SOCIAL DEVELOPMENT PAPERS

SOUTH ASIA SERIES

Paper No. 95/ June 2006

Making Primary Education Work for India's Rural Poor:

A Proposal for Effective Decentralization

Lant Pritchett
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Summary Findings

Three forces are coming together to bring the issue of the relationship between local government and education onto the agenda.

First, in the early 1990s India embarked on a process of creating autonomous units of local government that were elected and which were to be given substantial responsibilities. These bodies, the Panchayat Raj Institutions (PRI) have three tiers generally called the *district*, *block,* and *Gram Panchayat.* There are now over three million people in India who are elected representatives of the PRI bodies. But the actual progress in devolving substantial autonomy and real responsibility to these units of government has seen very mixed progress across the states.

Second, there has been increasing attention to the expansion of education. A government launched scheme, *Sarva Shiksa Abhiyan* (SSA) has attracted increased resources and attention to the elementary sector. Enrollments in primary school have increased substantially. But recent research (which follows up on the pioneering PROBE report) on absenteeism, learning achievement, and the expansion of private schooling suggests that all is not entirely well with basic education in India. People are interested in ways to tackle the "next generation" issues.

Third, the World Development Report on Service Delivery has focused in on the key role of relationships of accountability in providing for effective service delivery. This report has provided a framework for the analysis of accountability in publicly provided services, including how a shift from state level line agency to locally elected bodies might, if well designed, improve accountabilities.

This paper brings these three strands together. Its aim is not to advocate for decentralization, which is far from panacea, but rather to tackle the question "If a state of India has chosen to devolve real responsibility for basic education to PRI bodies what is the most desirable arrangement of the functions, fund flows, and functionaries so that this devolution leads to improved learning achievement?"

In order to do so, this paper uses a combination of analytical approach, reasoning from first principles of public finance and from first principles of accountability, and existing empirical research to propose a way forward for PRIs in tackling the responsibility for basic education.

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Foreword

Today we live in a world of sharp contrasts. There has been great progress in human and economic development. At the same time, deep-seated social and political imbalances continue to constrain opportunities for many of the world's poor. With more than a billion people living on less than a dollar a day, the gap between rich and poor is wide. Millions are also affected by war and other forms of violence, discrimination, or political exclusion. The Social Development Department at the World Bank works to incorporate an understanding of these social, institutional and political factors into development policies, projects and institutions to secure better outcomes on the ground for poor people.

With the goal of empowering poor and marginalized women and men, social development is a process of transforming institutions for greater inclusion, cohesion and accountability. There is a need, therefore, to understand better the social context of the country and the factors that drive societies, as well as the needs and priorities of poor people. Poor people's own voices tell us that poverty is more than low income—it is also about vulnerability, exclusion and isolation, unaccountable institutions, and powerlessness.

This *Working Paper Series* disseminates the findings of on-going social development analysis and practice at the World Bank. Topics include participation and civic engagement, conflict prevention and reconstruction, community-driven development, and social analysis and policy. These reports have had an important impact in disseminating cutting edge research and experience and among development practitioners, governments and civil society across different regions of the world.

In this context, we are pleased to introduce a subset of social development working papers from the South Asia region. The South Asia papers capture the policy shifts in the region that are aimed at transforming institutions towards greater inclusion and empowerment of poor people. Each of these papers dwells at some length on the broader policy context of these changes, and is a testimony of the extent to which Social Development has entered the discourse on policy and on transformation of key institutions. The papers cover a range of important topics, from how traditional axes of exclusion (across caste and gender lines) affect labor market outcomes, to a new understanding of one of India's largest anti-poverty programs. The papers often challenge conventional notions of poverty reduction and provide alternative ways of thinking about policy reform. In particular, many of the papers look at how the local state can play a more inclusive and accountable role in the development process to secure better outcomes for the poor. This critical look at the relationship between the state and citizens is an important part of South Asia's Social Development agenda.

Caroline Kende-Robb
Acting Sector Director
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Introduction

Effective Primary Education – What Does It Take?

Start with a single child. What does that child need for effective learning?

The first requirement is a teacher. The teacher must:

- Know the goal, what it is the child is to learn,
- Know the subject matter to be taught,
- Have mastery of at least one effective technique for teaching the material,
- Be able to assess whether a student has mastered the material,
- Be motivated to assist the child's learning.

In addition, the teacher must be supported with:

- Physical facilities adequate to the learning process,
- Instructional materials,

Building from the primordial interaction of child and teacher in the context of elementary education leads to the classification of the above requirements into seven basic functions that a provider must undertake in order to deliver an educational or instructional service[1].

One of the things that makes elementary a special case is that there is a broad consensus that elementary education should be universal, which implies that, in addition to the above seven fundamental elements of effective instruction, public policy has to provide that this is available to all.

Although this paper analyzes rural primary education for India as a whole, it studies four states in particular – Kerala, Karnataka, West Bengal and Rajasthan. These four states cover a range of situations in India, both in terms of progress in primary education, and in progress on decentralization, as we will see below. All four states have shown commitment to devolution; but they differ considerably in the characteristics and pace of reforms[2]. The broad analysis and results of this paper might have all-India applicability.

Is Effective Learning Happening for India's Rural Poor?

Are the requirements for effective learning in place in the rural Indian setting today? The answer is an unequivocal 'no'. Looking at any metric of educational effectiveness, the picture suggests that these requirements are not in place and quality of government schooling is low.

[1] In thinking through the allocation of responsibilities for elementary education it is worth keeping in mind that government production of elementary education is a very special case of a broad class of the production of educational or instructional services. That is, this generic description of the learning process applies to the range of instructional settings: a private tutor teaching a language, a firm providing training to its own workers, a firm providing training in vocational skills (e.g. computer training), a surgeon learning a new operation, an athlete learning a sport, a not-for profit elementary school.

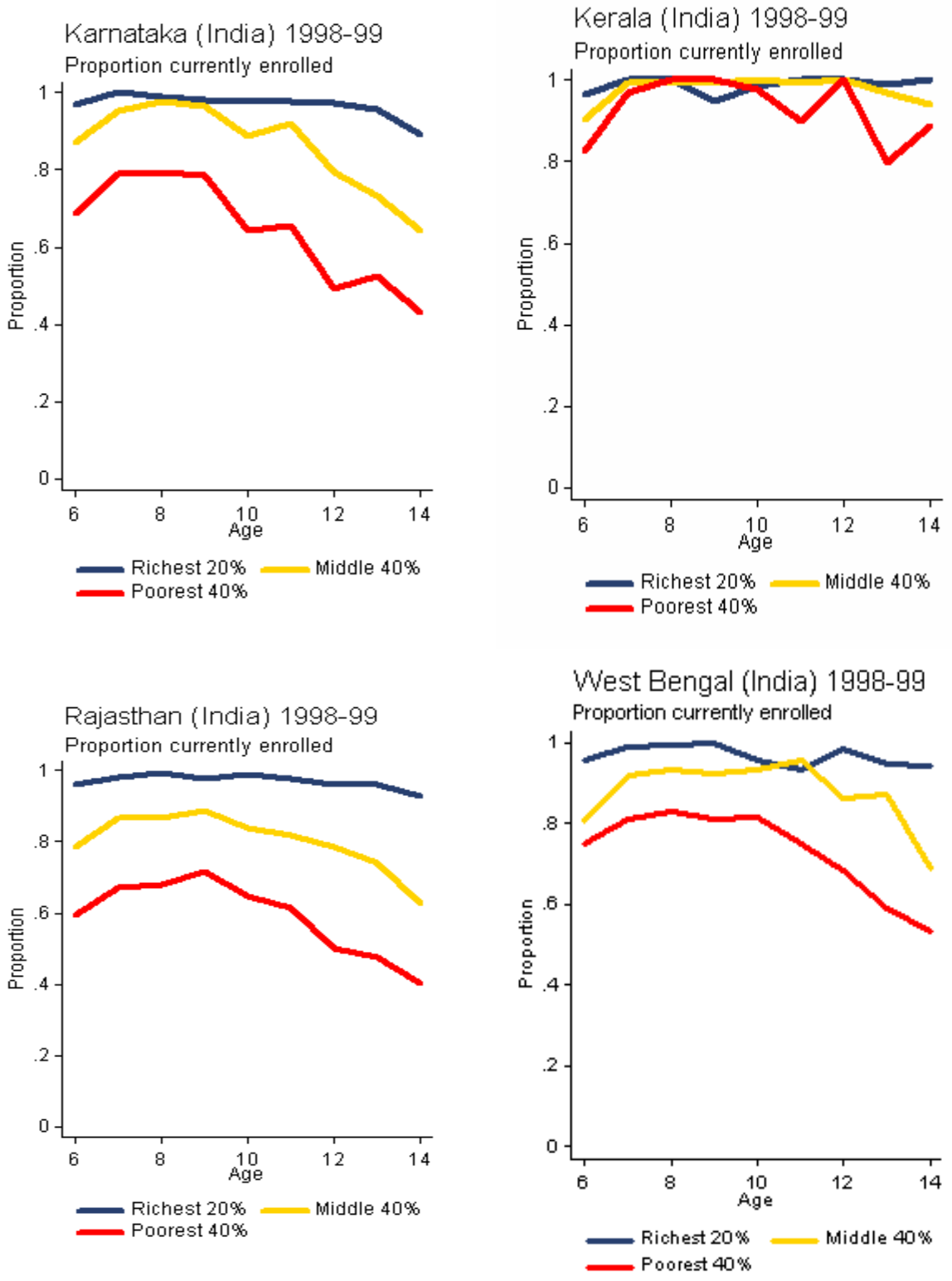
[2] For example, Kerala has shown the deepest rural decentralization; Karnataka has taken a comprehensive approach to its decentralization exercise; West Bengal has been decentralizing sector by sector; and Rajasthan has shown a more gradual move toward decentralization.

The Low Quality of Primary Schooling for the Rural Poor

We look at various pieces of evidence about the quality of primary schooling in India.

First, we look at **enrolment** and **drop-out**. Figure 1 shows the enrolment in primary schooling in the four focus states. As the data in figure 1 shows that with the exception of Kerala, enrolment drops significantly with age in Indian states, especially among the poorest 40 percent of the population. Whereas Karnataka and West Bengal show high initial enrolment and then high dropout among the poor (dropout from the schooling system being indicated by the declining 'slope' of these lines), Rajasthan shows both low initial enrolment and high dropout – less than 60 percent are enrolled at the age of 6, which dwindles to less than 40 percent at age 14. There has been substantial recent progress in enrollment rates and hence from a cohort view that examines completion these gains are yet to be reflected.

Figure 1: Enrolment in Primary Education in 4 Indian States



Second, we look at **completion** or **attainment**.

Figure 2: Attainment in Primary Education in 4 Indian States

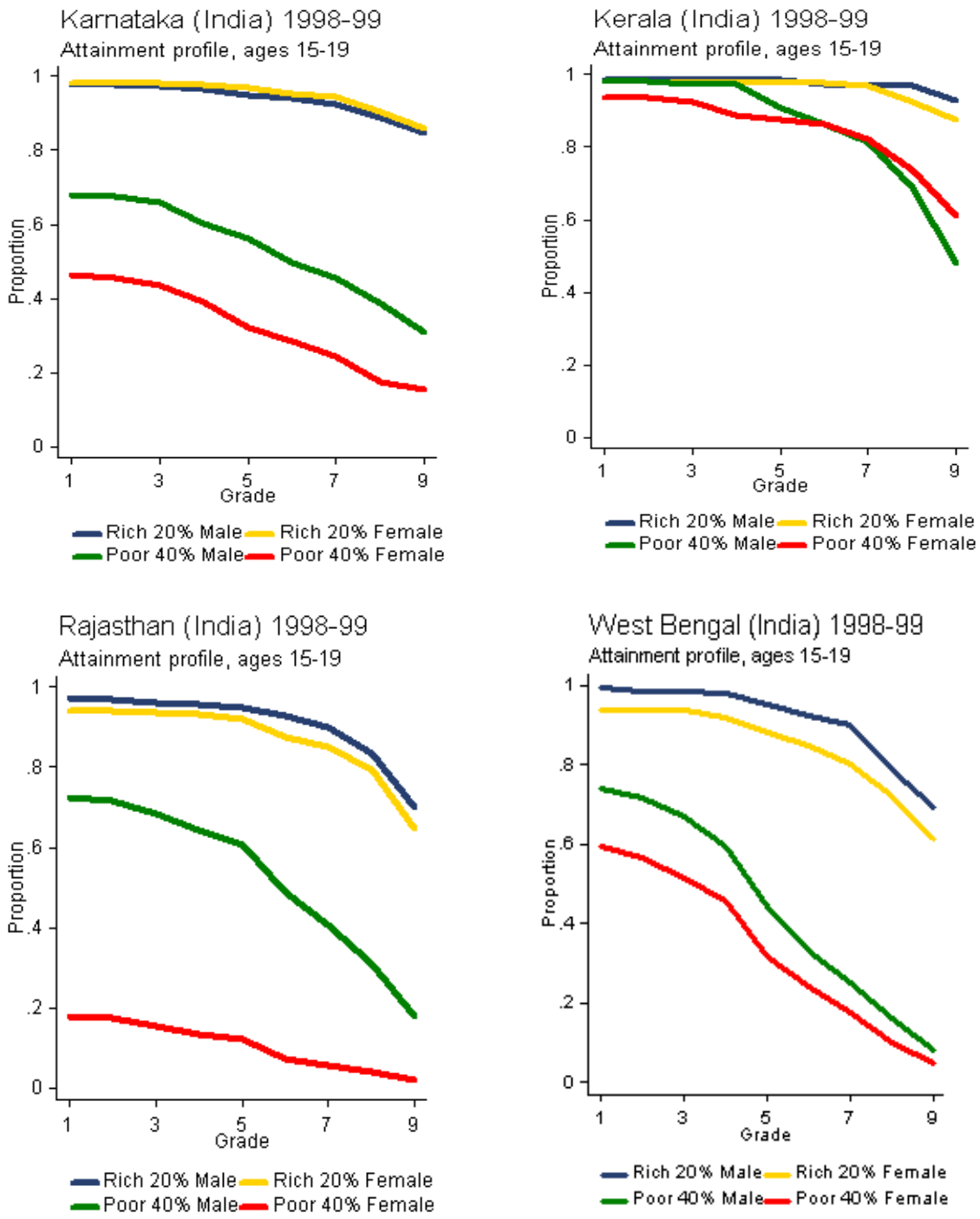


Figure 2 shows the attainment profile – the fraction of students that attained any given grade or higher – for the four states. It clearly shows that attainment or grade completion is very low, particularly for the poor and particularly for females. The combination of being poor

and a girl produces attainment rates that are particularly appalling. Since the attainment profile shows the fraction of students that attained any given grade or higher, the gap between 1 and the "intercept" on the vertical axis are those who never complete a single grade while the "slope" of the attainment profile shows failure to progress across grades. One of the notable features is that the rich-poor gap is more significant than the male-female gap, and that completion of even grade 5 is very low in nearly every state but Kerala. In Rajasthan for instance, of those who were 15-19 in 1998 (and hence had been of school age roughly a decade earlier) only around 20 percent of girls from the bottom 40% income households had *any* schooling at all.

Of course, all of these have improved over time to varying extents, it is still the case that enrollment and particularly completion even of lower primary has not happened.

The third metric we look at is **learning achievement**, i.e. how much did the students learn while they were in school. Here too, the picture is a disappointing one.

The quality of learning achievement is both low and highly variable. While India has some world-class institutions of higher education, the learning achievement of the typical primary school in the government sector is rarely documented and tracked, and almost never compared. Table 1 reports results based on one test of learning achievement of Grade Five students in a national sample to assess the competencies a fifth grader should have mastered. Using just the mathematics examination for illustration, 57 percent of fifth graders in Karnataka answered less than 50 percent of the questions (Column IV). The range was from 81 percent in Kerala to 33 percent in West Bengal.[3] Suppose we assume that all those who do not complete the grade would not have scored more than 50 percent (a fair assumption). We can then add the fraction not completing to those who do complete, but with low achievement. Thus we get a picture of the total learning achievement. Using this simple technique, we find that in Karnataka and Rajasthan, more than 65 percent of children have inadequate primary school learning achievement. In Kerala, the figure of 82 percent indicates high enrollment and low scores; in West Bengal, 54 percent indicates low enrollment and high scores of those enrolled. A situation where between 50 to 80 percent children do not have adequate basic primary schooling competencies is indeed a cause for concern.

[3] Although the test score number for Kerala - showing that more than 80 percent students had less than 50 percent answers correct – might come as a surprise to many, it must be remembered that since its drop-out rate is lower, a greater fraction of those originally enrolled survived until grade 5 in Kerala as compared to other States. Hence the low test score number for Kerala does not suggest it is inferior in overall educational attainment as compared to other States, since the test score measures attainment only for 'survivors', of which there are much fewer in other States.

Table 1: Estimate of inadequate learning achievement* in mathematics, four study states, 2005

State	Percent not completing grade 4	Percent of **Class** with less than X% correct				Percent of **All** children with less than X% correct				Percent of **All** with Inadequate Learning Achievement*
		30	40	**50**	60	30	40	**50**	60	
	(I)	(II)	(III)	**(IV)**	(V)	(VI)	(VII)	**(VIII)**	(IX)	**(I) + (VIII)**
Karnataka	23.9	27.12	46.74	**57.44**	70.10	20.64	35.57	**43.71**	53.35	67.61
Kerala	1.7	40.05	68.45	**81.45**	92.33	39.37	67.29	**80.07**	90.76	81.77
Rajasthan	35.6	21.38	40.69	**53.03**	67.20	13.77	26.20	**34.15**	43.28	69.75
West Bengal	31.2	10.74	22.87	**32.81**	47.46	7.39	15.73	**22.57**	32.65	53.77

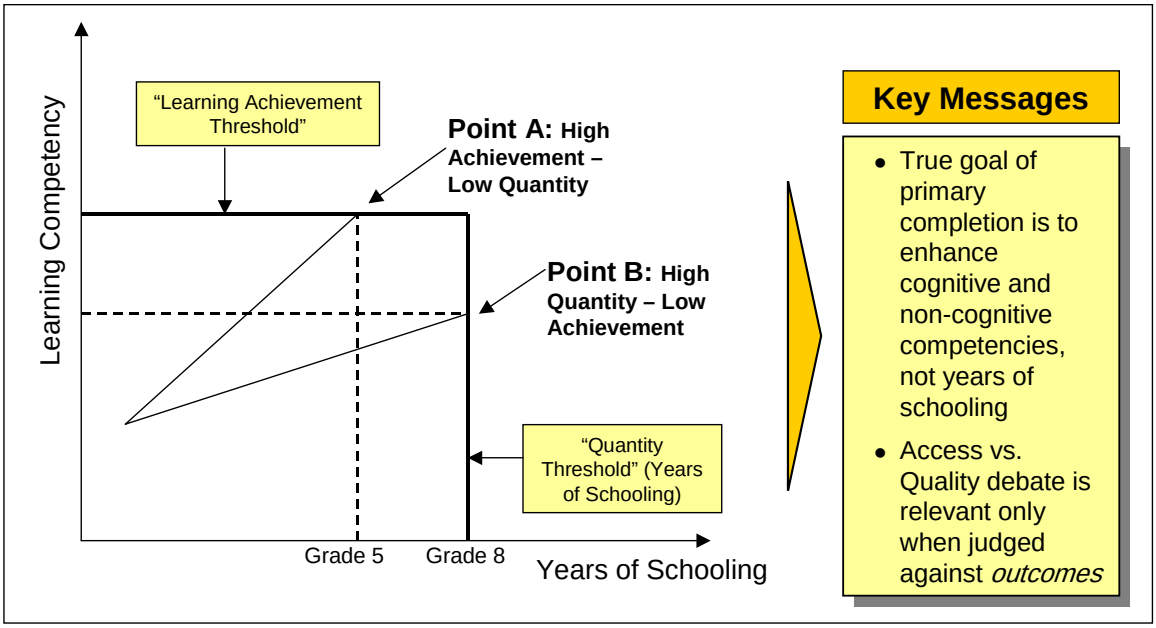
* Either drop out below Grade Five or score less than 50 percent in Grade Five.

Source: Singh, Jain, Gautam and Kumar (2005), Filmer (2004)

Notes for figure 1,2 and Table 1: Enrolment and Completion data from 'Educational Attainment and Enrollment Profiles', Filmer (2004); test scores analysis for government and government aided schools only based on data from Singh, Jain, Gautam and Kumar (2005)

Box 1: Enhancing Learning Achievement – The True Goal of Primary Education

A point that needs to be emphasized here is that the goal of primary education in India is not simply that children spend a certain number of days inside a building called a school, but rather to enhance the *mastery of the basic cognitive and non-cognitive competencies necessary to thrive in India's economy, polity, and society,* which includes within this broader formulation a solid foundation of human development and a capacity for life-long learning. Figure 4 illustrates the relationship between these competencies and schooling. The vertical axis represents any measure of a basic competency (e.g. literacy, numeracy, abstract reasoning, social or citizenship skills) and the bold line labeled "Learning Achievement Threshold" gives a possible minimal target for that competency. The horizontal axis represents "Years of Schooling" and hence the slope of the line indicates the pace of learning (gain in competency per unit time).



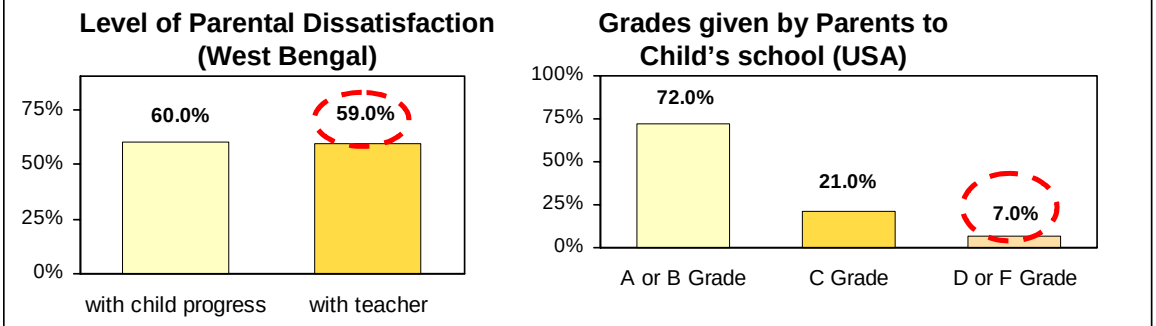
This emphasis on achievement of social and cognitive competence would not be necessary if there were not a pervasive confusion about the goals of education that, in essence, mistakes the horizontal axis (time in school) for the vertical axis (learning achievement and competencies gained). That is, the true goal of universal primary completion as embodied, for example, in the Millennium Development Goal, is not (in spite of the literal language) that each child sit in a seat in a building called a school for a certain number of hours for a certain number of years. The true goal of those that work on education in India is that children emerge from their school aged years better equipped to be thriving and successful citizens, ready to participate in the society, polity and economy (more like a 'millennium *learning* goal') – and time in school is important only insofar as it accomplishes that goal. The "access versus quality" debate is relevant only when judged against the socially desired *outcomes*, which are obviously broad.

