



**Female Labour Supply in Turkey: Do Traditional Gender Roles Matter?**

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Paper Prepared for the IARIW 33<sup>rd</sup> General Conference

Rotterdam, the Netherlands, August 24-30, 2014

Session 2D

Time: Monday, August 25, Afternoon

# **FEMALE LABOR SUPPLY IN TURKEY: DO TRADITIONAL GENDER ROLES MATTER?**

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## **ABSTRACT**

This paper investigates the role of traditional or conservative social norms and culture on labor force participation rates of women in Turkey. The results provide evidence that social norms and culture matter for a woman`s employment regardless of the level of education she has, or whether she lives in rural or urban areas of the country or in a region with a relatively high level of development, although the size and form of the effect differ across the factors. While conservative or traditional social norms and culture significantly reduce the probability of a highly educated, urban woman being a wage worker and increase her chance of not working, they are also associated with an increased probability of a poorly educated, rural woman being in informal work in the form of being an unpaid family worker.

## **KEYWORDS**

female labor supply, gender, social norms, culture, traditional values, Turkey

JEL Codes: J16, J21, Z10

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## INTRODUCTION

Labor market institutions continue to have a crucial role in enhancing women's economic empowerment, particularly in developing countries. Although studies mainly focus on women's entry into paid work as a means to improve their economic and social status, feminist scholars have helped to recognize the broader factors that need to be considered. This is because, paid employment does not always imply woman's increased control over her income nor does it mean that she participates in economic decisions or fulfills her needs. More importantly, it will not necessarily lead to an improvement in women's economic empowerment, unless it is accompanied by a shift in the functioning of the labor institutions together with social institutions - laws, codes of conduct, social norms and traditions - towards a more gender equal perspective (see for example; Bina Agarwal [1994]; Diane Elson [1999]; Naila Kabeer [2008]; Naila Kabeer, Simeen Mahmud and Sakiba Tasneem [2011]). Accordingly, this paper explores the labor force participation status of women in Turkey, with a special focus on the potential impact of conservative or traditional social norms and culture.

One of the prominent characteristics of the labor market in Turkey is the consistently low labor force participation rates of women. Despite economic growth and significant improvements in female educational attainment, participation rates of women have actually fallen over more than the last twenty years from 34.3 percent in 1988 to 29.5 percent in 2012 (Turkish Statistics Institute [TSI] 1988, 2012).<sup>1</sup> Among the women in the workforce, the majority work as unpaid family workers in rural agricultural activities. The participation rates of women in rural areas are also declining, but remain much higher than those of women in urban areas. The participation rates of women in urban areas are exceptionally low and whilst there has been a slight improvement in the participation rates in urban areas since the early 2000s, it was not enough to counter the overall declining trend in female labor force participation rates.<sup>2</sup>

It is important to uncover possible reasons for the low and stagnant participation rates of women in Turkey. First of all, this trend is in marked contrast with the increasing female labor force participation rates in many OECD and EU countries. Despite Turkey's current prominence in terms of economic and social development among the Middle East and North Africa (MENA) nations, failure to utilize a significant proportion of the labor force has the potential to weaken Turkey's future position in the region.<sup>3</sup> Furthermore, gender equality has been one of the crucial elements for Turkey's preparations for European Union membership. The European Commission has drawn attention to the unsatisfactory performance of Turkey in eliminating discriminatory practices and achieving gender equality; for example, in ensuring equal pay and equal employment opportunities for men and women. Moreover, female employment rates in Turkey fall far behind the "Europe 2020" strategy which envisages female employment rates to be increased to 75 percent by 2020.<sup>4</sup>

The existing literature relating to women's labor force participation in Turkey is mostly based on conventional neoclassical labor supply models. Women's low participation rates are generally explained by human capital variables, while the role of traditional values and culture are ignored. However, it is crucial to consider social norms and culture, since Turkey can be argued to be still under the influence of patriarchal ideologies and traditional values are operating to the detriment of women and, eventually, of the whole society. Therefore, this paper aims to build upon previous research by taking the effect of traditional or conservative social norms and culture into consideration when examining female employment in Turkey.

To this aim, four indices are developed by using a polychoric Principle Component Analysis (PCA) in order to measure the extent of traditional marriages, awareness and use of contraception, women's tolerance against domestic violence and their attitudes towards traditional gender roles, using data collected by the Turkish Demographic and Health Surveys for the years 1998 and 2008 (TDHS-98, TDHS-08). The labor force participation status of

women is analyzed by a multinomial logit model that allows consideration of four distinct labor force outcomes. That is, “working as a wage worker”, “working in self-employment”, “working as an unpaid family worker”, and “not working”. Finally, in order to investigate whether social norms and culture provide an additional explanation for the low and stagnant participation rates of women in Turkey, the indices are included as explanatory variables, in addition to the main determinants found in the previous literature, in the multinomial logit model.

## **BACKGROUND**

There is not a uniform trend in the female labor force participation across the world, since countries have different resources available to women (M. Anne Hill 1983). The increasing labor force participation rates of women in developed countries can be explained by several factors, such as decreased gender pay gap, positive effect of childcare subsidies, parental leave and a more fair approach to taxation for second earners in the households (Siv Gustaffson and Roger Jacobsson 1985; Florence Jaumette 2003). On the other hand, the relatively low levels of female labor force participation in developing countries are usually explained by women`s lower educational attainment or less labor market experience (Joan W. Scott and Louise A. Tilly 1975; Fred C. Pampel and Kazuko Tanaka 1989).

There is a consensus in the literature on the labor market in Turkey that age, education, the presence of children matter for women`s employment (Aysit Tansel 1998; Meltem Dayioglu and Murat G. Kirdar 2010). Whilst different explanations are offered for the low labor force participation rates of women in Turkey, most studies note the importance of education (Zehra Kasnakoglu and Meltem Dayioglu 1997; Meltem Dayioglu 2000; Meltem Ince and Hulusi Demir 2006). Although education has a crucial role in enabling women to participate in the labor market, there are further elements. For example, Ilkcaracan (2010) shows that the

convergence in the proportion of men and women with higher education has not been accompanied by a closing of the gap between their labor force participation rates. The U-shaped impact of economic development<sup>5</sup> and urbanization, together with the rural-urban migration, are amongst the other explanations for the continued low labor force participation rates of women (Aysit Tansel 2002; Ayse Gunduz-Hosgor and Jeroen Smits 2006; Dayioglu and Kirdar 2010). These studies mainly draw attention to the industrialization process that gave less importance to agriculture and the associated failure to create job opportunities for women.

### **THE ROLE OF SOCIAL NORMS AND CULTURE IN TURKEY**

One of the most influential factor determining women`s status in the Middle East, as well as in Turkey, is claimed to be patriarchy (see for instance, Massoud Karshenas [2001]; Valentine M. Moghadam [2004]; Jennifer C. Olmsted [2005]; Gunduz-Hosgor and Smits [2006]; Ipek Ilkcaracan [1998], [2010]). Although modernization movements have reduced the incidence of the patriarchal family structure - where power is in the hands of men and women are dependents - its effect on legal and institutional frameworks remains prevalent in many Middle Eastern countries (Moghadam 2004). Turkey distinguishes itself within the region in terms of the creation of the secular state after the foundation of the Turkish Republic, which was the first-ever in a Muslim country. Shortly after the foundation of the republic, a series of legislation was passed to grant equal rights to women; for example, illegalization of polygamy and the establishment of equality in divorce, child custody and inheritance. Moreover, women`s right to vote was granted in the early 1930s, which is earlier than many countries in Europe, as well as elsewhere in the region. However, the opportunities for women generated by these reforms were not equally shared. According to Gunduz-Hosgor and Smits (2006), while the policies aiming at the emancipation of women generated a small group of highly educated and economically active women in the urban areas of the country, they did not impact on rural women`s lives to the same extent. The incidence of honor killings, marrying with only a

religious ceremony, disapproval of premarital sexual intercourse, and women`s limited freedom of movement remain in place in many areas of the country, particularly, in rural areas (Ipek Ilkcaracan and Pinar Ilkcaracan 1998; Ilkcaracan 1998; Ayse Gunduz-Hosggor and Jeroen Smits 2006, 2007). It is also important to note the rising trend of conservatism in Turkey; a religious conservative party, the Justice and Development Party (AKP), came to power alone for the first time in the history of Turkey in 2002 and was re-elected in 2011 with a notable share of the vote.<sup>6</sup>

The impediments that traditional or conservative values might impose on women`s employment in Turkey have mostly been analyzed using qualitative research. Among these studies, both Ilkcaracan (1998) and Saniye Dedeoglu (2010) argue that traditional gender roles, ascribing women as mothers and housewives, and men as breadwinners, have a fundamental impact on women`s non-participation in the labor markets. A comprehensive quantitative analysis on the topic could not be performed, mostly because of the unavailability of data in part. To my knowledge, there are only two studies that examine the effect of traditional values quantitatively. While analyzing the U-shaped impact of economic development on women`s employment, Gunduz-Hosggor and Smits (2006) also touch upon the role of cultural values. They develop an index by simply taking the averages of the standardized versions of the dummy variables indicating whether women agree or disagree with the following statements: “important decisions should be made by men”, “men are wiser than women”, “women should not argue with men”, “it is better for a male child than for a female child to have education”. By including this index in their multivariate analysis, they find that women with more traditional values are less likely to be in formal work. However, there are further aspects of social norms and culture that need to be considered.

Idil Goksel (2012) analyzes the effect of conservatism on women`s labor force participation decision. Her study is important as it expands the previous research by using a superior

approach when building proxies for conservatism, and also by adding the effect of traditional marriages and women`s decision power into the analysis. However, the data she uses to form conservatism index fail to provide information on whether the woman is working or not. As a consequence of that, and her attempt to analyze the time trend, she imports the index to the other data sets which include the information on women`s work for the years 1994, 2003, and 2006. This practice is quite problematic and not very plausible because it assumes that the index values stay constant over a long period of time. That is, a woman aged 50 in urban area of region X in 2006 has the same level of conservatism as the woman with same characteristics in 1994. Therefore, it ignores the social and political changes in Turkey over the last twenty years, which are high likely to have an impact on the level of conservatism.

