

# THE CHANGE IN EDUCATIONAL INEQUALITY IN TURKEY: A COMPARISON BY REGIONAL

Ekber Tomul

## ABSTRACT

*In recent years increasing attention has been paid to equity issues in education. Equal access to education is one of the basic human rights to which all are entitled. In this study, school years and the case of changes in terms of gender and allocation units in Turkey in 1990 and 2000 are examined. When compared to 1990, school years of both male and female increased in all regions in 2000. This increase occurred more in the regions in which years of schooling were low. In 1990 and 2000, male years of schooling were higher than those of female in all regions. While the gap between male and female tends to decrease in the regions where the instructional period is longer, this gap has a tendency to increase in the regions located in the eastern and southeastern parts of Turkey. Male and female average years of schooling in Turkey are below the mean average of the world. Increase in average years of schooling, however, is over the mean average of the world. When it is considered in general, male and female years of schooling were low, and the gap between them was higher in the regions that take place in the eastern and southeastern parts of Turkey.*

## INTRODUCTION

In recent years increasing attention has been paid to equity issues in education. Equal access to education is one of the basic human rights to which all are entitled. Educational situation in a country not only enables the current social, political, and economic developments, but also it functions to provide forward momentum in these scopes. Education should enable citizens/individuals to have more control over their own life, to understand social and political issues, and to experience life in a regulated community outside the original family (Allodi, 2007; OECD, 2002). Nevertheless, inadequacies and inequalities in education are said to prevent economic and social developments (Abu-Ghaida & Klasen, 2004; Psacharopoulos & Patrinos, 2002).

Ram (1990) stated education has an equalizer power. Education not only takes part in economic development but also contributes to the achievement of social justice (Park, 1996). According to Preston and Green (2005) there exists a correlation between educational inequalities and political-social integration. As long as political freedom decreases, educational inequalities increase. According to Gyfason and Zoega (2004), increase in the general educational level strengthens both equality and economic growth. As noted by UNICEF (2005), education is also the best mean to provide social gender equality. Creating equality of opportunity and facility in education is believed to decrease social isolation by positively affecting the distribution of income, prosperity, and status (Frankema & Bolt, 2006; Istance, 1997; Mingat & Tan, 1996). That is why providing opportunity and facility in education is considered as a main human right (Qian & Smyth, 2005; Thomas, Wan, & Fan, 2001).

According to United Nations Children's Fund (UNICEF, 2005), there exists serious obstacles that hinder educational equality, such as poverty, working children, children kidnapping, allocation units in retired spots, inadequacy in infrastructure, ethnical origin, illiterate mothers, inner conflicts, natural disasters, and violence. Educational inequality is confronted, especially, in respect of gender and inadequacies in female education. The gap between male and female average years of schooling (AYS) is an important indicator of developmental differential (Siddhanta & Nandy, 2003). It is stated that female education increases personal income and creates social isolation by decreasing children's death and fecundity. As a result of this isolation of education, children can have better health and educational opportunities. By means of this, differences among generations disappear and equality of opportunity between those with high and low income is achieved (Abu-Ghaida and Klasen, 2004; Gorard and Smith, 2004; Gönenç et al, 2001; Shan and Younger, 2005).

International legal arrangements and action plans were held in order to provide everybody with access to educational facilities. The earliest two of these, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, together

with the Universal Declaration of Human Rights, have been proclaimed by the United Nations to constitute the International Bill of Human Rights. They contain the provisions on compulsory and free primary education, and non-discrimination in education that were first set out in the 1948 Declaration. The two more recent conventions--the Convention on the Elimination of all Forms of Discrimination against Women and the Convention on the Rights of the Child--contain the most comprehensive sets of legally enforceable commitments concerning both rights to education and to gender equality. The most important of these was the United Nations Universal declaration of Human Rights in November 1948. In this declaration educational equality was emphasized as "education is a human right that must be provided for every human being; education must be free and even compulsory till secondary education level and higher education should be accessible for everybody" (UNESCO, 2004). The Alliances of International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, generally propound that primary education must be free and compulsory and that equal opportunities must be enabled for everybody. The Convention on the Elimination of all Forms of Discrimination against Women and the Convention on the Rights of the Child not only advocated that there must be no discrimination between males and females in terms of educational facilities, but also they emphasized that education is a human right (UNESCO, 2004).

