

Higher Education Finance and Cost-Sharing in Mongolia

I. Mongolia in the Soviet Period

Mongolia is well known to the rest of the world for its history, more than anything else, in the twelfth to fourteenth century wrought by Mongol Khans and the giant empire that covered most of Europe and Asia at that time. The modern Mongolia is a landlocked country sandwiched between Russia and China. Its rather small population (2.6 million) in comparison to the vast land (1.5 million square kilometers), approximately three times France territory, makes the country one of the most sparsely populated. The traditional nomadic or semi-nomadic life style is still genuine to about more than ten percent of the current population who live herding livestock in the nation's countryside. However, more than half of the population lives in urban areas. About 700,000 people live in Ulaanbaatar, the capital city. In 2001 GDP per capita was \$US 1,541. GNP per capita was about \$US 350 in 1999.

The current economic and socio-political situation in Mongolia can be explained by reviewing the modern history of the country. For about seven decades, following its independence, until the early 1990s, Mongolia was a soviet periphery with heavy influence in its economy from the USSR. At the peak of relations between the two countries, the USSR subsidized of a third of Mongolia's GDP. The sizeable external contribution and intervention allowed the Mongolian government to put substantial funding in all of its public sectors, including education (17.6 percent of government expenditure and 11.3 percent of GDP till the late 1980s (Robinson, 1995)). This investment enabled the country to found a well-developed human resource base with a gross enrollment ratio of 98 percent, 85 percent and 15 percent in primary, secondary school and tertiary education respectively (Wu, 1994). The government owned and governed the entire education sector in the country. Free, and most importantly, equal opportunity and accessibility, in a real sense, to education were guaranteed. Centrally controlled, strictly planned and vigorously organized governance reached almost every nomadic herding family, which resulted in the achievement of a 97 percent literacy rate that brought it a UN recognition.

However, the dramatic changes that were sparked in the early 1990s by the fall of Soviet Union in Eastern Europe and Central Asia, hit Mongolia as well. External financial support evaporated, and GNP fell abruptly to \$299 per capita in 1992 placing the country among the poorest in the world (Bray, et al., 1994). The breakdown of the Council of Mutual Economic Assistance disrupted external trade.

The collapse of the socialist convictions of social development caused Mongolia to re-examine its development path and renew its social and political structures along with the rest of the world in the system. All social sectors faced fundamental reforms. The education sector reform was announced by the government to play the most significant role in the reforms and was considered an important instrument for building the new society. The Mongolian higher education sub-sector with about six decades of history suffered an extreme shock and had to face both ideological and financial alterations.

II. A Brief Description of the Mongolian Education System

The free secondary education that provides the foundation for admission to higher education consists of ten years (4 years primary, 4 years intermediate, 2 years secondary or specialized vocational). Eight years of education is compulsory. Then students can decide to continue for two more years to complete their secondary education, which enables them to pursue higher education or to pursue technical vocational training for two years to receive a specific work skill.

Postsecondary technical education and vocational training (TEVT) was a significant part of the education system during the socialist period. Two years of skill training combined with complete secondary academic content prepared skillful workers for the country's state owned industry sector. Yet with the collapse of the centralized economy the biggest national industries shut their doors. TEVT declined significantly as well along with the diminished demand in the market. However, industries are recovering slowly, partly privatized and partially still state owned. TEVT enrollment has gradually increased during the last four years since the rapid fall in the early 90s.

The student fluctuation in TEVT since 1990

years	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
students	26431	17961	11491	8317	7555	7967	11308	12320	11650	11245	12177	15051	19493

Source: MOSEC, 2003

A unique characteristic of education in Mongolia is its female representation. Female domination is reported in the entire education system. By 2001 school attendance percentage in urban areas among the population between 7-29 years is 53.6 percent for males and 59.6 percent for females, whereas the estimation in rural schools is 32.8 percent and 39.3 percent respectively (B. Erdenesuren, 2001 cited in Altantsetseg, 2001). At age of 16-19 years, only a third of males are present in school compared to almost half of the females. (Altantsetseg, 2001). By 1999, 61.9 percent of total students in public higher education institutions, and 70.4 percent of total students in private higher education were females (Mongolian education Sector Development Strategy 2000-2005, 2000).

Several rationales related to Mongolians' traditions and the current social and economic situation in the country may explain the female domination in the education sector. Traditionally, women's role in the nomadic life style has always been as important as men's. They have played an indispensable role and responsibility in the family economy, and therefore, their education has been seen as crucial. During the socialist era, the gender equal education coverage was highly emphasized. In addition, the wage of compression did not particularly reward higher levels of education in socialist time. The current domination of females in the primary education (as well as in higher education) rests on several reasons such as parents' preference of sending their girls to school in case they face choices due to limited resources, and higher percentage of male drop outs than females to join the labor force at an early age in order to contribute to the family income or get involved in home agriculture activities (cattle herding).

