Female Labor Force Participation in Turkic Countries: A Study of Azerbaijan and Turkey

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Abstract

Encouraging female labor force participation (FLFP) should be a goal of any country attempting to increase their productive capacity. Understanding the determinants and motivations of labor force participation requires isolating the factors that influence a woman's decision to enter or leave formal employment. In this thesis, I utilize data from the Demographics and Health Surveys to explain the role of social conservatism in promoting or limiting participation in the labor force. I focus on ever-married women in Azerbaijan and Turkey to provide a lens through which to explain the unexpectedly low FLFP of Turkey. Though most prior research attempts to explain Turkey's low FLFP rate by comparisons to other OECD countries, my study looks at Turkey through the context of other Turkic cultures to explore cultural factors driving labor force participation for ever-married women. This study finds a negative correlation between conservatism and the likelihood of participating in the labor force for ever-married women in Azerbaijan, and a larger, positive relationship in Turkey.

JEL classification: C50, J16, N95

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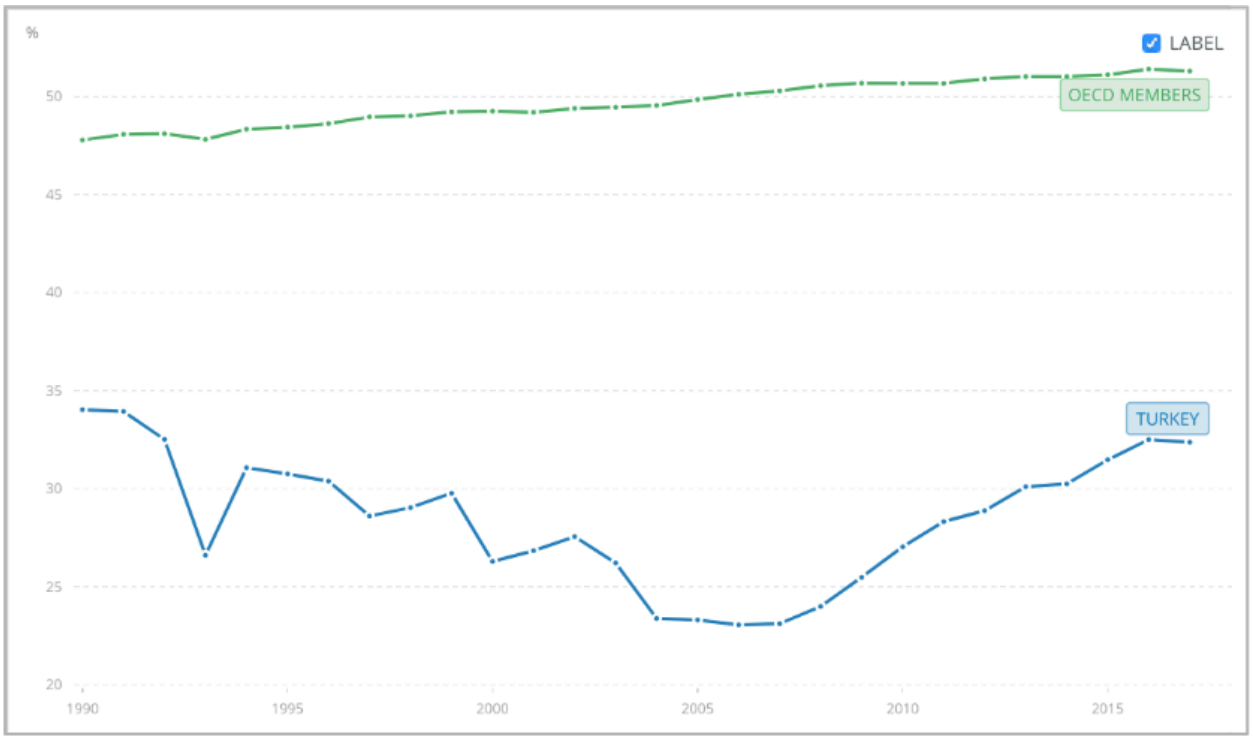
I. Introduction

While most studies on Turkish female labor force participation (FLFP) focus on Turkey in the context of other OECD countries, an alternative approach is to look at the discrepancy between Turkish FLFP and that of other Turkic states. Current research on female LFP rates has traditionally focused on the role of education, religion, or fertility on the decision to participate in the labor force. Though these studies indicate that all three are relevant factors, little has been done to specifically examine the impact of social conservatism on women entering the workforce. Particularly with regard to Turkey, a nation whose large, sophisticated economy belies its unexpectedly low rate of FLFP, further research on the cross-cultural determinants of LFP is required. The below chart depicts Turkish FLFP in comparison to the average FLFP rates of OECD countries, demonstrating the stark discrepancy that most research has tried to address.

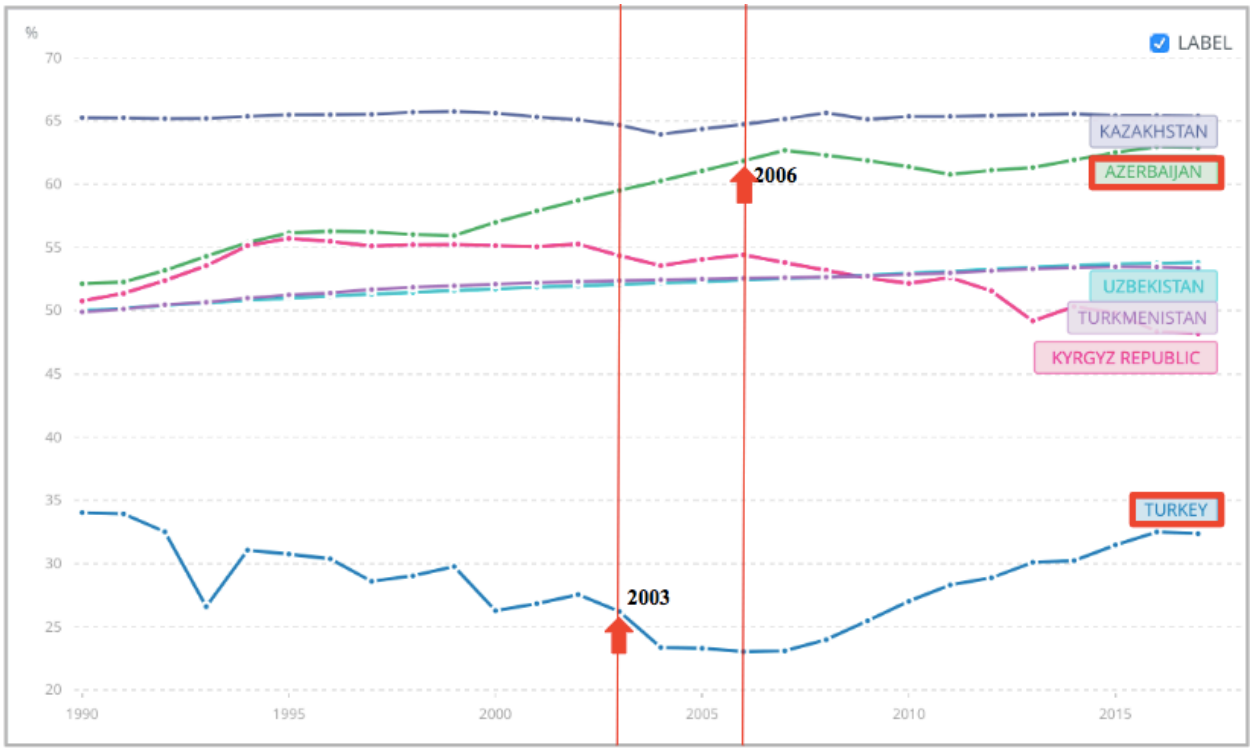
Figure 1: Female Labor Force Participation Rates (Turkey; OECD Members)



Source: World Bank Open Source Data

Perhaps a more relevant comparison is the discrepancy in FLP rates between Turkey and the other five Turkic countries – Azerbaijan, Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan. In this study, I develop a comparison of the role of conservatism in determining female LFP in Turkey and Azerbaijan in order to further our understanding of the factors limiting and driving LFP in both countries. These two countries were chosen due to their close cultural and social proximity, described in more detail in the methodology. As the below chart demonstrates, Turkish FLFP is significantly lower in comparison to the other Turkic countries, which raises a number of questions regarding the impact of religion or culture on FLFP in Turkey. The years 2003 and 2006 are highlighted as the years of available data for this study.

