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Relationship between GDP per Capita and Gender Parity in Primary Education: Evidence from Provinces of Turkey[1]

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Abstract

Globally, 115 million children, which is almost one in five of all primary school-age children in the world, are excluded from school. Due to the huge gender disparity especially in developing countries regarding to school participation, more than 60 million of the total out of school children are girls (UNESCO, 2005). Turkey is one of the developing countries which struggle with both low primary education enrollment and high gender disparity. Even though, there are many reasons for gender inequality in education such as social, cultural, and geographical barriers for girls, this study focuses on the relationship between economic growth and gender equality of primary school access. Many previous studies show that economical growth is strongly related to both general school enrollment and gender equality in many cases. It is emphasized that poverty has a negative effect on women's education and equity in education in a large number of studies. According to our results, there is a positive statistically significant relationship between the amounts of GDPs per capita of the provinces located in Turkey and gender ratios of the primary school enrollment of these provinces.

Key Words: Girls' Education, Gender, Economy, Primary School, School Participation

Özet

Dünya genelinde ilköğretim çağındaki çocukların yaklaşık olarak beşte biri (115 milyon) okula gitmemektedir. Özellikle gelişmekte olan ülkelerde, okula katılımda görülen büyük cinsiyet eşitsizliğinden dolayı okul dışındaki bu çocukların 60 milyondan fazlasını kız çocukları oluşturmaktadır (UNESCO, 2005). Türkiye, ilköğretim seviyesinde hem düşük okullaşmanın hem de

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yüksek oranda cinsiyet eşitsizliğinin yaşandığı gelişmekte olan ülkelerden biridir. Eğitimdeki cinsiyet eşitsizliğinin sosyal, kültürel ve coğrafik birçok nedeni olmakla birlikte, bu çalışma ekonomik gelişmişlik ile kız çocuklarının ilköğretime katılımları arasındaki ilişki konusuna odaklanmıştır. Daha önce yapılmış birçok çalışma ekonomik gelişmişlik ile hem genel okullaşma hem de cinsiyet eşitliği arasında güçlü bir bağın olduğunu ortaya koymaktadır. Ayrıca, fakirliğin kadın eğitimi ve cinsiyet eşitliği üzerinde negatif etkisi olduğu da birçok çalışmada vurgulanmıştır. Daha önceki çalışmalara paralel olarak bu araştırma, Turkiye'deki illerin kişi başına düşen milli gelirleri ile bu illerin ilköğretim düzeyindeki cinsiyet oranları arasında istatistiksel olarak anlamlı ve pozitif bir ilişki olduğunu ortaya koymaktadır.

Anahtar Kelimeler: Kız Çocuklarının Eğitimi, Cinsiyet, Ekonomi, İlköğretim, Okullaşma

INTRODUCTION

Despite the fact that positive benefits of education to both individuals and societies, right to primary education is legally guaranteed in most countries of the world. Moreover, international human rights conventions also recognize the right to primary education on its 28th article which emphasizes that governments should make primary education compulsory and available free to all. However, globally, 115 million children, which is almost one in five of all primary school-age children in the world, are excluded from schools. Due to huge gender disparity especially in developing countries regarding to school participation, more than 60 millions of total out of school children are girls (UNESCO, 2005). Turkey is one of the developing countries which struggle with both low primary school enrollment rate and high gender disparity. Furthermore, these problems are concentrated in specific regions of the country, so it makes the situation even worse for girls who live in these particular regions. Even though, there are many reasons for gender inequality in schooling such as economical, cultural, and geographical barriers for girls' access, this study focuses on the relationship between economic growth and gender equality of primary school access because economical growth found to be strongly related to both general school enrollment and gender equality in many studies (Oxaal, 1997; UNDP, 1997; UNICEF, 2005; Psacharopoulos, 1985). For example, some of the most recognizable challenges to access to education for boys and girls including poverty, child labor, and inadequate

number of schools are directly tied to the economic growth of a country or region. In this case, this study attempts to present and analyze the relationship between amounts of GDP per capita in different provinces of Turkey and their primary school gender enrollment ratios.