The first university in Mongolia, the National University of Mongolia was established in 1942, from which the other public universities such as Pedagogical University, Agricultural University and the Medical University grew later in 1957, 1956 and 1960s respectively. In the 2002-2003 academic year, there are 185 higher education institutions functioning in Mongolia. Some 42 of them are public, whereas there are 136 private and another seven satellite branches of foreign universities.

The new 2002 amendments in the Higher Education Law classified higher education institutions as universities, institutes and colleges. Colleges award higher education diplomas (three years of higher education) and Bachelor's degrees (four years of higher education), Institutions may also provide Master's degrees (one and a half to two years), and Universities preserve the prerogative to offer all degrees including doctoral (three to five years). There are seven universities, all public, in Mongolia: National University of Mongolia (the only classical university), Technical University, Agriculture University, Medical University, Pedagogical University, The University of Art and Culture and University of Humanities.

Locations of higher education institutions

	Total	Ulaanbaatar ¹	aimags ²
Public	42	23	19
Private	136	114	22
Satellites of foreign universities	7	6	1
Total	185	143	42

Source: MOSEC³, 2003

In the 2002-2003 academic year, there are **98453** students in higher education institutions. Higher education gross enrollment of age cohort was 22.2 percent in 1985, decreased to 10.9 percent in 1992 and rose again to 35.2 percent by 2001 (MOSEC, 2003).

The following table illustrates the degree distribution in the total student population in Mongolia.

Degree	Student number	By institutional distribution from the total		
		Public	Private	Satellite of foreign university
Diploma	4052	3588	464	0
Bachelor	89152	58150	30580	422
Master's	3661	3506	153	0
PhD	1588	1588		
Total	98453	66834	31197	422

Source: MOSEC, 2003

¹ The capital city

² Mongolia consists of 21 aimags (administrative units)

³ Ministry of Science Education and Culture

According to the MOSEC statistics, 67 percent of the total student population in Mongolian higher education institutions are in public institutions.

III. Higher Education Finance and its Reform

Free higher education plus a student stipend was not exceptional in Mongolia, as that was a practice of socialist countries during the soviet period. However, the impact of the economic crises on higher education in the early 1990s was severe. In addition to the termination of external trade and subsidy from Russia, the domestic taxable income was not only curbed, but also partially slipped out of the tax control. Businesses and individuals manipulated the tax regulations to avoid taxes.

Hence, the Mongolian government had to make severe cuts on public expenditures. By 1993, the allocation to education had been reduced to 3.5 percent of GDP with most of this devoted to general and secondary education.

Accordingly money appropriated to higher education became extremely limited and only was used to provide water, heat and electricity to the buildings of the institutions, which accounted for less than 10 percent of the total budget of public universities and colleges.

At this period of time, the World Bank made three major recommendations to guide the further reform and development of the entire education system in Mongolia, with a special emphasis on primary education. However, the three concepts - *rationalization of public expenditure, reallocation of resources, and mobilization of new resources* - provided a conceptual framework for the higher education reform as well.

Rationalization of public expenditure:

In 1993-1994 the government eliminated student stipends, which used to take a high proportion of resources. The low student-to-faculty ratio until the late 1980s was criticized as one of the factors of inefficiency. The ratio rose from 10:1 in 1991-1992 to 11:1 in 1992-1993 (Wu, 1994). Student-to-faculty ratio varies among public and private institutions, as well as, across fields. It is higher in social sciences than natural science programs in public institutions and the ratio in some private higher institutions is almost twice higher than the national average.

Consultants from overseas recommended that the Ministry of Education merge existing five public universities to benefit from economies of scale and expand access to resources. This recommendation was not implemented.

Despite the introduction of a tuition fee in 1992, higher education enrollment has increased constantly since then in all degree programs except higher education diploma.

Enrollment in higher education institutions by academic degree

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
diploma	17609	14986	8116	5566	5849	5584	3730	4426	4094	4371	4224	3605	5249
bachelor	13825	13223	16917	22135	26490	31973	39157	44864	59444	67554	77281	83200	89125

master's and PhD			192	383	435	804	1201	1671	1734	2100	3465	3839	4052
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Source: MOSEC, 2002

Nevertheless, there is concern about the mismatch between supply and demand of higher education in the market place in Mongolia. The influx of students in both public and private institutions, which produces about 14.000 graduates every year (Altantsetseg, 2002), legitimizes the concern. The low opportunity cost for Mongolian young people to choose higher education hoping for a positive return later, due to the difficult labor market and high unemployment rate is one of the reasons behind the student influx.

