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GENDER NORMS AND LABOUR SUPPLY IN KAZAKHSTAN: EVIDENCE FROM THE WORLD VALUE SURVEY

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Abstract. In this study, we model the labour supply in Kazakhstan with the data collected by the World Value Survey conducted in 2011 with a focus on female labour market decisions assuming that, unlike the male labour supply, female labour supply depends not only on economic but also on social, cultural, and other factors. We found out that women face substantial opportunity costs for participation in the labour market, and economic inactivity likely serves as a form of hidden unemployment for them. They are also more susceptible to prejudice over gender roles than men. However, we did not reveal differences across geographical regions and ethnic groups. Economic and social factors appear to be more important in labour decisions in Kazakhstan than cultural ones.
Keywords: labour supply determinants, female labour supply, cultural attitudes and labour market, Kazakhstan, World Value Survey.
JEL codes: J21, J22, Z10.

Аңдатпа. Осы зерттеуде біз әйелдердің еңбек нарығындағы шешімдеріне баса назар аудара отырып, 2011 жылы жүргізілген Дүниежүзілік құндылықтар зерттеуінің деректері негізінде Қазақстандағы жұмыс күшінің ұсынысын модельдейміз, ерлерге қарағанда әйелдер бұл шешімдерді тек экономикалық қана емес, әлеуметтік, мәдени және басқа да факторларға сүйене отырып қабылдайды деп болжаймыз. Біз әйелдердің еңбек нарығына қатысу үшін айтарлықтай шығындарға тап болатынын анықтадық, ал экономикалық белсенділік олар үшін жұмыссыздықтың жасырын түрі болуы мүмкін. Олар сондай-ақ ерлерге қарағанда гендерлік рөлдерге қатысты алалаушылыққа көбірек бейім. Алайда біз географиялық аймақтар мен этникалық топтар арасында ешқандай айырмашылық таппадық. Экономикалық және әлеуметтік факторлар Қазақстанның еңбек нарығындағы шешімдердің мәдени факторларға қарағанда анағұрлым маңызды детерминанттары болып көрінеді.
Түйін сөздер: жұмыс күшінің ұсынысын анықтайтын факторлар, әйелдер жұмыс күшінің ұсыну, мәдени ұстанымдар мен еңбек нарығы, Қазақстан, әлемдік құндылықтарға шолу.
JEL codes: J21, J22, Z10.

Аннотация. В данном исследовании мы моделируем предложение рабочей силы в Казахстане на основе данных Всемирного исследования ценностей, проведенного в 2011 году с акцентом на решения женщин на

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рынке труда, предполагая, что, в отличие от мужчин, женщины принимают эти решения, опираясь не только на экономические, но и социальные, культурные и другие факторы. Мы обнаружили, что женщины сталкиваются со значительными альтернативными издержками для участия в рынке труда, а экономическая неактивность, вероятно, служит для них скрытой формой безработицы. Они также более восприимчивы к предрассудкам в отношении гендерных ролей, чем мужчины. Однако мы не обнаружили различий между географическими регионами и этническими группами. Экономические и социальные факторы выглядят более важными детерминантами решений на рынке труда Казахстана, чем культурные.
Ключевые слова: факторы определяющие предложение рабочей силы, предложение женской рабочей силы, культурные установки и рынок труда, Казахстан, обзор мировых ценностей.
JEL codes: J21, J22, Z10.

Introduction

In its classical connotation, labour supply is the number of hours chosen by utility-maximising individuals to work as a result of their preferences regarding the "consumption-leisure" trade-off, reservation wage, and given wage rates. These decisions depend on economic factors (GDP breakdown, economic cycle, local labour market conditions, policies, institutions), accumulated human capital (determined by education, experience, and individual abilities), various socio-demographic factors (gender, age, marital status, number of children and other dependents, spouse's wage and family assets), and cultural factors (people's beliefs, attitudes, and preferences). One way to assess labour supply is to model labour force participation – an equation estimating the likelihood for a given person to choose paid or unpaid employment, search for employment, or prefer to stay out of the labour market given its prevalent situation, and allowing one to comprehend which factors impact those decisions. This paper aims to explore developments in the labour supply in Kazakhstan by estimating labour force participation, with a special focus on female labour supply, based on the World Value Survey (WVS) data available for 2011.

The motivation behind this study arose from the fact that the topic is significantly under-researched in Kazakhstan; to the best of our knowledge, there is no single study assessing the labour supply of women. Meanwhile, the topic is one of the most popular in the international economic literature. The particular interest in the female labour supply estimation is caused by two reasons. Firstly, female labour supply is usually much more nuanced, and to a much larger extent depends on non-economic factors than male labour supply, and this potentially might help to better understand labour market developments. Secondly, gender inequality in the labour force might contribute to gender economic inequalities, and thus represent an important policy topic.

Even earlier research on the labour supply *(such as Douglas, 1934; Durand, 1948; Long, 1958)* found the labour market decisions and, consequently, the labour supply to be gender specific. Globally, female labour force participation is still not on par with that of males: the proportion of women in the labour market varies from 23-24% in India and the Middle East to 47% in Eastern Europe and Central Asia *(WEF, 2018).* Universally, females tend to work part-time: the female-to-male hours worked ratio is around 80% on average worldwide (ibid.). Female employment is disproportionally represented by less productive and worst-paid industries, such as agriculture and services *(McKinsey, 2015)*. This is at least partially explained by the fact that women are disproportionally engaged in the fulfilment of unpaid housework: McKinsey's report on gender inequality *(2015)* suggests that 75% of all unpaid family work worldwide is undertaken by women, equivalent to 10 trillion USD or 13% of the world's GDP in 2015.

It is likely that this universal phenomenon can be explained historically by gender specialisations in certain types of work, as determined by the natural differences between genders. This economically efficient specialisation is persistent even in the modern world, despite the technology and the structure of the production process has changed entirely. For example, Draper *(1985)* found out that in 20th-century Latin America, the economy's classic dependency, as expressed in the specialisation on primary goods (such as mineral resource extraction), generally provides fewer female employment opportunities, forcing them to specialise in traditional and worse-paid sectors: agriculture, domestic service, informal employment. Similarly, Ward *(1984),* in her

book, posits a causality chain leading from a country's dependency on the international economy to women's vulnerable position, showing that dependency on transnational capital defines the capital-intensive type of production and increases demand for male labour, respectively, reducing demand for female labour.

