Leveraging the Private Sector to Improve Primary School Enrolment: Evidence from a Randomized Controlled Trial in Pakistan [1]

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[PRELIMINARY AND INCOMPLETE — DO NOT DISTRIBUTE]

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Abstract:
We evaluate the effects of publicly funded private primary schools on child enrollment in a sample of 199 villages in 10 underserved districts of rural Sindh province, Pakistan. The program is found to significantly increase child enrollment, which increases by 30 percentage points in treated villages. There is no overall differential effect of the intervention for boys and girls, due to similar enrollment rates in control villages. We find no evidence that providing greater financial incentives to entrepreneurs for the recruitment of girls leads to a greater increase in female enrollment than does an equal compensation scheme for boys and girls. Test scores improve dramatically in treatment villages, rising by 0.67 standard deviations relative to control villages.

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I. Introduction

The promotion of universal primary education is an important policy priority, as reflected in such initiatives as the Millennium Development Goals and the Education for All movement. Considerable progress has been made in recent years in raising primary education levels; nonetheless, low enrollment levels persist in regions such as Sub-Saharan Africa, West and Southwestern Asia, and South Asia (Hausmann *et al.*, 2012). Finding viable strategies for increasing educational attainment is of paramount importance to donors and policy-makers. Our research explores the feasibility of low-cost public-private partnerships for extending educational opportunity to marginal, underserved communities in developing countries.

A central challenge in this final push for universal enrollment is the inequality in educational opportunity between boys and girls. It is estimated that women constitute two-thirds of the world's illiterate adults and 54% of un-enrolled school-age children (UNESCO, 2010). A separate but related issue is the rural-urban divide in educational opportunity: within developing countries, enrollment rates in rural areas tend to lag those in urban locations (UN, 2008a), with the gender disparity in enrollment being driven primarily by inequalities in rural areas (UN, 2008b).

Both supply and demand considerations have been invoked to explain low levels of primary enrollment. Though some research has found school access to be a negligible factor in explaining low enrollment rates, arguing for the importance of demand-side factors,[2] a substantial literature has found access to be highly important, and often

[2] Filmer (2007), for example, examines the relationship between enrollment and availability using Demographic and Health Surveys (DHS) data from 21 countries; the design is primarily cross-sectional, and controls for endogeneity concerns through the inclusion of possibly confounding socio-economic

entirely decisive, for enrollment.[3] Gender disparities in enrollment are often attributed to a lower parental demand for female-child education. However, both demand and supply factors have been found to play a significant role, with girls having important economic responsibilities within the household, or facing additional physical insecurities in transiting to-and-from school.[4]

The intervention we evaluate entailed the provision of schools through public-private partnerships to 161 villages randomly chosen from a sample of 199 qualifying locales. Private entrepreneurs were given the responsibility of establishing and operating primary schools, to which all local children between the ages of 5 and 9 were eligible for free enrollment, with the entrepreneurs receiving a per-child subsidy from the Sindh provincial government. In addition, in half of the treatment villages the subsidy scheme

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variables, as well as through the use of a partial panel component. The author finds little evidence that school access is important to enrollment rates.

[3] Duflo (2001) and Foster and Rosenzweig (1996) are two early papers showing the importance of school availability for enrollment, in Indonesia and India, respectively. More recently, Burde and Linden (2013), using an RCT design in rural Afghanistan, find positive effects of the presence of community-based schools, with villages receiving schools showing a 52 percentage point increase in enrollment for girls, and a 35 percentage points increase for boys, entirely removing the pre-existing gender gap. Kazianga, *et al.* (2013) evaluate the enrollment effects of the BRIGHT program in Burkina Faso, which consisted of constructing primary schools and implementing a set of complementary interventions designed to increase girls' enrollment rates in villages where initial female enrollment was low. The authors find that school enrollment increased by 17.6 percentage points for boys and 22.2 percentage points for girls.

[4] With girls playing a larger role in domestic work than boys, the opportunity cost of female enrollment is higher than that of males, potentially contributing to educational disparities. Consistent with this, Glick and Sahn (2000) find that domestic responsibilities, represented by the number of very young siblings, have a strongly adverse effect on girls' enrollment but not on boys'. Similarly, Pitt and Rosenzweig (1990) find that daughters are more likely to increase their time in household work relative to school than their brothers in response to a younger sibling's illness. Females may be deemed more at risk of physical harm than males, thereby posing either a psychological cost for parents of allowing their daughters to walk long distances, or a pecuniary cost if this induces parents to pay for transportation. Consistent with this, several papers find that the distance to school appears to be a more significant deterrent to girls' enrollment than boys' (Alderman, et al., 2001; Lloyd, et al., 2005; Burde and Linden, 2013).

was structured such that entrepreneurs received a higher subsidy for girls than boys. The introduction of program schools leads to large gains in enrollment: overall, treatment villages experience a 30 percentage points increase in enrollment for children within the target age group, and a 12 percentage points increase in enrollment for older children. Test scores increase by 0.67 standard deviations in treatment villages, and by 2.01 standard deviations for children induced to enroll by the introduction of program schools. These effects are the same for boys and girls. The subsidy providing enhanced compensation for girls shows no greater effectiveness in inducing female enrollment than the equal-valued subsidy. In comparison to control villages, parents in treatment villages prefer more that their boys have future careers as doctors and engineers, rather than as security personnel; and that their girls become doctors, engineers, or teachers, rather than housewives.

II. Pakistan and the PPRS Program

A. Education in Pakistan

School participation is low in Pakistan, even in comparison with countries having a similar level of economic development (Andrabi *et al.*, 2008).[5] Nationwide, the primary school net enrollment rate[6] for children ages 5-9 is 56%: 60% for males and 51% for females. These national averages subsume large regional disparities: in the poorer, more rural provinces, net enrollment rates are lower for both sexes, and gender disparities higher. In the rural areas of Sindh province, for example, where the program was

[5] Using a simple regression of the net-enrollment rate on log per-capita income and its square for 138 countries, the authors show that the Pakistan's predicted net-enrollment rate is 77%, but its actual rate only 51%.

[6] Net enrollment is defined as the number of children aged 5 to 9 years attending primary level divided by the number of children aged 5 to 9.

implemented, only 49% of males and 31% of females between the ages of 5 and 9 are enrolled in primary school (PSLM 2007).

