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A Comment on the Changes in Higher Education in the Former Soviet Union

At the time of their independence, the structure of higher education, curriculum content, governance, and admissions procedures were more or less identical across the fifteen republics of the former Soviet Union. Since independence there have been multiple changes, but often these have been quite similar in nature. There has been a move toward standardized testing as a criterion for admissions. There has been a restructuring away from sector ministerial control. There has been a diversification of provision. There has been a decentralization of governance, salary, and tuition structures. Why have the changes to higher education been so similar? Is it because globalization is so powerful and the local institutions on the periphery are so weak? Is it because of the irresistible pressures from international financial institutions such as the World Bank? Or are the requirements for excellence in higher education in a market economy sufficiently similarly to make changes inevitable? This paper supports the latter argument and suggests that the changes in higher education have been inevitable and that future changes are predicable.

Today it is popular to call for local initiatives in education reform in Central Asia as opposed to international initiatives. Before considering the wisdom of this strategy it might be useful to reflect on where the region began in terms of education at the outset in 1991. I was among those privileged to help manage the original transition. For twenty-two years I served as an education manager

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at the World Bank the last seven years as the division chief charged with the responsibility analyzing the problems and assisting the solutions necessary to bring about education improvements in each of the twenty-seven countries in Europe and Central Asia—from Hungary and the Czech Republic to the Russian Federation, Tajikistan, and Turkmenistan. I was privileged to lead the first education sector work on the Russian Federation during this era, which was the first time that Russian education had been analyzed without overarching control from the party. And I remember well our first impressions.

The team consisted of senior education managers from France, Finland, Korea, and the United Kingdom, and none of us could believe what we found. The society had been governed by an exclusive and secretive political party. The entire economy had been administered by a bureaucracy without consideration to either demand or prices. Labor markets were controlled within each sector separately. Educational institutions, faculties, and curricula were governed within each sector. Students were assigned to jobs according to the sector of their particular school. For institutions in a market economy, curriculum relevance is a continual problem. In the former Soviet Union, curriculum relevance was simple because the education institution was often owned by the employer. Students in some technical schools could even be trained on specific machinery because the factory where they would later be employed was only steps away. Of the 516 higher education institutions in the Russian Federation at that time, the rectors of only two knew what was spent on their own institutions.¹ Only sixteen institutions (4 percent) were under the auspices of the Ministry of Education. Others were controlled by twenty-one federal ministries—transport, health, industry, agriculture; four were controlled by the ministry of small engine repairs. None of the institutions could allocate resources or improve efficiency because budgets and statistics were controlled by ministries separate from their own sector. There were no public statistics available on the number of higher education programs, the students in them, or the curricula offered. Normal information necessary to plan and manage education was considered to be a state secret to which rectors and even ministers had no access (Heyneman, 1995; 1997a; 1997b; 1998; World Bank, 1995).

With the generous assistance of the government of the Netherlands in 1991 each minister of education and a representative of each Ministry of Finance was invited to a meeting in the Netherlands to discuss education reform. The question on the table was straightforward: each nation wished to have a market economy and wanted to know the educational requirements. These might best be thought of not as social policy, but as an engineering challenge. Like building a new power plant with safeguards against pollution, or a skyscraper with elevators that meet certain standards of speed and safety, nations of the former Soviet Union had to address very specific education issues if they wanted a market economy. We will call these “immediate requirements.” But there are other issues we call “medium” and “long-term” requirements; each category is discussed in turn.

Immediate requirements

Four educational elements were identified as essential to achieving the local objectives: (1) changes in structure, (2) curriculum, (3) modernization, and (4) student demand.

Changes in structure

Immediately on independence, labor markets became free and the restrictions on travel lessened. This meant that graduates could work wherever they wanted. Property was privatized and prices were introduced. This meant that companies could not be required to keep unproductive labor or maintain social institutions such as kindergartens and technical schools, which were a handicap to profits. These changes were immediate and they required an immediate response on the part of the education sector. It required a change in structure.

