PROGRESSING THROUGH PROGRESA: AN IMPACT ASSESSMENT OF A SCHOOL SUBSIDY EXPERIMENT*

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Abstract

A new anti-poverty program in Mexico, PROGRESA, provides monetary transfers to families that are contingent upon their children's regular attendance at school. The benefit levels are intended to offset the opportunity costs of not sending children to school and vary with the grade level and gender of the child. The initial phase of the program was implemented as a randomized social experiment.

This paper uses a Markov schooling transition model applied to the experimental data to assess the impact of the educational subsidy program along several dimensions, including effects on initial ages of school entry, dropout rates, grade repetition rates, and school reentry rates. The findings show that the program effectively reduces drop-out rates and facilitates progression through the grades, particularly during the transition from primary to secondary school. Results based on a simulation evaluating the effects of longer terms of exposure to the program indicate that if children were to participate in the program between ages 6 to 14, they would experience an increase of 0.6 years in average educational attainment levels years and an increase of 19% in the percentage of children attending junior secondary school.

1. Introduction

Increasing human capital investments in children is considered to be among the most effective ways of encouraging growth and of alleviating poverty in developing countries. To stimulate such investments, many governments in Latin America and Asia have initiated programs that provide financial incentives for families to send their children to school.[1] This paper evaluates the effects of a relatively new, large-scale anti-poverty and human resource program in Mexico, called PROGRESA, that provides aid to approximately 2.6 million poor families.[2] These families represent about 40% of rural families and 10% of all families living in Mexico. PROGRESA operates in over 50,000 localities in 31 states, with an annual budget of approximately 1 billion dollars.[3] A major goal of the program is to ensure that households have sufficient means and resources available so that their children can complete basic education.

An important component of PROGRESA is the provision of transfer payments to families that are contingent upon their children regularly attending school. The transfers are intended to alter the private incentives to invest in education by offsetting the opportunity cost of not sending children to school. In recognition of the fact that older children are more likely to engage in family or outside work, the transfer amount varies with the child's grade level and is greatest for children in secondary school. The benefit level is also slightly higher for female children who traditionally have lower secondary school enrollment levels.[4] In addition to educational subsidies, the PROGRESA program also provides monetary aid for poor families and nutritional supplements for their infants and small children that are not contingent on schooling.[5] In total, the benefits that families receive through PROGRESA are often substantial relative to their income levels. The average total cash transfer is US $55 per month, which represents over a

[1] For example, such programs exist in Bangladesh, Pakistan, Argentina, Chile, Colombia, Brazil, Nicaragua, and Honduras.

[2] The program was introduced in 1997. PROGRESA stands for Programa de Educacion, Salud, y Alimentacion.

[3] See Gomez de Leon and Parker (2000), Coady (2000) and section 3 of this paper for more information on program coverage.

[4] See Table 1 for a schedule of how benefit amounts vary by child grade and gender.

[5] Some of this aid is contingent on visiting a health clinic.

fifth of the average family income. (Skoufias and Parker, 2000)

For the purposes of evaluation, the initial phase of PROGRESA was implemented as a randomized social experiment, in which 506 rural villages were randomly assigned to either participate in the program or to serve as controls. Randomization, under ideal conditions, allows mean program impacts to be assessed through simple comparisons of outcomes for the treatment and control groups. Schultz (2000a, 2000b, 2000c) investigates the program's impact on school enrollment and attendance rates and finds significant impacts on enrollment, particularly for the first year of junior secondary school (7th grade), which imply increased schooling on average of about 0.4 grades for poor children due to the program (about 0.5 for girls and 0.3 for boys).

This paper provides a disaggregated assessment of the impacts of PROGRESA on education. Specifically, our aim is to understand how the program affects (i) ages of school matriculation, (ii) grade repetition rates at each age and grade, (iii) dropout rates, and (iv) school reentry rates among dropouts. To distinguish empirically among these separate impacts, we use a Markov schooling transition model. Similar statistical models that have been used in both the sociology and economics literatures, usually in studying the influence of family background on schooling and not in examining the effects of social programs. (See Heckman and Cameron, 1998, for a recent discussion of the schooling transition model and of its use in economics and sociology.) This paper also examines whether program effects differ by gender and by children's propensities to attend school in the absence of the program. We also consider the evidence for spillover effects on children who reside in the same communities as program participants but do not satisfy the program eligibility criteria. In addition, we use the schooling transition model to investigate the sources of gender differences in educational attainment levels. We find that girls tend to progress more quickly than boys through elementary grades but then are more likely to drop out after completing primary school and are less likely to return after having dropped out.

The data we analyze cover only the first two years of the operation of PROGRESA, so all children in our datasets are observed participating in the program for at most two years after program initiation. This makes it impossible to assess directly the impact of long-term participation in the program. However, long-term impacts are of key interest, as the policy change being considered is that of making PROGRESA a permanent program. This paper proposes a way of simulating the effects of longer-term exposure to the program that can be implemented even when children are only observed participating over a short time interval, as is often the case in the evaluation of new social programs. Results based on our simulation procedure indicate that if children were to participate in the program over an eight-year time period starting at age 6, their educational attainment distribution would change substantially. In particular, average educational attainment would increase by 0.6 years and 19% more children would attend some secondary school grades.

The plan of the paper is as follows. Section two describes the parameters of interest in this study, the Markov schooling transition model, and the assumptions required to apply the simulation method that we use to evaluate the effects of long-term program participation. Section three provides additional information on the PROGRESA program and data subsamples. Sections four and five present the empirical findings. Simple comparisons of enrollment rates for program participants and nonparticipants reveal effects of the program on enrollment rates only for older children, with the greatest changes observed in the age ranges and grade levels for which the school subsidies are greatest. Larger impacts are also observed for female children, consistent with earlier reported findings in Schultz (2000a, 2000b). When we disaggregate the data more finely, using the schooling transition model, it becomes clear that younger children are also affected by the program. For children age 6 to 10 years, program participation is associated with less grade repetition and better grade progression. For children age 11 to 14, the program decreases the dropout rate, particularly during the transition from primary to secondary school, and encourages school reentry among those who dropped out prior to the initiation of the program. Section five of the paper presents results from our simulation of the effects of long-term exposure to the program. Section six concludes.

2. Parameters of interest and estimation methods

The key parameter of interest in many evaluations of social programs is the so-called *treatment-on-the-treated* parameter, which gives the average impact of the program on the group of persons who participate in the program. To define this parameter, we first need to introduce some notation. Let e be an indicator variable that equals 1 if the child is enrolled in school and T an indicator that equals 1 if the child is a program participant (in the treatment group) and equals 0 otherwise. Let D be an indicator that takes the value 1 if the child participates in the program (receives treatment) and 0 otherwise. Let X denote additional conditioning variables, such as the age or sex of the child. Then the difference

$$\Delta_{TT} = E(e|\ X, T = 1, D = 1) - E(e\mid X, T = 1, D = 0)$$

gives the average program impact on enrollment for the group of children participating in the program (this parameter may be defined with or without conditioning on X). Because e is binary, Δ_{TT} corresponds to the mean difference in the conditional probability of enrollment.

Data from a randomized social experiment allows for direct estimation of the *treatment-on-the-treated* parameter, Δ_{TT}. The treatment group provides the data required to estimate $E(e| X, T = 1, D = 1)$, and the randomized-out control group provides the data required to estimate $E(e \mid X, T = 1, D = 0)$.[6]

2.1. A Markov Model of Schooling Transitions

If school enrollment rates change as a result of the program, the change could be attributed to several different factors. For example, the program may discourage children from dropping out of school and/or encourage school entry among dropouts or among those who have never enrolled in school. The program may also decrease grade repetition and thereby increase educational attainment levels, without necessarily changing enrollment rates. For this reason, enrollment rates provide only limited information about the program's overall effectiveness.

We next describe a Markov schooling transition model that we use to distinguish empirically other kinds of program impacts, including effects on the initial age of school entry, dropout rates, grade repetition rates, and the rate of school reentry among dropouts. The schooling transition model provides a convenient framework for studying the dynamics of educational progression and for analyzing the experimental impact of the program along these various dimensions.

Let f_g^a denote the proportion of children age a enrolled in grade g, f_{ne}^a the proportion never enrolled and f_{drop}^a the proportion who were enrolled at some time in the past but whose current status is "dropped out." For six-year-old children, there are three possible schooling states (not yet enrolled, enrolled in grade one, or enrolled in grade two) with the majority of six-year-olds enrolled in grade one.[7] For seven-year-olds, the number of states increases to five (enrolled in grade three, enrolled in grade two, enrolled in grade one, dropped out after having been enrolled in school as a six-year-old, and not yet enrolled), with grade two being the most common state.

[6] Randomization implies that the mean impact of the randomized-out control group $E(e \mid X, T = 0, D = 0)$ equals the counterfactual mean no-program impact of the treatment group $E(e \mid X, T = 1, D = 0)$. See Heckman, Lalonde, and Smith (1999) for further discussion of the *treatment-on-treated* parameter as well as other parameters of interest in evaluation studies.

[7] We treat kindergarten and not enrolled as the same state.

A transition probability matrix describes the transition from each of the six-year-old schooling states to the seven-year-old states. That is, given the initial distribution of six-year-olds in each of the three states (the elements in the 3×1 vector below), the distribution of seven-year-olds can be obtained by applying the 5×3 transition matrix:

$$\begin{pmatrix} f_3^7 \\ f_2^7 \\ f_1^7 \\ f_{drop}^7 \\ f_{ne}^7 \end{pmatrix}_{5\times 1} = \begin{pmatrix} p_{11}^6 & p_{12}^6 & p_{13}^6 \\ p_{21}^6 & p_{22}^6 & p_{23}^6 \\ 0 & p_{32}^6 & p_{33}^6 \\ p_{41}^6 & p_{42}^6 & 0 \\ 0 & 0 & p_{53}^6 \end{pmatrix}_{5\times 3} \begin{pmatrix} f_2^6 \\ f_1^6 \\ f_{ne}^6 \end{pmatrix}_{3\times 1}$$

For example, the element p_{22}^6 denotes the conditional probability that a 6-year-old enrolled in first grade advances to second grade. Similarly, p_{32}^6 is the probability of repeating first grade. The cells set equal to zero impose the restrictions that students cannot regress in grades and, once enrolled, they can no longer enter the state of being "never enrolled" (ne). We allow students to skip a grade because it is not uncommon in our data for children entering school for the first time to be placed in grade 2 or 3 along with the rest of their age cohort.[8]

Let A^a denote the transition matrix for children of age a and f^a denote the vector of schooling state proportions. In this notation, the last equation can be written as:

$$f^7 = A^6 f^6.$$

The number of rows of the A matrix increases with age as the number of potential grade levels increases.[9]

In specifying the A matrices, we allow for reentry into grades from the dropout state, which is an important phenomenon in our data. For example, 86% of children in the dropout state at age eight reenter school. In principle, in specifying the schooling transition model we could further partition the dropout state into states that depend upon the grade and age at which the child dropped out. In practice, however, the number of observations is not large enough to permit too fine a partitioning, so in the empirical work reported below we collapse the dropout state at each age into one or two states.

[8] However, it is uncommon in our data to observe skipping of more than 3 grades, so we do not allow skipping of more than 3 grades.

[9] Going from age six to age seven the number of rows increases by two because there is no drop-out state at the first age, age six. At later ages, the number of rows increases by one for every additional year.

The procedure by which we estimate the transition matrices and vectors of state proportions is nonparametric. Conditional on being in a given state at a given age, the next state can be viewed as the outcome of a draw from a multinomial distribution. The maximum likelihood estimates of the elements of the Markov transition matrices are given by the sample proportions in each cell. We denote by $\hat{A}^a_{T=1}$ the estimated transition matrix for treatment group children of age a. $\hat{f}^a_{T=1}$ denotes the corresponding vector of state proportions, estimated by sample proportions. $\hat{A}^a_{T=0}$ and $\hat{f}^a_{T=0}$ denote the analogous objects for the control group.

2.2. Estimating Program Impacts

2.2.1. One-year impacts

The short-run, one-year experimental impact of the program on children of a given age a can be assessed by comparing the age-specific transition matrix estimated for treatments and controls:

$$\hat{A}^a_{T=1} - \hat{A}^a_{T=0}.$$

This comparison is informative on how short-term participation in the program affects ages of matriculation, grade progression, dropping out and school reentry (among dropouts) at each age.

Pearson chi-squared tests can be used to test for whether observed treatment and control differences are statistically significant. In the empirical work, we perform two kinds of tests: (a) tests of the equivalence between the treatment and control transition matrices and (b) tests of equivalence between the individual columns of the matrices. The test statistic for testing equivalence between two matrices (for $T = 1$ and for $T = 0$) is given by:

$$\sum_{T\in\{0,1\}} \sum_{r,c} \frac{(\widehat{p}^a_{T,r,c} - \widehat{p}^a_{r,c})^2}{\widehat{p}^a_{r,c}} \quad \sim \quad \chi^2(N_c N_r - N_c - N_Z)$$

where r, c denotes the rth row and cth column. N_r and N_c denote the number of rows and columns of the transition matrices, respectively. N_Z denotes the number of elements set equal to zero. $\widehat{p}^a_{T,r,,c}$ are the transition probabilities estimated conditional on treatment status, T, and $\widehat{p}^a_{r,c}$ the probabilities estimated unconditionally (i.e. combining the treatment and control data). The Pearson test compares the conditional and unconditional transition probabilities, which would be expected to be equal if treatment had no effect.

2.3. Simulating the Impact of Longer Term Exposure to the Program

In addition to evaluating the short-term impact of the program, we are interested in the effects of longer-term participation. This, in fact, is of greater interest than the short-run program impact because the policy change being considered is that of making PROGRESA a permanent program. However, because children in our dataset are observed for at most two years after program initiation, we lack the data that would allow direct estimation of the effects of longer exposures to the program. Waiting until a cohort has participated in the program for many years would require too great a delay in evaluating the impact of the program. Therefore, we instead propose a simulation approach that can be used to predict the effects of multiple years of exposure to the program. To simulate the impacts for a synthetic cohort from data on a cross-section (or a short panel) of children of different ages, we require the following additional assumptions:

(A-1) The transition probabilities for the participant group at each age only depend on the child's current grade level and on whether the child is currently participating in the program and do not additionally depend on the schooling and program participation history.

(A-2) Transition matrices are stable over time (but may vary by age as described above).

Assumption (A-1) can be expressed formally as:

$$\Pr(s^{a+1} \mid s^a, T^a = 1, H^a) = \Pr(s^{a+1} \mid s^a, T^a = 1) \tag{2.1}$$

where $s^{a+1}_{T=1}$ and $s^a_{T=1}$ are the schooling levels at ages $a+1$ and a and where T^a denotes participating in the program at age a. H^a is a vector summarizing the full schooling and program participation history (up until age a). Assumption (A-1) could be relaxed to allow the transition probabilities to depend on the program participation history. However, given that in our data we only observe children for two years after program initiation, we do not attempt to estimate such a dependence.[10] When data are available for multiple years after program initiation (i.e. panel or repeated cross-section data), assumptions (A-1) and (A-2) are jointly testable.

Under (A-1) and (A-2) and given an initial vector of state proportions at some age, the predicted schooling state proportions at any later age can be obtained by the product

[10] The transitional probabilities could be estimated, for example, using a multinomial logit model that includes length of time in the program as a conditioning variable. Within such a framework, parametric assumptions would allow extrapolation to length of exposure times that are outside the range of those observed in the data.

of the intermediate age transition matrices. For example, the predicted state proportions for eight-year-old children who participated in the program since age 6 can be obtained by

$$\tilde{f}^{8}_{T=1} = \hat{A}^{7}_{T=1}\ \hat{A}^{6}_{T=1}\hat{f}^{6}_{T=1},$$

where we denote the predicted proportions with a "~" and objects that are directly estimated from the data with a "^". More generally, the predicted grade proportions at any age a is given by

$$\hat{f}^{a}_{T=t} = \left(\prod_{s=a_s}^{a-1} \hat{A}^{s}_{T=t}\right) \hat{f}^{a_s}_{T=t},$$

where a_s is an age prior to age a.

Determining how participation in the program affects the educational attainment distribution at any age requires generating the full education distributions from the estimated transition matrices and state proportion vectors. If dropouts did not reenter school, then the proportion of children whose highest grade attained (g^A) at age A is G would be given by:

$$\begin{aligned}\Pr(g^A = G) = &\ \{\sum_{a=1}^{A-1} \Pr(s^{a+1} = drop\ |s^a = G) \Pr(s^a = G)\} \\ + &\ \Pr(s^A = G\ ),\end{aligned}$$

where $\Pr(s^{a+1} = drop\ |s^a = G)$ is the element of the age a transition matrix corresponding to the probability of transiting from grade G to the dropout state. $\Pr(s^A = G\ )$ is the element of the age A schooling state vector that gives the probability of being enrolled in grade G at age A.

In our dataset, we observe a substantial amount of reentry from the dropout state, which the above equation does not allow. The following modification allows for reentry:

$$\begin{aligned}\Pr(g^A = G) &= \\ &\sum_{a=6}^{A-1} \Pr(s^{a+1} = drop\ |s^a = G) \Pr(s^a = G) \\ \times\Pi^{A}_{l=a+2} \Pr(s^l &= drop|s^q = drop,\ q \in \{a+1, .., l-1\}, s^a = G) \\ &+ \Pr(G|A).\end{aligned}$$

The product term gives the probability that a child age l who dropped out at age a from grade G remains in the dropout state up until age A.

In our empirical work, we do not have enough observations to partition the dropout state too finely. To avoid small cell problems that would lead to imprecise estimates, we impose the following restriction in estimation:

$$\begin{aligned}\Pr(s^l &= drop|s^q = drop \text{ for } q \in \{a+1,..,l-1\}, s^a = G) \\ &= \Pr(s^l = drop|s^{a+1} = drop)\end{aligned}$$

for all grades G, except for grade 6 (the grade corresponding to completion of primary school). That is, we restrict the probability of remaining in the dropout state to not depend on the grade level at which dropout occurred, although it is allowed to depend on the child's age. However, we allow the probability of dropping out from grade 6 to differ from that at other grade levels to better account for the fact that a large proportion of children drop out after the last year of primary school.

3. Description of the program and of the data

3.1. The Datasets

The datasets gathered as part of the PROGRESA experiment provide rich information on variables related to the schooling, health, and consumption patterns of households. The datasets that we use were gathered from baseline household surveys administered in October, 1997 and March 1998 and from two follow-up surveys administered at approximately one-year intervals. The program was started in the summer of 1998 and households began receiving transfer checks for schooling attendance in the fall of 1998.

Data are available at the individual and household level, but random assignment was performed at the community level because of the broader geographic nature of some of program benefits, such as improvements in local schools and health facilities, and because it was perceived that random assignment within small communities would be politically unpalatable. Household surveys were conducted in 320 randomly selected treatment localities (in which treatment was initiated soon after the baseline survey) and in 186 control localities (in which there has been no treatment over the time period covered by our data).[11] As the program has recently been expanded into many of the control localities, it is possible that the behavior of the control groups over the time period when

[11] All 506 of these localities were selected in a stratified random selection procedure (with stratification by populations of localities) from the localities identified by PROGRESA as being eligible to participate in the program, because of a "high degree of marginality" (determined primarily on the basis of analysis of data in the 1990 and 1995 population censuses (1990 Censo, 1995 Conteo)).

we observe them was influenced by their expectation of eventually receiving benefits. However, they were not told during the period in which the data we use were collected that they would receive benefits and we assume in this paper that they constitute a valid comparison group.[12] As discussed below the data show that the groups were highly comparable prior to the program.

Within treatment localities, only households that satisfy eligibility criteria receive the monetary transfers under the program, where eligibility is determined on the basis of a marginality index designed to identify the poorest families within each community.[13] Because program benefits are generous relative to families' incomes, most families deemed eligible for the program decide to participate in it, though not all families are induced by the school-contingent transfers to send their children to school.

In sum, there are over 30,000 eligible children participating in the experiment. However, our datasets pertain to over 75,000 children because, within each community, data collection was exhaustive and data are available on children from families that were ineligible for the subsidies. These families might still be affected by the operation of the program in their communities through changes that occur in the quality of their schools and/or health services or through spillover effects from those students who were directly affected by the program. For example, rising enrollments of eligible children might lead to a deterioration in the quality of schooling for noneligible children, as measured by quality indicators such as pupil-teacher ratios and per pupil expenditures. To prevent such a deterioration, the PROGRESA program provided additional resources to the schools. We show below that there is no strong support for spillover effects on the education of children from ineligible families, suggesting that the program's impact mainly came through demand-side incentive effects rather than supply-side schooling changes. There may have been quality improvements that just offset the congestion effects.

3.2. Program objectives and benefit levels

The broad objective of PROGRESA is to improve the conditions of education, health and nutrition for poor families, particularly for children and their mothers, by providing services in the areas of education and health, as well as providing monetary assistance

[12] If the control group had anticipated eventually receiving program benefits, this would not necessarily invalidate their use as a comparison group. However, the nature of the treatment effect would need to be redefined. If controls anticipated being brought into the program, the treatment would then correspond to being randomly denied program benefits for a certain length of time.

[13] Eligibility is based in part on discriminant analysis of a 1997 census conducted in the localities that had been determined to be eligible for participation in the program.

and nutritional supplements. The program is made up of three components:

(i) Educational grants to facilitate and encourage the education of children by fostering their enrollment and regular school attendance, and to promote parents' appreciation of the advantages of their children's education.[14] At the same time, actions are taken to improve the quality of education and to ensure that school quality does not fall as a result of higher enrollments due to the program.

(ii) A strengthening of the quality of health services for all members of the family as well as efforts to reorient individuals and health service providers towards taking preventive actions towards health care and nutrition.

(iii) Monetary transfers in the amount of approximately $12/month and nutrition supplements aimed at improving the food consumption and nutritional state of poor families, particularly that of children and women who are generally the members of households perceived to suffer most from nutritional deficiencies. Nutritional supplements are primarily targeted at children 4 months-2 years old and to breast-feeding and pregnant women. They are also given to children age 2-5 years who exhibit signs of malnutrition. (Gomez de Leon and Parker, 2000) The requirement for receiving the benefits is attendance at a health clinic for preventative health checks. (See Handa and Huerta, 2000, for an analysis of how the program affects clinic attendance.)

In this paper, our focus is on educational outcomes, and we expect the school-contingent transfers to play the greatest role in changing schooling attendance and enrollment patterns. Table 1 shows how the benefit schedule varies by grade and sex of the child. The benefit amount is increasing in grade and, at secondary school grade levels, the benefit is greater for female children. The greatest marginal increase in the benefit level comes at the transition from primary school to secondary school, at which transition many poor children in Mexico drop out of school. The transfer amount also increases from secondary grades 1 through 3, but the change in benefit levels is less steep than the change from primary grade 6 to the first year of secondary school.

The decline in attendance at secondary schools is partly due to the lack of school availability. All localities have one or more primary schools, but most do not have secondary schools. Therefore, attendance at secondary schools often requires traveling longer distances or attending classes by telecommunication ("telesecondaria" schools).

[14] The benefits that families receive through PROGRESA are contingent on their children enrolling and attending school at least 85% of the time, which is verified by school personnel.

Table 2 examines the relationship between working for pay and school attendance. The table gives the percentage of control group children age 6-16 who work for pay, the percentage of children who attend school among those working for pay and the average monthly earnings in pesos for working children. Children do not start working for pay before age 8 and the participation rate is relatively low in the ages 8-11, ranging from 1-4%. At all ages, a higher fraction of boys than girls report working for pay. As expected, average monthly earnings generally increase with age. At the secondary grade levels, the schooling subsidy represents a little less than 40% of the average monthly earnings of children in the relevant age ranges. As shown in the second column, working for pay does not necessarily preclude attending school, but older children rarely combine school attendance with work for pay.

Gomez de Leon and Parker (2000) and Skoufias and Parker (2001) analyze children's time use in PROGRESA communities and find that girls on average devote more time to domestic work than boys, while boys spend more time on average in farm and market work. Children participating in domestic work often do so part-time for about 3 hours per day and continue to attend school. Participation in PROGRESA is associated with a significant decrease in time spent in domestic work for girls but no change in participation in other kinds of work. For boys of secondary school age, participation in the program is associated with a significant reduction in participation in market and farm work.[15]

4. Empirical Findings

4.1. Impacts on Enrollment Rates and Schooling Lags

Figures 1(a)-(c) show the percentages of PROGRESA-eligible children enrolled in school by age, sex and treatment status for the 1997, 1998, and 1999 fall data rounds. The 1997 year is pre program, so randomized assignment implies that the enrollment rates for treatments and controls should be equal. The 1998 and 1999 years occur after program initiation when treatment and control differences can be attributed to the program. Figure 1(a) shows results for boys and girls combined. In Figure 1(b), the sample is restricted to girls and in Figure 1(c) to boys.

[15] Ravaillon and Wodon (2000) evaluate the impact of an educational subsidy program in Bangladesh that provides food to families that send their children to school. They find that the subsidy program significantly decreases child labor, but that the lower incidence of child labor only accounts for about quarter of the increase in school enrollment for boys and about an eighth for girls. They conclude that parents substitute other uses of their children's time, such as liesure, for schooling and that the program does not have a very strong effect on child labor.

As seen in Figure 1(a), enrollment rates fall substantially around the ages when most children finish primary school (ages 12 to 14), providing a rationale for the large percentage increase in the transfer amounts that occur at secondary grades (see the benefit schedule in Table 1). The enrollment rates continue to fall through age 16. Figures 2(a)-(c) show the treatment-control difference in enrollment rates in each of the post-program years for the same data subsamples, where the dotted lines in the figures show the pointwise 90% confidence intervals. The bottom panel of each figure compares the change in enrollments from 1997 to 1999 for the treatment and control groups (the *difference-in-differences* estimate). The figures reveal a pattern of zero treatment impact at ages younger than eleven and a positive impact at older ages.

Tables 3(a)-(c) present the corresponding regression coefficients obtained from a regression of enrollment proportions on a set of age indicators interacted with an indicator for whether the child is in the treatment group. The coefficients associated with the treatment interactions give the estimated age-specific program impacts. The bottom two rows of each table report p-values from tests of the hypothesis that the treatment impact is zero over the full age range and over the age range restricted to children twelve and older. Consistent with random assignment, we do not find evidence of pre-program enrollment differences; the hypothesis that treatment and control enrollment proportions are equal in the preprogram year (1997) cannot be rejected. However, in both post-program years, a joint zero of zero treatment impact across the two age ranges rejects the hypothesis with p-values less than 0.0001.

A comparison of enrollment percentages for girls and boys shows that in 1997, in the age 6-10 range, there is no systematic difference in the enrollment rate for girls and boys. In both samples, for ages 11 and older, enrollment rates are substantially higher for boys than for girls. However, a comparison of Figures 2(b) and 2(c) suggests that program impacts are greater for girls than for boys, which could be due to the higher subsidy level given to girls in the secondary school grade levels. (See Table 1)

The lower enrollment rates observed for girls seem to provide a rationale for greater transfers to female children in secondary grades. However, the rationale is less clear when one also examines schooling gaps by gender, with the gap defined as the difference between the schooling grade that could have been completed if an individual had entered school at age six and had progressed one grade each year and the average schooling grade actually attained. Figure 3 shows the average gap in completed grades for girls and boys. For both the control and treatment samples in 1997 for all but two ages in the range 7 through 18, average schooling gaps are larger for males than for females, and the two exceptions in each case have fairly small differences between the gaps for males and females.[16] Thus, part of the gender difference in age-specific enrollment rates reflects the greater tendency for male children to lag behind the standard grade progression rate due to grade repetition and therefore to require more years of enrollment to achieve a given level of schooling.[17] Figure 4(a)-(c) shows the impact of the program on the schooling gap, with a negative treatment-control difference corresponding to a positive effect of treatment. Beginning around age 10, the treatment group tends to have smaller schooling gaps than the control group. For reference, Tables A.1(a)-(c) in Appendix A tabulate the schooling gaps shown in the figures.

4.1.1. How do Enrollment Impacts Differ by Children's Enrollment Propensities

So far we have considered how program impacts vary with the age and sex of the child but not how they vary with other characteristics of the child, such as the family background or distance from school. For example, one question of interest is whether program impacts are concentrated among the children from the most well off or least-well off of the program-eligible families. We next examine the evidence for impact heterogeneity, using the conditional probability of enrolling in school in the absence of the program as a summary measure of child's background. The enrollment propensity is estimated using preprogram characteristics as conditioning variables. That is, for each age level, we estimate a logistic model for the probability of enrollment and then estimate program impacts conditional on the predicted propensity to enroll in school. The logistic model includes an indicator for child's gender, indicators for mother's and father's education (ever enrolled in school, education > 6 years, and education > 9 years), distance to the nearest secondary school and its square, indicators for geographic location of the village (state or *entidad*), and indicators for housing characteristics (has a bathroom, has electricity, has more than one room). In addition, the model includes the proportion of children in the locality who report working for pay. The coefficients that are most often significant at conventional levels are the parental education variables (both mother's and father's) and geographic location effects.[18] For children age 11 or older, a higher pro-

[16] For the control group, for ages 17 and 18 they are larger for females only by 0.01 and 0.13 grades respectively, and for the treatment group they are larger for females for ages 7 and 16 by only 0.01 and 0.02 grades, respectively.

[17] Coady (2000) also notes that male children tend to have higher grade repetition rates.

[18] Coefficient estimates for the logistic regressions are reported in Appendix B, which is available upon request from the authors. Schultz (2000c) estimates similar models in studying the determinants of enrollment in school.

portion of children working for pay in the locality significantly lowers the probability of enrolling in school. For children 12 and older, a greater distance to secondary school also lowers the probability of enrollment. The percent correctly classified under the model as being enrolled or not enrolled ranges from 68.1% to 80%.

Figures 5a-c display the program impacts conditional on the predicted propensity to enroll in the absence of the program for all children, girls and boys, where we have classified the enrollment propensities by quartile. The upper two plots of each of the figures suggest greater impacts for children whose estimated propensities to enroll put them in the first and second quartiles (below the median), particularly for those in the older age ranges. This pattern is no longer apparent, however, in the difference-in-difference estimates shown in the bottom plots, which suggest larger relative gains for children in the upper quartiles.

4.2. Impact Estimates based on the Schooling-transition Model

As described in section two, impacts on enrollment rates do not fully reveal the impacts of the program. We next use the schooling transition model that was described in section two to study how participation in PROGRESA affects the process by which children enter school and pass through the grades. Firstly, we compare educational transition patterns for the treatment and control groups, which reveals the short-term impact of the program. Secondly, we compare the patterns for girls and boys and examine the evidence for spillover effects on children living in PROGRESA communities who are ineligible for program benefits. Thirdly, we simulate the long-term impacts of the program using the simulation method that was proposed in section two.

