

The Madrassa Controversy
The Story Does Not Fit The Facts

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Over the last few years, US and international foreign policy concerns have focused on the rise of extremism in the Islamic world. Pakistan, considered as pivotal in the war on terror, is mentioned as prominent case. There is by now a widespread conventional narrative surrounding the role of the Pakistani educational system in the rise of religious extremism in the country. The general claim is that the public schooling system in Pakistan is failing especially for the poor. As a result, large numbers are exiting the state system both through attrition or lack of enrollment in the first place. Madrassas have proliferated to fill the vacuum as a result of the Pakistani state and society to provide mainstream schooling opportunities for its children, especially for the poorest segments of the population. This narrative has been presented in the international media and also in policy circles in the United States in many policy studies. The Af-Pak policy framework developed under the Obama administration has also highlighted this point.

This narrative is meant to particularly hold true in the northwestern province of Pakistan bordering Afghanistan. The public imagination has focused on the madrassa as the incubators of the Taliban. In fact, it is often stated that the leader of the Afghan Taliban Mullah Omar studied in a madrassa in the North Western Frontier Province, now named Khyber Pakhtunkhwa (KPK). The fact that the tribal areas of Pakistan bordering Afghanistan are embedded in an integral way in the geography and culture of KPK and are deemed to be the sanctuary of Taliban led attacks on the NATO and US troops in Afghanistan has meant that the madrassa consistently remains a focus of world attention.

In earlier paper (ADKZ, CER 2007), we utilized all available published and verifiable data sources to demonstrate that madrassa enrollment was low across the country. We also showed using household level data collected by the authors in the Learning and Educational Achievement in

Punjab Schools project (www.leapsproject.org) that madrassa enrollment was not only small but also did not follow any consistent pattern across households. In fact, there was considerable within household variation in schooling choices and madrassa enrollment. In that paper, we noted that districts in KPK and Balochistan that bordered Afghanistan had slightly higher madrassa prevalence than in the rest of the country.

In that paper and in subsequent work (ADK, CER 2008), we have shown that there has been dramatic change in the Pakistani education landscape but this change is best characterized by a rise in private schooling and not madrassa proliferation. These private schools are a grassroots, decentralized phenomenon in large part driven by mom-and-pop entrepreneurs largely unaffiliated with any chains or organizations, religious or otherwise. We showed that both in terms of levels and trends, private schools were a considerably more significant phenomenon than in Pakistan at both the urban and rural level.

However, because of lack of data on establishments, we could not address the important question on whether the rise of private schooling had created meaningful school choice at the village level. This question is relevant given the considerable heterogeneity at the country level existing within the rural areas, particularly in the poorest segments of the population. If the answer to the question is in the affirmative, then the impact of the madrassa at the village level would be muted. We could also not examine if there was a socioeconomic pattern that existed to the schooling location decision of public schools, private schools and madrassas at the village level for Pakistan as a whole and KPK in particular.

In this paper, we utilize a new data source, the National Education Census (NEC), conducted by the Pakistan Federal Bureau of Statistics (FBS) in 2005 to fill in the gaps in this debate. The NEC

has several features that make it especially suitable to analyze this question. First, it is the only national level data source that provides a full enumeration of all the schooling types—public schools, madrassas and private schools in Pakistan. Secondly, and importantly, the data collected by the FBS has a coding scheme that allows us to merge it with the Pakistan Population Census 1998 at the village level. Given that we have data in the census on over 46,000 villages in Pakistan, combining the two data sources provides a comprehensive look at education in rural Pakistan at the most disaggregated geographical level possible. Moreover, the census provides us a rich array of socioeconomic indicators at the village level: village housing construction type, electricity and water availability, numbers on adult education levels, TV, radio and newspaper penetration as well as number of people registered in government national identity card databases. These data allows us to construct a village level socioeconomic status index status using principal component analysis. Going to a disaggregated level within rural areas and classifying villages both in terms of size, physical infrastructure and other socioeconomic characteristics, one can examine the important questions of madrasa location vis-a-vis indicators of poverty. The census allows us to construct measures of population at the village level as well as of population density. Village wealth (we use wealth broadly as encompassing the other SES dimensions as well), village size in terms of population and population density allow us to characterize the location decision of all three school types—public, private and madrasa.