An important development in recent years has been the rapid expansion of for-profit private education in Pakistan, with 35% of all primary-enrolled children attending private schools in 2000 (Andrabi *et al.*, 2008). The high level of private-school enrollment is a relatively recent phenomenon: private schools were once the preserve of the elite; in the last two decades, however, private-school education has become widely accessible even to those on the lower rungs of the socio-economic ladder. The cause of this change has been a dramatic expansion in the availability of low-cost private schools in poor urban neighborhoods and remote rural villages. These schools have succeeded along dimensions of both cost and quality: at an average $18 per year in villages, the cost represents a small fraction of household income (Andrabi *et al.*, 2008);[7] while student achievement levels have been better than in government schools, even controlling for village and household characteristics (Das *et al.*, 2006).

There exist large disparities, however, in the prevalence of private schooling across the provinces of Pakistan. In villages with private schools in Punjab province, 23% of children enrolled in primary school were in private schools, while only 11% of those in villages lacking private schools were so enrolled. In Sindh province, in contrast, the private enrollment rates were 5% and 2%, respectively.

B. PPRS Description

[7] The cost-effectiveness of these schools is attributable largely to their ability to recruit local women as teachers, to whom significantly lower wages can be paid due to the scarcity of alternative employment options in rural areas.

The intervention was implemented by the Sindh Education Foundation (SEF), a quasi-governmental agency of the Sindh provincial government. SEF was established in 1992 as a semi-autonomous organization to undertake education initiatives in less-developed areas, and among marginalized populations within Sindh province; and empowered to adopt non-conventional strategies in pursuit of this objective. Pursuant to this mandate, the SEF has undertaken a variety of programs, such as: supporting local communities in establishing and managing small schools, providing assistance to pre-existing low-cost private schools, enlisting the private sector for management of dysfunctional public schools, and promoting non-formal adult education.

The Promoting Low-Cost Private Schooling in Rural Sindh (PPRS) program, evaluated in this paper, is a notable example of the SEF's innovate innovative approach to extending educational access. Leveraging the fore-mentioned advantages of private education, the program seeks to expand access to primary education in underserved rural communities through public-private partnerships with local entrepreneurs. In addition, through the submission of applications for villages they have identified as plausibly meeting the necessary criteria, the local entrepreneurs involved in the program play an important role in identifying the villages most in need of educational facilities.

Those private entrepreneurs selected through the vetting and randomization processes are granted a per-student cash subsidy to operate co-educational primary schools, as well as additional, non-monetary assistance to improve the quality of the education provided. Enrollment is tuition-free and open to all children in the village between the ages of 5 and 9 (extending by a year with additional cohorts), with the entrepreneur receiving directly an enrollment-based subsidy from the SEF, which is verified through surprise

inspections.[8] In addition, to explore strategies for reducing the gender-gap, two different subsidy schemes were introduced. In the first, the entrepreneur is provided a monthly subsidy of 350 rupees (USD 4.7) for each child enrolled; while, in the second, the entrepreneur receives the same 350 rupees for each male student and 450 rupees for each female. These two schemes are termed the "Gender-Uniform subsidy" and "Gender-Differentiated subsidy" schemes, respectively.

By assigning local entrepreneurs responsibility for operating these schools, coupled with appropriate incentives and oversight from the government, the PPRS program seeks to take advantage of the local knowledge and underutilized resources within these communities to provide viable, appropriate, and affordable education in these remote, and previously neglected, areas. In addition, it is hoped that the gender-differentiated subsidy scheme, by providing a higher remuneration for girls relative to boy, will encourage the school operators to take specific measures that will be attractive to the parents of girls, such as hiring female teachers, providing safe transportation and a safe schooling environment, or even offering small stipends to girls.

III. Methodology

A. Research Design

The program was first implemented on a pilot basis in 10 districts of Sindh province. These districts were chosen to participate due to their being the most deprived in terms of educational resources.[9] Interested entrepreneurs were asked to apply to the program by

[8] SEF determines the number of students using both school enrollment reports and surprise inspections.

[9] Based on rankings determined by several indicators of educational deprivation – including the size of the out-of-school child population, the initial gender disparities in school

submitting proposals to set up and operate primary schools in rural communities within these districts. These proposals were vetted according to several criteria: sufficient distance to the nearest school;[10] written assent from the parents of at least 75 children who would enroll their children in the program schools should they be established; and identification of qualified teachers, with at least two being female,[11] and an adequate facility in which to hold classes. A total of 263 localities were deemed eligible, from which 200 were randomly selected to receive treatment. The 200 treatment villages were further subdivided equally by subsidy type.

A baseline survey was conducted in February 2009, for the purpose of vetting applications for final consideration. Following this, the 263 qualifying villages were randomly assigned to the two treatments and the control group, and the schools then established in the summer of 2009. Because the new school term normally commences in the spring, the students received an abbreviated term in their first year. An initial follow-up survey was conducted in June 2010.[12] In April/May 2011, a second follow-up survey was conducted, which was significantly more extensive in scope than the first.[13]

Table 1 summarizes the sample sizes across the three surveys, disaggregated by treatment status. There were 199 villages included in our sample, with 82 and 79 in

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participation, and the share of households at least 15 minutes away from the nearest primary school – the 10 lowest ranked districts were selected for participation.

[10] There could be no primary school within a 1.5 kilometers radius of the proposed school site. However, due to problems with the baseline survey, a number of villages were included that failed this criterion.

[11] The teachers were required to have, at minimum, an 8th grade education. This was set at a sufficiently high level that the teachers would have competence in primary education-level subjects, but low enough that qualified local women could be found.

[12] This consisted of a complete census of the villages. Because it occurred a year after commencement of the project, we employ the data collected as a follow-up survey.

[13] This survey was initially scheduled to commence just after the census. However, due to the widespread flooding occurring during in late-summer 2010, it was necessarily postponed.

treatment groups 1 and 2, respectively, and 38 in the control group.[14] The baseline data from these 199 villages included 2033 randomly selected households and 5556 children.[15] In these villages there were 8639 households with children between the ages of 5 and 15, and 25157 children within this age group, as determined during the first follow-up survey, which consisted of a complete census of each village. From each village up to 42 households were randomly selected for inclusion in the second follow-up survey; for villages with fewer than 42 households, which comprised the majority, all willing households were included in the second follow-up.[16] In total, 17721 children between the ages of 5 and 17 were included in the follow-up survey.[17]

B. Data

In the baseline survey, basic child and household information was collected for 12 randomly selected households in each village.[18] Among the details record were: age, gender, and enrollment status of all children between the ages of 5 and 9; the profession and education of the household head; and the number of individuals within the household. Data was also collected on teachers and building facilities proposed by the entrepreneur, as well as the availability of proximate primary schools.

