Globalization on the Margins

Education and Post-Socialist Transformations in Central Asia

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Acknowledgments

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At the time of independence, the structure of higher education, curriculum content, governance, and admissions procedures were identical across the 15 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 and of sources of finance. 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 agencies such as the World Bank? Or are the requirements for excellence in higher education...
in a market economy sufficiently similar to make these changes inevitable anywhere? This chapter will support the latter argument.

**BACKGROUND**

The Soviet Union is widely credited as having invested heavily in education. School attendance through secondary education and adult literacy were universal. Though differences remained across specializations, gender parity had been achieved in higher education. And there were widely acknowledged achievements in science, art, and the humanities. Less widely known, however, is that public investment had been on the decline for decades. The Russian Federation devoted 7% of its GDP to education in 1970, but this had declined to 4.4% in 1994. Prior to the transition in 1990, physical infrastructure was beginning to crack, maintenance was spotty, and equipment was antiquated (Heyneman, 1998; World Bank, 1995).

In 1970, the average teacher in the Russian Federation was paid 81% of the average industrial wage but by 1980 that had fallen to 73%, by 1989 to 67% and by 1994 to 66%. The salary of an assistant professor fell from 123% of the average industrial wage in 1960, to 70% in 1980, 54% in 1991, and 37% in 1993 (Heyneman, 1997a). Not only had the value of teacher salaries declined by comparison to other professions, but they had become erratic, varying month to month, and delayed in delivery. In August of 1993, teacher salaries were 44% of the industrial wage and by June of 1994, they constituted 90% of the industrial wage. Teacher strikes were common. In 1991, there were 58,000 Russian teachers on strike at 1,177 locations. In 1992, the number of teachers on strike had increased to 222,100 at 4,929 locations. By contrast, only 15,900 industrial workers were on strike at 324 locations. Teacher strikes accounted for 62% of all individuals and two thirds of all strike days lost in 1992 (Heyneman, 1997a; World Bank, 1995).

Between 1991 and 1992, per student financing in the Russian Federation declined by 35% in preschools, 29% in compulsory education, 17% in vocational education, and 9% in higher education. Declines in finance affected student demand. Between 1991 and 1993, student enrollment declined by 9% in the technikums and 7% in vocational education (Heyneman, 1997c). Since the demand for products and services from state-owned enterprises were dropping precipitously, declines in student enrollment were particularly clear in the specializations. Student demand fell in machine building and electronics by 28%, in automation by 26%, in radio technologies by 31%, and in food processing training institutes by 34%. Demand for entry into extension programs for mid-career professionals fell by 32% between 1980 and 1993. Higher education enrollment declined by 14% and applications declined by 11% between 1990 and 1994 (Heyneman, 1998, 2000).

Many categories of budgetary expenditures had to be reduced to become a responsibility of the University. This was characterized, pedagogical equipment teacher upgrades for needy students, capital investments, as well as real expenditures per student declines from $27 per student in 1995. By 1995, real expenditures per student were about 5% of what they were in 1990, evident in all fields—equipment, reading materials, and building maintenance. The purchasing power of public transportation to and from work declined by 54%.

In the wider environment, GDP declined during the period of transition. In the former Soviet Union but were particularly acute in Estonia (−54%), Latvia (−7%), Lithuania (−12%), and Poland (−14%). The collapse of the Soviet Union and the republics precipitated a series of unprecedented impacts on the economy, and social affairs. Crisis was everywhere: production and population was elderly, but the value of pensions immediately spiked. Nuclear power plants were closed, mines were bankrupt. Even petroleum and gas prices were off-loaded to national markets.