Overall, whilst there is a general consensus that traditional values are important factors limiting women`s employment in Turkey, there is insufficient evidence to support this or to identify the impact. This study aims to contribute to the literature by investigating the role of traditional or conservative social norms and culture on the low and stagnant labor force participation rates of women in the country. Accordingly, in addition to the standard variables such as age, education, marital status and the presence of children, proxies for social norms and culture are included into the analysis as determinants of women`s labor force participation status. More importantly, by adopting more extensive measures and more years of data, it is possible to track the effect of traditional values over time; therefore shedding light on many important aspects of traditional or conservative values that remain uncovered by the limited quantitative work on the topic.



## METHODOLOGY

The labor market in Turkey is characterized by a large informal sector where women mostly work as unpaid family workers. As Hill (1983) states, in such economies, women do not just select between participating in the market or not; actually, they are faced with the choice of working either in the informal sector of the labor market, in the formal sector of the labor market or not working at all. Therefore, it is intended to shed light not only on women`s market-oriented paid work, but also their participation in the labor force as unpaid family labor. Accordingly, a multinomial logit model<sup>7</sup> is employed which allows for four distinct states of labor force participation status for women that are coded as follows:

$k = 0$  ; not working

$k = 1$  ; working as a wage worker

$k = 2$  ; working in a self-employment

$k = 3$  ; working as unpaid family worker

It is, however, a challenge to fully capture women`s unpaid work as survey designs tend to only recognize market-oriented activities as work. The TDHS surveys pay a particular attention to identifying women in unpaid family work and the extent of informal sector.<sup>8</sup> Accordingly, women undertaking unpaid work in family farms and businesses, activities such as weaving embroidery or making clothes, domestic work on a paid basis; for example, looking after children or working as a cleaning lady, are all counted as work. However, as with other studies, unpaid caring activities are not counted as work in the TDHS surveys.<sup>9</sup> As argued extensively in feminist economics literature, unpaid, caring activities involve work although they are not market oriented. Moreover, as Elson (1999) indicates, the “reproductive economy” – unpaid, unmarketed caring work - is crucial as they have a fundamental contribution to the reproduction

of the market-oriented “productive economy” (1999:612). Nevertheless, it is still important to analyze unpaid family workers within the extent of the information provided by TDHS surveys rather than ignoring them fully.

The model for the labor force participation status of women is defined as follows;

$$P_{ki} = \frac{\exp(\phi'_k X_{ki})}{\exp(\phi'_k X_{wi}) + \exp(\phi'_k X_{si}) + \exp(\phi'_k X_{fi}) + \exp(\phi'_k X_{ui})} \quad k = 0, 1, 2, 3$$

Where  $P_{ki}$  is the probability of  $i_{th}$  woman being in the  $k_{th}$  labor force participation status,  $\phi'_k$  is the parameter vector and  $X_{ki}$  is a vector of explanatory variables. In particular, the set of explanatory variables which are thought to determine the labor force participation status of women in Turkey is defined as;

$$X_{ki} = (B, G, M, E, I)$$

where  $B$  is “women`s background characteristics” (i.e. age, marital status, the presence of children under the age 6);  $G$  is “geographic characteristics” (i.e. region and current place of residence);  $M$  is “migration status”;  $E$  is education (i.e. women`s and their partner`s education) and  $I$  stands for the “indices” developed as a proxy for social norms and culture.

The main issue in this empirical specification is the potential endogeneity problem. While traditional or conservative values may have an impact on women`s employment, it is also possible that women`s employment affects these values. The data sets employed in this study do not enable us to distinguish between the two effects. While analyzing the effect of fertility on women`s employment in Brazil, Rachel Connelly, Deborah S. DeGraff, Deborah Levison, and Brian P. McColl (2006) provide an extensive discussion of endogeneity bias and ways to overcome the problem. They conclude that, given the lack of sound theoretical instruments, researchers must either choose to investigate the relationship between two variables in a

reduced form or take the risk of endogeneity bias, by including a potentially endogenous variable in their analysis. They go on to argue that the consequence of the former case would often be “to exclude potentially endogenous policy relevant variables, the very variables that can make a difference in the economic lives of women and children” (2006: 562). In this study, it is chosen to take the risk of endogeneity bias by including the proxies for social norms and culture into the analysis, since it is believed that they play a crucial role in women`s employment in Turkey. This is because, female labor force participation has remained stagnant in Turkey, despite improvements in women`s education and in the context of growing social conservatism. Therefore, it is important to give a strong prior on the causality between women`s employment and social norms and culture.

While analyzing the reverse pattern – the effect of women`s employment on gender norms and stereotypes - , Stephanie Seguino (2007) suggests that an increase in women`s economic activity will lead to supportive attitudes towards gender equality and enhance women`s status, albeit with a time lag. This is because, it will take time for the improvements in women`s employment to change the traditional gender roles. Therefore, it is plausible to assert that, given the low and stagnant female labor force participation rates in Turkey, it will take longer for women`s participation in the labor market to change traditional or conservative values, than for these values to affect women`s employment outcomes. Accordingly, it is suggested that social norms and culture determine women`s employment status in the short-run, while acknowledging the long-run effect of women`s employment on traditional gender roles.<sup>10</sup> Consequently, the results presented in this study can either be evaluated as short-term effect of traditional or conservative values on women`s employment status or as the correlation between the two.

## **DATA**

This study uses Turkish Demographic and Health Surveys (TDHS) undertaken by the Hacettepe University Institute of Population Studies for the years 1998 and 2008 (TDHS-98 and TDHS-08). These surveys implement fully comparable standards introduced by the worldwide Demographic and Health Surveys (MEASURE/ DHS+) program which aims at providing data and analysis on fertility, family planning, maternal and child health, gender, HIV/ AIDS, malaria and nutrition in developing countries. The TDHS surveys collect household data as well as an individual level data consisting of eligible women selected from the household sample. The data from the women`s survey have been used in this paper.

The main data constraint is that both data sets used in this study are cross-sectional; no panel data set is currently available for Turkey to enable a more dynamic analysis of women`s labor market participation. However, it is believed that the chosen years will not only provide snapshots for the years under consideration but will also provide an insight into the changing characteristics of female employment in Turkey over time.

## **SAMPLE AND DESCRIPTIVE STATISTICS**

The TDHS women`s surveys consist of ever-married women aged 15 to 49 for the years under consideration. Although TDHS-98 includes data for never married women too, they were not included in the analysis. This decision was made in order to ensure comparison with 2008, as TDHS-08 only contains information for ever-married women. Moreover, the lack of information on fertility, family planning, attitudes towards domestic violence and traditional gender roles for the never married women sample in TDHS-98 reinforces the decision to exclude these women from the analysis, since this information is crucial for the objectives of the study. For both data sets, women who did not report current labor force status are excluded from the sample.<sup>11</sup>

The final samples contain 5,754 and 7,295 ever-married women for the years 1998 and 2008. Among them, 3,896 and 5,164 women are not currently working, reflecting substantial non-participation rates of 67.90 percent and 70.79 percent for 1998 and 2008 respectively (see Table 1). Amongst currently working women, the majority are working as an unpaid family worker in 1998, while the proportion of wage workers becomes slightly larger than the proportion of unpaid family workers in 2008. The participation rates in rural areas are much higher than the participation rates in urban areas for both years. While being an unpaid family worker is the most common form of employment in rural areas (although the share is relatively lower in 2008), wage workers constitute the largest share of employed women in urban areas and their share is slightly larger in 2008 (see Table 1).

**Table 1**-Labor force participation status of women in Turkey and in rural and urban areas

	Not working		Wage worker		Self-employed		Unpaid family worker		Number of observations
	frequency	Percent	frequency	percent	frequency	percent	frequency	percent	
1998	3,896	67.90	577	10.06	442	7.70	823	14.34	5,738
2008	5,164	70.79	904	12.39	411	5.63	816	11.19	7,295
<b>(Rural)</b>									
1998	875	48.88	146	8.16	134	7.49	635	35.47	1,790
2008	1,105	56.72	214	10.99	59	3.03	570	29.26	1,948
<b>(Urban)</b>									
1998	3,021	76.52	431	10.92	308	7.80	188	4.76	3,948
2008	4,059	75.91	690	12.9	352	6.58	246	4.6	5,347

Source: TDHS-98, TDHS-08.

When examining the educational levels of women in the final total samples, it is seen that in both years the vast majority of women do not have more than primary school education (see Table 2). The share of women with no education is declining over the period but remains substantial at around 17.5 percent in 2008. Unpaid family workers have the lowest levels of educational attainment. Apart from unpaid family workers, there are notable changes across the years in the proportions of women with relatively higher educational levels, self-employed and wage workers seem to have become better educated. There is a remarkable increase from 1998 to 2008 in the proportion of wage workers with higher educational levels (from 28.25

percent to 46.02 percent). Interestingly, there has been a significant rise in the proportion of women with relatively higher education who are not currently working, from 1.69 percent in 1998 to 16.11 percent in 2008. This finding might be an indicative of the increase in the unemployment rates among the university graduates in Turkey.<sup>12</sup> The proportion of partners with more than primary school education is much higher and the share of partners with no education is very low, when compared to the women in the sample. Therefore, although there are improvements, women are still at a disadvantaged position in terms of educational attainment in Turkey.

There are striking regional differences in women`s labor force participation status (see Table 3). For each year, the highest non-participation rates are observed in the eastern Anatolia regions. These regions can be said to be the least developed parts of Turkey. Previous research indicated the disadvantaged position of women in the east in terms of social and economic well-being (see for instance, Gunduz Hosgor and Smits, 2007). Of the very low rates of female labor force participation in these regions, unpaid family workers constitute the largest share. Not surprisingly, the highest shares of wage workers are seen in Istanbul, east/west Marmara and Aegean reflecting the higher development and better socio-economic conditions in these regions.