LITERATURE REVIEW

Why Primary Education is Crucial

In most cases, especially in developing countries, primary education is the first step of schooling for children. Even though, globally, there is no standard primary school-age, the data shows that 90% of countries make ages 6 and 7 the official starting age for primary school and 95% of world children live in these countries. The duration of primary education is also different from one country to another. While primary education lasts for six years in 114 countries, there are some countries which have four, seven, and five-year cycles (UNESCO). In terms of Turkey, primary education involves the education and training of children between ages six and 13. It is compulsory for all children and is free at government based schools for eight years (Ministry of National Education statistics, 2007-2008).

Primary education is known as a key to creating, applying, and deploying knowledge for both individuals and societies (Bruns, Mingat, & Rakotomalala, 2003). In this perspective, primary education plays a unique role in economical, social, and health developments of societies. From the economic perspective, several empirical studies suggest strong relationships between education level and economic growth (Fuenta & Domenech, 2000; Hanushek & Kimko, 2000). For example, a study which was conducted in 58 developing countries from five regions of the world suggests that spending time in primary education is an important determinant of aggregate real output and productivity (Lau, Jamison, & Louat, 1991). Moreover, education not only affects economic growth, but also influences social development and equity (Lee, 2002). From the social perspective, a study of more than 100 countries between 1960 and 1995 found the tendency toward democracy increases both with higher primary school enrollment and a smaller gap between male and female primary school attainment (Barro, 1999). As a result of these benefits, the importance of primary schooling as an input to the social and economic progress of poor countries has been recognized by every World Development Report published annually by the World Bank.

In sum, primary schooling is the number-one priority for investment because it is the most beneficial educational investment opportunity, followed by secondary education. In this case, social rate of return to primary education exceeds by several percentage points the returns to secondary and higher education. In terms of the girls' primary education, expanding the provision of school places to cover women is not only equitable but socially efficient as well. Although counter-intuitive, this proposition is based on the evidence that the rate of return to women's education is at least as attractive as the rate of return on investment for men (Psacharopoulos, 1985).

Barriers for Girls to Access Schooling

Gender parity in education is a problem unlike many of the other educational problems facing developing countries because it is a problem of cultural traditions and bias. For example, because of early marriage or seclusion, many girls are withdrawn from their schools so they never acquire basic academic skills (Tietjen & Prather, 1991). Because gender is so deeply entrenched in cultural definitions, changing gendered roles will be a long, difficult road, requiring more extensive, specified research. However, in order to deal with this problem and reach a state of equilibrium regarding educational opportunities for every child, we should determine and work on obstacles for girls' educational participation. Moving beyond cultural tradition and bias serves as a logical starting point. A recent UNICEF document has indicated that, globally, some of the significant barriers for girls' education are poverty, child labor, child trafficking, HIV/AIDS, remote geographic location, poor infrastructure, ethnicity, women's low social status and mothers' lack of education, civil conflict, natural disasters and violence (UNICEF, 2005). When we analyze these barriers more closely, we can easily see that most of them are somewhat related to economic growth of the families, regions or countries as a whole.

Distance from school is generally mentioned as one of the major obstacles for girls' school access because of the cost and/or safety. It is associated with strong gender disparity effects, especially in rural areas (UN Millennium Project, 2006). For example, increasing school distance from 1.5 km to 2 km reduce only four percentage points of boys' attendance, but eight percentage points of girls attendance in Egypt (Robinson, Makary, & Rugh, 1987). Another study in Pakistan indicates that having a state school

in a village has a strong positive effect on the probability that girl aged 10 to 14 will be enrolled (Lloyd, Mete, & Grant, 2007). Similarly, in the Philippines, girls' enrollment increased three percent compare to boys' one percent when schools are located within a child's village or nearby (King & Lillard, 1983).