Figure 2: Female Labor Force Participation Rates Across Turkic Countries



Source: World Bank Open Source Data

The goal of this study is to add to current literature on the lagging state of female LFP rates in Turkey, by providing analysis of the role of conservatism as a determinant of female

LFP, and by proposing historical explanations for the discrepancies in LFP rates across Turkic countries. I focus specifically on social conservatism, which refers to the preservation of traditional values and established institutions, including established norms regarding traditional male/female relationships. Though social conservatism is often correlated with religious or political conservatism, particularly in Turkey, these forms are not interchangeable.

My analysis first covers a brief historical overview and prior literature on the topic in sections II and III, beginning with current economic models of female labor force participation trends across developing countries. Far more research has been done into the current trends of female LFP rates in Turkey than in Azerbaijan, where economic research into gender issues has been limited to a few authors. Thus, my thesis seeks to rectify the dearth of analysis on women in the labor force in Azerbaijan, by providing solid exposition of the role of historical factors in establishing the current relationship between conservatism and LFP in the country. Sections IV and V detail trends in the Turkish labor force and an overview of the data.

Section VI establishes methodology for the analysis, developing the framework through which the impact of conservatism on female LFP rates is established. The analysis is carried out separately for both countries, and the results are combined in proposing specific policies, practices, and traditions of the Soviet regime that caused current discrepancies in LFP rates.

Finally, the results are analyzed and combined in a discussion of the probable impact of the institutions and policies of the Soviet Union in Azerbaijan and early Republican period in Turkey on conservatism in both countries. Section VII explores the factors that cause differences in analysis when looking at the regression of conservatism on labor force participation.

II. Historical Background

This section provides an overview of the Soviet period in Azerbaijan (1920-1991) and early Republican era in Turkey (1923-1950), to contextualize the supposition that conservatism should have a lesser impact on the labor decision in Azerbaijan than in Turkey. In both societies, a top-down enforcement of women's liberation involved shifts regarding cultural norms on women. Despite these similarities, institutional differences and enforcement caused significant changes that provide reasons underlying the current discrepancy in FLFP rates.

A. Soviet Influence on Female Labor Force Participation in Azerbaijan

As a major source of oil, Azerbaijan was a significant target for the Soviet Union. The top-down style of Soviet rule caused rapid changes in society, as old norms and customs were uprooted in favor of communist principles. One goal of the Soviet Union in Central Asia was the workforce integration of women, thereby increasing the productive capacity of the USSR (Iskanian 2003). By the 1980s, women were expected to participate in the labor force in the Azerbaijan SSR (Heyat 2015).

The development of women's clubs in the USSR was an innovative method of increasing the human capital of women. These clubs, beginning with the Ali Bayramov Club in Baku in 1922 (Heyat 2015), were a brainchild of the zhenskii otdel (known as the *Zhenotdel*), the Women's Department of the Central Committee Secretariat. This department was tasked with improving the status of women by increasing their economic participation. These clubs provided vocational training, literacy courses, social outlets, childcare, and a range of other services aimed at improving the wage-earning potential of women (Akiner 1997). Some clubs even offered work placement to women who successfully completed their training, providing economic security

directly to women (Heyat 1999). Participation in the clubs was aimed at empowering women to secure some degree of economic independence through productive labor.

After the fall of the Soviet Union in 1991, Azerbaijan, along with all other post-communist republics, entered a phase of economic, political, and social transition. The collapse of trade networks and resource scarcity during the 1990s increased unemployment in the newly formed Republic of Azerbaijan (Moghadam 1999). Women represented a large majority of unemployment (Iskanian 2003). Heyat notes the "life-improvement strategies" women adopted during the Soviet era, such as "organizational, networking and bartering skills" (2015) were especially useful in helping women enter the labor force and seek out innovative forms of employment. Several authors note that the sectors of female employment in Azerbaijan have shifted as demographics changed following the Soviet period. Employers for jobs serving the public traditionally employed ethnic minorities (Heyat 2015, Iskanian 2003). This was due in part to cultural attitudes on Muslim women interacting with strangers (Heyat 2015). After the mass exodus of these populations in the early 1990s, Azerbaijani women took up these positions, propelled by necessity and rising unemployment.

Klasen (2017) analyzes how Socialist ideology impacts female LFP rates by promoting the concept of gender equality through legal changes to education, wage equality, and childcare policies. Moreover, inefficiencies in production historically associated with Socialist economies created persistent labor shortages, requiring the participation of women in labor markets (Klasen 2017). In studying the effect of historical agricultural techniques on gender identity in developing countries, Alesina et al. (2013) also find that the conditional effect of socialism on female labor force participation rates is a positive seven percent (Klasen 2017).

B. Influences of the Turkish Republican Period on Female Labor Force Participation

The modern Turkish Republic was established officially on 29 October 1923, under the leadership of President Mustafa Kemal Atatürk (Hacettepe 2009). Following independence, an impressive number of reforms were quickly implemented in order to mold the fledgling state to fit the six arrows of Kemalism, which included Republicanism, Nationalism, Populism, Revolutionism, Secularism, and Statism (LA Times, 1991). A number of reforms implemented during this period were aimed directly at formally improving the situation of women. Suffrage was extended to women in 1934, before many European nations (Turam 2007). Women were also permitted to hold public office, though the number of women in office remains low. Equality in employment rights, education access, and political participation was formalized under the new constitution, allowing women to achieve improvements in status (Ozbay 1999).

A significant element of the reforms in the early Republican period involved a formal establishment of the state's position on female fertility. During the decades after independence, the state formalized policies promoting fertility and encouraging women to have more children (Hacettepe 2009). These policies included monetary and tax incentives, limitations on access to contraceptives, and prohibition of abortion (Hacettepe 2009). Atatürk himself spearheaded the state formalization of the role of women in the household, remarking in several public speeches that "a woman's highest duty is motherhood" (White 2003), while simultaneously encouraging female participation in the economy. Much focus was on the role of education in providing women with the skills necessary to perform household labor, meaning that improvements in access to education often had the adverse effect of decreasing FLFP (White 2003). Overall, the emphasis on female labor within the household demonstrated a greater societal concern that female employment outside the home would cause a community crisis (White 2003).

As noted above, the top-down method of imposing reforms in both regimes was successful at quickly effecting change in the regions. By mandating immediate suffrage for women, providing incentives related to the fertility decision, and expanding access to education, women in both societies experienced massive leaps in literacy, education rates, and public participation. However, the focus of the Soviet state in Azerbaijan was to supplant cultural norms surrounding female fertility and motherhood with Soviet standards for female labor, while in Turkey, these cultural norms were maintained and even encouraged.

The historical legacy of both countries aids in constructing my hypothesis as to the role of conservatism in Azerbaijan and Turkey. During the Soviet era and Republican period, conservative values and traditional norms were allowed to exist privately in both countries. However, I argue that the role of conservatism in influencing public decisions should be larger in Turkey, where since the Republican era we've seen a rise in acceptance for publically Islamic or Islam-supporting political groups, particularly since the 2002 elections of the AKP. With the rise of a conservative government, conservatism in private life might play a larger role in determining decision-making structures. On the other hand, the political elite in Azerbaijan are still solidly tied to their Soviet past, due to the continued empowerment of the Aliyev family. Heydar Aliyev, the independent nation's first president, was a Major-General in the USSR and did not represent a significant shift from the country's Soviet past. Even the shorter timeframe since independence means that the secular Soviet legacy is felt more deeply in Azerbaijan, leading to the hypothesis that social conservatism, while privately present in the country, plays a smaller role in determining the public decisions of women.

III. Literature Review

Literature on the determinants of female labor force participation worldwide is abundant. Most studies focus on the role of a key factor in influencing a woman's decision to enter the labor market, such as religion (Gaddis et al. 2013, Guiso et al. 2002), education (Lincove 2008, Boserup 1970), or fertility (Bloom et al. 2007, Klasen 2017). Further analysis of female LFP in developing countries has led to the commonly-accepted hypothesis of the U-shaped female LFP model, which states that as a country develops, female LFP first falls, then rises again. This section examines research on global and country-specific trends in female LFP.

