

GENDER EQUITY IN ACCESS TO HIGHER EDUCATION IN MONGOLIA

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University of Pittsburgh, 2010

Mongolia is similar to several other Asian countries in experiencing significant growth in higher education enrollments, in part due to expansion of the private sector. In 2004-2005, 62 percent of Mongolian undergraduates were female, a pattern that has existed since the early 1990s. The study investigates reasons for the lower participation of male students than their female counterparts in Mongolian higher education. It intends to contribute to an understanding of why this gender imbalance persists in Mongolian higher education, especially since in all spheres of life, including politics and business, males predominate in leadership positions.

This qualitative study examines what kind of reasons influence the reverse gender balance. Using an inductive model of qualitative analysis design, this investigation considers the human capital theory and socio-economic effects on college choice as a conceptual framework. Forty six respondents were interviewed and the findings of this study were based on analysis of these interviews using the conceptual framework.

Four major sets of factors have been found as reasons why the gender imbalance exists in Mongolian higher education, which include cultural, social, economic and institutional factors. Some of the factors are very unique to the Mongolian context while others reflect global trends within the Mongolian context. The findings suggest that most of the reasons for the reverse gender gap in higher education are closely related to the fact that Mongolia went through and still is undergoing major changes caused by the transition from a centrally planned economy to a

market economy. Prior this transition however, the consequences and structural elements of the socialist period have had impact on gender equity in higher education. On the other hand, some of the reasons for the gender imbalance are related to unique Mongolian traditions and a nomadic lifestyle that Mongolians have lead for centuries.

The gender imbalance favoring female enrollment in higher education is a phenomenon also shared with the United States and other countries. Hence, the research contributes to a broader understanding of shifting gender equity patterns in higher education enrollment in the United States and Mongolia as well as around the world.

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GLOSSARY OF TERMS AND ABBREVIATIONS

<i>Aimag</i>	Province
<i>Bagh</i>	Rural settlements or administrative unit below <i>soum</i>
<i>Buuz</i>	Steamed dumpling with meat inside
<i>Darkhan</i>	A large city in Mongolia
<i>Deel</i>	Mongolian traditional clothing
<i>Dzud</i>	Natural disaster, harsh winter
<i>Erdenet</i>	A large city in Mongolia
<i>GDP</i>	Gross Domestic Product
<i>Ger</i>	Traditional dwelling or felt tent
<i>Khuushuur</i>	A kind of meat cutlet dipped in flour and fried
<i>Negdel</i>	Agricultural collective
<i>MDG</i>	United Nations Millennium Development Goals
<i>MECS</i>	Ministry of Education, Culture and Science of Mongolia
<i>MNMA</i>	Mongolian National Mining Association
<i>MOH</i>	Ministry of Health of Mongolia
<i>MUST</i>	Mongolian University of Science and Technology
<i>NGO</i>	Non-government organization
<i>NUM</i>	National University of Mongolia

<i>Soum</i>	Administrative unit below <i>aimag</i> or province
<i>Togrog</i>	Mongolian monetary unit
<i>UNESCO</i>	United Nations Educational, Scientific and Cultural Organization
<i>UNICEF</i>	United Nations Children's Fund
<i>UNDP</i>	United Nations Development Program
<i>Ulaanbaatar</i>	Capital of Mongolia
<i>WHO</i>	World Health Organization

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1.0 INTRODUCTION

The increasing proportion of students entering higher education has been one of the most outstanding events in the recent evolution of higher education. Particularly, the extension to more inclusive groups including female students and less privileged social class students is becoming a worldwide phenomenon. Over the past decade and a half, higher education expansion has been most dramatic in the newly independent republics of the former Soviet Union and Mongolia (Magno & Silova, 2008).

Mongolia, while maintaining its independence, nevertheless adopted a Russian style education system and shared a number of cultural characteristics with the countries of Central Asia (Weidman, et al., 2004). However, the development of higher institution systems in Mongolia has its own unique qualities. It took a relatively short time to develop the higher education system in Mongolia. In the case of Mongolia, there was no previous experience of higher education; its development started from scratch by establishing completely new institutions and universities. The first modern type of higher education institution -- the National University of Mongolia (hereafter NUM)-- was established in 1942 in Ulaanbaatar.

This dissertation investigates reasons for the lower participation of males than females in Mongolian higher education. It explores the cultural and societal norms that affect gender equity and access to higher education in Mongolia (Weidman, et al., 2004) as well as economic factors such as opportunity costs and deferred income (Becker, 1993). In 2004-2005, 62 percent of

Mongolian undergraduates were female, a pattern that has existed since the early 1990s (Davaa, et al., 2005). Only Kazakhstan and Kyrgyzstan among the republics of Central Asia have a similar predominance of females enrolled in higher education (Weidman. et al., 2004). Interestingly, this is a phenomenon also shared with the United States (Lewin, 2006). However, the narrowing gender gap in education does not necessarily mean that gender inequalities in various spheres of society are narrowing simultaneously (Nozaki et al., 2009).

1.1 CONTEXT AND PROBLEM

1.1.1 Current situation of higher education in Mongolia

Mongolia is similar to several other Asian countries in experiencing significant growth in higher education enrollments, in part due to expansion of the private sector. It is, however, unique in that the public sector was also effectively privatized in 1993 when the Mongolian government required that public higher education institutions collect sufficient fees from students to cover instructional costs. Consequently, all students are required to pay fees (though there is a government loan scheme) and there is relatively little difference in the fees for public and private higher education institutions.

It is estimated that 80 percent of secondary school graduates continue into postsecondary education (Davaa, et al., 2005). Prior to 1992, higher education in Mongolia was totally controlled by the state. “The government owned, financed and operated all higher education institutions in Mongolia” (Weidman & Bat-Erdene, 2002, p132.). Only since the 1990’s when Mongolia began to build democracy and started to shift from a centrally planned to a market

economy, the country started reforming the entire education system. During the 1990s, the Mongolian higher education sector was fully shaped in terms of ownership, governance, funding, and academic curriculum.

According to 2005-2006 statistical information, out of 170 higher educational institutions operating in Mongolia, 116 (68 percent) are private and 109 (64 percent) are located in Ulaanbaatar, the capital city of Mongolia, where one third of the population is concentrated (Ministry of Education, Culture and Science of Mongolia (hereafter MECS), 2007). About 82 percent of private and 61 percent of public institutions were not accredited. It has only been in the last 15 years that these 116 private institutions have been established (Davaa, et al., 2005). It is clear that most Mongolian universities are comparatively young. Thus the private sector has acquired its own certain position within the Mongolian higher education sector.

Furthermore, the government of Mongolia found higher education the most promising sector for cost sharing and shifted a part of its fiscal burden to institutions and recipients of services (i.e., students). In 1994, the Mongolian government began requiring public higher education institutions to begin charging tuition at levels sufficient to cover the entire cost of academic staff salaries, thus generating a large reduction in the government's budget for higher education. Direct funding of universities and colleges ceased in 2003. Currently, 95 percent of the institutional budget relies on the tuition fees of students (Davaa, et al., 2005). Presently, the only support provided by the government to higher education is through the State Training Fund, which provides loans and scholarships to students. About 60 percent of students obtain loans and grants on the basis of merit and need. In this changing environment, higher education institutions have been challenged to embrace global forces and compete for resources, particularly for research funding, qualified faculty, and students (Davaa, et al., 2005). A sample model of higher

education standards of Mongolia was approved by the MECS in 2001. The initiative has identified objectives for BA programs and specified universal and minimum requirements for graduates. It also puts forward critical issues such as democratization of training, resolving problems from different points of view (pluralism), foreign language competence, computer skills and teamwork skills. The curriculum in support of the MA degree program has been developed even though the quality of MA and Ph.D training lags behind international standards. In general, higher education methodology is transitioning to concentrate on introducing new teaching methods and technology, moving from the traditional professor-centered approach to student-centered approaches including problem-solving/teaching, and developing active student participation. A quality assurance and quality assessment system for evaluation of higher education curriculum and syllabi has not yet been established completely in Mongolia.

Important issues such as setting up and implementing criteria for academic programs are another problem area for the higher education sector. Universities do not have a system for accurate student assessment such as an advanced management database, which should include development and distribution of locally designed software for management, student registration, and institutional data collection in accordance with international standards (Davaa, et. al., 2005)

Since the abolition of traditional higher education system planning in Mongolia, which was obliged to meet government needs, BA degree programs have been required to be more relevant to a modern Mongolian society and the integration of Mongolia into regional economies. Graduates with qualifications that are no longer relevant to the labor market and new government jobs face difficulties. The better fit between degree programs and the labor market reduces anxiety in the society for some and strengthens the role of the higher education sector in making a contribution to securing social sustainability. Minimum requirements for

communication skills, foreign language competence, team working, and computer and information technology knowledge required by the labor market have been identified as challenges for the BA degree program.

1.1.2 Reverse gender gap in higher education in Mongolia

Until the early 1990s, under the Soviet-style economic system, 60 percent of the students in higher education in Mongolia were male (Lin-Liu, 2005). But with the collapse of communism, they could resume their traditional role as herders of the family livestock. Furthermore, changing times resulted in the closure of the government's vocational and technical training schools (Davaa, et al., 2005). Since the socialist era, enrollment rates of girls have been higher than boys for primary secondary and tertiary education (see table 1). Since the beginning of the transition period, there has been what the United Nations calls a widening “reverse gender gap” in secondary and tertiary education, though enrollment rates of both males and females decreased. In secondary education in 2000, gross enrollment rates of girls were 20 percent higher than enrollment rates for boys (Burn & Oidov, 2001). In 2005, for instance, while approximately equal numbers of girls and boys started primary school, 57 percent of the high school graduates were female (Davaa, et al., 2005). However, as it is illustrated in table 1, recently the ratio of boys to girls in both primary and secondary education has been steadily falling, which means that the gender gap is narrowing slowly at all levels of education. The ratio of boys to girls in secondary education equaled 1.03 in 2006 (Government of Mongolia, 2008).

The main reasons for the growing gender gap during the transition period in education have been the withdrawal of boys from school to assist in income-earning activities, mainly herding, and the collapse of the vocational education system. Rather than studying, males

become more involved in a trade in the capital or a smaller town, young men remained in the countryside raising livestock to feed their families. Moreover, the tradition that parents should pass on material possessions like herds and land to sons is strong in Mongolia. But parents also believe that daughters should have some resources of their own, rather than be left to their own devices or married off to another family, which happens in many other Asian cultures. As a result, the preference to send daughters to college has led to a "reverse gender gap" -- women now make up 60.5 percent of all students at Mongolian universities (MECS, 2008). The trend is particularly distinctive because Asia is typically considered a place where women are less valued than men.

Table 1. Gender Dimensions in Mongolia (1990 -2006)

Gender Dimensions	1990	2000	2005	2006
Ratio of girls to boys in primary schools	1.03	1.01	0.98	0.98
Ratio of girls to boys in secondary education	1.33	1.2	1.11	1.03
Ratio of female to male students in higher education	1.72	1.72	1.53	1.53
Proportion of women in the population engaged in wage employment in non-agriculture sectors	51.1	50.4	53.1	53.9
Percentage of women elected to national parliament	24.9	11.8	6.6	6.6
Percentage of women candidates in parliamentary election	7.7	10.9	13.7	-

Source: The Government of Mongolia, 2008

Despite Mongolia's creditable achievements in promoting female education, there is wide range of aspects of female disadvantage, which remain to be addressed. In the labor market, although women's share of wage employment in the non-agricultural sector is near parity with men, inequalities in gender relations in the workplace persist (Government of Mongolia, 2008).

The impressive educational achievements of women have not generated comparable financial returns as evidenced by their under-representation among top management in business and in decision-making positions (Burn & Oidov, 2001; Government of Mongolia, 2008). Women are also discriminated against because of societal expectations that women would leave the labor force in order to start families (Burn & Oidov, 2001).

From 2000 to 2005, the number of BA students in government owned educational institutions has increased by 46.3 percent while the total number of those who are studying in private institutions has grown 2.4 times (Davaa, et al., 2005). During the same period of time, the total number of BA degree students in higher educational institutions increased by 70.1 percent, among which 62 percent were female students (Davaa, et al., 2005).

Table 2. Students by Type of Universities and by Gender

Students	2004-2005	2005-2006	2006-2007
Total number of students	123824	138019	142411
Female students	76049	83871	86183
Percentage of female students	61.4	60.8	60.5
Students in public institutions	84041	91755	93478
Female students	50094	53650	54752
Percentage of female students	59.6	58.5	58.6
Students in private institutions	39405	45784	48552
Female students	25711	29832	31184
Percentage of female students	65.2	65.2	64.2
Students in branches of foreign universities	378	480	381
Female students	244	299	247
Percentage of female students	64.6	62.3	64.8

Source: MECS, 2007

Table 2 shows number of students by university type and by gender. As number of private universities in Mongolia grew each year, number of students in those has been increasing steadily as well. The most interesting phenomenon about student body structure in private

universities is that the majority of students are female students. The percentage of female students in private universities exceeds the number of female students in public universities. For instance, in academic year 2006-2007 female students composed 58.6 percent in public universities while 64.2 percent of the whole student body in private universities were female.

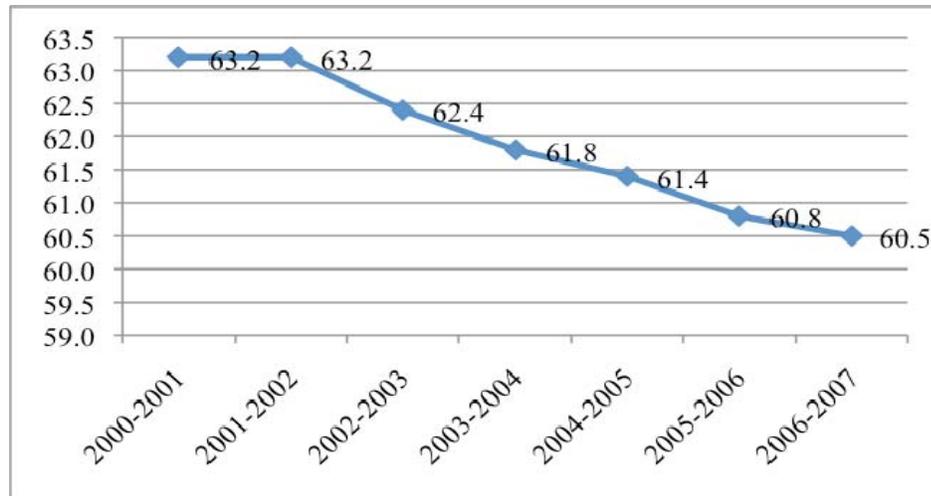
In general, the number of female students dominates all levels of education in Mongolia. In the academic year of 2006-2007, 61 percent of Mongolian undergraduates were female (see table 3), a pattern that has existed since the early 1990s (MECS, 2007). Furthermore, among MA and PhD degree students, female students are in the majority (see table 3).

Table 3. Gender Balance by Educational Level (2006 - 2007)

Education Level	Total	Female Students	% of Female Students
Diploma students	4193	2952	70.4
Bachelor students	129833	77897	60.0
Master students	6286	4115	65.5
PhD students	2099	1219	58.1
Total	142411	86183	60.5

Source: MECS Statistics, 2008

Interestingly, the number of female students in higher education has been decreasing slowly from 2000 to 2007. As illustrated in figure 1, the total proportion of female students in higher education in 2000 was equal to 63.2 percent while this number in the academic year 2006-2007 was equal to 60.5 percent (MECS, 2008).



Source: MECS, 2008

Figure 1. Percentage of Female Students in Higher Education (2000 – 2007)

Furthermore, the female to male student ratio in higher education has been slowly decreasing from 1.72 in 2000 to 1.53 in 2006 (see table 1). Consequently, the proportion of male students in higher education increased from 39.2 percent in 2000 to 39.5 percent in 2006. According to the *Mongolian Second National Report on Implementation Millennium Development Goals*, the greater number of female students in higher education is due to a higher proportion of girls among graduates of secondary schools as well as with “traditional differing upbringing of girls and boys in Mongolian families” (Government of Mongolia, 2008, p. 84).

Mongolian higher education system shows signs of gender segregation by fields of study (Nozaki et al., 2009). Female students studying in service fields have increased by 7.7 percent while the proportion tends to be decreasing in other fields. Students studying in social science and humanities fields constituted 51.8 percent of all students in the academic year of 2004-2005 compared to 43.8 percent in 2000-2001. Female students have always been over represented in these fields. Table 4 shows the gender distribution of Mongolian undergraduates by field of study in 2000 and 2004. Clearly, most fields have a predominance of females, with the notable exception of fields that are computer-related (software, hardware) or in engineering,

construction, and architecture. However, the number of females approaches males in physics and geography, while exceeding them in mathematics. The largest proportion of females is in medicine, a pattern common in Russia and most former Soviet Republics.

**Table 4. Bachelors Degree Students in Mongolia by Professional-Occupational Areas
(2000 - 2005)**

N	Occupational Classification	2000-2001		2004-2005		% Increase in Total 2000-2004
		Total	Female (%)	Total	Female (%)	
1	Medicine	3346	83.1	6406	79.2	91.5
2	Language, history, philosophy	5121	79.4	11285	78.5	220.0
3	Education	8706	80.9	11167	76.6	28.3
4	Social work	0	0	807	76.1	NA
5	Journalism	1062	78.0	1766	75.4	66.3
6	Biology, chemistry	822	74.6	860	71.0	4.6
7	Business, management	11183	67.2	24804	67.7	220.0
8	Politics, sociology	5645	65.5	9327	65.3	65.2
9	Mathematics	893	62.9	1430	61.0	60.1
10	Production technology	9743	40.7	6103	59.2	-37.4
11	Agriculture, forestry	2686	58.4	2781	59.1	3.5
12	Law	3134	62.5	6574	57.3	210.0
13	Art (artist)	2040	46.1	2959	46.4	45.0
14	Physics, geography	1452	41.7	2308	42.5	59.0
15	Tourism	606	63.2	1623	39.1	270.0
16	Software, hardware	1381	42.8	2991	36.5	220.0
17	Engineering	2994	70.6	8930	34.9	300.0
18	Construction, architecture	214	35.0	3081	25.7	144.0

Source: Davaa, et al., 2005, Table 7.14

1.2 RESEARCH QUESTIONS AND THEIR SIGNIFICANCE

This study intends to contribute to understanding why gender imbalance persists in Mongolian higher education, especially since in all spheres of life, including politics and certainly business, males predominate in leadership positions. The primary focus is social and cultural norms that encourage females to continue their education past the secondary level. Another special area of focus is economic and institutional factors influencing college choice, which have a strong influence on the current gender situation in Mongolia. Economic factors are especially important because Mongolia was a socialist country for seventy years and it was not until the beginning of the nineties that Mongolia began its transition from a centrally planned economy to a market economy. The dissertation addresses the following research questions:

1. What are the cultural and societal norms that affect gender equity and access to higher education in Mongolia?
2. What kind of economic factors influence college choice in Mongolia?
3. What are the institutional factors for the lower participation of males than females in Mongolian higher education?

In addition to changing economic conditions, the support of parents and family members is a crucial factor. At the moment, little is known about family and peer influences on higher education attendance in Mongolia and there is not much systematic information about labor market opportunities for highly educated females and males. Ethnic and religious differences are also talked about but have not been studied systematically. Mongolia is a predominantly Tibetan Buddhist country, but there are also small groups of Christians and Muslims.

Finally, as suggested by research in the United States (McDonough, 1997), it is very important to examine socio-economic differences in access. In the most affluent families, gender

differences seem to be minimal, but males from middle and lower income families are less likely to enroll in college than their female siblings. Effects of ethnicity and social class are confounded in the United States because they are strongly correlated.

The gender imbalance favoring female enrollment in higher education is a phenomenon also shared with the contemporary United States (Lewin, 2006; McDonough, 1997) and other countries. Hence, the research will contribute to a broader understanding of shifting gender equity patterns in higher education enrollment in Mongolia and the United States as well as around the world.

To date, little, close to nothing, has been done to examine gender differences in higher education in Mongolia. This dissertation intends to fill a gap in the literature on gender equity to access in higher education in Mongolia since this issue has been ignored at the policy development and implementation level. By using a qualitative approach that considers why and how gender imbalance occurs, this study adds to the literature by expanding the understanding about gender equity issues in higher education. Since I intend to conduct research on factors of gender disparity in higher education in Mongolia, my dissertation is particularly significant because it has been identified by the Government of Mongolia as a short-term action to implement the third goal of the United Nations Millennium Development Goals (hereafter MDG) to promote gender equality, to empower women, and to increase their participation at the decision making level (Government of Mongolia, 2008).

2.0 LITERATURE REVIEW

I found pertinent research on gender in diverse fields outside of education and social sciences including sociology, economics, history, social psychology and educational policy. Although there is vast literature existing about gender equity, I focus on those issues that are central to the question of gender equity.

Educational theory and research remain focused on social class disparities (Jacobs, 1996). Classic studies of inequality in education typically have focused on disparities by social class among men (Blau & Duncan, 1967; Bourdieu & Passeron, 1977). Gender often is mentioned as a variation on the central theme of social class inequalities. Scholars who do focus on gender issues often treat all aspects of education as working to the disadvantage of women (Sadker, 1993). In contrast, I suggest that education is often a relatively advantaged sphere of social life for women and that gender inequality is more pronounced in some countries and some aspects of the educational system than others.

In general, women globally fare relatively well in the area of access, less so in terms of the college experience, and are particularly disadvantaged with respect to the outcomes of schooling (Jacobs, 1996). It can be seen clearly from the fact that in all spheres of life including politics and certainly business, males predominate in leadership positions. Furthermore, men remain the principal holders of economic and political power. In a way this is surprising because in education there is much talk about boys' failure in school (Skelton, et al., 2006).

2.1 A REVIEW OF HISTORY OF GENDER EQUITY IN HIGHER EDUCATION

An interest in gender has been persistent and gender issues have been investigated in many domains, including education, the workplace, the marketplace, and leisure activities. There are many definitions existing on gender. Generally, gender is the symbolic role definition attributed to members of a sex on the basis of historically constructed interpretations of the nature, disposition, and role of members of that sex. There are many different focuses and approaches used by scientists to study gender and gender issues. Some scholars argue that the genders are “just naturally different” (Skelton, et al., 2006). In contrast to the scholars who see gender as “natural” (Whitehead, 2002), there are scholars who argue that gender is “socially constructed” (Skelton, et al., 2006). In other words, they posit that social structure creates gendered behavior. This approach argues that men and women behave differently because they fill different positions in institutional settings, work organizations, and families; in other words, they take on different gendered roles and, consistent with the role requirements, men and women in the same structural roles would be expected to behave identically.

Based on this approach, education has a central role in perpetuating inequities – both in terms of access (female exclusion from educational sectors such as higher education, and from access to certain curriculum subjects) and form (the sorts of subjects girls were taught; teaching methods) (Skelton, et al., 2006). Education is the key for women to move up the ladder of society. Many women have strived to be equal to men, and the main element that enables women to slowly change the biased view of the world is through education. Women with knowledge are respectable women; they have power to make people listen to them and treat them as equal to men (Skelton, et al., 2006). The question is how women started to build their identity as equals

to men and what were the main historical elements in gender equity in higher education to see how gender has been “socially constructed” historically?

Women are relative newcomers to higher education. Women were admitted to higher education only a century ago, while men have been students for over 800 years in Europe and 200 years in the United States (Skelton, et al., 2006). Higher education in Islamic courtiers and China was also closed for women until twentieth century (Skelton, et al., 2006). Generally, there are three broad phases in history related to gender and higher education in the western countries:

- 1840 -1920 – women fought for basic civil rights: for vote, property ownership, access to higher education and professions (Skelton et al., 2006).
- 1920 -1970 – second wave of feminism focused on issues of married women, mothers and children (Skelton, et al., 2006)
- 1970-2000- third wave of feminism opened up courses and professions that were traditionally male student oriented (Skelton, et al., 2006).

1840 -1920: This era is called double conformity, which means that women did all the work men did, but also following rules and regulations about behavior and dress that were normal for respectable upper-middle class ladies (Nash, 2005). Middle and upper-middle class ladies gained first access to academic secondary schooling and then to higher education. Women of color and those from working class and from poor homes had little or no access to higher education in this period (Nash, 2005).

According to Solomon (1985), from the Civil War to World War I, three critical forces contributed to women’s advancement into higher education. First, and the most important reason, was the establishment of public education and the subsequent growth of public schools and colleges (Solomon, 1985). The second reason was impact of the Civil War, which brought reconstruction, and the third reason was the expansion of higher education itself through women’s education (Solomon, 1985).

During this period female students were segregated and restricted in both their academic and personal lives. In many places, although female students were segregated from their male peers and taught separately, they were taught by the same male lecturers who taught male students. In this period female students lived at home under the control of their parents, and in college under the control of respectable ladies. Women also chose to be single and uphold a successful lifestyle, an alternative choice to marriage (Skelton, et al., 2006).

1920-1970: After the First World War during 1914-1918, women in western countries gained the right to vote and enter majority of learned professions (Skelton et al., 2006). Some opportunities for women in higher education widened. However, women faced economic difficulties: between the wars and economic depression job opportunities for women shrank and higher education institutions themselves struggled greatly because of declining enrollments.

The undergraduate curricula available to women were not gendered. However, it was almost impossible for women to find funding to continue into postgraduate scientific research (Skelton, et al., 2006). The gender labeling of subjects was beginning to shift. Most masculine areas such as physics and engineering became available to female students.

1970-2000: The big change for female students came in 1970 with the removal of any type of supervision. Many female students started to live in privately rented accommodation without any university inspection of its physical or social nature. There was a big change in organizational structure, which is co-education (Skelton, et al., 2006). Many single-sex higher education institutions, such as teacher training institutions, nursing schools and women universities founded from 1870-1920 became co-educational institutions (Nash, 2005). The period since 1970 has seen many women move to the professional fields and stay for postgraduate studies.

By 2000 social and academic life of students in higher education institutions became co-educational. Furthermore, at some institutions female students' participation is higher than that of male students in higher education at present. The female proportion of the total college population rose from 21 percent in 1870 to 39.6 percent in 1910, to 47.3 percent in 1920 and to 51.8 percent in 1980 as shown in table 5 (Solomon, 1985). This is a phenomenal growth; however there have been many women who did not even receive a high school diploma at the same time as the growth occurred. For every woman who had a place in higher education, there had been many more in their social group who did not (Solomon, 1985).

Table 5. Women in Institutions of Higher Education (1870 - 1980).

Year	Number of Women Enrolled	% of all Students Enrolled
1870	11,000	21.0
1880	40,000	33.4
1890	56,000	35.9
1900	85,000	36.8
1910	140,000	39.6
1920	283,000	47.3
1930	481,000	43.7
1940	601,000	40.2
1950	806,000	30.2
1960	1,223,000	37.9
1970	2,884,000	41.9
1975	3,847,000	45.4
1980	5,694,000	51.8

Source: Solomon, 1995, p. 63, table 2

2.2 DIFFERENCES EXISTING WITH REGARD TO GENDER ACROSS HIGHER EDUCATION IN CENTRAL ASIA AND MONGOLIA

While Kyrgyzstan, Kazakhstan and Uzbekistan were a part of the former Soviet Union until 1991, Mongolia on the other hand remained an independent country. However, its economy has been closely connected to the Soviet economic block. The collapse of the Soviet Union brought independence to Kazakhstan, Kyrgyzstan and Uzbekistan, former autonomous republics of the Soviet Union and now separate countries. Under the Soviet Union, all Central Asian republics and Mongolia functioned as centrally planned economies. Yet all these countries today are in the process of transition from a planned to a market economy. There have not only been economic changes but changes in its social and political environment including the education system. These fundamental changes brought about a massive decline in economic growth and created many problems in the years immediately after the collapse of the single party system. At present, the economy and society in Kazakhstan, Kyrgyzstan, Uzbekistan and Mongolia exhibit both positive and negative trends. Although the positive trends have not been completely adopted, the transition to the new market mechanism has already passed the point of no return.

The educational system in those countries is also undergoing dramatic changes. Mongolia, while maintaining its independence, nevertheless adopted a Russian style education system and shared a number of cultural characteristics with the countries of Central Asia (Weidman, et al., 2004). As in many other postcommunist countries, a large number of private universities have been established since the collapse of the socialist system. The increasing proportion of entering students has been one of the most outstanding phenomena in the recent evolution of higher education in Central Asia and Mongolia. Expansion has been accompanied by greater inclusion of female and less privileged students worldwide. Over the past decade and

a half, higher education expansion has been most dramatic in the newly independent republics of the former Soviet Union and Mongolia (Magno & Silova, 2008).

As estimated by UNESCO, enrollments in higher education worldwide have continued to increase from an estimated 69 million in 1990 to 88 million in 1997 (UNESCO, 2008). Yet the progress in numbers varies drastically by region and level of development. Total enrollments rose by about 50 percent in developing countries while the increase in developed countries was much slower, equaling to 13 percent (UNESCO, 2008). Female participation in higher education continued to progress and the number of female students enrolling in higher education has increased over the years. For example, in countries in transition, there are nearly 130 women enrolled in higher education for every 100 men (UNESCO, 2008). The reasons behind this phenomenon are difficult to trace, especially because research on the gendered aspects of the school environment is still lacking (Magno & Silova, 2008).

