

3. IMPROVING GIRLS' SCHOOLING

Seek knowledge from the cradle to the grave.

— Prophet Mohammed

3.1. At the end of the 1990s, one out of every two children between the ages of 6 and 10 was enrolled in primary school and one out of every three children 11 years old and older was enrolled in middle or high school. The enrollment figures for girls, and specifically girls in rural areas, are much lower. Less than one out of two girls was enrolled in primary school and just over one out of four girls was enrolled in middle or high school. These numbers are low in both an absolute sense and when compared to other countries at similar income levels in South Asia.

3.2. Low educational attainment among women has far-reaching consequences. Education makes women more productive both inside and outside the household.⁷⁷ An educated mother can plan the size of her family, ensure the well-being of her children, and make better use of community services.⁷⁸ Outside the home, women's education is associated with higher productivity in wage employment and in agriculture.⁷⁹ Educated women are also more likely to participate in the political process; illiteracy is a major obstacle in accessing relevant information and dealing with electoral procedures and political issues.⁸⁰

3.3. The experience of the 1990s is far from desirable, but some trends provide evidence for cautious optimism. Although overall enrollment levels did not improve, enrollment rates among rural girls rose in both the lowest and the highest expenditure deciles.⁸¹

3.4. Will this pattern of enrollment growth hold in the coming decade, particularly for rural girls? This chapter examines the experience of the past two decades and identifies growth levers that have pushed the process this far. Then, looking at the potential of these levers to get us to the next stage, we identify key constraints that are likely to emerge over the coming decade, along with an innovative and multi-pronged strategy to obviate them. Ultimately, further improvements in enrollment and retention will rest on successfully pulling in poorer and spatially more isolated children.

3.5. The analysis identified two constraints. First, proximity to schools is a serious constraint to the enrollment of girls. Decreasing the physical cost of attending school for girls is likely to pay big dividends. How can this be achieved? School construction will continue to be important, but a more nuanced approach that addresses the needs of scattered rural population — where dedicated community-level schools are unfeasible — is also required. Second, even where feasible, the construction of schools is likely to face another important constraint: there simply are too few educated women in many Pakistani villages to staff a school for girls. Government schools (and most private schools) for girls require female teachers, but significant barriers to female mobility prevent educated women from relocating or commuting to where the jobs are. Hiring and retaining female teachers thus will continue to be a problem, and ironically this problem will be at its worst in precisely those areas which are poorly served at present.

3.6. This is a potential **Catch-22 situation**. The construction of a middle or high school is not likely to be warranted in every community; however, the absence of such schools *sufficiently* close by will hinder the development of primary schools, and—as we show below—discourage private primary schools. Breaking this unfortunate cycle will require innovative interventions to ensure girls have access to middle and high

⁷⁷ Summers (1992), Schultz (1989).

⁷⁸ Strauss and Thomas (1995).

⁷⁹ Behrman and Deolalikar (1988), Quisumbing (1996).

⁸⁰ Zia and Bari (1999)

⁸¹ According to the PIHS 1991, only 40 percent of girls in rural areas age 6-10 were enrolled in a primary school, and only 17 percent of these girls age 11-17 were enrolled in a middle or high school (table 3.1)

schools without having to construct a middle or high school in every village. While cultural constraints on female mobility are not likely to yield to short-run policy levers, the creation of a *cohort* of educated women in every village may be a viable policy intervention. Marriage, residence, and migration patterns suggest that educated girls frequently remain in the villages they come from, so this constitutes a potential pool of future teachers for the next generation.

3.7. Of course, other factors such as income, parental education, parental attitudes and differences in returns to schooling between parents and children also matter.⁸² These factors also influence the differential schooling choices of parents for their male and female children. Some of these factors, although well understood in the literature, are unlikely to be amenable to short-run policy levers. Others, particularly financial constraints, are already being addressed by several ongoing income transfer programs via stipends, school meal programs, school books, and uniforms. Our objective is to identify non-economic constraints that impede both school attendance for girls and female teacher availability. We thus argue for *complementary* interventions to augment the efficacy and uptake of other ongoing interventions.

3.8. A two-pronged strategy to improve female education is required. The first is a *supply-side* strategy that decreases the physical cost of attending schools for girls. This strategy calls for school proximity as a viable *policy lever* that can be used by the government to improve female education. Evidence drawn from current and ongoing work shows that such a policy is likely to yield high dividends. This chapter argues for the introduction of specific initiatives—beyond school construction—to improve school access. Secondly, the chapter also examines some current *demand-side* initiatives. While several such initiatives are currently underway, we know little about their impact. Systematic evaluations of these programs could teach us much about what works and how to design future policy.

3.9. The remainder of this chapter is structured as follows. Section I discusses the institutional arrangements for delivering education services in the country and reviews a number of the initiatives currently underway to improve schooling outcomes, with particular attention to education outcomes for girls. Section II examines the gender gap in education. Section III examines the impact of school proximity on school outcomes. Section IV builds on the analysis of section III by examining potential constraints on supply-side initiatives that focus on school construction, private or public, arguing that mobility constraints on women are likely to generate female teacher shortages, which will be more acute in currently underserved areas. Section V examines potential policy alternatives. The data used come from a number of household data sources, the main one being the Pakistan Integrated Household Survey (PIHS) of 2001-02 and 1991. It also relies on early results from ongoing work.⁸³ Preliminary results from the Pakistan Social and Living Standard Measurement Survey (PSLM)/ Core Welfare Indicator Questionnaire (CWIQ) (2004-05) indicate significant improvements in enrollment and literacy rates. Analysis of this data is not included in this report as we do not yet have access to the household-level data.

I. SERVICE DELIVERY IN EDUCATION: THE INSTITUTIONAL SETUP

3.10. The achievement of universal primary education, with a particular emphasis on promoting girls' schooling, has been a government priority since the early 1990s. The Education Sector Reform (ESR) action plan (2001-2005) reiterated this. It is also a core component of the PRSP education strategy.⁸⁴ Reflecting this priority, the number of boys' and girls' public primary schools increased throughout the

⁸² Kochar (2001a), Khan (1993), Sathar and Lloyd (1994), Lloyd, Mete and Sathar (2002), World Bank (2001), Pakistan Poverty Assessment (2002), Lokshin and Sawada, Holmes (1999)), Irfan (1985), Sathar and Kazi (1987), Sathar and Lloyd (1994), Ray (2000).

⁸³ Jacoby and Mansuri (2005a) using PRHS-II and Andrabi, Das and Khwaja (2005). Both studies survey data collected by them. These have been appropriately referenced in the text.

⁸⁴ Government of Pakistan (2003).

1990s. By 2000-01, there were 127,709 public primary schools and 12,984 public middle schools in Pakistan.⁸⁵

3.11. A substantial expansion of private schools occurred during the 1990s. By 2000 there were about 32,000 private schools in the country.⁸⁶ According to data from the Private School Census these schools are playing an increasingly important role in primary education, both in absolute terms and relative to public schooling, especially in rural areas where the largest growth in private schools is taking place.⁸⁷ These for-profit institutions offer mainly co-educational schooling, in sharp contrast to the typical single-sex public school.

3.12. The growth in private schools appears to reflect a rising demand for better quality schools. The PRSP notes that while the expansion of schools during the 1990s (under the Social Action Plan) increased school quantity, little attention was paid to school quality issues, including teacher availability. The ESR action plan includes a number of steps to address such quality issues.

3.13. In the post-devolution period, responsibility for the delivery of education services has shifted to provincial and district governments, which have put in place several programs to improve the delivery of education.⁸⁸ The federal government continued to play an important role in setting policy priorities and anchoring federal education programs. The National Education Policy (NEP) emphasizes closing the gender gap in education and improving school quality. The NEP also recognizes the growing importance of private schools in education and encourages private sector participation. The ESR action plan outlines both short- and long-term strategies for achieving NEP goals, including the important “Education for All” (EFA) goal.

3.14. One focus area of the ESR and the Compulsory Primary Education Ordinance is the achievement of universal primary education. Universal primary education is to be achieved partly through a change in the mechanism for allocating new schools. Initially schools were allocated to communities on the basis of population,⁸⁹ but gender and need now also play a role in school placement decisions. Our analysis, discussed later in the chapter, shows that this new approach could be quite effective in improving school enrollment and retention rates for girls.

