THE REASONS OF DECREASING TREND OF FEMALE LABOUR FORCE PARTICIPATION IN TURKEY: THE ROLE OF CONSERVATISM

Idil Goksel

Izmir University of Economics*

Abstract

The aim of this paper is to investigate the main determinants of the participation decision of females in the labour force in Turkey. Turkey is a particularly important case as, unlike in many other countries, female labour force participation has shown a decreasing trend in the last 50 years. This paper aims to elaborate on the causes of this decrease. In addition to the main determinants found in previous literature, this paper adds a new variable that influences female labour force participation in Turkey: Conservatism and the role of traditional and social norms. An original proxy for conservatism is created by using a unique data set about perceptions. Four indices that might influence conservatism are formed: Tradition, social norms, men's decision power, and conservatism. The results are in accordance with the previous literature in emphasizing that urbanization, and education level play an important role in the participation decision of women. However, these factors are not sufficient to explain the decline in female labour force participation. This paper presents a new concept by showing that social norms, tradition and men's higher bargaining power play a negative role in the probability of women working in urban areas, while they do not have any significant influence in rural areas. Furthermore, this paper shows a new possible explanation for the link between urbanization and female labour force participation. Higher urbanization causes higher conservatism, which leads to lower female labour force participation.

Keywords: female labour force participation, gender, conservatism

JEL code: J16, J21

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^{*} Izmir University of Economics, Sakarya Cad. No:156, 35330, Balcova, Izmir TURKEY idil.goksel@ieu.edu.tr

I. Introduction

This paper aims to determine the influence of conservatism on female labour force participation, mainly on the contribution of women to their households in Turkey. Turkey is chosen as it shows a particularly different trend than many other countries regarding female labour force participation (FLFP). Over the last 50 years, Turkey's FLFP has been decreasing. Moreover, according to the Global Gender Gap Report 2009². Turkey has the 6th lowest global gender gap index and the 5th lowest rank in economic participation and opportunity for women.³ The only countries among the 130 in the sample that perform worse than Turkey are Saudi Arabia, Benin, Pakistan, Chad and Yemen. A closer examination of the gender gap sub-indices shows that Turkey has the 10th lowest female labour force participation rate and the 12th lowest share of women in ministerial positions among 130 countries. 4 Worst of all, Turkey has the lowest gender gap index ranking in the upper middle income group that it belongs to. It is important to elaborate on the reasons behind this fact in order to determine future policies both for Turkey and for those other developing countries potentially facing similar problems. Furthermore, being a link between the East and the West both geopolitically and culturally, Turkey plays an important role in the region's economy and politics. Especially during the integration process of Turkey with European Union, it is essential to identify such problems and to propose possible solutions.

Figures 1 to 3 present the evolution of fertility, female education and female labour force participation rates, respectively. While the level of education increases, the fertility and female labour force participation rates decrease over time. Accordingly, neither of these factors can be responsible for the decreasing trend in female labour force participation.

There is a huge amount of literature on the subject of female labour force participation in an international framework. Tzannatos (1999) examines the level of and changes in female and male participation rates, employment segregation and female wages relative to those of male wages across the world economy. He finds sufficient evidence to support the view that labour markets in developing countries are being transformed relatively quickly in the sense that gender differentials in employment and pay are narrowing much faster at present compared to the corresponding processes that occurred previously in industrialised countries.

Blau and Kahn (2007) investigate married women's labour supply from 1980 to 2000, finding a large rightward shift in their labour supply function for annual hours in the

² World Economic Forum (Geneva, Switzerland 2009.

¹ Fernandez and Fogli (2005)

³ When gender gap index equals to one it means equality between males and females. In 2009 Iceland has the highest ranking with an index of 0.8276. The index value for Turkey is 0.5828.

⁴ It is interesting to observe such a trend in Turkey, especially when we consider the fact that it was one of the first countries where women received their right to vote and to be voted (1930, 1934).

1980s, with a little shift in the 1990s. There are also studies done on the female labour force participation rate in Turkey and some of them try to explain the decline observed in recent decades.⁵

In addition to the main determinants found in the previous literature, this paper adds a new variable that influences the contribution of females to their households in Turkey: Conservatism and the role of tradition and social norms in Turkey. An original proxy for conservatism is created, using a unique data set about perceptions in Turkey. Three indices potentially influencing conservatism are formed: Tradition, social norms, and men's decision power, which are combined to see the general influence of being conservative in social terms.

The idea of explaining economic outcomes by social norms, religion and tradition is not new in the literature. Fernandez and Fogli (2009) emphasise that Turkey is the only OECD country in which FLFP has decreased over time, but this issue is not their main concern. They make use of a 1970 census and their sample consists of women born in the US but whose parents were born elsewhere. They use past FLFP and ancestral fertility rates as cultural proxies and find a positive and significant power of this proxy for decisions of members of the current generation about work and fertility. They claim that neither unobserved human capital nor networks are likely to be responsible for this causality.

Recently, there has been an increasing trend in the number of papers that combine sociology and economic outcomes. The economic literature is enriched by papers that investigate the relationship between religion and economic performance (Iannaccone, 1998; Noland, 2005; McCleary and Barro, 2006; Becker and Woessmann, 2009), intergenerational transmission of ethnic and religious traits (Bisin and Verdier, 2000), the relationship between social norms and female labour force participation (Hazan and Maoz, 2002; Vendrik, 2003; Fernandez and Fogli, 2004; Burda et al., 2007), the connection between culture and economic outcomes (Guiso et al., 2006; Giavazzi, 2009), and the correlation between culture and institutions (Greif, 1994; Tabellini, 2005). This paper connects such literature with the one on female labour force participation. To my knowledge, it is one of the first attempt at creating indices specifically aimed at explaining conservatism in Turkey. Furthermore, this study aims to disentangle the roots of conservatism, and identify the relative influences on women's contribution to the household income o three factors, tradition, decision power and the existence of strong social norms.

