



türkiye ekonomi politikaları araştırma vakfı

Female Labor Force Participation How Does Turkey Compare?

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Introduction

The advancement in female labor force participation (FLFP) compared to past decades has been a striking development worldwide. However, only one-quarter of Turkish women participate in the labor force, one of the lowest rates in the world. This study aims to investigate the reasons behind the low FLFP rate in Turkey, taking into consideration economic, demographic, educational and religious factors.

International Labor Organization defines women as participating in the labor force if she works to produce goods or services, including agricultural and informal labor, but excluding work in her own household such as cooking, cleaning and childcare. Despite living in a country where women have had equal rights since 1930s and have been elevated to the highest offices in the land, a large part of female population believe that working is not essential for women¹. In a country, which elected a female Prime Minister in 1995 and had a female President of its Constitutional Court, 45% of urban women say economic independence is not necessary for women. Almost half of the women between ages 15 and 19 believe a woman's place is at home, near her children. In 2010, two-thirds of Turks said that when jobs are scarce, men should have more of a right to jobs than women.² So the fact that only one-quarter of Turkish women older than 15 actually work outside of the home does not seem so surprising.

Newspapers from Zaman ("Female labor force participation still weighty problem for Turkey"³), to Hurriyet ("Turkey's long-forgotten women"⁴) denounce the status quo, and the current government set the goal of increasing FLFP to 29.6 by 2013.⁵ But there seems to be dissonance between the assessments of mainstream media and the public attitude regarding whether the low level of female labor participation is a problem.

What does explain Turkey's low female labor force participation? Do these widely held beliefs play a role? How does income, religion, education, or demographics affect FLFP? This study indicates that while the FLFP level of Turkey is far below what would have been expected given its level of economic development, it is also higher than expected given Turkey's social conditions. Finding that Turkey has a much higher FLFP rate than expected from a predominantly Muslim country, it is also shown that Turkey is not a unique case in terms of its FLFP performance with respect to religion. To demonstrate these findings, first the latest available FLFP rates of countries will be compared. Secondly, how much the possible determinants of FLFP explain the differences among countries will be examined by

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1 <http://www.tdn.com.tr/h.php?news=half-of-women-say-they-do-not-need-economic-independence-2008-09-24>

2 <http://pewglobal.org/2010/07/01/gender-equality/>

3 <http://www.todayszaman.com/tz-web/news-203654-female-labor-force-participation-still-weighty-problem-for-turkey.html>

4 <http://www.hurriyetdailynews.com/n.php?n=turkey8217s-long-forgotten-women-2010-03-07>

5 World Bank 2009, Female Labor Force Participation in Turkey: Trends, Determinants and Policy Framework

using multivariable regression analysis. Finally, Turkey's exceptionality in terms of FLFP among countries given its conditions will be investigated.

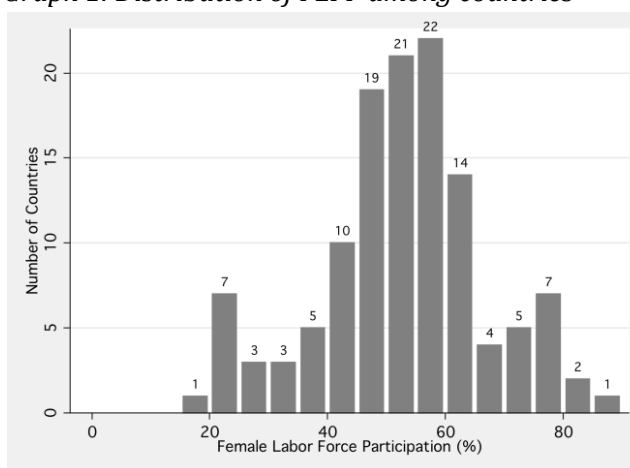
Comparing the Current Female Labor Force Participation Rates

Female Labor Force Participation Rate (FLFP) in Turkey is lower than all but eight countries in the world for which data was available (Table 1).⁶ Graph 1 shows that most of the countries (72 out of 124) has FLFP between 40% and 60%. Turkey, on the other hand, barely falls to the third column, with its 25.1% FLFP. Turkey's performance in female labor force participation is much lower than expected considering the difference between its economic development and of those countries which share the lowest ranks in FLFP. Even Saudi Arabia's GDP, which is the closest to Turkey, is only 60% of Turkey's GDP. Turkey's GDP is almost twice as great as Saudi Arabia, which is the closest to Turkey of the 10 countries seen in Table 1⁷.