Women's labour market decisions, unlike those of men, are often not their individual but rather family decisions based on a choice between leisure, paid work, and unpaid housework. As early as 1958, Long found the female labour force participation to be negatively correlated with their husbands' earnings, regardless of their age, race, or if they had children. The vast majority of empirical studies, however, found that better human capital endowments for females, as defined by their attained level of education, increased the probability of them being present in the labour market, independent of their family choices. The mechanism behind this is simple: education increases productivity and potential wages, and thus increases opportunity costs of leisure and unpaid housework versus paid work in the labour market. In his prominent paper, using Milton Friedman's theory of consumption and differentiating between current and permanent income, Mincer *(1962)* argued that in low-income families having few or no savings, in periods when current income falls below permanent income level, wives' participation increases to maintain the family's regular level of consumption corresponding with permanent income level. Unsurprisingly, a wife's ability to earn a higher wage increases her probability of being able to find work. At the same time, this dependence is weaker in wealthier families, perhaps due to the availability of other assets that lessens the need for women to contribute via paid work. These universal trends, however, were found to be affected by changing economic conditions. For instance, in the second half of the 20th century, at least in the developed world, with the decreased pressure on housekeeping activities due to decreased number of children in families, the availability of household services and appliances simplified household activities, improved job opportunities in the labour market for females and led to an overall fall in working hours, and accordingly the family burden became a less significant determinant of female labour market decisions. Female labour force participation is found to have a U-shape with regard to countries' GDPs: in the poorest countries, it is relatively high due to low earnings generally preventing just one spouse from being able to support a family; with increased GDP and income, female labour force participation drops; however, in the richest countries, it increases again, this time mostly due to a cultural shift *(McKinsey, 2015).*

Economic factors possibly have the primary effect on women's labour market decisions; however, cultural beliefs are found to be important as well. Alesina et al. *(2013, p. 475)* treat culture as "decision-making heuristics or ''rules-of-thumb'' that are employed in uncertain or complex environments" and assist in saving the costs of searching for information to make optimal decisions. Guiso et al. *(2006, p.23)* define culture as "those customary beliefs and values that ethnic, religious and social groups transmit fairly unchanged from generation to generation". Generalising these definitions, we can handle cultural beliefs as historically formed rules of public behaviour which have survived until the present and that still influence certain decisions, even without carrying their earlier rational meaning. At the same time, cultural beliefs themselves could evolve over time, adapting to changing environments, and perhaps these changes have accelerated during the last few decades taking into consideration globalisation and the convergence of the national economies.

A noteworthy study is that by Giavazzi et al*. (2013).* Using the cross-country data for the OECD economies, including data from the WVS, they discovered that cultural attitudes to gender, youth, and leisure are significant determinants of females' and young people's labour force participation rates and hours chosen to work. At the same time, the country's institutional characteristics potentially influence labour decisions, for instance, employment protection legislation has been found to be as important as culture. One earlier paper *(Tzannatos, 1999)* scanning gender disparities in labour force participation and remuneration worldwide, in particular by comparing developing and developed countries, demonstrated that the large

proportion of female participation is in fact explained by religion. Specifically, it revealed lower rates of female labour force participation in countries with a Muslim religious domination. The impact of cultural differences on a labour market varying worldwide was stressed in Clark et al. *(1991).* This study found material conditions to be important determinants of female labour force participation, stating, however, that "culture had very definite effects on women's economic status, effects that were independent of material conditions" *(Clark et al., 1991, p. 53).* It again confirmed considerably lower rates of female participation in labour in Islamic countries explained, according to the authors, by the attitude towards woman's role in society and family which are typical for the Muslim ideology. At the same time, considerably higher rates were observed in Marxist societies (the study covers 1960-1980). The authors also noted that the majority of studies on cultural features of female labour force participation are descriptive by nature, observing the correlational effect of cultural background on women's share of the labour force *(Clark et al., 1991, p. 49)* rather than seeking the actual causal effects.

By contrast, one of the most influential papers dealing with causality in an attempt to explain cross-country differences in gender roles is that by Alesina et al. *(2013).* It hypothesises that attitudes towards female's roles in society including female participation in the labour force might originate from nations' historical involvement in plough agriculture, which required more physical strength and was traditionally performed by men, thus leaving housekeeping activities to women. To test this hypothesis, the authors used the WVS data and examined cultural beliefs about woman's role as second-generation immigrants in Europe and the U.S., finding a strong relationship between the plough cultivation practised by ethnic groups in the far past with the beliefs of their descendants today.

Cultural beliefs, however, they themselves being a result of earlier economic decisions, might be affected by changing economic conditions. In an extreme case scenario, economic rationalisation determined not only labour decisions but a society's gender composition, as channelled from family decisions that are often skewed towards sons who are, in most cultures, historically considered to be a better investment in their parents' anility than daughters. The study by Qian *(2008),* however, having scrutinised the exogenous shift in a sex-specific agricultural income in post-Mao China, found that an income increase in female agricultural jobs has improved survival rates amongst girls. Thus, better labour market perspectives for women become a game-changer in terms of economic gender equality. This is shown by the studies exploiting a change in competitive environments a firm faces to investigate the gender gap. Becker *(1957)* showed that firms with prejudice (including prejudice toward gender) will be less likely to survive in the face of increased competition. Ashenfelter and Hannan *(1986)* studied the banking industry in the U.S., finding that banks operating in less competitive environments indeed had fewer women employees. Furthermore, Black and Strahan *(2001)* have shown that the deregulation of the banking sector that increased the pressure of competition has reduced the gender gap in employment across banks. As soon a gender prejudice becomes economically inefficient, it tends to vanish.

In the same manner, labour market institutions aimed at equalising opportunities for men and women, including women with children, can affect labour market decisions. The study by Besamusca et al. *(2015),* using thorough data from the ILO Estimates and Projections of the Economically Active Population to examine female labour force participation worldwide, discovered that such factors as paid maternity leave schemes and higher levels of preschool education, along with lower religiosity, positively affect female labour participation. Equivalently, Grogan and Koka *(2010),* analysing labour supply decisions of young children's mothers in Russia in the post-Soviet era, found significant changes over the period: in 2004 compared with 1992, the participation of women with children under the age of three decreased, which the authors explained as being due to decreased maternity leave benefits, as well as restricted and expensive childcare facilities. In the Economic literature, this phenomenon is known as "child penalties". Though they vary from country to country, they are persistent even in Scandinavian countries, which are

regarded as the most gender-equal labour markets in the world. Kleven et al. *(2019),* exploiting Danish administrative data from 1980-2013 and event study methodology, found most of the remaining gender inequality in earnings to be attributable to childbirth; moreover, they found the "child penalties" appeared to increase over the period under consideration. However, they discovered that the penalties are transmitted through generations from mothers to daughters: a maternal grandmother's labour force participation was found to predict their granddaughter's participation, contributing to economic gender equalities.

To summarise, female labour supply is rarely an individual decision, and it is affected by family consideration, labour market conditions, and cultural beliefs, in addition to economic factors to a much greater extent than male labour supply. In Kazakhstan, one can observe a mix of different factors that potentially influence labour market decisions, especially those of women. It is a multinational country with Islam the dominant religion, a rather nontrivial historical background (Nomadism, the Soviet past, and its accelerated transition from feudalism to communism and, recently, from communism to a market economy), geographically large, and culturally diverse. One might expect high labour force participation, including the proportion of women in the labour force as a Soviet-period legacy, but the influence of Islam and possible cultural attitudes to women's roles in society as the homemaker and main contributors to children's upbringing, and family duties may act in an opposing direction. The country's gross production is skewed toward natural resource extraction and there is a significant dependence on their export that could also have an effect on labour market developments.

The research on Labour Economics in the Soviet Union, however, was limited and contradictory, and even now there are still few academic studies on the labour market in transition economies, partly due to a lack of reliable data. There are even fewer studies on labour supply in Kazakhstan. The single most comprehensive study is that by Verme *(2000),* who presented a detailed analysis of the labour supply during the first years of the transition from communism to the market economy, though it does not focus on gender features of labour market decisions.

Very few studies exploring the effect of family-related decisions on female labour participation in Kazakhstan have appeared recently.

The study by Yanovskaya et al. *(2020)* enquires into women's unpaid domestic care work. It is suggestive that family responsibilities are unequally distributed in Kazakhstan, thus limiting women's opportunities for self-fulfilment in the labour market.