The fourth piece of evidence is the lack of parental satisfaction with the primary education, especially in rural government schools. Evidence shows that parental dissatisfaction with their children's schools and their teachers is very high in India. This is in sharp contrast to developed countries, where the general trend is that although parents are dissatisfied with the schooling 'system' as a whole, they are quite satisfied with their own children's school and teachers.

As Figure 3 shows, 59 percent of parents were dissatisfied with performance of the teacher in their children's government primary school in West Bengal (anecdotal evidence suggests this situation is

endemic across India). Compare this to the situation in the US, where only 7 percent parents gave their child's school a D or F grade (signifying dissatisfaction).

Figure 3: Parental Satisfaction with Children's Schooling



Source: The Pratichi Education Report (2002); Berliner and Biddle (1994) pg 113

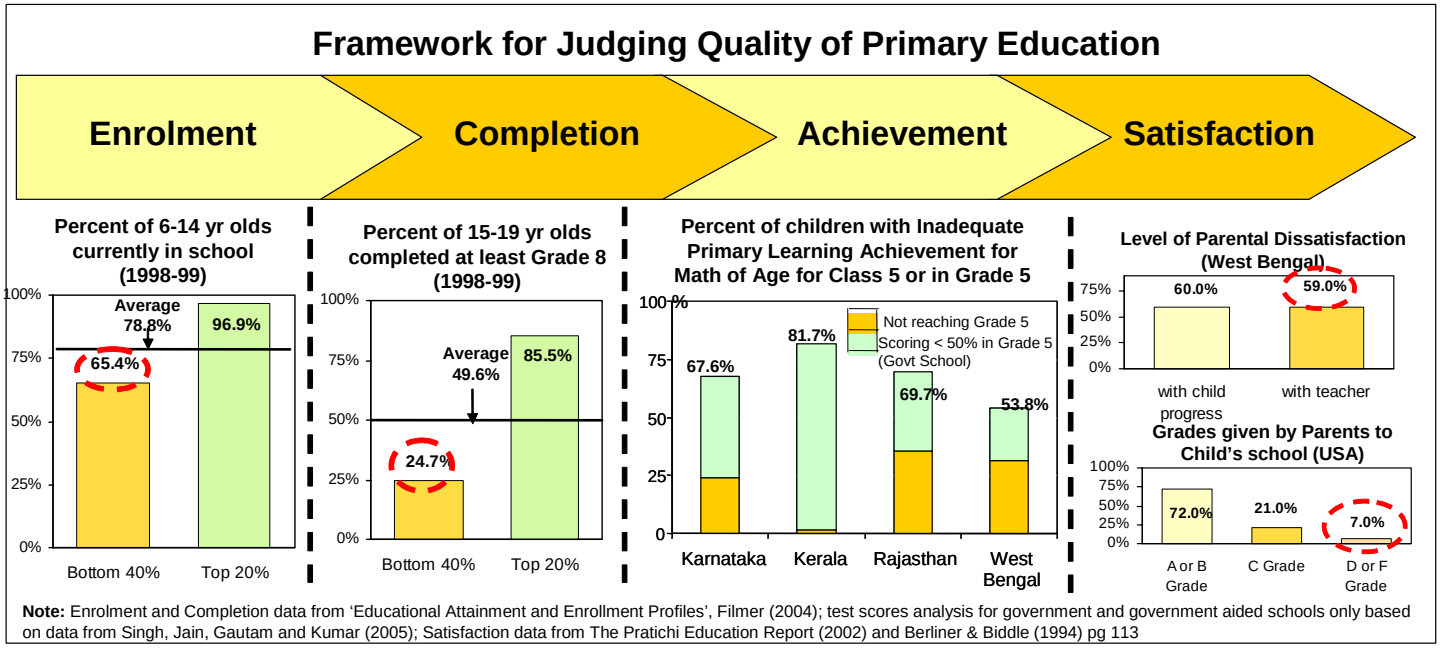
In addition, substantial anecdotal evidence that has been compiled by various nation-wide studies, supports the finding of high parental dissatisfaction. For instance, the study by the Center for Public Accountability only 16 percent reported being "fully satisfied" with the behavior of their child's teacher—including shockingly low values, such as only 1 percent fully satisfied in Punjab, 3 percent in Orissa, 5 percent in Haryana, and 6 percent in Rajasthan.

Add to this the recent evidence of rampant corruption in parental interaction with the educational sector. Evidence from a recent Transparency International (TI) report shows that 48 percent parents in India say that schools are corrupt. TI estimates that 1.5 crores (15 million) households paid Rs. 4017 crores (approx $1billion) in bribes to schools over the last 12 months, consisting of unusual and illegal fees, payment for certificates, admissions etc[4]. In the East and West regions, education was rated as among the top 3 most corrupt sectors. As Das points out, "this does not even include the cost of tuitions that teachers force on their own students and corrupt payments for getting jobs as a teacher in a government school."

In summary, whatever metric we look at, the picture that emerges is of poor schooling quality, especially for the rural poor.

[4] Das (2005)

Figure 4: The Poor Quality of Primary Schooling in India



Note: Enrolment and Completion data from 'Educational Attainment and Enrollment Profiles', Filmer (2004); test scores analysis for government and government aided schools only based on data from Singh, Jain, Gautam and Kumar (2005); Satisfaction data from The Pratichi Education Report (2002) and Berliner & Biddle (1994) pg 113

Systemic Failures – The Key Problem

We argue that the low quality is caused by systemic or institutional failures, and not managerial problems.

The high incidence of teacher absenteeism and non-teaching in government primary schools is a symptom of this systemic failure.

The Public Report on Basic Education in India (PROBE 1999) drew wide public attention to this problem with the data and anecdotes collected during their survey of primary schools in four states (reference). Typically is this description of a school in rural Rajasthan:

> *"When the investigators reached the primary school in Jotri Peepal (Bharatpur, Rajasthan) shortly after noon, no teacher was in sight. One teacher, who had apparently left for lunch, soon appeared. He said that the school actually had three teachers, but that the headmaster and another teacher had gone elsewhere on official duty. The villagers contradicted this story. They said that the two absconding teachers did not turn up at all. The only one who did was the one the investigators had met . . . . He too was highly irregular and opened the school at will" (PROBE Team 1999).*[5]

Subsequent studies nationwide with enormous samples and careful methodologies have confirmed that teacher absenteeism is astonishingly high, even when compared with other developing countries, with almost 25 percent teachers absent from work at a given time in India. While Kerala did relatively well compared to other states of India, even its absence rate was higher than any other

[5] Quoted in Chaudhury et al (2005)

country in sample (except Uganda) – higher than Bangladesh, Indonesia, or Zambia. Whereas some teacher absenteeism is understandable – international benchmark evidence shows that absenteeism of 7-9% is the 'best practice' – the significant gap that exists between the Indian average and the best practice level (a gap of 16-18%), shows the problem is systemic.

What was even more shocking was the finding that only 45 percent teachers were both in school and involved in active teaching (the percentage was less than 25 percent in some states). Other present teachers were involved in a range of 'non-teaching' activities.

What is important to note is that this high absenteeism is not because teachers are underpaid relative to international standards, as is often argued. India's primary school teachers are among the most absent, *and*, among the highest paid relative to available opportunities of anywhere in the world (A more detailed discussion on teacher compensation in India can be found in Appendix H). This suggests that the failure of primary education is systemic, requiring an institutional solution, and not a managerial quick fix.

Lack of Accountability as the Key Systemic Failure

Here we argue that the systemic problems of rural government primary schooling in India arise due to inadequate accountability relations in service provision. We show this using the framework of the World Bank's *World Development Report 2004: Making Services Work for Poor People* (WDR 2004). This report documents the systemic problems with public production of schooling – unaffordable or unequal access, dysfunctional schools (due to, in part, high levels of teacher absenteeism), low technical quality, misallocation of resources by level of education and across inputs, stagnant productivity, and low client responsiveness. The report argues that these failures are not just happenstance but are the *result* of the weak accountabilities in the typical *system* of education.

This systemic approach implies that attempts to improve education that deal only with "proximate determinants" of learning and expand the "business as usual" format (e.g.: radial expansion of education budgets) are bound to have only marginal impacts if the key problem is that within the current institutional structures for government production of schooling there are too few accountabilities for *learning performance* oriented management. If the system creates no incentives for effective learning then neither budget increases nor new knowledge alone are likely to improve conditions.

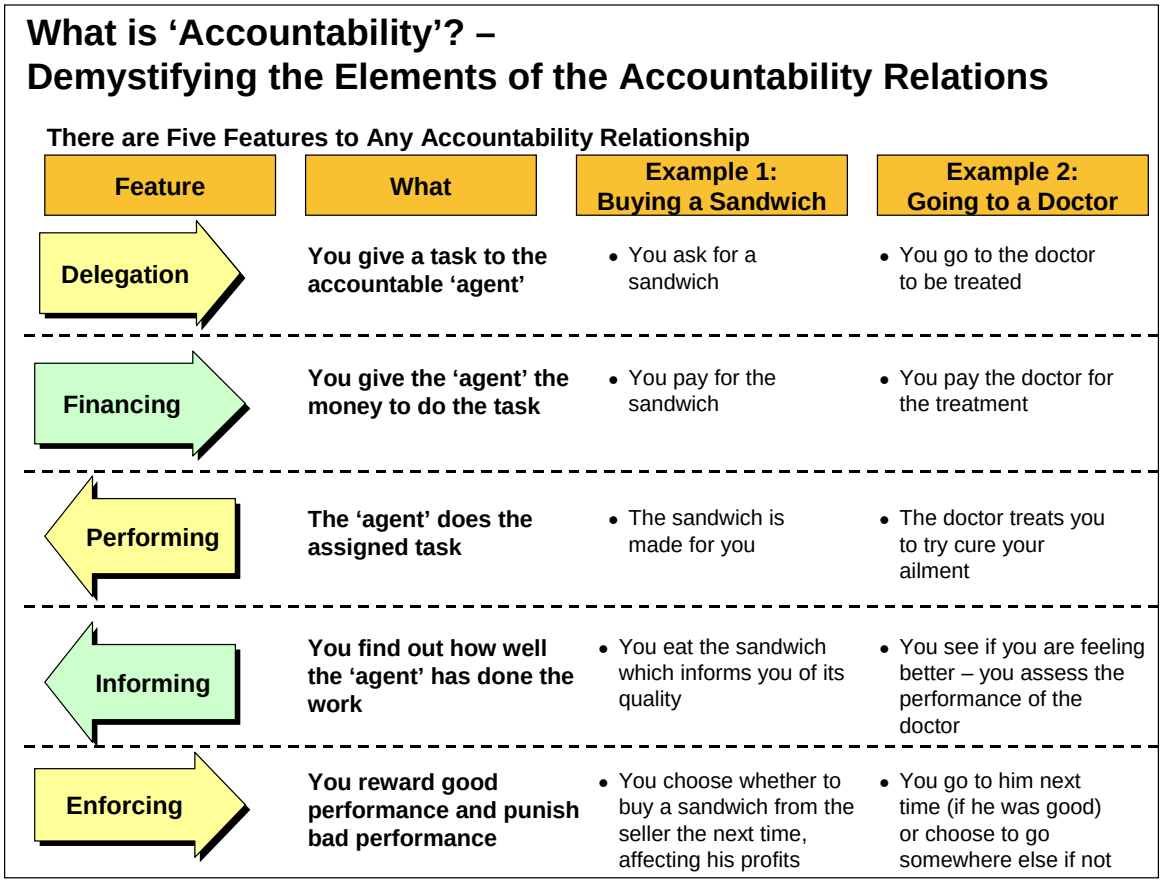
What is Accountability? Demystifying Accountability Relations

Accountability seems to have become a commonly used buzz-word used to describe a whole range of relationships. Here we attempt to 'demystify' this term, explaining the various elements of an accountability relationship, using the approach of the WDR 2004.

Accountability is a relationship among actors that has five features: delegation, finance, performance, information about performance, and enforceability. Relationships of accountability can be as simple as buying a sandwich or going to a doctor – and as complex as running a democracy. For example, in buying a sandwich you ask for it (delegation) and pay for it (finance). The sandwich is made for you (performance). You eat the sandwich (which generates relevant information about its quality). And you then choose to buy or not buy a sandwich another day (enforceability). Similarly, in going to a

doctor, you go to the clinic to be treated (delegation), you pay the doctor for the treatment (finance), the doctor tries to cure your ailment (performance). You follow the doctor's advice (which generates information about how good his treatment was) and see if you are feeling better. And you go to him next time (if he was good) or choose to go somewhere else if not (enforceability). This is shown in Figure 6 below.

Figure 6: Demystifying Elements of Accountability Relations

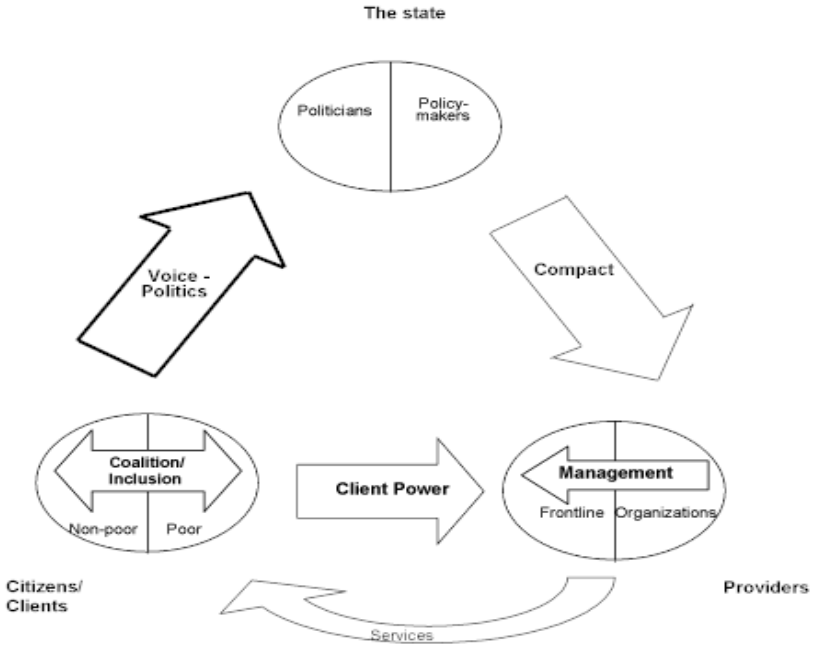


Two important points emerge from this framework. First, weaknesses in any aspect of accountability can cause failure. One cannot strengthen enforceability – holding providers responsible for outputs and outcomes – in isolation. If providers do not receive clear delegation, precisely specifying the desired objectives, increasing enforceability is unfair and ineffective. If providers are not given adequate resources, holding them accountable for poor outcomes is again unfair and ineffective. Second, putting finance as an important step in creating a relationship of accountability stresses that simply caring about an outcome controlled by another does not create a relationship of accountability. To be a "stakeholder" you need to put up a stake.

In the chain of service delivery, there are four broad roles: Citizens/clients, Politicians/policymakers, Organizational providers (Health departments, education departments, water and sanitation departments) and Frontline professionals (doctors, nurses, teachers, engineers). In the ideal situation these actors are linked in relationships of power and accountability. Citizens exercise voice over politicians. Policymakers have compacts with organizational providers. Organizations manage frontline providers. And clients exercise client power through interactions with frontline providers. Weaknesses in any of the relationships—or in the capacity of the actors—can result in service

failures. Providers can be made directly accountable to clients (as in market transactions) by passing decisions and powers directly to citizens or communities—a "short route" of accountability. But, more typically, the public sector is involved, so two key relationships—voice and compacts—make up the main control mechanism of the citizen in a "long route" of accountability. In either case, organizations (such as health, education, and water departments) need to be able to manage frontline providers.

Figure 7: An illustration of the four (potential) relationships of accountability involved in the provision of services via the public sector: voice-politics (between citizens and the state), compact (between the state and producers), management (between organizations and frontline producers), and client power (between citizens/consumers and producers).



Source: *World Development Report 2004*

Each of the four accountability relationships (*Voice*, *Compact*, *Management* and *Client Power*) in Figure 7 has the five features discussed above: Delegation, Finance, Performance, Information, and Enforceability.

As discussed, the alternative to the "short route" of accountability through client power is the traditional "long route" which involves two relationships of accountability (*voice/politics* and *compact*) and each of which has the five elements (delegation, finance, performance, information, enforceability).

The relationship between citizens and the state, called *voice/politics* in figure 7 means that citizens *delegate* functions to the state, pay taxes to *finance* services, the government then takes responsibility for *performance* the services, citizens gather *information* about the quality of performance, and then attempt to create enforceability by rewarding or penalizing the state for the quality of services.

The government carries out the services by creating an accountability relationship with *organizational service providers* whereby the government *delegates* responsibility for schooling (perhaps to a ministry of education, which although a part of the government is also an organization

that provides services), the government then provides *financing* by allocating budget to the provider, the organizational provider then *performs* the service of providing schooling, and *information* is passed to the state, and the state then creates enforceability by holding the organizational providers (e.g. ministry of education) responsible for their performance.

So far these are idealized descriptions of the *possible* relationships. Does this actually happen for the rural poor in India? Clearly not. As discussed earlier, rural primary education in India suffers from systemic failures. In particular, lack of accountability is the underlying systemic failure of service delivery in India.

In the context of basic education in rural India the *disarticulation* of the accountability relationships—unclear delegation and performance standards, finance unrelated to specific performance, lack of widespread, relevant information about performance either internally or externally, and little enforceability over either organizational or front-line providers—are the *root* causes of poor service delivery.

Consider education in this framework, thinking of either private (NGO, not-for profit, or for profit schools) or government provided schools.

In the case of privately provided education the relationship of "client power" is the key. Parents *delegate* by choosing a school and provide *finance* by paying the school fees and charges. The school then *performs* by teaching the child. Based on the *information* created in this performing – that is, the child and parent directly observe the teaching – and whatever other information that is available parents assess providers. The main element of *enforceability* is that parents can choose a different school and hence the provider loses the revenue from that parent (and possibly others).

Of course there are many limitations to the accountability created by privately provided elementary education: if choice is limited (as in some rural areas of India) then *enforceability* is limited, *information* about the quality of teaching/school performance is often difficult to obtain and interpret, and most importantly, there is no inclusion of the poor as those cannot pay cannot create a relationship of accountability in the first place.

How does "client power" look in government primary schooling? Parents *delegate* but often do not have the luxury of choosing the provider – they have to send their child to the one government school that exists and is affordable. Clear deliverables – a vital part of delegation – are often not specified. The provider (school) is *financed*, usually from public funds, but the finances are often tied to particular uses (e.g. most towards teachers' salaries), leaving the school with little discretion on allocation of funds, which limits their ability to meet client expectations. The school *performs* through its frontline professionals (teachers), often inadequately, as teacher absenteeism numbers in India tell us. Parents get limited *information* to assess the school and teachers' performance, as the discretionary and transaction-intensive nature of the service makes attribution (often against unclear expectations). Lastly, the parents ability to *enforce* is almost non-existent, as teachers contracts are usually with state governments, not with clients or local governments, who have little influence over them.

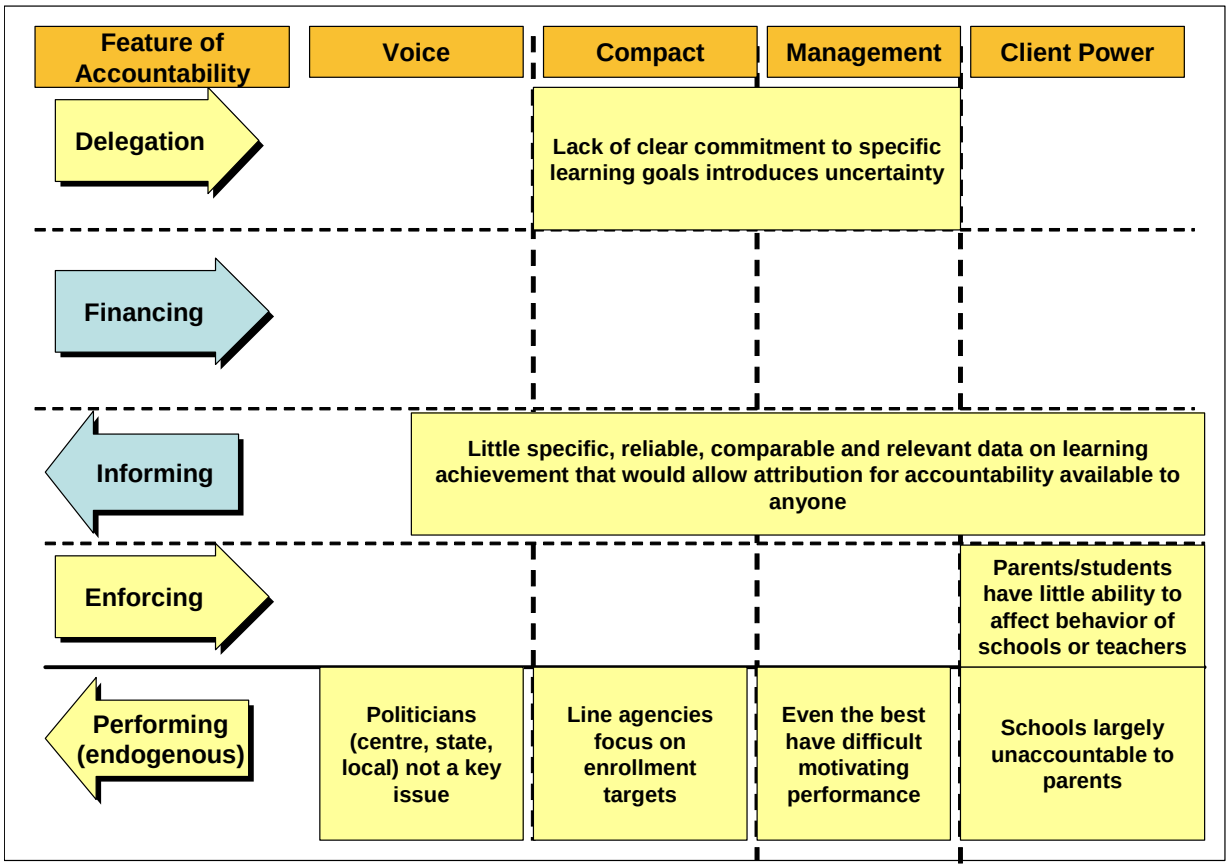
Similarly, major weaknesses exist in the other relationships of accountability (in voice/politics, compact and management) which make up the "long route" in the provision of government primary schooling. These are summarized in Table 2 below.

Table 2: All four relationships of accountability in education in the public sector (voice, compact, management, client power) have major weaknesses.

