

and in regional HEIs) have a steady contract at their university's research department. Having a stable job in research at another HEI or other type of organisation is less common (5.5%). Nearly 10% of the respondents have participated in a research project conducted at another HEI or financed by a research council, 6% have received individual grants. 11% of the respondents from state universities (versus less than 5% in private HEIs) and 14% of the Muscovites (versus less than 8% in the regions) had participated in research commissioned by ministries or other public authorities and state organisations.

Cluster analysis helped us group the respondents into four categories. The most numerous one (48%) consists of those mostly occupied with individual research; they rarely participate in team projects or take official part-time employment as researchers (only 36% of them received grants from their universities, 9% – from other HEIs; 8% were commissioned to do research by ministries or other state bodies). All of these people published articles or manuscripts. They can be called “individualist” researchers.

The smallest group (10.4% of the respondents) consists, on the other hand, of people actively involved in various kinds of research work, including participation in team projects or working as a part-time researcher at their own university. Nearly 90% have carried out individual or team projects at their university or received external grants; they are also active in terms of publications, so they can be called “diversified researchers”.

Third (16.2%) and fourth (25.3%) categories consist of those who are mostly only involved in research within their own universities; the former hold part-time researcher positions, while the latter participate in research projects but don't write any articles on their own. Therefore these two groups can be called “well-organised researchers” and “occasional researchers”.

The share of “well-organised” and “individual” researchers is nearly the same in both state and private universities. There are more “occasional” researchers at private HEIs (31% vs 24% at public HEIs), while “diversified” researchers can more often be found at public HEIs (11% vs 5% at private HEIs). Our assumption is that public universities offer their employees more opportunities in terms of research: they initiate their own project and have their own labs; moreover, they usually have better reputation, which helps researchers when competing for external grants. Nearly no differences have been observed when comparing Moscow-based and regional universities, though in general there are slightly more “individual” and fewer “occasional” researchers in Moscow. There are more “individual” researchers in social sciences, “diversified” researchers in natural sciences, and “well-organised” researchers in engineering, which is due to the peculiarities of analytical work in different fields: for example unlike social sciences, where one can easily work on their own, natural sciences and engineering often require access to a specially-equipped lab and intense professional communication.

Age- and gender-related discrepancies between the types are virtually non-existent. However, there are quite some differences between those who never completed a PhD and all the rest. The latter rarely get involved in “occasional” research; they have more opportunities in terms of work diversification and participating in “well-organised” research. They also often choose to be “individual” researchers. Those who don't hold a PhD degree are obviously in a disadvantaged position; they are often involved in “occasional” research, i.e. participate in projects conducted at their universities, but don't publish any articles.

Type of Employment as a Factor of Publishing Activity

Research performance can be objectively evaluated through publications. Those who manage to publish their articles in peer-reviewed journals contribute to their universities' reputation on the whole. It is publications, not reports that make research results visible for broad audience. According to available data, the share of university teachers who had at least one publication within a year prior to the survey has been growing significantly: 60-64% of the respondents had had at least one publication in national or university journals in 2010-2012, and in 2013 their number grew to 78%. Among those engaged in some kind of secondary employment, the highest publications rate was of course in the group of those who got paid for their texts: in 2013 they had, on average, 5.7 journal articles per person versus only 3.6 articles in the teaching-oriented categories (numbers one and three). It is more interesting to see what kind of “professional profile” is more productive in terms of publication. For example, “diversified” researchers had 5.7 journal articles per person per year, “well-organised” – 3.9, “individual”- 3.6, “occasional” 2.9. In other words, participation in various projects and receiving funding from different sources enables researchers to publish more.

Conclusion

Our analysis has confirmed the original hypotheses: 1) university teachers' secondary employment and research work can be divided into clusters depending on the type of their specific activities; 2) the choice of this or that particular style often depends on the type of university and one's professional specialisation; 3) the number of publications varies significantly among the researchers belonging to different categories.



Attitudes Towards Research and Teaching in the Russian Public Higher Education Institutions

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The purpose of this study [1] is to examine faculty's self-concept in terms of orientation toward teaching and research in higher education institutions in Russia. Findings reveal that research-oriented faculty is better prepared for research activities, more active and more positive about it. However, universities seem to fail filtering and recruiting faculty with this kind of attitude.

Recent changes in the sphere of higher education in Russian were, to a large extent, aimed at increasing scholars' research productivity through optimising university funding system. As part of optimisation, the government decided to identify the 'best' universities (about 50 out of the 600 public HEIs in the country) and develop target funding programmes for them, merge certain HEIs, and raise faculty's salaries at least to regional average. Yet institutional inertness and the fact that universities' income mostly comes with tuition fees hinder the process of making HEIs more research-oriented rather than teaching-oriented. This, in its turn, hampers both staff changes and the elevation of research productivity. According to the 1991-1993 Carnegie study titled International Academic Profession, conducted in 14 countries, Russia was at the bottom of the list in terms of the share of research-oriented faculty. The 2012 Changing Academic Profession [2] study showed that Russia is still lowest in terms of 'the faculty self-concept for orientation toward research' (38%) [3], while in the UK and Japan the figures are 67% and 71% respectively.

How did such prioritisation among faculty develop? The current working time structure took shape when universities put emphasis on teaching rather than research. In the USSR, research was mainly done at the organisations under the Academy of Sciences, while HEIs were designed to prepare new generations of researchers and practitioners. HEIs are currently undergoing a reform (2010–2016) and switching from budgeted financing to normative per capita financing, which makes public funding received by universities more dependent on the number of students enrolled, thus the importance of teaching as opposed to research grows even stronger.

Up until now HEIs have been largely dependent on tuition fees (which accounted to 77% of their income). In the post-soviet times, average faculty salary normally did not exceed per capita income in Russia (moreover, average professor's salary

was lower than that of a specialist holding university degree). All this made it incredibly difficult and even unprofitable for universities to find and hire research-oriented staff, resulting in brain drain and general decrease in the productivity and competitive capacity of the higher education sector.

Low academic mobility and the existence of quasi-indefinite employment agreement also did not help create new stimuli for the faculty to contribute to their university's reputation and improve their opportunities at the academic labour market. (There is no tenure at Russian universities. However, job security in the university sector is very high, and faculty usually perceive their employment as a permanent one: labour contracts are renewed nearly automatically due to lack of competition. (Androushchak, Yudkevich, 2012). It is most common for faculty to compensate for their low salaries by taking up extra teaching jobs at other HEIs or educational programmes.

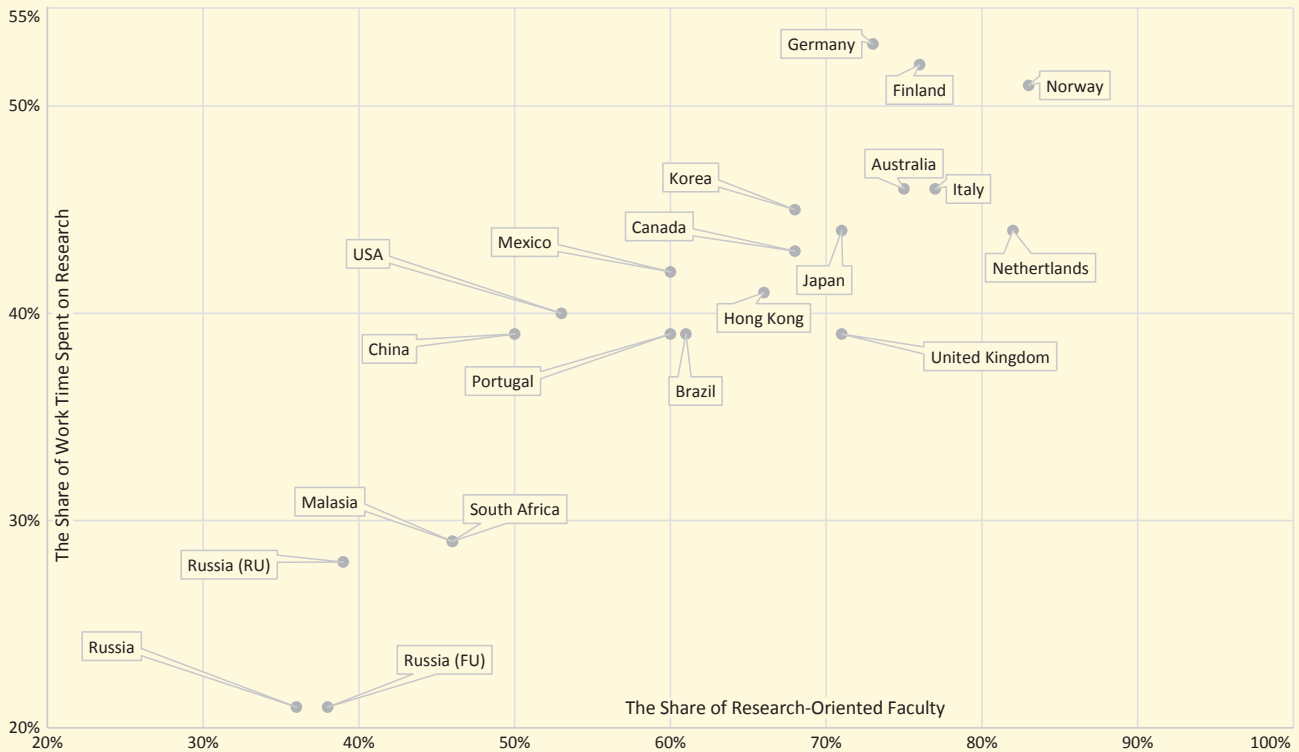
Yet, according to a 2012 Russian survey that followed CAP methodology, unlike research-oriented faculty, teaching-oriented staff are more likely to be unhappy in their job, they more often want to find a non-teaching job, work shorter hours and publish less frequently. Research-oriented faculties are more active when it comes to grant applications and peer-reviewed publications (including those in foreign languages or co-authored with scientists from abroad).