In many academic studies it is stated that there are universally serious inequalities between the educational level of males and females, despite the international arrangements and activities. The level of this educational inequality, however, depends on the countries' development levels, allocation units, age, and income groups (Abu-Ghaida & Klasen, 2004; Barro & Lee, 2001; Knowles, Lorgelly & Owen, 2002; Psacharopoulos & Patrinos, 2002; United Nations Development Program (UNDP), 2000; UNICEF, 2005).

According to the UNDP (2001), the education level of females at every income and age group was lower than that of males at the international level. The gap between male and female education, however, was decreasing. In his study with the data of 174 countries in the years of 1980-1988, Tomul (2002) stated that inequality between school years of males and females at and over 24 years old is on going. In the countries where the number of years of education is lower, the gap between years of schooling of females and males is higher.

Türkmen (2002) computed average school years of the labor force (15- 64 years old) in Turkey for the years 1980-2000. According to this calculation during the 20 year-period, school years of the labor force increased only at the rate of 0.85 school years (3.02 years in 1980 and 3.87 years in 2000). According to the study done by Tansel (2003), there was a positive correlation between educational level of females in Turkey and their ratio of attendance to labor force. As the educational level of female increased, the level of attendance to the labor force went up, too.

It is emphasized in academic studies that there exists crucial educational inequalities against females at regional and country levels. An OECD (2005) report stated that there were inequalities based on gender, allocation units, and school quality in Turkey. In the eastern part of Turkey, there are many females, who did not even complete primary education (UNESCO, 2004). There are many studies supporting the assessment of OECD and UNESCO about Turkey. These studies indicated that educational inequalities and inequalities related to gender constitute a great problem (OECD, 2005; Smits & Hoşgör, 2006; Tansel 2002; Tomul, 2005; Türkmen, 2002; UNICEF, 2005). These studies, however, were mostly done according to the data of literacy and the school foundations in a certain period throughout the country. Longitudinal studies according to regions are very limited.

AYS were computed by gathering the raw data related to the education of males and females at the age 24 and over living in the cities within a certain region. This study aims to compute AYS of males and females at the age 24 and over according to regions in Turkey and make an assessment according to the international comparison determining the gap and case of change between them. As raw and operated data, the results to be obtained are believed to be significant in terms of providing measurable and comparable data for social policies and decision making processes, which will be developed, and to evaluate the results of applied educational policies in Turkey.

## DATA SOURCES AND METHODOLOGY

In order to estimate educational inequalities, wide and comprehensive data are required. This study was completed using the data of the years 1990 and 2000 census of population. The raw data of this study was obtained from the sources of Social and Economic Characteristics of Population about the cities, which was published after the Census of Population in the years 1990 and 2000. In the study, average school years of 24+ year-old females and males were computed. This population was taken into consideration as this age group contains the ages to leave the formal education.

The survey covered all geographical regions throughout Turkey. The Turkish Statistical Institute (2006) divided Turkey into 26 second-level regions. School years were computed in terms of gender and regional level. AYS were computed by gathering the raw data related to education of males and females at the age 25 and over living in the cities within a certain region.

In order to determine the distribution of educational levels of a society and the individuals in that society according to gender, allocation units and income groups, several indicators such as literacy rate, enrollment rate, average years of schooling, standard deviation, and Gini co-efficient were used. It is stated that these scales have the quality to reflect the results of all investments and efforts done for educational process (UNDP, 1992; Thomas, Wang and Fan, 2000; Siddhanta and Nanday, 2003). In this study, the scale of average years of schooling (AYS) was used.

The distinguishing features of AYS have been increased in determining the educational level in the process of the information society. The scale of AYS, however, is just an average value. It does not give enough information about the distribution of educational level in the population. This scale reflects the average of general educational level and quality. Another important limitation is that a very detailed and wide raw data are required so that the scale of AYS can be computed (Barro & Lee, 2001; Knowles, Lorgelly & Owen, 2002; OECD, 2002; Psacharopoulos & Patrinos, 2002; Tomul, 2005; UNDP, 1998).