[14] There were 237 villages for which data was collected in the baseline. An additional 38 villages were removed from the sample at the time of census due to their being too large to be considered villages.
[15] The method by which the baseline data was the "spin-the-bottle" technique, whereby 12 households were chosen based on their being along a straight line determined by a bottle spun in the center of the village. Though this is the approach adopted by many development organizations, it falls short of representing a truly randomly drawn sample, and as such the results must be used with caution. However, insofar as the technique was employed consistently across treatment groups, the populations should still be roughly balanced if the randomization has been successful.
[16] Only households with at least one child between the ages of 5 and 9 at the time of the first follow-up were included in the sample.
[17] During the second follow-up survey, the age range of children was extended to 17. The reason for this change was two-fold: (1) to ensure coverage of children who were included in the first follow-up, but may have aged out of the 5-15 range by the time of the second follow-up; and (2) because the age requirement was difficult to enforce, meaning older children were often enrolled in the program schools.
[18] The method of randomization was the "spin-the-bottle" technique.

In the first follow-up survey, information was collected for all households in the villages. Information was collected on the age, gender, and enrollment status of all children between the ages of 5 and 15. The caste, profession, and education of the household head were collected, as well as the number of adults, the amount of land owned by the household, and the building material of the family's house.

The second follow-up survey consisted of three elements: (1) a household survey, which included socio-economic questions on the household, a detailed module on child characteristics, parental preferences over various dimensions of the education of each young child, and questions on the characteristics of the schools in the village; (2) a school survey; and (3) a child survey, which included numeracy and literacy exams of 24 and 14 questions, respectively.

The household survey had three principal components. First, household-level characteristics were collected, covering details such as: the household head's profession and level of education; ownership of land, livestock, and other assets; income (both monetary and in-kind) and remittances; and attitude towards religion and social issues. Second, the respondent was asked the characteristics of every child in the house, covering items such as: age, gender, marital status, work within and outside the household, enrollment, and study habits. In addition, the respondent was asked their personal preference over the education of each child: for example, how important it is that the specified child receive instruction in topics such as mathematics and English, or that their teacher be female. Lastly, there was a school module, in which the respondent was asked to describe the characteristics of each school near to the village, and to rank them according to these characteristics.

The child survey was administered to each child between the ages of 5 and 10. A few basic questions were asked of the child regarding types of work done inside and outside the home, enrollment status, and their desired adulthood professions. Each child was then administered a language exam, consisting of 14 questions, and a math exam, with 24 questions.

The third element was the school survey. The headmaster provided information on various school characteristics such as: the number of years the school had been operational, its daily schedule, and the medium instruction; the overall characteristics of teachers at the school, including the number that are female, their educational qualification, and years of experience; and class sizes, tuition, and other fees. Through visual inspection, the enumerators established the physical characteristics of each school, covering the number of classrooms, desks, electrification, drinking water, and toilet facilities. In addition, each teacher was individually interviewed, with information being gathered on their age, teaching experience, educational qualifications, and salary; as well as the number of hours spent each week on different teaching activities, such as teaching small groups and individuals, administering exams, and enforcing discipline. Finally, attendance was taken of each class, with the attendance lists to be used during conduct of the household survey to verify child enrollment.

C. Statistical Models

The principal outcomes of interest are child enrollment and educational achievement, as measured by the numeracy and literacy exams. The principal explanatory variable is the

treatment status of the village. We will be also be interested in determining differential effects of the two treatment groups, across boys and girls.

The baseline model used in the analysis is:

$$Y_i = \beta_0 + \beta_1 T_i + \beta_2 X_i + \varepsilon_{ij}, \quad (1)$$

where Y_i is the outcome of interest for child i, T_i is a dummy variable indicating whether child i lives in a village assigned a PPRS school, and X_i is a vector of socio-demographic controls. Standard errors are clustered at the village level, j. In alternative specifications, we disaggregate the two treatments, and include interactions of the treatment with the female dummy.

IV. Internal Validity and Treatment Differential

A. Internal Validity

The validity of our results depends upon the comparability of populations across treatment and control groups. Because the villages were randomly selected, treatment should be orthogonal to household and child characteristics that might be correlated with the outcomes of interest. Insofar as this holds, it will be sufficient to compare outcomes across groups to evaluate the effect of the intervention. To assess the comparability of villages, we tabulate household and child characteristics across the treatment and control for the baseline and two follow-up surveys.

Table 2 gives the tabulation for the baseline and two follow-up surveys. Columns (1), (3), and (5) gives the mean values of the indicated variable in control villages, while columns (2), (4), and (6) gives the treatment differential, as identified from a regression of the variable on a pooled treatment dummy. Columns (1)-(2) use the baseline survey,

and columns (4)-(8) the two follow-up surveys. The differences across survey groups are quite small: the only apparent imbalance is in the percentage of children who are girls, with each of the three surveys showing a slightly higher percentage of girls than boys in treatment villages (4.1, 3.8, and 2.7 ppts for the baseline and two follow-up surveys, respectively). In appendix table A1, we provide the same tabulation, showing the balance across the two treatment groups. The differences are again quite small: the only apparent imbalance here is a smaller average household size in the Differentiated-subsidy villages (-0.798 members), though this difference is found only in the first follow-up survey.

In sum, the research design appears to have successfully randomized the sample, so that treatment status is orthogonal to village characteristics that one would be concerned might be correlated with the outcomes of interest.

B. Treatment Differential

We first assess the characteristics of the program schools, and compare them to government and private schools. To do this, we make use of the school surveys conducted during the second follow-up survey, in which information was gathered on a variety of school and teacher characteristics, using both visual inspection by enumerators, as well as interviews with headmasters and individual teachers.

Table 3 shows differences according to school type. Columns (1) and (4) provide mean levels of the indicated variables for PPRS schools, with the level of observation being the child-school. Columns (2) and (5) present the PPRS-government school differentials according to the same characteristics, with the differences estimated from a regression of the indicated variable on a dummy for program schools. Columns (3) and

(6) repeat the exercise, now giving the differences between PPRS and private schools. PPRS schools are open 0.764 more days per week than government schools, indicating that they are generally open 6 days per week. Program schools are also more likely to use English as the medium of instruction (31.3 ppts), and less likely to use Sindhi (-37.4 ppts). The quality of physical infrastructure is also higher in program than government schools, with more having an adequate number of desks (20.3 ppts), potable drinking water (34.7 ppts), electricity (12.9 ppts), and a toilet (34.0 ppts).