Having done this, we find that public schooling is the dominant option for the rural population with virtually every village having a public school. Private schools have a large rural presence with 23% of villages having a private school. In contrast, only 7% of the villages in the country have a madrasa. The establishment data thus confirms our earlier household analysis. Unlike public schools, both madrassas and private schools are largely absent from the poorest villages. The key

difference is that private school prevalence increases dramatically as villages become larger, more densely populated and better off in socioeconomic terms. Madrassa prevalence, on the other hand, does go up with density and population but remains flat relative to the village socioeconomic status.

Based on the above findings, one can reasonably conclude that public school location is largely based on equity concerns based on providing access to poorer segments of the population. The evidence also supports the point that private schools, being a market based phenomenon, are going where the demand is and where they can find locally educated women to serve as teachers. The flat madrassa location pattern as villages become better off belies any simple explanation. The data depict a relatively stable but low per capita demand for this type of education independent of village social and economic conditions. One striking fact is hard to explain. Of the meager 7% of the villages that have madrassas, more than half (4%) also have private schools. Madrassas locate, albeit in a much smaller number, precisely where private schools are locating. A robust predictor for whether a village has a madrassa is whether it has a private school. At least at the national level, the conventional story does not fit the facts!

KPK does provide some support to an enhanced Afghan border effect as far as madrassas are concerned but the data here too do not support a simple story. It is true that madrassa prevalence is higher in KPK with 13% of the villages having a madrassa but the private schooling numbers there are close to the national average with 22% of the villages having a private school. But as in the national numbers, of the 13% of villages that have a madrassa, more than half (8%) also have a private school. Public school location in KPK is if anything more equity minded as public school provision is relatively higher in the poorer villages.

Going further down and looking at a regional breakdown of KPK, we find that the seven districts surrounding the tribal region Waziristan do have a higher prevalence of madrassas within KPK—actually, the highest prevalence in any region of Pakistan—with 33% of villages having a madrassa. But the same pattern of private school provision is visible here as well. Roughly half of these villages have a private school as well and the number of villages having a private school is almost the same (31%). Madrassas do locate more in larger and densely populated villages but as in the rest of the country there is no change in their presence as villages become more prosperous. Interestingly, growth in private schools far outstrips that of the madrassas and the number of private schools formed in the half decade since 2000 is 70% greater than that of the madrassas formed in the same period.

In the rest of the paper, we present the details of the above results followed by a discussion and implications of these findings for implications for policy.

Empirical Details

We first present the overall distribution of schooling at the national level to provide the context for the later discussion. The last population census in Pakistan was conducted in 1998. Pakistan has four provinces—Khyber Pakhtunkhwa (KPK), Punjab, Sindh, Balochistan and three territories with special status (Azad Jammu Kashmir (AJK), Federally Administered Northern Areas (FANA and Federally Administered Tribal Areas (FATA) and Islamabad the capital

territory)¹. We have complete data on village characteristics for the four provinces, about 93% of the country's population. Urban areas represent 33% of the population.

Public schools are the largest component of the education sector with over 143,000 schools providing basic education. The vast majority (127, 000 out of 143,000) of public schools, on the other hand are in the rural areas. Private schools are next in number with over 53,000 reported in the NEC. Predictably, given the population, its density and the wealth levels, the majority (approximately 60%) of private schools locate in the urban areas making them the largest providers of education in Pakistan urban areas now. The madrassa is a distant third numbering roughly 12,000 in the data set. Madrassas are roughly evenly divided between the rural and urban areas of Pakistan. Since more than two thirds of Pakistan population in the 1998 census lived in the rural areas, the madrassa penetration rate in the richer, densely populated urban areas is considerably greater than that in the rural areas as well.

We next present a more detailed analysis on rural areas of the four provinces of Pakistan where a majority of the population and the poor reside. Importantly, households residing in the larger and better off villages of Pakistan are the single largest and a fast growing demographic group in Pakistan and can thus give a better idea of the educational trends in the country. A point often forgotten in education discussions of Pakistan is the ubiquity of public schools in the rural landscape. Virtually every village in Pakistan in our data has at least one public school present and a considerable number have more. Private schooling is the next most prevalent option with about

¹ The province of North West frontier Province was renamed as Khyber Pakhtunkhwa last year. FANA has formally now been given the status of a province and named Gilgit-Baltistan. We don't have these numbers in our data.