The outline of this paper is as follows: The next section is devoted to the literature review and discussion on female labour force participation in Turkey. In section 3, I give a brief explanation about conservatism in Turkey and in section 4, I describe the model. The data are explained in section 5, while section 6 presents the methodology and section 7 the estimation results. Section 8 is devoted to robustness analysis while the final section 9 concludes.

⁵ More information about these studies can be found in the next section.

II. Literature Review and Discussion on Female Labour Force Participation in Turkey

Here I mainly focus on FLFP in Turkey as this is closely related with the contribution of females to their household incomes. If a woman does not work, her contribution to the household real income would be zero unless she has some property that she can lend out. Also, the contribution of females gives us an idea about the wage gaps between males and females. In spite of working, a woman may still earn less than her husband, which would cause a lower bargaining power at home. Lastly, because it is easier to find information about FLFP than female's contribution to the household, the literature mainly focuses on this. Although, here, I give general information on FLFP in Turkey, the overall aim of this paper is to investigate the share of female's income to the total income of the household.

The recent literature on FLFP in Turkey categorises the main reasons of the decrease in FLFP into six groups. One main reason frequently emphasised is urbanisation (Ilkkaracan, 1998; Başlevent and Onaran, 2002). In Turkey, there has been a continuing migration from rural to urban areas since 1950s, the various reasons for which are outside the scope of this paper, but it is mainly due to the lack of importance and support given to the agricultural sector in Turkey. A few decades ago, Turkey was an agricultural country, but with the increase of industrialisation, the resources shifted to the industrial sector. The second reason discussed in the literature is availability and affordability of childcare institutions (Acar, 2008). Though I agree that this is an important aspect, I do not concur that in itself it can fully explain the decreasing trend in FLFP. Childcare institutions have been improving in Turkey and one year of pre-school education has recently been made compulsory. Moreover, the fertility rate in Turkey has been decreasing.

Another factor that is claimed to be the reason for decreasing FLFP is the U-shaped characteristic of labour force participation (Çagatay and Özler, 1995; Tansel, 2002). Tansel (2002) explains this pattern as follows: "the participation of women in the labour force is higher when agriculture is the dominant form of the economic activity. With development, economic activity shifts from home based production to market based activities. Markets' expansion and new innovations causes income to increase, hence decreases FLFP. Women may not be able to compete with men in the new sectors due to lack of education and due to tradition, culture and household responsibilities. Moreover, when the education level and real wages of women start to increase we pass to the upward sloping part of the U-shaped curve." Turkey might indeed currently be on the downward-sloping part of the curve, but as also emphasised by Tansel (2002), tradition and culture play an equally important role in this process, and these are the focus of this paper. Furthermore, Ecevit (1998) claims that globalisation and liberalisation have caused a decrease in FLFP by dismantling labour markets and by breaking all regulations in order to access a source of low paid, unorganized labour.

Dayloğlu (2000) and Ince and Demir (2006) indicate that the main reasons for the decline in female labour force participation are economic crises and the low education level of the female population. Figure 2 however presents the increasing level in female education in

Turkey. It is true that the average female education level is still lower than the male, but this gap is closing and it can therefore not be the sole reason for the decrease in FLFP. Economic crises are shocks to the economy, causing widespread unemployment. Furthermore, during such shocks it is more difficult to find a job, especially for women. As Adamopoulos and Akyol (2009) emphasise, assuming leisure to have the same value for both men and women and taking into account the fact that women have a comparative advantage in home production, it can be concluded that the elasticity of labour supply for women will be higher than for men, so women will react by changing their labour supply more readily than men in the event of economic shocks. Though I accept that all these are important factors, this mechanism can only partially explain of the decline in female labour force participation.

Lastly, unequal division of labour at home is emphasised as a factor that discourages women from working (Moghadam, 1998; Ilkkaracan, 1998). They claim childbearing, early marriage and women being seen as only housewives are the main reasons for low FLFP in Turkey. This is in accordance with the arguments presented in this paper, that social norms are an important factor in the participation decision of women.

III.Conservatism in Turkey

It is generally agreed that conservatism in Turkey is on rise, but as it is a qualitative concept, it is not easy to prove statistically. In this section I attempt to illustrate that there is an upward trend in Turkey in terms of conservatism.

In their book, Çarkoğlu and Kalaycıoğlu (2009) explain the rising tide of conservatism in Turkey, arguing that religiosity plays a major role. Indeed, when the web page of The Presidency of Religious Affairs in Turkey is checked for the number of Qur'an courses and the number of students that follow these courses, one can observe the increasing trend. Figures 4 and 5 show the Qur'an courses and number of students in recent years, respectively.