Table 1: Countries with the lowest female labor force participation

Country	FLFP
Yemen	19.5
Saudi Arabia	20.8
Syria	21.0
Pakistan	21.2
Lebanon	21.8
Egypt	22.8
Jordan	23.4
Oman	24.8
Turkey	25.1
Tunisia	25.5

Graph 1: Distribution of FLFP among countries



What Makes the Difference?

Income or the economic development of a country is an important determinant of FLFP⁸, therefore can explain the different levels of FLFP among countries to a certain extent. As seen in Graph 2, Turkey's FLFP is far below what would be expected given its level of economic development. The size of the dot in the graph corresponds to population. China and India are excluded; whose large populations would dominate the trend. Turkey (the red dot) is 18.3 percentage points below the expected FLFP rate (43.3%).

⁶ The main source is the World Bank's World Development Indicators, except data on religion is from the World Christian Database. The latest data available belongs to 2008. Countries were weighted by population, and the graphs and tables exclude countries with population below 1 million, but these were included in the regression analysis.

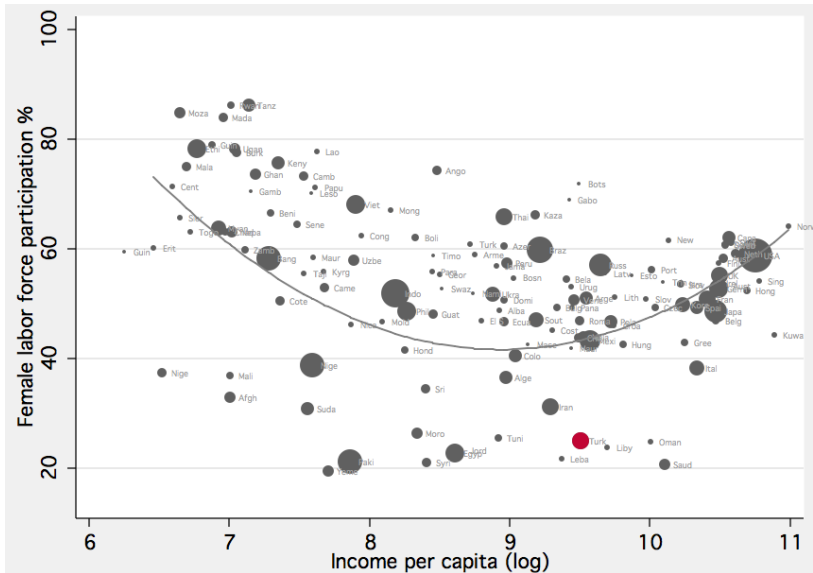
⁷ IMF, World Economic Outlook Database, October 2010: Nominal GDP list of countries.

⁸ A U-shaped function describes the relationship between FLFP and income. For the distribution of countries according to income and FLFP, see Appendix, Graph 2.

Controlling for income per person by plotting the actual FLFP and the trend line (for Turkey, this is the difference between 25.1% and 43.3%, which equals -18.3%), it becomes clear that income variation alone cannot entirely explain the different FLFP levels of countries (Graph 3). Moreover, we observe that Turkey has not only one of the lowest FLFP rates, but also one of the highest negative differences between actual and expected FLFP rates with respect to income.