According to UNESCO, the number of female students in higher education rose from 46 percent in 1990 to 47 percent in 1997 at the world level. However, it is important to note that their participation in higher education was 52.9 percent in developed countries in 1997 (UNESCO, 2008).

Overall trends show that over the past decade general enrollment rates in higher education have increased in Central Asia and Mongolia the same as overall trends in the world. A review of gender equity as measured by student enrollments in higher education reveals divergent trends in Central Asia and Mongolia. As illustrated in table 6, Kazakhstan, Kyrgyzstan and Mongolia have a predominance of females enrolled in higher education while in Uzbekistan there is a clear predominance of male students. Statistics document major setbacks in terms of gender equality in some countries of Central Asia such as Tajikistan, Turkmenistan and

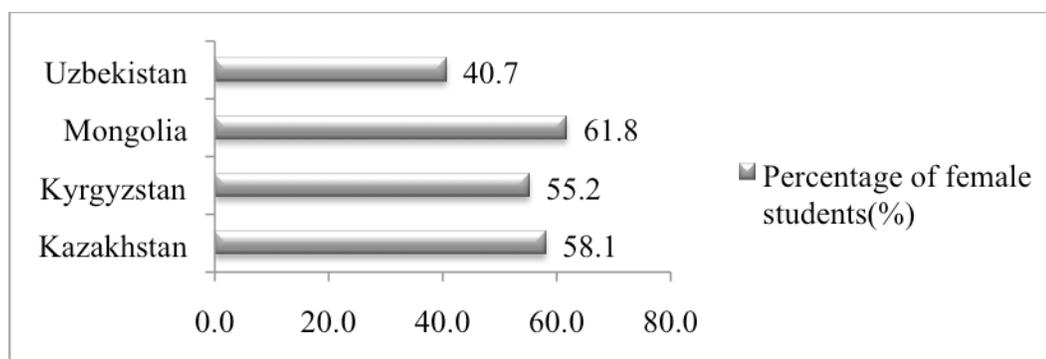
Uzbekistan where female enrollment in higher education has been decreasing throughout the transition period (Magno & Silova, 2008).

**Table 6. Enrollments to Higher Education in Central Asia and Mongolia
(2001 - 2005)**

Country	Students Enrolled in Higher Education Institutions in 2001			Students Enrolled in Higher Education Institutions in 2005		
	Total	Female	% of female	Total	Female	% of female
Kazakhstan	440715	239308	54.3	747104	434067	58.1
Kyrgyzstan	188820	95732	50.7	218273	120486	55.2
Mongolia	64251	40093	62.4	109268	67528	61.8
Uzbekistan	183576	69392	37.1	263576	107257	40.7

Source: UNICEF TransMONEE, 2007 & Davaa et al, 2005

Therefore, it is clear that there are two divergent trends in terms of gender dynamics in higher education that exist in the region (see figure 2). The first trend reveals an increase in the number of female students in higher education particularly in Kazakhstan, Kyrgyzstan and Mongolia. Some researchers refer to this phenomenon as “reverse gender gap” (Lin-Liu, 2005) or “feminization of higher education institutions” (Magno & Silova, 2007). On the other hand, the second trend documents dominance of male students in higher education. It is an alarming fact because, for instance, in Uzbekistan proportion of female enrollments have been decreasing significantly over the last 10 years. Examination of these two divergent trends through literature review and recent data review reveals interesting gender dynamics during the post-socialist transition period and suggests that more research into the causes and consequences of gender imbalance in higher education is needed. For this study, I would like to look at enrollments in higher education in the above mentioned countries by focusing on student participation, curriculum selection and graduation rates. Additionally, factors influencing differences in enrollments in higher education will be discussed.



Source: UNESCO, 2008

Figure 2. Percentage of Female Students in Higher Education in Central Asia and Mongolia in 2005

2.2.1 Student participation in higher education in Central Asia and Mongolia

There is a clear trend of an increase in the proportion of females enrolled at a higher rate than that of males in higher education in Kazakhstan, Kyrgyzstan and Mongolia and the exception is Uzbekistan. Table 7 shows that in comparing these countries there was a clear increase in enrollments to higher education from 2000 to 2004 for both genders except in Uzbekistan. The highest increase in enrollments to higher education occurred for both genders in Kazakhstan: - 56 percent of university age females enrolled in higher education in 2004 compared to 31 percent in 2001, which shows a 25 percent increase in 4 years, while the increase of male students' enrollment slightly lower equaled 14 percent for period from 2000 to 2004.

Table 7. Enrollments to Higher Education in Central Asia (2000 - 2004)

Countries	Gross Enrollment Percentage of University Age Group				Increase in Enrollment Percentage of University Age Group (2000-2004)	
	2000		2004			
	Male	Female	Male	Female	Male	Female
Kazakhstan	26	31	40	56	14	25
Kyrgyzstan	35	35	36	43	1	8
Mongolia	21	37	29	48	8	11
Uzbekistan	17	13	17	14	0	1

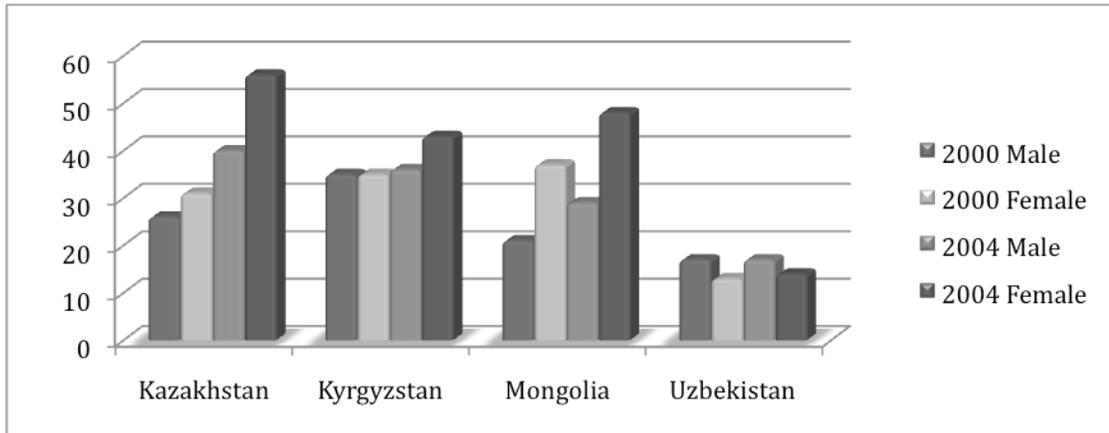
Source: World Bank, 2008

Similar to Kazakhstan, Kyrgyzstan and Mongolia have experienced growing enrollments in higher education. However, the growth in enrollments in Kyrgyzstan was mostly represented by female students, which equaled 8 percent while male students' growth from 2000 to 2004 equaled only 1 percent. On the other hand, in Mongolia as in Kazakhstan, higher education enrollment has occurred among students of both genders, although the increase of female students was slightly higher by 3 percent for period from 2000 to 2004.

A different picture can be drawn from educational statistics in enrollments to higher education in Uzbekistan for the same period. There was almost no increase in enrollments in higher education from 2000 to 2004. Only one percent of growth for female students has been observed. However in general there were only 14 percent of university age females and 17 percent of university age males enrolled in higher education in Uzbekistan in 2004. Figure 3 clearly shows that enrollments to higher education in Uzbekistan are at much lower rates than the other three other countries being compared. Some researchers explain this phenomenon in Uzbekistan by the fact that after the collapse of a socialist regime, a new patriarchal ideology has emerged forming new national identity discourses and naturalizing the dominant male norm in the region (Olson et al., 2007).

Furthermore, attitudes regarding female roles in society grew more conservative during the transition period (Magno & Silova, 2007). For women it means reassertion of more traditional roles of caring for the family and rearing children, which undoubtedly affects girls educational opportunities. This is illustrated by the fact that 25 percent of girls in Uzbekistan do not continue education after they reach working age (15 – 64 years old) (Magno & Silova, 2008). Overall, the education of many women is strongly influenced by the time at which they start their family (e.g. women in their 20's give birth to the largest numbers of children) and re-emerging

traditional patriarchal values. Only 40.7 percent of all students in higher education in Uzbekistan are female (see table 6) while an average 58.4 percent of the student population in the three other countries - Kazakhstan, Kyrgyzstan and Mongolia - are female.



Source: UNESCO, 2008

Figure 3. Percentage of Enrollments to Higher Education in Central Asia and Mongolia by Gender (2000 - 2004)

These countries are located in the same geographical region and have similar historical paths (transitioning from socialism to capitalism), educational systems and evolving economies. Despite the similarities, clearly, there are divergent gender equity trends in enrollments to higher education occurring in Central Asia and Mongolia.

Perhaps the most remarkable aspect of the growth in enrollments in higher education is the speed with which it has occurred. It has been less than 20 years since Kazakhstan, Kyrgyzstan and Uzbekistan gained their independence and started to rebuild their cultural identity. And more interestingly, Kazakhstan, Kyrgyzstan and Mongolia did not begin their rush to growth until 2000.

2.2.2 Curricula changes in higher education in Central Asia and Mongolia

The nature and structure of higher education in Central Asia and Mongolia has undergone a substantial overhaul since the collapse of the Soviet system. Changes in curricula have occurred at all levels of the educational system in the last 17 years. As was the case at lower levels of the system, the curriculum at postsecondary institutions was heavily skewed toward technical subjects. The humanities and social sciences were deeply rooted and influenced by state ideology of Marxism-Leninism, and all teaching and scholarship in these disciplines was presented in the context of this philosophy. Early specialization strongly associated with an inflexible system was and still is one of the obligatory elements of higher education in those countries. In other words, students must choose their specialization as they enter higher education institutions. Despite a one-dimensional ideological approach, the Soviet educational system produced impressive results in Central Asia and Mongolia, particularly in regard to increasing general literacy rates and empowering women. Most of the comparing countries report almost universal level of literacy. For instance in 2004, the Kazakh government reports a literacy rate of nearly 100 percent (Hanks, 2005).

After Kazakhstan, Kyrgyzstan and Uzbekistan gained independence, curriculum of most subjects has been revised, especially those related to history and political science. Before 1991, there were no programs in Kazakhstan, Kyrgyzstan, Uzbekistan and Mongolia devoted to business and public administration. Entirely new curricula featuring courses in accounting, management and marketing have been developed as well as numerous new institutions. For instance, 170 higher education institutions exist in Kazakhstan ranging from comprehensive universities to vocational schools (Hanks, 2005). The same number of higher education institutions has been established in Mongolia. On the other hand, there were 17 private

universities out of 49 higher education institutions in Kyrgyzstan in 2006 (Brunner & Tillet, 2007), while in Uzbekistan there were no private higher education institutions existing until very recently (Turshunkulova, 2005). Since there were no existing private universities during socialist times in Mongolia and Kazakhstan, most private institutions have been established in the last 15 years, many of which have been established based on demand driven motives i.e. “to generate money for the owners and founders” (Turshunkulova, 2005, ¶1). As a result, many universities have been established to respond to the demand for newly opened market oriented specializations and curricula.

The increase in the number of higher education institutions and the differences in their status increase competition between them, promoting modernization of education programs or curriculum. Yet the quality of education provided and consequently the employability of graduates are questionable. For example in Kyrgyzstan, higher education institutions continue to train specialists, especially economists and lawyers, in excessive number irrespective of real needs of the economy. The most popular choices of students are economics, finance and law followed by English, sociology and political science (Brunner & Tillet, 2007). Meanwhile training of agricultural specialists has declined sharply. Furthermore, a large number of employment generating manufacturing enterprises have decreased and import of goods has started to dominate in the market. These changes have been understood and absorbed by leading universities and undergraduates, illustrated by increasing demand for law, social sciences and information technology at the expense of education and engineering in all the countries being compared (Brunner & Tillet, 2007).

As in other countries, young people reject technical diplomas and industry training in favor of professional degrees (medicine, law), business, social sciences and humanities. These

subjects are demand driven and higher education institutions often have to scramble to meet market demand (Brunner & Tillet, 2007).

2.2.3 Curriculum selection and graduation rates in higher education in Central Asia and Mongolia

It is clear that a complex set of cultural, social, political and economic factors influence women's and men's decisions to enroll in higher education and their chosen fields of study. Higher education study continues to be segregated by gender. Interestingly women's chosen fields of study reflect a similar pattern in Central Asia and Mongolia. For example, women in Kyrgyzstan and Mongolia are more likely to choose fields such as humanities and arts, education and medicine (including nursing), while men are more likely to choose engineering, mathematics, natural sciences and computer sciences (UNESCO, 2008).

Whatever the obstacles in terms of entering the university and completing a degree, there seems a widespread belief among the population of Kazakhstan, Kyrgyzstan, Uzbekistan and Mongolia that a university credential or degree offers greater security and employment appeal than technical vocational diplomas. The total number of university graduates entering the labor market has been increasing in all the countries being compared (Brunner & Tillet, 2007). The reports show changing attitudes of parents and students towards higher education in the area related to graduation.

When it comes to graduates from bachelor level studies, women are far less likely to drop out compared to their male colleagues (UNESCO, 2008). According to available data on graduates, out of the total number of graduates in Kyrgyzstan, women represent 57 percent while in Mongolia women represent at least 65 percent (Davaa, et al., 2005; World Bank, 2007).

2.3 SOCIAL AND POLITICAL FACTORS EXPLAINING DIFFERENCES IN GENDER EQUITY IN HIGHER EDUCATION

2.3.1 Status of women in society

Differences of women's enrollment to higher education are likely influenced by the complexity of economic, social, political and cultural issues, including women's status in society. In Central Asia, attitudes regarding women's roles in society grew more conservative during the transition period. For women, this means a reassertion of a more traditional role of caring for the family and rearing children, which undoubtedly affects girls' educational opportunities. Of all higher education students there, women constitute only 37.8 percent. Particularly, the quality of life for rural women in Uzbekistan is considerably lower than that of their sisters in major cities (Hanks, 2005). Lack of basic infrastructure, especially shortages in clean drinking water and proper sanitation, fewer employment and educational opportunities, and greater social pressure to marry and have large families at a young age all contribute to a more difficult existence for women in the countryside. On top of this, rural women in Uzbekistan make up a large percentage of the workforce on collective farms, performing much of the hard physical labor of cultivating and harvesting cotton, which is one of the important sources of cash income to the country's economy, usually cotton is harvested by hand (Hanks, 2005).

Neo-liberal reforms have compromised the rights of some women in Uzbekistan. As a result, some women have been forced to participate in the newly expansive sex market. Many students have bribed their teachers or engaged in prostitution to earn enough money to attend universities (Magno & Silova, 2008). In addition to the resurgence of patriarchal cultural and

traditional values, a structural, systemic change such as the dramatic reduction of universal preschool has overburdened women (Hanks, 2005).

On the other hand, the role and status of women in Kazakhstan differs from women in other Muslim countries due to the relatively late historical conversion of nomadic Kazakhs, the almost total absence of dogmatic traditions among them, and a strong influence of Russian cultural attitudes and practices. There are few social restrictions on women in any group in contemporary Kazakhstan, however, and “women may venture forth without the restrictions in their mobility not found in more conservative Muslim countries” (Hanks, 2008, p. 239).

In Kyrgyzstan, under the Soviet system women made significant advancements in education and government. This continues in independent Kyrgyzstan, and opportunities for advanced education are greatest for Slavic, Korean or other non-Muslim women, although Kyrgyz women are well represented in the country’s universities. Since independence, women have been active in politics and several have been elected to national parliament. However, Kyrgyz and other Muslim women are conservative in relations with men outside their families and in public (Hanks, 2005).

Mongolian women, however, always had a significant position in society. Traditionally, women’s role in the nomadic lifestyle has always been as important as men’s (Burn & Oidov, 2001). Females have played an indispensable role and responsibility in the family economy, and therefore, their education has been seen as crucial among Mongolians. It is becoming a contradicting factor, because gender imbalance favoring females persists in Mongolian higher education, especially since in all spheres of life, including politics and certainly business, males dominate in leadership positions.

2.3.2 Enrollment patterns

Differences in enrollment patterns in higher education among comparing countries can be explained by other micro and macro factors. According to a World Bank report, the growth in enrollments in higher education can be examined from two perspectives (Brunner & Tillet, 2007).

First, Kazakhstan, Kyrgyzstan and Mongolia are expanding their university enrollments to become “mass” systems, while Uzbekistan with slower growth appears to be willing to maintain elite systems. Uzbekistan particularly continues to support technical-vocational skills as a key building block for skills (Brunner & Tillet, 2007).

The categories elite, mass and universal education are a simple but powerful way by which to compare higher education systems (Trow, 2006). Initial categorization refers to size. As the total number of students in higher education grows, the system becomes less exclusive and more inclusive; attitudes change from regarding higher education as a “privilege, then as a right and finally to obligation, a required step to adulthood and employment” (Brunner & Tillet, 2007, p. 29). There are positive and negative sides to “mass” education. For example as the total number of graduates or diploma holders increases a credential becomes a useful and then necessary ticket for the job market.

As it can be seen from table 8, Mongolia with a population just over 2.5 million has 170 higher education institutions, while Uzbekistan with a population of almost 27.5 million has only 62 tertiary institutions. Uzbekistan, a country with 10 times the population of Mongolia, has 3 times fewer higher education institutions. It clearly proves that higher education in Mongolia, Kazakhstan and Kyrgyzstan have characteristics of “mass education” while Uzbekistan retains its system of elite higher education. Second, expansion of higher education systems depend on

links to secondary education. If there is a breakdown in primary and secondary education, then the number of applications for tertiary education will fall or fail to expand. Particularly, secondary enrollments for the 15-18 age group influence higher education enrollment. The growth of the higher education sector depends on a satisfactory flow of students who complete secondary school successfully. The secondary system in turn depends on a successful primary system that is able to transfer students from primary to secondary level.

Table 8. Number of Higher Education Institutions (2000 - 2005) and Population (2007)

Countries	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	Population (2007)
Kazakhstan	170	185	177	180	181	181	15,075,000
Kyrgyzstan	45	48	46	47	49	49	5,356,869
Uzbekistan	61	61	61	61	62	62	27,345,026
Mongolia	172	178	185	183	184	180	2,612,900

Source: World Bank, 2008 and MECS Statistics, 2007.

Thus growth of higher education depends on educational policy in general (Brunner & Tillet, 2007). However, sometimes this explanation can be argued. For example in the case of Uzbekistan from 1989 to 2004, secondary enrollments were higher than in Kazakhstan, Kyrgyzstan and Mongolia (Brunner and Tillet, 2007). According to a World Bank (2007) report, this happened because it would appear that Uzbekistan made a conscious decision to make secondary and technical-vocational education rather than higher education a priority. That is why, according to the same report, there is clear expansion of vocational-technical secondary education as a proportion of general secondary education and general studies. In contrast, Kazakhstan, Kyrgyzstan and Mongolia have shown rapid higher education expansion.

3.0 CONCEPTUAL FRAMEWORK

Drawing from models of human capital theory (Becker, 1993) and socio-economic effects on college choice (McDonough, 1997), a framework is developed. The model incorporates consideration of several sets of influences on the choice of whether or not to enroll in higher education, including pressures from family and peers, prior experiences with education, attractions of income producing activities, and anticipated consequences of completing higher education, including foregone earnings. These factors are construed as complex and interacting, not linear or entirely deterministic.

3.1 HUMAN CAPITAL THEORY

Although the concept of human capital goes back to the earliest days of economics, its implications were developed much later. First, Adam Smith pointed out that education helps to increase the productive capacity of workers the same way as a purchase of new machinery (Woodhall, 1987). It was a first attempt to draw equivalence between physical and human capital. However, the concept was not developed fully by Smith. It was not until the late 1950's that Theodore Schultz in his work *Investment in Human Capital: the Role of Education and of Research* analyzed educational expenditure as a form of investment. Later, human capital theory has been enriched by others including Jacob Mincer (1958) and Gary Becker (1993).

Gary Becker (1993) is regarded as one of the leaders of the development of human capital theory. He has provided theoretical and empirical analysis of investment in people (i.e. investment in education). According to Becker, human capital theory expands on the common insight that if one is out to maximize lifetime consumption, the shortest distance between one's present situation and one's goal is not necessarily a straight line: it often pays to invest in oneself - in one's human capital – for future satisfaction. To be more specific, when such investments are judged in terms of their present discounted value one can predict tendencies to invest in job training, education and so on. In general, human capital theory postulates that expenditure on training and education is costly, and should be considered an investment since it is undertaken with a view to increase personal income by imparting useful knowledge and skills (Becker, 1993). In addition, according to Woodhall (1987) human capital has dominated the economics of education and has had a powerful influence on analysis of labor markets, wage determination, and other branches of economics, such as analysis of economic growth.

Furthermore, human capital theory is an elaboration of the commonsense notion that the function of schools is to teach students, that is, to provide them with information and skills that will be valuable in later life (Mincer, 1958). As other forms of investments, which can be direct and indirect in most of the cases born by individuals including tuition, fees, expenditure on books and equipment, and a sacrifice of current income (the goods and services that teachers and students could produce if they were not engaged in education) is accepted in order to generate monetary and non-monetary returns in the future. The human capital model may be interpreted more broadly to encompass learning that does not contribute to higher market earnings.

There are also other forms of human capital beyond formal education. Schultz (1971) highlighted five major categories of human investment to improve human capabilities: formal

education; health facilities and services; on-the-job training; formally organized education at elementary, secondary and higher levels; study programs by adults: and migration of individuals and families to adjust to changing job opportunities. How do these categories form human capital? For instance, health care and good nutrition improve people's standard of living by reducing sickness and child mortality and by increasing life expectancy, literacy and numeracy.

Human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of knowledge and skills of people. Additionally, human capital theory provides a basic justification for large public expenditure on education both in developing and developed countries. Efforts to promote investment in human capital were seen to result in rapid economic growth in society. For individuals, such investment was seen to provide returns in the form of individual economic success and achievement.

3.1.1 Returns to investment in human capital

As any other investment, the investment in human capital brings benefits and returns both to the individual and to the society as a whole. Knowledge provides a future consumption stream not reflected in market earnings (Becker, 1993). However, because monetary returns are easier to measure, most empirical studies have focused on monetary returns rather than on broader definitions of the benefits of education. The private rate of return is derived by comparing the costs actually born by the student (earnings foregone and tuition fees) with the benefits received (the increase in after-tax income) (Becker, 1993). The social rate of return takes account of both private and social costs and benefits, including the costs of publicly provided education and the increased tax payments of more highly educated individuals (Becker, 1990). Ideally estimates of the social rate of return should take account of external benefits arising when higher productivity

is not fully reflected in higher wages. As previously mentioned these external benefits represent one of the main reasons for public subsidies to education. However, because external benefits are hard to capture econometrically, the existence of a net subsidy to education implies that the measured social rate of return is lower than the measured private rate of return for any given data set (Becker, 1993).

Psacharopoulos (1973, 1981, 1995) has conducted studies to attempt to measure the private and social rates of return to education using examples from 32, 44 and 61 countries respectively. His findings indicate that incomes increase with the level of education and that the implied private and social rates of return to education are high. He also came up with four major findings about the return to investment in human capital: first, the returns of primary education are the highest among all educational levels; second, private returns are always higher than social returns; third, all rates of return to investment in education are higher than the opportunity cost of capital; and fourth, the returns to education in less developed countries are higher than corresponding returns in advanced countries.

Furthermore, according to Psacharopoulos (1995), education is strongly correlated with income, and examples from different countries around the world demonstrate that individuals profit from investments in education. In addition, returns to investments in education tend to follow the same rules as investments in physical capital: that is, they decline as investment is expanded through educational cycle over time, within countries across the countries (Psacharopoulos, 1995). Typically each additional year of education is associated with increases in earnings of 10 percent or more, sometimes up to 20 percent. The jobs that become accessible with education pay more, offer an opportunity for on the job training, raise productivity and bring faster pay increases as work experience accumulates.

There are non-monetary benefits of education as well. More educated individuals have better health knowledge and better health status, even after controlling for such variables as family income, healthier diets, behaviors and lifestyles (Psacharopoulos, 1981). Other non-monetary benefits include transmission of cultural values, more intelligent voting behavior and reduced predisposition to criminal behavior. In case of women's education, some researchers argue that investment in women's education may be profitable. Even if a woman does not work and earn money her level of education affects the education of her children (Woodhall, 1973).

Regarding social returns to investment in human capital, more recently certain research has intensified interest in human capital. First, in "new growth" theories associated with Romer (1989), Barro and Lee (2001) and Lucas (1989), human capital is the key determinant of economic growth. This concept, first developed by Denison (1962) and Schultz (1971), demonstrated that investment in human capital, particularly education, could explain a substantial growth rate in the United States and other advanced economies. Later Schultz (1989) reviewed research on the contribution of human capital to economic growth and concluded that "investigations show that specialization; specialized human capital, increasing returns and economic growth go hand in hand" (Schultz, 1989 p. 222). Most interestingly, the findings of different researchers about human capital have discovered that human capital is a superior investment and has a direct impact on economic growth in developing countries but not in developed countries.

For instance, in 1996, Baker and Holsinger in their work entitled *Human Capital Formation and School Expansion in Asia: Does a Unique Regional Model Exist?* attempted to test if economic growth in Asia is correlated to human capital formation through the expansion of formal schooling and to see if there is a distinct Asian model of state-sponsored school

expansion. The authors examined the panel data (1960 -1990) for secondary school enrollments and other indicators. As a result of their research, the authors concluded that human capital formation through school expansion is best thought of as an unevenly applied world-wide process with little importance attached to regional cultural uniqueness (Baker & Holsinger, 1996). Furthermore, the authors concluded that one of the main insights about human capital success of already developed Asian countries is the notion of closely linking secondary expansion with primary expansion. Findings from this research show that there is a correlation between investment in human capital and economic growth.

The other important component of social return on investment in education is increased productivity and technology. Schultz (1971) explained this phenomenon in the following statement: “Laborers have become capitalists not from diffusion of ownership of corporation stocks ... but from acquisition of knowledge and skill that have economic value. This knowledge and skill are in great part the product of investment and, combined with other human investment, predominantly account for the productive superiority of technically advanced countries” (Schultz, 1971, p. 28).

Furthermore, Schultz in 1989 reviewed contributions of human capital to economic growth and came up with the following findings: a) In developed countries human capital that is accumulated predominantly consists of specialized human capital; b) during the process of economic modernization the rate of increase of human capital is higher than the increase of physical capital; and c) human capital enhances the productivity of both labor and physical capital.

3.1.2 Controversies about human capital theory

Human capital theory is a complex issue that has implications at macro and micro levels, and investment into it brings benefits to both individual and society. However, human capital theory remains a controversial premise, and its critics attack the theory from various angles. Some researchers argue that the assumption of the human capital theory proclaiming that education or training raises the productivity of workers, and hence increases their lifetime earnings by acquisition of knowledge and skills, is weak and biased. They argue that higher earnings of educated workers simply reflect their superior ability rather than specific knowledge or skills obtained as a result of educational process. In addition, critics of human capital theory argue that the theory deepens segregation of social classes and social destinations because highly educated workers most likely come from higher economic class groups. In other words those who earn more than others most likely come from higher social class groups in society and work in urban areas as opposed to rural (Woodhall, 1987).

There are different names for this argument against human capital theory such as the “screening,” or “filtering,” or “certification” or “sheepskin” argument (Woodhall, 1987). The basic philosophy behind this argument suggests that education confers a certificate, diploma, or “sheepskin” to a graduate without taking into account the knowledge and skills obtained within the educational institution. Supporters of this claim argue that holders of “sheepskin” are able to obtain a well-paid job without directly affecting his or her productivity and without accessing knowledge, skills and experience of the holder. In other words they argue that education does not increase productive capacity of workers but simply acts as a “screening device” that enables employers to identify individuals with higher innate ability or personal characteristics which make them more productive (Woodhall, 1987).

Another controversy about human capital theory is related to the claim that human capital is one the strongest factors that facilitate increase of educational inflation. Supporters of this argument claim that increasing numbers of high school, college and university graduates might result in decreasing economic value of education (Spring, 1991). Some researchers support their claims by the simple model of economic supply and demand. When there is educational inflation, the educational requirements of jobs increase while skills required for jobs do not change. According to their argument, this might result in declining economic value of high school college diplomas. Education inflation first appeared in the early 1970's when the labor market was flooded with college graduates; scholars with doctorates were driving taxicabs and cooking in restaurants (Spring, 1991).

3.1.3 Implications of human capital theory to the gender situation in Mongolia

Mongolia is one of the unique countries in Asia where preference is given to girls in terms of education attainment. In other words, Mongolian families prefer to send girls rather than boys to higher education if they have to make a choice due to circumstances (e.g. limited financial resources, need for manual help, or need for extra income in the family). This is reflected in statistics from 2006: 51 percent of all school pupils were girls, and 57 percent of high school graduates and 61 percent of students in higher education in Mongolia were female (Government of Mongolia, 2007).