**Table 2-**Descriptive statistics related to women`s background characteristics and partners` educational levels in the total sample and according to women`s labor force participation status

	Total Sample		Not working		Wage worker		Self-employed		Unpaid family worker	
	1998	2008	1998	2008	1998	2008	1998	2008	1998	2008
Age (in mean values)	33.00 (8.48)	34.07 (8.39)	32.46 (8.65)	33.49 (8.61)	34.31 (7.36)	34.71 (7.26)	33.84 (7.71)	35.94 (7.07)	34.15 (8.54)	36.11 (8.32)
<b>Women`s education</b> (in percentages)										
No education (reference category)	23.71	17.52	25.41	18.32	14.73	11.06	16.74	11.68	25.76	22.55
Incomplete primary	5.86	5.92	5.90	6.45	3.29	4.09	7.01	4.87	6.93	5.15
Complete primary	49.46	47.28	48.92	47.31	30.50	31.75	56.11	52.07	61.97	61.89
Incomplete secondary	7.82	2.06	8.96	2.01	4.16	1.88	10.18	2.43	3.65	2.33
Complete secondary	8.88	8.59	9.11	9.80	19.06	5.20	7.24	9.25	1.46	4.41
Higher Education	4.28	18.63	1.69	16.11	28.25	46.02	2.71	19.71	0.24	3.68
<b>Marital Status</b> (in percentages)										
Married (reference category)	95.83	95.07	96.46	95.62	90.81	92.26	92.53	90.27	98.06	97.06
Widowed	2.52	1.99	2.46	1.98	3.12	1.55	4.30	3.65	1.46	1.72
Divorced	1.23	2.11	0.74	1.65	4.68	4.76	2.71	4.62	0.36	0.86
Not living together	0.42	0.84	0.33	0.76	1.39	1.44	0.45	1.46	0.12	0.37
<b>Presence of child</b> under age 6 (in percentages)										
No children or has children but none under age 6 (reference category)	49.27	53.39	46.28	49.69	61.53	65.60	58.82	64.96	49.33	57.48
1 or 2 child under age 6	46.04	42.97	48.64	46.55	37.44	32.08	39.82	33.82	43.38	37.01
More than 2 children under age 6	4.69	3.63	5.08	3.76	1.04	2.32	1.36	1.22	7.29	5.51
<b>Partner`s education</b> (in percentages)										
No education (reference category)	7.27	3.76	7.15	4.05	6.26	3.24	7.48	2.46	8.30	3.21
Incomplete primary	3.05	2.83	3.11	3.00	2.61	2.01	2.49	3.44	3.42	2.34
Complete primary	47.29	43.01	46.06	42.21	31.65	32.96	46.49	43.39	64.84	58.94
Incomplete secondary	32.32	5.23	34.89	4.96	27.83	4.69	34.69	7.86	21.86	6.17
Higher education	10.07	45.17	8.78	45.79	31.65	57.09	8.84	42.75	1.59	29.35
Number of observations	5,754	7,295	3,896	5,164	577	904	442	411	823	816

Source: TDHS-98, TDHS-08. Standard deviations for age are in parenthesis.

**Table 3-**Distribution of labor force participation status according to region and migration status

	1998				2008			
	Not working	Wage worker	Self-employed	Unpaid family worker	Not working	Wage worker	Self-employed	Unpaid family worker
<b>REGION</b>								
North East Anatolia (reference category)	81.53	2.25	8.56	7.66	76.82	6.43	4.91	11.84
Istanbul	75.62	15.02	6.01	3.36	74.71	16.73	6.27	2.28
West Marmara	41.70	16.96	9.19	32.16	67.06	19.09	5.97	7.88
Aegean	56.84	16.12	9.45	17.59	56.80	19.67	6.43	17.10
East Marmara	67.78	10.56	11.67	10.00	60.86	17.59	10.34	11.21
West Anatolia	69.13	14.38	7.61	8.88	77.94	10.49	5.06	6.51
Mediterranean	77.47	7.03	6.26	9.23	71.07	14.41	5.01	9.51
Central Anatolia	66.06	6.12	9.79	18.04	81.06	6.44	4.55	7.95
West Black Sea	56.16	8.83	8.52	26.48	60.03	12.42	10.99	16.56
East Black Sea	42.18	10.88	12.20	34.75	44.39	15.93	4.96	34.73
Central East Anatolia	85.53	3.22	4.18	7.07	87.05	5.90	1.97	5.08
South East Anatolia	83.70	6.43	3.61	6.27	77.84	8.35	2.89	10.92
<b>MIGRATION STATUS</b>								
Never Moved (reference category)	61.90	9.05	8.14	20.91	71.83	10.81	5.19	12.17
Moved to a different place less than 10 years ago	72.95	10.57	6.45	10.03	69.61	13.98	5.87	10.53
Moved to a different place 10 years ago or more	68.70	10.59	8.72	12.00	71.04	12.56	6.28	10.12
<b>Current location</b>								
City (reference category)	78.31	11.62	7.46	2.61	76.53	13.58	6.43	3.46
Town	71.21	8.83	8.83	11.13	74.13	11.63	6.00	8.23
Countryside	48.88	8.16	7.49	35.47	57.63	10.84	3.88	27.65
Number of observations	3,896	577	442	823	5,164	904	411	816
Percentage in total	67.90	10.06	7.70	14.34	70.79	12.39	5.63	11.19

Source: TDHS-98, TDHS-08



## THE COMPOSITION OF THE INDICES

Traditional values may hinder women`s ability to become economically active in various ways; for instance, through their negative influence on women`s decision making powers and their position in the household. In this study, the effect of traditional marriages, awareness and use of contraception, women`s tolerance against domestic violence and their attitudes towards gender equality are all explored. Therefore, four different indices are developed to be included as explanatory variables in the multinomial logit model.

The first is a “traditional marriage index” which aims to capture some of the main elements of traditional marriages such as early motherhood, bride price<sup>13</sup> and religious ceremony. Women with traditional marriages might have less bargaining power in the family, since they are more likely to be dependent on their husbands, which in turn might have a significant impact on their labor market outcomes. Five different variables are used to build this index. The first is a dummy that takes the value of 1 if a woman was below the age of 19 at her first marriage. In addition, another dummy, indicating whether a woman was less than 19 years old when she had her first child, is used. These two dummies are expected to reflect on the prevalence of early and possibly forced marriages and early childbearing in Turkey. Furthermore, dummies indicating whether a bride price was paid at the marriage and whether the woman has a kinship with her husband are used to probe the extent of traditional marriage. Finally, a categorical variable which is assigned a score of 1 if there was only civil marriage, 2 if there was both a civil and religious marriage, and 3 if there was only a religious marriage is included. The index value increases if the marriage is more traditional.

Social norms and culture might restrict woman`s reproductive autonomy through practices opposing the use of contraception and limiting access to contraceptives. In return, this may influence their labor force participation status, given the strong relationship between

motherhood and employment. Therefore, the second index, “contraception knowledge and usage”, aims at capturing whether women are aware of contraception methods and, whether this knowledge reflects on their usage. This index makes use of three different categorical variables. The first is contraception knowledge which is assigned a value of 1 if a woman knows modern methods, 2 if she only knows traditional methods and 3 if she does not know of any method. In TDHS, women who know of any contraception methods have been further asked if they have ever used any of these methods in their lifetime. Therefore, a value of 1 is given if a woman has used a modern method, 2 if she has used a traditional method and 3 if she has never used a contraception method in her life. With the same logic, the final variable, the current contraception method used, takes the value of 1 if a woman is currently using a modern method, 2 if she is currently using a traditional method and 3 if she is not using any method. Therefore, the lower the contraception knowledge and usage, the higher the index value.

The third index, “attitudes towards domestic violence”, intends to address the power relations within the households through the extent of acceptance of domestic violence by the woman herself. The index makes use of the answers to the questions asking whether the respondent justifies a husband in beating his wife when she i) burns food, ii) neglects childcare, iii) argues with husband, iii) spends money needlessly, iv) refuses sexual intercourse. The variables are categorical and are awarded a score of 1 if a woman does not agree with the statements, 2 if she doesn't know or she thinks it depends on the situation, 3 if she agrees. Women who answered “don't know or depends” to the questions are not excluded from the analysis since it is believed that they also represent a position taken against domestic violence. A lower score is given to women who answer the question as don't know/depends than for the ones who agree with the statement; because, it is thought that their position may be slightly stronger relative to

women who directly justify domestic violence. Consistent with the other indices, the index value rises when a woman justifies domestic violence.

The final index generated from the available information in TDHS surveys is again attitudinal and called “attitudes towards gender equality”. This index captures the levels of female emancipation within the households more directly. Categorical variables are formed using the answers to the following statements: “important decisions should be made by men”, “men are usually wiser than women”, “a woman should not argue with her husband even if she does not agree with him” and “it is always better for the male child to have education than the female child”. Similar to the “attitudes against domestic violence” index, 1, 2 and 3 point is given respectively to those who disagree with the statements, who answered as “don’t know/depends” and who agree with the statements. With this index, it is aimed to analyze whether women themselves think that men are superior to women and to measure the extent of the traditional gender role attitudes among women. Once again, the index value increases when woman holds more traditional gender role attitudes.

Finally, it is important to note that TDHS surveys provide information on whether the woman was alone during the interview. This information is crucial since it is possible that women may not be honest while responding the questions if their husbands or elders in the family were with them during the interview. Consequently, this may blur our analysis on the prevalence of traditional values. In TDHS-98, only 3.43 percent of women were with their husbands or other male members of the household and/or with their mothers and mothers-in law during the interview, while this proportion is larger for TDHS-08 data at 13.26 percent. However, in terms of the reliability of data, 1.90 percent of responses were recorded as poor in the 2008 data compared to 3.41 percent in the 1998 data.<sup>14</sup> Although, it is not possible to be fully confident about the reliability of the information collected in surveys of this nature, these statistics are reassuring.

## CONSTRUCTION OF THE INDICES

Four different indices are developed, rather than constructing a single index, because it is believed that the indices are capturing separate dimensions of social norms and culture. Yet, within the indices, variables are selected in a way to ensure that they are related to one aspect of traditional values. However, there were still concerns about the interrelationships between the variables used in the indices. Therefore, in order to test whether each index measures one distinct extent of social norms and culture, the level of correlation between the variables within the indices is investigated. Kendall's tau b ( $\tau_b$ ) coefficient is employed for this purpose, since the majority of the index variables are ordinal and this makes adjustments for the ties that are common in discrete data (see Alan Agresti [1984]). Values of tau-b range from -1 which indicates perfect negative association to +1 which indicates perfect positive association and a value of 0 stands for no association. The results of Kendall tau-b are presented in Tables 1a-4a in the Appendix. It is seen that the variables within each index are statistically associated with each other, meaning that they are measuring the same dimension of women's attitudes.