A. Definitions of Labor Force Participation

One limitation to studies of female LFP is the nebulous definition of labor force participation. As mentioned previously, most literature refers to labor force participation as the number of economically active people divided by the total population within a given age group (Bloom et al. 2007). Definitions differ, however, in the specification of 'economically active,' which can in turn skew results in measuring total labor force participation rates. The definition used by the International Labor Organization (ILO) defines economically active people as those who are either employed or actively looking for work. Unfortunately, data on women seeking employment in the DHS are not available; rather, the dataset is limited in definition to those who have actively participated in the last 12 months. Therefore, a major limitation of this study is the underestimation of labor force participation due to the exclusion of some women in each country who are presumably searching for employment. As this effect holds true across both countries, it may not have a significant impact on the final results, which examine the role of conservatism.

However, changing definitions over time also constrains data collection and analysis, particularly in studies that make use of time-series data. In 2013, the ILO expanded its definition

of work to include some forms of home production for own-use, meaning that in some cases, childcare and at-home labor would mark a woman as economically active. At the same time, however, the ILO narrowed its definition of the labor force to exclude subsistence farmers, or those who produce only for their own consumption (Klasen 2017). The simultaneous expansion of the definition of 'work' and narrowing of the definition of 'labor' has two major implications for studies of female labor force participation.

First, a caveat must be made when using ILO data that span years before and after 2013, to acknowledge the difference in definitions and demonstrate which workers might be left out of official statistics due to changes in definitions. Second, Klasen points out that this narrowing of the definition of labor may actually serve to exclude the home labor of women from official statistics, skewing our perception of the real labor force status of women (Klasen 2017).

For the purposes of this analysis, I utilize a narrower definition of LFP based on the questions available in the Demographic and Health Surveys (DHS) for Azerbaijan and Turkey. The DHS simply records whether a woman has been employed in the labor force in the last 12 months, without the nuance of the above ILO definition, especially with regard to informal labor. Therefore, my study is limited by the dearth of available information on informal labor practices of women in both countries, a limitation that is discussed further in the conclusion. As mentioned previously, this limited definition of LFP excludes those currently seeking employment and thereby underestimates LFP in each country. In this study, I use the employment rate over the preceding 12 months to estimate the LFP rate, making the assumption that this is both an underestimate of LFP due to the exclusion of women actively seeking employment, and a slight overestimate, as not all women who have worked in the previous 12 months are necessarily still employed at the time of survey.

B. Global Determinants of Female Labor Force Participation

Many studies find that globally, the central determinants of female labor force participation include education, fertility, religion, and cultural norms. Here, I evaluate these determinants of female LFP and then analyze several further macroeconomic factors that impact overall rates of female LFP in developing countries.

Education

The importance of education in determining a woman's decision to enter the labor force has been studied extensively in the literature (Bloom et al. 2007, Klasen 2017, Lincove 2008, Boserup 1970). Increased access to education is tied to increased opportunities in the labor force. As females attain education, the trend is to increase participation in the formal labor force, increasing female LFP rates (Bloom et al. 2007). In addition, research has noted that female education should be a priority for governments in developing countries due to the increase in overall human capital that occurs through education (Lincove 2008).

However, some studies demonstrate a contradictory decline in female LFP with increased access to education. Lincove argues that school curricula and instructional techniques in developing countries are often tied to improving female home productivity, rather than teaching specific skills valuable in the labor market (Lincove 2008). This creates a U-shaped relationship between education and female labor force participation, in which initially women who attain education are likely to refrain from entering the labor force to specialize in home production, but as the quality of education increases and barriers to female LFP decrease, women utilize opportunities to enter the labor market and attain wages for their educational investment (Lincove 2008).

On the other hand, increased access to education might negatively skew female LFP measurement due to the increase in time spent attaining education and establishment of set retirement ages (Klasen 2017). As women spend more time achieving higher education, they enter the labor force at later ages, skewing downward statistics on labor force participation for women 15+ (Klasen 2017). In addition, a trend toward retiring earlier due to rising GDP in developing countries, as well as asymmetrical retirement ages for men and women may also indicated decreased female LFP rates (Bloom et al. 2007). However, the common trend indicated by extensive research is that attainment of education increases female LFP in developing countries to a significant degree (Bloom et al. 2007, Klasen 2017, Lincove 2008, Boserup 1970).

Fertility

An essential component of a woman's decision to enter the labor force is the presence of children in the home. Fertility rates in developing countries are commonly acknowledged in the literature as a significant determinant of female LFP (Bloom et al. 2007, Klasen 2017). A study by Bloom et al., on the impact of fertility on female labor force participation in 97 countries over a period from 1960 to 2000, demonstrates the significance of fertility on the decision to enter the labor market. Their results indicate that each subsequent child decreases a mother's likelihood of entering the labor market by 10-15 percentage points for women between 25-39, and by 5-10 percentage points for women between 40-49 (Bloom et al. 2007). Additionally, Bloom et al. estimates an 8 percentage point decrease in paid work for each child born, or roughly four years of paid employment (Bloom et al. 2007).

In addition, the age of children in the home can present a limiting factor for women who would otherwise enter the labor force. Children under five require childcare beyond public education, limiting the mobility of mothers who are typically expected to act as the primary

caretaker. This study therefore controls for fertility by looking specifically at the number of children a woman has between the ages of 0-2, 3-5, 6-13, 14-18, and over 19.

The intuition behind the relationship between fertility and female LFP is two-fold. First, as the number of children in the home increases, a greater amount of time and effort is required in home production. As this home production is typically associated with female labor in developing countries (Klasen 2017), an increase in the number of children disproportionately removes women from the labor force. Second, exit from the labor market due to childbirth and raising children lowers the amount of marketable experience and skills available to previously working women, who are now less able to obtain employment at the same wage. The discouragement associated with this effect is likely to prevent many women from reentering the labor force (Bloom et al. 2007), establishing the long-run negative effects of increased fertility on female labor force participation.

Religion and Cultural Norms

Finally, the impact of religious belief and religiosity on female labor has been extensively studied (Gaddis et al. 2013, Guiso et al. 2002, Norris 2010). Several studies demonstrate a specific tie between nations in which Islam is predominantly practiced and decreased female labor force participation rates (Guiso et al. 2002). The tie between religion and female LFP is through the increase in conservatism often associated with increased religiosity, which for most religions maintains that women should be primarily concerned with home labor and are not fit for the labor market. However, as noted by Klasen (2017), the existence of highly religious developing economies such as Indonesia and some West African countries in which female labor force participation is not depressed casts doubt on the extent to which religiosity and associated cultural norms are causally linked to decreased female LFP.

IV. Trends in the Turkish Labor Force

To fully understand the issue of low female LFP in Turkey, the downward trend must be contextualized by international and domestic comparison. In most literature on trends in Turkish female LFP, Turkey is compared with other OECD countries (Atasoy 2016, Özsoy 2009). This comparison is natural due to the size of the Turkish economy and the expectation that trends in LFP would remain more or less similar across OECD economies at similar stages in their development. Yet by 2014, Turkish female LFP had experienced a strong downward trend and stood at 30.3 percent, in comparison with the OECD average of 62.6 percent (Atasoy 2016). Also significant is the comparison of overall trends in female LFP across OECD countries, as seen in Figure 1. While Turkish female LFP trended downward till 2004 and has experienced only small increases since then, the female LFP rates of most OECD countries have been rising consistently over the past half century (Atasoy 2016).

I argue that a more relevant comparison by which to contextualize Turkish female LFP would be to look at the LFP rates in Central Asian economies, specifically in Turkic societies. As much literature is in agreement on the importance of cultural determinants of female LFP (Atasoy 2016, Özsoy 2009), trends in Turkish female LFP ought to be better understood through the lens of Turkic cultural norms. In context, however, Turkish female LFP is still significantly below that of other Turkic countries including Azerbaijan, Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan (World Bank 2017). These countries are labeled the "Turkic republics" due to their common background in geography, language, history, and culture, beginning with their common roots in the Oğuz Turk population (Dirilen-Gümüş 377).

Despite Turkey's advanced economic performance in terms of GDP growth and size of economy, these other Central Asian countries have far outpaced Turkey in not only female LFP,

but in other social indicators including female literacy (Moghadam 1999). With the analysis of Turkish female LFP in context of culturally-similar Central Asian economies, it is clear that there is a significant puzzle associated with the comparatively low rate of female LFP in Turkey. Thus, a case-study comparison with Azerbaijan, which is the Turkic country geographically, linguistically, and culturally closest to Turkey, isolates the impact of conservatism on the decision to enter the labor force.