	The four relationships of accountability			
Elements of a relationship of accountability:	Citizens to state **Voice**	State to organizational providers **Compact**	Organizational provider to frontline providers **Management**	Citizen to organizational provider (in public sector) **Client powe**r
Delegation	Education one of a myriad of issues	Unclear delegation with many competing priorities	Teachers are burdened with many responsibilities and not given adequate autonomy in classroom	Parents want to delegate but objectives are diffused
Financing	Little connection between taxes paid and services expected	Financing unrelated to goals—inadequate to achieve target, not allocated across interventions	Budget at school level is tied into wages of teachers plus a variety of "schemes"	No connection between school budget and performance; teachers are paid very well
Performance	**Endogenous**	**Endogenous**	**Endogenous**	**Endogenous**
Information	Little useful benchmarked information for citizens to judge performance of state	Little useful information utilized in judging performance of ministry	Little attempt to measure performance of individual teachers	Parents know some dimensions of quality of teaching very well (e.g. attendance) but not others; parents don't participate in school committees
Enforceability	Electoral accountability, but hard to relate to performance.	Ministry budgets are unrelated to sector performance in outputs.	Ministries have little control over teachers—nearly impossible to reward good performance—or penalized bad performance.	Parents have little or no ability to enforce – reward good teachers or penalize bad teachers

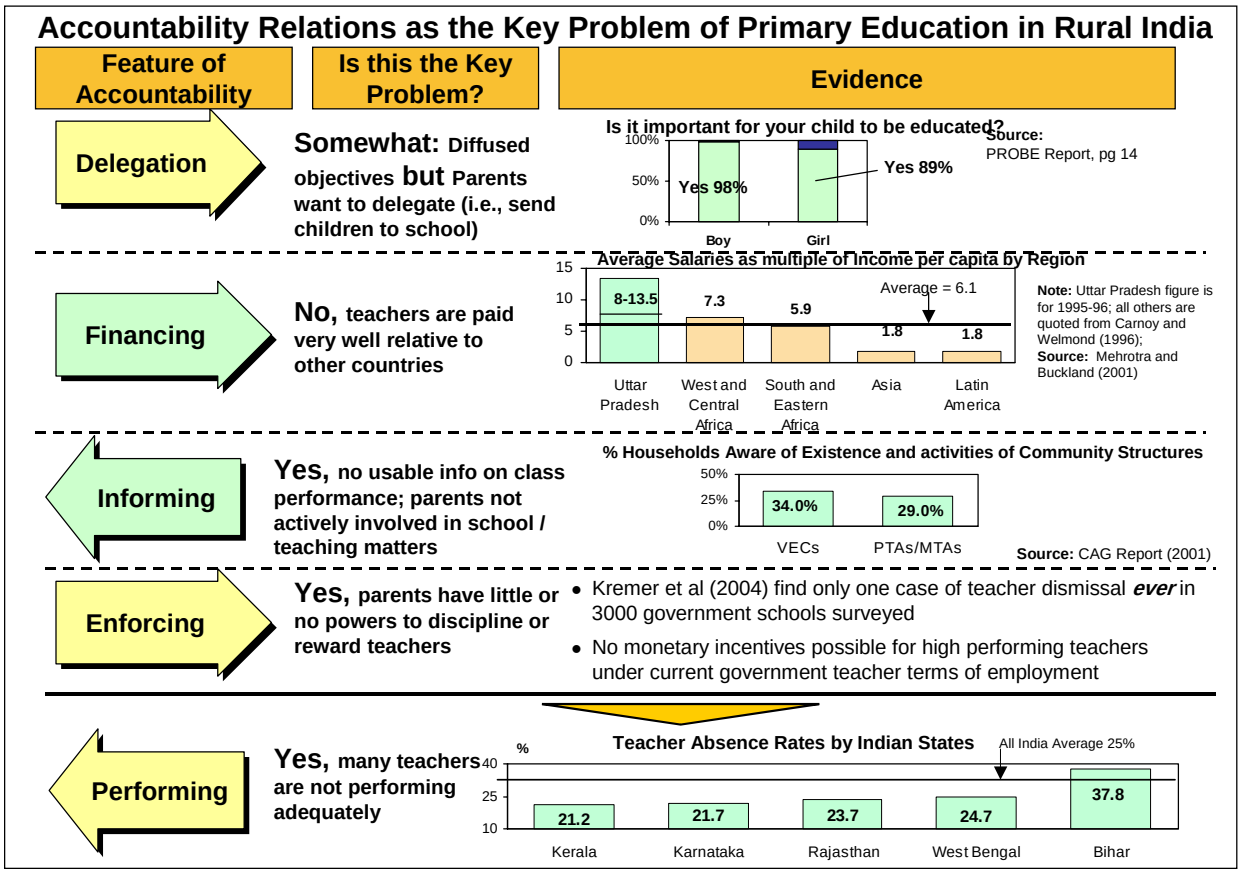
OR

Table 2: Missing Links in the Chain of Accountability



Thus we see that lack of accountability is the key problem that is causing the systemic failures in rural primary education in India. The evidence for this is summarized in Figure 8 below.

Figure 8: Accountability Relations in Government Primary Education



Box 2: Increasing Accountability of Frontline Providers: The Role of Finance, Information and Enforceability

Does improving weak elements of the accountability relations help improve performance of service providers, especially in primary education? A recent randomized experiment done in Udaipur district of Rajasthan provides some evidence that improving accountability relations (through a well planned and implemented monitoring and incentives program) can in fact work (Duflo and Hanna (2005)).

In the experiment, in 60 randomly selected schools (the "treatment schools"), the teacher was given a camera, along with instructions to take a picture of himself and the students every day, at the start and close of the school day. The cameras had temper-proof date and time functions, providing detailed evidence on teacher attendance. Teachers received a monthly payment based on the number of "valid" school days for which they actually attended, where a "valid" day was defined by a day where the opening and closing pictures were separated by at least 5 hours and a minimum number of children were present in the pictures. In the remaining 60 schools (the "comparison schools"), teachers were paid a fixed rate for the month, and were told (as usual) that they could be dismissed for poor performance. The introduction of the program resulted in an immediate improvement in the rate of teacher attendance (measured through one unannounced visit per month, in both treatment and in comparison schools), which persisted during the entire year. Specifically, the absence rate changed from an average of 42% in the comparison schools to 22% in the treatment schools.

Moreover, when the school was open, teachers were as likely to be teaching in treatment and in comparison schools, and the number of students present was the same. Linking pay to presence led to a higher level of presence, which resulted in more time for pupil-teacher interactions. A program school taught the equivalent of 88 children-days more per month than a comparison school. The higher attendance rates appear to have led to increased child learning: A year after the start of the program, test scores in program schools were 0.17 standard deviations higher than in the comparison schools; this difference is significant.

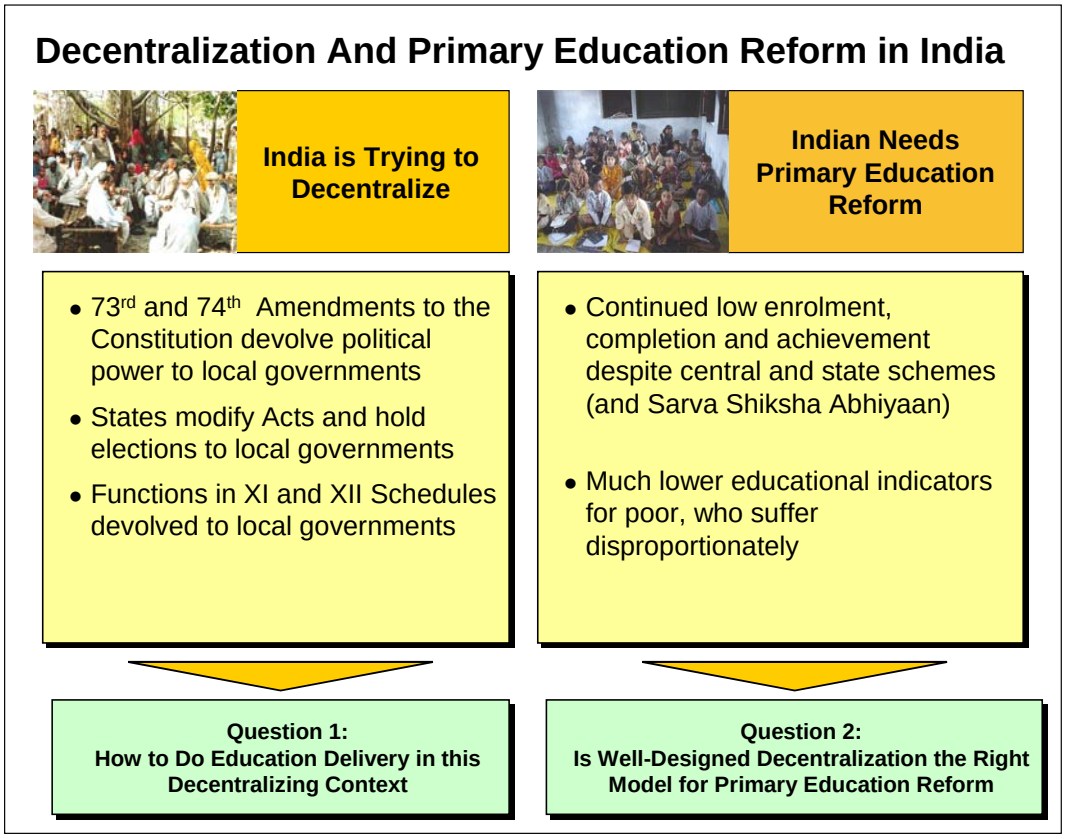
This experimental evidence suggests that if we get key elements of the accountability relations right, service delivery can improve. In this example, well-directed *finance* (availability of funds for the incentive scheme), clear *information* (monitoring through the cameras) and a well-designed *enforceability* mechanism (monetary rewards for higher teacher attendance) led to a significant improvement in both teacher attendance and student learning achievement. This also shows how the missing elements of accountability in the current system are a cause of the failure of government primary schooling.

Decentralization and Primary Education Reform: The Two Questions

Given that primary education in rural India suffers from systemic failures that need to be addressed, how does decentralization fit into the picture. It is important to distinguish that there are two distinct questions that arise.

First, given that India has embarked on an ambitious process of decentralization, what is the best way to reform primary education in this decentralizing context. Second, given that rural primary education needs reform, is a 'well-designed' decentralization proposal the right way to go about it.

Figure 10: Decentralization and Primary Education Reform – The Two Questions



We address these questions in turn, starting with the first.

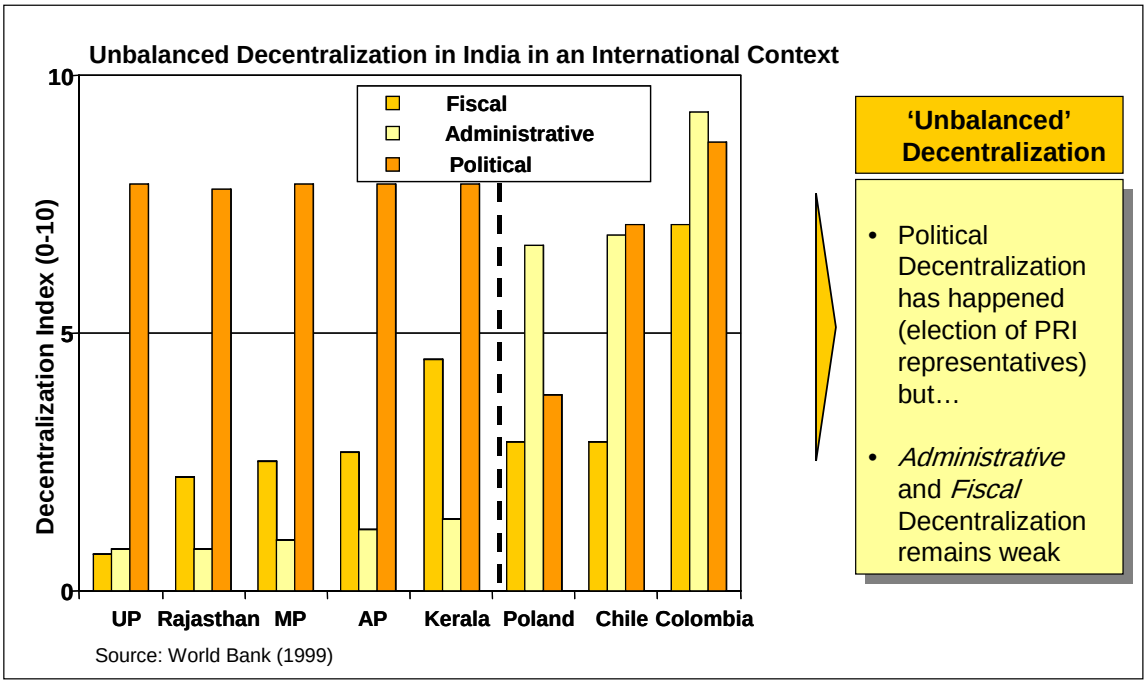
Addressing Question 1: How to do Education Delivery in India's Decentralizing Context

Two facts motivate our discussion on how we approach question 1, i.e. the issue of reforming rural primary education in India's decentralizing context.

First, as we know, India is going through a process of decentralization. The 73rd and 74th Amendments to the constitution set the stage, and states enacted laws and held elections to Panchayati Raj Institutions (PRIs) at the district (zila), block (taluk) and village (gram) level. States have also begun to devolve functions listed in Schedules XI and XII of the constitution to PRIs.

However, the Indian experience of decentralization has so far been unbalanced. Whereas India has made rapid strides in political decentralization, administrative and fiscal decentralization remains weak. Whereas Indian states do well in an international index of political decentralization, they lag far behind in fiscal and administrative decentralization, as is shown in Figure 11.

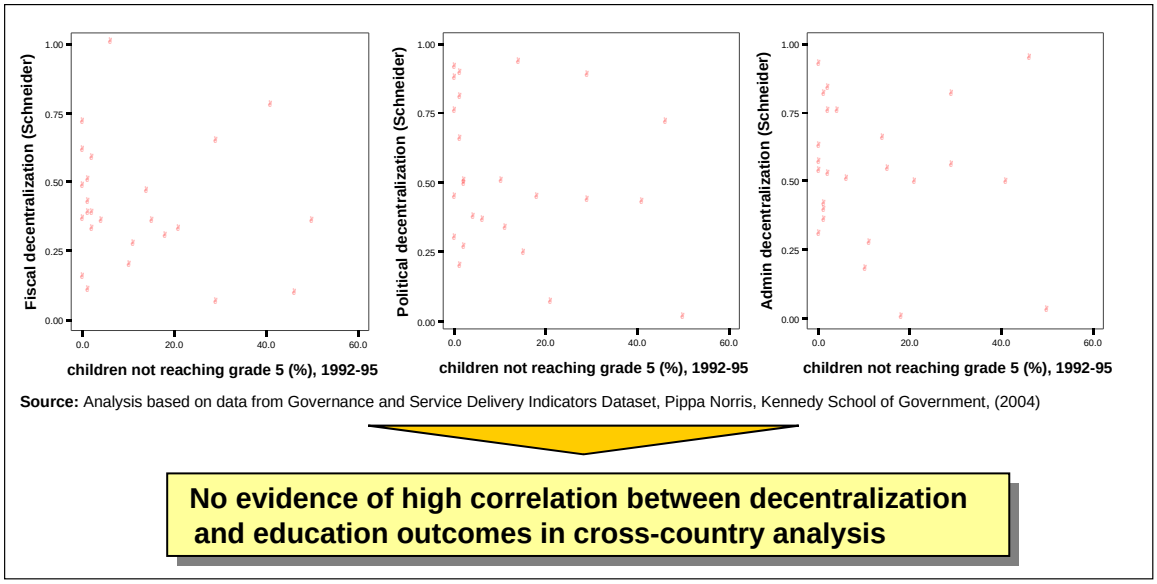
Figure 11: India's Unbalanced Decentralization



In terms of the "3 Fs" of Decentralization, whereas many 'functions' have been devolved to PRIs, devolution of 'funds' and 'functionaries' has not followed, leading to little change in the way services are delivered, with PRIs continuing to have a very minor role.

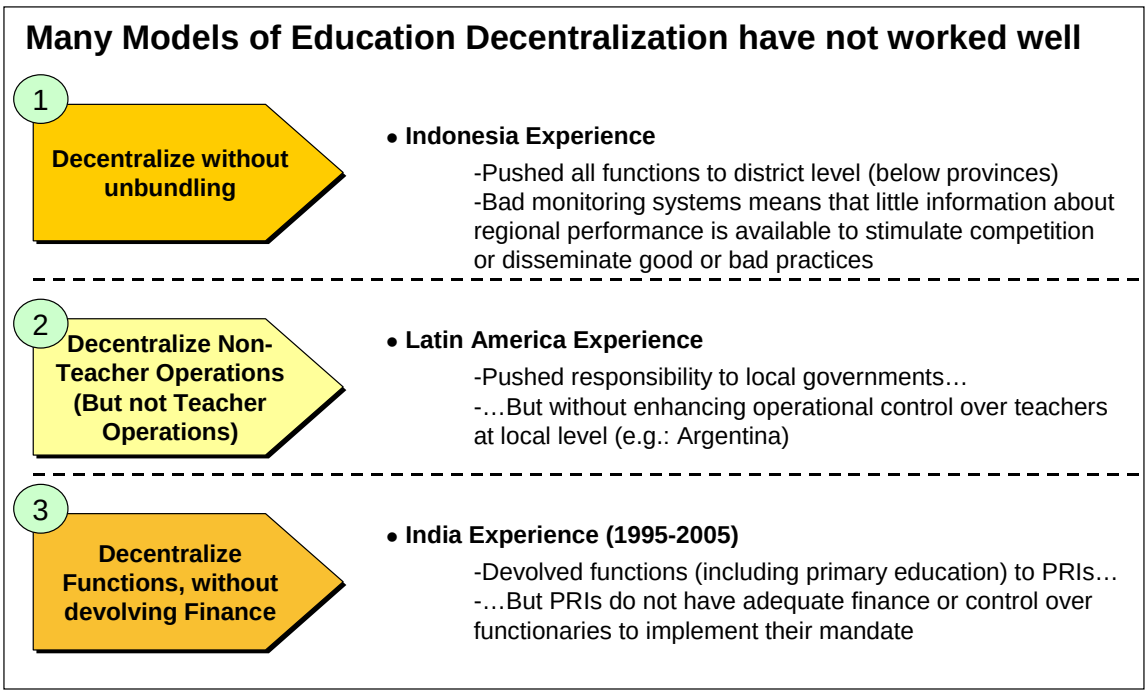
Second, evidence shows us that decentralization is no panacea for primary education. As figure 12 shows, there is no cross-country evidence of any systematic correlation between decentralization and improvement in indicators of primary education quality such as educational completion/attainment.

Figure 12: Correlation between Decentralization Indicators and Primary Education Outcomes



In fact, international evidence shows that education decentralization that is not carefully designed, has in the past, led to less than optimal outcomes. Common mistakes include decentralizing primary education 'wholesale' without thinking through required checks and balances that should be kept centralized (e.g. Indonesia); decentralizing without giving control over teacher operations to local governments (e.g. Argentina); and the Indian experience of decentralizing functions (i.e. primary education is a subject that has been decentralized to PRIs by many states), but not giving PRIs adequate finance or control over functionaries (teachers) or equipping them with capacity.

Figure 13: Models of Decentralization



The two facts above – that India's decentralization has been unbalanced, and that decentralization is not a magic bullet, together suggest that if we are to reform primary education in the current decentralizing framework, the exact *design* of the proposal becomes critically important – the *details* on what should and what should not be decentralized, and how this should be done, becomes fundamental to designing an effective proposal. This is what this paper does next. It addresses the question of what is the appropriate assignment of the "three Fs": functions, functionaries, and finance for elementary education to the different tiers of government for rural India—Center, State, and the three tiers of the Panchayat Raj Institutions (PRI) and therefore relationship between those tiers of government and the frontline service providers.

Note that in answering question 1, we are taking the decentralization route as the 'given'. This is not to say that we believe decentralization is the 'only' way to go, or indeed the 'right' way to go if we want to reform primary education in India. It is instead answering the question that given India is decentralizing, how should we design a good primary education delivery system that addresses its systemic weaknesses.

As discussed above, the objective here is not to make the case that responsibility for education should be decentralized to the PRI. That case has already been debated, considered, and accepted in India in the context of the 73rd and 74th amendments to the constitution which created the basic structure and allowed states to allocate responsibilities for various subjects—including elementary education—to PRIs. Moreover, the four states covered in this study have made the decision to push forward with decentralization and have made substantial progress towards strengthening the PRI. The objective of this paper is to examine the question of how best to proceed with primary education reform in within this framework.

Our analysis leads to six principal conclusions that we come to in this paper:

- All education reform proposals should be judged against the criteria of cost-effectively improving the level and distribution of *learning achievements.*
- Education *can* be improved with decentralization if increased *autonomy* can be matched with greater *accountability* as the current system neither gives autonomy to the front-line service organizations and providers nor does it create accountability for performance.
- The *state* should be responsible for setting standards for learning achievement, monitoring performance, and disseminating information.
- The district should be responsible for *planning, coordination of asset creation, hiring* and providing *technical and pedagogical support* to teachers.
- The *operation* of the schools should be pushed to the *lowest* possible level with the *greatest* possible autonomy—including controlling finances, *assignment* of teachers, and *asset creation*.
- The key problem in elementary education in India is the high per student cost of instruction and greater push towards decentralization creates an opportunity for both substantial cost reduction and quality improvement – but there are political challenges that need to be tackled.

An Analytical Approach to Effective Decentralization

To answer the complex question: "how should the responsibilities for the various functions in elementary education be allocated across the tiers of government in order that decentralization produce effective schooling?" we divide the answer into four steps.

First, we unbundle the processes of delivering elementary education into constituent functions or activities; and unbundle the various jurisdictions for service delivery.

Second, we use "first principles" criteria to determine which of these functions/activities should be provided/financed/monitored by the state, and if so, which level of government should be responsible. There are two sets of "first principles."

