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Abstract

This study examines the effects of the extension of compulsory schooling from 5 to 8 years in Turkey—which substantially increased the grade completion rates not only during the new compulsory years but also during the high school years—on the equality of educational outcomes between men and women, and urban and rural residents. Longer compulsory schooling decreases the educational gap in basic education for most subgroups—in particular, the gender gap in rural areas, and the urban-rural gap both for men and women diminish following the policy. In fact, the urban-rural gap for women declines by almost 20 percentage points during the new compulsory grades. At the same time, however, longer compulsory schooling increases the gender gap in urban areas in non-compulsory schooling grades.

JEL Classifications: I21, I24, I28, J15, J16.

Keywords: Compulsory Schooling, Gender, Ethnicity, Parental Schooling, Regression Discontinuity

ملخص

تبحث هذه الدراسة الآثار المترتبة على تمديد التعليم الإلزامي من 5 الى 8 سنوات في تركيا، والتي زادت بشكل كبير عن معدلات إتمام الصف ليس فقط خلال السنوات الإجبارية الجديدة ولكن أيضا خلال سنوات المدرسة الثانوية على المساواة بين مخرجات التعليم بين الرجال و النساء، وسكان الحضر والريف. زيادة مدة التعليم الإلزامي تقلل من الفجوة التعليمية في التعليم الأساسي لمعظم المجموعات الفرعية، وعلى وجه الخصوص، فإن الفجوة بين الجنسين في المناطق الريفية، والفجوة بين الريف والحضر على حد سواء للرجال والنساء تقل وفقا للسياسة. وفي الواقع، الفجوة بين الريف والحضر للنساء تنخفض بنحو 20 نقطة مئوية خلال الدرجات الإجبارية الجديدة. وفي نفس الوقت، يزيد التعليم الإلزامي من الفجوة بين الجنسين في المناطق الحضرية في درجات التعليم غير الإلزامية.

1. Introduction

Despite the progress made towards equality in schooling, great disparities still exist in many parts of the world by race, ethnicity, gender and place of residence. Women, for instance, continue to lag behind men in many developing countries (Grant and Behrman 2010; UNESCO 2006). Rural-urban divide in schooling is also a stylized fact in many parts of the developing world (Orazem and King 2008). Ethnic and racial differences, on the other hand, are not unique to developing countries but also exist in the developed world.[1]

In Turkey, girls and rural children fare worse than boys and urban children. The average school enrollment rate in non-compulsory schooling at 61 percent for boys and 56 percent for girls attests to the gender schooling gap (TUIK 2008). A large number of studies also point to the negative association between children's schooling and rural residence in Turkey.[2] This paper investigates how a recent policy change in compulsory education in Turkey—which made a substantial impact on grade completion rates both during and beyond the extended compulsory schooling years—has affected schooling attainment by gender and place of residence and whether this schooling reform narrowed or further exacerbated the existing differences across these groups. Although the impact of compulsory education laws on educational attainment has been the subject of various studies around the world, that these policy changes may bring about differential impacts by gender and childhood place of residence remains less well studied. Hence, this study contributes to the literature by providing evidence from a developing country on the likely consequences of compulsory schooling laws in expanding the schooling opportunities of individuals of various backgrounds. In addition to evaluating the effect of the policy on the schooling levels that it is intended for, we also investigate spill-over effects on non-compulsory levels. The empirical analysis uses the 2003 and 2008 Demographic and Health Survey (DHS) data for Turkey.

Numerous studies around the world show that compulsory schooling has high social and private returns: it increases labor force participation and wages (Spohr 2003), boosts economic growth, improves intergenerational income distribution (Eckstein and Zilcha 2002), educational outcomes of future generations (Oreopoulos 2006), and lifetime wealth (Oreopoulos 2007). It reduces wage inequality (Brunello et al. 2009), crime (Lochner and Moretti 2004) and unemployment (Oreopoulos 2007). Furthermore, Oreopoulos (2009) argues that longer compulsory schooling especially helps the disadvantaged youth. Indeed, one would expect compulsory schooling to especially raise the educational attainment of the disadvantaged groups by reducing the number of school years that children can choose not to attend school but also by inducing them to act more like groups with traditionally higher schooling attainment. As elaborated below, compulsory schooling laws are, for instance, often accompanied by measures that reduce schooling costs making it cheaper for children of limited means to attend school. Compulsory schooling laws are, therefore, potential interventions that can reduce unequal access to education. Therefore, it is of great interest to establish whether compulsory schooling does indeed lead to more equality in the schooling outcomes of individuals of various backgrounds.

Turkey presents itself as an excellent case study to examine the impact of compulsory education laws on schooling attainment for three main reasons: One, the change in

[1] Hall and Patrinos (2005) illustrate the disadvantaged position of the indigenous populations in five Latin American countries, where schooling gaps between non-indigenous and indigenous populations range from 2.3 to 3.7 years to the disadvantaged of the latter. A report prepared for the US Department of Education (Aud et al. 2011), on the other hand, shows that black and Hispanic 16- to 24-year-olds are twice and three times more likely to drop out of high school as do white Americans, respectively.

[2] See, for instance, Tunalı (1996), Tansel (2002); Smits and Gündüz-Hoşgör (2006), Dayıoğlu (2005), Kırdar (2009). Furthermore, Dayıoğlu et al. (2009) find the preference for boys' schooling to be stronger in lower income households in Turkey.

compulsory education that was implemented in 1997 was quite substantial and therefore, it affected a sizeable proportion of the youth; two, prior to the enactment of the law, there was a sizeable enrollment gap between compulsory schooling and non-compulsory levels that immediately followed it; and three, although enrollment in the then compulsory schooling was relatively high, it was by no means universal. We mainly exploit the first two features above and use a regression discontinuity design to understand whether the change in the compulsory schooling law had differential impacts on the educational attainment of men and women, and urban and rural residents.

The empirical analysis in this paper shows that the new compulsory schooling policy has a stronger effect on men than on women in urban areas for grades 6 through 8 (the new compulsory grades) as well as for grades 9 and 10 (non-compulsory grades). We attribute the stronger effect of the policy for men in urban areas to their higher likelihood of wage employment. Due to the lower initial grade completion rates of women, the gender schooling gap in the newly mandated schooling levels remains unchanged after the policy. There is, however, evidence for a growing gender schooling gap in the first two grades of upper secondary schooling.

In rural areas, the policy has been gender neutral in the sense that a differential policy effect is not observed between men and women neither in the newly mandated schooling levels nor in the levels beyond that. However, the gender schooling gap in rural areas closes for grades 6 through 8, but remains unchanged for grades 9 through 11.

The policy has also been neutral between urban and rural men, but there is strong evidence for a closing urban-rural schooling gap in grades 6 through 8, attributable to the lower base values of rural men. No such improvement is observed for schooling levels beyond compulsory basic education. In the case of women, we find the policy to especially favor rural women during the new compulsory schooling years. We attribute this effect to the sharper reduction in schooling costs in rural areas. There is also some evidence that the policy has had a more favorable effect on rural as compared to urban women in grades 9 through 11. In parallel to these findings, the urban-rural gap reduces among women in the newly mandated schooling levels and there is some evidence—though not as strong as for grades 6 through 8—that the gap also reduces in grades 9 through 11.

The study is organized as follows. In section 2, we review the relevant literature and explain the education system as well as the new compulsory schooling policy in Turkey. In particular, we discuss the expansion of the schooling capacity and the size of the student population following the passage of the new law. In section 3, we discuss the conceptual framework for the interpretation of our findings. In section 4, we present the data and descriptive statistics on key variables. In section 5 we present the results. This is followed by a discussion of the results in section 6 and section 7 concludes.

2. Background Information

2.1 Relevant Literature

Numerous studies mostly from developed countries find that the enactment of compulsory schooling or of its extension results in higher schooling attainment [see Angrist and Krueger (1991), Acemoğlu and Angrist (2001), and Lleras-Muney (2002) for the US; Black et al. (2008) for the US and Norway; Oreopoulos (2006) for Britain and Northern Ireland; Chou et al. (2010) for Taiwan; Kemptner et al. (2011) for Germany; Brunello et al. (2009) for a cross-section of 12 European countries]. However, these studies do not investigate whether the policy change has a differential impact on schooling attainment by gender, place of residence, ethnicity, or parental schooling.

Notwithstanding this gap in the literature, there are studies that investigate the changes in schooling outcomes by gender and socio-economic background following specific public interventions other than compulsory schooling. Angrist et al. (2002), for instance, examine the impacts of a voucher system in Colombia (the PACES program), where poor urban youth's secondary education in private schools is partially covered by the program. Using a quasi-experiment research design, they find that the voucher status improves schooling outcomes as measured by highest grade completed, grade repetition and test scores but that stronger effects are observed for girls as compared to boys. Skoufias (2001) reports that the Progresa program in Mexico—a conditional cash transfer program targeting children from poor rural households and where girls receive slightly higher benefits than boys—increases the schooling of girls by more than the schooling of boys. While only a small program effect is observed at the primary school level where enrollment is high, at the secondary level the increase in the enrollment for girls surpasses the increase observed for boys. Behrman et al. (2005) also examining the Progresa program find stronger program effects for girls in the first year of secondary school but weaker effects in second and third years. Conditional cash transfer programs in other Latin American countries—in Nicaragua, Ecuador and Brazil—are reported to produce similar effects for boys and girls (Glick 2008). Glick makes note of the initial gender parity in schooling in these countries. In Bangladesh, the food-for-education program is found to impact more on the school attainment of girls (Ahmed and del Ninno 2002). In a policy paper "What works in girl's education", Herz and Sperling (2004) provides evidence from a large number of countries that reducing the cost of schooling—by way of cutting school fees, stipend programs to cover school expenses, building schools close to girls' home—disproportionately improves the schooling of girls.

There is also evidence that program effects vary by place of residence. Duflo (2001), for instance, examines the effect of a major school construction program in Indonesia in the 70s and finds that the program has especially produced favorable effects in sparsely populated regions. She explains this by significant reductions in distance to school due to the program. Glewwe and Kassouf (2012) find that a conditional cash transfer program in Brazil (Bolsa) increased the enrollment rates of black, mulatto, and indigenous children more than the enrollment rates of whites, thereby equalizing the enrollment outcomes by race. Leslie and Drinkwater (1999) examining the economic reasons why ethnic minorities in England tend to remain in school beyond compulsory age conclude that lower current opportunities, as well as higher expected future benefits are instrumental in this decision. Lindley (2009) also finds the likelihood of non-white natives in England to be more over-educated as compared to white natives.

2.2 Education System in Turkey and the New Compulsory Schooling Policy

Prior to 1997, the education system in Turkey was built on a 5+3+3 system, which meant five years of compulsory primary, three years non-compulsory lower secondary and three years of upper secondary schooling. In 1997, the government of Turkey increased compulsory education from five to eight years by merging the first two levels under the umbrella of basic education. Children typically start school at age 6 so that the new law required that they remain in school until about age 14. Although compulsory education is free of tuition, it is not free of costs such as transportation, school supplies or school uniforms. Other schooling costs include 'voluntary' donations to the school fund, which can reach sizeable amounts for families of modest backgrounds and are collected in the beginning of the school year during registration. Transportation costs may also become a problem in rural areas where due to sparsely populated villages not all schooling levels are available locally, and children need to travel to the nearest town to attend the appropriate grade. This was especially the case for lower secondary schools that were not part of the compulsory schooling program before 1997. After the extension of compulsory schooling, this level was still unavailable in many

small villages but children were encouraged to stay in boarding schools in towns that were free for compulsory school-aged children and some were bussed to school. Hence, we expect the cost of schooling to be substantially reduced for grades 6 through 8, which have now become part of compulsory schooling.

A year before the extension of compulsory education, there were 6.4 million students enrolled in primary schooling, 2.6 million children in lower secondary and 2.1 million children in upper secondary schooling cycles (TUIK 2012). In the year that the policy went into effect, the total student population in basic education (primary plus lower secondary) increased only slightly becoming 9.1 million. The increase in that year was not substantial because of the timing of the law: children finishing the 5^{th} grade had already received their primary school diploma before the law went into effect in the summer of 1997, hence many did not chose to continue. However, the following year, in the 1989-1999 school year, the student population in compulsory education increased by more than half a million children. This increase continued on for the next two years so that in the 1999-2000 and 2000-2001 school years the student population in compulsory education reached 10 million and 10.5 million, respectively. Hence, over these three years a 15 percent increase in the student body occurred, which is substantially higher than the 3.3 percent growth that occurred over the 2003/2004-2005/2006 period. In upper secondary (or high school), the student body grew much more slowly becoming 2.3 and 2.4 million in the 1999-2000 and 2000-2001 school year. Nonetheless, it is interesting to note that in a single year going from 1997-1998 to 1998-1999 high school attendance increased by 7 percent. This is likely to be the result of the forward-looking behavior of parents.

Panels A and B of figure 1 depict the changes in the student population in basic education (8-years of schooling) in rural and urban areas. In both panels, the jump in the student population at around the year the new compulsory schooling law went into effect is apparent. The somewhat late response to the new law discussed above originates from the rural sector: in 1997 the student population in basic education hardly changed in rural areas, whereas a sizeable jump was observed in urban areas. However, the ensuing increase in rural areas—which is in strike contrast to the declining trend due to the falling rural population—is quite substantial as shown by the gradient of the line in Panel A. High school attendance both in rural and urban areas was favorably affected by the policy as shown in figure 2. This is not altogether an unexpected result given that the student body grew in grades leading to high school. However, what is interesting to note is the fact that the increase came earlier than expected: the 4^{th} graders in 1997—who were now required to stay in school for an additional three years—would become of high school age in 2001-2002 school year. As can be observed in Panels A and B of figure 2, the student body already started growing at a faster rate prior to 2001.