After checking the correlation between the variables used in building the indices, the final step is to aggregate the variables within each index with a plausible weighting scheme. In other words, to get the common information inherited in the variables in the indices (Boris Branisa, Stephan Klasen and Maria Ziegler 2009). This is achieved with polychoric Principle Component Analysis introduced by Stanislav Kolenikov and Gustavo Angeles (2004; 2009). Basic principle component analysis, which is valid for normally distributed variables, is not employed because, as previously indicated, some of the variables used within the indices are ordinal. The first principle component is used as a proxy for the common information of the variables within the indices. Finally, it is important to note that the indices built in this study are all national indices.<sup>15</sup>

## DESCRIPTIVE DATA ANALYSIS OF THE TRENDS IN SOCIAL NORMS AND CULTURE

Tables 4-7 show the descriptive statistics for the selected variables in building up the indices for 1998 and 2008. Looking at Table 4, it is seen that the percentage of women who were below 19 years old at their first marriage is declining. However, in 2008, a considerable number of women (41.6 percent) were under age 19 when they got first married. Similarly, although the rates are decreasing, 24.26 percent of women in 2008 data were below 19 years old when they first became mothers. It can be asserted that women mostly have both religious and civil marriages. The proportions of women with only religious marriage are higher than those with only civil marriage; yet, very low proportions of women have only civil marriage each year. Although it is decreasing in prevalence, even in 2008, 18.09 percent of women report that a bride price was paid at their marriages. Moreover, the percentages of women who have kinship with their husbands remain high, around more than 25 percent, across the years.

**Table 4-**Descriptive statistics for the selected variables for “traditional marriage” index

	1998		2008	
	Frequency	Percent	Frequency	Percent
<b>Age at first marriage &lt; 19</b>	2,985	51.88	3,035	41.60
<b>Age had first child &lt; 19</b>	1,753	30.47	1,770	24.26
<b>Only civil marriage</b>	214	3.72	173	2.37
<b>Both civil and religious marriage</b>	5,021	87.26	6,757	92.63
<b>Only religious marriage</b>	519	9.02	365	5.00
<b>Husband or family paid bride price</b>	1,512	26.28	1,320	18.09
<b>Have kinship with husband</b>	1,467	25.50	1,903	26.09
<b>Total number of observations</b>	5,754		7,295	

*Source: TDHS-98, TDHS-08.*

It is seen that it is relatively common for women to know about contraception in Turkey, with more than 98 percent for each year (see Table 5). More than 80 percent of women report having used a contraception method in their life. The proportion of women who has never used a contraception method is falling, around 11 percent in 2008 compared to 17.5 percent in 1998. In addition, the share of women who have used a modern method of contraception in their lifetime is significantly higher than that of women who have used a traditional method.

**Table 5-**Descriptive statistics for the selected variables for “contraception knowledge and usage” index

	1998		2008	
	Frequency	Percent	Frequency	Percent
<b>(Knowledge of a contraception method)</b>				
Knows modern method	5,668	98.51	7,249	99.37
Knows traditional method	17	0.30	17	0.23
Doesn't know a contraception method	69	1.20	29	0.40
<b>(Ever used a contraception method)</b>				
Used modern method	3,802	66.08	5,421	74.31
Used traditional method	940	16.34	1,061	14.54
Never used a method	1,012	17.59	813	11.14
<b>(Current contraception method)</b>				
Modern method	2,060	35.80	3,113	42.67
Traditional method	1,420	24.68	1,840	25.22
Not using a contraception method	2,274	39.52	2,342	32.10
<b>Total number of observations</b>	<b>5,754</b>	<b>100</b>	<b>7,295</b>	<b>100</b>

Source: TDHS-98, TDHS-08.

As seen in Table 6, the number of women who justify domestic violence decreases significantly by 2008. However, almost one in five women still think that it is appropriate for a husband to beat his wife when she neglects childcare or spends money needlessly. Considering the attitudes surrounding gender equality, it can be said that women are becoming more supportive of gender equality over time. Even so, it is still important to note the prevalence of traditional gender role attitudes. For example, even in 2008, 43.35 percent of women agree that they should not argue with men, even when they disagree with them (see Table 7).

**Table 6-**Descriptive statistics for the selected variables for “attitudes towards domestic violence” index

	1998		2008	
	Frequency	Percent	Frequency	Percent
<b>A husband is justified in beating his wife is she...</b>				
<b>Burns food</b>				
Yes	458	7.96	428	5.87
No	5,249	91.22	6,846	93.85
Don` t know	47	0.82	21	0.29
<b>Neglects childcare</b>				
Yes	1,458	25.34	1,222	16.75
No	4,195	72.91	6,029	82.65
Don` t know	101	1.76	44	0.60
<b>Argues with Husband</b>				
Yes	2,113	36.73	921	12.63
No	3,484	60.56	6,296	86.31
Don` t know	156	2.71	78	1.07
<b>Spends money needlessly</b>				
Yes	1,347	23.41	1,241	17.01
No	4,210	73.17	5,986	82.06
Don` t know	197	3.42	68	0.93
<b>Refuses sexual intercourse</b>				
Yes	1,022	17.76	462	6.33
No	4,478	77.82	6,737	92.35
Don` t know	254	4.41	96	1.32
<b>Total</b>	<b>5,754</b>	<b>100</b>	<b>7,295</b>	<b>100</b>

Source: TDHS-98, TDHS-08.

**Table 7-**Descriptive statistics for the selected variables for “attitudes towards gender equality” index

	1998		2008	
	Frequency	Percent	Frequency	Percent
<b>Do you agree with the following statements?</b>				
<b>Important decisions should be made by men</b>				
Yes	2,292	39.83	1,456	19.96
No	3,367	58.52	5,784	79.29
Don` t know	95	1.65	55	0.75
<b>Men are usually wiser than women</b>				
Yes	1,894	32.92	1,253	17.18
No	3,616	62.84	5,782	79.26
Don` t know	244	4.24	260	3.56
<b>Woman should not argue with her husband even if she disagrees with him</b>				
Yes	2,731	47.46	3,205	43.93
No	2,852	49.57	3,991	54.71
Don` t know	171	2.97	99	1.36
<b>It is always better for the male child to have education than the female child</b>				
Yes	1,363	23.69	929	12.73
No	4,331	75.27	6,346	86.99
Don` t know	60	1.04	20	0.27
<b>Total</b>	<b>5,754</b>	<b>100</b>	<b>7,295</b>	<b>100</b>

Source: TDHS-98, TDHS-08

To summarize, although the incidence of traditional marriage is declining and women have increasingly liberal attitudes concerning domestic violence and gender equality, conservative or traditional social norms and culture still prevail in Turkey. Furthermore, to gain a better insight, Tables 5a-8a in the Appendix show the descriptive statistics according to the labor force participation status of women. It is seen that among currently working women, the shares indicating the influence of traditional marriage are higher for unpaid family workers and lower for wage workers. Moreover, unpaid family workers seem to have more accepting attitudes towards domestic violence and to be more traditional in terms of gender roles.

### **ESTIMATION RESULTS**

In the multinomial logit model, in order to compare the employment status of women, not working is used as a reference category. Moreover, with the aim of probing the effect of conservative or traditional social norms and culture, the multinomial logit model is estimated with and without the indices for 1998 and 2008. These results are presented in the Appendix in Tables 9a and 10a. For brevity's sake and since the role of these variables is well established in the literature (see Tansel [1998]; Dayioglu and Kasnakoglu [1997]; Dayioglu [2000]; Ince and Demir, 2006; Dayioglu and Kirdar [2010]), the interpretation of multinomial logit coefficients are not discussed in detail. However, to illustrate findings, gauge the significance of the results and to demonstrate whether including indices into the multinomial logit model provide an additional explanation for labor force participation status of women in Turkey, the probabilities of women being a wage worker, an unpaid family worker, self-employed and not working are calculated for two representative cases.

In case 1, women who are living in countryside, poorly educated and married to poorly educated men, living in either West Marmara, Mediterranean or Central East Anatolia are selected. In case 2, women who are living in city, highly educated and married to highly



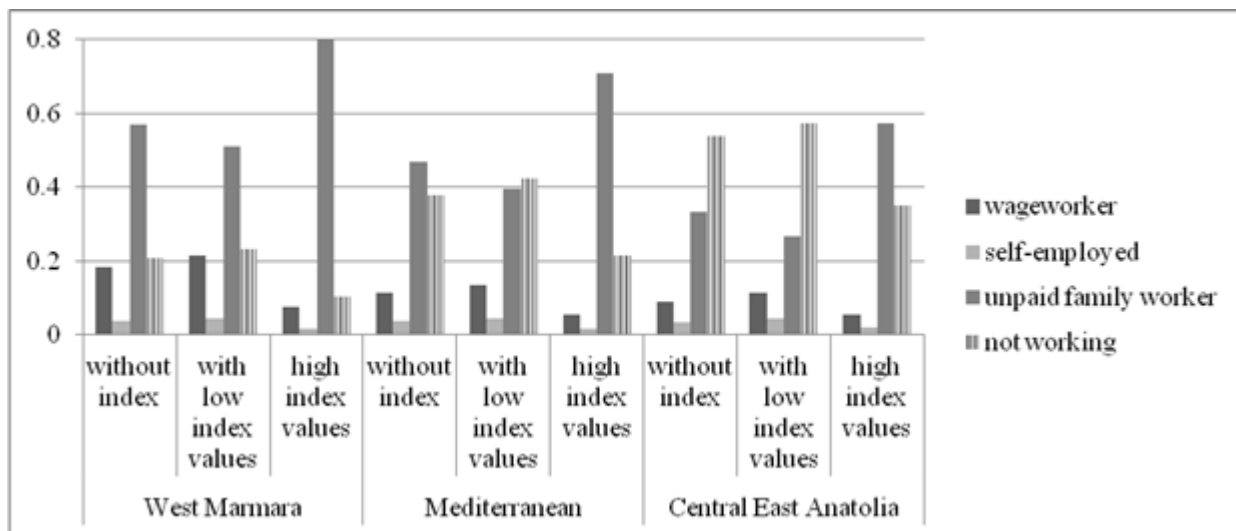
educated men, again living in either West Marmara, Mediterranean or Central East Anatolia are chosen. These regions are chosen to contrast the labor force participation probabilities for women living in a region with relatively high, intermediate and low level of development respectively. It is believed that these two cases will also illustrate the rural-urban and educational differences.