Çarkoğlu and Kalaycıoğlu (2009) claim that the increasing trend in conservatism is caused by long-term socio-political modernisation, industrialisation, the increased pace of social mobilisation, and contemporary regional turbulences due to the changes taking place in the international system since the end of the Cold War. In the post-1980 era, Turkish society became increasingly more urban and relatively more affluent. At the same time the population started to become highly sensitive to the uncertainties of socioeconomic and socio-political changes occurring in and around the country. In the empirical section of their book they show that almost 40% of the population of Turkey desires to go back to the "good old days" and turn back to the traditional social norms. In a survey they conducted in 2006, 51% of the respondents are clearly closer to being very conservative, while only about 22% remain closer to being not conservative at all. A shift from leftwing to rightwing in terms of politics can also be seen.

The aim of this paper is neither to prove the increasing trend in conservatism nor to determine the reasons behind this trend. Rather it aims to investigate whether or not

conservatism has any influence on the decreasing trend in FLFP. For this reason, only a brief explanation of the trend in conservatism in Turkey is given in this section, as well as some possible reasons.

IV. Model

With the exception of small number of recent papers, labour market participation of women is assumed to depend on their evaluation of the market wage against their reservation wages. This paper assumes, in contrast, that women do not make decisions in isolation, but that the environment and the social norms in that environment also play a role in the decision-making process.

There are three links through which social norms and conservatism influence the participation decision of women. The first one is education. Up to a certain age, parents make the decisions about their children's educational attainment; only the first 8 years of education are compulsory in Turkey at present. If parents decide not to invest in the education of their children after this period even if the children desire it, university education is impossible. Following Tansel (2002), in an another paper I show that there is a gender bias against girls in Turkey in educational investment (Göksel, 2010). If the social norms in a society oppose female participation in the workforce, and women are perceived as housewives and carers, then the girls living in such a society are less likely to have a high level of education and less likely to find a job in the future, even if they want to.

The second link is through marriage. In conservative societies, women have less freedom to choose their partners, resulting in less bargaining power in the household. In a sense, instead of their fathers, they have to obey their husbands after marriage. Fernandez et al.(2004) prove that the number of men being brought up in a family in which the mother also worked has been a significant factor in the increase of female labour force participation. In a conservative society, a woman is much less likely to encounter such a situation, so her husband will most likely also have the same norms as her father. Having low bargaining power means women do not have any influence on decision about fertility (Rasul, 2008), increasing their chances of having more children than they prefer, and thus reducing opportunities for participation.

The third link concerns the labour market. In a conservative society, social norms that discourage working women means employers set lower wage for females. Tansel (2005) states that this is indeed the case in the private sector in Turkey. As a result, returns to education for females are lower than for males and this strengthens the first link.

In this paper, the main focus is on married women. The reason for this choice is to be able to observe the effects of all of above-mentioned links. In the robustness section the analysis is repeated for single, and divorced women in order to highlight contrasts. Throughout this paper, conservatism is associated with the power of men to influence the actions of women.

V. Data and Descriptive Statistics

In this paper, I mainly use 2006 Household Structure Survey conducted by the State Institute of Statistics (SIS) of Turkey, a unique data set about perceptions. This survey is a product of joint research by the State Institute of Statistics of Turkey and the General Directorate of Family and Social Studies on the household structure of Turkish families, consisting of more than a hundred questions about the household structure, perceptions and habits of Turkish families. To my knowledge, this study is one of the first academic papers to exploit this survey, details of which are explained in a later section.

Table 1 reports the descriptive statistics. In the table, education represents the number of years spent on education, while daughters and sons show the number of girls and boys in the household, respectively. Grandmother is a dummy variable that takes the value one for the presence of a grandmother in the household. Loghusbandincome is the logarithm of the husband's income. Urban is a dummy variable that takes the value one if the population of the location is higher than 20,000.

In the 2006 HSS, the individuals are asked directly whether they think it is appropriate that women work or not. This variable is not used in the analysis as it is totally endogenous, but figure 6 presents the proportion of men who do not approve of women working. 63% of all men who oppose women working justify their belief on the ground that "The woman's main duty is to take care of the children and do the domestic work".

VI. Methodology

Though the 2006 Household Structure Survey (HSS) is a unique data set about the perceptions of Turkish people, it unfortunately lacks one of the fundamental pieces of information needed in this paper: Whether the woman concerned works or not. Fortunately however, it contains information about the incomes of individuals and the total household income. I am aware of the fact that an income does not necessarily indicate being employed, as rent from inherited land or real estate may account for this. Still, I have a reason to believe the proportion of women with such properties is relatively low in Turkey. Using the information available in the data set I form the variable *Share Income*, used as a proxy for female labour force participation. This variable also allows some opportunity in a way to control for the wage differences between genders. It might be the case that though both husband and wife are doing the same job the wife earns less.

In order to make use of the questions in the 2006 HSS, factor analysis is used to form 3 different indices. The first index, called the tradition index, makes use of seven questions in the survey. The first question for this index concerns the reason for opposing women working. I formed a dummy that takes the value one if the individual's reason was

"Because it is against our tradition". The other variables used for this index are whether they had the following traditional concepts or not: Arranged marriage, religious marriage, henna (kına) night⁶, religious ceremony, bride money⁷ and close-relative marriage. The more traditional the family, the higher the value the index takes.

The second index concerns the decision power in the household. In the literature, it is usually assumed that this is proportional to the income the individual earns and estimated accordingly. In the 2006 HSS, there are questions concern who in the household makes the final decision regarding the following: choice of the house, choice of the house style, children, shopping, relations with relatives, relations with neighbours, holidays and entertainment. Higher values of this index show a greater control of the decision making process by men in the household concerned.