Above the arctic circle the mines and petrochemicals were in trouble. Let us assume the troubles of flying workers in and out from reservoirs are in decline in public finance, state-owned industries were now expected to make profits, which off-loaded social responsibilities—hospitals, kindergartens. Land was privatized. Collective ownership trade relationships across borders. Uzbekistan could no longer be imported. The price of petroleum from Russia and Kazakhstan fell to a world price. People whose ethnic card had to decide whether they were to become Russians by ethnicity or a Russian citizen returning to their own ethnic identity. Ethnic Russian outmigrants to Turkmenistan to other parts of Central Asia, and many ethnic groups. Economic prospects and many sectors, common across education in 1990 were to place education last on the list of priorities. Education in 1990 were quick to acknowledge that they were largely skeptical that the transition would succeed. This was the situation in 1990.
Many categories of budgetary expenditure ceased being funded or were off-loaded to become a responsibility of the local regional authority which did not have authority to tax. This was characteristic of textbooks, official travel, pedagogical equipment teacher upgrading, student health, clothing for needy students, capital investments, as well as maintenance and repairs. In effect, real expenditures per student declined from $804 per student in 1990 to $27 per student in 1995. By 1995, recurrent expenditures in education were about 5% of what they were in 1990. Declines in quality were evident in all fields—equipment, reading materials, consumable supplies, and building maintenance. The purchasing power of teacher salaries in 1995 (about $10 per month) was insufficient to cover the rapidly rising cost of public transportation to and from work (Heyneman, 1998).

In the wider environment, GDP declines were precipitous throughout the former Soviet Union but were particularly problematic in Kyrgyzstan (−5%), Latvia (−7%), Lithuania (−12%), and Moldova (−18%; Heyneman, 1994, p. 11). The collapse of the Soviet Union and the emergence of the 15 republics precipitated a series of unprecedented changes in government, the economy, and social affairs. Crisis was experienced in every sector. The population was elderly, but the value of pensions collapsed; rates of poverty immediately spiked. Nuclear power plants were in danger of leakage. Coal mines were bankrupt. Even petroleum and gold mines were unprofitable. Above the arctic circle the mines and petroleum fields were opened in conjunction with artificial cities for the workers instead (as in OECD countries) of flying workers in and out from residences further south. Because of declines in public finance, state-owned industries began to collapse. Since they were now expected to make a profit, state-owned industries immediately off-loaded social responsibilities—health care, worker housing, and kindergartens. Land was privatized. Collective farms were abandoned. Traditional trade relationships across boundaries were severed. Cotton from Uzbekistan could no longer be imported for textile mills in Ukraine; the price of petroleum from Russia and Kazakhstan in Belarus began to reflect a world price. People whose ethnic group was listed in their identity card had to decide whether they were to be a Latvian citizen of Russian ethnicity or a Russian citizen returning “home.” Migration across national boundaries rose. Ethnic Russian outmigration was particularly heavy from Turkmenistan to other parts of Central Asia, but outmigration was common to many ethnic groups. Economic prospects were draconian. Due to past educational accomplishments and in part due to the compelling demands from other sectors, common across all 15 republics was the decision to place education last on the list of priorities to address. While ministers of education in 1990 were quick to acknowledge the need for budgetary support, they were largely skeptical that their systems needed improvements. This was the situation in 1990.
When the Berlin Wall came down, I was the division chief in the World Bank, responsible for education and health in the Middle East and North Africa region. Without warning, 26 new countries applied to become members of the World Bank. I was given a choice: remain where I was or transfer to this new region. I chose the latter. It was an unprecedented opportunity. On the other hand, I had had no academic preparation, spoke none of the regional languages, and had no background in the nature of the challenges faced. I, and many others, were newcomers, novices.

I was privileged to lead the first education sector work on the Russian Federation during this era, and this constituted the first time that Russian education had been analyzed without control by the Communist Party. My first impression may be worthy of mention. In the discussions with ministers of education I was not the only novice. Few of the ministers had travelled outside of the Soviet Union or had seen an education system anywhere else. What they knew of how education was financed and managed in France, Britain, Germany, Japan, or the United States was superficial. What they knew of how skills were provided, how standards were maintained, how institutions were governed, how curriculum was designed, how educational institutions adjust to changes in the labor market was determined by stereotype and naiveté. Newcomers were on both sides of the table (Heyneman, 2016).