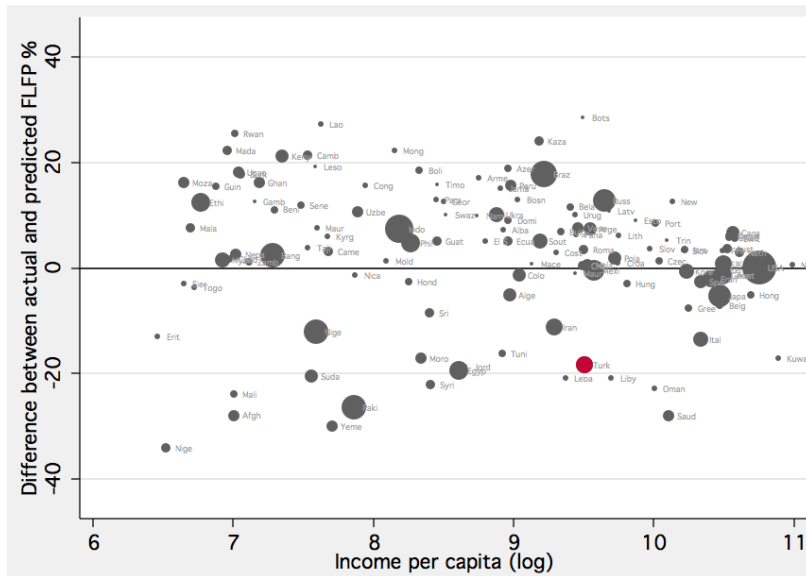
The still dispersed outlook of FLFP levels among countries when controlled for income leads us to consider other determinants of FLFP. As the second step, controls are added for male labor force participation (MLFP), economic growth, percent of the population living in rural areas (where women tend to work more because of agriculture) and the age distribution of the population (since a high fertility rate decreases the female labor force)⁹. Graph 4 shows that Turkey is still well below the trend line, though closer than in Graph 3.

Graph 2: Female labor force participation and income

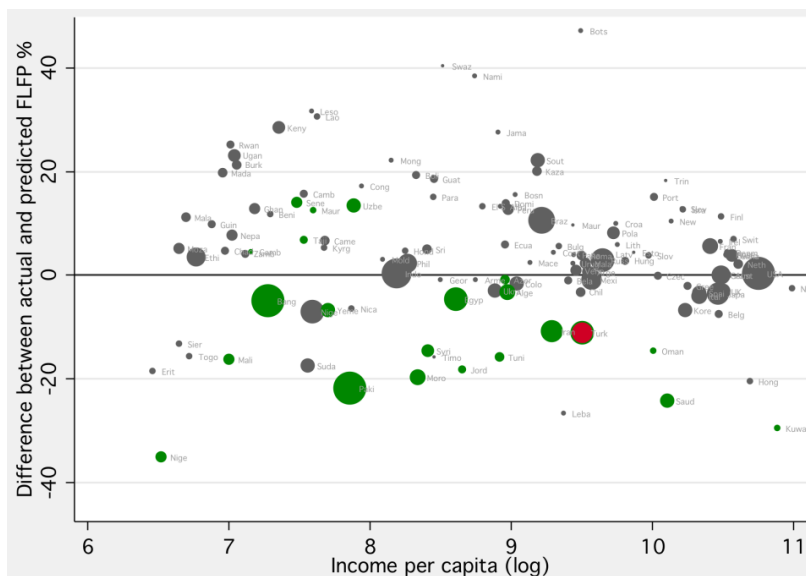


⁹ For more information on the regressions, see Appendix, tables 1 and 2.

Graph 3: Difference between actual and predicted FLFP, controlling for income per person