Another important barrier is poverty, household survey data from all developing regions indicates that children from the poorest 20 per-cent of households are 3.2 times more likely to be out of primary school than those from the wealthiest 20 per cent (UNICEF, 2005). When we consider that most of the children who are not enrolled are girls, we can easily see the effect of poverty on girls' education. In that case, the direct cost of schooling dramatically affects girls' education. If parents feel that they can't afford their daughters' cost of schooling, they will not educate their daughters. Beyond the direct cost of education, child labor is another important factor which keeps children out of education system and it is also directly linked to the poverty. Mostly, girls' labor is considered domestic work such as caring for siblings and preparing food for households. In this case, the contributions of girls to household productivity far exceed boys' in many developing countries around the world (Tietjen & Prather, 1991). Therefore, girls' spending time in school has a significant impact on women's ability to raise household income either through food production or wage labor. In addition to the greater costs of girls' schooling, the private returns (to the household) are often tending to be less, because of wage differentials between educated women and men. These wage differences also makes negative impact on girls' schooling (Oxaal, 1997).

The education level of parents also has a huge impact on the educational participation of children. However, its effects were also larger on girl's schooling than on boy's schooling implying less social mobility for girls than for boys (Tansel, 2002). Children whose mothers have had no education are more than twice as likely to be out of school as children than those whose mothers have had some education (UNICEF, 2005). Also, in Turkey nearly three-fourths of un-enrolled children are female; more than half are children of illiterate mothers (World Bank, 2005).

Specifically, a UNICEF review of education indicated similar barriers for girls' education in Turkey, such as inadequate number of schools and classes in rural areas, families' reluctance to send their girls to a school that is far from their home, families' tendency toward giving more attention to

boys' education, girls' early marriage age, tendency to work girls at home for economic contributions, and the lack of women role models in educated positions within the public sphere, especially in rural areas (UNICEF, 2003: 30-35).

In sum, gender disparity is one of the most challenging barriers for providing universal primary education. It is impossible to increase primary education enrollment and make it available for all children before reaching gender parity. In addition to gender, there are several barriers for children gaining access to primary education; such characteristics include place of residence, household income, ethnicity and disability (UNESCO, 2007).

Current Situation in Turkey Compared to Other Countries in Region

Although the 42nd clause of the Turkish Constitution makes primary education mandatory and free for all girls and boys in the country, statistics and data show that there are huge numbers of out-of-school children at the level of primary education in Turkey. While the net enrollment ratio (NERs) in primary education were 91% in Central and Eastern Europe and 90% in Central Asia, Turkey's NERs in primary education were 89 per cent in 2005(UNESCO, 2007). Furthermore, because of the high population, Turkey alone accounted for about half the region of Central and Eastern Europe's children not in school with more than 900,000 out-of-school children in 2005.

According to the Ministry of National Education of Turkey, NERs in primary education were significantly increased to 97 percent in 2008. However, as indicated on Table-1, there are still several cities which have fewer than 90 per cent net primary school enrollment ratio especially in Eastern and Southeastern Anatolia. To illustrate, there are six cities which have less than 90 percent NERs in primary education and five of them are located in Eastern and Southeastern Anatolia. It shows the disparity between the western and eastern parts of Turkey regarding primary school enrollment.

In addition to the problem of accessing primary education in Turkey, there is also a significant inequality between school enrollment for boys and girls, even at the mandatory primary school level. According to the

Education for All (EFA) Global Monitoring Report (UNESCO, 2007), the average gender parity indices (GPIs) of primary gross enrollment ratio (GER) were 0.98 in Central and Eastern Europe in 20053, while Turkey has the lowest GPIs with 0.95 in the region (UNESCO, 2007: 5). Furthermore, Turkey placed in the bottom level for gender parity in secondary education with a GPI of 0.82, while the regional average was 0.96 in 2005 (UNESCO, 2007). The goal of eliminating gender disparities in both primary and secondary education (GPIs between 0.97 and 1.03) by 2005 was achieved in fifteen of the eighteen countries with data in the region. However, Turkey is not expected to achieve gender parity in both primary and secondary education until 2015 (UNESCO, 2007: 4).