The last index formed from the 2006 HSS concerns social norms. Unlike the previous two indices, which are at household level, this one operates at an individual level. There are many questions about social norms in the 2006 survey, but a few are selected to form the index both according to their individual performance in the regression, and also to the correlation matrix. Dummies are formed using the answers to the following questions: "Would the existence unmarried cohabiting couples in your neighbourhood disturb you?", "Is the wife not doing housework properly a sole reason for divorce?", "Do you agree with the statement: The continuation of a generation is guaranteed only by a son?", "Do you agree with the statement: Having a son increases the respectability of a mother", and "Do you agree with the statement: The best marriage age for a woman is between 15-19". Each dummy takes the value one if the answer to the relevant question is positive and takes the value zero if negative. Using factor analysis with these dummies, a social norm index is formed, assigning higher values to individuals with stronger social norms.

⁶ Traditionally (in Turkey, at least), henna night, or kina gecesi is a women's party that usually takes place the night before the wedding. The bride's closest friends and female family members gather to eat, dance, and sing. They dye their hands with henna.

⁷ According to traditions, the parents of the groom have to pay bride money to the parents of the bride. It might be cash as well as some animals or land. In return the bride brings a dowry to her new house.

⁸ Choosing other combinations of the variables do not change the results significantly.

Lastly, an index of conservatism is formed using all the variables mentioned above to see the total influence of being conservative. This index provides us with a general idea of the effect of conservatism on FLFP, while previous indices can provide more detail on the relative importance of the role played by each of the issues.

As explained before, the HSS gives no information about the employment condition of women, only information regarding income. For this reason, I use the share of the woman's income in the household as the dependent variable for the analysis of this data set. Accordingly, the following OLS regression is run.

$$ShareFemaleIncome_{ijk} = \alpha_0 + \alpha_1 X_i + \alpha_2 R_i + \alpha_3 I_{ik} + \varepsilon_{ijk}$$
 (1)

where X is a vector of individual and household characteristics, R is the region dummies and I represents the indices.

In the data set, the age is given between intervals, so the median of the interval is taken when determining age. Sons and daughters are the number of the sons and daughters of the mother, respectively. Grandmother is a dummy, that takes the value one in the case of a grandmother living within the household. In the dataset, income is also given in intervals. For all intervals except the last, the median is taken; but the last interval is given as higher than 2501YTL. In order to find an appropriate representative for this interval, a quantile method is used, as suggested in Ligon (1989) and the upper bound is found to be 2,953YTL. Urban is the dummy that takes the value one if the individual is living in the city. Loghusbandincome is the logarithm of the husband's income. For brevity's sake, only the results for the conservatism index are shown in this table, and the results are discussed in the next section.

VII. Results

The previous literature has generally found that urbanisation plays an important role in the decrease of female labour force participation, which is also one of the conclusions of this paper. In order to observe the differences between urban and rural Turkey, the regressions are run separately. I expect different results for urban and rural areas due to difference in

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⁹ The results of for the other variables are available from the author.

their way of life; in rural areas women traditionally work while this is not the case in cities. Table 2 presents the OLS regression results for both urban and rural areas.

As expected, age and education have positive and highly significant effect, while husband's income and husband's conservatism have highly significant negative influence in urban areas. Interestingly enough, the number of children and the presence of a grandmother at home do not have significant effects. This may show that in the previous literature these variables were capturing part of conservatism and now as I have it separately these variables do not have any significance any more.

On the other hand, in rural areas, only husband's income has a significant and negative influence. It might be argued that in such areas, women do not really have an official income, but in fact in the data set, most seem to have some level of income. It is not surprising that in rural areas we see no significant effect of conservatism, as in these areas women traditionally work. The fact that an area is rural means that the probability that women work remains unchanged, even where such areas are conservative.

Another question might be whether the education combination of couples matter or not. In order to analyze this, couples are divided into three groups: Those with same education levels, those in which husband has a higher education level, and those in which wife is more educated. The results are shown in tables 3, 4 and 5.

The husband's conservatism index maintains its negative significant effect when the couples have the same education level, while it loses its significance whenever one has higher level of education. It might be concluded that higher education weakens the influence of conservatism. The same test could be also done by interacting the education variable with the conservatism variable, but in the regression I control for wife's education and therefore, in order to interact I should also control for husband's education, which would be highly correlated with husband's income.

Furthermore, when analyzing the disentangled version of the indices for urban areas, decision and tradition indices both take negative and significant values, with tradition being more than twice as influential as decision. In rural areas none of them is significant, as conservatism index itself is not significant. The results are presented in table 6.

VIII. Robustness

Two additional tests are performed in order to make the results more convincing. For reasons previously explained, only married women are considered in the analysis. If these reasons are valid, then the same analysis performed should produce different results for conservatism index. If a woman is single 10 but still living with her family then we might expect to observe a higher influence of conservatism, as she is still under the control of the father, and she live independently of her family without marrying. On the other hand, the opposite would be expected for divorced women. Divorce is against social norms and traditions. Divorced women show kind of a reaction against conservatism, as in a conservative environment divorce is impossible. So it may be assumed that the environment of divorced women is not either very conservative, or they do not consider the environment important, which would cause the influence of conservatism index to be insignificant. As in this case the variable of husband's conservatism cannot exist, another variable, called *mean conservatism* is formed. This variable is the mean of conservatism index of all the individuals in the household in which the woman lives in. Moreover husband's income variable changed into household's income. In order to make a comparison, the analysis with these new variables is repeated for married women.