Finally, a brief discussion of female LFP in comparison with male LFP in Turkey is required. As is covered extensively in the literature, the overall downward trend in LFP in Turkey impacts both men and women (Atasoy 2016, Özsoy 2009). Both LFP rates follow similar trends over the past half century, though the rates of decline for women and increase for men have been more severe. As my focus is on the gap between male and female LFP rates, rather than the overall economic trend, this issue of concurrent downward trends in Turkish LFP, though interesting, is incidental to my overall argument.

V. Data Review

In my analysis of the impact of conservatism on female labor force participation rates, I utilize data from the Demographic and Health Surveys for Azerbaijan and Turkey. The DHS is a household-level survey conducted in countries around the world. Surveys are conducted at a national level with outside aid from the organization. Standard surveys are conducted once every five years, and include questions on a variety of topics encompassing issues of health and wellness, including child health, domestic violence, household and respondent characteristics, maternal health, and women's empowerment.

A. 2003 Turkey Demographic and Health Survey

The DHS was conducted in Turkey in 1998, 2003, 2008, 2013, and 2018. Of these years, data have only been made publically available for the years 1998 and 2003. For this study, I selected the results of the 2003 survey in Turkey. This year was selected due to its proximity to the only DHS conducted in Azerbaijan, in 2006.

The 2003 DHS in Turkey surveyed a total of 8,075 ever-married women of reproductive age, between 15 and 49. A total of 10,836 households completed the household questionnaire. The survey was conducted in all regions of Turkey without exception (DHS 2003). The survey was funded by the government of the Republic of Turkey (DHS 2003), and conducted by Hacettepe University Institute of Population Studies.

Questionnaires for the 2003 DHS in Turkey were conducted at the household and individual level (DHS 2003). The individual questionnaire, utilized in this analysis, was given to ever-married women between the ages of 15 and 49 in 12 regions encompassing all of Turkey (DHS 2003). A cluster sampling approach was utilized to select participants in the survey, controlling for the population levels of urban and rural settlements (DHS 2003), leading to a

representative sample. Using random sampling, 25 households in every settlement of over 10,000 people (urban settlements), 15 households in every settlement of less than 10,000 people (rural settlements), and 12 households in Istanbul metropolitan clusters were selected (DHS 2003). According to the summary of 2003 DHS results 95 percent of women interviewed were married at the time of the interview (DHS 2003). Average household size was 3.9 for urban areas and 4.5 in rural areas (DHS 2003).

B. 2006 Azerbaijan Demographic and Health Survey

The 2006 DHS in Azerbaijan surveyed a total of 8,444 women between the ages of 15 and 49 and 2,558 men ages 15 to 59 over a five-month period. The survey was carried out in most of Azerbaijan's 66 rayons, or administrative districts, with the exception of Nakhchivan and the occupied Nagorno-Karabakh region. It was conducted by the State Statistical Committee of the Republic of Azerbaijan, with support from USAID and UNICEF.

Respondents for the 2006 DHS were selected in a two-stage sampling selection, in which 318 clusters in Baku and eight regions of Azerbaijan were chosen, and then from these a systematic sampling yielded a sample of 7,619 households across Azerbaijan (DHS 2006). Questionnaires were given at the household and individual level, which included a women's questionnaire and men's questionnaire. Eligible women included those who lived in the household as well as any women who happened to be visiting the selected household on the day of the interview (DHS 2006). The Azerbaijan DHS was not limited to ever-married women. However, to better compare results between the Turkish and Azeri dataset, I limited my study to ever-married women in both samples, leaving samples that are more similar across the countries.

The gap of three years between the 2003 DHS in Turkey and 2006 DHS in Azerbaijan is unlikely to have significant impact on my findings. Due to the nature of the variables utilized,

conservative attitudes and decision to enter the labor force, significant changes are unlikely to have occurred during this short period. In addition, the economic and political conditions in both countries during this time period, discussed in section II, make it unlikely that there was a significant shift in either variable over a three-year span. Cultural attitudes are likely to change at a slow pace, particularly at the regional level, and thus utilizing data from two different years for Azerbaijan and Turkey seems unlikely to significantly impact results. However, based on the historical trends in LFP in both countries depicted in Figure 2, the spread in LFP rates would be lower if data for 2006 were available for both countries.

VI. Empirical Specification

This section provides an overview of the empirical specification of the central question behind my research: to what extent does conservatism impact female labor force participation in Azerbaijan and Turkey?

A. Methodology

Based on the discrepancy between FLFP in Turkey and other Turkic countries, the central question guiding my thesis revolves around the impact of conservatism on labor force participation in Azerbaijan and Turkey. Social conservatism was chosen as the variable of interest due to the propensity of prior research on the topic to single out religiosity as a dominant factor in Turkey's lagging female LFP rates. Most research tends to point out the impact of education, wealth, and fertility as determinants of FLFP, but then with regards to Turkey, claim that the country's Muslim majority ultimately diminishes female entrance into the labor force. To explore this claim further, my study seeks to explain to what extent social conservatism impacts female labor force participation for ever-married women in Azerbaijan and Turkey.

Ever-married women refers to women in the sample who have been married at any point in their lives. Within the available data, these women are divided into the following categories based on marital status: married, divorced, widowed, and not living together (DHS 2003). I chose to limit my study to women who have been married due to the limited availability of reliable data on never-married women in Turkey. In addition, due to the nature of my working definition of conservatism, which involves beliefs regarding relationships between men and women, focusing on ever-married women provides more context for respondents' answers to questions on these topics. Focusing exclusively on ever-married women also allows me to isolate

the impact of conservatism more specifically between the two countries, as my samples from each country are more similar.

The choice to compare Azerbaijan and Turkey was made for a number of reasons. First, the countries share Oğuz Turkic roots, meaning that culturally, the two societies have developed from a similar background (Dirilen-Gümüş 2013). The two countries currently share a close cultural affinity, and are commonly referred to as *Kardeş Ülkeleri*, or brother countries. In addition, it is common in Azerbaijan to consume Turkish media, news, and entertainment, providing a similar information background between the two countries. The close connection between Azerbaijan and Turkey, as compared to the other Turkic post-communist countries, provides a basis for comparison that isolates the impact of conservatism on FLFP more directly.

To estimate the impact of conservatism on labor force participation, a probit regression model is used. Probit and logit regression models are of more use than linear models when the dependent variable of interest (female labor force participation) has binary outcomes, as a woman either participates in the labor force over the previous 12 months, or she doesn't. This model yields the probability that a woman chooses to enter the labor force given a number of independent variables.

The second question for analysis involves analyzing the differences in the impact of conservatism on FLFP between the two countries, along with potential explanations for these differences. This consists of analyzing the magnitude and direction of the impact of conservatism in both countries, and then looking more specifically at the kinds of women who participate or do not participate in the labor force in both Azerbaijan and Turkey. If conservatism impacts women differently in both countries, how did this difference emerge? I hypothesize that the Soviet legacy of Azerbaijan, which is explored in more depth in section II, would diminish the

role of conservatism in influencing FLFP, while in Turkey, conservatism is likely to have more of an impact.

B. Utilizing a Proxy for the Variable of Interest

In order to measure the impact of conservatism on the labor force participation of ever-married women, working definitions must be established. Though the definition of labor force participation is established in the literature review section, for the purposes of this analysis the limited nature of available data must be taken into consideration. For this analysis, labor force participation is measured by a binary variable that takes the value of "1" if the woman has worked in the last 12 months and "0" otherwise. This is due to the limited data available from the DHS, which measures labor force participation for women through a simple yes/no question. Although this definition excludes the issues in measuring LFP that were established in the literature review, it does provide a solid dataset from which to measure the impact of conservatism. This is, however, a significant limitation of this study, since true LFP can rarely be relegated to simply a yes or no question. In addition, using the level of women who have participated in the last 12 months is not entirely accurate in measuring the LFP rate. This value is above the rate of employment, but most likely excludes some unknown number of women who have not been employed in the last 12 months but are actively seeking employment.

The form of conservatism of interest in this study is social conservatism. Social conservatism refers to the preservation of traditional values and established institutions, including established norms regarding traditional male/female relationships. Social conservatism, as opposed to political or religious conservatism, was selected in order to analyze claims by other research that religion has become a primary determinant of FLFP in Turkey and other predominantly Muslim countries. In this study, my working definition of conservatism involves

beliefs regarding male/female relationships that align with traditional Turkic values. This means that women in Azerbaijan and Turkey who indicate via their survey responses a belief that men should serve as the head of households, or make most decisions within the home, for example, would receive a higher estimated value for conservatism than women who indicate that women should lead decision-making processes within the home.