Faculty's Preferences Depending on HEI Status

In many developed countries there's distinct functional differentiation among HEIs. In Russia, however, it is difficult to highlight specific HEI types. The current formal classification, which includes universities, institutes and academies, does not in any way reflect the reality. In our work, with use the classification of HEIs into research universities, federal universities and all the rest as recently introduced by the Ministry of Science and Education. Many of the new targeted funding programmes were specifically designed to help universities that do hold a special status. It is important to mention that they were awarded this or that status based on expectations rather than the real state of affairs.

Even though 'research university' status implies that 'equal efficiency in education and research based on the integration of the two', there are no real differences between faculty employed at national research universities, federal universities and all the others in terms of their preferences (teaching versus research). The only difference is that faculty working at research universities spend more time on research (on average 2 more hours per week) than their peers from HEIs with no special status. On the whole, there is more discrepancy between research- and teaching-oriented faculty rather than between faculty employed at HEIs of different types. It is also worth noting that even Russian research university faculty spend less time on research than full-time university teachers in other countries covered by CAP including the USA, though most of the US respondents came from the so-called 'teaching universities'.

Figure 1. Allocation of Working Time to Research and Teaching and Preference for Teaching and Research —Aggregated Categories (% , categories 1 and 2 merged into a single category ‘Teaching’, categories 3 and 4 into a single category ‘Research’). Question B2: Regarding your own preferences, do your interests lie primarily in teaching or in research?



Other countries’ experience in building research universities suggests a particular HR policy that implies supporting research-oriented staff and ‘filtering out’ those faculty that don’t perform well enough academically. Apparently national research universities and federal universities haven’t yet succeeded in redesigning their HR policy and creating efficient stimuli for faculty to get more interested in research. This hypothesis is supported by the respondents’ answers: only 43% of teaching-oriented staff and only 35% of research-oriented staff agreed that the quality of teaching or research is taken into account when it comes to HR decisions.

The current preferences common among those employed in the university sector are reflective of the Soviet and later Russian higher education system, whose main features included teaching-oriented HEIs, separation of education and research, low funding, and HEIs’ low research productivity. Speaking of increasing the share of research-oriented faculty, one should bear in mind the importance of acquiring research skills at university. Research-oriented staff highly appreciated the evolution of their research skills during their undergraduate and postgraduate studies, when they not only worked on their own subject but also participated in various projects. Enhancing one’s research skills can primarily be done by studying under enthusiastic research-oriented teachers of course, but the latter normally comprise no more than one third of all faculty. According to a survey conducted by the Centre for Sociological Research at the Saint Petersburg branch of Vavilov Institute for Natural & Technological Sciences History, ‘only 30.9% of the students that took research-oriented undergraduate courses wanted to go into science.’ So, the share of students

interested in research nowadays is about one third, and university graduates perceive academic career as unprofitable. This brings us to a kind of never-ending circle dominated by education-oriented HEIs and faculty with a strong preference for teaching over research.

Notes:

[1] This paper is based on the results of the project *International Comparative Contractual Relationships Research* (‘Educational Institute — Teacher — Student’ Relationships at Schools and Universities in Russia and Abroad). Conducted in 2012 under support of the Higher School of Economics Programme for Fundamental Research, the project followed the methodology used in the international *Changing Academic Profession* study.

[2] Sample of CAP-Russia2012: randomly selected 13 public institutions of higher education and 12 HEIs holding a special status (national research universities and federal universities), with state accreditation (branches excluded) under control of the Ministry of Education and Science in 9 regions of Russia with highest numbers of students per capita. In each institution, 60-65 full-time teachers were interviewed using random selection from a list of faculty.

[3] Question: Regarding your own preferences, do your interests lie primarily in teaching or in research? Answers (Russia): Primarily in teaching 18%; In both, but leaning towards teaching 43%; In both, but leaning towards research 33%; Primarily in research 5%.



The Sources of Post-Soviet Professorial Power

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As any human institution, universities can be analysed from a political-economic perspective. Seen from this angle, their development is essentially a result of competition or compromise between major internal and external stakeholders (students, professors, state authorities, local communities) often pursuing conflicting aims and using available resources to impose their will on others. This short text, which borrows its title from Alan Cobban's classical paper on medieval student power (1971), seeks to describe the sources of influence of the members of academic profession in Russia. Like everywhere else, Russian professors usually feel themselves powerless vis-à-vis university administrators. Interviewing the latter, however, one gets a totally different picture. Rectors or vice-rectors would complain that teaching staff allow them very limited room for maneuver and can impose various sanctions be for non-compliance with faculty's wishes. To classify these sources of professorial power, I will use the distinction between "voice" and "exit" introduced by Hirschman (1970).

The Exit

The major source of faculty's exit power in a university is the threat to find another academic or non-academic employer. The seriousness of this threat depends on two variables: the first is the real exit prospects a teacher has, and the second is organization's dependence on particular professors and its chances to find replacement for them. In the monumental *Academic Revolution* by Jencks and Riesman (2002[1968]), the rise of powerful academic profession in the US is traced to the emergence of highly mobile labour market with universities competing for star professors who attracted students and could bring in research funding. Paradoxically, the exit power declines alongside general increase in attractiveness of particular academic employment or of academic profession in general. In the 1990s Russian professors could threaten their deans saying that they would leave their positions and go work in street kiosks, as the wages there were much higher. This threat would not seem credible any more, especially at top institutions, which have witnessed significant increase of salaries in the last decade.

Exit power also goes down together with decline in labour market mobility. As the latter is traditionally low in Russia, the resulting absence of nation-wide market for academic positions greatly limits faculty's exit power. Theoretically, this factor must affect power balances at universities in bigger cities less than in smaller towns as there are more opportunities to find another employment in metropolitan areas. However, additional circumstances intervene into this causal chain. Russian academia demonstrates a pattern which is typical for relatively poor countries: university

teachers, especially high-ranking ones, having parallel employments at several institutions at a time. To get one more job, they do not have and are unlikely to quit the previous ones. No matter what other consequences of this state of affairs are, it means that professors lack certain leverage in their negotiations with other interest groups at universities. Nevertheless, bigger Russian cities are currently experiencing certain intensification of human resources battle, especially when it comes to senior professors, who are particularly valuable according to the present regulations by the Ministry of Science and Education [1]. A few of the most resourceful universities paying the highest salaries felt that they had a chance to request undivided loyalty from their staff. That deprived their professors of additional incomes but gave them back some of their exit power. It resulted in the start of a bidding war with the top schools enticing star professors from one another. Being a member of a university appointments committee for the last five years, I witnessed how an aggressive hiring policy in the field of social sciences practiced at National Research University 'Higher School of Economics' caused rapid rise of salaries at competing institutions as well, with starting offer for a sought-after professor growing more than threefold in less than five years, from some 700 USD a month to above 2,500 USD [2].

As for the second variable — the dependence of universities on particular professors — it greatly varied according to universities' major economic basis. Every university is dependent on its faculty but it can be dependent on them in different ways. In Russia, there is a roughly three-tier structure in the university sector with top universities, usually big and centrally located, extracting greater revenues from research funding, contracts, and participation in various ministerial task programmes; middle-tier living from state-subsidised student enrolment, and the lower tier, mostly small and private, maintained through tuition fees. The upper tier, encompassing no more than 5% of the whole higher education system and located in largest cities, strongly depends on academic superstars serving as a university façade and getting sizable grants and contracts. Broad comparative historical analysis shows that further increase of income from this source turns local political regime at a university into a professorial oligarchy with administrators and less distinguished scholars totally dependent on an areopagus of senior professors (Jencks and Riesman, 2002 [1968]). However, none of the Russian universities has reached this stage yet. The most important impediment arises from the fact that the influx of government money largely depends on personal connections of top university administrators with the political elites. Allocation of student places funded from the federal budget or participation in various federal target programmes (*tselevyje programmy*) depends on rectors' ability to negotiate with respective federal ministries, while getting subsidies for campus renovations or acquiring new buildings often depends on their ability to convince regional administrations. In such cases, personal profile of a rector in the eyes of their bureaucratic counterparts serves as one of university's major assets.