22% of villages now having at least one private school. Madrassa is the least prevalent option at the village level with only 7% of the villages with a madrassa presence.

Village sizes vary considerably in Pakistan in the 46,000+ villages in our sample of the four provinces of Pakistan. The median population is 1169 with the 99th percentile being 12,176 and the 1st percentile a village of only 15 people. Thus if schools locate in larger villages, looking simply at village numbers without weighting them for population could be misleading. The numbers show that it is indeed true: the prevalence of schooling opportunities in larger villages is greater. The numbers for madrassas, private schools and girls public school jumps up but the relative rankings remain similar. 17% of people live in villages with a madrassa and the corresponding number for people living in a village with a private school increases to 45%. Almost 20% of the Pakistan rural population is living in villages with 3 or more private schools as compared to only 5% for madrassas--private schools and madrassas are both more prevalent in larger villages both across and within villages. School choice at the larger village is very much a fact of life in modern day Pakistan.

We now take a slightly different look at the data to examine further the range of schooling options at the village level. We classify every village in the four provinces as one of the following type: i) there are no schooling options in the village, ii) both madrassa and private school exist in the village, iii) a private school exists but not a madrassa and iv) only madrassa as the schooling option. Figure 1 provides this detail for Pakistan as a whole and for each of the four provinces. As said earlier, because villages with school presence tend to be larger than the average, we use percent of population living in a village with a particular school as the measure of prevalence.

At the national level, only four percent of the rural population lives in villages where a madrassa exists and there is no private school. In contrast, 32% of the rural population lives in villages where there is a private school but not a madrassa. 13% of the population lives in a village where there is a madrassa but additional school choice exists in that a private school is present and importantly over half the rural population of Pakistan lives in villages where there is neither a madrassa nor a private school.

In terms of provincial variation, population living in madrassa only villages ranges from 3% to 7%. KPK has the largest madrassa prevalence but the absolute differences are very small. Its pattern is remarkably similar to the country as a whole. Only 7% of the rural population of KPK lives in a village where there is a madrassa but not a private school while 13% of the population lives in a village where there are both private schools and a madrassa. A significantly larger 29% of the population lives in a village with a private school but not a madrassa. The ground reality is that for the majority of the rural population, private schools are a more available option but apart from Punjab—the most populated province by far—, the majority of the rural poor in the other three provinces has access to neither.

The data reveal somewhat surprising similarities and differences among the provinces, given the conventional wisdom. Rural KPK is more similar to Punjab in terms of madrassa and private school distribution. Rural Sindh which has both low numbers for madrassas and private schools is more akin to Balochistan in terms of its extremely low prevalence of private schools and the large number of villages where neither are present. Given the sparseness of population in Balochistan and its remoteness, it is best to treat its educational pattern as *sui generis* (no pun intended!)

Thus the basis of the madrassa mythology cannot be found at the level of the province. KPK is surprisingly “normal”. Any search for the madrassa proliferation will have to be seen in pockets of population within the provinces.

Two distinct sub regions of KPK –Swat and Waziristan--have been known in recent years of being particularly noted for Taliban style violence. While we don't have data on the tribal territories, we break the settled districts of KPK down into four regions i) Three districts in the Hazara region largely comprised of non pashto speakers, ii) Eight districts in the larger Swat region, iii) seven districts bordering Waziristan and iv) Six districts in the region surrounding Peshawar. Figure 2 follows the same definitions of prevalence as in Figure 1. Only Waziristan stands out from rest of the province. Districts bordering Waziristan do have a higher prevalence of madrassas within KPK—actually, the highest prevalence in any region of Pakistan—with 57% of the population living in a village with a madrassa. But the same pattern of private school provision is visible here as well. More than two thirds of this population lives in villages that have a private school as well and the percent of people living in a private school only village is a little greater than (21%) the madrassa only villages (17%)

We now come to our final question. Can we trace out from the data the economic, social and demographic determinants of school location. Private schools in Pakistan are mostly for profit and we should expect them to locate where demand is the greatest. We should see large numbers in urban areas and then in richer, larger and more densely populated villages. Private schools are

also resource constrained in terms of finding low cost teachers so that again pushes them towards larger villages where there is an available pool of low wage teachers.