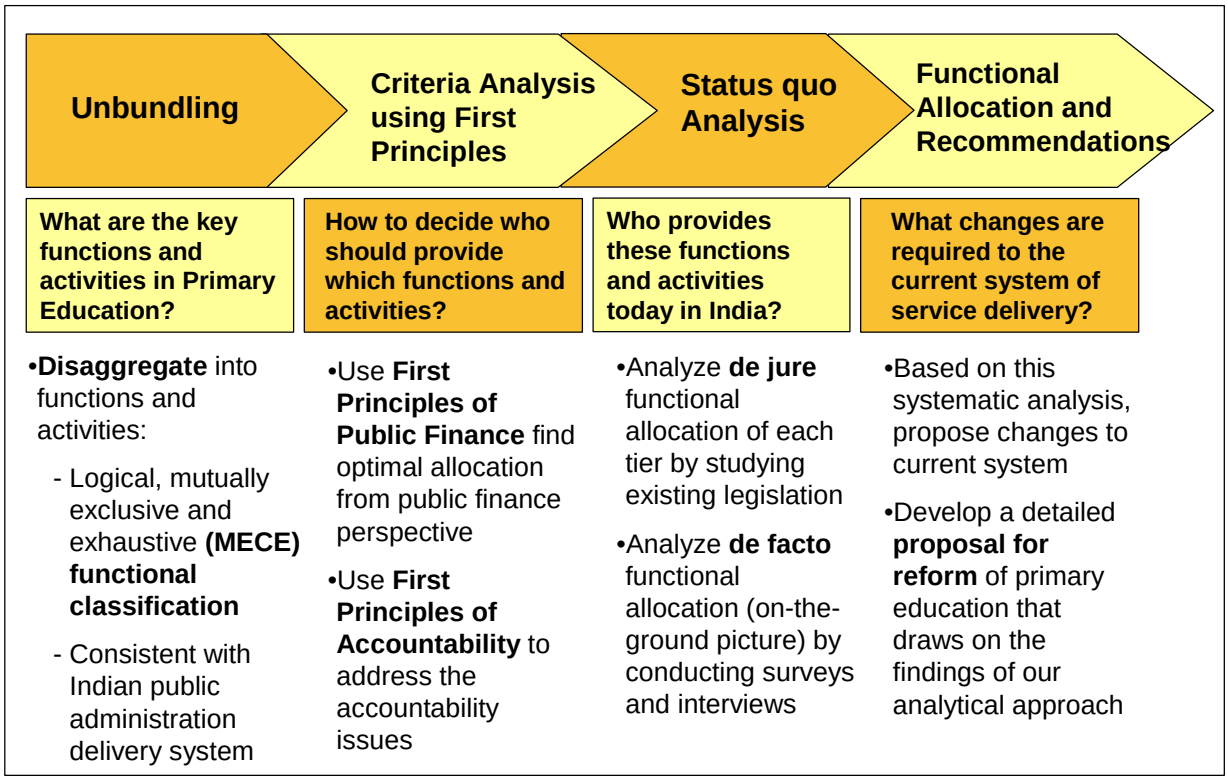
- First principles of *public finance*.
- First principles of accountability.

This combination of these two gives a judgment of the "optimal" allocations of responsibilities.

Third, we analyze the status quo – what is the current arrangement of basic education service provision in India in general, and in four selected states in particular. We analyze both the *de jure* picture – i.e. what the legislation says about provision of particular functions of basic education – as well as the *de facto* picture – i.e., what is actually happening on the ground. We supplement this *status quo* picture of India with the *status quo* picture in some other countries to get a benchmark of service delivery models that exist elsewhere.

Fourth, we compare the optimal framework with the *status* quo in India and make a proposals for reform that we believe addresses the institutional/systemic problems of education service delivery, while at the same time being politically supportable and administratively implementable. We use the principle of "strategic incrementalism" of moving towards a long-run goal in a series of feasible steps rather than a "big bang" reform.

Figure 14: An Analytical Approach to Effective Decentralization



Step 1: Unbundling – Classifying the Elements of the Production of Education

Unbundling has two distinct aspects.

Aspect 1: Unbundling Functions

The first task is creating a classification of the relevant components of the provision of a service – what we call *Unbundling of Functions*. To be useful framework, it is important that unbundling leads to a classification that is:

- mutually exclusive and collectively exhaustive (MECE), i.e., all possible sub-functions /activities under the sector are covered, and that there is no overlap among the sub-functions /activities (often allocations leave "concurrent" responsibilities),
- is consistent with India's system of public administration and public expenditure management,
- goes into the 'relevant' level of detail – not too little (so that disaggregated analysis is possible) – and not too much so that analysis does not get lost in unnecessary detail)

Table 3 shows the functional unbundling of primary education.

The first column shows five generic *functions*:

- policies/design/standards,
- planning,

- asset creation,
- operation, and
- monitoring and evaluation.

These are at a level of generality that they are common to almost all public services like primary education, public health and rural water that are assignable to the PRIs in the Eleventh Schedule of the Constitution.

The second column detailed *activities that fall within each* function, and these are specific to primary education.

Table 3 also shows how this functional unbundling aligns with the *activity mapping* exercise undertaken by the Government of India. It is clear that the broad outlines are the same, but differ in the detail and in the names of certain functions and activities. The table also shows that the seven basics of instruction given in the introduction are all covered in the activity mapping.

Table 3: Functional Unbundling and its concordance to GOI Activity Mapping and to the seven fundamental elements of instruction

Broad Function (common across public services)	Activity (Specific to elementary education)	Concordance with GOI Activity mapping	Seven basic components of effective instruction
Standard Setting	**Curriculum design** **Learning achievement standards/goals**	Curriculum design	What is to be learned
Planning	**Plans for physical expansion** **Plans for quality improvement**	"Expansion and development of education facilities"	Adequate facility
Asset Creation	**Social Capital** **Physical Capital** School Construction		 Adequate facility
Operation	**Beneficiary Selection** Choice of students for targeted programs Promotion of universal enrollment **Recurrent expenditures (non-wage)** Textbook choice/purchase Learning materials **Maintenance** Maintenance of school buildings/facilities **Teacher** Hiring Assignment Training Salary Supervision/ Performance evaluation Dismissal		(Opportunity for all) Needed materials Adequate facility Motivated to assist with child learning Teacher mastery of material Teacher mastery of methods
Monitoring and Evaluation	**Monitoring** Individual student progress School processes **Evaluation** Assessment of learning achievement	Evaluation of outcomes	Assessment of student mastery

Aspect 2: Unbundling jurisdictions – different sizes of jurisdiction and of production

The process of producing education is complex and there is no reason to believe that each of the elements should be carried out at the same level of responsibility. A discussion of whether the effectiveness of elementary education *as a whole* would be enhanced by being the responsibility of the state, district or the GP is neither realistic nor analytically coherent as there is no reason to believe these activities belong at the same level. But at the same time, simply allocating concurrent responsibility to all levels of government without clarity on roles is also not helpful. In the Indian context there are five potential levels of *governmental* jurisdiction for each function – centre, state, district, block and village. No matter what *governmental* jurisdiction is assigned responsibility there are different possibilities for the *organizational* assignment of responsibilities. So a "school management committee" for instance, can be an organizational body responsible for specific delegated tasks whether the state, district, or GP is the *governmental* jurisdiction responsible for the activities delegated to the SMC. Alternatively a Village Education Committee can assume *organizational* responsibilities instead of a SMC with the VEC answering to the state, district, block, or GP as the *governmental* jurisdiction.

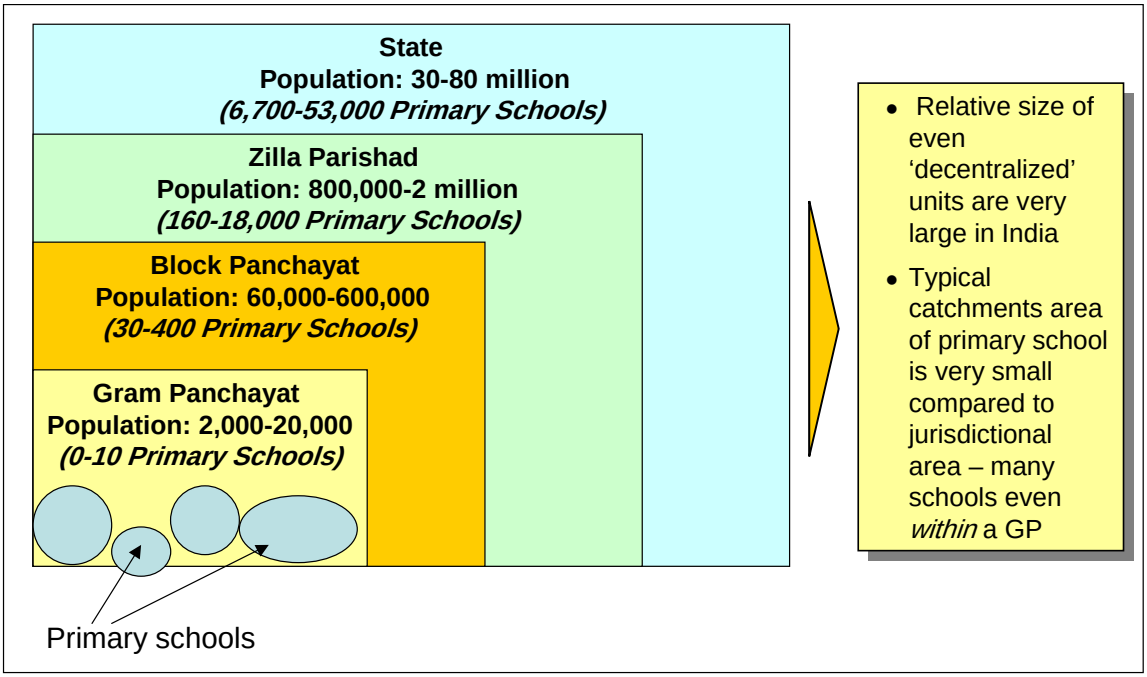
This distinction is important because the Constitution specifies the levels of *government* as autonomous, self-governing, parts of the state. In contrast *organizations* can be created by individual schemes to carry out designated responsibilities.

How does one go about this unbundling?

Crucial to the notion of a *locally* provided *service* is that of an "optimal catchments area". The nature of local transaction intensive services is that each person must come in physical contact with the service provider (teacher, health worker) or facility (water). In the case of schooling each child is expected to travel to the school each school day. Particularly in rural areas where transport costs are high this means that nearly all of the consumers of a given service will come from the same narrow geographic area and nearly everyone in the same area will use the same narrow set of providers—which we call a *catchments* area.

The key analytical notion is the ratio of transport costs to the total value of the service and the choice of the use of a nearer versus more distant facility depends on balancing increased transport costs versus the potential benefits of higher quality/better match with demand--which is why the catchments area is small for primary schools, larger for secondary schools (including many who are willing to pay to board for higher quality schooling), and larger still for universities, as shown in Figure 15.

Figure 15: Optimal Catchments Areas and Levels of Jurisdiction in India



The first step in discussing the allocation across jurisdictional levels is to fix sizes. The foundational unit is the *service delivery unit*—where providers and consumers of services *physically meet*. In education this is particularly easy as the delivery unit is a school (either primary or elementary). Each school has a catchments area—the area from which it is likely to draw students. Obviously these have "fuzzy" borders and overlap, particularly in urban areas where population density is high and hence parents/students may choose among many possible schools.

A key question in decentralization is balancing the costs and benefits of allocating responsibilities for various levels, which hinges on the sizes of those jurisdictions. In this context, table 4 can be used to make three points.

First, the populations of Indian states are as large, or larger, than most countries in the world. West Bengal would be the world's 12th largest country (just smaller than Mexico, larger than Germany), Karnataka and Rajasthan are roughly the size of France, Italy or Egypt and considerably larger than Korea, Spain, or Canada. Even the smallest state under consideration, Kerala is larger than 120 of the 150 countries in the world.

Second, even *districts* in India are large units in population terms, with a population around 2 million people per district these are large compared to say, countries, regions, or cities of the world. For instance, New Zealand has 3.6 million people, Costa Rica 3.3 million and many of the new countries from the former Soviet Union are even smaller—Slovenia has 2 million people, Estonia 1.5 million. In many countries of this size there are vigorous debates about how decentralized from the national level education should be.

Another comparison is to *counties* in the USA, which often assume many governmental functions (including, in many, instances schooling). The median size of a county in the USA (in 1990) was only 22,000 people, and only 8 of more than 3,000 counties in the USA had population greater than 2

million and less than 50 counties of the USA were larger than the *smallest* district in the four states (781,000). So, while in the Indian context decentralization to the district is often considered a very "low" level—it is an absolutely large jurisdiction.

Third, the typical service delivery catchments area of the typical primary school is very small relative to the jurisdictional size. Districts have primary enrollments of more than 100,000 students and contain more than 1,000 schools. Even a bloc typically contains more than 100 schools. Even at the Gram Panchayat level there is usually more than one school.

Table 4: Sizes and enrollments of states, districts, blocs, and schools

			Karnataka	**West Bengal**	**Rajasthan**	**Kerala**
State	*Pop (millions)*		52.8	80.2	56.5	31.8
	Number of schools (2)		49,674	52,835	38,342	6,758
District School	*Pop (3)*	High	4,215,000	8,934,000	2,182,000	3,234,000
		Specific	2,027,000	5,867,000	1,674,00	1,954,000
		Lowest	965,000	2,537,000	851,000	781,000
	Pop (enrolled 000) (1)	High	2,685,000	1,178,000	271,000	262,000
		Specific	300,000	1,101,000	58,000	168,000
		Low	71,000	431,000	84,000	85,000
	Schools (2)	High	18,527	9,622	2,205	869
		Specific	1,537	3,099	817	464
		Low	419	n/a	357	161
	Students per school(2)	High	300	350	312	500
		Specific	195	355	70	362
		Low	140	143	67	327
Bloc/ PS	*Pop'l(3)*	High	682,000	283,000	663,000	137,000
		Specific	415,000	189,000	153,000	76,000
		Low	210,000	150,000	67,000	28,000
	Schools (4)	High	381	242	323	121
		Specific	232	100	74	109
		Low	96	79	30	40

1) Enrolled Population: DISE District report cards, www.dpepmis.org, 2) www.indiastats.com, (3) 2001 Census, (4) Estimated using population percentages

The two aspects of unbundling – functional and jurisdictional – give us the unbundled matrix of functions and jurisdictions, with functions and activities in the rows, and jurisdictions in the columns. This can be seen in Tables 5a and 5b. In Table 5a, we show the broad functions and levels of jurisdiction[6]. In Table 5b, we show the functions and constituent activities with the levels of jurisdiction.

[6] We separate operations into teacher and non-teacher operations as these need not be under the same jurisdiction

Table 5a: Functional Matrix for Allocation of Responsibilities in Primary Education

Broad Function	Responsibility						
					Village		
	Central Govt	State Govt	District	Block	Gram Panchayat	User Groups	Service Provider (school)
Standards Setting							
Planning							
Asset Creation							
Operation - Non teacher							
Operation - Teacher							
Monitoring and Evaluation							

Table 5b: Functional and Activity Matrix for Allocation of Responsibilities in Primary Education

Broad Function (common across public services)	Activity (Specific to elementary education)	Responsibility						
		Central	State	District	Block	Village		Service Provider (School)
						Gram Panchayat	User Groups	
Standards Setting	**Curriculum design** **Learning achievement standards/goals**							
Planning	**Plans for physical expansion** **Plans for quality improvement**							
Asset Creation	**Social Capital** **Physical Capital** School Construction							
Operation	**Beneficiary Selection** Choice of students for targeted programs Promotion of universal enrollment **Recurrent expenditures (non-wage)** Textbook choice/purchase Learning materials **Maintenance** Maintenance of school buildings/facilities **Teacher** Hiring Assignment Training Salary Supervision/ Performance evaluation Dismissal							
Monitoring and Evaluation	**Monitoring** Individual student progress School processes **Evaluation** Assessment of learning achievement							

Now that we have the outline of the functional matrix, the three major problems in moving ahead with decentralization are:

- allocating the governmental responsibility for functions across the levels of the PRI between district, block, and GP
- resolving the ambiguities inherent in the current situation in which there are many "concurrent" responsibilities, and
- developing a feasible transition that aligns the *functions, finance and functionaries* in a coherent *system*.

Step 2: Criteria Analysis – Using 'first principles' to allocate functional responsibilities

How would decide how to allocate responsibilities for the array of unbundled activities involved in providing a *system* of primary education to the various levels of government? Who should be responsible for buying desks? For deciding on which textbook to use? For building schools? For assigning teachers to schools? For teacher pre-service training? What are the *criteria* by which one would make this decision? The next two sections use two classes of criteria: traditional *public finance* and *determinants of accountability.*

Applying Public Finance Criteria

There are four traditional public finance criteria for choosing the size of the jurisdiction that should be responsible for a function:

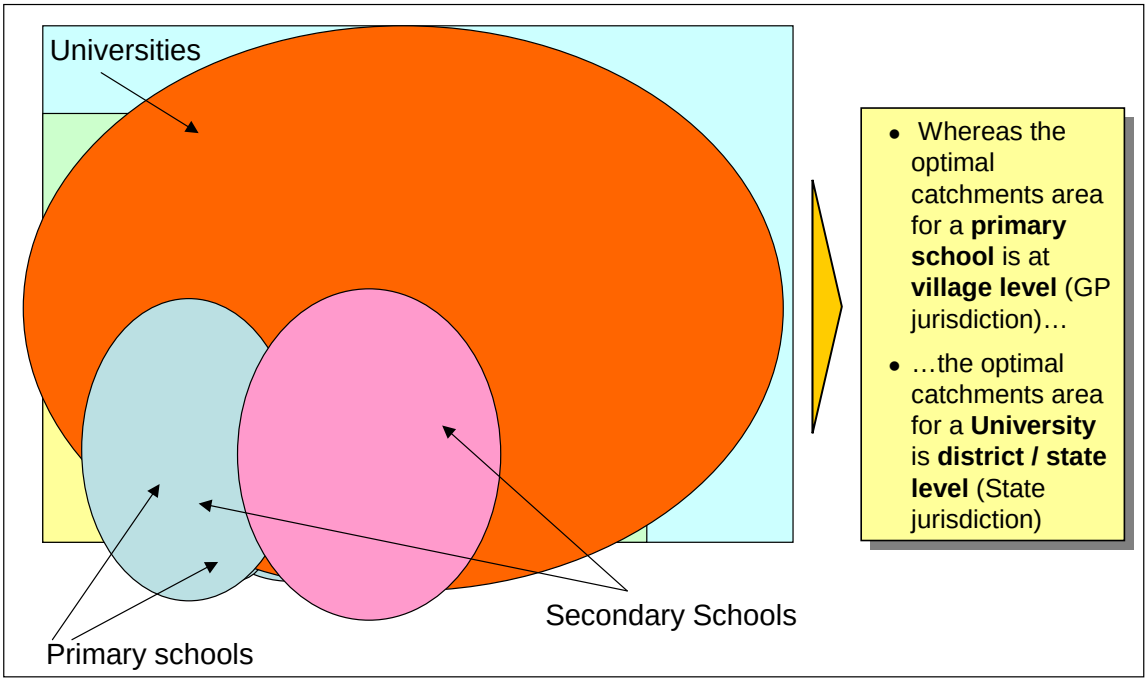
- Economies of scale
- Scope of the externality/market failure/public good
- Equity
- Heterogeneity of demand

Economies of Scale. Economies of scale is the relationship between unit cost of production and the scale of production. The general rule in public finance is to allow a market size sufficiently large to exploit available economies of scale to avoid inefficient production costs.

*The catchments areas of how many **efficiently** sized operational service delivery units fit inside a given level of PRI jurisdiction?*

Note that this is only about the operation of a school. Even so, the answer differs for levels of education, as figure 16 shows. The catchments area for an efficiently sized primary school is likely to be smaller than the village level and at least a hundred or so fit within a block. In contrast, the optimal catchments area for an efficiently sized university is likely to be at least the district, more likely the state. Secondary education is a complex case, both because the catchments area depends on the whether the secondary school is differentiated or integrated and because the economies of scale with different teachers for different subjects are more complex as one needs a size to support at least one of each specialist (e.g. language, science) desired to be offered.

Figure 16: Optimal Catchments Area for different LEVELS of education



Just as there is an optimal catchments area for *operations* in the *levels* of education, there is an optimal catchments area for different *functions* within primary education. That is, there is no reason to believe the economies of scale of the operation of a school correspond to that of planning or standard setting or evaluation.

In the *production* of instructional services (i.e., operations), there are few economies of scale beyond the single modestly sized school. This is completely different from say, urban piped water supply, in which the economies of scale in the networked nature of the distribution of the service—that is, the pipes that carry the water to households—imply that the economically efficient firm size will be large relative to even a large jurisdiction. That is, the economically efficient thing will be to have *one* set of pipes reaching any given household or neighborhood and hence the only question is the arrangements for the ownership and management of the assets of this "natural" monopoly. In contrast, provision of instructional services by a single large supplier that encompasses hundreds or thousands of schools (as is currently the case with government control over the *production* of education) is not driven by declining average costs of the provision of instructional services. There are three sources of evidence for the claim that there are few economies of scale/scope in the *operation* of schools.

First, there is a large and growing private market for primary education supplied by for-profit producers. If there were economies of scale to the production of elementary education then one would expect to see the emergence of a few large firms responsible for a significant share of the market as the cost advantages would be enormous (as there are for instance, in the market for automobiles, or retail firms). Rather, what one observes is that there are economies of scale in the development of learning materials (e.g. textbooks) or in the setting of standards, or in the provision of testing (e.g. testing services) but that the typical non-government school system is a small affair and that a single stand-alone school is not an unusual form of production.

Second, elementary education is a sequenced curriculum across a number of topic areas that are brought together into a single classroom due to economies of scope. But instructional services in elementary education are not different in kind from the instructional services in many other areas—from language instruction to training in computers to private tutoring for examinations. If there were economies of scale intrinsic to the production technology of instructional services then when those services were provided in a competitive market one would expect to see a few large firms dominate as unit costs were reduced with scale. In none of these industries are instructional services produced by large firms who dominate the market. Rather, walk down the street of any medium to large sized city in India and one is overwhelmed by the number of different independent competing producers to provide instructional services.

Third, by analogy from a similar market and production technology for instructional services, the long history of elite educational institutions suggests an absence of economies of scale. In many other industries the acknowledged leading firms get larger and larger shares of the market. In contrast, it appears that the top suppliers of instructional services do not expand. While it could be this is because they are "not for profit" organizations, growth is a powerful organizational imperative that has little to do with profits per se. Another conjecture is that the basic underlying features of the provision of instructional services are such that large organizations have disadvantages that are not offset by lower costs.

There are four functions within elementary education in which there are potentially *some* economies of scale, the question is "how large?".

In *curriculum design* and *service standard setting* there are some economies of scale. The existence however of one school producers suggests that these are not determinative as drawing on an already developed curriculum the incremental costs are not substantial.

