

MONGOLIA: GENDER DISPARITIES IN LABOR MARKETS AND POLICY SUGGESTIONS



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INTRODUCTION

Mongolia has made strong progress on key gender-related Millennium Development Goals (MDGs) in recent years. Two vital targets for maternal health and child mortality were met in 2008. Gender indicators in education and health are also better in many respects than in comparator countries in the East Asia and Pacific region.

Nevertheless, benchmarking Mongolia against other countries reveals considerable inequalities with respect to economic and political power and decision-making. In the context of labor markets, gender disparities are especially prominent in the type of work women do – mostly unpaid with limited engagement in self-employment/entrepreneurial activities and with high levels of occupational segregation – and the wages that they are paid. In addition, women also have a limited presence in higher level managerial positions.

Gender inequality in economic participation and labor markets has widespread ramifications not only for development but also for growth¹ as documented in the World Bank's World Development Report (2012) on gender. For instance, the Food and Agricultural Organization estimates that if women and men had equal access to productive resources, agricultural output in developing countries could increase by 2.5-4 percent. Outside agriculture, studies suggest that eliminating discrimination against women workers and managers could yield increases in productivity per worker of 25-40 percent and 7-18 percent for East Asia (Cuberes and Teignier-Baque, 2011)²

These figures only represent an estimate of *economic* costs: limiting women's economic opportunities also has pervasive intergenerational social costs that remain unmeasured. In Mongolia, these inequalities are linked to differential

treatment in labor markets and labor laws and regulations such as restrictions on women's occupational choices that were only annulled in 2008, difficulties in accessing child care and also to cultural norms, which mean that working women shoulder a "double burden" of work, outside the home and household duties within. They impact women's participation rates overall as well as in high-growth sectors in the economy, and have implications for career progression, pensions and poverty, particularly in female headed households where levels of dependency are high.

Accordingly, policy to improve labor market outcomes for women needs to address each of these factors. In 2011 Mongolia passed a Law on Promotion of Gender Equality. This is an important first step in a country which previously lacked any specific national law on gender equality, and particularly because it spells out responsibilities of specific public agencies to ensure gender equality and specifies that at least one quarter of all representatives in central and local elected bodies be women. In addition, the government can consider a range of policies to reduce gender disparities in labor markets. In the context of public sector practices, these could include reviewing where the female workforce is located, what impedes women's career progression and what are their main concerns, and coming up with strategies to address these. In addition, there is some evidence that retirement laws that allow women to retire earlier than men have been misused with potentially adverse impacts on women's careers and pensions. This suggests the need for policies that limit the scope for abuse, while at the same time ensuring that employers retain the flexibility to move workers to their most productive uses. The government may also consider introducing affirmative action policies in sectors where women are acutely under-represented such as mining and transport, storage and communication. This may help to offset any legacy of occupational segmentation from labor

1 World Bank World Development Report (2012a), "Gender Equality and Development"

2 World Bank (2012b), "Toward Gender Equality in East Asia and the Pacific: A Companion to the World Development Report"

regulations referred to above as well as any cultural/social biases that prevent women from working in traditionally male-dominated sectors.

Furthermore, policies that help to balance work and family life need to be introduced, such as paternity leave for fathers and improving childcare facilities that currently suffer from a lack of funding and overcrowding, particularly in Ulaanbaatar which experiences large inflows of migrants from rural areas. Policies in the private sector that support a more equitable participation of women also need to be encouraged.

Finally, women's participation in entrepreneurial work is lower than that of men. Moreover, overall levels of informality appear to

be increasing. Mongolia is currently ranked 86th out of 171 economies³ on the overall ease of doing business and women who lack access to business networks or finance may be doubly discouraged from setting up their own businesses. This suggests a greater role for policies that make it easier to start and operate businesses, including in high-growth sectors. Other policies that may be helpful include promoting awareness of and encouraging the development of (appropriately regulated and supervised) micro-lending institutions. Broad policy actions for the government are set out in Table 1.

³ World Bank 2012 Doing Business Indicators Report, ranking for 2011

Table 1: Key Policy Recommendations and Implementing Agencies and Partners

Key Policy Recommendations	Implementing Agencies/Partners
<ul style="list-style-type: none"> • Implement the Law on Gender Equality. The Law sets out the responsibilities of public agencies with regard to gender discrimination and ensuring adequate representation of women at all levels of government and also mandates the establishment of a complaint mechanism through the National Human Rights Commission and employment dispute commissions. Improving gender equality in the public sector will require auditing where women are located, what impedes their progress and setting benchmarks for senior management. • Increase the funding of the National Committee on Gender Equality, the main agency in charge of monitoring the Law on Gender Equality. • Introduce affirmative action regulations in sectors where women are acutely under-represented such as mining. Aside from cultural/social norms, low levels of participation are also likely the result of labor regulations that restricted the degree to which women could participate in these sectors and which were only annulled in 2008. The government could encourage greater participation through affirmative action regulations that help to raise female participation e.g as has happened in South Africa where the government mandated that 10 percent of the mining workforce be female by 2010 • Review retirement laws to ensure that women are not induced to retire earlier than they want <p>These allow women to voluntarily retire earlier than men, but there is some evidence to suggest that they have been misused with adverse impacts on women’s careers and pensions. Accordingly policies that limit any potential scope for abuse, for example by setting up appropriate complaint mechanisms, while at the same time ensuring that employers retain the flexibility to move workers to their most productive uses, need to be considered.</p> <p>Review childcare and maternal/paternal leave policies. Mongolia currently does not provide paternity leave, and child care by the state suffers from under-funding, overcrowding (particularly in urban areas) and a lack of teacher training, with national policies emphasizing family-based care of pre-schoolers.</p> • Promote gender equality policies in the private sector. Introducing/funding workshops on gender sensitive policies, introducing national awards/rankings of companies that follow the most gender-friendly policies. The government could also set out best practice guidelines for the private sector and ask firms to document to what extent they comply with these at the time of the publication of their annual reports or why they do not. • Strengthening women’s opportunities as entrepreneurs – and in the private sector more broadly. Far fewer women are self-employed compared to men, particularly in urban areas. In addition, the costs of doing business are high, which may doubly disadvantage women who may lack access to social and financial capital. Mongolia is currently ranked 86th out of a 171 economies on the overall ease of doing business and women who lack access to business networks or finance may be doubly discouraged. Aside from policies that reduce the costs of business regulations, other policies that may be helpful include promoting awareness of and encouraging the development of (appropriately regulated and supervised) micro-lending institutions. These would benefit both men and women. 	<ul style="list-style-type: none"> • The main implementing/monitoring agency for the Law on Gender Equality is the National Committee on Gender Equality (NCGE), supported by all organs of government. Partners: ADB, World Bank, other international donors and national and international agencies. • Ministry of Finance, the national Cabinet and Parliament • The Ministry of Social Welfare and Labor/ Ministry of Mineral Resources and Energy • The Ministry of Social Welfare and Labor, supported by NGOs. • The Ministries of Education, Culture and Science and of Social Welfare and Labor, supported by NGOs, international donors • The National Committee on Gender Equality (NCGE), the Ministry of Social Welfare and Labor, supported by NGOs. • Ministry of Finance supported by NGOs and international donors such as the World Bank and Asian Development Bank

This policy note is structured as follows. It starts by comparing gender outcomes in Mongolia with other comparator countries, before looking deeper into gender differences in labor markets within the country. It then concludes with a set of strategies, policies and practices that could help improve economic participation and labor market outcomes for women.

LABOR MARKET OUTCOMES BY GENDER: HOW MONGOLIA COMPARES WITH OTHER COUNTRIES

Gender inequalities vis-a-vis the level of human development are fairly low in Mongolia, but highly prominent in economic and political power and participation in decision making. For instance, consider the Gender Development Index (GDI), is simply the Human Development³ index which measures inequalities in three dimensions – a long and healthy life, education, and a decent standard of living – adjusted for gender imbalances. The ratio or the difference between the GDI and HDI measures the gender gap in human development. However, at 100%, the ratio places Mongolia as the best among 155 countries in 2009.⁴ In education, if anything, the country is faced with reverse (or pro-female) gender gaps in enrolment rates. There is no major gender difference in net enrolment rates at the primary level while at the secondary and tertiary level gender gaps in enrolment strongly favor female students (Figure 1).

However, a comparison of *economic and political power* shows Mongolia in a much less flattering light. The Gender Empowerment Measure (GEM) indicates whether women take an active part in economic and political life. It tracks women's share of legislators, senior officials and managers; of professional and technical workers; seats in parliament held by women; and the gender disparity in earned income. Here Mongolia scores a lowly 94th out of a 109 countries (Figure 2) much worse than in other East Asian economies. That participation in political decision making is poor can be gauged from the fact that in 2009 only 4⁵ percent of Mongolian MPs were women,

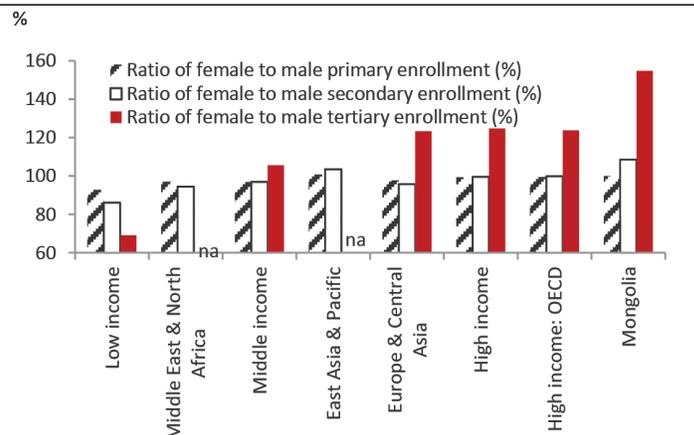
compared to 10.5 percent in 1990. The proportion has since increased to 12 percent in the latest 2012 parliamentary elections, but this is lower than the global average of 19.7 percent and is also lower compared to several other developing countries in the region. Moreover, until 2011, Mongolia lacked any specific national law on gender equality although it was a signatory to major international conventions on the rights of women and children (ADB, 2010). The new law on gender equality passed by Parliament in February 2011 spells out the responsibilities of specific public agencies to ensure gender equality in various sectors such as employment, education, health, and across the public sector in general. Furthermore, under the labor regulations introduced in 1999 (Appendix A) which are a leftover from the country's communist past,⁶ for many years women were prohibited from an extensive range of activities (e.g. driving vehicles which carry more than 25 passengers, to work as machinists, to butcher cattle). These regulations were only annulled in 2008, and it is likely that they were a key contributing factor in reinforcing occupational segmentation in Mongolia alongside gender stereotypes.

4 The greater the gender disparity in basic human development, the lower is a country's GDI relative to its HDI. Mongolia's GDI value was 0.727 in 2009 compared to its HDI value of 0.727

5 UNDP (2010) Asia Pacific Human Development Report

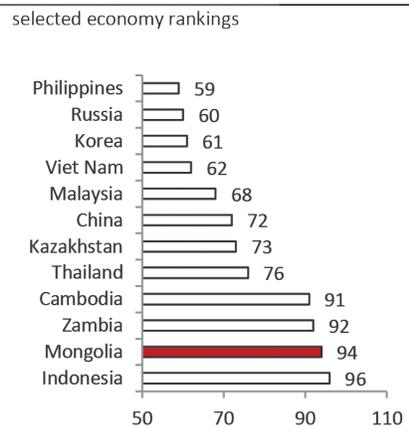
6 2010 Women, Business and Law Report by the World Bank

Figure 1. Ratio of female to male enrollment (2007)



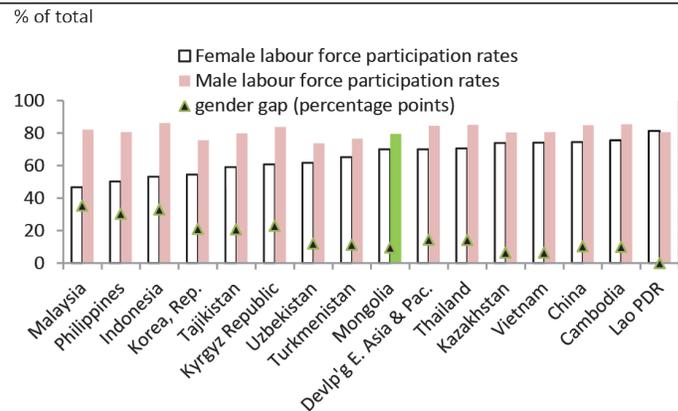
Source: WDI

Figure 2. Gender Empowerment Measure, selected economy rankings



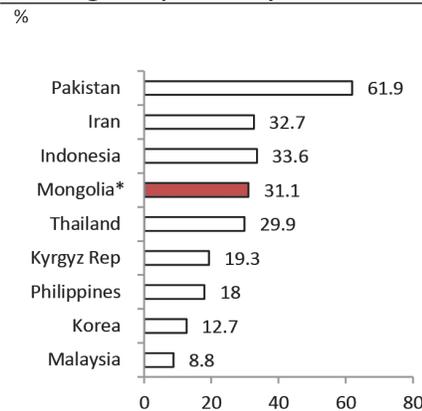
Source: UNDP (2009)

Figure 3. Male and female labor force participation rates



Source: WDI

Figure 4. Proportion of employed women working as unpaid family workers



Source: WDI.* Data for 2009. For all other countries, data is from 2006

In addition although women in Mongolia participate only slightly less than men in the labor market, when they do, many more are concentrated in the non-remunerated part of the labor market. At 70 percent (Figure 3), women's incorporation into the labor force in Mongolia is much higher than in a number of East Asian and Central Asian economies, while official unemployment rates are also not very different

from the regional average⁷. Nevertheless, a third of women are employed as unpaid family workers (Figure 4). This proportion is large compared to the East Asia average and suggests that gender inequalities in access to economic opportunities are considerable compared to other countries in the region.