Rectors thus retain exit power of their own vis-à-vis their university's faculty. That comes as no surprise, however, that at the top universities we find the greatest polarisation of income between the 'top' and the 'lower' faculty members.

The lower one descends in the hierarchy, the smaller the differences between contributions of particular teachers to the well-being of their institution. At the middle level of universities totally dependent on subsidies, differentiation of income is minimized as individual contributions to teaching process are naturally less obvious than contributions to research reputation or grant fundraising. Faculty, however, retain exit power, although more equally distributed – finding a replacement for a qualified teacher is a problem. Lower, at the level of small private schools teaching the least demanding students and, until recently, acting under lenient surveillance by the Ministry, exit power decreases as teachers' professional skills are becoming less and less important. However, even these schools have to pay remuneration sufficient for prevent faculty from leaving. The regular Monitoring of Educational Markets and Organisations survey conducted by Higher School of Economics demonstrates a strong negative correlation between HEI's economic prosperity and the share of its income allocated to salaries. The lower a university stands, the more it has to spend to prevent teachers from turning their back on it.

The Voice

Russian academic world is unusual in the scope of rights university staff — both faculty and administrators — enjoy. Institutionalized in the early Soviet times as a counterbalance against the powers of bourgeois professoriate, after the fall of the Soviet nomenclatura system these rights made Russian universities highly democratic in their governance, with rectors and deans elected by and fully responsible to their internal constituencies. The most obvious result of this was turning universities into commercial enterprises par excellence. To secure votes of support, a rector needed to boost university profits and to redistribute them among the faculty, mostly through various bonus mechanisms. For universities of the second and the third tiers, as well as largely for the first tier as well, raising profits meant increasing the size of the student body by gaining extra state-subsided places from the Ministry, getting support from regional elites, and organising advertisement campaigns. Responsibilities of deans or department chairs generally reproduced the same pattern, though at a lesser scale.

Redistribution meant an obligation to turn most of income into salaries rather than invest it or use for some other purpose. Most of tuition money was paid to teachers at respective schools and departments as salary increments [3], and large part of remaining federal funding was used for this purpose as well. It was not uncommon for a university receiving federal research funding to invite all departments to submit grant applications and then to support each application with a sum strictly proportional to the number of employees at each department, thus making it just another bonus. Another legitimate usage was to maintain public goods like university publishing

house, which served to provide faculty with publications necessary for their dissertation defence [4]. An administrator that failed to meet professors' expectations risked losing the next elections. At some universities, their internal political life looked like a textbook example of competitive democracies, with candidates struggling to please their constituencies and acting incumbents losing elections to contenders (Novosibirsk University can be cited as an example).

The reforms the Ministry has initiated since approximately 2006–2007 were aimed at increasing the quality of teaching and university scholar's research productivity. The idea of changing the existing democratic political regimes was regarded as one of the major tasks of the reforms. Rectors serving their faculty were extremely unlikely to use research funding in a way which would in fact increase research output rather than simply pay out bonuses. University faculty's sovereignty is gradually losing its power, since democratic elections are being replaced by bureaucratic order chains. Thus, universities wishing to enter the "5/100" federal programme [5] were required to present a roadmap of "management optimisation" which would mention the abolition of direct election of rectors. Similarly, in the same wave of "optimisation", traditional schools with elected deans are currently being replaced with institutes headed by appointed directors. At the same time, at least at the top of the organisational hierarchy, increased research funding and deliberate attempts to stimulate inter-regional academic mobility are probably giving the scholarly elite exit power in exchange for the lost power of vote.

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Notes:

[1] In its attempts to ensure quality of teaching and research at Russian universities, the Ministry introduced regulations which reserved many function, such as teaching at graduate programmes or participation in dissertations committees, for holders of the highest academic degree — doktor nauk (similar to the German 'Habilitation'). They have thus found themselves of great demand.

[2] Obviously, part of this growth came as a result of the general increase of prosperity in Russia. The growth of professorial salaries, however, outpaced the general income rise, and especially so at the level of senior academics. Necessary to add, these are St. Petersburg prices, which are lower than in Moscow but higher than in the rest of Russia.

[3] As a result, there is extreme polarization of income among different schools and departments. In 2010 St. Petersburg State University published statistics demonstrating that average salary at the richest schools, such as management or law, was nearly four times bigger than that at the poorest (biology).

[4] To qualify for PhD in Russia, a scholar has to present several articles at peer-reviewed journals. Universities support publishing houses that meet this need by publishing various 'conference proceedings', etc., i.e. helping scholars 'collect' the necessary number of publications.

[5] A programme aimed at concentrating federal resources at 15 universities, at least 5 of which are to enter top-100 of international university rankings.



Gifts, Debts or Pin Money? On the Moral Ambiguity of Academic Contract in Russian Higher Education

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An impressive rise in academic salaries was announced by the Ministry of Education and Science in 2012. University teachers' average salary is supposed to be twice higher than regional average. For most of those employed in the academia this means a 2-2.5 times growth from the current level. Nevertheless, it is hard to call such an increase a "free gift" from the state or "debt repayment" following the hard 1990s, when most academics were poorly paid for their main job. It was declared that higher salaries should be converted into higher performance. The so-called "effective contract" has been proposed as one of institutional solutions for performance management in the academia. It assumes a division between the core (stable) and stimulating (motivational) part in teachers' salary, the development of performance evaluation system in each university and the provision of economic model linking personal performance, its economic value and payment cycle. The introduction of "effective contract", based on the "money for performance" maxim, into academic practice is recognized as a contribution to a more competitive environment, rational academic planning and academic output management.

This short paper is aimed at demonstrating that the economic logic inherent in the new model of academic contract collides with the collective structure of academic organizations in Russia. The paper is based on the results of in-depth interviews with top-level administrators and academic leaders gathered in 2013 at eight state

universities located in three federal districts (Central, Southern, Siberian). While examining the process of reform implementation, we also focused on various interpretations of "academic money" (money circulating in the higher education environment). As long as material rewards were considered as instruments for performance management inside the academia, the price and value of academic work among university staff was also questioned.

University administrators found themselves under pressure as they were responsible for the development of new "payment patterns", taking into consideration not only resource constraints, issues of efficiency and effectiveness, but also collective constraints of work and pay. These constraints worked as moral arguments in the discussion on who and how should be paid inside university. For example, the respondents said that determining the relationship between stable and variable parts of the salary means affecting the level of collective trust and organization identity. "30% of core salary? We are not a commercial firm to provide such a hard system"; "The lower the stable part of salary, the less you are trusted as university administrator"; "It is hard to create such a differential system for ordinary employees. We have different faculties and different generations of workers. There were unfair situations with these payments". Of course, there were more pragmatic explanations concerning normative regulations provided by state authorities, although they were not binding. Besides, the existing "recruitment pattern", known in literature as "academic inbreeding" and inability to appoint new employees basing on external academic market, especially at regional universities, – all this creates a collective mode of university governance where the system of payment and performance leads to establishing social order.

The new system of payment implies a division between core and stimulating parts of salary but its real-life implementation in different universities has brought up various interpretations of "academic money". First observations led to a conclusion that extra money provided was seen by university administrators and academics as gift money, debt money or pin money. University administrators chose different strategies of resource allocation and money spending within the new payment system according to the size of organization, the volume of non-state funding and specialization profiles. These characteristics worked as context variables in a general discussion on the role of money in university governance. For example, small institutions receive less funding from the state, they need to match normative requirements on the student-teacher ratio and the price floor for fee-paying students at the level of budgetary costs. This also leads to a low volume of non-state funding when institutions can't provide teachers with adequate stimulating instruments. "Our stimulating fund is so small that teachers can decide not to participate in it. What do you think, 2000 rubles [about \$80] can be recognized as a real stimulus for such an amount of additional work? This is nothing." This pin money could be easily substituted by secondary job at

another university, or school, or other type of organization. This fact created tension for administrators questioning the role of money in managing academic performance. But the problem was not only about the size of payment, it was more complex and comprised the question of the price and value of academic work.