Due to the nebulous nature of investigating "conservatism," a proxy is used to generate meaningful results. Simply asking respondents to rate their own level of conservatism would be unlikely to produce accurate data, as survey participants are notoriously incapable of correctly rating their own political values or beliefs and the question itself is too vague for inclusion in the DHS.

C. Potential Proxy Variables for Conservatism

From available data by the DHS in Turkey and Azerbaijan over relevant years, several potential proxies for conservatism became apparent. Each of the below potential proxy variables entails benefits and costs to the analysis, and all were ultimately supplanted by the option of creating an attitudinal and behavioral index for measuring conservatism, described below.

An initial contender for a proxy was percentage vote share for conservative parties in local or national elections, which could be assumed to correlate highly with social conservatism, particularly in Turkey where parties can be clearly delineated based on their views. Unfortunately, this method is less feasible in Azerbaijan. Politically, Azerbaijan has been led by the Aliyev family since 1993, first by President Heydar Aliyev following independence from the Soviet Union, and later by his son, Ilham Aliyev, still currently in power (DHS 2006). Though opposition parties are present and participate in national elections, elections are few and far between, with seven-year presidential terms and five-year parliamentary terms. This makes it

difficult to pinpoint political tendencies at the time of the 2006 DHS, significantly limiting the accuracy of results based on political votes.

Two measures that were considered from existing literature on female empowerment in Eurasia were the presence of in-laws in the home (Turaeva & Becker 2016) and the concentration of mosques in the neighborhood (Atasoy 2016). In their analysis of the impact of patrilocal marriage—a term which refers to the situation in which married couples live with the husband's parents—on domestic violence in Tajikistan, Becker and Turaeva argue that patrilocal marriage is a clear signal of conservatism and traditional views on family life (2016) within the home. Specifically, there is a phenomenon in which mothers-in-law maintain control over married daughters-in-law and thereby control family life. Data on the presence of in-laws in the home are available for Azerbaijan, but not for Turkey, and therefore cannot serve as an effective proxy in this study.

Finally, Atasoy's analysis of the impact of traditionalism on female labor force participation in Turkey utilizes the number and building date of mosques in the region of the respondent's birth as a proxy for the level of conservatism within the home. The reasoning behind this proxy for traditionalism is that mosques in Turkey are generally funded by donations from the surrounding neighborhood, and it is thus reasonable to assume a neighborhood with a high concentration of mosques is generally more conservative than one with a low concentration (2016). While geographic data on mosques in Azerbaijan are available, the information is incomplete and lacks dates of construction. Without knowing the number of mosques present at the time of the 2006 DHS in Azerbaijan, it is difficult to discern the level of conservatism of the region. Furthermore, while Atasoy used this measure of conservatism to supplement his study of traditionalism, the individual nature of my analysis makes broad estimates of conservatism in an

area less meaningful (2016). Instead, my study creates an individual measure of each respondent's conservatism.

This study measures conservatism through an analysis of perceptions surrounding traditional gender roles. My assumption in this is that women whose conception of relationships is more patriarchal or traditional, are likely to hold more conservative beliefs. To this end, I developed an attitudinal and behavioral index of questions that provide insight into each respondent's perception of male-female relationships.

D. Development of Attitude Index

In the social sciences, an index is a composite measure of a variable, combining a number of factors to determine an ultimate value for the given variable (Babbie 2013). The index combines respondent's answers to a number of questions related to the central variable of interest in order to provide a more complete value for consideration. Typically, components of an index are weighted equally, as each factor contributes to the overall variable in some way (Babbie 2013).

There are four major criteria in selecting items for inclusion in an index (Crossman 2018). Face validity refers to the relation between the item and the variable of interest (Babbie 2013). Items selected for an index should intuitively measure the variable chosen. Unidimensionality refers to the concept that each item in an index should measure one dimension of the variable of interest, and items that measure some aspect of the variable indirectly should not be included (Crossman 2018). The specificity of the variable of interest is the third criterion, and refers to matching the item with how specific or general you're measuring the variable (Babbie 2013). Finally, items should have variance, meaning that they are not too restrictive or liberal, and provide meaningful results with a variety of responses (Crossman 2018).

In measuring conservatism, this study generated an index from attitudinal responses to questions related to conservative beliefs. Respondents to both surveys were asked whether they agreed or disagreed with a number of statements related to conservative values. These questions cover a range of topics on traditional relationships between men and women and family life. Though identical questions were not asked in both iterations of the DHS, the general theme of such questions remains constant across the surveys. The below chart depicts the questions that were used to create attitudinal indexes in both countries. The term "respondent" refers to each woman who participated in the survey.

Table 1: List of attitudinal and behavioral questions used to determine conservatism

Conservatism Index	
Azerbaijan	*Turkey*
Who has the final say on the respondent's own health care?	Agree or Disagree: Important decisions are made by men
Who has the final say on the respondent's visits to family or relatives?	Agree or Disagree: Men are wiser
Who has the final say on making large household purchases?	Agree or Disagree: Women should not argue
Who has the final say on making household purchases for daily needs?	Agree or Disagree: Better to educate son rather than daughter
Is it justified to beat a wife if she neglects the children?	Is it justified to beat a wife if she neglects the children?
Is it justified to beat a wife if she argues with her husband?	Is it justified to beat a wife if she argues with her husband?
Is it justified to beat a wife if she refuses to have sex with her husband?	Is it justified to beat a wife if she refuses to have sex with her husband?
Is it justified to beat a wife if she burns the food?	Is it justified to beat a wife if she burns the food?

Questions were selected based on their ability to illuminate a woman's conception of male-female relationships. For example, the four questions on justifications for wife-beating included in both surveys are not questions on whether or not the husband in each case has actually committed any acts of domestic violence. Instead, these questions showcase how a woman conceives of her own role within a relationship, and thereby helps to flesh out the working definition of conservatism provided above. Questions range from the attitudinal (for example, the series of questions on female/male hierarchies in the Turkish DHS) to behavioral (for example, the series of questions in the Azerbaijani DHS regarding decision-making power in married households).

Using a given woman's responses to the eight questions on conservatism specific to her country, I calculate an average value for conservatism that lies between 0 (least conservative) and 1 (most conservative). The index for each country was created by labeling possible answers with a 0 for the least conservative answers and a 1 for the most conservative, and then weighting each answer equally at 0.125. The average value for conservatism in the sample of ever-married women in Azerbaijan was 0.375, with a standard deviation of 0.283. The average value in Turkey was 0.245, with a standard deviation of 0.259. The higher value in Azerbaijan is surprising given the country's Soviet background, but could be explained by a number of factors. First, since the survey is limited to ever-married women in both countries, it could be that ever-married women in Azerbaijan are simply issuing more conservative judgments than in Turkey. Another factor could be the difference in types of questions asked between the surveys, since creating an identical survey between the two countries was not possible. The four unique questions in the Azerbaijan index are related to behavioral information, while in Turkey the four questions are related to attitudinal information. It could be that women in either country are more

likely to support the less conservative answer to these questions, but in actuality, behave more in line with the more conservative answers.

Due to the difference in questions creating the conservatism index between countries, a separate analysis is carried out between Azerbaijan and Turkey. This analysis yields the impact of conservatism on female labor force participation in each country. From these two values, I analyze the reasons behind the difference in impact by looking at the history of women's labor in the region, and provide context to explain why conservatism is more or less impactful in each country.

In the second portion of the study, I utilize an index for conservatism made up of only the four questions common between the two countries to estimate the direct impact of the independent variable. These four questions all pertain to attitudes on the acceptability of wife-beating in particular situations. My argument is not that the behavior of domestic violence is conservative in nature, but that the attitudes common amongst respondents who justify theoretical wife-beating in survey responses are more socially conservative, and thus in comparing the two countries with the limited index (4 question index), a more direct analysis of the role of conservatism can be conducted than in the separate analyses of the country-specific indexes (8 questions).

E. Selection of Control Variables

Based on prior literature examining female labor force participation determinants in developing countries, I chose to include control variables for the number of years of education, age, and wealth of each woman. In addition, I added controls for the region (country-specific) in which the respondent lived, and the number of children they had between certain ages – for example, the number of children between the ages of 0 and 2, the number between 3 and 6, etc.

The coefficients associated with these controls also yield results as to the impact of education, fertility, and other variables on female labor force participation. Comparing these results to the impact of conservatism on FLFP allows the magnitude of the result to be further understood.