3.15. The ESR also includes initiatives for public-private partnerships to enhance access to better-quality schools. Some of the strategies being considered on this front are to transfer the management of under-utilized public schools to the private sector, to encourage school placement in under-served areas through the provision of grants and soft loans, and to implement the “adopt a school” program.⁹⁰

3.16. The implementation strategy for the ESR includes enrollment incentive packages in primary schools. One such innovative program, Tawana Pakistan, is a federally funded school-based meal program.⁹¹ This program is implemented through district governments working in close collaboration with provincial Education and Health Departments. About 500,000 primary school-age girls (5-9 years) are being targeted under this program for a three-year period (2002–2005). The program, which currently is being implemented in 20 high-poverty districts all over Pakistan, hopes to reduce the gender gap in school enrollment and improve school retention at the primary-school level. In a typical school, the program

⁸⁵ Pakistan Education and School Atlas, CRPRID, Planning Commission.

⁸⁶ Andrabi, Das and Khwaja (2002).

⁸⁷ Private schools continue to be more prevalent in urban areas.

⁸⁸ The World Bank is supporting provincial programs in Sindh and Punjab.

⁸⁹ Our analysis suggests that demand-related factors such as village wealth and average education levels also impact school placement, particularly in the case of girl’s schools.

⁹⁰ The World Bank-IMF Joint Staff Assessment of the PRSP noted that this public-private initiative needed to be better planned, including details on how this initiative could be applied elsewhere.

⁹¹ This project is sponsored by the Ministry of Women Development and Social Welfare (MoWD & SW) and is executed by Pakistan Bait-ul Maal (PBM) with technical assistance from Aga Khan University.

intends to provide food (one cooked meal a day), vitamins, iron, and de-worming medicine to 100 girls, of which almost two-thirds are not enrolled in school. The non-enrolled girls are invited to join the meal program and get enrolled in the school. The program is currently under implementation; no external evaluation of the program is yet available.

3.17. A number of other enrollment incentive programs also have been introduced in different provinces for middle schools. Middle school stipend programs currently are being implemented in Sindh and Punjab. The Sindh government has an ongoing scholarship program for girls in rural areas, which provides monetary support to girls enrolled in middle school. Punjab recently has initiated a stipend program for girls enrolled in middle school through the Punjab Education Sector Reform Program. Each girl enrolled in a public sector middle school is given a stipend of Rs. 200 (less than \$4) per month, provided she has an 80-percent attendance rate. The program targets girls in 15 low-literacy districts in the province. About 175,000 female students are being covered by the program.

II. DIMENSIONS OF THE GENDER GAP IN EDUCATION

The Picture in 2001-02

3.18. In 2001-02, only 58 percent of primary school-aged boys and 46 percent of school-aged girls were enrolled in primary school (Table 3.1). At the provincial level participation in primary school was highest in Punjab and the lowest in Balochistan; the gender gap follows a similar pattern and was smallest in Punjab and largest in NWFP) and Balochistan (Figure 3.1). The rural-urban divide is striking in Table 3.1. At the primary level, enrollment rates for both boys and girls in urban areas are around 65 percent (boys just above, girls just below). The differential between rural and urban groups for boys at 10 percent is perhaps not very high; the difference is closer to 25 percent for girls, largely due to much lower female enrollment rates in rural regions. For both primary and secondary schooling, the gender gap is largely a *rural* phenomenon.

3.19. The gender gap seems to arise from both lower initial enrollment and higher drop-out rate for girls. At every age, a higher percentage of girls in rural regions have never attended school. For boys the percentage never enrolled in school declines from 60 percent at age five to 20 percent by age eleven, suggesting that boys continue to enter school at older ages. For rural girls, the percentage never enrolled declines from age five to age nine, but remains stagnant at about 50 percent after age nine, implying that girls tend to enter school up to—but not after—age nine (Figure 3.2). Pakistan’s education system is thus failing to attract girls, with a large percentage of rural teenage girls never having enrolled in school.

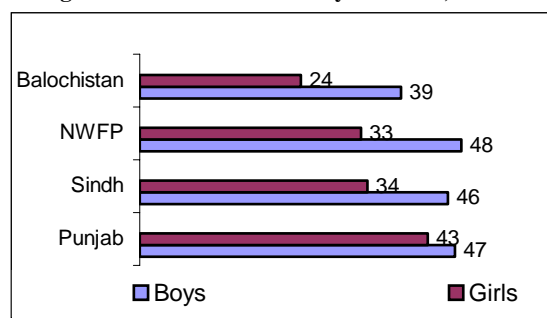
3.20. The dropout rate for girls is particularly high in rural areas. It is also high for older children and tends to accelerate after age 12, when girls drop out of school at a much higher rate than boys do (Figure 3.2). This is the age at which children are typically in middle school (classes 6-8). Accelerating dropout rates around adolescence suggests that cultural practices surrounding adolescence and attainment of puberty

Table 3.1: Net School Enrollment Rate, PIHS 2001-02

	Primary (6-10)		Secondary (Middle and High School) (11-16)	
	Male	Female	Male	Female
Urban	66.8	64.6	45.3	49.5
Rural	55.1	39.3	34.8	17.3
Overall	57.9	45.5	37.8	27.1

Source: Pakistan Poverty Update (World Bank 2003).

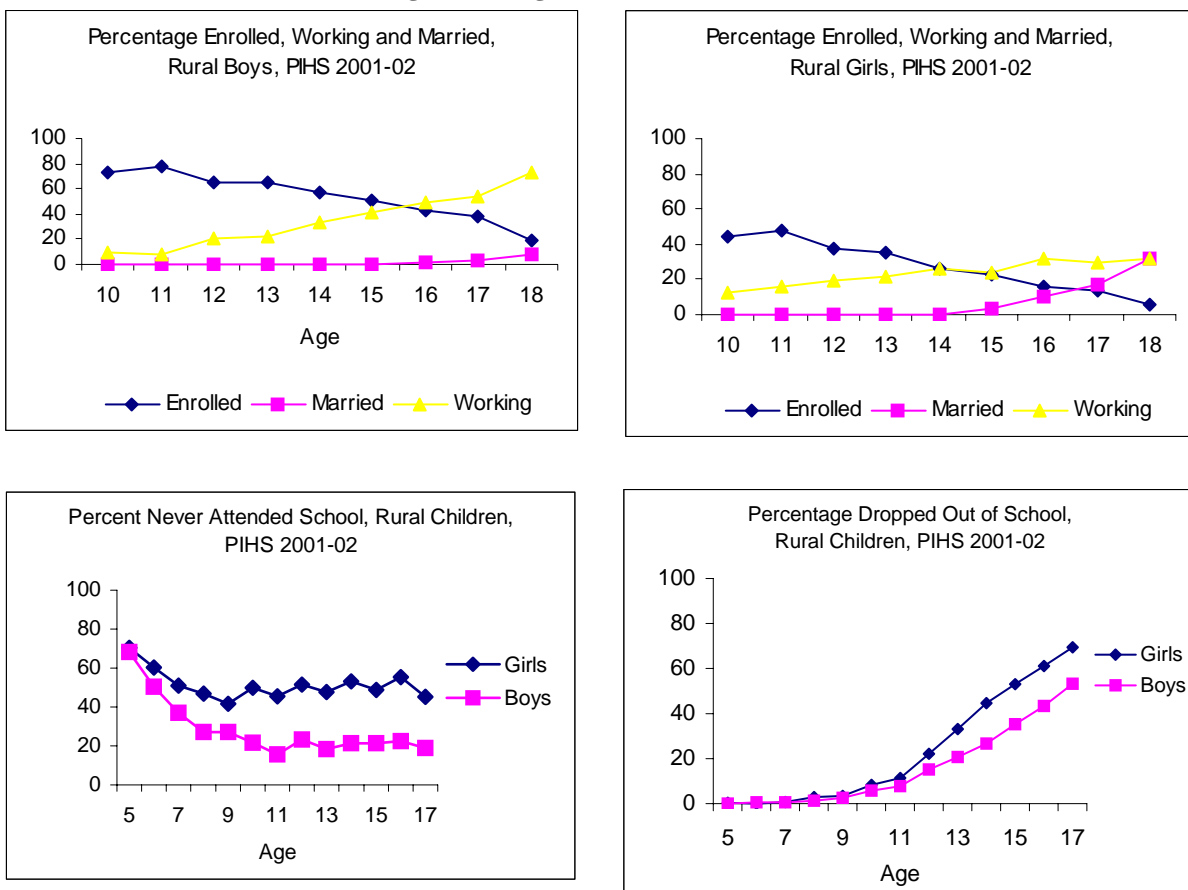
Figure 3.1: Net Enrollment by Province, 2001-02



Note: These net enrollment rates cover both rural and urban areas. Source: Taken from the World Bank (2003). This figure is based on Pakistan Integrated Household Survey

may make it difficult for girls to continue attending school upon reaching that age. In particular, the norms of *purdah* and restricted mobility of females would be more strictly observed after reaching menarche, rendering access to schools more difficult for girls. We show below that such concerns significantly reduce school attendance for older girls. In such a context, supply-side interventions, such as improvements in school quality, or demand side interventions, such as incentive schemes, are likely to be much more effective if they also explicitly address such concerns. We discuss this in more detail below.