Meurs et al. *(2021)* examined how care policies affected Kazakhstani women's labour force decisions. Exploiting the EBRD Life in Transition Survey from 2006, 2010, and 2016, they discovered that unlike in European countries, "motherhood of very young children is strongly associated with a lower likelihood of employment and that the availability of childcare does not affect this relationship" *(Meurs, 2021, p. 603).* This is likely to be explained by the high opportunity costs of employment for women.

We aim to add to the existing literature and fill the gap in economic empirical research devoted to the female labour supply in the post-Soviet countries by exploring a dataset that has remained relatively unresearched in the Kazakhstani context. Although the WVS data was collected in Kazakhstan just once in 2011, it has advantages over other available datasets. The first is the availability of the data on various individual preferences, including those that potentially elucidate preferences towards work and leisure, allowing the "classical" labour force participation equation to be estimated. Additionally, the VWS records respondents' ethnicities (which by default, we accept as cultural and religious affiliation) allow us to hypothesise about its potential effect on women's labour market decisions. Finally, the VWS data explicitly reveals the gender role prejudice beliefs of the respondents by asking them several such questions.

The paper is organised as follows. The following section uncovers the country's background, elaborating on its labour market developments with a focus on gender aspects. This is followed by a section explaining the empirical model and the data used for analysis. Section 4 presents the results of the estimations along with their interpretations, while in Section 5 we

conclude and provide some final remarks and discussions.

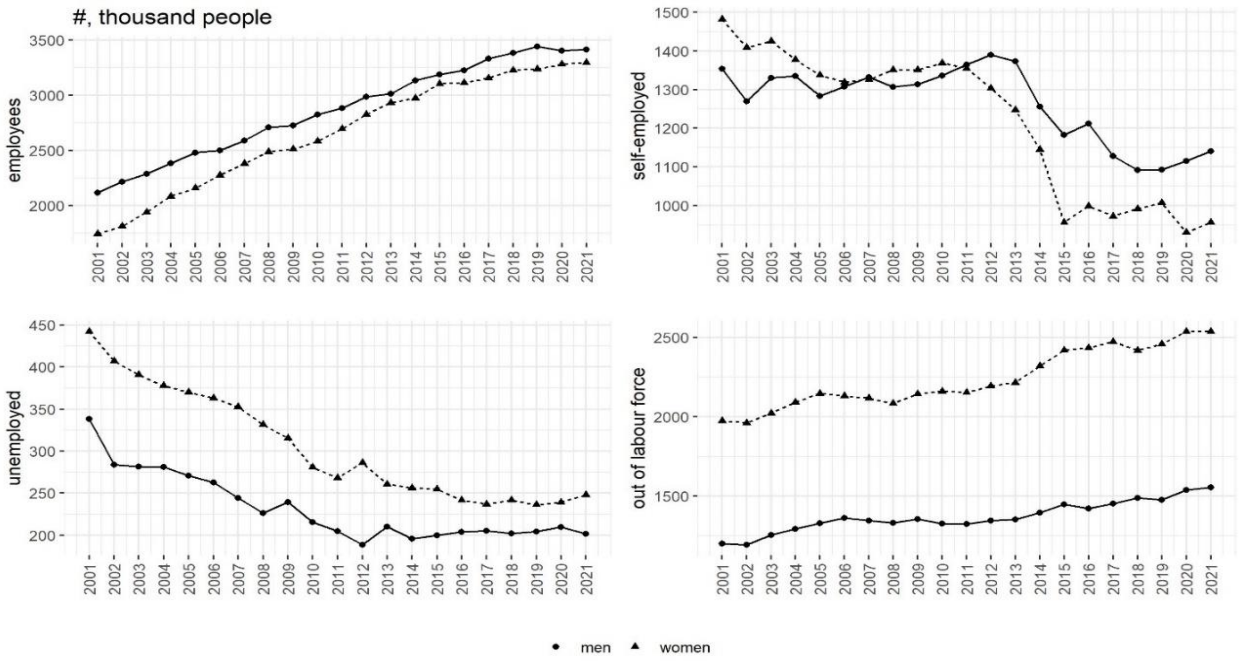
Country background: labour market developments

In this section, the main trends shaping labour supply in Kazakhstan and their changes over the transition period are examined using data from the Bureau of National Statistics.

The labour market's formation commenced in Kazakhstan in the early 1990s with the collapse of the Soviet Union, the independence so obtained, and the subsequent transition to the country's current market economy. At that time, the country was suffering from a severe crisis - by 1995, real GDP had dropped to 61.4% of its 1990 level. The recession caused unemployment and poverty, reduction in real incomes, and substantially contributed to income inequalities. Citing Verme *(2000, p. 16),* "the social cost determined by the [transition] process soared to dramatic proportions". However, in the 2000s, the economic situation changed for the better as the country managed to take advantage of its unique natural resources and began to experience the growth caused by the world market commodity boom. Being the second-largest energy exporter among the post-Soviet economies, Kazakhstan's economy is highly dependent on oil, gas, and commodity exports.

During the first decade of the transition, Kazakhstan experienced a decline in its population's natural growth from 12.1 per 1,000 in 1992 to 4.7 per 1,000 in 1999 due to decreased birth rates and increased death rates. This, however, did not cause an expected relative increase in the working-age population in the short run owing to the migration outflow. In total, from 1991 to 2010 the number of immigrants comprised 1.4 million people, while the number of emigrants reached 3.4 million, and the positive balance of migration was observed only in 2004; the population only reached its pretransition levels in 2011. The baby boom occurring during the relatively prosperous 2000s and the inflow of ethnic Kazakh population from abroad (post-Soviet countries, Mongolia, China, and others) contributed to this. All listed trends reshaped the ethnic composition of the population, resulting in a 26% increase in the Kazakh population in the 2009 Census compared with the 1999 Census, which is the majority now. We should additionally stress urbanization as a result of internal migration. According to the 2009 Census report, 70% of all internal migrants were those moving from rural to urban areas and the current urban population is 38% greater than the rural. Urbanization was driven by poor economic conditions in rural areas, which are indeed still observed - according to the IMF Report, rural poverty in Kazakhstan is still higher than in poorer countries in the region *(IMF, 2014, p.3).*

Labour market developments generally reflect listed changes. The labour force participation rate (calculated as the proportion of the economically active population in the total working-age population) was somewhat volatile during the 1990s, stabilising in the 2000s and reaching its peak (72%) in 2011-2013 when the country's GDP peaked. This might reflect the income effect related to an increase in wages driven by the oil boom. The dynamic of the population in accordance with the labour market status, as depicted in Figure 1 below, suggests that paid employment grew over the period while self-employment and unemployment decreased. Interestingly, the number of economically inactive people ('out of labour force' panel) was countercyclically increasing for both genders. There is, however, a striking difference across genders in terms of inactivity, where the number of out-of-labour force females was about 60% greater than males and the female labour force participation rate was about 15% lower (64% vs. 75% in 2021).



Source: Bureau of National Statistics, stat.gov.kz

Figure 1 – Employees, self-employed, unemployed, and economically inactive population

The Comparison of population distribution by age and gender reveals that the excess in economically inactive females can mostly be attributed to two age groups: the youth, and the elderly population. Whereas young females' lesser participation in the labour force probably relates to their higher tertiary education enrolment rates in comparison with men (78% versus 64% - the World Bank tertiary education gross enrolment rate in 2020) and maternity leave, older females might prefer earlier retirement because of poorer labour market expectations. The relatively early age for official state retirement (63 for men and 58 for women) might shape inhibiting factors in relation to labour force participation. In view of the failure to find employment in the labour market, women might prefer to take early retirement, albeit with low retirement provisions. There is anecdotal evidence that for a woman older than 55 it is difficult to find new employment in Kazakhstan or even keep their existing employment unless they are a highly skilled worker. Other age groups' inactive females are likely to be those who, in the early 1990s, turned to household activities (which were considered to very rare during the Soviet era due to the extant Soviet ideology). Among the key factors pushing women towards labour inactivity, Verme *(2000)* lists the cost per hour of hiring a babysitter: if this cost is equal to or higher than the potential wage in the labour market, a woman would definitely choose to become a housewife.