Equation 1: $FLFP_i = \alpha + \beta Conservatism_i + \gamma \Sigma X_i + \varepsilon_i$

The above empirical specification lays out the components of my analysis. On the left-hand side the dependent variable, female labor force participation for respondent *i,* yields the specific impact of conservatism. As discussed above, FLFP is a dichotomous outcome in this study, and thus the probit model yields a value between 0 and 1 that represents the probability of participation in the labor force.

On the right-hand side of the equation, value α represents the intercept of the equation, or in this case, the probability of any particular respondent participating in the labor force in the last 12 months given that the value for conservatism is zero, along with all other control variables. This is equivalent to the average labor force participation rate of just the sample in each country.

The coefficient for the conservatism proxy, β, yields the increase in probability of LFP as the number of 'conservative' answers to the index questions increases. Increases occur when the respondent answers "Yes" or marks agreement with questions or statements included in the attitudinal index.

ΣX_i is the summation of control variables, and represents the inclusion in the regression of the controls discussed above. In the results section, the coefficient for each individual control is displayed, depicting the actual relationship between each variable and the dependent variable of interest. For each regression, I included dummy variables for region and marital status to isolate specific impacts of conservatism in these conditions. Additionally, in order to control for fertility, I included control variables for the number of children a woman has who are between

the ages of 0-2, 3-5, 6-13, 14-18, and over 19. This is to control for the fact that women with younger children may intuitively be less likely to enter the labor force. Finally, this study controlled for age, wealth quintile, and years of education. Full results depicting the marginal effects of these controls can be found in Appendix 1. The variable ε represents the error term.

In order to extrapolate the economic effects of each coefficient, I analyze the marginal effects of each regression and present these below. The marginal effects yield the increase or decrease in conditional probability of participation in the labor force given a specified level of each variable. Using a probit regression model, due to the binary nature of the independent variable, I predict that the probability of FLFP can be estimated by a proxy measuring conservatism, along with a vector *X* representing other controlled determinants of FLFP. Both countries are analyzed together and separately using the above specification, comparing the resulting estimates for the impact of conservatism on FLFP in both countries.

Azerbaijan's extensive Soviet history, discussed in section II, led to the hypothesis that the impact of conservatism on the FLFP of ever-married women would be muted in the study. This is due to Soviet initiatives to push all women into the labor force, regardless of marital status, in order to increase the economic capacity of the state. On the other hand, Turkish history lacks the same push to increase female LFP, as evidenced by the prior comparison between the early Republican era in Turkey with the Soviet period in Azerbaijan. Thus, I expected that conservatism would have a bigger, negative impact on FLFP in Turkey, and a smaller or non-existent impact on FLFP in Azerbaijan.

VI. Results and Discussion

The results of the probit regression of conservatism on female labor force participation in Azerbaijan, and then Turkey, both contradict the above hypothesis and provide interesting results for analysis. In analyzing the results, I examine the sign, size, and significance of the coefficients for conservatism in each country. Instead of using the direct coefficients, however, I utilize the marginal effects of each coefficient to examine the economic implication. Marginal effects yield the amount of change in the likelihood of female LFP that can be attributed to a one-unit change in conservatism

In this section, I depict the results of the separate probit regressions for Azerbaijan and Turkey of the impact of each country's conservatism index on FLFP in Table 2. From this, I find the predicted change in probability of entering the labor force given more conservative attitudes, as evidenced by a higher attitudinal index. Table 2 displays the marginal effects of a probit regression of the country-specific conservatism index on the dependent variable of FLFP in Azerbaijan (1) and Turkey (3). I then depict the results of a merged regression in Table 3, and follow with a discussion of each of these results between countries.

To supplement these results, in Table 3 I combine the Azerbaijani and Turkish datasets into a single large dataset. For this portion, I created a dummy variable that took the value of "1" for Turkish respondents and "0" for Azerbaijani respondents, in order to further isolate the impact of conservatism. Since the questions for index formation differed between countries, I instead created a limited conservatism index (4 question index) used in column 3 that only incorporated the four questions that were identical between countries. These four questions, all involving women's opinions on when wife-beating is appropriate, are meant to approximate the conservatism index developed earlier in this chapter. My argument is not that domestic violence

itself is correlated with conservatism, but rather that these four questions on women's attitudes towards domestic violence establish a baseline for how women conceive relationships between men and women in their societies.

To test whether this second index, comprised only of questions that were common between the surveys, could be used in the merged dataset, I first tested the index in each country separately, as seen in columns 2 and 4 of Table 2. Looking at the effect of including either index on the estimated results for the control variables, there is little difference between the indexes, which implies that the two indexes are measuring the same thing. However, in analyzing the merged results of Table 3, it is important to recognize that the values from column 3 for "Conservatism" are created using only the four identical questions, and therefore cannot be given the same weight as the more inclusive country-specific indexes used in Table 2.

Table 2: Marginal Effects of Social Conservatism Index on Likelihood of LFP

Dependent Variable: Employment (12 Months)	(1) Azerbaijan	(2) Azerbaijan *(4 question index)*	(3) Turkey	(4) Turkey *(4 question index)*
Conservatism	-.0917***		.2103***	
(8 question index)	(.0222)		(.0233)	
Conservatism		-.0039		.1754***
(4 question index)		(.0175)		(.0206)
Education	.0379***	.0392***	.0243***	.0229***
	(.0022)	(.0022)	(.0017)	(.0017)
Wealth Factor	-.0096*	-.0072	-	-.0664***
	(.0050)	(.0050)	.0642***	(.0046)
			(.0047)	
Fertility Controls	*Yes*	*Yes*	*Yes*	*Yes*
Marital Controls	*Yes*	*Yes*	*Yes*	*Yes*
Age Controls	*Yes*	*Yes*	*Yes*	*Yes*
Region Controls	*Yes*	*Yes*	*Yes*	*Yes*
Observations	5,769	5,769	8,058	8,063

*p<0.1, **p<0.05, ***p<0.01
Standard errors in parentheses

In Table 3, I merge the two country datasets into a single large dataset. Column 5 analyzes the result of the above limited definition of conservatism specifically, by including an interaction term for the interaction between the country dummy variable and the limited conservatism index (4 question index). Under this specification, the coefficient for the impact of conservatism on FLFP in Azerbaijan is the coefficient for the conservatism variable, while the impact of conservatism on FLFP in Turkey is the sum of the coefficients for conservatism and the interaction term. In column 6, I additionally include dummy variables separating the country-specific indexes for Azerbaijan and Turkey. This specification utilizes the full conservatism indexes for each country (8 question indexes).

Table 3: Marginal Effects of Social Conservatism on FLFP in Merged Dataset

Dependent Variable: Employment (12 Months)	(5) Merged Dataset *(4 question index)*	(6) Merged Dataset *(8 question index)*
Azeri Conservatism		-.4367***
(8 question index)		(.0195)
Turkish Conservatism		.3250***
(8 question index)		(.0198)
Conservatism	-.2962***	
(4 question index)	(.0181)	
Country Dummy:	.5775***	
Conservatism2	(.0230)	
(4 question index)		
Education	.0099***	.0181**
	(.0011)	(.0012)
Wealth Factor	-.0165***	-.0245**
	(.0032)	(.0031)
Fertility Controls	*Yes*	*Yes*
Marital Controls	*Yes*	*Yes*
Age Controls	*Yes*	*Yes*
Region Controls	*No*	*No*
Observations	13,832	13,827

*p<0.1, **p<0.05, ***p<0.01
Standard errors in parentheses

Azerbaijan

For the study of ever-married women in Azerbaijan, I find that for a given woman, an increase in conservatism of one standard deviation is correlated with a decrease of 9.2 percentage points in the likelihood of participating in the labor force (Column 1), given that all other variables remain constant. The sign of this coefficient implies that higher levels of conservatism lead to a decrease in the probability of labor force participation, which is consistent with the hypothesis. This result is statistically significant at a p-value of 0.01. When compared to the standardized effects across variables, however, conservatism appears to have a larger impact on likelihood of FLFP for ever-married women than education and wealth. The marginal effects of one-unit increases in both education and wealth are statistically significant and positive, which corresponds with similar effects found in prior literature on the determinants of female LFP. This result is corroborated by a similar negative effect in both iterations of the merged dataset regressions (Columns 5 & 6). In the merged dataset with a dummy variable for country interacted with the limited definition of conservatism (4 question index), conservatism has a negative 29.6 percentage points impact on the likelihood of LFP for ever-married women in Azerbaijan (Column 5). However, as seen in Table 2, the limited index is less correlated with the 8 question conservatism index in Azerbaijan than in Turkey, and therefore the country-specific results of the 8 question survey (Column 1) are more relevant.