In figures 3 and 4, we show the changes in school capacity in basic education in terms of the number of schools and classrooms. Before 1997, primary schools offered only grades 1 through 5, while lower secondary schools offered grades 6 through 8. Under the new compulsory school law, basic education schools began to offer all eight grades so that a jump in the number of schools offering grades 6 through 8 occurred as shown in Panel A and B of figure 3. Notwithstanding this observation, we also observe a decline in the number of basic education schools over time. In rural areas, this has to do with the declining rural child population and the implementation of cost-saving practices such as bussing children to school and accommodating them in boarding schools (discussed below). In urban areas, the decline is due to the merging of primary and lower secondary schools under a single structure. In this sense, the number of classrooms is perhaps a better indicator of the expanding capacity. Figure 4 shows that the number of classrooms available in rural areas reversed its negative trend after the extension of compulsory schooling. However, this reversal did not occur in

1997 but came about after 1999. In urban areas, the trend was already positive but the capacity rapidly expanded following the passage of the law. The information on the number of schools and classrooms put together indicates that the implementation of the policy was slower in rural areas. Furthermore, in both sectors, the size of the schools increased as the government attempted to accommodate the rising student population. Appendix figure A1 depicts the changes in number of schools and classrooms in upper secondary education. Following 1997, there appears to be a smaller increase in the number of schools as compared to the number of classrooms in rural areas indicating that the increase in the schooling capacity mainly came about through the increase in the size of schools. In urban areas, a more balanced growth is observed.

As noted earlier, the new compulsory schooling law went into effect in the summer of 1997, only a few months before schools opened. Although the extension of compulsory schooling was not a new issue, its enactment in 1997 was politically motivated. The secular government at the time seized the opportunity to eradicate lower secondary religious schools by making this level part of compulsory secular schooling. Hence, between the enactment of the law and the start of the new school year, there was very limited time to expand the schooling capacity by building new schools. Such construction effort came later as evidenced by the increase in the investment budget of the Ministry of Education (MONE) (table 1): in 1996 and 1997 MONE's share in the public investment budget was around 15 percent. This figure jumped to 37.3 percent in 1998 and remained high at around 30 percent until 2000. MONE reacted to the challenge of accommodating new students by expanding the number of classes in existing schools—as discussed above—and by bussing rural children to nearby schools and encouraging them to stay in boarding schools in nearby towns and province centers.[3] Figures 5 and 6 show the dramatic change in the number of children bussed to school and those who were accommodated in boarding schools right after 1997. It is also interesting to note that a number of schools were closed in rural areas —it was probably more economical to buss the entire student body rather than only a group of children—which helps to partly explain the fall in the number of schools in rural areas noted earlier.

3. Conceptual Framework

Why do compulsory schooling laws affect behavior? This is likely to be a trivial question in countries where these laws are strictly enforced and where the infrastructure is available to track down school-aged children. When enforcement is less than perfect, it is likely that some compulsory school-aged children will not attend school. In this section, we discuss how the costs and benefits of schooling change as a result of the extension of compulsory schooling in Turkey.

According to the human capital theory, schooling is an investment activity that increases worker productivity (Schultz 1963; Mincer 1974; Becker 1975). The discounted value of future earnings stemming from higher schooling attainment must exceed the direct and indirect costs of schooling to justify the schooling investment. The signaling hypothesis emphasizes the role of education as a filtering mechanism in environments of imperfect information (Spence 1973). The information gap between an employer and an employee as to the employee's productivity is resolved by a signal—in terms of educational attainment—that the employee sends. Employers form beliefs about employees' productivity based on this signal, which must be confirmed by the subsequent experience of the employers in

[3] In urban areas, the already high lower secondary school attendance prior to the extension of compulsory schooling meant that physical capacity was there, which could be used more 'efficiently' to accommodate the rising demand through practices like double-shift system, where some children go to school in the morning and some in the afternoon. Even without such schemes, the merging of primary and lower secondary schools probably increased the efficiency at which the existing capacity could be used.

equilibrium (Spence 1973). This signaling effect of education on wages—often referred to as the 'sheepskin' effect—is distinct from the productivity effects of education. Changes in compulsory schooling are likely to change the relationship between education and wages for a given level of schooling for reasons associated with both effects.[4] Assuming no change in the productivity effect of a given level of schooling, the sheepskin effect is likely to change due to the policy simply because of the change in the signal sent. For instance, when compulsory schooling was limited to five years of schooling, and only a proportion of students attended the optional lower secondary level, lower secondary school graduates could distinguish themselves from primary school graduates. However, when this level became compulsory, this was no longer possible. In a similar vein, the signal sent by upper secondary school graduates has probably diminished after the policy. Before the policy change, they could distinguish themselves both from the primary and lower secondary school graduates, but only from the basic education graduates following the enactment of the new law. Hence, the signaling effect of both the lower and upper secondary schooling is likely to be reduced under the new law.

The costs of schooling include direct monetary costs like transportation and purchases of school supplies, and indirect costs in the form of the opportunity cost of school time like foregone wages and home production, as well as the psychic costs of sending children to school.[5] We expect the costs of schooling to be lower during compulsory schooling years because the State ensures the availability and accessibility of schools to all children of compulsory schooling age.[6] In addition, there are costs associated with not complying with compulsory schooling, which include both monetary elements—like the penalties imposed by the State—as well as psychic costs due to not complying with the legal machinery.

In understanding the impact of the new compulsory schooling policy on the schooling of various groups, there is also the selection dynamics to consider. As noted earlier and will be demonstrated shortly, drop-out rates—even in compulsory schooling levels—differ considerably by gender and place of residence. Hence, it is quite likely that the selection dynamics will play a role in determining the effect of the policy on the schooling attainment of various groups. Next, we briefly discuss how the cost and benefits of schooling may change by gender and rural/urban status.

Boys vs. Girls

Due to women's distinctly lower labor market participation rates [25 percent vs. 70 percent for men in 2008 (TUIK 2012)] in Turkey, sheepskin effects of education would be weaker for girls. However, the fall in the costs of schooling in the completion of grades 6 to 8 is likely to matter more for girls than boys if girls need to be chaperoned to school due to safety concerns or for socio-cultural reasons, or the psychic costs of sending girls to school increase more for girls in grades that are not mandatory. There is no obvious reason to expect the cost of not complying with the policy to differ by gender as this cost mostly depends on the degree of enforcement, which varies by area of residence.

Hence, whether the impact of the policy will be felt more strongly for boys or girls will depend on whether the gender differences in the sheepskin effects, in favor of a larger increase in boys' school enrollment, or the gender differences in the changes in the cost

[4] There is also the consumption value of schooling. This value may also change due to the change in the law. For instance, if parents value that their children receive a compulsory school diploma, this is now achieved through an additional three years of schooling, increasing their demand for lower secondary education.

[5] Psychic costs could especially be important in the schooling of girls. For instance, conservative families may not feel comfortable sending their daughters to school past puberty.

[6] Since the implementation of the policy, students in some remote rural areas are bussed to larger settlements nearby and others attend boarding schools in towns. See the discussion in Section 2.

structure, in favor of a larger increase in girls' school enrollment, dominate. In the case of upper secondary school grades, we could expect stronger effects for boys because of sheepskin effects. The selection mechanism, on the other hand, is likely to work to generate stronger effects for girls, particularly in upper secondary education, due to girls' higher drop-out rates in lower schooling grades. Those who make it to grade 9, for instance, are likely to be a more select group with presumably stronger school attachment as compared to boys.

Rural vs. Urban Areas

The benefits of schooling, in particular the sheepskin effects, are likely to be larger in urban than rural areas due to the higher prevalence of wage employment in the former—the sheepskin effects matter more in wage employment as compared to self-employment and agricultural work (Glewwe 2002). In addition, we could expect the new compulsory schooling policy to be enforced better in urban areas, where there is a better infrastructure to do so. Schooling costs, on the other hand, are likely to drop by a larger margin in rural areas due to much larger improvements in school accessibility in rural than in urban areas.

Thus, while the stronger sheepskin effects and higher costs of not complying with compulsory schooling would exert a stronger influence on completion rates in grades 6 through 8 in urban areas, the sharper fall in the costs of schooling would cause a larger increase in completion rates in these grades in rural areas. Hence, it is ambiguous whether the policy will exert a stronger or a weaker effect in urban or in rural areas. We would, on the other hand, expect the policy effect to be stronger in urban areas for upper secondary schooling grades because of stronger sheepskin effects there. The selection mechanism is likely to be weaker in urban areas though due to smaller drop-outs in urban than in rural areas. Hence, whether the policy will exert a stronger influence in urban areas remains an empirical question.

4. Data

The data for this study come from the 2003 and 2008 rounds of the Demographic and Health Survey (DHS) of Hacettepe University of Turkey. The choice of DHS over other data sources stems from the fact that the former provides information not only on the highest schooling level but the highest grade completed. We rely mainly on the latter information—which is lacking in other data sets—to track the changes occurring in educational attainment in Turkey. Another major advantage of DHS is that it is the only data set in Turkey that provides information on residence at age 12 in the form of region and size of location (large city, small city, village). Parental background variables—such as parental schooling—are often missing in other data sets unless parents happen to live in the household as well. Perhaps one disadvantage of DHS is that due to its focus on reproductive behavior and health of women and children, it does not collect data on men at the same level of detail as it does for women.

The female sample in our analysis is drawn from 2003 and 2008 waves of the Turkish DHS, whereas the male sample is drawn from the 2008 wave only because information on the location of residence at age 12 is not available for men in the 2003 survey. As a result, while the female sample includes 14,851 observations, the male sample includes only 7,860 observations. Table 2 provides descriptive statistics for the variables used in the estimation. About a third of the both male and female samples come from the West, which include richer provinces like Istanbul. About a quarter are from the East, which represent the poorest provinces of the country. The South, Center (where the capital Ankara is), and the North each represent 11 to 15 percent of the sample. About 40 percent of men and women come from villages; and for both men and women, more than 60 percent of the urban population live in large cities. In the analysis we also control for ethic background measured in terms of the mother tongue. About 18 percent of women and 21 percent of men declare their mother

tongue to be Kurdish. The proportion declaring Arabic as their mother tongue is just above 2 percent for both men and women.

As noted earlier, women and rural residents lag behind men and urban residents in terms of school attainment. The gender gap, as well as the urban-rural gap is clearly visible in panels A through D in figure 7 where we illustrate changes in selected grade completion rates across cohorts by gender and place of residence. What is also visible from figure 7 is less than full compliance with compulsory schooling even when it only meant five years of schooling before the policy change. Women in general, but rural women in particular, had lower secondary (8 years) and upper secondary (11 years) school completion rates before the enactment of the new law. A visual analysis of the changes in schooling attainment over time also shows substantial improvements for both men and women, and for urban and rural residents (figure 7). What is particularly important for this study are the jumps in the 8^{th} and 11^{th} grade completion rates for cohorts born in mid-80s. These jumps, which look especially sharp for rural women and men, provide the first clues about the impact of compulsory schooling on educational attainment. That the 11^{th} grade completion rates also register visible jumps point to spill-over effects of the new compulsory schooling law.

Using a regression discontinuity design—explained below—we investigate the relationships pictured in figure 7 in an attempt to quantify both the size of the improvement and the resulting schooling gaps due to the policy by gender and place of residence.

5. Identification Method and Estimation

In order to identify the effect of the new compulsory schooling law, we exploit the variation in the exposure to the policy across birth-cohorts. The policy was first implemented in the 1997-98 school year, and students who completed grade 4 or a lower grade in the 1996-97 school year were covered by the policy (i.e. students who did not have a primary school diploma by the beginning of the 1997-98 school year). Since we do not have information on the exact school starting age of individuals, we assume that children start school at age 6—the age stipulated in the compulsory schooling law—and, therefore, take 1987 and later birth-cohorts as those affected by the policy, and 1986 and earlier cohorts as those not affected by the policy. Figure 7 shows that grade completion rates were on the rise before the implementation of the new policy. Therefore, our model needs to account for the secular time trend. In fact, the critical feature of our identification analysis will be to disentangle the effect of the education policy from these secular time changes in educational outcomes. We use a regression-discontinuity design that allows for separate before and after time trends to accomplish this.

The dependent variable in our model is grade completion status, which can be expressed as follows:

$$E(Y_{0i}|x_i) = \alpha + \beta_{01}x_i' + \beta_{02}x_i'^2 + \beta_{03}x_i'^3$$

$$E(Y_{1i}|x_i) = \alpha + \rho + \beta_{11}x_i' + \beta_{12}x_i'^2 + \beta_{13}x_i'^3$$

$$x_i' = x_i - x_0 \qquad (1)$$

where, Y{0} and Y{1}, respectively, are the outcome variables before and after the policy and x is the year of birth. We normalize the year of birth using x_0, which coincides with the time of discontinuity. Hence, the model we estimate takes the following form:

$$Y_i = \alpha + \beta_{01}x_i' + \beta_{02}x_i'^2 + \beta_{03}x_i'^3 + \rho D_i + \beta_1^* D_i x_i' + \beta_2^* D_i x_i'^2 + \beta_3^* D_i x_i'^3$$

$$\beta_1^* = \beta_{11} - \beta_{01}$$

$$\beta_2^* = \beta_{12} - \beta_{02} \qquad (2)$$

where, D denotes the treatment variable. In the empirical analysis, we run a logistic regression for each grade level separately, where the dependent variable—grade completion status—takes the value of 1 if the individual completed that grade level, and 0 otherwise. The key variable of interest, the new education policy, is controlled by a dummy variable— (D) called "policy"—which takes the value of 1 for cohorts born in or after 1987, and 0 otherwise. Totally, we have 20 cohorts covering the period from 1976 to 1997.