Table 7 and 8 present the results for urban and rural areas, respectively. For single women there are two separate regressions. In the first case, the number of other single children in the household is controlled, and in the second, the regression is run without these variables, as these children do not belong to the woman. As expected, the conservatism index takes a much higher value for single women. On the other hand, again as expected, it loses its significance for divorced women.

Throughout the paper it is claimed that urbanization plays an important role in the decreasing trend of female labour force participation and the main reason, this paper argues, is the fact that people also carry their social norms with them when they migrate. In order to confirm this theory, the same analysis is carried out in the three major cities of Turkey, Istanbul, Ankara and Izmir, as these are most affected by migration. A higher coefficient for conservatism index than in the previous analysis would confirm this theory. Table 9 presents the result for the OLS regression. In the first column, whether the women are living in an urban area or not is not controlled as the amount of rural space is very

¹⁰ A woman is considered single woman if she is not married and she is above 21 years old. In Turkey usually people finish their university education when they are 21 years old.

limited.¹¹. In the second column, residence in an urban area is also controlled. In the third and fourth columns the results are given for the individuals that live in an urban area and rural area, respectively. In these regressions city rather than region dummies are used. As expected, the influence of conservatism is greater for these three major cities.

IX. Conclusion

This paper analysed the determinants of mothers' contribution to the household income and the impact of conservatism on this issue using the 2006 Household Structure Survey in order to determine the main influencing factors. To my knowledge, this is the first academic study to benefit from the 2006 Household Structure Survey, a unique data set about perceptions in Turkey. Based on this data set and factor analysis, three indices, and one index combining all three are formed. The tradition index measures extent to which people sustain and follow their traditional values. Men's higher decision power is measured by the decision index, which takes higher values in families where men make the final decision on family issues. The last index is the social norm index, which is calculated by taking into account the answers to some questions about perceptions in the data set. The conservatism index is formed by using factor analysis, taking into account all the variables used to form the previous indices.

This paper reveals the important role of social beliefs and behaviours on women's decision to work. Women do not take decisions in isolation, the environments they live in affect their behaviour. Women in conservative and traditional environments where men have a higher decision power, and which have stronger social norms tend to stay at home, as expected by society, and become housewives.

Education plays an important role in women's decision to work through two channels. The first relates to the obvious benefits of higher education in finding a job. The second is the effect of a high level of education in weakening conservatism, as shown in this study.

Urbanization is one of the most important reasons for the decline in female labour force participation, not only because of the lack of job opportunities for women in cities but also because conservative men's attitudes differ between urban and rural areas. While Çarkoğlu and Kalaycıoğlu (2009) have already argued that urbanization is one of the reasons for the

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¹¹ Only 100 women live in rural areas.

increasing trend in conservatism, this paper emphasizes another aspect: The link between conservatism and female labour force participation. Higher urbanization causes higher conservatism, which leads to lower female labour force participation.

If Turkey decides to revise this decreasing trend and to encourage women increased female labour force participation, authorities must have to give more importance to education, not only for children but for adults as well. Education does not mean simply literacy in this case; rather it means the reform of the education system in such a way as to allow the recognition of women's rights to participate in family decision making as equals.

Last but not the least, this chapter shows that conservatism and social norms play a very important role in females' contribution to the household income. The only way to improve this, again, is through education. A nationwide education campaign aimed at the whole population, would seem to be the most effective way of purging society of its reactionary perceptions of the role of women. While I recognise the utopian nature of this course of action, I feel that it represents the best hope of introducing real change.

Figures

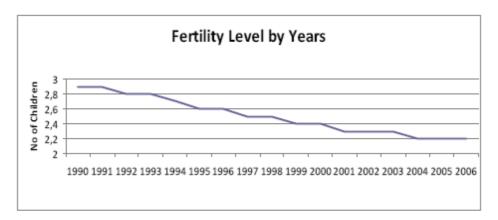


Figure 1

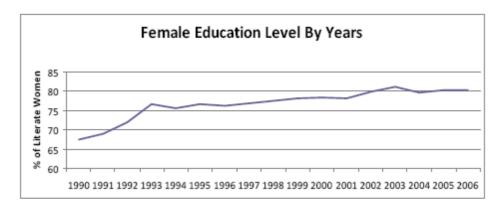


Figure 2



Figure 3

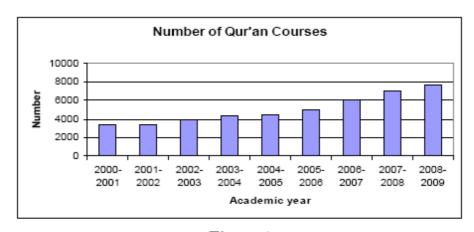


Figure 4

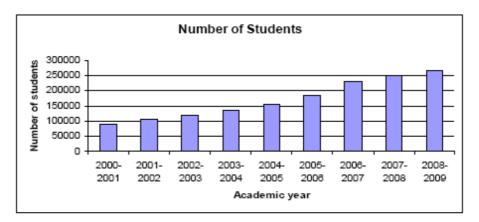
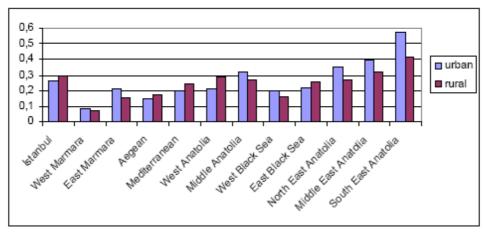


Figure 5



6.Percentage of men that answered negatively to the question "whether it is appropriate that women work or not" in 2006 HSS.