RECOMMENDATIONS FOR REFORM IN 1990

The first task was to open a discussion of what to do about education in the transition (Heyneman, 1991). For national authorities, the highest priorities consisted of macroeconomic management, the financial sector, public sector management, protection against nuclear power leakages, nuclear disarmament, unemployment compensation, the collapse of pension systems, environment, and public health. Education was considered to be of low priority both within the countries and within the World Bank. As a result, there were no resources to finance education discussions. However, with generous assistance of the government of the Netherlands each minister of education and a representative of each ministry of finance was invited to a meeting in the Netherlands to discuss education reform. Each nation had declared they wished to have a market economy and wanted to know the educational requirements. I had 2 weeks to prepare for the meeting. There was no time for research and no opportunity to gather data. The speech was limited to 30 minutes and translated into Russian. Since that meeting in 1991, that address has been republished (Heyneman, 1995) and later formed the essence of regional education strategy. But it should be emphasized that it was the product entirely of intuitive guess work and without the slightest local experience. On the other hand, it was based on

2 decades of professional experience in other public services. It was governed by the professional dicta—one never asked a question of a person. Instead, so far as one is able, one provided the data, experience. Was it a “Western orientation”? Can a product of experience drawn from all regions and populations provide work? The question was what about the new Soviet Union would have to change given that we had to shift away from a planned to a market economy. Four elements were highlighted. The first element in the former Soviet Union was organization, which was unique to a planned economy and we guessed that if the structure of higher education was to have been shifted, the entire economy had been able to demand either to demand or provide the same control within each sector. Education curricula were governed within each sector. Change in the manufacture of pencils, blackboards, etc., were responsible for the production of food in the former Soviet Union. The second element was to respond according to the sector of the student to provide the training in highest demand. In a sector ministry. What we foresaw was the future for university, identifying local demand for skills to that demand by the sector ministry with the help of university. Second was the system of university entrance examinations. Each country decided on the technology of designing and administering entrance examinations. They were predominately oral and administered in multiple sites often with a strict age and relatively free of corruption. In the Netherlands, faculties within the universities offered a total of 10,000 examinations used for university entrance examinations in physics, chemistry, history, and foreign languages. The entrance examination was because they penalized those who could discriminate against those without sufficient exam to be given. They were inefficient. A new examination for each faculty to which candidates were situated in widely dispersed areas candidates unable to sit for a particular examination.
2 decades of professional experience in other parts of the world. And it was
guided by the professional dicta—one never advanced an idea from one's
own country. Instead, so far as one is able, one raises ideas based on global
experience. Was it a "Western orientation"? Of course, but then it was the
product of experience drawn from all regions of the world except the one
under discussion. The question was what about higher education in the for-
er Soviet Union would have to change given that each of the 15 republics
was to shift away from a planned to a market economy?

Four elements were highlighted. The first was structure. Higher educa-
tion in the former Soviet Union was organized by sector ministry. This was
unique to a planned economy and we guessed would be deeply problematic
if the structure of higher education were to continue while the economy
had shifted. The entire economy had been administered by a bureaucracy
without consideration either to demand or prices. Labor markets were sepa-
rately controlled within each sector. Educational institutions, faculties, and
curricula were governed within each sector. Goods and services were manu-
factured within sectors. The education sector, for instance, was responsible
for the manufacture of pencils, blackboards, desks, and education/farms
were responsible for the production of food for students. Students were as-
signed to jobs according to the sector of their particular school. Thus, the
first suggestion was to place universities under a single ministry and allow
them to provide the training in highest demand without the constraint of
a sector ministry. What we foresaw was the inefficiency generated when a
university, identifying local demand for skills, was prevented from respond-
ing to that demand by the sector ministry which "owned" it.