⁷ The official unemployment rate in Mongolia for women in 2008 was 3.3% compared with a regional average of 3.1% in East Asia. However official rates often understate actual unemployment rates.

LABOR MARKET OUTCOMES IN MONGOLIA: KEY FINDINGS FROM THE 2008/09 LABOR FORCE SURVEY

Gender asymmetry in Mongolia's labor market and economic participation is especially remarkable given the overall degree of equality in educational outcomes and the pro-female gaps at higher levels of education.⁸ This section identifies key gender differences in labor market outcomes using the Mongolian Labor Force Survey (MLFS 2009) and the factors driving these outcomes.

Generally, gender outcomes differ by age-cohort and by rural versus urban location of residence. These aspects matter because Mongolia has a relatively young population. Almost 44 percent of the female and 46 percent of the male working age population (15-65 year olds) are younger than 30 (Appendix B). In addition, social and economic transformations initiated in the 1990s have led to large-scale migration to urban areas and the capital city (Ulaanbaatar), with currently some 40 percent of the working population residing in urban areas in the MLFS⁹.

It is also worth noting that the majority (66 percent) of working age individuals – men and women – work in the informal sector¹⁰, mostly agriculture. Outside agriculture, a higher proportion of women, whether in the formal

or the informal sector, are concentrated in the tertiary sector while men are located in the secondary sector (Appendix C). Interestingly, the declining trend in informality rates that was visible in first half of the 2000s due to the decreasing share of agriculture in total employment appears to have reversed¹¹. This appears to be driven by the increase in informality among salaried or wage workers, and likely reflects the effects of the severe economic downturn in 2009 when GDP growth fell to minus 1.3 percent from 8.9 percent the year before.

Overall the main findings are:

MONGOLIAN LABOR MARKETS ARE HIGHLY OCCUPATIONALLY SEGMENTED BY GENDER WITH LIMITED OPPORTUNITIES FOR SELF- EMPLOYMENT

Overall, women in Mongolia participate less than men in the labor force and when they do, a large portion work as unpaid family workers notably in rural areas (Figure 5 and Figure 6). Although education plays an important role in bringing women out of unpaid work, the only alternative occupation open to them is wage work. Men for example are twice as likely to take advantage of self-employment (outside the agriculture sector) compared to women at all levels of education (Figures d1-d4, Appendix D). In addition, women are also concentrated in a relatively narrow set of occupations such as teaching, catering and retail support services (Figure 7). The top 5 'male' and 'female' occupations engage about 57 percent of all men and 55 percent of women. Although some professions overlap (commercial livestock work and street vending), women are noticeably absent from transportation and construction but heavily concentrated in support positions in retail and catering and in teaching.

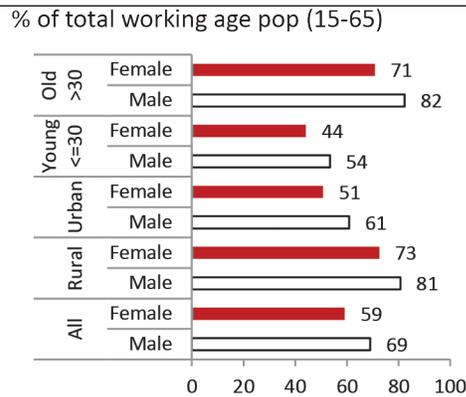
¹¹ See Appendix C.

⁸ One possibility is that women's quality of schooling is worse than that of men. But while the overall quality of general and vocational schooling in Mongolia is poor (ADB 2008 and UNICEF 2009), there is no evidence of large gender differences in schooling quality or that it impacts men and women differently. Trends in International Mathematics and Science Study (TIMSS) data from 2007 indicate that boys outperform girls in 8th grade mathematics. Whether this disparity arises due to differences in the quality of schooling, home environment or inherent ability is unclear. And, the quality of data was doubtful and these results are relegated to the appendices of the reports (TIMSS 2008).

⁹ Overall, 57 percent of the population lives in urban areas (World Development Indicators, 2010)

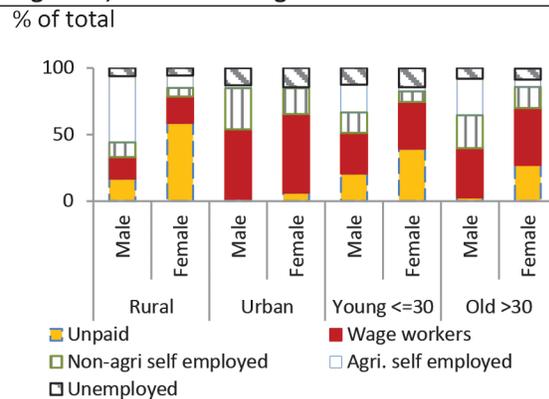
¹⁰ Informal' work is defined to include all unpaid workers (regardless of whether they work in formal/informal enterprises), own-account workers in informal enterprises (employing less than or equal to 5 persons), wage workers in informal enterprises (workers do not receive pensions) and 'others' to include employers and members of cooperatives employing less than or equal to 5 persons.

Figure 5. Labor force participation by gender, age and location



Source: Mongolian Labor Force Survey (MLFS) 2009

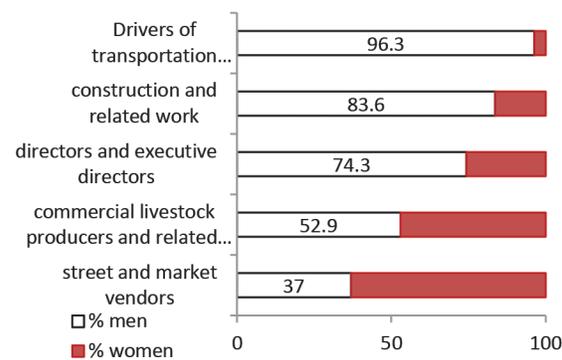
Figure 6. Distribution of employment by gender, location and age



Source: Mongolian Labour Force Survey 2009

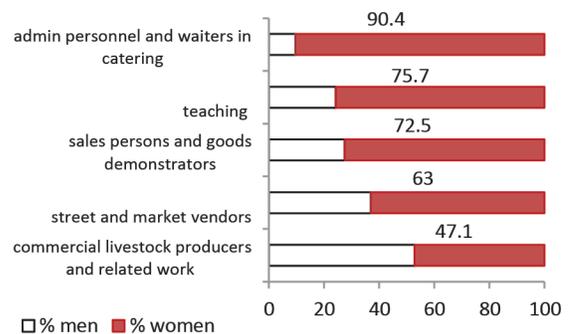
Figure 7. Occupational composition in the top five male and female concentrated occupations in Mongolia

Top 5 male concentrated occupation



Source: Mongolian Labour Force Survey 2009

Top 5 female concentrated occupation



Source: Mongolian Labour Force Survey 2009

These findings reflect a combination of factors including limited business and entrepreneurial capital appropriate for participating in the high growth sectors of the economy and labor regulations¹² that existed until 2008 combined with cultural norms that discouraged women from fully participating in all sectors of the economy.

- a) Limited participation in self-employment may reflect smaller amounts of human capital appropriate for setting up businesses, or limited economic opportunities, including access to external capital or business networks. That said, self-selection by women into relatively stable wage work, or a smaller accumulation of human

capital suitable for self-employment can also be possible explanations, although it is not really possible to explore these issues analytically in the Labor Force Survey.

First, to the extent that the labour market experiences of women and men differ, male and female entrepreneurs may also choose to locate in sectors that they are more familiar with and may also affect the likelihood that they may even start a business.¹³ For example, if work experience is restricted to clerical and administrative support positions, and fewer women have managerial experience as is clearly seen in the Labour Force surveys (see discussion

12 See Appendix A.

13 See Klapper and Parker (2010) for an excellent review.

later), then the work skills accumulated by Mongolian women may make it difficult to start a business in the first place.

In addition, disparities in asset ownership by gender in Mongolia may also impact women’s access to finance. Unequal distribution of state assets in the shift towards privatization in the 1990s when lands and livestock were registered in the names of heads of households, mostly men, left women without legal title or control. As a result, women require the consent of heads of households (usually husbands) to use assets as collateral for loan or credit¹⁴. For example, a survey in 2008 found that for 88 percent of the women interviewed, property and assets were registered solely in the name of their spouses and only 12 percent had joint ownership.¹⁵

While it is not possible to comment on access to finance for *would-be* female entrepreneurs compared to male counterparts, there does not appear to be a difference in access to finance by gender among *existing* entrepreneurs. Admittedly the proportion of entrepreneurs/self-employed able to take out a loan in the Labor Force survey – these are mostly small informal sector firms – is low, but there are no significant differences according to gender (Table 2).

firms in Mongolia indicates that women do not have necessarily more difficulty in accessing finance than men¹⁶. A roughly similar proportion of male and female owned firms borrow from banks (Appendix E), and although amounts borrowed by female owned firms are smaller (reflecting their size and industry location), both male- and female-owned firms also post roughly the same collateral (about 40 percent of the loan’s value). However, the fact that there are no differences between existing male and female entrepreneurs is a problem of sample selection: i.e. there exists data only on those that have managed to clear all hurdles associated with starting a business in the first place. It is quite possible that access to finance remains an important issue for women attempting to start a business in the first place, compared to male counterparts.

- b) Extensive labor regulations dating back to 1999 (Appendix A) and that were only annulled recently in 2008 contained broad prohibitions that likely prevented Mongolian women from fully participating in key high-growth occupational areas including mining, construction and transport. Mongolia’s GDP growth is expected to pick up from around 6 percent in 2010 to more than 25 percent by around 2013 as large mining projects come on-stream. This is expected to lead to significant knock-on effects on related sectors including infrastructure, utilities, transportation and mining, i.e. the very sectors that were ‘closed’ off for a very long time to women by these regulations

The ostensible reason for these restrictions was health and safety concerns, but they were quite broad, preventing women from undertaking jobs that are deemed “safe” in other countries. In addition, health and safety concerns could arguably have been more directly addressed, to the benefit of both men and women, rather than through exclusionary labor regulations. Indeed the list was so extensive that it covered industries

Table 2. Access to finance among self-employed, by gender

% OF TOTAL		
Able to take out loan in the name of the business	male	female
	25.2	22.3
Not able	67.9	69.6
Dont know	6.9	8.2

Source: MLFS (2009)

Moreover, 2008/09 survey data from a sample of larger, formal, private sector

¹⁴ Robinson and Solongo (2000)

¹⁵ excluding single mothers who had property registered in their names. Survey from Khas Bank, Measuring the Impact of Microfinance on the Poor Rural Women in Mongolia, Draft Baseline Report, July 2008.

¹⁶ The World Bank’s 2008/09 Business Environment and Enterprise Performance Survey (BEEPS) dataset comprises of 362 mostly large, formal sector firms.

such construction, transportation (rail, road and air), meatpacking, textile, tailoring and publishing, where such health and safety concerns would have been quite small. In addition, these sectors are already male-dominated with limited support facilities for women¹⁷. As a result, in combination with cultural factors, these labor regulations have likely contributed to limited female participation in these sectors, the legacy of which is still visible today.

EARLY RETIREMENT IMPACTS PARTICIPATION RATES AMONG OLDER WOMEN AND HAS POTENTIALLY NEGATIVE IMPLICATIONS FOR CAREER PROGRESSION, PENSIONS AND POVERTY.

The retirement age in Mongolia for women is 55 years, 5 years earlier than for men and rising to 10 years earlier if they have four or more children. Although legally retirement occurs “at one’s own request,” it is unclear to what extent women self-select into early retirement and to what extent they are required or otherwise induced to leave. There is some evidence to suggest that the law has been used as a pretext for unfairly dismissing women who have then slipped into poverty.¹⁸ Furthermore, retirement is the most commonly cited cause for unemployment among women older than 50 years of age in the 2009 Mongolian Labor Force Survey (MLFS), and women’s participation rates drop quite sharply thereafter (Figure 8 and Figure 9). In the MLFS, three-quarters of 50-65 year old women cited retirement as the main reason for unemployment, compared to 55 percent of men. Moreover, of these women roughly 30 percent were heads of households suggesting self-selection is not likely to have played much of a role with respect to early retirement.

What is evident though is that relatively fewer women reach higher level managerial positions. For example, women tend to account for one-fifth of director and executive director positions in the 2009 Labor Force Survey (Figure 10) and are overwhelmingly concentrated in mid-low level managerial and support staff positions both in the public and private sector. While other factors may also be important, such as gender discrimination in the workplace, early retirement may also be one contributory factor.