Data from the last graduated education institutions were used. In Turkey, school years according to the educational grades are classified as 5 years of primary school, 8 years of junior high school level, and 11 years of high school level. The higher education system in Turkey consists of associate degrees (2 years), undergraduate degrees (4 years), and graduate degrees. The 29th question on the year 2000 census questionnaire was from "what school did you graduate last?" Although there were choices such as collegiate school, faculty and master/doctorate, these were revealed as higher education graduates in the data published. Estimations were done depending on the school years of these educational grades.

The formula for calculating AYS at the five levels of education follows (Thomas, Wang & Fan, 2001):

$$AYS = \sum_{i=1}^n p_i y_i$$

- |                                  |   |
|----------------------------------|---|
| (1) Illiterate                   | : $y_1 = 0$                                 |
| (2) Complete-Primary             | : $y_2 = y_1 + C_p = C_p$                   |
| (3) Complete- Junior high school | : $y_3 = y_2 + C_r = C_r + C_p$             |
| (4) Complete- High school        | : $y_4 = y_3 + C_s = C_r + C_p + C_s$       |
| (5) Complete- Higher education   | : $y_5 = y_4 + C_t = C_r + C_p + C_s + C_t$ |

Where,

$C_p$  is the cycle of the primary education;

$C_r$  is the cycle of junior high school education;

$C_s$  is the cycle of the High school education; and

$C_t$  is the cycle of the Higher education.

## FINDINGS

### Trends of Education Attainment by Gender and Discussion

Male and female AYS, the change and the gap between male and female AYS by regions in Turkey, are given in Table 1. The changes in male and female AYS by regions in Turkey are given in Figure 1. The gaps between male and female AYS by regions are given in Figure 2, and the increase in male and female AYS by regions are shown in Figure 3.

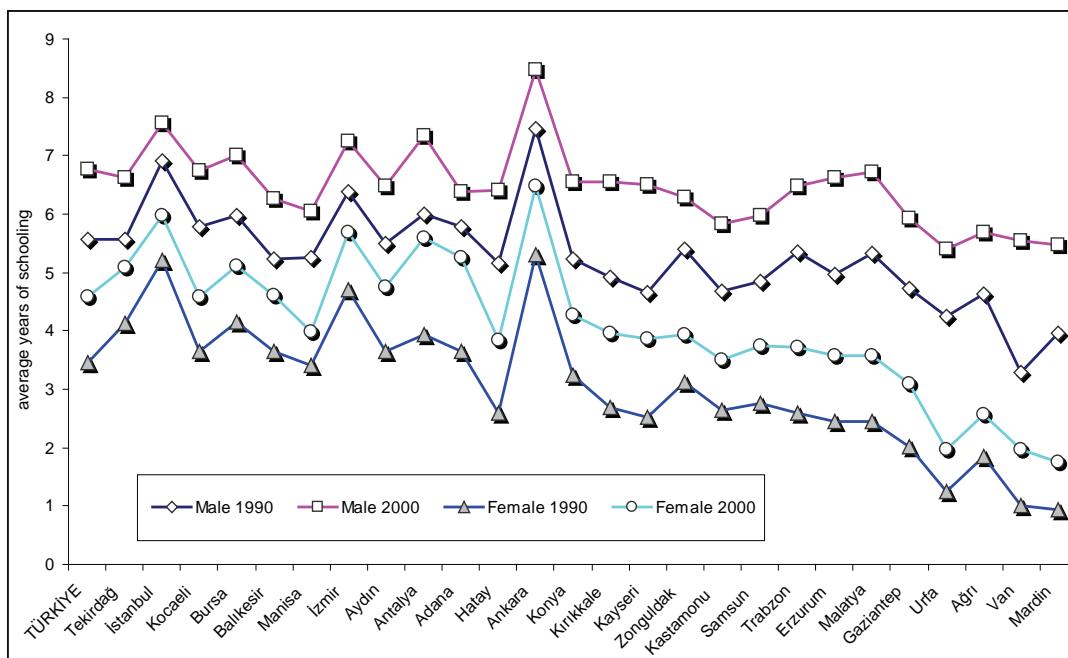
According to Table 1 and Figure 1, in all regions male AYS was higher than female during the years 1990 and 2000. In all regions female AYS in 2000 was lower than male AYS in 1990. The inequality involving females in 1990 continued in the year 2000 (Table 1; Figure 1).