Second was the system of university entrance examinations. Examinations
are an important instrument to help insure an equality of opportunity. Since
World War II the technology of designing and administering examinations had
substantially changed in OECD countries. They were graded by computer,
given identically in multiple sites often with frequency, inexpensive to man-
age, and relatively free of corruption. In the Soviet Union examinations
were predominantly oral and administered independently by each depart-
ment in each university. In the Russian Federation, for instance, each of the
ten faculties within the universities offered an exam; hence, there were over
5,000 examinations used for university entry. Exams were given orally even
in physics, chemistry, history, and foreign languages and in written form in
mathematics and Russian language. The entrance examinations were un-
fair because they penalized those who could not travel to the test site. They
discriminated against those without sufficient information to know when
an exam was to be given. They were inefficient because students had to take
a new examination for each faculty to which they applied and, because insti-
stitutions were situated in widely dispersed areas across multiple time zones,
candidates unable to sit for a particular exam in one location had to wait
for a year or two for another opportunity. This raised the opportunity cost of higher education admissions and provided significant advantages for students from family backgrounds where testing information was common knowledge. Because exams were oral, bribery was an additional risk. While it is true that computer graded standardized entrance examinations do not eliminate all of these problems, it is the case that they lessen them and it is also the case that no modern higher education system outside of the Union of Soviet Socialist Republics (USSR) fails to employ them. So our second suggestion was to modernize university entrance examinations.

Third was the diversification of income. In the USSR, higher education was available free of private cost. It was considered a public good and, like all public goods, was entirely financed by government. Its availability was treated as a human right, as was housing, health, and public transportation. However, across large parts of the world, universities, both public and private, generate income from multiple sources. This tendency has two potential rationales. One is based on philosophy of the argument that it is right to ask wealthy families to help pay for post compulsory education and because it is more efficient when universities have access to their own income.

The other rationale is based on necessity, because university survival and certainly prosperity, requires it. We chose the latter of the two arguments as our principle rationale. Universities in 1990 were starved of public resources and because of the demand from other priorities, universities were unlikely to achieve their ambitions for quality improvement without access to their own resources. The sources which were discussed were eclectic. They included: rental or sale of land, income from research or consulting services, investments in the equity or bond markets, and of course from tuition. But income derived from savings were also considered important, and saving could be obtained through many mechanisms considered radical at that time. They included the rationalization of specializations and the inter-institutional coordination of facilities such as libraries, dormitories, and administrative services with other universities.

Fourth was the ownership of land. In the USSR, all land belonged to the state. With the privatization of agriculture and industry however, private ownership of land was becoming the norm. But who owned university land? The municipality? The region? The national government? And which sectoral ministry? Our recommendation was that all public universities should be given clear ownership of their own land for fiscal reasons. Universities, we reasoned, cannot compete in quality without a strategic plan. But it is not feasible for a plan to rely on public financing alone. Most sources of financing, such as tuitions are insufficient to cover large capital expenditures. These can be covered by borrowing, but banks will not loan without sufficient collateral. Land is sufficient as collateral. Thus we reasoned, universities which did not own land could not borrow, and universities which

**DISCUSSION**

These were the problems as foreseen in the interim? Each of the issues as observed by us in the interim? Each of the issues as observed by us in the interim? The present, standardized exams have been widely introduced. And although in some countries universities have been given titles for licensing adequate, a diversity in the sources of funding has been lacking. Few universities have yet to use land as a source of income, or to restructure their universities so that they can take advantage of the opportunities provided by sectoral ministries. On the other hand, some universities under their own purview to expand the range of specialties has typically been replaced by new, self-sustained programs of professional training.

Two issues have taken us by surprise. First, the cost of education. As McLendon (2004) points out, the resemblance to the private education known in the US charities and the non-profit university in Kazakhstan, is not a simple comparison. The institutions owned and managed by
did not borrow, could not develop, hence land ownership is necessary for
diversity development.