In 2006, the average monthly salary in Mongolia was 127000 *togrog*, which was equivalent to \$100 (Government of Mongolia, 2007). For instance, a public servant's average salary in Mongolia is less than \$1200 per year while the average tuition fee in university is \$450 per year (Government of Mongolia, 2007). Due to the exorbitant cost of tuition in comparison to

an average salary by Mongolian standards, many families cannot send all their children to higher education. As a result, girls get to study in higher education based on the philosophy that boys can always find work to do. “If girls do not study, the only thing they can do is find a job in a sewing factory” (Lin-Liu, 2005, ¶2). Looking at the statistics that describe an average Mongolian family’s budget one can see why human capital theory is relevant to gender study in higher education in Mongolia. Average salaries show that Mongolian parents have a clear understanding of the significance of investing in the higher education of their children in order to secure their future. I myself being Mongolian hear many times from Mongolian parents that since they cannot bequeath physical capital to their children they only wish that their children get educated. Most parents invest in the education of their children believing it will increase their future income. Parents understand that education provides useful knowledge and skills (Burn & Oidov, 2001) but may not necessarily comprehend they are following concepts of human capital theory.

Moreover, there is a general perception among Mongolian parents (including less educated parents) that higher education of their children is the only way to upgrade social status and to have a life with fewer struggles (Burn & Oidov, 2001). For that reason, college education seems to be some kind of door to a better life with better jobs and, most importantly for them, better income. Again, this suggests that Mongolians understand the significance of investing in human capital. Interestingly, most nomadic parents in Mongolia who have been working all their lives looking after livestock and have a strong work ethic tied to manual work desire that their children go to school, asserting strongly that schooling and higher education is children’s only chance for a secure economic future. For both parents and children in Mongolia, no matter what their social status, education is desired because it is perceived to open the doors to a better life. It

seems that Mongolian families see higher education for girls not only as a way of gaining financial and social independence but also as a way of gaining gender independence.

3.1.4 Investing in women's education

Interestingly, some researchers who have studied human capital theory in relation to gender argue that returns in investment in education for women are lower than that for men. Some suggest that “human capital” can be equated with “investment in man” (Woodhall, 1973). Schultz (1971) has observed “if one were to judge from the work that is being done, the conclusion would be that human capital is the unique property of the male population... despite all of the schooling of females and other expenditures on them they appear to be of no account in the accounting of human capital” (p. 302). Human capital has been almost exclusively applied to men; some researchers even see education of men as an investment, whereas female education is largely consumption (Woodhall, 1973). Mincer (1958) suggests that investment in on-the-job training is also a poor investment in women, and he concludes “in the view if expected smaller rate of participation in the labor market, education of women is more strongly focused on consumption sphere, and returns are in larger part non-pecuniary than for males. Hence, the apparently smaller money rate of return” (p.535). Woodhall’s research is based on the claim that women spend less time in the labor force than men and receive little or no benefit from their education in the form of increased earnings due to shorter working hours, different pay scales for women and men, concentration of women in low paying occupations and most significantly because of their marriage and child-care activities. If it is really true that the rate of return for women education is much lower than it is for men, it would appear that Mongolian parents who

tend to promote education of their daughters rather than sons waste their money which is already short.

However, while today the rate of higher education attainment is higher for females it does not apply similarly in promotion at work and access to new opportunities. This shows that the level of education attained by the female population does not necessarily correspond with demand and supply in the economic sectors. There is also disparity in wages between men and women depending on sectors of employment, jobs and positions occupied and professional profile. While this disparity is not related to the level of education, the national average salary of male employees is around \$10 per month higher than that of female employees (Government of Mongolia, 2007). Men spend 17.5 hours per week on non-economic activities, while women spend 31.8 hours per week (Government of Mongolia, 2007). This reflects the situation where women along with official paid employment are engaged in non-market activities such as child rearing, caring for the sick and elderly, cooking and household chores. This clearly reinforces the claim of some researchers about lower returns on female education in Mongolia.

Furthermore, representation of women in the national parliament is an important indicator of equal participation of women in social and political life. In Mongolia women should play an important role in the process of consolidation of democratic achievements, induction of good governance, transparency, openness, accountable and esthetical political practices and developing strong civil society. As it is illustrated in table 1, in fact in 2006, women comprised 6.6 percent (2004 parliamentary election data) of members elected to parliament, which is not only a major setback from 2000 achievements but also an indicator of lack of progress in increasing their participation in decision making. Women are represented in political leadership positions at 5.2 percent only (Government of Mongolia, 2007). The current low level of

participation in decision-making compared to the level of education and professional skills of today's women in Mongolia demonstrates insufficient value attached to their role and participation in the development. It is also clearly shows that implications of human capital theory have a great gender divide in Mongolia.

Nevertheless, some research shows that economic returns in investment in women's education is lower than that for men; there have been other studies that attempted to prove that "investment in women is as valid as that of "investment in man". Woodhall (1973) in *Investment in Women: a Reappraisal of the Concept of Human Capital* explicitly shows that economic returns in investing in women's human capital can be lower than that for men, however there are other benefits mostly associated with non monetary indirect returns. She points out that "education brings a woman indirect benefits through its influence on the educational achievement of her children, and personal satisfaction that economists group as "psychic income" (p. 25).

More recent literature shows that increasing college enrollment and completion rates for women have higher returns than for men. Buchmann and De Prete (2006) argue that wage returns comprise too narrow a basis for evaluating the real returns to higher education for men and women. They believe that total returns in a college degree have also risen for men, albeit not as rapidly as for women (Buchmann & DePrete, 2006).

For society, the education of women offers direct benefits in the form of increased productivity of working women, and increased participation in the labor force. Indirect benefits include "inter-generation" effect on children's education and subsequent occupational performance, higher standards of family health and child-care, a lower birth rate, and possibly the fostering of family attitudes conducive to economic growth. Therefore, it seems that by

educating their daughters Mongolian parents contribute to the development of human capital in Mongolia and economic growth in general.

3.1.5 Mongolian higher education and educational inflation

As mentioned previously some researchers argue that human capital theory contributes to degradation or inflation of higher education. In *The Knowledge Factory: Dismantling the Corporate University and Creating True Higher Learning* Aronowitz (2000) describes “educational inflation” and argues that American universities have given up the classical ideal of an encompassing liberal academic education for mere professional training. Furthermore, he describes this process as intellectual deterioration and educational inflation in public education. Universities have dropped the notion of nurturing “human capital” and "cultural capital" (p.118) by instilling values and beliefs for a shortsighted approach of "vocalionalization." The concept of higher education has become eroded, Aronowitz (2000) argues, because universities are turning into vocational training centers rather than places of academic excellence. Higher education has become higher training – propelled by the fact that many schools depend on graduate teaching assistants and adjunct professors to educate undergraduate students.

Based on this reading, the question rises if Mongolian higher education is facing similar issues or if the path of its development is different. As previously mentioned, since there were no existing private universities during socialist times in Mongolia, 116 institutions were established only in the last 15 years. Most of them were established based on demand driven motives. In looking at the numbers, many questions arise, one of which is who goes to those universities? As it has been mentioned earlier, higher education enrollment has faced a rapid expansion in the last 10 years and 80 percent of secondary school graduates continue to post

secondary education. In looking at the numbers above, Aronowitz's (2000) statement that "Since college level programs designed to make students cultural-capital ready are disappearing, the main function of college attendance is to delay entrance into the uncertain job market" (p.9) is true in the case of Mongolia. The reason for rapid expansion is that many graduates go to college to delay their entrance into the labor market. On the other hand, people understand that getting an education opens door for a better life. Although Aronowitz's book deals with the situation in the United States, some of his claims are relevant for Mongolia.

When there are so many students enrolling and graduating from the comparatively new postsecondary education institutions, different questions arise regarding quality of education and the learning environment, especially taking into account the population of Mongolia (2.6 million people by 2006) and the state of current economic development. For instance, where do graduates find jobs? How does the market accommodate graduates? That is why quality of education becomes a significant issue. According to the World Bank's (2007) report entitled *Building the Skills for the New Economy*, a high premium attached to higher education seems to be in part driven by demand, despite the demand for higher education implied by structure of production being low relative to the large supply of higher education graduates.

Furthermore, Aronowitz's claim that universities are becoming "vocalized" seems very applicable to the Mongolian case. Specifically, the fact that "almost 60 percent of graduates of Mongolian higher education institutions remain unemployed" (Davaa, et al., 2005, p.65) shows that higher education institutions are becoming vocational training centers rather than places of academic excellence. Yet again, Aronowitz addresses this issue by stating "the expansion of postsecondary education had a solid basis for labor market considerations" (p.25). This is not to say that all universities in Mongolia have elements of "factories" for training

people, as there are a few good research oriented comprehensive universities existing in Mongolia at the moment. Concerns are related to the explosion of small private institutions where demand and profit drives dominate educational purposes and result in increased educational inflation (Davaa, et al., 2005). According to the same World Bank report, 13 percent of college graduates work in positions where their jobs require a lower level of education than what they have. “About 9 percent of workers with higher education degrees are in non-skilled occupations” (World Bank, 2007, p. 27). There is anecdotal evidence that employers tend to hire college graduates for positions lower than their qualification because they signal the skills employers are really interested in rather than the direct value of their higher education. For example, a sales position advertised on television required a college degree and knowledge of foreign language. This suggests that Mongolian higher education is facing educational inflation by degrading the college degree and making higher education less meaningful and valuable.

In the future, Mongolian universities need to adopt new purposes and functions of higher education that would contribute to the development of universities as research institutions. Such institutions would be focused more on encouraging students to expand their intellect and become good citizens of a democratic society. These kinds of proposed changes would take time. But first there needs to be an understanding for such complex issues among educators and policy makers.

3.2 SOCIO-ECONOMIC EFFECTS ON COLLEGE CHOICE

The decision of whether or not to enroll in higher education and what college to attend are not easy for prospective students. In Mongolia, cultural norms and traditions play an important role

in the decision making process (Burn & Oidov, 2001). McDonough (1991) shows that college choice is a very complex social and organizational reality, in which families and schools mutually influence individual student outcome and higher education structure. Studies on College choice focus on the relationships between certain characteristics – environmental, institutional, and individual - and enrollment behavior (Paulsen, 1990). Studies concentrate on one or two approaches. The first is predicting enrollment patterns in regions or institutions, what Paulsen (1990) calls macro-level studies. McDonough however focuses on the micro-level study, approach where the goal is to predict both the probability of individual's going to college and what type of college he or she would attend (Paulsen, 1990). College choice studies often focus on a single variable or a small set of variables: academic ability, how much one's parents invested in their education, financial aid, socio-economic class, geographic location, gender, religion.

College choice research is scattered across three broad areas of emphasis: economic, individual and socio-economic orientations (Jacobs, 1996). According to McDonough (1997), social class and opportunity shape decisions regarding college choice decisions. Furthermore, all educational settings are not equal. Students attending more selective institutions are not only more likely to complete college, but are more likely to have more appealing opportunities following graduation (McDonough, 1991). Furthermore, a student's cultural capital affects the level and quality of college education that a student intends to acquire (McDonough, 1991).

In Mongolia, the family's decision to provide for their children's education despite economic hardship may be strongly motivated by the fact that parents themselves are educated, place a value on education and have a strong desire to transmit this inheritance to their children (Burn & Oidov, 2001). Furthermore, gender disparities in higher education are quite high as an

intrinsic value is placed on the education of girls, and social and cultural benefits of girls' schooling is emphasized by parents. Girls are perceived to be more able to assert their position in public through education (Burn & Oidov, 2001).

3.2.1 Explaining differences of opportunity structure in higher education

Differences of opportunity structure in higher education can be explained by a number of factors. Interestingly, those factors also explain to a certain extent gender differences in enrollments in higher education. As previously mentioned, there are two levels of factors influencing to college choice and gender differences in higher education: micro level factors or individual level and macro-level factors (i.e. institutional factor).

3.2.1.1 Individual level factors

There are a number of theories explaining individual level factors that influence college choice and the decision to enroll in higher education institution. For instance, theories of status attainment (Blau & Duncan, 1967) and rational choice perspectives (Hechter & Kazanowa, 1997) focus on family and individual-level explanations for postsecondary enrollment opportunities. While theory of status attainment focuses on examination of access to resources related to attending and completing college, rational choice perspectives analyze different incentives and constraints that influence one's decision to enroll or not in higher education.

Family resources and cultural capital

Literature clearly shows that parents' education level and other family related resources play an important role in one's educational attainment level (Blau & Duncan, 1967; Buchmann, et al., 2008; Jacobs, 1996). Family resources that influence an individual's decision to enroll or not to enroll in higher education vary from tangible forms to intangible ones. Among one of the more significant tangible influences on college choice/enrollment decision making is financial capital. Cost considerations of college vary greatly for rich and poor students in when and how they influence in the college choice process (McDonough, 1997). Particularly, students from lower socio-economic backgrounds, who take into account a wider range of issues than their counterparts in higher socio-economic groups, tend to place much more emphasis on financial issues. The main motivation for potential students from lower socio-economic backgrounds is a belief that higher education will bring improved job opportunities associated with increased earnings and job security (Connor, et al., 2001). Despite these expectations, there are two main reasons why people from lower socio-economic classes hesitate to enter higher education. First, they may want to start employment, earn money and be independent at an early age. In Mongolia, this is particularly true for boys from lower socio-economic class. The main motivation is to earn money to bring extra income to their families. Another reason for male students, who do not attend college or university, is because of the nomadic lifestyle and the manual labor necessary to care for livestock (Mongolian Education Alliance, 2005).

The second reason is that they worry about the cost of studying; particularly students from lower socio-economic classes feel uncertain if investment in higher education is worthwhile in the long run (Connor, et al., 2001). Concerns about costs of education are wider and more complex than simply paying tuition and fees. In many cases it is related to other

financial concerns including borrowing and future debt, working to earn income during studies, not knowing about likely costs and income sources and also about likely future financial outcomes of higher education study. On the other hand, students from the high socio-economic classes seem not to worry about financial issues when they make a decision to enroll in higher education. The study conducted by McDonough in 1991 shows that all respondents from higher socio-economic classes never considered or even thought about financial issues when they made decisions about enrolling in higher education.

Another important motivator in the decision making process is cultural capital, which could be seen as an intangible family resource. According to Bourdieu (1977), cultural capital is property that middle and upper class families transmit to their offspring, which substitutes for or supplements the transmission of economic capital as a means of maintaining class status and privilege across the generations. The upper-middle class highly values a higher education and advanced degrees as a means of ensuring continuing economic security.

Bourdieu (1977) observes that those high in cultural capital have clear strategies of how much and what kind of schooling each generation should have. Furthermore, based on findings of P. McDonough's previously mentioned study (1991), research suggests that individuals' cultural capital becomes evident in a sense of "entitlement." Students may believe they are entitled to a particular kind of college education based on their family's habitus or class status and organize their college search around a range of "acceptable" institutions. For instance, according to one example provided by McDonough, an upper middle class white youth felt that since his family had attended Harvard for the last several generations, he was "almost genetically programmed" to attend the family alma mater. Interestingly, cultural capital is a symbolic good which is most useful when it is converted into economic capital (McDonough, 1997). Although

all classes have their own forms of cultural capital, most socially and economically valued forms are those possessed by middle and upper classes.

In the most affluent families in Mongolia, gender differences seem to be minimal but males from middle and lower income families are less likely to enroll in college than their female siblings. Often males in rural areas are left behind in education because of social and economic demands in the countryside and a nomadic lifestyle. The herds were privatized after the collapse of the socialist system, which meant one family of herders could have up to 2,000 heads of livestock. Privatization of livestock brought a new division of labor with the family becoming the working unit. Nomadic parents often push boys to drop out of school to help with livestock while girls stay in school. Results from the Mongolian Dropout Study conducted in 2005 by the Mongolian Education Alliance indicate that a majority of those who leave secondary school are boys. Seventy one percent of boys who dropped out of school had to drop out to work with the herds. The report also states “the lack of means of family subsistence had a more direct effect on boys than girls.” (Mongolian Education Alliance, 2005, p.66). According to the same report, parents consider the boys a “working force” to help the family, especially because the kind of work they do such as looking after cattle and livestock, carrying baggage for fee, selling goods, gold panning and land digging in order to earn more money. Girls, on the other hand, if they are engaged in working and earning money sell homemade food like steamed and fried dumplings (buuz and khoshur, Mongolian traditional food) on markets and engage in small retailing. Girls are also regarded as more sensitive to any kind of pressure and violence and it is better for them to stay in school. Thus, education is a kind of support mechanism and protection for girls (Mongolian Education Alliance, 2005).

The decision to provide for children's education despite economic hardship may be strongly motivated by the fact that parents are themselves educated, place a value on education and have strong desire to transmit this inheritance to their children. Mongolians put very high value on education because in most cases parents, who support financially their children during their studies in higher education institutions, have financial hardship themselves. The reason can be explained by the current economic conditions affecting education in the country.

While the legal foundation for the transition to a market economy has generally been successful, a major concern continues to be the relatively high incidence of poverty in both urban (30 percent) and rural (43 percent) areas. Poverty is lowest (around 27 percent) in Ulaanbaatar and the larger cities, where half of the population resides, and the highest (51 percent) in the western region. (Weidman, et al, 2007, p.247)

In comparing numbers on poverty and college-aged students attending higher education institutions (80 percent of high school graduates enroll in higher education), it is clear that some of the parents really struggle to send their children to study in universities. Parents are, in most cases, the sole financial supporters for students. In fact, in most cases parents' incomes are much lower than tuition and living expenses required by their children who are students in higher education.

Academic performance as a screening device

For most students academic achievement remains an important determinant of whether and where one goes to college (Buchmann, et al., 2008; McDonough, 1997; McDonough, 1991). The decision to enroll in higher education is related to individual aspirations and motives and institutional admissions because the opportunity structure of higher education system in many countries nowadays is fair, open and meritocratic. However, society's opportunity structure does not work equally well for all (McDonough, 1997). In the United States most students use their

SAT score as a screening device to apply to colleges where they are likely to be accepted and where other student's SAT scores are not significantly different from their own (McDonough, 1997).

In the case of Mongolia, since establishment of the first university in 1942, there has been an entrance exam system, which was basically a screening device. During and after the collapse of the socialist system Mongolia similar to all socialist countries had entrance exams for higher education. In 2006, the MECS introduced standardized tests for secondary school graduates entering higher education institutions. This is similar test to the SAT in the United States, and scores from the newly introduced standardized tests are used as the main screening device.

There is an interesting phenomenon taking place in Mongolia related to the fact that students with higher scores from standardized tests usually choose "prestigious" fields such as economics, business administration, law and humanities in "prestigious" top public universities. Students with lower scores are usually left with no choice and therefore enroll in newly established, demand driven private higher education institutions. In the United States, on the other hand McDonough (1997) asserts that minority and poor students are less likely to start and finish college and of those who do not attend they are more likely to attend low prestige institutions or colleges with high drop-out rates. In the United States among the highest achieving students were 60 percent of the lowest socio-economic class students attended college, while 86 percent of the highest socio-economic class students did (Hearn, 1991). Her research also suggests that in the United States there is increased stratification within higher education sectors, which means "there are silent distinctions between two and four-year colleges, selective and nonselective universities, and private and public institutions, which are important sources of

inequality in adult life: where one attends college influences one's eventual educational attainment" (McDonough, 1991, p. 5).

Most interestingly, differences in higher education opportunity structure stem from the fact that girls perform better in school, spend more time on homework and avoid disciplinary problems (McDonough, 1991). Generally, the gender differences in academic performance and behaviors during school years are related to the female advantage in college enrollment and competition (Buchmann, et al., 2008). Most probably female students' higher aspirations to attend higher education are closely related to the fact that female students have an advantage in academic performance stemming from the fact that they spend more time on studying and avoid problems at school.

In Mongolia, with the transition from a centrally planned to a market economy in the last 15 years many families struggled with a shortage of salaries. Parents were occupied with their own problems and paid less attention to the academic performance of their children. Some education experts emphasize that the school system itself encourages young people, especially male students, to leave before they reach university. Women's dominance in education simply reflects their success all the way through the three major sets of exams at secondary schools, in the fifth, eighth, and tenth grades. Since there are not enough schools--especially in the countryside--to allow everyone to enter the ninth grade, students must pass exams in the eighth grade. As a result of underachievement in secondary school boys do not get high enough scores on entrance exams to enter higher education institutions. It seems that the opportunity structure to higher education is not constructed equally because of the school system that is in place in Mongolia at the moment.

Some Mongolian researchers from the Mongolian Education Alliance believe that “sifting out” students in the eighth grade is wrong. They argue that boys are usually more mobile and active in their young ages and therefore they tend not to show the best results at school during their teenage years. Furthermore, they claim that boys usually become more responsible in the final grades of secondary school. Consequently, it seems inappropriate to test them at the eighth grade if they drop out of school at the eighth grade. The more diligent ones stay, and as a rule, they are girls.

Another possible explanation for differences in higher education opportunity structure is lack of role models in schools. In other words, socialization arguments emphasize the importance of role models and posit that children model their parents and teachers as they form their own educational and occupational aspirations (Buchamann et al., 2008). In Mongolia, 75 percent of the teachers are women (MECS, 2008). There are critiques that the education system itself with mostly female teachers does not motivate male students to study hard.

There is also evidence that girls were better able to cope with the post communist transition (Hanks, 2005). Boys are especially vulnerable to getting attracted to, becoming involved with and finally influenced by bad companions. That is why, once influenced by bad companions and becoming addicted to drinking, for example some Mongolian men unconsciously choose other paths rather than higher education. Alcohol dependence rates in Mongolia are very high and alcoholism is becoming quite common, especially in rural areas (Ministry of Health of Mongolia (MOH)/World Health Organization (WHO), 2006). A 2006 WHO sponsored alcohol use survey found that 22 percent of men and 5 percent of women were dependent on alcohol. Mean alcohol consumption among men was three times higher than for women (MOH/WHO, 2006).

3.2.1.2 Institutional factors

Besides micro-factors that influence enrollment in higher education institutions such as financial resources, social capital and student achievement, there are macro-level or institutional level factors that also shape patterns of college access and success, for example socio-economic environment (Buchmann, 2008). In Mongolia, the economy and society have been transitioning to a democracy and market economy since the collapse of socialist regime in the beginning of the nineties, so the opportunity structure for students to enroll in higher education has been also shifting. Socio-cultural changes in gender roles and expectations about life course trajectories for men and women, changes in labor market, declining discrimination against women and changes in occupational sex segregation, changes in institutions of higher education, rising costs of higher education and other changes have been taking place all around the world no matter the development level of a country. Particularly, the socio-economic reasons underlying the various factors in the college choice process become clearer (Connor, 2001; McDonough, 1991).

In the case of Mongolia, the main motivating factor, which encourages potential students from lower social class backgrounds to enter higher education, is a belief that higher education will bring improved job and career prospectus, earnings and job security (Burn & Oidov, 2001). Individuals for whom benefits exceed costs, including opportunity costs, should be most likely to attain a college degree.

Socio-economic environment

A wide range of employment opportunities have become available for boys in the country in conjunction with the shift from a centrally planned economy to a market economy. Boys continuously fall victim to the socio-economic transformation in both the rural and urban areas (Mongolian Education Alliance, 2005). Particularly in rural areas, as farm lands and rural

economy move towards growth and reform, families find it more economically rewarding to keep boys in farming rather than sending them to school (UNICEF, 2004). In other words, when families experience economic difficulty they tend to rely on sons as possible sources of extra income. This is possible, especially with the eldest son who feels he is responsible for the well-being of younger siblings and the family as a whole (Burn & Oidov, 2001). That is why boys tend to choose a path of earning money rather than “spending their parents’ money on higher education; in most cases the above statement is true for families from lower social-economic backgrounds because they are mostly struggle with financial issues. Therefore, sons of those families want to start working to earn money and be independent at an early age and not to burden their parents with worries about the cost of studying.

In urban areas in Mongolia, as the economy transitioned and the service economy grew, it has been possible for males to get relatively high paying jobs that do not require higher education in the rapidly expanding market economy. Mongolia’s development during the 1990s witnessed a sharp contraction in manufacturing production. This has resulted in large numbers of redundant workers in the formal sector. Women and men who were formerly secure in government enterprise and public service have become unemployed and underemployed, and other opportunities are largely limited to livestock herding and the informal sector. Boys become engaged in earning money right after graduation from secondary school or even by dropping out of school (Mongolian Education Alliance, 2005). Many Mongolian families to some extent become involved in different types of business activities, particularly shuttle trading activities. In other words, people have started to buy and resell different types of goods within the country or even from Russia and China. Trade activities vary and include buying raw livestock materials including wool, cashmere, rawhide, skin and others in rural areas from nomadic people then

reselling them in Ulaanbaatar, the capital city. Other people buy inexpensive items such as food, cloth, furniture, construction materials and other things from Erlan, a Chinese bordering town located in the border between China and Mongolia, and sell it in Mongolia in order to make profit on the difference of price. There are also different types of vending in the streets that work on a similar principle of making money. According to economists, these activities compose different forms of informal sector activity and it is clear that the informal sector is playing an important role in the transition economy (Morris, 2002).

As one can assume, trade also involves a lot of manual work. Siblings team up to do trade and travel together. According to the United Nations Development Program's Sub-Sector Review of Microfinance, 30 percent of Mongolia's Gross Domestic Product (hereafter GDP) is attributable to the informal sector, with 30 percent of the employed population's primary income derived from the informal sector (UNDP, 2005). This clearly shows that the informal sector plays an important role in Mongolia's economy.

One of the important reasons why Mongolian men do not enroll in higher education is related to availability of high paying employment opportunities existing for men in the Republic of Korea which is estimated to have a Mongolian population of 30,000 people (Tsogtsaikhan, 2008). Considering that the population of Mongolia is 2,600,000, at least one out of every 100 Mongolians is working in the Republic of Korea. The government of South Korea estimates that one out of every two urban households in Mongolia has a family member working in South Korea. Furthermore, there is still a large number of Mongolians seeking to go to South Korea for work. The main purpose of people working in Korea is to make money for their families and their country. Approximately 9,500 Mongolian nationals living there are illegal (Tsogtsaikhan, 2008). Illegal Mongolian migrants in the Republic of Korea mostly do the most difficult,

dangerous, and dirty works of “3Ds” in small and medium scale factories (Tsogtsaikhan, 2008). Since the work that is available there is related to heavy industry, which requires manual labor, Koreans want recruited workers to be men, particularly young men, who can do heavy work (Tsogtsaikhan, 2008).

Furthermore, many other Mongolians immigrate to other countries including Germany, the United States, Japan, Hungary, the Czech Republic, the United Kingdom and others to look for better financial opportunities in life. There are estimates that around 130,000 Mongolians live abroad (Tsogtsaikhan, 2008). At this rate, Mongolia will turn into a country heavily reliant on remittance. According to the World Bank, in 2006 inward remittance to Mongolia that is officially recorded of USD182 million made up 7 percent of the total GDP (World Bank, 2008). The true size of remittances, including unrecorded flow through formal and informal channels, is believed to be larger.

Changes in gender role attitudes

There have been major changes in gender role attitudes in recent decades, particularly favoring women globally, because many people do not support traditional gender roles anymore. Evidence of this phenomenon can be found in every aspect of human life beginning from child caring to voting behavior. Particularly, the growing enrollment of young women in college shows clearly the changing gender role attitudes. According to UNESCO, the percentage of women in higher education rose from 46 percent in 1990 to 47 percent in 1997 at the world level. There are now more undergraduate women than men in higher education (UNESCO, 2008).

The reversal of the gender gap in educational expectations from one favoring males to one favoring females is taking place in many countries in the world at the present (Buchmann, et al., 2008). In the case of Mongolia, young women are more likely to enroll in higher education

institutions than are their male counterparts. Increasing enrollments of women in higher education are related to the fact that expectations of young women about future employment and success are strongly correlated to higher education qualification. In other words, no matter what socio-economic class they come from most Mongolian women desire to enroll in higher education institutions to improve the quality of their lives (Lin-Liu, 2005). It is in a way a contradicting phenomenon in Mongolia because in all spheres of life, including politics and certainly business, males predominate in leadership positions. Some argue that this phenomenon impacts social issues such as women starting professional labor force and having families late. Young women's rising expectations for future employment encouraged them to attend and complete higher education institutions, but it increased the median age of first marriage for young women (Buchmann, et al., 2008).

Changes in the labor market

Between the 1970s and 1990s, the gender wage gap has declined and women with higher levels of education earned higher wages (Buchmann, et al., 2008). Furthermore, between this time period occupational sex segregation also fell. More women entered prestigious and often better-paid positions in occupational sectors such as law, business and sciences. All these changes in the labor market influenced to the decision of women to enroll in higher education, which brought enormous rates of college enrollment among women in the 1980s. Although women started to attend and graduate from higher education institutions in greater numbers, it is still difficult for women in Mongolia to get over sex segregation in the labor market. While today the rate of higher education attainment is higher for females it does not apply similarly in promotion at work and access to new opportunities. This reflects that the professional educational structure attained by the female population does not necessarily correspond with supply and demand in the

economic sectors. There is also disparity in wages between men and women depending on sectors of employment, jobs and positions occupied and professional profile. While this disparity is not related to the level of education, the national average wage of male employees is around \$10 per month higher than that for female employees (Government of Mongolia, 2007). Men spend 17.5 hours per week on non-economic activities, while women spend 31.8 hours per week (Government of Mongolia, 2007). This reflects the situation where women, along with official paid employment, are engaged in non-market activities such as child rearing caring for sick and elderly, cooking and household chores than men to a decision making level.