My results indicate that as a woman's education level increases, her likelihood of labor force participation increases. On the other hand, increases in a woman's wealth index make her less likely to participate in the labor force. This could be because women in less wealthy families feel economic pressure to contribute to their family's finances, overriding any pressure from conservatism to abstain from the labor force. Along this reasoning, married women in the sample

were much less likely to work than divorced, widowed, or separated women, suggesting that economic pressures to obtain income are largely responsible for driving some women to participate in the labor force. It is difficult to compare the magnitude of the coefficients for education, wealth, or fertility with those found in the literature due to the ever-married restriction and reliance on probit regressions. However, the signs of the effects themselves are consistent with prior literature on the impact of these factors on female LFP.

The negative effect of conservatism on female LFP in Azerbaijan makes sense intuitively. I expect that women from more conservative backgrounds would be less likely to participate formally in the labor force, especially due to the emphasis on male/female relationships in the conservatism index. Women who indicate beliefs that men have societal power over women would be more likely to remain at home if pressured to do so by male family members or by personal belief. In Azerbaijan, where conservative values were diminished during the Soviet period, I expect that while this effect would be relatively small, the negative impact would still exist, as conservative women would still be less likely than average to enter the labor force.

Looking at the results of controlling for region in Azerbaijan, it becomes evident that a woman's region also plays a large role in determining her likelihood of entering the labor force. All else remaining constant, women in Baku, Ganja, and Shaki, are more likely to work than women in other regions. As three of the country's largest cities by population, there is a larger expectation of labor force participation and increased access to job opportunities.

Turkey

In Turkey, an increase in conservatism of one standard deviation is associated with an unexpected increase of 20.0 percentage points (Column 2) in the likelihood of participating in

the labor force, given that all other variables remain constant. This result is also significant at a p-value of 0.01. The sign of the coefficient implies that conservatism is positively correlated with the likelihood of LFP in Turkey, a finding that contradicts the hypothesis and is explored further in the discussion. In comparison to the standardized effects across variables, conservatism appears to have a larger impact on FLFP than education and wealth. In the merged regressions, conservatism in Turkey appears to have a similar positive effect (Column 6), even when using the limited (4 question) index for conservatism (Column 5). In the merged dataset with a dummy variable for country interacted with the limited definition of conservatism (4 question index, Column 5), a standard deviation increase in conservatism has an impact of positive 28.2 percentage points (57.8 – 29.6) on the likelihood of LFP for ever-married women.

The positive impact of conservatism on the likelihood of female LFP is surprising. I would expect conservatism to have a similar negative effect on LFP in both countries, given that traditional values across Turkic cultures often encourage women to remain in the home.

Education and wealth had the expected positive and negative effect on LFP, respectively, suggesting that the positive result for conservatism in Turkey is robust. Though still positive, the impact of an increase in education on the chance of LFP in Turkey was less than the impact of the same change in Azerbaijan. Increases in wealth also had a lower negative impact on likelihood of labor force participation in Turkey than in Azerbaijan. These findings, along with the higher absolute value of economic impact of conservatism in Turkey, suggest that in Turkey, conservatism and other factors are probably more determinant of LFP than in Azerbaijan. The rise in social conservatism and simultaneous increase in FLFP in Turkey since the survey data in 2003 additionally support the conclusion that conservatism has a positive impact on FLFP for

ever-married women in Turkey, though further research is required to determine the exact impetus for this effect.

To further investigate the positive effect of conservatism on FLFP in Turkey, I analyzed the average levels of conservatism by occupation. In the Turkish DHS dataset, distinct occupations are broken down into 17 categories. Using these categories, I evaluated average conservatism for occupational groups in which over 50 respondents were employed. These results are summarized in Table 4.

Table 4: Average Conservatism Values by Occupational Category (Turkey)

Occupation Category	Number	Percentage	Average	S.D.
Domestic employment	373	4.63%	.416	.280
Agriculture, hunting, and forestry	1241	15.4%	.374	.275
Not Working	4853	60.21%	.227	.246
Manufacturing	624	7.75%	.215	.234
Services	312	3.87%	.211	.228
Retail & Repair	185	2.29%	.134	.218
Health & Social Work	98	1.22%	.057	.145
Public Administration & Defense	59	0.73%	.040	.093
Education	191	2.38%	.039	.117

As evidenced by Table 4, the overwhelming majority of employed women in the sample are employed in agriculture, an occupational category with the second highest average level for social conservatism. The average value for conservatism in the overall sample is 0.245, suggesting that the number of more conservative women in domestic employment and agriculture are pulling up the sample average.

To further investigate this effect, Table 5 depicts the impact of conservatism (8 question index) on four dependent variables broken up by occupational category: non-agricultural employment, along with white, blue, and pink collar professions. A full breakdown of results and definitions for these categories can be found in Appendix 2.

Table 5: Marginal Effects of Conservatism on Employment in Occupational Categories

Turkey	(1)	(2)	(3)	(4)
Dependent variable:	Non-Agricultural Employment	White Collar Professions	Blue Collar Professions	Pink Collar Professions
Conservatism (8Q)	-.0212	.0052	.1261***	-.0388***
	(.0197)	(.0134)	(.0196)	(.0133)
Education	.0244***	.0144***	-.0051***	.0020**
	(.0012)	(.0006)	(.0016)	(.0009)
Wealth Factor	-.0066*	.0039*	-.0528***	-.0004
	(.0038)	(.0022)	(.0040)	(.0025)
Fertility Controls	*Yes*	*Yes*	*Yes*	*Yes*
Marital Controls	*Yes*	*Yes*	*Yes*	*Yes*
Age Controls	*Yes*	*Yes*	*Yes*	*Yes*
Region Controls	*Yes*	*Yes*	*Yes*	*Yes*
Observations:	8,059	8,059	8,059	8,059
*p<0.1, **p<0.05, ***p<0.01				
Standard errors in parentheses				

As seen in the above table, while the impact of conservatism on entry to white collar professions is not statistically significant, the impact on entry to blue and pink collar employment is statistically significant at a p-value of 0.01. Pink collar work, which involves service industry work with public-facing components, such as employment in hospitality and retail, is negatively impacted by rising social conservatism, while the opposite is true for blue collar labor-intensive work. This result is consistent with prior literature and further corroborated by a positive correlation between education and white/pink collar work.

Overall, conservatism in Turkey appears to have a positive effect on the likelihood of female LFP. This effect additionally seems to drive women towards sectors like domestic employment and agriculture, while pushing them away from sectors like health and social work, public administration and defense, and education. Given the negative correlation between years

of education and estimated conservatism level in the sample (-0.455), the finding that less conservative women are driven towards these three sectors requiring higher education is logical.

Examining the sample by region lends further insight on the conservative women in the labor force in Turkey. Higher conservatism levels were associated with women in the east, south, and central regions of Turkey, while the lowest average conservatism levels occurred in the north and west regions. The east region contained the most women with very high estimated levels of conservatism (>0.5), with most of those women either employed in the agriculture sector or unemployed.

VII. Conclusion

The results of this study demonstrate that estimated levels of conservatism can have a significant impact on the likelihood of labor force participation for ever-married women. Though this impact is negative in Azerbaijan and positive in Turkey, the fact that the impact exists in both cases means that policymakers should incorporate an understanding of conservatism into policies designed to promote LFP in both countries.

A number of limitations constrain the application of this study. Due to the limited data available from the DHS, the study excluded never-married women from consideration. I would expect that never-married women regardless of status might display a higher tendency to participate in the labor force than ever-married women, which would impact the final results.

Some DHS countries also carry out a specific Women's Status and Empowerment Module, which contains many questions specific to women's issues within given countries. These questions pertain to many of the issues raised by this thesis, including labor force decisions and questions about specific conservative beliefs. Unfortunately, the Women's Status Module was not carried out in Azerbaijan or Turkey, meaning that the only questions available for inclusion in this study were from the more general DHS. Further research should incorporate more specific questions, if possible.

A substantial limitation of this study was the dichotomous definition of labor force participation used by the DHS. As discussed in the literature review, participation in the labor force is more complicated than a simple yes or no answer, especially in countries with large informal sectors like Azerbaijan and Turkey. The lack of more detailed data for both countries in the DHS limited the accuracy of the results.