Gender disparities in tertiary education are substantial in Central and Eastern Europe as well. Surprisingly, more young women than young men were enrolled at this level of education in 2005 within the region, with a regional GPI of 1.25 (UNESCO, 2007). While many countries in this region strongly favor girls in tertiary education, such as Albania and Lithuania both with GPIs of 1.57, Estonia with a GPI of 1.66, and Latvia with a GPI of 1.79, Turkey's rate of gender parity in tertiary education was considerably more dismal than its performance in primary and secondary education levels, with a GPI of only 0.74 in 2005 (UNESCO, 2007: 4).

Similar to the problem of general primary school enrollment, gender disparity in Turkey also varies within the country. While cities in the western part of Turkey have reached almost universal participation in primary and secondary school enrollment among both boys and girls, the cities of eastern Turkey are still well behind other developing nations in reaching gender equality (UNICEF, 2003: 30). The western portion of Turkey, which has made the most significant strides toward gender parity in primary and secondary education, is also the portion of the country that borders other European countries and experiences direct interaction with European society. Eastern Turkey, however, is very much entrenched in the heart of the Middle East, surrounded by Iran, Iraq and Syria.

3 Within this scale, a 1 indicates complete gender parity, below a 1 indicates a system that favors boys, and above a 1 indicates a system that favors girls.

METHODOLOGY AND DATA SOURCE

This study examines gender equality issue in primary education in Turkey by focusing on the relationship between amounts of GDPs per capita in different provinces of Turkey and their gender enrollment ratios in the primary school level. The data reported in this paper was gathered from Ministry of National Education of Turkey (MONE) and State Institute of Statistics (SIS). Data from MONE was used to identify both general primary school enrollment ratios and gender enrollment ratios for different provinces of the country. This data includes the enrollment ratios of boys and girls for 81 provinces of the country at the beginning of 2007/2008 educational year. GDPs per capita of different provinces of Turkey were obtained from State Institute of Statistics of Turkey. The latest available data regarding to the GDPs per capita of different provinces were found for 2001. To be able to see the relationship between variables and make the generalization from the findings, quantitative research method was used for the study. In this context, the SPSS software was used to analyze the relationship between GDPs per capita of provinces of Turkey and their gender enrollment ratios in primary education. These two variables were correlated to be able to answer the following questions; (a) if there is a relationship between these two variables, (b) if there is a relationship, what kind of relationship it is. We expected to see positive strong relationship between these two variables align with the previous studies in other developing countries.

Table 1: Primary school enrollment at beginning of the educational year 2007/'08

	Primary education				
Provinces	**Total**	**Females**	**Males**	**Gender Ratio**	**GDP Per Capita*($)**
TR Turkey	97.4	96.1	98.5	0.97	2146
Adana	98.3	97.5	99.2	0.98	2339
Adıyaman	97.4	96.5	98.3	0.98	918
Afyon	94.3	94.0	94.6	0.99	1263
Ağrı	86.3	80.9	91.3	0.88	568
Aksaray	94.0	93.3	94.7	0.98	966
Amasya	98.6	98.3	98.9	0.99	1439
Ankara	100.0	100.0	100.0	1.00	2752
Antalya	99.8	99.4	100.0	0.99	2193