In no market economy is the system of universities controlled by sectors, and for good reason. To develop courses of study where there is demand, higher education institutions have to be free. If they are restricted by a bureaucracy loyal to a specific sector such as transportation or agriculture, then this freedom is missing. Thus in all societies in transition to a market economy, higher education institutions have to be transferred away from the restrictions of specific sectors.²

Curriculum

Curriculum had two problems. One was characterized as “blank,” meaning empty, and the other as “black,” meaning dead. Blank cells were those areas, universal everywhere else, but unknown in the former Soviet Union. These included business management, market economics, sociology, political science (particularly the areas of these disciplines based on survey methods), many aspects of psychology, and psychotherapy.³ These subject areas would have to be quickly imported for universities to become normal. Then there were black cells—required subjects without credibility outside the Soviet Union. These included dialectical materialism, the history of the Communist Party and the study of Marxism and Leninism. For both, what was required was a quick injection of normal social sciences.

Modernization

In 1991, higher education institutions were without modern technologies. Libraries within the Soviet Union were sparse. Teaching was based solely on lectures, for the most part on textbooks written by the same professor doing the lecturing. There were no private or international sources of textbooks. The lack of access to international information was shocking. Examinations for admission were admin-

istered orally at every university separately. This generated a waste of resources as students had to travel to the site each time they wished to take a test. Centralized standardized examinations, normal in OECD countries, were unknown. The need for modernization was immediate.

Student demand

Although the Soviet Union had been lauded for making progress in education, in fact the level of educational opportunity, measured by the percentage of the relevant age cohort enrolled in higher education, was about half that of Western Europe at the time (Heyneman, 1995, 1997a). It was clear that this was going to change with immediate effect.⁴ And it has. Associated with independence was an explosion in demand for higher education. Where were the resources to come from to accommodate this new demand? Since tax-based revenues were inadequate, there were two options: (1) to diversify provision and allow private higher education, and (2) to diversify sources to allow private funding in public education through fees and tuitions. Both were said to be necessary to accommodate the change in demand.

Medium-term requirements

Medium-term requirements were thought to be necessary once the “emergency” issues could be addressed. Emergency issues consisted of the gap in financing that left teachers and administrators unpaid and the need to replace Soviet textbooks and ideological curricula.

Faculty salaries

Many of the faculty held over from the Soviet era were equipped with skills that no longer had relevance. But new and younger faculty with newly equipped skills were hard to attract in part because of low salaries and in part because no faculty member could be paid differently from a set national schedule. To attract and retain younger and better trained faculty required that salaries be differentiated.

Relationships with universities and university systems in other countries

Relationships with universities and university systems in other countries meant that systems within the former Soviet Union would have to adjust to some standards taken to be the norm elsewhere. A curriculum in economics had to have issues and concepts common to economics elsewhere. The generation of relevant curriculum is taken to be a function of the university not that of a political party or government ministry. Thus university autonomy is now at issue in the Bologna process.

Longer-term requirements

Longer-term requirements were thought to be of importance but to be handled in time. One illustration is the structure of scientific research. Under the Soviet Union research and teaching were institutionally separated. Universities were separated from recent innovations particularly in science and engineering and students were often exposed to outdated information. This could be addressed if research could be conducted within universities on an open and complete basis. This requires a merging of the scientific institutions with the universities.

Language of instruction

To what extent does the local language provide efficient access to concepts and information needed at the university level? This decision is as important for in high-income OECD countries as it is elsewhere. Swedish and Korean universities offer degrees using English. Those that served as academic languages prior to the Soviet Union, such as Latvian, might differ in terms of their effectiveness from those which did not, such as Kyrgyz. But the decision over languages of use in the university will have important and long term consequences.

University governance at the department and school faculty level

University systems cannot modernize if they are not rewarded for performance. This includes schools and departments as well as disciplines and fields of study. Resources must be allowed to transfer to the point where they are most needed.