There is also a marked difference in the characteristics of the teachers in program schools. Using the information collected from headmasters, program schools are reported to be staffed with more teachers than government schools (0.939), with a larger number of teachers being female (1.470); and more of these teachers having either less than 5 years of teaching experience (2.505) or 5 to 10 years of teaching experience (0.409), and fewer having more than 10 years of teaching experience (-2.015). These differences are corroborated by interviews with the individual teachers, where a higher percentage are female (25.2 ppts), and have fewer years of overall teaching experience (-12.152) and teaching experience at their current school (-5.446 years). In addition, these teachers are younger (-13.987 years), have less education (-0.960 years), and lower salaries (-11,735 rupees per month). Despite these differences in teacher characteristics, there is little evidence that teachers spend a different number of hours in teaching-related activities, or that allocate their time differently across tasks, save for an additional hour per week administering exams.

In table 4 we examine the characteristics of schools in which children are enrolled across treatment and control groups. In columns (1) and (3) are reported the

characteristics of schools attended by children in control villages, and in columns (2) and (4) the treatment-village differential. Treatment-village children are more likely to be educated with English as the medium of instruction (29.7 ppts), and less likely using Sindhi (-31.2 ppts). The building in which classes are held have more classrooms (0.996), and are more likely to have potable water (29.8 ppts) and toilets (43.6 ppts). As reported by headmasters, there are more teachers (1.527), and more female teachers (1.716); and more teachers having less than 5 years experience (2.397) and fewer having more than 10 years of experience (-1.065). These differences are verified by teacher interviews: teachers are more likely to be female (36.6 ppts), are younger (-9.014 years), have fewer years of education (-1.058), fewer years teaching experience (-7.401), fewer years teaching at their current school (-2.334), and earn a lower salary (-7,451 rupees). There is some evidence that treatment-village teachers allocate their class-time differently: teachers spend more time per week teaching children in small groups (2.097 hours) and dictating notes or writing notes on the board (2.367 hours).

The change in composition of the teaching staff – with children in treatment villages attending schools with teachers who are more likely to female, are younger, have fewer years of teaching experience, and are lower paid – is consistent with the criteria for participation in the program, with entrepreneurs required to enlist two female teachers in order to qualify. It is also consistent with research on the cost advantages enjoyed by private schools in Pakistan, with entrepreneurs able to keep down costs by hiring less-educated females and paying them a lower salary than in government schools (Andrabi *et al*., 2007). There is no evidence that this has resulted in a reduction in the character of the education imparted, with teachers allocating their time to the different teaching tasks

similarly across treatment and control villages. In addition, the quality of infrastructure is high in treatment-village schools, which is consistent with the infrastructure criteria employed during vetting.[19]

V. Results

A. Enrollment Outcomes

School enrollment was determined in two ways: first, the adult respondent for the household survey was asked whether the child was enrolled during the just concluded school term; and, second, the attendance of the child was verified using an attendance list compiled through a headcount conducted during the school survey.[20] The self-reported enrollment was ascertained in both follow-up surveys, while the enrollment verification was conducted only in the second follow-up survey. In what follows, we will discuss the results using both enrollment measures; however, because improvements in test scores are consistent with self-reported enrollment, we view this as the correct measure.

Table 5 shows the effects of the introduction of program schools on enrollment during the two follow-up surveys, pooling together the two treatment groups. Columns (1)-(4) have as the outcome variable self-reported enrollment; column (5) the verified enrollment; and column (6) the highest grade attained. Looking at enrollment effects for younger children, shown in panel A, the pooled treatment effect was a 49 ppts increase in self-reported enrollment during the first follow-up survey. This effect drops to 30 ppts in

[19] During the vetting, criteria were included on infrastructure items such as drinking water, electricity, and toilets. Ultimately, however, the only requirements for qualification were those described in section IIIA above.

[20] The school surveys were conducted first, so that the attendance decision would not be influenced by the presence of enumerators. Using the attendance sheets collected during the school survey, the enumerators verified the child's attendance with the assistance of the respondent.

the second follow-up survey. The reason for the decline in the latter is a 20 ppts increase in enrollment in control villages which occurred between the first and second follow-up surveys – with a control-group mean of 30% enrollment in 2010 rising to a 50% enrollment rate in 2011 – which was due to the re-opening of a number of previously non-operational government schools.[21]

In panel B, we estimate the treatment effects on enrollment of older children. Despite the fact that these children were ineligible for enrollment in program schools, we nonetheless find significant increases in enrollment, with older children in treatment villages 25.5 and 12.2 ppts more likely to be enrolled in the first and second follow-ups, respectively. Interestingly, there is no evidence that older children in treatment in villages have attained a higher grade level; the reason for this is a combination of the smaller treatment effect on enrollment, as well as the fact that the older children affected by the treatment are enrolling in the lower grade levels offered in the program schools.[22]

B. Test Scores

We next estimate the effect of the treatment on test scores. At the time of the second follow-up, two exams were administered to every child in our sample between the ages 5-10. The first component was a math exam, which consisted of 24 basic numeracy questions. The second component was an *urdu* or *sindhi* exam (depending on the language spoken in the village), which consisted of 14 basic literacy questions. The

[21] The government around this time began to re-open non-operational schools, but apparently refrained from doing so in treatment villages. This decision was not due to the intercession of SEF administrators, who were unaware until much later of this discrepancy; but was likely due to the presence of the PPRS schools and their popularity with local communities, coupled with the resource constraints of the provincial government. This finding would indicate some level of support for the program within the Pakistani government, despite the challenge these schools represent to important vested interests.

[22] Because attendance was not taken for these older children, verified enrollment is not included as an outcome variable in panel B of table 5.

scores were then standardized by subtracting off the mean for control villages and dividing by the standard deviation.

Table 6 presents the results from a regression of test scores on treatment status. Children in treatment villages show an approximately 0.62 standard deviations improvement in test scores relative to those in control villages; with the inclusion of a full vector of child, household, and district controls, the coefficient increases to 0.67. These effects are similar across the numeracy and literacy exams. In column (5), we estimate the LATE of child enrollment, with enrollment regressed on the treatment dummy in the first stage, and test scores then regressed on fitted-enrollment; the coefficients given, therefore, are for the second-stage predicted enrollment variable. Children enrolled due to the intervention score 2 stds higher on the exams than the mean of control villages. These results indicate that the schools have been highly effective in imparting to children a knowledge of basic math and literacy.