Ardahan	94.6	94.1	95.0	0.99	842
Artvin	98.2	98.2	98.2	1.00	2137
Aydın	100.0	99.9	100.0	1.00	2017
Balıkesir	99.0	98.7	99.3	0.99	2005
Bartın	99.0	98.7	99.3	0.99	1061
Batman	95.5	93.5	97.4	0.96	1216
Bayburt	97.2	96.9	97.5	0.99	1017
Bilecik	98.2	97.3	99.0	0.98	2584
Bingöl	92.4	87.3	97.2	0.89	795
Bitlis	85.0	79.6	90.1	0.88	646
Bolu	95.8	95.6	95.9	0.99	4216
Burdur	93.9	94.1	93.8	1.00	1951
Bursa	100.0	99.9	100.0	1.00	2507
Çanakkale	97.0	96.5	97.5	0.99	2335
Çankırı	92.8	92.3	93.3	0.99	1136
Çorum	94.6	94.8	94.4	1.00	1654
Denizli	97.5	97.0	97.9	0.99	2133
Diyarbakır	96.4	92.8	99.7	0.93	1313
Düzce	98.0	97.9	98.0	1.00	1142
Edirne	98.3	97.7	98.9	0.99	2403
Elazığ	98.7	97.5	99.8	0.98	1704
Erzincan	95.8	95.5	96.1	0.99	1158
Erzurum	93.1	90.9	95.1	0.95	1061
Eskişehir	100.0	99.8	100.0	1.00	2513
Gaziantep	99.1	98.2	99.9	0.98	1593
Giresun	93.9	93.5	94.2	0.99	1443
Gümüşhane	82.4	82.4	82.5	1.00	1075
Hakkari	87.7	85.9	89.5	0.96	836
Hatay	97.8	97.3	98.3	0.99	1757
Iğdır	91.8	89.5	94.0	0.95	855
Isparta	96.1	95.9	96.3	0.99	1510
İstanbul	100.0	99.3	100.0	0.99	3063
İzmir	100.0	100.0	100.0	1.00	3215
K.maraş	94.9	94.2	95.4	0.99	1584
Karabük	98.7	98.3	99.2	0.99	1587
Karaman	96.3	96.2	96.4	1.00	2012
Kars	95.3	94.2	96.3	0.97	886
Kastamonu	98.3	97.9	98.7	0.99	1781

Kayseri	99.6	99.1	100.0	0.99	1806
Kırıkkale	97.1	97.5	96.7	1.00	2725
Kırklareli	97.9	97.5	98.3	0.99	3590
Kırşehir	93.5	93.3	93.8	0.99	1488
Kilis	96.1	95.7	96.5	0.99	1817
Kocaeli	100.0	100.0	100.0	1.00	6165
Konya	96.9	96.2	97.4	0.99	1554
Kütahya	96.9	96.4	97.4	0.99	1805
Malatya	98.7	98.2	99.3	0.99	1417
Manisa	97.3	97.0	97.6	0.99	2459
Mardin	90.6	88.0	93.2	0.94	983
Mersin	99.1	98.1	100.0	0.98	2452
Muğla	99.4	99.4	99.4	1.00	3308
Muş	87.8	83.0	92.3	0.90	578
Nevşehir	96.0	95.5	96.4	0.99	2117
Niğde	96.1	95.4	96.8	0.98	1781
Ordu	94.6	94.4	94.7	1.00	1064
Osmaniye	93.9	93.2	94.6	0.99	1157
Rize	98.0	97.5	98.6	0.98	1897
Sakarya	98.6	97.9	99.3	0.99	2108
Samsun	98.3	98.1	98.6	0.99	1680
Siirt	90.6	87.2	93.8	0.93	1111
Sinop	96.8	96.0	97.6	0.98	1459
Sivas	95.6	95.1	96.1	0.99	1399
Şanlıurfa	92.7	88.2	97.0	0.91	1008
Şırnak	90.7	87.3	93.9	0.93	638
Tekirdağ	100.0	100.0	100.0	1.00	2498
Tokat	93.2	92.9	93.5	0.99	1370
Trabzon	96.2	95.9	96.4	0.99	1506
Tunceli	95.7	96.3	95.2	1.01	1584
Uşak	95.9	95.4	96.4	0.99	1436
Van	89.0	83.3	94.3	0.88	859
Yalova	100.0	100.0	100.0	1.00	3463
Yozgat	90.2	89.8	90.5	0.99	852
Zonguldak	98.1	97.7	98.4	0.99	2969

Source: Ministry of National Education, Formal Education
*Source: State Institute of Statistics (Latest available data, 2001)

FINDINGS

Per Capita Incomes and General Primary School Enrollment

Inequality in per capita incomes between households within a region or within a country, between regions within a country and between countries in the world has been sustained to a substantially high degree, particularly during recent decades (Köse & Guven, 2007). This huge inequality regarding to economic growth between regions or countries also significantly affects the educational development of them. There are two important ways to understand linkages between economic growth and education. One of them is investment in education which can enhance the skills, productivity, and economic growth among poor households. Another one is economic growth as a constraint or assist to educational achievement both at family and country or regional level. For example, poor countries or poor regions within countries generally have lower levels of enrollment; as well in micro level, children of poor households receive less education (Oxaal, 1997).