We account for the time trend in grade completion rates in various ways as the data permits. For instance, in analyzing whether the education policy has a differential effect on rural as compared to urban women we are able to use cubic time trends, as shown in the set of equations given in (1). However, due to smaller sample size, in a similar analysis for men, we are able to at most use quadratic time trends. We also estimate the model given in (2) using linear time trends; in fact, a visual analysis of figure 7 reveals that the time trends are close to being linear. In addition, we carry out a series of robustness checks by reducing the number of cohorts to a total of 10 cohorts (five before and five after the policy), and then to four cohorts (two before and two after). In the former case, we estimate the model with and without time trends, where the time trends take a linear form. In the latter case, we estimate the model without time trends.

In order to estimate any differential effect of the policy across various subpopulations (i.e. men and women, and urban and rural areas), we include interactions of the policy dummy variable with the dummies for the subgroups. Moreover, we allow the effect of the time trend to vary across subgroups. For instance, in the examination of the effect of the new policy on women, the regressions include interactions of the policy dummy and the time trend variable with the female dummy.

In addition to the time trend, other control variables include mother tongue (Turkish, Kurdish, and Arabic), location of residence at age 12 in the form of the size of the location (large city, small city, village) and the region of the location (West, Central, South, North, and East).

The discontinuity in our analysis, which takes place between the 1986 and 1987 birth-cohorts, is fuzzy due to two reasons: first, since not all children start school at age 6, some children in the 1986 birth-cohort—in particular, those who started school late—would be affected by the new policy; similarly, among the 1987 birth-cohort, those children who started school early would not be affected by the policy. Second, as discussed earlier, the implementation of the policy was not immediate in some areas. Therefore, in all of our regressions, we omit the 1986 and 1987 birth- cohorts.

6. Results

The empirical results regarding the effects of the policy on schooling outcomes are presented separately by gender and place of residence. In each part, we first illustrate the estimated parameters for the effect of the policy on different subgroups at each grade level; then, based on these estimates, we illustrate how the predicted gaps across subgroups change as a result of the new policy.

6.1 Analysis by Gender in Urban Areas

Our first set of analysis involves an investigation of the gender gap in urban areas. The regression discontinuity analysis whose results are given in table 3 confirms the visual observations made earlier that the extension of compulsory schooling has indeed led to higher completion rates for both men and women in grades 6 through 8. The coefficient estimates presented for the 'policy' dummy are highly significant in all specifications. Despite these general improvements, we find evidence for either a weaker policy effect for urban women or no differential effect between the two groups. For instance, in the specification where we use linear time trends and where the data span a 20-year period, we find weaker policy effect for

women in grades 6 through 8 (panel A1 in table 3). We reach the same conclusion when we reduce the time interval to 10 and then to four years and omit the time trends (panel B2 and C in table 3). In other specifications where we use quadratic and cubic time trends on data covering a 20-year period (panels A2 and A3 in table 3), and in the specification where we use linear time trends on data covering a 10-year period (panel B1 in table 3), we still find a negative policy effect for women but we lose statistical significance.

Next, we look at how the predicted grade completion rates change with the policy. The rates presented in table 4 not only take into account any differential policy effect between men and women but the base line grade completion rates as well, which are lower for women. As noted above, using a 20-year period and linear time trends (that are allowed to differ on the two sides of the discontinuity), we find a weaker policy effect for women. However, due to the lower grade completion rates of women, the improvement in grade completion as given by the change in the predicted values, is found to be similar for men and women following the policy: in grade 6, for instance, we observe a 13.4 percentage point improvement for men and 13.0 percentage point improvement for women. The resulting change in the gender gap is not statistically significant. The predicted improvements change with the way time trends are handled. However, with the exception of one specification—where we estimate the model using a 10-year period without time trends—we do not observe an improvement in the gender gap in grade completion rates 6 through 8. Where we see an improvement, the gap closes by less than 5 percentage points. The results given in tables 3 and 4 taken together indicate that the policy change did not close the gender schooling gap in grades 6 through 8.

Although the policy did not intend to affect grades 9 through 11, the results in table 3 generally show highly significant positive policy effects for these grade levels as well. Hence, it seems that the effect of the compulsory schooling policy has spilled over to higher grades for both men and women. Although the spill-over effects are smaller than the policy effects observed for grades 6 through 8 they remain highly significant through the last year of high school (grade 11). The estimation results generally show weaker policy effects for women in grades 9 and 10: in all specifications a negative coefficient is observed for the interaction term between the policy and the female dummy, and these effects are statistically significant in four out of six specifications. Although, in general, the policy effect is weaker for women, the overall effect is positive except in the cubic specification covering a 20-year period. Perhaps surprisingly, in this specification the estimated coefficients on the policy dummy for men are relatively lower as compared to the estimated coefficients from other specifications and are not statistically significant.

Turning to table 4 where we report the improvements in grade completion rates following the policy, we generally observe positive improvements for both men and women. The only exception is again where we use a cubic specification, which shows a dis-improvement for women and no statistically significant improvement for men. Given that increases in completion rates in grades 9 through 11 are quite visible in figure 7, we hesitate to put much faith in this specification. If we disregard the cubic specification, the magnitudes of the improvement in grade completion rates predicted by various specifications are quite similar for men: For instance, the proportion of men who complete grade 9 is predicted to increase between 14 to 18 percentage points. For women, we obtain a wider range of estimates, the lowest being a 6-percentage point improvement and the highest being an 18-percentage point improvement. In three out of five specifications (omitting the cubic specification), we find the difference between men's and women's completion rates to statistically differ from each

other giving rise to a larger gender gap in grades 9 and 10 following the policy (panels A through C in table 4).[7]

6.2 Analysis by Gender in Rural Areas

The policy has favorably affected grade completion rates in rural areas as well. Irrespective of the specification used, the results indicate an improvement in 6th, 7th and 8th grade completion rates for both men and women (table 5). However, we do not find evidence for a differential policy effect between the two groups. The policy dummy for women is generally positive but not statistically significant. Notwithstanding this finding, there is strong evidence that the gender schooling gap in grades 6 through 9 has closed after the policy (table 6). Irrespective of the specification used, the predicted improvements in grade completion rates are higher for women and in four out of five specifications the resulting drop in the gender gap is statistically significant. The improvement has to do with the lower initial grade completion rates for women.

Similar to urban areas, we observe spill-over effects of policy on higher schooling levels in rural areas as well. The policy dummy is statistically significant in grades 9 through 11 in almost all specifications (table 5). Although the coefficients on the interaction term between the policy and the female dummy are generally positive, they lack statistical significance except in two instances. Nevertheless, the overall policy effect for women (i.e. what is given as the 'composite effect' in table 5) is positive and significant in all specifications. As a result, the grade completion rates—given in table 6—improve for both men and women. However, there is no evidence for a closing gender gap (except in one instance out of 15 estimates). This is despite the substantially lower grade completion rates of rural women as compared to men in these grade levels (see the discussion in relation to figure 7).

6.3 Analysis by Urban-Rural Residence for Men

Irrespective of their childhood place of residence, the policy is found to favorably affect men's grade completion rates in the newly mandated schooling levels (i.e. grades 6 through 8) as evidenced by positive and statistically significant coefficients on the policy, and the composite policy dummy that takes into account rural residence (table 7). In none of the specifications employed is there evidence for a differential policy effect for rural men though. However, the predicted changes in grade completion rates do point to a smaller urban-rural gap as a result of the policy. In all the specifications employed, the change in the predicted grade completion rate is higher for rural as compared to urban men and in four out of five specifications, the difference is statistically significant. The magnitude of the improvement is also quite robust across specifications, with the urban-rural schooling gap as measured by 6th, 7th and 8th grade completion rates reducing by 11 to 13 percentage points. Although the policy effect is not found to specially favor rural men, the urban-rural gap closes because there is a larger room for improvement for rural men. As noted earlier, the proportion of rural men completing 6th, 7th and 8th grades is much lower as compared to urban men (see figure 7).

The results given in table 7 also show favorable policy effects for grades 9 through 11, which are particularly high in urban areas. In fact, the coefficients on the policy-rural interaction dummy are negative in all specifications but are not statistically significant. Hence, we do not have evidence in support of a differential policy effect by region of residence. Turning to the change in the predicted grade completion rates—given in table 8— we also do not find evidence in support of a smaller urban-rural gap following the policy.

[7] In some specifications we also see statistically significant composite policy effects in earlier grades (i.e. grades 1 through 5) for women. However, these effects are not consistent enough to warrant a discussion.

6.4 Analysis by Urban-Rural Residence for Women

Finally, we analyze the impact of the policy on the urban-rural schooling gap for women. Similar to the case of men, we find favorable policy effects for both urban and rural women for the newly mandated schooling levels (table 9). Furthermore, we find that the policy specially favors rural women: in the various specifications employed, the coefficient on the policy-rural interaction dummy is consistently positive and statistically significant. Hence, the overall policy effect for rural women is larger than for urban women. The change in the predicted grade completion rates given in table 10 shows a smaller urban-rural gap in grades 6 through 11 following the policy. In specifications where we use time trends —with the exception of the cubic specification —the improvement is in the order of 17-18 percentage points, which is quite substantial. Where we ignore time trends, the improvement reaches 24-28 percentage points. With the cubic specification, we get even larger improvements though we hesitate to put much faith in this specification, which shows no statistically positive policy effect for urban women, despite what we observe in figure 7.

Turning to upper secondary schooling grades and ignoring the cubic specification, we observe positive spill-over effects for urban women (table 9). Although the observed effects are smaller as compared to the policy effect on the newly mandated schooling levels, they, nevertheless, persist until the last grade in upper secondary schooling. In the case of rural women, there also exits some evidence in support of spill-over effects. When the data covers a 20-year period and where we use linear time trends, we do not observe policy effects that particularly favor rural women, though the overall effect in grades 9 and 11 are positive. When we use quadratic time trends, we observe a more favorable policy effect for rural women in grade 9 only, though again the overall effect for grades 9 through 11 is positive. When we reduce the data to a 10 and then to a four-year period, we obtain more favorable policy effects for rural women, so that the spill-over effects for rural women surpass those for urban women. In parallel to these findings, we observe that the urban-rural gap diminishes when we use a 10-year data. Where we use a four-year data, the gap diminishes only in grade 9. With a longer time frame, where time trends are accounted for using linear or quadratic terms, there is no evidence that the urban-rural gap decreases. Even where we observe statistically significant drops in the urban-rural gap, the fall varies between 6 to 11 percentage points (depending on the specification and the grade level); these rates are substantially lower than the figures obtained for the newly mandated schooling levels.

7. Discussion

The change in the schooling policy has favorably affected all subgroups, increasing their grade completion rates in the newly mandated schooling years. Notwithstanding this general finding, we have, however, found evidence that the policy effect has been weaker for women who grew up in urban areas. This finding can be explained by the substantially lower likelihood of women's labor market participation, and therefore, lower benefits they expect to get from the extra three years of schooling. Lower costs of schooling—due, for example, to more schools offering grades 6 through 8 and therefore, reduced the proximity of basic education schools to children's homes —and increased psychic costs of not sending children to school have no doubt been instrumental in attracting more children to these schooling levels. Yet, the change in benefits against the costs must have been larger for boys than girls, resulting in stronger policy effects for the former. In the case of boys and girls raised in rural areas, we do not find evidence in support of a differential policy effect in grades 6 through 8 for either group. The fact that work in rural areas—both for men and women—often takes the form of agricultural work within the household establishment must change the benefits of schooling in a similar fashion for both groups. Even where benefits of schooling are higher for men, the drop in costs are likely to be higher for women, so that a differential policy effect does not emerge.

In the case of policy effects by place of residence, while we do not find differential policy effects in grades 6 through 8 for rural as compared to urban men, we find strong evidence in favor of rural as compared to urban women. The absence of a differential policy effect among men can be explained by greater benefits of schooling in urban areas but larger reduction in costs in rural areas. The two effects must balance out so that the policy has similar effects for urban and rural men. Due to the very low labor force participation of urban women, the difference in the benefits of schooling between urban and rural women is not likely to be large. However, the cost of schooling drops much more in rural areas, giving rise to larger policy effects for rural women.

The results of our analyses have shown that the effect of the extension of compulsory schooling has spilled over to higher schooling levels for all groups considered. However, we have also found evidence for weaker policy effect for urban women for grades 9 and 10. In fact, the evidence for a weaker policy effect for women in grades 9 and 10 is stronger than the evidence for grades 6 through 8. That the policy effect is stronger for men in the non-compulsory schooling grades is consistent with our theoretical framework that argues that changes in benefits of schooling would matter more for these grade levels than changes in costs. Since men stand to gain more from increased schooling, we would expect stronger policy effects for urban men. In rural areas, we do not have evidence for a stronger policy effect for men as compared to women, which is probably to do with the limited benefits men stand to gain over women from non-compulsory schooling levels.

In line with the above arguments, we would expect to see stronger policy effects for urban as compared to rural men. Although the coefficients on the rural policy dummy are negative in all specifications, none are statistically significant. The failure to find a weaker policy effect among rural men may be related to the selection issue. Rural men who make it to upper secondary schooling are likely to be a much more select group as compared to urban men and therefore, are affected more from the policy change. A similar argument can be extended to understand why we find some evidence in support of a stronger policy effect in grades 9 through 11 among rural as compared to urban women.

8. Conclusion

In this paper, we examined the effects of the education policy that increased compulsory schooling in Turkey from 5 to 8 years in 1997 on the educational attainment of men and women, and urban and rural residents. Since there were substantial differences in the educational attainment of these subpopulations before the implementation of the policy, we focused on understanding how the policy effects and education gaps vary by gender and urban-rural residence.