In addition early retirement impacts women’s earnings (which, in the worst case, fall to zero if the woman becomes unemployed) and also pension payout levels to the extent that these depend on the length of job tenure. It therefore increases the risk of poverty for low-income households particularly those headed by females – there are twice as many elderly female headed households (around 15,000 according to NSO data) in Mongolia as there are male – and as noted before, there is some evidence to suggest that women have fallen into poverty as a result of “involuntary” retirement.¹⁹ A study by the UNDP and the Ministry of Finance on pension issues in 2004 found that only 25 percent of retired men received the lowest pension²⁰ compared to 84.2 percent of women.

It is also worth noting that levels of male dependency are much higher in female headed households (Figure 11). For example, working age males account for about a third of dependents in female headed households (FHH), twice the amount in male headed households) with a significant portion of these over the age of 30. The probability of labor force participation for these males is much lower, particularly for older males – it falls by 8 percentage points if the male is over the age of 30 (Table b, Appendix F) which suggests that female headed households are much more likely to be under financial stress than male-headed households.

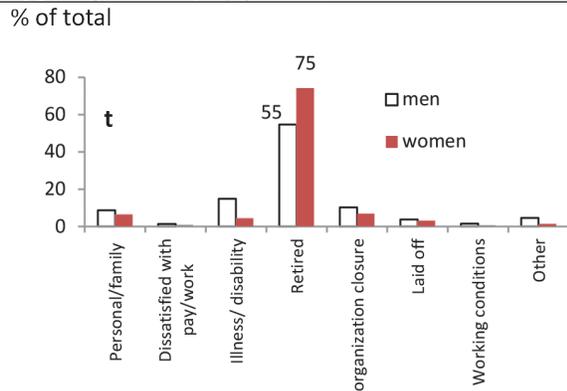
17 See companion policy paper “Raising female participation in the large-scale mining sector in Mongolia,” World Bank (2011) forthcoming.

18 CEDAW Watch, Reports In Response To Request For Information, January 24 –February 15, 2000. <http://www.un.org/womenwatch/daw/cedaw/cedaw24/cedawcmng34.pdf>

19 CEDAW Watch, Reports In Response To Request For Information, January 24 –February 15, 2000. <http://www.un.org/womenwatch/daw/cedaw/cedaw24/cedawcmng34.pdf>

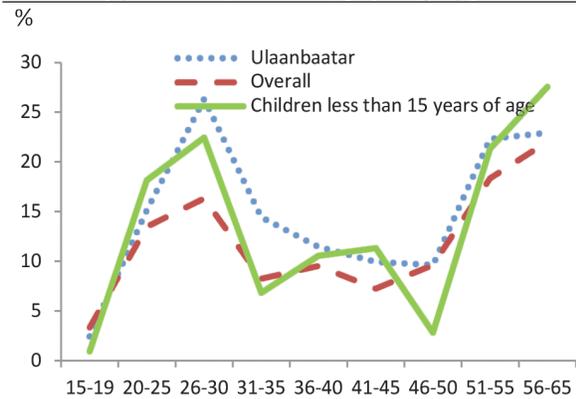
20 Ministry of Finance and UNDP, Gender Analysis of Public Spending in the Field of Social Security (Ulaanbaatar, 2004), 17-18.

Figure 8. Reasons for unemployment among those aged 50-65, by gender



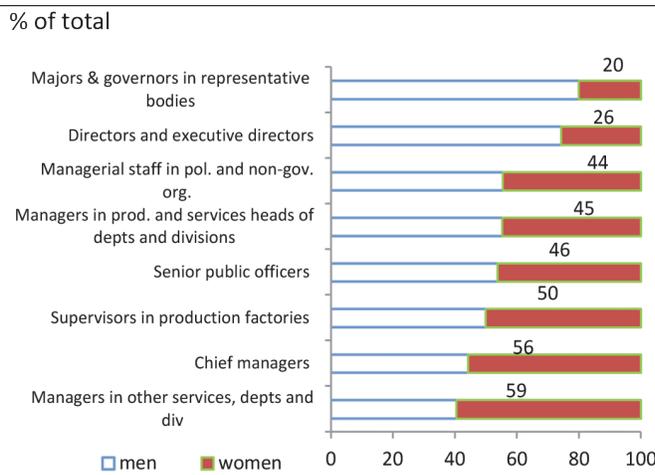
Source: Mongolian Labour Force Survey 2009

Figure 9. Labor force participation gap between men and women by location, household demographics and age



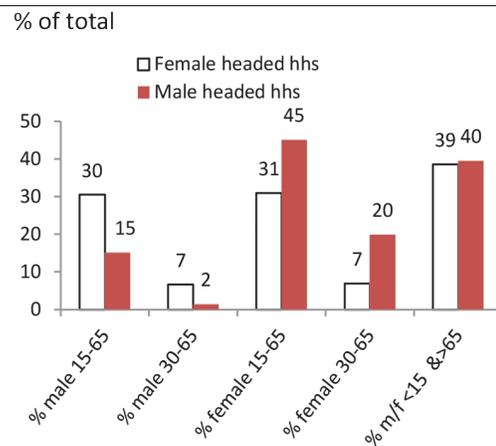
Source: Mongolian Labor Force Survey 2009

Figure 10. Senior public officials and managers in government and non-government organizations



Source: MLFS (2009)

Figure 11. Distribution of male and female dependents in MLFS, by age



Source: MLFS (2009)

WOMEN'S HOUSEHOLD AND CARE DUTIES NEGATIVELY IMPACT LABOR MARKET OUTCOMES

Women spend roughly twice the amount of time as men on household and care duties, and this does not decline even when they are engaged in paid productive work in the labor market (Figure 12 and Figure 13). For working women this represents a “double burden” and the impacts are evident in labor market outcomes. For example, the presence of children aged 15 or

younger in a household reduces the probability of participation, especially among older women for whom the probability of participation drops by nearly 4 percentage points (Appendix F).

However an additional factor compounding these effects may be the relatively generous cash transfers to women of child bearing age that proliferated from the mid-2000 onwards. These included monthly cash allowances of MNT3,000 (the Child Money Program) for each child, additional quarterly allowances of MNT25,000 to each child, and cash allowances of MNT100,000

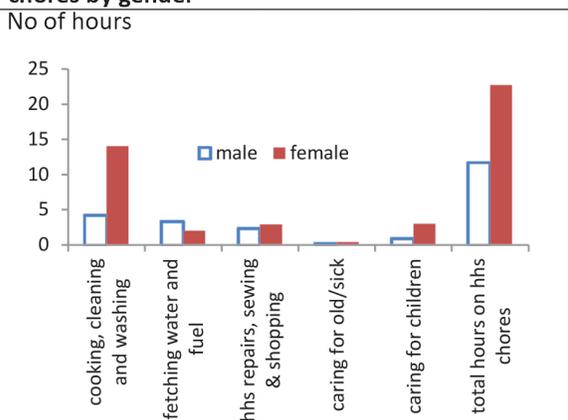
²¹Technically these are participants in the MLFS that identified themselves as belonging to a male headed or a female headed households, but were not household heads themselves

to every newborn child, to name but a few²² which may have encouraged younger women

²² The Child Money Program, which was the most important of these transfers, disbursed nearly 5.6 percent of total fiscal spending in 2008. These social transfers were suspended in the 2010 budget and replaced with universal, consolidated and generous cash transfers in the 2011 budget for every Mongolian citizen. Following national elections in 2012, the Child Money Program was reinstated in October, paying out MNT 20,000 per month per child under the age of 18 and will replace the universal cash transfers.

with children to opt out of the labor market. Data shows that birth rates in Mongolia, which had been falling rapidly since the early 1990s, started to inch up again since 2005 suggesting that the benefits provided by the government encouraged women to have more children.

Figure 12. Hours per tweek spent on household chores by gender



Source: MLFS (2009)

Figure 13. Hours per week spent on household chores by women in wage employment



Source: MLFS (2009)

LABOR MARKET OUTCOMES ARE WEAKER FOR BOTH MEN AND WOMEN WITH BASIC/SECONDARY LEVELS OF EDUCATION, BUT THE EFFECTS ARE MORE ACUTE FOR WOMEN

Labor market outcomes are weaker among both men and women who have completed basic and secondary education compared with those with much higher levels of education or no education at all. This affects a majority of the productive workforce in Mongolia (a total of 56 percent women and 60 percent men have completed basic and/or secondary education levels. Less educated men and women are less likely to participate in the labor market²³ and more likely to be unemployed²⁴

²³ See table c in Appendix F

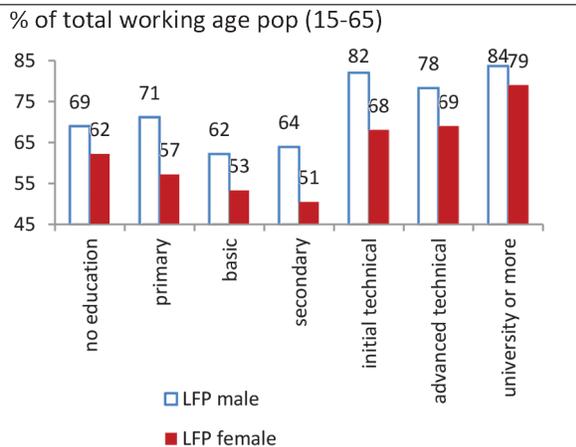
²⁴ Table g2 in Appendix G. Overall though, gender differences in unemployment rates are not very large and gender does not play a significant role in the probability of being unemployed or in the duration of unemployment. Generally, both young men and women have a higher probability of being unemployed compared to older men and women.

than those with higher levels of education or those with no education at all. This somewhat puzzling finding could be because workers who have these educational qualifications are bringing inadequate skills to the labor market – there is no shortage of educated men and women in Mongolia but a shortage of individuals with the *right* skills.

Nonetheless, negative outcomes are more pronounced for women with basic/secondary education than for men with similar levels of education. There is, for example, a 9 percentage point difference in participation rates between men with a basic education compared to women with a basic education and the corresponding gap for men and women with secondary education is 13 percentage points (Figure 14). Similarly, the probability of unemployment for a woman with a secondary education, compared to a woman with a university education, is 7.4 percentage points

higher, compared with 3.5 percentage points for men (Table g2, Appendix G).

Figure 14. Labor force participation rates by gender and education



Source: MLFS (2009)

A jobs/skills mismatch argument cannot explain why the effects are more acute for women than men with basic/secondary education. Instead, the answer may be more prosaic, namely more limited work opportunities or perhaps discrimination. Both are plausible. Job advertisements that set out requirements regarding the physical appearance (or age) of women are documented in both the ADB 2010 gender report and also in World Bank-sponsored qualitative research on the impacts of the economic crisis (Reva et al, 2010). Meanwhile, as discussed earlier, women appear to have fewer work opportunities in self-employment compared to men: only 27 percent of women with basic and secondary education levels for example are self-employed compared to 40 percent of men.

THERE ARE LARGE GAPS IN EARNINGS THAT CANNOT BE EXPLAINED BY DIFFERENCES IN MEN’S AND WOMEN’S ENDOWMENTS SUCH AS EDUCATION AND EXPERIENCE.

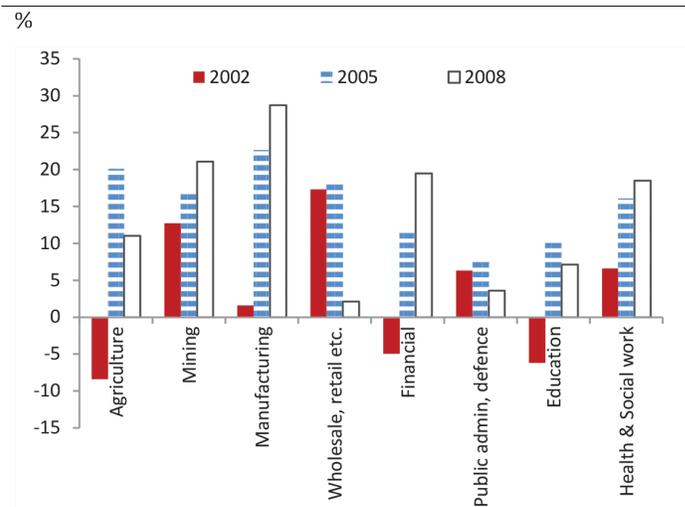
Women may earn less than men due to several reasons. It is sometimes suggested that women’s education and subject-choices are consistent with their lower career aspirations and they ‘self select’ into low wage occupations and jobs (ILO 2004). They may also accumulate a wage gap over their careers due to having less work experience because of career breaks with child birth. Thus, women may get paid less than men because they bring lower productivity characteristics (education or experience among others) to the labor market.

Their earnings may also be lower because the labor market *rewards* women differently than men for possessing the *same* set of characteristics. Put simply, women may be treated differently than men. A vast literature in both developing and developed countries notes that a sizeable portion of the earnings gap cannot be explained by differences in observed attributes of men and women.

In Mongolia, large and increasing raw gender earnings²⁵ gaps exist across almost all industry sectors that women are concentrated in, the main exceptions being wholesale and retail trade and public administration (Figure 15 and Figure 16). Overall men earn about 10 percent more than women and the gap is also obvious across all education levels and is particularly high in urban areas and in the formal sector (Table h1, Appendix H).

