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The Causes of Gender Inequality in College Education in Turkey

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Abstract

Participation in college education is lower for women than men in many developing countries including Turkey. In this paper, we explore the causes of lower participation rates of women in high education in Turkey by using the data set of student placement system (ÖSYS) which includes the data of approximately 1.8 million students for the year 2005. We determine seven reasons for lower participation rates of women in high education. Our findings are the following: (i) The women ratio among potential candidates for high education was lower than men, (ii) Women apply to student selection examination (LYS) less than men and, they are also less likely to apply LYS more than one compared to the men, (iii) Women prefer to attend to non–competitive programs less than men. Since it is easier to be accepted by non–competitive programs and women are less likely to prefer these programs, men's placement is higher for those programs, (iv) Women are more successful than men in verbal and foreign language score categories. The programs respecting scores in categories which women are more successful than men have only 20.2% of total capacity, (v) Women ratio among LYS applicants are even lower in the under–developed regions compared to that in developed regions, (vi) The men are more mobile than women in participating in college education. Women are more restricted to attend a college in their hometown than men. In addition, they choose to attend to colleges in closer cities to their hometowns compared to men, (vii) Women chose fewer programs to enroll in than men in their preference forms. Consequently, they have less chance for placement than men. In the paper we also point out the issues that policies should focus on in order to increase the participation of women in college education.

Keywords: gender inequality, college education, student placement system, Turkey.

JEL classification: I23, I24, J16.

1. INTRODUCTION

Many researches indicate that education is more important for women than men for social welfare due to some reasons such as fertility, infant mortality and child health. (for example, see Subbaro and Raney, 1995; Dreze and Murthi, 2001; Hill and King, 1995) In addition, economic return of education is higher for women than men in developing countries (see Schultz 1993, 1995). Tansel (1994) shows that the economic return of education for women is not less than that for men in Turkey. Therefore, participation of women in education in lower rates causes economic inefficiency.

Even though participation of women in education in lower rates is unequal and inefficient, women participate in education less than men in many countries. Table 1 gives the

ratio of education participation rates of women and men for various countries. If the ratio is higher than 1, then it means that education participation rate of women is higher than that of men. According to table 1, women have lower rates compared to men in participating primary, secondary and high school education in many developing countries.

Table 1. The ratio of education participation rates of women and men

Country	Primary and Secondary Education	High Education
Ethiopia	0,83	0,34
Bangladesh	1,07	0,57
Kenya	0,95	0,57
India	0,91	0,72
Turkey	0,9	0,76
Pakistan	0,8	0,85
Morocco	0,88	0,89
Mexico	0,99	0,93
Japan	1	1
China	1	1,01
Jordan	1,02	1,1
Lebanon	1,03	1,2
South Africa	1	1,24
The Czech Republic	1,01	1,26
France	1	1,27
Australia	0,97	1,29
Brazil	1,03	1,29
Russian Federation	0,98	1,35
England	1,02	1,4
United States	1	1,41
Argentina	1,04	1,52

Source: www.unesco.org

Table 1 shows that women's participation rate is %90 of men's participation rate for primary and secondary education and %76 of men's participation rate for high education in Turkey. Tansel (2002) claims that the education participation rates for women is even lower in underdeveloped regions of Turkey. According to Gökşen, Cemalciler and Gürlesel (2006), girl students may not attend to school in order to contribute more to house work and child care, especially in crowd families. In addition, marriage of girls in early ages, traditional rules, customs and religious beliefs are effective reasons for inequality in participation in primary and secondary education in Turkey.

In this paper, we explore the causes of lower participation rates of women in high education in Turkey by using the data set of student placement system (ÖSYS) for the year 2005 and determine seven reasons for lower participation rates of women in high education.

2. THE CAUSES OF LOWER PARTICIPATION RATES IN HIGH EDUCATION IN TURKEY

Here we give our findings on unequal participation rates in college education.

2.1. Rate of women among potential candidates for high education

Women participate in primary and high school education lower than men. Table 2 gives the number and ratio of women and men graduates from primary and secondary education in Turkey.