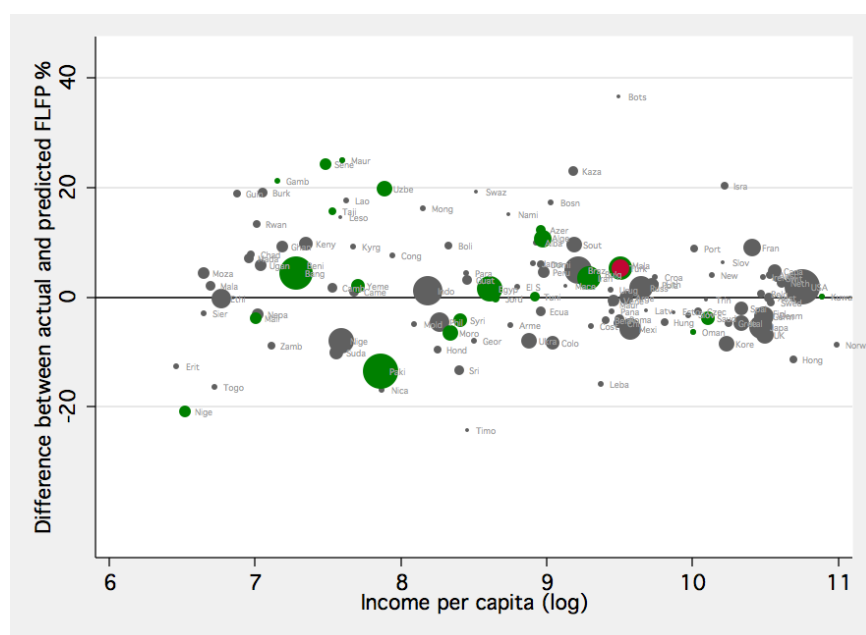


Graph 4: Difference between actual and predicted FLFP, controlling for economic and demographic characteristics



The fact that most of the countries below the trend line have predominantly Muslim populations (more than $\frac{3}{4}$, shown as green dots) calls for the consideration of religion as a determinant of FLFP. Graph 5 below shows the results when religion is controlled for (% of the population that is Sunni, Shia, Catholic, Protestant, or other). For example, a country that is 100% Sunni would have, on average, a FLFP rate 23.9 percentage points lower than if there were no Sunnis (roughly the difference between Morocco and Spain), even if all the other factors were same. After the controls for religion, Turkey has greater FLFP than expected.

Graph 5: Difference between actual and predicted FLFP, controlling for economic, demographic, and religion characteristics.



Controlling also for other possible explanations for FLFP, such as a legacy of communism and female education (gross secondary enrollment rate), causes minor changes in the distribution of countries¹⁰. Turkey's position remains 7.1% higher than expected. Exclusion of factors such as the informal economy or home production from calculations might underestimate the FLFP rates as well, which would support Turkey's position above the expected level. On the other hand, religion seems to explain much of the difference that economic and demographic factors could not: In Graph 5, most of the Muslim countries, previously with lower FLFP levels than expected, shifted above or much closer to the trend line.

Does Turkey Stand Out?

Does Turkey indeed have a more liberal stance on religious and gender issues compared to other predominantly Muslim countries? To answer this question, the results regarding religious views and practices, and opinions about the role of women from World Values Surveys are examined. Of all countries in the survey with higher than 45% Muslim populations, Turkey is the only country within the least religious or sexist three countries for every question. However, its religious views are not that different than Malaysia, Morocco or Iran. On gender views, it is similar to Malaysia, Morocco and Indonesia. Turkey is certainly not the only Muslim country with moderate religious and gender views.

However, Turkey has a higher FLFP rate than expected even with more cautious approaches of defining what a Muslim country is. To address the concern that 97.4% might be an

¹⁰ See Appendix, Graph 1.

overestimate of the proportion of Muslims in Turkey, different specifications of the model were used¹¹. In regression 3, the proportion that is Sunni or Shia is not controlled for; instead there is an indicator-variable for countries that have 4% or more Muslims (half of the countries). The next four regressions do the same, with 25% Muslim (40% of the countries), 50% Muslim (23% of countries) and 75% Muslims (19% of countries). In each specification, Turkey remains a positive outlier, even when the effect of Islam on FLFP is averaged over all countries with 4% Muslim population or more (including countries such as Germany, France and Russia).