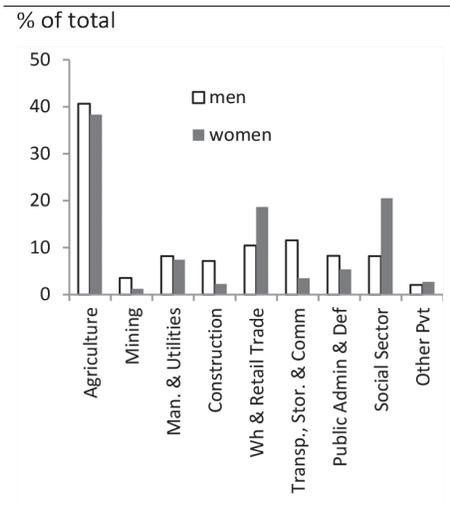
²⁵ Appendix H depicts mean earnings of wage earners in the MLFS (2009) data.

Figure 15. Gender gap in monthly earnings in selected industries



Source: ILO

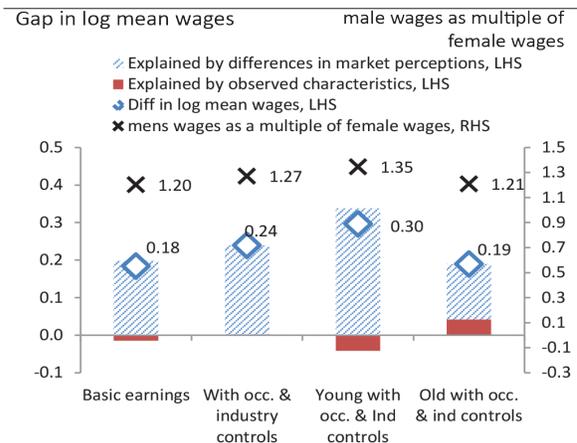
Figure 16. Employment by sector and



Source: MLFS (2009)

The raw gap potentially hides differential treatment (or even discrimination) against women if the average productivity characteristics of women are better than those of men and if the returns to women’s characteristics (such as levels of education) are the same or better than men’s, as indeed they are (Table h2 Appendix H). In the 2009 labor force survey, wage earning women²⁶ have on average better mean characteristics than men; they have completed slightly more years of schooling than men (13 years versus men’s 12), have only marginally less experience (17 years versus 18 for men) and 42 percent of women have 10 years or more experience in their current job (tenure) compared to 37 percent of men.

Figure 17. Decomposing the gender wage



Source: MLFS (2009), World Bank calculations. Based on the Oaxaca Technique and conditioned on male characteristics. Also see Appendix L. Taking the exponential of the gap in log mean wages gives the ratio of male wages to female wages.

²⁶ Earnings data are available only for wage workers in our sample. However a majority of women are actually unpaid workers and some are engaged in self employment activities. But earnings in agriculture and non-agriculture self employment are not available and gender gaps in earnings may be substantially larger in these occupations partly because they reflect women’s weaker access to capital, land and social networks that are known to have implications for earnings in self employment.

A decomposition of the wage gap indicates substantial differences in treatment of women and men by employers in Mongolia's labor market. Wage gaps can be disaggregated into "explained" and "unexplained" portions.²⁷ The first is that part of the wage gap that arises from differences in the average characteristics of men and women (e.g. in productivity, schooling or tenure). The 'unexplained' portion measures the effect of unobserved characteristics between the sexes (e.g. motivation or ability) but is sometimes taken in the literature as evidence of discrimination, namely that the market rewards women and men differently given observably identical characteristics.

²⁷ Using the Oaxaca technique See Appendix H for details. This decomposes labor market endowments and returns to endowments by gender. The gap between wages that are explained by observable and non-observable characteristics is usually taken to provide an indication of the degree of discrimination. However, it could reflect a number of things, including the effects of measurement error (e.g., poor proxies for years of labor market experience), omitted variables (on-the-job training, intermittency in the labor force), and other unobservables (e.g., effort, "innate ability"). It is therefore, at best, an indirect and imperfect measure of discrimination.

The overall gender wage gap in log wages is 0.18 which implies that male wages are 1.2 times higher than female wages (Figure 17). Controlling for industry and occupation characteristics, the gap rises further, suggesting that the distribution of men and women across occupations and industries is not a driving force behind the explained component of the gender wage differential. Among younger workers, the gap is even larger, indicating that young men are paid 1.35 times what young women are paid.

Decomposing the gap however suggests that the overwhelming bulk of it is due to the fact that the market values men and women's work differently rather than due to differences in observed characteristics. In fact, if they were paid in the same way as men, based on the characteristics that are observed, women would earn *more* than men because they have better characteristics than wage working men. Only among older workers do differences in observed characteristics help to explain a small portion of the gender wage gap.

KEY POLICY RECOMMENDATIONS

The above findings suggest a number of policy actions for improving outcomes for women in the labor market and increasing gender equality. The main recommendations are

IMPLEMENT EQUAL PAY FOR EQUAL WORK POLICIES AND/OR INTRODUCE AFFIRMATIVE ACTION LAWS

Such policies are needed to address: a) the widespread differential treatment against women with regard to pay that cannot be explained by factors such as education or job experience; b) women's low rates of participation in high growth sectors of the economy and c) the inadequate representation of women at higher levels of decision-making, in effect the existence of 'glass ceiling' for women in management positions.

Mongolia is a signatory to most international conventions on the rights of women that mandate equal treatment of men and women, and in February 2011 passed a national law on gender equality as well. The law is important because it addresses discrimination against women in the political, economic, family and educational arenas and also sets out sexual harassment as a form of discrimination. It also indicates the responsibilities of public agencies, including the Prime Minister's office, with regard to guarding against discrimination generally, proposes affirmative action policies in public sector, and establishes a complaint mechanism through the National Human Rights Commission and employment dispute commissions.

Ultimately however enforcing the law will prove to be the litmus test for how gender equality is prioritized by policy makers. As it is, the version of the Law on Gender Equality that was finally approved by Parliament discarded a provision in earlier drafts that set out the government's responsibility for undertaking preliminary gender-based analysis of laws, policies and programs with respect to compliance with gender equality

objectives. However improving gender equality in the public sector will entail, at the very least, reviewing where the female workforce is located, what impedes women's career progression and what are their main concerns and addressing these. It might also involve introducing clear benchmarks or affirmative action policies for senior management on how to incorporate gender sensitive policies, conducting gender sensitization workshops and so on. Currently the Law on Gender Equality mandates that the National Committee on Gender Equality monitor the implementation of the Law. Affirmative action policies may also be useful in both increasing women's presence at higher levels of decision making and also helping to create mentors and role-models for more junior female staff.

Specific policy issues may also merit close attention. For example under labor regulations that existed until 2008 women were prohibited from engaging in a broad list of activities (Appendix A), which in combination with gender stereotyping and cultural norms about which jobs for women are "appropriate," resulted in high levels of occupational segmentation in high growth sectors of the economy such as mining. To reverse the effects of such regulations and to raise female participation in such sectors, the government may consider introducing affirmative action regulations e.g. as has been done in South Africa where the government mandated that 10 percent of the mining labor force comprise women.

Early retirement laws are of concern since they can be used to induce women to leave the labor market earlier than they desire of the labor force with corresponding impacts on pensions and vulnerability to poverty. A study by the UNDP and the Ministry of Finance on pension issues in 2004 found that only 25 percent of retired men received the lowest pension²⁸ compared to 84.2 percent of

²⁸ Ministry of Finance and UNDP, Gender Analysis of Public Spending in the Field of Social Security (Ulaanbaatar, 2004), 17-18.

women. Household surveys show that roughly 31 percent of urban FHH are poor compared to 26 percent of regular two-breadwinner male headed households. Meanwhile, the 2009 LFS survey shows that three-quarters of women aged 50-65 who are unemployed and looking for work, cite retirement as the reason for being unemployed in the first place (Figure 8). Accordingly, it may be appropriate to reconsider these laws and to set up appropriate complaint mechanisms where unfair dismissal issues can be appropriately addressed.

INCREASE THE FUNDING AND VISIBILITY OF THE NATIONAL COMMITTEE ON GENDER EQUALITY (NCGE) AND OTHER PROGRAMS/ POLICIES ON GENDER EQUALITY

The NCGE was set up in 2005 and is chaired by the prime minister and comprises more than 30 members including key ministers and prominent private sector and civil society members. The NCGE is an important body –the recently passed law on gender equality was prepared by it and it is the main body in charge of ensuring compliance with the Law – and it operates to ensure consultation, coordination and monitoring of the National Program on Gender Equality set up in 2002. However, it lacks visibility and as the Asian Development Bank’s Country Gender Assessment (2010) identified, and is also lacking in financial resources and manpower. The already small budget for the NCGE has been cut sharply in recent years, although the 2011 budget provided an increase of 6 percent on the 2010 allocation, to MNT 46mn. The NCGE should be provided the financial and physical manpower to be better able to argue and pursue its objectives of promoting gender equality and monitoring progress on the implementation of the new gender equality law.

REVIEW AND REVISE MATERNAL/ PATERNAL LEAVE AND CHILD CARE POLICIES

Policies are needed that encourage women’s entry into the labor force (and particularly remunerative work), that promote their continuous presence during their ‘fertile’ years

and support their return into the labor force after childbirth.

Maternity/ paternity leave policies and child benefits: A revision of current maternity and paternity leave policies may be a step in the right direction. Maternity leave is currently 120 days but with only 70 percent of wages paid (Figure 18). Moreover, maternity leave is unlikely to be offered at all in the informal sector, where almost 64 percent of the female labour force is located. Currently, the government does not mandate paid or unpaid paternity leave for men. However, until 2009 the government provided generous child benefits (for existing children and newborn children) which may also have encouraged young mothers to opt out of the labour market.

Child care and flexible working hour policies. Access to affordable and accessible child care, which helps to balance women’s caregiving and market roled is regarded as critical in strengthening women’s access to economic opportunities²⁹. The analysis in this policy note indicates, the presence of children has significant impacts on labor force participation rates particularly among young women (mothers) and older women (possibly grandmothers) in urban areas. Flexible work policies (shorter shifts to accommodate school hours, home based working) and accessibility to affordable good quality child care are needed but they are not widespread, and as with maternity leave, also not likely to be available in the informal sector. Meanwhile, although national child care policies have been reviewed and revised in recent years, their implementation needs to be strengthened, including through increased funding, teacher training and certification (see Box 2). For example, the national average ratio of children to one teacher is 29 in kindergartens but is close to 40 children to a teacher in Ulaanbaatar³⁰ where 60 percent of the population is located. Also as Figure 19 shows, in UB the average number of children per kindergarten is much higher than the national average

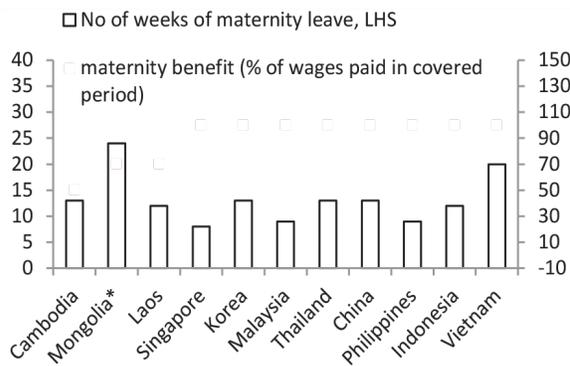
However, any revision of leave and child care policies should carefully consider design features

29 See World Bank (2012b), “Toward Gender Equality in East Asia and the Pacific: A Companion to the World Development Report”
30 ADB (2010b)

such as whether paternity leave is transferable, whether they encourage women to exit too long from the labour force—the length of maternity leave is higher in Mongolia compared to neighbouring countries, but benefits are lower (Figure 18) – financing or funding features and so on. Cultural

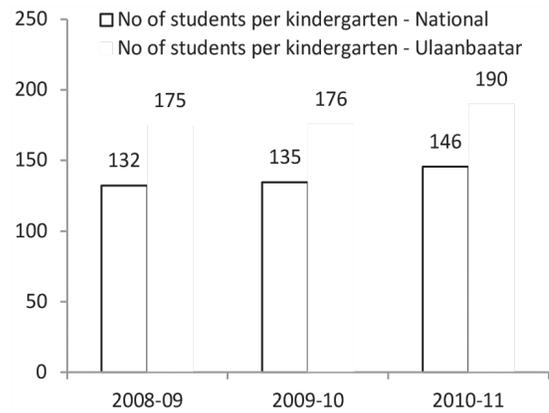
and institutional factors are also important, with fathers often reluctant to undertake care duties, and this needs to be addressed as well through greater social awareness campaigns, making paternity leave mandatory etc.

Figure 18. Maternity leave in East Asia



Source: Asia Pacific Human Development Report (2010). Data for Mongolia is from 2010. For all others data is from 2004.