C. Treatment and Gender Disaggregations

Table 7 shows the differential effects of the two treatments on a variety of education outcomes. In columns (1) and (2) the outcomes are self-reported enrollment during the two follow-up surveys, in column (3) verified enrollment during the second follow-up, in column (4) the highest grade attained, and in column (5) the child test score. The explanatory variables are a dummy for the pooled treatments, and a dummy for the Gender-Differentiated subsidy treatment. There is no evidence that the latter has a differential effect on any of the educational outcomes.

Table 8 estimates the differential effect of the treatment according to gender on the same enrollment outcomes. There is some evidence that the enrollment effect of the pooled treatment was larger for girls than boys in the first follow-up, with girls seeing a 5.2 ppts larger increase in enrollment relative to boys, effectively wiping out the pre-existing gender differential. There is no gender differential in the treatment effect on self-reported follow-up-2 enrollment, verified enrollment, or highest grade.

As the Gender-Differentiated subsidy was introduced in order to remedy the educational gender gap found in the Sindh province, we next turn to assessing the impact it had on female enrollment. Table 9 gives the disaggregated treatment effects and their interaction with gender. There is no evidence for a differential across the two treatments; the difference between coefficients is always small, as are the F-stats.

In sum, our results indicate that the introduction of PPRS schools has had a large impact on child enrollment in these villages. The effects are the same across the two treatments, and there are no differentials according to the child's gender. There is no evidence for a differential effect across the two treatments, indicating that the Gender-Differentiated subsidy had no greater effect on female enrollment than the Gender-Uniform subsidy.

D. Aspirations

We next turn to an analysis of the effect of the treatment on the professional and educational aspirations of the children. Given the significant improvement in educational outcomes detailed above, it stands to reason that the careers and educational accomplishments deemed desirable and viable will have also changed. The data used here

is from two sources: In the household survey, there was a module in which the respondent was asked their preferences for each individual child in terms of ideal marriage age, ideal level of education, and ideal livelihood. In addition, in the child surveys, each child was asked their preferred future job and level of education.

Table 10 gives the results. In column (1) is given the mean for control villages, and in column (2) the treatment-control differential as estimated from a regression of the indicated variable on the pooled-treatment dummy. Columns (3)-(5) give the coefficients from a regression of the indicated variable on dummies for girls, pooled treatment, and the interaction of the two. In column (2), we see that respondents in treatment villages are more likely to desire that their children become doctors (4.7 ppts) and engineers (2.4 ppts), and less likely to desire they become farmers (-4.4 ppts) and housewives (-4.8 pts). The ideal level of education increases by 1.532 years.

According to the professed ambitions of the child, the only change is an increase in the probability that they want to work for government (4.1 ppts), which comes from a 12.2 ppts increase for boys. It is interesting to note that, while children in treatment villages do not desire a higher level of education than those in control villages, children in both control and treatment villages desire a significantly higher level of education than is desired by the parental respondent (11.031 years versus 7.279 years in control villages).

Looking at the gender disaggregations, we see that both boys and girls see a similar increase in the professed aspiration that they become doctors and engineers. Girls in treatment villages are less likely than those in control villages to have housewife reported as their desired profession (-14.8), and more likely to have teacher given instead (6.7

ppts).[23] Girls in control villages are desired to receive slightly less education than boys (-0.835), while boys and girls both see a significant increase in the ideal level of education in treatment villages (1.456 and 1.705 years, respectively).

VI. Conclusion

The intervention studied here, wherein primary education is provided to marginalized communities through public-private partnerships, with the government paying private entrepreneurs a per-child subsidy to operate primary schools, has proven remarkably effective in increasing self-reported enrollment rates amongst primary-aged children. The presence of a PPRS school is associated with an approximately 30 percentage points increase in enrollment. We find no statistically significant differential impact of the intervention on girls' enrollment.

The program schools seem to be of high quality, as evidenced by both test scores and direct observation of school characteristics. Children in treatment villages score 0.67 stds higher than those in control villages on math and language exams, while children induced to enroll because of the treatment score 2 stds higher. In addition, information on school characteristics gathered by enumerators through direct observation and headmaster and teacher interviews shows program schools to be of similar and sometimes higher quality than government schools.

[23] The only changes in aspiration expressed by the children themselves is that boys in treatment villages are more likely to report a desire to become government workers (12.2 ppts), which shift in aspirations is not shared by girls.

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Table 1: Sample Size

		Treatment			Sample
	Control	Total	Regular	Incentive	Total
	(1)	(2)	(3)	(4)	(5)
Number of Villages	38	161	82	79	199
Baseline Survey					
Households	434	1599	795	804	2033
Children	1141	4415	2261	2154	5556
First Follow-Up Survey					
Households	1530	7109	3795	3314	8639
Children	4567	20590	11231	9359	25157
Second Follow-Up Survey					
Households	1069	4897	2594	2303	5966
Children	3093	14628	7718	6910	17721

Note: This table contains the tabulation of the sample used for the study, divided by survey round and research group.

Table 2: Internal Validity

	Baseline		First Follow-Up		Second Follow-Up	
	Control Average (1)	Treatment-Control (2)	Control Average (1)	Treatment-Control (2)	Control Average (1)	Treatment-Control (2)
Panel A: Child Characteristics						
Age	6.859	-0.023	8.389	0.112	9.266	0.094
		(0.071)		(0.134)		(0.116)
Girl	0.379	0.041*	0.396	0.038***	0.411	0.027**
		(0.024)		(0.012)		(0.013)
Enrolled at Baseline	0.261	0.008	0.29	-0.012	0.297	-0.025
		(0.046)		(0.079)		(0.081)
Head of Household's Child					0.862	0.025
						(0.026)
Panel B: Household Characteristics						
Size of Household	9.858	-0.833	9.708	-0.511	7.437	-0.072
		(0.563)		(0.439)		(0.263)
Number of Children	3.018	-0.257	4.035	-0.204	4.932	-0.141
		(0.166)		(0.152)		(0.158)
Year's of Education for	2.571	0.252	1.895	0.488	2.456	0.191
Head of Household		(0.398)		(0.305)		(0.344)
Head of Household is a	0.613	0.03	0.533	-0.068	0.616	-0.067
Farmer		(0.062)		(0.050)		(0.059)
Land Holdings (Acres)			4.808	0.393	5.022	0.25
				(1.175)		(1.235)
Household Structure						
Brick			0.052	0.002	0.048	0.013
				(0.022)		(0.023)
Semi-Brick			0.197	-0.02	0.166	-0.012
				(0.063)		(0.046)
Non-Brick			0.476	0.125*	0.522	0.095
				(0.076)		(0.063)
Thatched Hut			0.274	-0.107	0.264	-0.096
				(0.077)		(0.064)
Number of Goats					4.401	-0.25
						(0.950)
Sunni Muslim					0.9	0.006
						(0.047)
Language						
Urdu					0.116	0.039
						(0.044)
Sindhi					0.662	0.062
						(0.066)
Panel C: Estimated Bias						
Estimate		0.007		0.021		0.006
p-value		0.481		0.228		0.554

Note: This table contains average demographic characteristics of children and households from the baseline and the two follow-up surveys. Columns (1), (3), and (5) give the mean for control villages; and columns (2), (4), and (6) the treatment-control differential as determined by a regression of the indicated variable on the treatment dummy. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.