Table 1: Religious and gender views in Muslim countries

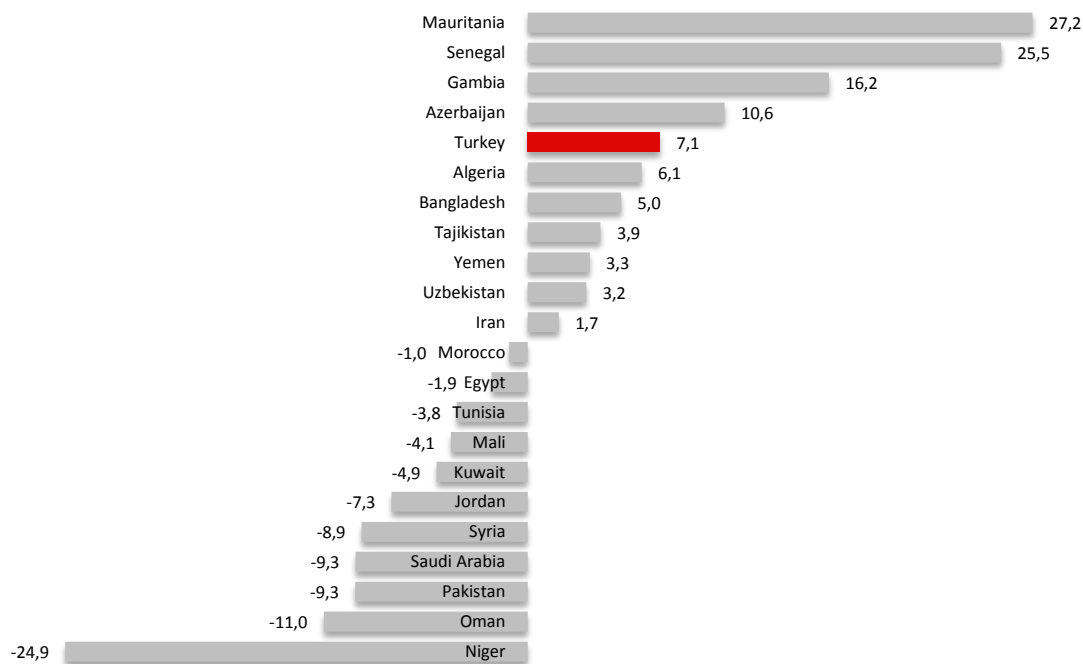
Country	Turkey	Malaysia	Morocco	Indonesia	Iran	Iraq	Mali	Jordan	Egypt
<i>Muslim population</i>									
% Muslim	97.4%	45.9%	98.5%	56.0%	98.3%	96.7%	80.7%	93.9%	84.8%
% Sunni	77.9%	45.0%	96.6%	55.5%	8.8%	33.9%	72.6%	92.0%	84.1%
% Shia	19.5%	0.9%	2.0%	0.6%	87.5%	62.9%	8.1%	1.9%	0.8%
<i>Religious views & practices</i>									
Do you attend religious services at least once per week	34.2%	NA	NA	65.6%	35.5%	32.8%	69.4%	92.8%	55.7%
Are you a religious person?	82.6%	89.1%	91.8%	84.6%	83.7%	54.7%	97.6%	92.2%	92.5%
How important is god in your life? (Very)	76.2%	40.4%	87.5%	86.9%	79.7%	91.8%	68.3%	97.1%	97.0%
Politicians who don't believe in God are unfit for office (Agree)	54.8%	63.9%	53.2%	88.2%	75.1%	87.1%	59.2%	69.0%	NA
<i>Gender views</i>									
Men should have more of a right to jobs when scarce (Agree)	53.3%	49.0%	50.8%	55.4%	69.4%	83.9%	62.4%	88.2%	89.1%
Men make better political leaders (Agree)	61.4%	68.3%	58.4%	60.9%	78.7%	90.2%	79.0%	80.7%	92.5%
Men make better business executives	53.9%	54.5%	57.2%	42.1%	78.6%	-	82.8%	74.3%	85.8%
KEY: Lowest Second Third Highest									

Source: World Values Surveys

¹¹ See Appendix, Tables 1 and 2.

While Turkey definitely is a positive outlier controlling for all possible economic, demographic or social indicators, it is not the only positive outlier. Graph 6 shows all the countries for which data was available that were more than 75% Muslim and had populations greater than 1 million. Turkey has the fifth highest difference in actual and predicted FLFP levels.

Graph 6: Difference between actual and predicted FLFP, controlling for economic, demographic, religion, education and communism; for countries more than 75% Muslim



Conclusion

Low FLFP levels lead to an excess amount of labor that can't be utilized in such economies. Women's lack of economic independence is also a serious cause for the underdevelopment of women's rights in a country. Among the factors that influence the FLFP, religion has the most significant negative effect especially in Muslim countries.