As illustrated on Table 1, there is also similar situation in terms of the relationship between general primary school enrollment ratios and economic growth of different cities of Turkey. In that case, three of the five cities which rank in the lowest cities in the GDP per capita-Bitlis, Ağrı, Muş- also rank in the lowest five cities in general primary school enrollment ratio. Interestingly, all of the lowest five cities both in GDP per capita- Ağrı, Bitlis, Muş, Şirnak, Bingöl-, and in general primary school enrollment ratio- Gümüşhane, Bitlis, Ağrı, Hakkari, Muş- are located in the Eastern part of Turkey.

Table 2: Descriptive Statistics for GDP per Capita and Overall Primary Schooling

	Mean	**Std. Deviation**	**N**
GDP per Capita	1768,9383	912,64205	81
Overall Primary Schooling	95,837	3,7485	81

Table 3: Correlations

		GDP per Capita	Overall Primary Schooling
GDP per Capita	Pearson Correlation	1	,602**
	Sig. (2-tailed)		,000
	N	81	81
Overall Primary Schooling	Pearson Correlation	,602**	1
	Sig. (2-tailed)	,000	
	N	81	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4: Nonparametric Correlations

			GDP per Capita	Overall Primary Schooling
Kendall's tau_b Coefficient	GDP per Capita	Correlation Coefficient	1,000	,575**
		Sig. (2-tailed)	.	,000
		N	81	81
	Overall Primary Schooling	Correlation Coefficient	,575**	1,000
		Sig. (2-tailed)	,000	.
		N	81	81
Spearman's rho Correlation Coefficient	GDP per Capita	Correlation Coefficient	1,000	,754**
		Sig. (2-tailed)	.	,000
		N	81	81
	Overall Primary Schooling	Correlation Coefficient	,754**	1,000
		Sig. (2-tailed)	,000	.
		N	81	81

**. Correlation is significant at the 0.01 level (2-tailed).

As Table 3 presents, there is a statistically significant, positive and high level relationship between the amount of GDP per capita of the provinces of Turkey and net enrollment in these provinces (r= 0. 602, p<.01). According to this result, it can be observed that if the amount of GDP per capita increases, net enrollment increases, too. Considering the determination coefficient (r2= 0.36), it can be concluded that 36% of total variance in net enrollment stems from the amount of GDP per capita. Besides this, the variance theoretically explained can be interpreted for the other variable. In other words, such an analysis does not allow us to make a causal connection. Merely, it suggests the level and direction of change related to the variables.

Per Capita Incomes and Gender Parity in Primary School Enrollment

In terms of the relationship between per capita incomes and gender parity in primary school enrollment, similar situation with the relationship between per capita incomes and general primary school enrollment was found. When we look at Table 1, we can easily see the strong association between gender parity in primary school enrollment and GDP per capita in different regions. Four of the five cities which ranking in the lowest in the GDP per capita-Bitlis, Ağrı, Bingöl, Van- also rank in the lowest five cities in gender ratio in primary school enrollment. Similar to the lowest cities in GDP per capita and overall primary school enrollment ratio, all of the five cities which rank the lowest in gender ratio- Bitlis, Ağrı, Van, Bingöl, Ş.urfa- are also located in the Eastern part of Turkey.

Table 5: Descriptive Statistics for GDPs Per Capita and Gender Ratio

	Mean	**Std. Deviation**	**N**
GDP Per Capita	1768,9383	912,64205	81
Gender Ratio	97,89	3,012	81

As Table 6 illustrates, there is a statistically significant, positive and medium level relationship between the amount of GDP per capita of the provinces of Turkey and gender ratio in these provinces (r= 0. 473, p<.01). According to this result, it can be observed that if the amount of GDP per capita increases, gender ratio increases as well. Considering the determination coefficient (r2= 0.22), it can be concluded that %22 of total variance in gender ratio stems from amount of GDP per capita. Besides this, the variance theoretically explained can be interpreted for the other variables. In other words, such an analysis does not allow us to make a causal connection. Merely, it suggests the level and direction in which the variables change.