Table 1: Descriptive Statistics

	Mean	Standard Deviation
Age	43.57	13.48
Age ²	0.11	0.47
Education	4.94	4.20
Grandmother	0.06	0.24
Sons	1.01	1.07
Daughters	0.84	1.04
LogHusbandIncome	6.31	0.65
LogHouseholdIncome	6.46	0.69
Share Income (married)	0.12	0.28
Share Income (single)	0.01	0.03
Share Income (divorced)	0.01	0.04
Husband's Conservatism	0.10	0.47
Mean Conservatism	0.01	0.40
Urban	0.58	0.49

Source: Author's own calculations using 2006 HSS

Table 2: OLS Regression Results

	Urban			Rural		I
	Coefficient		Standard Error	Coefficient		Standard Error
Age	0.0022	***	0.0003	0.0008		0.0005
Age ²	-0.0238	***	0.0059	-0.0455	***	0.0093
Education	0.0200	***	0.0019	0.0038	*	0.0023
Grandmother	0.0162		0.0190	0.0326		0.0246
LogHusbandIncome	-0.0220	***	0.0062	-0.0576	***	0.0095
# of Boys	-0.0005		0.0035	0.0044		0.0060
# of Girls	-0.0042		0.0034	0.0066		0.0062
Conservatism	-0.0250	***	0.0079	-0.0008		0.0123
Constant	0.0410		0.0421	0.3694	***	0.0686
Region Dummies	Yes			Yes		
N	4142			2866		
\mathbb{R}^2		0.128	32		0.067	7

Note: *, **, and *** indicate statistical significance at 10, 5 and 1%, respectively. Indicated standard errors are robust.

Table 3: OLS Regression Results for the Couples that have same education level

	Urban			Rural		I
	Coefficient		Standard Error	Coefficient		Standard Error
Age	0.0019	***	0.0005	0.0002		0.0008
Age ²	-0.0427	***	0.0086	-0.0822	***	0.0135
Education	0.0280	***	0.0019	0.0127	***	0.0040
Grandmother	0.0190		0.0100	0.0291		0.0331
LogHusbandIncome	-0.0327	***	0.0100	-0.0741	***	0.0150
# of Boys	-0.0102		0.0055	0.0041		0.0094
# of Girls	-0.0108		0.0061	-0.0044		0.0102
Conservatism	-0.0330	***	0.0117	-0.0088		0.0185
Constant	-0.0929		0.0686	0.4487	***	0.1009
Region Dummies	Yes			Yes		
N	1948			1364		
\mathbb{R}^2	(0.191	17		0.069	7

Note: *, **, and *** indicate statistical significance at 10, 5 and 1%, respectively. Indicated standard errors are robust.

Table 4: OLS Regression Results for the Couples in which husband is more educated

	Urban			Rural		
	Coefficient		Standard Error	Coefficient		Standard Error
Age	0.0017	***	0.0004	0.0013		0.0008
Age^2	0.0007		0.0074	-0.0148		0.0146
Education	0.0091	***	0.0018	-0.0039		0.0035
Grandmother	0.0301		0.0257	0.0328		0.0381
LogHusbandIncome	-0.0151	*	0.0084	-0.0439	***	0.0136
# of Boys	0.0036		0.0044	0.0032		0.0082
# of Girls	-0.0012		0.0037	0.0141	*	0.0082
Conservatism	-0.0117		0.0089	0.0088		0.0172
Constant	0.0593		0.0518	0.3141	***	0.1065
Region Dummies	Yes		Yes			
N	1827		1355			
\mathbb{R}^2	0	0.0385	5	0.0858		

Note: *, **, and *** indicate statistical significance at 10, 5 and 1%, respectively. Indicated standard errors are robust.

Table 5: OLS Regression Results for the Couples in which wife is more educated

	Urban			Rural		
	Coefficient		Standard Error	Coefficient		Standard Error
Age	0.0034	**	0.0014	0.0037	*	0.0021
Age^2	-0.0102		0.0231	-0.0226		0.0280
Education	0.0249	***	0.0054	0.0113		0.0101
Grandmother	-0.1006	*	0.0522	0.1857		0.1502
LogHusbandIncome	-0.0382		0.0235	-0.0612		0.0380
# of Boys	0.0226		0.0181	0.0249		0.0251
# of Girls	0.0208		0.0164	0.0021		0.0307
Conservatism	-0.0459		0.0314	0.0021		0.0546
Constant	-0.0553		0.1686	0.1692		0.2317
Region Dummies	Yes		Yes			
N	367		147			
\mathbb{R}^2		0.12	13		0.170	5

Note: *, **, and *** indicate statistical significance at 10, 5 and 1%, respectively. Indicated standard errors are robust.

Table 6: Summary OLS Regression Results for Other Indices

	Urban			Rural	
	Coefficient		Standard Error	Coefficient	Standard Error
Decision	-0.0093	***	0.0003	-0.0024	0.0066
Social Norm	-0.0078		0.0050	-0.0095	0.0084
Tradition	-0.0226	***	0.0074	0.0090	0.0118

Note: *, **, and *** indicate statistical significance at 10, 5 and 1%, respectively. Indicated standard errors are robust.