Administrators and academic leaders that were interviewed laid out “moral theories” of how universities should be organized internally. In their theories, social status, time and money exchange were linked; the respondents labelled money as gifts, debts or productivity wage. Gifts mean the money that faculty are paid without any equivalent payback. Although universities raised teachers’ salaries, sometimes there was no specific solution on adequate return. “The President has signed a document and we are implementing this decision. This year we raised salaries by 40% because we were supposed to do that. Now, this looks like a gift for our teachers. But we also spend non-state money for these purposes and we should decide in future what is to be expected from academics.” Debts mean the money that teachers do not want but have to receive as they can’t ignore their main job. This is money paid for extra or double load. “So we are paid more but we need to work twice harder: classes, publications, applicants. I did not know that in exchange for this new payment I would have lost all my free time. It is hard to do your primary job as you have a lot of extra duties now.”

In some universities higher salaries should lead to workload optimization. It means that before the new system was implemented, unit load was remunerated higher than afterwards, and higher salaries arose not as an equivalent compensation but as a credit towards unpredictable performance. The ambiguity provided by the money-performance evaluation was resolved in some cases through productivity wage: “If you have published an article, you get a one-time bonus”. The calculative price of an article varied significantly across observed universities. Although the new academic payment system has not yet been implemented completely in observed universities, it has questioned the established order of academic work and created moral ambiguity among university staff. On the other hand, it has brought up important questions on whether institutionalized payments can become a major instrument within universities that would enable high performance rates.



Internationalization and Research Productivity: “Internationalists” and “Locals” in Polish Universities

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The internationalization of the Polish academic profession is studied in a comparative quantitative European context. Our study shows that research productivity of Polish academics (following European patterns) is strongly correlated with international collaboration: the average productivity of Polish academics involved in international collaboration (“internationalists”) is consistently higher than the rate of Polish “locals” in all academic fields. The impact of international collaboration on average productivity is much higher in Poland than in other European countries studied, with important policy implications.

Introduction

The relationship between international cooperation and research productivity has been widely discussed, with a general assumption that collaborative activities in research increase research productivity. But as Sooho Lee and Barry Bozeman (2005: 673) pointed out, “the benefits of collaboration are more often assumed than investigated. ... Do those who collaborate more tend to have more publications?”. Very much so, as we shall demonstrate in the Polish case.

We shall analyze two specific aspects of internationalization in research: first, the correlation between international academic cooperation in research and academic productivity, and second, the correlation between international academic cooperation in research and the co-authorship of publications with international colleagues.

Data and Methods

The data used in this study are drawn from eleven European countries involved in the CAP (“Changing Academic Profession”) and EUROAC (“Academic Profession in Europe: Responses to Societal Challenges”) projects: Austria, Finland, Germany, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Switzerland, and the United Kingdom, subsequently cleaned, weighted and integrated into a single European data set by the University of Kassel team. The total number of returned surveys was 17,211 and included 1,000-1,700 surveys in most European countries and 3,700 surveys in Poland.

For our analysis, we have used a subsample of 9,536 European academics who were employed full-time in universities (as defined by national research teams) only.

The first research question is how strongly international collaboration in research correlates with above-average research productivity and whether the relationships hold across all academic disciplines in Poland. Responses to the question “How many of the following scholarly contributions have you completed in the past three years?” with the number of “articles published in an academic book or journal” were analyzed. The analysis was conducted with reference to two separate groups of academics, termed “internationalists” and “locals” here. One group consisted of the academics indicating their involvement in international research collaboration, and the other group included those who indicated their lack of involvement (for a wider picture, see Kwiek 2014a).

Internationalization and Research Productivity

The analysis of the Polish subsample (N = 1,441) shows that Polish academics employed full-time in the university sector are less internationalized in all academic fields but cross-disciplinary differences in internationalization are much higher than in other countries. Only academics in physics and mathematics collaborate with foreign colleagues to an almost equal degree (on average about three fourth of the subsample). In life sciences and medical sciences, the proportion is about 55%, and in humanities and social sciences about 48%. The two most internationalized clusters of fields are the same in Europe and in Poland: “physics and mathematics”, and “life sciences and medical sciences”.

On average, Polish academics across all academic fields involved in international collaboration publish more articles than those not involved. In particular, in engineering, they publish on average more than four times more (332%) articles, in physics and mathematics three times more (217%), and in life sciences and medical sciences almost 50% more than their internationally-non collaborating colleagues. The difference between average publication rates for “internationalists” and for “locals” is much higher in the case of Polish academics than in other European countries studied: consequently, international collaboration has a more powerful impact on productivity in countries which are only entering European and global research communities.

Internationalization and Publication Co-authorship

The second aspect of internationalization studied here is the difference in the share of internationally co-authored publications between the subsample of “internationalists” and the subsample of “locals”. The analysis of the Polish subsample (N = 935) shows an almost identical cross-disciplinary pattern for international article co-authorship correlating with international collaboration as in the

case of 10 European countries. Across all five clusters of academic fields, the difference in percentages of internationally co-authored publications between “internationalists” and “locals” is statistically significant.

Amazingly, Polish “internationalists” are more internationalized (that is, have a higher proportion of internationally co-authored publications) than European “internationalists” in all academic fields except the humanities and social sciences, where they are slightly below the European average. There are also no big differences between Polish and European averages for “locals” except that Polish “locals” in physics and mathematics have on average twice as high a proportion of internationally co-authored publications as their European colleagues. Thus the European pattern not only holds in Poland, it is even stronger there: while the multiplication factor between “internationalists” and “locals” for European academics is on average between 4 and 7.5, the same factor for Polish academics is between 4 in physics and mathematics and 13 in life sciences and medical sciences.

Conclusions

Our study shows that research productivity of Polish academics (following European patterns) is strongly correlated with international research collaboration: the average research productivity rate of Polish academics involved in international collaboration (“internationalists”) is consistently higher than the rate of Polish “locals” in all academic fields (by 60-140%). Polish academics are less internationalized in terms of research than the European average but the productivity rate of Polish “internationalists” is on average much higher than that of the Polish “locals”. The impact of international collaboration on average productivity rates across all academic fields is much higher in Poland than in the European countries studied. International publication co-authorship is also powerfully correlated with international research collaboration: the average international co-authorship rate is between 5 and 7.5 times higher for Polish “internationalists” than for Polish “locals”, depending on the academic field. The European pattern of a higher proportion of internationally co-authored publications for academics collaborating internationally in research compared with those not collaborating internationally holds strongly in Poland: while the multiplication factor between “internationalists” and “locals” for European academics is on average between 4 and 7.5, the same factor for Polish academics is considerably higher, from 7 to 13.

In the context of the most recent Polish reforms (2009-2012), which highlighted the role of international publications, the results of the present study imply a powerful policy conclusion: more international cooperation is the best way to have more internationally visible national research output. And in the specific case of co-authoring articles with foreign colleagues, the policy lesson is even simpler: no international collaboration, no international co-authorship. Polish academics involved in international collaboration differ much less from their European colleagues involved

in international collaboration in terms of the patterns of research productivity than commonly assumed; the problem is the low research productivity of those not involved in international collaboration and a very high percentage of consistent non-publishers in the university sector (43% of full-time academics). Recent reforms resort strongly to new internationalizing mechanisms: internationalization matters heavily in institutional research assessment exercises (termed “parametrization”) which are closely linked to an institutional funding stream. Internationalization also matters as a prerequisite for getting access to competitive individual research grants distributed by the newly created National Research Council (NCN), as well as in new requirements for academic promotions. In all the three areas, research internationalization as analyzed above is important as never before. It is too early to link the correlations found to prior national strategies and ongoing reforms but internationalization boosts the competitiveness of Polish higher education (for an overview of Polish reforms, see Kwiek 2014b). What is clear is that the ever larger proportion of knowledge is being produced in selected top university departments and most productive units of the Polish Academy of Sciences: there is stable concentration of knowledge production (and research funding) in selected, most internationalized institutions.

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25 Years After the Fall: Indicators of Post- communist Science

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In 1985 COMECON countries published more than 64 thousand documents indexed in the US-produced Web of Science (WoS) database, of which only a handful were

co-authored with American scientists. USSR alone accounted for almost 40 thousand publications, or 4.4% of the total world output, not taking into consideration the numerous quality Soviet journals missing from the Web of Science. By 2013 Russia's share had dropped to only 1.6%, and all former partner communist states switched either to the EU or USA as their main collaborators. This article aims to provide a brief statistical overview of these massive changes by combining bibliometric data with some general development indicators and historical remarks.