Table 6: Correlations

		GDP per Capita	**Gender Ratio**
GDP per Capita	Pearson Correlation	1	,473**
	Sig. (2-tailed)		,000
	N	81	81
Gender Ratio	Pearson Correlation	,473**	1
	Sig. (2-tailed)	,000	
	N	81	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7: Nonparametric Correlations

		GDP per Capita	Gender Ratio
Kendall's tau_b	GDP per Capita Correlation Coefficient	1,000	,443**
	Sig. (2-tailed)	.	,000
	N	81	81
Gender Ratio	Correlation Coefficient	,443**	1,000
	Sig. (2-tailed)	,000	.
	N	81	81
Spearman's rho	GDP per Capita Correlation Coefficient	1,000	,567**
	Sig. (2-tailed)	.	,000
	N	81	81
Gender Ratio	Correlation Coefficient	,567**	1,000
	Sig. (2-tailed)	,000	.
	N	81	81

**. Correlation is significant at the 0.01 level (2-tailed).

CONCLUSION

Globally, low primary school enrollment is one of the biggest educational issues with more extensive situation in developing countries. Generally, in poor countries there is a considerable problem in female/male enrolment ratios in addition to overall levels of enrolment (Oxaal, 1997). The 1997 Human Development Report claimed that there was a significant association between gender inequality and human poverty by showing a systematic relationship between the Gender Development Index (GDI) and the Human Poverty Index (HPI) as seen in the following:

Gender inequality is strongly associated with human poverty. The four countries ranking lowest in the GDI—Sierra Leone, Niger, Burkina Faso and Mali—also rank lowest in the human poverty index (HPI). Similarly of the four developing countries ranking highest in the HPI, three—Costa Rica, Singapore and Trinidad and Tobago—also rank among the highest in GDI (UNDP 1997, p. 39).

Similar to the previous findings, our study also indicate that there is positive strong relationship between GDPs per capita of the provinces of Turkey and the gender enrollment ratios in these provinces. Furthermore, it could be interpreted that girls who live in low income provinces have disadvantages because these provinces also have very low general primary school enrollment ratios in addition to the high gender gap as illustrated in our findings. In this study, it is also found that most of these low income provinces and provinces which have both low general primary school enrollment and high gender gap are accumulated in eastern part of the country.

Many studies working on the economic dimension of education have similar findings which indicate gender disparity in education has negative effects on economic development. In addition, it is emphasized that poverty has a negative effect on women's education and equity in education in a large number of studies (Oxaal, 1997; UNDP, 1997; UNICEF, 2005; Psacharopoulos, 1985). This study also shows that there may be a significant relationship between economical development and gender parity in primary schooling in provinces of Turkey. In this context, providing gender equity in education can be evaluated as an improvement strategy for developing countries. It could be interpreted that closing the gender gap in education by attaching importance to women education and giving priority to policies oriented spreading of primary education would be very crucial, especially for developing countries.

As a candidate to the European Union (EU), Turkey is expected by the European Commission (EC) to reduce inequality in per capita incomes across its provinces. Hence, the Turkish government has implemented many different public policies to be able to reduce the huge economic gaps between regions and provinces, but inequalities have not declined so far and have even increased during some periods (Köse & Güven, 2007). In addition to Turkey's current efforts on eliminating economic inequalities between regions, it can be suggested that the Turkish government should

give priority to girls' educational needs, especially for those who live in particular provinces. Also, the Turkish government should guarantee that every child, regardless of gender, has the opportunity to complete at least compulsory primary education.

In this study, positive statistically significant relationship was found between GDPs per capita of the provinces of Turkey and gender enrollment ratios of these provinces. However, this study did not attempt to find the direction of this relationship and its significance for different regions. For future studies, the direction of this relationship and its significance for different regions could be analyzed. Also, related variables such as cultural and traditional beliefs, parental education, and women status in different regions could be taken into account to be able to measure the effects of these variables on the girls' school attainment.

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