Figure 3.2: Age Pattern of Enrollment



Source: Based on World Bank staff tabulations using PIHS 2001-02 data on rural children.

3.21. Household income remains an important determinant of school enrollment. Much higher enrollment rates occur among better-off households (Figure 3.3), but the data also reveal an interesting gender pattern: among rural households, the gap in enrollment persists across income (expenditure) groups. This pattern has also been documented in previous studies.⁹²

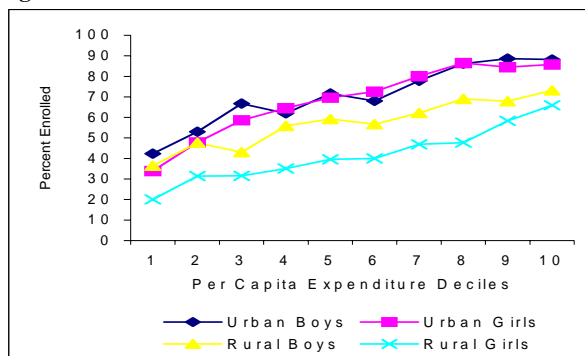
Experience during the 1990s

3.22. The snapshot in 2001-02 paints a dismal picture for female education, particularly in rural areas. But this average picture reveals little about *marginal* growth during the 1990s; namely, which expenditure deciles grew the fastest or growth in girls' schooling relative to growth in boys' schooling.

3.23. Figures 3.4a, 3.4b and 3.4c compare the PIHS round of 1990-91 and 2001-02. That is, we match the expenditure decile in 1990-91 to the same income expenditure decile in 2001-02 and compute the average increase in enrollment for this decile, repeating the exercise for each decile. The horizontal axis shows income deciles ranked in order of increasing income and the vertical axis shows the growth rate. We use two different concepts of the growth rate. Figure 3.4a shows growth in *percentage points* and Figure 3.4b shows growth in *percentages*. That is, if a decile grew from 10 to 20 percent in enrollment, it would show a 10-percentage point increase in enrollment, but a 100 percent increase. Finally, Figure 3.4c examines the relationship between enrollment growth and the gender gap. Instead of ranking the deciles by expenditure, we rank them by enrollment growth. Thus, the first decile is the expenditure decile that showed the smallest enrollment growth during the last decade.

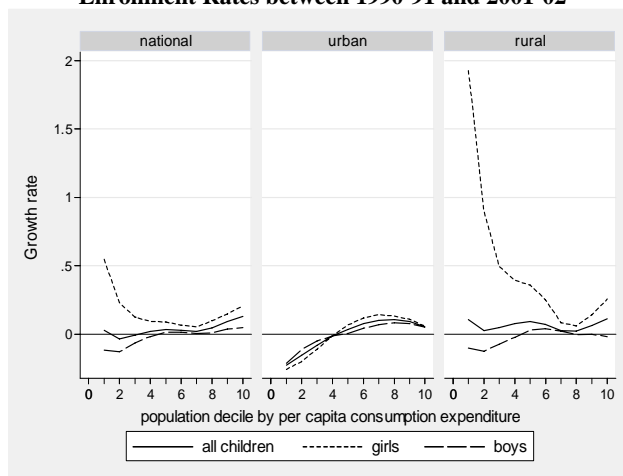
3.24. The percentage of children enrolled nationally has not changed noticeably. This is disturbing given the push for school construction over this same period. In fact, at 95-percent confidence intervals, we cannot reject the hypothesis that there has been *no change* during the last decade.⁹³ Further, the

Figure 3.3: Enrollment and household socioeconomic status



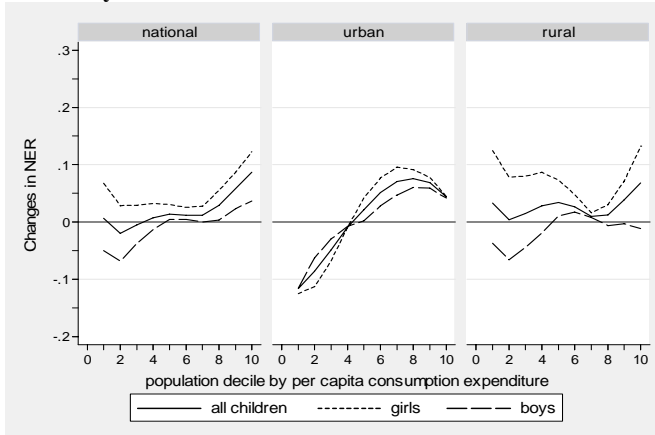
Source: Based on World Bank staff tabulations using PIHS 2001-02 data on rural and urban children.

Figure 3.4a: Growth Incidence Curve of Primary School Enrollment Rates between 1990-91 and 2001-02



Note: Growth rates of primary school net enrollment rates between 1990-91 and 2001-02 are computed for each decile of per capita consumption expenditure distribution, and are then smoothed by a non-parametric method (LOWESS). Deciles are computed for each region separately. Source: PIHS 1990-91 and 2001-02.

Figure 3.4b: Changes in Primary School Enrollment Rates between 1990-91 and 2001-02



Note: Growth rates of primary school net enrollment rates (NER) between 90-91 and 01-02 are computed for each decile of per capita consumption expenditure distribution, and are then smoothed out by a non-parametric method (LOWESS). Deciles are computed for each region separately. Source: PIHS 1990-91 and 2001-02.

⁹² Filmer, King and Pritchett (1998).

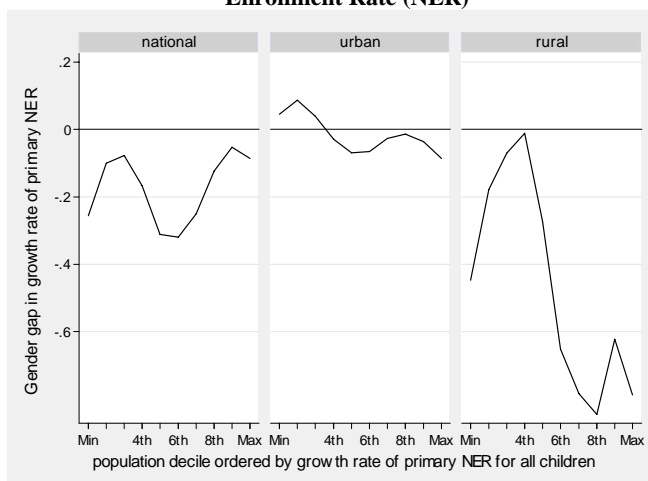
⁹³ Sampling errors are very large though.

small change over the last decade occurred in the richer groups, where enrollment was already high. But if we look closer we can see considerable regional and gender variation. For *urban* areas, the pattern of greater percentage-point increases for higher income groups is replicated across boys' and girls' groups. The differences are stark, with lower enrollment for almost all groups below the median.⁹⁴ For rural areas, there is a dramatic difference between boys and girls. For boys the patterns are similar to those in urban areas, but for girls there is *higher* percentage-point growth among the lower and the upper-income deciles.