A deeper look at the national statistics data suggests that people with higher levels of education are more likely to be in the labour force and more likely to be employed, and this relates to both genders. The same pattern appears with respect to employment status – wage-earners (employees) versus self-employed – which is also not too different across genders, though it tangibly differs across regions, and which has changed dramatically over the reform period. The proportion of self-employment in total employment is currently higher than average in regions with incomes that are lower than average, and this generally reflects substantial disparities across the regions. Interestingly, the unemployment rate is uncorrelated both with the regional level of income and with the proportion of self-employed. The self-employed also tend to be less educated, and currently the proportion of self-employed among the employed is greater amongst males than females.

The phenomenon of self-employment was nearly inexistent in the Soviet economy, and it appeared with the transition. As Verme *(2000)* suggests, this was a result of shrinking employment in the public sector

that was not immediately offset by the increased employment opportunity in the slowly developing private sector; therefore, self-employment acted as a buffer between the two, in the words of Verme. Apparently, the official statistics of non-registered unemployment are still disguised as self-employment, which is partially confirmed by the fact that this substantially decreased with the oil boom of the 2000s. Characterising the nature of self-employment in Kazakhstan, Mussurov and Arabsheibani *(2015)* referred to it "necessity-driven self-employment positively correlated with recession".

Due to the centralised distribution of the labour force across regions, industries, enterprises, the extensive nature of the production process and promoted attitude toward work as a duty rather than a right of the Soviet citizen, unemployment was close to zero, even by the end of the Soviet era *(Verme, 2000).* National Statistics reports unemployment rates from 1994 comprised 7.5%. Officially registered unemployment peaked in 1999 (13.5%) but went down thereafter. This happened at the beginning of the boom decade; additionally, the cancellation of the state-funded unemployment benefit and its replacement by the social insurance programme, which likely had a negative impact on the number of newly registered unemployed, took place in the same year. Since 2010, the officially reported unemployment rate has stabilised at around 5-6% without significant gender disparities. Thus, currently, it is reasonable to expect "hidden" unemployment in the form of both economic inactivity and self-employment to be present.

Empirical model and the data

To estimate labour force participation in Kazakhstan and distinguish between inhibiting and inducing factors influencing labour decisions, we utilise the VWS data.

The VWS, consisting of nationally representative surveys, seeks to explore people's values and beliefs and was initiated in 1981; it is currently conducted in around 100 countries with almost 400,000 respondents. The survey has been conducted in Kazakhstan just once, in 2011, the year of economic boom, with a sample of 1,500 individuals. A multistep design was used for stratified sampling: (1) the country was divided into six regions that are geographically, economically, and demographically distinct and from each of them two or three areas were selected; (2) sample size was defined for each region accordingly to its population size; (3) starting points were selected for each sampling point; (4) households were selected through random route sample; and (5) in each selected household, one respondent was selected from all adults by the next birthday sampling rule.

The Survey provides data on respondents' labour market status as categorised into seven groups (full-time employee, part-time employee, self-employed, retired, housewife, student and unemployed); a number of their socio-demographic characteristics and their answers to the questions allow their labour market preferences to be gauged. Unfortunately, the questionnaire does not include questions on the number of hours worked by a person or their wages, which might lead to certain inaccuracies in the results and their interpretations.

We adopt the empirical model proposed in Giavazzi et al. *(2013)* excluding country-specific elements and time effects and simplify it to the following specification:

$$L_i = \alpha_0 + \alpha_2 X_i + \alpha_1 A_i + \varepsilon$$

L_i - individual's labour force participation status

X_i – individual's socio-demographic characteristics serving as control variables

A_i – survey-based measure of individual's attitudes toward labour decisions.

The dependent variable is a dummy indicating labour force participation status, as proposed by Gunderson *(1980).* Multinomial logit was used to develop the central labour force participation model. In accordance with labour status, the sample was classified into four categories - employees (both full-time and part-time); self-employed (we separated them from wage-earners since we might expect them to differ, as the national statistics data suggests); unemployed, and economically inactive (out of the labour force), respectively representing the dependent variable's levels (categories). Additionally, binary response

probit models were developed to examine labour force participation for two subsamples (employed versus unemployed individuals; employed versus out of labour force individuals) and separately for men and women. In this case, the employed category includes both employees (wage-earners) and the self-employed, thus it is broader than in multinomial logistic regression. The same methodology was used for models aimed at estimating possible cultural differences across regions and ethnic groups. We run all models for both genders for comparison reasons, though female labour force participation is of primary interest to us.

In all models, we control for education (classified into three categories), age, gender, marital status, having children, region, and size of the town where the person lives (again classified into three categories both). Unfortunately, the survey does not consist of questions to identify urban or rural residency, which might be of crucial importance for some labour decisions in Kazakhstan; thus, we use the size of the town as a proxy for this. Category “town” includes respondents living in towns with a population of fewer than 100,000 people, therefore representing small towns but also rural villages.

Finally, to estimate the impact of people’s attitudes and beliefs, which might influence their labour decisions, we use three survey questions reflecting two “types of attitudes”:

- preferences towards labour/leisure expressed in their answers to the following questions: “For each of the following, indicate how important it is in your life: Work” and “For each of the following, indicate how important it is in your life: Leisure time”;

- attitudes toward female’s employment and her social role: the answers to the question, “Do you agree, disagree or neither agree nor disagree with the following statements? When jobs are scarce, men should have more right to a job than women”. For identifying the females' perceived social roles, we use the same question which was used in the study by Alesina et al. *(2013)* mentioned in the theoretical review.

In Kazakhstan, the biggest industries in terms of employment are not those in terms of production. Except for trade, leading industries, according to their share in GDP, are mostly capital intensive, while employment-providing industries represent the much smaller contributors to the country's GDP; this, on the one hand, refutes theoretical expectations of the most male-oriented structure of the national economy, but on the other hand, partly explains the existing wage gap. Thus, we may suppose that employment opportunities are more or less equal in their gender composition, but lower rates of female wages relatively increase the opportunity costs of female labour decisions. Consequently, the attained level of education might have a greater effect on female than male labour supply, enhancing females’ earning power and creating incentives for better-educated women to prefer paid jobs. We expect, therefore, that labour participation in Kazakhstan to be relatively high for both men and women as it was during the Soviet era, and the labour supply to be currently determined by employment opportunities and wages, which in turn are likely to vary across industries, regions, and residence, and to be positively correlated with education. In addition, female labour decisions might depend on marital status, spouse’s earnings, and relative costs for housework and childcare facilities. With the WVS data, we can test most of the listed hypotheses except for cross-industry variations as the survey does not provide data on an industry of employment.