Table 2. Number and ratio of graduates from primary and secondary education between 2000 and 2005

Year	Women		Men	
Primary Education				
2000	335,271	40.6%	489,518	59.4%
2001	470,748	43.9%	600,441	56.1%
2002	471,568	44.0%	600,038	56.0%
2003	518,404	44.5%	647,115	55.5%
2004	572,931	45.7%	681,416	54.3%
2005	569,514	45.7%	676,564	54.3%
Secondary Education				
2000	237,686	44.3%	298,438	55.7%
2001	230,422	43.2%	302,530	56.8%
2002	227,111	44.8%	280,252	55.2%
2003	237,589	44.9%	291,870	55.1%
2004	214,889	47.6%	236,199	52.4%
2005	276,211	45.6%	329,775	54.4%

Table 2 shows that ratio of women graduates was lower than men in both primary and secondary education between 2000 and 2005. In 2005, %45.6 of graduates from secondary education was women. These graduates were potential candidates for high education. Therefore, the women ratio among potential candidates for high education was lower than men.

2.2. Application to student placement examination

The students who wish to be placed in colleges should take a centralized student placement examination (ÖSS) in Turkey. 1,846,599 students applied to ÖSS in 2005 and the ratio of women among applicants was %43. It was their first application for 644,097 (%35) students and 1,202,502 (65%) students were applied to ÖSS in the previous years. The ratio of women was %45 among first time applicants and %42 among applicants who applied previously. Consequently, that women apply ÖSS less than men and, they are also less likely to apply ÖSS more than one compared to the men.

2.3. Popularity of Colleges

The programs of colleges can be separated into two parts due to their competitiveness when accepting students: competitive and non–competitive programs. Competitive programs are undergraduate programs, whereas non–competitive programs include open education programs, programs of vocational higher schools and associate programs. The placements in competitive and non–competitive programs are given in Table 3.

Table 3. Placements of women and men in competitive and non–competitive programs

# of taking the exam	Competitive Programs		Non–competitive Programs	
	Women	Men	Women	Men
One	36,318 51.1%	34,812 48.9%	42,198 38.2%	68,225 61.8%

more than one	51,702	40.7%	75,409	59.3%	136,033	45.4%	163,694	54.6%
Total	88,020	44.4%	110,221	55.6%	178,231	43.5%	231,919	56.5%

Table 3 shows that placement ratio of women in non–competitive programs is lower than that in competitive programs. Women prefer to attend to non–competitive programs less than men. Since it is easier to be accepted by non–competitive programs and women are less likely to prefer these programs, men's placement is higher for those programs and thus for colleges.

2.4. The Distribution of ÖSS scores and Capacities of Programs

Following the student placement exam, each student can get ÖSS scores in four different categories in 2005. For each category, there is a minimum number of questions students must answer correctly to have ÖSS scores in that category. These categories are quantitative, verbal, equally–weighted and foreign language. Moreover, each program of colleges accepts students by considering one of these four categories. For example engineering programs respect to ÖSS scores in quantitative category and economics programs respect to ÖSS scores in equally–weighted category. Table 4 demonstrates the distribution of ÖSS scores by categories.

Table 4. The Distribution of ÖSS scores by categories

# of taking the exam	Top %25		%25–%50		%50–%75		%75–%100	
	Women	Men	Women	Men	Women	Men	Women	Men
				Quantitative				
One	41%	59%	45%	55%	46%	54%	48%	52%
more than one	32%	68%	36%	64%	39%	61%	42%	58%
				Equally–weighted				
One	49%	51%	55%	45%	55%	45%	55%	45%
more than one	41%	59%	48%	52%	50%	50%	48%	52%
				Verbal				
One	58%	42%	57%	43%	55%	45%	53%	47%
more than one	51%	49%	50%	50%	48%	52%	46%	54%
				Foreign Language				
One	80%	20%	77%	23%	76%	24%	73%	27%
more than one	72%	28%	72%	28%	69%	31%	67%	33%

It is seen from table 4 that women are more successful than men in verbal and foreign language score categories. On the other hand, the distribution of capacities of programs by categories is as follows. 46.4% of students are placed in programs in quantitative category, 33.4% of students are placed in programs in equally weighted category, 15% of students are placed in programs in verbal category, and 5.2% of students are placed in programs in foreign language category. Consequently, the programs respecting scores in categories which women are more successful than men have only 20.2% of total capacity.