4.2.1. Comparison of Treatments and Controls

Tables 4(a)-(i) show the estimates of the schooling transition matrices for children of ages 6 to 14. For example, Table 4(a) gives the estimated probabilities of transiting from three potential schooling states at age 6 to five potential schooling states at age 7. "G" denotes the source state, which corresponds either to a grade level or to the states of being "never enrolled" or "dropout." The age 7 destination states are shown in the first column of the table. In each table, the top panel gives the transition matrix for the treated group, the second panel that of the control group, and the last panel gives treatment-control differences. The row labeled 'No. obs' gives the number of observations in each of the age 6 states and the row labeled 'P(G)' gives the proportion of the total number of observations in each state. As treatment status was randomly assigned and no program had been implemented at the time of the first observation (Oct. 1997), randomization would imply that the unconditional probabilities, shown in the last row, are equal for treatments and controls, which is largely supported by the data.[19] Finally, the last row of the third panel (labeled 'p-value') reports the p-values from Pearson chi-squared tests of the equality of each of the columns of the treatment and control matrices. Table 5 reports the p-values from tests of the equivalence of the entire matrices.

Impacts on Primary School Age Children In Table 4(a), we see that most 6-year-olds are enrolled in grade one, but roughly 10% have not yet enrolled in school. Grade repetition is common, and about one third of the children in the control group enrolled in grade one repeat the grade. Grade repetition may mean that children's attendance at school was not sufficiently regular to fulfill the requirements for completing the grade, in which case repeating a grade may not be much different from dropping out and then reentering school. In the treatment group, the repetition rate is about 8% lower and the probability of transiting to the second grade 11% higher than in the control group. Thus, participation in the program appears to foster grade progression and reduce grade repetition, even in the early grades when families do not yet receive monetary transfers for school attendance. These impacts may be due to the health component of the program, to the presence of older siblings participating in the program, or to forward-looking behavior on the part of the parents, who anticipate future program benefits once the child attains grade three. Finally, among 6-year-olds, the overall school enrollment rates for treatment and controls are very similar, so focusing only on enrollment rates does not reveal the impact of the program that operates mainly in reducing grade repetition rates.[20]

Table 4(b) shows similar results for the age 7 $\rightarrow$ age 8 transitions, for which there is an additional state corresponding to dropping out after having been enrolled in school at age 6. At age 7, about 6% of children have yet to enroll in school. Most 7-year-olds (63%) are enrolled in second grade, though a substantial fraction (21%) are enrolled in first grade. Again, participation in the program is associated with better grade progression rates and lower grade repetition rates, both for first graders and second graders.

The patterns for the age 8 $\rightarrow$ age 9 and for the age 9 $\rightarrow$ age 10 transitions are very similar. For children enrolled in grade 3 at age 8 and for those enrolled in grade 4 at

[19] Assuming that treatments did not anticipate being part of the program in 1997.

[20] About 19% of children report being enrolled in grade 2, which is a higher grade than expected for a 6-year-old and may reflect misreporting of grades. Among these children, over 80% repeat the grade, which suggests that in many cases the grade may have been misreported.

age 9 (the most prevalent grade levels), grade progression rates are higher by 8% in the treatment group and grade repetition rates lower by 7-8%. At age 9, 2% of children have never been enrolled and 1-2% have dropped out of school. As the second-to-last column shows, a high proportion of dropouts reenter school.

At age 10, for children in grades 4 or grades 5 (the most common grade levels), grade progression rates are higher and dropout rates lower for the treatment group. Repetition rates are similar across groups. Additionally, we observe a 9% higher rate of reentry from the dropout state for treatments (second-to-last column), although the total number of children in the dropout state is relatively small at age 10. At age 11, about one third of children have attained grade 6, the last year of primary school. About 23% of children in the control group drop out of school after completing primary school, as compared with 14% of treatment children. At both grades 5 and 6, participation in the program is associated with a greater probability of transiting to the next higher grade, a lower probability of repeating a grade, and a lower probability of dropping out.

Impacts on the Transition to Secondary School At age 12, the grade progression rate is 11% higher for the treatment group than for the control group for the grade 6 to 7 transition and 9% higher for the grade 5 to 6 transition. The treatment drop-out rate is lower for all the grade levels and the school reentry rate higher by 18%. A large fraction of treatment group children are observed reentering school at grade 7, which suggests a response to the large marginal increase in benefit levels that occurs from grades 6 to 7. Among 12-year-olds enrolled in grade 7, the grade repetition rate is somewhat higher in the treatment group and the grade progression rate lower, which suggests that some of the children who otherwise would have dropped out after completing primary school now remain in school because of the program, but fail to progress to the next higher grade. Similar patterns are observed in the age 13→age 14 transition matrix. By age 13, roughly a quarter of children have dropped out from school. The school reentry rate is 16% for controls and 33% for treatments, an increase of 17%. The drop-out rate is lower for the treatment group at all grades, especially grade 6 where the differential is 29%.

Table 4(i) shows the estimated transition probabilities for the age 14→age 15 transition. By age 14, roughly 40% of children have dropped out of school; about 15% of these reenter, which does not differ much for treatments and controls. The grade progression rates are higher for the treated group for grades 5, 6 and 7, but are lower for grades 4 and 8. (However, few children enrolled in grade 4 at age 14). The rate of transiting from a grade to the drop-out state is lower for the treated group for all grades except the highest grade (grade 10), which may be due to the fact that there is no subsidy at grade

10. We do not find evidence, however, of children repeating grade 9 instead of moving on to grade 10 in order to prolong receipt of the subsidy.

4.2.2. Comparisons of Girls and Boys

As Table 1 shows, the benefit levels that families receive differ based on both the gender and grade level of the child, with the greatest benefits going to female children in secondary school. We now examine whether grade progression patterns and treatment effects differ for girls and boys. In Appendix A, Tables A.2(a)-(i), we compare the transition matrices estimated for girls and boys in the control group, none of whom received the program. Pearson chi-squared tests, reported in Table 5, do not reject the null hypothesis that the overall transition matrices do not differ by gender. However, when the same tests are applied to individual columns of the matrices, they often reject equality at conventional significance levels.

At age 6, girls are more likely to progress from grade 1 to grade 2 and are less likely to repeat the grade. The pattern continues at age 7 when girls have a 12% higher advancement rate from grade 2 to 3. At ages 8, 9, and 10, advancement rates for girls again exceed those of boys by about 5%, but the differences are not statistically significant. At age 12, we find significant gender differences among 6th graders. Of the 37% of girls enrolled in grade 6 at age 12, 30% drop out of school by age 13. For boys, only 32% are enrolled in grade 6 and 15% drop out. As a result of higher dropout rates, girls are significantly more likely at ages 13 and 14 to be in the drop-out state and to remain there. At age 13, only 10% of girls reenter school as compared with 26% of boys. The comparison of the transition matrices for girls and boys reveal an overall pattern where girls tend to progress more quickly through the primary grades, but then are more likely to drop-out after completing primary school. Once they drop out, girls are less likely than boys to reenter.

Lastly, we examine whether the program has differential effects on girls and boys.[21] Through age 10, program impacts by gender are similar, and, with few exceptions, both female and male program participants experience less grade repetition and better grade progression. At ages 11 and 12 , when dropping out starts to become empirically important, the program decreases the dropping out rates of both girls and boys by roughly the same order of magnitude. For example, at age 13, the program decreases the probability of dropping out after completing primary school by 29% for both girls and boys. The drop-out proportions suggest that for girls, the program is more effective in reducing

[21] Appendix A, Tables A.3(a)-(i) and Tables A.4(a)-(i) show the estimated transition matrices.

dropping-out behavior in primary grades and in the first year of secondary school and has little impact on dropping out behavior in the second and third year of secondary school. For boys, there is a greater impact in reducing dropping-out rates at the higher secondary grade levels.

4.2.3. Are there spillover effects on children from ineligible families?

In addition to the educational subsidies, the PROGRESA program also gave additional resources to schools aimed at improving the quality of the schools in the PROGRESA communities. These improvements were partly undertaken to prevent deterioration in quality that might result from induced enrollment increases with a fixed resource level. Because of the broader nature of these interventions, families who do not receive the subsidies because they do not satisfy the eligibility criteria might nonetheless be affected by the presence of the program in their community. For example, better equipped schools might attract greater numbers of ineligible children to school. On the other hand, increased enrollments might reduce school quality by increasing congestion. Also, higher school enrollments would be expected to coincide with a decline in the supply of child labor, which in turn could have additional affects by changing the labor market opportunities of children from ineligible families.

To examine the extent to which ineligible children are affected by the presence of PROGRESA, we reestimate the transition matrices using only the ineligible treatment and control groups. If these children are unaffected by the program, we expect the treatment and control transition matrices to be equal.[22] The test of equality of the matrices does not reject the null hypothesis that they are equal at conventional significance levels for every age. (P-values reported in Table 5). Tests of equality of the individual columns of each matrix also show few instances of rejections. Thus the data are consistent with no spillover effects. If we look at the pattern of the estimated conditional probabilities, they suggest that if any spillover effects do exist, they are positive. At ages 8, 9 and 12, ineligible children residing in a treatment community have a lower grade retention rate in the most prevalent grade levels. At age 12, they also have a lower probability of dropping out and a higher probability of reentering school conditional on having dropped out. However, overall these differences are not statistically significant.

[22] The estimated transition matrices are shown in Appenedix A, Table A.5(a)-(i), which is available upon request from the authors.

4.3. Predicted Changes in the Educational Attainment Distribution After Longer Exposure to the Program

So far we have considered only the short-term impact of the program, but ultimately we are interested in the impacts for children who participate in the program for longer lengths of time. With longer exposure we might expect year-by-year impacts to cumulate. Even if the program leads to modest changes in some of the elements of the transition matrices at each age, these impacts could cumulate over time to generate substantial changes in the adult educational attainment distribution.

We next apply the methods that were described in section three of the paper to simulate the impact of longer-term program participation. Our simulation assumes that a child participates continuously in the program for eight years, starting at age 6. We compare the implied educational attainment distribution at age 14 to the predicted distribution for children who do not participate over the same age range.

Table 6 gives the simulated pdf and cdf values at each grade level for treatments and controls, where treatment now refers to being a member of a PROGRESA household for eight years, over ages 6-14. Figure 6 plots the corresponding histogram of educational attainment levels, which reveals substantial differences between the treatment and control groups. Our simulation predicts an average educational attainment of 7.97 for program participants at age 14, as compared to 7.38 years for nonparticipants. This implies a long-term average impact of the program of 0.6 additional years of education.[23] A comparison of the predicted cdf for treatments and controls shows that the program induces about 19% more children to attend some secondary school grades.

Based on estimates of the return to schooling in urban areas that are linked by migration to the rural PROGRESA communities, the rate of return to each additional year of primary education is approximately 5% and the rate of return to each year of secondary education approximately 12% for both men and women (Schultz, 1988, Parker, 1999). Using these rate of return figures, an increase in education from 7.38 years of

[23] If the long-term effects are estimated separately by gender, we find that the increase for girls is 0.2 grades greater than for boys. We also have conducted similar simulations using the 1998-99 data rather than the 1997-98 data. We focus on the 1997-98 data in the text, because we understand that for that year there was much less anticipation among controls of soon being included in the program than in 1998-99 (in fact, they were incorporated for the 1999-2000 school year). Such anticipation would lead to higher enrollments at the secondary level for the controls, which indeed is the case for 1998-99 relative to 1997-98. Our simulation for 1998-99 indicates slightly smaller program effects – an average long-term impact of 0.5 additional years with 11% more children attending secondary school, as might be expected due to greater anticipation about being incorporated into the program.

education to 7.97 years would be predicted to lead to an increase of about 7.2% in adult earnings. If, in addition, we assume that the average urban wage is 1300 pesos per month (Schultz, 2000c) and the real interest rate is 5% (3%), this impact implies a benefit-cost ratio of 1.4 (2.1). However, this benefit ratio arguably understates the benefits of the program as it does not take into account increases in families' current consumption and improvements in health due to participation in the program as well as possible social welfare gains stemming from redistribution of income towards poorer households.

Schultz (2000c), as noted, has estimated the grade-by-grade enrollment effects of PROGRESA. He accumulates these across grades, which yields an implied impact estimate of 0.66 years (including an adjustment for preprogram group differences). Instead of weighting equally the impact at each grade as does Schultz, as an alternative we use his estimates of the grade-by-grade changes but weight by the proportion of fourteen-year-old children in the control group who attain each of the grade levels. This has the advantage of approximately taking into account the proportion reaching each grade. That is, if 17% of control group children make it to eighth grade or higher, we weight the eighth grade program impact by 0.17. This weighted average of Schultz's adjusted estimates indicates a long-run program effect of 0.39, which is 41% percent smaller than his unweighted estimate of 0.66 and 35% smaller than the 0.59 estimate obtained by our simulation. One advantage of our simulation procedure over these calculations of the long-run effects is that it generates entire treatment and control education distributions and not just means.

5. Conclusions

In this paper, we use a Markov schooling transition model to perform a disaggregated assessment of the impacts of the PROGRESA school subsidy program on the education of children in rural Mexico. Comparisons of the estimated Markov transition matrices for treatments and controls reveal that the program has a beneficial effect on the educational accumulation process, with statistical tests rejecting the hypothesis of zero program impact. Participation in the program is associated with earlier ages of school entry, less grade repetition and better grade progression, lower dropout rates, and higher school reentry rates among dropouts. Particularly notable are the impacts on reducing dropout rates during the transition from primary to secondary school. Also notable are the impacts on grade progression that are observed even for younger children who do not yet receive educational subsidies under the program, which suggests forward-looking behavior on the part of the parents. The program also appears to be effective in inducing children who dropped out prior to the initiation of the program to reenter school.

Comparisons of girls and boys in the control group show that in the absence of any intervention, girls tend to progress more rapidly than boys through the primary grades, with boys showing a greater tendency to lag behind in the number of grades completed. Because girls progress a little faster, lower school enrollments for girls at some ages need not imply less education. However, after completing primary school, we find that girls are more likely than boys to drop out and female dropouts are less likely to reenter. This provides a rationale for the greater monetary transfers for girls in the secondary school grades.

When we examine program impacts by gender, we find that primary school impacts of the program are very similar by gender. At the secondary level, however, the program appears to be more effective in inducing boys to enroll in the second and third years of secondary school, despite the fact that the benefit levels are slightly higher for girls.

We find little support for the existence of strong spillover effects on children who do not receive school subsidies under the program but who reside in communities where PROGRESA is active. Our tests fail to reject the hypothesis that schooling transition patterns are the same among ineligible children in treatment and control communities. The absence of spillover effects suggests that the impact of the program came mainly through demand-side incentive effects rather than supply-side improvements in the schools, with the latter approximately balanced by congestion due to higher enrollments.

Lastly, we propose a simulation method for assessing the longer-run impact of the program, which is relevant because the policy change being considered is that of making PROGRESA a permanent program. Our method requires some auxiliary assumptions to be able to simulate the experiences of a synthetic cohort based on data from a cross-section of children of different ages. Empirical results show that longer-term participation would have a substantial effect on the age 14 educational attainment distribution. It would lead to about 19% more children enrolled in junior secondary school grades and about 0.6 more years of education on average for program participants.

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Figure 1a: Percentage Enrolled by Age, All Children