Turkey, according to our model, does not experience the pressure of religion on FLFP as much as other Muslim countries, remaining a clear positive outlier. However, it does not present the best role model for Muslim countries in terms of FLFP either. Compared to Turkey, less developed countries with more religious or sexist views, such as Iran, Iraq, Indonesia, Malaysia or Morocco have much higher FLFP rates. This might point to a side effect of Turkey's economic development process that these countries have not yet experienced.

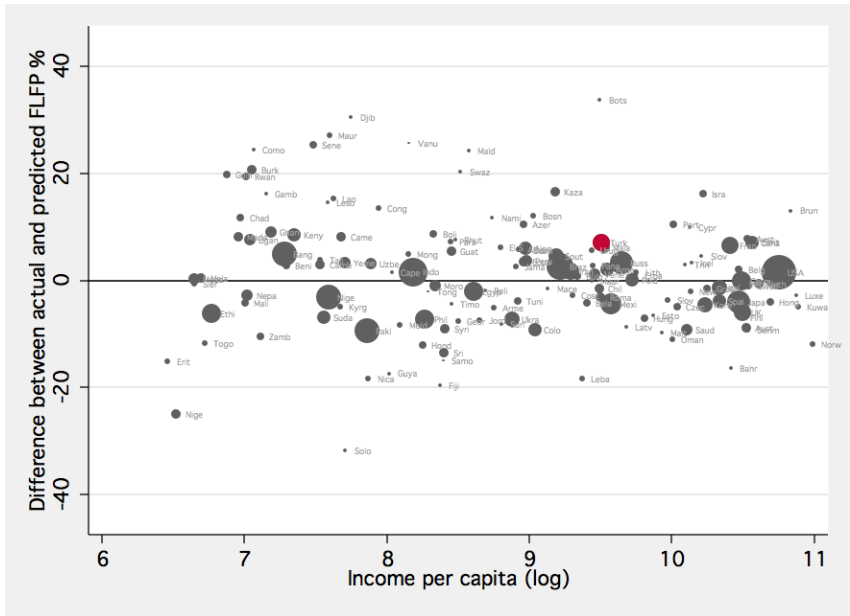
Most of the factors analyzed in this study are difficult or undesirable to change, such as income, living in rural areas, and religion. Some of these are institutional factors that have

been embedded in Turkey's social structure. Yet, Turkey's FLFP rates were higher in the past decades¹². Turkey's poor performance compared to less developed countries and this negative trend in FLFP might be caused by factors such as urbanization or industrialization, which are important parts of the abovementioned process. Analyzing the progress of FLFP in the recent decades might therefore be a fruitful area for future research. The divergence or convergence of the FLFP patterns of Turkey and other similar countries can provide insight to the policymakers for increasing FLFP.

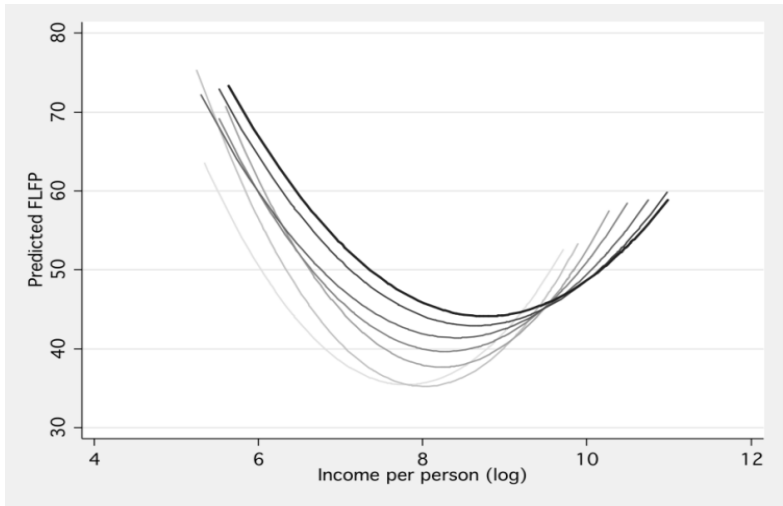
¹² See Appendix, Graph 3 for the change of FLFP in Turkey between 1980-2008.