3.25. Figure 3.4b shows how big this difference is. Since rural girls (particularly in the low-expenditure deciles) had very low initial enrollment rates a small change in percentage points can lead to large changes in percentages (moving from 2 percent to 3 percent is a 50-percent increase). The picture in urban areas in percentages is not very different from before; both boys and girls show similar trends, with lower-income deciles underperforming their higher-income counterparts. In rural villages enrollment for girls from low-income deciles grew close to **200** percent during the last decade; at an annualized rate of growth, this is close to eight percent. Over the same period, there is almost no growth for boys' enrollment in rural areas, and the relationship with income is almost flat.

3.26. As might be expected, Figure 3.4c shows a sharp decrease in the gender gap among groups with the greatest enrollment growth.

Figure 3.4c: Gender Gap of Growth Rate of Primary Net Enrollment Rate (NER)



Note: Population deciles of per capita consumption expenditure distribution are placed by the growth rate of primary school net enrollment rate for all children, i.e., from a decile with the smallest growth rate to one with the largest growth rate. Gender gaps in the growth rate of primary net enrollment rate are computed by subtracting the growth rate of girls from that of boys, and then smoothed out by a non-parametric method (LOWESS).

Source: PIHS 1990-91 and 2001-02.

School Placement Appears to Favor Wealthier and More Centrally Located Villages

3.27. The poor overall enrollment growth rate seems at least partly related to the poor distribution of schools. Earlier studies argue that the placement decision of public schools was largely independent of community characteristics. But the PIHS data show that public primary schools for girls appear to be overwhelmingly located in wealthier and better-located communities (see Table A3.6).⁹⁵ Since the placement of a primary school is unlikely to change village wealth in a few years, we can be reasonably certain that the chain of causality does not run in the opposite direction. For example Andrabi, Das, and Khwaja (2005) look at villages in Punjab *before* schools were placed in them between 1980 and 2000. They confirm, in *percentage terms*, some differences between communities that received girls' primary schools and those that received none, but that these very small differences do not extend to comparisons between villages receiving a primary school and villages that received both a primary and secondary school. In the villages that received both types of schools population size played a big role (Table 3.2). This is in line with the stated policies of school construction during the past two decades: villages had to fulfill two conditions for a school to be constructed: (1) they had to provide land for the school (4 *kanals*), and (2) they

⁹⁴ Caution: the poor in 2001-02 may be quite different from the poor in 1990-91, both due to income mobility and migration, and such mobility is likely to be more important in urban areas. For example, a lot of new migration to cities by the poor, would leave enrollment rates in the lowest deciles unchanged.

⁹⁵ Lloyd, Mete and Sathar (2002). Alderman, Orazem and Paterno (2001).

Table 3.2: Differences in Population Size between Villages in Punjab that Received a Public School, 1980-2000

<i>Village classification</i>	<i>Total Population in 1981</i>	<i>Total Population in 1998</i>
No girls' primary or secondary school in 2000	1,130	1,703
Received a girls primary school between 1980 and 2000	1,131	1,695
Received a girls' primary and secondary school between 1980 and 2000	1,973	2,954
Received a girls' secondary school between 1980 and 2000 (Primary pre-existing)	3,420	5,041
Pre-existing girls' primary and secondary school for girls	2,881	4,281
Pre-existing primary school for girls, no secondary school in 2000	1,676	2,431

Source: Andrabi, Das, and Khwaja (2005).

had to have a population higher than 500. This suggests that villages without schools (the *marginal villages*) are smaller, poorer, and probably a lot further from the road.

III. DISTANCE AND SCHOOL ENROLLMENT

3.28. This section examines the impact of school proximity on enrollment. Systematic evidence from a number of sources show that school enrollment for girls is highly sensitive to the distance of the household from the school. Clearly school distance increases the financial and physical costs of attendance by increasing transportation costs and commuting time. In the context of rural Pakistan, however, cultural restrictions on the mobility of adolescent girls are likely to pose an additional barrier to school enrollment.

Distribution of rural schools

3.29. According to the PIHS, at the end of 2001-02 about 67 percent of all rural communities or primary sampling units (PSUs)⁹⁶ had a girl's public primary school (compared to 85 percent for boys). This drops to 22 percent for girls' middle schools (26 percent for boys) (Table 3.3). Given the size of the average PSU (see footnote 21), it is difficult to assess school access at the village level using this data. Even a school "inside a PSU" may be several kilometers from any households resident in that PSU. Ongoing work using PRHS-II indicates much poorer school access for girls. Only 46 percent of sample villages in Sindh and Punjab had a girls' elementary school inside the village. In contrast, 87 percent had a boys' elementary school within the village.⁹⁷

⁹⁶ The PSU is the lowest strata in the PIHS. Sample households are randomly selected from each sample PSU. The typical PSU is several times larger than a typical revenue village-but PSU-level data is the only 'community' level data available in the PIHS.

⁹⁷ As part of the PRHS-II (2004-05) a complete census of all schools was conducted in sample villages across Punjab and Sindh considered broadly representative of these provinces.

**Table 3.3: Access to Schools in Rural Pakistan
(in percent)**

	<i>Within community</i>	<i>1-2 kms from community</i>	<i>3-5 kms from community</i>	<i>>5 kms from community</i>
Public primary school for girls	67	7	12	14
Public primary schools for Boys	85	6	5	4
Public middle schools for girls	22	15	23	40
Public middle schools for boys	26	18	27	29
Private primary (coeducation) schools	28	14	10	48
Private primary (coeducation) schools in rural Punjab	33	20	11	36
Private primary (coeducation) schools in rural NWFP	37	12	13	38

Note: The table shows, on average, distance in kilometers from community to schools.

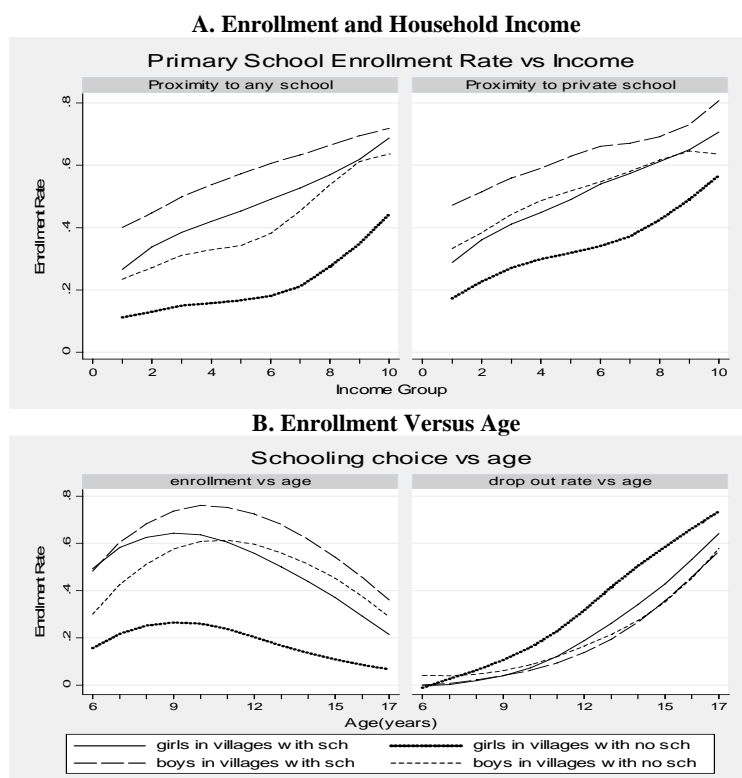
Source: World Bank staff calculations using the rural community survey from PIHS 2001-02

3.30. The 1990s also saw an explosion of private schools in rural areas. The PIHS data show that by 2000 28 percent of rural communities in the PIHS sample had a private school. The numbers were particularly high in rural Punjab (33 percent) and NWFP (37 percent, although this also picks up a large number of NGO and trust schools). Furthermore, private schools overwhelmingly locate in villages where there is *already* a pre-existing primary and/or secondary school. For instance, in the case of the PIHS communities, more than 85 percent of private schools were located in PSUs that had a girls' public primary school.

3.31. Further evidence that private schools locate only in regions where there are pre-existing public schools is provided by Andrabi and others (2005), who look at the census of villages in Punjab by matching data from the Pakistan Census Organization (PCO) with data from the Education Management Information Systems (EMIS). They find that 85 percent of all private schools in the Punjab were situated in villages that already have a boys' primary school; of these, 80 percent also have a girls' primary school. In all of Pakistan, enrollment in private schools as a share of total enrollment is high in certain districts. In central and north Punjab and the NWFP private school enrollments exceed 20 percent and often go up to 45 percent of all enrolled children. But in large swathes of southern Punjab as well as Sindh and Balochistan (with the exception of Quetta and Karachi), this share is between 0 and 10 percent.