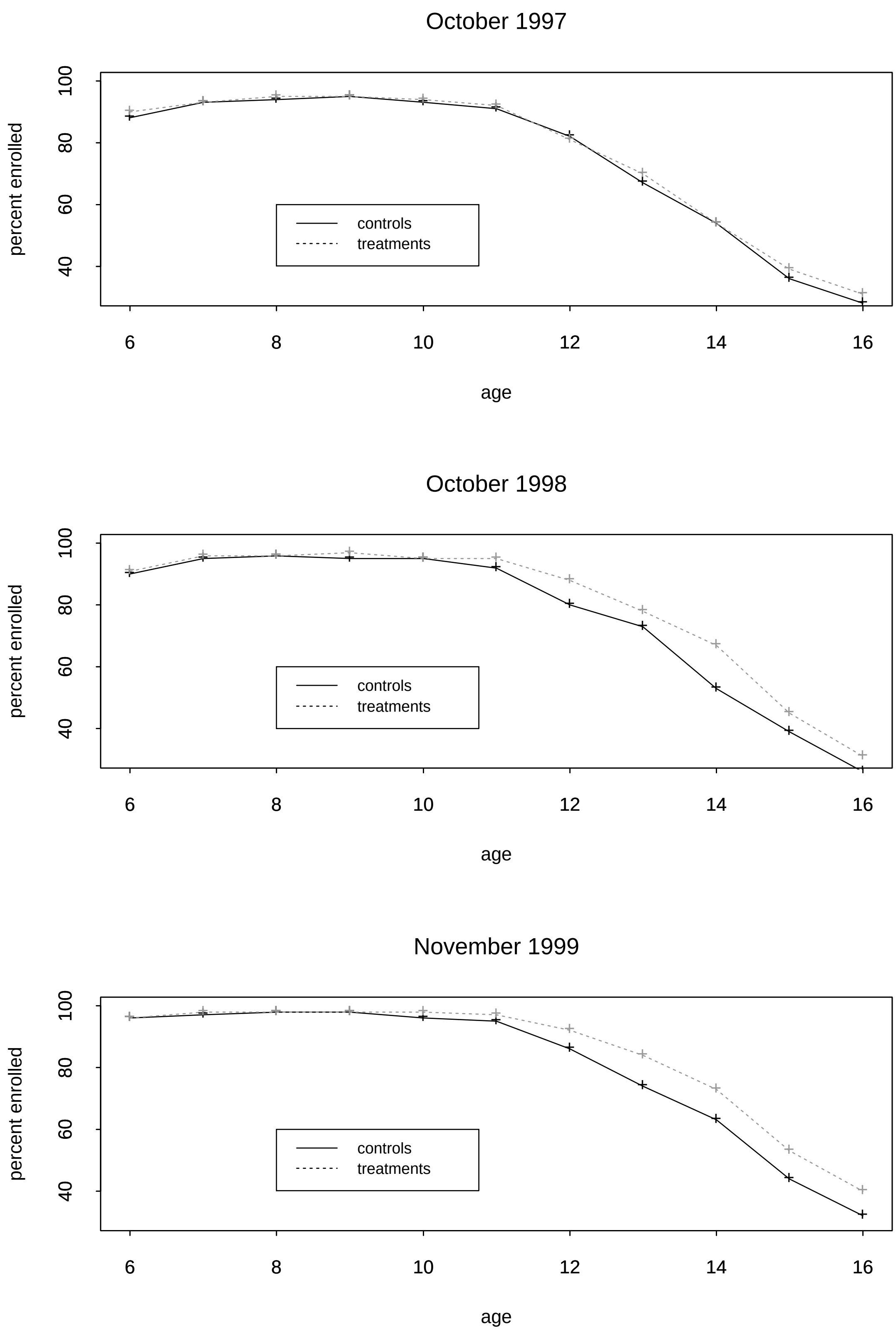


Figure 1b: Percentage Enrolled by Age, Girls Only

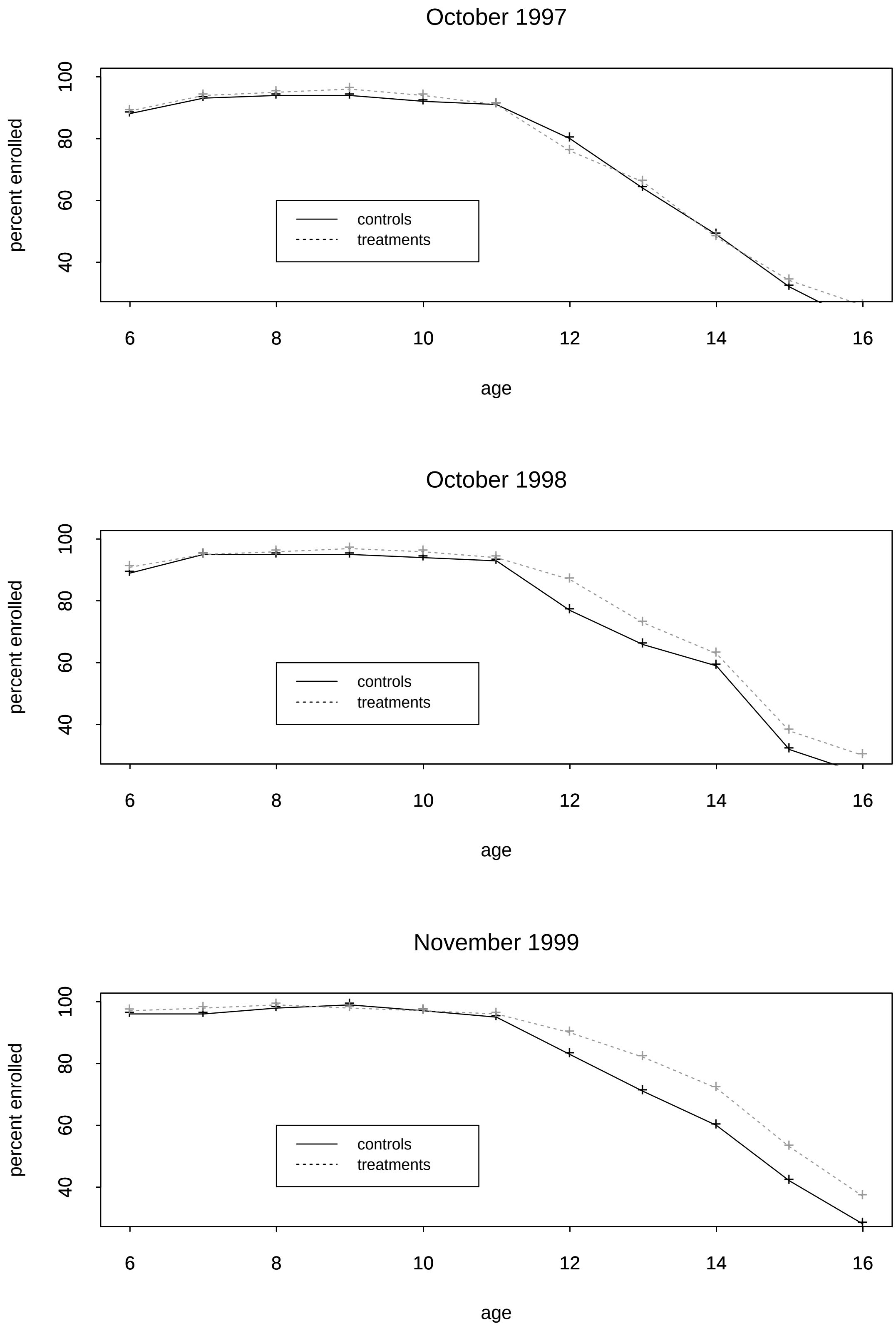


Figure 1c: Percentage Enrolled by Age, Boys Only

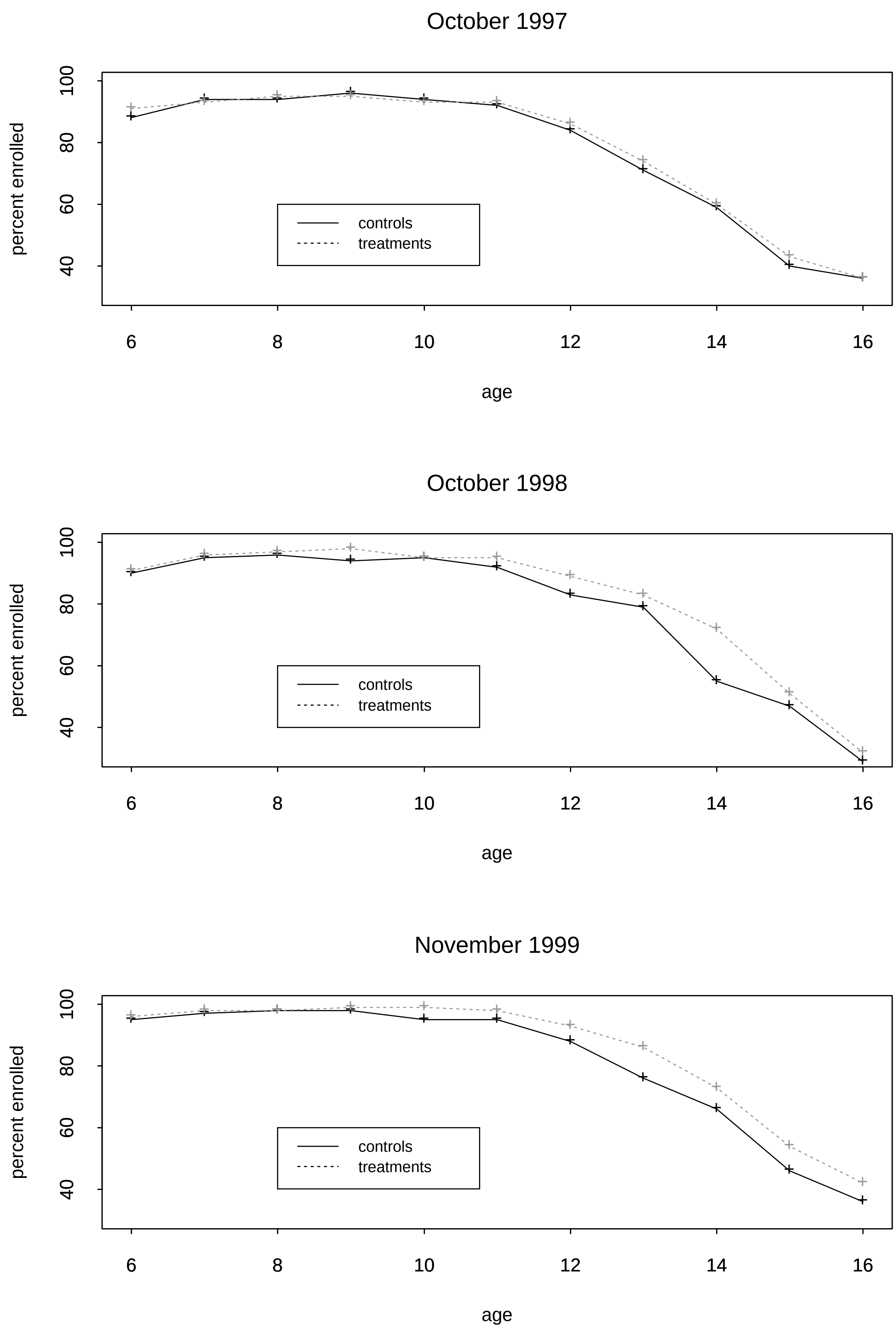


Figure 2a: Average Treatment Impacts on Percentage Enrolled by Age, All Children

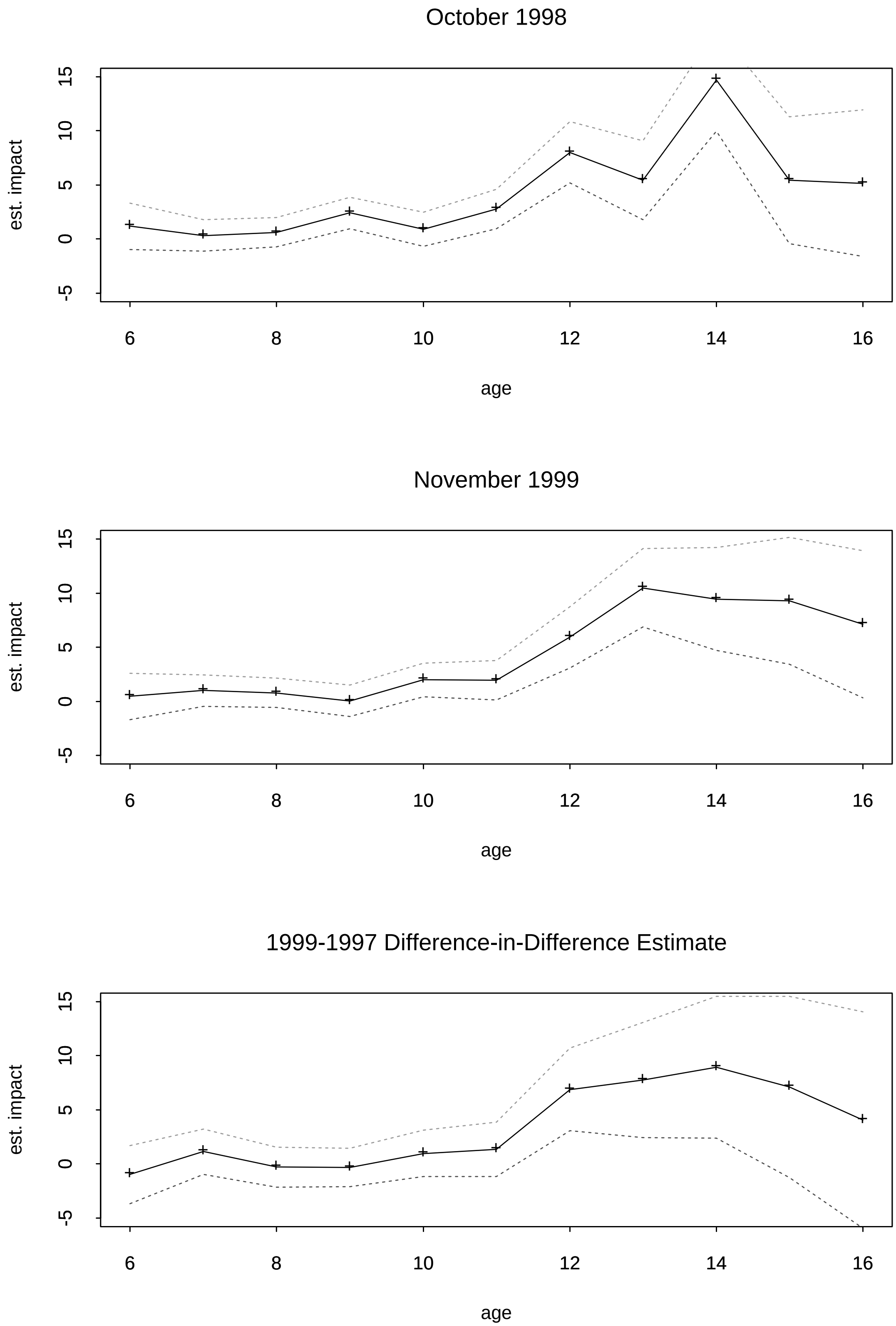


Figure 2b: Average Treatment Impacts on Percentage Enrolled by Age, Girls Only

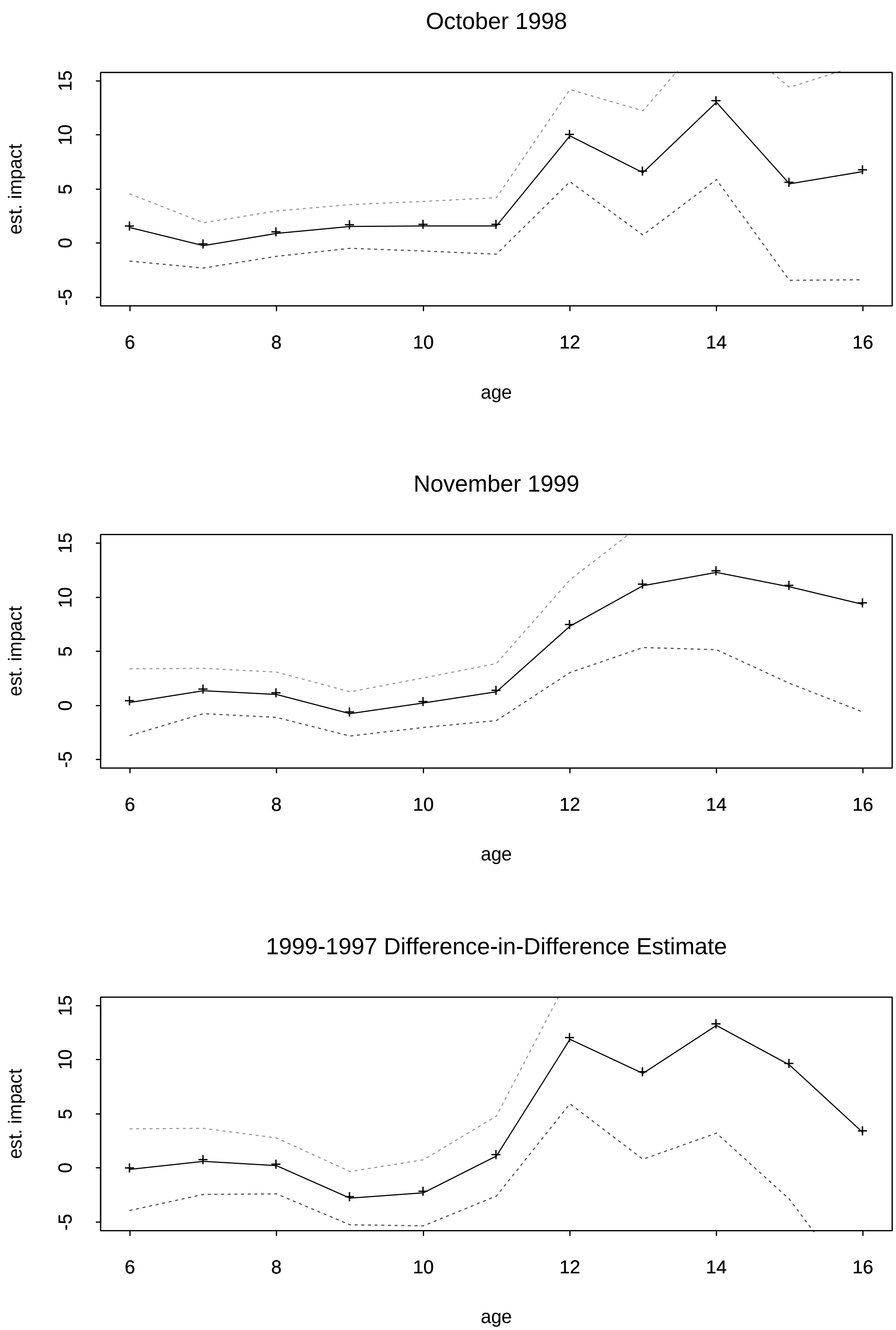


Figure 2c: Average Treatment Impacts on Percentage Enrolled by Age, Boys Only

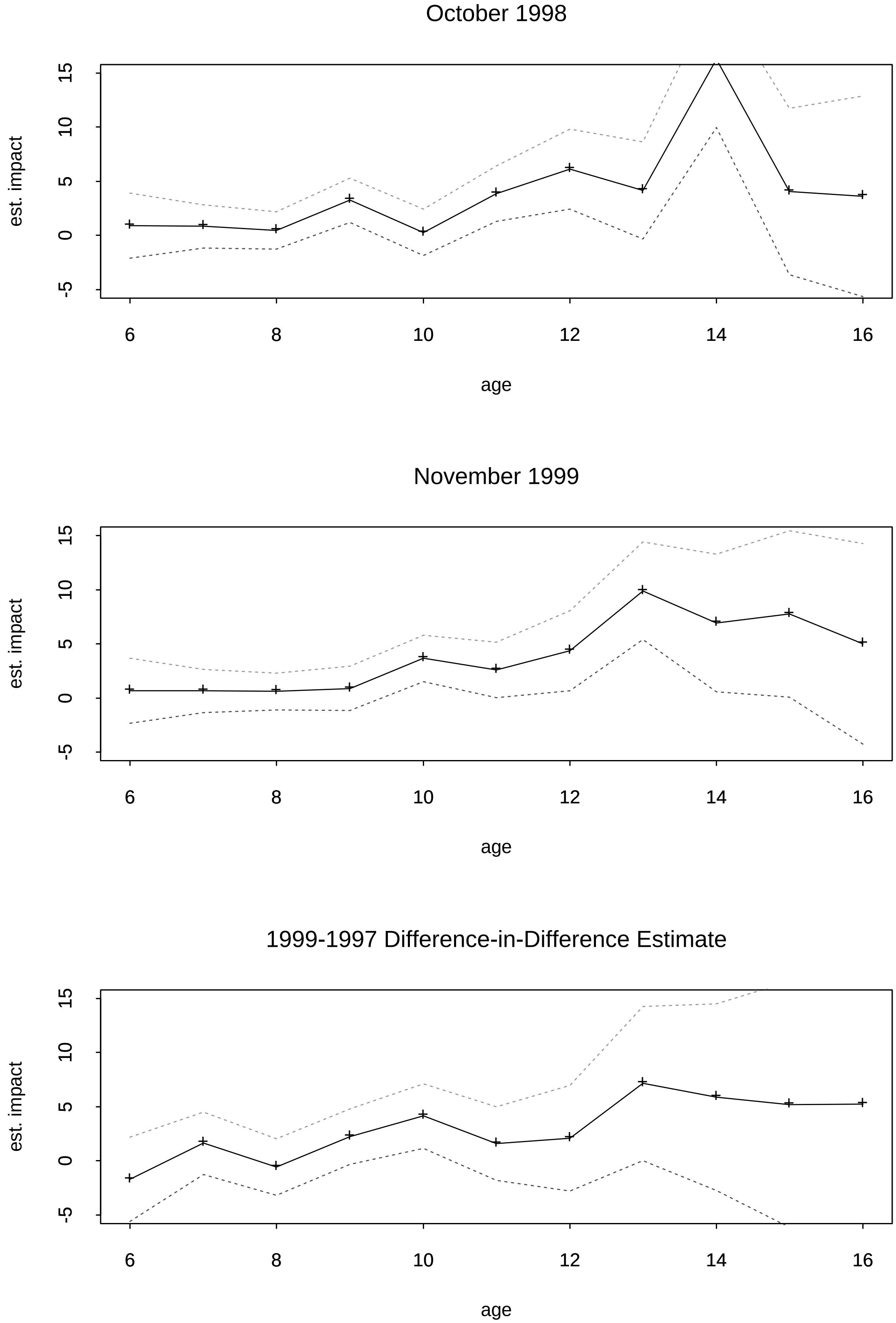


Figure 3: Comparison of Schooling Gap for Girls and Boys, Control Group
(Gap=Potential Grade Level-Actual Schooling Grade Level)

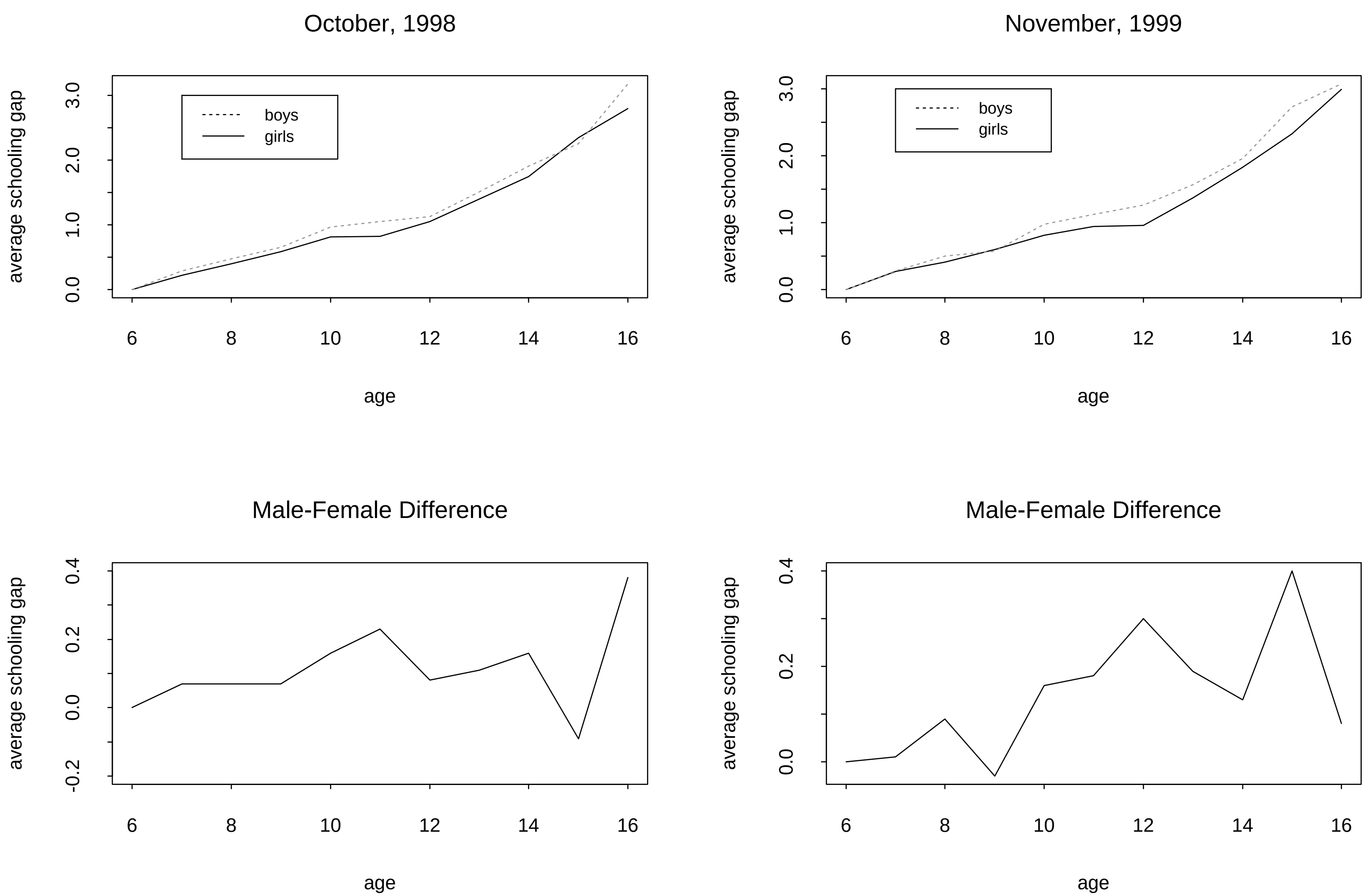
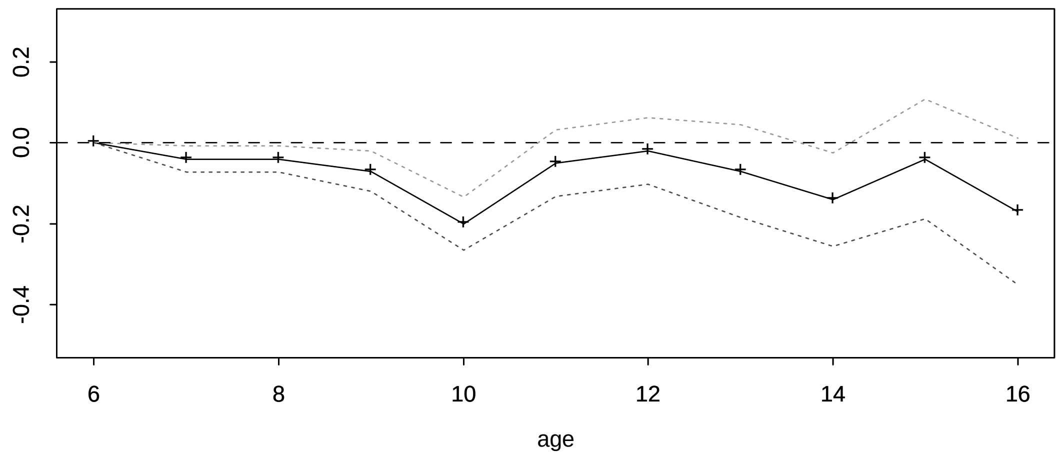
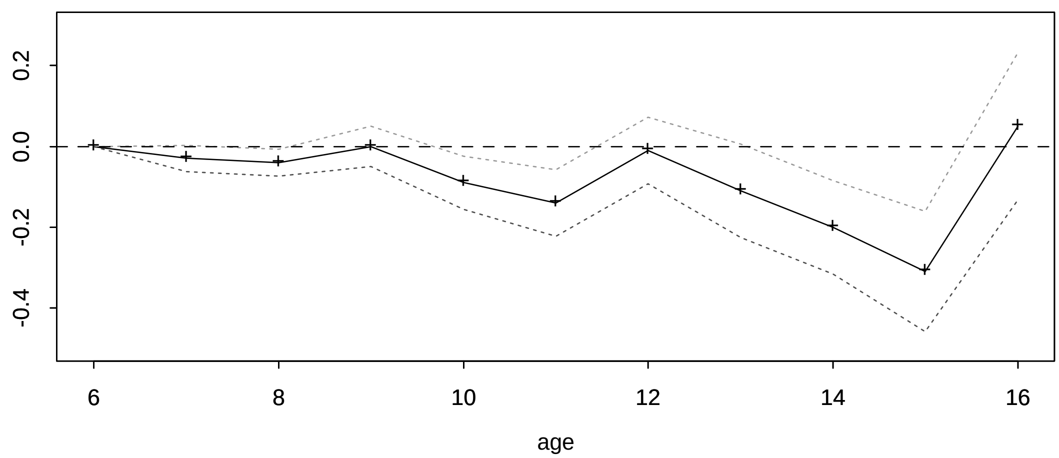


Figure 4a: Average Treatment-Control Schooling Gap
(Gap=Potential Grade Level-Actual Schooling Grade Level)

October 1998



November 1999



1999-1997 Difference-in-Difference Estimate

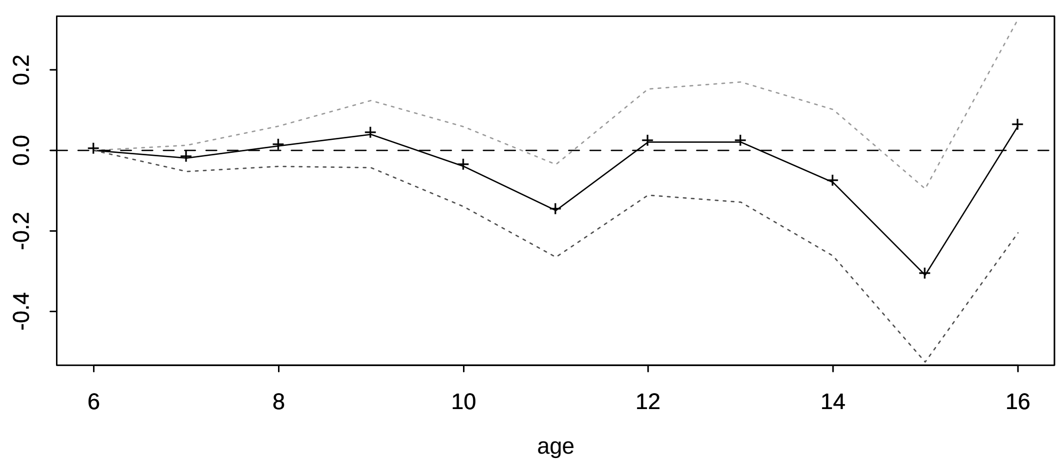


Figure 4b: Average Treatment-Control Schooling Gap, Girls Only
(Gap=Potential Grade Level-Actual Schooling Grade Level)

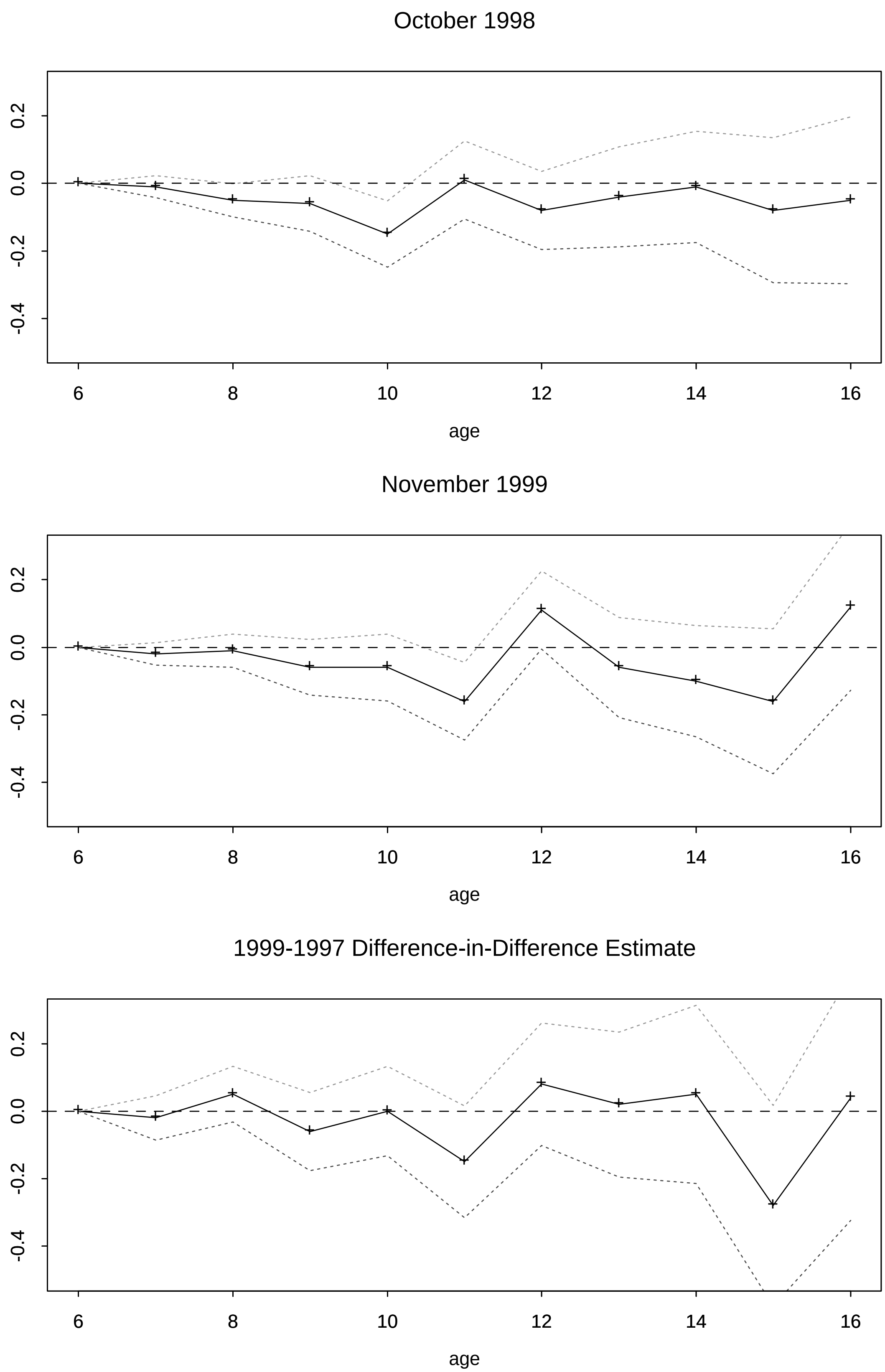


Figure 4c: Average Treatment-Control Schooling Gap, Boys Only
(Gap=Potential Grade Level-Actual Schooling Grade Level)

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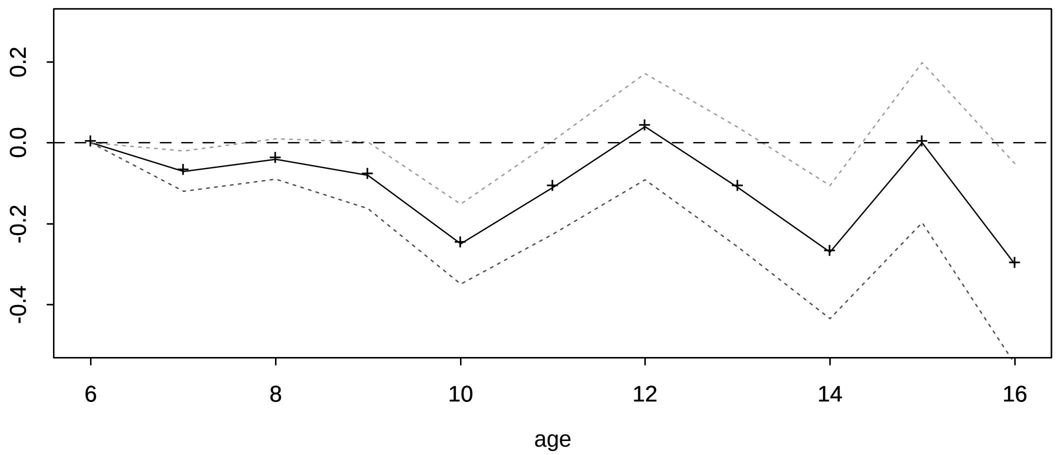

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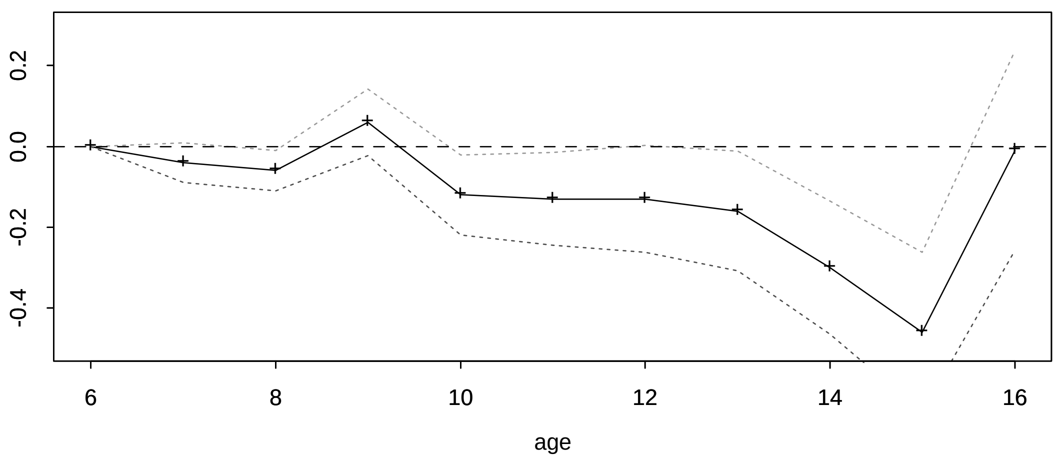


1999-1997 Difference-in-Difference Estimate

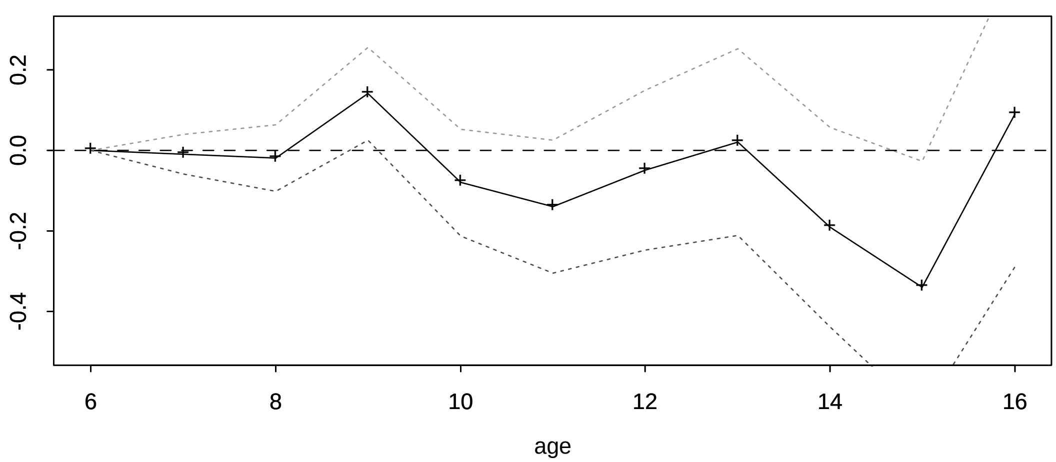


Figure 5a: Average Treatment Impacts on Percentage Enrolled by Prob of Enrollment, All Children

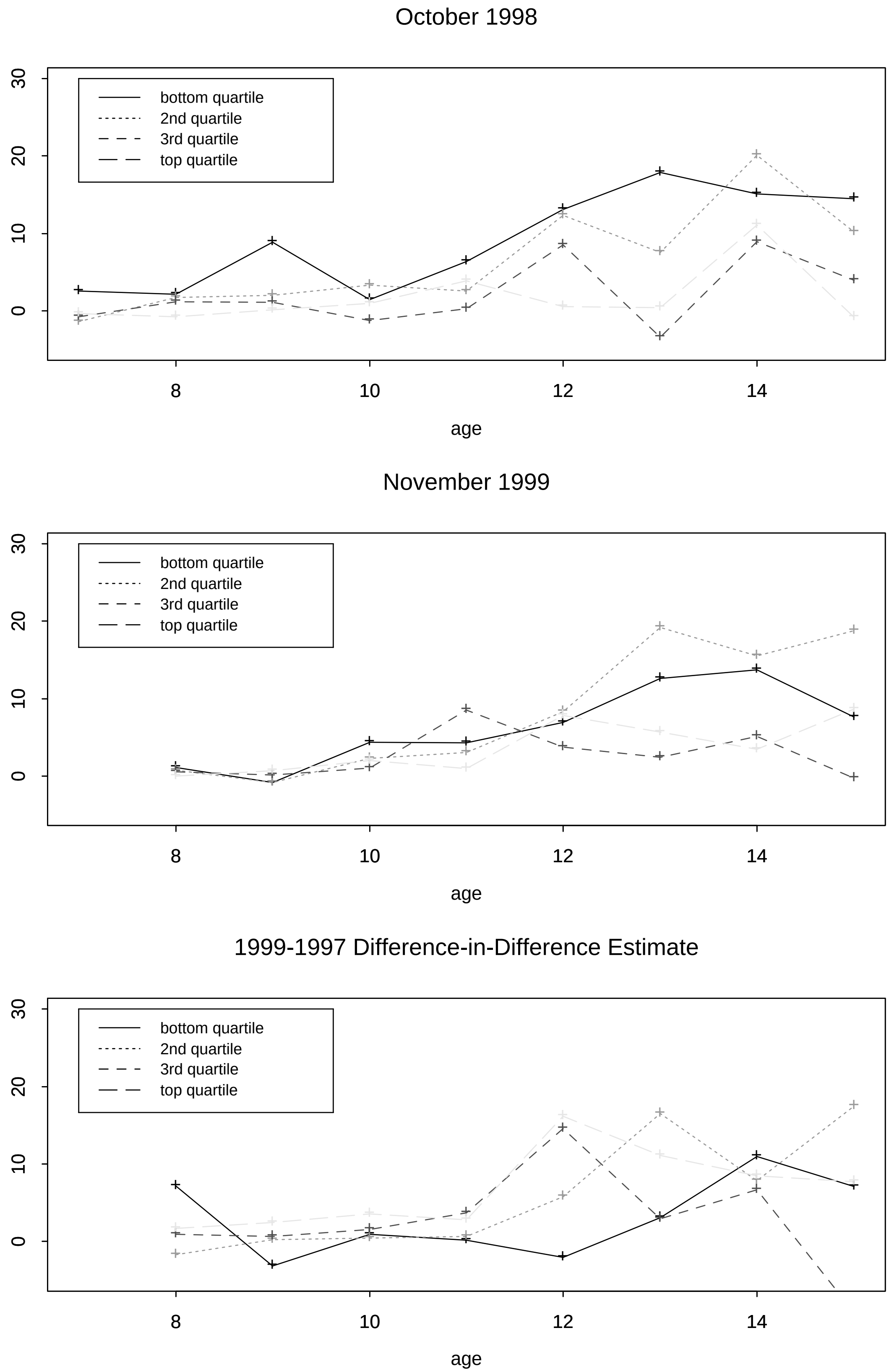
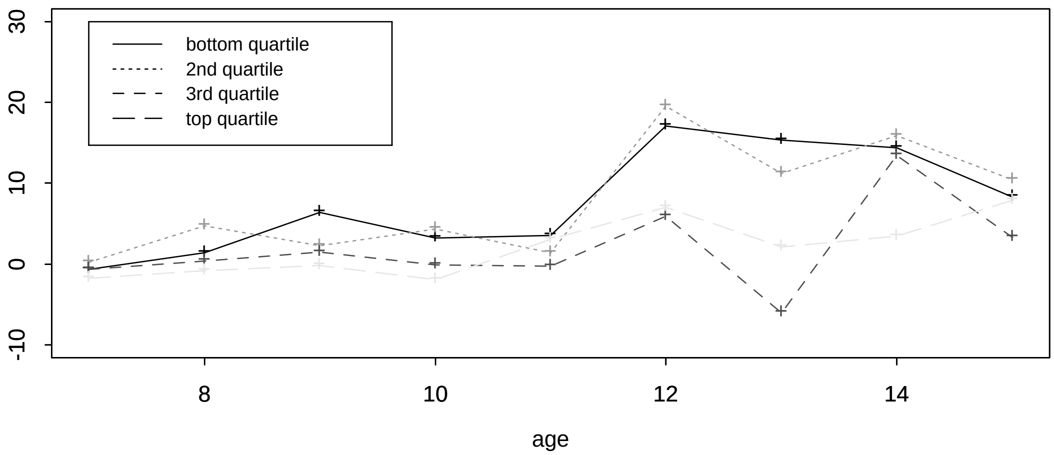
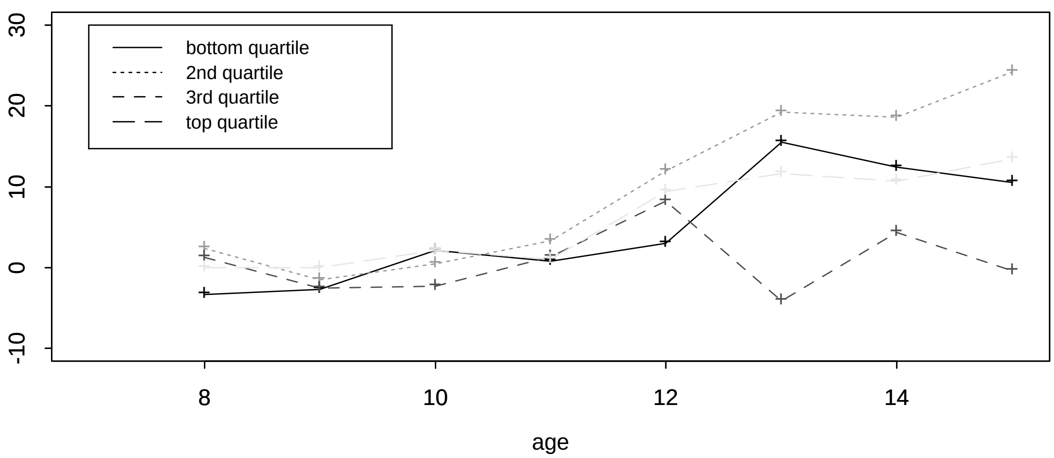