Governments could be driven by equity and providing access to the poor so one should expect to see government schools by such considerations to locate disproportionately in smaller and poorer locations. Governments hire typically at the provincial level and have the mechanism of teacher postings and transfers so the resource constraint at the local level is not binding for them thus they should be able to bring in teachers to the smaller and poorer villages. Both these factors would make government schools less sensitive to village size, density and wealth. Alternatively, given the commonly held perceptions of inefficiency and corruption of the government, one might think government schooling patterns not be sensitive to the plight of the poor.

Of these three types, it is the hardest to *a priori* speculate about the location decision rule of a madrassa. We do not know whether the madrassa “market” or target population lies among the poor or whether they are resource constrained at the local level thus subject to variation in availability of teachers at the local level. This is because the sources of funding for the madrassas are not fully known--whether their funding comes from local or outside sources such as government subsidies or foreign financing remain largely unexamined at this scale and level of disaggregation. The number of madrassa students in nationally representative household surveys is so small that we do not have enough samples to meaningfully say anything about this population. Getting a definitive answer to the madrassa question would require large scale and detailed data on school financing, teacher recruitment and potential student socioeconomic data that has to be generated through specially designed surveys. Without looking at such data, we can only conjecture about madrassa demand and supply constraints. A neutral hypothesis could be

that there is an underlying uniform demand for religious education, independent of the socioeconomic conditions at the local level. Our location analysis is a necessary first step in moving forward on the question of what determines the spread of madrassa at the local level.

The establishment data reveal an interesting picture. In the rural areas in general and in the poorest villages in particular, public schooling is the most prevalent option by a large margin. As said earlier, private schools dominate the landscape in the urban areas. Interestingly, they are a sizable presence in rural areas as well. In particular, as we move up the socioeconomic ladder in the rural areas, while public schools still remain the dominant option, private schools become an increasingly larger alternative. Madrassas locate in larger and more densely populated villages but remains relatively flat across the socioeconomic spectrum. In economic language, the elasticity of private school prevalence vis-a-vis village socioeconomic status is much greater than that of the madrassa. Perhaps, the most striking finding is that Madrassas also do not locate in areas where there are fewer schooling options. In fact they locate, albeit at a much smaller level, precisely in areas where private schools and girls' public schools locate.

KPK does not stand apart from the national picture. While the prevalence of madrassas is marginally greater than that in the country as a whole, it follows the same pattern as the rest of the country with private schools increasing their presence as villages become better off and madrassa prevalence being relatively flat across the socioeconomic spectrum of villages. The public schooling in KPK is marginally more responsive to poorer villages and has a larger than the national average presence there. Waziristan follows a similar pattern.

Our analysis points out a clear decision rule for private and public school location. Private schools are locating where demand is high and resource constraints are low. They are locating in urban areas and not so in the poorer villages. Private schools seem to be following the market where teachers are available and people demand education. They seem to be clearly catering to the newly merging rural “middle class”. However, as soon as villages start getting even a little better in terms of their socioeconomic status, the private school numbers take off. In fact their largest growth has been in the larger, better off villages. Public school location is clearly following an equity consideration. Their location pattern is skewed towards the poorer villages of the country. The madrassa, on the other hand do not show a clear pattern at all. If anything, the best that can be said is that there is a very small demand for the madrassa that is fixed in per capita terms and does not vary very much with any observable economic or demographic characteristics of the country. From the point of view of a poor Pakistani or a poor resident of KPK, the madrassa is largely an irrelevant alternative.

Discussion and Policy Implications:

Poverty

The above findings have important implications towards policy reform. The claim that madrassas are the schooling option of choice for the poorest segments of the population is not correct. The data show that people living in rural areas to some extent and in poorest villages to a large extent have access only to public schools. If one is concerned about alleviating the problem of access to education for the rural poor, then the discussion should not focus on madrassas (or private schools for that matter) as both private schools and madrassas are not locating there. The discussion has largely got to be about the public sector. Policy should focus on improving quality and learning outcomes in public schools which as we show in other research is really low. The

government should concentrate on expanding its role mainly in these areas that are not covered by other schooling choices.