According to the data in 1990 and 2000, male and female AYS was high in western regions of Turkey such as Istanbul, Kocaeli, Ankara, İzmir, Antalya and Tekirdağ, whereas they are lower in southeastern regions such as Van, Mardin, Urfa, Ağrı and Gaziantep (Table 1, Figure 1). Male AYS is lower than AYS of Turkey in 18 regions in 1990, but in the year 2000 it is lower in 21 regions. In the year 1990 and 2000, female AYS is lower than the AYS of Turkey in 21 regions.

	The change in years of schooling				The gap between male and female years of schooling		Changes in school years in 2000 compared to 1990	
	Male		Female		1990	2000	Male	Female
	1990	2000	1990	2000				
TÜRKİYE	5,56	6,76	3,46	4,59	2,10	2,17	1,20	1,13
Tekirdağ	5,57	6,63	4,13	5,10	1,44	1,53	1,06	0,97
İstanbul	6,92	7,55	5,20	5,98	1,72	1,57	0,63	0,78
Kocaeli	5,78	6,74	3,65	4,59	2,13	2,15	0,96	0,94
Bursa	5,97	7,01	4,15	5,11	1,82	1,90	1,04	0,96
Balıkesir	5,23	6,27	3,66	4,60	1,57	1,67	1,04	0,94
Manisa	5,26	6,04	3,42	3,99	1,84	2,05	0,78	0,57
İzmir	6,39	7,25	4,70	5,68	1,69	1,57	0,86	0,98
Aydın	5,5	6,48	3,66	4,76	1,84	1,72	0,98	1,10
Antalya	5,99	7,34	3,93	5,59	2,06	1,75	1,35	1,66
Adana	5,79	6,38	3,65	5,25	2,14	1,13	0,59	1,60
Hatay	5,15	6,42	2,59	3,84	2,56	2,58	1,27	1,25
Ankara	7,46	8,47	5,30	6,47	2,16	2,00	1,01	1,17
Konya	5,23	6,56	3,23	4,28	2,00	2,28	1,33	1,05
Kırıkkale	4,93	6,56	2,70	3,95	2,23	2,61	1,63	1,25
Kayseri	4,65	6,50	2,53	3,86	2,12	2,64	1,85	1,33
Zonguldak	5,41	6,30	3,12	3,94	2,29	2,36	0,89	0,82
Kastamonu	4,68	5,84	2,63	3,50	2,05	2,34	1,16	0,87
Samsun	4,84	5,97	2,76	3,74	2,08	2,23	1,13	0,98
Trabzon	5,36	6,48	2,60	3,72	2,76	2,76	1,12	1,12
Erzurum	4,98	6,63	2,45	3,57	2,53	3,06	1,65	1,12

Malatya	5,33	6,72	2,46	3,58	2,87	3,14	1,39	1,12
Gaziantep	4,72	5,92	2,01	3,09	2,71	2,83	1,20	1,08
Urfa	4,26	5,40	1,25	1,97	3,01	3,43	1,14	0,72
Ağrı	4,64	5,70	1,84	2,56	2,80	3,14	1,06	0,72
Van	3,28	5,55	1,02	1,96	2,26	3,59	2,27	0,94
Mardin	3,96	5,47	0,93	1,75	3,03	3,72	1,51	0,82

Source: AYS is calculated on data from Social and Economic Characteristics of Population by 1990 and 2000



According to international data, interesting results were obtained when AYS of males and females were compared. In the years 1990 and 2000, male and female AYS were below the mean average of the world. In Turkey AYS of males and females were lower than the world's AYS in 1990 and 2000. In 1990, AYS of males was above the world average in only Ankara. They were lower, however, in the other regions. In 2000, the AYS of males living in Ankara and İstanbul were above world average, whereas they were below the average in the other regions. AYS of males living in Ağrı, Mardin, Urfa and Van were approximate to the values of Sub-Saharan African (22) countries (Table 1; Barro & Lee, 2001). In Turkey, female AYS was lower than world average schooling years. In 1990 and 2000, AYS of females living in Gaziantep, Ağrı, Urfa, Van, and Mardin was lower than the AYS of those living in Sub Saharan African (22) countries (Table 1; Barro & Lee, 2001).