Figure 19. Early childcare: no of students per kindergarten



Source: NSO (2010)

Box 2. Early Child Care Policies in Mongolia

In Mongolia, state-funded early childcare and education was rolled back in the 1990s as the economy transitioned to a capitalist system and this has added to the “double burden” of women, with national policies emphasizing family-based care of pre-schoolers (under-3 year olds) and (mostly) state funded kindergarten care for older children.² With low enrolment rates, and growing concerns about marginalized young children in rural areas, there has been considerable national debate on early child care policies leading to policy reform

For instance, in 2008 Parliament ratified a Law on Pre-school Education in 2008 which legalized alternative forms of education (to address the education needs of the most marginalized children in rural areas e.g through ger summer kindergartens) and also required every child to be engaged in early childhood education (ECE) activities. In addition, the law indicated that the government would fully cover the cost of school meals in kindergartens versus half as had been the case before. The law is complemented by the Education Sector Master Plan-2 for 2006–2015 (ESMP-2) adopted in 2006 that aims to enroll 35 percent of rural children aged 2–6 in kindergartens and 64 percent in alternate forms of preschool education. In addition, beginning in 2008-09, Mongolia shifted from an 11 year to 12 year school cycle lowering the age of enrollment from 7 to 6 that led to a 9 percent increase in total enrollments by 6-year-old children

How well are these policies doing? According to a recent ADB review:

“For the 2007/2008 academic year, there were 768 kindergartens (87% of them are public) with 130,758 children nationwide. Only 57.1 percent of children aged 2–6 are enrolled in kindergartens. Of these, 43.8 percent are enrolled in formal kindergartens and another 13.3 percent in alternate forms of preschool education. According to Ministry of Education, Culture and Science, of the 43 percent of children not enrolled in ECE, around 30 percent are children of migrant families and 13 percent are nomadic and rural children”.

The report also identifies a number of problems that include:

- Short duration and quality of alternative ECE programs in rural areas such as mobile kindergartens
- Lack of teacher certification and service standards, registration standards, and curriculum in the alternative ECE programs with no official guidelines on how to benchmark these appropriately
- Inadequate funding in rural areas and overcrowding in urban areas as large rural-urban migration flows have increased demand for social services in underfunded peri-urban ger areas

Source: ADB (2010b) Description of the Pre-school System <http://www.adb.org/documents/supplementary-appendixes/43127/43127-mon-sa-c.pdf>

PROMOTE GENDER EQUALITY IN THE PRIVATE SECTOR

The government can also promote best practice in the private sector e.g. by introducing/ funding workshops on gender sensitive policies and the advantages of these to firms (a more diversified and productive pool of labor) or by introducing national awards/rankings of companies that follow the most gender-friendly policies. An example of a successful, low cost gender awareness and reward campaign that was followed in Mexico is given in Box 3.

An alternative approach would be for the government to set out best practice guidelines for the private sector and ask firms to document to what extent they comply with these at the time of the publication of their annual reports or why they do not. This could increase peer pressure (notably among larger firms) to report on the degree to which they follow gender friendly employment policies, and is in their own advantage given that a diversified labor pool will help their own bottom-lines.

Box 3. Improving Gender Equality in the Workplace – the Gender Equity Certification Model in Mexico

The Gender Equity Model (MEG), a process towards certification in Mexico, is a public-private partnership between the Mexican government and private companies interested in promoting gender equality. The program offers lessons on creative, innovative approaches to address gender discrimination in the private sector workplace and improve the business enabling environment for the benefit of all.

It was implemented as part of the Gender Awareness Component of the Mexico Gender Equity Learning and Innovation Loan (LIL) Project implemented between 2001 and 2005 and which sought to address gender inequalities by helping build public capacity, pilot community based initiatives on gender, and increase gender awareness. The World Bank financed the project through a \$3.03 million Learning and Innovation Loan.

A particularly innovative aspect was its awareness raising component, which set up the MEG to recognize progress on gender equity in private firms, public entities, and non-governmental organizations (NGOs). Prepared in cooperation with the Mexican government's National Women's Institute and through consultation with private and public sector leaders, the academia and NGOs, MEG covered four areas: recruitment, career advancement, training, and sexual harassment.

The aim was for the participating firms to foster equal opportunity practices for the benefit of both women and men. The program was voluntary and dynamic. It did not require a participation fee from the companies and had no strategy to target particular firms or industries. In the first round there was a public call for participation and the project's team approached businesses. Since the project did not have much funding for dissemination, conducting outreach and awareness activities was a challenge. Yet there was considerable interest among firms and demand quickly outpaced supply.

The process began with a self-assessment and identification of strengths and weaknesses, followed by a training program and support to overcome limitations and institutionalize best practices. Four independent certification firms were hired to assess and evaluate the companies. Once a firm completed the process, it received the gender equity seal. The monitoring continues on a yearly basis, for a period of three years to ensure sustainability.

Since the firms could define their own goals and steps on incorporating gender equality measures, participation was not costly for them. The project provided training and paid the certification firms around US\$500 for each participating firm. Thirty percent of participating firms were international organizations such as Wal-Mart, Manpower, Kraft, or Motorola, which tended to already have the capacity to incorporate the needed measures. For firms that are careful to maintain a brand reputation, MEG served to strengthen the corporate image. MEG firms have placed the seal on their published materials and are using the certification to show their commitment to diversity. For example, Wal-Mart which has been the subject of the largest gender discrimination class action lawsuit in the United States, has used its participation in the Certification process to demonstrate its commitment to gender equality.

By 2010, 42 firms with around 170,000 employees have completed the process and obtained the seal, and 550 persons have received training on how to implement gender equity action. Gender committees and women's networks have been launched in & between certified firms. Firms report a better labor atmosphere including better communication between management and labor and a more motivated workforce. Most firms have incorporated gender equity into recruitment. There are verbal reports from participating firms that some women have been promoted and are in management positions. The success of the program and continued interest among the private sector and Mexican women's groups are the basis for turning the MEG into a regular government program.

Source: IFC (2010) Gender Entrepreneurship and Markets (GEM).

[http://www.ifc.org/ifcext/enviro.nsf/attachmentsbytitle/art_gemquicknote_mexico/\\$FILE/gem+flyer_mexico.pdf](http://www.ifc.org/ifcext/enviro.nsf/attachmentsbytitle/art_gemquicknote_mexico/$FILE/gem+flyer_mexico.pdf)

IMPROVE WOMEN'S OPPORTUNITIES IN ENTREPRENEURIAL WORK

A significant portion of men and women in Mongolia work in the informal sector, but women are mostly unremunerated or unpaid workers, while more men are likely to be self-employed. There are two main issues with regard to informal sector work for women. First by definition, the informal sector does not adhere to labor, taxation or other regulations (usually because of associated costs), and this means that maternity, pension and gender discrimination laws and regulations that help women do not get implemented.

On the flip side, the informal sector is also a source of high earnings for micro-entrepreneurs, which women are not being able to tap to the same degree as men. Limited opportunities for self-employment, particularly among women could reflect one of several things. Firstly, it could point towards a lack of access to and ownership of capital and assets that are needed to enter into other productive opportunities such as self-employment. As discussed earlier, in the transition to privatization, property was overwhelmingly registered in the name of male heads of households reducing the ability of women to provide collateral for loans. Recent surveys indicate that property and asset ownership is still very unequally distributed.³¹ Although it is not possible to determine to what extent potential female entrepreneurs suffer from a lack of access to finance, among *existing* small-scale male and female entrepreneurs in the informal sector, both find it hard to obtain a loan (refer back to Table 2). In addition, women may lack the requisite experience, and also access to business networks that could help them set up businesses.

With regard to the joint registration of property by men and women who are married, public policy will need to address 'demand side' side issues – e.g. through public advertising campaigns which highlight the importance to women of jointly held assets and their rights in this regard – and "supply side," issues through measures such as training government employees or providing clear guidelines on ensuring that all family members are taken into account in the first instance that property is registered.

Strengthening women's opportunities as entrepreneurs – and in the private sector more broadly – will require policies that improve the ease with which businesses can be established e.g. through policies that reduce the costs of business regulations. Mongolia is currently ranked 86th out of a 171 economies on the overall ease of doing business, 97th with respect to starting a business, 119th on dealing with construction permits and 67th on the ease of obtaining credit. These are fairly poor compared to other countries in the region and also increase the incentives for firms to remain in the informal sector. Given how hard it is to do business in Mongolia, women who lack access to business networks or finance may be doubly discouraged. Evidence from other parts of the world suggests that carefully designed policies (such as making business registry cheaper and easier, making tax rates proportional to firm size etc.) can increase the size of the formal economy and accelerate growth (Gutierrez-Romero 2010).

Other policies that may be helpful include promoting awareness of and encouraging the development of (appropriately regulated and supervised) micro-lending institutions. Micro-finance can play an important role in providing credit to those overlooked by large financial institutions, the most famous example of which is the Grameen Bank in Bangladesh. The government can also help to facilitate business networks in cooperation with civil society organizations. Business networks help foster connections and can generate cross-selling activities as well as provide sources of finance, market information and generally serve as a support mechanism for individual entrepreneurs who might otherwise feel isolated.

³¹ Khas Bank, Measuring the Impact of Microfinance on the Poor Rural Women in Mongolia, Draft Baseline Report, July 2008.

OVERALL SUMMARY AND CONCLUSION

The passage of the Gender Equality Law in 2011 marked a substantial achievement for country that previously lacked any such law and adds to Mongolia's previous successes in meeting key gender-related Millennium Development Goals (MDGs) on maternal health and child mortality. Mongolian women are also much better educated than their peers in the region, and compared to Mongolian men. However, as this policy note documents, despite these achievements there are considerable differences between men and women in labor markets, in terms of participation, wages and occupational roles. Women also have a limited presence in higher level managerial positions and in entrepreneurial work, and working women also have to shoulder most of the household and care duties compared to men. These inequalities can have large impacts on development, growth and productivity as well as pervasive intergenerational social costs. By the same token, removing impediments to full and equal participation for women in the economy, providing equal access to economic resources and opportunities and eliminating discrimination can boost productivity and competitiveness for firms,

with wider benefits for the economy and within the household.³²

Accordingly, policy action is needed to improve labor market outcomes for women and to ensure that, both men and women, are able to benefit from the economic transformation that Mongolia is currently undergoing, including new employment opportunities that are opening up in mining and services. A range of potential policy actions can be considered, including improving employment outcomes (wages, career progression) for women in the public sector, introducing more friendly parental leave policies that cover both fathers and mothers, improving child care services and introducing affirmative action policies in sectors where women are acutely under-represented such as mining. In addition, business regulations could be streamlined to make it easier to start and operate businesses for both men and women. Other policies that may be helpful include promoting awareness of and encouraging the development of (appropriately regulated and supervised) micro-lending institutions

³² See the World Bank World Development Report (2012a) "Gender Equality and Development" for a review

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APPENDIX A: REGULATIONS RESTRICTING WOMEN'S OCCUPATIONAL CHOICES, 1999-2008³³

ORDER OF THE MINISTER OF HEALTH AND SOCIAL PROTECTION

13th August 1999

Number A/204

Ulaanbaatar city

TO ORDER on the basis of the article 101 and the section 5 of the article 109 of the Law on Labor of Mongolia:

1. To reapprove the "Listing of works prohibited to be performed by women" as an annex 1 and the "Listing of workplace prohibited to be performed by minors" as an annex 2.
2. To oblige senior authorities of organizations and entities to work in compliance with the listing.
3. MINISTER'S ROLE

EXECUTIVE

S. SONIN

Mining Extractive Industry	<ul style="list-style-type: none"> • All kinds of underground work, oil exploitation and refining, use of flammable gas 	Air Transport	<ul style="list-style-type: none"> • Airplane mechanic • Airplane connector • To perform a technical service for airplane and its engine
Leather Industry	<ul style="list-style-type: none"> • All kinds of work using chalk (bleaching powder) in its lifecycle such as tanning, preparing extract from sodium and chrome, to carry and gather a tanned leather 	Wood preparation and generation industry	<ul style="list-style-type: none"> • All works transmitted through wood generation and water float • To load and unload timber by hand • To cut, sort and collect wood in the underground storehouse • To compose chlorine of a paper mill • To crush wood

³³ Annulled in 2008

Glass industry	<ul style="list-style-type: none"> • Blow a glass by mouth • To crush a carbide by hand 	Construction assembly	<ul style="list-style-type: none"> • To assemble a stovepipe and canal • To dig a well • To pour, broke and crush a platen by hand • To crush a rock • Autoclave men
Textile industry	<ul style="list-style-type: none"> • To prepare aniline salt and flux by hand • To prepare hydrochloride by hand 	Social Services	<ul style="list-style-type: none"> • Clean the drainage filter • Plumber of drainage canal
Publishing industry	<ul style="list-style-type: none"> • Printing machine • To develop and poison a picture, zinc and an offset printing • To mould a stereotype • To melt lead • Letter roll • Machinist of an one-sided chop machine 	Common work and profession	<ul style="list-style-type: none"> • Antenna work • To pot bitumen and asphalt • Mountain rescue work • Parachutist and fireman • To work in contact with mercury • To blend and dye paint with mercury • Stoker of all kind of heat boilers
Tailor Industry	<ul style="list-style-type: none"> • Machinist of a minute and separate chopping machine used for incise transmission • To operate a special function iron press 		<ul style="list-style-type: none"> • To clean, dye, repair and seal tank and cistern going inside of it, which stores flammable and greasing materials • To mix ethyl with fuel
Meat industry	<ul style="list-style-type: none"> • To cause numbness of cattle, pig and bird, and to execute them • To butcher cattle • To work in a storehouse with amikan refrigerator 		<ul style="list-style-type: none"> • To clean heat boilers, stovepipe, canal and camera • To extract and carry coal, lava and ash • To fire heat boilers, repair and clean boiler house, carry fuel and ash • To melt, cast, discharge and pack cast iron and metal