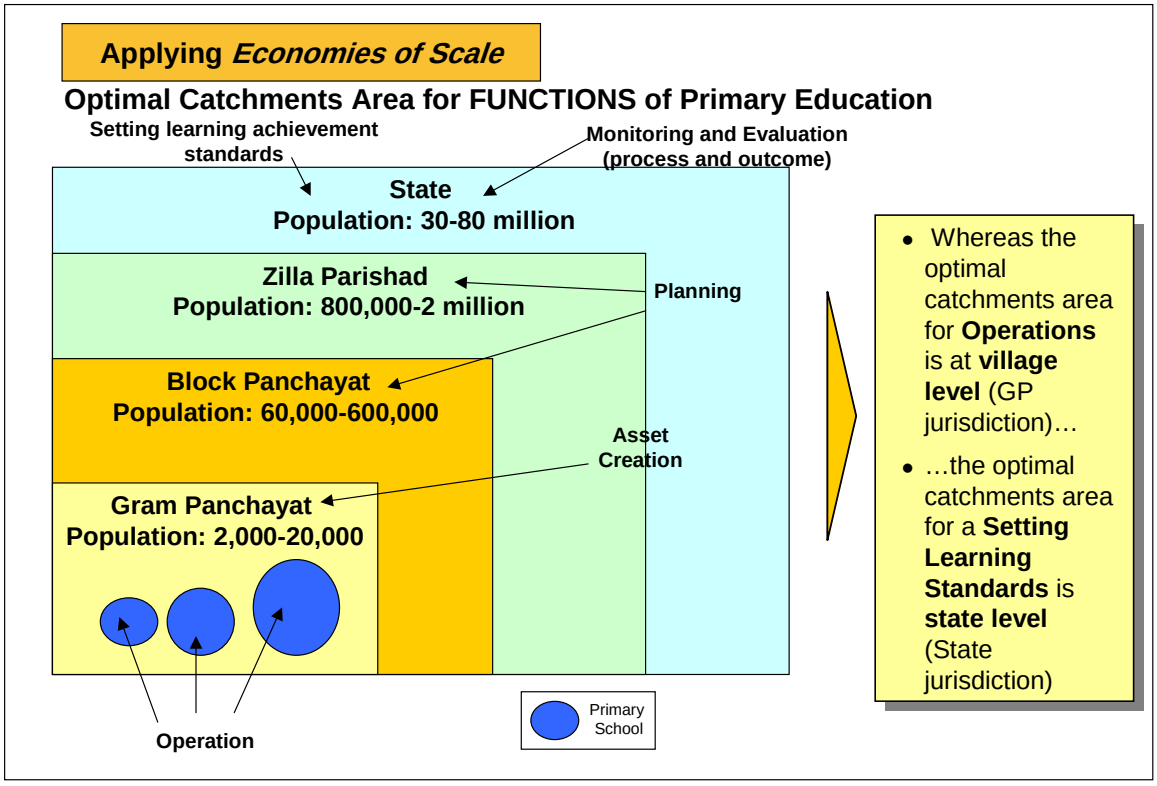
In *plans for expansion* there are coordination issues that make for some economies of scale at the system level that are perhaps not apparent at the unit level. Again, in elementary education this is only a concern where the coordination ability of a market mechanism is weak. For instance, if each individual producer chooses their school location on the basis of market potential this is a powerful coordination mechanism if the market is "thick" or "dense"—that is, large number of demanders in a given area. However in rural areas the spatial separation of villages implies some gains to coordination.

In *evaluation* there are economies of scale, as developing test instruments that are reliable and valid assessments of the desired learning standards is a technically difficult endeavor that requires specialists and hence a costly exercise for any one unit. This would suggest that in a completely open market there would be small schools and school systems but a few large testing enterprises that would contract to these school systems/schools.

In *textbook* and *learning material* development there are similar issues. There are economies of scale to textbook development, but this suggests there would be fewer textbook manufacturers than there are schools choosing which textbook/textbook series to use. This, in and of itself, is no reason why the two activities have to be integrated in the same enterprise/organization or level of government. After all, just because there are economies of scale does not mean that the function should be carried out by the public sector—or that inputs production needs to be vertically integrated into the educational system—after all, school construction uses cement, which has substantial economies of scale in production but no one suggests that therefore an education department should have its own cement plant. The "make versus buy" decision is distinct from the "responsibility" decision.

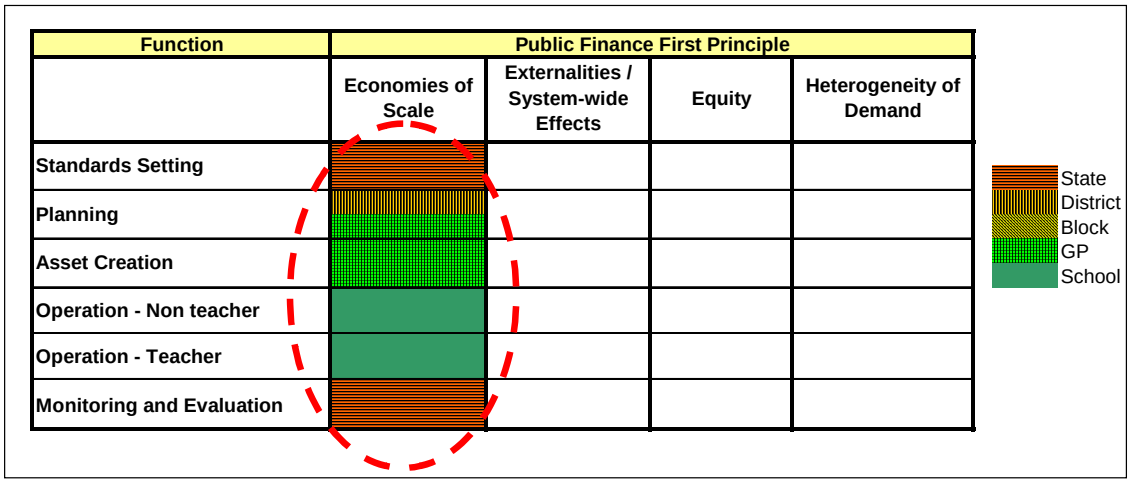
Based on this analysis, the optimal catchments area for functions of primary education would look something like in figure 17.

Figure 17: Optimal Catchments Area for Functions of Primary Education



This analysis allows us to fill in the Economies of Scale 'column' in our functional matrix for primary education, which we do in Figure 18. This shows that on the Economies of Scale criteria, Standard Setting and Monitoring & Evaluation are best done by higher jurisdictions like the State, Operations are best done at the level of school, asset creation at the GP level, and Planning requires a mix of the district, block and GP level inputs.

Figure 18: Functional Allocation according to *Economies of Scale* criterion of public finance.



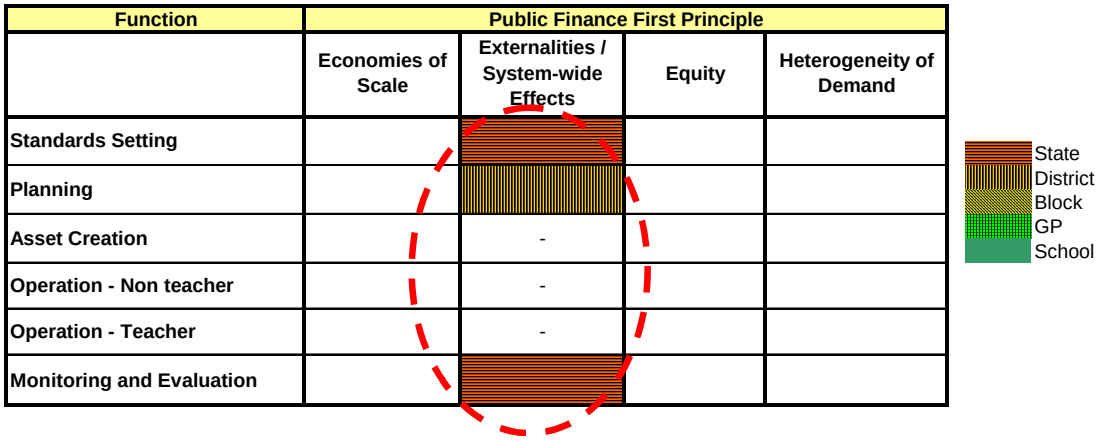
Externality. In economist's parlance an "externality" is the consequence of one person's action on another person. The geographic extent of an externality can range from very local (the impact of one person's radio on his neighbor's sleep) to the global (the impact of the USA's emissions of greenhouse gases on India's climate). The general rule from public finance is to make the geographic extent of the jurisdiction coping with a problem large enough that the "external" effect is "internalized" in the jurisdiction. For instance, if adjacent cities share a river then sewage dumped by one affects the citizens of the city downstream while if it were one city then the effects are "internal" to the city.

There are three points relative to the scope of externalities in allocating responsibilities for elementary education.

First, most parents in India correctly perceive that the private monetary and non-monetary value of education is high. The extent to which parental demand for education is "too low" because they do not incorporate externalities that accrue at a higher level of aggregation (e.g. district, state) is almost certainly minimal[7].

Second, the two functional areas in which there are likely some externalities are the setting of curricula and standards and monitoring and evaluation. Particularly with regard to the benefits of some common socialization and preparation for citizenship (see below on heterogeneity of demand) there are externalities in having all children inculcated in some common civic standards at the state and national level. In monitoring and evaluation as evaluating multiple jurisdictions on the same standards can provide citizens with valuable information and the generation of information is a public good. Hence these should be done at a higher jurisdictional level. There might also be (to a lesser extent), externalities in aspects of planning, which can be done at the district level. This is shown in figure 19 below.

Figure 19: Functional Allocation according to *Externalities* Criterion



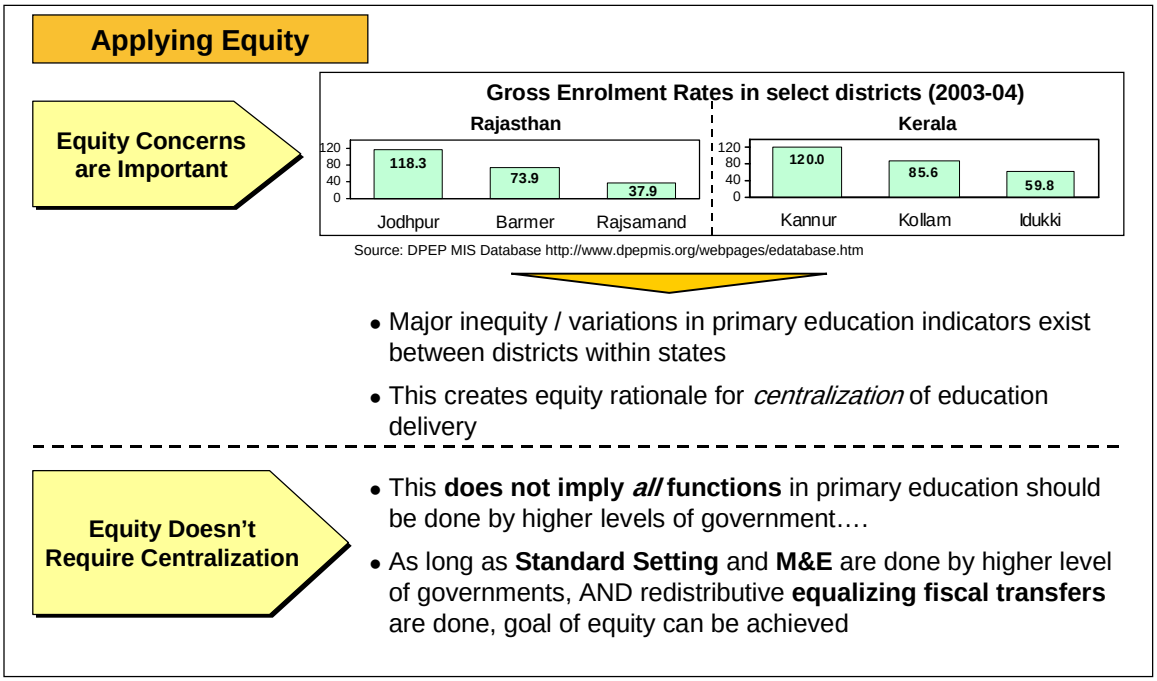
[7] There is a great deal of debate about whether there are externalities to education at all, and there is a rough consensus that the *economic* externalities are small relative to the private benefits of education (see Pritchett 2005). This is not to say there are not many *non-monetary* benefits to education—such as the effect of mother's education on child health—but that these are mostly not "external" to the household and the externality impact is likely limited to a quite local level.

Equity/equalization. The government of India and the governments of the individual states have always been committed (at least rhetorically) to universal primary education. Given that the goal of universal elementary education is enshrined in the Indian Constitution, in the law, and in the policy pronouncements of the current Government of India and of the respective states one cannot *design* a system in which elementary education is *planned* to be less than universal (even though the reality is that it has been, and is, far from universal).

That equity concerns are important even at the sub-state level in India can be seen from the inequity in educational indicators between districts within the same states. For example, the gross enrolment rate, even in a state like Kerala, varies from 120 in Kannur district, to 68.2 in Idukki district (see figure 20 below). The within-state inequity is even more pronounced in other India states (like Rajasthan).

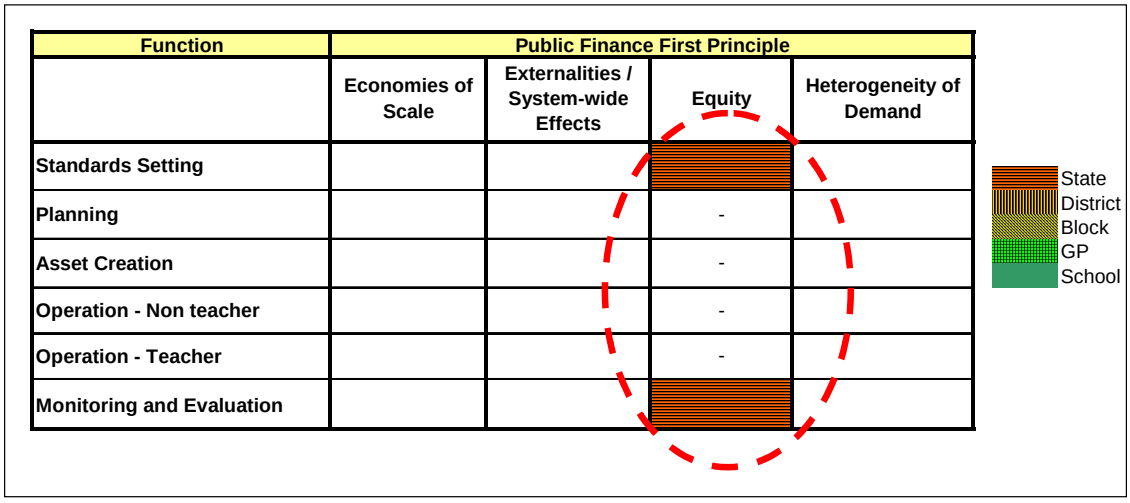
It must be stressed that a commitment to equalization of educational opportunity and of obtaining might imply financial support to education at a geographic scope that allows for redistribution of resources. But this does imply anything about the size (or ownership) of the units responsible for the *production* of education[8]. As long as Standard Setting and M&E are done by higher level of governments, and redistributive equalizing fiscal transfers are done, goal of equity can be achieved.

Figure 20a: Applying the Equity Criterion



[8] The conventional wisdom perhaps has the logic of production and provision exactly backwards. It is often argued that governments take responsibility for the *production* of schooling (and do so at a large jurisdiction size) *because* they are committed to universal schooling. But the direct production of schooling is perhaps in reality a means to *limit* government's commitment to universal education. That is, contrast two approaches. One is that the government promises to reimburse (some fraction of) the cost of schooling directly to either the school or child for every child enrolled in an accredited school (with some reasonable but not unnecessarily restrictive standards for accreditation). In this case the total budget is outside the control of the government as it is an open ended commitment. In contrast, if governments *produce* schooling then they can control their budgetary commitment by the pace at which they build schools, hire teachers, etc. Through limiting its budgetary commitment to *only* the schooling it directly *produces* governments demonstrate their *lack* of a real commitment to universal schooling.

Figure 20b: Functional Allocation according to *Equity* Criterion



Heterogeneity of demand. Another traditional criterion of public finance is that decentralization will improve service delivery when decentralization allows a better correspondence between local conditions and preferences and the activities government undertakes. With elementary education this heterogeneity is limited by the fact that all communities must at least plan for universal enrollment[9]. There are still two important areas of potential heterogeneity of demand that are a consideration.

First, different communities or schools make different choices about the approach to instructional styles, pedagogical practices and the general "vision" of the school. Research in many school environments around the world show that schools show better performance when educators feel greater autonomy and when the "vision" of the school is aligned with the headmaster's/teacher's preferences. This obviously can only happen with individual schools or sets of schools are allowed to choose their approach and when teachers are allowed to move and leaders of schools allowed some flexibility over choosing staff. This points towards school control (and GP supervision) of operations, especially teacher operations, as one cannot create a common "vision and mission" of a school when one has no control over who the staff are.

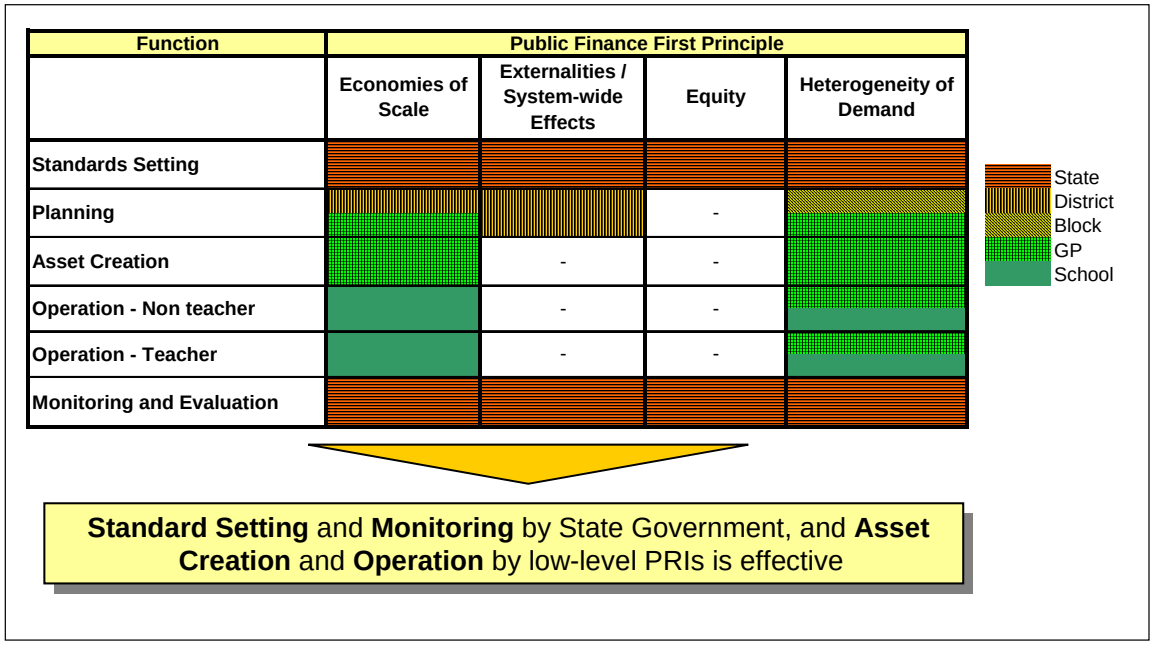
Second, there is heterogeneity in the demand for the "socialization" element of schooling. As primary schooling is an important component of the socialization of children these elements are important to both parents and governments. This can create a tension between "centralizing" tendencies wanting to impose a socialization that creates a common national identity (language, culture, history, identity) and more local forces that want schooling tailored to local preferences on those same dimensions.

The above discussion of the various public finance criteria, and how they inform an effective functional allocation for primary education in India, leads to the 'filled-up' matrix. Figure 21 shows

[9] This is an important caveat, as one argument for fiscal decentralization is to let individual jurisdictions choose how to allocate resources according to their demands/preferences—one may choose a road, another water, another more police, another better waste disposal, etc. However, one cannot create a decentralized system in which individual jurisdictions choose to allocate resources away from elementary education until universal enrollment has been reached.

the functional allocation of the broad functions, and table 6 shows the functional allocation for the constituent activities[10].

Figure 21: Allocation of Functions according to *First Principles of Public Finance*



[10] We are agnostic about the distinction between the national (centre) level and state level jurisdiction, since the emphasis of this paper is on sub-state level decentralization, and both the state and national level represent a highly centralized jurisdiction.

Table 6: Allocation of Activities according to First principles of Public Finance

		Economies of scale/scope	Externalities / System-wide effects	Equity	Heterogeneity of demand
Policy design/ standards	**Curriculum design** **Learning achievement standards/goals**	S S	N/S N/S	N/S N/S	N/S(?)
Planning	**Plans for physical expansion** **Plans for quality improvement**	D D/B/GP	Nearly all evidence suggests that the private benefits to education, both monetary and non-monetary (e.g. health) are		
Asset Creation	**Social Capital** **Physical Capital** School Construction	D			S/D D/B/GP
Operation	**Beneficiary Selection** Choice of students for targeted programs Promotion of universal enrollment **Recurrent expenditures (non-wage)** Textbook choice/purchase Learning materials **Maintenance** Maintenance of school buildings/facilities **Teacher** Hiring Assignment Training Salary Supervision/ Performance evaluation Dismissal	GP SP/GP SP/GP SP/GP SP/GP SP/GP D SP/GP SP/GP D/SP/GP		 N/S N/S 	 SP/GP SP/GP SP/GP SP/GP SP/GP SP/GP SP/GP SP/GP SP/GP
Monitoring and Evaluation	**Monitoring** Individual student progress School processes **Evaluation** Assessment of learning achievement	 S/D/SP N/S/D S/D/SP/GP	N/S	 N/S	 S/D S/D/SP/GP D/SP/GP

N=national, S=State, D=District, B=Block, GP=Gram Panchayat, SP=Service Provider (School)

Applying Accountability Criteria

Each relationship of accountability has four "system design" elements: *delegation*, *financing*, *informing*, *enforcing*, and *performance*, which is chosen by the "agent" is the result. The decentralization question is how to make the relationships of accountability of "voice/politics" (between citizens and politicians/policymakers) and "compact" (between the designated level of the state and organizational of accountability are discretion, transaction intensity and observability (inferring performance).

What are the underlying analytical criteria of the nature of various activities or functions that would determine what governmental level it should be placed? There are three characteristics of an activity or function within an activity that influence the level at which accountability should be placed.

Discretionary: Discretionary activities are those that that require decisions to be made using individual judgments in local context.

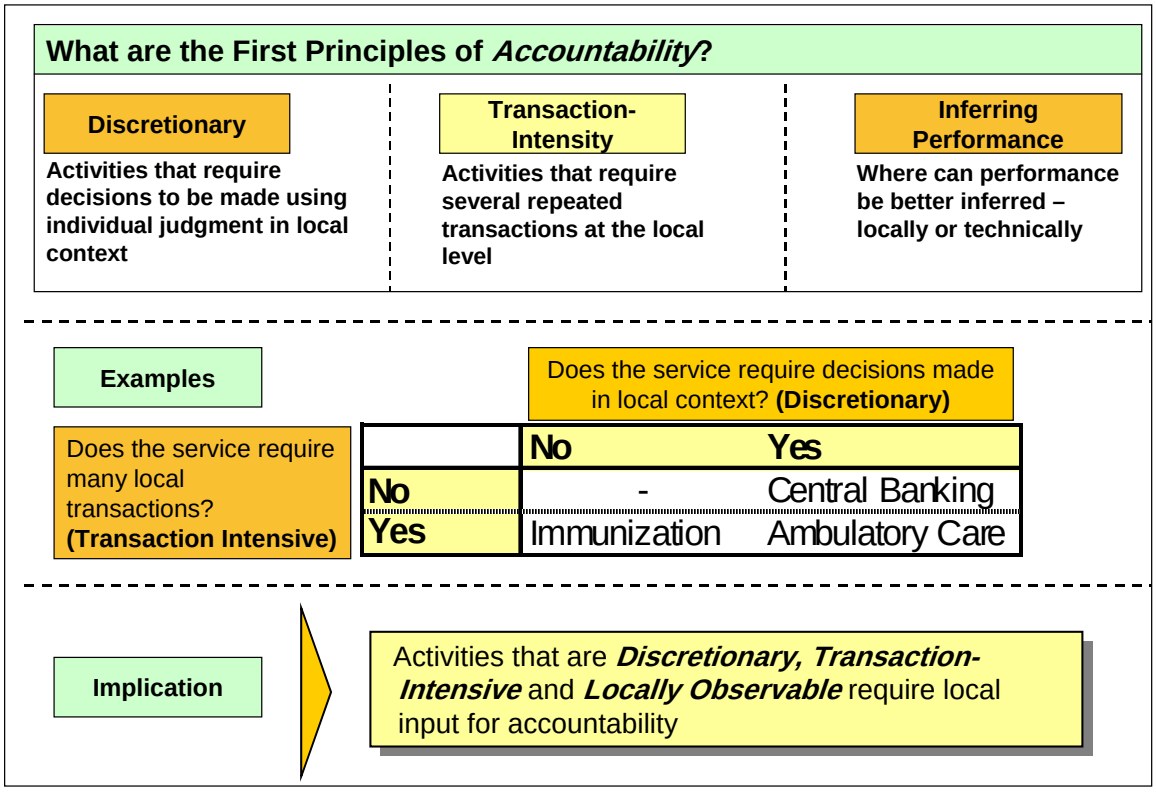
Transaction intensity: Transaction-intensive activities are those that require several repeated transactions at the local level.