Figure 5b: Average Treatment Impacts on Percentage Enrolled by Prob of Enrollment, Girls

October 1998



November 1999



1999-1997 Difference-in-Difference Estimate

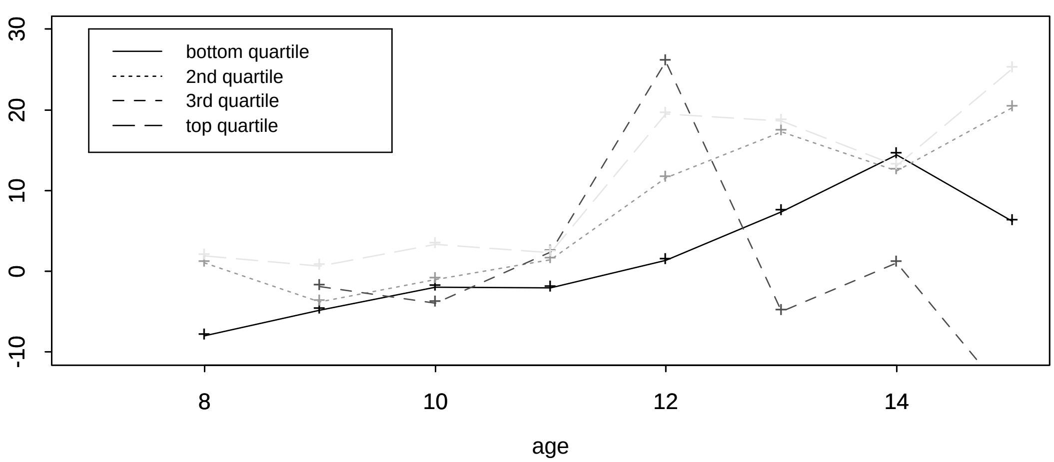


Figure 5c: Average Treatment Impacts on Percentage Enrolled by Prob of Enrollment, Boys

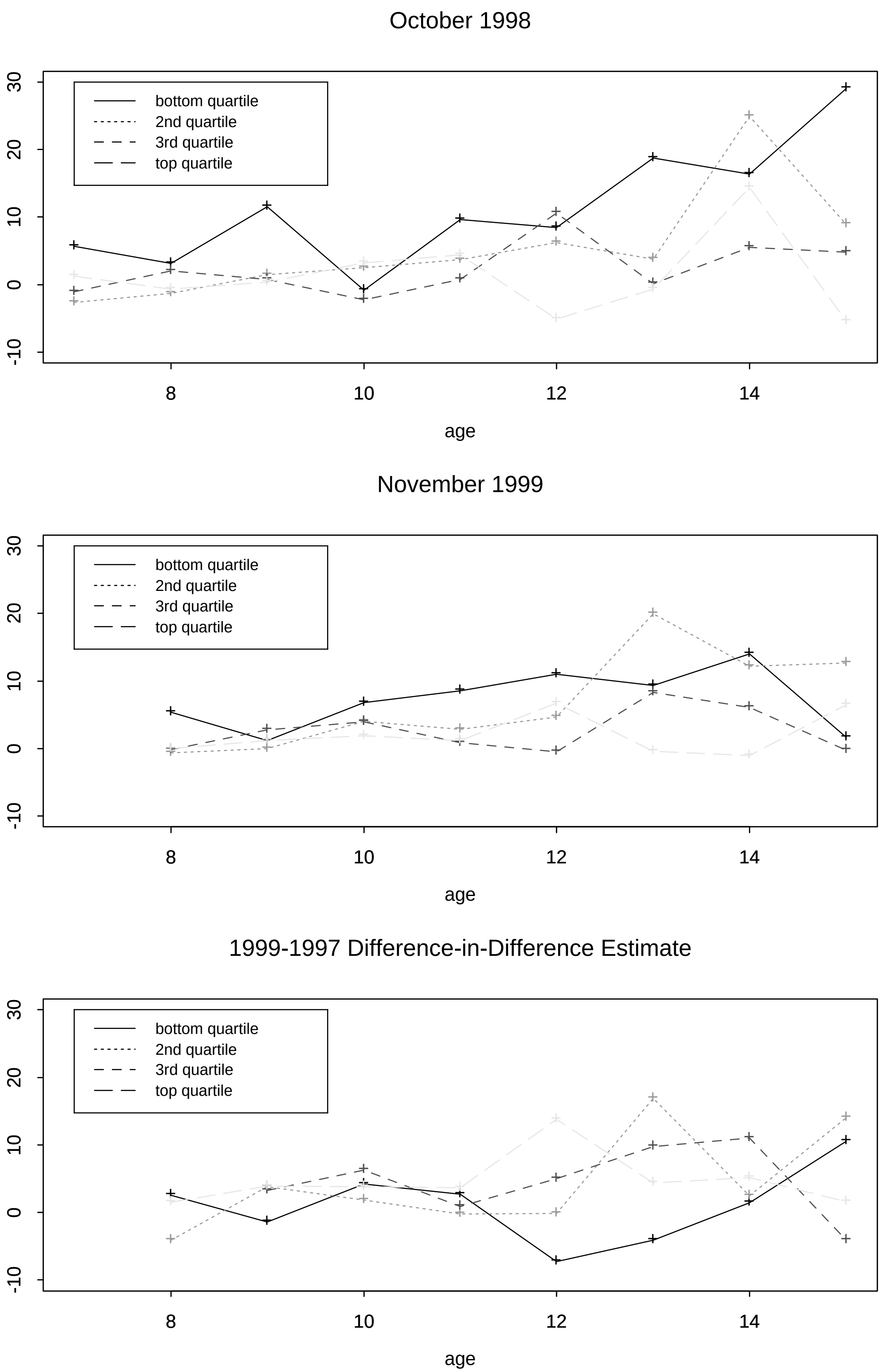
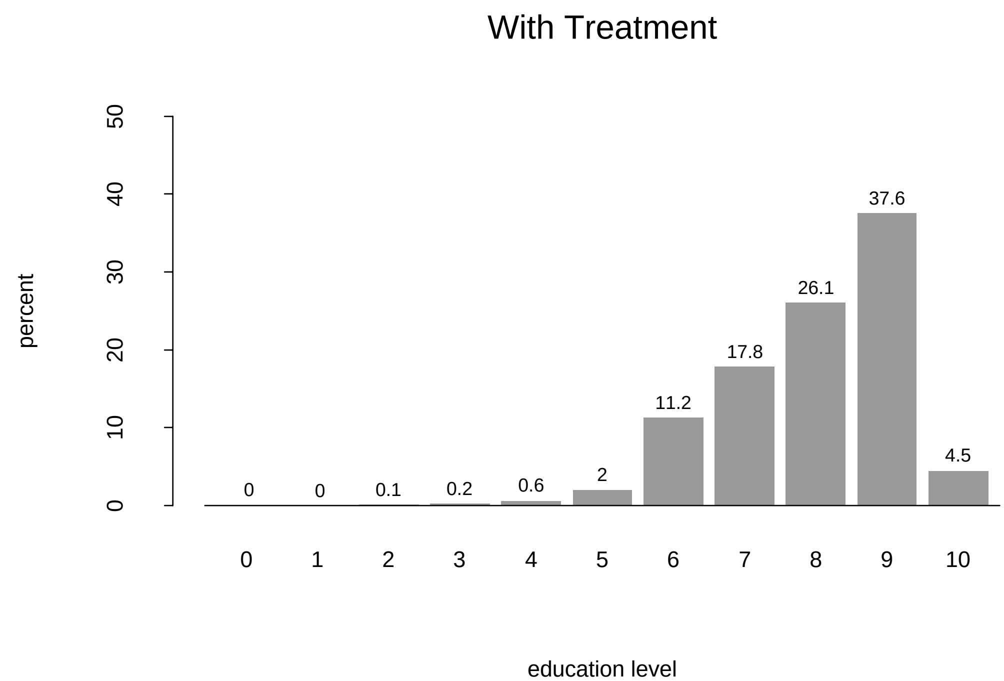


Figure 6: Simulated Education Distribution at Age 14



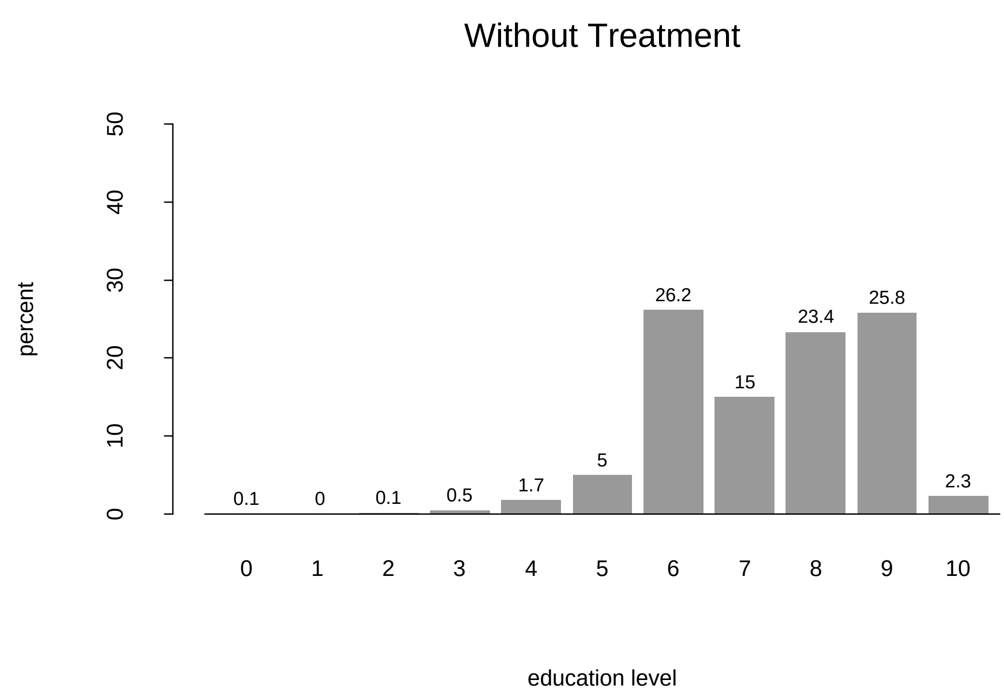


Table 1
Monthly Transfers for School Attendance under the PROGRESA Program

School Level	Grade	Monthly Payment in Pesos		Payment/Payment for Previous Grade (%)		Females/ Males (%)
		Females	**Males**	**Females**	**Males**	
Primary	3	70	70	---	---	100
	4	80	80	114	114	100
	5	105	105	131	131	100
	6	135	135	129	129	100
Secondary	1	210	200	156	148	105
	2	235	210	112	105	112
	3	255	225	109	107	113

(a) Source: Schultz (1999a, Table 1). Corresponds to first term of the 1998-99 school year.

Table 2
Percentages Working for Pay and Average Monthly Earnings for Control Group Children by Age and Sex

age	Fraction working for pay		Percentage of children who attend school among those who work for pay		Average Monthly Earnings in Pesos for Children who Work for Pay (# of observations in parentheses)	
	Females	Males	Females	Males	Females	Males
6	0	0	*	*	*	*
7	0	0	*	*	*	*
8	1.15	1.61	100	100	130 (3)	1120 (1)
9	1.00	2.72	100	90	20 (1)	416 (3)
10	1.09	1.58	80	83	340 (2)	565 (4)
11	1.69	4.26	67	72	700 (2)	398 (12)
12	3.66	9.43	62	62	511 (10)	628 (28)
13	4.50	14.63	14	23	566 (15)	535 (43)
14	7.96	23.91	5	22	631 (27)	591 (78)
15	15.61	41.26	5	15	596 (25)	677 (128)
16	13.22	48.65	3	11	526 (25)	671 (112)

Table 3a
Program Impacts on Proportion Enrolled (All Children)
(T-statistics in parentheses)

Variable (all are indicator variables)	Oct. 1997	Oct. 1998	Nov. 1999
age 6	0.89	0.92	0.96
	(80.60)	(83.19)	(80.30)
age 7	0.94	0.97	0.97
	(85.16)	(90.87)	(89.92)
age 8	0.94	0.96	0.98
	(84.71)	(91.37)	(95.45)
age 9	0.95	0.96	0.98
	(80.19)	(87.42)	(91.09)
age 10	0.94	0.96	0.96
	(84.14)	(86.40)	(92.84)
age 11	0.92	0.93	0.95
	(80.72)	(84.56)	(84.95)
age 12	0.83	0.81	0.86
	(71.26)	(74.63)	(82.51)
age 13	0.69	0.74	0.74
	(55.40)	(65.17)	(67.66)
age 14	0.57	0.55	0.63
	(42.89)	(45.40)	(57.25)
age 15	0.39	0.43	0.44
	(26.52)	(33.46)	(36.85)
age 16	0.31	0.29	0.32
	(16.91)	(20.52)	(25.47)
age 17	0.26	*	0.23
	(8.06)		(16.83)
age 18	0.07	*	0.16
	(0.81)		(10.39)
treatment*age 6	0.02	0.00	0.00
	(1.09)	(0.16)	(0.32)
treatment*age 7	0.00	0.00	0.01
	(0.19)	(0.27)	(0.73)
treatment*age 8	0.01	0.01	0.01
	(0.64)	(0.55)	(0.62)
treatment*age 9	0.00	0.02	0.00
	(0.18)	(1.42)	(0.03)
treatment*age 10	0.00	0.0	0.02
	(0.27)	(0.35)	(1.52)
treatment*age 11	0.01	0.03	0.02
	(0.59)	(2.08)	(1.37)
treatment*age 12	-0.01	0.09	0.06
	(-0.52)	(6.27)	(4.48)
treatment*age 13	0.03	0.07	0.10
	(1.66)	(4.60)	(7.54)
treatment*age 14	-0.01	0.16	0.09
	(-0.78)	(10.68)	(6.67)
treatment*age 15	0.04	0.05	0.09
	(2.21)	(2.94)	(6.10)
treatment*age 16	0.02	0.06	0.07
	(0.98)	(3.10)	(4.40)
treatment*age 17	-0.01	*	0.04
	(-0.12)		(2.17)
treatment*age 18	0.04	*	0.01
	(0.36)		(0.35)
p-value from chi-square test that impacts are 0 for all ages	0.5652	<0.0001	<0.0001
p-value from chi-square test that impacts are 0 for ages 12 and older	0.3456	<0.0001	<0.0001

Table 3b
Program Impacts on Proportion Enrolled (Girls)
(T-statistics in parentheses)

Variable (all are indicator variables)	Oct. 1997	Oct. 1998	Nov. 1999
age 6	0.89	0.92	0.96
	(57.95)	(58.05)	(57.22)
age 7	0.94	0.97	0.96
	(58.21)	(64.49)	(62.91)
age 8	0.94	0.96	0.98
	(60.12)	(61.81)	(67.05)
age 9	0.95	0.96	0.99
	(56.99)	(61.80)	(65.68)
age 10	0.93	0.96	0.97
	(58.19)	(60.28)	(66.38)
age 11	0.92	0.94	0.95
	(56.96)	(59.54)	(59.26)
age 12	0.81	0.76	0.83
	(47.19)	(49.61)	(56.78)
age 13	0.65	0.69	0.71
	(36.60)	(41.76)	(46.69)
age 14	0.52	0.52	0.60
	(26.62)	(29.57)	(37.17)
age 15	0.34	0.36	0.42
	(16.23)	(18.89)	(24.36)
age 16	0.23	0.27	0.28
	(8.25)	(12.74)	(14.57)
age 17	0.26	*	0.24
	(5.54)		(11.76)
age 18	0	*	0.13
	(0.00)		(5.84)
treatment*age 6	0.01	0.00	0.00
	(0.35)	(0.17)	(0.14)
treatment*age 7	0.01	-0.01	0.01
	(0.62)	(-0.34)	(0.69)
treatment*age 8	0.01	0.01	0.01
	(0.41)	(0.43)	(0.54)
treatment*age 9	0.02	0.02	-0.01
	(0.75)	(0.75)	(-0.40)
treatment*age 10	0.02	0.01	0.00
	(1.16)	(0.33)	(0.13)
treatment*age 11	0.00	0.02	0.01
	(0.03)	(0.83)	(0.62)
treatment*age 12	-0.04	0.11	0.07
	(-1.73)	(5.79)	(3.88)
treatment*age 13	0.02	0.08	0.11
	(1.04)	(3.52)	(5.66)
treatment*age 14	-0.03	0.14	0.12
	(-1.29)	(6.43)	(5.99)
treatment*age 15	0.02	0.06	0.11
	(0.93)	(2.24)	(4.94)
treatment*age 16	0.05	0.08	0.09
	(1.61)	(2.92)	(3.84)
treatment*age 17	-0.06	*	0.03
	(-1.01)		(1.06)
treatment*age 18	0.12	*	0.04
	(0.73)		(1.32)
p-value from chi-square test that impacts are 0 for all ages	0.37	<0.0001	<0.0001
p-value from chi-square test that impacts are 0 for ages 12 and older	0.21	<0.0001	<0.0001

Table 3c
Program Impacts on Proportion Enrolled (Boys)
(T-statistics in parentheses)

Variable (all are indicator variables)	Oct. 1997	Oct. 1998	Nov. 1999
age 6	0.90	0.91	0.95
	(56.33)	(59.90)	(56.39)
age 7	0.94	0.96	0.97
	(62.43)	(64.32)	(64.30)
age 8	0.95	0.97	0.98
	(60.08)	(67.56)	(68.00)
age 9	0.96	0.96	0.98
	(56.72)	(62.12)	(63.04)
age 10	0.95	0.95	0.95
	(61.13)	(62.22)	(64.98)
age 11	0.92	0.93	0.95
	(57.52)	(60.33)	(60.92)
age 12	0.85	0.85	0.88
	(53.74)	(56.26)	(59.97)
age 13	0.73	0.79	0.76
	(41.96)	(50.64)	(49.06)
age 14	0.61	0.56	0.66
	(33.99)	(34.75)	(43.67)
age 15	0.42	0.50	0.46
	(21.25)	(28.44)	(27.72)
age 16	0.38	0.31	0.36
	(15.42)	(16.28)	(21.19)
age 17	0.27	*	0.23
	(5.89)		(12.05)
age 18	0.14	*	0.18
	(1.15)		(8.76)
treatment*age 6	0.02	0.00	0.01
	(1.16)	(0.05)	(0.32)
treatment*age 7	-0.01	0.01	0.01
	(-0.36)	(0.74)	(0.34)
treatment*age 8	0.01	0.01	0.01
	(0.36)	(0.38)	(0.34)
treatment*age 9	-0.01	0.02	0.01
	(-0.50)	(1.25)	(0.46)
treatment*age 10	-0.02	0.00	0.04
	(-0.76)	(0.16)	(2.00)
treatment*age 11	0.02	0.04	0.03
	(0.82)	(2.10)	(1.31)
treatment*age 12	0.02	0.06	0.04
	(0.94)	(3.05)	(2.36)
treatment*age 13	0.02	0.06	0.10
	(1.09)	(2.87)	(5.00)
treatment*age 14	-0.00	0.18	0.07
	(-0.26)	(8.66)	(3.55)
treatment*age 15	0.05	0.03	0.08
	(2.01)	(1.43)	(3.69)
treatment*age 16	0.00	0.03	0.05
	(0.03)	(1.46)	(2.32)
treatment*age 17	0.04	*	0.05
	(0.61)		(1.97)
treatment*age 18	-0.04	*	-0.02
	(-0.26)		(-0.75)
p-value from chi-square test that impacts are 0 for all ages	0.3023	<0.0001	<0.0001
p-value from chi-square test that impacts are 0 for ages 12 and older	0.5464	<0.0001	<0.0001

Table 4(a)
Eligible Treatment Transition Matrix
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.14	0.06	0.03
P(2 | G)	0.86	0.68	0.40
P(1 | G)	...	0.25	0.37
P(Drop | G)	...	0.01	...
P(NE | NE)	...	...	0.21
No. obs	221	824	115
P(G)	0.19	0.71	0.10

Eligible Control Transition Matrix
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.13	0.08	0.03
P(2 | G)	0.85	0.57	0.39
P(1 | G)	...	0.33	0.41
P(Drop | G)	0.02	0.02	...
P(NE | NE)	...	...	0.16
No. obs	129	499	87.0
P(G)	0.18	0.70	0.12

Treatment-Control Differences
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.00	-.02	-.01
P(2 | G)	0.01	0.11	0.01
P(1 | G)	...	-.08	-.05
P(Drop | G)	-.02	-.01	...
P(NE | NE)	...	...	0.05
No. obs	350	1323	202
p-value	0.18	0.00	0.79

Table 4(b)
Eligible Treatment Transition Matrix
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.28	0.11	0.05	...	0.12
P(3 | G)	0.71	0.66	0.21	0.60	0.20
P(2 | G)	...	0.23	0.62	0.40	0.37
P(1 | G)	...	...	0.10	...	0.17
P(Drop | G)	0.01	0.00	0.03	...	...
P(NE | NE)	...	...	...	...	0.14
No. obs	128	775	252	10.0	65.0

Eligible Control Transition Matrix
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.17	0.10	0.05	1.00	0.09
P(3 | G)	0.83	0.59	0.22	...	0.19
P(2 | G)	...	0.30	0.58	...	0.25
P(1 | G)	...	...	0.14	...	0.15
P(Drop | G)	...	0.01	0.02	...	...
P(NE | NE)	...	...	...	...	0.32
No. obs	70.0	468	165	1.00	53.0

Treatment-Control Differences
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.11	0.01	-.00	-1.0	0.03
P(3 | G)	-.12	0.07	-.01	0.60	0.01
P(2 | G)	...	-.07	0.04	0.40	0.12
P(1 | G)	...	...	-.04	...	0.02
P(Drop | G)	0.01	-.00	0.01	...	...
P(NE | NE)	...	...	...	...	-.18
No. obs	198	1243	417	11.0	118
p-value	0.16	0.03	0.71	0.00	0.19

Table 4(c)
Eligible Treatment Transition Matrix
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.19	0.06	0.03	...	...	...
P(4 | G)	0.81	0.70	0.24	0.26	0.77	0.12
P(3 | G)	...	0.23	0.54	0.23	0.08	0.14
P(2 | G)	...	...	0.19	0.46	0.15	0.21
P(1 | G)	...	...	...	0.05	...	0.17
P(Drop | G)	...	0.00	0.00	...	...	...
P(NE | NE)	...	...	...	...	...	0.36
No. obs	110	618	435	65.0	13.0	42.0
P(G)	0.09	0.48	0.34	0.05	0.03	.

Eligible Control Transition Matrix
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.13	0.07	0.03	...	...	...
P(4 | G)	0.88	0.62	0.16	0.28	0.43	0.06
P(3 | G)	...	0.30	0.60	0.17	0.43	0.31
P(2 | G)	...	...	0.21	0.37	...	0.03
P(1 | G)	...	...	...	0.15	...	0.11
P(Drop | G)	...	0.00	0.01	0.02	0.14	...
P(NE | NE)	...	...	...	...	...	0.49
No. obs	64.0	328	257	46.0	7.00	35.0
P(G)	0.09	0.45	0.35	0.06	0.05	.

Treatment-Control Differences
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.07	-.01	0.00	...	...	...
P(4 | G)	-.07	0.08	0.08	-.02	0.34	0.06
P(3 | G)	...	-.07	-.06	0.06	-.35	-.17
P(2 | G)	...	...	-.02	0.09	0.15	0.19
P(1 | G)	...	...	...	-.11	...	0.05
P(Drop | G)	...	0.00	-.01	-.02	-.14	...
P(NE | NE)	...	...	...	...	...	-.13
No. obs	174	946	692	111	20.0	77.0
p-value	0.26	0.08	0.07	0.22	0.09	0.05

Table 4(d)
Eligible Treatment Transition Matrix
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.26	0.06	0.02	...	...	0.05	...
P(5 | G)	0.74	0.72	0.19	0.15	...	0.53	...
P(4 | G)	...	0.22	0.60	0.24	0.47	0.21	0.26
P(3 | G)	...	...	0.19	0.44	0.20	0.16	0.15
P(2 | G)	...	...	...	0.14	0.20	...	0.15
P(1 | G)	...	...	...	...	0.13	...	0.07
P(Drop | G)	...	0.01	0.01	0.03	...	0.05	...
P(NE | NE)	...	...	...	...	...	...	0.37
No. obs	72.0	524	372	177	15.0	19.0	27.0
P(G)	0.06	0.43	0.31	0.15	0.01	0.02	0.02

Eligible Control Transition Matrix
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.17	0.06	0.01	...	...	...	...
P(5 | G)	0.83	0.64	0.17	0.10	...	0.25	...
P(4 | G)	...	0.30	0.59	0.17	0.12	0.50	0.22
P(3 | G)	...	...	0.21	0.51	0.18	0.13	0.11
P(2 | G)	...	...	...	0.20	0.47	...	0.22
P(1 | G)	...	...	...	...	0.12	...	0.06
P(Drop | G)	...	0.00	0.02	0.02	0.12	0.13	...
P(NE | NE)	...	...	...	...	...	...	0.39
No. obs	48.0	266	223	92.0	17.0	8.00	18.0
P(G)	0.07	0.40	0.33	0.14	0.03	0.01	0.03

Treatment-Control Differences
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.10	-.01	0.01	...	...	0.05	...
P(5 | G)	-.10	0.08	0.02	0.05	...	0.28	...
P(4 | G)	...	-.08	0.01	0.06	0.35	-.29	0.04
P(3 | G)	...	...	-.03	-.07	0.02	0.03	0.04
P(2 | G)	...	...	...	-.05	-.27	...	-.07
P(1 | G)	...	...	...	...	0.02	...	0.02
P(Drop | G)	...	0.00	-.01	0.01	-.12	-.07	...
P(NE | NE)	...	...	...	...	...	...	-.02
No. obs	120	790	595	269	32.0	27.0	45.0
p-value	0.21	0.08	0.50	0.36	0.14	0.49	0.97

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Table 4(e)
Eligible Treatment Transition Matrix
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	0.31	0.04	0.01	...	...	...	0.09	...
P(6 | G)	0.67	0.75	0.20	0.15	...	...	0.23	...
P(5 | G)	...	0.20	0.62	0.18	0.15	...	0.23	...
P(4 | G)	...	...	0.16	0.44	0.20	0.50	0.14	0.11
P(3 | G)	...	...	...	0.20	0.45	0.25	0.14	0.18
P(2 | G)	...	...	...	...	0.18	0.25	0.09	0.18
P(1 | G)	...	...	...	...	...	...	...	0.04
P(Drop | G)	0.02	0.01	0.01	0.03	0.02	...	0.09	...
P(NE | NE)	...	...	...	...	...	...	...	0.50
No. obs	90.0	438	392	172	55.0	4.00	22.0	28.0
P(G)	0.07	0.36	0.33	0.14	0.05	0.00	0.02	0.02

Eligible Control Transition Matrix
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	0.32	0.10	0.02	...	...	...	0.06	...
P(6 | G)	0.64	0.68	0.15	0.08	...	...	0.18	...
P(5 | G)	...	0.19	0.62	0.19	0.09	...	0.35	...
P(4 | G)	...	...	0.20	0.49	0.11	0.67	0.12	0.04
P(3 | G)	...	...	...	0.20	0.51	...	0.12	0.17
P(2 | G)	...	...	...	...	0.19	0.33	...	0.09
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	0.04	0.03	0.01	0.05	0.11	...	0.18	...
P(NE | NE)	...	...	...	...	...	...	...	0.70
No. obs	50.0	280	230	102	47.0	3.00	17.0	23.0
P(G)	0.07	0.37	0.31	0.14	0.06	0.00	0.02	0.03

Treatment-Control Differences
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	-.01	-.06	-.00	...	...	...	0.03	...
P(6 | G)	0.03	0.07	0.04	0.07	...	...	0.05	...
P(5 | G)	...	0.01	0.00	-.01	0.06	...	-.13	...
P(4 | G)	...	...	-.04	-.05	0.09	-.17	0.02	0.06
P(3 | G)	...	...	...	0.00	-.06	0.25	0.02	0.00
P(2 | G)	...	...	...	...	-.01	-.08	0.09	0.09
P(1 | G)	...	...	...	...	...	...	...	0.04
P(Drop | G)	-.02	-.01	0.00	-.02	-.09	...	-.09	...
P(NE | NE)	...	...	...	...	...	...	...	-.20
No. obs	140	718	622	274	102	7.00	39.0	51.0
p-value	0.82	0.00	0.51	0.44	0.22	0.65	0.82	0.55

Table 4(f)
Eligible Treatment Transition Matrix
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.24	0.05	0.01	...	...	...	...	0.09	...
P(7 | G)	0.72	0.66	0.21	0.13	...	...	...	0.26	...
P(6 | G)	...	0.15	0.65	0.19	0.13	...	...	0.04	...
P(5 | G)	...	...	0.12	0.47	0.17	0.15	...	0.04	...
P(4 | G)	...	...	...	0.18	0.48	0.30	...	0.11	0.05
P(3 | G)	...	...	...	...	0.18	0.30	1.00	...	0.05
P(2 | G)	...	...	...	...	...	0.25	...	0.04	0.33
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.04	0.14	0.01	0.03	0.04	...	...	0.41	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.57
No. obs	50.0	369	370	198	77.0	20.0	1.00	46.0	21.0
P(G)	0.04	0.32	0.32	0.17	0.07	0.02	0.00	0.04	0.02