Railway transport	<ul style="list-style-type: none"> • Train connector and composer • Install twin wheel band and rim • Bridge locksmith (plumber) • To tan, lift and unload bearer (tie) • To clean, bloat and blow stovepipe • Padding men • To go under the train for service and control check • Maintenance work of diesel-locomotive, supply equipment, fuel and electric motor • To block in a road by an electric blocker • Driver of heavy vehicles for road maintenance 		<ul style="list-style-type: none"> • To melt, pour, stretch, cast, mould and scroll pot lead, to make and seal an accumulator, to plumb cable, to generate a pot lead made things by hands • To melt a base metal such as pot lead, copper, mercury, gold, zinc and silver out of ore • To seal channel and canal • Striker • Auto machine operator and presser that prints metal in a cold condition with a power higher than 25 tones • Base machinist of drum chipping • Smasher • Steam auto machine' wheel • Stove/boiler repairmen
Water transport	<ul style="list-style-type: none"> • Diesel engineer of a ship • Steersman/pilot, sailor-man • To dive • Ship mechanic • To put a seamark 		<ul style="list-style-type: none"> • To seal and repair high pressure canal • To pour an electric filter • Machine operator and repairmen of a stationary diesel electric station • Compressor man
Auto Transport	<ul style="list-style-type: none"> • Vehicle with more than 2.5 ton of carrying capacity, driver of a vehicle with more than 25 seats • Flammable and greasing material, storing reservoir, to repair internal part of cistern, to seal 		<ul style="list-style-type: none"> • To polish and cover metal by a chemical method

Source: Government of Mongolia and World Bank

APPENDIX B: SUMMARY STATISTICS, MALE AND FEMALE (AGED 15-65), MLFS 2009

Profile of women aged 15-65 in Mongolia	All	Rural	Urban		Old
Age	34.5	34.4	34.5	22.1	44.0
Proportion young (%)	43.6	43.0	44.0	-	-
Years of Education	10.2	8.4	11.4	9.8	10.5
No education (%)	2.4	5.2	0.7	3.1	1.9
Primary (%)	9.6	19.3	3.5	10.2	9.2
Basic (%)	21.2	32.0	15.6	25.0	20.0
Secondary (%)	35.0	26.7	40.4	40.0	31.2
Initial Technical (%)	5.4	4.2	6.1	2.2	7.8
Advanced Technical (%)	11.7	7.6	14.2	4.6	17.1
University or more (%)	14.2	5.6	20.0	15.2	13.4
Married (%)	55.8	60.9	52.7	33.1	73.4
Proportion living in rural areas (%)	38.7	-	-	38.1	39.1
Living in hh with children aged 15 or less (%)	60.5	65.4	57.4	62.7	58.7
Hours worked/week	43.5	39.6	47.4	41.6	44.4
Labor Force Participation rate	59.2	72.6	50.8	44.1	70.9
Among wage earners:					
Tenure less than 1 year (%)	7.0	8.0	7.0	15.0	4.0
Tenure 1-2 years (%)	13.0	15.0	12.0	28.0	7.0
Tenure 3-4 years (%)	15.0	12.0	16.0	28.0	10.0
Tenure 5-9 years (%)	21.0	17.0	22.0	22.0	20.0

Tenure 10 year or more (%)	43.0	46.0	42.0	4.5	58.0
Profile of men aged 15-65 in Mongolia	All	Rural	Urban	Young	Old
Age	33.8	33.6	33.8	21.9	44.0
Proportion young (%)	46.1	46.0	46.4	-	-
Years of Education	9.6	7.8	10.8	8.9	10.2
No education (%)	3.0	5.5	1.2	4.1	2.0
Primary (%)	11.4	22.1	3.8	14.7	8.7
Basic (%)	26.5	37.0	19.1	30.0	23.7
Secondary (%)	34.4	22.8	42.6	36.6	32.6
Initial Technical (%)	6.5	4.9	7.6	2.8	9.7
Advanced Technical (%)	7.5	4.2	9.7	2.6	11.6
University or more (%)	10.7	3.4	15.9	9.5	11.8
Married (%)	57.4	59.8	55.8	25.0	85.1
Proportion living in rural areas (%)	41.4	-	-	40.9	41.8
Living in hh with children aged 15 or less (%)	57.3	61.3	54.4	53.8	60.3
Hours worked/week	49.9	49.4	50.4	49.1	50.3
Labor Force Participation rate	69.1	80.8	60.9	53.5	82.5
Among wage earners:					
Tenure less than 1 year (%)	8.0	12.0	7.0	13.0	5.0
Tenure 1-2 years (%)	15.0	15.0	16.0	31.0	8.0
Tenure 3-4 years (%)	17.0	16.0	18.0	27.0	13.0
Tenure 5-9 years (%)	21.0	22.0	21.0	20.0	21.0
Tenure 10 year or more (%)	37.0	32.0	38.0	6.0	51.0

Source: Calculations based on MLFS (2009)

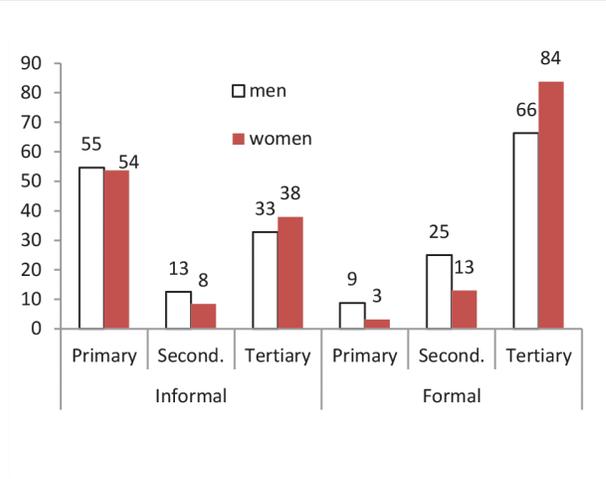
APPENDIX C: SUMMARY STATISTICS, DISTRIBUTION OF THE LABOR FORCE IN FORMAL AND INFORMAL JOBS, BY GENDER, REGION AND AGE (AGES 15-65)

<i>All</i>	All	Male	Female
Formal (as % of LF)	24.0	21.9	25.7
Informal (as % of LF)	66.2	68.3	63.9
<i>Of which:</i>			
Own account	47.7	65.8	27.0
Unpaid	29.8	13.2	48.8
Wage	21.9	20.3	23.7
Other	0.6	0.7	0.5
Rural			
Formal	10.5	9.2	12.0
Informal	83.4	84.5	82.2
<i>Of which:</i>			
Own account	46.7	71.4	18.8
Unpaid	44.1	19.9	71.5
Wage	9.0	8.5	9.5
Other	0.2	0.2	0.2
Urban			
Formal	35.9	33.8	38.1
Informal	50.3	53.1	47.3
<i>Of which:</i>			

Own account	49.3	57.3	39.9
Unpaid	7.9	3.3	13.2
Wage	41.6	37.8	46.0
Other	0.2	1.6	0.9
Young (aged <=30)			
Formal	18.0	17.0	19.0
Informal	68.7	70.4	66.6
<i>Of which:</i>			
Own account	35.4	50.8	16.0
Unpaid	42.5	29.2	59.0
Wage	21.8	19.5	24.7
Other	0.3	0.5	0.3
Old (>30 & <=65)			
Formal	26.8	24.7	29.0
Informal	64.9	67.2	62.5
<i>Of which:</i>			
Own account	54.5	74.4	32.6
Unpaid	22.8	3.9	43.6
Wage	21.9	20.7	23.2
Other	0.8	1.0	0.6

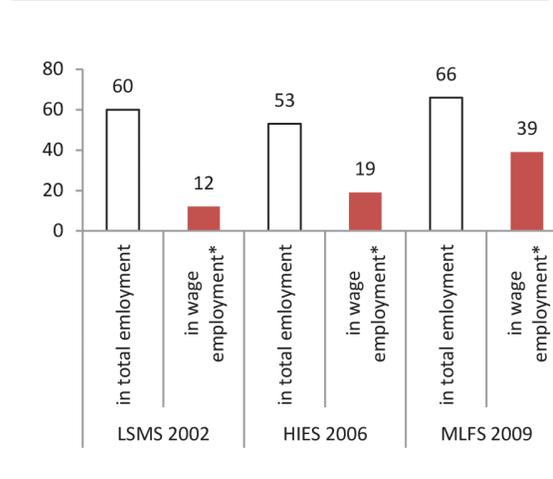
Note: Informal + formal in any column for a category doesn't add up to 100% because the labor force includes the unemployed (the remaining difference from the 100% sum is the corresponding unemployment rate); 'Informal' work is defined to include all unpaid workers (regardless of whether they work in formal/informal enterprises), own-account workers in informal enterprises (employing less than or equal to 5 persons), wage workers in informal enterprises (workers do not receive pensions) and 'others' to include employers and members of cooperatives employing less than or equal to 5 persons. Persons reporting primary and secondary 'informal' jobs are reported.

Figure c1. Composition of employment in formal and informal jobs by gender



Source: MLFS (2009)

Figure c2. Informality rates over time



Source: LSMS (2002), HIES (2006) and MLFS (2009) surveys. * These proportions represent the extent of informality in total wage employment.

APPENDIX D. SELECTED PARTIAL EFFECTS ON THE LIKELIHOOD OF OCCUPATIONAL OUTCOME, by gender

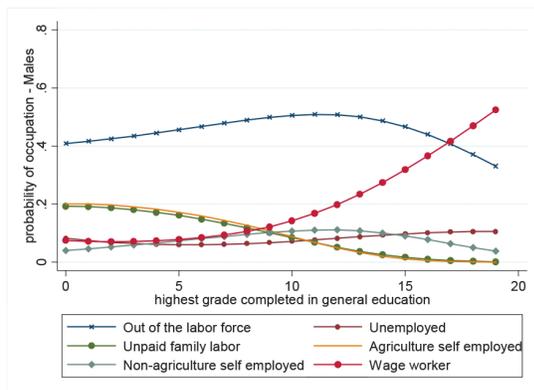
	Males	Females
1. Out of the labor force		
Years of schooling	-0.027 (-10.94)***	-0.042 (-19.06)***
Household size	-0.004 (-0.67)	-0.004 (-0.78)
Kids under 15	-0.012 (-1.12)	0.023 (2.52)**
Married	-0.118 (-5.13)***	0.008 (0.40)
2. Unemployed		
Years of schooling	0.0003 (0.30)	0.0004 (0.42)
Household size	0.004 (1.27)	0.006 (2.67)***
Kids under 15	0.004 (0.75)	0.003 (0.79)
Married	-0.031 (-2.53)**	-0.020 (-2.21)**
3. Unpaid worker		
Years of schooling	-0.0002 (-8.10)***	-0.001 (-13.71)***
Household size	0.0001 (2.30)**	-0.0004 (-1.89)*
Kids under 15	-0.0001 (-1.57)	0.0004 (1.64)
Married	-0.0002	0.007

	(-0.85)	(7.37)***
4. Agricultural worker		
Years of schooling	-0.022	-0.004
	(-14.69)***	(-7.75)***
Household size	-0.012	-0.001
	(-3.86)***	(-0.73)
Kids under 15	0.016	-0.000
	(3.87)***	(-0.23)
Married	0.021	-0.004371
	(2.06)**	(-1.09)
5. Non-agriculture self employed		
Years of schooling	0.005	0.003
	(3.23)***	(2.40)**
Household size	0.005	0.002
	(1.22)	(0.77)
Kids under 15	-0.001	0.002
	(-0.17)	(-3.00)***
Married	0.045	0.026
	(2.90)***	(2.58)***
6. Wage worker		
Years of schooling	0.044	0.044
	(22.38)***	(27.42)***
Household size	0.006	-0.003
	(1.12)	(-0.69)
Kids under 15	-0.007	-0.012
	(-0.77)	(-1.79)*
Married	0.084	-0.017
	(4.50)***	(-1.06)

Note: These results are based on the multinomial logits not reported here; Robust z-statistics in parentheses. * denotes significant at 10% level; ** significant at 5% level; *** significant at 1% level; Explanatory variables include age, age squared, years of schooling, household size, number of children aged 15 or less, whether person is married or not, whether person is household head or not, whether person belongs to a female headed-household or not and aimag-level fixed effects.

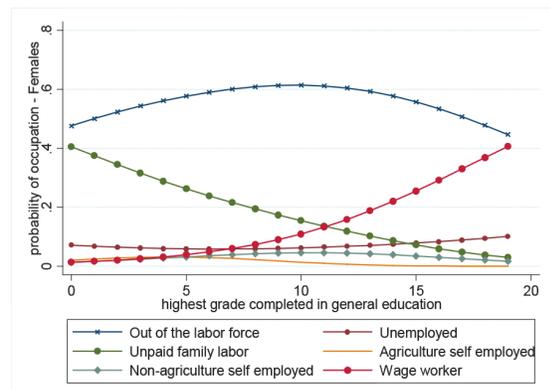
The charts below are based on multinomial logit models that estimate predicted probabilities for being in either of the following outcomes: out of the labor force, unemployed, unpaid family worker, self employed in agriculture, self employed otherwise and wage worker.