Land ownership and professional licensing

It takes capital to construct new laboratories and physical facilities. Universities can do this through three mechanisms: through tax resources from the state, by gifts and grants, or through borrowing. To borrow universities require collateral. Universities need to own their own land to demonstrate that they have collateral. Hence, in the former Soviet Union legal ownership of land is one of the more important university reforms (Heyneman, 2000).

If the higher education sector is to be entrepreneurial and innovative it must experiment. But if professionals are licensed by the university degree, then innovation will be improbable. There is nothing more dangerous than a new and inadequate medical school that graduates incompetent doctors. But if the professionals are granted a license, not by the university program but through a licensing examination, then universities are free to innovate without danger to the public. Thus how the professions are licensed is an important part of the education reform in the former Soviet Union.

Discussion

These were the problems as foreseen in the early 1990s. What has happened in the interim? Each of the issues as outlined fifteen years ago has proven to be prescient, but two new issues have taken us by surprise. First has been the character of private education. As McLendon (2004) points out, private education has little resemblance to the private education known in North America. Kainar is not Stanford. With the exceptions of those institutions owned and managed by international foundations such as the Soros Foundation, most private institutions are really proprietary schools. These are family-owned and operated for profit. They concentrate on teaching and ignore research. They utilize underpaid faculty from public institutions who seek extra income. They concentrate curricular offerings where there is immediate vocational demand (business, accounting, and English language) and ignore others. Given the inadequacy of the public sector in terms of size and flexibility, these proprietary schools serve a needed function. But in terms of quality they are a problem. Moreover, they sometimes help spread a counterproductive ethos. They offer a degree to students who can pay, but student responsibility to perform may be underemphasized. Students are sometimes led to believe that if they pay enough the higher education institution is required to offer them a degree. This attitude adversely affects the reputation of the entire sector.

Corruption was anticipated in many public services and functions, but the spread of corruption in the education sector has been a shock. No one in 1991 anticipated the depth to which this disease would take over or the impact it would have on the reputation of the higher education systems. This is particularly true in Central Asia. Payment for grades, bribery for entry, corruption in accreditation, and licensing now threaten the social cohesion of several Central Asia nations (Anderson & Heyneman, 2005; Silova, Johnson & Heyneman, 2007). Education corruption has been found to raise the cost of hiring; it has been found to lower graduate salaries; it has reduced the economic returns expected to higher education investments (Heyneman, 2004b, 2004c, 2007b; Heyneman, Anderson, & Nuraliyeva, 2008), and may in fact bring the Bologna process to a halt (Heyneman, 2009b).

But there has been another surprising trend as well, and this has been the resistance to corruption demonstrated by individual faculty with strong professional standards (Heyneman, 2007a; 2009b; Heyneman, Kraince, Lesko & Bastedo, 2007). These leaders exist even in the most austere and debilitating of environments. Some lead by virtue of moral principle. Others rise to the occasion and lead on the basis of practical assessment. Regardless of the source of their strength, given this commonality, there is a universal standard of the professorate. The standard is parallel to the characteristics as identified by Braxton and Bayer (1999). It includes the promise to treat all students with fairness and impartiality. And it includes selecting a common hierarchy among differing moral principles. In particular it requires that faculty choose the principle of fairness (to students and colleagues) over the

principle of loyalty to family and friends. In this small but important way, certain faculty in Central Asia and the Caucasus may be leading the way for other local organizations in government, business and the not-for-profit sector. These “quiet heroes” of the university classroom, those who stand up for their principles without legal or administrative support, in their own way these resisters are upholding the principles associated with development and freedom. They do this without the possibility of reward; on the contrary, they do this in spite of making enemies and enduring the criticism of their corrupt administrative superiors. They do this for one reason: it is the right thing to do.