Moreover, the Mongolian Education Sector Development Strategy for 2000 – 2005 projects further increases in enrollment.

	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Secondary school graduates	6226	8399	9292	9915	11789
Others	6226	6719	6504	6940	8252
total	12452	15118	15796	16855	20041

Source: Mongolian Education Sector Development Strategy 2000-2005, p.42

Along with the growth of higher education, quality became an imperative aspect. In 1998, the National Accreditation Council was established to conduct higher education institutional accreditation. By February 2003, forty-seven higher education institutions had been accredited (The National Council for Higher Education Accreditation, 2003). Program accreditation is under planning and preparation to start from 2004.

Reallocation of public resources:

Government policy puts emphases on the funding of good quality primary education, textbook supply, and its accessibility and availability. In 2003 government expenditure on education accounted for 5.6 percent of GDP (Altantsetseg, 2002). Other than government sources have become crucial to all higher education institutions. The sources of funding for higher education institutions in Mongolia other than the government allocations are: revenue from tuition and fees, international organizations that fund projects and programs, and gifts and contribution from individuals.

Reallocation of funding is taking place at individual institutions itself as well. Demand-driven educational programs such as business management, computer science and foreign language attract more enrollment bringing additional revenue which partially is reallocated to the less demanded natural science programs.

Mobilization of private and foreign resources:

Given the situation of financial austerity it faced, the government needed to seek for ways to share the higher education burden with individuals and the private sector.

Tuition fees were introduced in 1992 and became the norm from 1993 in all public higher education institutions. They are a major revenue source for institutions. The first introductory amount of tuition equaled about four months' salary of a university senior

lecturer and it remains relatively the same. The setting of the tuition amount rests on the variable costs (teaching staff salary, social insurance, practice/internship supervision, purchase of books) of the institution.

Unlike most other countries, tuition fees in Mongolia are expected to cover the full cost of teachers' salaries, laboratory, facilities and other expenses. Even the building maintenance and upkeep has been left on the institutions' shoulders since 1997 (Weidman & Yeager, 1999). The World Bank (1993, p.18) reports that in only 20 countries fees cover more than 10 percent of recurrent expenditure for public higher education. In Hong Kong, for example, which is one of the most vigorous capitalist societies, student fees in the early 1990 represented only 18 percent of recurrent costs (Cheng 1993 cited in Bray et al., 1994). Nevertheless, Mongolian higher education institutions are expected to generate 60 to 80 percent of their annual budget from tuition.

Despite the pattern of reductions in state allocations, public higher education institutions have limited autonomy in respect to finance. They have not been allowed to raise their fees to the levels necessary to cover increased costs (Weidman and Bat-Erdene, 2002).

The introduction of tuition necessitated the government to initiate a student loan scheme. In 1992 the State Training Fund was established to operate government grant and loan programs under the coordination of MOSEC. Government assistance to students in Mongolia is implemented as national grants and loans. National grants are provided to students to cover their tuition fees mainly on basis of financial need. Categories of students who are eligible to receive tuition grants include: one child of civil servant parent family, students from families under poverty level, students from herdsman families with less than 500 heads of small cattle, and students from families where more than three children are currently attending a higher education institution (Government Decree No. 158, Oct., 2000). There is one category that can be considered as merit-based among these categories: tuition grant for the rest of the remaining academic years for a distinguished student by a recommendation of the rector of the institutions.

National loans are provided on the basis of a contract signed by the student in which they promise to work in a contracted placement for the government at the end of the study for a certain period. The loan is forgiven if the student returns the service to government by working in the placement for five to eight years depending on the remoteness of the placement, but turns into a loan with an annual interest rate of 3-5 percent if she/he decides otherwise. The loan should be repaid within ten years, however, the interest starts charging from the seventh year of the loan allocation (Government Decree No. 96, June 2000). The loan pool comes about 80 percent from government budget and rest from the repayment of past loans and interest.

In 2000-2001 approximately 26 percent of students studying in public institutions received either loans or grants, while another 75 percent of students who did not satisfy grant and loan requirements got some amount of (11-22 percent of annual student expenditure) financial support (Altantsetseg, 2002).

The first private higher education institution was established in Mongolia in 1991. The government does not put ceiling on private institution tuition fees in order to support private education and lets the market regulate the amount of tuition fees in private institutions. There are 136 higher education institutions and a third of all students attend private institutions (2003). Government funds for student loans apply only to accredited private and public institutions.