Table 3: School Characteristics by Type of School

	PPRS Average (1)	PPRS - Public (2)	PPRS - Private (3)		PPRS Average (4)	PPRS - Public (5)	PPRS - Private (6)
School Surveyed	0.956	0.634***	0.705***	**Panel C: Teacher Characteristics**			
		(0.046)	(0.085)	Days Absent in Last Month	0.838	-0.143	0.25
Panel A: School Characteristics						(0.314)	(0.266)
Number of Days Open	5.116	0.764**	0.234	Female	0.493	0.252***	-0.039
Per Week		(0.319)	(0.540)			(0.075)	(0.175)
Open Admissions	0.88	-0.021	0.018	Age	25.153	-13.987***	-0.385
		(0.048)	(0.100)			(1.420)	(1.438)
Uniform Required	0.027	0.027	-0.309*	Years of Education	10.965	-0.960***	-0.950***
		(0.017)	(0.181)			(0.187)	(0.276)
Medium of Instruction				Monthly Salary	4.069	-11.735***	0.388
Urdu	0.041	0.024	-0.034	(Thousands of Pakistani Rupees)		(1.136)	(0.532)
		(0.023)	(0.077)	Years of Experience	2.782	-12.152***	-0.568
Sindhi	0.609	-0.374***	0.018			(1.472)	(0.730)
		(0.050)	(0.179)	Years at Current School	1.772	-5.446***	-0.876
English	0.313	0.313***	-0.02			(1.034)	(0.682)
		(0.045)	(0.177)	Break Down of Weekly Teaching Time			
Staffing				Total Hours	25.985	0.181	-0.753
Number of Teachers	3.776	0.939***	-2.486			(1.752)	(1.138)
		(0.318)	(1.860)	Teaching Full Class	6.495	0.019	-2.732
Number of Female Teachers	1.979	1.470***	-3.460**			(0.815)	(4.100)
		(0.203)	(1.529)	Teaching Students in Small Groups	6.211	1.144	-0.72
Number of Teacher with Post-Secondary Degree	1.899	-0.461	-1.674**			(0.798)	(2.409)
		(0.461)	(0.820)	Teaching Individiual Children	5.984	0.194	-1.177
Number of Teachers '(5 Years Experience	3.128	2.505***	0.652			(0.881)	(2.224)
		(0.176)	(0.714)	Dictating Notes to Class	6.212	1.333	-0.551
Number of Teachers Between 5 and 10 years Experience	0.601	0.409***	-2.815			(0.912)	(2.992)
		(0.123)	(2.212)	Time Spent on Discipline	3.623	-0.329	-0.532
Number of teachers) 10 Years Experience	0.047	-2.015***	-0.323			(0.728)	(1.044)
		(0.301)	(0.366)	Administering Tests	4.031	1.213*	1.673***
						(0.619)	(0.614)
Panel B: Building Characteristics				Administrative Responsibilities	3.222	0.527	0.107
School is in a Building	0.965	0.01	-0.035*			(0.540)	(1.527)
		(0.033)	(0.020)				
Number of Class Rooms	3.227	0.462	0.112				
		(0.349)	(0.925)				
School Has Enough Desks	0.802	0.203**	0.163				
		(0.098)	(0.175)				
School Has Potable Water	0.886	0.347***	-0.114***				
		(0.104)	(0.031)				
School Has Electricity	0.768	0.129*	-0.024				
		(0.068)	(0.141)				
School Has Toilet	0.846	0.340***	0.192				
		(0.114)	(0.167)				

Note: This table gives the characteristics of program schools, and the program-public and program-private differentials. In columns (1) and (4) are given the mean levels for program villages. The differentials in columns (2)-(3) and (5)-(6) come from a regression of the indicated variable on treatment dummies, estimated individually for private and government schools. The unit of observation is the young child-school level. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.

Table 4: Child's School Characteristics by Treatment Status

	Control Average (1)	Treatment - Control (2)		Control Average (3)	Treatment - Control (4)
School Surveyed	0.952	0.044	**Panel C: Teacher Characteristics**		
		(0.029)	Days Absent in Last Week	1.906	-1.009
Panel A: School Characteristics					(0.850)
Number of Days Open	5.398	-0.231	Female	0.1	0.366***
Per Week		(0.350)			(0.085)
Open Admissions	0.958	-0.072	Age	34.43	-9.014***
		(0.045)			(2.104)
Uniform Required	0	0.021	Years of Education	12.028	-1.058***
		(0.014)			(0.255)
Medium of Instruction			Monthly Salary	11.686	-7.451***
Urdu	0.069	-0.022	(Thousands of Pakistani Rupees)		(1.917)
		(0.052)	Years of Experience	10.297	-7.401***
Sindhi	0.931	-0.312***			(2.293)
		(0.066)	Years at Current School	4.129	-2.334**
English	0	0.297***			(0.924)
		(0.043)	Break Down of Weekly Teaching Time		
Staffing			Total Hours	25.104	0.967
Number of Teachers	2.278	1.527***			(4.744)
		(0.301)	Teaching Full Class	6.821	-0.432
Number of Female Teachers	0.246	1.716***			(1.354)
		(0.240)	Teaching Students in Small Groups	4.134	2.097*
Number of Teacher with Post-	1.533	0.378			(1.067)
Secondary Degree		(0.338)	Teaching Individual Children	5.224	0.857
Number of Teachers '(5 Years	0.766	2.397***			(1.242)
Experience		(0.269)	Dictating Notes to Class	3.811	2.367**
Number of Teachers Between	0.388	0.194			(1.159)
5 and 10 years Experience		(0.178)	Time Spent on Discipline	3.242	0.508
Number of teachers) 10 Years	1.124	-1.065***			(0.721)
Experience		(0.268)	Administering Tests	2.695	1.303
					(0.915)
Panel B: Building Characteristics			Administrative Responsibilities	2.637	0.58
School is in a Building	0.919	0.047			(0.652)
		(0.062)			
Number of Class Rooms	2.192	0.996***			
		(0.279)			
School Has Enough Desks	0.616	0.186			
		(0.139)			
School Has Potable Water	0.578	0.298*			
		(0.153)			
School Has Electricity	0.628	0.134			
		(0.139)			
School Has Toilet	0.401	0.436***			
		(0.148)			