We also anticipate cultural peculiarities regarding female labour force participation. The differences in respondents’ beliefs could be related to their residence (region and area) and ethnicity. Specifically, we expect cross-regional differences in culture, and particularly preferences towards gender family roles as the southern and western parts of the country are believed to be more traditional than the central, eastern, and northern parts due to being less exposed to Russian culture before and during the Soviet era. Moreover, Miho et al. *(2020),* having explored the diffusion of cultural norms as a result of Stalin’s ethnic deportations during WWII to Central Asia and Siberia, found that “gender norms diffused from deportees to the local population, resulting in changes in attitudes and behavior” (p. 1). The central, eastern, and northern parts of Kazakhstan were much more exposed to the Protestant ethnic deportations. While due to the country’s geographical size, we suppose that

regions are less impacted by internal migration, the two biggest cities, being the most attractive internal destinations, are now populated by people from all over the country. In a similar manner, we may expect more traditional attitudes in rural areas (shown within 'towns' in our case) rather than in urban.

Cultural differences are also anticipated among different ethnical groups. Specifically, we hypothesise that the female labour participation rate would be higher for the European ethnic group and for the northern, eastern, and central Kazakhstan, as well as the cities, and lower for ethnically Kazakh women due to a possible effect of Muslim culture. It is also noteworthy that the Western part of the country is mostly represented by the oil and gas industries, thus a relative scarcity of female job places might be expected.

As can be seen from the distribution of the full sample consisting of 1,500 individuals (table 1), about half (46%) are full-time employees. The sample is biased towards older women, but after filtering for the working-age individuals (18-60 years old), we were left up with 1,319 observations more evenly distributed between males (524) and females (795), while the distribution by labour market status had not changed significantly (except proportion of retirees). Five individuals with undefined labour market status (categorized as 'other' in the table below) were also excluded from the analysis.

Table 1 – Distribution of the WVS Respondents by Labour Market Status

	Full sample (1,500 individuals)	Working age sample (1,319 individuals)
Full-time employees	686	674
Part-time employees	198	187
Self-employed	75	74
Retired	187	33
Housewife	187	187
Student	71	71
Unemployed	91	88
Other	5	5

The education variable is ordered into three levels: less than secondary school, complete secondary school, and degree (higher education). As expected, the greatest proportions in all groups are for people who have completed secondary school, which generally reflects the population's distribution by the attained level of education. Unsurprisingly, the share of persons with higher education is greater in the employed sample (38%) than in the unemployed (19%) and economically inactive samples (16%).

Employed and unemployed samples are approximately evenly composed in terms of gender, while the "out of labour force" sample consists of 15 times more females than males (39 males against 252 females), and this again is a rather representative picture of the country's population, as has been previously shown.

14 regions ('*oblasts*') and two cities of national significance were classified in accordance with the monetary incomes of the population in the year under analysis: lower than average income regions (South Kazakhstan, Zhambyl, Almaty region excluding the city of Almaty, North Kazakhstan, Kyzyl-Orda, Kostanai, East Kazakhstan, Akmola and Aktobe), average income regions (Pavlodar, Karaganda and West Kazakhstan), and higher than average income regions (Mangystau, city of Almaty, city of Astana, and Atyrau). Notably, this classification correlates with the region's output structure: higher than average income regions include the two biggest cities with special status (the current capital, Astana – as per 2011, the year of the survey - and the previous capital, Almaty, which still remains the country's business and financial centre) and two oil-producing regions; average income regions are the industrialised regions; whereas the lower than average income regions group is represented mostly by agricultural regions.

Results

Table 2 reports the multinomial logistic regression's outcomes presented as a starting point. Employee (full-time and part-time) is the omitted category.

Table 2 – Labour Force Participation (odds ratio)

	Out of Labour Force	Self-employed	Unemployed
Education: Complete secondary(1)	1.030 (0.299)	1.236 (0.553)	0.568 (0.348)
Education: Degree	0.252*** (0.337)	1.356 (0.575)	0.284*** (0.419)
Age	0.977*** (0.008)	0.994 (0.013)	1.004 (0.012)
Gender: Female	7.844*** (0.210)	0.507*** (0.262)	0.737 (0.243)
Marital status: Married	1.539** (0.193)	1.381 (0.341)	0.598* (0.292)
Have one child or more	0.486*** (0.234)	1.190 (0.418)	0.548* (0.337)
Region: High Income Regions(2)	0.896 (0.306)	0.276** (0.570)	1.182 (0.504)
Region: Low Income Regions	1.313 (0.219)	1.055 (0.318)	1.689 (0.349)
Size of town: large city(3)	1.108 (0.292)	1.511 (0.475)	0.553 (0.581)
Size of town: town	1.130 (0.194)	1.987** (0.322)	2.178** (0.307)
Leisure is very important or rather important	2.316*** (0.225)	1.600 (0.349)	0.844 (0.277)
Work is very important or rather important	0.125*** (0.234)	3.799 (1.025)	0.973 (0.472)
Agree with the statement "When jobs arescarce, men should have more right to a job than women"	1.492** (0.163)	1.057 (0.253)	0.587** (0.250)

Notes: Log-odds were computed in R using the 'multinom' command from the 'nnet' package (Ripley and Venables, 2016). Odds ratios were found from exponentiation of the log-odds. Standard errors for log-odds are reported in parentheses. Since package does not automatically compute coefficients' p-values, they were computed using Wald test (two-tailed z test).

(1) Base for Education: less than secondary

(2) Base for Region: average incomes regions

(3) Base for Size of town: city (town - less than 100,000; city - 100,000-500,000; large city - 500,000 and more)

*Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

The outcomes are generally compatible with our expectations. Education matters with regard to labour market status: people with degrees are less likely to be out of the labour force and unemployed (by 75% and 72%, respectively, compared with those who have not completed secondary school). Increasing the age by one year decreases the probability of economic inactivity by 3% - an observation that can hardly be interpreted unless one thinks about possible intergenerational differences in employment preferences. Notably, females are 784% more likely than males to be out of the labour force, while being 49% less likely to be self-employed. Married people are 154% more likely to be out of labour (which is likely driven by females), and, unexpectedly, 40% are less likely to be unemployed versus being the wage-earner. People with children are less

likely to be inactive (51%) and unemployed (45%). The residence seems to be an important factor mostly in the self-employment decisions: while high income regions residents are less likely to see self-employment (by 72%), small town (and rural area) residents are more likely to be self-employed (by 199%). Unemployment also increases among the small-town residents. Finally, people valuing leisure are 232% more likely, whereas people valuing work are 87% less likely to be out of labour; and people believing that men should be given preferences in jobs allocation are 150% more likely to be out of labour and 41% less likely to be unemployed compared with employees.

Table 3 reports average marginal effects for more detailed binary employed versus unemployed and out of labour force models for the whole sample and separately for men and women.