Appendix

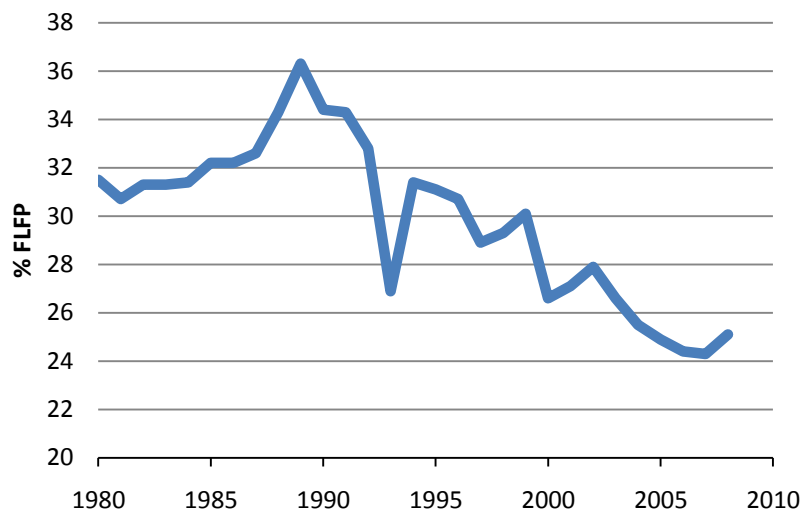
Graph 1: Difference between actual and predicted FLFP, controlling for economic, demographic, religion, education and communism.



Graph 2: The U shaped function of FLFP and Income, every 5 years, 1980-2008



Graph 3: The Change of FLFP in Turkey, 1980-2008



Appendix 1 – Regression Table

VARIABLES	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP	(6) FLFP	(7) FLFP	(8) FLFP	(9) FLFP
income (log)	-0.870 (0.979)	- 95.58*** (13.83)	- 109.2*** (13.96)	- 110.8*** (13.36)	- 150.3*** (14.69)	- 111.2*** (11.04)	- 101.1*** (11.55)	- 123.7*** (11.66)	- 119.6*** (11.34)
income (log) squared		5.338*** (0.778)	6.163*** (0.790)	6.404*** (0.759)	7.972*** (0.776)	5.822*** (0.586)	5.222*** (0.620)	6.410*** (0.626)	6.241*** (0.607)
growth 2000 - 2008			14.13*** (4.208)	17.19*** (4.109)	12.38*** (4.087)	10.08*** (2.917)	10.09*** (2.973)	11.79*** (2.774)	5.494* (3.316)
male labor force participation				0.568*** (0.153)	0.551*** (0.143)	0.633*** (0.102)	0.641*** (0.0998)	0.592*** (0.0983)	0.605*** (0.0950)
% in rural					- 0.400*** (0.0933)	- 0.143** (0.0716)	- 0.146** (0.0695)	- 0.115* (0.0654)	- 0.113* (0.0632)
% below 15 years					- 0.780*** (0.207)	- 0.689*** (0.156)	- 0.758*** (0.156)	- -0.369** (0.166)	- -0.237 (0.165)
% muslim						- 0.229*** (0.0353)			
% christian						0.0254 (0.0347)			
% sunni							- 0.239*** (0.0325)	- 0.231*** (0.0302)	- 0.200*** (0.0306)
% shia							- 0.225*** (0.0517)	- 0.185*** (0.0487)	- 0.159*** (0.0477)
% catholic							- 0.00715 (0.0320)	- -0.0426 (0.0313)	- -0.0409 (0.0302)
% protestant							0.148** (0.0587)	0.113** (0.0549)	0.141*** (0.0537)
secondary enrollment rate, male								-0.0278 (0.135)	-0.188 (0.139)
secondary enrollment rate, female								0.276** (0.128)	0.421*** (0.132)
Formerly or presently Communist									8.450*** (2.620)

Constant	57.78*** (8.861)	469.5*** (60.51)	516.0*** (60.03)	466.2*** (58.97)	732.9*** (75.47)	547.1*** (56.02)	507.5*** (57.54)	585.8*** (55.77)	560.0*** (54.44)
Predicted FLFP, Turkey (actual 25.1)	49.5	43.3	42.1	40.2	36.2	20.0	19.8	18.9	18.0
Observations	143	143	143	143	143	143	143	143	143
R-squared	0.006	0.256	0.312	0.374	0.477	0.741	0.755	0.793	0.809
Standard errors in parentheses									
*** p<0.01, ** p<0.05, * p<0.1									