These four issues constituted our primary recommendations. Of course
discussed other issues but did not lay emphasis on them because it was
obvious that the university sector was undergoing a revolution in that di-
rection anyway. Private universities were opening almost daily and in no
case did the government any more have a monopoly on the provision
of higher education. Our concerns were how to legally distinguish between
profit and nonprofit universities and how to tax the former but not the
latter. We discussed curriculum, but it was obvious that none of the repub-
lics had any intention of maintaining Marxism and Leninism requirements
and all were busily adding business and economics, and the long neglected
social sciences of sociology, political science, and professional training in
public policy, and journalism. Rather than how to inaugurate new sub-
jects in line with universities in other parts of the world, our concerns cen-
tered on how to eliminate the lengthy list of professional “specializations”
which would have no place in a future economy and for which there were
vested interests of teaching personnel with little hope of being retrained to
each subjects in higher demand.

DISCUSSION

These were the problems as foreseen in the early 1990s. What has hap-
pened in the interim? Each of the issues as outlined 15 years ago has proven
to be prescient. Standardized examinations, in one form or another, have
been widely introduced. And although in no country is higher education fi-
nancing adequate, a diversity in the sources of finance is the norm. In many
countries universities have been given title to the land which they own,
but few universities have yet to use land as collateral. Many countries have
restructured their universities so that they are less frequently managed by
sectoral ministries. On the other hand, some sector ministries have allowed
universities under their purview to expand curricular offerings beyond
their particular sector. The effect of this latter strategy may well accomplish
the same goal of being able to quickly respond to changes in the labor
market without sectoral restriction. As a result, the long list of outdated
specializations has typically been replaced by modern academic disciplines
and programs of professional training.

Two issues have taken us by surprise. First has been the character of pri-
ate education. As McLendon (2004) points out, private education has little
resemblance to the private education known in North America. Kainar, a
for-profit university in Kazakhstan, is not Stanford. With the exception of
those institutions owned and managed by international foundations such
as the Soros/Open Society Foundations, 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 counter-productive ethos. They offer a degree to students who can pay, but student responsibility to perform may be under-emphasized. Students are sometimes led to believe that if they pay enough the higher education institution should be 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 which 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 Asian nations (Anderson & Heyneman, 2005; Sjövold, Johnson, & Heyneman, 2007). Education corruption has been found to raise the cost of hiring, it has been found to lower graduate salaries, and it has reduced the economic returns expected to higher education investments (Heyneman, 2004b, 2004c, 2013; Heyneman, Anderson, & Nuralimov, 2008; Heyneman & Skinner, 2014), and may in fact bring the Bologna process to a halt (Heyneman, 2009).

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, Kraince, Lesko, & Bastedo, 2007; Heyneman, 2007a; 2009). These leaders exist even in the most austere and debilitating of environments. Some 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 are upholding the principles associated with development and freedom. They do this without the promise 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: That it is the right thing to do.

**Debates over the origins and directions of change.** It is popular to argue that education reforms 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. 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 teacher efficiency. And there may be a dozen additional ways which could be identified locally which have no international precedent. The 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 an international organization knows how to reform (Heyneman, 2012). 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 directions of reform and the other of the many divergent and legitimate methods of achieving that direction.

It is true that policy borrowing is delicate and can be counter-productive. But it is also true that no nation, including an OECD nation, is immune from the need to improve and to study how other nations address similar problems. For instance, recent evidence suggests that countries with higher education systems with more diverse sources of finance may have greater equity (Heyneman, 2008). This suggests that over time one can assess the general credibility of the suggestions made long ago. I would conclude that if a country has decided on the direction of change, such as a market economy, then these four educational changes suggested in 1991—institutional structure, university entrance examinations, diversification of income, and ownership of land—have turned out to be helpful.

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The internationalization of higher education has diversified new actors into all five nations. Some view this development as slowly and subtly undercutting the dominant traditional higher education actors, such as NGOs in Central Asia and Higher Education Institutions, local firms, and foreign universities. However, it is clearly the case in Kazakhstan and Kyrgyzstan, and Uzbekistan. To support this is the current concept and trends in higher education in Central Asia. Moreover, the internationalization of higher education is also of the internationalization of higher education in Central Asia. The third drawing on the work of P. J. I will suggest that new actors may influence this process.