The highest gap between male and female AYS was seen in the regions: Mardin, Urfa, Malatya, Ağrı, and Trabzon; and the lowest gap was seen in Tekirdağ, Balıkesir, İzmir, İstanbul, and Bursa in 1990. The highest gap in male and female AYS was seen in the regions: Mardin, Van, Urfa, Malatya, and Ağrı; and the lowest gap was seen in Adana, Tekirdağ, İzmir, İstanbul, and Balıkesir in 2000 (Table 1; Figure 1).

When compared to 1990, in the year 2000 the gap between male and female AYS decreased in the regions of İstanbul, İzmir, Aydın, Antalya, Adana and Ankara, while it increased in the other regions. It

is striking that the highest increase in AYS happened in the regions of Kastamonu, Ağrı, Kırıkkale, Urfa, Kayseri, Erzurum, Mardin, and Van (Table 1; Figure 1). In 15 regions, the gap in male and female AYS was above the AYS of Turkey in 1990 and 2000.

Figure 1. The change in male and female AYS by regions in Turkey from 1990 to 2000

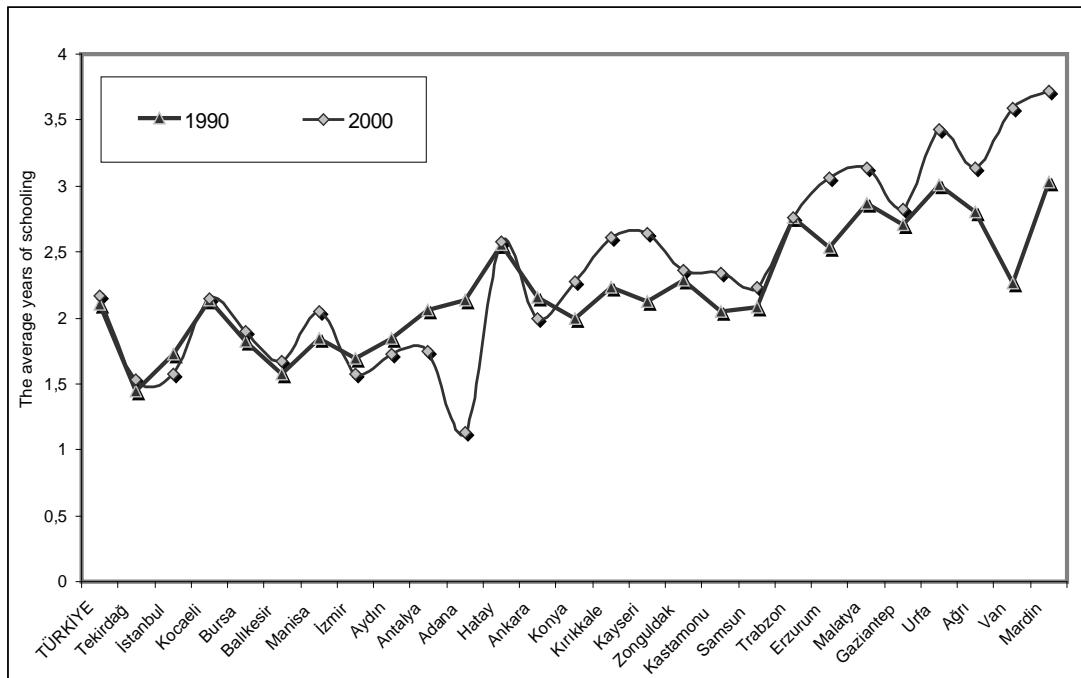


Figure 2. The gap between male and female AYS by regions in Turkey, from 1990 to 2000

The gap between male and female AYS is lower in the western part of Turkey, whereas higher in the eastern part. At the same time in these regions (regions in the eastern part) male and female AYS was low. A decrease in the gap between male and female AYS was seen in the regions where AYS was high, but at the same time there was a tendency of increase observed in the regions where AYS was low (Table 1; Figure 1; Figure 2; Barro & Lee, 2001). In general, the gap between male and female AYS was low in regions where AYS was high, and the gap was higher in regions where AYS was low (Table 1; Figure 1; Figure 2; Barro & Lee, 2001).

When the researcher observed the international data, it was seen that the gap between male and female AYS was lower in regions where AYS was high, whereas the gap was higher in regions where AYS was low. As from this point, the gap between male and female AYS was parallel with the world. According to the data of 1990 and 2000, AYS of males and females in Turkey are higher than the world data. When compared to the world numbers, the gap in Turkey between male and female AYS also was higher (Table, Figure 2, Barro and Lee, 2001).