Figure d1. Probability of entering a particular occupation type- younger men



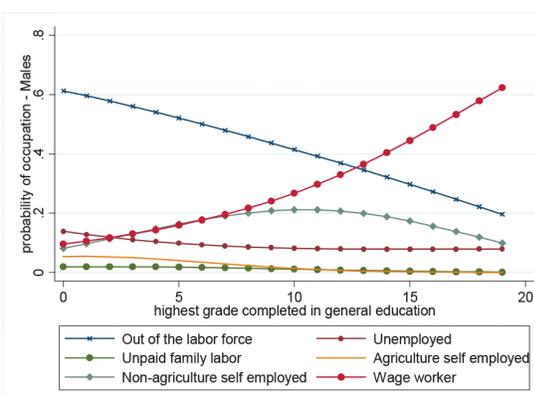
Source: Graphs based on multinomial logit estimates from MLFS (2009).

Figure d2. Probability of entering a particular occupation type- younger women



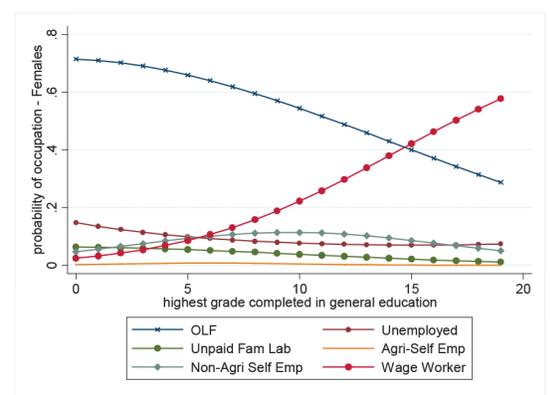
Source: Graphs based on multinomial logit estimates from MLFS (2009).

Figure d3. Probability of entering a particular occupation type- urban men



Source: Graphs based on multinomial logit estimates from MLFS (2009).

Figure d4. Probability of entering a particular occupation type- urban women



Source: Graphs based on multinomial logit estimates from MLFS (2009).

APPENDIX E: ACCESS TO FINANCE

	male (single)	female (single)	All males (multiple owner firms)	At least 1 female (multiple owner firms)	Total
% of firms with Bank Account	61%	69%	58%	52%	61%
% Investment financed internally	82%	68%	70%	67%	73%
% of firms with Bank loan	58%	58%	49%	56%	57%
Median Loan Value (millions of MNT)	46.5	40	200	45	49
Median Collateral Val as % of Loan	40%	40%	45%	35%	40%
% of firms that applied for loan in 2007	55%	60%	51%	65%	58%
% loan rejected	26%	13%	13%	33%	22%
% firms with results audited	82%	76%	89%	79%	80%

Source: Business Environment and Enterprise Performance Survey (BEEPS) conducted in 2008/2009, World Bank. The survey consisted of 362 firms that were present on the Mongolian business register and are thus are formal sector firms.

APPENDIX F: FACTORS THAT EXPLAIN PARTICIPATION RATES

Table (a) Marginal effects of female participation in the labor market

Labor Force Participation:	All	By location		By age category	
	(1)	(2)		(3)	
		Rural	Urban	Young (15-30 years)	Old (31-65 years)
Years of schooling	0.022 (11.94)***	0.003 (1.20)	0.037 (14.41)***	0.014 (5.03)***	0.022 (10.95)***
Age	0.126 (28.45)***	0.085 (15.91)***	0.148 (22.51)***	0.270 (10.78)***	0.074 (9.06)***
Age squared	-0.002 (-30.27)***	-0.001 (-16.90)***	-0.002 (-24.12)***	-0.005 (-8.30)***	-0.001 (-11.23)***
Kids under 15 in household	-0.013 (-1.93)*	-0.006 (-0.72)	-0.019 (-2.04)**	0.021 (2.03)**	-0.036 (-4.78)***
Married	0.044 (2.63)***	0.153 (6.18)***	-0.030 (-1.38)	-0.033 (-1.40)	0.061 (2.48)**
Female headed household	0.014 (0.83)	0.028 (1.16)	0.003 (0.14)	0.040 (1.62)	0.004 (0.17)
Aimag fixed effects	yes	yes	yes	yes	yes
Observations	8923	3450	5473	3887	5036
Pseudo-R2	0.287	0.259	0.295	0.313	0.214
Mean of dependent variable	0.592	0.726	0.508	0.441	0.709

Note: * denotes significant at 10% level; ** significant at 5% level; *** significant at 1% level; estimation method is probit, and robust z-values reported; dependent variable = 1 if person participates in labor market, 0 otherwise; Model (1) also controls for 'young' and 'rural' dummy, (2) controls for 'young' and (3) controls for 'rural' dummy.

Table (b) Marginal effects of male participation in the labor market

Labor Force Participation:	All (1)	By location (2)		By age category (3)	
		Rural	Urban	Young (15-30 years)	Old (31-65 years)
Years of schooling	0.013 (7.66)***	-0.003 (-1.42)	0.032 (10.99)***	0.009 (2.72)***	0.011 (6.90)***
Age	0.119 (33.13)***	0.070 (18.06)***	0.165 (27.25)***	0.330 (11.48)***	0.046 (8.28)***
Age squared	-0.001 (35.40)***	-0.001 (-18.62)***	-0.002 (29.41)***	-0.006 (-8.96)***	-0.001 (-10.26)***
Kids under 15 in household	0.019 (2.93)***	0.010 (1.60)	0.026 (2.56)***	0.044 (3.69)***	0.004 (0.66)
Married	0.139 (8.75)***	0.053 (2.78)***	0.182 (7.91)***	0.221 (7.72)***	0.082 (4.72)***
Female headed household	-0.034 (-1.84)*	-0.029 (-1.17)	-0.039 (-1.44)	-0.022 (-0.84)	-0.080 (2.48)**
Aimag fixed effects	Yes	yes	yes	yes	yes
Observations	8227	3406	4821	3789	4438
Pseudo-R2	0.371	0.317	0.390	0.413	0.232
Mean of dependent variable	0.691	0.808	0.609	0.535	0.825

Note: * denotes significant at 10% level; ** significant at 5% level; *** significant at 1% level; estimation method is probit, and robust z-values reported; dependent variable = 1 if person participates in labor market, 0 otherwise; Model (1) also controls for 'young' and 'rural' dummy, (2) controls for 'young' and (3) controls for 'rural' dummy.

Table (c) – Marginal effects for male and female participation – the effect of education

Education Level Completed:	Male		Female		Difference is significant?
(Base: no education or primary)					
Basic	-0.064 (-3.06)	***	-0.027 (-1.13)	***	
Secondary	-0.050 (2.35)	**	-0.042 (-1.74)	*	
Initial technical	0.051 (1.81)	*	0.074 (2.30)	**	
Ad. Technical	0.030 (1.09)		0.096 (3.61)	***	***
University/ more	0.135 (7.01)	***	0.219 (9.81)	***	***
Aimag fixed effects	Yes		Yes		
Observations	8227		8923		
Pseudo-R2	0.378		0.295		

Note: * denotes significant at 10% level; ** significant at 5% level; *** significant at 1% level; estimation method is probit, and robust z-values reported; dependent variable = 1 if person participates in labor market, 0 otherwise; Controls include: age, age squared, kidsunder15, married, female-headed-household.

Overall notes

Levels of schooling are defined as: no education (a dummy variable equalling 1 if person has no education, 0 otherwise), primary (a dummy variable equalling 1 if person has completed 4 years of schooling, 0 otherwise), basic (a dummy variable equalling 1 if person has completed 8 years of schooling, 0 otherwise), secondary (a dummy variable equalling 1 if person has completed 10 years of schooling, 0 otherwise), initial technical (a dummy variable equalling 1 if person has completed 12 years of schooling, 0 otherwise), advanced technical (a dummy variable equalling 1 if person has completed 13 years of schooling, 0 otherwise) and university or more (a dummy variable equalling 1 if person has completed 17 or more years of schooling, 0 otherwise).

The variable 'kidsunder15' captures the number of persons aged 15 or less in the household. Ideally one needs the number of own children of the woman in a household to identify the true effect of presence of children on labor market outcomes. The MLFS (2009) dataset does not allow us to match children to parents and this is the best variable capturing household dynamics available to us. As a robustness check, we restricted the sample of women aged 15-65 to only those who are household heads or wives of heads with the view that this allows a better matching of biological children to parents. As expected, this causes the effect of presence of children on the probability of participation to become even larger and more precise.

APPENDIX G: PROBABILITY AND DURATION OF UNEMPLOYMENT

Table g1 Narrow and broad unemployment

	Broad Definition		Narrow Definition	
	Male	Female	Male	Female
Age				
15-65	9.8	10.4	7.8	8.6
Young (15-30)	12.7	14.5	9.7	11.3
Old (31-65)	8.2	8.4	7.0	7.4
Education				
None/Primary	5.7	4.5	3.5	2.6
Basic/Secondary	11.5	13.5	9.3	10.6
More than Secondary	8.7	8.9	7.6	8.0
Location				
Rural	6.3	5.8	4.5	4.1
Urban	13.1	14.6	11.2	12.8
Region				
West	8.5	8.2	8.2	6.8
Khangai	8.5	8.9	8.3	7.2
Central	9.5	9.1	7.9	7.6
East	10.9	9.7	8.0	6.7
Ulaanbaatar	11.4	13.7	7.2	11.9

Source MLFS (2009). The 'narrow' definition includes individuals who are not currently employed but who actively looked for work in a given time period. The 'broad' definition includes the narrow unemployed plus those who say they want work but did not look for work in a given time period. Also see Kingdon and Knight (2004).

Table g2: Probability of unemployment (among all labor force participants)

Probability of being unemployed:	All		Male		Female	
	Marginal effect	Robust z-value	Marginal effect	Robust z-value	Marginal effect	Robust z-value
Personal characteristics						
Age*100	0.204	(0.95)	0.310	(1.07)	0.340	(1.05)
Age2*100	-0.003	(-1.13)	-0.003	(-0.94)	-0.005	(-1.36)
Male	-0.004	(-0.73)	-	-	-	-
Young	0.035	(3.02)***	0.028	(1.76)*	0.044	(2.56)**
Education (Base: university or more)						
No education	0.039	(1.69)*	0.019	(0.67)	0.062	(1.62)
Primary	-0.029	(-2.66)***	-0.035	(-2.51)**	-0.026	(-1.47)
Basic	0.030	(2.74)***	0.012	(0.85)	0.049	(2.92)***
Secondary	0.054	(5.76)***	0.035	(2.72)***	0.074	(5.49)***
Initial Technical	0.023	(1.64)	-0.004	(-0.24)	0.056	(2.37)**
Ad. Technical	-0.024	(-2.49)**	-0.024	(-1.70)*	-0.017	(-1.34)
Other variables						
Kids under 15	0.011	(3.88)***	0.008	(2.01)**	0.014	(3.72)***
Female headed	0.010	(1.17)	0.069	(3.78)***	-0.011	(-0.97)
Married	-0.058	(-6.78)***	-0.072	(-5.78)***	-0.056	(-4.36)***
Rural	-0.095	(-12.53)***	-0.087	(-8.38)***	-0.104	(-9.66)***
Region	yes		yes		yes	
Observations	10967		5686		5281	
Pseudo-R2	0.072		0.068		0.088	
Mean of dependent variable	0.101		0.098		0.104	

Note: * denotes significant at 10% level; ** significant at 5% level; *** significant at 1% level; estimation method is probit, and robust z-values reported; dependent variable = 1 if person is unemployed (broadly defined) i.e. not working and may or may not be looking for work, 0 otherwise; controls include 'young' dummy.

Table g3: Duration of unemployment by age, education, location and region

	Duration of Unemployment (average months)	% duration of unemployment					
		<1 month	1-2 months	3-6 months	7-11 months	1-2 years	3 or > years
<i>Males</i>							
Age							
15-30	28.6	2.7	3.9	12.4	8.5	25.2	47.3
31-65	33.5	1.3	3.7	7.7	7.7	19.4	60.2
Education							
None or primary	39.5	0.0	0.0	6.3	2.1	16.7	75.0
Basic or secondary	32.4	1.7	4.1	9.1	8.0	19.6	57.6
More than secondary	25.8	3.4	4.1	13.0	10.3	30.1	39.0
Location							
Rural	35.2	2.9	2.3	8.7	5.2	15.1	65.7
Urban	29.5	1.6	4.4	10.4	9.4	25.2	49.1
Region							
West	35.3	1.1	3.2	4.3	4.3	23.7	63.4
Khangai	34.7	0.9	4.4	6.1	6.1	19.3	63.2
Central	31.8	5.3	3.2	16.0	2.1	14.9	58.5
East	34.0	2.3	9.1	9.1	6.8	6.8	65.9
Ulaanbaatar	26.8	1.4	2.8	11.8	13.7	29.3	41.0
Type of U							
Searching	31.1	1.6	2.5	10.4	9.0	23.3	53.3
Non-search	31.8	3.5	8.8	7.9	4.4	17.5	57.9
<i>Females</i>							
Age							
15-30	26.0	3.6	4.4	13.3	10.4	28.1	40.2

31-65	28.6	1.7	3.3	7.0	4.0	23.6	60.5
Education							
None or primary	42.4	0.0	0.0	7.1	3.6	3.6	85.7
Basic or secondary	32.0	1.2	2.9	7.9	5.3	28.5	54.3
More than secondary	25.3	5.5	6.1	13.8	10.5	23.8	40.3
Location							
Rural	35.1	1.4	2.8	6.9	5.5	19.3	64.1
Urban	28.7	3.0	4.2	10.9	7.4	27.9	46.7
Region							
West	32.6	0.0	2.4	13.1	4.8	22.6	57.1
Khangai	29.8	1.0	5.3	12.4	3.5	28.3	49.6
Central	34.0	1.2	3.6	11.9	2.4	19.1	61.9
East	33.6	5.6	8.3	5.6	5.6	11.1	63.9
Ulaanbaatar	28.0	4.3	3.0	7.3	11.2	30.0	44.2
Type of U							
Searching	29.9	2.5	3.8	9.8	7.6	26.6	49.8
Non-search	32.5	2.9	3.9	9.8	3.9	21.6	57.8

Note: Duration of unemployment in the MLFS (2009) is a categorical variable (less than 1 month, 1-2 months etc.). To arrive at the mean monthly duration variable, we attribute the mid-points of the category to create a continuous variable.