Eligible Control Transition Matrix
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.17	0.04	0.00	...	...	...	...	...	...
P(7 | G)	0.62	0.54	0.15	0.07	...	...	...	0.14	...
P(6 | G)	...	0.19	0.63	0.18	0.09	...	...	0.14	...
P(5 | G)	...	...	0.19	0.51	0.20	...	...	0.09	...
P(4 | G)	...	...	...	0.18	0.50	0.33	0.33	0.05	...
P(3 | G)	...	...	...	...	0.17	0.33	0.33	...	0.13
P(2 | G)	...	...	...	...	...	0.11	0.33	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.21	0.23	0.03	0.06	0.04	0.22	...	0.59	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.87
No. obs	29.0	246	216	124	46.0	9.00	3.00	22.0	15.0
P(G)	0.04	0.35	0.30	0.17	0.06	0.01	0.00	0.03	0.02

Treatment-Control Differences
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.07	0.01	0.01	...	...	...	...	0.09	...
P(7 | G)	0.10	0.12	0.06	0.06	...	...	...	0.12	...
P(6 | G)	...	-.04	0.02	0.01	0.04	...	...	-.09	...
P(5 | G)	...	...	-.07	-.03	-.03	0.15	...	-.05	...
P(4 | G)	...	...	...	-.00	-.02	-.03	-.33	0.06	0.05
P(3 | G)	...	...	...	...	0.01	-.03	0.67	...	-.09
P(2 | G)	...	...	...	...	...	0.14	-.33	0.04	0.33
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.17	-.09	-.02	-.03	-.00	-.22	...	-.18	...
P(NE | NE)	...	...	...	...	...	...	...	...	-.30
No. obs	79.0	615	586	322	123	29.0	4.00	68.0	36.0
p-value	0.06	0.01	0.04	0.32	0.96	0.17	0.51	0.25	0.06

Table 4(g)
Eligible Treatment Transition Matrix
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	0.25	0.06	0.01	...	...	...	...	...	0.01	...
P(8 | G)	0.75	0.62	0.12	0.06	...	...	...	...	0.09	...
P(7 | G)	...	0.24	0.58	0.16	0.10	...	...	...	0.25	...
P(6 | G)	...	...	0.11	0.58	0.17	0.15	...	...	0.04	...
P(5 | G)	...	...	...	0.16	0.51	0.15	...	...	0.01	...
P(4 | G)	...	...	...	...	0.17	0.44	0.20	...	0.02	0.13
P(3 | G)	...	...	...	...	...	0.18	0.40	1.00	0.01	...
P(2 | G)	...	...	...	...	...	...	0.13	...	0.01	0.09
P(1 | G)	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.08	0.19	0.03	0.03	0.09	0.27	...	0.57	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.78
No. obs	36.0	234	312	179	86.0	34.0	15.0	1.00	150	23.0
P(G)	0.03	0.22	0.29	0.17	0.08	0.03	0.01	0.00	0.14	0.02

Eligible Control Transition Matrix
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	0.26	0.06	...	...	...	...	...	...	...	...
P(8 | G)	0.74	0.65	0.11	0.07	...	...	...	...	0.03	...
P(7 | G)	...	0.16	0.46	0.14	0.11	...	...	...	0.12	...
P(6 | G)	...	...	0.17	0.50	0.10	0.04	...	...	0.01	...
P(5 | G)	...	...	...	0.18	0.39	0.15	...	...	0.01	...
P(4 | G)	...	...	...	...	0.33	0.35	0.10	...	0.03	0.10
P(3 | G)	...	...	...	...	...	0.19	0.30	...	0.04	0.05
P(2 | G)	...	...	...	...	...	...	0.30	...	...	0.05
P(1 | G)	...	...	...	...	...	...	...	...	...	0.05
P(Drop | G)	...	0.14	0.26	0.12	0.07	0.27	0.30	1.00	0.75	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.75
No. obs	34.0	139	190	121	61.0	26.0	10.0	1.00	69.0	20.0
P(G)	0.05	0.21	0.28	0.18	0.09	0.04	0.01	0.00	0.10	0.03

Treatment-Control Differences
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	-.01	0.00	0.01	...	...	...	...	...	0.01	...
P(8 | G)	0.01	-.03	0.01	-.00	...	...	...	...	0.06	...
P(7 | G)	...	0.09	0.11	0.02	-.01	...	...	...	0.13	...
P(6 | G)	...	...	-.06	0.09	0.08	0.11	...	...	0.03	...
P(5 | G)	...	...	...	-.02	0.12	-.01	...	...	-.00	...
P(4 | G)	...	...	...	...	-.15	0.10	0.10	...	-.01	0.03
P(3 | G)	...	...	...	...	...	-.02	0.10	1.00	-.04	-.05
P(2 | G)	...	...	...	...	...	...	-.17	...	0.01	0.04
P(1 | G)	...	...	...	...	...	...	...	...	...	-.05
P(Drop | G)	...	-.06	-.07	-.08	-.03	-.18	-.03	-1.0	-.18	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.03
No. obs	70.0	373	502	300	147	60.0	25.0	2.00	219	43.0
p-value	0.89	0.10	0.02	0.07	0.15	0.29	0.71	0.16	0.08	0.63

Table 4(h)
Eligible Treatment Transition Matrix
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.35	0.06	0.02	...	...	...	...	...	...	0.01	...
P(9 | G)	0.59	0.77	0.16	0.08	...	...	...	...	...	0.05	...
P(8 | G)	...	0.14	0.54	0.14	0.10	...	...	...	...	0.04	...
P(7 | G)	...	...	0.14	0.47	0.07	0.06	...	...	...	0.20	...
P(6 | G)	...	...	...	0.11	0.60	0.19	0.25	...	...	0.01	...
P(5 | G)	...	...	...	...	0.12	0.42	0.20	0.20	...	0.02	...
P(4 | G)	...	...	...	...	...	0.17	0.40	0.20	...	...	0.11
P(3 | G)	...	...	...	...	...	...	0.05	0.20	...	0.00	0.04
P(2 | G)	...	...	...	...	...	...	...	0.40	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.06	0.02	0.14	0.20	0.12	0.17	0.10	...	...	0.67	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.86
No. obs	34.0	146	213	168	84.0	36.0	20.0	5.00	...	228	28.0
P(G)	0.04	0.15	0.22	0.17	0.09	0.04	0.02	0.01	0.00	0.24	0.03

Eligible Control Transition Matrix
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.29	0.05	...	...	...	...	...	...	...	...	...
P(9 | G)	0.59	0.69	0.13	0.05	...	...	...	...	...	0.01	...
P(8 | G)	...	0.20	0.56	0.08	0.07	...	...	...	...	0.05	...
P(7 | G)	...	...	0.08	0.27	0.07	0.13	...	...	...	0.05	...
P(6 | G)	...	...	...	0.11	0.51	0.22	0.18	...	...	0.04	...
P(5 | G)	...	...	...	...	0.21	0.41	0.36	...	...	0.01	...
P(4 | G)	...	...	...	...	...	...	0.27	0.33	...	0.01	0.10
P(3 | G)	...	...	...	...	...	...	0.09	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	0.67	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.12	0.05	0.24	0.49	0.14	0.25	0.09	...	...	0.84	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.90
No. obs	17.0	95.0	102	92.0	57.0	32.0	11.0	3.00	...	153	10.0
P(G)	0.03	0.17	0.18	0.16	0.10	0.06	0.02	0.01	0.00	0.27	0.02

Treatment-Control Differences
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.06	0.01	0.02	...	...	...	...	...	...	0.01	...
P(9 | G)	...	0.08	0.03	0.03	...	...	...	...	...	0.04	...
P(8 | G)	...	-.06	-.02	0.06	0.03	...	...	...	...	-.01	...
P(7 | G)	...	...	0.06	0.20	0.00	-.07	...	...	...	0.15	...
P(6 | G)	...	...	...	0.00	0.09	-.02	0.07	...	...	-.03	...
P(5 | G)	...	...	...	...	-.09	0.01	-.16	0.20	...	0.02	...
P(4 | G)	...	...	...	...	...	0.17	0.13	-.13	...	-.01	0.01
P(3 | G)	...	...	...	...	...	...	-.04	0.20	...	0.00	0.04
P(2 | G)	...	...	...	...	...	...	...	-.27	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.06	-.03	-.09	-.29	-.02	-.08	0.01	...	...	-.17	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	-.04
No. obs	51.0	241	315	260	141	68.0	31.0	8.00	...	381	38.0
p-value	0.73	0.33	0.08	0.00	0.62	0.14	0.84	0.66	.	0.00	0.83

Table 4(i)
Eligible Treatment Transition Matrix
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	...	0.03	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.53	0.28	0.13	0.04	...	...	...	...	...	...	0.03	...
P(9 | G)	...	0.24	0.68	0.22	0.08	...	...	...	...	...	0.03	...
P(8 | G)	...	...	0.18	0.43	0.07	0.08	...	...	...	...	0.02	...
P(7 | G)	...	...	...	0.13	0.40	0.08	0.25	...	...	...	0.08	...
P(6 | G)	...	...	...	...	0.11	0.58	0.25	...	...	...	0.01	...
P(5 | G)	...	...	...	...	...	0.15	0.06	0.33	...	...	0.00	...
P(4 | G)	...	...	...	...	...	...	0.13	0.33	...	...	...	0.03
P(3 | G)	...	...	...	...	...	...	...	...	...	...	0.00	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.47	0.46	0.02	0.17	0.34	0.12	0.31	0.33	...	...	0.83	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.97
No. obs	15.0	109	130	113	83.0	26.0	16.0	6.00	...	...	343	38.0
P(G)	0.02	0.13	0.15	0.13	0.10	0.03	0.02	0.01	0.00	0.00	0.40	0.04

Eligible Control Transition Matrix
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.27	0.06	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.36	0.23	0.08	0.02	...	...	...	...	...	...	0.02	...
P(9 | G)	...	0.25	0.71	0.18	0.09	...	...	...	...	...	0.02	...
P(8 | G)	...	...	0.17	0.38	0.08	0.04	...	...	...	...	0.02	...
P(7 | G)	...	...	...	0.06	0.25	0.12	...	...	...	...	0.06	...
P(6 | G)	...	...	...	...	0.08	0.38	0.08	...	...	...	0.02	...
P(5 | G)	...	...	...	...	...	0.08	0.23	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	0.05
P(3 | G)	...	...	...	...	...	...	...	0.50	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	0.05
P(Drop | G)	0.36	0.46	0.05	0.35	0.51	0.38	0.69	0.50	1.00	...	0.85	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.90
No. obs	11.0	69.0	78.0	65.0	53.0	26.0	13.0	2.00	1.00	...	204	20.0
P(G)	0.02	0.13	0.15	0.12	0.10	0.05	0.02	0.00	0.00	0.00	0.38	0.04

Treatment-Control Differences
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	-.27	-.03	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.17	0.04	0.05	0.03	...	...	...	...	...	...	0.00	...
P(9 | G)	...	-.01	-.03	0.04	-.01	...	...	...	...	...	0.01	...
P(8 | G)	...	...	0.01	0.05	-.00	0.04	...	...	...	...	0.00	...
P(7 | G)	...	...	...	0.07	0.15	-.04	0.25	...	...	...	0.02	...
P(6 | G)	...	...	...	...	0.03	0.19	0.17	...	...	...	-.01	...
P(5 | G)	...	...	...	...	...	0.08	-.17	0.33	...	...	0.00	...
P(4 | G)	...	...	...	...	...	...	0.13	0.33	...	...	...	-.02
P(3 | G)	...	...	...	...	...	...	...	-.50	...	...	0.00	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	-.05
P(Drop | G)	0.10	-.01	-.04	-.19	-.17	-.27	-.38	-.17	-1.0	...	-.02	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.07
No. obs	26.0	178	208	178	136	52.0	29.0	8.00	1.00	...	547	58.0
p-value	0.10	0.73	0.32	0.05	0.29	0.20	0.05	0.22	1.00	.	0.75	0.33

Table 5
P-values from Pearson Chi-Squared Tests of Equality of Schooling Transition Matrices

Hypothesis Tested	age 6	age 7	age 8	age 9	age 10	age 11	age 12	age 13	age 14
Eligible Treatment and Eligible Control Transition Matrices are Equal (i.e. Treatment has no impact)	0.0007	0.0071	0.0051	0.3027	0.2541	0.0055	0.0105	< 0.0001	0.0671
For Girls, Eligible Treatment and Eligible Control Transition Matrices are Equal (i.e. Treatment has no impact for Girls)	0.3604	0.7606	0.0421	0.2022	0.4437	0.0803	0.1763	0.0877	0.1371
For Boys, Eligible Treatment and Eligible Control Transition Matrices are Equal (i.e. Treatment has no impact for Boys)	0.0004	0.0462	0.0972	0.3812	0.3040	0.0942	0.1793	0.0073	0.4285
Non-eligible Treatment and Non-eligible Control Transition Matrices are Equal (i.e. No spillover effects)	0.2833	0.3682	0.2069	0.3064	0.3008	0.6452	0.6576	0.5269	0.9515
Eligible Control Matrix for Girls Equal to and Eligible Control Matrix for Boys (i.e. No gender difference in educational progression patterns)	0.1842	0.1766	0.3455	0.7161	0.3643	0.2835	0.1949	0.1278	0.5170

Table 6
Simulated Education Distribution at Age 14
for Treatment and Control Children
After Exposure to Treatment for 8 years, Age 6-14

grade	treatment %	control %	treatment cdf	control cdf
0	0.01	0.05	0.01	0.05
1	0.00	0.00	0.01	0.05
2	0.06	0.10	0.07	0.16
3	0.23	0.47	0.30	0.62
4	0.59	1.74	0.89	2.36
5	1.98	4.97	2.87	7.33
6	11.2	26.2	14.1	33.5
7	17.8	15.0	31.9	48.5
8	26.1	23.4	58.0	71.9
9	37.6	25.8	95.5	97.7
10	4.47	2.28	100	100

Table A.1(a)
Average Schooling Gap (= potential grade level - actual grade level)
by age and treatment status

	Oct. 97			Oct. 98			Nov. 99			Change from 97 to 99		
age	**con**	**trt**	**diff**	**con**	**trt**	**diff**	**con**	**trt**	**diff**	**con**	**trt**	**diff**
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			(0.00)			(0.00)			(0.00)			(0.00)
7	0.20	0.18	-.02	0.25	0.21	-.04	0.27	0.24	-.03	0.07	0.06	-.02
			(0.02)			(0.02)			(0.02)			(0.02)
8	0.44	0.40	-.05	0.43	0.39	-.04	0.46	0.42	-.04	0.02	0.03	0.01
			(0.02)			(0.02)			(0.02)			(0.03)
9	0.66	0.62	-.03	0.61	0.54	-.07	0.59	0.59	0.00	-.07	-.03	0.04
			(0.03)			(0.03)			(0.03)			(0.05)
10	0.84	0.79	-.05	0.89	0.69	-.20	0.89	0.80	-.09	0.06	0.02	-.04
			(0.04)			(0.04)			(0.04)			(0.06)
11	0.99	1.00	0.01	0.93	0.89	-.05	1.03	0.89	-.14	0.04	-.11	-.15
			(0.05)			(0.05)			(0.05)			(0.07)
12	1.29	1.27	-.03	1.09	1.07	-.02	1.11	1.10	-.01	-.18	-.17	0.02
			(0.06)			(0.05)			(0.06)			(0.08)
13	1.70	1.57	-.13	1.46	1.38	-.07	1.46	1.36	-.11	-.23	-.21	0.02
			(0.07)			(0.07)			(0.07)			(0.09)
14	2.13	2.01	-.12	1.83	1.69	-.14	1.90	1.69	-.20	-.23	-.31	-.08
			(0.08)			(0.07)			(0.08)			(0.11)
15	2.62	2.62	0.00	2.31	2.27	-.04	2.54	2.23	-.31	-.08	-.39	-.31
			(0.09)			(0.09)			(0.10)			(0.13)
16	3.30	3.29	-.01	2.99	2.82	-.17	3.04	3.08	0.05	-.26	-.20	0.06
			(0.11)			(0.11)			(0.11)			(0.16)

Table A.1(b)
Average Schooling Gap (= potential grade level - actual grade level)
for female children, by age and treatment status

	Oct. 97			Oct. 98			Nov. 99			Change from 97 to 99		
age	**con**	**trt**	**diff**	**con**	**trt**	**diff**	**con**	**trt**	**diff**	**con**	**trt**	**diff**
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			(0.00)			(0.00)			(0.00)			(0.00)
7	0.18	0.19	0.00	0.22	0.21	-.01	0.27	0.25	-.02	0.09	0.06	-.02
			(0.02)			(0.02)			(0.03)			(0.04)
8	0.42	0.36	-.06	0.40	0.35	-.05	0.41	0.40	-.01	-.00	0.04	0.05
			(0.03)			(0.03)			(0.04)			(0.05)
9	0.58	0.59	0.01	0.58	0.52	-.06	0.60	0.54	-.06	0.02	-.04	-.06
			(0.04)			(0.05)			(0.05)			(0.07)
10	0.79	0.73	-.06	0.81	0.66	-.15	0.81	0.75	-.06	0.02	0.02	0.00
			(0.06)			(0.06)			(0.06)			(0.08)
11	0.94	0.93	-.01	0.82	0.83	0.01	0.94	0.78	-.16	-.00	-.15	-.15
			(0.06)			(0.07)			(0.07)			(0.10)
12	1.13	1.17	0.04	1.05	0.97	-.08	0.96	1.07	0.11	-.17	-.09	0.08
			(0.08)			(0.07)			(0.07)			(0.11)
13	1.61	1.54	-.08	1.40	1.37	-.04	1.37	1.32	-.06	-.24	-.22	0.02
			(0.09)			(0.09)			(0.09)			(0.13)
14	2.09	1.94	-.14	1.75	1.74	-.01	1.83	1.73	-.10	-.26	-.21	0.05
			(0.11)			(0.10)			(0.11)			(0.16)
15	2.47	2.60	0.13	2.35	2.27	-.09	2.33	2.17	-.16	-.14	-.43	-.28
			(0.12)			(0.13)			(0.13)			(0.18)
16	3.22	3.30	0.08	2.80	2.75	-.05	2.99	3.11	0.12	-.23	-.19	0.04
			(0.16)			(0.15)			(0.16)			(0.22)

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Table A.1(c)
Average Schooling Gap (= potential grade level - actual grade level)
for male children, by age and treatment status

	Oct. 97			Oct. 98			Nov. 99			Change from 97 to 99		
age	**con**	**trt**	**diff**	**con**	**trt**	**diff**	**con**	**trt**	**diff**	**con**	**trt**	**diff**
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			(0.00)			(0.00)			(0.00)			(0.00)
7	0.21	0.18	-.03	0.29	0.22	-.07	0.28	0.23	-.04	0.06	0.05	-.01
			(0.02)			(0.03)			(0.03)			(0.03)
8	0.47	0.43	-.04	0.47	0.42	-.04	0.50	0.44	-.06	0.03	0.01	-.02
			(0.03)			(0.03)			(0.04)			(0.05)
9	0.74	0.66	-.08	0.65	0.56	-.08	0.57	0.63	0.06	-.17	-.03	0.14
			(0.05)			(0.05)			(0.05)			(0.07)
10	0.88	0.84	-.04	0.97	0.72	-.25	0.97	0.85	-.12	0.10	0.02	-.08
			(0.05)			(0.06)			(0.06)			(0.08)
11	1.05	1.06	0.02	1.05	0.94	-.11	1.12	1.00	-.13	0.08	-.06	-.14
			(0.07)			(0.07)			(0.07)			(0.10)
12	1.44	1.36	-.08	1.13	1.17	0.04	1.26	1.13	-.13	-.18	-.23	-.05
			(0.08)			(0.08)			(0.08)			(0.12)
13	1.78	1.60	-.18	1.51	1.40	-.11	1.56	1.40	-.16	-.22	-.20	0.02
			(0.09)			(0.09)			(0.10)			(0.14)
14	2.16	2.06	-.10	1.91	1.64	-.27	1.96	1.66	-.30	-.21	-.40	-.19
			(0.11)			(0.10)			(0.11)			(0.15)
15	2.75	2.63	-.12	2.26	2.26	-.00	2.73	2.28	-.46	-.02	-.36	-.34
			(0.12)			(0.12)			(0.14)			(0.19)
16	3.38	3.28	-.10	3.18	2.88	-.30	3.07	3.06	-.01	-.31	-.22	0.09
			(0.17)			(0.15)			(0.15)			(0.23)

Table A.2(a)
Eligible Control Transition Matrix for Girls
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.12	0.07	0.05
P(2 | G)	0.85	0.62	0.45
P(1 | G)	...	0.30	0.36
P(Drop | G)	0.03	0.01	...
P(NE | NE)	...	...	0.14
No. obs	73.0	254	42.0
P(G)	0.20	0.69	0.11

Eligible Control Transition Matrix for Boys
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.14	0.10	0.02
P(2 | G)	0.86	0.51	0.33
P(1 | G)	...	0.36	0.47
P(Drop | G)	...	0.02	...
P(NE | NE)	...	...	0.18
No. obs	56.0	245	45.0
P(G)	0.16	0.71	0.13

Girl-Boy Differences
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	-.02	-.04	0.03
P(2 | G)	-.01	0.11	0.12
P(1 | G)	...	-.06	-.11
P(Drop | G)	0.03	-.02	...
P(NE | NE)	...	...	-.03
No. obs	129	499	87.0
p-value	0.44	0.05	0.57

Table A.2(b)
Eligible Control Transition Matrix for Girls
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.15	0.12	0.05	1.00	0.04
P(3 | G)	0.85	0.66	0.22	...	0.17
P(2 | G)	...	0.22	0.58	...	0.29
P(1 | G)	...	...	0.12	...	0.21
P(Drop | G)	...	0.01	0.03	...	...
P(NE | NE)	...	...	...	...	0.29
No. obs	34.0	212	74.0	1.00	24.0
P(G)	0.10	0.61	0.21	0.00	0.07

Eligible Control Transition Matrix for Boys
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.19	0.09	0.04	...	0.14
P(3 | G)	0.81	0.53	0.22	...	0.21
P(2 | G)	...	0.37	0.57	...	0.21
P(1 | G)	...	...	0.15	...	0.10
P(Drop | G)	...	0.01	0.01	...	...
P(NE | NE)	...	...	...	...	0.34
No. obs	36.0	255	91.0	...	29.0
P(G)	0.09	0.62	0.22	0.00	0.07

Girl-Boy Differences
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	-.05	0.03	0.01	1.00	-.10
P(3 | G)	0.05	0.12	-.00	...	-.04
P(2 | G)	...	-.16	0.01	...	0.08
P(1 | G)	...	...	-.03	...	0.10
P(Drop | G)	...	0.00	0.02	...	...
P(NE | NE)	...	...	...	...	-.05
No. obs	70.0	467	165	1.00	53.0
p-value	0.60	0.00	0.91	1.00	0.58

Table A.2(c)
Eligible Control Transition Matrix for Girls
Age 8 -> Age 9

	Grade (G) 4	3	2	1	Drop	NE
P(5 | G)	0.06	0.08	0.03	...	...	...
P(4 | G)	0.94	0.63	0.17	0.32	0.67	0.11
P(3 | G)	...	0.28	0.63	0.12	...	0.33
P(2 | G)	...	...	0.15	0.36	...	...
P(1 | G)	...	...	...	0.16	...	0.17
P(Drop | G)	...	0.01	0.02	0.04	0.33	...
P(NE | NE)	...	...	...	...	...	0.39
No. obs	34.0	175	119	25.0	3.00	18.0
P(G)	0.09	0.47	0.32	0.07	0.05	.

Eligible Control Transition Matrix for Boys
Age 8 -> Age 9

	Grade (G) 4	3	2	1	Drop	NE
P(5 | G)	0.20	0.06	0.02	...	...	...
P(4 | G)	0.80	0.61	0.15	0.24	0.33	...
P(3 | G)	...	0.33	0.57	0.24	0.67	0.29
P(2 | G)	...	...	0.25	0.38	...	0.06
P(1 | G)	...	...	...	0.14	...	0.06
P(Drop | G)	...	...	0.01	...	...	...
P(NE | NE)	...	...	...	...	...	0.59
No. obs	30.0	153	138	21.0	3.00	17.0
P(G)	0.08	0.42	0.38	0.06	0.05	.

Girl-Boy Differences
Age 8 -> Age 9

	Grade (G) 4	3	2	1	Drop	NE
P(5 | G)	-.14	0.02	0.01	...	...	...
P(4 | G)	0.14	0.03	0.02	0.08	0.33	0.11
P(3 | G)	...	-.05	0.07	-.12	-.67	0.04
P(2 | G)	...	...	-.10	-.02	...	-.06
P(1 | G)	...	...	...	0.02	...	0.11
P(Drop | G)	...	0.01	0.01	0.04	0.33	...
P(NE | NE)	...	...	...	...	...	-.20
No. obs	64.0	328	257	46.0	6.00	35.0
p-value	0.09	0.52	0.33	0.72	0.19	0.33

Table A.2(d)
Eligible Control Transition Matrix for Girls
Age 9 -> Age 10

	Grade (G) 5	4	3	2	1	Drop	NE
P(6 | G)	0.18	0.07	0.01	...	...	...	...
P(5 | G)	0.82	0.65	0.18	0.09	...	0.20	...
P(4 | G)	...	0.27	0.61	0.12	0.25	0.60	0.33
P(3 | G)	...	...	0.17	0.50	...	...	0.08
P(2 | G)	...	...	...	0.26	0.50	...	0.25
P(1 | G)	...	...	...	...	...	...	...
P(Drop | G)	...	0.01	0.02	0.03	0.25	0.20	...
P(NE | NE)	...	...	...	...	...	...	0.33
No. obs	28.0	139	121	34.0	4.00	5.00	12.0
P(G)	0.08	0.41	0.35	0.10	0.01	0.01	0.03

Eligible Control Transition Matrix for Boys
Age 9 -> Age 10

	Grade (G) 5	4	3	2	1	Drop	NE
P(6 | G)	0.15	0.06	0.02	...	...	...	...
P(5 | G)	0.85	0.61	0.16	0.10	...	0.33	...
P(4 | G)	...	0.33	0.56	0.21	0.08	0.33	...
P(3 | G)	...	...	0.25	0.52	0.23	0.33	0.17
P(2 | G)	...	...	...	0.16	0.46	...	0.17
P(1 | G)	...	...	...	...	0.15	...	0.17
P(Drop | G)	...	...	0.01	0.02	0.08	...	...
P(NE | NE)	...	...	...	...	...	...	0.50
No. obs	20.0	127	102	58.0	13.0	3.00	6.00
P(G)	0.06	0.39	0.31	0.18	0.04	0.01	0.02

Girl-Boy Differences
Age 9 -> Age 10

	Grade (G) 5	4	3	2	1	Drop	NE
P(6 | G)	0.03	0.02	-.01	...	...	...	...
P(5 | G)	-.03	0.04	0.02	-.02	...	-.13	...
P(4 | G)	...	-.06	0.05	-.09	0.17	0.27	0.33
P(3 | G)	...	...	-.08	-.02	-.23	-.33	-.08
P(2 | G)	...	...	...	0.11	0.04	...	0.08
P(1 | G)	...	...	...	...	-.15	...	-.17
P(Drop | G)	...	0.01	0.01	0.01	0.17	0.20	...
P(NE | NE)	...	...	...	...	...	...	-.17
No. obs	48.0	266	223	92.0	17.0	8.00	18.0
p-value	0.79	0.51	0.49	0.64	0.54	0.45	0.32

Table A.2(e)
Eligible Control Transition Matrix for Girls
Age 10 -> Age 11

	Grade (G) 6	5	4	3	2	1	Drop	NE
P(7 | G)	0.23	0.11	0.01	...	...	...	0.14	...
P(6 | G)	0.77	0.71	0.19	0.07	...	...	0.14	...
P(5 | G)	...	0.16	0.63	0.26	0.09	...	0.43	...
P(4 | G)	...	...	0.16	0.48	0.05	1.00	0.14	...
P(3 | G)	...	...	...	0.19	0.64	...	...	0.17
P(2 | G)	...	...	...	...	0.09	...	...	0.08
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.02	0.01	...	0.14	...	0.14	...
P(NE | NE)	...	...	...	...	...	...	...	0.75
No. obs	26.0	145	105	42.0	22.0	1.00	7.00	12.0
P(G)	0.07	0.40	0.29	0.12	0.06	0.00	0.02	0.03

Eligible Control Transition Matrix for Boys
Age 10 -> Age 11

	Grade (G) 6	5	4	3	2	1	Drop	NE
P(7 | G)	0.42	0.09	0.02	...	...	...	...	...
P(6 | G)	0.50	0.65	0.12	0.08	...	...	0.20	...
P(5 | G)	...	0.23	0.62	0.13	0.08	...	0.30	...
P(4 | G)	...	...	0.23	0.50	0.16	0.50	0.10	0.09
P(3 | G)	...	...	...	0.20	0.40	...	0.20	0.18
P(2 | G)	...	...	...	...	0.28	0.50	...	0.09
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	0.08	0.03	0.01	0.08	0.08	...	0.20	...
P(NE | NE)	...	...	...	...	...	...	...	0.64
No. obs	24.0	135	125	60.0	25.0	2.00	10.0	11.0
P(G)	0.06	0.34	0.32	0.15	0.06	0.01	0.03	0.03

Girl-Boy Differences
Age 10 -> Age 11

	Grade (G) 6	5	4	3	2	1	Drop	NE
P(7 | G)	-.19	0.02	-.01	...	...	...	0.14	...
P(6 | G)	0.27	0.06	0.07	-.01	...	...	-.06	...
P(5 | G)	...	-.07	0.01	0.13	0.01	...	0.13	...
P(4 | G)	...	...	-.07	-.02	-.11	0.50	0.04	-.09
P(3 | G)	...	...	...	-.01	0.24	...	-.20	-.02
P(2 | G)	...	...	...	...	-.19	-.50	...	-.01
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	-.08	-.01	0.00	-.08	0.06	...	-.06	...
P(NE | NE)	...	...	...	...	...	...	...	0.11
No. obs	50.0	280	230	102	47.0	3.00	17.0	23.0
p-value	0.09	0.44	0.41	0.22	0.26	0.39	0.66	0.75

Table A.2(f)
Eligible Control Transition Matrix for Girls
Age 11 -> Age 12

	Grade (G) 7	6	5	4	3	2	1	Drop	NE
P(8 | G)	0.15	0.05	...	...	...	...	...	...	...
P(7 | G)	0.69	0.47	0.18	0.07	...	...	...	0.20	...
P(6 | G)	...	0.18	0.60	0.20	0.13	...	...	...	...
P(5 | G)	...	...	0.18	0.51	0.17	...	...	...	...
P(4 | G)	...	...	...	0.15	0.54	0.50	...	0.10	...
P(3 | G)	...	...	...	...	0.13	0.25	...	...	...
P(2 | G)	...	...	...	...	...	...	1.00	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.15	0.30	0.03	0.07	0.04	0.25	...	0.70	...
P(NE | NE)	...	...	...	...	...	...	...	...	1.00
No. obs	13.0	134	115	55.0	24.0	4.00	1.00	10.0	9.00
P(G)	0.04	0.37	0.32	0.15	0.07	0.01	0.00	0.03	0.02