3.32. What is clear is that for many rural children the nearest school is several kilometers away.⁹⁸ We examine the impact of this distance on school enrollment using PIHS 2001-02. Figure 3.5 looks at school enrollment for different income groups and across PSUs with and without a public school. Not having a public school in the PSU significantly decreases the probability that *any* child (boy or girl) is enrolled in school, but the effects are larger for girls compared to boys. Multivariate regression analysis shows that the enrollment probability for a girl in a village with a school is almost 18 percentage points higher than in a PSU without a school (Table A3.3 and A3.4). There is a similar (and statistically significant) rise for boys, but the size of the coefficient is smaller. Figure 3.5a shows that the protective effects of higher income do not extend to girl's schooling; the enrollment gap between villages with and without a school continues to hold even at high-income levels.

Figure 3.5: Enrollment and School Proximity



Note: Upper-left: children in each decile of per capita expenditure distribution are classified into four groups in terms of their gender and whether their villages have any school. Enrollment rates of each group are then computed. Upper-right: children in each decile of per capita expenditure distribution are classified into four groups in terms of their gender and whether their villages have a *private* school. Enrollment rates of each group are then computed. Bottom-left: children in each age group are classified into four groups according to gender and whether their villages have any primary/secondary school. Enrollment rates are then computed. Bottom-right: percentage of children who left school after enrolling is computed for the same four groups of children as above. Source: PIHS 2001-02.

⁹⁸ A typical revenue village is said to be between two to three square kilometers.

Box 3.1: Rural Household Decisions (Not) to Educate Daughters

Qualitative data on female education derived from recent interviews with adult females of rural households can be found in Box 1.3, Chapter 1. The purpose of the interview questions regarding female education was to explore factors undermining rates of girls' schooling in rural areas of Pakistan—specifically, what is influencing household decisions not to educate daughters.

Strong Support for the Idea of Female Education

All 60 adult females (97 percent) strongly supported the idea of female education in general, and of their daughters in particular; this was **in spite** of concerns that going to school might compromise the honor (30 percent) or physical safety (15 percent) of girls; or that educating girls had no material benefit because even educated girls could not work and contribute financial support to the household (10 percent). Only two women out of 60—3 percent—said they would not support educating daughters under any circumstances (Table 3.4). Both women happened to be from Sindh—one from Mirpur and one from Badeen.

Table 3.4: Percent of Rural Women who Support Female Education, by Region

Region	Pro-education	Con-education	Total (percent)
N. Punjab	100 (24)	0 (0)	100% (24)
S. Punjab	100 (12)	0 (0)	100% (12)
Sindh	92 (22)	8 (2)	100% (24)
All	97 (58)	3 (2)	100% (60)

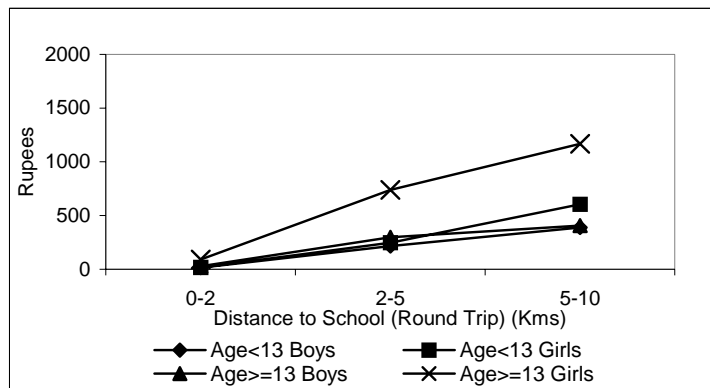
Note: Frequencies in parentheses.

Primary Constraint against Girls' Education is Distance to School

The major constraint against educating girls was the lack of a nearby school (58 percent of women interviewed). About half of these reported the lack of girls' schools to be their village's greatest shortcoming. Sindh had the highest incidence (75 percent) of women reporting the constraint of distance, as neither Sindh site had a school for girls; some families in Mirpur resorted sending their daughters to the local boys' primary school.

3.33. Figure 3.6 shows that families report much higher travel expenditures for girls who are 13 or older and probably enrolled in middle school and beyond—even after controlling for distance to school. As girls reach middle-school age, the direct cost of sending a girl to school seems to increase sharply. The rise in travel expenditures does not appear to occur for boys of middle-school age. Parents may pay higher transportation costs for middle or high school-age daughters since they want to ensure safe passage.

Figure 3.6: Annual Expenditure on Travel to School by Age and Distance to School



Source: World Bank staff cross-tabulations of data on school expenditures reported for currently enrolled children aged 6 to 17.

3.34. The analysis also suggests a gender difference in the way school proximity affects enrollment as the child approaches adolescence (Figure 3.5B and Table A3.2). The sensitivity of enrollment to school proximity increases sharply for girls age 13 and up. This effect is entirely absent for boys. Thus, both for primary and secondary education we see a large drop in enrollment in PSUs that do not have schools. The magnitude of this drop is larger for girls and particularly for older girls. In the PRHS 2001, the parents'

main reason for the child's non-enrollment was, for boys, economic ("school too expensive" cited by 43 percent of parents), but for girls, while economic motives were cited, the response was more often that they did not "approve" of their non-enrolled daughters going to school (30 percent) and that the rate of disapproval of schooling for non-enrolled sons was lower (7.5 percent). Moreover, this 'disapproval' for a girl increases sharply with her age. The qualitative study found similar results (see Box 3.1).

Social constraints on mobility may be important

3.35. Qualitative data from several studies suggests that the way school proximity affects enrollment may be the outcome of gender differences in adolescent girls' and boys' mobility (Box 3.2). Families clearly feel uncomfortable about sending their children to schools outside their own village—this discomfort is exacerbated in the case of girls once they cross the age of menarche. Traveling long distances to attend school clearly entail costs, both direct (such as transportation) and indirect (opportunity cost of time spent in school, concerns about girls security/reputation). These studies corroborate our own findings that mobility restrictions become a more important factor in parental decisions on schooling once girls reach puberty.⁹⁹

3.36. A recent survey of adolescents and young adults also documents the gendered nature of the transition from childhood to adolescence.¹⁰⁰ The study found that as girls transition into adolescence, their mobility and opportunities to interact with the outside world shrinks. For boys, on the other hand, transition to adolescence tends to signify an expansion of opportunities outside the home.

3.37. These quantitative and qualitative results may be suggestive of a school location effect on the enrollment of girls, but there are several problems with interpreting these results as the *causal* impact of distance on enrollment. First, If public schools are constructed only in villages with a demonstrated demand for schooling, it comes as no surprise that enrollment is higher in villages with such schools compared to those without. The analysis of school placement in Section II shows that wealthier and better-located villages are more likely to have girls' schools. Second, the size of the effect found using the PIHS data is likely to be an underestimate since it only indicates whether or not there is a school inside a PSU. But as footnote 21 notes, the average PSU is several times larger than a typical revenue village. The PRHS-II household data---specifically designed to address these issues--- gives us a cleaner and more nuanced picture regarding the impact of school placement on enrollment.

Impact of school location at the settlement or habitation level.

3.38. By and large, public schools are placed in villages on the basis of village population. A catchment area for a school should be defined by the population served. However, most villages in rural Pakistan are organized around distinct settlements or habitations, which are more organic communities. Typically, a settlement has a distinct name and boundary and is significantly more zaat/biradari (caste) homogeneous than a revenue village, which is a largely administrative construct. Thus, if culturally based mobility restrictions are important for girls, then crossing settlement boundaries—even inside a revenue village—should impact school enrollment. Specifically, girls in settlements that do not have a school should be less likely to enroll in school. We should not observe a similar impact for boys. Testing the potential for a "crossing boundaries" effect is the centerpiece of the empirical analysis using the PRHS-II data.¹⁰¹

⁹⁹ Sathar and others (2003); Mumtaz and Raouf (1996); Khan (2000), Khan (1998).