Changes in higher education: rising costs

Higher education has experienced the most rapid enrollment expansion of any level of education in the world. In Mongolia, this has been happening over the past 15 years. While enrollment in private higher education institutions has more than doubled over the past four years in Mongolia, there have also been large enrollment increases in public sector institutions (Davaa, et al., 2005). The major changes in higher education except growing expansion in enrollments include rising cost of tuition, declining levels of grant based financial aid, and increasing student loans (Alon, 2007). These changes in higher education lead to differences in the opportunity structure of higher education. As it has been explained explicitly in the previous subsector about influence financial resources has on college enrollment decisions, for students from lower socio-economic classes one of the major factors is financial aid. Decreasing financial aid and increasing loans in higher education has a direct impact on access to higher education for students from lower socio economic classes.

Since the Mongolian government controls and maintains tuition of public and private universities, they are comparatively low. The current tuition at state universities and colleges

varies due to cost and program variety. Programs in high demand are more expensive than the programs with lower demand. The tuition for medicine and pharmacy is the highest because of the length of study (5-6 years) and associated costs. The average annual tuition is \$300 at Mongolian state universities and colleges. Around 25 percent of students obtain “tuition fee” loans or grants from the government. Annual non-tuition costs (food, accommodation and other personal expenses) are \$532 for students living with parents, \$892 for students living in dormitories and \$1972 for students renting a private apartment (Gantsog & Altantsetseg, 2003). Therefore, as it can be seen clearly from the numbers above, tuition and living expenses for Mongolian students are not as high as other countries’ fees and expenses. However, compared to the average salary, which equals around \$100 per month, college related expenses are high. This might also influence differences in opportunity structure of higher education.

4.0 RESEARCH DESIGN

This study investigates reasons of lower participation of male students than their female counterparts in higher education in Mongolia. In order to achieve this aim, this dissertation follows a qualitative research design. Qualitative research is particularly effective in allowing for improved understanding of particular events, roles, interactions, or social situations (Creswell, 2003), making it appropriate for investigating a new and changing socio-economic environment in Mongolia, which has led to the current gender imbalance in higher education.

Grounded theory was selected as the research method used in this study. It is a qualitative method that has regularly been employed in educational and social research (Glaser & Strauss, 1967), and presents a single, unified, systematic method of analysis. Grounded Theory is a general methodology for developing theory that is grounded in data systematically gathered and analyzed (Strauss & Strauss, 1967). Theory develops and evolves during the research process due to the interplay between data collection and analysis.

Theory emerges from the systematic examination of the phenomenon (Glaser & Strauss, 1967) resulting in a set of intercorrelated relationships proposed among concepts and sets of concepts. This differs from other ethnographical methods where often the information is presented with little comment or interpretation from the researcher. The approach used in the present research departs from traditional grounded theory methodology in that the collection is organized around a conceptual framework so interpretation is based not only on themes

emerging from the data but also their fit with study's general framework.

This study utilizes a three-phase qualitative research method. During summer 2007 (phase one), fall 2008 (phase two) and fall 2009 (phase three), qualitative studies were conducted to explore reasons for the lower participation of males than females and to understand why gender imbalance persists in Mongolian higher education. During phases one, two and three (see list of respondents as appendix A), open-ended interviews were conducted with 46 respondents, 31 Mongolian university students, 4 college-aged out of university respondents, 2 representatives of local non-government organizations (hereafter NGO), 4 people from different international originations, 2 university professors, 1 university administrator, 1 education policy maker and 1 schoolteacher. Interview questions covered reasons for higher education enrollment, including personal motivation and family influence as well as socio-economic factors. Structured around seven open-ended questions, the 60-to-90-minute interviews explored in greater depth the experience of academic and private life of respondents in relation to gender equity and access to higher education.

Upon completion of the individual interviews, all data have been transcribed into soft and hard copy. After reading through all transcripts across gender, "coding categories," labels through which data could be chunked and analyzed, were established. These empirically developed coding categories were added to theoretically driven codes and included "preference given girls culturally," "family influence," "employment opportunities for boys" and so on. These categories stem from the data themselves as filtered, of course, through the researcher's lens, but the data have to "speak" to a category before one is established. The coding categories themselves (and embedded data) are constituted of but not necessarily identical to, the themes, which are embedded in writing. Coding categories are numerous, and serve as a way of breaking

down the data so they can be looked at systematically and considered (Hatch, 2002). Once data were examined in this way (it is not possible to come to conclusions based on many pages of field notes or interview transcripts without coding), categories were recombined in order to produce the written research product.

4.1 DATA COLLECTION

4.1.1 Sample selection

For this study, purposeful sampling, which is the dominant strategy in qualitative research, was used as a sampling strategy. Purposeful sampling seeks information-rich cases, which can be studied in depth (Patton, 1990). Patton identifies and describes 16 types of purposeful sampling, one of which is snowball or chain sampling. Chain sampling, which was used to choose interviewees for this study, is a technique for developing a research sample where existing study subjects recruit future subjects from among their acquaintances. Furthermore, chain sampling involves utilizing well-informed people to identify critical cases or informants who have a great deal of information about the phenomenon studied.

The intention of the sample selection for all three phases of this study is to cover all stakeholders including students, professors, parents, policy makers, representatives from local NGOs and international organizations and college-age out of university young people by involving as many people as possible who would have knowledge and experience about the gender situation in higher education.

For the first phase of data collection in summer 2007, university student respondents who have male siblings of university age or older who did not enroll in higher education have been identified in order to gain information about reasons for the siblings' non-attendance. After interviewing 34 respondents during phase one, respondents started to repeat the same ideas adding no new information. For second and third phases of data selection in summer 2008 and 2009, interviewees were chosen to have more information about certain issue brought up by previous informants as a reason for lower participation of males than their female in Mongolian higher education. In other words, I followed the chain of contacts in order to identify and accumulate information about critical issues. Gender balance and representation from most regions of the country have been sought in the selection of respondents (see appendix A).

This approach has the advantage of a) reducing the need for in-country travel by conducting the research in Ulaanbaatar where virtually all of the country's universities are located, b) providing access to respondents from across the vast nation, c) being able to collect data on both college attenders and non-attenders in the same family and d) hearing opinions of other stakeholders about the current situation on gender equity in higher education.

4.1.2 Instruments for data collection

Data has been collected through interviews, direct observation, and review of institutional and policy documents. As mentioned previously, 46 face-to-face interviews have been conducted. The number of interviews has been determined by the sampling procedures. The researcher recorded all interviews in a digital audio format and kept field notes. All interviews of research have been conducted in Mongolian and translated into English, transcribed and analyzed by

systematic textual analysis, developing conceptual tree based on the conceptual framework developed for this study.

A semi-structured interview protocol which leaves room for follow-up questions used so that data collection can follow the line of inquiry established by theory while leaving room for emergent themes (Denzin & Lincoln, 2003). The following questions have been asked from each interviewee as general questions and there were some more in depth questions that were different from person to person.

1. Background Questions [Interviewer: note gender of respondent]
 - a. What year are you in your undergraduate program?
 - b. What is your age?
 - c. What is your home *aimag* (province)?
 - d. What are the occupations of your parents?
2. Why do you think higher education is important for you?
3. What do you find attractive about higher education?
4. Who is in your family influenced your decision to enroll higher education?
5. When and how did you start thinking about your plans concerning higher education?
6. Please tell me in more details about the circumstances in your life when you made decision to go or not to go to university/ college.
7. For what reasons did you decide to enroll in higher education? (e.g., family pressure, personal motivation, influence of peers, teachers, etc.)
8. Do you have any siblings between the ages of 18 and 24? If so, for each of them, could you tell me about their experience with higher education? (i.e., age, gender, enrollment status, reasons for enrollment/non-enrollment, etc.)
9. Would you tell me about the reasons why you think your siblings (if you have them) have/ have not enrolled in higher education?

10. What do you think about the current gender situation in higher education in Mongolia?
11. Do you think it is possible for males to find good jobs without university/college degree?
12. Among males what is the general attitude towards education in your opinion?
13. Why do you think males are choosing not to attend higher education in much greater numbers than young women?

An IRB protocol for the research was submitted and was reviewed. A cover letter (see appendix C) explaining the purpose of the study, its potential usefulness, and statement of confidentiality have been distributed among interviewees. Systematic qualitative approaches to data collection requiring small numbers of cases used for the research (Denzin & Lincoln, 2003).

4.2 DATA ANALYSIS

The qualitative technique of inductive data analysis (i.e., identifying categories, patterns of response, and the drawing of connections between units of data) was used to analyze the data. According to Hatch (2002), “Inductive thinking proceeds from specific to the general. Understandings are generated by starting with specific elements and finding connections among them” (p. 161).

The inductive model for qualitative data analysis has been developed especially for this study (see figure 4), which has a direction of moving from specific to general. This model was developed by combining different elements and techniques of different models previously used by various researchers in qualitative analysis and based on Grounded theory (Glaser & Strauss, 1967). The Grounded theory is a complex iterative process and its systematic nature of the method is useful in judging, generalizing and comparing the results.

The purpose of further description for this model is to show how the interview data collected for this study have been approached and analyzed to identify social, cultural, economic and institutional factors explaining gender equity in access to higher education in Mongolia.

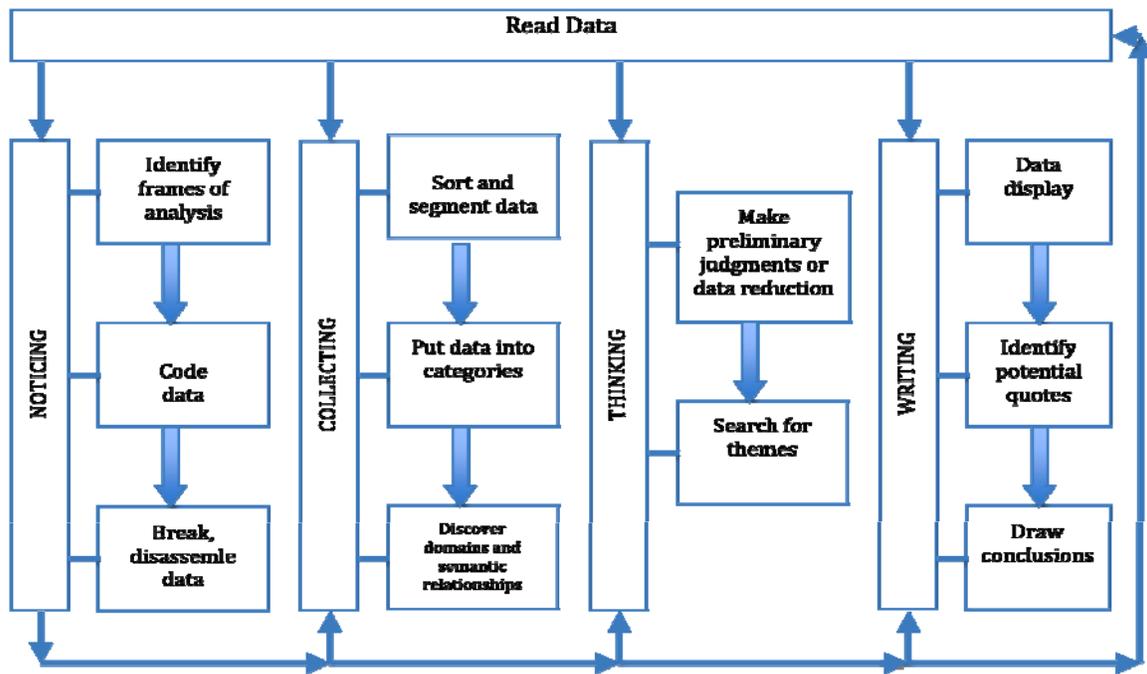


Figure 4. Inductive Model for Qualitative Data Analysis

According to the model, the qualitative data analyzing process has four major phases: noticing, collecting, thinking (Seidel, 1998) and writing. Each phase consists of two to four sub processes, which need to be followed in subsequent order as it is shown in figure 4. Before each phase starts, all transcripts need to be read thoroughly in order to have a solid sense of what is included in the data set, what was used so far and what was ignored and left redundant. Each reading brings new insights to the research. Therefore data should be read before analyzing the each phase.

4.2.1 Noticing phase

At the beginning of the first phase, all transcripts were read carefully so I could become familiar with dimensions of the data set and start making decisions about how I would disassemble the data into analyzable parts. This process means that all the data have been examined interview-by-interview, line-by-line, and word-by-word. Hatch (2002) called these analyzable parts “frames of analysis,” the importance of which is to find a starting point in the data analyzing process. Interestingly, as data analysis continues, the frames shift and change.

The next process in phase one is coding, i.e. putting labels through which data could be chunked and analyzed. There are many different approaches to coding. However, an objectivist approach, the approach used for this study treats codes as “condensed representation of facts described in the data” (Seidel, 1998, p.14).. Essentially, coding procedure facilitates the process of identifying and naming interesting facts in the data set. Additionally, codes serve to summarize, synthesize, and sort many observations made of the data; as a result the coding process becomes fundamental means of developing the analysis. “ Researchers use codes to pull together and categorize a series of otherwise discrete events, statements, and observations which they identify in the data” (Seidel, 1998, p.4). As soon as data is coded the process of breaking up, separating or disassembling research materials into manageable pieces, parts, elements or units starts.

4.2.2 Collecting phase

The next step is bringing order to the data, which means reassembling the data set based on a coding scheme. Some researchers call this process “ sorting and sifting” the data (Seidel & Kelle,

1995). This makes it easier to closely examine, compare and contrast facts and patterns that researcher notices in the data. According to Jorgenson (1989), “ the researcher sorts and sifts data, searching for types, classes, sequences, processes, patterns or wholes. The aim of this process is to assemble or reconstruct data into a meaningful or comprehensive fashion” (p. 4). Sometimes not always based on this process I made some changes in my coding scheme, which facilitated in the thinking and making discoveries.

The next process in the collecting phase of qualitative data analysis is to put the data into coding categories, which stem from raw data. This stage involves conceptual ordering, which is the organization of data into discrete categories according to their properties and dimensions and then using description to elucidate those categories. The use of categories allows for the exploration of the data and a comparison of similarities and differences. This construction of categories leads to a refocus of analysis.

As sets of categories become established they are able to be more precisely defined, which leads to the next process in the analysis – discovering domains of analysis. The purpose of this process is to develop a set of categories of meanings or domains that reflects relationships represented in the data. This process is different from the previous one because domains have been established by combining some categories together so I was able to able explain those facts or categories based on the relationships existing. According to Hatch (2002), “ Domains can be categories that are understood by large numbers of people with common cultural understandings, or they can be categories that are developed within smaller groups with specialized interests and needs” (p. 165). Therefore, domains are categories that are organized around relationships that can be expressed semantically; in other words domains are established that show relations between concepts, senses or meanings (Spradley, 1979). Different researchers used different

terms for this process. For example Spradley (1979) uses domain analysis as the first analytic step in his “Developmental Research Sequence.” The basic idea behind this process is to describe a social situation and cultural patterns, emphasize the meanings of a social situation, and interrelate the social situation and cultural meanings (Spradley, 1979). Domains are numerous, and serve to break down the data so they can be looked at systematically and analyzed (Hatch, 2002).

4.2.3 Thinking phase

The third thinking phase starts, as do the other phases, with rereading the data set carefully. The first activity is making preliminary judgments or making decisions about which domains are important to the study which are not. This process has been called by Miles and Huberman (1994) as a “data reduction” process. According to them, the major challenge in practical qualitative research is data reduction because everything looks important, especially at the outset, and the analyst wants to get it all. Ultimately, however, hundreds of pages of interviews and observations must be reduced to a short report. Therefore “data reduction refers to the process of selecting, focusing, simplifying, abstracting and transforming the data that appears in written up field notes and transcriptions” (Miles & Huberman, 1994, p. 10). The purpose of this process is to narrow the focus of analysis by studying domains and deciding which domains are most relevant to a particular study. Data reduction often forces choices about which aspects of the assembled data should be emphasized, minimized, or set aside completely.

The next activity in the thinking phase is identifying appropriate themes. This process is one of the most important tasks in the qualitative analysis process. Themes should be developed after careful examination of each domain and the connections between them. The goal of this

activity is to look across a broad spectrum of the data and bring pieces together to explain the phenomenon under study. A basic question to ask of the data in order to come up with a theme is “What does all this mean?” According to Spradley (1979), in order to look for themes we should look for relationships among relationships in addition to similarities and differences. Essentially, “themes should emerge that provide a basic framework for understanding the social setting being studied and for writing up your description and analysis of that setting” (Hatch, 2002, p. 176.)

4.2.4 Writing phase

The final phase is the process of writing, and this starts from displaying data. Data display is the most important element in the writing stage of qualitative analysis and the one of the elements of Miles and Huberman's (1994) model of qualitative data analysis. Data display goes a step beyond data reduction to provide an extended piece of text or a diagram, chart, or matrix that provides a new way of arranging and thinking about the more textually embedded data. Data displays, whether in word or diagrammatic form, allow the analyst to extrapolate from the data enough to begin to discern systematic patterns and interrelationships. At the display stage, additional, higher order categories or themes may emerge from the data that go beyond those first discovered during the initial process of data reduction (Miles & Huberman, 1994).

Hatch (2002) on the other hand refers to the data displays as a master outline expressing relationships within and among domains that it should logically follow what the researcher has done so far. A master outline is “ a comprehensive representation of how the overall analysis fits together” (p. 176). Others, for example, Novak and Gowin (1984) called data displays a concept map which “is a schematic device for representing a set of concept meanings embedded in a framework of propositions” (p.15). Generally, data display can be used to frame a research

project, reduce qualitative data, analyze themes and interconnections in a study, and present findings. For this study, the tree of causes and effects (see figure 5) was developed, based on which the findings of this study are explained.

Once the data display has been developed, the next activity is identifying potential quotes to support the findings displayed in the data display through rereading data for the last time. The basic purpose of rereading is to search for examples that can be used in the narrative of findings to support the claims and arguments. According to Hatch "identifying potential quotes in the data is important to getting ready to write, but it is also a good final check to see if sufficient data is evident to give you confidence in making your final report" (p. 178).

Drawing conclusions is the last activity in qualitative analysis. Drawing conclusions involves stepping back to consider what the analyzed data mean and to assess their implications for the questions at hand. Verification, integrally linked to conclusion drawing, entails revisiting the data as many times as necessary to cross-check or verify emergent conclusions. "The meanings emerging from the data have to be tested for their plausibility, their sturdiness, their 'conformability' - that is, their validity" (Miles & Huberman, 1994, p. 11). Validity means something different in qualitative evaluation than in quantitative evaluation, the latter of which is a technical term that refers quite specifically to whether a given construct measures what it purports to measure. Here validity encompasses a much broader concern for whether the conclusions being drawn from the data are credible, defensible, warranted, and able to withstand alternative explanations.

4.3 LIMITATIONS AND STRENGTHS OF THE STUDY

Several limitations of the study need to be highlighted. In qualitative research, the researcher becomes the instrument for data collection. Therefore, it is important to consider “who the researcher is and what values, assumptions, beliefs, or biases he or she brings to the study” (Mertens, 2005, p.247). Because the author formerly worked as a lecturer and administrator at the NUM, working relationships with several interview participants were established. Familiarity with these individuals and some of the issues of higher education and the NUM may have yielded a greater understanding of gender imbalance in higher education. However, the use of multiple data sources and triangulation of data served to assure that data analysis is thorough and reliable.

The fact that the interviews were originally conducted in Mongolian and then translated into English may have led to occasions of “idea drifts” due to the difficulty inherent in translating particular words and sayings. Another limitation of this study relates to the fact that the interviews were conducted in three phases, starting in summer 2007. The second phase of this study was conducted in fall 2008, and the last phase in summer 2009. Therefore, some information provided by interviewees, particularly from interviews conducted three years ago, might not accurately reflect the changes occurring in society and the education system at present.

There are a number of strengths to this study that need to be highlighted. First, this dissertation is one of the pioneer studies conducted about the reverse gender gap in Mongolian higher education and fills a gap in the literature on this issue. Because feminization of higher education is a complex phenomenon, the triangulation of different sources of information was essential, which adds strengths to this study. The use of interviews as a crucial source of data situates this study as an original place within the literature that investigates gender equity in

access to higher education in Mongolia. Lastly, data analysis was performed manually without the use of software following the inductive model for qualitative analysis, which the author developed especially for this study.

5.0 FINDINGS OF THE STUDY

This chapter presents the findings of the study in four sections, which represent themes that stem out of analysis of the data. All sections/themes present findings of interviews conducted over three phases of the study with 46 respondents. The research questions, which guided this study, are explored through four subsections and themes. At the end of the chapter, there is the table 12 with a summary of the findings and its implications for each research question. The participants' responses are reported in accordance with this study's research questions of study:

Research question #1:

What are the cultural and societal norms that affect gender equity and access to higher education in Mongolia?

Research question #2:

What kind of economic factors influence college choice in Mongolia?

Research question #3:

What are the institutional factors for the lower participation of males than females in Mongolian higher education?

The findings are focused on overall themes and domains, which are constructed from both the conceptual framework described in chapter 4 and the constructs that emerged from data sources, in other words direct citations from interviews. A review of relevant literature is integrated throughout the discussion.

5.1 PRESENTATION OF FINDINGS

The findings of this study are illustrated in the form of what I refer to as tree of causes and effects (see figure 5). Further this tree is divided into four branches (see figures 6,7,8 and 9) that represent four themes. These four themes are explained in descriptive form in the following subsections of this chapter. The findings are presented in the following arrangement according to the conceptual framework outlined in table 9. As it can be seen from the table below, findings are presented as themes that have been emerged from an analysis of the data. Using the qualitative technique of inductive data analysis (i.e., identifying categories, patterns of response, and the drawing of connections between units of data), the information has been divided into meaningful segments for description and interpretation (Hatch, 2002).

While a number of themes emerged from this study, four themes have been identified as more relevant to questions of why gender imbalance persists in Mongolian higher education, and they are described based on branch of the tree of causes and effects. Descriptions are enriched by a sampling of interviewee comments and coupled with review of other relevant documents. In the beginning of each section describing a particular theme, brief background information specific to Mongolian context will be provided.

It should be noted that factors described in subsections are divided into themes and subthemes based on my personal judgment and conceptual framework. Themes and subthemes can overlap. For example one particular factor can be explained/described as a social factor in addition to as an economic or cultural factor. As a researcher, it is my opinion that this happens because the issue of gender imbalance in Mongolian higher education is a complex cultural-socio-economic-institutional phenomenon that reflects everything that happens in the country.

Therefore, diagnosis of the problem can be multifaceted and depends on the approach that has been used to identify the causes and effects.

Table 9. Presentation of Findings

Research Question	Chapter #	Chapter Title/Theme	Conceptual Framework Used
#1	5.3 5.3.2 5.3.3 5.4 5.4.2 5.4.3	Cultural Factors Value of education Nomadic Traditions Social Factors Urban and rural divide Gender equity policy during socialism	<ul style="list-style-type: none"> • Human capital theory • Socio-economic effects of college choice
#2	5.5 5.5.2 5.5.3	Economic Factors Transition to market economy Employment opportunities for males	<ul style="list-style-type: none"> • Human capital theory • Socio-economic effects of college choice
#3	5.6 5.6.2 5.6.3	Institutional factors Education system Higher education system	<ul style="list-style-type: none"> • Human capital theory • Socio- economic effects of college choice

5.2 TREE OF CAUSES AND EFFECTS: REVERSE GENDER GAP IN MONGOLIAN HIGHER EDUCATION

Based on the findings, a tree showing causes and effects of why gender inequity persists in higher education in Mongolia was drawn (see figure 5). The tree exhibits factors influencing the current gender situation and their inter correlation. As it can be seen from this tree, there are four major sets of factors that describe reasons for lower participation of male students than female students in Mongolian Higher Education. These four sets of factors are themes that emerged from a qualitative data analysis and are outlined as follows:

- Cultural factors
- Social factors
- Economic factors
- Institutional factors

Reverse gender gap in higher education is happening not because Mongolian mothers give birth to fewer boys than girls. In fact, in every age category in Mongolia, men are equally represented. There are some regional differences, but the real factors seem to be a mix of cultural, social, economic, and institutional influences. The roots of this phenomenon start in the 1990s: a period of transition, economic hardship, and reform. Each set of factors will be described in detail in subsequent chapters.

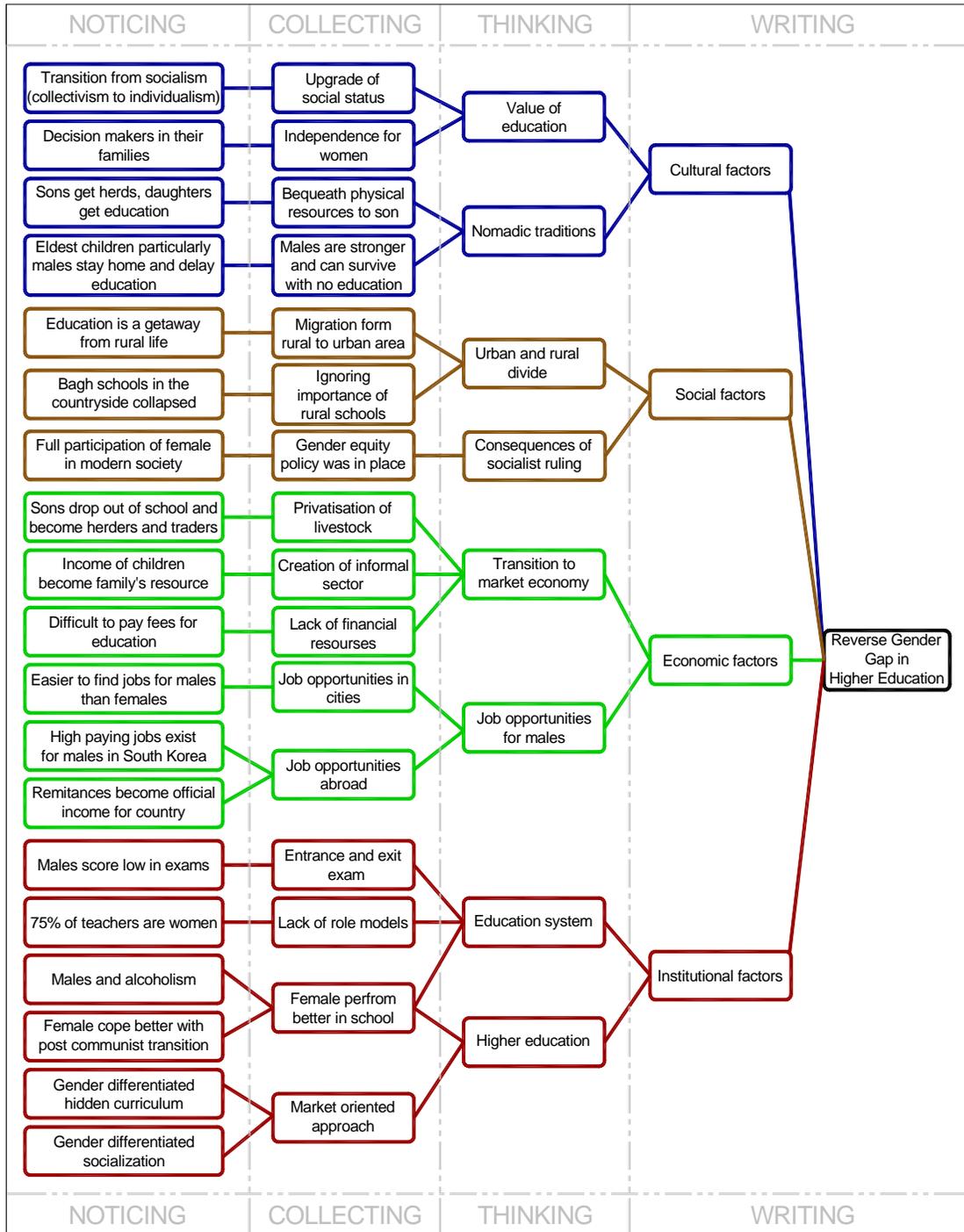


Figure 5. Tree of Causes and Effects: Reverse Gender Balance

5.3 THEME ONE. CULTURAL FACTORS

Based on the data analysis of 46 interviews, one of the most important factors that influence gender imbalance in Mongolian higher education is culture. Interestingly, some of the cultural factors are very unique to the Mongolian context while others reflect global trends but within the Mongolian context. In this section I will describe the first branch or theme from the tree of causes and effects, which represents the cultural factors that have a direct impact on gender equity in Mongolian higher education (see figure 6). First, the status of women in Mongolian society will be illustrated from an historical and cultural context in order to give the reader background information about the situation of women in the country. Afterwards, factors that emerged from an analysis of interviews are described using full citations from interviews with respondents. In general, two major subsets of cultural influence on college choice in Mongolia emerged from the analysis: the value of education and nomadic traditions.