We find that the policy has favorably affected grade completion rates in the newly mandated schooling levels—covering grades 6 through 8—for men and women, and for urban and rural residents. Since compliance with compulsory schooling policies is far from being perfect in Turkey, establishing that the policy has indeed positively impacted on all subgroups is important. Notwithstanding this favorable finding, we also observe weaker policy effects for women in urban areas. We attribute this effect to the lower labor force participation of urban women and higher participation of urban men as wage workers. Among rural residents, the policy effect has been gender neutral.

We have also observed stronger policy effects in grades 6 through 11 for rural residents among women. Sharp reductions in schooling costs in rural areas explain the more favorable effects for rural as compared to urban women. That we do not find similar results for rural men indicate that schooling costs were probably not as binding for rural men as they were for rural women. Furthermore, there are the changing schooling benefits to consider, which are likely to be larger for urban than rural men.

Another important set of findings relate to the spill-over effects of the policy. The extension of compulsory schooling from five to eight years improved grade completion rates in upper secondary schooling as well. However, similar to the findings for grades 6 through 8, we find stronger policy effects for urban men as compared to urban women in grades 9 and 10. The higher wage employment of urban men probably explains why in urban areas we consistently see stronger effects for men. Interestingly, however, we also observe stronger policy effects for rural as compared to urban women in grades 9 through 11. Given that schooling costs in these grade levels have probably not changed that much following the policy, stronger effects for rural women can be explained by sample selection: the few women who make it to upper secondary schooling are a positively selected group with greater school attachment.

Changes in schooling gaps are in part determined by the initial grade completion rates of the various subgroups and therefore, do not always parallel the results on policy impacts. If we categorize the total population by gender, place of residence and schooling level (compulsory and beyond), we end up with eight subpopulations. Out of this eight, the education gap (either by gender or place of residence) grows in only one case, remains the same in three cases and narrows in four cases. The only case where we observe an increasing schooling gap is between urban men and women in grades 9 and 10. The gap remains the same between urban men and women for grades 6 through 8, rural men and women in grades 9 through 11 and between urban and rural men in grades 9 through 11. For the rest (i.e. rural women-men grade 6-8, urban-rural men grade 6-8, urban-rural women grade 6-8 and 9-11) there is evidence (albeit not always very strong) for an improvement.

An important result that emerges with respect to the schooling gaps is that longer compulsory schooling has helped narrow the gender and urban-rural gap in grades 6 through 8 (the newly mandated schooling levels) but not necessarily in grades that follow compulsory schooling. The effect of a compulsory schooling policy on post-compulsory schooling levels is largely determined by the benefits of schooling. Due to the low female labor force participation rate in urban areas, the effect of the compulsory schooling policy on post-compulsory attainment has been weaker for women. Hence, policies that aim to increase the labor force participation of women are likely to improve their post-compulsory schooling attainment as well. For urban-rural gaps beyond compulsory schooling, reduction in schooling costs would help.

The improvements in educational outcomes for men and women, and urban and rural residents, but particularly for those who traditionally lag behind, have important implications for individual as well as social welfare. Higher schooling improves labor earnings and household income, and therefore, help mitigate income shocks (Card 1999). Higher schooling is likely to improve health outcomes, reduce crime and have favorable intergenerational effects (King and Hill 1993; Haveman and Wolfe 1984/1995; Lam and Duryea 1999). A mix of carrot and stick approach may help in closing the educational gaps further. Better enforcement will surely help; however, this could be accompanied by interventions that make schooling more attractive.

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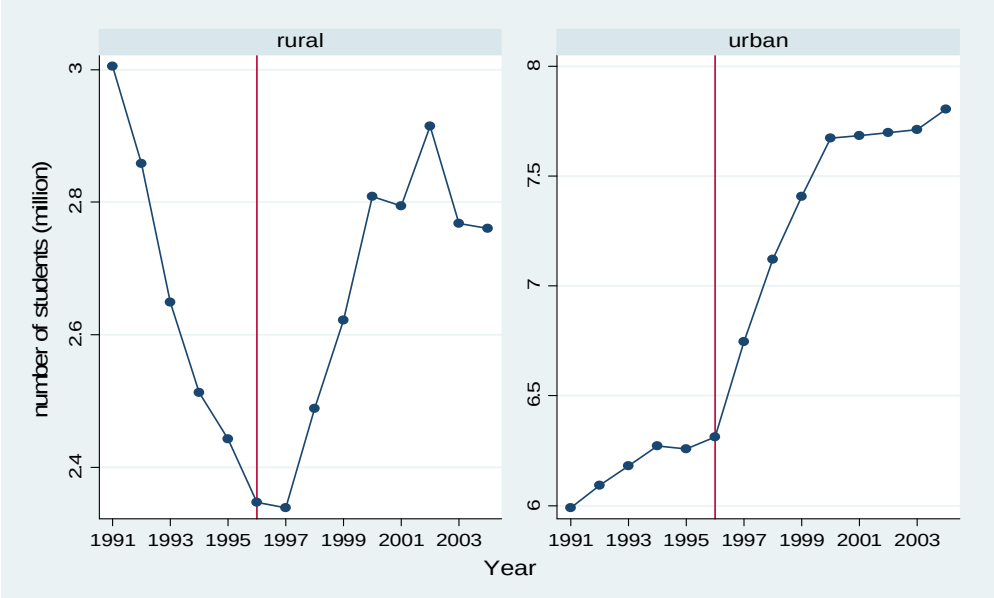
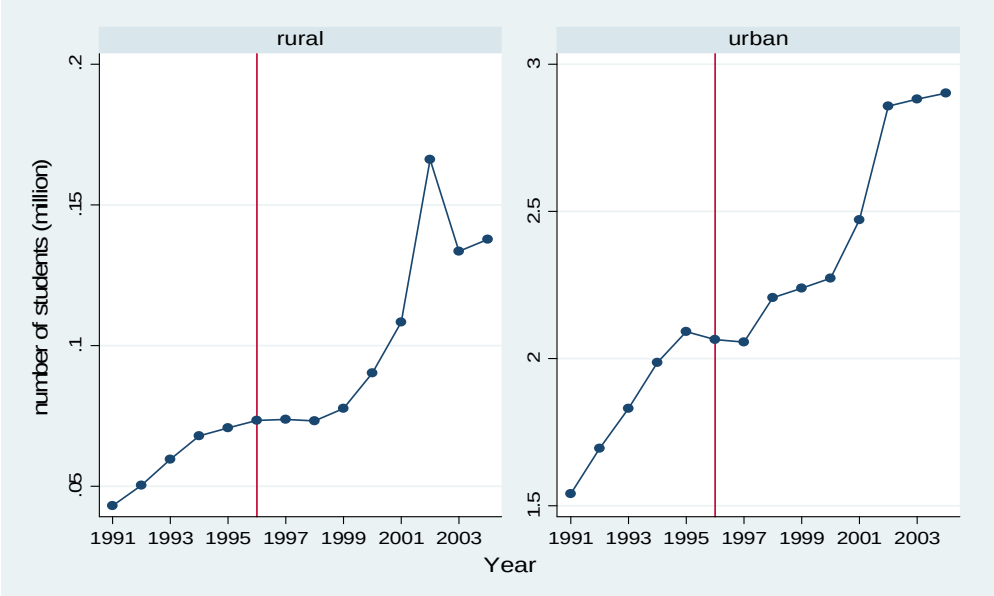
Figure 1: Number of Students in Basic Education by Place of Residence (Grades 1-8)



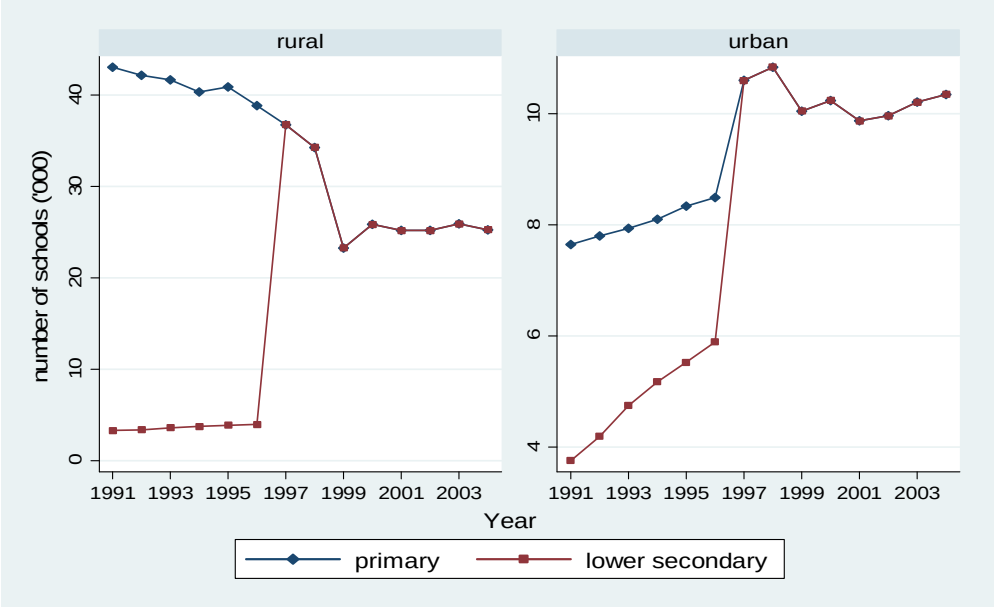
Source: Turkish Statistical Institute (1993-2006).

Figure 2: Number of Students in Upper Secondary Education by Place of Residence (Grades 9-11)



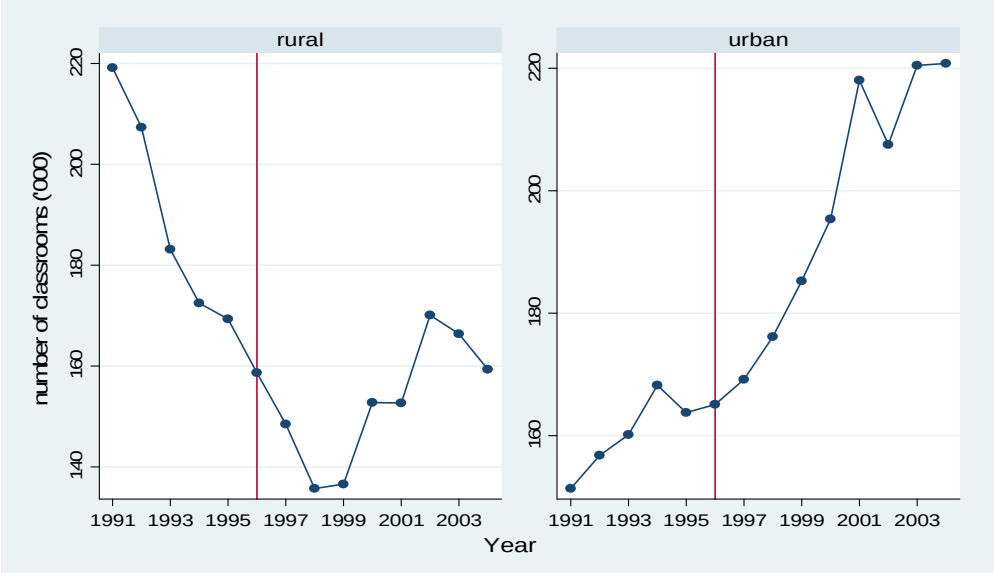
Source: Turkish Statistical Institute (1993-2006).

Figure 3: Basic Education Schools by Place of Residence



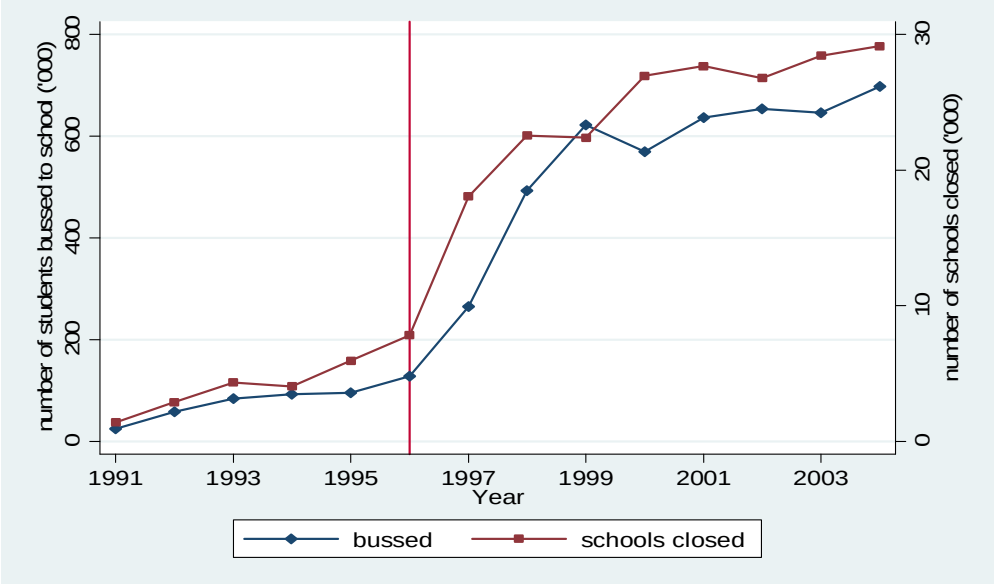
Source: Turkish Statistical Institute (1993-2006).