Communist Research System at Its Peak

By the end of the 1980s, R&D system in the USSR was firmly established as the second largest in the world with more than 1.5 million researchers (including university lecturers) and gross expenditures amounting to 1.5% of GDP. The largest part of it was not fundamental but applied research, with thousands of research centers and design bureaus across the Union, usually controlled by sectorial ministries. Fundamental research was done mostly in the 330 institutes of the Academy of Sciences and several prominent institutes housing megascience facilities operated by the Ministry of Nuclear Science and Technology. Medical and agricultural sciences were branched into separate Academies, the first one having 79 research centers and the latter – more than 100. Besides that, all Soviet republics had their own “smaller” academies with the total number of researchers just slightly below that of the “major” nationwide Academy. The overall number of researchers in all the academies of the USSR had reached 150 000 by 1988. University research was very limited comparing to the US, its share in the Soviet R&D was estimated to be ca. 10% by 1990.

Similar organizational models were actively promoted in virtually all the countries under Soviet influence, which led to the establishment of Academies of Sciences in all COMECON countries [1], Yugoslavia, Albania, China, and North Korea. Together these Academies had hundreds of research institutes active in all branches of modern science and humanities. However, the countries that had an established tradition of university research (notably Poland and Czechoslovakia) were fully allowed to foster their HEIs alongside academic research centers.

The degree of cooperation between COMECON researchers and organizations varied. An ambitious integration project called Comprehensive Program for Scientific and Technical Progress up to the Year 2000 was adopted only in December 1985, near at the end of the Soviet era. With 93 projects and 800 subprojects within 5 broad priority areas, it was a centrally planned analogue of European Framework programs. Each project was led by a Soviet institute that would award R&D contracts to COMECON partner organizations. International co-authorship within the Eastern Bloc and between communist and capitalist states clearly did exist but we cannot correctly evaluate it with WoS data due to frequent omissions of affiliation information in this database prior to the 1990s (often only the first author's affiliation was indexed).

Overall coverage of Soviet science by Western citation databases remained very limited until 1983-1985, when Philadelphia-based Institute for Scientific Information added many new Soviet journals to their Web of Science database, leading to a massive increase of publication counts for the USSR and its allies. In 1989, the USSR had published 40,823 WoS documents, only surpassed by the US, the UK and Japan. Poland had 6,326, Czechoslovakia 4,859 – both ahead of Austria, Finland or Norway. Top disciplines for COMECON countries were physics and chemistry in contrast to the US and Japan (biochemistry) and the UK (medicine).

After the Fall

The demise of the USSR, the collapse of Eastern European communist regimes and the removal of the Iron Curtain in 1988-1991 led to several drastic consequences for R&D. Funding was severely reduced, priorities shifted, and new national systems emerged free from Soviet influence. All countries reacted very differently.

Figure 1. Total number of publications, 1993-2013 (Web of Science, all document types, SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH indices)

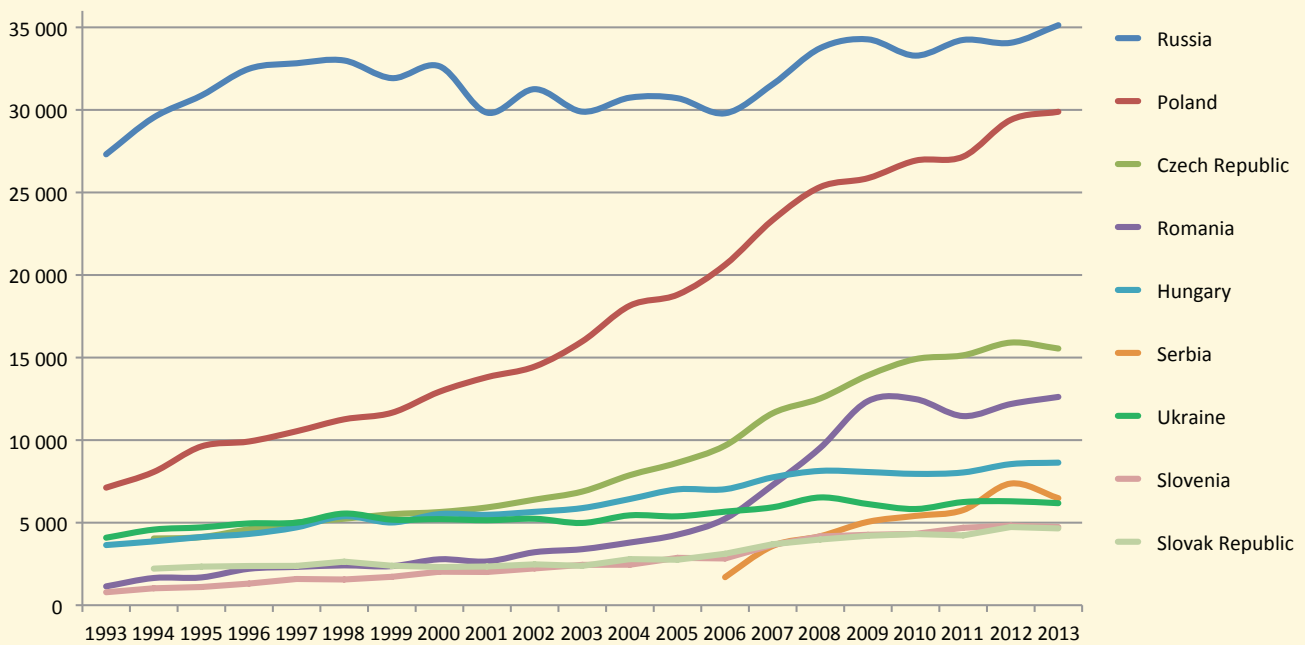
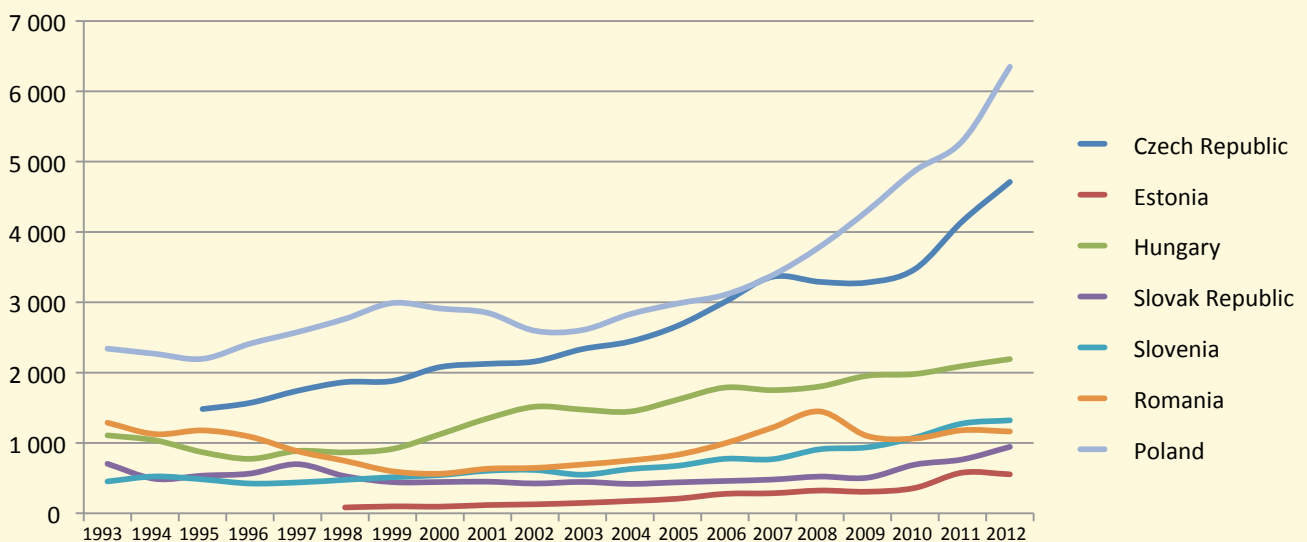


Figure 2. GERD in 1993-2013 for several former COMECON countries (million 2005 dollars - constant prices and PPP. Data source: OECD)



Russian gross expenditures on R&D (GERD) dropped more than fourfold in 1990-1992, GERD/GDP ratio plummeted from 1.43% in 1991 to 0.85% in 1995. Lack of demand for new Russian technologies led to a prolonged crisis of applied research centers. Research staff shrank from 130 specialists per 10 000 workforce in 1990 to 60 in 1995. In 2012 GERD in Russia was still almost two times less than in 1990 (in constant prices), and national GERD/GDP ratio was 1.12%. Nevertheless, Russia experienced a significant increase in government spending on R&D in the 2000s and rapid growth in the number of PhD students, PhD holders and universities. Sadly, these statistical achievements have had little effect on publication count (see Fig. 1) and on the total number of employed researchers, which dropped from 425 000 in 2000 to 372 000 in 2012 (not including university lecturers).