In addition, the scope of this study could be expanded to look at more than just two discrete years in both countries. Evaluating how the impact of conservatism on FLFP changes over time would provide an interesting extension to this research. Particularly for Turkey, analyzing the impact of conservatism before and after the 2002 election of the Justice and Development Party could provide different results.

A more robust analysis of the difference in economic policy in post-communist Azerbaijan and contemporary Turkey could illuminate a different aspect of female LFP. It is possible that economic policy in Azerbaijan remains similar to its Soviet roots, while Turkey has become more neoliberal in its economic policies. This difference could pose significant implications for labor force participation for both men and women, and is worth further investigation.

Finally, future research on this topic would benefit from exploring in more detail the relationship between conservatism and labor force participation in Turkey, where the positive relationship revealed by the data was surprising. Many other factors may be at play in explaining this relationship. Due to the significant economic benefits that a country can gain from the higher inclusion of women in the labor force, specific research on the role of conservatism in the labor decision could have important economic significance for developing countries.

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Appendix 1: Full Results of Probit Regressions

Table 1: Marginal Effects of Social Conservatism Index on Likelihood of LFP

Dependent Variable: Employment (12 Months)	(1) Azerbaijan 8Q	(2) Azerbaijan 4Q	(3) Turkey 8Q	(4) Turkey 4Q
Conservatism (8 questions)	-.0917***		.2103***	
	(.0222)		(.0233)	
Conservatism (4 questions)		-.0039		.1754***
		(.0175)		(.0206)
Education	.0379***	.0392***	.0243***	.0229***
	(.0022)	(.0022)	(.0017)	(.0017)
Wealth Factor	-.0096*	-.0072	-.0642***	-.0664***
	(.0050)	(.0050)	(.0047)	(.0046)
Married	-.1305**	-.1033*	-.1088**	-.1025*
	(.0537)	(.0536)	(.0537)	(.0537)
Widowed	.0043	.0013	-.0531	-.0511
	(.0575)	(.0579)	(.0637)	(.0637)
Divorced	.0878	.0878	.1128*	.1142*
	(.0571)	(.0574)	(.0678)	(.0678)
Baku	-.0020	.0104	.0575***	.0644***
(Turkey: West)	(.0229)	(.0228)	(.0153)	(.0153)
Absheron	-.0312	-.0191	.0184	.0260
(*Turkey*: South)	(.0243)	(.0243)	(.0178)	(.0178)
Ganja	.0182	.0270	-.0086	-.0026
(*Turkey*: Central)	(.0224)	(.0224)	(.0168)	(.0167)
Shaki	.0306	.0486**	.1640***	.1743***
(*Turkey*: North)	(.0226)	(.0225)	(.0190)	(.0190)
Lankaran	-.1825***	-.1832***		
	(.0266)	(.0265)		
Guba	-.0299	-.0141		
	(.0250)	(.0252)		
Aran	.0307	.0339*		
	(.0205)	(.0205)		
Yukhari	.0355	.0435*		
	(.0237)	(.0236)		
Children between 0 - 2	-.0314**	-.0333**	-.0913***	-.0915***
	(.0148)	(.0148)	(.0113)	(.0113)
Children between 3 - 5	-.0179	-.0189	-.0218**	-.0216**
	(.0135)	(.0135)	(.0105)	(.0104)
Children between 6 - 13	.0095	.0094	.0083	.0074
	(.0072)	(.0072)	(.0061)	(.0061)
Children between 14 - 18	.0048	.0050	.0179**	.0185**
	(.0079)	(.0079)	(.0083)	(.0083)
Children over 19	-.0065	-.0064	.0158**	.0162**
	(.0073)	(.0073)	(.0071)	(.0072)
Observations	5,769	5,769	8,058	8,063
*p<0.1, **p<0.05, ***p<0.01				
Standard errors in parentheses				

Table 2: Marginal Effects of Social Conservatism on FLFP in Merged Dataset

Dependent Variable: Employment (12 Months)	(5) Merged Dataset 4Q	(6) Merged Dataset 8Q
Azeri Conservatism *(8 question index)*		-.4367*** (.0195)
Turkish Conservatism *(8 question index)*		.3250*** (.0198)
Conservatism *(4 question index)*	-.2962*** (.0181)	
Countrydummy: Conservatism2 *(4 question index)*	.5775*** (.0230)	
Education	.0099*** (.0011)	.0181** (.0012)
Wealth Factor	-.0165*** (.0032)	-.0245** (.0031)
Married	-.1134*** (.0400)	-.1646*** (.0396)
Widowed	-.0421 (.0453)	-.0004 (.0449)
Divorced	.0796* (.0454)	.1360*** (.0451)
Children between 0 - 2	-.0690*** (.0089)	-.0642*** (.0088)
Children between 3 - 5	-.0158* (.0082)	-.0146* (.0081)
Children between 6 - 13	.0005 (.0046)	.0036 (.0045)
Children between 14 - 18	.0070 (.0059)	.0080 (.0058)
Children over 19	-.0053 (.0052)	-.0040 (.0051)
Age Controls	*Yes*	*Yes*
Region Controls	*No*	*No*
Observations	13,832	13,827
*p<0.1, **p<0.05, ***p<0.01		
Standard errors in parentheses		

Appendix 2: Analysis by Occupation Category (Turkey)

Table 3: Marginal Effects of Conservatism on Employment in Occupational Categories

Dependent variable:	(1) Non-Agricultural Employment	(2) White Collar Professions	(3) Blue Collar Professions	(4) Pink Collar Professions
Conservatism (8Q)	-.0212	.0052	.1261***	-.0388***
	(.0197)	(.0134)	(.0196)	(.0133)
Education	.0244***	.0144***	-.0051***	.0020**
	(.0012)	(.0006)	(.0016)	(.0009)
Wealth Factor	-.0066*	.0039*	-.0528***	-.0004
	(.0038)	(.0022)	(.0040)	(.0025)
Married	-.1569***	.0086	-.0017	-.0893***
	(.0358)	(.0184)	(.0470)	(.0201)
Widowed	-.0683	.0353	.0151	-.0607**
	(.0440)	(.0220)	(.0552)	(.0257)
Divorced	.0339	.0366*	-.0107	.0049
	(.0447)	(.0205)	(.0587)	(.0244)
Region: West	.1286***	-.0113**	.1103***	.0378***
	(.0119)	(.0057)	(.0136)	(.0081)
Region: South	.0707***	-.0132*	.0880***	.0232**
	(.0143)	(.0071)	(.0154)	(.0095)
Region: Central	.0423***	-.0147**	.0744***	.0119
	(.0136)	(.0065)	(.0148)	(.0091)
Region: North	.0262*	-.0004	.1328***	-.0008
	(.0158)	(.0067)	(.0167)	(.0109)
Children between 0 - 2	-.0896***	-.0117**	-.0638***	-.0358***
	(.0099)	(.0050)	(.0099)	(.0071)
Children between 3 - 5	-.0407***	-.0003***	-.0195**	-.0192***
	(.0088)	(.0049)	(.0090)	(.0061)
Children between 6 - 13	-.0160***	-.0003	.0023	-.0023
	(.0053)	(.0030)	(.0052)	(.0034)
Children between 14 - 18	.0099	.0070*	.0039	.0048
	(.0069)	(.0038)	(.0071)	(.0043)
Children over 19	-.0074	.0020	.0132**	.0002
	(.0062)	(.0036)	(.0061)	(.0038)
Age Controls	*Yes*	*Yes*	*Yes*	*Yes*
Observations	8,059	8,059	8,059	8,059
*p<0.1, **p<0.05, ***p<0.01				
Standard errors in parentheses				

Table 4: Occupations by Category (Turkey)

Category	*Included Occupations*
Non-Agricultural Employment	Dataset excluding agricultural employment and domestic production for own use
White Collar Professions	- Financial Intermediation - Real estate, renting and business activities - Public administration and defense; compulsory social security - Education - Health and Social Work
Pink Collar Professions	- Agriculture, hunting and forestry - Fishing - Mining and quarrying - Manufacturing - Electricity, gas and water supply - Construction - Transport, storage and communications - Sewage and refuse disposal, sanitation and similar activities
Blue Collar Professions	- Retail & repair - Hotels and restaurants - Activities of membership organizations (employer and worker organizations, syndicates, activities of religious/political establishments) - Recreational, cultural and sporting activities - Other service activities (hairdressers, funeral services, drycleaners, etc.)