Eligible Control Transition Matrix for Boys
Age 11 -> Age 12

	Grade (G) 7	6	5	4	3	2	1	Drop	NE
P(8 | G)	0.19	0.03	0.01	...	...	...	...	...	...
P(7 | G)	0.56	0.63	0.11	0.07	...	...	...	0.08	...
P(6 | G)	...	0.20	0.66	0.16	0.05	...	...	0.25	...
P(5 | G)	...	...	0.19	0.51	0.23	...	...	0.17	...
P(4 | G)	...	...	...	0.20	0.45	0.20	0.50	...	...
P(3 | G)	...	...	...	...	0.23	0.40	0.50	...	0.33
P(2 | G)	...	...	...	...	...	0.20	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.25	0.15	0.03	0.06	0.05	0.20	...	0.50	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.67
No. obs	16.0	112	101	69.0	22.0	5.00	2.00	12.0	6.00
P(G)	0.05	0.32	0.29	0.20	0.06	0.01	0.01	0.03	0.02

Girl-Boy Differences
Age 11 -> Age 12

	Grade (G) 7	6	5	4	3	2	1	Drop	NE
P(8 | G)	-.03	0.03	-.01	...	...	...	...	...	...
P(7 | G)	0.13	-.15	0.07	0.00	...	...	...	0.12	...
P(6 | G)	...	-.02	-.06	0.04	0.08	...	...	-.25	...
P(5 | G)	...	...	-.01	0.00	-.06	...	...	-.17	...
P(4 | G)	...	...	...	-.06	0.09	0.30	-.50	0.10	...
P(3 | G)	...	...	...	...	-.10	-.15	-.50	...	-.33
P(2 | G)	...	...	...	...	...	-.20	1.00	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.10	0.15	0.01	0.01	-.00	0.05	...	0.20	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.33
No. obs	29.0	246	216	124	46.0	9.00	3.00	22.0	15.0
p-value	0.75	0.02	0.48	0.92	0.75	0.67	0.22	0.18	0.06

Table A.2(g)
Eligible Control Transition Matrix for Girls
Age 12 -> Age 13

	Grade (G) 8	7	6	5	4	3	2	1	Drop	NE
P(9 | G)	0.41	0.02	...	...	...	...	...	...	...	...
P(8 | G)	0.59	0.61	0.07	0.04	...	...	...	...	0.05	...
P(7 | G)	...	0.18	0.49	0.17	0.12	...	...	...	0.10	...
P(6 | G)	...	...	0.14	0.50	0.12	...	...	...	...	...
P(5 | G)	...	...	...	0.15	0.46	...	...	...	...	...
P(4 | G)	...	...	...	...	0.23	0.38	0.25	...	0.02	...
P(3 | G)	...	...	...	...	...	0.25	...	...	0.02	0.10
P(2 | G)	...	...	...	...	...	...	0.50	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.20	0.30	0.15	0.08	0.38	0.25	...	0.80	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.90
No. obs	17.0	66.0	94.0	54.0	26.0	8.00	4.00	...	41.0	10.0
P(G)	0.05	0.21	0.29	0.17	0.08	0.03	0.01	0.00	0.13	0.03

Eligible Control Transition Matrix for Boys
Age 12 -> Age 13

	Grade (G) 8	7	6	5	4	3	2	1	Drop	NE
P(9 | G)	0.12	0.10	...	...	...	...	...	...	...	...
P(8 | G)	0.88	0.68	0.14	0.09	...	...	...	...	...	...
P(7 | G)	...	0.14	0.44	0.12	0.11	...	...	...	0.14	...
P(6 | G)	...	...	0.20	0.49	0.09	0.06	...	...	0.04	...
P(5 | G)	...	...	...	0.21	0.34	0.22	...	...	0.04	...
P(4 | G)	...	...	...	...	0.40	0.33	...	...	0.04	0.20
P(3 | G)	...	...	...	...	...	0.17	0.50	...	0.07	...
P(2 | G)	...	...	...	...	...	...	0.17	...	...	0.10
P(1 | G)	...	...	...	...	...	...	...	...	...	0.10
P(Drop | G)	...	0.08	0.23	0.09	0.06	0.22	0.33	1.00	0.68	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.60
No. obs	17.0	73.0	96.0	67.0	35.0	18.0	6.00	1.00	28.0	10.0
P(G)	0.05	0.21	0.27	0.19	0.10	0.05	0.02	0.00	0.08	0.03

Girl-Boy Differences
Age 12 -> Age 13

	Grade (G) 8	7	6	5	4	3	2	1	Drop	NE
P(9 | G)	0.29	-.08	...	...	...	...	...	...	...	...
P(8 | G)	-.29	-.08	-.06	-.05	...	...	...	...	0.05	...
P(7 | G)	...	0.04	0.05	0.05	0.00	...	...	...	-.05	...
P(6 | G)	...	...	-.06	0.01	0.03	-.06	...	...	-.04	...
P(5 | G)	...	...	...	-.06	0.12	-.22	...	...	-.04	...
P(4 | G)	...	...	...	...	-.17	0.04	0.25	...	-.01	-.20
P(3 | G)	...	...	...	...	...	0.08	-.50	...	-.05	0.10
P(2 | G)	...	...	...	...	...	...	0.33	...	...	-.10
P(1 | G)	...	...	...	...	...	...	...	...	...	-.10
P(Drop | G)	...	0.11	0.07	0.06	0.02	0.15	-.08	-1.0	0.13	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.30
No. obs	34.0	139	190	121	61.0	26.0	10.0	1.00	69.0	20.0
p-value	0.05	0.05	0.28	0.52	0.72	0.57	0.22	1.00	0.44	0.23

Table A.2(h)
Eligible Control Transition Matrix for Girls
Age 13 -> Age 14

	Grade (G) 9	8	7	6	5	4	3	2	1	Drop	NE
P(10 | G)	0.67	0.04	...	...	...	...	...	...	...	...	...
P(9 | G)	0.33	0.76	0.13	0.02	...	...	...	...	...	0.02	...
P(8 | G)	...	0.18	0.51	0.02	0.05	...	...	...	...	0.02	...
P(7 | G)	...	...	0.11	0.28	0.05	0.08	...	...	...	0.03	...
P(6 | G)	...	...	...	0.16	0.52	0.25	0.29	...	...	0.01	...
P(5 | G)	...	...	...	...	0.19	0.50	0.29	...	...	...	...
P(4 | G)	...	...	...	...	...	...	0.14	...	...	0.01	...
P(3 | G)	...	...	...	...	...	...	0.14	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.02	0.25	0.51	0.19	0.17	0.14	...	...	0.90	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	6.00	51.0	55.0	43.0	21.0	12.0	7.00	...	...	91.0	7.00
P(G)	0.02	0.17	0.19	0.15	0.07	0.04	0.02	0.00	0.00	0.31	0.02

Eligible Control Transition Matrix for Boys
Age 13 -> Age 14

	Grade (G) 9	8	7	6	5	4	3	2	1	Drop	NE
P(10 | G)	0.09	0.07	...	...	...	...	...	...	...	...	...
P(9 | G)	0.73	0.61	0.13	0.08	...	...	...	...	...	...	...
P(8 | G)	...	0.23	0.62	0.12	0.08	...	...	...	...	0.08	...
P(7 | G)	...	...	0.04	0.27	0.08	0.15	...	...	...	0.06	...
P(6 | G)	...	...	...	0.06	0.50	0.20	...	...	...	0.08	...
P(5 | G)	...	...	...	...	0.22	0.35	0.50	...	...	0.02	...
P(4 | G)	...	...	...	...	...	...	0.50	0.33	...	0.02	0.33
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	0.67	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.18	0.09	0.21	0.47	0.11	0.30	...	...	...	0.74	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.67
No. obs	11.0	44.0	47.0	49.0	36.0	20.0	4.00	3.00	...	62.0	3.00
P(G)	0.04	0.16	0.17	0.18	0.13	0.07	0.01	0.01	0.00	0.22	0.01

Girl-Boy Differences
Age 13 -> Age 14

	Grade (G) 9	8	7	6	5	4	3	2	1	Drop	NE
P(10 | G)	0.58	-.03	...	...	...	...	...	...	...	...	...
P(9 | G)	-.39	0.15	-.00	-.06	...	...	...	...	...	0.02	...
P(8 | G)	...	-.05	-.11	-.10	-.04	...	...	...	...	-.06	...
P(7 | G)	...	...	0.07	0.01	-.04	-.07	...	...	...	-.03	...
P(6 | G)	...	...	...	0.10	0.02	0.05	0.29	...	...	-.07	...
P(5 | G)	...	...	...	...	-.03	0.15	-.21	...	...	-.02	...
P(4 | G)	...	...	...	...	...	...	-.36	-.33	...	-.01	-.33
P(3 | G)	...	...	...	...	...	...	0.14	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	-.67	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.18	-.07	0.04	0.04	0.08	-.13	0.14	...	...	0.16	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.33
No. obs	17.0	95.0	102	92.0	57.0	32.0	11.0	3.00	...	153	10.0
	0.02	0.01	0.00	0.27	0.02						
p-value	0.04	0.29	0.54	0.15	0.89	0.73	0.43	1.00	.	0.06	0.11

Table A.2(i)
Eligible Control Transition Matrix for Girls
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.33	0.09	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.50	0.17	0.10	...	...	...	...	...	...	...	0.03	...
P(9 | G)	...	0.31	0.77	0.15	...	...	...	...	...	...	0.03	...
P(8 | G)	...	...	0.10	0.31	0.10	...	...	...	...	...	...	...
P(7 | G)	...	...	...	0.04	0.25	0.11	...	...	...	...	0.08	...
P(6 | G)	...	...	...	...	0.05	0.33	...	...	...	...	0.02	...
P(5 | G)	...	...	...	...	...	0.11	0.20	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	0.50	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.17	0.43	0.03	0.50	0.60	0.44	0.80	0.50	1.00	...	0.84	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	6.00	35.0	30.0	26.0	20.0	9.00	5.00	2.00	1.00	...	116	7.00
P(G)	0.02	0.14	0.12	0.10	0.08	0.04	0.02	0.01	0.00	0.00	0.46	0.03

Eligible Control Transition Matrix for Boys
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.20	0.03	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.20	0.29	0.06	0.03	...	...	...	...	...	...	0.01	...
P(9 | G)	...	0.18	0.67	0.21	0.15	...	...	...	...	...	...	...
P(8 | G)	...	...	0.21	0.44	0.06	0.06	...	...	...	...	0.05	...
P(7 | G)	...	...	...	0.08	0.24	0.12	...	...	...	...	0.05	...
P(6 | G)	...	...	...	...	0.09	0.41	0.13	...	...	...	0.02	...
P(5 | G)	...	...	...	...	...	0.06	0.25	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	0.08
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	0.08
P(Drop | G)	0.60	0.50	0.06	0.26	0.45	0.35	0.63	...	...	...	0.88	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.85
No. obs	5.00	34.0	48.0	39.0	33.0	17.0	8.00	...	...	...	88.0	13.0
P(G)	0.02	0.12	0.17	0.14	0.12	0.06	0.03	0.00	0.00	0.00	0.31	0.05

Girl-Boy Differences
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.13	0.06	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.30	-.12	0.04	-.03	...	...	...	...	...	...	0.02	...
P(9 | G)	...	0.14	0.10	-.05	-.15	...	...	...	...	...	0.03	...
P(8 | G)	...	...	-.11	-.13	0.04	-.06	...	...	...	...	-.05	...
P(7 | G)	...	...	...	-.04	0.01	-.01	...	...	...	...	0.03	...
P(6 | G)	...	...	...	...	-.04	-.08	-.13	...	...	...	-.01	...
P(5 | G)	...	...	...	...	...	0.05	-.05	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	-.08
P(3 | G)	...	...	...	...	...	...	...	0.50	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	-.08
P(Drop | G)	-.43	-.07	-.03	0.24	0.15	0.09	0.18	0.50	1.00	...	-.04	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.15
No. obs	11.0	69.0	78.0	65.0	53.0	26.0	13.0	2.00	1.00	...	204	20.0
p-value	0.32	0.31	0.53	0.34	0.39	0.92	0.67	1.00	1.00	.	0.07	0.55

Table A.3(a)
Eligible Treatment Transition Matrix, Girls Only
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.15	0.04	0.02
P(2 | G)	0.85	0.67	0.36
P(1 | G)	...	0.27	0.44
P(Drop | G)	...	0.02	...
P(NE | NE)	...	...	0.18
No. obs	106	394	55.0
P(G)	0.19	0.71	0.10

Eligible Control Transition Matrix, Girls Only
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.12	0.07	0.05
P(2 | G)	0.85	0.62	0.45
P(1 | G)	...	0.30	0.36
P(Drop | G)	0.03	0.01	...
P(NE | NE)	...	...	0.14
No. obs	73.0	254	42.0
P(G)	0.20	0.69	0.11

Treatment-Control Differences, Girls Only
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.03	-.03	-.03
P(2 | G)	-.00	0.05	-.09
P(1 | G)	...	-.03	0.08
P(Drop | G)	-.03	0.01	...
P(NE | NE)	...	...	0.04
No. obs	179	648	97.0
p-value	0.21	0.27	0.63

Table A.3(b)
Eligible Treatment Transition Matrix, Girls Only
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.25	0.10	0.05	...	0.13
P(3 | G)	0.74	0.68	0.20	1.00	0.22
P(2 | G)	...	0.22	0.63	...	0.31
P(1 | G)	...	...	0.09	...	0.16
P(Drop | G)	0.01	0.00	0.04	...	...
P(NE | NE)	...	...	...	...	0.19
No. obs	73.0	397	128	2.00	32.0
P(G)	0.12	0.63	0.20	0.00	0.05

Eligible Control Transition Matrix, Girls Only
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.15	0.12	0.05	1.00	0.04
P(3 | G)	0.85	0.66	0.22	...	0.17
P(2 | G)	...	0.22	0.58	...	0.29
P(1 | G)	...	...	0.12	...	0.21
P(Drop | G)	...	0.01	0.03	...	...
P(NE | NE)	...	...	...	...	0.29
No. obs	34.0	212	74.0	1.00	24.0
P(G)	0.10	0.61	0.21	0.00	0.07

Treatment-Control Differences, Girls Only
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.10	-.02	-.01	-1.0	0.08
P(3 | G)	-.11	0.02	-.02	1.00	0.05
P(2 | G)	...	0.00	0.05	...	0.02
P(1 | G)	...	...	-.04	...	-.05
P(Drop | G)	0.01	-.01	0.01	...	...
P(NE | NE)	...	...	...	...	-.10
No. obs	107	609	202	3.00	56.0
p-value	0.38	0.61	0.89	0.08	0.71

Table A.3(c)
Eligible Treatment Transition Matrix, Girls Only
Age 8 -> Age 9

	Grade (G) 4	3	2	1	Drop	NE
P(5 | G)	0.17	0.06	0.02	...	...	...
P(4 | G)	0.83	0.74	0.27	0.21	0.63	0.10
P(3 | G)	...	0.20	0.51	0.29	0.13	0.15
P(2 | G)	...	...	0.20	0.46	0.25	0.15
P(1 | G)	...	...	...	0.04	...	0.15
P(Drop | G)	...	0.01	...	...	...	...
P(NE | NE)	...	...	...	...	...	0.45
No. obs	53.0	304	183	24.0	8.00	20.0
P(G)	0.09	0.51	0.31	0.04	0.03	.

Eligible Control Transition Matrix, Girls Only
Age 8 -> Age 9

	Grade (G) 4	3	2	1	Drop	NE
P(5 | G)	0.06	0.08	0.03	...	...	...
P(4 | G)	0.94	0.63	0.17	0.32	0.67	0.11
P(3 | G)	...	0.28	0.63	0.12	...	0.33
P(2 | G)	...	...	0.15	0.36	...	...
P(1 | G)	...	...	...	0.16	...	0.17
P(Drop | G)	...	0.01	0.02	0.04	0.33	...
P(NE | NE)	...	...	...	...	...	0.39
No. obs	34.0	175	119	25.0	3.00	18.0
P(G)	0.09	0.47	0.32	0.07	0.05	.

Treatment-Control Differences, Girls Only
Age 8 -> Age 9

	Grade (G) 4	3	2	1	Drop	NE
P(5 | G)	0.11	-.02	-.01	...	...	...
P(4 | G)	-.11	0.11	0.10	-.11	-.04	-.01
P(3 | G)	...	-.08	-.12	0.17	0.13	-.18
P(2 | G)	...	...	0.05	0.10	0.25	0.15
P(1 | G)	...	...	...	-.12	...	-.02
P(Drop | G)	...	0.00	-.02	-.04	-.33	...
P(NE | NE)	...	...	...	...	...	0.06
No. obs	87.0	479	302	49.0	11.0	38.0
p-value	0.13	0.11	0.06	0.26	0.28	0.39

Table A.3(d)
Eligible Treatment Transition Matrix, Girls Only
Age 9 -> Age 10

	Grade (G) 5	4	3	2	1	Drop	NE
P(6 | G)	0.22	0.05	0.01	...	...	0.14	...
P(5 | G)	0.78	0.75	0.18	0.14	...	0.43	...
P(4 | G)	...	0.19	0.58	0.26	0.44	0.29	0.19
P(3 | G)	...	...	0.22	0.46	0.33	0.14	0.19
P(2 | G)	...	...	...	0.11	...	...	0.19
P(1 | G)	...	...	...	...	0.22	...	0.13
P(Drop | G)	...	0.01	0.01	0.03	...	...	...
P(NE | NE)	...	...	...	...	...	...	0.31
No. obs	32.0	279	187	70.0	9.00	7.00	16.0
P(G)	0.05	0.47	0.31	0.12	0.02	0.01	0.03

Eligible Control Transition Matrix, Girls Only
Age 9 -> Age 10

	Grade (G) 5	4	3	2	1	Drop	NE
P(6 | G)	0.18	0.07	0.01	...	...	...	...
P(5 | G)	0.82	0.65	0.18	0.09	...	0.20	...
P(4 | G)	...	0.27	0.61	0.12	0.25	0.60	0.33
P(3 | G)	...	...	0.17	0.50	...	...	0.08
P(2 | G)	...	...	...	0.26	0.50	...	0.25
P(1 | G)	...	...	...	...	...	...	...
P(Drop | G)	...	0.01	0.02	0.03	0.25	0.20	...
P(NE | NE)	...	...	...	...	...	...	0.33
No. obs	28.0	139	121	34.0	4.00	5.00	12.0
P(G)	0.08	0.41	0.35	0.10	0.01	0.01	0.03

Treatment-Control Differences, Girls Only
Age 9 -> Age 10

	Grade (G) 5	4	3	2	1	Drop	NE
P(6 | G)	0.04	-.02	0.00	...	...	0.14	...
P(5 | G)	-.04	0.09	...	0.05	...	0.23	...
P(4 | G)	...	-.07	-.03	0.14	0.19	-.31	-.15
P(3 | G)	...	...	0.05	-.04	0.33	0.14	0.10
P(2 | G)	...	...	...	-.15	-.50	...	-.06
P(1 | G)	...	...	...	...	0.22	...	0.13
P(Drop | G)	...	0.00	-.02	-.00	-.25	-.20	...
P(NE | NE)	...	...	...	...	...	...	-.02
No. obs	60.0	418	308	104	13.0	12.0	28.0
p-value	0.70	0.24	0.51	0.21	0.06	0.41	0.60

Table A.3(e)
Eligible Treatment Transition Matrix, Girls Only
Age 10 -> Age 11

	Grade (G) 6	5	4	3	2	1	Drop	NE
P(7 | G)	0.28	0.02	0.02	...	...	...	0.18	...
P(6 | G)	0.67	0.77	0.21	0.11	...	...	0.18	...
P(5 | G)	...	0.19	0.61	0.16	0.17	...	0.27	...
P(4 | G)	...	...	0.15	0.49	0.17	1.00	...	...
P(3 | G)	...	...	...	0.22	0.50	...	0.09	0.33
P(2 | G)	...	...	...	...	0.17	...	0.09	0.11
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	0.04	0.02	0.02	0.03	...	...	0.18	...
P(NE | NE)	...	...	...	...	...	...	...	0.56
No. obs	46.0	212	185	74.0	18.0	2.00	11.0	9.00
P(G)	0.08	0.38	0.33	0.13	0.03	0.00	0.02	0.02

Eligible Control Transition Matrix, Girls Only
Age 10 -> Age 11

	Grade (G) 6	5	4	3	2	1	Drop	NE
P(7 | G)	0.23	0.11	0.01	...	...	...	0.14	...
P(6 | G)	0.77	0.71	0.19	0.07	...	...	0.14	...
P(5 | G)	...	0.16	0.63	0.26	0.09	...	0.43	...
P(4 | G)	...	...	0.16	0.48	0.05	1.00	0.14	...
P(3 | G)	...	...	...	0.19	0.64	...	...	0.17
P(2 | G)	...	...	...	...	0.09	...	...	0.08
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.02	0.01	...	0.14	...	0.14	...
P(NE | NE)	...	...	...	...	...	...	...	0.75
No. obs	26.0	145	105	42.0	22.0	1.00	7.00	12.0
P(G)	0.07	0.40	0.29	0.12	0.06	0.00	0.02	0.03

Treatment-Control Differences, Girls Only
Age 10 -> Age 11

	Grade (G) 6	5	4	3	2	1	Drop	NE
P(7 | G)	0.05	-.09	0.01	...	...	...	0.04	...
P(6 | G)	-.10	0.06	0.02	0.04	...	...	0.04	...
P(5 | G)	...	0.03	-.02	-.10	0.08	...	-.16	...
P(4 | G)	...	...	-.01	0.01	0.12	...	-.14	...
P(3 | G)	...	...	...	0.03	-.14	...	0.09	0.17
P(2 | G)	...	...	...	...	0.08	...	0.09	0.03
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	0.04	-.00	0.01	0.03	-.14	...	0.04	...
P(NE | NE)	...	...	...	...	...	...	...	-.19
No. obs	72.0	357	290	116	40.0	3.00	18.0	21.0
p-value	0.47	0.01	0.95	0.57	0.27	1.00	0.77	0.63

Table A.3(f)
Eligible Treatment Transition Matrix, Girls Only
Age 11 -> Age 12

	Grade (G) 7	6	5	4	3	2	1	Drop	NE
P(8 | G)	0.30	0.03	0.02	...	...	...	...	0.09	...
P(7 | G)	0.70	0.64	0.20	0.13	...	...	...	0.30	...
P(6 | G)	...	0.16	0.66	0.13	0.15	...	...	...	...
P(5 | G)	...	...	0.11	0.45	0.15	0.14	...	0.09	...
P(4 | G)	...	...	...	0.24	0.49	0.43	...	0.17	0.08
P(3 | G)	...	...	...	...	0.17	0.14	1.00	...	0.08
P(2 | G)	...	...	...	...	...	0.29	...	0.04	0.17
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.16	0.02	0.04	0.05	...	...	0.30	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.67
No. obs	20.0	208	179	89.0	41.0	7.00	1.00	23.0	12.0
P(G)	0.03	0.36	0.31	0.15	0.07	0.01	0.00	0.04	0.02

Eligible Control Transition Matrix, Girls Only
Age 11 -> Age 12

	Grade (G) 7	6	5	4	3	2	1	Drop	NE
P(8 | G)	0.15	0.05	...	...	...	...	...	...	...
P(7 | G)	0.69	0.47	0.18	0.07	...	...	...	0.20	...
P(6 | G)	...	0.18	0.60	0.20	0.13	...	...	...	...
P(5 | G)	...	...	0.18	0.51	0.17	...	...	...	...
P(4 | G)	...	...	...	0.15	0.54	0.50	...	0.10	...
P(3 | G)	...	...	...	...	0.13	0.25	...	...	...
P(2 | G)	...	...	...	...	...	...	1.00	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.15	0.30	0.03	0.07	0.04	0.25	...	0.70	...
P(NE | NE)	...	...	...	...	...	...	...	...	1.00
No. obs	13.0	134	115	55.0	24.0	4.00	1.00	10.0	9.00
P(G)	0.04	0.37	0.32	0.15	0.07	0.01	0.00	0.03	0.02

Treatment-Control Differences, Girls Only
Age 11 -> Age 12

	Grade (G) 7	6	5	4	3	2	1	Drop	NE
P(8 | G)	0.15	-.02	0.02	...	...	...	...	0.09	...
P(7 | G)	0.01	0.17	0.01	0.06	...	...	...	0.10	...
P(6 | G)	...	-.02	0.06	-.07	0.02	...	...	...	...
P(5 | G)	...	...	-.07	-.06	-.02	0.14	...	0.09	...
P(4 | G)	...	...	...	0.09	-.05	-.07	...	0.07	0.08
P(3 | G)	...	...	...	...	0.05	-.11	1.00	...	0.08
P(2 | G)	...	...	...	...	...	0.29	-1.0	0.04	0.17
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.15	-.14	-.02	-.03	0.01	-.25	...	-.40	...
P(NE | NE)	...	...	...	...	...	...	...	...	-.33
No. obs	33.0	342	294	144	65.0	11.0	2.00	33.0	21.0
p-value	0.15	0.01	0.21	0.38	0.98	0.45	0.16	0.38	0.30

Table A.3(g)
Eligible Treatment Transition Matrix, Girls Only
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	0.33	0.05	0.01	...	...	...	...	...	0.01	...
P(8 | G)	0.67	0.58	0.14	0.05	...	...	...	...	0.06	...
P(7 | G)	...	0.27	0.54	0.20	0.10	...	...	...	0.27	...
P(6 | G)	...	...	0.08	0.55	0.12	0.20	...	...	0.02	...
P(5 | G)	...	...	...	0.18	0.56	0.20	...	...	0.01	...
P(4 | G)	...	...	...	...	0.17	0.30	...	...	0.02	0.07
P(3 | G)	...	...	...	...	...	0.10	0.25	1.00	0.01	...
P(2 | G)	...	...	...	...	...	...	...	...	...	0.07
P(1 | G)	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.10	0.23	0.01	0.05	0.20	0.75	...	0.60	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.87
No. obs	15.0	105	158	76.0	41.0	10.0	4.00	1.00	94.0	15.0
P(G)	0.03	0.20	0.30	0.15	0.08	0.02	0.01	0.00	0.18	0.03

Eligible Control Transition Matrix, Girls Only
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	0.41	0.02	...	...	...	...	...	...	...	...
P(8 | G)	0.59	0.61	0.07	0.04	...	...	...	...	0.05	...
P(7 | G)	...	0.18	0.49	0.17	0.12	...	...	...	0.10	...
P(6 | G)	...	...	0.14	0.50	0.12	...	...	...	...	...
P(5 | G)	...	...	...	0.15	0.46	...	...	...	...	...
P(4 | G)	...	...	...	...	0.23	0.38	0.25	...	0.02	...
P(3 | G)	...	...	...	...	...	0.25	...	...	0.02	0.10
P(2 | G)	...	...	...	...	...	...	0.50	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.20	0.30	0.15	0.08	0.38	0.25	...	0.80	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.90
No. obs	17.0	66.0	94.0	54.0	26.0	8.00	4.00	...	41.0	10.0
P(G)	0.05	0.21	0.29	0.17	0.08	0.03	0.01	0.00	0.13	0.03

Treatment-Control Differences, Girls Only
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	-.08	0.03	0.01	...	...	...	...	...	0.01	...
P(8 | G)	0.08	-.03	0.06	0.02	...	...	...	...	0.02	...
P(7 | G)	...	0.08	0.05	0.03	-.02	...	...	...	0.17	...
P(6 | G)	...	...	-.06	0.05	0.01	0.20	...	...	0.02	...
P(5 | G)	...	...	...	0.04	0.10	0.20	...	...	0.01	...
P(4 | G)	...	...	...	...	-.06	-.08	-.25	...	-.00	0.07
P(3 | G)	...	...	...	...	...	-.15	0.25	1.00	-.01	-.10
P(2 | G)	...	...	...	...	...	...	-.50	...	...	0.07
P(1 | G)	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	-.09	-.06	-.13	-.03	-.18	0.50	...	-.21	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	-.03
No. obs	32.0	171	252	130	67.0	18.0	8.00	1.00	135	25.0
p-value	0.65	0.17	0.18	0.06	0.93	0.36	0.17	1.00	0.34	0.42

Table A.3(h)
Eligible Treatment Transition Matrix, Girls Only
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.40	0.03	0.01	...	...	...	...	...	...	0.01	...
P(9 | G)	0.53	0.81	0.14	0.04	...	...	...	...	...	0.03	...
P(8 | G)	...	0.14	0.54	0.14	0.02	...	...	...	...	0.04	...
P(7 | G)	...	...	0.12	0.47	0.07	...	...	...	...	0.21	...
P(6 | G)	...	...	...	0.13	0.63	0.25	0.14	...	...	...	...
P(5 | G)	...	...	...	...	0.15	0.56	0.29	...	...	0.01	...
P(4 | G)	...	...	...	...	...	0.13	0.43	...	...	...	0.09
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.07	0.02	0.19	0.22	0.12	0.06	0.14	...	...	0.70	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.91
No. obs	15.0	63.0	109	72.0	41.0	16.0	7.00	...	...	132	11.0
P(G)	0.03	0.14	0.23	0.15	0.09	0.03	0.02	0.00	0.00	0.28	0.02

Eligible Control Transition Matrix, Girls Only
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.67	0.04	...	...	...	...	...	...	...	...	...
P(9 | G)	0.33	0.76	0.13	0.02	...	...	...	...	...	0.02	...
P(8 | G)	...	0.18	0.51	0.02	0.05	...	...	...	...	0.02	...
P(7 | G)	...	...	0.11	0.28	0.05	0.08	...	...	...	0.03	...
P(6 | G)	...	...	...	0.16	0.52	0.25	0.29	...	...	0.01	...
P(5 | G)	...	...	...	...	0.19	0.50	0.29	...	...	...	...
P(4 | G)	...	...	...	...	...	...	0.14	...	...	0.01	...
P(3 | G)	...	...	...	...	...	...	0.14	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.02	0.25	0.51	0.19	0.17	0.14	...	...	0.90	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	6.00	51.0	55.0	43.0	21.0	12.0	7.00	...	...	91.0	7.00
P(G)	0.02	0.17	0.19	0.15	0.07	0.04	0.02	0.00	0.00	0.31	0.02