Figure 4: Number of Classrooms in Basic Education Schools by Place of Residence



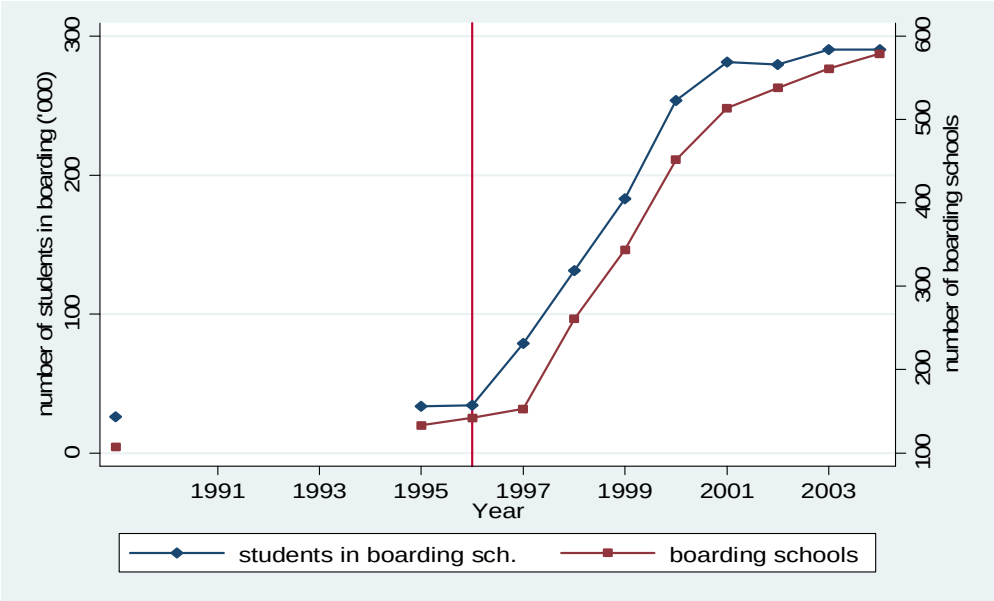
Source: Turkish Statistical Institute (1993-2006).

Figure 5: Number of Students Bussed to School and School Closures



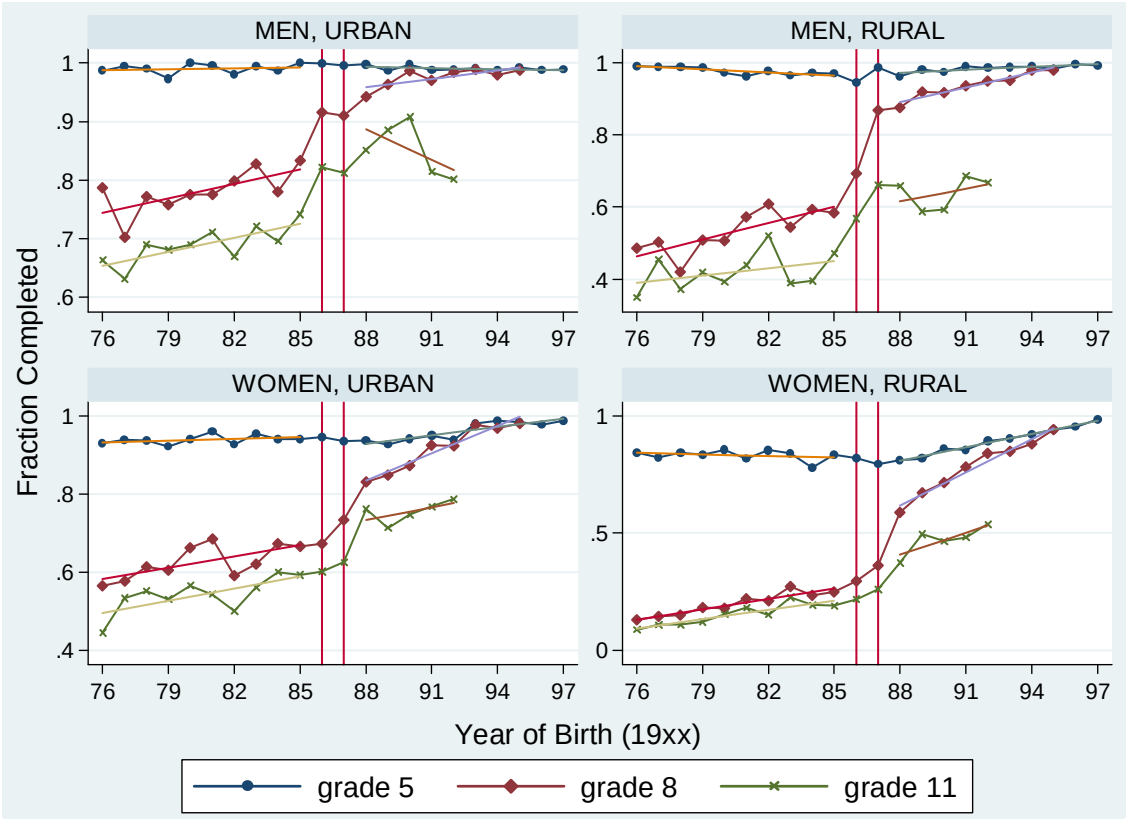
Source: Ministry of National Education (1989-2006).

Figure 6: Students in Boarding Schools



Source: Ministry of National Education (1989-2006).

Figure 7: Fraction Completing Selected Grades by Gender and Rural/Urban Status



Source: Authors' calculations based on 2003 and 2008 DHS.

Table 1: Ministry of Education's Share in Public Investment Budget

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Percent Share	15.2	14.7	37.3	29.0	28.4	22.3	22.3	16.4	16.9	12.1

Source: Turkish Statistical Institute (2006).

Table 2: Descriptive Statistics

	A) Male Sample		B) Female Sample	
	Mean	No. Obs.	Mean	No. Obs.
Geographical Region at Age 12				
West	0.323	7,860	0.350	14,851
South	0.114	7,860	0.129	14,851
Center	0.142	7,860	0.152	14,851
North	0.140	7,860	0.121	14,851
East	0.281	7,860	0.248	14,851
Type of Location at Age 12				
Large City (Urban)	0.401	7,855	0.431	14,844
Small City (Urban)	0.206	7,855	0.206	14,844
Village (Rural)	0.393	7,855	0.362	14,844
Mother Tongue				
Turkish	0.770	6,761	0.802	14,484
Kurdish	0.206	6,761	0.176	14,484
Arabic	0.025	6,761	0.022	14,484

Notes: The female sample is based on 2003 and 2008 waves of TDHS, whereas the male sample is based on 2008 wave of TDHS only because information on location of residence at age 12 is not available for men in the 2003 survey.

Table 3: Effect of the Education Policy by Gender in Urban Areas

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Policy	0.223	0.264	0.273	0.015	0.223	1.691***	1.647***	1.599***	1.077***	1.098***	1.163***
	[1.127]	[1.119]	[1.116]	[1.029]	[1.015]	[0.315]	[0.316]	[0.306]	[0.261]	[0.293]	[0.385]
Policy * Female	-0.454	-0.516	-0.622	-0.448	-0.764	-0.859**	-0.854**	-0.866**	-0.619***	-0.792**	-0.626
	[1.033]	[1.030]	[1.020]	[1.013]	[1.015]	[0.418]	[0.403]	[0.409]	[0.238]	[0.312]	[0.502]
Composite Female	-0.231	-0.252*	-0.348***	-0.434**	-0.541***	0.832***	0.792***	0.733***	0.458***	0.306***	0.537***
	[0.143]	[0.143]	[0.132]	[0.177]	[0.169]	[0.125]	[0.115]	[0.121]	[0.120]	[0.105]	[0.154]
A2) QUADRATIC TIME TRENDS											
Policy	1.015	0.957	0.953	0.853	0.611	1.187***	1.169***	1.171***	0.920**	0.898**	0.662***
	[2.519]	[2.511]	[2.510]	[2.487]	[2.464]	[0.350]	[0.342]	[0.338]	[0.362]	[0.357]	[0.239]
Policy * Female	-0.915	-0.890	-0.922	-0.652	-0.516	0.025	-0.042	-0.012	-0.408	-0.417	0.139
	[2.323]	[2.318]	[2.317]	[2.503]	[2.504]	[0.484]	[0.477]	[0.452]	[0.447]	[0.435]	[0.354]
Composite Female	0.101	0.067	0.031	0.201	0.095	1.212***	1.127***	1.159***	0.512**	0.480**	0.801***
	[0.294]	[0.299]	[0.266]	[0.237]	[0.274]	[0.216]	[0.218]	[0.206]	[0.211]	[0.228]	[0.218]
A3) CUBIC TIME TRENDS											
Policy	-9.234	-9.207	-9.214	-10.221*	-9.998*	2.110***	2.077***	1.991***	0.459	0.338	0.297
	[6.356]	[6.343]	[6.332]	[5.981]	[5.926]	[0.694]	[0.687]	[0.675]	[0.475]	[0.475]	[0.476]
Policy * Female	9.313	9.279	9.086	11.177**	11.036**	-1.638	-1.663	-1.582	-1.397**	-1.473**	-0.955
	[5.784]	[5.785]	[5.824]	[5.652]	[5.542]	[1.066]	[1.058]	[1.076]	[0.680]	[0.718]	[0.710]
Composite Female	0.079	0.072	-0.128	0.956	1.039	0.472	0.414	0.409	-0.938*	-1.135*	-0.658
	[0.864]	[0.842]	[0.762]	[0.713]	[0.801]	[0.574]	[0.562]	[0.582]	[0.522]	[0.581]	[0.583]
N	12,837	12,837	12,837	12,837	12,837	12,568	11,770	10,940	10,162	9,367	8,497

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Policy	0.206	0.199	0.220	0.101	0.130	1.558***	1.546***	1.550***	1.239***	1.258***	1.224***
	[1.895]	[1.894]	[1.887]	[1.823]	[1.819]	[0.372]	[0.370]	[0.368]	[0.390]	[0.400]	[0.419]
Policy * Female	-0.133	-0.153	-0.241	0.040	-0.030	-0.478	-0.549	-0.577	-0.968**	-1.089***	-0.816
	[1.706]	[1.703]	[1.716]	[1.774]	[1.785]	[0.517]	[0.502]	[0.496]	[0.386]	[0.422]	[0.537]
Composite Female	0.073	0.046	-0.021	0.141	0.099	1.080***	0.997***	0.973***	0.271**	0.169	0.408**
	[0.247]	[0.254]	[0.197]	[0.168]	[0.181]	[0.201]	[0.193]	[0.193]	[0.112]	[0.114]	[0.163]
B2) NO TIME TRENDS											
Policy	0.671	0.670	0.669	0.370	0.376	2.454***	2.439***	2.446***	1.073***	1.037***	1.008***
	[0.532]	[0.532]	[0.531]	[0.498]	[0.493]	[0.261]	[0.258]	[0.257]	[0.179]	[0.189]	[0.192]
Policy * Female	-0.110	-0.139	-0.220	-0.114	-0.210	-0.804***	-0.875***	-0.937***	-0.213	-0.204	-0.048
	[0.503]	[0.507]	[0.499]	[0.466]	[0.457]	[0.211]	[0.202]	[0.183]	[0.211]	[0.244]	[0.249]
Composite Female	0.560***	0.531***	0.449***	0.256**	0.166	1.650***	1.564***	1.508***	0.860***	0.833***	0.959***
	[0.179]	[0.180]	[0.160]	[0.130]	[0.134]	[0.184]	[0.172]	[0.169]	[0.107]	[0.128]	[0.096]
N	7,263	7,263	7,263	7,263	7,263	7,263	7,005	6,687	6,413	6,140	5,816

C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
Policy	0.521	0.521	0.536	0.209	0.233	2.005***	1.997***	1.995***	1.166***	1.158***	1.118***
	[1.024]	[1.025]	[1.021]	[1.081]	[1.071]	[0.413]	[0.416]	[0.420]	[0.257]	[0.247]	[0.282]
Policy * Female	-0.305	-0.320	-0.385	-0.142	-0.258	-0.811**	-0.838**	-0.854**	-0.554***	-0.653***	-0.406
	[0.987]	[0.981]	[0.998]	[1.088]	[1.094]	[0.384]	[0.362]	[0.353]	[0.183]	[0.214]	[0.379]
Composite Female	0.216***	0.200***	0.151	0.067*	-0.025	1.194***	1.159***	1.141***	0.613***	0.505***	0.712***
	[0.079]	[0.073]	[0.123]	[0.036]	[0.030]	[0.065]	[0.080]	[0.096]	[0.090]	[0.046]	[0.099]
N	2,871	2,871	2,871	2,871	2,871	2,871	2,871	2,871	2,871	2,598	2,274

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Table 4: Effect of Policy on Grade Completion Rate by Gender in Urban Areas

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)

Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Men	0.002	0.002	0.002	0.000	0.002	0.134***	0.131***	0.129***	0.159***	0.161***	0.168***
	[0.009]	[0.009]	[0.009]	[0.010]	[0.010]	[0.023]	[0.023]	[0.022]	[0.029]	[0.032]	[0.040]
Women	-0.009*	-0.010*	-0.015***	-0.020**	-0.027***	0.130***	0.126***	0.118***	0.094***	0.064***	0.109***
	[0.005]	[0.006]	[0.005]	[0.008]	[0.008]	[0.020]	[0.019]	[0.020]	[0.025]	[0.023]	[0.031]
Men - Women	0.011	0.012	0.017**	0.020*	0.029**	0.003	0.005	0.011	0.066**	0.097**	0.059
	[0.007]	[0.007]	[0.007]	[0.012]	[0.012]	[0.040]	[0.039]	[0.040]	[0.031]	[0.040]	[0.063]
A2) QUADRATIC TIME TRENDS											
Men	0.008	0.008	0.008	0.007	0.006	0.096***	0.095***	0.095***	0.136***	0.134***	0.105**
	[0.029]	[0.029]	[0.029]	[0.029]	[0.029]	[0.036]	[0.036]	[0.035]	[0.049]	[0.050]	[0.041]
Women	0.004	0.003	0.001	0.011	0.005	0.203***	0.193***	0.197***	0.109**	0.102**	0.162***
	[0.013]	[0.013]	[0.012]	[0.013]	[0.015]	[0.042]	[0.042]	[0.042]	[0.048]	[0.052]	[0.049]
Men - Women	0.004	0.005	0.006	-0.004	0.000	-0.107	-0.098	-0.103	0.027	0.031	-0.057
	[0.023]	[0.023]	[0.021]	[0.032]	[0.035]	[0.065]	[0.065]	[0.064]	[0.074]	[0.074]	[0.069]
A3) CUBIC TIME TRENDS											
Men	-0.006*	-0.006*	-0.006*	-0.007	-0.006	0.244*	0.241*	0.226*	0.069	0.052	0.046
	[0.003]	[0.003]	[0.003]	[0.005]	[0.004]	[0.128]	[0.127]	[0.123]	[0.080]	[0.080]	[0.080]
Women	0.003	0.003	-0.005	0.061	0.072	0.064	0.057	0.058	-0.145**	-0.174***	-0.095
	[0.036]	[0.035]	[0.031]	[0.056]	[0.071]	[0.088]	[0.086]	[0.091]	[0.062]	[0.063]	[0.069]
Men - Women	-0.009	-0.009	-0.000	-0.068	-0.078	0.179	0.184	0.169	0.214**	0.226**	0.141
	[0.036]	[0.035]	[0.031]	[0.056]	[0.070]	[0.183]	[0.182]	[0.184]	[0.097]	[0.097]	[0.099]
N	12,837	12,837	12,837	12,837	12,837	12,568	11,77	10,94	10,162	9,367	8,497

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)

Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Men	0.001	0.001	0.001	0.001	0.001	0.133***	0.132***	0.132***	0.184***	0.187***	0.183***
	[0.012]	[0.012]	[0.012]	[0.012]	[0.013]	[0.038]	[0.037]	[0.037]	[0.048]	[0.048]	[0.050]
Women	0.003	0.002	-0.001	0.007	0.005	0.171***	0.162***	0.159***	0.055**	0.035	0.081**
	[0.010]	[0.011]	[0.009]	[0.009]	[0.010]	[0.038]	[0.037]	[0.038]	[0.024]	[0.024]	[0.033]
Men - Women	-0.002	-0.001	0.002	-0.007	-0.004	-0.039	-0.030	-0.027	0.129**	0.152***	0.102
	[0.007]	[0.007]	[0.006]	[0.013]	[0.014]	[0.069]	[0.067]	[0.067]	[0.051]	[0.055]	[0.073]
B2) NO TIME TRENDS											
Men	0.006	0.006	0.006	0.004	0.004	0.192***	0.191***	0.191***	0.175***	0.171***	0.168***
	[0.005]	[0.005]	[0.005]	[0.005]	[0.005]	[0.014]	[0.014]	[0.014]	[0.022]	[0.024]	[0.025]
Women	0.020***	0.019***	0.017***	0.011**	0.008	0.240***	0.235***	0.231***	0.179***	0.176***	0.199***
	[0.006]	[0.006]	[0.006]	[0.006]	[0.006]	[0.021]	[0.021]	[0.021]	[0.022]	[0.026]	[0.020]
Men - Women	-0.014**	-0.014**	-0.012**	-0.007	-0.004	-0.048*	-0.044*	-0.040	-0.004	-0.005	-0.032
	[0.006]	[0.006]	[0.006]	[0.006]	[0.006]	[0.026]	[0.026]	[0.025]	[0.031]	[0.037]	[0.036]
N	7,263	7,263	7,263	7,263	7,263	7,263	7,005	6,687	6,413	6,14	5,816

C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)

Grade Level	1	2	3	4	5	6	7	8	9	10	11
Men	0.005	0.005	0.005	0.002	0.002	0.179***	0.179***	0.179***	0.183***	0.183***	0.178***
	[0.011]	[0.011]	[0.011]	[0.011]	[0.011]	[0.031]	[0.031]	[0.031]	[0.032]	[0.031]	[0.035]
Women	0.009***	0.009***	0.007	0.003*	-0.001	0.182***	0.181***	0.180***	0.126***	0.107***	0.147***
	[0.003]	[0.003]	[0.006]	[0.002]	[0.001]	[0.008]	[0.010]	[0.012]	[0.018]	[0.010]	[0.017]
Men - Women	-0.004	-0.004	-0.002	-0.001	0.004	-0.004	-0.002	-0.001	0.056**	0.076***	0.031
	[0.010]	[0.009]	[0.010]	[0.012]	[0.012]	[0.034]	[0.032]	[0.032]	[0.022]	[0.026]	[0.052]
N	2,502	2,502	2,502	2,871	2,871	2,871	2,871	2,871	2,871	2,598	2,274

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Table 5: Effect of the Education Policy by Gender in Rural Areas

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Policy	0.777***	0.777***	0.778***	0.390	0.392	1.247***	1.248***	1.254***	0.457**	0.355*	0.297
	[0.253]	[0.253]	[0.254]	[0.303]	[0.302]	[0.188]	[0.190]	[0.192]	[0.188]	[0.192]	[0.211]
Policy * Female	-0.767**	-0.874***	-0.947***	-0.667*	-0.616	0.031	0.005	-0.082	-0.102	0.009	0.278
	[0.332]	[0.338]	[0.345]	[0.397]	[0.400]	[0.194]	[0.196]	[0.190]	[0.290]	[0.359]	[0.368]
Composite Female	0.011	-0.097	-0.168	-0.277	-0.224	1.278***	1.252***	1.172***	0.355*	0.364	0.575***
	[0.163]	[0.142]	[0.146]	[0.173]	[0.164]	[0.120]	[0.115]	[0.118]	[0.183]	[0.222]	[0.212]
A2) QUADRATIC TIME TRENDS											
Policy	-0.326	-0.329	-0.325	-0.819	-0.811	1.414***	1.420***	1.396***	0.514*	0.591**	0.687***
	[0.555]	[0.555]	[0.556]	[0.570]	[0.568]	[0.341]	[0.342]	[0.336]	[0.309]	[0.281]	[0.241]
Policy * Female	0.858	0.847	0.834	1.255*	1.372*	0.305	0.227	0.193	0.375	0.273	0.416
	[0.722]	[0.721]	[0.697]	[0.735]	[0.737]	[0.325]	[0.337]	[0.307]	[0.406]	[0.417]	[0.396]
Composite Female	0.532	0.518	0.509*	0.437	0.560*	1.718***	1.647***	1.590***	0.889***	0.864***	1.103***
	[0.368]	[0.332]	[0.288]	[0.358]	[0.321]	[0.110]	[0.123]	[0.127]	[0.158]	[0.182]	[0.210]
N	8,248	8,248	8,248	8,248	8,248	8,125	7,727	7,318	6,945	6,444	5,948

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Policy	-0.092	-0.096	-0.093	-0.543	-0.534	1.644***	1.636***	1.619***	0.523**	0.519**	0.510**
	[0.349]	[0.350]	[0.350]	[0.375]	[0.377]	[0.261]	[0.262]	[0.256]	[0.258]	[0.258]	[0.251]
Policy * Female	0.231	0.211	0.221	0.607	0.696	-0.139	-0.169	-0.171	0.082	0.142	0.402
	[0.482]	[0.470]	[0.446]	[0.500]	[0.494]	[0.252]	[0.263]	[0.258]	[0.402]	[0.446]	[0.435]
Composite Female	0.139	0.115	0.128	0.064	0.162	1.505***	1.468***	1.448***	0.606***	0.661***	0.912***
	[0.232]	[0.200]	[0.194]	[0.262]	[0.226]	[0.095]	[0.092]	[0.090]	[0.153]	[0.202]	[0.200]
B2) NO TIME TRENDS											
Policy	0.709***	0.708***	0.708***	0.427	0.427	2.310***	2.304***	2.286***	0.815***	0.806***	0.803***
	[0.255]	[0.254]	[0.254]	[0.288]	[0.288]	[0.230]	[0.219]	[0.213]	[0.137]	[0.138]	[0.138]
Policy * Female	-0.199	-0.249	-0.292	-0.105	-0.091	0.136	0.032	-0.047	0.347	0.425	0.602***
	[0.217]	[0.221]	[0.209]	[0.204]	[0.203]	[0.136]	[0.159]	[0.139]	[0.217]	[0.270]	[0.198]
Composite Female	0.510***	0.459***	0.416***	0.322**	0.336*	2.446***	2.337***	2.238***	1.161***	1.231***	1.405***
	[0.112]	[0.120]	[0.122]	[0.162]	[0.186]	[0.261]	[0.230]	[0.214]	[0.172]	[0.222]	[0.135]
N	4,525	4,525	4,525	4,525	4,525	4,525	4,389	4,265	4,139	3,954	3,770

C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
Policy	0.354***	0.356***	0.357***	-0.093	-0.091	1.973***	1.985***	1.975***	0.671***	0.656***	0.642***
	[0.135]	[0.134]	[0.132]	[0.399]	[0.393]	[0.343]	[0.347]	[0.342]	[0.136]	[0.147]	[0.137]
Policy * Female	-0.057	-0.105	-0.100	0.240	0.220	0.001	-0.043	-0.056	0.242	0.298	0.573*
	[0.260]	[0.225]	[0.215]	[0.354]	[0.344]	[0.123]	[0.129]	[0.123]	[0.304]	[0.410]	[0.345]
Composite Female	0.298**	0.250**	0.256**	0.147	0.129	1.974***	1.941***	1.920***	0.914***	0.954***	1.215***
	[0.126]	[0.107]	[0.110]	[0.167]	[0.138]	[0.257]	[0.252]	[0.257]	[0.181]	[0.279]	[0.226]
N	1,852	1,852	1,852	1,852	1,852	1,852	1,852	1,852	1,852	1,667	1,483

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Table 6: Effect of Policy on Grade Completion Rate by Gender in Rural Areas

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Men	0.024***	0.024***	0.024***	0.014	0.014	0.193***	0.193***	0.194***	0.109**	0.085*	0.071
	[0.009]	[0.009]	[0.009]	[0.011]	[0.011]	[0.030]	[0.030]	[0.030]	[0.045]	[0.046]	[0.050]
Women	0.001	-0.009	-0.016	-0.028*	-0.024	0.284***	0.279***	0.263***	0.075**	0.077	0.126***
	[0.014]	[0.013]	[0.013]	[0.017]	[0.017]	[0.024]	[0.023]	[0.024]	[0.038]	[0.047]	[0.046]
Men - Women	0.023	0.033*	0.039**	0.042*	0.038	-0.091***	-0.086**	-0.069**	0.033	0.008	-0.055
	[0.018]	[0.018]	[0.019]	[0.023]	[0.024]	[0.034]	[0.034]	[0.033]	[0.065]	[0.081]	[0.085]
A2) QUADRATIC TIME TRENDS											
Men	-0.007	-0.007	-0.007	-0.021*	-0.021*	0.222***	0.222***	0.220***	0.124*	0.142**	0.164***
	[0.010]	[0.010]	[0.010]	[0.012]	[0.012]	[0.063]	[0.063]	[0.063]	[0.074]	[0.067]	[0.058]
Women	0.049	0.050	0.050*	0.047	0.064*	0.368***	0.354***	0.345***	0.157***	0.158***	0.213***
	[0.037]	[0.034]	[0.030]	[0.041]	[0.039]	[0.019]	[0.022]	[0.023]	[0.022]	[0.031]	[0.037]
Men - Women	-0.055	-0.057	-0.057	-0.068	-0.085**	-0.146**	-0.132**	-0.124**	-0.033	-0.016	-0.049
	[0.040]	[0.038]	[0.035]	[0.044]	[0.043]	[0.062]	[0.063]	[0.058]	[0.087]	[0.090]	[0.084]
N	8,248	8,248	8,248	8,248	8,248	8,125	7,727	7,318	6,945	6,444	5,948

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Men	-0.002	-0.002	-0.002	-0.016	-0.016	0.265***	0.265***	0.264***	0.125**	0.125**	0.122**
	[0.008]	[0.008]	[0.008]	[0.010]	[0.011]	[0.043]	[0.044]	[0.043]	[0.061]	[0.061]	[0.060]
Women	0.013	0.011	0.013	0.007	0.018	0.321***	0.313***	0.310***	0.117***	0.129***	0.186***
	[0.021]	[0.019]	[0.019]	[0.028]	[0.026]	[0.015]	[0.014]	[0.014]	[0.028]	[0.041]	[0.042]
Men - Women	-0.015	-0.013	-0.015	-0.023	-0.034	-0.055	-0.049	-0.046	0.008	-0.005	-0.064
	[0.025]	[0.024]	[0.023]	[0.032]	[0.030]	[0.046]	[0.049]	[0.048]	[0.087]	[0.099]	[0.097]
B2) NO TIME TRENDS											
Men	0.016***	0.016***	0.016***	0.011*	0.011*	0.337***	0.337***	0.337***	0.192***	0.191***	0.190***
	[0.005]	[0.005]	[0.005]	[0.006]	[0.006]	[0.020]	[0.020]	[0.020]	[0.032]	[0.032]	[0.032]
Women	0.045***	0.042***	0.039***	0.032**	0.035*	0.501***	0.482***	0.466***	0.228***	0.244***	0.285***
	[0.010]	[0.011]	[0.011]	[0.016]	[0.018]	[0.045]	[0.041]	[0.041]	[0.038]	[0.050]	[0.028]
Men - Women	-0.030***	-0.026***	-0.023**	-0.021*	-0.024	-0.164***	-0.145***	-0.129***	-0.036	-0.053	-0.095**
	[0.008]	[0.009]	[0.010]	[0.012]	[0.015]	[0.036]	[0.035]	[0.034]	[0.046]	[0.060]	[0.042]
N	4,525	4,525	4,525	4,525	4,525	4,525	4,389	4,265	4,139	3,954	3,770