In general, both male and female AYS increased in 2000 when compared to 1990. This increase in male AYS was the least in the regions of Adana, İstanbul, Manisa, İzmir, and Zonguldak; and, it was the most in the regions of Malatya, Mardin, Kırıkkale, Erzurum, Kayseri, and Van (Figure 3). Female AYS increased least in Manisa, Urfa, Ağrı, İstanbul, Zonguldak, and Mardin in 2000 when compared to 1990, and the most increase was seen in Ankara, Hatay, Kırıkkale, Kayseri, Adana, and Antalya.

The increase in male AYS in 10 regions was above that of the total country. The increase in female AYS in 6 regions was above the country numbers.

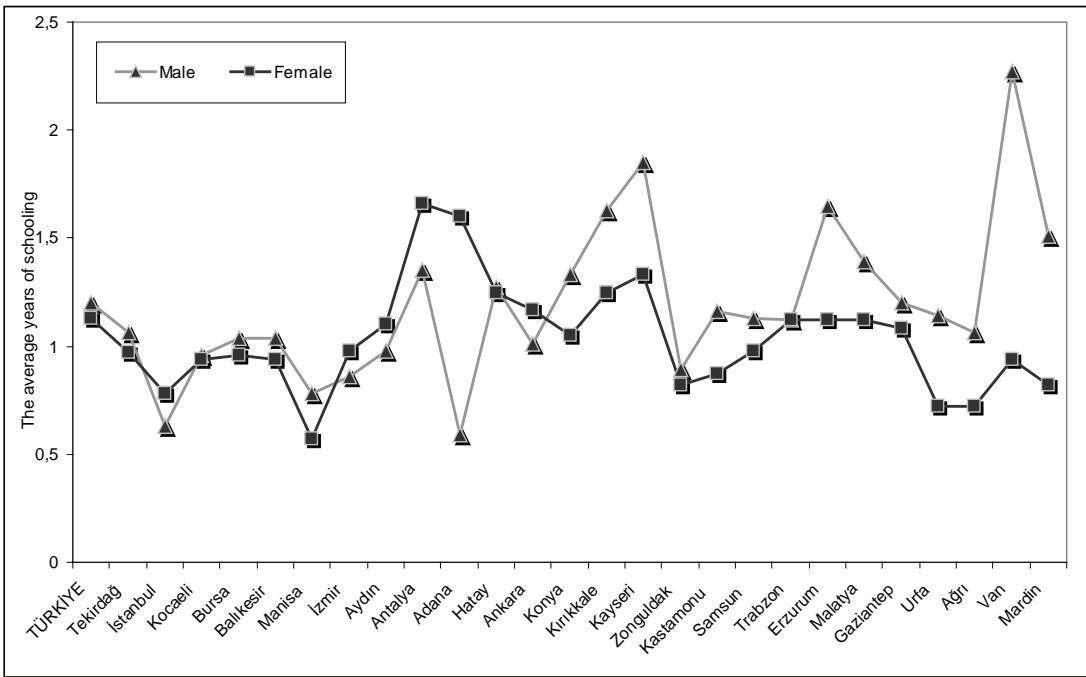


Figure 3. The increase in male and female AYS by regions in Turkey, in 2000 comparing to 1990.

In general there is an increase in the world AYS, but in regions of Turkey, where AYS are low, the increase was higher than world average. During the same period (1990-2000) in Turkey, increases in both male and female AYS were above the world average in all regions. Increases in the number of the regions with low AYS was above the mean average of Turkey and world. Male AYS increased more than those of females, however, in the regions with low AYS. Thus, Turkey differs from the general development in the world. In general, female AYS increased more than male, except from Sub Saharan African (22) countries (Barro & Lee, 2001).

It is seen from the data that the gap between male and female AYS gradually has decreased. Female AYS has increased more than male at the international level. Moreover, there was a back tracking in male AYS in those countries with transition economy. In Sub-Saharan African Countries, the gap between male and female AYS with low educational level was high and had a tendency to increase (Barro & Lee, 2001).