Table 3 – Labour Force Participation (average marginal effects)

	Employed versus Unemployed, Full sample (n=1023)	Employed versus Unemployed, Males (n=483)	Employed versus Unemployed, Females (n=540)	Employed versus Out of Labour Force, Full sample (n=1226)	Employed versus Out of Labour Force, Males (n=473)	Employed versus Out of Labour Force, Females (n=753)
Education: Complete secondary(1)	0.050 (0.031)	- 0.001 (0.044)	0.089* (0.043)	0.012 (0.041)	0.012 (0.035)	0.012 (0.067)
Education: Degree	0.086*** (0.026)	0.044 (0.044)	0.121** (0.037)	0.185*** (0.037)	0.094*** (0.022)	0.239*** (0.064)
Age	0.000 (0.001)	- 0.003* (0.001)	0.001 (0.001)	0.003** (0.001)	0.002 (0.002)	0.003. (0.002)
Gender: Female	0.024 (0.017)	-	-	- 0.267*** (0.019)	-	-
Marital status: Married	0.041. (0.022)	0.083. (0.044)	0.020 (0.023)	- 0.053* (0.023)	0.054** (0.021)	- 0.125*** (0.034)
Have one child or more	0.052. (0.030)	0.069 (0.046)	0.034 (0.036)	0.110*** (0.033)	0.081** (0.029)	0.071 (0.048)
Region: High Incomes Regions(2)	- 0.010 (0.042)	0.064. (0.039)	- 0.073 (0.081)	0.000 (0.037)	- 0.010 (0.034)	0.003 (0.057)
Region: Low Incomes Regions	- 0.030 (0.022)	- 0.018 (0.034)	- 0.030 (0.029)	- 0.043 (0.028)	- 0.017 (0.028)	- 0.056 (0.041)
Size of town: large city(3)	0.036 (0.031)	- 0.001 (0.060)	0.056. (0.032)	- 0.002 (0.037)	0.001 (0.030)	- 0.015 (0.059)
Size of town: town	- 0.046* (0.019)	- 0.058. (0.031)	- 0.041. (0.024)	- 0.001 (0.026)	0.025 (0.023)	- 0.035 (0.040)
Leisure is very important or rather important	0.014 (0.021)	0.036 (0.037)	0.002 (0.025)	- 0.104*** (0.023)	- 0.005 (0.034)	- 0.156*** (0.034)
Work is very important or rather important	0.004 (0.035)	- 0.020 (0.043)	- 0.002 (0.042)	0.371*** (0.041)	0.206** (0.071)	0.428*** (0.048)
Agree with the statement "When jobs are scarce, men should have more right to a job than women"	0.038* (0.016)	0.016 (0.026)	0.057** (0.019)	- 0.051* (0.022)	- 0.018 (0.022)	- 0.056. (0.032)
Notes: Average marginal effects were computed in R using the 'probitmfx' command from the 'mfx'						

package (Fernihough, 2015). White/robust standard errors are reported in parentheses.
(1) Base for Education: less than secondary
(2) Base for Region: average incomes regions
(3) Base for Size of town: city (town - less than 100,000; city - 100,000-500,000; large city - 500,000 and more)
*Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

It is noteworthy that having a higher level of education (in particular, a degree), as we expected, provides better labour market perspectives for females, and coefficients are both highly economically and statistically significant in all-female sample models. If it sounds reasonable for 'employment versus unemployment' models, the fact that having higher education increases the probability of women being in the labour force requires some additional interpretation. In accordance with our expectations, we might hypothesise that a higher level of education generates higher returns and increases the preference for paid jobs leaving a part of household activities (baby-sitting, in particular) for outsourcing. Thus, we can assume substantial opportunity costs for participation in the labour market for females.

Thinking further about family status' role in labour market decisions, we might notice different signs of the marital status variable coefficients for men and women: being married slightly increases the probability of participating in the labour market for men but decreases it for women and increases the probability of being employed for both genders, the latter being more pronounced and statistically significant for men. However, having at least one child raises labour market participation probability for both men and women, which seems rather inconsistent with the observed marital status influence on women. This might be driven by relatively low wages pushing females into the labour market as a single breadwinner's wage might not be enough to support a family with a child, though the coefficient is statistically insignificant anyway.

Town size and region coefficients are again as expected, although statistically insignificant. Smaller town coefficients are negative in all models except for males' participation in the labour force (which is small, nevertheless), rather confirming the differences in urban/rural labour market opportunities described previously. The same is true with the low income regions: all coefficients are negative, which might refer to the dependence of the regional labour market perspectives on the region's economic performance and demonstrates the striking regional disparities typical of Kazakhstan. At the same time, high income regions provide better employment opportunities for men than for women; this probably reflects the inclusion of the female-unfriendly oil-producing regions within this group.

Finally, attitude variables look rather consistent in all models. In general, people who value labour more have a higher probability of being in the labour force, while the opposite is true of people who value leisure. The impact of the leisure variables on employment probability is quite vague but work variable coefficients in employment models are negative for both males and females, probably showing a two-way relationship: it might be the case that unemployed people believe in the importance of work because they are unemployed (coefficients are insignificant, however). As Giavazzi et al. noticed, "attitudes towards leisure and work... are likely to be affected by the aggregate state of the labor market" *(Giavazzi et al., 2013, p. 1257),* and this indeed seems to be the case.

Answering the survey question picked to represent people's beliefs regarding gender discrimination in the labour market positively decreases the probability of being in the labour force for females to a greater extent than for males, but surprisingly increases the probability of being employed (versus unemployed) and is again stronger amongst females. This might lead us to the conclusion that women generally are more susceptible to prejudices over gender roles than men, at least within the considered sample.

Finally, to test the hypothesis on possible cultural differences affecting female labour supply, we developed separate female models.

As seen in table 3, the probability of being employed against not appearing in the

labour force is around 13% less for married women. As we know, this might happen due to their husbands' incomes, unavailability, or relative high costs of childcare (we do not have data to test this), but also might be explained by cultural beliefs regarding gender roles which we expect to vary across regions, residence, and ethnic groups. Thus, we examine female labour force participation for ethnic groups differ in terms of religion, traditions and cultural background assuming that husbands' earnings or costs of children's upbringing should not significantly depend on a person's ethnicity (except for a number of children which, on average, is slightly greater in Kazakh families, which in turn increases external childcare costs).

In accordance with our expectations, we now sorted regions into the following (geographical) groups: North (Kostanai, North Kazakhstan, Pavlodar, and East Kazakhstan), South (Kyzyl-Orda, South Kazakhstan, Zhambyl, and Almaty region excluding the city of Almaty), West (West Kazakhstan, Atyrau, Mangystau and Aktobe), Central Kazakhstan (Akmola and Karaganda), and the two biggest cities separately.

We further classified the sample by ethnicity according to the following groups:

- Kazakh (majority)
- European (Russian, German, Ukrainian, Belorussian, and others)
- Asian other than Kazakh (the smallest and the most diverse group – Uzbek, Tatar, Korean, Turkish, and others); this grouping was ultimately dropped from the analysis due to the small sample size and substantial diversity by features grounding our hypotheses (religious affiliation, historical background, etc.).

In accordance with our expectations, ethnically Kazakh females are mostly resident in the southern and western regions, and the proportion of housewives is higher among them. Ethnically European females are more frequent in the northern and central regions, and the proportion of housewives is considerably lower among them. Figure 2 depicts the distribution of the variables considered most important for family decisions across two ethnic subsamples. It suggests that female labour force participation is higher for females of European ethnicity. They are also less likely to be married and have fewer children, though the attained level of education is very similar across the groups.