C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
Men	0.008**	0.008**	0.008**	-0.003	-0.003	0.302***	0.302***	0.302***	0.159***	0.156***	0.153***
	[0.003]	[0.003]	[0.003]	[0.011]	[0.011]	[0.029]	[0.029]	[0.029]	[0.032]	[0.034]	[0.032]
Women	0.027**	0.023**	0.024**	0.015	0.014	0.405***	0.397***	0.392***	0.174***	0.183***	0.244***
	[0.012]	[0.010]	[0.011]	[0.017]	[0.015]	[0.038]	[0.037]	[0.039]	[0.039]	[0.062]	[0.052]
Men - Women	-0.019	-0.015	-0.016	-0.018	-0.016	-0.103***	-0.095***	-0.091***	-0.016	-0.027	-0.091
	[0.015]	[0.013]	[0.013]	[0.015]	[0.013]	[0.022]	[0.021]	[0.023]	[0.068]	[0.093]	[0.080]
N	1,852	1,852	1,852	1,852	1,852	1,852	1,852	1,852	1,852	1,667	1,483

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Table 7: Effect of the Education Policy by Rural/Urban Status for Men

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Policy	0.370	0.412	0.412	0.198	0.399	1.625***	1.587***	1.537***	1.057***	1.068***	1.149***
	[1.052]	[1.046]	[1.046]	[0.972]	[0.963]	[0.311]	[0.312]	[0.302]	[0.264]	[0.293]	[0.383]
Policy * Rural	0.409	0.367	0.367	0.208	0.012	-0.407	-0.363	-0.296	-0.561	-0.678	-0.821
	[1.144]	[1.138]	[1.138]	[1.099]	[1.082]	[0.319]	[0.316]	[0.296]	[0.406]	[0.452]	[0.563]
Composite Rural	0.779***	0.779***	0.779***	0.406	0.411	1.218***	1.224***	1.241***	0.496***	0.389**	0.328
	[0.256]	[0.256]	[0.256]	[0.289]	[0.290]	[0.177]	[0.180]	[0.186]	[0.191]	[0.190]	[0.209]
A2) QUADRATIC TIME TRENDS											
Policy	0.814	0.760	0.760	0.675	0.396	0.967***	0.958***	0.963***	0.793**	0.789**	0.562**
	[2.484]	[2.478]	[2.478]	[2.453]	[2.432]	[0.295]	[0.292]	[0.289]	[0.361]	[0.371]	[0.238]
Policy * Rural	-1.271	-1.218	-1.218	-1.639	-1.369	0.336	0.358	0.346	-0.259	-0.178	0.150
	[2.804]	[2.798]	[2.798]	[2.803]	[2.776]	[0.383]	[0.383]	[0.386]	[0.581]	[0.552]	[0.354]
Composite Rural	-0.457	-0.458	-0.458	-0.964*	-0.974*	1.303***	1.315***	1.309***	0.534*	0.610**	0.712***
	[0.546]	[0.546]	[0.546]	[0.553]	[0.549]	[0.326]	[0.329]	[0.327]	[0.301]	[0.274]	[0.237]
N	6,714	6,714	6,714	6,714	6,714	6,714	6,296	5,875	5,473	5,080	4,671

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Policy	0.229	0.229	0.229	0.201	0.201	1.382***	1.382***	1.389***	1.149***	1.171***	1.145***
	[1.926]	[1.926]	[1.926]	[1.836]	[1.836]	[0.328]	[0.328]	[0.326]	[0.385]	[0.398]	[0.408]
Policy * Rural	-0.371	-0.371	-0.371	-0.790	-0.790	0.127	0.127	0.119	-0.609	-0.630	-0.604
	[2.203]	[2.203]	[2.203]	[2.170]	[2.170]	[0.332]	[0.332]	[0.332]	[0.577]	[0.589]	[0.598]
Composite Rural	-0.142	-0.142	-0.142	-0.589*	-0.589*	1.509***	1.509***	1.508***	0.540**	0.542**	0.542**
	[0.336]	[0.336]	[0.336]	[0.354]	[0.354]	[0.224]	[0.224]	[0.224]	[0.253]	[0.253]	[0.252]
B2) NO TIME TRENDS											
Policy	0.591	0.591	0.591	0.283	0.283	2.251***	2.251***	2.257***	1.008***	0.980***	0.958***
	[0.522]	[0.522]	[0.522]	[0.481]	[0.481]	[0.249]	[0.249]	[0.248]	[0.177]	[0.188]	[0.191]
Policy * Rural	0.101	0.101	0.101	0.113	0.113	-0.057	-0.057	-0.064	-0.184	-0.159	-0.135
	[0.673]	[0.673]	[0.673]	[0.675]	[0.675]	[0.164]	[0.164]	[0.161]	[0.308]	[0.317]	[0.322]
Composite Rural	0.692***	0.692***	0.692***	0.397	0.397	2.194***	2.194***	2.193***	0.823***	0.821***	0.823***
	[0.247]	[0.247]	[0.247]	[0.271]	[0.271]	[0.202]	[0.202]	[0.202]	[0.140]	[0.139]	[0.140]
N	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280

C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
Policy	0.301	0.301	0.301	0.239	0.239	1.804***	1.804***	1.804***	1.081***	1.081***	1.063***
	[0.899]	[0.899]	[0.899]	[0.812]	[0.812]	[0.411]	[0.411]	[0.411]	[0.283]	[0.283]	[0.296]
Policy * Rural	0.035	0.035	0.035	-0.194	-0.194	0.044	0.044	0.044	-0.403	-0.403	-0.385
	[1.005]	[1.005]	[1.005]	[0.985]	[0.985]	[0.209]	[0.209]	[0.209]	[0.382]	[0.382]	[0.396]
Composite Rural	0.336***	0.336***	0.336***	0.045	0.045	1.848***	1.848***	1.848***	0.678***	0.678***	0.677***
	[0.126]	[0.126]	[0.126]	[0.227]	[0.227]	[0.287]	[0.287]	[0.287]	[0.134]	[0.134]	[0.134]
N	1,902	1,902	1,902	1,902	1,902	1,245	1,245	1,245	1,245	1,245	1,245

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. In panel (c), for grade levels 1 to 5, 3-year intervals are taken on both sides of the discontinuity due to identification problems with 2-year intervals. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Table 8: Effect of Policy on Grade Completion Rate by Rural/Urban Status for Men

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Men	0.004	0.004	0.004	0.002	0.004	0.146***	0.144***	0.142***	0.169***	0.170***	0.179***
	[0.012]	[0.012]	[0.012]	[0.012]	[0.012]	[0.023]	[0.023]	[0.023]	[0.032]	[0.035]	[0.042]
Women	0.023***	0.023***	0.023***	0.015	0.015	0.193***	0.193***	0.195***	0.117***	0.092**	0.078
	[0.009]	[0.009]	[0.009]	[0.011]	[0.011]	[0.029]	[0.029]	[0.029]	[0.045]	[0.045]	[0.050]
Men - Women	-0.019	-0.019	-0.019	-0.013	-0.011	-0.047	-0.049	-0.053	0.052	0.077	0.101
	[0.017]	[0.017]	[0.017]	[0.019]	[0.018]	[0.039]	[0.039]	[0.038]	[0.069]	[0.075]	[0.087]
A2) QUADRATIC TIME TRENDS											
Men	0.007	0.007	0.007	0.006	0.004	0.083***	0.082***	0.083***	0.122**	0.122**	0.092**
	[0.030]	[0.030]	[0.030]	[0.028]	[0.028]	[0.029]	[0.029]	[0.029]	[0.050]	[0.051]	[0.040]
Women	-0.008	-0.008	-0.008	-0.023**	-0.023**	0.206***	0.207***	0.206***	0.128*	0.146**	0.169***
	[0.008]	[0.008]	[0.008]	[0.011]	[0.011]	[0.061]	[0.061]	[0.061]	[0.071]	[0.065]	[0.056]
Men - Women	0.015	0.015	0.015	0.029	0.027	-0.123*	-0.125*	-0.123*	-0.006	-0.024	-0.076
	[0.035]	[0.035]	[0.035]	[0.035]	[0.035]	[0.067]	[0.067]	[0.067]	[0.103]	[0.095]	[0.071]
N	6,714	6,714	6,714	6,714	6,714	6,714	6,296	5,875	5,473	5,08	4,671

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Men	0.002	0.002	0.002	0.001	0.001	0.128***	0.128***	0.129***	0.178***	0.181***	0.178***
	[0.014]	[0.014]	[0.014]	[0.015]	[0.015]	[0.030]	[0.030]	[0.030]	[0.048]	[0.049]	[0.050]
Women	-0.003	-0.003	-0.003	-0.017	-0.017	0.250***	0.250***	0.250***	0.129**	0.129**	0.129**
	[0.007]	[0.007]	[0.007]	[0.011]	[0.011]	[0.040]	[0.040]	[0.040]	[0.060]	[0.060]	[0.060]
Men - Women	0.005	0.005	0.005	0.018	0.018	-0.123**	-0.123**	-0.122**	0.050	0.052	0.049
	[0.020]	[0.020]	[0.020]	[0.024]	[0.024]	[0.052]	[0.052]	[0.052]	[0.095]	[0.096]	[0.097]
B2) NO TIME TRENDS											
Men	0.006	0.006	0.006	0.003	0.003	0.197***	0.197***	0.197***	0.175***	0.171***	0.169***
	[0.007]	[0.007]	[0.007]	[0.006]	[0.006]	[0.016]	[0.016]	[0.015]	[0.025]	[0.026]	[0.027]
Women	0.014***	0.014***	0.014***	0.010	0.010	0.328***	0.328***	0.328***	0.193***	0.193***	0.193***
	[0.005]	[0.005]	[0.005]	[0.007]	[0.007]	[0.020]	[0.020]	[0.020]	[0.032]	[0.032]	[0.032]
Men - Women	-0.009	-0.009	-0.009	-0.007	-0.007	-0.131***	-0.131***	-0.131***	-0.019	-0.022	-0.025
	[0.011]	[0.011]	[0.011]	[0.011]	[0.011]	[0.026]	[0.026]	[0.026]	[0.056]	[0.057]	[0.058]
N	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280	3,280

C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
Men	0.006	0.006	0.006	0.002	0.002	0.180***	0.180***	0.180***	0.177***	0.177***	0.175***
	[0.014]	[0.014]	[0.014]	[0.014]	[0.014]	[0.026]	[0.026]	[0.026]	[0.035]	[0.035]	[0.037]
Women	0.010***	0.010***	0.010***	-0.005	-0.005	0.290***	0.290***	0.290***	0.161***	0.161***	0.161***
	[0.003]	[0.003]	[0.003]	[0.018]	[0.018]	[0.026]	[0.026]	[0.026]	[0.034]	[0.034]	[0.034]
Men - Women	-0.004	-0.004	-0.004	0.007	0.007	-0.109***	-0.109***	-0.109***	0.016	0.016	0.014
	[0.017]	[0.017]	[0.017]	[0.029]	[0.029]	[0.029]	[0.029]	[0.029]	[0.062]	[0.062]	[0.064]
N	1,037	1,037	1,037	1,037	1,037	1,245	1,245	1,245	1,245	1,245	1,245

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. In panel (c), for grade levels 1 to 5, 3-year intervals are taken on both sides of the discontinuity due to identification problems with 2-year intervals. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Table 9: Effect of the Education Policy by Rural/Urban Status for Women

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Policy	-0.229*	-0.248*	-0.348***	-0.439**	-0.550***	0.842***	0.801***	0.736***	0.458***	0.307***	0.533***
	[0.138]	[0.140]	[0.128]	[0.176]	[0.170]	[0.124]	[0.114]	[0.120]	[0.119]	[0.105]	[0.155]
Policy * Rural	0.245	0.154	0.183	0.163	0.333	0.565***	0.571***	0.550***	-0.073	0.086	0.041
	[0.153]	[0.156]	[0.133]	[0.223]	[0.204]	[0.185]	[0.172]	[0.181]	[0.169]	[0.254]	[0.341]
Composite Rural	0.016	-0.094	-0.165	-0.275	-0.216	1.407***	1.372***	1.287***	0.385*	0.393	0.574**
	[0.164]	[0.142]	[0.147]	[0.174]	[0.166]	[0.123]	[0.118]	[0.121]	[0.200]	[0.243]	[0.244]
A2) QUADRATIC TIME TRENDS											
Policy	0.090	0.060	0.027	0.208	0.105	1.228***	1.141***	1.167***	0.511**	0.479**	0.791***
	[0.287]	[0.294]	[0.258]	[0.226]	[0.261]	[0.212]	[0.213]	[0.202]	[0.211]	[0.228]	[0.219]
Policy * Rural	0.497	0.514	0.536*	0.284	0.521	0.621**	0.628**	0.543**	0.414*	0.419	0.316
	[0.377]	[0.353]	[0.282]	[0.497]	[0.481]	[0.255]	[0.259]	[0.252]	[0.245]	[0.296]	[0.342]
Composite Rural	0.588	0.574*	0.563**	0.493	0.626**	1.849***	1.769***	1.709***	0.924***	0.898***	1.108***
	[0.369]	[0.326]	[0.279]	[0.352]	[0.311]	[0.126]	[0.140]	[0.147]	[0.180]	[0.203]	[0.245]
A3) CUBIC TIME TRENDS											
Policy	0.064	0.038	-0.139	0.980	1.062	0.524	0.464	0.452	-0.933*	-1.124**	-0.656
	[0.835]	[0.821]	[0.728]	[0.681]	[0.765]	[0.567]	[0.555]	[0.574]	[0.510]	[0.566]	[0.567]
Policy * Rural	-0.520	-0.339	0.288	-0.624	-0.452	1.505**	1.410**	1.660***	2.004***	2.350***	2.193***
	[1.238]	[1.162]	[1.048]	[1.335]	[1.343]	[0.706]	[0.659]	[0.621]	[0.517]	[0.509]	[0.553]
Composite Rural	-0.457	-0.301	0.149	0.356	0.610	2.029***	1.874***	2.111***	1.070	1.226	1.537**
	[0.685]	[0.617]	[0.621]	[0.845]	[0.773]	[0.534]	[0.546]	[0.503]	[0.787]	[0.749]	[0.769]
N	14,371	14,371	14,371	14,371	14,371	13,979	13,201	12,383	11,634	10,731	9,774