Observability: At what level can performance be best observed? if the activity is technically complicated, it requires 'expert' (technical) evaluation, whereas if it is simple and local, it requires local-level evaluation.

As a general rule, activities that are highly discretionary, transaction-intensive, and locally observable, require local input for accountability.

Based on these definitions, we can come up with a two-by-two matrix, which classifies activities as a mix of transaction-intensive and discretionary. So, whereas central banking is highly discretionary (since requires significant judgment calls from time to time), it is not transaction-intensive (it can be done by one good central banker sitting in his office).
Immunization campaigns, on the other hand, are highly transaction-intensive (they require thousands of health workers administering millions of vaccines at the local level), but are not discretionary (since they require a simple pre-packed vaccine to be delivered to each individual child of appropriate age through a straightforward procedure). A service like ambulatory curative health care is both discretionary and transaction-intensive. This discussion is summarized in Figure 22 below.

Figure 22: Understanding the First Principles of Accountability



Using these principles, the various functions elementary education can be assessed on the criteria of discretion, transaction-intensity and observability. This will help inform what is the appropriate

jurisdiction for these functions/activities based on the criteria of accountability. This is done in Figure 23 and Table 7 below, which points to the fact that highly discretionary, transaction-intensive, and locally observable activities like Asset Creation and Operations (especially teacher operations) should be done under local jurisdiction.

The *operations* function of elementary education also falls into this category – it requires lakhs of teachers teaching crores of students in lakhs of Indian villages (transaction-intensive), and what and how the teacher teaches, what pedagogical technique he/she applies depends to a large extent on the teacher (discretionary).

What about observability? In the context of primary education, observability is a combination of (a) actually observing the action and (b) knowing whether the action was appropriate. For instance, teacher absenteeism is a particularly easy case. If the teacher is intended to be present and is not, then it is clear to any direct observer of the school (e.g. students, parents, other teachers) that the appropriate action for learning performance is not being undertaken. But someone who is not physically present cannot observe absenteeism.

A more difficult case is pedagogy. For instance, "child centered learning"— easy to observe, hard to know if it is the "right" technique that a teacher should be applying. Are parents capable of knowing whether a teacher is doing a "good" job based on available observation? There are some who argue that locally elected officials should not have any say over schools because they might have "backward" attitudes relative to the "advanced" views of educational "experts." However, on the scale of "observability" our judgment is that a parent who wants to be informed can form a reasonably good idea of the quality of learning activity in a given school (especially given that the major problem is that half of the time no learning activity at all is going on, which is easy to observe).

Figure 23: Functional Allocation According to First Principles of Accountability

Function	Accountability First Principle		
	Discretionary?	Transaction Intensive?	Who Can Best Infer Performance (Technical or Local)?
Standards Setting	Low	Low	Technical
Planning	Medium	Medium	Local /Technical
Asset Creation	High	Medium	Local /Technical
Operation - Non teacher	High	High	Local
Operation - Teacher	High	High	Local / Technical
Monitoring and Evaluation	Medium	Medium	Local / Technical

Discretionary, **Transaction-intensive** and **Locally Observable** activities like *Asset Creation* and *Operations* should be decentralized to PRIs

This leads to the allocation of responsibilities for functions as outlined below.

Table 7: Allocation of Activities according to the First Principles of Accountability

		Discretionary	Transaction-intensity	To who is the quality of service observable?
Standard Setting	**Curriculum design**	Low	Low	Technical
	Learning achievement standards/goals	Low	Low	Technical
Planning	**Plans for physical expansion**	Medium	Low	Mixed
	Plans for quality improvement	Medium	High	Mixed
Asset Creation	**Social Capital**	High	Medium	Mixed
	Physical Capital			
	School Construction			
Operation	**Beneficiary Selection**			
	Choice of students for targeted programs	High	Low	Local
	Promotion of universal enrollment	High	High	Local
	Recurrent expenditures (non-wage)			
	Textbook choice/purchase	High	Low	Mixed
	Learning materials	High	Low	Mixed
	Maintenance			
	Maintenance of school buildings/facilities	High	High	Local
	Teacher			
	Hiring	High	High	Local
	Assignment	High	High	Local
	Training	High	Medium	Mixed
	Salary	Low	Low	Local
	Supervision/ Performance evaluation	High	High	Mixed
	Dismissal	High	High	Mixed
Monitoring and Evaluation	**Monitoring**			
	Individual student progress	High	High	Mixed
	School processes	High	High	Technical
	Evaluation			
	Assessment of learning achievement	Low	Low	Technical

N=national, S=State, D=District, B=Block, GP=Gram Panchayat, SP=Service Provider (School)

Step 3: Analysis of the Status Quo

Having analyzed the functions / activities of primary education using the principles of public finance and accountability, we now assess the on-the-ground situation of primary education in rural India. The aim of assessing both the de jure and de facto position is to get a true picture of the status quo, which together with the criteria analysis of Step 2, will inform our recommendations. Here we summarize the main takeaways from our status quo analysis. A more detailed analysis (based on a detailed analysis of the legal structure, as well as a field survey carried our in our four focus states) is done in Appendix E.

The analysis of the legal assignment of functions across jurisdictional levels (the *de jure* picture) reveals three key features that are common across all three states.

First, the assignment of responsibilities in the law is heavily oriented to the *state,* with functions delegated by the state to lower levels of *administrative* responsibility such as district and bloc educational offices – but very little delegation of functions to the PRI as autonomous units of self-government. What few items that are delegated are usually the *least* critical elements of schooling.

Second, where functions are explicitly delegated to the PRI they are often as *concurrent* responsibilities, with allocations among the three tiers left unclear. For instance, the maintenance of school buildings is allocated the states, districts, and blocks simultaneously in both Karnataka and West Bengal. Who really has the power or responsibility in these cases then depends on the specifics of implementation.

Third, there are key functions for which the law *does not* allocate responsibility. This is not necessarily a weakness and not all of the detailed organization of a sector need be specified in law. However, one of the key problems with the system is that the monitoring and tracking of learning achievement and meeting learning standards (not just enrollment targets) is, by and large, not clearly assigned to any given level.

What about the *de facto* picture? The survey carried out in the four focus states revealed the following picture.

First, *de facto* picture broadly mirrors the *de jure* situation, i.e., the state government and the department of education plays a predominant role in implementing most of the key functions associated with the delivery of primary education, with little actual participation of PRIs or parent groups.

Second, PRI participation in the implementation of the para-teacher schemes (like the Sishu Shiksha Karmasuchi (SSK) program in West Bengal) is much higher than in mainstream primary education delivery.

Third, there is confusion among PRIs and beneficiaries on the exact flow of funds for activities that are mandated to be done through PRIs (such as maintenance of infrastructure in Kerala).

All in all, the picture is of a highly centralized system of primary education delivery, with limited role for local participation, both by PRIs and parents.

Step 4: Functional Allocation and Recommendations

The analyses in Steps 2 and 3 shows that a well ordered system for schooling has to solve several problems simultaneously:

- *Create clear **objectives** for the schooling system,*
- *Provide sustained, adequate**, financing** to producers to achieve those objectives,*
- *Give organizational and front-line producers sufficient **autonomy** to manage for results*
- *Maintain **producer accountability** for results--which implies transparent, consistent, measures of progress towards the objectives.*

As we have seen, the current system of primary schooling in India does almost none of those things well.

Allocation of responsibilities

As we have seen repeatedly there is no "one size fits all" for the organization of schooling. Some countries rely heavily on the use of "demand side" financing so that the money follows the student to either public or private schools—such as Holland or Chile. Other countries rely on community *controlled* schools that give nearly all power to the local community to build and operate schools. Other countries have "municipal" systems in which the lowest level of government is primarily responsible for schooling. Still others have "national" or "provincial" systems in which power is quit concentrated at a high level.

Nearly any example for the organization of schooling in the world also exists in India. Kerala relies heavily on publicly aided but private schools. West Bengal has moved substantially towards community controlled schools via the use of Child Education Centers. But nearly all states have very state-centralized school systems, in particular in which all decisions about teachers (hiring, assignment, compensation) are made at the state (or district) level.

Based on our unbundling, the analysis of functional allocation on first principles criteria, and an evaluation of the status quo, we recommend the following allocation of responsibilities.

The responsibility for *setting standards, deciding on curriculum* should remain at the *state* level (in collaboration with the centre).

In a decentralized environment the important *additional* responsibility of the state is to create a system of monitoring the achievement of the learning achievement standards. The *state* level government assumes responsibility for setting learning standards and goals and for monitoring progress towards those goals for each school, GP, and district.

The *Gram Panchayat* (working with school specific or village/habitation specific committees as member bodies of the GP) should be responsible for *proposing* new school facilities, for supervising the construction of such facilities, for *all* operational decisions at the school level (over maintenance, budget, utilization of non-wage expenditures, purchase of learning materials, etc), and for the *assignment* of teachers to specific schools.

The overwhelming bulk of the resources to education should then flow primarily in untied form to GPs who, together with the school staff and the school and/or village specific (VEC) or school specific (SMC) committees to make essentially *all* operational decisions[11].

The district should play a facilitating role of (a) providing the pool of qualified teachers from which GPs can choose (b) providing for the *technical* aspects of improving pedagogical practice through in-service training, (c) coordinate the planning when necessary to prevent an over-expansion of the system, and (d) supervise compliance with the *processes* of GP and school decision making.

[11] The scheme in West Bengal chose to use SMCs (which are school specific) instead of VECs (which are village specific), which many believe work better as a tool for ensuring teacher accountability. It is also possible that SMCs are less politicized (and more focused in its role) than VECs (which are much more closely related to the Gram Panchayat and hence to local politics) and hence a GP with SMCs would provide the right mix.

Figure 24 and Table 8 show our recommended allocation of functions and activities for the various jurisdictions.

Figure 24: Recommended Functional Allocation of Responsibilities for Rural Primary Education in India

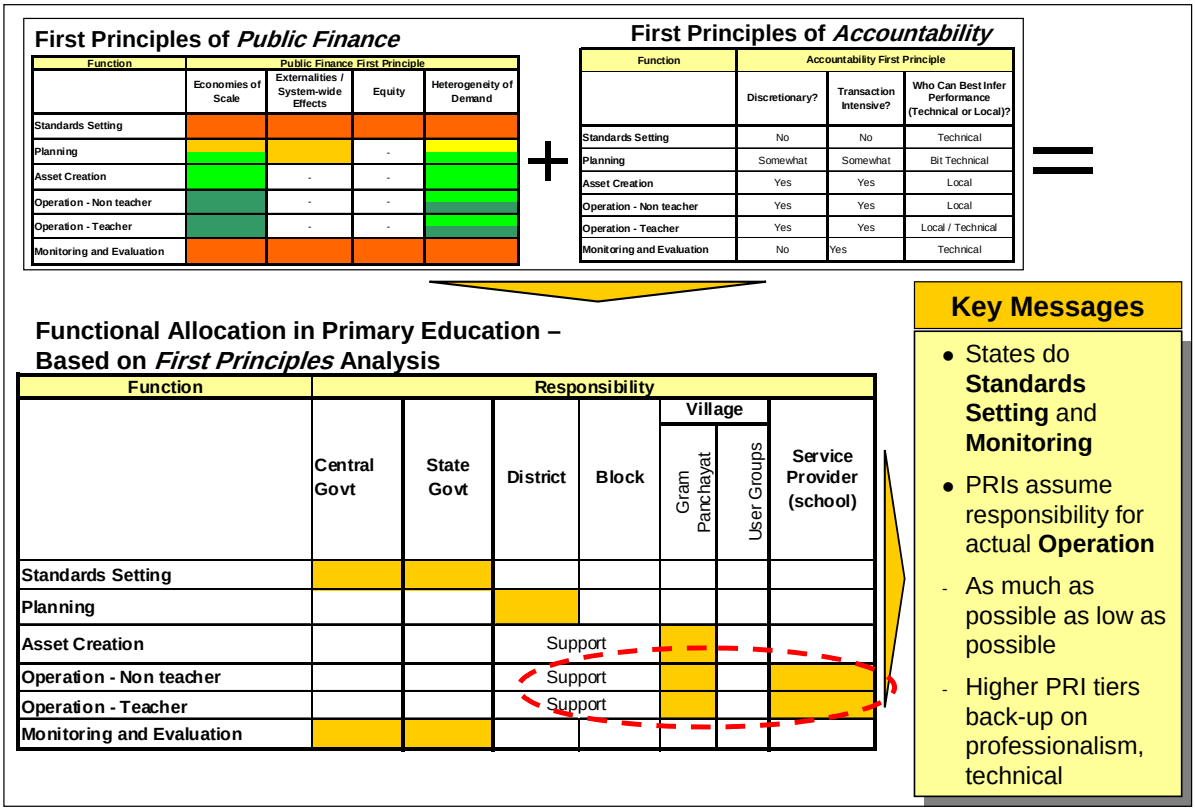


Table 8: Recommended Allocation of Activities for Rural Primary Education in India

Standard Setting	**Curriculum design** **Learning achievement standards/goals**	State State
Planning	**Plans for physical expansion** **Plans for quality improvement**	GP/District GP with support from District on technical issues
Asset Creation	**Social Capital** Capacity building of local committees **Physical Capital** School Construction	 District GP
Operation	**Beneficiary Selection** Choice of students for targeted programs Promotion of universal enrollment **Recurrent expenditures (non-wage)** Textbook choice/purchase Learning materials **Maintenance** Maintenance of school buildings/facilities **Teacher** Hiring Assignment Training Salary Supervision/ Performance evaluation Dismissal	 School/SVC/GP School/SVC/GP School/SVC/GP School/SVC/GP School/SVC/GP District (on GP recommendation) SVC/GP/District District District (structure), School/SVC/GP (Payment) SVC/GP/District SVC/GP/District
Monitoring and Evaluation	**Monitoring** Individual student progress School processes **Evaluation** Assessment of learning achievement	 School/GP District/State State

SVC—school or village committee (operating in concert with the GP).

While, as with every aspect of any endeavor, the devil is in the complex details (which are discussed very briefly below), the basic operation is quite simple. As discussed earlier, there is no simple argument that "decentralization improves schooling" or even that "decentralization increases accountability."

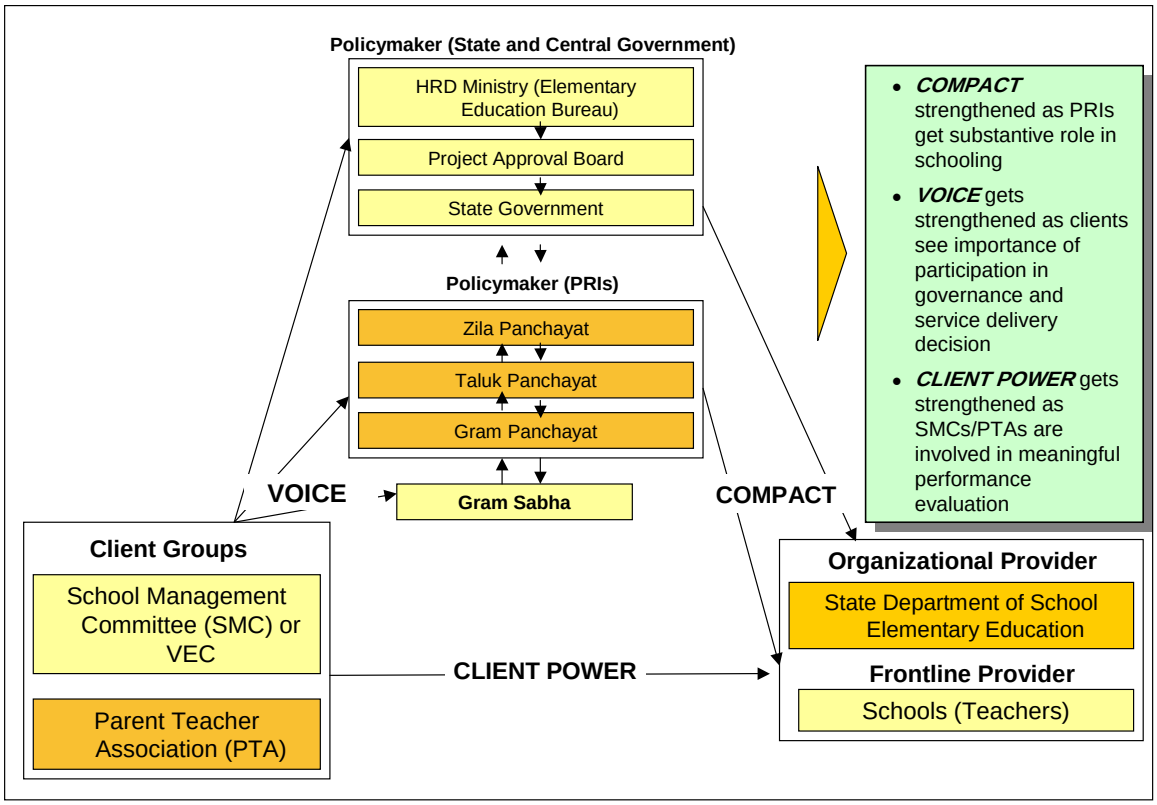
Rather the message is that *a well designed system* of allocation of the many activities involved in producing quality schooling can improve schooling outcomes by increasing accountability.

We believe that our recommended functional allocation strengthens every element of the relationships of accountability, as shown in Table 9. It leads to a system that strengthens voice by introducing a 'shorter' 'long route' of accountability (by substantively involving PRIs in service delivery), as well as a stronger 'short route' (client power) as PRIs and School/Village committees (SMCs/VECs) are actively involved in meaningful performance evaluation (enforcement), as shown in figure 25.

Table 9: How the elements of "long-route" accountability in government schools are strengthened in a well designed decentralization.

	Citizens to state (voice)	State/District/GP to organizational providers (compact)	Organizational provider to frontline providers (management)
Delegation	Education a clear responsibility of GP—citizens able to compare performance of their GP over time and compared to other GP (with reporting and state monitoring)	Schools and teachers given clear curricula, learning objectives	Teachers are empowered and professionalized with greater autonomy within the classroom and greater flexibility over within school budgets
Financing	Amount of total finance to schooling in GP and its sources clear and simple (per eligible child basis)	Amount of financing is clear, regular, formula based.	The amount of funding that can be devoted to non-wage expenditures much higher
Performance			Teacher autonomy in performance
Information	State can create benchmarked reports about GP progress on key learning indicators	Goals are clear.	The information that is generated daily by observing teacher performance (e.g. attendance) can be incorporated)
Enforceability	Citizens have to hold very local politicians accountable for results, both through participatory processes (school specific, GS, and GP)	Those closest can monitor performance of schools. Higher level jurisdictions can monitor lower levels.	Teachers can be rewarded for good performance (not just seniority)

Figure 25: Reforming the Accountability Linkages in Rural Primary Schooling in India: Redefining Voice, Compact and Client Power



A Concrete Proposal for Reform—Focused on Teachers

Having developed the broad messages for reform – recommending allocation of functional responsibilities to levels of government – based on our analytical approach, we now take the next step. We develop a detailed proposal for reform that tries to concretize our analytical recommendations into a proposal that would work in the rural Indian context. That is, we go from the general to the specific – we develop in detail, one potential proposal from the broad class of proposals that can emerge from our analytical recommendations. Issues of transition, political supportability, administrative implementability are merged with the 'optimal' recommendation, to generate a proposal that we believe is likely to be both effective in tackling the systemic weaknesses of the primary education system, as well as being implementable in the Indian socio-economic and political economy context.

Building Blocks

As a starting point for our proposal, there are two building blocks that we use as the basis for developing our proposal.

The first building block are the two overarching messages that emerge from our analysis:

- there is a need to *strengthen* state (and central) control of standard setting and monitoring. That is, decentralization that weakens the ability of a "higher" level jurisdiction to set learning achievement standards and monitor their fulfillment could possibly lead to even greater malfeasance and corruption than the current system—the only difference would be where the bribes for jobs are paid.
- *In the context of stronger* standards and monitoring much greater operational responsibility to the lowest possible level at which performance can be observed and judged.

The second building block of our analysis is the evidence of the emergence and spread of the contract or 'para-teacher' programs or "alternative schools" in several Indian states. Contract or para-teacher programs – known by different names in different states – have emerged as a parallel to the regular government schooling system, whereby 'para-teachers' are hired on contract to fulfill the teacher 'gap' in the government schooling system. We call this emergence the 'para-teacher revolution' for two reasons. First, because of the increasing commitment of some state governments to these programs. Second, they are spreading rapidly in many large Indian states, to the extent that almost all incremental hiring of primary teachers in many states like West Bengal and Orissa is taking place only through these programs. It is important to note that programs such as these that try to decentralize teacher operations are no longer 'at the margins' but are in fact becoming an integral part of the government delivered primary education system in India.

The two 'building blocks' – the results of our analysis which suggests decentralization of operations, and the evidence of the success (and unsustainability) of the para-teacher programs – motivates our proposal for reforming the government primary education system.

Our Proposal for "operations-teachers"– The District Professional Teaching Cadre (DPTC)

The key issue with any proposal about education is the quality of teaching. Without quality teaching all other plans are simply froth on the ocean. We propose that, in conjunction with decentralization to the PRIs of responsibilities for the functions of elementary the current state cadre of teachers be gradually replaced by a District Professional Teacher Cadre (DPTC), which is *not* a "para-teacher" scheme and *not* simply a replication of previous attempts at devolving control (e.g. Rajasthan, MP).

Under this proposal, newly hired teachers would have a three phase career track. All existing teachers in the government schools would have their terms of employment 'grandfathered', i.e., no change would be made to their terms which would remain unchanged until they retire. The three phase track would be applicable only to newly hired teachers.

In Phase I a teacher is *Shiksha Karmis* (SK or apprentice). To enter phase I as an SK a person must be approved by the ZP as *eligible* to be appointed as a teacher. To be in this pool of eligible SKs a person must satisfy two sets of requirements. First, they must be recommended by a GP (indicating a desire to hire, if approved). Second, candidates must also fulfill certain basic technical requirements (as specified by the district (possibly following state or national guidelines).

From the 'pool' of all eligible SKs teachers can be chosen by a *school* for an *assignment*. How this happens will be determined by the GP—one model would be that SMCs are responsible for the assignments of teachers subject to the GP's approval. Or perhaps a VEC does assignments together with the GP. The important point is that the assignment to a specific school happens locally.