A number of former Eastern Bloc countries suffered similar decline but had much more success in revitalizing their R&D. Poland and Czech Republic turned out to be the most active among bigger states both in terms of research expenditures and publication counts (see Fig. 1 & 2), with Kazakhstan, Vietnam and Baltic states also showing promising growth. For example, the number of researchers in Kazakhstan increased by 50% in 2009-2013, and Estonia's GERD/GDP ratio hit the record 2.37% in 2011. Vietnam has seen a rapid increase in WoS publications in line with its industry-driven economic growth and strong ties with other rapidly developing Asian countries.

The results achieved by other CIS countries are more modest. Don't let the recent growth in publication counts mislead you: it is to a large extent caused by the physicists working in CERN or EU/US-based collaborations which now produce thousands of articles in high-ranking journals every year [2]. Increased indexing of books by WoS in the recent years also had a positive influence on these numbers. On the whole, however, basic research in Armenia, Georgia, Tajikistan, Turkmanistan, Uzbekistan and several other states is almost completely strangled by lack of regular funding, and there have been no prominent improvements there in the recent years.

Shifts in International Collaboration, Institutional Origin and Themes of Publications

Contrary to popular misconception, the division between universities that do mostly teaching and institutes that do mostly research isn't something entirely Soviet and outdated. Germany serves as the best example of an R&D system spearheaded by non-graduate institutions, with only 1 Nobel laureate out of 9 in physics, medicine and chemistry in 1990-2013 coming from a university, and zero universities in the top-40 of QS or THE rankings. Germany also is an example of the most radical, quick and efficient reform of an ex-communist Academy of Sciences. In 1991-1993, all the institutes of GDR Academy were evaluated, then many of them were closed, and the rest formed Leibniz-Gemeinschaft modeled after Max-Planck-

Gesellschaft and Fraunhofer-Gesellschaft. Nowadays Leibniz-Gemeinschaft employs about 17 000 people working in 87 organizations.

The fate of other academies was different. Despite decreased funding and massive brain drain, Russian academies managed to increase the number of research institutes and academicians significantly before being forced into reform, the outcomes of which are yet to be seen. Russian Academy of Sciences' resilience and opposition to changes is remarkable among other post-communist countries. However, almost all the other academies – Bulgarian, Polish, Ukrainian, Armenian etc. – do exist and run their networks of institutes but the numbers of researchers there are in decline. It is partially due to the fact that the governments are pursuing the American "Triple Helix" agenda and tend to provide much more money to leading universities. Our data shows a clear shift towards universities as the main force behind WoS-indexed papers almost everywhere, though the share of universities among ex-COMECON states varies substantially from country to country.

Another trend is an almost universal turn to the USA and EU15 countries for collaboration and co-authorship. Russia is maintaining its role a priority partner only for ex-USSR states but even Belarus and Armenia, our closest allies, have now had more papers co-authored with EU15 than with Russia for a long time. This shift was really fast: in fact, Russia was surpassed by EU15 in 1995-1996 already. It was to a large extent a result of massive brain drain and temporary migration of ex-Soviet scientists to Germany and other European countries, and many of these authors mentioned their prior affiliations alongside new Western ones [3].

Needless to say, new EU member states receive huge benefits by access to Framework Programs, Horizon 2020 and European Research Council grants. Not only do they provide the much needed money (€427 million in FP7 for Poland alone) but also they do it in a clear and competitive way foster wider collaboration.

To sum up, there are two distinct patterns among former COMECON members:

- EU member states with growing publication counts, high rates of collaboration with EU15 countries, high shares of universities (~70-75%) and increasing priority for medical research popular in developed capitalist countries, at the same time focusing on relatively new areas (ICT in Estonia as the most successful example). Their integration in the European research area is definitely on the way.
- Russia, Ukraine and Belarus continue to pursue a more conservative path, with only half of publications authored by university employees, and the ongoing dominance of physics as "the" science. Collaboration rate with the EU and US colleagues in these countries is also high but there's no comparable growth of publication output.

Eastern and Southern ex-USSR states receiving no direct EU support have to rely on themselves [4]. For most of them, continuous financial struggles have caused widespread brain drain of USSR-trained researchers, which makes the current R&D capacity building very complicated. Kazakhstan, with its strong commitment to creating a national system of research universities that really works, is the country that has shown the most substantial results. On the whole, however, the share of non-EU ex-communist states in global scientific production still hasn't reached the USSR levels.

Notes:

[1] *The Council for Mutual Economic Assistance (COMECON) was an economic, industrial and scientific alliance organization 1949 to 1991 under the leadership of the Soviet Union that comprised the countries of the Eastern Bloc along with a number of socialist states elsewhere in the world. It included Bulgaria, Czechoslovakia, Hungary, Poland, Romania, East Germany, Mongolia, Cuba, Vietnam and USSR. Yugoslavia had associate member status.*

[2] *It is worth mentioning that in 2011-2013, LHC and other large-scale collaborations in high energy and particle physics severely skewed bibliometric indicators for many countries because of the extraordinary high number of resulting papers and authors per paper (at times more than 3000 authors per article). Thus one physicist from a small country included in, say, ATLAS and CMS collaborations can provide that country and his institute with 100 or even 200 articles in top physics journals each year. The percentage of co-authored papers in physics among all papers published in 2013 is 11.4% for Belarus, 15.4% for Azerbaijan, 22.4% for Armenia and 24.7% for Georgia (for other countries in Tab. 1 this share is less than 5%, according to our lower estimate).*

[3] *This "out-of-charity" affiliation is now gaining new momentum because of widespread ranking and scientometrics obsession among government and university officials. 2-3 articles in top journals "shared" by ex-colleague working in top US or EU University could save a Russian institute from being closed.*

[4] *Perhaps the only exception is Azerbaijan, whose revived ties with Turkey are becoming stronger each year.*

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Academic Profession in Russia's Two Capitals: The Impact of the 20-year Transition

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In the past two decades, the Russian academic market has undergone fundamental institutional changes, which affected the whole academic profession. These changes include an emergence and rapid growth of private higher education sector; a significant decline in funding (which hit the salaries of academics, their working conditions and access to up-to-date teaching and research technologies) and the associated drain of staff from the academic sector. These twenty years have been marked by great uncertainty and turbulence of the academic culture, this was a period of co-existence of different generations of academics, who were trained and came into the profession at different times and who were often guided by significantly different values and expectations. So it is important to see whether basic academic norms and values and other key characteristics of academic profession in Russia have changed and how.

To understand the changes that occurred in the period 1992-2012 we analyzed university faculty in Moscow and St. Petersburg – two largest Russian cities with the highest concentration of universities. The data were drawn from two large-scale comparative studies of academic profession: the Carnegie Study (1992) and the Changing Academic Profession Study (2012). The latter was based on a partly reviewed questionnaire of the former [1]. The comparison was drawn based on 400 faculty members surveyed in 1992 and more than 700 in 2012.

The main difference between these two samples is that the Carnegie sample in Russia was, unlike the 2012 sample, not stratified. In 2012 universities were randomly selected from two groups: 1) higher educational institutions with a status of Federal University or National Research University (these institutions basically receive more funding, including financial support of research activities), 2) the remaining institutions. This was done to ensure that institutions with a special status will be represented in the sample, and that they can be compared with other universities. As a result, in the 2012 sub-sample 5 institutions out of 11 are National Research Universities. So, in the 2012 sample there is a disproportionate share of institutions with a special status. A significant number of institutions that received special state funding in 2006-2008 and National Research Universities are also concentrated in these two cities.

Individual Preferences Between Teaching and Research. These preferences work as an important factor that affects both faculty's time budget and teaching and research performance. Today a significantly greater number of faculty indicate that their priorities lie mostly in research, however more than a half of faculty body are still more inclined towards teaching [2]. This is a rather high percentage given the fact that National Research Universities and Federal Universities are overrepresented in the 2012 sample.

Both now and 20 years ago the share of those who prefer teaching stayed significantly lower among male respondents rather than female. In 2012, however, this difference was not so striking as in the early 1990s (in 1992, 39% of male respondents and 14% of female answered that they preferred research or were inclined towards research; in 2012 the responses were 45% and 34% respectively).

Reasons to stay in the academia or to leave. Both in 1992 and 2012, the most common reason to leave university was low salary (63% and 25% of the respondents in the 1992 and 2012 studies respectively mentioned this as a strong reason to quit their job), although in 2012 the share of those who agree with that was lower. This difference may be partly due to overrepresentation of institutions with special status in the 2012 sample, and partly due to better funding of higher education institutions in general.

The problem of insufficient resources for research as a reason to leave the academia came to play a much smaller role in 2012.