5.3.1 Country background

Mongolian women traditionally have had relatively higher social positions and greater autonomy than women in other Asian countries. Women herded and milked animals, and they routinely managed the household if widowed or if their husbands were absent due to military service or caravan work. Although traditional Mongolians combined firm notions of female subordination, they maintained a flexible attitude toward female participation in traditionally male-associated tasks, and women ordinarily filled in for men when no males were available for such activities as milking horses. From the 1921 communist revolution and socialist way of development up until

the 1990's, the state began to bring women into public life. Women were expected not only continue taking care of the home and children, but also to work outside of the home. The state's constant efforts to increase population growth also led to a strong emphasis on women's reproductive capacities; bearing large numbers of children has been considered a civic duty. Possible contradictions between women's productive role in the economy and their reproductive role in the population have been glossed over in public rhetoric. The tension existed, however, and frequent pregnancies and state-mandated maternity leaves, as well as caring for young children probably affected the sorts of jobs women held and their commitment to their occupational roles.

During this period, the change in the position of Mongolian women in the paid workforce was due to their nearly universal participation in all levels of educational system. By 1979, medicine and teaching were predominately female fields; 65 percent of all doctors were women as were 63 percent of those working in education, art, and culture. Women made up 67 percent of the teachers in general schools and 33 percent of the teachers in higher educational establishments (Worden & Matles Savada, 1989). Women's high level of enrollment in higher education reflected the predominance of females in medicine, nursing, teaching, and professional childcare.

On the other hand, the main political figures in Mongolian history were men, a tendency that still persists at the present. Men have been the prime political doers throughout human political history, which is also true in the case of Mongolia. Nevertheless it would be a major mistake to infer that the Mongol society of the 1200's was unappreciative of female wisdom and that women did not wield authority. On the contrary, women enjoyed a substantially strong social position. One example of the comparatively strong position of women among the Old

Mongols was the belief that it was advantageous if a man's wife was somewhat older than her husband, so she could be wiser than him and able to guide him in worldly matters. Consistent with this, it was considered unmanly and a sign of immaturity if a Mongol husband did not listen to the advice of his wife.

The Secret History of The Mongols is replete with examples of the high value Mongolians placed upon female members of society. For example, Chingis Khan himself sought and accepted the guidance of women at some of the most crucial points in his career. There was even a period in the XV century, where a female, Mandukhai Khatan, ruled the country. In traditional Mongolian nomadic society, men never had an exclusively dominant position. Women played an important role inwards sustaining the nomadic economy by herding livestock and producing food and other products. This is a way that Mongolia has never been a classical patriarchal society.

Women always had respect and a fairly equal place in society and the household. However there are symbolic and traditional rules of female subordination such as women's special place in the *ger*, the Mongolian traditional dwelling, and the right to talk before men and others. As described above, Mongolian women maintained their positions as respected members of society through the socialist period employed and at the same time took care of family. With the collapse of the centrally planned economy, however, it was men, still symbolically regarded as traditional breadwinners, who undertook the most risky market opportunities such as trading and seasonal work in cities and abroad. Nowadays the Mongolian economy is more or less stabilized as short-term market opportunities are decreasing. As a result of this process, men are coming back home without enough money to invest into long-term projects. Since there is a lack of unskilled jobs and salaries are too low to support a family, many young men end up unemployed with no skills and education to offer.

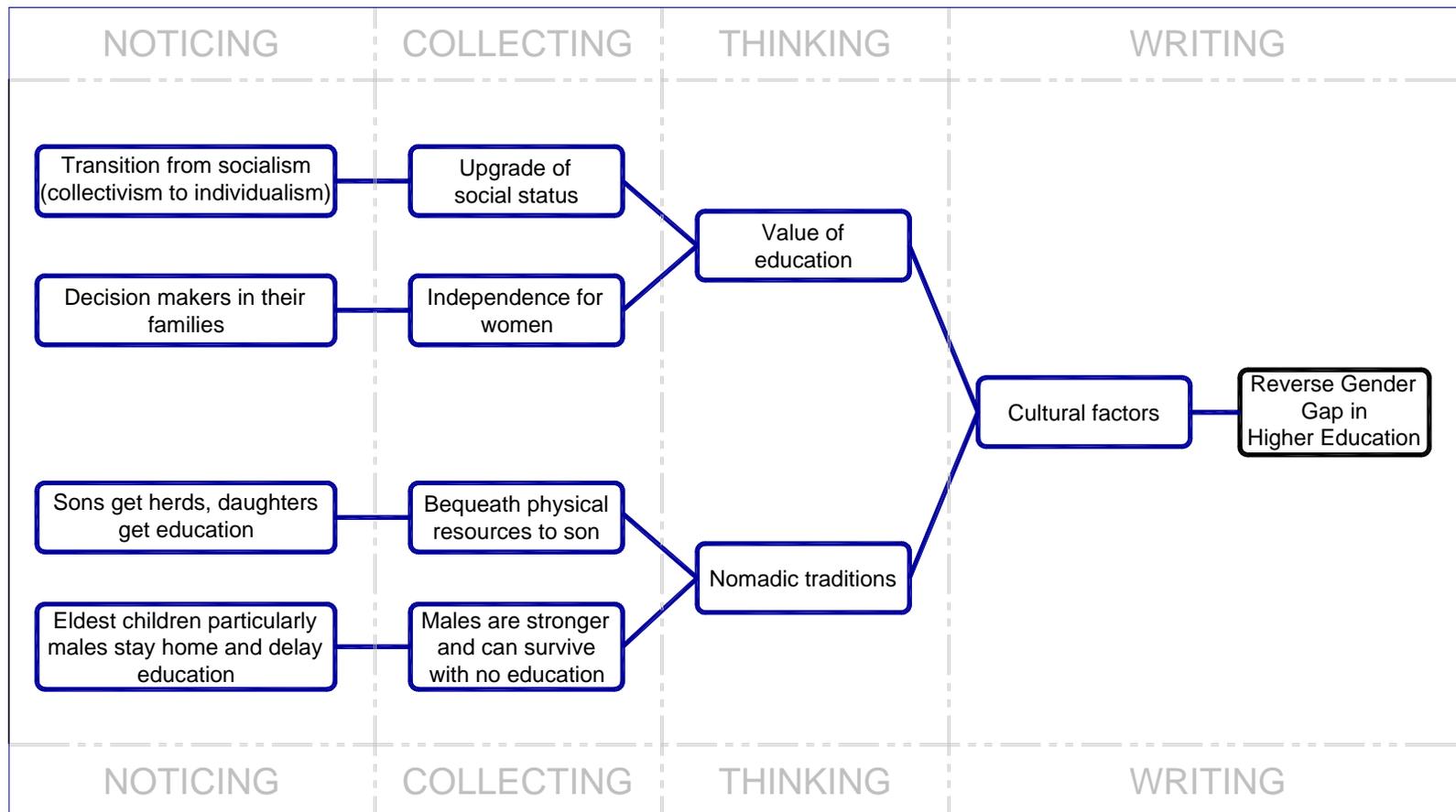


Figure 6. Theme One. Cultural Factors

5.3.2 Value of education

According to all respondents of this study, education among Mongolians is seen as one of the most valuable assets one can possess. Therefore, it was clear from answers of all respondents that Mongolians highly value education. Mongolians consider the education and upbringing of their children in a civilized manner to be an obligation to the state and the people. Dr. Ts. Tseveen, professor at the NUM, explained that the obligation parents feel to bring-up children in a civilized manner has long roots. According to his explanation, this firmly rooted belief in the Mongolian society is a tradition inherited not only from our ancestors, but also from the teachings of Chinggis Khan, contained in the Code of Law of Great Mongolia called “Ikh Zasag.”

The teachings of Chinggis Khan, designed to inspire and preserve good management of family and society, deal repeatedly with traditions any Mongolian should adhere to during his lifetime. For example, every human being should first of all, “correct one-self, then bring in order his own house and at the end, his state.” The meaning in this saying is that every person should grow up in a decent way educated, just and fair, smart and energetic, etc ... , and be able to take care of his own home. A man successful in managing his own affairs, and in educating and bringing up his children should be able to succeed in state affairs.

It is clear from the above statement that the education of children has long been a significant issue in the traditional management of family and society as a whole. He explained that even the linguistic significance of the Mongolian word “*humuujiil*”, which means educate or bring up, is related to the idea of “*humuun*” meaning human or “*humuuniig hun bolgoh*” associated to bringing up a man. In other words, by educating one’s child contributes to a better society/state. Therefore, it seems the notion of being a good citizen has existed in Mongolian society since the time of Chinggis Khan’s times.

Furthermore, Dr. Boldbaatar, professor of history at the NUM, stated that traditionally, along with a healthy and normal physical upbringing of children in Mongolian families, a lot of attention was paid to the intellectual, moral and ethical development of a child. In order to explain how physical and moral education of children is important to Mongolians, Boldbaatar referred to a Mongolian saying.

The Mongol saying “*Holiig ni doroond, garyg ganzagand*” translates literally as “make the child's legs reach the stirrups and hands reach the saddle thongs.” This means that the child must grow up physically and intellectually able to help his parents and relatives with their daily activities and live successfully on his own. Further... be able to have his own family and raise his own kids.

For Mongolians this saying can also be interpreted as helping children to have a starting point in order to be able to sustain their life. In other words, this means parents help their children to have an education or any kind of asset that would bring income or any kind of positive outcome in their future. Dr. Boldbaatar later added “somehow nowadays this saying strongly relates to attainment of higher education degree.”

Another interesting finding related to cultural influence is that some Mongolians see education as a door to *independence for women*. A student from *Khentii aimag* stated that it has become desirable for women in the countryside to receive a higher education.

In countryside if girls do not have education they will get married to worst men, not have chance to improve quality of their life. Things are different in the city. Families in countryside do not have money, so priority is always sending girls to higher education.

Furthermore, she believes the predominant attitude among parents in the countryside is that girls should study so they are not dependent on or dominated by their future husband. This is part of the traditional mentality of the Mongolians, Ganchimeg, a schoolteacher says. Mongolians prefer to empower women through knowledge.

You know like... higher education is kind of financial security/safety. If you have higher education and if you are highly educated you can have let's say nice job or you can earn

adequate money for your living rather than not having any education or like secondary education I mean. I guess that would be one reason. The other reason is like you... I think in my culture if usually like if you have higher education you can be independent. Even it is very important to be independent after your marriage. So you won't be depending on your husband financially and mentally. So these are two things why I think higher education is important for me.

When she was asked to elaborate on why women become independent after marriage if they have higher education she replied:

You know... in my culture we have to respect totally men especially when you get married. Your husband can decide everything in household and can be very decision maker- chef. So, if I have higher education I can oppose my opinion and tell my opinion. You know... its is kind of... higher education can bring women into same level of decision making.

Although, as it has been mentioned before, Mongolian women had and have respect and equal status in the family and Mongolian society has never been a patriarchal one, the statements of my respondents show that a higher education for women enables them to have higher level of decision-making in the family structure and more freedom and independence.

Moreover, there is a general perception among Mongolian parents including less educated parents, that higher education for their children is the only way to upgrade social status and to have a life with fewer struggles. One female student from Darkhan said:

I think my parents had an opinion or view that as girl if I have more education I will be more successful in society and I can feel independence. That is why, they send and urged me to have higher education. Also they also have higher education background and they cannot see me like not graduating school or not finishing university or higher education.

College education for Mongolians seemed as some kind of door to a better life with better jobs and, most importantly better money. In the case of this female student from Darkhan, she had two other female siblings, whom her parents urged to get a higher education as well; in her opinion it was a foregone conclusion that all three daughters would receive a higher education. As result, college was seen as an inevitable choice for her and her siblings.

Interestingly, most nomadic parents in Mongolia, who have worked all their lives looking after livestock and have a strong work ethic tied to manual work, want that their children to go on to school, asserting strongly that schooling and higher education is their only chance to secure an economic future.

Almost without exception all the student respondents of this study, including ones who came from nomadic families, desire to continue their education and are clear that they intend to do so in order to gain increased control over their own lives. Accordingly, the girls “do not embrace the fantasies that they will be taken care of by the men in their lives” and they see education as a bridge to a “freedom”. Therefore, it was surprising to see that most Mongolian families see higher education for girls not only as a way of gaining financial independence but also as a way of gaining gender independence.

When most of the student respondents were asked why they decided to enroll in higher education institutions, they seemed puzzled and struggled to answer this seemingly easy question. Most of them answered that higher education was the only option that they considered after graduation from the secondary school. The response of one female student from the NUM summarizes what most of the student respondents expressed.

Actually in general after graduation of high school I did not see any other way except enrolling higher education because... you know... I don't know... do you understand that I mean? For me there was not any other way for me rather than higher education or going to college or university. That was the only thing after graduation I saw at that moment.

It was interesting to see that there appeared to be no other option other than higher education for most of the student respondents. When asked the same question regarding the reasons her sisters enrolled in higher education institutions (she had two younger sisters who were students at different universities) she answered again with some uncertainty.

After graduation of high school it is just... only way we see was going to college or university that is it. We could not see any other ways for us. Being dropped out from universities, being home doing house work all the time...hehe... we did not see that. Why?... that is tricky question. I don't answer to this question. For us, going to university was only way in our future.

When I was asking this question about the reasons for enrolling in higher education, I almost felt that I was asking a very silly question about something that was obvious and clear. Some asked me to repeat or rephrase the question. Thus, it seems that in modern Mongolian society higher education, especially for girls, is regarded as almost a given. Parents, in particular parents of girls, pay special attention to the saying "make the child's legs reach the stirrups and hands reach the saddle thongs." They put all their efforts and resources into helping their daughters to obtain a higher education degree.

Parents were ready to do anything to get us to university. In my generation people believe that if they do not get university education, they get nothing.

As it can be seen clearly from the preceding comment of a student from Ulaanbaatar, that for both parents and children in Mongolia no matter what their social status is, higher education is desired because it could open doors to a better life. Being Mongolian myself I heard many times from different people including family members, colleagues and friends that they would try their best to provide education to their children. Since they cannot bequeath a lot of assets, education is seen as the best way to help them for their future. Thus, education is highly valued among Mongolians, and they see education as a means of upgrading social status and gaining independence. Parents understand that education provides useful knowledge and skills but may not necessarily comprehend they are following concepts of human capital theory.

5.3.3 Nomadic Traditions

Based on an analysis of the data, it has been found that unique nomadic traditions have a significant influence on college choice decisions for Mongolians. For 3000 years, the people of the steppes have adopted a pastoral way of life moving in search of the best pastures and campsites. They live by and for their livestock and worship nature. Today, approximately half of Mongolia's population is still roaming the vast plains, living in a *ger* and moving several times a year. Herding remains a way of life and source of income for Mongolians; and livestock continues as a form of a capital and source of food. The manufacturing and trade of animal products contribute to the income of many families in Mongolia.

Mongolian customs and traditions formed during the development of central Asian nomadic civilization have been passed on from generation to generation of Mongols over the centuries. Mongolian customs and traditions encompassed all aspects of life: psychology, morality, ethics, science, education, religion and relationships.

For Mongolian families education often can be seen as a resource. This has roots in the tradition/custom that Mongolians bequeath physical resources to their sons not their daughters. Livestock, *ger* and other assets such as heirlooms for nomads, whereas apartments, savings, cars for urban people are generally regarded as assets that can be bequeathed. Heirlooms such as an expensive silver saddle, a semiprecious stone snuff bottle, silver knife, a silver bowls, and religious items are bequeathed to only sons not the daughters with some exceptions. Particularly *ger* in rural setting and apartment/house in urban setting are always bequeathed to the youngest son. Dr. Tseveen explained this phenomena using an old Mongolian expression "*gal golomt*" which means literally "the place of fire."

The center of the *ger* is the most sacred place of all, the *gal golomt*, the place of the fire. It is the dwelling place of the daughter of Father Heaven, Golomto, and it is to be treated with utmost respect. As the *ger* is the center of the world, so the place of the fire is the center of the universe represented by the *ger* itself. According to Mongolian traditions and customs, sons particularly youngest son should keep “*gal golomt*”/ “*the place of fire*” of family so that he could keep family and its traditions and pass them generation to generations. In terms of daughters they marry and become “*hunii hun*” meaning “belong to other family.”

To elucidate this tendency of Mongolian society, Dr. Boldbaatar, a history professor, mentioned two other sayings.

When Mongolians refer to their sons they say “Son who would preserve “*gal golomt*”/“the place of fire” of family.” When we refer to our daughters we say that “women and white deer do not have homeland”, which means that when women get married they leave their home and join the family of their husband.

According to him, these traditions have roots in the nomadic life of Mongolians, which they have led for centuries. Therefore, knowing their customs and traditions Mongolians try to bequeath their physical resources to their sons while their daughters receive education in the form of an intangible asset. In the family of one student respondent, for example, only the son was bequeathed the parents' apartment and now works in a factory, while the four daughters were sent to college and have become professionals. Another student respondent, who is from a nomadic family in *Khentii aimag*, said that

Traditionally, sons particularly youngest son bequeaths hearth and home of their forefathers while girls get married to sons of other families and become no longer a part of her own family.

Dr. Boldbaatar also said that the tendency to empower women through education has started only recently from the beginning of the 60s. Before this period, Mongolians used to keep daughters home until they grew up, got married and left their families to become a member of their husbands' family.

During the interviews some respondents to the question, “Why do you think young Mongolian men are choosing not to attend higher education in much greater numbers than young Mongolian women?” answered that it might be related to traditional upbringing. Traditionally girls are treated more lenient than boys. From a very early age, boys are treated rougher than girls; “boys are not allowed to cry when they fall down,” says T. Amgalan, director of the Gender Center for Sustainable Development, a non-governmental and non-profit women's organization.

The basic philosophy behind of this socialization is based on an understanding that boys can always find work to do. In a culture long dependent on herding and manual labor, Mongolians have the belief that “boys can do physical things while girls should work in the office,” T. Amgalan continued.

Mongolian parents always think that men can do anything; herding, trading, become driver, constructor, everything what requires physical strength while daughters always do easier shores.

The idea that males are stronger physically, can work under harsh conditions and do manual labor was shared by many respondents of this study. A teacher, M. Ganchimeg, said:

Actually, I know that usually in remote countryside areas herders say that as a women you have to study and as a men you can do better even better without studying. So parents would push girls and pay more attention for them to be educated. I think it is just like -- you know-- they think man is powerful and has strengths to overcome let's say almost everything and girls are fragile and they cannot struggle. So these kinds of things. Attitude... how to say this... it is just mentality that men can overcome everything versus girls cannot do tough staff.

Another interesting finding was related to the fact of being the oldest male sibling in the family. From stories of our respondents, it is clear that some of the male siblings in families, particularly older ones, have a tendency to sacrifice their education in order to help siblings continue theirs. A female respondent, who was graduating the NUM at the time of interview, was able come to

the capital from *Khovd aimag* only because of her brother's decision to give up studying for herding.

My brother dropped out of school after the eighth grade. I remember that the teachers were very frustrated at his decision, because he was a very good student. But he chose to become a herder to be able to raise livestock and sustain our family. He gave up school to ensure our livelihood and my brother never did not pursue further studies.

Without the support of her brother, she would have had no chance to advance her studies. Nor would her cousins as her brother helped to his extended family as well. Men, many respondents of this study believe, are able to survive with or without an education and can make a livelihood in more ways than women can. Manual labor is one example.

5.4 THEME TWO. SOCIAL FACTORS

From interviews of this study, it became clear that social factors have a great impact on life choices and consequently impact on college choice. Interview respondents named two important factors that contribute to the reverse gender gap in Mongolian higher education. The urban and rural divide that exists in Mongolia at moment, particularly internal migration from the countryside to the cities and the ignoring importance of rural schools by the Mongolian government were named as the most important factors influencing the feminization of higher education. Interestingly, some respondents talked about the consequences of socialist ruling in Mongolia for over 70 years prior to the transition to a market economy as one the reasons for the gender imbalance in Mongolian higher education. In this subsection, these social factors will be explained based on interview responses and on the social factors branch of the tree of causes and effects illustrated on figure 7. Before describing the findings, brief background information about

the urban and rural divide and soviet rule in Mongolia is given in order to guide the reader through the findings.

5.4.1 Current social conditions in Mongolia

The Mongolian population is comparatively small to its territory. Mongolia is roughly three times the size of France and four times that of the United Kingdom. Mongolia covers an area of 600,000 square miles and has a population of only 2,594,800. Half of the inhabitants are under the age of 20, and approximately one million people live in the capital city of Ulaanbaatar. Population density is about four persons per square mile and Mongolia is one of the most sparsely inhabited nations on the earth.

The population in Mongolia is spread unevenly. It has characteristics of an urban population as well as a nomadic population that relies on livestock. Before the socialist revolution in 1921, the Mongolian population was almost a hundred percent nomadic with only the exception of Buddhist monks.

Administratively, Mongolia is divided into 21 provinces (*aimags*), each *aimag* is divided into smaller districts called *soums*. *Soums* are further subdivided into *baghs*, which is lowest administrative unit in an *aimag*.

The overall population structure changed dramatically due to the economic and development policies introduced by the socialist government after the 1950s. Industrialization, collectivization and the transformation into a modern industrial-agricultural society started in Mongolia from that time. During this period the rural outflow to urban areas increased substantially. Industrialization, construction of railroads and the expansion of the crop industry in the 1960s caused a visible change in the population resettlement. Thousands of people from all

corners of the country moved to and settled in newly established towns and small villages along the railroad. *Aimag* centers grew larger. Small and medium towns and *soums* with several thousand inhabitants were established. Schools, shops, hospitals and administration centers were built in new *aimag* centers and *soums*. Furthermore, primary schools with dormitories for herders' children were established in *baghs*.

During the 1980s, urbanization was significantly increased. Big cities such as Ulaanbaatar, and newly established industrial-urban centers such as Darkhan and Erdenet became final destinations for many nomadic people. As a result, the urban population was rapidly becoming a majority of the entire population of the country. Almost 60 percent of the total population lived in urban areas at that time, resulting in a clear distinction between the rural and urban population (Solongo, 2007). During the period from the 1960s to the 1980s, foundations of urban and rural divide had established and continue to this day.

5.4.1.1 Internal Migration

With the transition from a centrally planned economy to a market economy both internal and external migration in Mongolia has increased dramatically since the beginning of the 1990's. Issues related to external migration are discussed in the next subsection, primarily economic factors and work opportunities for males. The discussion of this subsection will focus on the impact internal migration has had on the gender balance in higher education.

In 1991, the total number of migrants reached to 134,600, which was five times higher than that in the early the 1980s (Solongo, 2007). Since transition, which brought about structural and administrative reforms, people's lives have changed completely. Patterns of development have been reversed completely. During socialist time the government used to plan everything,

even settlement issues. Yet, with the transition people had freedom to move wherever they wanted without a permit from local administrative centers.

Therefore people started to migrate to look for a better life. During the 1990s, two major migration patterns were observed in Mongolia. First, during 1991-1996, people migrated to the countryside due to privatization of livestock, which caused more people to become involved in herding. This pattern is called urban-to-rural migration and resulted in an increase of the rural population during that particular period. The second pattern of internal migration occurred during 1996-2000. It was a rural-to-urban migration consisting of nomads moving to urban areas. Many reasons led to the latter pattern of migration. The main destinations for migrants have been Ulaanbaatar, Darkhan and Erdenet (Solongo, 2007). First and foremost, a clear reason for moving from rural to urban areas was the *dzud* or harsh winter in Mongolia, which killed millions of livestock and destroyed the livelihood of thousands of herding families. Especially young and inexperienced herders were hit hardest. As a result of these natural conditions, many people were forced to flee the countryside and seek refuge in the cities. Additionally, poverty and unemployment were high in rural areas. In Mongolia, the large number of young migrants indicated a desire to continue higher education and find employment (Tsogtsaikhan, 2008).

According to Tsogtsaikhan (2008) and Solongo (2007), the overall mobility rate is higher for males than females. The higher male mobility rate in Mongolia may be attributable to several factors. First, it may largely be related to employment. Secondly, the higher mobility rate for male migrants may partially be explained by the fact that there are many industrial, trade and small business jobs in urban areas available for young males (Tsogtsaikhan, 2008; Solongo 2007).

5.4.1.2 Importance of rural schools

Education expanded slowly throughout the 1920s. Suppression of the monasteries in 1938 and 1939 closed the monastic schools, and the state schools expanded steadily throughout the 1940s and the 1950s. In 1941, the traditional Mongol script, which is based on the Uighur script was replaced by Cyrillic.

From 1950 to 1990, the government started to build boarding schools in *baghs* or remote areas of Mongolia, in which enrollment went from nearly zero percent to almost hundred percent. In other words children of herders from remote areas would live away from their families and spend the school year living with other children in dormitories. The curriculum was based on the Russian model, education was free, and many of the instructors were locally based. Children were allowed to start school at a later age to ensure they had been socialized in their pastoral context to acquire basic skills they could then build on during school holidays.

However, after the collapse of the socialist system and as part of structural adjustment reforms in the mid-late 1990's, many small primary schools in *baghs* were closed together with dormitories (Steiner-Khamsi & Gerelmaa, 2008). Access to schools became an issue for children from remote areas, which caused massive dropout rates for herder's children.

The choice between studying and working is made more difficult by the low supply of education in rural areas, forcing many young people to move to *soum* or *aimag* centers to continue their studies. In fact, most types of high secondary education (not to mention colleges) are only available in *aimag* centers, sometimes in bigger *soum* centers or just in Ulaanbaatar. This implies costs that cannot be borne by many poor households, and can only be alleviated by the establishment of secondary schools in rural areas. Additionally, conditions in dormitories in rural areas in Mongolia are very poor. Many school children suffer from unsanitary, cold and

overcrowded dormitories, further discouraging children from receiving and education.

5.4.1.3 Consequences of Socialist Ruling

As it has been mentioned, from 1921 to 1990 Mongolia was a socialist country. One of the most noticeable achievements during the socialist era was the transformation in the social status of women. The first constitution, adopted in 1924, declared "all citizens of Mongolia are entitled to equal rights irrespective of their ethnic origin, religious belief and sex." Women's civil rights were enshrined in the 1926 legislation, which ensured women equal rights to work, education and political participation (Burn & Oidov, 2001). Doors to education, employment and politics opened for women in Mongolia.

Another agenda for the socialist government of Mongolia was to increase a small and dispersed population; therefore women became active in both the domestic sphere and the labor force. Since Mongolia was and still is a labor-scarce economy, women's labor in the new sectors of the economy was and is needed. Additionally, during socialism the state provided good health care, education, and especially childcare, which helped women become more socially active in all spheres of life, including education and labor.

Interestingly, during socialism men remained and were officially designated the heads of households. While women were able to earn income from employment, family obligations and household chores remained predominantly women's obligation.

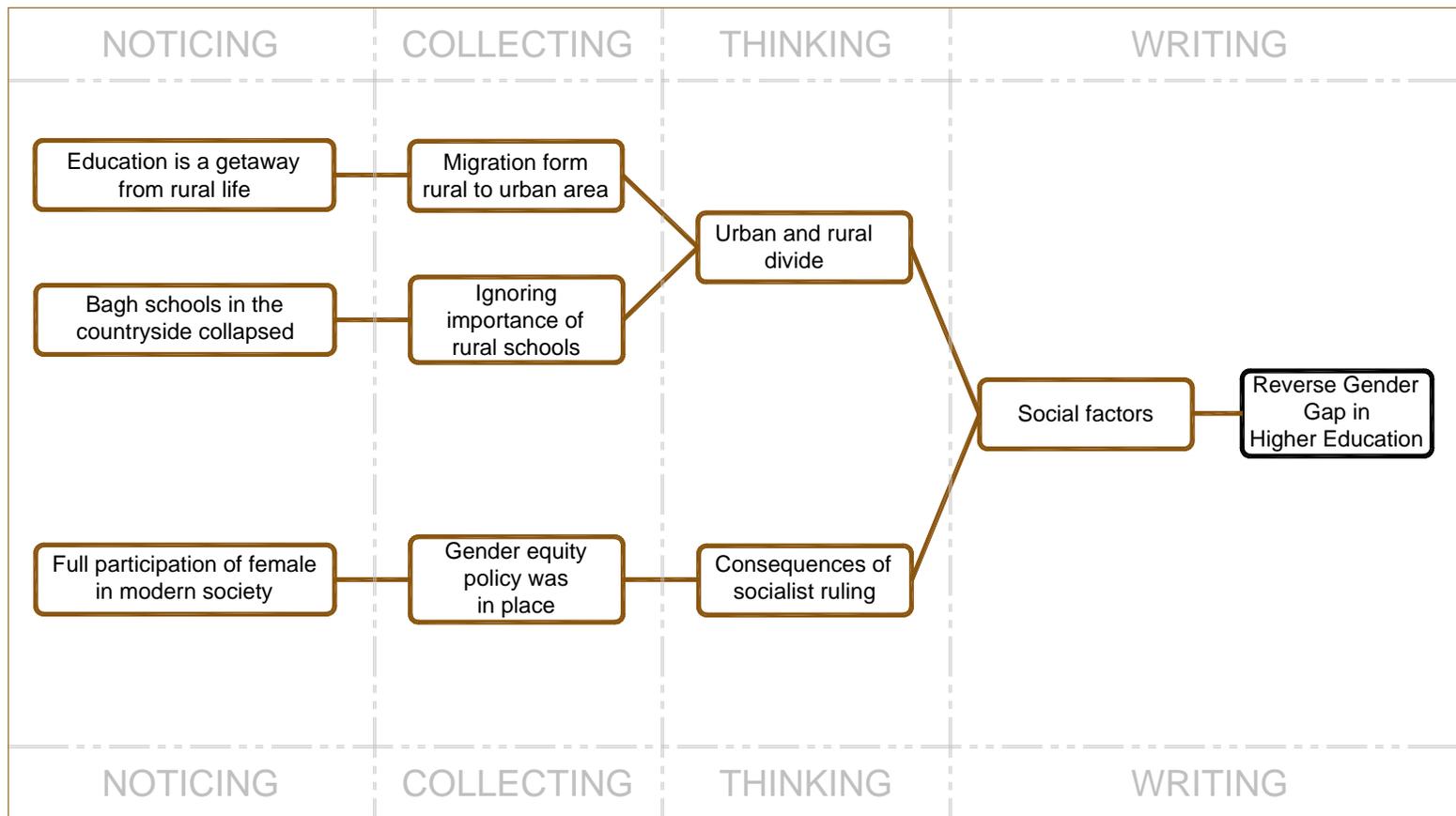


Figure 7. Theme Two. Social Factors

5.4.2 Urban and rural divide

The rural life of nomadic people, who adopted a pastoral way of life moving in search of best pastures and campsites for their livestock, is very humble and simple; sometimes they live without basic necessities such as electricity. Urban life, on the contrary, has all the attributes of modern development that exist in big cities everywhere around the world. Dr. Boldbaatar expressed that differences between urban and rural population exist in every aspect of life.