Note: This table gives the effect of treatment on the characteristics of the schools in which children are enrolled. Columns (1) and (3) give the control-village mean; columns (2), and (4) give the treatment differential, as estimated from a regression of the indicated variable on a treatment dummy. All standard errors are clustered at the village level. Statistical significance at the one-, five, and ten-percent levels is indicated by ***, **, and * respectively.

Table 5: Enrollment

	Self-Reported Enrollment				Verified Enrollment	Highest Grade
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Officially Eligible Children						
First Follow-Up	0.498***	0.499***	0.483***	0.487***		
	(0.055)	(0.055)	(0.058)	(0.055)		
Second Follow-Up	0.306***	0.306***	0.304***	0.295***	0.296***	0.359***
	(0.060)	(0.060)	(0.059)	(0.060)	(0.041)	(0.116)
Panel B: Older Children						
First Follow-Up	0.259***	0.262***	0.247***	0.255***		
	(0.063)	(0.065)	(0.068)	(0.062)		
Second Follow-Up	0.137**	0.140**	0.137***	0.122**		-0.023
	(0.057)	(0.057)	(0.051)	(0.053)		(0.312)
Child Controls	no	yes	yes	yes	yes	yes
HH Controls	no	no	yes	yes	yes	yes
District FEs	no	no	no	yes	yes	yes

Note: This table gives the treatment effects on self-reported enrollment during the census and follow-up, verified enrollment during the follow-up, and the highest grade attained at the time of the follow-up. The controls are as indicated. All standard errors are clustered at the village level. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.

Table 6: Test Scores

	(1)	(2)	(3)	(4)	(5)
Math Test	0.600***	0.599***	0.602***	0.656***	1.986***
	(0.143)	(0.145)	(0.142)	(0.131)	(0.271)
Language Test	0.596***	0.595***	0.594***	0.636***	1.913***
	(0.147)	(0.148)	(0.144)	(0.130)	(0.223)
Total Score	0.619***	0.617***	0.618***	0.668***	2.011***
	(0.148)	(0.150)	(0.146)	(0.134)	(0.253)
Model	ITT	ITT	ITT	ITT	TOT
Child Controls	no	yes	yes	yes	yes
HH Controls	no	no	yes	yes	yes
District FEs	no	no	no	yes	yes

Note: This table contains estimates of the effect of the program schools on test scores. In columns (1)-(4), the coefficients give the effect of the treatment on the indicated test score. In column (5), the coefficient is for enrollment, instrumented by the treatment status. Test scores are demeaned by the control-village mean, and divided by the standard deviation. The control variables are as given. All standard errors are clustered at the village level. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, ***, and * respectively.

Table 7: Disaggregation by Stipend Type

	Self-Reported Enrollment		Verified	Highest	Total
	Follow-Up 1	Follow-Up 2	Enrollment	Grade	Score
	(1)	(2)	(3)	(4)	(5)
Treat	0.485***	0.318***	0.270***	0.422***	0.668***
	(0.057)	(0.063)	(0.042)	(0.107)	(0.138)
Treat*Gender-Differentiated Subsidy	0.003	-0.006	0.049	0.012	0
	(0.027)	(0.022)	(0.034)	(0.057)	(0.064)
Constant					
N	19294	11572	10217	11444	10320
R-squared	0.241	0.111	0.1	0.213	0.203

Note: This table contains estimates of the differential between the two treatment effects. The outcomes are self-reported enrollment at the time of the census and follow-up, verified follow-up enrollment, the highest grade attained, and the total test score. All standard errors are clustered at the village level. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.

Table 8: Disaggregation by Gender

	Self-Reported Enrollment		Verified	Highest	Total
	Follow-Up 1	Follow-Up 2	Enrollment	Grade	Score
	(1)	(2)	(3)	(4)	(5)
Treat	0.465***	0.314***	0.289***	0.438***	0.630***
	(0.058)	(0.065)	(0.039)	(0.111)	(0.144)
Treat*Female	0.052*	0.003	0.016	-0.018	0.09
	(0.027)	(0.030)	(0.020)	(0.059)	(0.061)
N	19272	11521	10177	11393	10279
R-squared	0.239	0.111	0.098	0.213	0.203

Note: This table contains estimates of the effect of the program schools by gender. The outcomes are self-reported enrollment at the time of the census and follow-up, verified follow-up enrollment, the highest grade attained, and the total test score. All standard errors are clustered at the village level. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.

Table 9: Disaggregation by Gender and Treatment Type

	Self-Reported Enrollment		Verified	Highest	Total
	Follow-Up 1	Follow-Up 2	Enrollment	Grade	Score
	(1)	(2)	(3)	(4)	(5)
Regular Stipend	0.464***	0.318***	0.263***	0.454***	0.623***
	(0.059)	(0.065)	(0.043)	(0.116)	(0.147)
Neutral Subsidy*Female	0.050*	-0.001	0.019	-0.068	0.106*
	(0.030)	(0.031)	(0.025)	(0.065)	(0.064)
Female Stipend	0.465***	0.309***	0.317***	0.420***	0.638***
	(0.061)	(0.067)	(0.043)	(0.114)	(0.147)
Girls' Subsidy*Female	0.054*	0.008	0.012	0.036	0.073
	(0.028)	(0.032)	(0.025)	(0.061)	(0.064)
N	19272	11521	10177	11393	10279
R-squared	0.239	0.111	0.101	0.213	0.203
H0: Uniform Subsidy = Differentiated Subsidy	0	0.156	2.049	0.282	0.055
	0.986	0.693	0.154	0.596	0.815
H0: Uniform + Uniform*Female=	0.02	0	1.555	1.321	0.064
Differentiated + Differentiated* Female	0.886	0.984	0.214	0.252	0.8
H0: Uniform*Female =	0.036	0.259	0.052	4.524	0.662
Differentiated * Female	0.85	0.611	0.82	0.035	0.417

Note: This table contains estimates of the two treatment effects by gender. The outcomes are self-reported enrollment at the time of the census and follow-up, verified follow-up enrollment, the highest grade attained, and the total test score. All standard errors are clustered at the village level. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.