The probabilities for women with specified characteristics are first calculated using the multinomial logit coefficients without the inclusion of indices (the coefficients in Table 9a) for 1998 and 2008. Following that, the probabilities are calculated using the multinomial logit coefficients with the inclusion of indices (the coefficients in Table 10a) by using the lowest (least traditional or conservative) and highest values (most traditional or conservative) for each index to evaluate how probabilities change in response to changes in the effect of social norms and culture. For example, women with high index values are the ones who are more likely to support traditional gender roles, have an accepting attitude towards domestic violence, had a traditional marriage and have less knowledge and usage of contraception. The reverse holds for women with low index values. The probabilities for case 1 and 2 are reported in Figures 1 through 4.

The Figures indicate the substantial role of the indices on the probabilities for women's labor force participation status both in case 1 and case 2. Looking at the probabilities in case 1 (Figures 1 and 2), in line with the multinomial logit results, poorly educated women married to poorly educated men and living in the countryside are most likely to be an unpaid family worker in each region. This result is expected, given their and their partner's poor education. Moreover, the majority of the employed women in rural areas are unpaid family workers and they are mostly engaged in agricultural activities. More importantly, the probability of being an unpaid family worker increases dramatically with the high index values, that is when women are more affected by social norms and culture both in 1998 and 2008. To give an example, while the

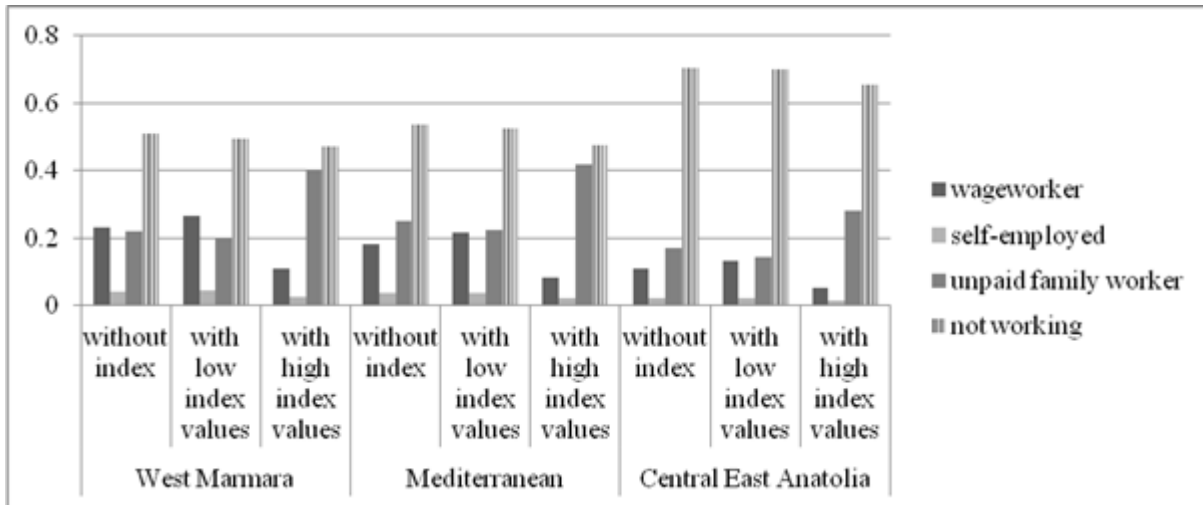
probability of being an unpaid family worker in the Mediterranean area is 40 percent with low index values, this figure increases to around 70 percent with high index values in 1998. By paying bride price to a woman`s family, the husband or his family actually invests in woman to use her as a workforce. Marrying and having children at a very young age is typical. Moreover, these women could have internalized traditional gender roles and could be accepting of domestic violence, as a result of growing in an environment where social norms working against women`s empowerment are normalized. These factors can provide an explanation for observing higher probability of being an unpaid family worker when women are more affected by traditional values. As expected, the probability of being a wage worker is lower when compared to being an unpaid family worker in case 1, and the chance of being a wage worker becomes slim when women are more constrained by traditional values, especially in Central East Anatolia.

**Figure 1-Case 1, 1998:** women who are living in countryside, poorly educated and married to poorly educated men, living in either West Marmara, Mediterranean or Central East Anatolia



Source: TDHS-98.

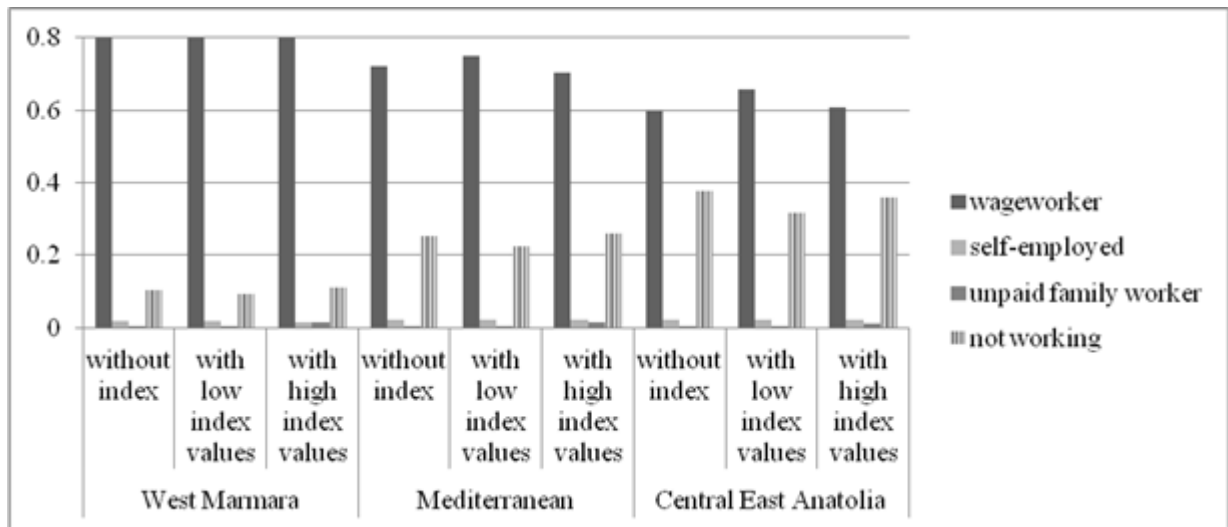
**Figure 2-Case 1, 2008:** women who are living in countryside, poorly educated and married to poorly educated men, living in either West Marmara, Mediterranean or Central East Anatolia



Source: TDHS-08.

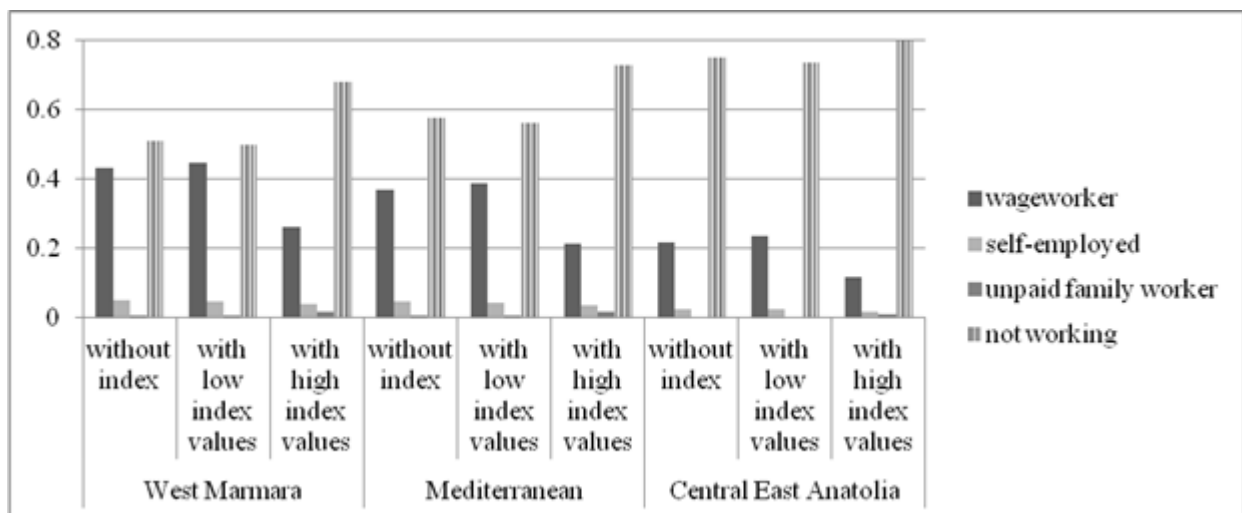
It is seen that social norms and culture remain important even when women are highly educated and married to highly educated men (see Figures 3 and 4 for case 2). Not surprisingly, highly educated women married to highly educated men, living in a city, are most likely to be wage workers and the highest probabilities are seen in West Marmara. However, the probability of being a wage worker decreases substantially with the high index values, especially in 2008, regardless of region. Correspondingly, the probability of not working rises with the value of the index. To give an example, in West Marmara (2008), the probability of being a wage worker decreases from 45 percent to around 25 percent, while the probability of not working increases from 50 percent to around 70 percent with low and high index values respectively.

**Figure 3-Case 2, 1998:** women who are living in city, highly educated and married to highly educated men, living in either West Marmara, Mediterranean or Central East Anatolia



Source: TDHS-98.