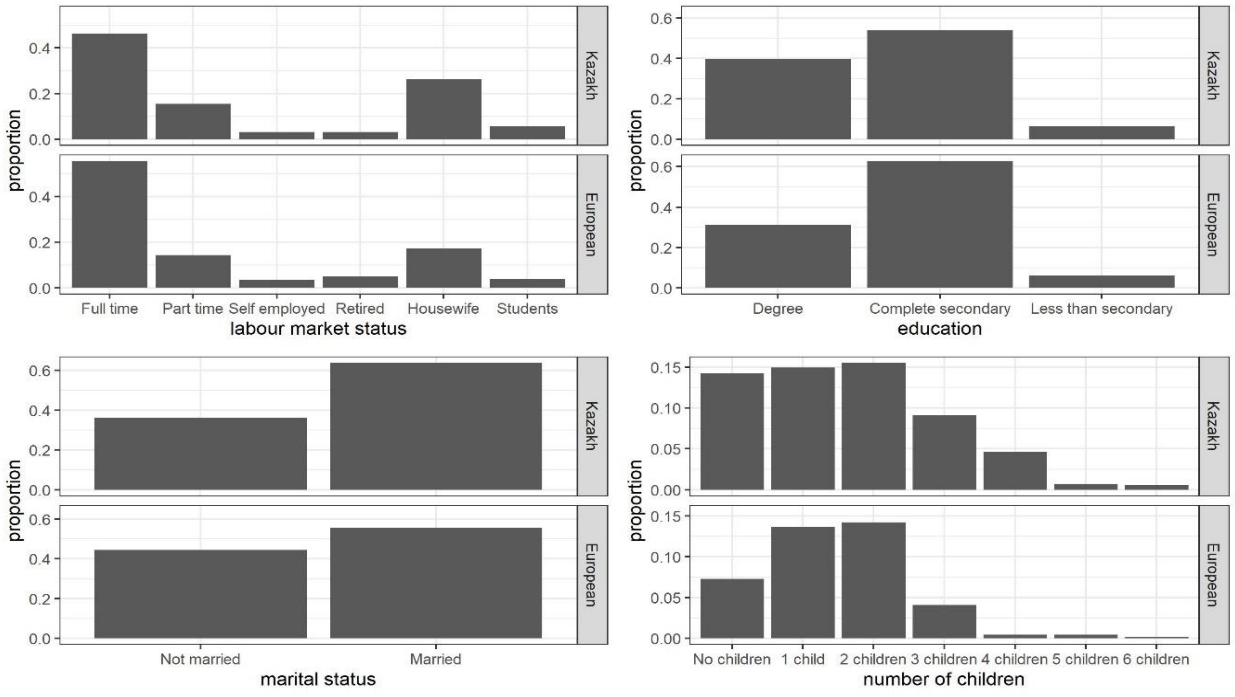


Figure 2 – Distribution of the observed characteristics across female ethnic subsamples

Probit models for the entire female sample and female ethnic subsamples (Kazakh and European) with a dummy dependent variable (taking a value of 1 if

employed and 0 if inactive), and separately for employed females against housewives, are shown in table 4.

Table 4 – Female Labour Force Participation by Ethnic Group (average marginal effects)

	Employed versus Out of Labour Force Females, (n = 753)	Employed versus Out of Labour Force Females, Ethnicity - Kazakh (n = 412)	Employed versus Out of Labour Force Females, Ethnicity - European (n = 277)	Employed Females versus Housewives ,Ethnicity - Kazakh (n = 376)	Employed Females versus Housewives, Ethnicity - European (n = 252)
Education: Complete secondary(1)	0.031 (0.061)	0.043 (0.078)	- 0.097 (0.100)	0.040 (0.076)	- 0.157 (0.146)
Education: Degree	0.246*** (0.059)	0.316*** (0.077)	- 0.004 (0.113)	0.247** (0.076)	- 0.139 (0.181)
Age	0.002 (0.002)	0.003 (0.002)	0.002 (0.003)	0.003 (0.002)	0.004 (0.002)
Marital status: Married	- 0.114** (0.035)	- 0.137** (0.051)	- 0.068 (0.050)	- 0.170** (0.055)	- 0.150*** (0.045)
Have one child or more	0.064 (0.047)	0.014 (0.060)	0.162. (0.083)	- 0.118. (0.063)	0.033 (0.072)
Region: Centre(2)	0.069 (0.078)	0.067 (0.148)	- 0.066 (0.102)	0.146 (0.121)	- 0.113 (0.105)
Region: North	- 0.037 (0.095)	- 0.095 (0.172)	- 0.118 (0.116)	- 0.017 (0.154)	- 0.152 (0.117)
Region: South	- 0.011 (0.085)	- 0.022 (0.154)	- 0.153 (0.121)	0.027 (0.138)	- 0.221. (0.132)
Region: West	- 0.104 (0.102)	- 0.108 (0.173)	- 0.285. (0.164)	- 0.047 (0.158)	- 0.371* (0.184)
Size of town: large city(3)	- 0.017 (0.084)	- 0.127 (0.155)	- 0.026 (0.105)	- 0.072 (0.149)	- 0.073 (0.106)
Size of town: town	- 0.034 (0.040)	- 0.076 (0.054)	0.006 (0.063)	- 0.070 (0.054)	- 0.014 (0.061)
Leisure is very important or rather important	- 0.147*** (0.035)	- 0.214*** (0.046)	0.010 (0.065)	- 0.208*** (0.042)	0.046 (0.066)
Work is very important or rather important	0.415*** (0.048)	0.330*** (0.067)	0.548*** (0.078)	0.269*** (0.075)	0.513*** (0.083)
Agree with the statement “When jobs are scarce, men should have more right to a job than women”	- 0.059. (0.032)	- 0.003 (0.042)	- 0.074 (0.056)	- 0.038 (0.042)	- 0.052 (0.054)
Ethnicity: European(4)	0.038 (0.037)	-	-	-	-
Ethnicity: Other Asian	- 0.160** (0.057)	-	-	-	-

Notes: Average marginal effects were computed in R using the ‘probitmfx’ command from the ‘mfx’ package (Fernihough,2015). White/robust standard errors are reported in parentheses.
(1) Base for Education: less than secondary
(2) Base for Region: two biggest cities – the city of Almaty and the city of Astana
(3) Base for Size of town: city (town - less than 100,000; city - 100,000-500,000; large city - 500,000 andmore)

(4) Base for Ethnicity: Kazakh Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Ethnicity and regions' coefficients turned out to be statistically insignificant, although their values and signs are consistent with the hypotheses set. The only statistically and economically significant results are observed for two regions' European female residents: living in the South or the West significantly decreases the probability of a woman being employed against being a housewife for this sample. We also notice that Kazakh and European female samples differ; nonetheless, we might suppose that economic factors are more important compared with cultural background when interpreting the models. The only noteworthy outcomes are the degree and marital status coefficients. The observed education coefficients are both economically and statistically significant in both models for Kazakh women, while the opposite is the case for Europeans, where they are negative. Married status decreases the probability of being employed against the probability of being a housewife by 17% for Kazakh and 15% for European women. It seems that whereas the decision to prefer unpaid housework as a family choice for married females sounds rational, taking into account the wage gap in the labour market, at the same time for ethnically Kazakh women higher education provides better labour market opportunities than for ethnically European women, and leads to them tending to choose paid work. This might be driven by differences in employment preferences and opportunities across the public and private sectors and certain industries, but which we unfortunately cannot test further with the data at hand.

Concluding Remarks

The international literature on labour supply reveals that while male labour force participation is primarily defined by economic factors, female labour supply usually depends more on a number of factors (economic, social, cultural), and as a general rule allows a better understanding of a particular country's labour market trends. This, in turn, shapes gender disparities in the labour market and to a great extent contributes to economic gender inequalities.

By using the World Value Survey data for Kazakhstan, we have tested our hypotheses on labour supply decisions, stressing them for females. We expected labour participation to be influenced by people's attained level of education, region, and residence (urban/rural). We have also expected differences between socio-economic characteristics of self-employed and wage-earners since the self-employed category in Kazakhstan likely absorbs those actually unemployed but not able to "afford" an economically inactive status or rely on unemployment benefits. We also anticipated differences in female labour supply grounded on cultural beliefs regarding traditional family roles, which we supposed to be more strongly pronounced in families with Muslim backgrounds and in particular regions and remote areas.