Gender

We have discussed elsewhere in detail that existence of a pool of moderately education women at the village level has provided the impetus behind the rise of private schooling in the rural areas. As the number of educated women in rural area is increasing with time, it will create a further expansion of private schools in the moderate to high SES index villages thus creating a positive feedback loop. The key policy implication in these villages is for the government to ensure that such local pockets of educated women expand (through spread of girl's secondary education) and steps are taken to ensure that the education market performs competitively and efficiently. The issue of public girls schooling in the poorest areas needs to be re-emphasized.

School Reform

According to the census, approximately one million youth are turning eighteen and potentially entering the labor market every year. One of the most pressing problems of the day is training them to participate effectively in society around them and be productive economically. School reform to achieve credible learning and academic outcomes is critical in this regard. Policy debate on education in Pakistan is rightfully turning its focus towards issues such as teacher absenteeism, merit pay, decentralized school management and learning outcomes to name a few. Our other work has pointed out (the LEAPS report, 2007) that private school governance, management and functioning provides significant lessons for the much needed process of public school reform. Given its peripheral status in the Pakistan education landscape, focus on the madrassa does not add any insight into the crucial issue of improving the vast majority of public schools. We

recognize that fighting terrorism, militancy, extremism and violence is perhaps the most pressing problem confronting the Pakistani state and society but there is limited overlap between the issue of education and that of extremism. View the debate on Pakistan education solely from the lens violence and extremism takes away much needed attention from real measures desperately need at this time in schooling that people are actually using.

Revealed Preferences

Our study raises some deeper conceptual questions as well--how to infer preferences of people in that part of the world. As one moves up the prosperity ladder in the rural areas, schooling options increase. While the madrassa prevalence does go up, the marginal increase in private school prevalence is much greater. From a school choice and parental decision making context, private schools have emerged as the more desirable alternative to government schooling for the bulk of Pakistani rural population. The data imply that Pakistani parents beyond the poorest of the poor are actively making educational choices regarding their children's future. One expects this trend to continue as a comparison of the data from 1999 and 2005 shows that the growth in private schools remains strong. As much there is discussion of the average Pakistani having "extreme" preferences, these data show remarkably "normal" behavior on the part of Pakistani parents. Our related work shows that children in private schools show more civic skills, habits and dispositions, exhibit less gender bias and have greater trust in institutions.

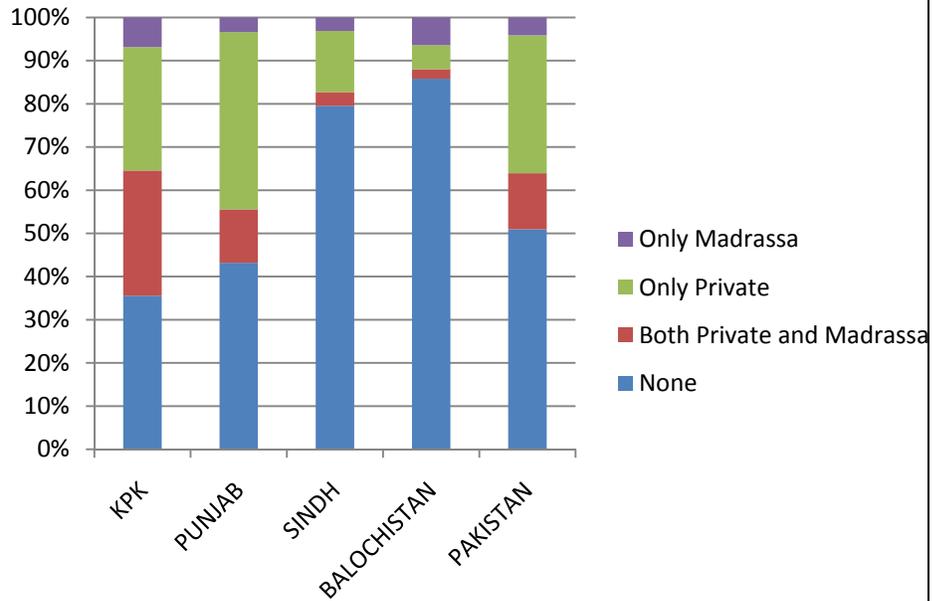
The direction of causality running from madrassas to extremism is extremely difficult, if not impossible, to disentangle. The statistical analysis in this paper has little to say on this issue. Violence and militancy or suicide bombing coming from young men affiliated with some madrassas is more of a security rather than an educational issue. We would argue that even if one