**Figure 4-Case 2, 2008:** women who are living in city, highly educated and married to highly educated men, living in either West Marmara, Mediterranean or Central East Anatolia



Source: TDHS-08.

## CONCLUSION

This study extends the previous literature by considering the role of social norms and culture when analyzing women`s employment in Turkey. Central to this paper was an investigation of whether traditional or conservative values provide an additional explanation for the low and stagnant labor force participation rates of women in the country. Using TDHS surveys for the years 1998 and 2008, it is shown that, although it is decreasing in prevalence over time, traditional marriages are still in effect, a considerable amount of women continue to internalize traditional gender roles and have accepting attitudes towards domestic violence. In order to analyze the employment outcomes of this situation, four indices, capturing the incidence of traditional marriages, awareness and use of contraception, women`s tolerance towards domestic violence and their attitudes towards gender equality, are developed and included in the multinomial logit model.

The results show that, even after controlling for the main determinants of female employment, such as age, education, rural-urban and regional differences, there is still a link between the traditional or conservative social norms and culture and employment outcomes. It is seen that traditional values strongly influence labor market outcomes of woman in Turkey, regardless of the level of education she has, or whether she lives in rural or urban areas of the country, or whether she lives in a region with a relatively high level of development, although the size and form of the effect differ across the factors. While conservative or traditional social norms and culture significantly reduce the highly educated, urban woman`s probability of being a wage worker and increase her chance of not working, they are also associated with an increased probability of a poorly educated, rural woman being compelled to carry out informal work in the role of being an unpaid family worker.

These results have important policy implications. They suggest that the policies aiming at increasing labor force participation rates of women in Turkey should acknowledge that social and cultural factors, especially the prevalence of traditional marriages along with the supportive attitudes towards domestic violence and traditional gender roles, hinder women`s employment in many forms. Policy makers should be aware that ignoring the effect of traditions and customs in Turkey can act as a brake on the usefulness and effectiveness of the policies. For example, improving women`s education will have a relatively limited impact on women`s employment, unless the education system is revised in the way that eliminates the mentality of traditional gender roles at early ages. Therefore, the objective should be to promote egalitarian social and cultural norms and legal codes in every step of policy decisions. This will enable women to participate in the labor force, and more importantly, ensure that they are not subject to labor market discrimination which could force them into more informal types of work. Accordingly, legislative reforms such as subsidized childcare and care for elderly, along with the introduction of parental leave laws that enable mothers and fathers to share the childcare, should be considered.

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## APPENDIX

### Tables

**Table 1a-**“Traditional marriage index”: Kendall Tau-b coefficients between the variables

(1998)		<b>Early marriage</b>	<b>Early motherhood</b>	<b>Civil or religious marriage</b>	<b>Brides price</b>
<b>Early motherhood</b>	Kendall tau-b p-value	0.621 0.00			
<b>Civil or religious marriage</b>	Kendall tau-b p-value	0.106 0.00	0.071 0.00		
<b>Brides price</b>	Kendall tau-b p-value	0.206 0.00	0.170 0.00	0.153 0.00	
<b>Kinship with husband</b>	Kendall tau-b p-value	0.123 0.00	0.102 0.00	0.124 0.00	0.112 0.00
(2008)		<b>Early marriage</b>	<b>Early motherhood</b>	<b>Civil or religious marriage</b>	<b>Brides price</b>
<b>Early motherhood</b>	Kendall tau-b p-value	0.627 0.00			
<b>Civil or religious marriage</b>	Kendall tau-b p-value	0.054 0.00	0.041 0.0004		
<b>Brides price</b>	Kendall tau-b p-value	0.199 0.00	0.151 0.00	0.131 0.00	
<b>Kinship with husband</b>	Kendall tau-b p-value	0.179 0.00	0.119 0.00	0.039 0.0008	0.145 0.00

Source: TDHS-98, TDHS-08

**Table 2a**–“Contraception knowledge and Usage index”: Kendall Tau-b coefficients between the variables

<b>(1998)</b>		Knowledge of a contraception method	Ever used a contraception method
Ever used a contraception method	Kendall tau-b	0.188	
	p-value	0.00	
Current contraception method	Kendall tau-b	0.117	0.534
	p-value	0.00	0.00
<b>(2008)</b>		Knowledge of a contraception method	Ever used a contraception method
Ever used a contraception method	Kendall tau-b	0.1458	
	p-value	0.00	
Current contraception method	Kendall tau-b	0.0844	0.4952
	p-value	0.00	0.00

Source: TDHS-98, TDHS-08.

**Table 3a**–“Attitudes towards domestic violence index”: Kendall Tau-b coefficients between the variables

<b>(1998)</b>		Burns food	Neglects child care	Argues with husband	Spends money needlessly
Neglects child care	Kendall tau-b	0.4003			
	p-value	0.00			
Argues with husband	Kendall tau-b	0.3268	0.4671		
	p-value	0.00	0.00		
Spends money needlessly	Kendall tau-b	0.3644	0.4616	0.4766	
	p-value	0.00	0.00	0.00	
Refuses sexual intercourse	Kendall tau-b	0.3535	0.3785	0.4386	0.467
	p-value	0	0	0	0
<b>(2008)</b>		Burns food	Neglects child care	Argues with husband	Spends money needlessly
Neglects child care	Kendall tau-b	0.4351			
	p-value	0			
Argues with husband	Kendall tau-b	0.4383	0.4829		
	p-value	0	0		
Spends money needlessly	Kendall tau-b	0.4127	0.5425	0.5285	
	p-value	0	0	0	
Refuses sexual intercourse	Kendall tau-b	0.4712	0.4126	0.4591	0.4673
	p-value	0	0	0	0

Source: TDHS-98, TDHS-08.

**Table 4a-**“Attitudes towards gender equality index”: Kendall Tau-b coefficients between the variables -1998, 2008

<b>(1998)</b>		Statement 1	Statement 2	Statement 3
Statement 2	Kendall tau-b p-value	0.5127 0		
Statement 3	Kendall tau-b p-value	0.4215 0	0.4082 0	
Statement 4	Kendall tau-b p-value	0.3848 0	0.4522 0	0.3056 0
<b>(2008)</b>		Statement 1	Statement 2	Statement 3
Statement 2	Kendall tau-b p-value	0.3343 0		
Statement 3	Kendall tau-b p-value	0.2642 0	0.1841 0	
Statement 4	Kendall tau-b p-value	0.2788 0	0.2988 0	0.1725 0

Source: TDHS-98, TDHS-08. **Statement 1:** Important decisions should be made by men, **Statement 2:** Men are usually wiser than women, **Statement 3:** Woman should not argue with her husband even if she disagrees with him, **Statement 4:** It is always better for the male child to have education than the female child

**Table 5a-**Descriptive statistics for the selected variables for “traditional marriage” index according to labor force participation status (in percentages)

	<b>1998</b>				<b>2008</b>			
	Not working	Wage worker	Self-employed	Unpaid family worker	Not working	Wage worker	Self-employed	Unpaid family worker
<b>Age at first marriage &lt; 19</b>	53.16	31.54	53.62	59.30	42.80	27.65	36.74	51.96
<b>Age had first child &lt; 19</b>	31.49	18.20	32.13	33.54	24.75	15.60	24.82	30.51
<b>Only civil marriage</b>	3.41	7.63	3.62	2.31	1.96	4.31	3.65	2.21
<b>Both civil and religious marriage</b>	86.32	89.08	88.91	89.79	92.72	91.59	93.43	92.77
<b>Only religious marriage</b>	10.27	3.29	7.47	7.90	5.33	4.09	2.92	5.02
<b>Husband or family paid bride price</b>	27.34	14.56	20.81	32.69	19.35	8.74	10.71	24.26
<b>Have kinship with husband</b>	26.46	15.77	26.47	27.34	26.55	18.69	21.90	33.46

Source: TDHS-98, TDHS-08

**Table 6a-**Descriptive statistics for the selected variables for “contraception knowledge and usage” index according to labor force participation status (in percentages)

	1998				2008			
	Not working	Wage worker	Self-employed	Unpaid family worker	Not working	Wage worker	Self-employed	Unpaid family worker
<b>Knowledge of a contraception method</b>								
Knows modern method	98.38	99.83	98.42	98.18	99.32	99.56	99.76	99.26
Knows traditional method	0.21	0.17	0.23	0.85	0.25	0.11	0.24	0.37
Don't know contraception method	1.41	0.00	1.36	0.97	0.43	0.33	0.00	0.37
<b>Ever used a contraception method</b>								
Used modern method	64.78	75.56	76.7	60.15	73.99	79.09	79.56	68.38
Used traditional method	15.5	12.31	13.57	24.3	14.08	13.16	12.17	20.22
Never used a method	19.71	12.13	9.73	15.55	11.93	7.74	8.27	11.4
<b>Current contraception method</b>								
Modern method	35.04	43.15	43.67	30.13	41.89	49.23	44.28	39.58
Traditional method	23.33	23.05	21.49	33.66	24.63	23.34	24.57	31.37
Not using a contraception method	41.63	33.8	34.84	36.21	33.48	27.43	31.14	29.04

Source: TDHS-98, TDHS-08

**Table 7a-**Descriptive statistics for the selected variables for “attitudes towards domestic violence” index according to labor force participation status (in percentages)

	1998				2008			
	Not working	Wage worker	Self-employed	Unpaid family worker	Not working	Wage worker	Self-employed	Unpaid family worker
<b>A husband is justified in beating his wife is she...</b>								
<b>Burns food</b>								
Yes	7.16	6.07	7.69	13.37	5.67	4.87	3.89	9.19
No	92.17	93.07	91.86	84.93	94.05	95.02	95.62	90.32
Don't know	0.67	0.87	0.45	1.7	0.27	0.11	0.49	0.49
<b>Neglects childcare</b>								
Yes	24.31	16.64	26.47	35.84	16.63	13.05	12.9	23.53
No	74.05	82.32	72.4	61.00	82.78	86.5	86.86	75.37
Don't know	1.64	1.04	1.13	3.16	0.58	0.44	0.24	1.1
<b>Argues with husband</b>								
Yes	35.04	26.34	35.29	52.98	12.1	10.51	10.22	19.49
No	62.23	72.27	61.09	43.86	86.68	89.27	88.81	79.41
Don't know	2.72	1.39	3.62	3.16	1.22	0.22	0.97	1.1
<b>Spends money needlessly</b>								
Yes	21.87	15.77	23.08	36.33	16.96	10.95	14.6	25.25
No	74.92	82.32	74.21	57.72	82.03	88.72	84.91	73.41
Don't know	3.21	1.91	2.71	5.95	1.01	0.33	0.49	1.35
<b>Refuses sexual intercourse</b>								
Yes	16.76	14.73	18.55	24.42	6.27	5.09	3.65	9.44
No	79.47	82.84	76.24	67.19	92.29	94.36	96.11	88.6
Don't know	3.77	2.43	5.20	8.38	1.43	0.55	0.24	1.96