Table 7: Urban

	Married	Single	Single	Separated/Widow
Age	0.0020	0.0065	0.0098	0.0024
	$(0.0003)^{***}$	(0.0017)***	(0.0016)	$(0.0012)^{**}$
Education	0.0160	0.0191	0.0248	0.0160
	$(0.0010)^{***}$	(0.0034)***	$(0.0034)^{***}$	(0.0037)***
Grandmother	0.0082	-0.0504	0.0019	-0.3579
	(0.0179)	(0.0471)	(0.0480)	$(0.0294)^{***}$
LogIncome	0.0370	-0.0364	-0.0612	-0.0988
	$(0.0060)^{***}$	(0.0249)	$(0.0248)^{**}$	(0.0204)***
# of Boys	-0.0019	-0.0550		-0.0653
	(0.0036)	$(0.0141)^{***}$		$(0.0141)^{***}$
# of Girls	-0.0045	-0.0512		-0.1024
	(0.0036)	$(0.0108)^{***}$		(0.0160)***
Mean Conservatism	-0.0298	-0.1155	-0.1390	0.0326
	$(0.0093)^{***}$	(0.0361)***	$(0.0376)^{***}$	(0.0341)
Constant	-0.3335	0.1472	0.0459	1.1924
	$(0.0391)^{***}$	(0.1822)	(0.1826)	(0.0157)
Region Dummies	Yes	Yes	Yes	Yes
N	4142	633	633	1032
\mathbb{R}^2	0.1278	0.2149	0.1748	0.3472

Note: *, **, and *** indicate statistical significance at 10, 5 and 1%, respectively. Figures in parentheses are robust standard errors.

Table 8: Rural

	Married	Single	Single	Separated/Widow
Age	0.0007	0.0029	0.0036	0.0060
	(0.0005)	(0.0018)	$(0.0018)^{**}$	$(0.0015)^{***}$
Education	-0.0044	0.0096	0.0105	0.0166
	$(0.0022)^{**}$	$(0.0044)^{**}$	(0.0045)***	(0.0065)***
Grandmother	0.0284	0.0122	0.0284	-0.3316
	(0.0224)	(0.0443)	(0.0388)	$(0.0319)^{***}$
LogIncome	0.0764	0.0007	-0.0104	-0.1088
	$(0.0089)^{***}$	(0.0222)	(0.0217)	(0.0203)***
# of Boys	0.0045	-0.0258		-0.0326
-	(0.0057)	$(0.0122)^{**}$		$(0.0141)^{**}$
# of Girls	0.0103	-0.0205		-0.0243
	$(0.0059)^*$	(0.0135)		$(0.0138)^*$
Mean Conservatism	0.0283	0.0522	0.0649	-0.0031
	$(0.0144)^*$	(0.0358)	$(0.0359)^*$	(0.0357)
Constant	-0.4733	-0.1111	-0.0993	0.8310
	$(0.0684)^{***}$	(0.1564)	(0.1567)	(0.1831)***
Region Dummies	Yes	Yes	Yes	Yes
N	2866	404	404	880
\mathbb{R}^2	0.0726	0.1101	0.046	0.2640

Note: *, ***, and **** indicate statistical significance at 10, 5 and 1%, respectively. Figures in parentheses are robust standard errors.

Table 9: Istanbul, Ankara and Izmir

	I	II	Urban	Rural
Age	0.0018	0.0018	0.0019	0.0012
	$(0.0005)^{***}$	(0.0005)***	$(0.0005)^{***}$	(0.0020)
Age^2	-0.0250	-0.0249	-0.0254	-0.0060
	$(0.0110)^{**}$	(0.0110)**	$(0.0117)^{**}$	(0.0320)
Education	0.0209	0.0208	0.0207	0.0230
	$(0.0019)^{***}$	(0.0019)***	(0.0020)***	(0.0080)***
Grandmother	0.0165	0.0196	-0.0046	0.1580
	(0.0343)	(0.0343)	(0.0271)	(0.1528)
LogHusbandIncom	-0.0090	-0.0096	-0.0087	-0.0215
e	(0.0117)	(0.0117)	(0.0120)	(0.0491)
# of Boys	-0.0007	-0.0012	-0.0009	-0.0129
	(0.0058)	(0.0059)	(0.0061)	(0.0178)
# of Girls	-0.0105	-0.0107	-0.0126	0.0186
	(0.0066)	(0.0066)	$(0.0068)^*$	(0.0268)
Husband	-0.0320	-0.0321	-0.0316	-0.0462
Conservatism	$(0.0118)^{***}$	(0.0118)***	$(0.0123)^{***}$	(0.0428)
Urban		0.0366		
		$(0.0196)^*$		
Constant	-0.0334	-0.0622	-0.0322	0.0086
	(0.0775)	(0.0779)	(0.0782)	(0.3846)
City Dummies	Yes	Yes	Yes	Dropped
N	1510	1510	1410	100
\mathbb{R}^2	0.1461	0.1476	0.1448	0.2084

Note: *, ***, and **** indicate statistical significance at 10, 5 and 1%, respectively. Figures in parentheses are robust standard errors.

References

Acar, S. (2008), "An Analysis of Female Labour Force Participation in Turkey from a Gender Perspective," Working Paper.

Adamopoulos, T. and A. Akyol (2009), "Relative Underperformance Alla Turca", *Review of Economic Dynamics*. Volume 12, pp. 607-717.

Barro, R.J. and McCleary, R.M. (2006), "Religion and Economy", *Journal of Economic Perspectives*, Volume 20 (2), pp. 49 – 72.