There are enormous contrasts that exist between Mongolia's rural and urban populations. This huge discrepancy shows itself in nearly every aspect, for example air quality, visual aesthetics, or simply in peoples' personal attitudes and ideals.

He added that since life in the countryside is tough and urban life is regarded as easier, many modern nomads wish for a life other than herding for themselves and their children; as a result they migrate to urban areas.

Most of the respondents expressed that the urban and rural divide is one of the most important reasons why there are more women than men in Mongolian higher education. In other words, consequences brought by differences between urban and rural life in Mongolia cause gender imbalance in education. As it has been previously mentioned, after the transition Mongolians started to move around the country for many different reasons, particularly to improve their lives. Dr. Tseven expressed that people from the countryside have been resettling in cities for many reasons.

Most of the migrants from the countryside lost their herds to the *dzud*. So they had no means to survive. There are no other employment opportunities out there in the countryside, so they move to bigger cities hoping for a better life.

He further continued that rural-to-urban migrants hope to find jobs, better schools for children and high education for children graduating from secondary school. Furthermore, Dr. Tseven

continued:

Since most herders have been going through struggle themselves, they always see education as a getaway from rural life. They think that without education the only thing their children can do is herding. Herders hope that with higher education their children especially girls can find jobs in urban areas, which is unfortunately not true anymore...

When Dr. Tseveen was asked to elaborate more about employment opportunities for higher education graduates, he said that it is not easy to find jobs after graduating from college.

Looking at examples of my students, who graduated or are graduating, it seems that it is really hard to find a job after graduating unless you know someone who can help you find a job. I think it is happening because of two reasons. First, there are too many graduates with higher education degrees, due to fact that many public and private universities produce graduates like products on product line. Second, because of the fact that there are so many graduates...let's say value of higher education decreasing...higher education degree does not guarantee that one will find a job.

He ended the conversation by saying that he has a relative from the countryside who just graduated from a private university with a bachelors' degree in business administration.

However, he was having difficulty finding a job. Moreover, T. Amgalan also spoke about finding jobs.

Mongolia is a unique place in terms of the employment hiring process. In Mongolia employers do not look at resumes and CVs of new candidates. They hire people based on their social network. If someone knows someone who has a say in the hiring process, this person would put in a good word. Employers hire new people for positions based on word of mouth. Basically, you would have to know someone to find a job.

In general, one of the main reasons herders move to urban areas is to get a higher education degree if they are young or to help their children to enroll in and graduate from college or university. The expectation is that a degree will secure employment in the city and therefore improve quality of life. However, as it can be seen from Dr. Tseveen's and T. Amgalan's comments above, it is not always easy for college or university graduates to find jobs in urban settings.

A female respondent, a third year student at the NUM in the School of Information and

Technology, shared a telling story that captures one of the reasons behind rural-to-urban migration. She was originally from a herder's family from *Gobisumber aimag* and had two younger sisters. Growing up her herder parents always encouraged them to continue education and enroll in universities, when she was able; she enrolled in NUM, the most comprehensive university in Mongolia. Since her family was nomadic and they lived in the countryside, she needed to find a place to live in the capital city. She could not find an accommodation in the NUM dormitories due to space constraints, so she lived with one of her relatives in one of the remote areas of Ulaanbaatar. When she talked about living and studying conditions of that year she said:

It was a very difficult that year. I am grateful that my relatives let me stay in their overcrowded *ger* (around 10 people lived in same *ger*). But it was a struggle to commute to school and back because they lived in *Sharhad*, a remote suburb of Ulaanabaatar. Especially in the winter, it was scary to leave very early and return very late in the darkness. Buses did not run very frequently, it was scary and in the cold winter...

The following year her younger sister enrolled in the National Medical University of Mongolia. Their relative's home, where she lived the year before was not option because it was already overcrowded. When her parents were trying to solve this problem, they decided to migrate to Ulaanbaatar. They decided to give up their life as herders, sell all their animals and move to Ulaanbaatar so their daughters could stay in a warm environment together and study successfully. When the NUM student was talking about her parents' decision to move to the capital she said

My parents always tell my sisters and me that if we want a decent life and we would like to achieve something in our lives we should study hard. They say that their life is gone and the only thing they have to do now is to help us get through higher education. They truly believe that education is a getaway from rural life and struggles.

At the end of the conversation she said that her entire family, including her parents and sisters,

live in Ulaanbaatar. While her sister and her study at different universities in the capital, her parents are working to support them.

Related to rural and urban divide, respondents named the collapse of *bagh* schools in remote areas together with dormitories as one of the most important reasons why there are fewer males than females in Mongolian higher education. As explained in the introduction to this subsection, right after the collapse of the socialist system in the mid and late 1900s, many small primary schools in *baghs* were shut down during the structural adjustment reform due to a shortage of financial resources by the new Mongolian government. Dr. Boldbaatar, from the NUM, said that

Closing down *bagh* schools brought shortages of dormitories and schools in remote rural areas. As *bagh* schools were closed down, access to school has become a problem for many families who used to accommodate children in dormitories. As a result many dropped out of school during that period. If boys do not go to primary, how they can continue to higher education.

Schools and dormitories are important for herders' children because most of herders' children enrolled in school live in dormitories. They live in dormitories because their families live hundreds of miles of away from settled areas. While children spend most of the year in dormitories, they get to go home twice a year: once during winter vacation, which usually coincides with lunar new year, the biggest holiday for herders, and during summer vacation for a full three months. In some cases children spend hours on the horseback to get to the dormitories twice a year, which can be particularly brutal in hot summers and cold winters.

Facing the pressures of family and work, rural Mongolian students must often attend classes in less than ideal facilities. Many schools and dormitories in remote rural area suffer from poor sanitation and overcrowded dormitories, further discouraging children from staying in the school. Most schools and dormitories are not sufficiently heated during long cold winters.

“Those factors literally push the children outside the school” said D. Amaraa, child protection officer in UNICEF Mongolia.

It is already very difficult for children to be outside their home and family. It is more difficult to live in uncomfortable conditions. Most children literally have to suffer to be able to study. Very often the call to go back to the *ger* is greater than the call for staying in school.

Therefore, clearly differences between rural and urban areas in Mongolia influence the gender imbalance in both secondary education and higher education.

5.4.3 Gender equity policy

Some of the respondents mentioned socialism as having influenced to the feminization of higher education due to gender equity policies, which are described in the introduction part of this subsection. The consequences of the socialist period impacted the on gender balance of society as a whole and higher education in particular.

As result of different social and cultural policies that were put in place by the socialist government, many changes occurred in Mongolia. Education policy was one of the biggest achievements of the socialist period. Education during that period was an instrument for social and cultural reforms. As a result of reforms through education, the population of Mongolia was almost universally literate and the status of women changed completely, particularly the elimination of female subordination.

While talking about the consequences of gender and equity policy established during the socialist time, Dr. Boldbaatar and its consequences said that who Mongolian women are today the direct result of these policies.

Socialist schooling was providing free, secular and compulsory unified education for boys and girls. Education and other policies targeted towards equal employment

opportunities for women resulted in gender equality in society. So, I would say the most important result of the socialist ruling in Mongolia would be gender independence of women.

Therefore, according to Dr. Boldbaatar the socialist era paved a way for women toward full participation in today's modern society.

5.5 THEME THREE. ECONOMIC FACTORS

Based on interviewee responses, it is clear that economic factors have a significant impact on the reverse gender gap in higher education in Mongolia. Data analysis revealed that economic conditions of the country have a direct impact on all aspects of life including issues of college choice. In other words what is going on in the country's economy affects everyday aspects of people's life and their choices.

Further, economic factors have a significant influence on gender imbalance in access to higher education in Mongolia and therefore represent one of the four emerged themes. In this section, economic factors influencing gender equity in higher education are described based on the branch of tree of causes and effects (see figure 8). First, in order to give the reader background information about Mongolia's economy, a brief overview of the country's economy is given. Afterwards, factors that emerged from interviews and analysis are described.

5.5.1 Country background

Until the beginning of the twentieth century, Mongolia had a colonial economy. Between 1921 and 1990 there was a centrally planned economic system and socialist command economy. In

1990 there was a democratic revolution. Since then, changes have affected all aspects of life. Mongolia today is in the process of transition from a planned to a market economy. For the last twenty years, there have not only been economic changes but changes in its social and political environment as well. These fundamental changes brought about a massive decline in economic growth and created many problems in the years immediately after collapse of the single party system. Despite the difficulties in such a transition, the processes of privatization, liberalization of prices, establishment and development of the stock exchange, reform of the banking system, and expansion of economic relations with foreign countries have created a new foundation for future development of the country.

Since the 1990's, the government has implemented policies aimed at liberalizing the economy and ensuring a private sector-led development. Overall economic recovery began in 1995, mainly as a result of the government's free trade and economic policies, market-oriented legislation and promotion of private ownership of property designed to accelerate radical economic reforms in the country. The government is actively encouraging foreign investment, especially those in the export-sector, notably in minerals and livestock products such as cashmere and wool.

5.5.1.1 Privatization

During the socialist regime, livestock in Mongolia belong to *negdel* meaning livestock collective that occupied an area or district, and were established as a result of collectivization process in the 1920s. Herding process in general was controlled by *negdel*. So, during that time herders were employees of *negdel* and livestock collective paid their wages. After the collapse of a socialist system, large-scale privatization had begun in early the 1990's. During the privatization process

state owned herds had been transferred to herders/nomads/individuals free of charge. Herders became owners of herds and responsible for generating their own income. Many factors were taken into account in the division of the animals such as years of membership in “*negdel*”, honesty at work, etc. That is why not all herders had been distributed equal shares of livestock.

During the privatization process 75000 nomadic herding families started private ownership with minimal startup capital (Morris & Bruun, 2005). Further, privatization brought a new division of labor with the family becoming the working unit. Even the composition of livestock changed to an increase in the number of goats. Huge growth of livestock, in other words number of herds and herders, increased rapidly after ownership shifted.

Since privatization of the collectives, the number of herders increased from 148,000 in 1990 to 421,000 in 2000 and livestock increased from 25.9 million in 1990 to 30.2 million in 2000. (Morris & Bruun, 2005, p. 12)

In general, livestock still remains the sole source for wealth and income of many Mongolians, especially herders, and the country’s economy depends significantly on the production and development of this sector, which is highly dependent on climate and weather. Recent changes in weather patterns for example have had a very negative impact on herding and agricultural production in general.

5.5.1.2 Informal sector

There was no informal sector during the socialist regime. The collapse of the socialist system in Mongolia has pushed the emergence of an informal sector in many different ways. Closing and downsizing previously government owned enterprises led to increased unemployment. In addition the socialist-trading system (supply-demand system) collapsed and the government

launched reforms regarding liberalization of prices and markets, including foreign trade in 1991. Many Mongolians lost jobs during the transition to a market economy. Many civil servants were made redundant during the onset of the transition period. Low salaries and delayed payments encouraged others to retire early and look for work in livestock production or the informal economy. In addition, women with four children or more were offered the option of retiring early, though some were forced into early retirement. Both older men and women found it difficult to find new jobs. That is why those who retired or were laid-off were discouraged from looking for employment. Some have dropped out of the labor force or turned to the livestock sector and the informal economy for employment.

Informal work, generally defined as working without a contract, is very common. About 60 percent of the entire youth employment in Mongolia is informal (Pastore, 2009). This is a very high share and confirms the poor employment prospects for young people. Informal work is evenly distributed across industrial sectors, but there are several important exceptions. It is much more common in the livestock sector, whereas it is less frequent in the manufacturing and mining sectors and almost absent in the state sector. Most contracts for informal work are oral or temporary. Men work informally more frequently than women, and informal work is also more common in rural than in urban areas (Pastore, 2009). Informal work is mostly related to manual work.

According to Morris (2005), the following activities are considered as informal activities:

- Food processing and preservation activities
- Preparing and selling food and beverages
- Making and selling textile, leather, and related crafts
- Building and extension of dwellings
- Petty trading, street trading, door-to-door vending, shoe cleaning, and others
- Fitting, installing, tool setting, maintaining, and repairing tools and machinery
- Provision services for income
- Travel related to services and other production activities

- Other services and production-related activities

In looking at the gender composition, labor force participation for men of all ages was greater in rural areas than in urban areas (Morris & Bruun, 2005). Among boys aged 15–19 years in the 2000 census, seven out of ten were in the labor force, while nine out of ten in the 20–24 year age old group, in other words the college age group, were economically active (NSO, 2001). Boys in cities were more likely to remain in school. Fewer girls than boys aged 15–19 were in the labor force in 2000. However, more than half of teenage girls in rural areas were economically active. Eighty three percent of young women aged 20–24 were in the labor force in rural areas, which is considerably higher than the percentage working in urban areas (NSO, 2001). As it has been previously mentioned many young women were in school. Women at home are more likely to be counted as economically active in rural areas because they contribute to work in herding and farming. Activity rates for women drop substantially after 45 years (NSO, 2001).

5.5.1.3 Poverty

The transition period from a centrally planned economy to a market economy has brought a decline in the average standard of living, a dramatic increase in poverty, greater economic insecurity and a rise in inequality in the distribution of income and productive assets in Mongolia. Despite efforts to reduce poverty, it remains widespread in the country. Official figures suggest that around one third of the total population live in poverty, which is defined as the inability to afford a basket of basic food and non-food items (Tsogtsaikhan, 2008). Many others are very close to the poverty line. Poverty affects different households differently.

Female-headed households, large households, and households in urban areas are all more likely to be poor. The urbanization of poverty is striking and has been accentuated by migration from rural areas and attributed to urban poverty.

Poverty has a direct impact on education attainment of children. Although there are no tuition fees for secondary education, poor households, already short of cash, must bear the burden of other expenditures that come with sending their children to school. Poor families often find it difficult to meet standards for dress, hygiene and supplies for school. For example, children may be excused from wearing the *deel*, Mongolian traditional clothing and boots used in the herder camps, but other types of clothes and shoes must be purchased with cash, which is always deficit for herders. Many rural children travel long distances to school on horseback and thus are vulnerable to harsh weather conditions. Parents in more remote districts enroll their children in schools at the *soum* center and therefore must find accommodation for them, either with relatives or in dormitories. Boarding costs used to be paid in approximately 40 kilograms of meat per year, with a discount for siblings as an incentive for herders to send their children to school.

Since the mid 1990s, the prohibitive cost of schooling for the poorest families has resulted in increased drop-outs and rising illiteracy among the young, particularly in remote areas. The gender pattern of school drop-outs is of great concern: about 62 percent of children not attending school are boys, and approximately 40 percent of boys in rural areas do not finish the eighth grade (Morris & Bruun, 2005).

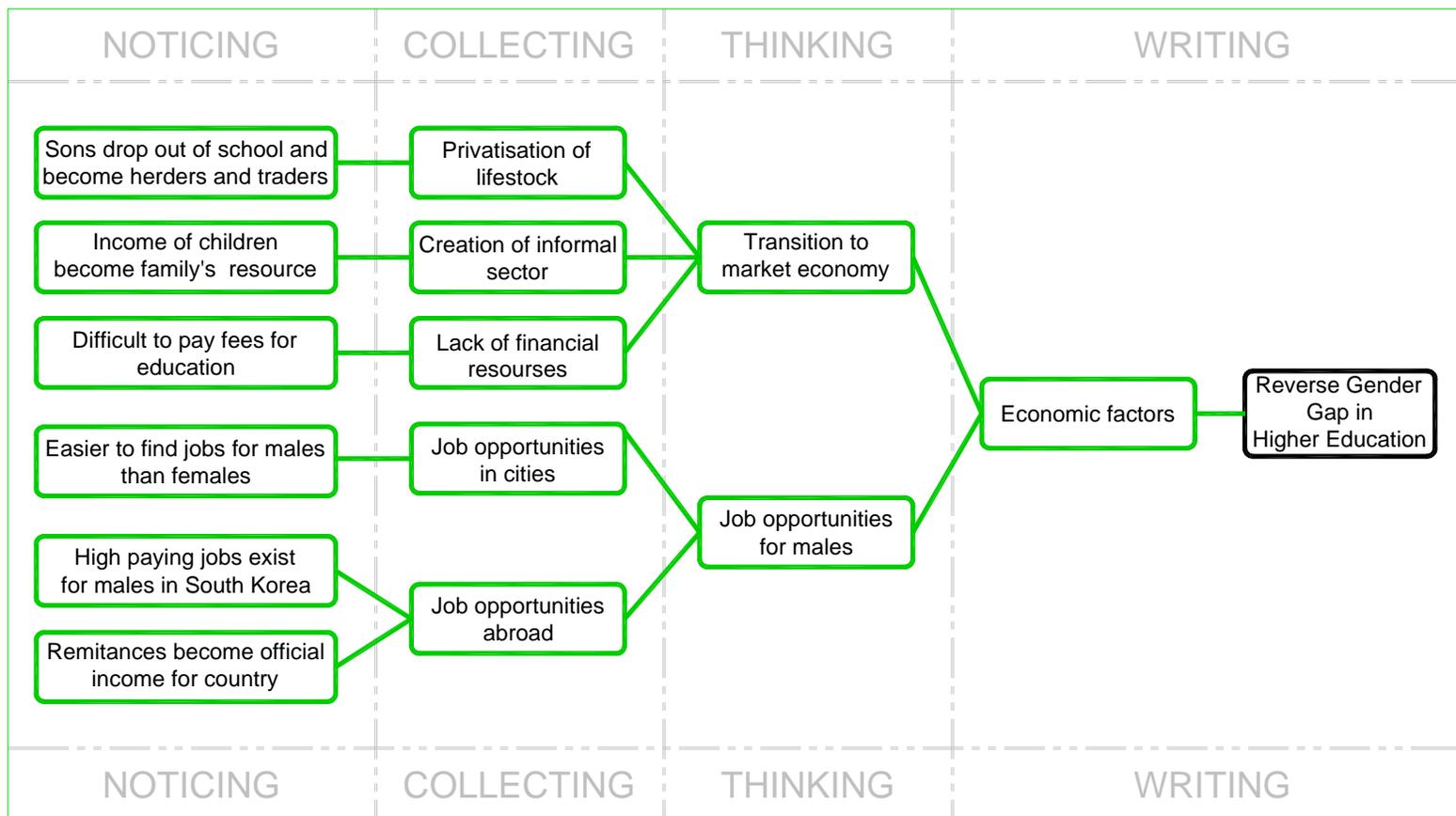


Figure 8. Theme Three. Economic Factors

5.5.2 Transition from a centrally planned economy to a market economy

The nomadic lifestyle in the Mongolian countryside is harsh and it relies heavily on manual labor. Furthermore, since the herds have been privatized one family can have wide range of animals from 100 up to 2000 heads of livestock. Each of the 46 interviewees interviewed for this study pointed out that privatization of livestock is one of the major reasons why there are fewer male students in higher education than female students.

As has been mentioned briefly, before the transition period and privatization process, none of the herders had their own livestock. Animals belong to *negdel* and they were herded collectively. Since privatization, a single family, including women and children, work as one labor unit to make a living out of herding. Since many of families did not have significant experience in herding own livestock, it was difficult for some of the herders to generate income and raise animals without the help of children, especially boys. In herding families, children assist in the care of livestock. Girls tend to help with caring for animals while boys concentrate on herding animals, cleaning animal shelters, collecting dung, preparing fire wood, fetching water, looking for lost animals, and training wild horses. Children from families that own small herds are sometimes sent to work for others that have larger herds. Families commonly believe that it is normal for children to work to assist the family. M. Ganchimeg explained this factor with an example that represents her generation.

Very beginning of 2000... no... ninety nineties like suddenly ... after the collapse of socialist system, people got livestock because of privatization. Then people needed labor or work force to look after the livestock. And they decided to drop boys out of schools. The parents pushed boys to drop school. It happened kind of natural because Mongolian parents think that children should help their parents. And then like let's say now they are kind of same ages as me about twenty something. I do know my time when I was student in university girls were everywhere, very few male students.

Privatization also brought variety in the number of animals managed. Children from families with relatively large numbers of livestock have been dropping out of school more than other children to help their parents raise livestock and in all other activities connected with the business of herding. This has resulted in a high dropout rate among children in rural areas, particularly among boys.

As an example, one female student respondent from *Zavkhan*, western *aimag*, is the only daughter in her family and the only one in her family to attend university. She has 5 brothers, however none of them graduated from high school. According to her explanation, since she is from a nomadic family with more than 1000 livestock, they need significant help with herding animals. Therefore, all her brothers were pulled out of school to help their parents with livestock, and she was the only one in her family who stayed in school and continued on to higher education.

When faced with economic difficulties as a result of the transition to a market economy, families have tended to rely on sons as breadwinners or possible sources of extra income. While some have felt responsible, others have felt pressure from their parents to help raise livestock and sustain their family. For instance, a male student from *Selenge aimag* said that he was an exception because he continued to higher education. Most of his male classmates in elementary and middle school dropped out by choice or because of pressure from parents. He also said that older children in families drop out of school on their own will. When he was asked why, he explained that somehow boys feel responsible for helping his parents sustain a livelihood.

In many cases, boys feel on the intuition basis that they are responsible for helping and feeding their families. That is why; they choose a path of earning money rather than “spending parents’ money on higher education”. Also, the period of job opportunities

faced in Mongolia at the moment might not last long. So, the situation might change in future.

As it can be seen, privatization of livestock had a significant impact on the lives of many herders and their families. The consequences of privatization have had an harmful impact on the educational attainment of their children, especially boys. Dr. Tseveen expressed that privatization has a much deeper impact than just educational attainment of children. When he was explaining the consequences of privatization, he spoke of literacy rate in Mongolia.

One of most important achievements of a socialist ruling was that literacy rate in Mongolia got to level of almost universal literacy. Nowadays, it is very easy to find young herders who cannot even write down their own names on piece of paper. It is such a shame because it took almost 70 years to reach universal level of literacy and it has been destroyed in less than ... ten ... fifteen years.

Bataa, who works as a driver for a private company and is originally from a herders' family in *Dundgobi aimag*, dropped out from middle school when he was 13 to help his parents with herding. When I asked him if quitting school was due to his parents influence or his own decision, he thought for a while and said that it was something that happened naturally.

My parents never told me “don't go to school” or “it's worthless” or “we need help.” That year when I left school I just did not go to *soum* center to school. It just happened naturally. My parents needed help to raise animals, my sisters were away to study, so it was natural for me to help them.

According to Bataa's explanation, dropping out of school for some nomadic children was something inevitable or natural that is supposed to happen. However, in Bataa's case unfortunately his family lost all their animals to *dzud* and had no means to survive in his *soum*.

Consequently, his family had to move to Ulaanbaatar to look for job opportunities.

Lucky enough, I found this job as a driver in this company through my relative, who knew owners of the company. I know it is very difficult to find a job even in Ulaanbaatar if you do not know anybody.

His parents still do not have jobs, so he is the only one so far who brings cash home. Unfortunately, the company that he works for as a driver does not pay him social security benefits, health insurance, etc. He does not even have an employment contract; in other words he works informally and supports his own family and his parents. At the end of the interview, he said that he regrets that he did not continue his education and does not have a higher education.

If I would have continued my education and gone to university to get a degree, today I would have much more secure job and have more choices in my life. Now I am 26, and it is too late for me to get an education.

From Bataa's example, it is clear that people in Mongolia work in the informal sector in order to survive. According to respondents including Bataa, it has become clear that creation of the informal sector is one of major reasons why there are fewer males in Mongolian higher education than females. Respondents pointed out that the creation of informal sector has additional negative consequences such as child labor. As it has been previously mentioned, the informal sector contributes 30 percent of the GDP in Mongolia (Morris, 2005), which is clearly a substantial number.

In Mongolia the informal sector is related to small entrepreneurship: people buy products or services and resell them in order to make profit or run small-scale businesses to earn money. Examples of informal entrepreneurs include taxicab drivers, kiosks proprietors, market vendors, shoe repairmen, newspaper vendors and others. Most of the informal workers in Mongolia do not consider themselves "employed." And, as Bataa mentioned earlier, most of the informal workers are not covered by social security or health insurance.

As it has already been mentioned, another negative consequence of the transition to market economy has been financial difficulties for many families that, as a result, have needed children to work in order to support family. This raises the issue of child labor, which is now an

alarming issue in Mongolian society. Working children's education and physical and mental development and education is being jeopardized. In addition, it is regarded exploiting children and as violation of human rights by many international organizations and governments. N. Mongolmaa, national program manager of International Program on the Elimination of Child Labor Mongolia said, "Children's involvement in employment is not uncommon in Mongolia." Further she explained that child labor in the informal sector is becoming a social problem that needs to be solved.

While there is almost no child labor in the formal sector, it does exist in the informal sector. Children in the urban informal sector in Mongolia are mainly concentrated in the capital, although they can also be found in major rural centers. Approximately 4900 children aged 9-17, which is 50 percent of all children working in the informal sector, work in the informal sector in the capital city of Ulaanbaatar. More than half of the children, the majority of whom are boys, work for 5-8 hours a day. Children working in markets carry out all types of work including carrying goods for vendors and clients, small trading, shoe shining, sorting vegetables, handling waste, washing and looking after cars on the parking lots. Boys are more commonly engaged in carrying, including heavy items such as wood and coal, while girls work in trading. Children engaged in carrying very heavy loads, sometimes exceeding their own weight or push carts weighing up to one ton.

As you can see from Mongolmaa's statement, mostly boys represent children who are involved in child labor in informal sectors. Children whose education is denied or impeded by child labor enter adolescence lacking the skills needed for gainful employment, leaving them much more vulnerable to joblessness or to low paid, insecure work in hazardous conditions. These poor job prospects will continue into adulthood, and periods of low earnings, job insecurity and unemployment spells are likely to characterize their work experience as adults. Higher education is not an option for them because most of them do not have a secondary education. When a question was asked about the future of the children involved in child labor, N. Mongolmaa answered

More likely to be poor, these adults are also more likely to have to depend on their children's labor or productivity as a household survival strategy, thus perpetuating the child labor-poverty cycle.

Therefore, although the creation of informal sector in Mongolia fills necessary gaps in the country's economy it has negative impact on the livelihood of ordinary people, especially the poor. Particularly boys from families facing economic hardship fall victims to child labor, thus eliminating the possibility of higher education and furthermore obtaining a decent job.

As it was mentioned in the introduction part of this subsection, poverty in Mongolia is one of the reasons why there are fewer males than females in higher education. Secondary education in Mongolia is free while tuition fees for higher education institutions were introduced in 1993 after the country shifted from a socialist to a market system. While public schools are free of charge, schooling nevertheless generates expenditures for textbooks, school uniforms, etc. Poor people who cannot cover these supplemental costs of schooling sometimes keep their children out of school.

One of the respondents, 23 year old male originally from *Dundgobi aimag*, who never graduated secondary school, said his family was poor and nomadic and therefore could not afford to send any of the children (he had 5 siblings) to school.

My parents could not pay dormitory fees, could not buy clothes for us to go to school. They never had enough cash even buy first necessary items in our household. Additionally my parents thought that we would not learn useful skills in school for a future herder life. However, looking at other families, in general herders seem spend much of their income on education, especially for girls at higher or university level, because investment in education appears to be one of the few ways to escape poverty.

It is understandable that families who could not afford to send their children to a free secondary education definitely cannot afford tuition fees and living expenses required to attend higher education institutions. It should be noted that it is extremely difficult if not impossible to find

scholarships to support studies in higher education. There is only governmental organization called State Training Fund that provides loans and grants to students on the basis of merit and need. B. Onon, program director at the Non-governmental organization (hereafter NGO) called Gender Center for Sustainable Development, said that higher education fees have always been a burden for Mongolian parents.