Source: TDHS-98, TDHS-08



**Table 8a-**Descriptive statistics for the selected variables for “attitudes towards gender equality” index according to labor force participation status (in percentages)

	1998				2008			
	Not working	Wage worker	Self-employed	Unpaid family worker	Not working	Wage worker	Self-employed	Unpaid family worker
<b>Do you agree with the following statements?</b>								
<b>Important decisions should be made by men</b>								
Yes	39.32	27.38	38.01	52.13	20.1	11.17	16.06	30.76
No	59.32	71.92	60.41	44.11	79.14	88.61	82.73	68.14
Don't know	1.36	0.69	1.58	3.77	0.76	0.22	1.22	1.1
<b>Men are usually wiser than women</b>								
Yes	31.31	23.4	31.22	48.24	17.04	13.72	13.38	23.77
No	64.3	74.87	65.38	45.93	79.26	83.19	84.91	72.06
Don't know	4.39	1.73	3.39	5.83	3.7	3.1	1.70	4.17
<b>Woman should not argue with her husband even if she disagrees with him</b>								
Yes	46.48	31.37	48.64	62.82	45.00	32.19	45.74	49.26
No	50.44	67.76	47.51	33.66	53.7	66.26	53.04	49.14
Don't know	3.08	0.87	3.85	3.52	1.3	1.55	1.22	1.59
<b>It is always better for the male child to have education than the female child</b>								
Yes	21.87	15.25	24.89	37.79	13.09	9.96	9.00	15.44
No	77.18	84.23	73.76	60.51	86.60	90.04	90.75	84.19
Don't know	0.95	0.52	1.36	1.7	0.31	0.00	0.24	0.37

Source: TDHS-98, TDHS-08

**Table 9a- Estimation results without the inclusion of the indices - 1998, 2008**

	Wage worker				Self-employed				Unpaid family worker			
	1998		2008		1998		2008		1998		2008	
Age	0.361***	(0.06)	0.389***	(0.05)	0.247***	(0.05)	0.428***	(0.07)	0.099**	(0.04)	0.078*	(0.04)
Agesquared	-0.005***	(0.00)	-0.006***	(0.00)	-0.004***	(0.00)	-0.006***	(0.00)	-0.001**	(0.00)	-0.001	(0.00)
<b>Region (North East Anatolia: ref. category)</b>												
Istanbul	1.816***	(0.49)	0.749***	(0.22)	-0.309	(0.31)	0.049	(0.27)	0.449	(0.37)	-1.092***	(0.34)
West Marmara	2.127***	(0.51)	1.056***	(0.22)	0.385	(0.34)	0.156	(0.29)	1.595***	(0.32)	-0.500**	(0.25)
Aegean	2.188***	(0.48)	1.205***	(0.21)	0.337	(0.29)	0.418	(0.27)	1.472***	(0.30)	0.653***	(0.20)
East Marmara	1.663***	(0.51)	1.057***	(0.21)	0.430	(0.30)	0.882***	(0.25)	1.364***	(0.34)	0.201	(0.21)
West Anatolia	1.404***	(0.50)	0.292	(0.23)	-0.046	(0.31)	-0.100	(0.28)	1.019***	(0.33)	-0.428*	(0.24)
Mediterranean	1.128**	(0.49)	0.819***	(0.20)	-0.326	(0.29)	-0.049	(0.25)	0.862***	(0.30)	-0.454**	(0.19)
Central Anatolia	1.049**	(0.53)	-0.121	(0.25)	0.233	(0.31)	-0.206	(0.29)	0.832***	(0.31)	-0.651***	(0.23)
West Black Sea	1.543***	(0.49)	0.724***	(0.22)	0.314	(0.29)	0.857***	(0.24)	2.223***	(0.30)	0.526***	(0.19)
East Black Sea	2.059***	(0.51)	1.154***	(0.24)	0.973***	(0.30)	0.423	(0.32)	2.812***	(0.31)	2.222***	(0.20)
Central East Anatolia	0.376	(0.58)	-0.092	(0.25)	-0.697*	(0.38)	-0.981***	(0.35)	0.036	(0.36)	-1.144***	(0.24)
South East Anatolia	1.264**	(0.50)	0.395*	(0.22)	-0.784**	(0.33)	-0.506*	(0.28)	0.028	(0.32)	-0.292	(0.18)
<b>Migration status (ref.: Never Moved)</b>												
Moved to a different place less than 10 years ago	0.068	(0.13)	0.252***	(0.09)	-0.348***	(0.13)	-0.002	(0.12)	-0.519***	(0.12)	0.211**	(0.10)
Moved to a different place 10 years ago or more	0.022	(0.13)	0.081	(0.12)	-0.110	(0.13)	-0.118	(0.16)	-0.383***	(0.12)	0.107	(0.14)
<b>Current residence (ref.: City)</b>												
Town	0.058	(0.15)	-0.025	(0.10)	0.139	(0.14)	-0.067	(0.13)	1.122***	(0.16)	0.705***	(0.14)
Countryside	0.794***	(0.14)	0.660***	(0.10)	0.471***	(0.13)	-0.011	(0.15)	2.812***	(0.14)	2.478***	(0.12)
<b>Women`s education (ref.: No education)</b>												
Incomplete primary	-0.098	(0.28)	0.219	(0.21)	0.500**	(0.24)	0.185	(0.28)	-0.041	(0.20)	-0.153	(0.20)
Complete primary	0.066	(0.16)	-0.001	(0.15)	0.410**	(0.16)	0.181	(0.19)	0.190	(0.13)	0.194	(0.13)
Incomplete secondary	-0.050	(0.27)	0.399	(0.30)	0.457**	(0.23)	0.233	(0.40)	-0.325	(0.24)	0.344	(0.31)
Complete secondary	1.486***	(0.21)	0.139	(0.21)	0.100	(0.26)	0.403	(0.26)	-0.927***	(0.34)	-0.551**	(0.23)
Higher Education	3.559***	(0.26)	1.685***	(0.17)	0.882**	(0.39)	0.467**	(0.23)	-0.340	(0.76)	-1.041***	(0.24)

**Table 9a continued**

	Wage worker				Self-employed				Unpaid family worker			
	1998		2008		1998		2008		1998		2008	
<b>Presence of child under age 6 (ref.:no children or none under age 6)</b>												
1 or 2 child under age 6	-0.432***	(0.12)	-0.630	(0.09)	-0.339***	(0.12)	-0.304**	(0.12)	-0.127	(0.10)	-0.181*	(0.10)
More than 2 children under age 6	-1.125**	(0.44)	-0.331	(0.25)	-1.315***	(0.43)	-0.646	(0.47)	0.347*	(0.20)	0.003	(0.21)
<b>Marital status (ref.: married)</b>												
Widowed	0.476*	(0.29)	-0.264	(0.32)	0.526*	(0.28)	0.574**	(0.29)	-0.854**	(0.35)	-0.376	(0.32)
Divorced	1.647***	(0.33)	0.686***	(0.21)	1.407***	(0.36)	0.862***	(0.27)	-0.058	(0.67)	-0.525	(0.45)
Not living together	1.326**	(0.53)	0.622*	(0.37)	0.379	(0.77)	0.748	(0.46)	-0.871	(1.09)	-0.732	(0.65)
<b>Partner's education (ref.: no education)</b>												
Incomplete primary	-0.304	(0.34)	-0.206	(0.33)	-0.626*	(0.38)	0.461	(0.44)	-0.422	(0.30)	0.146	(0.35)
Complete primary	-0.665***	(0.22)	-0.384*	(0.23)	-0.552**	(0.22)	0.049	(0.35)	-0.179	(0.18)	0.572**	(0.24)
Incomplete secondary	-0.901***	(0.24)	-0.409	(0.28)	-0.591**	(0.23)	0.313	(0.40)	-0.495**	(0.21)	0.597**	(0.29)
Higher education	-0.743***	(0.28)	-0.546*	(0.24)	-0.638**	(0.30)	-0.200	(0.36)	-1.265***	(0.37)	0.327	(0.25)
Constant	-9.433***	(1.08)	-8.972***	(0.83)	-5.742***	(0.94)	-10.235***	(1.23)	-5.640***	(0.77)	-5.402***	(0.82)
N total	5,721		7,252		5,721		7,252		5,721		7,252	

Source: TDHS-98, TDHS-08. \*, \*\*, \*\*\* indicate statistical significance at 10%, 5% and 1% respectively. Standard errors are in parenthesis.