Why this separation of "hiring" from "assignment"? Two reasons.

First, even at much lower than their current salary structure teaching positions are in huge demand—and hence there are huge pressures for corruption—in which the person(s) responsible for appointing teachers take bribes from prospective teachers in order to allocate the positions. This separation means that the level of government responsible for certifying the technical quality of teachers cannot also give the teacher an assignment, which reduces their ability to extract bribes rather than follow the criteria in a transparent manner. By the same logic, the fact that the district has to approve a teacher means that the officials at the GP/SMC/VEC cannot extract bribes and promise jobs to unqualified teachers.

Second, one of the big benefits of hiring teachers at the local level is that when there are cadres chosen at the state or district level the incentives are for teachers to get the job because it is an entitlement, but then the chosen teachers do not want to be assigned to distant rural schools—this then accounts for a great deal of the absence problem as teachers live far from schools and spend time lobbying within the system to get transferred to a more attractive school. So, school specific assignment means that schools can choose those who want to be in the village.

When assigned in Phase I of their career the SKs will have a fixed term (annual?/biannual?) contract with the school. This contract is renewable at the discretion of the local authority (GP/VEC/SMC). The SK is also of course free to take up an assignment in any another school in the district that is willing to re-hire the SK. This will ensure that the SK is accountable to the school. The SKs will be paid their salary also through the GP/VEC/SMC bank account (which receives a transfer from the state).

In phase I of their career the salary of the SK will be at a level commensurate with the position and set by the district. That is, each district will be free to set a pay scale with a fixed amount paid to each SK. This will of course potentially vary from district to district but will likely be set at levels similar to those already paid by state governments to para-teachers that they are hiring (or by private schools).

Phase I phase is a probationary, training and learning phase for aspiring teachers. Having a probationary period has several advantages. As is well known from studies of a variety of labor markets there is enormous "churning" and instability in job tenure at the early stages as people seek out jobs they are well adapted to. By granting teachers immediate job security this discourages those who dislike the profession from leaving, even if it turns out they do not enjoy teaching. A second benefit of a probationary period is that since so many dimension of teaching are subjective and difficult to measure most "pay for performance" schemes are difficult to implement. Instead, one wants more "intrinsic" motivation and commitment to the profession as the primary motivators. But these can be assessed only after a substantial period. A final benefit to a long probationary period is that one can do an evaluation of the teacher that truly captures their performance as an educator, not just one narrow dimension.

After the probationary/learning period of five to seven years the SK can apply to become an "associate" (*Adhyapak*) teacher. This decision will depend on an evaluation of the teacher's performance as an SK. The performance evaluation will receive inputs from:

- The school(s) the teacher has been teaching in, to solicit parental input,
- Peer input from peers in the school and outside,
- Technical review from the district based on trainings, observations, track record, etc.

In Phase II of the career path here are three benefits.

First, the pay structure changes so that there is a substantially higher base level and the teacher can receive annual structural increases (based on some mix of seniority and performance).

Second, the school is free to sign longer term contracts with the teacher (three to five years).

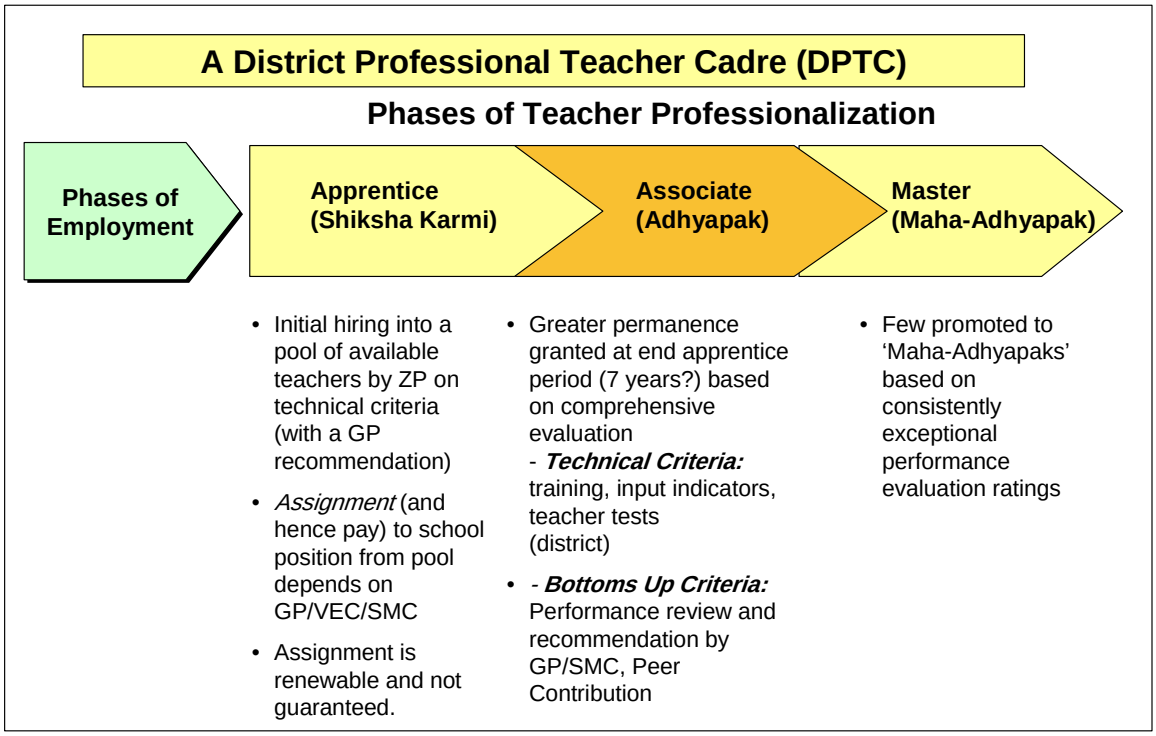
Third, the conditions for removal from service become more stringent. As a probationary teacher one is eligible in the pool but if, in a given year, a teacher does not have an assignment from a school they do not receive a salary. However, once a teacher becomes an Associate then the district acquires some obligation to pay them a salary even if they are temporarily without assignment (but under very strict conditions)—which gives the district incentive to "place" all of the associate teachers.

But the power of assignment still rests with the school. If a school no longer wants an Associate teacher they do not have to accept them—the district cannot simply 'assign' teachers. In the end, this is the ultimate check on accountability and if this is lost then the "regularized" associate teachers have the temptation to become as unaccountable as the existing teachers.

In Phase 3, selected outstanding Adhyapaks can be promoted to *Maha-Adhyapaks* or Masters, which would carry another step jump in salary, more perks and prestige. In effect, this would be a reward for sustained outstanding performance of exceptionally good teachers, once again selected based on a comprehensive criteria discussed above, in addition to more rigorous inspections to verify the recommendation for promotion to phase 3. The jump to Phase 3 would be controlled and limited, with most teachers expecting to spend their career as Adhyapaks.

Our proposal is summarized in figure 30 below.

Figure 30: A Proposal for a District Professional Teacher Cadre (DPTC)



Note that our proposal has three elements of performance-based compensation.

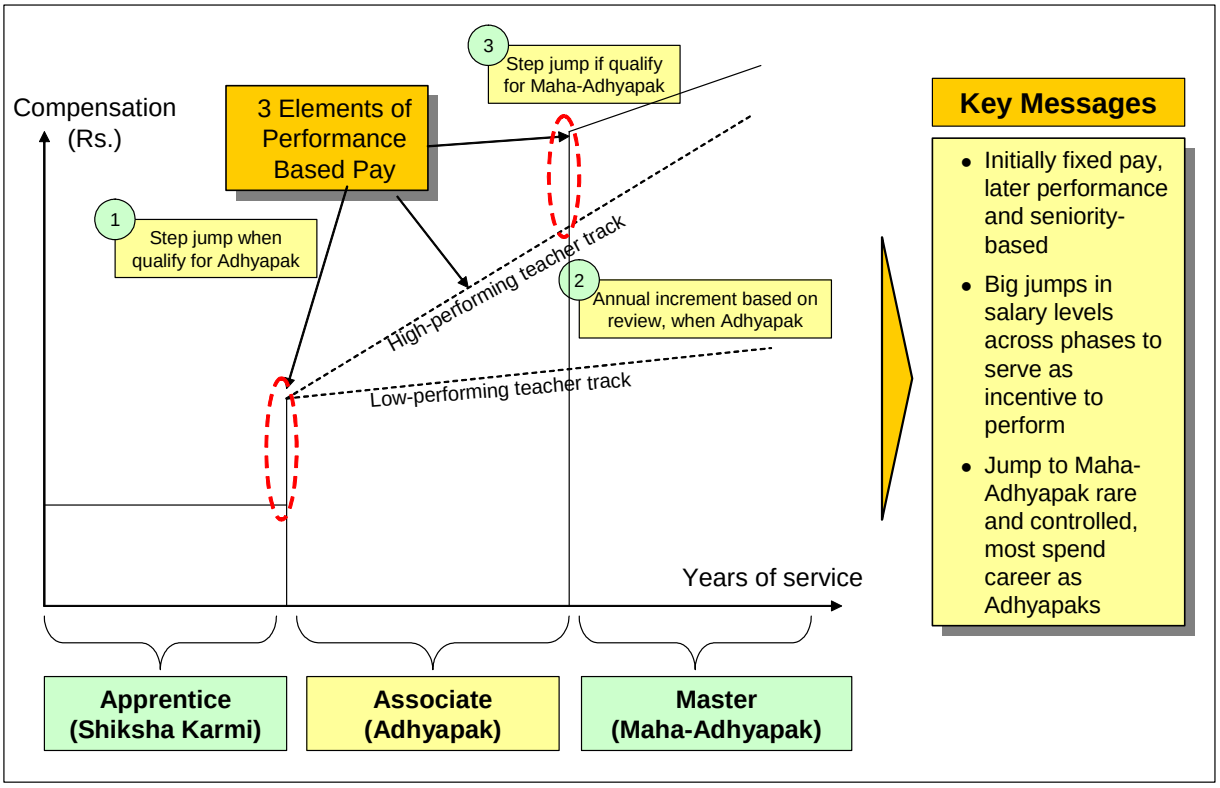
- The initial step jump to Adhyapak at the end of the SK period, t
- The annual pay increments based on the comprehensive criteria discussed while an Adhyapak,
- Another step jump in compensation when being promoted to Maha-Adhyapak.

This is shown in Figure 31 below.

This is a "professional" cadre proposal, not a "pay for performance" scheme and there is no simplistic recommendation of linking pay to the performance of students in a "high powered" way. While this is certainly one element of a performance evaluation, this needs to be brought in very carefully (particularly since so much of student performance is driven by child and household characteristics to "attributability" is weak).

This is a "professional" cadre because it is modeled on the structure of recruitment, screening, retention, and compensation of professional type occupations (e.g. lawyers, doctors, architects, university professors). In all of these there is a long probationary period, a stringent review, a change in employment status—but all the while they have to perform to remain. This encourages a "professional" ethos rather than a "worker" ethos among teachers.

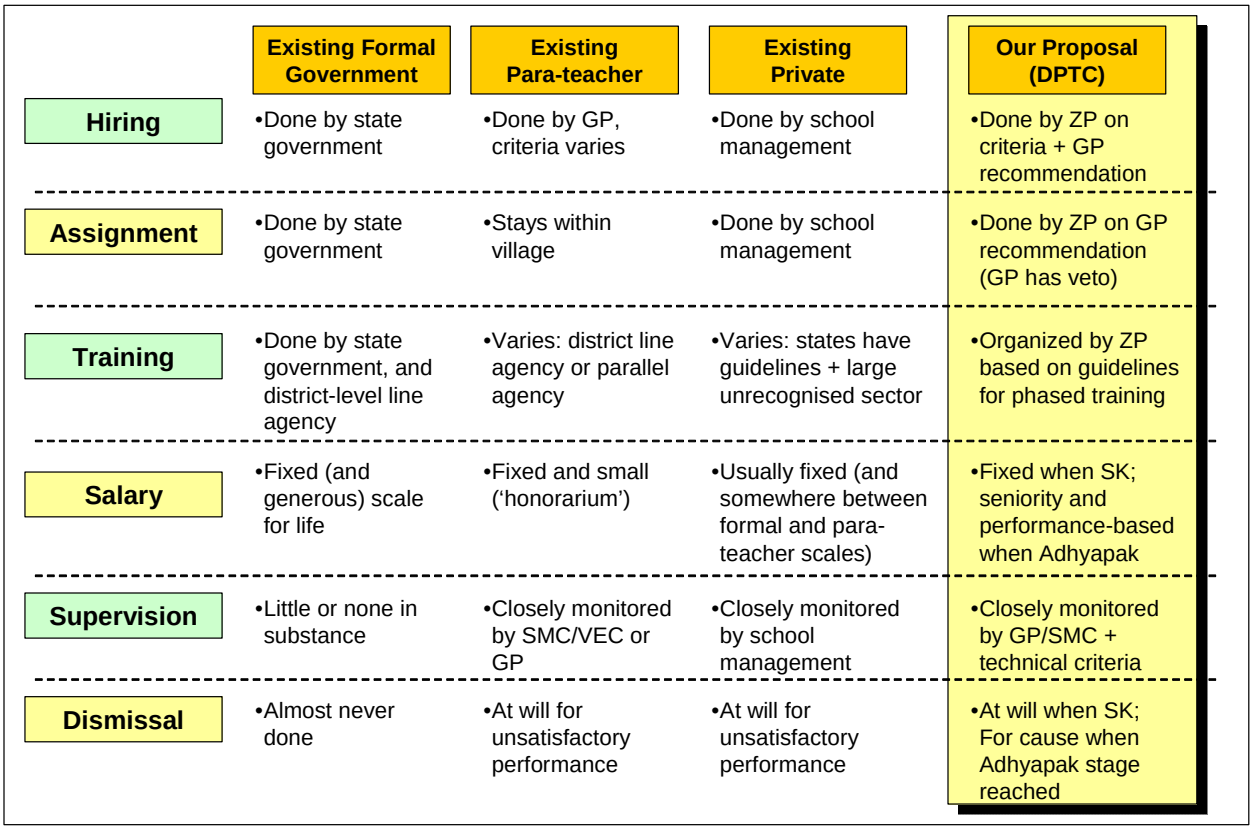
Figure 31: Compensation in the DPTC System



Our DPTC proposal is distinct from the three existing primary education systems in India today – the formal government schools system, the para-teacher system and existing private system. The exact distinctions on each aspect of teacher contract are shown in Figure 32 below. Note the similarities and differences with each of the existing systems.

Like the formal government school system, teachers under the DPTC system get some type of employment security—but only in Phase 2 of their career. This ensures that the professional nature of the teaching profession is maintained, and it is not denigrated as a 'contract' profession. Like the para-teacher system, teachers under the DPTC system are evaluated by clients – GP/VEC/SMC. This evaluation dictates both their movement to the next phase of their professional track, as well as annual salary increments when an Adhyapak. This ensures that the short route of accountability (client power) works. Like the private school system, assignment is 'demand driven', with the school having the prerogative to accept a teacher or not.

Figure 32: How Does the DPTC Stack Up Against Existing Systems in India?



	Existing Formal Government	Existing Para-teacher	Existing Private	Our Proposal (DPTC)
Hiring	•Done by state government	•Done by GP, criteria varies	•Done by school management	•Done by ZP on criteria + GP recommendation
Assignment	•Done by state government	•Stays within village	•Done by school management	•Done by ZP on GP recommendation (GP has veto)
Training	•Done by state government, and district-level line agency	•Varies: district line agency or parallel agency	•Varies: states have guidelines + large unrecognised sector	•Organized by ZP based on guidelines for phased training
Salary	•Fixed (and generous) scale for life	•Fixed and small ('honorarium')	•Usually fixed (and somewhere between formal and para-teacher scales)	•Fixed when SK; seniority and performance-based when Adhyapak
Supervision	•Little or none in substance	•Closely monitored by SMC/VEC or GP	•Closely monitored by school management	•Closely monitored by GP/SMC + technical criteria
Dismissal	•Almost never done	•At will for unsatisfactory performance	•At will for unsatisfactory performance	•At will when SK; For cause when Adhyapak stage reached

Our proposal for revamping the structure of the teaching career is "pro-teacher" in that it is a proposal for a *more* professional, *more* highly respected, occupation in which the *best* teachers are compensated better than they are currently. But the proposal is "pro" *good* teacher. Any system that does not remove teachers who abuse students, who do not attend, who do not teach diligently, who do not know content and methods is actually a system that is *anti*-teacher as this treating all teachers the same irrespective of their commitment to the ideals of the profession denigrates the entire profession.

(Finally) Addressing Question 2: Is a *well designed* Decentralization the Right Model for Primary Education Reform?

Having presented the outline of our proposal for reforming the rural primary education delivery system, we now move to the second of the two questions we had said we would address at the outset – i.e., is this (well designed) decentralization proposal – which is based on our analytical approach – the right way forward for primary education reform in India?

The Reform Options

This question is best answered by comparing our proposal to the reform alternatives that exist out there.

On the one extreme are the existing reforms that are taking place, which are incremental – we term these as 'Business as Usual' reforms, because they are limited in the sense of not addressing

systemic weaknesses of the primary education system in India, particularly with regard to teachers. The SSA, for example, has shown promising results – the Joint Review Mission of the World Bank reports that the government of India reports that out of school children have fallen from 25 million in 2003 to only 13 million in March 2005, and increased number of schools by almost 64,000. However, on outcomes (attainment/completion, achievement and parental satisfaction), there is less evidence to show substantive improvements. Clearly, incremental reforms seem inadequate in addressing systemic issues like accountability.

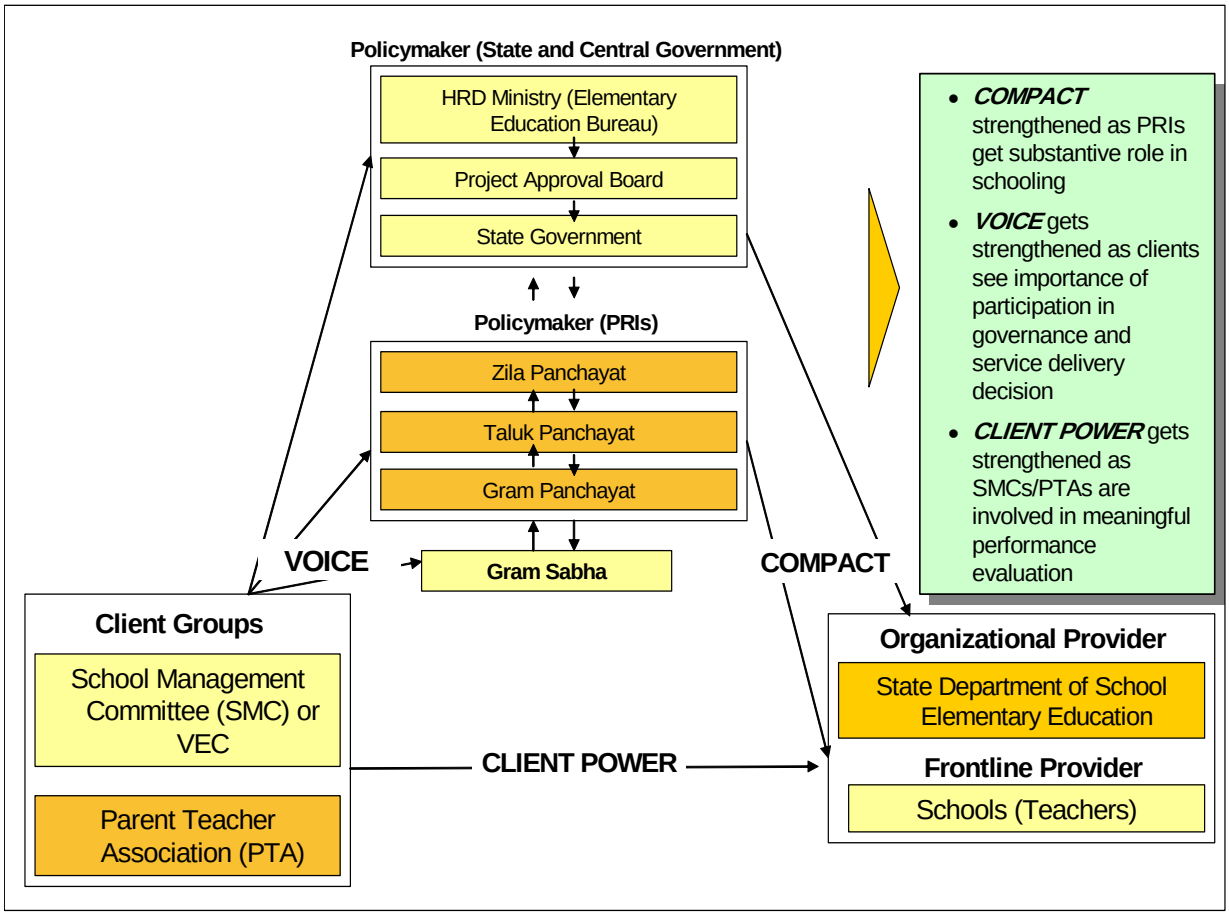
On the other extreme are radical proposals like introducing a voucher program. Under the voucher proposal, parents would be given 'vouchers' by the government, which they would be free to take to the school of their choice – including private schools – as payment for educating their children. The government would pay the schools on presentation of vouchers. This is a method of introducing competition in the market for primary education, and letting the market impose accountability. The problem here is that given the radical change this would require, and the 'privatization of education' label that voucher proposals are often given, it is unlikely to be politically supportable. In addition, there is the question of diffusion – evidence shows that there has been only one success story of nation-wide voucher system in the last 130 years (Chile), and it would be entirely new in India – a huge political and administrative challenge.

Decentralization plus DPTC

In the middle of these two 'extremes' is decentralization (which brings clearer standards, more monitoring, reallocated responsibilities) together with a DPTC proposal for handling the teaching occupation in a decentralized environment. We believe is a a 'middle path' that gives us the best of both.

On the one hand it addresses the issue of systemic reform capable of making a step change in education quality by improving accountability. It strengthens the *compact*, as PRIs get substantive role in supervision and monitoring. It strengthens *voice* as clients see the importance of local government and participation in service delivery decisions. It strengthens *client power*, as clients get directly involved in evaluating teachers and schools, and see their inputs having an impact on who teaches their children. This is shown in Figure 33 below.