The most common reason to stay in the job is the academic reputation of one's university/department, although in 2012 there no longer was consensus regarding this statement (in 1992, 86% of the respondents agreed with this answer versus only 46% in 2012). This might be explained by the fact that in 1992, with very low funding allocated for salaries and minimum access to necessary resources, esteem and recognition were the main sources of motivation to stay in the academic profession. So, university/department reputation was an extremely important factor contributing to the faculty's willingness to stay. Another factor was institution's academic environment (i.e., presence of academic cooperation between faculty – mentioned as a strong reason to stay by 86% and 41% of the respondents in 1992 and 2012 respectively).

Models of decision-making. The analysis of different actors' roles in university decision-making and faculty's estimation of the degree of their own participation in these processes shows that decision-making is highly centralized. This model has been quite stable in the past 20 years and has undergone only minor changes.

Most of the respondents in both 1992 and 2012 samples indicated the same spheres that were regulated in a centralized way (i.e. at the top management level): determining budget priorities, selecting key administrators, and setting admission standards for undergraduate students. Few respondents mentioned faculty promotion decisions and new faculty appointments as centralized.

At the same time, the role of institutional top-management in making the most important decisions at present-day Federal Universities and National Research Universities (such as electing key executives or determining budget priorities) is higher than in institutions without a special status. At first glance, these findings contradict the conclusions of a number of studies dedicated to the relationship between management models and the development of university academic environment [3]. Such studies generally come to the result that stronger shared academic governance is more necessary in the research university sector, while management at other universities and colleges – those focused on teaching – is characterized by a greater degree of centralization. However, the alleged contradiction is not really true: such studies are mostly based on US data, where research university status (according to the Carnegie classification) is awarded to a university in accordance with its objective performance measures. Russian universities, on the other hand, have received National Research University status under special development programs that require management to mobilize university employees to meet the goals stated in the programs. That is why Russian research universities exhibit some elements of "mobilizational" management mode. Both in 2012 and 1992 faculty members evaluated their own impact on decision-making as fairly low.

Competition and control. Nowadays significantly more faculty members (compared to the 1992 study) feel the pressure of regular monitoring of their teaching and research activities by peers, head of department, senior administrative staff (to a lesser degree), and students. Professors are clearly dissatisfied with the increased control over their activities.

In this respect there is a difference between higher educational institutions with a special status and all other institutions. Among the faculty of National Research Universities the share of those who mentioned that the head of their department evaluated their teaching was higher (84% of NRU faculty and 76% of faculty at other institutions), as well as the number of those who evaluated their teaching themselves (85% and 73% respectively) and of those who said that their teaching was evaluated by students (92% and 80% respectively). Fewer respondents among NRU faculty stated that their scientific work was evaluated by the head of department (70% and 79% respectively), and that their administrative work was evaluated by external reviewers (7% and 15% respectively). Moreover, many faculty members indicated that continuous monitoring and high demands for increased scientific productivity negatively affected the quality of their research.

Higher education priorities. Some basic attitudes of Russian faculty have remained largely the same. Yet the priorities of the higher education system, as perceived by people working there, have changed: 20 years ago university teachers believed that one of the most important challenges that the higher education system faced was to prepare students for the labor market, while now the

priorities have shifted towards strengthening Russia's global competitiveness. Such a shift is in itself not surprising. However, it is necessary – and rather worrisome – to know that this is probably the only (and rather perfunctory) evidence that Russian academic culture is at all adapting to the idea of the importance of global academic competition.

Notes:

[1] *In the Carnegie study the Russian sample was limited to Moscow and St. Petersburg universities. The 2012 study was carried out in 9 Russian regions, including Moscow and St. Petersburg. To ensure data comparability, we built a sub-sample from the 2012 sample that included universities of the two largest Russian cities only.*

[2] *This is partly due to inherited Soviet legacy: in the Soviet times, academic sector was divided into Academies of Sciences, which carried out fundamental research, and higher educational institutions, which were viewed primarily as teaching institutions. The division is still there today.*

[3] *See, for example, Masten S. (2006) Authority and Commitment: Why Universities, Like Legislatures, Are Not Organized As Firms // Journal of Economics and Management Strategy, No. 15. P. 649-84.*

Academics in Croatia: Too Old and Static – Less Internationalised and Productive – But More Satisfied than Colleagues Abroad

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Recent studies on the profile of the academic community in Croatia (Golub & Šuljok, 2005; Golub, 2008) were the first in our country that seriously tackled the issue of academic profession. However, little comparative research and comprehensive discussion, as well as articles about the academic profession in Croatia could be found prior to Croatia's joining the CAP study [1] (Changing Academic Profession) and the EUROAC project (Academic Profession in Europe) six years ago [2]. Both studies have contributed significantly to our knowledge of the nature of the academic profession in the national context.

Academics in Croatia: Too Old?

Recent studies on academic community in Croatia point out male dominance (two thirds of all faculty) and continuous ageing. Women scholars seem to be more engaged in the early academic career stages (as junior researchers, teaching assistants and assistant professors) and underrepresented in the later stages, which is common in other countries too. The problem of ageing, however, is the “Achilles heel” of the Croatian academic community and “national scientific platform” on the whole. Almost half of the nearly 10 500 academics employed at public universities are in their fifties or even in their sixties, while only around 23% in their forties. Over 80% of all faculties over the age of 65 stay in their jobs without any special legitimation, even though the Law on Higher Education states that the employment of academics over 65 years of age is only acceptable “in exceptional circumstances”. At this moment, there are around 400 academics over the age of 65 whose contracts have been or are about to be renewed for a period of two to five years, and around 300 junior researchers with doctorate degree but without academic employment opportunities. In view of severe youth unemployment in Croatia[3], such a ratio creates a kind of juniors vs. seniors “battlefield”.

Such a faculty structure still hampers the rejuvenation of science in Croatia. The present employment policy might have serious long-term consequences: in ten years from now, when a larger number of today's researchers who are in their fifties and sixties (almost 50% of all faculty) end their academic career, today's forty-something researchers (around 23%) simply won't be capable of passing on all the accumulated knowledge and experience and guiding new generations of scientists, not to mention the risk of actually not having any new generations.

Academics in Croatia: Too Static – Less Internationalised – Less Productive

CAP study[4] provided evidence of academic inbreeding flourishing in its full form. It is still very common for an academic to be educated and later work at the same institution, and then to “build” his/her academic career until retirement under the same “institutional roof”.

Almost two thirds of Croatian academics (60%) got a job at their institution directly after graduation, and 74% have never changed workplace. Only 15% of academics have had work experience abroad, while 85% have never left the Croatian academic community.

Vast majority (97%) completed their undergraduate and graduate studies in Croatia (before the Bologna system was introduced). Similarly, large majority acquired their master of science degree (87%) and PhD (87%) in Croatia. Less than one third of Croatian academics have ever worked as postdocs – 24% of them in Croatia and 76% abroad. The higher the level of education, the bigger is the share of those who have gained their qualifications

in foreign universities. Postdoctoral research usually takes place outside Croatia as postdoc positions are (still) not common in the country.

Speaking of research, Croatians still more often collaborate with their compatriots than their colleagues from abroad. More than two thirds of the academics (77%) have never received any funding from international organizations/entities. This might be partially explained by the fact that nearly 80% of all research projects usually get some low but relatively adequate funds from the scarce national sources.

Average publication count in Croatia reveals an extremely low productivity, both in Croatian and in other languages: less than one paper per faculty member per year. While the EU average indicates that 11% of all research papers are published in 10% of the most cited journals in the respective areas, in Croatia only 3% of all publications come from the most cited journals. At the same time there are around 225 national journals, few of which invite foreign reviewers and require manuscripts in English. It is very common to engage academics from former Yugoslavian republics as reviewers, which still contributes to higher publication counts in Croatian. It is worth mentioning that postdocs publish not only much more than their seniors colleagues and full professors but more frequently and usually in collaboration with foreign colleagues. Specialists in social sciences and humanities publish mostly in Croatian, therefore in national journals, while it is more common for their peers in science and engineering to publish in relevant international journals.

Academics in Croatia: Discontent with Many Things but More Satisfied than Their Colleagues in Other Countries

CAP study revealed that Croatian academics are quite discontent with the state policy and the size of investments in science and higher education (65%); changes and reforms in national higher education system (59%); new students' knowledge and motivation (58%); academic workload and the uneven distribution of teaching, research and administrative work (53%); administrative and logistic support at their institutions (51%); university policy, governing and transparency of decision-making process (50%). They are not pleased with strengthening bureaucracy and the lack of shared institutional governance, as well as with poor communication between faculty and administrators. Vast majority of the academics are unhappy about working conditions, facilities and resources available for their work.