**Table 10a-Estimation results with the inclusion of the indices – 1998, 2008**

	Wage Worker				Self-employed				Unpaid Family Worker			
	1998		2008		1998		2008		1998		2008	
Age	0.329***	(0.06)	0.355***	(0.05)	0.203***	(0.06)	0.419***	(0.07)	0.111**	(0.05)	0.085*	(0.05)
Agesquared	-0.005***	(0.00)	-0.005***	(0.00)	-0.003***	(0.00)	-0.006***	(0.00)	-0.001**	(0.00)	-0.001	(0.00)
<b>Region (North East Anatolia: ref. category)</b>												
Istanbul	1.876***	(0.49)	0.726***	(0.22)	-0.226	(0.32)	0.034	(0.27)	0.622*	(0.38)	-1.017***	(0.34)
West Marmara	2.120***	(0.51)	1.015***	(0.23)	0.404	(0.34)	0.126	(0.30)	1.733***	(0.32)	-0.375	(0.25)
Aegean	2.176***	(0.49)	1.165***	(0.22)	0.359	(0.29)	0.395	(0.27)	1.503***	(0.31)	0.735***	(0.20)
East Marmara	1.635***	(0.51)	1.017***	(0.22)	0.428	(0.31)	0.861***	(0.25)	1.418***	(0.34)	0.296	(0.22)
West Anatolia	1.379**	(0.50)	0.263	(0.23)	-0.054	(0.31)	-0.111	(0.28)	1.080***	(0.33)	-0.345	(0.24)
Mediterranean	1.131**	(0.49)	0.796***	(0.20)	-0.296	(0.29)	-0.059	(0.25)	0.930***	(0.30)	-0.360*	(0.19)
Central Anatolia	1.005*	(0.53)	-0.138	(0.25)	0.182	(0.31)	-0.211	(0.29)	0.784**	(0.32)	-0.619***	(0.23)
West Black Sea	1.548***	(0.49)	0.689***	(0.22)	0.328	(0.29)	0.851***	(0.24)	2.263***	(0.30)	0.576***	(0.20)
East Black Sea	2.110***	(0.51)	1.149***	(0.24)	1.059***	(0.31)	0.409	(0.32)	2.967***	(0.31)	2.321***	(0.21)
Central East Anatolia	0.511	(0.58)	-0.088	(0.25)	-0.580	(0.38)	-0.980***	(0.35)	0.089	(0.36)	-1.124***	(0.24)
South East Anatolia	1.349***	(0.50)	0.412*	(0.22)	-0.692**	(0.33)	-0.504*	(0.28)	0.012	(0.32)	-0.244	(0.18)
<b>Migration status (ref.: Never Moved)</b>												
Moved to a different place less than 10 years ago	0.073	(0.13)	0.255***	(0.09)	-0.327**	(0.13)	0.001	(0.12)	-0.475***	(0.12)	0.210**	(0.10)
Moved to a different place 10 years ago or more	0.038	(0.13)	0.086	(0.12)	-0.127	(0.13)	-0.107	(0.16)	-0.346***	(0.12)	0.165	(0.14)
<b>Current residence (ref.: City)</b>												
Town	0.033	(0.15)	-0.018	(0.10)	0.134	(0.14)	-0.063	(0.13)	1.082***	(0.16)	0.701***	(0.14)
Countryside	0.761***	(0.14)	0.688***	(0.11)	0.482***	(0.13)	0.012	(0.15)	2.742***	(0.14)	2.459***	(0.12)
<b>Women`s education (ref.: No education)</b>												
Incomplete primary	-0.085	(0.28)	0.198	(0.21)	0.488**	(0.24)	0.163	(0.28)	-0.022	(0.20)	-0.118	(0.20)
Complete primary	0.098	(0.17)	-0.065	(0.15)	0.453***	(0.16)	0.129	(0.19)	0.332**	(0.13)	0.285***	(0.13)
Incomplete secondary	0.045	(0.28)	0.318	(0.31)	0.542**	(0.24)	0.160	(0.40)	-0.024	(0.25)	0.452	(0.31)
Complete secondary	1.564***	(0.23)	0.052	(0.22)	0.232	(0.27)	0.332	(0.27)	-0.595*	(0.35)	-0.426*	(0.24)
Higher Education	3.631***	(0.28)	1.544***	(0.18)	1.037***	(0.40)	0.379	(0.25)	0.033	(0.77)	-0.853***	(0.25)
<b>Presence of child under age 6 (ref.:no children or has children but none under age 6)</b>												
1 or 2 child under age 6	-0.483***	(0.12)	-0.671***	(0.09)	-0.392***	(0.12)	-0.309**	(0.13)	-0.133	(0.11)	-0.183*	(0.10)
More than 2 children under age 6	-1.121**	(0.44)	-0.352	(0.25)	-1.350***	(0.43)	-0.632	(0.47)	0.359*	(0.20)	-0.030	(0.21)

**Table 10a (continued)**

	Wage Worker				Self-employed				Unpaid Family Worker			
	1998		2008		1998		2008		1998		2008	
<b>Marital status (ref.: married)</b>												
Widowed	0.554*	(0.29)	-0.127	(0.33)	0.670**	(0.28)	0.611**	(0.30)	-0.916**	(0.36)	-0.385	(0.33)
Divorced	1.794***	(0.33)	0.799***	(0.22)	1.616***	(0.36)	0.875**	(0.28)	0.019	(0.67)	-0.465	(0.45)
Not living together	1.457***	(0.53)	0.758**	(0.37)	0.563	(0.77)	0.759	(0.46)	-0.893	(1.10)	-0.615	(0.65)
<b>Partner's education (ref.: no education)</b>												
Incomplete primary	-0.374	(0.35)	-0.205	(0.33)	-0.667*	(0.38)	0.469	(0.44)	-0.413	(0.30)	0.156	(0.35)
Complete primary	-0.709***	(0.22)	-0.420*	(0.23)	-0.580***	(0.22)	0.033	(0.35)	-0.109	(0.19)	0.585**	(0.24)
Incomplete secondary	-0.918***	(0.25)	-0.456	(0.29)	-0.589**	(0.24)	0.284	(0.40)	-0.341	(0.21)	0.652**	(0.30)
Higher education	-0.767***	(0.28)	-0.595**	(0.24)	-0.666**	(0.30)	-0.230	(0.36)	-1.109***	(0.37)	0.383	(0.25)
Traditional marriage index	-0.098	(0.06)	-0.105**	(0.05)	0.057	(0.06)	-0.017	(0.06)	0.085*	(0.05)	0.136***	(0.05)
Contraception usage and knowledge index	-0.141**	(0.07)	-0.137***	(0.05)	-0.238***	(0.07)	-0.029	(0.07)	-0.010	(0.06)	-0.048	(0.05)
Attitudes towards domestic violence index	0.135**	(0.06)	0.089*	(0.05)	0.089	(0.05)	-0.043	(0.07)	0.168***	(0.04)	0.064	(0.04)
Attitudes towards gender equality index	0.057	(0.06)	-0.068	(0.05)	0.022	(0.06)	-0.035	(0.07)	0.082*	(0.05)	0.025	(0.05)
constant	-8.893***	(1.13)	-8.257***	(0.86)	-5.064***	(1.00)	-10.026***	(1.27)	-6.159	(0.83)	-5.700	(0.86)
N total	5,720		7,252		5,720		7,252		5,720		7,252	

Source: TDHS-98, TDHS-08. \*, \*\*, \*\*\* indicate statistical significance at 10%, 5% and 1% respectively. Standard errors are in parenthesis.

## ENDNOTES

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<sup>1</sup> The labor force participation rates of men were 71.0 percent in 2012 (Turkish Statistics Institute [TSI] 2012). The figures cover individuals age 15 plus.

<sup>2</sup> The labor force participation rates in urban areas were about 17 percent during 1988 and 1999 (TSI 1988, 1999). The recorded participation rates of women in urban areas were more than 20 percent for the first time in 2008 (TSI, 2008). While the labor force participation rates of women were 26.01 percent in 2012, this figure was 34.6 percent in rural areas (TSI 2012).

<sup>3</sup> For further discussion on women`s employment in Turkey in the MENA context, please see Ilkkaracan, 2010.

<sup>4</sup> Women`s employment rates in Turkey were reported as 26.3 percent in 2012 (TSI 2012).

<sup>5</sup> It has firstly been argued by Ester Boserup (1970) that the labor force participation rates of women are high in the pre-industrialized countries. However, the probability of women being economically active decreases with the specialization and mechanization of agricultural activities at the early phase of industrialization. The upward sloping part of the U-shaped curve has been explained by various practices seen in the advanced industrialized economies such as less discriminatory practices in the labor markets and the expansion of the service sector.

<sup>6</sup> Another religious conservative party, Welfare Party (RP) ran the government with a coalition partner between 1997 and 1998. However, the constitutional court dissolved the party on the grounds of violating the principle of secularism in the constitution in 1998.

<sup>7</sup> For full discussion of multinomial logit model, see Daniel Mc Fadden (1973) and Thomas A. Domencich and Daniel Mc Fadden (1975).

<sup>8</sup> Please see the Data section for more information about the surveys.

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<sup>9</sup> In the TDHS surveys, the first question to identify whether woman is working or not is: “Aside from your own housework, have you done any paid or unpaid work in the last seven days?” Therefore, women’s unpaid caring activities are automatically excluded.

<sup>10</sup> Please see Dante Contreras and Gonzalo Plaza (2010) for a similar discussion for Chilean labor market.

<sup>11</sup> These exclusions resulted in very small changes in the sample size and no groups were disproportionately affected by the reduction in the sample size.

<sup>12</sup> The unemployment rate among university graduates has increased from 5.9 percent in 2000 to 8.1 percent in 2008 for men while this figure has increased from 8.2% to 20.6% for women at the same time period (TSI 2000, 2008). (The figures cover individuals age 15 plus)

<sup>13</sup> Unlike dowry, which is paid to the groom or bride to establish a new house, the bride price is a money or property given by the groom or his family to bride’s family by virtue of the marriage of their daughters with the groom.

<sup>14</sup> The information about the reliability of responses is subject to interviewers’ interpretations. The majority of the interviewers in TDHS-98 were university graduates while they were all university graduates for TDHS-08. Interviewers were given three weeks of training related to demographics of Turkey, family planning, mother and child health, questionnaire training, field practice in areas not covered in the survey etc. by the members of Hacettepe Institute for Population Studies (Hacettepe Institute for Population Studies 1999, 2009).

<sup>15</sup> While constructing these indices, the initial attempt was to develop regional-level indices. It is believed that this would provide a further insight to the considerable regional differences in women’s socio-economic and cultural characteristics and allow a more comprehensive reflection of women’s attitudes according to the regions they live in. However, this attempt was not successful because of the reduction in the sample size when the data was divided into regions. Moreover, due to the reduction in the sample size, we are left with very few

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observations for some categories in the categorical variables used in the indices. To give an example, in 2008 data, there were 1 in 386 women who know only traditional contraception methods in the East Black Sea region. Hence, the polychoric principle component analysis did not give robust results at regional-level.