Table g4: Determinants of unemployment duration

Determinants of unemployment duration:	All		Male		Female	
	Coefficient	Robust t-value	Coefficient	Robust t-value	Coefficient	Robust t-value
Personal characteristics						
Age	2.066	(4.14)***	1.478	(2.07)**	2.697	(3.61)***
Age2	-0.022	(-3.57)***	-0.016	(-1.81)*	-0.029	(-3.10)***

Male	0.306	(0.28)	-	-	-	-
Young	2.594	(1.11)	2.068	(0.59)	3.215	(0.99)
Education						
No education	15.139	(4.76)***	14.461	(3.46)***	14.210	(2.79)***
Primary	15.995	(6.19)***	14.473	(4.11)***	17.653	(4.65)***
Basic	7.927	(4.03)***	8.641	(3.08)***	6.871	(2.48)**
Secondary	7.620	(4.65)***	7.706	(3.21)***	7.371	(3.23)***
Initial Technical	8.225	(3.36)***	10.711	(3.04)***	5.525	(1.61)
Advanced technical	0.753	(0.28)	-2.125	(-0.51)	2.247	(0.63)
Household demographic variables						
Married	-3.582	(-2.56)**	-3.166	(-1.62)	-3.606	(-1.77)*
Kids under 15	0.999	(2.15)**	1.032	(1.44)	0.897	(1.43)
Female-headed HH	0.667	(0.45)	-1.579	(-0.67)	1.655	(0.84)
Location						
Rural	2.482	(1.75)*	1.409	(0.73)	3.467	(1.63)
Region						
West	2.482	(1.98)**	4.804	(1.92)*	2.326	(0.92)
Khangai	2.458	(1.60)	5.567	(2.51)**	-0.231	(-0.11)
Central	2.017	(1.08)	2.470	(0.93)	1.734	(0.64)
East	0.695	(0.27)	1.409	(0.40)	0.265	(0.07)
Observations	1107		557		550	
R2	0.119		0.112		0.144	
Mean of dependent variable	30.801		31.238		30.359	

Note: * denotes significant at 10% level; ** significant at 5% level; *** significant at 1% level; estimation method is ordinary least squares (OLS), and robust t-values reported; dependent variable = unemployment duration (months), see definition in Note under Table A5; controls include 'young' dummy.

APPENDIX H: EARNINGS GAPS

Table h1: Raw mean wages (thousands MNT/month) for wage workers (aged 15-65)

	Male	Female	Gap (M-F)
Overall	235.1	213.8	21.37***
By education level			
No education	160.8	51.4	109.4
Primary	131.3	118.3	13.0
Basic	178.6	150.4	28.3***
Secondary	213.6	176.0	37.6***
Initial Technical	219.1	186.7	32.4***
Advanced Technical	257.7	223.1	34.7***
University or more	290.7	257.5	33.2***
By Location			
Urban	245.6	219.5	26.1***
Rural	198.9	194.7	4.3
By Age group			
Young	229.7	208.3	21.4***
Old	237.6	215.9	21.7***
By Region			
West	191.5	205.1	-13.6*
Khangai	230.1	208.8	21.3**
Central	218.9	201.4	17.5**
East	212.1	193.6	18.5
Ulaanbaatar	254.1	223.7	30.4***
By Industry sector			
Primary	253.4	222.4	31.0*
Secondary	236.8	210.0	26.8***
Tertiary	231.6	214.1	17.5***
By Occupation group			
Legislators	287.1	265.4	21.7**
Specialists	286.6	246.4	40.2***
Other specialists	248.6	227.4	21.2***
Clerks	197.1	205.6	- 8.5
Sales	195.2	158.7	36.5***
Agriculture	133.5	113.3	20.2
Construction	229.8	199.8	30.0***
Operators	220.6	223.3	- 2.7
Elementary	167.0	145.6	21.4***
By formal/informal			
Informal sector wage job	202.4	185.2	17.2***
Formal sector wage job	257.3	231.2	26.3***

Source: MLFS (2009) data.

Table h2: Wage earnings and years of schooling by location, age and gender (ages 15-65)

Log Monthly Earnings:	All Mongolia (1)										By Location (2)						By Age (3)									
	All			Male			Female			Urban		Rural		Young		Old		Male		Female						
Years of schooling	0.054 (28.13)***	0.049 (17.74)***	0.058 (22.44)***	0.052 (25.66)***	0.047 (15.82)***	0.057 (20.77)***	0.059 (12.71)***	0.064 (9.08)***	0.048 (12.81)***	0.035 (7.02)***	0.064 (12.86)***	0.057 (24.73)***	0.058 (17.33)***	0.056 (17.51)***	0.005 (0.79)	-0.007 (-0.80)	0.019 (1.89)*	0.013 (1.87)*	0.004 (0.49)	0.024 (2.12)**	0.024 (2.12)**	0.026 (0.36)	-0.048 (-0.59)	0.014 (0.78)		
Age	0.005 (0.79)	-0.007 (-0.80)	0.019 (1.89)*	0.013 (1.87)*	0.004 (0.49)	0.024 (2.12)**	-0.027 (-1.64)	0.005 (0.27)	-0.003 (-0.45)	0.026 (0.36)	-0.048 (-0.59)	0.002 (0.24)	-0.009 (-0.63)	0.014 (0.78)	-0.007 (-0.97)	0.005 (0.50)	-0.021 (-1.75)*	-0.016 (-2.03)**	-0.007 (-0.68)	-0.028 (-2.08)**	0.059 (0.53)	-0.052 (-0.36)	0.116 (0.72)	-0.016 (0.76)		
Tenure 1-2 years	0.131 (4.11)***	0.102 (2.29)**	0.146 (3.28)***	0.135 (3.71)***	0.114 (2.40)**	0.140 (2.62)***	0.105 (1.64)	0.005 (1.79)*	0.099 (2.62)***	0.082 (1.56)	0.095 (1.81)*	0.180 (3.23)***	0.139 (1.79)*	-0.000 (2.82)***	0.131 (4.11)***	0.102 (2.29)**	0.146 (3.28)***	0.135 (3.71)***	0.114 (2.40)**	0.140 (2.62)***	0.082 (1.56)	0.082 (1.56)	0.095 (1.81)*	0.180 (3.23)***	0.139 (1.79)*	
Tenure 3-4 years	0.168 (5.26)***	0.081 (1.79)*	0.245 (5.58)***	0.187 (5.28)***	0.123 (2.69)***	0.238 (4.58)***	0.088 (1.17)	0.269 (3.07)***	0.122 (2.86)***	0.064 (1.06)	0.163 (2.90)***	0.208 (4.15)***	0.0912 (1.33)	0.331 (4.64)***	0.268 (8.60)***	0.214 (4.86)***	0.308 (7.00)***	0.269 (7.61)***	0.222 (4.76)***	0.238 (5.71)***	0.207 (5.06)***	0.174 (2.90)***	0.224 (4.10)***	0.389 (5.60)***		
Tenure 5-9 years	0.268 (8.60)***	0.214 (4.86)***	0.308 (7.00)***	0.269 (7.61)***	0.222 (4.76)***	0.238 (5.71)***	0.262 (4.06)***	0.319 (3.68)***	0.207 (5.06)***	0.174 (2.90)***	0.224 (4.10)***	0.313 (6.45)***	0.231 (3.49)***	0.389 (5.60)***	0.354 (11.07)***	0.305 (6.88)***	0.381 (8.46)***	0.345 (9.57)***	0.313 (6.76)***	0.353 (6.58)***	0.274 (5.30)***	0.279 (3.65)***	0.218 (3.22)***	0.461 (6.88)***		
Tenure >=10 years	0.354 (11.07)***	0.305 (6.88)***	0.381 (8.46)***	0.345 (9.57)***	0.313 (6.76)***	0.353 (6.58)***	0.374 (5.92)***	0.447 (5.25)***	0.274 (5.30)***	0.279 (3.65)***	0.218 (3.22)***	0.393 (8.43)***	0.316 (4.96)***	0.461 (6.88)***	0.014 (0.99)	0.065 (2.79)***	-0.017 (-0.97)	0.015 (1.00)	0.047 (2.09)**	-0.005 (-0.24)	0.048 (2.03)**	0.068 (2.00)**	0.022 (0.68)	-0.035 (-1.66)*		
Married	0.014 (0.99)	0.065 (2.79)***	-0.017 (-0.97)	0.015 (1.00)	0.047 (2.09)**	-0.005 (-0.24)	0.012 (0.33)	-0.049 (-1.13)	0.048 (2.03)**	0.068 (2.00)**	0.022 (0.68)	-0.009 (-0.50)	0.045 (1.38)	-0.035 (-1.66)*	0.152 (12.77)***	-	-	0.162 (12.77)***	-	-	0.167 (7.64)***	-	0.148 (10.26)***	-	-	
Male	0.152 (12.77)***	-	-	0.162 (12.77)***	-	-	0.123 (4.03)***	-	0.167 (7.64)***	-	-	0.148 (10.26)***	-	-	4114	1973	2141	3173	1530	1643	941	443	617	602	2895	1539
N	4114	1973	2141	3173	1530	1643	941	443	617	602	2895	1539	1539	0.313	0.301	0.328	0.308	0.278	0.326	0.266	0.269	0.402	0.317	0.309	0.309	
Rsq	0.313	0.301	0.328	0.308	0.278	0.326	0.266	0.266	0.266	0.266	0.307	0.319	0.330	0.309	5.31	5.40	5.30	5.37	5.43	5.32	5.18	5.36	5.26	5.33	5.38	5.29
Mean dep var	5.31	5.40	5.30	5.37	5.43	5.32	5.18	5.18	5.31	5.36	5.26	5.33	5.38	5.29												

Note: * denotes significant at 10% level; ** significant at 5% level; *** significant at 1% level; estimation method is ordinary least squares (OLS) and robust t-values reported; Tenure less than 1 year is excluded category; Controls include regional fixed effects and 'young' dummy (except in model 3), rural dummy (except in model 2).

The coefficient on the gender variable i.e "Male" in the table indicates the percentage by which men are paid more than women.

For example in the first column, the coefficient estimate is 0.152, indicating that after taking into account all factors such as years of schooling, age, work experience and demographic characteristics, if the worker is male then he will be paid 15 percent more than a woman with similar characteristics.

APPENDIX L: OAXACA'S DECOMPOSITION

Oaxaca's (1973) technique entails decomposing the wage gap into two components: 1) that explained by differences in individual characteristics and 2) the residual, unexplained portion, reflecting differences in earnings structure. Assume that the mean earnings of females (f) are Y_f and those of males (m) are Y_m . Mean earnings will be determined by:

$$Y_i = b_i X_i \text{ where } i=m,f \quad (1)$$

where X is the vector of average characteristics of i and b_i is the vector of estimated parameters for i . Standardizing by male means, the total wage gap in mean earnings can be divided into the explained (E) component and the unexplained (D) component as follows:

$$\begin{aligned} \text{Wage Gap} &= Y_m - Y_f \\ \text{Wage Gap} &= b_m X_m - b_f X_f \\ \text{Wage Gap} &= \{X_m (b_m - b_f)\} + \{b_f (X_m - X_f)\} \\ \text{Wage Gap} &= \text{Unexplained Component} + \text{Explained Component} \end{aligned} \quad (2)$$

The term $\{b_f (X_m - X_f)\}$ represents the explained component. In other words it is the part of the wage gap due to differences in the average characteristics of men (X_m) and women (X_f). If average characteristics were the same, then this term would be zero. If men have better characteristics than women, then a positive share of the gap is explained. The term $\{X_m (b_m - b_f)\}$ represents the unexplained component, i.e. they are due to differences in sex or how the labor market values differences in sex for a given set of characteristics (e.g male).

Table (a) Oaxaca Decomposition of log monthly wages

	Standardizing by male means			Standardizing by female means		
	Unexplained (D)	Explained (E)	Total gender wage gap (log monthly earnings)	Unexplained (D)	Explained (E)	Total gender wage gap (log monthly earnings)
Basic Earnings Function	0.198	-0.015	0.184	0.202	-0.019	0.184
With Occupation and Industry controls	0.236	0.003	0.239	0.252	-0.013	0.239

Young (with occupation/industry controls)	0.338	-0.042	0.296	0.337	-0.041	0.296
Old (with occupation/industry controls)	0.148	0.042	0.190	0.176	0.014	0.190

Note: Estimates (a) based on results reported in model (1) in Table (a) in Appendix K; estimates for columns (b), (c) and (d) based on results not reported here.