Baslevent, C. And Onaran O. (2002), "Are Married Women in Turkey More Likely to Become Added or Discouraged Workers?", *Labour*, Volume 17, pp. 439 – 458.

Becker, S.O. and Woessmann, L. (2009), "Was Weber Wrong? A Human Capital Theory of Protestant Economic History", *The Quarterly Journal of Economics*, Volume 124 (2), pp. 531 – 596.

Bisin A. And Verdier, T. (2000), "Beyond the Melting Pot": Cultural Transmission, Marriage and the Evolution of Ethnic and Religious Traits", *Quarterly Journal of Economics*, Volume 115 (3), pp. 955 - 988.

Blau, F.D. and Kahn, L.M. (2007), "Changes in the Labor Supply Behavior of Married Women: 1980 – 2000", *Journal of Labor Economics*, Volume 25(3), pp. 393 – 438.

Burda, M., Hamermesh, D.S. and Philippe Weil. (2007), "Total Work, gender and Social Norms", *National Bureau of Economic Research*, Working Paper 13000.

Cagatay, N. and Ozler, S. (1995), "Feminization of the Labor Force: The Effects of Long-Term Development and Structural Adjustment", *World Development*, Volume 23 (11), pp. 1883 – 1894.

Carkoglu, A. and E. Kalaycioglu (2009), "The Rising Tide of Conservatism in Turkey", Palgrave Macmillan ed, the United States.

Dayioglu, M. (2000), "Labor Market Participation of Women in Turkey", in *Gender and Identity Construction: Women of Central Asia, the Caucasus and Turkey,* Eds: Acar F. and Gunes-Ayata, A. Leiden: Brill.

Ecevit, Y. (1998), "The Impact of Restructuring o Women's Labour in Turkey since 1980's", Women and Work in Mediterranean Conference.

Fernandez, R. and Fogli, A. (2004), "Mothers and Sons: Preferences Formation and Female Labor Force Dynamics", *The Quarterly Journal of Economics*, Volume 119 (4), pp. 1249 - 1299.

Fernandez, R. and Fogli A. (2009), "Culture: An Empirical Investigation of Beliefs, Work and Fertility", *American Economic Journal:Macroeconomics*, Volume 1(1), pp. 146 - 177.

Goksel, I. (2010), "Determinants of School Attainment in Turkey and the Impact of the Extension of Compulsory Education", forthcoming in *Child Poverty and Disparities: Public Policies for Social Justice*, the Egypt National Child Rights Observatory (ENCRO), Egypt.

Greif, A. (1994), "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies", *The Journal of Political Economy*, Volume 102(5), pp. 912 – 950.

Guiso, L., Sapienza, P. and Luigi Zingales. (2006), "Does Culture Affect Economic Outcomes?", *Journal of Economic Perspectives*, Volume 20(2), pp. 23 – 48.

Hausmann, R., L.D. Tyson and S. Zahidi (2009), *The Global Gender Gap Report*, World Economic Forum, Geneva, Switzerland.

Hazan, M. and Maoz, Y.D. (2002), "Women's Labor Force Participation and the Dynamics of Tradition", *Economic Letters*, Volume 75, pp. 193 – 198.

Iannaccone, L.R. (1998), "Introduction to the Economics of Religion", *Journal of Economic Literature*, Volume 16, pp. 1465 – 1496.

Ilkkaracan, I. (1998), "Göç, Kadının Ekonomik Konumu, Hareket Özgürlüğü ve Aile İçi Güç Dinamikleri", *İktisat*, Volume 377, pp. 62 – 67.

Ince, M. And Demir, M.H. (2006), "The Determinants of Female Labor Force: Emprical Evidence for Turkey", *Eskisehir Osmangazi University Journal of Faculty of Economics and Administrative Sciences*, Volume 1, pp. 71 – 90.

Ligon, E. (1989), "The Development and the Use of a Consistent Income Measure for the General Social Survey", *GSS Methodological*, Report No. 64.

Moghadam, V.M. (1998), "Turkey: From Housewife to Worker?", in *Women, Work and Economic Reform in the Middle East and North Africa*, Eds. Moghadam, V.M., Lynne Reinner Publishers, Boulder.

Noland, M. (2005), "Religion and Economic Performance", *World Development*, Volume 33(8), pp. 1215 – 1232.

Rasul, I. (2008), "Household Bargaining Over Fertility: Theory and Evidence from Malaysia", *Journal of Development Economics*, Vol. 86, pp. 215 – 241.

Tabellini, G. (2005), "Culture and Institutions: Economic Development in the Regions of Europe", *Center for Economic Studies and Ifo Institute for Economic Research*, Working Paper Series, 1492.

Tansel, A. (2002), "Economic Development and Female Labor Force Participation in Turkey: Time-Series Evidence and Cross-Province Estimates", *Economic Research Center Working Papers in Economics*, May.

Tansel, A. (2005), "Public-Private Employment Choice, Wage Differentials, and Gender in Turkey", *Economic Development and Cultural Change*, Volume 53 (2), pp. 453-477.

Tzannatos, Z. (1999), "Women and Labor Market Changes in Global Economy: Growth Helps, Inequalities Hurt and Public Policy Matters", *World Development*, Volume 27(3), pp. 551 – 569.

Vendrik, M.C.M. (2003), "Dynamics of a Household Norm in Female Labour Supply", *Journal of Economic Dynamics and Control*, Volume 27, pp. 823 – 841.