And yet, Croatian academics are still quite positive about their profession. Compared to the representatives of other countries in the CAP study, Croatian academics reported higher level of satisfaction with their job (79% of seniors and 76% of juniors are completely satisfied and would not change their career path). Moreover, 80% would choose to join the academia again despite considerable job pressure. How can one explain the fact that one the one hand,

Croatian academics manifest such discontent with the national higher education policy, higher education system and working conditions – and on the other hand, such high level of job satisfaction? One of the possible explanations might lie in the fact that academic career in Croatia is still among the few completely financially secure ones. It is almost impossible to be fired once one has reached the position of assistant professor (usually four years after receiving PhD), which brings a full-time tenure contract with a “life-time guaranteed” salary. All of the faculty employed at state universities receive stable public funding all year round, with Ministry of Science, Education and Sport spending 90% of its yearly budget on salaries. Bearing in mind the recent economic crisis and high unemployment rate in the country, financial security of the academic profession that still exists in Croatia can be seen as a source of great job satisfaction.

Notes:

[1] *The predecessor of the CAP study is the Carnegie Foundation Survey of the Academic Profession in 14 countries administered in 1992-1993 (Altbach and Boyer, 1996). The CAP project collected knowledge and data about systems of higher education, functions, productivity and attitudes of the academics in a comparative perspective.*

[2] *EUROAC project was funded by the European Science Foundation in the thematic area of “Higher Education and Social Change in Europe” (EuroHESC). It was implemented through collaboration of research teams from seven European countries: Germany (project leader Ulrich Teichler from the International Centre for Higher Education Research – INCHER, University of Kassel), Austria, Switzerland, Finland, Poland, Romania, Ireland and Croatia. The author of the present article was member of the Croatian team. For more info on EUROAC project visit <http://euroac.ffri.hr/en/>.*

[3] *Unemployment rate in Croatia has reached about 40%, with nearly half of the unemployed (52%) being under 30 and often having a higher education degree.*

[4] *The CAP questionnaire in Croatia was based on a representative random sample of faculty (N= 354) across different universities and academic ranks.*



The Academic Profession in Macedonia: A Potential Large-scale Exodus in Sight

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Different aspects of the academic profession have been receiving growing attention throughout the last decade. While existing scholarship provides a variety of cases, the experiences of academics in a number of smaller peripheral higher education systems is still a 'black box' of a sort. The Macedonian higher education system seems to be no exception. Scarce discussion on the academic profession is predominantly based on anecdotal evidence and sporadic public commentaries by few reflective practitioners from the academic community. Occasionally, the Macedonian higher education system is mentioned only in passing as a system presumably similar to the other countries of former Yugoslavia – thus allowing limited space to capture its idiosyncratic developments in the last two decades.

It is against this backdrop that the academic profession in Macedonia deserves special attention. This article stems from some of the key findings of the first comprehensive study [1] on the conditions and challenges of the academic profession in Macedonia recently conducted by the author of this article, broadly following the format of a larger comparative survey on the academic profession in Europe (EUROAC). The findings suggest that the present state of the academic profession in Macedonia is far from promising and points to the fact that many, particularly junior, academics have to survive in difficult circumstances.

Expansion of the Higher Education System

Following a change of government in 2006, the higher education landscape has expanded beyond recognition, mainly due to a series of state-initiated reforms focused on the democratization of access to higher education and the dispersion of higher education institutions (HEIs). The number of newly opened departments and HEIs has tripled in less than a decade, while the proportions of enrolment rates are increasingly rendering higher education an education for all. The multiplication of institutions (both public and private) and rising number of students also led to nearly a twofold increase in the number of academic staff. Though the expansion of the system has been received somewhat positively due to its potential to decrease educational disparities between regions and the possibility to provide more equal access to higher education, an abrupt expansion does not go unchallenged as it is frequently described in terms of quantitative success only.

Working Conditions: Deterioration of Standards

Public criticism by Macedonian academics has been mainly targeted on the adequacy of the (uncontrolled)

dramatic rise in enrolments, the establishment of new departments and its far-reaching consequences for the quality of education on offer, particularly in view of the scarce state funding. Although the expansion of the system alone may not be the only cause for the deterioration of standards, it is increasingly evident that working conditions have worsened largely due to such a rapid growth. Some private HEIs have managed to provide better physical conditions, but the vast majority of HEIs still have to cope with antiquated equipment, outdated facilities, lack of space and minimal research funding. The inadequacy of the infrastructure is particularly apparent in the newly opened dispersed public departments, where lectures are often held in venues that do not meet even the basic requirements for teaching.

Remuneration

While an academic career provides a reasonably high social prestige, it does not always provide a reasonable standard of living. A precise evaluation of academic salaries is an extremely difficult task, as considerable variations in salary levels exist according to academic rank, even within the same institution, since Faculty units have a significant flexibility in creating their own pay scales. Academic salaries are not typically determined by reference to productivity or merit, but rather allocated depending on academic rank, service record and teaching load. Unlike many senior academics, a junior academic cannot afford what is considered to be a middle-class standard of living. An entry-level salary is hardly sufficient to support even the daily living expenses, and rarely exceeds the nation-wide average salary of 350 euros. The survey data gathered reveals high dissatisfaction with salaries among junior academics (65%). Their senior counterparts reported fairly equally high levels of dissatisfaction with their salaries (57%).

Basic salary alone does not provide a complete picture since obtaining a reasonable income often depends on institutional bonuses and additional employment. Many senior academics teaching at public HEIs also hold part-time positions in the private sector. Some of them choose additional employment as a necessity, others simply because an opportunity has emerged. While additional employment allows faculty to survive economically, it also means that only a few of them are able to devote their full attention to academic work. To reach a middle-class income level, many junior academics require additional employment, however, such positions are rarely available to them. Unless salaries at the lower end of the hierarchy improve, HEIs in Macedonia will struggle to attract the best and the brightest to choose an academic career.

Academic Career: A Temporary Choice

The terms and conditions of academic appointments and opportunities for promotion are of central importance for the future of the profession. Despite sporadic efforts to make the hiring process more competitive and transparent, academics are still often hired through personal networks or due to political considerations.

According to the results of the survey, 24% of academics believe that promotions are not entirely based on achievements. Climbing the career ladder requires waiting; it is a lengthy process, which nevertheless does not automatically guarantee promotion. Nearly a half (42%) of the respondents in the survey did not view the career opportunities of young academics as particularly promising and every second junior academic (51%) reported feeling insecure about their future employment.

Moreover, the results of the survey indicate that an academic career is increasingly considered as a temporary choice only, as 43% of academics have considered the possibility of abandoning their academic career. Concerning the possibility of taking up an academic position abroad, if such an opportunity would arise, the situation is very worrying. Almost two thirds (63%) of junior academics have considered taking up an academic position outside the country, while the same holds true for every second (52%) senior academic. The potential readiness of faculty to abandon academic career or to pursue academic career abroad is not only indicative of the problematic situation but also suggests realistic prospects of potential brain drain.

Governance: Heavy State Intervention

In terms of governing the higher education system, while in many European countries the role of the state is diminishing, in Macedonia state authorities still assume the major role. The findings of the survey suggest that state interventionism is strongly present, as 71% of the respondents perceive that the extent of state influence is high. Hence, it comes with little surprise that the overall financial and institutional autonomy of HEIs are considered low by 61% and 56% of the respondents respectively.

Although a number of state initiated reforms have been introduced recently, the actual change and transformation seem to have rarely gone beyond cosmetic interventions. While many of the reform projects introduced by the state have been undertaken precisely under the motto of improving the quality of higher education, as many as 68% of the respondents considered that the quality of higher education has decreased in the last five years. Pessimistic overtone that prevails among the majority of faculty might suggest that they perceive changes more as a source of potential crisis rather than that of opportunity. While some of their disinterest in changes comes from negligence or the historical memory of the Humboldtian 'good old days', which many academics hope to return to, faculty's sharp criticism voiced against almost all recent reforms partly explains why both academic staff and HEIs have firmly resisted deeper change.

Notes:

[1] In March 2014 an online survey was sent to 3070 academics employed at Macedonian higher education institutions. 487 respondents submitted fully completed questionnaires. The survey was conducted with the help of Reactor Research in Action (<http://www.reactor.org.mk/>).



About HERB

Higher Education in Russia and Beyond (HERB) is a quarterly informational newsletter published by National Research University Higher School of Economics since 2014. HERB is intended to illuminate the transformation process of higher education institutions in Russia and countries of Eastern Europe and Central Asia. The newsletter seeks to adduce the multiple-aspect opinions about current challenges and trends of regional higher education and give examples of the best local practices. Our audience represents wider international community of scholars and professionals in the field of higher education worldwide. The project is implemented as part of cooperation agreement between Higher School of Economics and Boston College Center of International Higher Education.

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ISSUE
02
FALL
2014