2.5. Application to the student placement examination from under–developed regions

We investigated whether the women ratio among ÖSS applicants differs by the degree of development of students' hometowns. We used the per–capita GDP as a proxy for the degree of

development of cities. The students are sorted according to the per capita GDP of their hometowns and separated to four quartiles. Table 5 shows the rates of women and men among ÖSS applications according to the per capita GDP of their hometowns.

Table 5. The distribution of ÖSS applications by per–capita GDP of hometowns of the applicants

# of taking the exam	per–capita GDP							
	Top %25		%25-%50		%50-%75		%75-%100	
	Women	Men	Women	Men	Women	Men	Women	Men
One	48%	52%	47%	53%	44%	56%	34%	66%
more than one	45%	55%	45%	55%	42%	58%	32%	68%

Women apply to ÖSS less than men in all quartiles. When we consider the first time takers, the rate of women is %48 in the first quartile, %47 in the second quartile, %44 in the third quartile and %34 in the last quartile. That is ratio of women among ÖSS applicants is declining when the per–capita GDP of their hometown is decreasing. The fall in the women rates is sharp especially in the last quartile. In conclusion, women ratio among ÖSS applicants are even lower in the under–developed regions compared to that in developed regions.

2.6. Mobility of students

Attending to a college in a city different from hometown is more costly for students than attending to a college in hometown. This is mainly due to accommodation and food costs. If a student attends to a college in his hometown, in general he lives with his family and thus these costs decrease. In addition, the parents can have more control over students if they attend to a college in their hometown. Table 6 gives the distribution of placements by locations of colleges and students' hometown.

Table 6. The distribution of placements by locations of colleges and students' hometown

Location of college	Women		Men	
student's hometown	23,772	50%	23,554	50%
different than student's hometown	64,246	43%	86,664	57%

In 2005, there were 47,326 students who placed in a college in their hometown and approximately half of them were women (only the placements to competitive programs are considered here). On the other hand, only %43 of the students was women among 150,910 students who placed in colleges in cities different from their hometowns. The men are therefore more mobile than women in participating in college education. Women are more restricted to attend a college in their hometown than men.

In addition, we calculated the distance between location of colleges and hometown of students for those who placed in colleges in different cities from their hometowns. The average distance is 475km. for women and 550km. for men. That is, even women attend colleges in different cities from their hometowns, they choose to attend to colleges in closer cities to their hometowns compared to men.

2.7. Statement of Preferences over Colleges

In Turkish student placement system, after students receive their ÖSS scores, they submit a preference form to the central authority. They choose the programs they want to enroll in and rank them in this form. Students are restricted to choose at most twenty four programs in preference form in 2005.

We investigated the number of programs chosen in the preference form by women and men in 2005. Men submitted preferences over 14 programs on average, while women submitted preferences over 13 programs on average. That is, women chose fewer programs to enroll in than men. The probability of placement increases in the number of programs chosen in the preference form. Since women chose lower programs than men in their preference forms, they had less chance for placement than men.

3. CONCLUDING REMARKS

In this paper, we analyze the causes of unequal participation rates for men and women in college education. According to our findings, policies should emphasize following issues in order to increase the women participation in college education: i) Since the secondary education graduates are potential candidates for high education, women participation in primary and secondary education should be increased. ii) Women should be encouraged to apply the student placement examination, especially in under–developed regions. iii) The popularity of vocational higher schools, open education programs and associate programs must increase among women. iv) Women are more successful than men in verbal and foreign language score categories. However, the capacity of the programs respecting scores in verbal and foreign language categories is only 20.2% of total capacity. The capacity of these programs should be increased. v) The restrictions on the mobility of women should be eliminated. vi) Women should be encouraged to choose more programs in their preference lists.

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