### CONCLUSION

In Turkey 1990–2000 was a decade when political, economic, and social crises existed consistently. During the period of these consistent crises, social phenomena were ignored in order to have more economic and political stability.

Ram (2001) stated that inequality increased in years of schooling by 7 years on average, and it had a tendency to decrease after more years of education. The outcomes in this study supported the findings reached by Ram (2001) to some extent. In this study, it was seen that the gap between years of schooling of males and females increased in regions and allocation units with low years of schooling in 2000, when compared to 1990; however, it fell down in the regions and allocation units with a higher number of years of schooling.

When the data of 1990 and 2000 were compared, male and female AYS in Western Turkey and the Mediterranean region were higher, and the gap between them was lower in 2000. On the other hand,

male and female AYS in the eastern and southeastern regions in Turkey were lower, and the gap between them was higher. In 1990 and 2000, in the regions in which both male and female AYS was low, the gap between their AYS was high.

In general, tendency of change in school years were similar in Turkey and the world in the year 2000, when compared to 1990. In this period, both male and female AYS in Turkey were below the world average, but the increase in AYS was higher than world average.

In the years 1990 and 2000, the regions of Erzurum, Malatya, Gaziantep, Urfa, Ağrı, Van, and Mardin in east and southeast Turkey, male and female AYS was low and the gap between them was higher. When it is considered in general, male and female AYS was low and the gap between them was high in the regions that take place in the eastern and southeastern Turkey. When this outcome is interpreted by considering AYS, however, it can be claimed that equality does not mean much, as long as the educational levels remain low.

## REFERENCE

- Abu-Ghaida, D., & Klasen, S. (2004). The Costs of missing the millennium development goal on gender equity. *World Development*, 32(7), 1075-1107.
- Allodi, M. W. (2007). Equal Opportunities in Educational Systems: the case of Sweden. *European Journal of Education*, 42(1), 133-146.
- Barro, R. J., & Lee, J. W. (2001). International data on educational attainment updates and implications international data on educational attainment: updates and implications. *Oxford Economic Papers*. 53(3), 541-563.
- Frankema, E., & Bolt, J. (2006). Measuring and analyzing educational inequality: the distribution of grade enrolment rates in Latin America and Sub-Saharan Africa. Retrieved June 6, 2006 from: <http://ggdc.eldoc.ub.rug.nl/root/WorkPap/2006/GD-86/-13k>
- Gönenç, M., Ayhan, N., & Bakır, A. (2001). Kız çocuklarının eğitiminin engellenmesi ve ev işlerinde çalıştırılması. *Türkiye'de Çalışan Çocuklar Semineri*. DİE Yayın No. 2534. Ankara: DİE Matbaası
- Gorard, S., & Smith, E. (2004). An international comparison of equity in education systems. *Comparative Education*, 40(1), 15-28.
- Gylfason, T., & Zoega, G. (2003, January 28). Education, social equality and economic growth. *A view of the landscape for CESifo conference on globalization, inequality and well-being*. Munich, 8-9 November 2002.
- Instance, D. (1997). Education and social exclusion. *The OECD Observer*, 208, 27-30.
- Knowles, S., Lorgelly, P. K., & Owen, P. D. (2002) Are educational gender gaps a brake on economic development? Some cross-country empirical evidence. *Oxford Economic Papers* 54, 118-149
- Machin, S., & Vignoles, A. (2004) Educational inequality: the widening socio-economic gap. *Fiscal Studies*, 25(2), 107-128.
- Mingat, A., & Tan, J. P. (1996). The full social returns to education: estimates based on countries' economic growth performance. *World Bank*, Washington, DC.
- OECD. (2002). Financing education-investment and returns. Retrieved December 12, 2003 from: <http://www.oecd.org>.
- \_\_\_\_\_. (2006). Education at a glance: OECD Indicators – 2005: Edition Summary in Turkish Retrieved May 5, 2006 from: <http://www.oecd.org/dataoecd/57/63/35317215.pdf>.
- Park, K. H. (1996). Educational expansion and educational inequality on income distribution. *Economics of Education Review*, 15(1), 51-58.
- Preston, J., & Gren, A. (2005). Educational inequality and social cohesion: a time series analysis. Retrieved December 15, 2006 from: [http://ioe.webservers.ioe.ac.uk/ioe/cms/get.asp?cid=4458&4458\\_0=10177](http://ioe.webservers.ioe.ac.uk/ioe/cms/get.asp?cid=4458&4458_0=10177)
- Psacharopoulos, G., & Patrinos, H. A. (2002). Returns to investment in education: a further update. *World Bank Policy Research Working Paper*, No: 2881, Retrieved October 26, 2004 from: <http://www.eldis.org/static/DOC10329.htm/>
- Qian, X., & Smyth, R. (2005). Measuring regional inequality of education in China: widening coast-