¹⁰⁰ Sathar, ul Haque, Faizunissa, Sultana, Lloyd, Diers and Grant (2003) also found this pattern to exist in the Adolescent and Youth Survey (2003) data.

¹⁰¹ This data collection effort included a complete census of all schools in the sample of villages. This included data on all schools inside a revenue village as well as all schools within a two-kilometer walk of the perimeter of each settlement. GPS coordinates are available for both households and schools, so the distance between each household and every local school can be calculated. The

Box 3.2: Puberty and Girls' Restricted Mobility May Constrain Their Schooling

Puberty is a physical marker of maturity. The onset of puberty brings with it distinctive gender-defined social trajectories for adolescents in Pakistan, as it does in many South Asian societies. As girls enter puberty they often experience increased enforcement of *purdah* norms and restrictions on their mobility and social interactions.¹⁰² The limits on mobility for young unmarried girls include restrictions on traveling unaccompanied and the need to obtain permission from a male member of the family to travel outside the home. The qualitative study on gender (Box 1.3) found that distance to school compounded the effects of cultural constraints.

Interview subjects frequently expressed culturally-based concerns about educating girls (such as incurring disapproval from male villagers or compromising their daughters' honor, especially if she had entered puberty); however, few said that *purdah* and honor concerns would prevent them from educating daughters—so long as there was a nearby school daughters could attend. Less than 17 percent mentioned *purdah* as the overriding limitation on girls' schooling, regardless of distance. Cultural constraints have a greater impact when girls must walk long distances:

Table 3.5: Percentages of Primary Reason for Not Educating Girls, by Region

<i>Region</i>	<i>Distance</i>	<i>Purdah</i>	<i>Total</i>
N. Punjab	46 (11)	12.5 (3)	100 (24)
S. Punjab	75 (9)	17 (2)	100(12)
Sindh	62.5 (15)	21 (5)	100 (24)
All	58 (35)	16.7 (10)	100 (60)

Note: Frequencies in parentheses.

Our village elder, my father, said that if our daughter goes outside the village to study, it will become a problem of our honor. ~Naseem, Lodhran

The biggest problem about educating girls is that one can go either to the fields or to pick and drop the daughters from/to school. If there is a school in the village, I think everyone will educate their daughters. ~Maina, Mirpur

For women and girls, especially those in rural areas, mobility restrictions vary between movements within the community and those outside the community. A qualitative research study of three villages in rural Northern Punjab, undertaken to understand the relationship between women's mobility and their access to health and family planning services, found that unmarried girls were severely constrained in their mobility even within the village (Khan 1998). Girls were restricted from appearing in public places inside the village (shops or bus stops). Their movement outside the village was even more limited. When girls were forbidden to leave the village, it was because travel was perceived as dangerous and often forbidden, due to the potential of sexual harassment at the bus stop or in the vehicles.

3.39. This analysis looks at whether a child has ever attended school, focusing on children age 12 and older. The data indicate that children continue to enter school at the primary level until age 11. This may itself be due to the fact that school distance dissuades parents from sending very young children to school. Any analysis that includes younger children therefore is likely to include a substantial number of children who will enroll in school in the future, but currently show up as never having attended. Focusing on children age 12 and over allows a cleaner estimate of the impact of school location on school attendance.

3.40. Since these children are beyond the primary school entrance age, the measure of school availability must account for whether or not there was a school at the right level and gender in the settlement at the time the child was the right age to enter school. Since the census collected data on the year of establishment of all schools, such a measure can be constructed; thus, for each child, the researchers construct a variable that

identity of the hamlet in which the household and the school are located is also known. Detailed school characteristics were also collected for each school identified in the census.

¹⁰² Sathar and others (2003); Mumtaz and Raouf (1996); Khan (1998); Khan (2000); Hennink, Rana and Iqbal (2004).

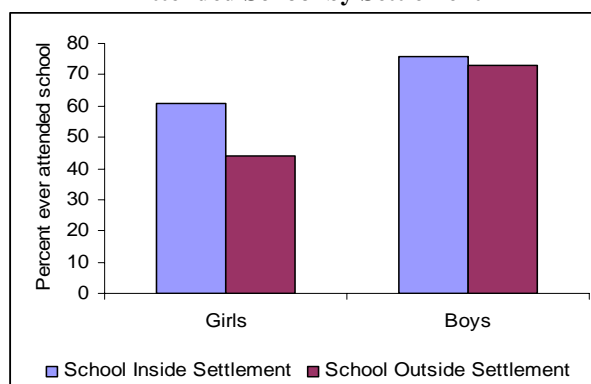
measures whether or not there was a primary school serving the right gender in the settlement in which the child resides when the child was age 11 or younger. A similar measure is created for whether or not there was a middle school serving each gender in the settlement in 2004. Results show that roughly one-half of all children in the sample had a primary school serving each gender in the settlement when they were of primary school age. Predictably, the ratio is lower for girls and higher for boys, at 50 percent and 58 percent, respectively.

3.41. Among the nearly 2,000 children aged 12 – 17 in the sample, 75 percent of boys and 52 percent of girls had ever attended school. These numbers are consistent with estimates from the PIHS as well as the earlier round of the PRHS.¹⁰³ A simple correlation with school availability shows that attendance matters significantly for girls but not for boys. School attendance for girls increases from 44 to 61 percent if there is a school inside the settlement, while the presence of a school inside the settlement has virtually no impact on school attendance for boys (see Figure 3.7)¹⁰⁴

3.42. To look at whether this school location effect survives when accounting for other child, household, and community characteristics (such as the child’s age, distance to the nearest available school, parent’s education, and household wealth), PRHS-II data was used to conduct a multivariate regression analysis. Since school attendance also can be affected by household preferences, a cleaner test of the school location effect is to compare school attendance for opposite sex siblings. This washes out the impact of all household characteristics, like wealth or preferences that may affect attendance decisions for both boys and girls within a household. For within-household comparison of siblings, the analysis shows that school location has no impact on school attendance decisions for sons, but has a positive and large impact on school attendance decisions for daughters in the same age group. Moreover, even after controlling for attendance due to the existence of a primary school inside the settlement, the presence of a middle school inside the settlement has a further positive impact on attendance that is large and significant.

3.43. These substantial school location effects suggests that any measure to improve school access will yield large returns. Clearly, while building schools—private and public—remains important, building a school in every settlement is unlikely to occur. Qualitative studies suggest that the real issue is not one of distance *per se* but one of safety and of prevailing cultural norms around the appropriate chaperoning of young women. Related work using the same data,¹⁰⁵ data from PRHS-II (see also Chapter 2), suggests that even adult married women feel significantly *less* secure when they need to cross the boundaries of their own settlements—even during the day.¹⁰⁶ Only 40 percent of women reported feeling safe walking alone outside their settlements during the day; however, over 80 percent reported feeling safe walking alone inside their own settlement (Table 3.6). Strategies to reduce the costs (social or financial) of getting girls to

Figure 3.7: Percentage of Children Who Have Ever Attended School by Settlement



Source: Cross-tabulations from Pakistan Rural Household Survey, 2004.

¹⁰³ See also the Pakistan Poverty Assessment.

¹⁰⁴ Ongoing work also looks at the impact of the social composition (mainly zaat/biradari) of the community on school enrollment using the notion of “social distance.” Similar issues for girls schooling with respect to caste arise in India as well (PROBE Report 1999).

¹⁰⁵ The sample consists of approximately 1,600 currently married (including divorced or separated) women aged 15-40 from 94 villages in Sindh and Punjab.

¹⁰⁶ Settlements are distinct habitations or communities within villages. They can be thought of somewhat as more organic entities within the bounds of revenue villages. Most have distinct names and boundaries. The revenue village in contrast is a largely administrative construct.

school and back safely may substantially enhance school attendance and retention. We discuss two such strategies in the final section, which identifies policy initiatives to increase schooling. The first is the use of chaperones to accompany girls to school and back. This could be a relatively inexpensive strategy. A second alternative could be to provide subsidized school transportation.