Most of the parents in Mongolia carry their burden of supporting their children through higher education solely on their shoulders. Mongolia is a developing country so there are no loans available for students. It is even difficult for students to find part time jobs to support themselves just to cover living expenses. Tuition fees of universities and living expenses especially in Ulaanbaatar where all universities are located are becoming very high. They may seem not so high to foreigners. However comparing to salaries and incomes of regular Mongolians it is a pretty difficult burden to carry.

It seems that due to a lack of financial resources Mongolian parents have to choose which child to send to secondary school and later on to higher education. If there is a choice, Mongolian parents, for different reasons, pick their daughters to continue their education. On the other hand, with the transition to new a economy, many different job opportunities became available for males.

5.5.3 Employment opportunities for males

A wide range of employment opportunities has become available for males in conjunction with the shift from a centrally planned economy to a market economy. In urban areas, as the economy transitioned and the service economy grew, it was possible for males to find relatively high paying jobs that did not require a higher education in the rapidly expanding market economy. Most respondents expressed that finding jobs without a higher education for males is much easier

than for their female counterparts. When an unemployed female respondent who never went to university was asked why it is easier for males to find jobs than it is for females she answered:

Because like... Let's say you can fix a car very well. There is no need to have higher education in fixing cars. So you can make money for just fixing car. Or let's say you are carpenter and you make very nice things and furniture using wood. You don't need to be higher educated to ... you can work independently ... I think good job is just having financial security. So without higher education men can have a good job and also own their businesses. In my hometown actually carpenters make quite a lot of money. They don't have higher education at all. They just have secondary education.

When she was asked is it possible for women to find good jobs without a higher education she hesitated a little bit and answered

Women without higher education... I guess ... hmm in general NO. Because let's say you are a very good seamstress and can sew very well and you can work as tailor somewhere. But it is still difficult to find a good job for women without any kind of certificate of diploma. So I think for women finding job is difficult. Maybe that is why; there are so many female students in higher education. Who knows... look at me.

When she was asked if she would like to work, she answered that she has been looking for a job for a long time. She said that she regretted not enrolling in a higher education institution.

Nowadays to be a sales person in the department store you need a higher education degree.

Moreover, she was not the only respondent who expressed that it is not easy for females to find employment and there are more job opportunities for males. A male student from Tov aimag, when he was talking about his high school graduation class and its gender composition, said that they had only 8 boys in a class of 32; the rest of students were girls. When he was asked about enrollment of his high school classmates to higher education he said

Girls in my class were very successful about enrolling to higher education institutions after graduation. All girls enrolled higher education institutions and mostly public universities. Boys were different story; everyone except me became taxi drivers in Ulaanbaatar. I also went to Ulaanbaatar but I am now student at the NUM.

When he was asked why he thought all his male classmates became taxi drivers, he answered

Boys decided to become taxi drivers because the brother of one of my high school classmates owned that taxi company and offered the boys high salary. Most of my male classmates decided to take this job opportunity because it was instant money that you could earn right after school graduation. I am, on the other hand, still a student and have to wait for money that my parents and sister give for living expenses.

He admitted that he also wanted to work as a taxi driver, however his parents and especially older sister, who is a doctor, insisted that he needed to get a higher education degree. When he was asked why he thought that all the girls decided to enroll in university he said

It is obvious: it is difficult to find jobs for girls in countryside and even in cities. So only think what they can do is to go to school.

Generally it seems that it is easier for men without a higher education to find a job than it is for women. D. Khurelma, a monitoring and evaluation officer at UNICEF Mongolia provided an anecdote that reflects the differences related to job opportunities between women and men.

There are so many job opportunities available out where for men. This situation of jobs being available more for men than for women is not fair. Let's take an example of a driver in our organization. He earns much more than any woman who works let's say ... as doctor, teacher, anyone in public services.

It seems much more possible for men to get relatively high paying jobs that do not require a higher education, (e.g., as drivers on donor projects, Mongolian entrepreneurs, or as traders/merchants in the rapidly expanding market economy).

With globalization and the introduction of democracy, many Mongolians started to travel to different countries especially developed countries for different purposes. Before the democratic revolution in early 1990s, doors to western countries were closed for the majority of Mongolians. According to our respondents, one of the important reasons why Mongolian males do not enroll in higher education is related to the fact that there are employment opportunities for males to work in developed countries, particularly South Korea. According to official numbers, one out of every 100 Mongolians is working in South Korea. Most Mongolians in South Korea

are employed in heavy industry while few run restaurants, trading companies, and grocery stores in Seoul. One of the male respondents, currently a student at the NUM who has been working in Korea and whose siblings were still working and living in Korea, said

Since work that is available in South Korea is related to heavy industry, which requires some manual labor, Koreans want most of recruited workers to be men, particularly young men who can do heavy work. Mongolians in Korea work very hard and live in very poor conditions. Young males live in containers without water supply and sewage system. On average, they earn around \$1000 per month, which is not a bad amount according to Mongolian standards.

Another respondent who has never enrolled in university, and had been working in Korea for five years and just returned to Mongolia said

Since the main purpose of Mongolian people in Korea is to save money, they live in miserable conditions and send a significant amount of money that they earn back home to Mongolia. When they return they may have the certain amount of money saved, however they spend it right away by buying an apartment or car.

Since most young males do not have a higher education, after they spend their savings from their hard work in Korea, they get trapped in life. They have no work, no money and poor health. He ended his interview by saying

Being “slave of foreign people” is not nice and I sacrificed my health and young years to make a better future for my sons.

However, it was also interesting to observe that he was dressed very well with a gold signet ring, an expensive watch and necklace with a semi precious stone. Another noteworthy fact is that the unemployed female respondent who was talking about jobs being available for men and not for women, lived on money that her husband was sending while working in Korea. She said

Money that my husband sends from South Korea is only income that we have for the whole family.

When she was asked about her family, she said her husband has been in South Korea for 4 years (she has not seen him for whole period of time). She was living with their two sons, who have

not seen their father since he left, her mother and younger sister, who is a university student. As it has been mentioned previously, she was unemployed so only income was what her husband was sending from Korea. She also noted that her husband was financially helping his parents and sisters, who also were struggling financially.

As it can be seen from her example, remittances from working abroad became the sole of source of income for many families. In my literature review part it was explained that remittances from Mongolians who are working abroad became official income for the country as well. D. Khurelmaa stated that

Mongolians are becoming world nomads. Many Mongolians live and work in many western countries including Germany, United States, Japan, United Kingdom and of course South Korea. By working in a foreign country and sending money to Mongolia, they financially support their families back home.

Unfortunately with the global economic crisis, the recent window of opportunity for Mongolian men is closing as the profitability of small and medium-sized ventures in South Korea is decreasing. Mongolian men have to return home to settle, but few have made enough money to enable them to invest in long-term projects. Jobs are scarce, and many young men are ending up unemployed with no marketable skills.

5.6 THEME FOUR. INSTITUTIONAL FACTORS

Very interesting outcomes of this study are related to institutional factors explaining feminization of Mongolian higher education. Interview respondents pointed out that factors related to structural problems existing in the Mongolian education system, including tertiary education, have effects on reverse gender balance in higher education in Mongolia. These factors will be explained based on findings that have emerged from the data analysis and illustrated by the

institutional factors branch of the tree of causes and effects (see figure 9). Most interview respondents expressed that females perform better in school and cope better with the post communist transition. It is interesting that most of the respondents tied men's underperformance in school and struggle with the transition period to glitches in the education system. In this subsection, a brief background about the Mongolian education system is given before explaining the findings in order to guide the reader through the findings.

5.6.1 Mongolian education system

The Mongolian education system is comprised of six sub-sectors. There is a preschool and kindergarten sub-sector. This is followed by six years of primary education and four years of lower secondary education. Compulsory education ends after grade eight. Upper secondary education runs for four years from grades eight to twelve. An eleventh year of the complete general secondary education cycle was added in 2004 by optional enrollment of seven year-olds into the first year of school. Full implementation began in September of 2005. In 2007 the education system shifted to a 12-year system (6 years primary, 4 years lower secondary, 2 years upper secondary) by enrolling six year-olds in grade one. The technical education and vocational training sub-sector comprises specialized upper secondary schools as well as post-secondary diploma programs housed in higher education institutions. Higher education and science and technology make up two separate sub-sectors. In addition, there is a non-formal and distance education sub-sector.

Before the shift to a 12-year education system, the Mongolian education sector had a 10-year system with four years of primary school, four years of lower secondary school and two years of upper secondary school with children enrolling in school at the age of eight. Table 10

shows the structure of the system with a 10-year complete secondary base. When respondents of this study were referring to the school system, they referred to the 10-year education system and not the new 12-year system.

Table 10. The Educational System of Mongolia (10-year general secondary)

Years	Age							Non-formal Education
20	27	Doctorate (PhD) (60 Credits, 3-4 years) (VI)						
19	26							
18	25							
17	24	Masters (30 Credits, 1-2 Years) (VI)		Masters (30 Credits, 1-2 Years) (VI)				
16	23							
15	22	Bachelors Degree (120 Credits, 4-5 Years) University (V)		Bachelors (30 Credits, 1-2 Years)				
14	21							
13	20							
12	19				Diploma (90 Credits, 3 Years) Colleges, Institutes (V)			
11	18					(1-3Years) Vocational Training Schools		
10	17	(2 Years) Complete Secondary School (III)		(III, IV)				
9	16							
8	15							
7	14	(4 Years) Incomplete Secondary School (II)						
6	13							
5	12							
4	11							
3	10	(4 Years) Elementary School (I)						
2	9							
1	8							
	7			Kindergarten				
	6							
	5							
	4							
	3							
	2							
	1							

Source: Davaa et al, 2005

Table 2 shows enrollment patterns, since 1940, which reflect the impact of the social and economic transition of the late 1980s and early 1990s had on enrollment in Mongolian education. Kindergarten enrollments grew until 1990 (97,212), followed by a small drop in 1991 and then a large drop in 1993. This was due largely to the elimination of government subsidies to families for enrolling their children in kindergarten. By 2004, kindergarten enrollment (82,674) had still not reached the level of 1990. Enrollment in general secondary education (grades 1-10) reached 446,665 in 1989 and then dropped to 370,302 in 1993. By 2004, enrollment had climbed to 557,346 students. Technical and Vocational Education and Training (hereafter TVET) was introduced in upper secondary schools in 1965, and enrollment grew until 1989 (34,137). Enrollment then dropped to a low of 7,555 in 1994 as the placement structure that existed within the command economy collapsed and vocational education struggled to provide students with skills required for employment in a market economy.

Higher education has experienced the most rapid enrollment expansion of any level of education in Mongolia over the past fifteen and more years. While enrollment in private higher education institutions has more than doubled over the past four years, there have also been large enrollment increases in public sector institutions. Enrollments at all other levels of Mongolian education have also been increasing, but at much slower rates. Enrollment increases to date have been accommodated through re-structuring and more efficient use of schools without adding new buildings. However, the capacity of buildings and classrooms is a concern to MECS as they provide only 62.6 percent of required seats. Consequently, in Ulaanbaatar and 18 other *aimags* there are general secondary schools that operate 3 shifts per day.

Table 11. Enrollment in Mongolia by Level of Education, 1940 - 2000

Year	Kindergarten	General Secondary	TVET	Specialized Vocational Ed	Diploma Programs	Higher Ed Bachelors Programs	Postgraduate Degree Programs
1940	146	24,311		1,332		197	
1945	576	34,543		1,744		309	
1950	1,800	68,614		3,186		1,476	
1955	3,878	83,334		4,493		3,039	
1960	9,738	107,204		8,811		6,909	
1965	24,450	155,780	4,761	9,231		10,677	
1970	29,613	230,406	10,628	11,121		8,427	
1975	36,974	301,936	13,483	13,465		13,643	
1980	49,807	372,112	22,109	18,734		23,214	
1985	62,470	415,168	27,718	22,978		24,549	
1986	69,746	423,545	29,276	23,212		23,516	
1987	70,594	430,540	32,053	23,992		22,647	
1988	81,029	438,152	33,797	22,556		20,723	
1989	88,274	446,665	34,137	20,534		19,504	
1990	97,212	440,986	29,067	18,478		17,338	
1991	95,715	411,696	19,252	15,779		16,801	
1992	85,700	384,069	11,685	8,703		19,827	192
1993	59,909	370,302	8,317	5,799		24,247	383
1994	60,959	381,204	7,555	5,943		27,870	435
1995	64,086	403,847	7,987	5,584		31,973	804
1996	67,972	418,293	11,308		3,730	39,157	1,201
1997	70,035	435,061	12,320		4,426	44,864	1,671
1998	74,299	447,121	11,650		4,094	59,444	1,734
1999	78,630	470,038	11,245		4,371	67,554	2,100
2000	79,294	494,544	12,177		4,224	77,281	3,465

Source: Davaa et al, 2005

From the point of view of human development indicators such as health, education and employment, higher education should be one of the main factors for reducing poverty and improving living standards. Lack of jobs and high unemployment rates show that there are fewer opportunities for graduates to get employed and improve their lives. On the other hand, education and employment suggest that higher education training quality is not competitive.

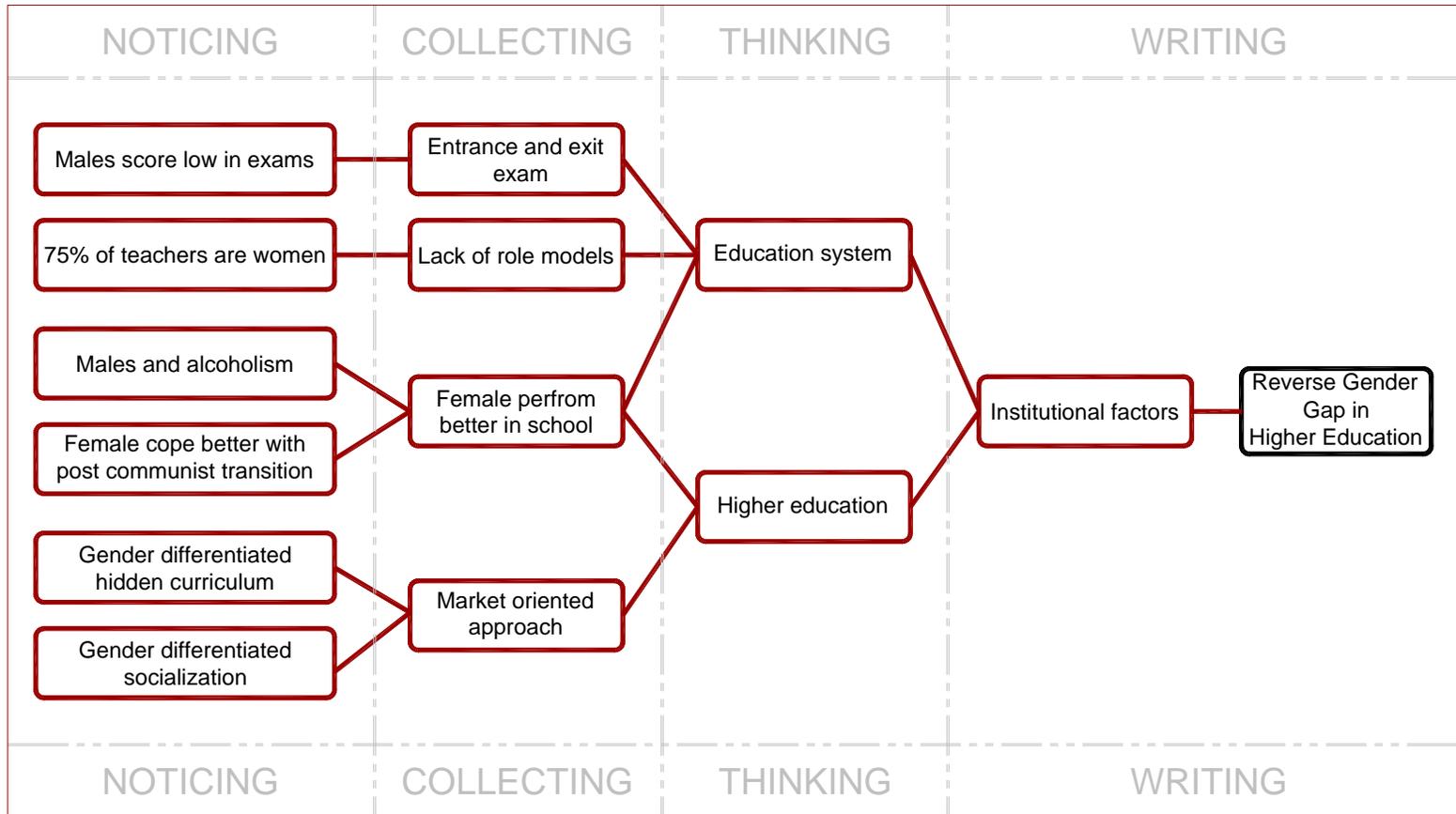


Figure 9. Theme Four. Institutional Factors

5.6.2 Issues in education system

As it can be seen from the institutional factors branch of the tree of causes and effects, respondents of this study named glitches in the Mongolian education sector as factors that have an impact on reverse gender balance in higher education. It was interesting that almost all respondents said that girls perform better than boys in school; and in addition they said that male's underachievement in schools has several reasons. One reason explained by the majority of the respondents was related to the structure of the education system. Others named a lack of role models. In addition, most female students identified Mongolian males' irresponsibility and laziness as factors influencing to reverse gender gap in education.

Female students' achievements in their studies are reflected by their success in the three major sets of exams in secondary schools: in the fifth, eighth, and tenth grades. According to Mongolian education law, every student must pass exams in the eighth grade to continue to ninth grade; and further every student must pass entrance exams after tenth grade to enroll in higher education institutions. Many respondents in this study believed that "sifting" out students in the eighth grade is wrong. According to T. Amgalan emphasized that the school system itself encourages young people to leave before they reach the university level.

Particularly in the countryside, since there are not enough upper secondary schools, male students just give up their studies and do not continue to ninth grade.

Further T. Amgalan continued

Because boys are usually more daredevilish and mobile, they tend not to show the best results at school during their teenage years. They usually become more responsible in the final grades of secondary school. Therefore it is too bad if they drop out of school at the eighth grade. The more accurate and concentrated ones stay, and as a rule, they

are girls.

A first-year undergraduate male student studying chemistry at the NUM said that by the time he was in the 10th grade, he was one of only seven boys in a class of 29. At the time of the interview he was one of three men in a class of 13. He adds that as a result of underachievement in secondary school, boys do not score high enough on entrance exam for higher education institutions.

M. Ganchimeg, a schoolteacher, also believes that sifting students at the eight and tenth grades is wrong. In addition, she said that girls usually perform better on those exit and entrance exams. While explaining reasons for males underperforming on exams and not attending universities, she stated

You know, girls are more stable. I don't think boys are stupid or foolish. When they are in fifth and sixth grade they do not learn much and they do not pay attention to their studies. And then in ninth and tenth grade it is kind of hard to catch up everything and go through entrance exam staff. That is why girls just cannot pass entrance exams. I would say that they were not as ambitious as girls. Generally, boys in secondary school they just don't focus on studying and in the end of secondary education they will have a hard time catching up and won't pass the entrance exams to university. So it depends on their behavior as a school student.

When she was asked to explain why she thinks girls and boys behave differently in school, she gave an example of her students.

As a teacher I would assign homework and then the next day most girls had done the assignments while boys had not. So I think it is again a psychological difference between female and male students. Because at this secondary education age boys can be very -- I think the word is stable -- not persistent, they want to move and their attention is not really focused on one thing for long periods. Instead girls have ...like... I think permanence or stability... I guess stable...that means not really changing.

When again she was asked why boys behave differently than girls, she answered:

I think it is just different personal development in two different ... genders. Women and men have different gender developmental stages. In high school period it is quite... I think in our high school setting like secondary school environment is set more beneficial for girls because we have to sit at the desk for 45 minutes, which will be like ... Boys can

be focused or concentrated for 20 minutes while girls can be focused for 30 minutes. So that is why it is just different like different... like personal development. Our school environment is set where girls get advantage of... Do you know what I mean?

This statement of M. Ganchimeg brings up the issue of gender and behavior differences among females and males.

Dr. Tseveen explains these gender and behavior differences from a different socioeconomic angle. With the transition from a centrally planned to a market economy in the last 15 years, many families earned low salaries. As a result, parents were busy with their own problems and paid less attention to the academic performance of their children. He believes girls were better able to cope with the post-communist transition. He additionally argues that those pupils who were more settled and more home-oriented were better focused and less influenced by the increase in drinking and crime--and most those pupils were, in his view, girls.

Some of the male student respondents expanded on Dr. Tseveen's thinking stating that students involved with peers who were a negative influence were more likely to drink, drop out of school and not continue to higher education. When we asked why the gap exists Dr. Tseveen answered, "Perhaps women are more hard-working." A male respondent, who never enrolled in higher education institution and who just returned from South Korea, said that males are more likely to keep bad company and start having drinking problems. He said that he met some males who traveled to South Korea to earn money but would spend all their earnings on drinking and partying.

Males are vulnerable to get attracted ... involved ... influenced by bad companies. Once influenced by bad company they became addicted to drinking, men unconsciously choose other paths of life... everything else than higher education.

Another reason, which was named by a few interview respondents, is gender imbalance in the teaching staff. According to MECS statistics, 70 percent of secondary school teachers and 90

percent of primary school teachers are women (2007). That figure is 50 percent in higher education, however, reducing the overall percentage of female educators in the classroom to 73 percent (MESC, 2007). D. Amaraa from UNICEF Mongolia expressed

Seems that boys are discouraged in enroll to higher education institutions because all teachers in schools are women nowadays. Especially, for young men seeing all teachers being women does not really encourage them to continue their education.

A male respondent studying medicine in the Etugen private institute and the oldest son in his family said

Reason of boys performing poorly in school goes back deeply into education system. The problem starts before students enter college. Boys also lack role models in schools. I saw mostly female teachers in my school.

He critiques the education system itself, and he believes that the government should create policies to encourage boys to stay in primary and secondary school.

In general, female student respondents expressed their idea about male students' underachievement in school by using strong language such as "lazy", "not committed", "laid back", "irresponsible", "not diligent" and so on. One of female respondents, a student from *Khovd aimag* who thought that women must be educated in order to take care of themselves, said that "Mongolian men are lazy, not committed, and irresponsible. Interestingly, Mongolians think it is ok for men." Another female student respondent from *Ovorkhangai aimag* also expressed that

Mongolian men are lazy and talk a lot about making money by doing their own business. However, they do not take actual actions in order to make their talks reality. They do not like to work and have a very strong desire to be fed by women.

She also added that since boys are lazy they do not perform well enough in schools. On the contrary, none of the male respondents expressed the idea of Mongolian men being lazy or irresponsible.

Another institutional factor that has an impact on the feminization of higher education was related to the technical and vocational education system in Mongolia. Technical and vocational schools provide secondary vocational education programs to train skilled workers and technicians. There are a number of these schools existing in Mongolia that enroll lower and upper secondary school graduates. In other words, graduates from the eight grade that did not make it to the ninth grade enroll in vocational schools. Dr. Tseveen stated

Mostly male students because of their underperformance in schools cannot pass exams after eighth grades. Those male students enroll in technical vocational students and majority of students in those schools are men. That is why technical and vocational schools are one of reasons why there are fewer boys in higher education than females.

When Dr. Sukhbaatar, director of technical and vocational education project of the Millennium Challenge Corporation in Mongolia, was asked if this assumption was true he answered this question from a historical prospective.

Just after the collapse of a socialist system, many of the schools, which are subsidized by the government, have been closed down due to the economic crisis in Mongolia. In 1991 there were around 25,000 students, but by 1995 their number had dropped to less than 10,000.

Furthermore, Dr. Sukhbaatar stated around twenty years after the transition to a market economy there was a rapid decline of vocational and technical education due to a massive expansion of higher education. However, recently this trend is changing. At the time of the interview, September 2008, there were around 30000 students.

Young people begun to understand that instead of having undergraduate degree and having difficulties to find employment, it is better to get technical education. Young people understand that they can earn more money with vocational education as skilled worker than with higher education. For example, drivers of big manufacturing and mining vehicles earn around \$1000 a month.

Therefore, according to Dr. Sukhbaatar, before the transition period and a few years after the transition, it was true that technical and vocational schools did not have a good reputation and

mostly male students who did not pass their exam after eight grade enrolled in them. However, recently new government policies to support technical and vocational schools have been implemented. As a result, the reputation of technical and vocational schools started to change and both males and females are enrolling them at an increasing rate. “The reputation of technical and vocational schools is growing and the gender gap in those schools is narrowing,” said Dr. Sukhbaatar.

5.6.3 Higher education system

Some of the respondents, particularly stakeholders of the higher education sector, referred to the Mongolian higher education structure as one of the factors influencing the fact that there are more female than males. They stated that the Mongolian higher education sector at present has a gender differentiated hidden curriculum, gender differentiated socialization and a clear market oriented approach in private universities, which are becoming reasons for fewer males than females there.

Professor N. Batchimeg, director of the department for undergraduate affairs at the NUM, believes that there is gender segregation by fields in higher education in Mongolia. As it has been described in the context and problem statement section of this dissertation some fields such as medicine and education have a clear predominance of women while other sectors such as construction and engineering have more male students than female students. Professor N. Batchimeg provided an example of entrance exam scores to the NUM.

Looking over the scores on a recent entrance exam in the Mongolian language department, 8 of the top 10 students are women. In economics, women are 7 of the top 10 students; in science departments, women account for about half of the top 10.

As it has been mentioned before, not all schools are female-dominated. Fields that may lead to

jobs with more difficult working conditions have maintained a high percentage of male students. According to a female student from the Geological Engineering School of the Mongolian Science and Technology University (hereafter MUST), that is one reason there are more male students in geological engineering classes. However, with the decline of much of Mongolian industry and less demand for labor in traditionally male-dominated professions, there are fewer technical classes of engineering. Courses the humanities and white-collar subjects such as accounting and management now make up the majority of courses and classes offered, and women dominate those classes. Women are also increasingly entering occupations traditionally considered to be men's domain, such as geology and gold mining. It is mostly related to the fact that the Mongolian mining industry is booming at the moment. B. Onon said

Traditionally very male oriented professions such as engineers are becoming more feminized. Women are catching up with men everywhere. What is happening to Mongolian men?

Further, when higher education specialists were asked why gender segregation exists in Mongolian higher education, professor Batchimeg said that culturally there are different gender-differentiated roles/socialization in Mongolian society as in other societies. When men and women make choices about their field of study, they unconsciously take into account values and traditions that men/women have encountered throughout their life. Dr. Tseven said that even secondary schools have gender differentiated curriculum and activities.

For example, in the secondary school curriculum there is class called “*ger ahui*” which literally means household activities. This class was designed especially for girls, where they taught how to sew, cook, knit and do other basic household activities. For boys, there is class called “*mujaan*”, which literally means carpentry, where they been taught how to make stuff out of wood and other materials. Interestingly, different genders have been taught to do different things from an early age.

When he was asked why this is happening, he said that it is how human beings have been developing throughout the centuries.

There are things that women do and there things that men do. Women give birth to children and nurture them; man cannot do that for sure...

Another reason education specialists brought up is related to a market oriented approach to higher education, particularly private higher education in Mongolia. As it has been explained in the literature review part of this dissertation, many private higher education institutions (116 private higher education institutions) were established over a very short period, mostly because of demand driven motives. In others words, many private institutions were established because there was a demand for certain fields because of the transition from a centrally planned to a market economy. For example, programs such as business administration and foreign languages were in high demand among school graduates. According to Dr. Tseveen, before the transition most Mongolians spoke only Russian.

But with transition to a market economy and globalization, people started to travel to and have different type of business with countries other than Russia and eastern socialist bloc countries. So people started to learn other languages such as English, German French, Chinese, Japanese, Korean and others. I remember one of the very first private universities was a foreign language institute called Orkhon. This shows how much demand foreign language had among the graduates.

On the other hand, professor Batchimeg from the NUM explained why business administration was high in demand although it did not exist as a field of study before the transition.

Mongolia before the transition never had a private sector. All of the sudden there is demand how to manage private companies, how to market products and services and how to make a profit. That is why demand of business administration programs grew among graduates. Based on this demand some professors and educators started up private universities.

Interestingly, foreign language and business administration have been established based a market-oriented approach mostly had women students; in other words they became female oriented field. Both Dr. Tseveen and professor Batchimeg expressed that the majority of students in these demand driven fields in private universities are women.