Treatment-Control Differences, Girls Only
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	-.27	-.01	0.01	...	...	...	...	...	...	0.01	...
P(9 | G)	0.20	0.04	0.01	0.02	...	...	...	...	...	0.01	...
P(8 | G)	...	-.03	0.03	0.12	-.02	...	...	...	...	0.02	...
P(7 | G)	...	...	0.01	0.19	0.03	-.08	...	...	...	0.18	...
P(6 | G)	...	...	...	-.04	0.11	...	-.14	...	...	-.01	...
P(5 | G)	...	...	...	...	-.04	0.06	...	...	...	0.01	...
P(4 | G)	...	...	...	...	...	0.13	0.29	...	...	-.01	0.09
P(3 | G)	...	...	...	...	...	...	-.14	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.07	-.00	-.06	-.29	-.07	-.10	...	...	...	-.20	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	-.09
No. obs	21.0	114	164	115	62.0	28.0	14.0	...	...	223	18.0
	0.02	0.00	0.00	0.29	0.02						
p-value	0.50	0.95	0.86	0.01	0.87	0.47	0.67	.	.	0.01	0.41

Table A.3(i)
Eligible Treatment Transition Matrix, Girls Only
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	...	0.04	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.57	0.18	0.12	0.05	...	...	...	...	...	...	0.02	...
P(9 | G)	...	0.22	0.64	0.26	0.09	...	...	...	...	...	0.02	...
P(8 | G)	...	...	0.20	0.28	0.09	...	...	...	...	...	0.02	...
P(7 | G)	...	...	...	0.21	0.41	0.25	0.22	...	...	...	0.07	...
P(6 | G)	...	...	...	...	0.13	0.50	0.33	...	...	...	...	...
P(5 | G)	...	...	...	...	...	0.25	...	1.00	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.43	0.55	0.04	0.21	0.28	...	0.44	...	...	...	0.86	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	7.00	49.0	50.0	43.0	32.0	4.00	9.00	1.00	...	...	177	23.0
P(G)	0.02	0.13	0.13	0.11	0.08	0.01	0.02	0.00	0.00	0.00	0.46	0.06

Eligible Control Transition Matrix, Girls Only
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.33	0.09	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.50	0.17	0.10	...	...	...	...	...	...	...	0.03	...
P(9 | G)	...	0.31	0.77	0.15	...	...	...	...	...	...	0.03	...
P(8 | G)	...	...	0.10	0.31	0.10	...	...	...	...	...	...	...
P(7 | G)	...	...	...	0.04	0.25	0.11	...	...	...	...	0.08	...
P(6 | G)	...	...	...	...	0.05	0.33	...	...	...	...	0.02	...
P(5 | G)	...	...	...	...	...	0.11	0.20	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	0.50	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.17	0.43	0.03	0.50	0.60	0.44	0.80	0.50	1.00	...	0.84	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	6.00	35.0	30.0	26.0	20.0	9.00	5.00	2.00	1.00	...	116	7.00
P(G)	0.02	0.14	0.12	0.10	0.08	0.04	0.02	0.01	0.00	0.00	0.46	0.03

Treatment-Control Differences, Girls Only
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	-.33	-.04	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.07	0.01	0.02	0.05	...	...	...	...	...	...	-.01	...
P(9 | G)	...	-.09	-.13	0.10	0.09	...	...	...	...	...	-.01	...
P(8 | G)	...	...	0.10	-.03	-.01	...	...	...	...	...	0.02	...
P(7 | G)	...	...	...	0.17	0.16	0.14	0.22	...	...	...	-.00	...
P(6 | G)	...	...	...	...	0.08	0.17	0.33	...	...	...	-.02	...
P(5 | G)	...	...	...	...	...	0.14	-.20	1.00	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	-.50	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.26	0.12	0.01	-.29	-.32	-.44	-.36	-.50	-1.0	...	0.03	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	...
No. obs	13.0	84.0	80.0	69.0	52.0	13.0	14.0	3.00	1.00	...	293	30.0
p-value	0.21	0.58	0.64	0.05	0.16	0.44	0.15	0.22	1.00	.	0.32	1.00

Table A.4(a)
Eligible Treatment Transition Matrix, Boys Only
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.12	0.08	0.03
P(2 | G)	0.88	0.69	0.43
P(1 | G)	...	0.23	0.30
P(Drop | G)	...	0.00	...
P(NE | NE)	...	...	0.23
No. obs	115	430	60.0
P(G)	0.19	0.71	0.10

Eligible Control Transition Matrix, Boys Only
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	0.14	0.10	0.02
P(2 | G)	0.86	0.51	0.33
P(1 | G)	...	0.36	0.47
P(Drop | G)	...	0.02	...
P(NE | NE)	...	...	0.18
No. obs	56.0	245	45.0
P(G)	0.16	0.71	0.13

Treatment-Control Differences, Boys Only
Age 6 -> Age 7

	Grade (G)		
	2	**1**	**NE**
P(3 | G)	-.02	-.02	0.01
P(2 | G)	0.02	0.17	0.10
P(1 | G)	...	-.13	-.17
P(Drop | G)	...	-.02	...
P(NE | NE)	...	...	0.06
No. obs	171	675	105
p-value	0.70	0.00	0.38

Table A.4(b)
Eligible Treatment Transition Matrix, Boys Only
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.33	0.11	0.05	...	0.12
P(3 | G)	0.67	0.64	0.22	0.50	0.18
P(2 | G)	...	0.25	0.60	0.50	0.42
P(1 | G)	...	...	0.11	...	0.18
P(Drop | G)	...	0.01	0.02	...	...
P(NE | NE)	...	...	...	...	0.09
No. obs	55.0	378	124	8.00	33.0
P(G)	0.09	0.63	0.21	0.01	0.06

Eligible Control Transition Matrix, Boys Only
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.19	0.09	0.04	...	0.14
P(3 | G)	0.81	0.53	0.22	...	0.21
P(2 | G)	...	0.37	0.57	...	0.21
P(1 | G)	...	...	0.15	...	0.10
P(Drop | G)	...	0.01	0.01	...	...
P(NE | NE)	...	...	...	...	0.34
No. obs	36.0	255	91.0	...	29.0
P(G)	0.09	0.62	0.22	0.00	0.07

Treatment-Control Differences, Boys Only
Age 7 -> Age 8

	Grade (G)				
	3	**2**	**1**	**Drop**	**NE**
P(4 | G)	0.13	0.02	0.00	...	-.02
P(3 | G)	-.13	0.10	-.00	0.50	-.03
P(2 | G)	...	-.13	0.03	0.50	0.22
P(1 | G)	...	...	-.04	...	0.08
P(Drop | G)	...	-.00	0.01	...	...
P(NE | NE)	...	...	...	...	-.25
No. obs	91.0	633	215	8.00	62.0
p-value	0.17	0.01	0.92	1.00	0.10

Table A.4(c)
Eligible Treatment Transition Matrix, Boys Only
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.21	0.07	0.04	...	...	...
P(4 | G)	0.79	0.66	0.22	0.29	1.00	0.14
P(3 | G)	...	0.27	0.56	0.20	...	0.14
P(2 | G)	...	...	0.18	0.46	...	0.27
P(1 | G)	...	...	...	0.05	...	0.18
P(Drop | G)	...	0.00	0.00	...	...	...
P(NE | NE)	...	...	...	...	...	0.27
No. obs	57.0	314	251	41.0	5.00	22.0
P(G)	0.08	0.46	0.36	0.06	0.03	.

Eligible Control Transition Matrix, Boys Only
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.20	0.06	0.02	...	...	...
P(4 | G)	0.80	0.61	0.15	0.24	0.33	...
P(3 | G)	...	0.33	0.57	0.24	0.67	0.29
P(2 | G)	...	...	0.25	0.38	...	0.06
P(1 | G)	...	...	...	0.14	...	0.06
P(Drop | G)	...	...	0.01	...	...	...
P(NE | NE)	...	...	...	...	...	0.59
No. obs	30.0	153	138	21.0	3.00	17.0
P(G)	0.08	0.42	0.38	0.06	0.05	.

Treatment-Control Differences, Boys Only
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.01	0.01	0.01	...	...	...
P(4 | G)	-.01	0.05	0.07	0.05	0.67	0.14
P(3 | G)	...	-.07	-.00	-.04	-.67	-.16
P(2 | G)	...	...	-.07	0.08	...	0.21
P(1 | G)	...	...	...	-.09	...	0.12
P(Drop | G)	...	0.00	-.00	...	...	...
P(NE | NE)	...	...	...	...	...	-.32
No. obs	87.0	467	389	62.0	8.00	39.0
p-value	0.91	0.46	0.27	0.57	0.04	0.05

Table A.4(d)
Eligible Treatment Transition Matrix, Boys Only
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.30	0.07	0.03	...	...	...	...
P(5 | G)	0.70	0.69	0.19	0.16	...	0.58	...
P(4 | G)	...	0.24	0.63	0.22	0.50	0.17	0.36
P(3 | G)	...	...	0.15	0.43	...	0.17	0.09
P(2 | G)	...	...	...	0.16	0.50	...	0.09
P(1 | G)	...	...	...	...	...	...	...
P(Drop | G)	...	0.00	0.01	0.03	...	0.08	...
P(NE | NE)	...	...	...	...	...	...	0.45
No. obs	40.0	245	185	107	6.00	12.0	11.0
P(G)	0.07	0.40	0.31	0.18	0.01	0.02	0.02

Eligible Control Transition Matrix, Boys Only
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.15	0.06	0.02	...	...	...	...
P(5 | G)	0.85	0.61	0.16	0.10	...	0.33	...
P(4 | G)	...	0.33	0.56	0.21	0.08	0.33	...
P(3 | G)	...	...	0.25	0.52	0.23	0.33	0.17
P(2 | G)	...	...	...	0.16	0.46	...	0.17
P(1 | G)	...	...	...	...	0.15	...	0.17
P(Drop | G)	...	...	0.01	0.02	0.08	...	...
P(NE | NE)	...	...	...	...	...	...	0.50
No. obs	20.0	127	102	58.0	13.0	3.00	6.00
P(G)	0.06	0.39	0.31	0.18	0.04	0.01	0.02

Treatment-Control Differences, Boys Only
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.15	0.01	0.01	...	...	...	...
P(5 | G)	-.15	0.07	0.03	0.06	...	0.25	...
P(4 | G)	...	-.09	0.07	0.02	0.42	-.17	0.36
P(3 | G)	...	...	-.11	-.09	-.23	-.17	-.08
P(2 | G)	...	...	...	0.00	0.04	...	-.08
P(1 | G)	...	...	...	...	-.15	...	-.17
P(Drop | G)	...	0.00	-.00	0.01	-.08	0.08	...
P(NE | NE)	...	...	...	...	...	...	-.05
No. obs	60.0	372	287	165	19.0	15.0	17.0
p-value	0.21	0.31	0.22	0.79	0.18	0.75	0.35

Table A.4(e)
Eligible Treatment Transition Matrix, Boys Only
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	0.34	0.05	0.01	...	...	...	...	...
P(6 | G)	0.66	0.73	0.18	0.18	...	...	0.27	...
P(5 | G)	...	0.21	0.64	0.19	0.14	...	0.18	...
P(4 | G)	...	...	0.17	0.41	0.22	...	0.27	0.16
P(3 | G)	...	...	...	0.18	0.43	0.50	0.18	0.11
P(2 | G)	...	...	...	...	0.19	0.50	0.09	0.21
P(1 | G)	...	...	...	...	...	...	...	0.05
P(Drop | G)	...	0.01	0.00	0.03	0.03	...	...	...
P(NE | NE)	...	...	...	...	...	...	...	0.47
No. obs	44.0	226	206	98.0	37.0	2.00	11.0	19.0
P(G)	0.07	0.35	0.32	0.15	0.06	0.00	0.02	0.03

Eligible Control Transition Matrix, Boys Only
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	0.42	0.09	0.02	...	...	...	...	...
P(6 | G)	0.50	0.65	0.12	0.08	...	...	0.20	...
P(5 | G)	...	0.23	0.62	0.13	0.08	...	0.30	...
P(4 | G)	...	...	0.23	0.50	0.16	0.50	0.10	0.09
P(3 | G)	...	...	...	0.20	0.40	...	0.20	0.18
P(2 | G)	...	...	...	...	0.28	0.50	...	0.09
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	0.08	0.03	0.01	0.08	0.08	...	0.20	...
P(NE | NE)	...	...	...	...	...	...	...	0.64
No. obs	24.0	135	125	60.0	25.0	2.00	10.0	11.0
P(G)	0.06	0.34	0.32	0.15	0.06	0.01	0.03	0.03

Treatment-Control Differences, Boys Only
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	-.08	-.04	-.01	...	...	...	...	...
P(6 | G)	0.16	0.08	0.06	0.10	...	...	0.07	...
P(5 | G)	...	-.02	0.02	0.06	0.06	...	-.12	...
P(4 | G)	...	...	-.07	-.09	0.06	-.50	0.17	0.07
P(3 | G)	...	...	...	-.02	0.03	0.50	-.02	-.08
P(2 | G)	...	...	...	...	-.09	...	0.09	0.12
P(1 | G)	...	...	...	...	...	...	...	0.05
P(Drop | G)	-.08	-.02	-.00	-.05	-.05	...	-.20	...
P(NE | NE)	...	...	...	...	...	...	...	-.16
No. obs	68.0	361	331	158	62.0	4.00	21.0	30.0
p-value	0.10	0.16	0.30	0.19	0.72	0.37	0.50	0.72

Table A.4(f)
Eligible Treatment Transition Matrix, Boys Only
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.20	0.07	0.01	...	...	...	...	0.09	...
P(7 | G)	0.73	0.68	0.21	0.13	...	...	...	0.22	...
P(6 | G)	...	0.14	0.65	0.23	0.11	...	...	0.09	...
P(5 | G)	...	...	0.12	0.50	0.19	0.15	...	...	...
P(4 | G)	...	...	...	0.13	0.47	0.23	...	0.04	...
P(3 | G)	...	...	...	...	0.19	0.38	...	...	...
P(2 | G)	...	...	...	...	...	0.23	...	0.04	0.56
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.07	0.12	0.01	0.02	0.03	...	...	0.52	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.44
No. obs	30.0	161	191	109	36.0	13.0	...	23.0	9.00
P(G)	0.05	0.28	0.33	0.19	0.06	0.02	0.00	0.04	0.02

Eligible Control Transition Matrix, Boys Only
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.19	0.03	0.01	...	...	...	...	...	...
P(7 | G)	0.56	0.63	0.11	0.07	...	...	...	0.08	...
P(6 | G)	...	0.20	0.66	0.16	0.05	...	...	0.25	...
P(5 | G)	...	...	0.19	0.51	0.23	...	...	0.17	...
P(4 | G)	...	...	...	0.20	0.45	0.20	0.50	...	...
P(3 | G)	...	...	...	...	0.23	0.40	0.50	...	0.33
P(2 | G)	...	...	...	...	...	0.20	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.25	0.15	0.03	0.06	0.05	0.20	...	0.50	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.67
No. obs	16.0	112	101	69.0	22.0	5.00	2.00	12.0	6.00
P(G)	0.05	0.32	0.29	0.20	0.06	0.01	0.01	0.03	0.02

Treatment-Control Differences, Boys Only
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.01	0.04	-.00	...	...	...	...	0.09	...
P(7 | G)	0.17	0.05	0.11	0.06	...	...	...	0.13	...
P(6 | G)	...	-.06	-.01	0.07	0.07	...	...	-.16	...
P(5 | G)	...	...	-.07	-.01	-.03	0.15	...	-.17	...
P(4 | G)	...	...	...	-.07	0.02	0.03	-.50	0.04	...
P(3 | G)	...	...	...	...	-.03	-.02	-.50	...	-.33
P(2 | G)	...	...	...	...	...	0.03	...	0.04	0.56
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.18	-.03	-.02	-.04	-.02	-.20	...	0.02	...
P(NE | NE)	...	...	...	...	...	...	...	...	-.22
No. obs	46.0	273	292	178	58.0	18.0	2.00	35.0	15.0
p-value	0.21	0.21	0.09	0.22	0.92	0.49	1.00	0.22	0.04

Table A.4(g)
Eligible Treatment Transition Matrix, Boys Only
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	0.19	0.07	0.01	...	...	...	...	...	...	...
P(8 | G)	0.81	0.65	0.10	0.07	...	...	...	...	0.13	...
P(7 | G)	...	0.22	0.61	0.14	0.11	...	...	...	0.21	...
P(6 | G)	...	...	0.14	0.60	0.22	0.13	...	...	0.07	...
P(5 | G)	...	...	...	0.15	0.47	0.13	...	...	0.02	...
P(4 | G)	...	...	...	...	0.18	0.50	0.27	...	0.02	0.25
P(3 | G)	...	...	...	...	...	0.21	0.45	...	...	...
P(2 | G)	...	...	...	...	...	...	0.18	...	0.02	0.13
P(1 | G)	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	...	0.05	0.14	0.05	0.02	0.04	0.09	...	0.54	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.63
No. obs	21.0	129	154	103	45.0	24.0	11.0	...	56.0	8.00
P(G)	0.04	0.23	0.28	0.19	0.08	0.04	0.02	0.00	0.10	0.01

Eligible Control Transition Matrix, Boys Only
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	0.12	0.10	...	...	...	...	...	...	...	...
P(8 | G)	0.88	0.68	0.14	0.09	...	...	...	...	...	...
P(7 | G)	...	0.14	0.44	0.12	0.11	...	...	...	0.14	...
P(6 | G)	...	...	0.20	0.49	0.09	0.06	...	...	0.04	...
P(5 | G)	...	...	...	0.21	0.34	0.22	...	...	0.04	...
P(4 | G)	...	...	...	...	0.40	0.33	...	...	0.04	0.20
P(3 | G)	...	...	...	...	...	0.17	0.50	...	0.07	...
P(2 | G)	...	...	...	...	...	...	0.17	...	...	0.10
P(1 | G)	...	...	...	...	...	...	...	...	...	0.10
P(Drop | G)	...	0.08	0.23	0.09	0.06	0.22	0.33	1.00	0.68	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.60
No. obs	17.0	73.0	96.0	67.0	35.0	18.0	6.00	1.00	28.0	10.0
P(G)	0.05	0.21	0.27	0.19	0.10	0.05	0.02	0.00	0.08	0.03

Treatment-Control Differences, Boys Only
Age 12 -> Age 13

	Grade (G)									
	8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(9 | G)	0.07	-.03	0.01	...	...	...	...	...	...	...
P(8 | G)	-.07	-.03	-.04	-.02	...	...	...	...	0.13	...
P(7 | G)	...	0.09	0.17	0.02	-.00	...	...	...	0.07	...
P(6 | G)	...	...	-.06	0.11	0.14	0.07	...	...	0.04	...
P(5 | G)	...	...	...	-.06	0.12	-.10	...	...	-.02	...
P(4 | G)	...	...	...	...	-.22	0.17	0.27	...	-.02	0.05
P(3 | G)	...	...	...	...	...	0.04	-.05	...	-.07	...
P(2 | G)	...	...	...	...	...	...	0.02	...	0.02	0.03
P(1 | G)	...	...	...	...	...	...	...	...	...	-.10
P(Drop | G)	...	-.03	-.09	-.04	-.03	-.18	-.24	-1.0	-.14	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	0.03
No. obs	38.0	202	250	170	80.0	42.0	17.0	1.00	84.0	18.0
p-value	0.54	0.41	0.06	0.52	0.13	0.32	0.40	1.00	0.19	0.83

Table A.4(h)
Eligible Treatment Transition Matrix, Boys Only
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.32	0.08	0.03	...	...	...	...	...	...	0.01	...
P(9 | G)	0.63	0.75	0.18	0.11	...	...	...	...	...	0.07	...
P(8 | G)	...	0.14	0.54	0.14	0.16	...	...	...	...	0.04	...
P(7 | G)	...	...	0.16	0.47	0.07	0.10	...	...	...	0.18	...
P(6 | G)	...	...	...	0.10	0.56	0.15	0.31	...	...	0.02	...
P(5 | G)	...	...	...	...	0.09	0.30	0.15	0.20	...	0.04	...
P(4 | G)	...	...	...	...	...	0.20	0.38	0.20	...	...	0.12
P(3 | G)	...	...	...	...	...	...	0.08	0.20	...	0.01	0.06
P(2 | G)	...	...	...	...	...	...	...	0.40	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.05	0.02	0.09	0.18	0.12	0.25	0.08	...	...	0.63	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.82
No. obs	19.0	83.0	104	96.0	43.0	20.0	13.0	5.00	...	96.0	17.0
P(G)	0.04	0.17	0.21	0.19	0.09	0.04	0.03	0.01	0.00	0.19	0.03

Eligible Control Transition Matrix, Boys Only
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.09	0.07	...	...	...	...	...	...	...	...	...
P(9 | G)	0.73	0.61	0.13	0.08	...	...	...	...	...	...	...
P(8 | G)	...	0.23	0.62	0.12	0.08	...	...	...	...	0.08	...
P(7 | G)	...	...	0.04	0.27	0.08	0.15	...	...	...	0.06	...
P(6 | G)	...	...	...	0.06	0.50	0.20	...	...	...	0.08	...
P(5 | G)	...	...	...	...	0.22	0.35	0.50	...	...	0.02	...
P(4 | G)	...	...	...	...	...	...	0.50	0.33	...	0.02	0.33
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	0.67	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.18	0.09	0.21	0.47	0.11	0.30	...	...	...	0.74	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.67
No. obs	11.0	44.0	47.0	49.0	36.0	20.0	4.00	3.00	...	62.0	3.00
P(G)	0.04	0.16	0.17	0.18	0.13	0.07	0.01	0.01	0.00	0.22	0.01

Treatment-Control Differences, Boys Only
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.22	0.02	0.03	...	...	...	...	...	...	0.01	...
P(9 | G)	-.10	0.13	0.06	0.03	...	...	...	...	...	0.07	...
P(8 | G)	...	-.08	-.08	0.01	0.08	...	...	...	...	-.04	...
P(7 | G)	...	...	0.12	0.20	-.01	-.05	...	...	...	0.11	...
P(6 | G)	...	...	...	0.04	0.06	-.05	0.31	...	...	-.06	...
P(5 | G)	...	...	...	...	-.13	-.05	-.35	0.20	...	0.03	...
P(4 | G)	...	...	...	...	...	0.20	-.12	-.13	...	-.02	-.22
P(3 | G)	...	...	...	...	...	...	0.08	0.20	...	0.01	0.06
P(2 | G)	...	...	...	...	...	...	...	-.27	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.13	-.07	-.13	-.29	0.01	-.05	0.08	...	...	-.12	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	0.16
No. obs	30.0	127	151	145	79.0	40.0	17.0	8.00	...	158	20.0
	0.02	0.01	0.00	0.20	0.03						
p-value	0.25	0.20	0.04	0.01	0.51	0.34	0.48	0.66	.	0.04	0.59

Table A.4(i)
Eligible Treatment Transition Matrix, Boys Only
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	...	0.02	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.50	0.35	0.14	0.04	...	...	...	...	...	...	0.03	...
P(9 | G)	...	0.25	0.70	0.20	0.08	...	...	...	...	...	0.03	...
P(8 | G)	...	...	0.16	0.53	0.06	0.09	...	...	...	...	0.02	...
P(7 | G)	...	...	...	0.09	0.39	0.05	0.29	...	...	...	0.09	...
P(6 | G)	...	...	...	...	0.10	0.59	0.14	...	...	...	0.01	...
P(5 | G)	...	...	...	...	...	0.14	0.14	0.20	...	...	0.01	...
P(4 | G)	...	...	...	...	...	...	0.29	0.40	...	...	...	0.07
P(3 | G)	...	...	...	...	...	...	...	...	...	...	0.01	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.50	0.38	...	0.14	0.37	0.14	0.14	0.40	...	...	0.80	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.93
No. obs	8.00	60.0	80.0	70.0	51.0	22.0	7.00	5.00	...	...	166	15.0
P(G)	0.02	0.13	0.17	0.15	0.11	0.05	0.01	0.01	0.00	0.00	0.35	0.03

Eligible Control Transition Matrix, Boys Only
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.20	0.03	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.20	0.29	0.06	0.03	...	...	...	...	...	...	0.01	...
P(9 | G)	...	0.18	0.67	0.21	0.15	...	...	...	...	...	...	...
P(8 | G)	...	...	0.21	0.44	0.06	0.06	...	...	...	...	0.05	...
P(7 | G)	...	...	...	0.08	0.24	0.12	...	...	...	...	0.05	...
P(6 | G)	...	...	...	...	0.09	0.41	0.13	...	...	...	0.02	...
P(5 | G)	...	...	...	...	...	0.06	0.25	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	...	0.08
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	0.08
P(Drop | G)	0.60	0.50	0.06	0.26	0.45	0.35	0.63	...	...	...	0.88	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.85
No. obs	5.00	34.0	48.0	39.0	33.0	17.0	8.00	...	...	...	88.0	13.0
P(G)	0.02	0.12	0.17	0.14	0.12	0.06	0.03	0.00	0.00	0.00	0.31	0.05

Treatment-Control Differences, Boys Only
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	-.20	-.01	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.30	0.06	0.08	0.02	...	...	...	...	...	...	0.02	...
P(9 | G)	...	0.07	0.03	-.01	-.07	...	...	...	...	...	0.03	...
P(8 | G)	...	...	-.05	0.09	-.00	0.03	...	...	...	...	-.02	...
P(7 | G)	...	...	...	0.01	0.15	-.07	0.29	...	...	...	0.04	...
P(6 | G)	...	...	...	...	0.01	0.18	0.02	...	...	...	-.01	...
P(5 | G)	...	...	...	...	...	0.08	-.11	0.20	...	...	0.01	...
P(4 | G)	...	...	...	...	...	...	0.29	0.40	...	...	...	-.01
P(3 | G)	...	...	...	...	...	...	...	...	...	...	0.01	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	-.08
P(Drop | G)	-.10	-.12	-.06	-.11	-.08	-.22	-.48	0.40	...	...	-.07	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	0.09
No. obs	13.0	94.0	128	109	84.0	39.0	15.0	5.00	...	...	254	28.0
p-value	0.30	0.66	0.07	0.66	0.61	0.42	0.14	1.00	.	.	0.36	0.54

Table A.5(a)
Non-eligible Treatment Transition Matrix
Age 6 -> Age 7

	Grade (G) 2	1	NE
P(3 | G)	0.08	0.08	0.08
P(2 | G)	0.90	0.71	0.62
P(1 | G)	...	0.20	0.15
P(Drop | G)	0.01	0.01	...
P(NE | NE)	...	...	0.15
No. obs	71.0	268	26.0
P(G)	0.19	0.73	0.07

Non-eligible Control Transition Matrix
Age 6 -> Age 7

	Grade (G) 2	1	NE
P(3 | G)	0.20	0.10	0.06
P(2 | G)	0.80	0.66	0.38
P(1 | G)	...	0.24	0.31
P(Drop | G)	...	...	...
P(NE | NE)	...	...	0.25
No. obs	46.0	197	16.0
P(G)	0.18	0.76	0.06

Treatment-Control Differences
Age 6 -> Age 7

	Grade (G) 2	1	NE
P(3 | G)	-.11	-.02	0.01
P(2 | G)	0.10	0.05	0.24
P(1 | G)	...	-.04	-.16
P(Drop | G)	0.01	0.01	...
P(NE | NE)	...	...	-.10
No. obs	117	465	42.0
P(G)	0.19	0.75	0.07
p-value	0.16	0.34	0.43

Table A.5(b)
Non-eligible Treatment Transition Matrix
Age 7 -> Age 8

	Grade (G) 3	2	1	Drop	NE
P(4 | G)	0.29	0.11	0.05	0.50	0.09
P(3 | G)	0.68	0.67	0.25	0.50	0.45
P(2 | G)	...	0.20	0.61	...	0.18
P(1 | G)	...	...	0.08	...	...
P(Drop | G)	0.03	0.02	0.02	...	...
P(NE | NE)	...	...	...	...	0.27
No. obs	38.0	305	61.0	2.00	11.0
P(G)	0.09	0.73	0.15	0.00	0.03

Non-eligible Control Transition Matrix
Age 7 -> Age 8

	Grade (G) 3	2	1	Drop	NE
P(4 | G)	0.21	0.10	0.06	0.25	...
P(3 | G)	0.79	0.68	0.28	0.25	0.18
P(2 | G)	...	0.23	0.57	0.50	0.45
P(1 | G)	...	...	0.09	...	0.27
P(Drop | G)	...	...	...	...	...
P(NE | NE)	...	...	...	...	0.09
No. obs	52.0	176	53.0	4.00	11.0
P(G)	0.18	0.59	0.18	0.01	0.04

Treatment-Control Differences
Age 7 -> Age 8

	Grade (G) 3	2	1	Drop	NE
P(4 | G)	0.08	0.02	-.01	0.25	0.09
P(3 | G)	-.10	-.00	-.04	0.25	0.27
P(2 | G)	...	-.03	0.04	-.50	-.27
P(1 | G)	...	...	-.01	...	-.27
P(Drop | G)	0.03	0.02	0.02	...	...
P(NE | NE)	...	...	...	...	0.18
No. obs	90.0	481	114	6.00	22.0
P(G)	0.13	0.67	0.16	0.01	0.03
p-value	0.33	0.29	0.88	0.47	0.11

Table A.5(c)
Non-eligible Treatment Transition Matrix
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.25	0.08	0.03	...	...	...
P(4 | G)	0.69	0.75	0.27	0.10	1.00	0.14
P(3 | G)	...	0.16	0.61	0.25	...	0.43
P(2 | G)	...	...	0.07	0.50	...	0.14
P(1 | G)	...	...	...	0.05	...	0.14
P(Drop | G)	0.06	0.01	0.02	0.10	...	...
P(NE | NE)	...	...	...	...	...	0.14
No. obs	52.0	235	99.0	20.0	3.00	7.00
P(G)	0.13	0.56	0.24	0.05	0.02	.

Non-eligible Control Transition Matrix
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.21	0.07	0.01	...	...	...
P(4 | G)	0.79	0.70	0.15	...	0.50	...
P(3 | G)	...	0.23	0.73	0.40	...	...
P(2 | G)	...	...	0.10	0.60	...	0.33
P(1 | G)	...	...	...	...	...	...
P(Drop | G)	...	...	...	...	0.50	...
P(NE | NE)	...	...	...	...	...	0.67
No. obs	42.0	165	67.0	10.0	2.00	3.00
P(G)	0.15	0.57	0.23	0.03	0.01	.