Debates over reforms

It is popular to argue that education reform should be based on local priorities. Klees (2008) suggests that reforms proposed by the World Bank or other international organizations are loaded with neoliberal assumptions and should not be trusted (Klees, 2008). The flaws in this view have already been noted and need not be repeated here (Heyneman & Anderson, 2008). Others point to the need for local ownership of reform away from the vicissitudes of global trends and perspectives (Steiner-Khamsi, 2004; Steiner-Khamsi & Stolpe, 2006). This latter point of view is credible and should be taken seriously. But one thing needs to be clarified and that is the distinction between the direction of reform and the method or mechanism for achieving that direction.

A country may agree with an international organization to try a pay-for-performance scheme to augment the efficiency of teachers. A similar scheme currently operates in Britain. But the mechanism for such a scheme need not mirror that of Britain; it may instead be operated by local social groups more sensitive to local standards of performance than a centrally administered standardized test. As important as pay-for-performance may be, it is only one of many possible methods to raise efficiency. And there may be a dozen additional ways that could be identified locally without international precedent. The key point with respect to the relations between local and international institutions is to agree on the importance and priority of raising efficiency. It is not necessary to agree on the mechanism for bringing it about.

Staff members of international organizations are sometimes thought to know more than they actually do. In some cases they may be insufficiently modest about what they know (Heyneman, 2004a). In the final analysis, no staff member in international organization knows how to reform. They may present ideas and experiences on how others have tried to manage analogous problems, and these experiences may be helpful. But as to their experience in, for instance, how to manage this new transition now required in Turkmenistan they are without knowledge.

Here is where local experience is required. International organizations are good for one thing, and that is helping to suggest the direction of reform. It is the *why but not the how*. The *why* does not include sequence. No one knows which

changes should come first and which second. How changes should come about and the sequence of change are all under the purview of local experience. Thus this debate should not be between two opposite sides—local as opposed to international ideas for reform; rather, it should be a discussion of appropriate roles, one of the direction of reform and the other of the many divergent and legitimate methods of achieving that direction.

Today earnings differences are explained largely by differences in skills. Each additional year of educational attainment is associated with an increase in national income growth by 0.58 percent, but an increase in skills by one standard deviation is associated with an increase in national income growth of 2 percent. Skills are acquired through length and quality of education. When growth is subjected to economic models including education quality, the findings are clear. The quantity of education accounts for 25 percent of the explained variation in national income growth, but educational quality accounts for 75 percent of the explained variance. Moreover, when education quality occurs in an open economy, its effect is significantly greater than in a closed economy. The effect of educational quality on growth is 0.9 of a standard deviation in a closed economy and 2.5 in an open economy (Hanushek & Wobmann, 2007). In essence what these findings imply is that what is learned matters more than the proportion of the age cohort in attendance.

New economic research demonstrates a causal link between education quality and economic growth; new findings in education also show that greater diversification in higher education produces better quality and better access for the poor. Higher education systems have several dimensions associated with diversification. One dimension is the portion of *financing from non-state sources*.⁵ Public universities in Korea garner 43 percent of their income from nongovernmental sources; private universities garner 90 percent of their income from nongovernmental sources. The portion of a university budget coming from nonpublic sources is growing over time. In 1960, 90 percent of the annual expenditures at the University of Santiago in Chile and the (public) University of Tennessee derived from government sources. Today that portion is only 20–25 percent.⁶ In terms of research productivity and international prestige, the quality of these universities has increased dramatically. Universities with high levels of nonstate income increase in quality because these incomes are fungible. They are allocated in the direction which university managers have determined make the most difference and are consistent with the university's strategic plans.

A second dimension is the *difference in purpose* from one institution to another. In some countries (such as Italy and the Czech Republic) higher education is unitary; all higher educational institutions have the same structure and purpose. In other countries (such as in France, Germany, and Russia) higher education institutions are assigned either vocational or academic purposes. And in a third group of countries (such as Japan, Korea, Sweden, Israel, and the United States) higher education institutions are diversified. They vary in purpose, quality, level of prestige, and degree of both faculty and student selectivity.