- inland gap or widening rural-urban gap?, Department of Economics, Monash University, *Australia ABERU Discussion Paper 12*.
- Ram, R. (1990) Educational expansion and schooling inequality: international evidence and some implication. *The Review of Economics and Statistics*, 72(2), 266-274.
- Shan, D. E., & Younger, S. D. (2005). Decomposing world education inequality. Retrieved August 20, 2006 from: <http://www.cfnpp.cornell.edu/images/wp187.pdf>
- Siddhanta, S., & Nandy, D. (2003). Gender gap in education: a fresh exploration. Retrieved June 20, 2006 from: <http://www.wider.unu.edu/conference/conference-2003-3/conference-2003-3-papers/siddhanta-nandy.pdf>
- Smits, J., & Hoşgör, A. G. (2006). Effects of family background characteristics on educational participation in Turkey. *International Journal of Educational Development*, 26, 545–560.
- Tansel, A. (2003). İktisadi kalkınma ve kadınların işgücüne katılımı: Türkiye’den zaman-serisi kanıtları ve illere göre yatay kesit kestirimleri. Retrieved October 20, 2004 from: [http://www.erc.metu.edu.tr/menu/sayfa.php?icerik=01\\_5T&lang](http://www.erc.metu.edu.tr/menu/sayfa.php?icerik=01_5T&lang)
- Tansel, A., & Güngör, A. D. (2000). Provincial inequalities in school enrollments in Turkey, Economic Research Forum Working Paper No. 2003. Retrieved October 15, 2004 from: <http://ssrn.com/abstract=266168>.
- Thomas, V., Wan, Y., & Fan, X. (2001) Measuring education inequality gini coefficients of education. *The World Bank*, World Bank Institute Office of the Vice President and Economic Policy and Poverty Reduction Division January 2001 Policy Research Working Paper 2525.
- Tomul, E. (2002). Küreselleşme ve eğitim eşitsizlikleri. *Eğitim Araştırmaları Dergisi*, 6, 78-86.
- Tomul, E. (2005) The means years of school in terms of gender in Turkey. *Eğitim Bilim Toplum*, 3(10), 62-73.
- DİE. (1994). *1990 Genel nüfus sayımı nüfusun sosyal ve ekonomik nitelikleri*, Ankara: DİE Matbaası, 1994.
- \_\_\_\_\_. (2004). *2000 Genel nüfus sayımı nüfusun sosyal ve ekonomik nitelikleri*, 81 il, Ankara: DİE Matbaası, 2004.
- Türkmen, F. (2002). Eğitimin ekonomik ve sosyal faydaları ve türkiye’de eğitim ekonomik büyüme ilişkisinin araştırılması. Ankara: DPT Yayın No:2655.
- UNESCO. (2004). Gender and education for all: the leap to equality? *EFA Global Monitoring Report 2003/4*, Retrieved June 20, 2007 from: [http://portal.unesco.org/education/en/ev.phpURL\\_ID=23023&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.phpURL_ID=23023&URL_DO=DO_TOPIC&URL_SECTION=201.html)
- UNICEF. (2005). A Report card on gender parity and primary education. *Progress For Children*, 2, April 2005.
- \_\_\_\_\_. (2004). Human Development Report 2004. Retrieved August 18, 2005 from: <http://hdr.undp.org/reports/global/>
- \_\_\_\_\_. (2000). Human Development Report, 2000. Retrieved August 18, 2005 from: <http://hdr.undp.org/reports/global/>
- \_\_\_\_\_. (1998). Human Development Report, 1998. Retrieved August 18, 2005 from: <http://hdr.undp.org/reports/global/>
- \_\_\_\_\_. (1992). Human Development Report, 1992. Retrieved August 18, 2005 from: <http://hdr.undp.org/reports/global/>