Appendix 2 - Sensitivity Check

VARIABLES	(1) FLFP	(2) FLFP	(3) FLFP	(4) FLFP	(5) FLFP	(6) FLFP	(7) FLFP	(8) FLFP
income (log)	- 119.6*** (11.34)	- 127.3*** (12.87)	- 110.8*** (12.33)	- 137.6*** (12.59)	- 137.4*** (11.95)	- 128.9*** (11.49)	- 123.4*** (11.70)	- 126.0*** (11.56)
income (log) squared	6.241*** (0.607)	6.566*** (0.690)	5.729*** (0.662)	7.246*** (0.674)	7.169*** (0.639)	6.751*** (0.615)	6.411*** (0.629)	6.691*** (0.616)
growth 2000 - 2008	5.494* (3.316)	4.351 (3.781)		5.611 (3.828)	5.386 (3.644)	7.060** (3.474)	4.941 (3.462)	4.974 (3.454)
male labor force participation	0.605*** (0.0950)			0.557*** (0.109)	0.562*** (0.104)	0.621*** (0.0997)	0.679*** (0.101)	0.561*** (0.0989)
% in rural	-0.113* (0.0632)	-0.138* (0.0721)	-0.101 (0.0736)	-0.130* (0.0729)	-0.177** (0.0706)	-0.133** (0.0660)	-0.101 (0.0662)	-0.0748 (0.0666)
% below 15 years	-0.237 (0.165)	-0.0671 (0.187)	0.0154 (0.180)	-0.333* (0.190)	-0.260 (0.182)	-0.207 (0.174)	-0.411** (0.173)	-0.189 (0.174)
secondary enrollment rate, male	-0.188 (0.139)	0.447*** (0.152)	0.536*** (0.149)	-0.334** (0.160)	-0.260* (0.153)	-0.234 (0.145)	-0.215 (0.146)	-0.303** (0.143)
secondary enrollment rate, female	0.421*** (0.132)	0.674*** (0.143)	0.735*** (0.142)	0.578*** (0.151)	0.500*** (0.144)	0.481*** (0.136)	0.490*** (0.136)	0.548*** (0.134)
Formerly or presently Communist	8.450*** (2.620)	7.704** (2.990)	10.34*** (2.313)	13.86*** (2.877)	12.15*** (2.781)	10.33*** (2.685)	8.591*** (2.786)	11.34*** (2.636)
% sunni	0.200*** (0.0306)	0.187*** (0.0349)	0.178*** (0.0346)					
% shia	0.159*** (0.0477)	0.148*** (0.0545)	0.153*** (0.0561)					
% catholic	-0.0409 (0.0302)	-0.0552 (0.0344)	-0.0577* (0.0346)	0.0601* (0.0308)	0.00661 (0.0327)	-0.0165 (0.0309)	0.00874 (0.0302)	0.0141 (0.0283)
% protestant	0.141*** (0.0537)	0.116* (0.0612)	0.143** (0.0628)	0.297*** (0.0558)	0.230*** (0.0563)	0.200*** (0.0536)	0.185*** (0.0547)	0.184*** (0.0545)
Muslim pop.>4%				-2.380 (1.908)				
Muslim pop.>10%					- 8.868*** (2.311)			
Muslim pop.>25%						- 11.75*** (2.128)		
Muslim pop.>50%							- 11.89*** (2.157)	

Muslim pop.>75%								- 10.94*** (1.960)
Constant	560.0*** (54.44)	646.2*** (60.23)	566.2*** (57.79)	635.8*** (60.82)	645.1*** (57.97)	595.5*** (55.57)	572.7*** (56.33)	574.7*** (56.09)
Predicted FLFP, Turkey (actual 25.1)	18.0	17.6	17.5	21.6	20.8	20.6	19.7	18.4
Observations	143	143	147	143	143	143	143	143
R-squared	0.809	0.749	0.728	0.743	0.767	0.790	0.789	0.790

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1