Systems where there are a variety of purposes and qualities—diversified systems—are associated with higher access. They generally enroll a larger proportion of the age cohort. These are higher education systems with tuitions.⁷ Is it true that high tuitions prevent students from low-income families from attending university? Surprisingly, students from low-income backgrounds have more opportunity in those systems where a high proportion of the finance is from nonstate sources. This challenges the traditional assumption that tuition discriminates against the poor. In fact, the greater the proportion of nonstate income, the greater will be the diversity of purpose and the greater will be the opportunity for the poor. But is it not true that students from low-income families congregate in institutions of the lowest quality? Evidently not. In diversified higher education systems, the most selective universities have a higher percentage of students from low-income backgrounds than in unitary or binary systems (Shavit, Arum & Gameron, 2007). Though counterintuitive, this new evidence has significant ramifications for countries in transition from state-dominated systems and from systems where governments constrain managerial creativity.

Higher education systems that simultaneously achieve goals of equity and quality can be said to be highly competitive and have the most significant impact on growth. How did these systems become equitable and high-quality at the same time? Competitive systems of higher education have some characteristics in common: a high degree of income from nonstate sources; a high degree of institutional differentiation; a high degree of institutional autonomy in terms of governance, financial management, and curriculum content; a legal environment that includes ownership by universities of their own property and tax exemption on income that universities earn; open competition for state-funded research; significant state incentives to improve quality; and the support of autonomous agencies in terms of accreditation and professional licensing.

Governments have important roles in regulating taxes on higher education fairly and equitably, by providing clear legal title to educational property, by providing incentives for increasing quality and to open the competition for state-sponsored research to higher education institutions on an open and competitive basis. Nations that aspire to have competitive systems of higher education should consider inaugurating these characteristics. It includes a mixture of public and private roles and an intense competition among all institutions equally. While it is important that higher education institutions be autonomous, it is not essential that they be private.

It is true that policy borrowing is delicate and can be counterproductive. But it is also true that no nation, including no OECD member, is immune from the need to improve and to study how other nations address similar problems. Recent evidence suggests that countries with higher education systems with more diverse sources of finance have greater equity (Heyneman, 2008). This teaches us that the direction of education reform may be analogous to engineering. The characteristics necessary to achieve certain results may be universal. More

equity may require a diversity of finance. Such engineering directions are subject neither to ideology nor to temperament. If the public has decided on the direction of change, such as an education system to support a market economy, then these are the building blocks.

Notes

1. Moscow and Leningrad State had their own “line item” in the federal budget. These were the only higher education institutions in the Russian Federation that had access to a budget.

2. This is the case in all parts of the world where education was planned under the assumptions of state socialism. It is true in Vietnam, Cuba, Laos, the People’s Republic of China, Ethiopia, and Egypt.

3. Their absence was due to the party’s influence. Surveys were thought to be unnecessary (or dangerous) since the party already knew what people were supposed to need or think.

4. Economic rates of return to investment in higher education in the Soviet Union were often negative. Differences in earning were artificially administered and low. Employment was guaranteed regardless of educational attainment, and citizens received subsidized housing, transportation, social security, health insurance, and education for their children based on their employment sector. This had the effect of dampening the demand for higher education, considered normal outside the Soviet Union. These factors all changed with immediate effect on independence, hence explaining the explosion in demand for higher education.

5. Nonstate sources may include: rent on university property, income from university services, returns from copyrighted products, research grants, gifts, donations, returns on university investments, fees for university services, and tuitions.

6. These figures represent *direct public allocations*. Additional public resources are acquired indirectly through open competition. These may include research grants and student scholarships and loans that come to the institution only when they win a research competition or when a recipient student chooses to attend.

7. There are exceptions to this tendency. With income from petroleum and a rapidly declining population Norway is an illustration of high enrollment and low nonstate income in universities.

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