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Policy	0.051	0.023	-0.044	0.125	0.081	1.089***	1.006***	0.977***	0.269**	0.166	0.401**
	[0.243]	[0.254]	[0.196]	[0.158]	[0.171]	[0.202]	[0.194]	[0.195]	[0.111]	[0.113]	[0.163]
Policy * Rural	0.117	0.121	0.203	-0.030	0.121	0.550**	0.587***	0.595***	0.370***	0.531***	0.533*
	[0.277]	[0.279]	[0.227]	[0.365]	[0.347]	[0.218]	[0.193]	[0.193]	[0.102]	[0.197]	[0.316]
Composite Rural	0.168	0.144	0.160	0.095	0.203	1.639***	1.593***	1.571***	0.639***	0.697***	0.934***
	[0.226]	[0.188]	[0.184]	[0.255]	[0.216]	[0.104]	[0.103]	[0.099]	[0.178]	[0.224]	[0.242]
B2) NO TIME TRENDS											
Policy	0.546***	0.514***	0.434***	0.259*	0.162	1.654***	1.572***	1.510***	0.854***	0.827***	0.950***
	[0.183]	[0.184]	[0.167]	[0.135]	[0.137]	[0.194]	[0.179]	[0.173]	[0.106]	[0.127]	[0.095]
Policy * Rural	0.000	-0.018	0.015	0.096	0.213	0.990***	0.948***	0.903***	0.379***	0.480***	0.538***
	[0.146]	[0.146]	[0.131]	[0.145]	[0.154]	[0.144]	[0.120]	[0.114]	[0.109]	[0.159]	[0.153]
Composite Rural	0.547***	0.497***	0.450***	0.356**	0.375**	2.644***	2.520***	2.414***	1.233***	1.306***	1.488***
	[0.114]	[0.123]	[0.124]	[0.162]	[0.189]	[0.287]	[0.254]	[0.239]	[0.189]	[0.243]	[0.154]
N	8,508	8,508	8,508	8,508	8,508	8,508	8,114	7,672	7,272	6,814	6,306

C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)											
Grade Level	1	2	3	4	5	6	7	8	9	10	11
Policy	0.203**	0.184**	0.136	0.052*	-0.045*	1.186***	1.157***	1.135***	0.603***	0.493***	0.695***
	[0.086]	[0.083]	[0.129]	[0.029]	[0.024]	[0.072]	[0.090]	[0.103]	[0.090]	[0.040]	[0.101]
Policy * Rural	0.123	0.092***	0.146***	0.120	0.204	0.900***	0.886***	0.878***	0.356***	0.506**	0.561
	[0.104]	[0.015]	[0.042]	[0.184]	[0.139]	[0.171]	[0.139]	[0.132]	[0.101]	[0.255]	[0.365]
Composite Rural	0.326***	0.276***	0.282***	0.172	0.159	2.086***	2.043***	2.013***	0.959***	0.998***	1.256***
	[0.121]	[0.098]	[0.100]	[0.155]	[0.122]	[0.226]	[0.220]	[0.227]	[0.191]	[0.294]	[0.267]
N	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,020	2,512

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Table 10: Effect of Policy on Grade Completion Rate by Rural/Urban Status for Women

A) 10-YEAR INTERVALS ON BOTH SIDES (1976 to 1997 Birth Cohorts)

Grade Level	1	2	3	4	5	6	7	8	9	10	11
A1) LINEAR TIME TRENDS											
Men	-0.011*	-0.012*	-0.018***	-0.025**	-0.032***	0.134***	0.129***	0.121***	0.095***	0.065***	0.109***
	[0.007]	[0.007]	[0.006]	[0.010]	[0.010]	[0.020]	[0.019]	[0.020]	[0.025]	[0.023]	[0.031]
Women	0.001	-0.006	-0.011	-0.021	-0.017	0.302***	0.297***	0.281***	0.083*	0.084	0.125**
	[0.010]	[0.009]	[0.010]	[0.013]	[0.013]	[0.026]	[0.025]	[0.026]	[0.042]	[0.052]	[0.054]
Men - Women	-0.012	-0.006	-0.007	-0.004	-0.015	-0.169***	-0.167***	-0.160***	0.012	-0.019	-0.017
	[0.009]	[0.009]	[0.008]	[0.015]	[0.014]	[0.034]	[0.032]	[0.034]	[0.036]	[0.055]	[0.072]
A2) QUADRATIC TIME TRENDS											
Men	0.005	0.003	0.001	0.013	0.007	0.207***	0.197***	0.201***	0.110**	0.103**	0.161***
	[0.015]	[0.016]	[0.014]	[0.015]	[0.017]	[0.041]	[0.041]	[0.041]	[0.048]	[0.051]	[0.049]
Women	0.038	0.040	0.041*	0.041	0.058*	0.391***	0.377***	0.366***	0.166***	0.167***	0.215***
	[0.027]	[0.025]	[0.022]	[0.032]	[0.031]	[0.023]	[0.026]	[0.028]	[0.026]	[0.034]	[0.044]
Men - Women	-0.034	-0.037	-0.040*	-0.028	-0.051	-0.184***	-0.180***	-0.165***	-0.057	-0.064	-0.053
	[0.026]	[0.025]	[0.020]	[0.041]	[0.042]	[0.049]	[0.050]	[0.050]	[0.049]	[0.060]	[0.069]
A3) CUBIC TIME TRENDS											
Men	0.003	0.002	-0.007	0.072	0.084	0.074	0.066	0.066	-0.148**	-0.177***	-0.097
	[0.043]	[0.042]	[0.037]	[0.060]	[0.073]	[0.090]	[0.088]	[0.093]	[0.062]	[0.064]	[0.069]
Women	-0.024	-0.018	0.010	0.030	0.058	0.421***	0.395***	0.432***	0.186*	0.206**	0.258***
	[0.031]	[0.034]	[0.044]	[0.076]	[0.081]	[0.088]	[0.095]	[0.076]	[0.102]	[0.088]	[0.081]
Men - Women	0.027	0.020	-0.017	0.042	0.026	-0.347***	-0.329***	-0.366***	-0.334***	-0.383***	-0.355***
	[0.061]	[0.061]	[0.063]	[0.120]	[0.135]	[0.114]	[0.110]	[0.098]	[0.068]	[0.061]	[0.061]
N	14,371	14,371	14,371	14,371	14,371	13,979	13,201	12,383	11,634	10,731	9,774

B) 5-YEAR INTERVALS ON BOTH SIDES (1981 to 1992 Birth Cohorts)

Grade Level	1	2	3	4	5	6	7	8	9	10	11
B1) LINEAR TIME TRENDS											
Men	0.003	0.001	-0.002	0.008	0.005	0.175***	0.165***	0.163***	0.055**	0.035	0.081**
	[0.013]	[0.014]	[0.011]	[0.010]	[0.011]	[0.038]	[0.037]	[0.038]	[0.024]	[0.024]	[0.033]
Women	0.011	0.010	0.011	0.008	0.018	0.346***	0.338***	0.335***	0.126***	0.139***	0.192***
	[0.015]	[0.013]	[0.014]	[0.021]	[0.019]	[0.020]	[0.019]	[0.019]	[0.033]	[0.046]	[0.051]
Men - Women	-0.008	-0.008	-0.014	0.000	-0.013	-0.170***	-0.173***	-0.173***	-0.071***	-0.104**	-0.111*
	[0.017]	[0.017]	[0.015]	[0.028]	[0.028]	[0.042]	[0.037]	[0.038]	[0.018]	[0.042]	[0.067]
B2) NO TIME TRENDS											
Men	0.025***	0.024***	0.021***	0.014**	0.009	0.248***	0.243***	0.238***	0.179***	0.176***	0.199***
	[0.007]	[0.008]	[0.007]	[0.007]	[0.008]	[0.022]	[0.022]	[0.022]	[0.021]	[0.026]	[0.020]
Women	0.034***	0.032***	0.031***	0.026**	0.029**	0.524***	0.507***	0.492***	0.246***	0.264***	0.306***
	[0.007]	[0.007]	[0.008]	[0.011]	[0.014]	[0.042]	[0.040]	[0.040]	[0.042]	[0.055]	[0.033]
Men - Women	-0.009	-0.008	-0.009	-0.012	-0.020*	-0.276***	-0.264***	-0.254***	-0.067**	-0.088**	-0.107***
	[0.007]	[0.007]	[0.007]	[0.010]	[0.011]	[0.030]	[0.026]	[0.027]	[0.027]	[0.039]	[0.034]
N	8,508	8,508	8,508	8,508	8,508	8,508	8,114	7,672	7,272	6,814	6,306

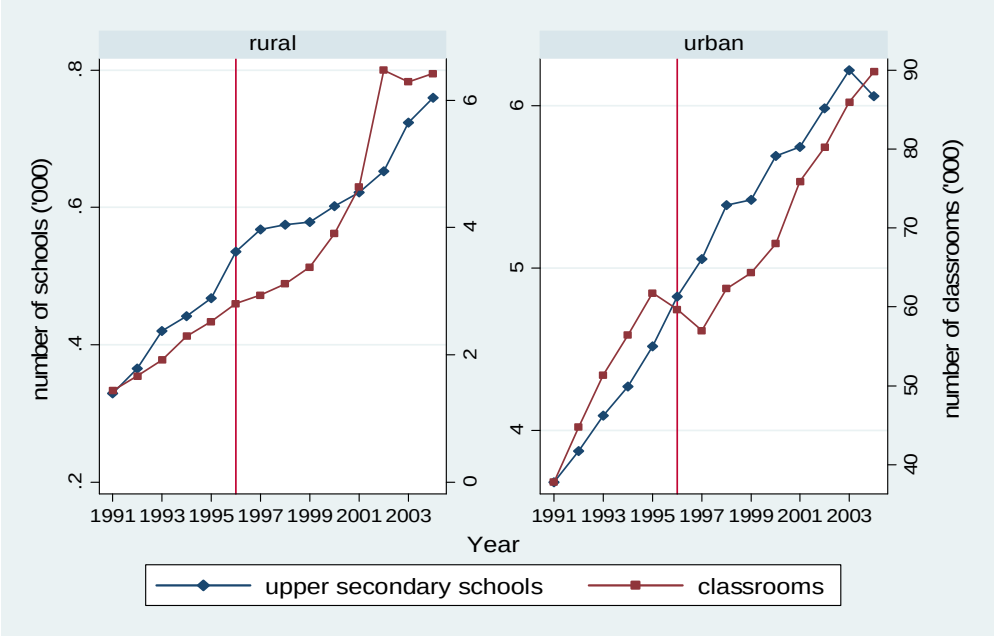
C) 2-YEAR INTERVALS ON BOTH SIDES (1984 to 1989 Birth Cohorts)

Grade Level	1	2	3	4	5	6	7	8	9	10	11
Men	0.011**	0.010**	0.007	0.003*	-0.003*	0.187***	0.185***	0.184***	0.126***	0.106***	0.146***
	[0.005]	[0.005]	[0.007]	[0.002]	[0.002]	[0.008]	[0.010]	[0.012]	[0.017]	[0.009]	[0.018]
Women	0.020***	0.017***	0.019***	0.013	0.013	0.430***	0.423***	0.418***	0.186***	0.195***	0.255***
	[0.007]	[0.006]	[0.006]	[0.011]	[0.010]	[0.039]	[0.038]	[0.040]	[0.042]	[0.067]	[0.063]
Men - Women	-0.009	-0.008***	-0.011***	-0.010	-0.016	-0.243***	-0.237***	-0.234***	-0.060**	-0.090	-0.109
	[0.006]	[0.001]	[0.002]	[0.013]	[0.011]	[0.034]	[0.030]	[0.030]	[0.024]	[0.058]	[0.081]
N	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,478	3,02	2,512

Notes: A separate logit regression is run for each grade level. The dependent variable is grade completion status. All samples exclude 1986 and 1987 birth-cohorts. "Composite female" coefficient is the sum of the "policy" and "policy*female" coefficients. Time trends are allowed to be different before and after the policy and by gender. Control variables also include dummies for 5 geographical regions, large city/small city, gender, and mother tongue. Standard errors are clustered at the level of year of birth. Statistical significance is *** at 1 percent level, ** at 5 percent level, * at 10 percent level.

Appendix

Figure A1: Number of Schools and Classrooms in Upper Secondary Education by Place of Residence (Grades 9-11)



Source: Turkish Statistical Institute (1993-2006).