Our expectations regarding the influence of economic factors on labour decisions were fully met. Indeed, employment probability compared both with economic inactivity and unemployment is higher for people with higher education, living in more prosperous areas, and for married men. The probability of economical inactivity increases for women, especially married, though this is not, however, the case for self-employment. Females' inactivity can likely be explained by family duties and earlier retirement; in particular, the probability of being employed against not appearing in the labour force is around 13% less for married women. However, it is likely that discouraged workers who have stopped job searches because they found no suitable employment options considering their human capital and reservation wage behave differently depending on gender. While males find themselves in self-employment, females prefer economic inactivity and to focus on family duties instead.

Notably, higher education secures women with employment opportunities to a much greater extent than men. We tend to explain this with the substantial opportunity costs for participation in the labour market for women: it is likely that a higher level of education generates higher returns and increases the preference for paid jobs, leaving a part of household activities for

outsourcing. This is consistent with our next observation: being married slightly increases the probability of participating in the labour market for men but it decreases it for women. Along with this, having at least one child increases the likelihood of employment for men as the main breadwinners. Interestingly, it has a similar effect on women, though this turned out not to be statistically significant.

In line with theoretical predictions, we found that people who consider work to be important are more likely to be in the labour force, and the opposite for people who appreciate leisure. Interestingly, prejudices towards gender roles are only observed among the economically inactive group, and this effect is stronger for females than for males. This is suggestive that in Kazakhstan, women are generally likely to be more susceptible to prejudices over gender roles than men.

Finally, although we observed differences in labour-related characteristics between females with different ethnic backgrounds, most of the coefficients in the models aimed at revealing distinctions in labour market decisions based on cultural beliefs, driven by ethnicity and religion, are not statistically significant. We observed a lower probability of female employment in the regions where we expected it to appear but which, surprisingly, was only statistically significant for women from the European ethnical group. This, in turn, might be driven by purely economic factors, such as employment preferences and opportunities across public and private sectors of employment and industries, for instance. Thus, our data do not reveal either regional or ethnic differences in cultural beliefs affect females' labour market decisions. In general, economic and social factors appear to be more important with regard to labour decisions in Kazakhstan than cultural ones, which can likely be explained by a combination of the still persistent post-Soviet legacy and relatively low incomes pushing family decisions. Interestingly, the year under consideration was the peak of the oil-boom era, with relatively high population incomes and optimism observed. Given that the economic cycle is expected to heavily affect employment opportunities, wages, and subsequent labour supply decisions in Kazakhstan, with the particular effect on the female labour participation in downturn periods, it would be interesting to explore a more advanced dataset with a time-series dimension, which we leave for further studies.

REFERENCES

Alesina, A., Giuliano, P., Nunn, N. (2013). On the origins of gender roles: Women and the plough. *The Quarterly Journal of Economics*, *128*(2), 469-530.

Ashenfelter, O., Hannan, T. (1986). Sex discrimination and product market competition: The case of the banking industry. *The Quarterly Journal of Economics*, 101(1), 149-173.

Becker, G. S. (1957). *The Economics of Discrimination*. Chicago: University of Chicago.

Besamusca, J., Tijdens, K., Keune, M., Steinmetz, S. (2015). Working women worldwide. Age effects in female labor force participation in 117 countries. *World Development*, 74, 123-141.

Black, S. E., Strahan, P. E. (2001). The division of spoils: rent-sharing and discrimination in a regulated industry. *American Economic Review*, 91(4), 814-831.

Clark, R., Ramsbey, T. W., Adler, E. S. (1991). Culture, gender, and labor force participation: A cross-national study. *Gender and Society*, 47-66.

Douglas, P. H. (1934). *Theory of wages*. MacMillan Company, New York.

Draper, E. (1985). Women's work and development in Latin America. *Studies in Comparative International Development*, *20*(1), 3-30.

Durand, J. (1948) *The Labor Force in the U.S.* Social Science Research Council.

Giavazzi, F., Schiantarelli, F., Serafinelli, M. (2013). Attitudes, policies, and work. *Journal of the European Economic Association*, *11*(6), 1256-1289.

Grogan, L., Koka, K. (2010). Young children and women's labour force participation in Russia, 1992–2004 1. *Economics of Transition*, *18*(4), 715-739.

Guiso, L., Sapienza, P., Zingales, L. (2006). Does culture affect economic outcomes? *Journal of Economic Perspectives*, *20*(2), 23-48.

Gunderson, M. (1980). Probit and logit estimates of labor force participation. *Industrial Relations: A Journal of Economy and Society*, *19*(2), 216-220.

IMF Country Report: Kazakhstan. (2014). No. 14/243, International Monetary Fund Washington, D.C.

Kleven, H., Landais, C., Søgaard, J. E. (2019). Children and gender inequality: Evidence from Denmark.

American Economic Journal: Applied Economics, 11(4), 181-209.
Long, C. D. (1958). The labor force under changing income and employment. *NBER Books*.
McKinsey (2015) The power of parity: how advancing women's equality can add $12 trillion to global growth, www.mckinsey.com
Meurs, M., Nugmanova, M., Salimzhanova, A., Marvin, S. (2021). Gender Regime and Women's Employment in Kazakhstan. *Comparative Economic Studies*, 63(4), 603-622.
Miho, A., Jarotschkin, A., Zhuravskaya, E. (2019). Diffusion of Gender Norms: Evidence from Stalin's Ethnic Deportations. Available at SSRN 3417682.
Mincer, J. (1962). Labor force participation of married women: A study of labor supply. In *Aspects of Labor Economics* (pp. 63-105). Princeton University Press.
Mussurov, A., Arabsheibani, G. R. (2015). Informal self-employment in Kazakhstan. *IZA Journal of Labor & Development*, *4*(1), 1-19.
Qian, N. (2008). Missing women and the price of tea in China: The effect of sex-specific earnings on sex imbalance. *The Quarterly Journal of Economics*, 123(3), 1251-1285.
Tzannatos, Z. (1999). Women and labor market changes in the global economy: Growth helps, inequalities hurt and public policy matters. *World Development*, *27*(3), 551-569.
Verme, P. (2000). *Transition, recession and labour supply in Kazakhstan (1990-1996)*. London School of Economics and Political Science (United Kingdom).
Ward, K. B. (1984). *Women in the world-system: Its impact on status and fertility.* Greenwood.
World Economic Forum (WEF), Global Gender Gap Report, 2018
Yanovskaya, O., Potluri, R. M., Nazyrova, G., Salimzhanova, A. (2020). Women's unpaid work as a factor of gender inequality: A case of Kazakhstan. *Asian Journal of Business Environment*, 10(2), 17-21.

ҚАЗАҚСТАНДАҒЫ ГЕНДЕРЛІК НОРМАЛАР ЖӘНЕ ЕҢБЕК ҰСЫНЫСЫ: ДҮНИЕЖҮЗІЛІК ҚҰНДЫЛЫҚТАРҒА ШОЛУ ДЕРЕКТЕРІ

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ГЕНДЕРНЫЕ НОРМЫ И ПРЕДЛОЖЕНИЕ ТРУДА В КАЗАХСТАНЕ: ДАННЫЕ ВСЕМИРНОГО ИССЛЕДОВАНИЯ ЦЕННОСТЕЙ

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