The table at the end of the text illustrates an estimation of expenses for higher education borne by parents and/or students in Mongolia. The difference between public and private tuition rates in Mongolia is not significant, due to several reasons. First of all, there is not much difference in underlying costs that need to be covered by public and private tuitions, because all variable costs including teaching staff salary, laboratory and facilities in public institutions are expected to be covered by the tuition. The government only funds the fixed costs in public institution. In addition to that, private institutions are still relatively small in size, thus fixed costs in these institutions are lower. Furthermore, only a decade development of private higher education has not yet allowed the sub-sector to expand itself to science oriented research universities. Most private institutions are in the field of humanities. They deal with pure instruction, less research, and hire many part time faculty, which all contribute to a lower level of variable costs.

During the last decade, Mongolia has received numerous loans and grants from international donor agencies to use in education sector-wide reform efforts. The unique aspect stated by Yeager (1999) in this regard in comparison with the systems in the Newly Independent States of the former Soviet Union was Mongolia's geographical location and political history which enabled it to draw assistance from both East (ADB, Japan) and West (the European Union, the USA). Currently the Ministry of Science, Education and Culture is implementing the second phase of the Education Sector Development program funded by a \$34.3 million ADB loan in total. Higher education institutions benefit from international cooperation in infrastructure development, faculty development abroad, and research activities etc.

In addition, individual institutions are expected to create about ten percent of their annual budgets from various income generation activities, fund raising and philanthropic sources. Besides the traditional auxiliary income source of cattle herding, the institutions are opening business centers for the purpose of full-cost recovery. Although private contribution to higher education institutions is increasing mainly due to enhanced international cooperation and collaboration, the scope of domestic private giving is not yet very significant because of the lack of tradition of making private gifts and inadequate pool of capital that has not yet been created in the still transitional economy of the country.

Finally, finance-driven reform in Mongolian higher education is well underway. Higher education institutions already have a decade of experience operating in a free market economy, which forced them to make a dramatic switch from full appropriation from the government to almost the other end of the spectrum.

**Higher Education Expenses Borne by Parents and Students per year,
First Degree, Academic Year 2002-2003**

[Approximate conversion of Mongolian currency Togrick (T) converted to \$US
by 2002 Purchasing Power Parity \$1 = 266.5]

		Public		Private	
		High public*	Low public*	High private*	Low private*
Instructional expenses	Special “One time” or “Up front” fees	T 3000 (application fee) US\$ 11.2	T 1500 (application fee) US\$ 5.6	T 4000 (application fee) US\$ 15	T 1200 (application fee) US\$ 4.5
	Tuition	T 450,000 US\$ 1688.5	T 300,000 US\$ 1125.7	T 650,000 US\$ 2439	T 250,000 US\$ 938
	Other fees	0	0	0	0
	Books and other instructional expenses	T 80,000 US\$ 300	T 60,000 US\$ 225	T 80,000 US\$ 300	T 60,000 US\$ 225
	<i>Sub-total of instructional expenses</i>	<i>T 533,000 US\$ 2000</i>	<i>T 361,500 US\$ 1356.4</i>	<i>T 734,000 US\$ 2754.2</i>	<i>T 311,200 US\$ 1167.7</i>
Student living expenses	Lodging	T 360,000 US\$ 1350	0	T 600,000 US\$ 2251.4	0
	Food	T 500,000 US\$ 1876	T 200,000 US\$ 750.4	T 500,000 US\$ 1876	T 200,000 US\$ 750.4
	Transportation	Bus: T 50,000 US\$ 187 Home visit once a year: T 60,000 US\$ 225	Bus: T 50,000 US\$ 187	Bus: T 50,000 US\$ 187 Home visit once a year: T 60,000 US\$ 225	Bus: T 50,000 US\$ 187
	Other personal expenses	T 120,000 US\$ 450	T 120,000 US\$ 450	T 120,000 US\$ 450	T 120,000 US\$ 450
	<i>Sub-total of living expenses</i>	<i>T 1,090,000 US\$ 4090</i>	<i>T 370,000 US\$ 1388.3</i>	<i>T 1,330,000 US\$ 4990.6</i>	<i>T 370,000 US\$ 1388.3</i>
	Total cost to Parent and student	T 1,623,000 US\$ 6090	T 731,500 US\$ 2744.8	T 2,064,000 US\$ 7744.8	T 681,200 US\$ 2556

High public: Highest tuition and living in dormitory or shared apartment

Low public: Lowest tuition and living with parents

High private: Highest tuition and living in dormitory or shared apartment

Low private: Lowest tuition and living with parents

Okhidoi Otgonjargal

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