Treatment-Control Differences
Age 8 -> Age 9

	Grade (G)					
	4	**3**	**2**	**1**	**Drop**	**NE**
P(5 | G)	0.04	0.01	0.02	...	...	...
P(4 | G)	-.09	0.05	0.12	0.10	0.50	0.14
P(3 | G)	...	-.07	-.13	-.15	...	0.43
P(2 | G)	...	...	-.03	-.10	...	-.19
P(1 | G)	...	...	...	0.05	...	0.14
P(Drop | G)	0.06	0.01	0.02	0.10	-.50	...
P(NE | NE)	...	...	...	...	...	-.52
No. obs	94.0	400	166	30.0	5.00	10.0
P(G)	0.13	0.57	0.24	0.04	0.01	.
p-value	0.24	0.23	0.20	0.54	0.17	0.35

Table A.5(d)
Non-eligible Treatment Transition Matrix
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.28	0.11	0.02	...	...	...	...
P(5 | G)	0.72	0.75	0.33	0.09	...	0.75	...
P(4 | G)	...	0.14	0.51	0.25	1.00	...	...
P(3 | G)	...	...	0.14	0.41	...	...	...
P(2 | G)	...	...	...	0.22	...	...	...
P(1 | G)	...	...	...	...	...	...	0.25
P(Drop | G)	...	...	...	0.03	...	0.25	...
P(NE | NE)	...	...	...	...	...	...	0.75
No. obs	47.0	223	120	32.0	2.00	4.00	4.00
P(G)	0.11	0.52	0.28	0.07	0.00	0.01	0.01

Non-eligible Control Transition Matrix
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	0.28	0.09	0.01	...	...	1.00	...
P(5 | G)	0.72	0.74	0.24	0.07	...	...	...
P(4 | G)	...	0.17	0.61	0.25	...	...	...
P(3 | G)	...	...	0.13	0.61	...	...	...
P(2 | G)	...	...	...	0.07	1.00	...	...
P(1 | G)	...	...	...	...	...	...	...
P(Drop | G)	...	...	...	...	...	...	...
P(NE | NE)	...	...	...	...	...	...	1.00
No. obs	47.0	162	83.0	28.0	1.00	1.00	1.00
P(G)	0.15	0.50	0.26	0.09	0.00	0.00	0.00

Treatment-Control Differences
Age 9 -> Age 10

	Grade (G)						
	5	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(6 | G)	...	0.02	0.00	...	...	-1.0	...
P(5 | G)	...	0.01	0.09	0.02	...	0.75	...
P(4 | G)	...	-.03	-.11	...	1.00	...	...
P(3 | G)	...	...	0.01	-.20	...	...	...
P(2 | G)	...	...	...	0.15	-1.0	...	...
P(1 | G)	...	...	...	...	...	...	0.25
P(Drop | G)	...	...	...	0.03	...	0.25	...
P(NE | NE)	...	...	...	...	...	...	-.25
No. obs	94.0	385	203	60.0	3.00	5.00	5.00
P(G)	0.12	0.51	0.27	0.08	0.00	0.01	0.01
p-value	1.00	0.62	0.47	0.36	0.08	0.08	0.58

Table A.5(e)
Non-eligible Treatment Transition Matrix
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	0.11	0.07	0.03	...	...	...	0.10	...
P(6 | G)	0.87	0.78	0.22	0.11	...	...	0.60	...
P(5 | G)	...	0.15	0.59	0.25	0.44	...	...	...
P(4 | G)	...	...	0.15	0.53	0.25	1.00	0.10	...
P(3 | G)	...	...	...	0.11	0.25	...	...	...
P(2 | G)	...	...	...	...	0.06	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	0.02	...	0.02	...	...	...	0.20	...
P(NE | NE)	...	...	...	...	...	...	...	1.00
No. obs	47.0	250	123	53.0	16.0	3.00	10.0	1.00
P(G)	0.09	0.50	0.24	0.11	0.03	0.01	0.02	0.00

Non-eligible Control Transition Matrix
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	0.08	0.08	0.03	...	...	...	...	...
P(6 | G)	0.84	0.73	0.20	0.10	...	...	0.67	...
P(5 | G)	...	0.18	0.58	0.12	0.11	...	...	...
P(4 | G)	...	...	0.18	0.59	...	...	...	...
P(3 | G)	...	...	...	0.20	0.56	1.00	...	...
P(2 | G)	...	...	...	...	0.33	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	0.08	0.01	0.02	...	...	...	0.33	...
P(NE | NE)	...	...	...	...	...	...	...	1.00
No. obs	37.0	158	102	41.0	9.00	1.00	3.00	1.00
P(G)	0.11	0.45	0.29	0.12	0.03	0.00	0.01	0.00

Treatment-Control Differences
Age 10 -> Age 11

	Grade (G)							
	6	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(7 | G)	0.03	-.01	0.00	...	...	...	0.10	...
P(6 | G)	0.03	0.06	0.02	0.02	...	...	-.07	...
P(5 | G)	...	-.03	0.01	0.12	0.33	...	...	...
P(4 | G)	...	...	-.03	-.06	0.25	1.00	0.10	...
P(3 | G)	...	...	...	-.08	-.31	-1.0	...	...
P(2 | G)	...	...	...	...	-.27	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...
P(Drop | G)	-.06	-.01	-.00	...	...	...	-.13	...
P(NE | NE)	...	...	...	...	...	...	...	...
No. obs	84.0	408	225	94.0	25.0	4.00	13.0	2.00
P(G)	0.10	0.48	0.26	0.11	0.03	0.00	0.02	0.00
p-value	0.42	0.23	0.97	0.38	0.04	0.05	0.85	1.00

Table A.5(f)
Non-eligible Treatment Transition Matrix
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.30	0.05	...	...	...	...	...	...	...
P(7 | G)	0.67	0.68	0.18	0.18	...	...	...	0.14	...
P(6 | G)	...	0.13	0.68	0.17	0.06	...	...	0.43	...
P(5 | G)	...	...	0.11	0.45	0.31	0.14	...	...	...
P(4 | G)	...	...	...	0.17	0.44	...	...	...	...
P(3 | G)	...	...	...	...	0.19	0.57	...	0.14	...
P(2 | G)	...	...	...	...	...	0.14	...	...	0.33
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.02	0.13	0.03	0.03	...	0.14	...	0.29	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.67
No. obs	46.0	225	146	66.0	16.0	7.00	...	7.00	3.00
P(G)	0.09	0.44	0.28	0.13	0.03	0.01	0.00	0.01	0.01

Non-eligible Control Transition Matrix
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.21	0.03	0.01	...	...	...	...	...	...
P(7 | G)	0.63	0.69	0.17	0.13	...	...	...	0.33	...
P(6 | G)	...	0.15	0.67	0.21	0.07	...	...	0.33	...
P(5 | G)	...	...	0.11	0.54	0.20	...	...	0.11	...
P(4 | G)	...	...	...	0.13	0.53	1.00	...	...	...
P(3 | G)	...	...	...	...	0.13	...	...	...	0.33
P(2 | G)	...	...	...	...	...	...	...	...	0.33
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.17	0.12	0.03	...	0.07	...	...	0.22	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.33
No. obs	24.0	137	98.0	24.0	15.0	1.00	...	9.00	3.00
P(G)	0.08	0.44	0.32	0.08	0.05	0.00	0.00	0.03	0.01

Treatment-Control Differences
Age 11 -> Age 12

	Grade (G)								
	7	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(8 | G)	0.10	0.02	-.01	...	...	...	...	...	...
P(7 | G)	0.05	-.01	0.00	0.06	...	...	...	-.19	...
P(6 | G)	...	-.02	0.01	-.04	-.00	...	...	0.10	...
P(5 | G)	...	...	-.00	-.09	0.11	0.14	...	-.11	...
P(4 | G)	...	...	...	0.04	-.10	-1.0	...	...	...
P(3 | G)	...	...	...	...	0.05	0.57	...	0.14	-.33
P(2 | G)	...	...	...	...	...	0.14	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.14	0.00	-.00	0.03	-.07	0.14	...	0.06	...
P(NE | NE)	...	...	...	...	...	...	...	...	0.33
No. obs	70.0	362	244	90.0	31.0	8.00	...	16.0	6.00
P(G)	0.08	0.44	0.30	0.11	0.04	0.01	0.00	0.02	0.01
p-value	0.07	0.71	0.82	0.79	0.78	0.09	.	0.59	0.51

Table A.5(h)
Non-eligible Treatment Transition Matrix
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.27	0.10	0.02	...	...	...	...	...	...	...	...
P(9 | G)	0.62	0.65	0.11	0.08	...	...	...	...	...	0.03	...
P(8 | G)	...	0.17	0.58	0.10	0.04	...	...	...	...	0.07	...
P(7 | G)	...	...	0.16	0.46	0.24	...	...	...	...	0.08	...
P(6 | G)	...	...	...	0.06	0.48	0.14	...	...	...	0.01	...
P(5 | G)	...	...	...	...	0.04	0.71	...	...	...	...	...
P(4 | G)	...	...	...	...	...	0.14	0.67	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	0.50	...	...	...
P(2 | G)	...	...	...	...	...	...	...	0.50	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.12	0.08	0.13	0.30	0.20	...	0.33	...	...	0.81	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	26.0	127	122	89.0	25.0	7.00	3.00	2.00	...	99.0	3.00
P(G)	0.05	0.25	0.24	0.18	0.05	0.01	0.01	0.00	0.00	0.20	0.01

Non-eligible Control Transition Matrix
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.24	0.08	0.01	...	...	...	...	...	...	0.01	...
P(9 | G)	0.64	0.72	0.17	0.05	...	...	...	...	...	0.01	...
P(8 | G)	...	0.19	0.51	0.05	...	...	...	...	...	0.07	...
P(7 | G)	...	...	0.14	0.47	0.10	0.33	...	...	...	0.10	...
P(6 | G)	...	...	...	0.12	0.70	...	...	...	...	...	...
P(5 | G)	...	...	...	...	0.05	...	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	1.00	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.12	0.01	0.17	0.31	0.15	0.67	...	...	...	0.81	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	25.0	95.0	71.0	59.0	20.0	3.00	2.00	...	...	83.0	4.00
P(G)	0.07	0.26	0.20	0.16	0.06	0.01	0.01	0.00	0.00	0.23	0.01

Treatment-Control Differences
Age 13 -> Age 14

	Grade (G)										
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(10 | G)	0.03	0.02	0.00	...	...	...	...	...	...	-.01	...
P(9 | G)	-.02	-.07	-.05	0.03	...	...	...	...	...	0.02	...
P(8 | G)	...	-.02	0.07	0.05	0.04	...	...	...	...	-.00	...
P(7 | G)	...	...	0.01	-.01	0.14	-.33	...	...	...	-.02	...
P(6 | G)	...	...	...	-.06	-.22	0.14	...	...	...	0.01	...
P(5 | G)	...	...	...	...	-.01	0.71	...	...	...	...	...
P(4 | G)	...	...	...	...	...	0.14	-.33	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	0.50	...	...	...
P(2 | G)	...	...	...	...	...	...	...	0.50	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.00	0.07	-.04	-.00	0.05	-.67	0.33	...	...	0.00	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...
No. obs	51.0	222	193	148	45.0	10.0	5.00	2.00	...	182	7.00
P(G)	0.06	0.26	0.22	0.17	0.05	0.01	0.01	0.00	0.00	0.21	0.01
p-value	0.97	0.12	0.74	0.52	0.54	0.04	0.36	1.00	.	0.72	1.00

Table A.5(i)
Non-eligible Treatment Transition Matrix
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.17	0.03	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.42	0.41	0.15	0.11	...	...	...	...	...	...	0.01	...
P(9 | G)	...	0.13	0.69	0.09	0.05	...	...	...	...	...	0.02	...
P(8 | G)	...	...	0.09	0.49	0.13	...	...	...	...	...	0.01	...
P(7 | G)	...	...	...	0.08	0.40	0.07	...	...	...	...	0.10	...
P(6 | G)	...	...	...	...	0.05	0.53	...	...	...	...	0.01	...
P(5 | G)	...	...	...	...	...	0.13	0.67	0.33	...	...	0.01	...
P(4 | G)	...	...	...	...	...	...	...	...	...	...	0.01	...
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.42	0.43	0.07	0.23	0.38	0.27	0.33	0.67	...	...	0.84	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	12.0	120	107	53.0	40.0	15.0	3.00	3.00	...	...	153	4.00
P(G)	0.02	0.24	0.21	0.11	0.08	0.03	0.01	0.01	0.00	0.00	0.31	0.01

Non-eligible Control Transition Matrix
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	0.22	0.06	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.33	0.31	0.09	0.07	...	...	...	...	...	...	0.05	...
P(9 | G)	...	0.17	0.72	0.11	0.08	...	...	...	...	...	0.01	...
P(8 | G)	...	...	0.11	0.39	0.16	...	...	...	...	...	0.04	...
P(7 | G)	...	...	...	0.07	0.24	...	...	...	...	...	0.06	...
P(6 | G)	...	...	...	...	0.12	0.50	0.17	...	...	...	...	...
P(5 | G)	...	...	...	...	...	0.17	0.33	...	...	...	...	...
P(4 | G)	...	...	...	...	...	...	0.17	...	...	...	...	...
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	0.44	0.46	0.07	0.36	0.40	0.33	0.33	...	...	...	0.85	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	1.00
No. obs	9.00	96.0	54.0	28.0	25.0	12.0	6.00	...	...	...	104	6.00
P(G)	0.03	0.29	0.16	0.08	0.08	0.04	0.02	0.00	0.00	0.00	0.31	0.02

Treatment-Control Differences
Age 14 -> Age 15

	Grade (G)											
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**Drop**	**NE**
P(11 | G)	-.06	-.03	...	...	...	...	...	...	...	...	...	...
P(10 | G)	0.08	0.10	0.06	0.04	...	...	...	...	...	...	-.04	...
P(9 | G)	...	-.03	-.03	-.01	-.03	...	...	...	...	...	0.01	...
P(8 | G)	...	...	-.02	0.10	-.04	...	...	...	...	...	-.03	...
P(7 | G)	...	...	...	0.00	0.16	0.07	...	...	...	...	0.04	...
P(6 | G)	...	...	...	...	-.07	0.03	-.17	...	...	...	0.01	...
P(5 | G)	...	...	...	...	...	-.03	0.33	0.33	...	...	0.01	...
P(4 | G)	...	...	...	...	...	...	-.17	...	...	...	0.01	...
P(3 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(2 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(1 | G)	...	...	...	...	...	...	...	...	...	...	...	...
P(Drop | G)	-.03	-.03	-.01	-.13	-.03	-.07	...	0.67	...	...	-.01	...
P(NE | NE)	...	...	...	...	...	...	...	...	...	...	...	...
No. obs	21.0	216	161	81.0	65.0	27.0	9.00	3.00	...	...	257	10.0
P(G)	0.03	0.26	0.19	0.10	0.08	0.03	0.01	0.00	0.00	0.00	0.31	0.01
p-value	0.91	0.41	0.78	0.76	0.64	0.81	0.68	1.00	.	.	0.32	1.00

Table B.1a

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 6

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	-0.09	0.30	-0.30	0.7662
female	0.13	0.14	0.92	0.3563
Fathers education >= 6 years	0.09	0.21	0.44	0.6591
Mothers education >= 6 years	0.46	0.23	1.96	0.0506
Fathers education >= 9 years	0.26	0.46	0.56	0.5781
Mothers education >= 9 years	-0.28	0.48	-0.59	0.5531
Fathers years education missing	-0.21	0.81	-0.26	0.7979
Mothers years education missing	-0.62	1.12	-0.55	0.5812
Father was enrolled in school	0.66	0.17	3.97	0.0001
Mother was enrolled in school	0.60	0.17	3.51	0.0004
Distance to Secondary School	0.01	0.09	0.11	0.9140
Distance to Secondary School Squared	-1.31	1.08	-1.22	0.2224
missing distance	.	.	.	.
indicator for state 12	0.83	0.28	2.99	0.0028
indicator for state 13	0.54	0.27	2.03	0.0423
indicator for state 16	0.48	0.26	1.86	0.0626
indicator for state 21	0.60	0.36	1.66	0.0977
indicator for state 22	1.09	0.32	3.44	0.0006
indicator for state 24	0.71	0.25	2.86	0.0043
indicator for state 30	0.27	0.15	1.72	0.0855
missing bathroom	13.47	2410.18	0.01	0.9955
house has more than one room	0.57	0.16	3.54	0.0004
missing number of rooms	13.74	1947.59	0.01	0.9944
house has running water	0.33	0.39	0.87	0.3866
missing information on water	0.24	0.17	1.39	0.1660
house has electricity	0.06	0.15	0.38	0.7068
missing electricity	-27.92	3098.72	-0.01	0.9928
fraction of children who work in locality	1.40	1.04	1.35	0.1756
missing work	.	.	.	.

Table B.1b

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 7

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	0.32	0.38	0.83	0.4059
female	-0.03	0.17	-0.18	0.8554
Fathers education >= 6 years	0.12	0.29	0.43	0.6661
Mothers education >= 6 years	-0.09	0.30	-0.30	0.7625
Fathers education >= 9 years	-0.60	0.47	-1.28	0.2006
Mothers education >= 9 years	-0.08	0.60	-0.14	0.8883
Fathers years education missing	14.34	2944.02	0.00	0.9961
Mothers years education missing	13.28	1335.16	0.01	0.9921
Father was enrolled in school	0.65	0.21	3.15	0.0016
Mother was enrolled in school	1.09	0.23	4.78	0.0000
Distance to Secondary School	0.00	0.11	0.02	0.9836
Distance to Secondary School Squared	0.86	1.60	0.54	0.5914
missing distance	.	.	.	.
indicator for state 12	1.13	0.34	3.35	0.0008
indicator for state 13	0.17	0.33	0.53	0.5962
indicator for state 16	1.25	0.35	3.60	0.0003
indicator for state 21	0.67	0.49	1.37	0.1714
indicator for state 22	1.12	0.36	3.08	0.0020
indicator for state 24	1.07	0.30	3.55	0.0004
indicator for state 30	0.41	0.20	2.07	0.0385
missing bathroom	15.17	2487.14	0.01	0.9951
house has more than one room	-0.11	0.20	-0.56	0.5779
missing number of rooms	-1.63	1.21	-1.35	0.1773
house has running water	-0.19	0.45	-0.43	0.6696
missing information on water	-0.34	0.23	-1.46	0.1443
house has electricity	0.62	0.19	3.28	0.0010
missing electricity	.	.	.	.
fraction of children who work in locality	1.81	1.26	1.44	0.1491
missing work	.	.	.	.

Table B.1c

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 8

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	1.07	0.43	2.48	0.0131
female	0.02	0.20	0.10	0.9215
Fathers education >= 6 years	0.94	0.45	2.09	0.0362
Mothers education >= 6 years	0.67	0.44	1.52	0.1295
Fathers education >= 9 years	-1.40	0.67	-2.08	0.0376
Mothers education >= 9 years	0.09	1.10	0.08	0.9376
Fathers years education missing	-1.03	1.09	-0.94	0.3449
Mothers years education missing	11.62	1714.36	0.01	0.9946
Father was enrolled in school	0.75	0.23	3.32	0.0009
Mother was enrolled in school	0.83	0.25	3.34	0.0008
Distance to Secondary School	0.11	0.13	0.90	0.3699
Distance to Secondary School Squared	-1.27	1.71	-0.74	0.4601
missing distance	.	.	.	.
indicator for state 12	0.60	0.38	1.56	0.1177
indicator for state 13	0.68	0.42	1.61	0.1075
indicator for state 16	0.63	0.39	1.59	0.1108
indicator for state 21	1.47	0.77	1.92	0.0554
indicator for state 22	0.36	0.39	0.92	0.3565
indicator for state 24	0.22	0.34	0.63	0.5299
indicator for state 30	0.51	0.23	2.20	0.0277
missing bathroom	13.33	1452.18	0.01	0.9927
house has more than one room	0.60	0.23	2.57	0.0101
missing number of rooms	11.04	3054.90	0.00	0.9971
house has running water	-0.53	0.50	-1.06	0.2893
missing information on water	-0.13	0.27	-0.48	0.6307
house has electricity	-0.09	0.22	-0.42	0.6728
missing electricity	-10.75	3924.17	-0.00	0.9978
fraction of children who work in locality	-0.05	1.41	-0.03	0.9741
missing work	-0.87	0.81	-1.08	0.2814

Table B.1d

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 9

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	0.93	0.47	1.98	0.0477
female	-0.36	0.22	-1.61	0.1064
Fathers education >= 6 years	0.04	0.42	0.11	0.9148
Mothers education >= 6 years	1.08	0.56	1.92	0.0543
Fathers education >= 9 years	-0.12	0.83	-0.14	0.8859
Mothers education >= 9 years	-0.57	1.16	-0.49	0.6222
Fathers years education missing	12.85	2265.85	0.01	0.9955
Mothers years education missing	12.18	1370.08	0.01	0.9929
Father was enrolled in school	0.59	0.26	2.26	0.0236
Mother was enrolled in school	1.06	0.28	3.74	0.0002
Distance to Secondary School	-0.00	0.13	-0.01	0.9881
Distance to Secondary School Squared	-0.08	1.66	-0.05	0.9593
missing distance	.	.	.	.
indicator for state 12	1.46	0.47	3.12	0.0018
indicator for state 13	0.43	0.41	1.05	0.2945
indicator for state 16	1.56	0.45	3.44	0.0006
indicator for state 21	1.49	0.78	1.92	0.0547
indicator for state 22	0.93	0.46	2.03	0.0423
indicator for state 24	0.78	0.38	2.09	0.0368
indicator for state 30	0.11	0.25	0.46	0.6480
missing bathroom	13.21	3206.00	0.00	0.9967
house has more than one room	-0.01	0.24	-0.03	0.9785
missing number of rooms	12.97	1524.60	0.01	0.9932
house has running water	0.22	0.58	0.37	0.7115
missing information on water	0.27	0.29	0.94	0.3465
house has electricity	0.42	0.24	1.76	0.0782
missing electricity	-12.22	4783.43	-0.00	0.9980
fraction of children who work in locality	0.02	1.52	0.01	0.9892
missing work	-0.32	1.19	-0.27	0.7891

Table B.1e

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 10

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	0.86	0.41	2.12	0.0340
female	-0.06	0.19	-0.32	0.7485
Fathers education >= 6 years	0.40	0.35	1.16	0.2460
Mothers education >= 6 years	0.68	0.43	1.58	0.1131
Fathers education >= 9 years	11.94	236.19	0.05	0.9597
Mothers education >= 9 years	-0.50	1.09	-0.46	0.6468
Fathers years education missing	12.46	1089.26	0.01	0.9909
Mothers years education missing	12.70	837.66	0.02	0.9879
Father was enrolled in school	0.18	0.21	0.85	0.3934
Mother was enrolled in school	0.72	0.22	3.22	0.0013
Distance to Secondary School	-0.03	0.12	-0.24	0.8122
Distance to Secondary School Squared	-0.35	1.52	-0.23	0.8152
missing distance	.	.	.	.
indicator for state 12	0.65	0.35	1.88	0.0605
indicator for state 13	0.91	0.42	2.18	0.0291
indicator for state 16	0.92	0.37	2.45	0.0144
indicator for state 21	1.83	0.76	2.40	0.0163
indicator for state 22	0.63	0.37	1.68	0.0928
indicator for state 24	0.41	0.32	1.30	0.1946
indicator for state 30	0.68	0.21	3.27	0.0011
missing bathroom	13.68	1975.94	0.01	0.9945
house has more than one room	0.49	0.21	2.34	0.0193
missing number of rooms	12.45	2802.65	0.00	0.9965
house has running water	-0.52	0.49	-1.06	0.2896
missing information on water	-0.01	0.25	-0.05	0.9583
house has electricity	0.46	0.20	2.27	0.0231
missing electricity	-11.96	4428.77	-0.00	0.9978
fraction of children who work in locality	0.45	1.33	0.34	0.7371
missing work	-0.89	1.20	-0.74	0.4588

Table B.1f

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 11

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	1.88	0.42	4.45	0.0000
female	0.21	0.17	1.17	0.2402
Fathers education >= 6 years	-0.31	0.25	-1.24	0.2159
Mothers education >= 6 years	0.25	0.33	0.75	0.4562
Fathers education >= 9 years	12.95	248.91	0.05	0.9585
Mothers education >= 9 years	-0.84	0.80	-1.05	0.2944
Fathers years education missing	13.40	691.26	0.02	0.9845
Mothers years education missing	12.54	910.04	0.01	0.9890
Father was enrolled in school	-0.09	0.21	-0.43	0.6699
Mother was enrolled in school	1.09	0.21	5.25	0.0000
Distance to Secondary School	-0.03	0.10	-0.33	0.7451
Distance to Secondary School Squared	-0.62	1.27	-0.49	0.6260
missing distance	.	.	.	.
indicator for state 12	0.69	0.41	1.70	0.0899
indicator for state 13	0.11	0.36	0.30	0.7673
indicator for state 16	0.33	0.32	1.02	0.3079
indicator for state 21	0.09	0.46	0.19	0.8516
indicator for state 22	0.74	0.43	1.73	0.0840
indicator for state 24	0.03	0.31	0.09	0.9269
indicator for state 30	0.31	0.19	1.62	0.1042
missing bathroom	-1.02	1.25	-0.82	0.4128
house has more than one room	0.21	0.19	1.12	0.2646
missing number of rooms	14.38	1759.85	0.01	0.9935
house has running water	0.04	0.45	0.09	0.9299
missing information on water	0.04	0.23	0.19	0.8475
house has electricity	0.21	0.19	1.10	0.2713
missing electricity	0.69	2491.86	0.00	0.9998
fraction of children who work in locality	-3.51	1.21	-2.90	0.0037
missing work	12.53	1611.67	0.01	0.9938

Table B.1g

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 12

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	1.03	0.31	3.32	0.0009
female	0.54	0.12	4.53	0.0000
Fathers education >= 6 years	0.18	0.18	0.95	0.3429
Mothers education >= 6 years	0.28	0.20	1.40	0.1629
Fathers education >= 9 years	-0.23	0.44	-0.51	0.6109
Mothers education >= 9 years	0.03	0.60	0.05	0.9569
Fathers years education missing	13.89	946.96	0.01	0.9883
Mothers years education missing	-0.18	1.15	-0.15	0.8786
Father was enrolled in school	0.33	0.14	2.29	0.0220
Mother was enrolled in school	0.17	0.14	1.24	0.2163
Distance to Secondary School	-0.15	0.08	-1.98	0.0472
Distance to Secondary School Squared	0.67	1.00	0.67	0.5000
missing distance	.	.	.	.
indicator for state 12	0.37	0.28	1.34	0.1799
indicator for state 13	0.05	0.26	0.19	0.8486
indicator for state 16	-0.08	0.24	-0.34	0.7322
indicator for state 21	0.25	0.34	0.74	0.4600
indicator for state 22	0.41	0.27	1.52	0.1276
indicator for state 24	0.36	0.25	1.41	0.1577
indicator for state 30	0.35	0.13	2.66	0.0077
missing bathroom	12.57	1660.22	0.01	0.9940
house has more than one room	-0.04	0.13	-0.35	0.7292
missing number of rooms	-16.67	3035.10	-0.01	0.9956
house has running water	0.08	0.29	0.28	0.7783
missing information on water	-0.06	0.15	-0.40	0.6900
house has electricity	0.17	0.14	1.23	0.2204
missing electricity	17.91	3837.25	0.00	0.9963
fraction of children who work in locality	-2.39	0.85	-2.79	0.0052
missing work	-0.50	1.10	-0.46	0.6484

Table B.1h

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 13

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	0.97	0.28	3.51	0.0004
female	0.50	0.11	4.70	0.0000
Fathers education >= 6 years	0.25	0.17	1.53	0.1257
Mothers education >= 6 years	0.24	0.18	1.32	0.1871
Fathers education >= 9 years	-0.02	0.43	-0.05	0.9635
Mothers education >= 9 years	0.03	0.49	0.05	0.9577
Fathers years education missing	-0.15	0.92	-0.17	0.8680
Mothers years education missing	-1.01	0.98	-1.03	0.3037
Father was enrolled in school	0.22	0.13	1.72	0.0850
Mother was enrolled in school	0.09	0.12	0.77	0.4387
Distance to Secondary School	-0.17	0.07	-2.57	0.0103
Distance to Secondary School Squared	1.02	0.87	1.18	0.2386
missing distance	.	.	.	.
indicator for state 12	-0.30	0.23	-1.30	0.1944
indicator for state 13	-0.38	0.23	-1.69	0.0919
indicator for state 16	-0.09	0.22	-0.39	0.6930
indicator for state 21	-0.28	0.31	-0.93	0.3525
indicator for state 22	-0.14	0.24	-0.58	0.5628
indicator for state 24	-0.05	0.22	-0.24	0.8140
indicator for state 30	0.24	0.12	2.05	0.0404
missing bathroom	-1.54	1.25	-1.23	0.2189
house has more than one room	0.24	0.11	2.15	0.0317
missing number of rooms	17.67	3676.40	0.00	0.9962
house has running water	0.07	0.25	0.30	0.7668
missing information on water	-0.02	0.13	-0.17	0.8668
house has electricity	0.19	0.12	1.55	0.1219
missing electricity	.	.	.	.
fraction of children who work in locality	-4.28	0.79	-5.40	0.0000
missing work	-1.41	0.85	-1.67	0.0951

Table B.1i

Estimated Coefficients from Logit*
Response Variable: D=1 if Enrolled in School, 0 if not Enrolled
Control Group Eligible Children Age 14

Variable	Coeff	Std Error	T-stat	Prob>|T|
intercept	0.18	0.28	0.64	0.5229
female	0.42	0.10	4.06	0.0000
Fathers education >= 6 years	0.23	0.16	1.47	0.1406
Mothers education >= 6 years	0.45	0.17	2.58	0.0099
Fathers education >= 9 years	0.31	0.43	0.70	0.4811
Mothers education >= 9 years	0.31	0.57	0.55	0.5824
Fathers years education missing	0.13	0.89	0.14	0.8863
Mothers years education missing	-0.80	0.91	-0.89	0.3752
Father was enrolled in school	0.15	0.13	1.14	0.2537
Mother was enrolled in school	0.34	0.12	2.72	0.0066
Distance to Secondary School	-0.18	0.06	-2.89	0.0039
Distance to Secondary School Squared	0.40	0.86	0.46	0.6471
missing distance	.	.	.	.
indicator for state 12	-0.07	0.24	-0.28	0.7759
indicator for state 13	-0.80	0.23	-3.41	0.0007
indicator for state 16	-0.71	0.22	-3.18	0.0015
indicator for state 21	-0.35	0.31	-1.15	0.2497
indicator for state 22	-0.60	0.23	-2.57	0.0103
indicator for state 24	0.04	0.22	0.19	0.8505
indicator for state 30	0.38	0.11	3.34	0.0008
missing bathroom	16.71	1871.55	0.01	0.9929
house has more than one room	0.25	0.11	2.25	0.0245
missing number of rooms	.	.	.	.
house has running water	0.40	0.27	1.49	0.1371
missing information on water	0.22	0.13	1.72	0.0859
house has electricity	0.16	0.12	1.36	0.1752
missing electricity	.	.	.	.
fraction of children who work in locality	-3.99	0.82	-4.84	0.0000
missing work	15.39	2354.81	0.01	0.9948