Table 3.6: Women’s Perceptions of Safety
(in percentages)

Province	Feeling of safety when walking alone in the day		
	Safe	Unsafe	Total
<i>While within settlement</i>			
North Punjab	62.9	37.1	100.0
South Punjab	82.0	18.0	100.0
Sindh	90.2	9.8	100.0
Total	81.8	18.2	100.0
<i>While outside settlement</i>			
North Punjab	33.7	66.3	100.0
South Punjab	54.0	46.0	100.0
Sindh	35.6	64.4	100.0
Total	40.0	60.0	100.0

Note: These figures represent percentage of currently married women aged 15-40 who reported feeling safe and unsafe within and outside the settlement.
Source: Pakistan Rural Household Survey –II (2004). This survey covered rural households in Punjab and Sindh.

IV. WILL BUILDING SCHOOLS INCREASE ENROLLMENT?

3.44. The physical and social costs of going to schools far from the home are a major deterrent to female participation in education. More school construction is not a complete solution to this problem, particularly for girls living in small scattered settlements, as is common in the villages of Southern Punjab and Sindh. However, building more schools is likely to be a very important piece of any strategy to enhance enrollment of both boys *and* girls. If schools are built, what will it take to make them functional? A binding constraint on running schools is the availability of teachers who will live in the village where the school is located and that they show up for work on a (somewhat) regular basis.

3.45. The average rural PSU in the 2001-02 PIHS had 1.7 women who had completed class 8 and only 1.1 matriculated women (completed class 10); 47 percent of all rural PSUs did not have a *single* woman with an 8th grade education, while 58 percent had no women with a matriculate degree (Table 3.7). Across provinces, Punjab does relatively better (2.1 average and 40 percent reporting zeroes); predictably Balochistan (0.7 grade 8, 77 percent reporting zeroes) and Sindh (0.9 women with grade 8 education and 59 percent reporting zeroes) are much worse. Put simply, most villages have few or no resident women who could be hired as teachers if a school were to be built.

Table 3.7: Availability of Educated Females

A. Availability of qualified women major four provinces				
	<i>Completed Grade 8</i>		<i>Completed Grade 10</i>	
	Average no. of qualified women in a community	Percent of communities with at least one qualified woman	Average no. of qualified women in a community	Percent of communities with at least one qualified woman
Urban	6.3	92%	5.0	88%
Rural	1.7	53%	1.1	42%

B. Average number of qualified women in a community				
Region	<i>Completed Grade 8</i>		<i>Completed Grade 10</i>	
	Urban	Rural	Urban	Rural
Punjab	6.5	2.1	5.0	1.3
Sindh	6.6	0.9	5.5	0.7
NWFP	4.2	1.2	3.2	0.9
Balochistan	3.7	0.7	3.1	0.5

C. The share of communities with at least one qualified woman				
Region	<i>Completed Grade 8</i>		<i>Completed Grade 10</i>	
	Urban	Rural	Urban	Rural
Punjab	95	60	94	46
Sindh	87	41	83	35
NWFP	86	46	75	38
Balochistan	77	23	74	17

Note. "Qualified women" denotes women between ages 18 and 50 who have completed at least grade 8 (middle school) or grade 10 (high school).

Source: PIHS 2001-02 household data.

The availability of educated women

3.46. There are a couple of reasons why we should worry about the availability of educated women, as opposed to educated men as potential teachers. First, all teachers (by explicit rules of the education department) in government schools for girls must be female. Part of the reason for this rule is presumably that parents feel more secure in sending their girl children to schools that are staffed by females. Second, in the case of private schools that are co-educational, there is a strong profit motive that makes it more beneficial to hire female rather than male teachers. This profit motive derives from strong cultural constraints to participation in the labor force and consequently a lower wage for equivalently educated females compared to males. Private schools overwhelmingly hire female teachers because they can pay them (very) little and get away with it; most likely (and we return to this below) they will not set up in villages where they cannot find such women.

3.47. There also are a couple of reasons why we should worry about the availability of educated women in a particular *village* rather than in the area surrounding it. If labor markets are well integrated, it should

not make a difference whether a sufficient number of educated women are resident in any given village. As we have discussed above, both quantitative and qualitative studies suggest that security concerns and other cultural constraints make it difficult for rural women to travel outside their own village for a day job. Women rarely relocate for work. Rural-to-rural relocation is generally small, and when it occurs, it is in response to marriage rather than to employment opportunities. An alternative mechanism through which educated women could disperse to villages with low populations of educated women is thus through marriage. However, over one-half of all marriages in rural Pakistan are village endogamous (within the village),¹⁰⁷ which limits this possibility.

3.48. Any strategy seeking to expand school access at the primary level, particularly one that seeks to involve the private sector, will require complementary public investments in middle and high schools for girls as well as incentive mechanisms that ease school access. The Social Assistance Program (SAP) during the 1990s was an attempt to bridge this gap. Although this program was heavily criticized and there were severe problems in the field (ghost schools and teachers, and very poor learning), ultimately it did manage to increase the percentage of educated women in Pakistani villages by a small margin. These women were born in the village where they were educated and were likely to remain in the same village. It is plausible that the dramatic expansion in rural private schools since the mid-1990s was attributable to this development. That first cohort of educated women is an important start.

Villages with educated women also have private schools

3.49. Analysis of PIHS 2001-02 data clearly suggests that there is a causal relationship between villages with education women and private schools (Table A3.7). The supply of educated women is higher in rural communities with access to a high school for girls. In communities where a public high school for girls is located five kilometers or less from the community, about 9 percent of women aged 20-44 have matriculate (class 10) or higher education. In contrast, communities where a girls' high school is more than five kilometers away, the supply of educated women is lower, with only 4 percent of women aged 20-44 with matriculate or higher schooling. Women with a matriculate degree or more also appear to be more active in the non-agricultural labor force. Among rural women aged 20-44 with matriculate or more, 24 percent report that they are working. Among these working women, more than one-half report teaching as their occupation.

3.50. This analysis is very suggestive, but the PIHS does not allow us to control for the year of school establishment.¹⁰⁸ Work by Andrabi, Das, and Khwaja (2005) strengthens this argument. They match villages across the census years of 1980 and 2000, showing that villages receiving a government girls' primary *and* secondary school during the two intervening decades had increased chances of attracting a private school by almost 100 percent, compared to villages that received only a government girls' primary school. Furthermore, this study shows no baseline differences between villages that received a primary and secondary school and those that received only a primary school in terms of educational levels, although those that received both had larger populations (Table 3.2). The authors argue that this result is driven primarily through the larger number of women with matriculate degrees who then became private school teachers in the villages that have received both schools.

Since female mobility is low, cohorts of educated women need to be built up in every village

3.51. There is little observed migration among educated women in rural Pakistan. Data from the PRHS (2004) shows that marriage is largely village endogamous. Most married women report being born in the

¹⁰⁷ Based on PRHS-II.

¹⁰⁸ We do not have data on precisely when these schools were built, but we do know that most private schools were established relatively recently and are likely to post-date the public high school. The new round of data includes a complete census of all schools in each sample village and we should be able to answer this question more precisely once that data is analyzed.

village in which they reside and most have natal families in the same village. Among currently married female migrants, almost all (98 percent) report migrating due to marriage or to join a family member after marriage and not in response to employment opportunities. While most rural women aged 20-44 with a matriculate degree or more work in teaching or other formal occupations, the PIHS data do not tell us whether they are employed within the village or outside village. The PRHS (2001) asked women engaged in paid work where they worked. Almost 60 percent of women who were engaged in non-farm work reported working within the village. Given this pattern of marriage and migration, the diffusion of educated women via marriage is not likely. Neither can we expect that educated rural women will migrate in response to employment opportunities.

3.52. These facts suggest that the biggest constraint to providing better schooling is the availability of female teachers and, conversely, alleviating this constraint leads to a private sector response that will plausibly create a virtuous cycle in the long run. Thus, any strategy, which seeks to expand school access at the primary level, particularly one that seeks to involve the private sector, will require complementary public investments in augmenting school access for girls at the middle and high school levels. We need to create that first cohort of educated women in every village.

3.53. To reiterate, public investments in building middle and high schools, where feasible, will have big payoffs; however, it never will be feasible to build schools in every small and isolated settlement. Strategies that reduce the social and financial costs of attendance thus are likely to have high payoffs, particularly in areas which are relatively remote, relatively poor, and where villages are organized around numerous settlements. On a final note, it also is important to note that there are some important additional constraints to school functioning and quality that will impact school demand.