Table 10: Child Aspirations

	Control	Treat-Control	Female	Treatment	Treat X Female
	(1)	(2)	(3)	(4)	(5)
married	0.014	-0.006	-0.001	-0.008	-0.001
		(0.005)	(0.006)	(0.006)	(0.007)
ideal marriage age	18.496	0.256	-1.018**	0.331	-0.154
		(0.439)	(0.413)	(0.456)	(0.448)
Parental Preferences for Children:					
Civil Servant	0.119	0.031	-0.059	0.05	-0.027
		(0.036)	(0.047)	(0.048)	(0.049)
Doctor	0.094	0.047**	-0.006	0.057***	-0.023
		(0.018)	(0.022)	(0.020)	(0.025)
Private Sector	0.023	-0.005	-0.019**	-0.009	0.012
		(0.012)	(0.009)	(0.015)	(0.011)
Engineer	0.015	0.024***	-0.014**	0.026***	0.004
		(0.007)	(0.007)	(0.009)	(0.011)
Farmer	0.105	-0.044*	-0.144***	-0.06	0.055
		(0.025)	(0.031)	(0.038)	(0.035)
Housewife	0.187	-0.048**	0.409***	-0.002	-0.146***
		(0.023)	(0.043)	(0.010)	(0.049)
Laborer	0.025	-0.01	-0.022**	-0.004	-0.001
		(0.008)	(0.010)	(0.010)	(0.011)
Landlord	0.016	0.004	-0.017*	0.004	0
		(0.006)	(0.009)	(0.010)	(0.010)
Lawyer	0.004	0.009***	-0.007**	0.009*	0.002
		(0.003)	(0.003)	(0.005)	(0.005)
Police/army/security	0.084	-0.031	-0.100***	-0.050*	0.041*
		(0.020)	(0.022)	(0.026)	(0.023)
Raise livestock	0.022	-0.009	0.002	-0.007	-0.008
		(0.011)	(0.012)	(0.010)	(0.012)
Teacher	0.242	0.027	0.026	-0.012	0.079**
		(0.028)	(0.029)	(0.025)	(0.035)
Ideal Education	7.279	1.532**	-0.835**	1.456**	0.249
		(0.605)	(0.395)	(0.681)	(0.458)
Child's Preferences					
Ideal Jobs:					
Army	0.102	-0.031	-0.085	-0.068	0.054
		(0.044)	(0.060)	(0.098)	(0.066)
Doctor	0.216	0.031	-0.027	0.094	0.066
		(0.055)	(0.093)	(0.074)	(0.108)
Farmer	0.023	-0.019	0.011	-0.032	-0.011
		(0.013)	(0.054)	(0.033)	(0.054)
Government	0.034	0.041**	0	0.122***	-0.112***
		(0.021)	(0.000)	(0.034)	(0.036)
Other	0.057	-0.008	-0.093	0.002	0.064
		(0.052)	(0.079)	(0.084)	(0.084)
Private sector	0.17	-0.005	-0.007	-0.063	0.083
		(0.068)	(0.131)	(0.099)	(0.146)
Teacher	0.386	-0.001	0.301**	0.036	-0.241
		(0.085)	(0.149)	(0.128)	(0.165)
Desired Education	11.031	-0.165	-0.381	-0.267	0.5
		(0.393)	(0.440)	(0.589)	(0.514)

Note: This table contains estimates of the effect of the treatment on the aspirations for children within the household. Column (1) gives the mean level in control villages, and column (2) the treatment differential. Columns (4)-(6) give the gender differentials across control and treatment villages. All standard errors are clustered at the village level. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.

Table A1: Internal Validity, Stipend Type

	Baseline		First Follow-Up		Second Follow-Up	
	Uniform Average (1)	Differentiated-Uniform (2)	Uniform Average (3)	Differentiated-Uniform (4)	Uniform Average (5)	Differentiated-Uniform (6)
Panel A: Child Characteristics						
Age	6.857	-0.042	8.521	-0.046	9.443	-0.175
		(0.062)		(0.116)		(0.113)
Girl	0.413	0.014	0.428	0.011	0.435	0.008
		(0.018)		(0.010)		(0.011)
Enrolled at Baseline	0.275	-0.013	0.289	-0.025	0.285	-0.027
		(0.042)		(0.059)		(0.058)
Head of Household's Child					0.878	0.019
						(0.021)
Panel B: Household Characteristics						
Size of Household	9.202	-0.364	9.561	-0.798**	7.382	-0.036
		(0.438)		(0.374)		(0.211)
Number of Children	2.76	0.001	3.929	-0.216	4.821	-0.064
		(0.133)		(0.135)		(0.132)
Year's of Education for Head of Household	2.906	-0.169	2.384	-0.001	2.625	0.047
		(0.342)		(0.286)		(0.297)
Head of Household is a Farmer	0.648	-0.01	0.467	-0.005	0.566	-0.037
		(0.047)		(0.049)		(0.044)
Land Holdings (Acres)			6.165	-2.068	6.156	-1.871
				(1.474)		(1.486)
Household Structure						
Brick			0.049	0.011	0.057	0.008
				(0.023)		(0.028)
Semi-Brick			0.186	-0.018	0.163	-0.018
				(0.050)		(0.039)
Non-Brick			0.6	0.002	0.621	-0.01
				(0.062)		(0.053)
Thatched Hut			0.165	0.005	0.158	0.02
				(0.065)		(0.048)
Number of Goats					4.143	0.019
						(0.837)
Sunni Muslim					0.907	-0.003
						(0.040)
Language						
Urdu					0.146	0.018
						(0.046)
Sindhi					0.711	0.028
						(0.056)
Panel C: Estimated Bias						
Estimate		0.003		0.002		-0.010
p-value		0.777		0.826		0.195

Note: This table contains average demographic characteristics of children and households from the baseline and two follow-ups surveys. Columns (1), (3), and (5) give the mean for the Uniform subsidy villages; and columns (2), (4), and (6) the Uniform-Differentiated differential as determined by a regression of the indicated variable on the Uniform treatment dummy, limiting the sample to treatment villages. Statistical significance at the one-, five-, and ten-percent levels is indicated by ***, **, and * respectively.