were concerned about issues of extremism, it is the ideological bent of the majority of the population that is the more important target for policy to study rather than just focus on the madrassa. Our other work shows that private school students show less gender bias, have better civic knowledge and attitudes and show more trust in state institutions than their public school counterparts. An approach focusing on more representative data with their richer choice patterns and an unmistakable trend towards private schools would give us a better idea of where the youth of the country are heading and where their families' deeper preferences lie.

KPK

The majority of KPK regions show patterns of schooling much like Punjab and average Pakistan. Districts around Waziristan do stand out in terms of madrassa prevalence. But it is remarkable that even after the traumatic aftermath of 9/11 and violence in the area, private school growth outstrips madrassa growth in that area. The glass is certainly more than half full even around Waziristan.

Figure 1
School Choice at the Village Level
Pakistan and The Provinces

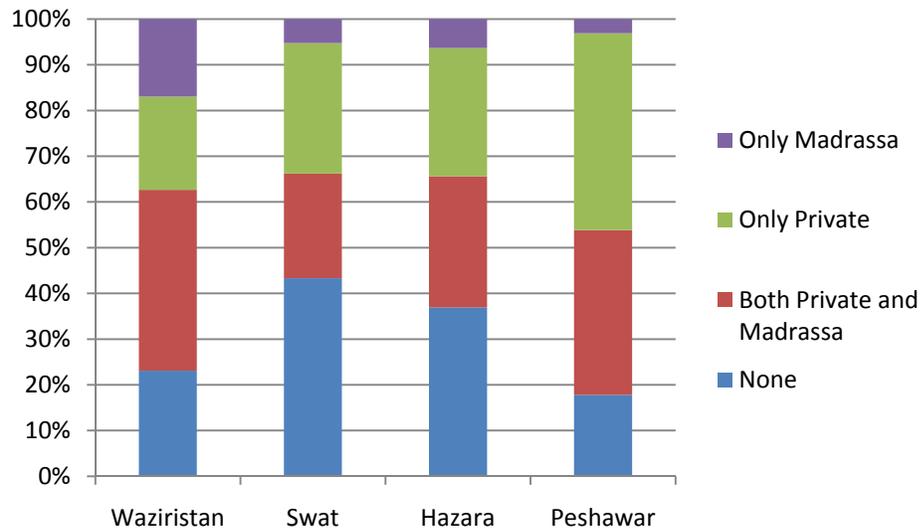


The figure shows percentage of rural population of area living in a village with a school of the given type.

Source:

- i) Schooling numbers from the National Education Census2005, Federal Bureau of Statistics, Government of Pakistan;
- ii) Village Population numbers taken from the Population Census 1998, Population Census Organization, Government of Pakistan

Figure 2
School Choice at the Village Level
Rural KPK



The figure shows percentage of rural population of region living in a village with a school of the given type.

Waziristan: Districts of KPK bordering Waziristan: Bannu, Dera Ismail Khan, Lakki Marwat Karak, Kohat, Hangu and Tank

Swat: Districts of KPK bordering Swat: Batagram, Buner, ChitralShangla, Swat, Lower Dir, Upper Dir, Malakand, Kohistan

Hazara: Districts Abbottabad, Mansehra, Haripur

Peshawar: Districts bordering Peshawar: Peshawar, Charsadda, Mardan, Nowshehra, Swabi,

Source:

- i) Schooling numbers from the National Education Census2005, Federal Bureau of Statistics, Government of Pakistan;
- ii) Village Population numbers from the Population Census 1998, Population Census Organization, Government of Pakistan