Private schools prefer female teachers and pay them less

3.54. Educated women remain a somewhat captive labor force in the villages where they are educated. This is reflected in their wages to a rather startling degree. Andrabi, Das, and Khwaja (2005)¹⁰⁹ report on salary differentials among male and female teachers in public and private schools. An average female teacher in a government school earns a salary of Rs.5,710 per month—not very different from the earnings of an average male (Rs.6,143). Among private schools, male teachers earn close to Rs.2,000 per month, while females earn only half as much at Rs.1,100. Private schools clearly pay female teachers substantially less than government schools do. Much of this gender difference in teacher salaries no doubt captures differences in educational attainment and training as well as job tenure. Even when controlling for education, educational training, and experience of the teacher, the female penalty remains strong in private schools, but vanishes for government schools. Among private schools, female teachers earn on average Rs.650 less per month than their male counterparts, which is close to 33 percent of the average male wage. When controlling for labor market conditions in the village by looking only at differences within villages, they find no difference in the estimated coefficients, which remains at around Rs.600, for both estimates within villages and within schools. This difference suggests a pure “gender” penalty rather than other variables related to overall labor market conditions. Private schools seemed to have capitalized on this captive labor force since the bulk (over three-fourths) of teachers in private schools in the sample are female, while only 44 percent of teachers in public schools are female.

3.55. This wage differential extends to other paid work as well. Multivariate regression analysis using the nationally representative PIHS 2001-02 data shows that women earn significantly less than men, even after controlling for the age and education of the worker. A man with a primary school education is paid an average salary of about Rs. 2,892 per month, while a woman with a similar educational profile is paid Rs.

¹⁰⁹ Using recent data they collected from over 800 schools (5,000 teachers) in 112 villages of Punjab as part of the LEAPS study.

879. At the secondary-school level, these differences are somewhat attenuated but still large and significant (Rs.3,830 per month for men versus Rs. 1,922 per month for women).

When female teachers work in government schools, they are absent more often

3.56. Although women in government schools are paid almost five times more than their private school counterparts, even in the same village, they are absent more often. Andrabi, Das and Khwaja (2005) find that absenteeism across teachers in public and private schools is 2.6 days during the month (close to 12 percent of all working days). Teachers in private schools are absent significantly less (1.87 days) compared to teachers in government schools (3.18 days). Further, even within government schools, female teachers are the biggest defaulters. An average female teacher in a government school is absent close to four days a month (close to 20 percent of all working days) compared to 2.65 days for her male counterpart¹¹⁰

3.57. The welfare consequences of these absences are less certain. In Andrabi, Das and Khwaja's study, a large fraction of teachers took time off due to health-related reasons among members of their families and other family emergencies. With limited options in terms of substitute teachers with the same educational background (government female teachers are more educated and better trained than their private school counterparts), the welfare benefits of (at least) having a teacher in the school 16 days a month may outweigh the costs of having no one at all.

Even when private schools hire teachers, turn-over costs are high

3.58. The LEAPS survey, there were 2,186 teachers in the 311 private schools surveyed, for an average of seven teachers per school. In the two years preceding the survey, close to 500 had left the school, representing a turnover rate of close to 25 percent every two years. The turnover numbers for government schools were much lower (184) teachers, but still fairly high. Most teachers who left the school in the private sector were women (75 percent), and the lion's share left due to family reasons (marriage, domestic problems, health issues). Such high turnover plays havoc with the running of schools, another argument in favor of creating a reasonably *large base* of educated females from which the pool of teachers can be drawn.

V. RAISING LEVELS OF GIRLS' SCHOOLING: SOME POLICY RECOMMENDATIONS

3.59. Access to schools has to be improved to attract rural female students and retain them in school beyond the primary level. This includes improvements in the quantity and quality of schools and adapting service delivery to the special needs of female students. Federal and provincial governments can learn much from the experience of public and private schools, and from parents' responses to them in taking steps to address the large gender gap.

Increase access to local public schools

3.60. School proximity is critical to girls' enrollment, and a significant proportion of rural communities do not have a school nearby enough for girls. At the primary school level, the ESR action plan (2001-2005) was a move in the right direction. This plan aims to expand the number of schools on the basis of gender and population requirements for schools.

3.61. More private primary schools are unlikely to provide a solution to improving female enrollment, given their existing pattern of expansion. Because private schools require female teachers, they cluster in areas with pre-existing public schools. Because the odds of attracting a private school increases

¹¹⁰ These results were also confirmed in a multivariate regression analysis.

substantially with an increase in the number of public girls' schools, without the government taking the first step, the private sector will not move in. To improve the quality and quantity of primary schooling through the private sector, substantial public investments in middle and high schools are required, particularly in areas which are lagging behind in school availability. Less than a one-quarter of rural communities have a nearby public middle school for girls, and only 10 percent have a nearby high school for girls. Girls' enrollment at this stage appears to be hampered by parents' concerns about letting adolescent girls attend schools that often are outside the community.

3.62. It is probably not practical or possible to place a public primary school and middle or high schools in every rural community. Policymakers should consider cost-effective alternatives that compensate for the constraint of distance. At the primary level, the present policy of allowing girls to attend existing boys' schools where no primary schools for girls are available is an effective way to expand school access for girls. Indeed, co-educational private primary schools' tendency to attract young girls shows that parents are not averse to sending girls to co-educational schools at the primary school level. In communities where single-sex schools are far away and girls have to travel alone to the schools, parents may prefer to send their daughters to co-educational institutions to which siblings can travel together.

Attend to specific constraints: increase numbers of female teachers

3.63. The lack of potential female teachers in Pakistan, which government schools require and private schools prefer, is a significant constraint. Schools will continue to have trouble recruiting and retaining female teachers—particularly in the least-served areas—until local cohorts of female teachers emerge or significant barriers to female mobility that prevent educated women from relocating or commuting to schools that need them are overcome. Because near-term policy levers are unlikely to significantly reduce these barriers, policymakers should focus on interventions that are complementary to those that increase girls' access to schooling. Rural communities need to develop their own cohorts of educated women in order to compensate for the restrictions on bringing in female teachers from outside the community.¹¹¹ By enhancing local girls' access to all levels of schooling, these communities can begin building a ready pool from which to draw the teachers of the next generation.

3.64. The Community Support Program (CSP) in rural Balochistan is an example of a program that specifically addressed the shortage of female teachers. Carried out in three divisions, the CSP experiment provided communities with a school in the village, ensured the presence of a female teacher, and encouraged the communities' involvement in running the school. The CSP set up government-funded community schools. A female teacher was selected through a village education committee set up as part of the program. Due to the short supply of educated females, the educational qualifications were relaxed relative to the standard requirement for a government teacher. A woman was eligible to teach if she had a minimum of eight years of schooling and was a resident of the same village or lived within walking distance of the village. The teachers were given in-service training to make up for lack of educational qualification. Evaluation of the CSP found that the program had a large impact on increasing girls' school enrollment.¹¹²

3.65. Other approaches to alleviate shortages of teachers could include drawing from the pool of educated women from nearby communities. However, this may require assurance of safe transportation to and from school, or providing residential accommodation with assured security.

Enhance demand-side incentives for girls' education

¹¹¹ While urban teachers can be assigned to teach in rural areas, teacher absenteeism tends to increase with the remoteness of the school.

¹¹² Kim, Alderman and Orazem (1998).

3.66. Several demand-side, initiatives such as the middle school stipend program and the school meal program (Tawana Pakistan) are already underway. Such schemes rely on the idea that low enrollments are primarily due to financial constraints. Without doubt such constraints are likely to be quite important for many rural households. Even where households are concerned about the safety of young girls, a stipend could allow them to purchase private secure transportation to and from school. Our analysis indicates, however, that safety concerns are not likely to be addressed completely by reliance on existing means of transportation available in most villages.

3.67. A rigorous evaluation of the stipend program is therefore urgently needed to identify whether the stipend should be pegged to school distance as well as the extent to which uptake of the program is dampened by safety and mobility concerns. If stipends alone are found to be inadequate, several complementary initiatives could be considered to augment their effectiveness. For example, where a school exists within walking distance, trained and licensed chaperones could be used to escort young girls to and from school. Where schools are at a greater distance, as is the case with most middle and high schools, subsidized provision of secure school transport could also be considered. The feasibility of such complementary initiatives could be assessed as part of an evaluation through pilot schemes.