Table 12. Summary of Findings and its Implications

Research questions	Major Findings	Implications
<p>Q1. What are the cultural and societal norms that affect gender equity and access to higher education in Mongolia?</p>	<p>Cultural Factors:</p> <ul style="list-style-type: none"> • Mongolian value education to upgrade social status and for independence of women • Nomadic traditions: bequeath physical resources to sons and males are stronger and can survive without education 	<ul style="list-style-type: none"> • Mongolian parents send their daughters to higher education institutions and sons left behind • Boys prefer earning money instead of spending their parents money
	<p>Social Factors:</p> <ul style="list-style-type: none"> • Urban and rural divide: rural-to-urban migration, • Ignoring importance of rural schools: conditions of rural schools and dormitories • Consequences of socialist ruling; gender equity policy was in place 	<ul style="list-style-type: none"> • Young males mostly tend to migrate, so leave schools for work, trade or any other income • Not enough schools in remote areas, dormitories are overcrowded and unsanitary • Female have been empowered during socialist period, which has impacts till present
<p>Q2. What kind of economic factors influence college choice in Mongolia?</p>	<p>Economic Factors:</p> <ul style="list-style-type: none"> • Transition from a centrally planned economy to a market economy: privatization of livestock, poverty and creation of informal sector • Job opportunities available for males in cities or abroad 	<ul style="list-style-type: none"> • High rate of school drop particularly among boys (secondary school level) • Child labor particularly among boys (secondary school level) • School-to-work transition after eight grade, tenth grade (mostly boys) • Poor parents do not have money to send children to school, especially boys • Not many scholarships and loans available for higher education students • Remittances become official income of the country, mostly males work abroad
<p>Q3. What are the institutional factors for the lower participation of males than females in Mongolian higher education?</p>	<p>Institutional factors:</p> <ul style="list-style-type: none"> • Education system: exit and entrance exam system, lack of role models • Higher education system: gender differentiated hidden curriculum, gender differentiated socialization, market oriented approach oriented approach 	<ul style="list-style-type: none"> • Males do not perform as well as females in schools • Males do not score high enough at exit and entrance exams to enroll in higher education institutions • There is more demand for female oriented fields • There are more female dominated fields • Gender differentiated curriculum exists in secondary school

6.0 CONCLUSION

The final chapter of this dissertation begins with a brief overview of the study and its findings. The subsequent section explores what was learned from the study concerning reasons of lower participation of males than females in Mongolian higher education, draws parallels between the study's findings and those in the literature, followed by a discussion of the wider relevance of these findings. Future research and policy implications are combined in the discussions of findings. Finally, a brief overview of policy recommendations and a concluding note are given at the end of this chapter.

6.1 OVERVIEW OF THE STUDY AND FINDINGS

This dissertation investigated the reasons for lower participation of males than females in Mongolian higher education. More specifically, this qualitative study sought to examine what reasons influence the reverse gender balance. Using an inductive model of qualitative analysis design, this investigation considered the human capital theory and socio-economic effects on college choice as a conceptual framework, which is commonly used by social science scholars. Forty six respondents were interviewed and the findings of this study were based on analysis of these interviews using the conceptual framework.

Four major sets of factors have been found as reasons why the gender imbalance exists in Mongolian higher education, which include cultural, social, economic and institutional factors (see figure 10). Interestingly, some of the factors are very unique to the Mongolian context while others reflect global trends within the Mongolian context. A summary of the findings is also illustrated in the form of a table (see table 12) at the end of the previous chapter.

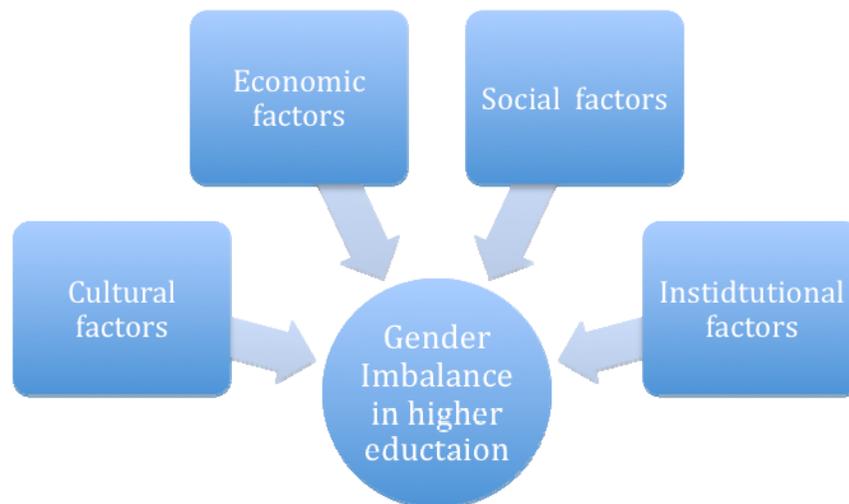


Figure 10. Factors Influencing to Gender Imbalance

First, the findings of this study show that cultural factors have a clear impact on the gender imbalance in Mongolian higher education. Findings show that Mongolian parents treat sons and daughters differently, there is a traditional belief that males are stronger and can survive without an education. According to the findings of the study, if faced with the decision to send a son or a daughter to higher education, Mongolian parents would choose to support their daughters to facilitate their independence and empowerment by the time they presumably get married. On the contrary, according to nomadic traditions parents bequeath their physical resources to their sons.

The second set of factors involves social factors. The urban and rural divide that exists in Mongolia at moment, particularly internal migration from the countryside to the cities and

inattention to rural schools were named as the most important factors influencing the feminization of higher education. Interestingly, the consequences of socialist ruling in Mongolia for over 70 years prior to the transition to a market economy was one the reasons for the gender imbalance in Mongolian higher education.

The next set of factors influencing the reverse gender balance concerns economic factors. These factors mostly explain the consequences of the transition period from a centrally planned economy to a market economy including privatization, the creation of informal sector and poverty. Another finding is employment opportunities for males existing abroad and in the cities, which became available as a result of globalization and democracy processes.

Interesting outcomes of this study are related to institutional factors explaining feminization of Mongolian higher education. Findings show that factors related to structural problems of Mongolian education system, including tertiary education, have effects on reverse gender balance in higher education in Mongolia. The fact that females perform better in school and cope better with the post-communist transition are some of the reasons for the reverse gender gap in education. Additionally, the findings show that men's underperformance in school and struggle during the transition period are related to glitches in the education system.

6.2 DISCUSSIONS OF FINDINGS

6.2.1 Reasons of gender equity in higher education

As seen from the findings of this research, the reasons for lower participation of males than females in Mongolian higher education are varied and complex. The findings suggest that most of the reasons for the reverse gender gap in higher education are closely related to the fact that Mongolia went through and still is undergoing major changes caused by the transition from a centrally planned economy to a market economy. On the other hand, some of the reasons are related to unique Mongolian traditions and a nomadic lifestyle that Mongolians have lead for centuries. In addition, the consequences and structural elements of the socialist period have had impact on gender equity in higher education. Overall, four sets of factors have had a significant impact on the gender imbalance existing in Mongolian higher education: cultural, social, economic and institutional factors, which are further divided into smaller reasons.

Since the issue of gender imbalance in higher education is complex, the reasons for this phenomenon have an overlapping character. Some of the reasons can be explained as a social factor and also as an economic, cultural or institutional factor. While some of the factors can be a cause of one reason, that very same factor can be its consequence. For instance, the fact that males have not coped with post-socialist transition as well as females was explained in the previous chapter as it is one of the reasons why male students do not perform well in school. In other words, some male students involved with peers who have negative influence were more likely to drink and drop out of school. On the contrary, this occurrence can be explained as a consequence of the transition process itself. In other words since transition brought a lot of difficulties to the lives of ordinary people, some men become alcoholics and choose paths other

than higher education. As it can be seen from this example, the findings of this research and particularly how it has been presented can be arguable, however judgments have been made based on the theoretical framework used for this study. The interpretation of findings also demonstrates that the reverse gender gap in Mongolian higher education is a complicated phenomenon and further research from different angles can contribute to a clearer picture of the issue.

The findings of this research suggest that the reasons for the phenomenon of the reverse gender gap in education has long roots and feminization of the higher education sector has not happened over night. Most of the reasons show that the gender gap starts at pre-higher education levels of education, particularly secondary education. Mostly, the gender gap occurs as a result of males dropping out at the secondary school level. As it has been explained in the previous chapter, the reasons for males dropping out of school are related to cultural traditions, social conditions, economic factors and institutional settings. The most common reasons for boys dropping out of school are privatization of livestock and family poverty. It seems that lack of motivation or interest on the part of the student in addition to their underperformance in school, especially among adolescent boys, are also important reasons why more boys drop out of school before entering post-secondary education. Other factors include the need to work or help at home, distance from school, lack of transport, family moving or emigrating, influence of friends who are themselves drop-outs, teacher or school conditions, and finding a job or earning money.

As it has been explained in the findings, there are many negative impacts as a result of the transition period such as child labor, which is closely related to poverty and the gender gap in education. Therefore, it is important to preserve access to education and retain students from poor families, especially boys. The government needs to take action to eliminate child labor and

have policies to support children from poor families to ensure access to education and retention in school because there is a risk that poverty will be transmitted from one generation to another, creating a permanent “underclass” of poor and unemployed. Excluding the poor from education represents a loss to society and to the economy. Furthermore, children excluded from education by poverty face a higher risk of social problems, health problems, and alienation from mainstream society. Therefore, in order to balance gender in higher education, actions need to be taken at lower levels, particularly at the secondary education level. The government needs to strengthen the education “pipeline” through improvements in primary and secondary schooling especially for poor and disadvantaged male students.

6.2.2 Where are Mongolian educated women?

Although more Mongolian women have pursued higher education qualifications compared to their male counterparts in Mongolia, it does not mean that educational gains made by women indicate gender equity in society as a whole. Statistically, there are more women, who conferred and are conferring higher education degrees, however it does not mean women hold positions of power in the workforce and politics.

According to human capital theory, investments in higher education should give back higher returns in the form of better jobs or higher salaries. In Mongolia, the returns on education for women may be lower than that for men given women’s position in the occupational and decision-making hierarchy in formal employment (Burn & Oidov, 2001). For women in Mongolia, the relationship between achievements in education and pay, position, and prospects for promotion and advancement in employment and business appear tenuous. This shows that implications of human capital theory have a great gender divide in Mongolia and proves the

claims of some researchers (Mincer, 1958; Shultz, 1971; Woodhall, 1973) about lower returns on education for females. One important issue researchers need to study in the future is why Mongolian parents continue investing in their daughters' education when female education does not bring the same returns as it does for men.

One of the possible suggestions why educated women in Mongolia do not get the same return on their education can be explained by the fact that women do household chores in addition to their paid work (Nazaki et al, 2009). Although, female emancipation is regarded as one of the achievements of the socialist era, it seems that marriage and family were and still are critical institutions for women. Therefore, seems Mongolian women need to juggle their personal life and occupational career.

The gap between the laws and instruments that establish economic and social rights and their low level of implementation was interpreted as an indicator of the inability or reluctance of women to affirm and claim their rights. Hence, the fact that Mongolian females have pursued higher education degrees more than their male counterparts does not prove that women have achieved greater gender equity, and further does not really signify that women are prepared to participate in the local economy and politics as partners with men. Most importantly, it is unclear how resources that have been invested into a females' education and resulting human potential are going to be fully used in meeting the needs and demands for developing Mongolian society. Therefore, new and existing policies that promote gender equality and women's empowerment, especially in employment and politics, need to be developed, implemented and enforced. Furthermore, an investigation of the relationships between resources that have been invested into a female's education and utilization of resulting human capital could be an interesting topic to study in future.

6.2.3 Is Mongolian higher education facing educational inflation?

Some researchers argue that human capital theory contributes to degradation or inflation of higher education. As it has been mentioned, the number of private universities grew dramatically after the transition period in Mongolia. Most private universities follow a market-oriented approach and therefore have been established due to student demand. In other words they have been established to meet the needs of the market and offered demand-driven educational programs that were “fashionable” at a given point of time. Most of these “new” and “fashionable” fields have appealed to women, which includes the social science, business and law. As a result fields of study in Mongolia are not equally represented by male and female students. Nazaki, Aranha, Fix Domigues and Nakajima (2009) argue that there is clear gender segregation by field of studies, which suggests that women may be overrepresented in historically feminized areas such as health and welfare and education and underrepresented in historically masculineized areas such as engineering, manufacturing and construction. Some findings of this research show that this tendency has long roots in social norms and expectations followed in the home and society, which has been dictated by cultural traditions. Further investigation into how females and males make choices concerning their field of study upon enrolling in higher education institutions could shed more light on the reverse gender gap in Mongolian higher education.

As the number of private universities in Mongolia has grown each year, the number of students has been increasing steadily as well. The most interesting phenomenon about the student body in private universities is that the majority of students are female. The number of female students in private universities exceeds the number of female students in public universities. The findings of this study suggest that perhaps private higher education institutions in Mongolia are

contributing to inflation of higher education; the quality of education offered by these private institutions needs to be examined in greater depth. Therefore, the government needs to take action to improve the quality of higher education in general. Specifically, quality assurance system in higher education needs to be improved.

Moreover, this study's findings suggest that it is not easy to find a job after graduating from higher education institutions. Some respondents pointed out that it is impossible to find a job unless one knows someone influential. This advocates that the hiring process in Mongolia needs to be reformed so it is more transparent and all candidates should have an equal opportunity.

Additionally, another controversy about human capital theory is related to the claim that the excess number of higher education institutions leads to degradation of a higher education degree. As it has been explained in the literature review, the notion of the degradation of higher education is related to what some researchers (Spring, 1991; Woodhall, 1987) called "filtering," "screening" or "sheepskin." In other words, they argue that higher education is becoming a place where graduates confer a diploma or degree without taking into account the knowledge and skills obtained during their studies. Furthermore, these researchers claim that holders of "sheepskin" diploma or degree are able to obtain jobs not because of their knowledge and skills but because they hold diploma or degree. The findings of this study suggest that there is an understanding among Mongolians that if one holds a higher education degree, a better job, salary and life are guaranteed. It seems like all parents, including nomadic parents, wish for their children especially daughters to enroll in higher education institutions and obtain degrees and diplomas no matter the cost or quality. For instance, among the respondents of this study there was a female student whose parents gave up their nomadic lifestyle and moved to the city just to

support her and her sisters to study in universities. This clearly shows that maybe the notion of “sheepskin” education exists in Mongolian higher education.

Additionally, as it has been described in literature review, the Mongolian education has apparent characteristics of “mass” education, which initially refers to the size of higher education. As the total number of students in higher education grows, the system becomes less exclusive and more inclusive; attitudes change from regarding higher education as a privilege, then as a right and finally to obligation, a required step to adulthood and employment (Brunner & Tillet, 2007). There are positive and negative sides to “mass” education. For example as the total number of graduates or diploma holders increases a credential becomes a useful and then necessary ticket for the job market regardless of the job. For example, it is not unheard of to see advertisement in Mongolia for a salesperson requiring qualifications of which a higher education degree and knowledge of foreign languages.

To sum up, the findings of this study have identified possible symptoms of “higher education inflation”, “higher education degradation”, and “mass” education and “sheepskin” elements. All these issues relate to the quality of the higher education system and to the quality of newly established private universities in particular. Furthermore, the findings of this research reveal that reasons for the gender imbalance in Mongolian higher education are indirectly caused by the current situation of higher education and its quality. In order to bring gender balance in education, the issues facing by higher education in Mongolia need to be solved. In particular, the Mongolian government needs to take action to improve the quality assurance system in higher education. Specifically, legal and regulatory frameworks regarding private universities need to be revisited. New funding mechanisms for higher education system, including public and private universities, need to be developed to encourage good governance and innovation.

6.2.4 What is happening to males?

Findings of this study identify the fact that the reverse gender gap in Mongolia is due in part to females performing better than males in school. According to McDonough (1991, 1997), for most students academic achievement remains an important determinant of whether one enrolls and obtains a higher education degree. It seems it is true in the Mongolian case that academic performance acts as a screening device for higher education enrollment. Because Mongolian men do not perform well in school, they tend to enroll in higher education institutions in less numbers than their female counterparts.

According to McDonough (1991), because girls spend more time on homework and avoid disciplinary problems, they tend to perform better in school than boys. This claim seems to be true in Mongolian as well. Findings of this study show that young males in Mongolia tend to have disciplinary problems such as drinking; as result they do not perform well in schools and consequently drop out.

While many reasons for males' low achievement in schools have been described in the findings, the testing system, particularly exit and entrance exams were named as one of the more significant ones. Findings show that somehow males do not perform very well on tests that assess knowledge obtained. Studying reasons behind male's low achievement compared to their higher achieving female peers can be an independent study itself.

Nevertheless, in order bring gender balance throughout the education system in Mongolia, it seems that the testing system in schools should be changed and oriented to assess learning abilities of students and not the knowledge obtained by students. In 2006, the MECS introduced a standardized test for secondary school graduates entering higher education institutions. The content of this comparatively new test has been developed to scrutinize learning abilities of

students. Yet, the content of exit tests that students take at the end of each important cycle of schooling has not been changed; and it still has characteristics of testing knowledge obtained.

Interestingly, as it has been described in the problem statement part of this dissertation, the proportion of women in higher education has been slowly decreasing since the beginning of 2000. In other words, the number of male students attending higher education has been increasing slightly year by year. Even though there are more female students than male students in Mongolian universities and institutions, men seems are enrolling in higher education in greater numbers now compared to years right after the transition. Investigating the reasons why males are returning and availing themselves to higher education opportunities can be an interesting topic to study in future. This could explain factors of higher education feminization from a different angle.

Another interesting fact about employment opportunity for males is related to the mining boom in Mongolia. The Mongolian mining industry has been playing a major role in the economy, especially in the total output of the industrial sector, for many years. The industry's share in the total GDP more than tripled in 5 years, increasing from 10 percent in 2002 to 33 percent in 2007 (MNMA, 2010). At the moment, the mining and minerals sector generates more than three quarters of its total export revenues, and employs more than 42 thousand people, which accounts for around 4 percent of the total labor force (MNMA, 2010).

The mining sector in Mongolia is booming at the moment because the Mongolian Government has made agreement with Canada's Ivanhoe Mines and Rio Tinto to mine in Mongolia's South Gobi region, which offers the world's largest undeveloped copper and gold reserves in the world, estimated to be worth over \$5 billion. According to the agreement, the Mongolian government keeps a 34% stake in the project. So far, mining may have created over

12,000 job opportunities (Mongol Environment Conservation, 2010) and more opportunities to come. For instance, *Dornogobi* province's *Tsagaan suvraga*, *Unegt* and *Zuunbayan* regions have rich reserve of copper, molybdenum, gypsum, zeolite, oil and uranium. The province has well developed infrastructure: province's capital *Sainshand* and several *soums* are connected by railway. Therefore, there is plan to build industrial complex based on these advantages. Estimations show that constructing the industrial complex in *Dornogobi aimag* will create 100 thousand new jobs (MNMA, 2010). Especially, those opportunities are related to male job opportunities, which pay good salaries but not require higher education and may further influence the gender imbalance in Mongolian higher Education.

6.2.5 Parental and family support

Most classic literature of inequality in education typically has focused on disparities by social class among men (Blau & Duncan, 1967; Bourdieu & Passeron, 1977). Gender is often mentioned as a variation on the central theme of social class inequalities, so it is important to examine socio-economic difference in access. According to McDonough (1997), in the most affluent families gender differences seem to be minimal, but males from middle and lower income class families are less likely to enroll in higher education than their female siblings. Therefore, when designing this study, I was expecting that socio-economic class differences would be one of the reasons for the reverse gender balance in higher education. However, to my surprise none of the respondents directly referred to socio-economic class being a reason or factor influencing the feminization of higher education. Some findings did indirectly point to the socio-economic differences in access such as inability to provide for children's' schooling, but it seems that in the Mongolian case, parents, including parents with financial hardship and nomadic

parents, have a clear understanding of the significance of investing in the higher education of their children in order to secure a better future. Therefore, Mongolian parents from different socio-economic backgrounds, including those from the middle and lower classes, strive to help their children, especially daughters, to acquire a higher education degree.

Furthermore, it seems that some parents and siblings feel almost obligated to support their children, especially daughters and sisters, financially during their studies in higher education institutions. The findings point out that the parent and family support system is strong and has a great influence on higher education attendance in Mongolia. In order to ease the financial burden of Mongolian parents who already have financial struggles due to the economic conditions in the country, there is a need to create a financial aid system in the form of college scholarships and student loans. Particularly, special scholarships targeting male students from rural areas could help to narrow the existing gender gap in Mongolian higher education.

6.3 POLICY IMPLICATIONS

This study yields valuable implications for future policy, practice, and research. These policy implications are broad and relate to secondary and higher education system reform and other changes in Mongolia. Some of the recommended policy recommendations have national reform characteristics. However these policies have been suggested with the goal to increase gender equity in higher education in particular and to improve gender equality issues in the society in general.

- In order to balance gender in higher education, actions need to be taken at lower levels particularly at the secondary education level. The government needs to

strengthen the education “pipeline” through improvements in primary and secondary schooling especially for poor and disadvantaged male students.

- The government needs to take action to eliminate child labor and have policies to support children from poor families to preserve educational access and remain in school.
- Mongolian universities need to adopt new purposes and functions of higher education that would contribute to the development of universities as research institutions. Such institutions would be focused more on encouraging students to expand their intellect and become good citizens of a democratic society.
- Further, the government needs to take action to improve the quality of higher education in general. Specifically, the quality assurance system in higher education needs to be improved, with special attention to legal and regulatory frameworks regarding private universities.
- New funding mechanisms for the higher education system as a whole, which includes public and private universities, needs to be developed to encourage good governance and innovation.
- There is the need to create a financial aid system in the form of college scholarships and student loans. Particularly, special scholarships targeting male students from rural areas could help to narrow the existing gender gap in Mongolian higher education.
- In order to balance gender throughout the education system in Mongolia, the testing/exam system at secondary and tertiary levels should be changed and

oriented to assess learning abilities of students rather than testing the knowledge obtained by students.

- New and existing policies that promote gender equality and women's empowerment, especially in employment and politics, need to be developed, implemented and enforced.
- The employment hiring process in Mongolia needs to be reformed so it is more transparent and all candidates should have equal opportunities.

6.4 FUTURE RESEARCH IMPLICATIONS

Along with the reasons for lower participation of male students than their female counterparts in Mongolian higher education addressed in this dissertation, the theoretical framework and methodological approach used to investigate gender equity creates a number of potential areas for future research. In this subsection, the following areas of new research, which, if carried out, will have potential to increase an understanding of the phenomenon studied, have been suggested.

- An important issue researchers need to study in the future is why Mongolian parents continue investing in their daughters' education when female education does not bring the same returns as it does for men.
- An investigation of the relationships between resources that have been invested into a female's education and utilization of resulting human capital could be an interesting topic to study in future.
- An investigation into how females and males make choices concerning their field of

study upon enrolling in higher education institutions could shed more light on the reverse gender gap in Mongolian higher education.

- The findings of this study suggest that perhaps private higher education institutions in Mongolia are contributing to inflation of higher education; the quality of education offered by these private institutions needs to be examined in greater depth.
- Studying reasons behind male's low achievement compared to their higher achieving female peers can be an independent study itself.
- Investigating the reasons why males might return to pursue higher education opportunities can be an interesting topic to study in future. This could explain factors of higher education feminization from a different angle.

6.5 CONCLUSIONS

While men were trying to find work in a burgeoning market economy in order to earn money to help their families, it seems that Mongolian women were and are acquiring education and skills that are necessary for longer-term prosperity. The findings of this study show that there are many reasons such as institutional, social, economic, traditional, cultural and behavioral behind this phenomenon.

In the future, joblessness, inadequate education and the inability for Mongolian men to support themselves and their families might damage the gender balance in society as a whole. If this situation of gender imbalance in higher education and society continues long enough, it may negatively affect social life, especially family life. Raising awareness of the existing gender imbalance in higher education is important for policy makers because the issue lies on the

intersection of many fields including education, health and labor. It is important for educators, political leaders, and the media to invest time, resources, and attention on the male students who are in greatest danger of being left behind in the educational pipeline as they are unable to meet the market economy demands for highly educated workers.

Furthermore, the gender imbalance at higher levels of education was also seen as problematic in terms of the social, intellectual and emotional partnerships that educated women could develop with men. The fact that Mongolian females have pursued higher education degrees more than their male counterparts does not prove that women have achieved greater gender equity at the moment, and further does not really signify that women are prepared to participate in the local economy and politics as partners with men. Additionally, it is unclear how resources that have been invested into female's education and the human potential of these educated women are going to be fully used in meeting the needs and demands for development of Mongolian society.

APPENDIX A

INTERVIEW RESPONDENTS BY THEIR CHARACTERISTICS

Phase	N	Respondent	Gender	Occupation	Employer	Respondents Origin
Phase ONE, Summer 2007	1		Male	Student School of Economic Studies	NUM	Khubsgul
	2		Female	Student School of Economic Studies	NUM	Khentii
	3		Male	Student School of Social Studies	NUM	UB
	4		Female	Student School of Social Sciences	NUM	Khovd
	5		Male	Student School of Natural Science	NUM	Dundgobi
	6		Male	Student School of Natural Science	NUM	Darkhan
	7		Male	None college attendee		Ovorkhangai

Phase	N	Respondent	Gender	Occupation	Employer	Respondents Origin
Phase ONE, Summer 2007	8		Male	None college attendee		Dundgobi
	9		Female	None college attendee		Dundgobi
	10		Female	Student School of Foreign Languages	NUM	Darkhan
	11		Male	Student School of Law	NUM	Tuv
	12		Male	Student School of Foreign Languages	NUM	UB
	13		Female	Student School of Law	NUM	Zavkhan
	14		Female	Student School of Natural Science	NUM	Tov
	15		Male	Student School of Natural Science	NUM	Uvs
	16		Female	Student School of Information and Technology	NUM	Gobisumber
	17		Male	Student School of Social Sciences	NUM	UB
	18		Female	School of Physics	NUM	UB
	19		Female	Student School of Physics	NUM	Ovorkhangai
	20		Male	Student School of Social Sciences	NUM	Zavkhan
	21		Male	Student School of Science	NUM	Erdenet
22		Female	Student School of Science	NUM	UB	

Phase	N	Respondent	Gender	Occupation	Employer	Respondents Origin
Phase ONE, Summer 2007	23		Female	Student School of Information and Technology	NUM	Khentii
	24		Male	Student School of Information and Technology	NUM	Selenge
	25		Female	Student School of Journalism	NUM	Ovorkhnagai
	26		Male	Student School of Journalism	NUM	Khentii
	27		Male	Student School of Geological Engineering	MUST	UB
	28		Male	Student	Institute of Finance and Economics	UB
	29		Male	Student	Institute of Finance and Economics	UB
	30		Female		Agricultural University	Dundgobi
	31		Female		Agricultural University	Ovorkhangai
	32		Female	Student School of Information and Technology	MUST	UB
	33		Female	Student	Etugen Private Institute	Ovorkhangai
	34		Male	Student	Etugen Private Institute	Tov

Phase	N	Respondent	Gender	Occupation	Employer	Respondents Origin
Phase TWO, Summer 2008	1	Amgalan Terbish	Female	Executive Director	Gender Center for Sustainable Development	UB
	2	Onon. B	Female	Program Director	Gender Center for Sustainable Development	UB
	3	Tseveen. Ts	Male	Professor	School of Economic Studies, NUM	UB
	4	Amaraa Dorjsambuu	Female	Child Protection Officer	UNICEF Mongolia	UB
	5	Boldbaatar Jigjid	Male	Member	Constitutional Court of Mongolia and Mongolian Academy of Science	Bulgan
	6	Sukhbaatar J.	Male	Director	Technical & Vocational Education Project (Millennium Challenge Account)	UB
	7	Mongolmaa Norjinkham	Female	National Program Manager	International Program on the Elimination of Child Labor of International Labor Organization	UB
	8	Batchimeg Namsraidorj	Female	Director of Department for Undergraduate Affairs	NUM	UB
	9	Regsuren Bat-Erdene	Male	Director, Higher and Vocational Education Department	MECS	UB
	10	Ganchimeg Munksaikhan	Female	School teacher	High school # 1, Bulgan	Bulgan

Phase	N	Respondent	Gender	Occupation	Employer	Respondents Origin
Phase THREE, Summer 2009	1	Bataa	Male	Driver	Private company	Dundgobi
	2	Khurelmaa Dashdorj	Female	Monitoring and Evaluation Officer	UNICEF Mongolia	UB
TOTAL	46 Respondents					

APPENDIX B

GENDER EQUITY IN ACCESS TO HIGHER EDUCATION IN MONGOLIA

Study Director: John C. Weidman, Ph.D.

Co-Director: Enkhjargal Adiya, Doctoral Student

The purpose of this research is to study reasons for the lower participation of males than females in Mongolian higher education. It explores the cultural and societal norms that affect gender equity and access to higher education in Mongolia as well as such economic factors as opportunity costs and deferred income. We are interviewing undergraduate students at the NUM in order to learn about their own experiences as well as those of their siblings. If you are willing to participate, our interview will ask about background (e.g., age, years of education, family background), as well as about your understanding of the reasons why so many Mongolian males do not go to higher education. We will ask your views about your own experiences as well as those of your siblings of university age. There are no foreseeable risks or any direct benefits to you associated with this project. Your responses to this interview will be kept anonymous and will not be identifiable in any way. All responses are confidential, and results will be kept under lock and key. Your participation is voluntary, and you may withdraw from this project at any time. The Co-Director of the study, Ms. Enkhjargal Adiya, can be reached by mobile phone at 976-95791793 if you have any questions.

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