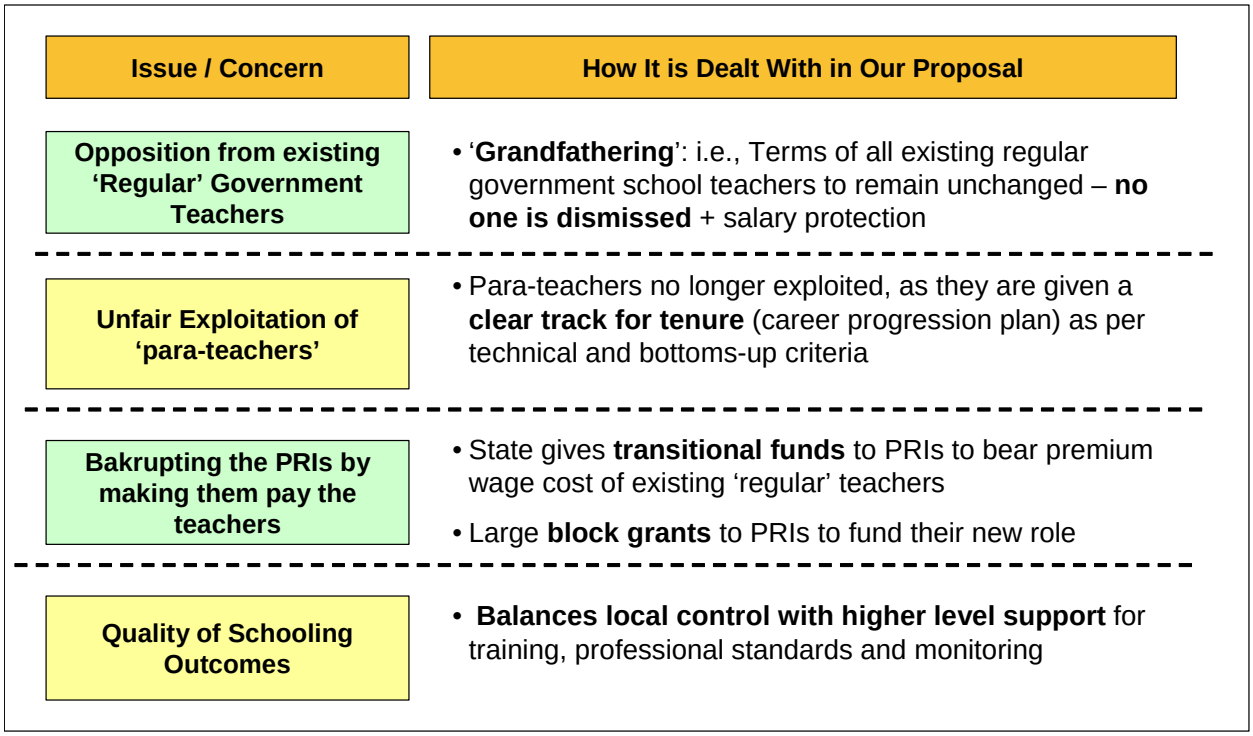
Figure 33: Strengthening Accountability through the DPTC System: Redefining *Compact, Voice* and *Client Power*



While it facilitates systemic reform, the DPTC proposal on the other hand is not as radical (and hence not as politically difficult to implement) as the voucher idea, which by its sheer 'privatization' connotation and the lack of international success, appears to be a non starter. In fact, addressing issues of political economy of reform and transition have been central to the design of the DPTC proposal. The DPTC design addresses four key concerns in this regard. First, by grandfathering the contracts of all existing teachers in government formal system (such that their salary and tenure is not affected), potential opposition from existing government teacher unions is addressed, as there will be no adverse change to their terms of employment for the remainder of their professional career. Second, by giving a clear career progression plan for 'para-teachers' which allows them to get tenure, our proposal addresses the concern of unfair exploitation of para-teachers which is happening today. Third, by making states give transitional funds to PRIs to fund the premium wage cost of existing regular government teachers, and by making states give block grants to PRIs to fund their new mandate, the proposal addresses the concern of putting undue financial burden on PRIs. Fourth, by aiming to balance local control of teaching with higher jurisdictional support for training, professional standards and monitoring and evaluation, the proposal addresses the concern of low quality of schooling outcomes in a decentralized system.

These features of the DPTC are summarized in Figure 34 on the next page.

Figure 34:
DPTC – Addressing the Central Concerns of Political Economy of Reform and Transition



Thus we see that our DPTC proposal is a middle path – it addresses the key issue of systemic reform by promoting greater accountability, without being too extreme so as to become a political non-starter. That is where we believe the proposal's strength lies, and why we think it is the right way forward for reforming the primary education system in India.

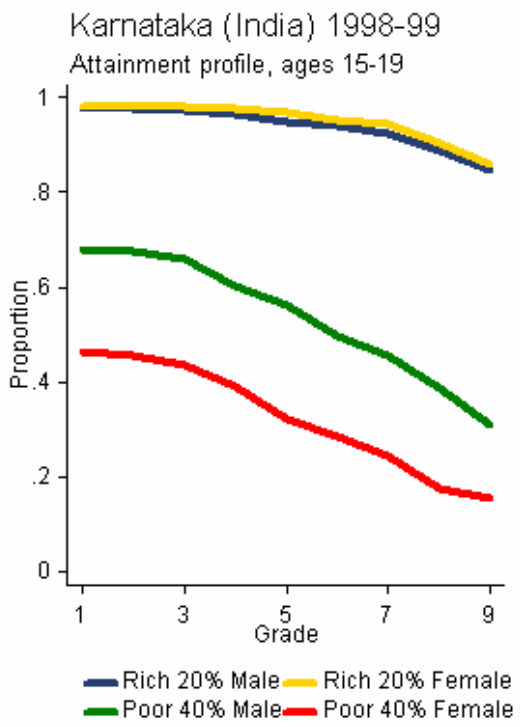
Conclusion

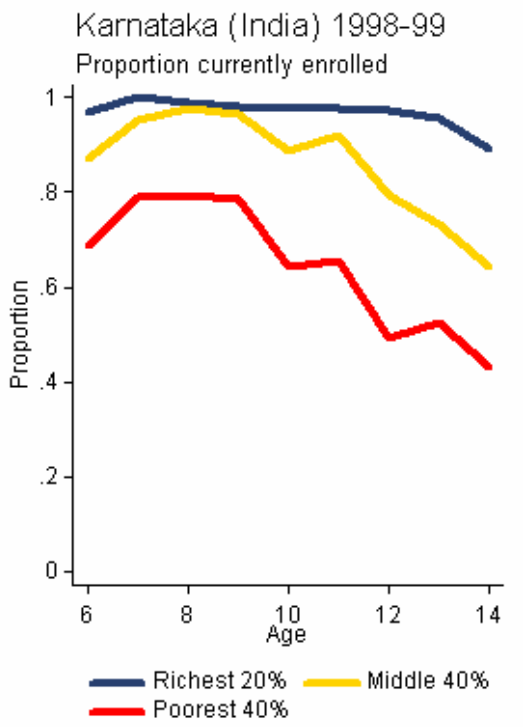
We started by showing how the government primary schooling system in India is in, or nearing, a crisis stage and identified weak accountability as a critical systemic weakness in the status quo.
We then used an analytical framework to identify what needs to change.

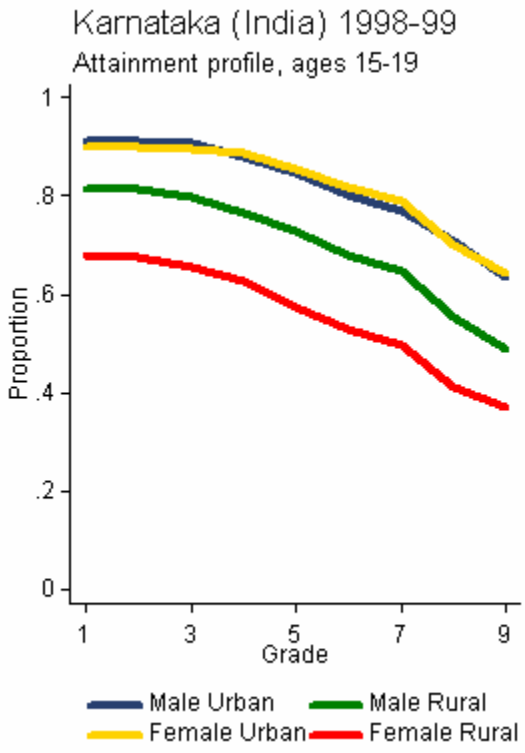
Using our results, we developed a detailed proposal for reform – decentralization and allocation of functional responsibilities plus the District Professional Cadre (DPTC) proposal – that, as we argued, is the middle path which is the need of the hour. Note also how our DPTC proposal addresses both the questions we set out to address at the outset. The first question was how to do education delivery in India's decentralizing context. It was with this in mind that we developed the "decentralization of functions plus DPTC" proposal using our analytical approach, and built in the best elements of the various existing systems in India into our proposal.

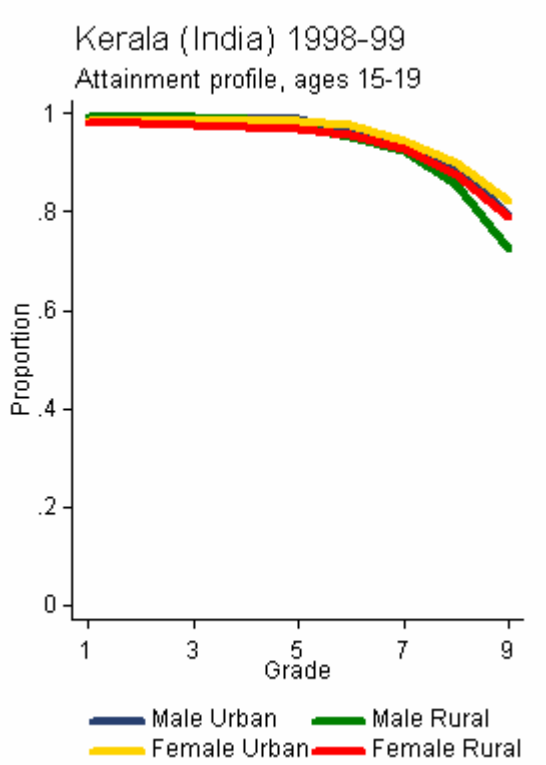
The second question was whether a well designed decentralization is the right solution for addressing the issue of primary education reform in India. As we have argued in the previous section, we believe the DPTC proposal is the right solution. It addresses the systemic problem of accountability, and at the same time has a plan built into it that addresses the concerns of political economy of reform and transition. This is what we think makes our proposal a realistic and viable opportunity for giving a brighter future to India's children.

Appendix A:
Attainment and Enrolment Profiles in the 4 Focus States








Kerala (India) 1998-99
Attainment profile, ages 15-19
Proportion
0
.2
.4
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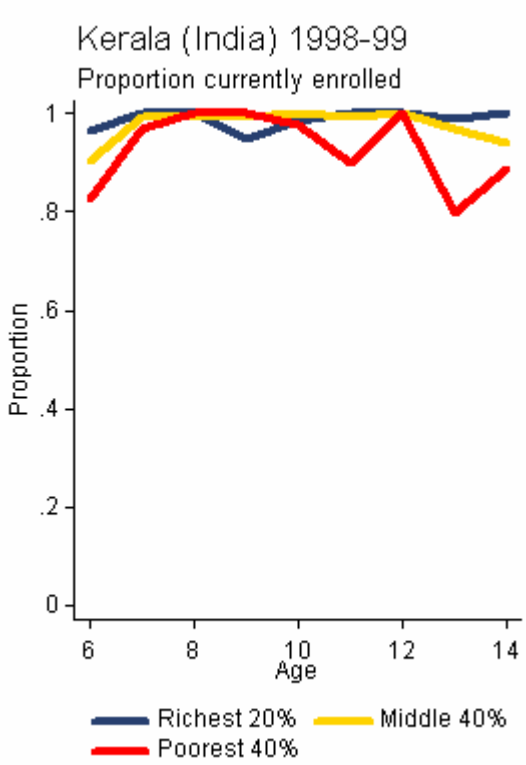
1
3
5
7
9
Grade
Male Urban
Male Rural
Female Urban
Female Rural


Kerala (India) 1998-99
Proportion currently enrolled
Proportion
0
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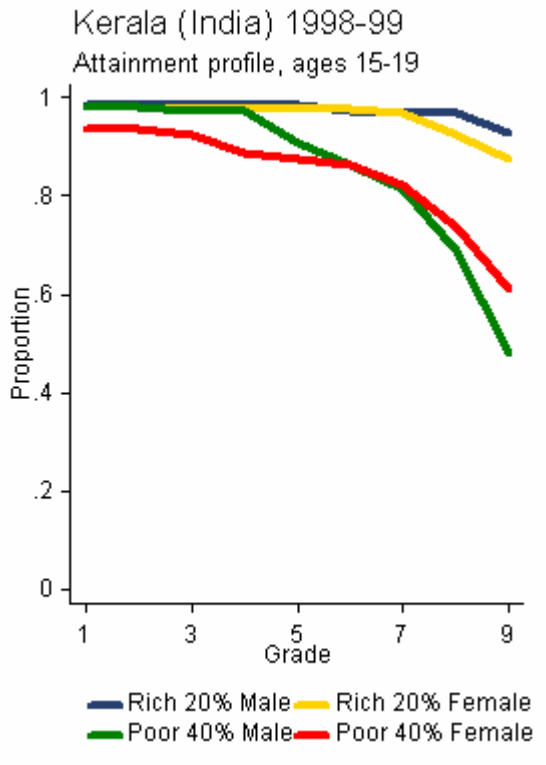
1
6
8
10
12
14
Age
Richest 20%
Middle 40%
Poorest 40%


Kerala (India) 1998-99
Attainment profile, ages 15-19
Proportion
0
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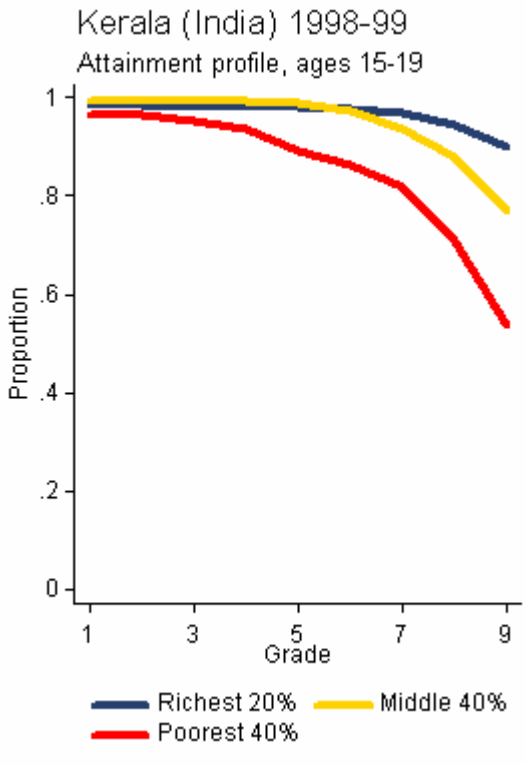
Grade
Rich 20% Male
Rich 20% Female
Poor 40% Male
Poor 40% Female


Kerala (India) 1998-99
Attainment profile, ages 15-19
Proportion
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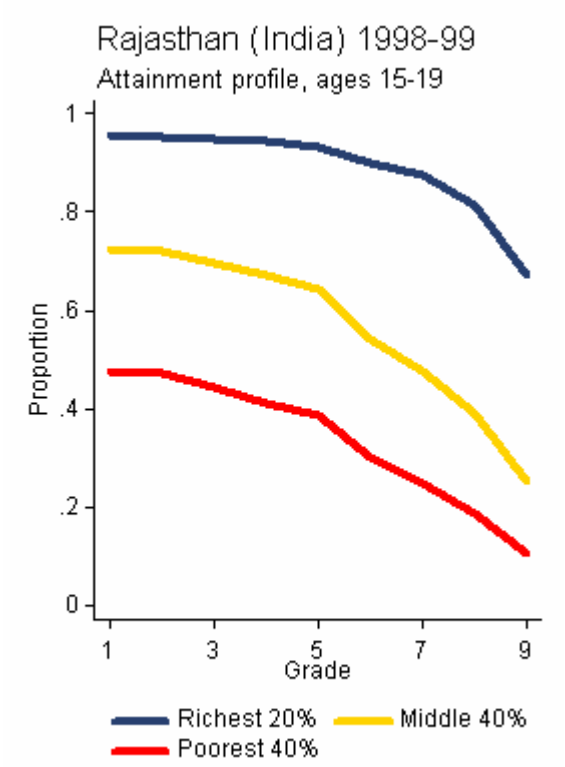
Grade
Richest 20%
Middle 40%
Poorest 40%


Rajasthan (India) 1998-99
Attainment profile, ages 15-19
Proportion
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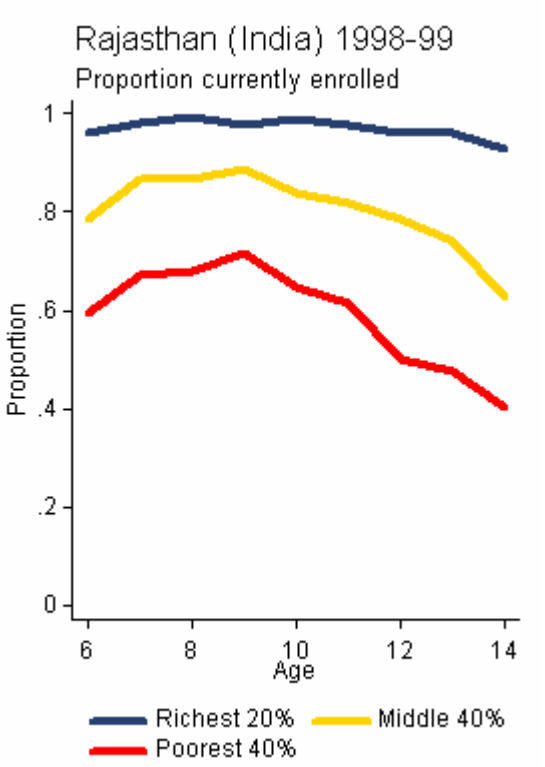
9
Grade
Richest 20%
Middle 40%
Poorest 40%


Rajasthan (India) 1998-99
Proportion currently enrolled
Proportion
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.4
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1
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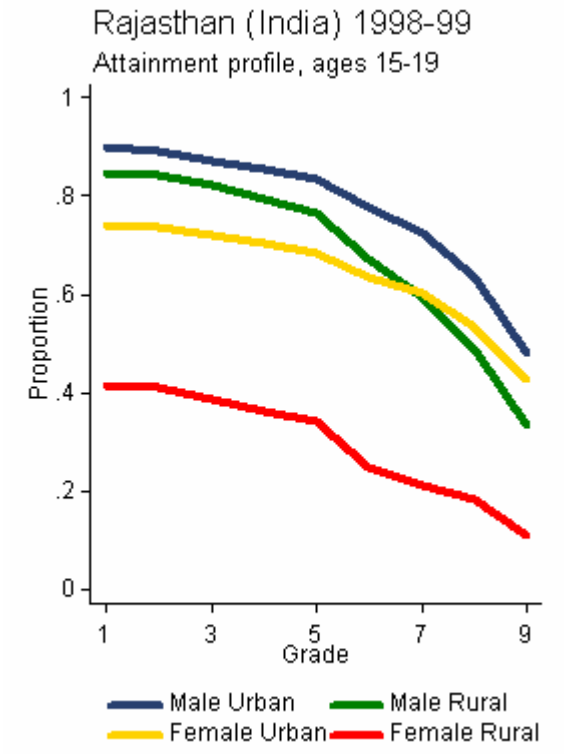
10
12
14
Age
Richest 20%
Middle 40%
Poorest 40%


Rajasthan (India) 1998-99
Attainment profile, ages 15-19
Proportion
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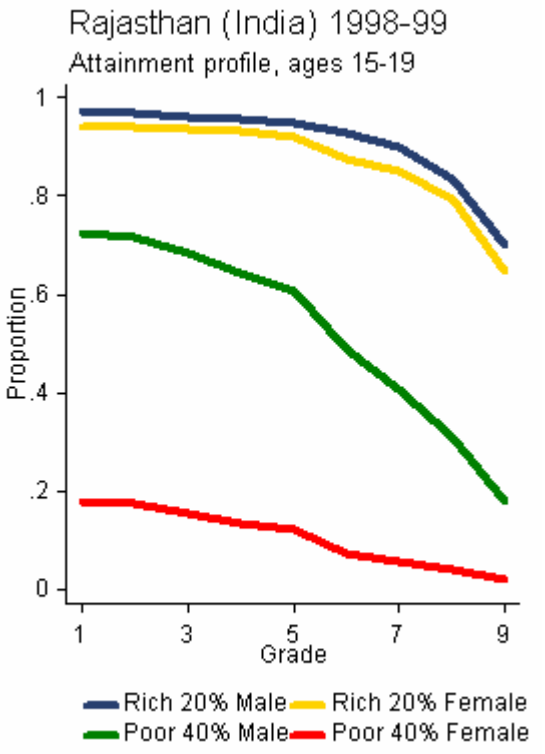
Grade
Male Urban
Male Rural
Female Urban
Female Rural


Rajasthan (India) 1998-99
Attainment profile, ages 15-19
Proportion
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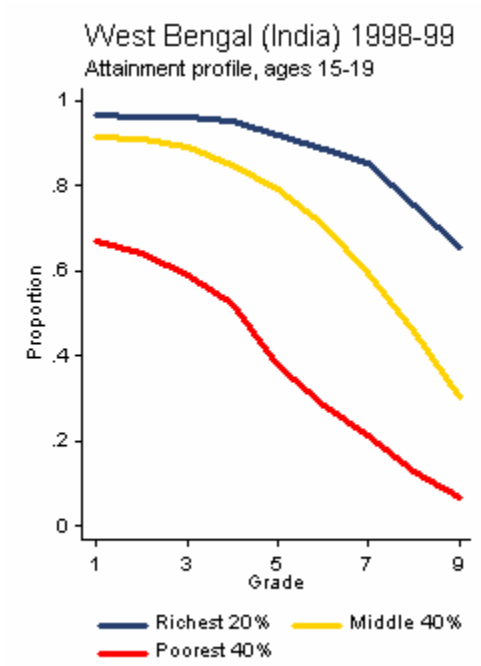
Grade
Rich 20% Male
Rich 20% Female
Poor 40% Male
Poor 40% Female


West Bengal (India) 1998-99
Attainment profile, ages 15-19
Proportion
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7
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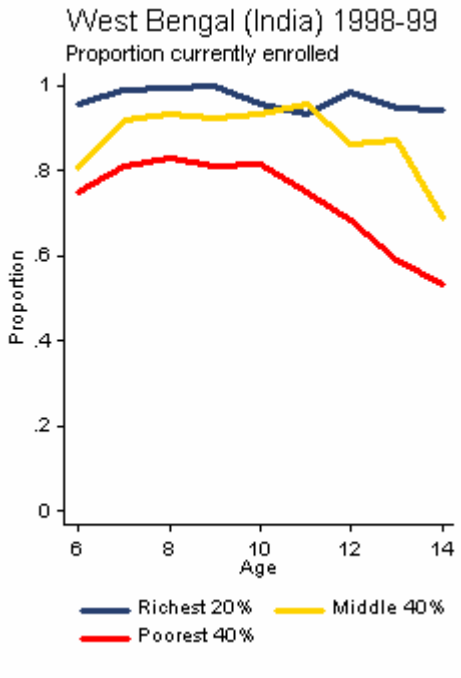
Grade
Richest 20%
Middle 40%
Poorest 40%


West Bengal (India) 1998-99
Proportion currently enrolled
Proportion
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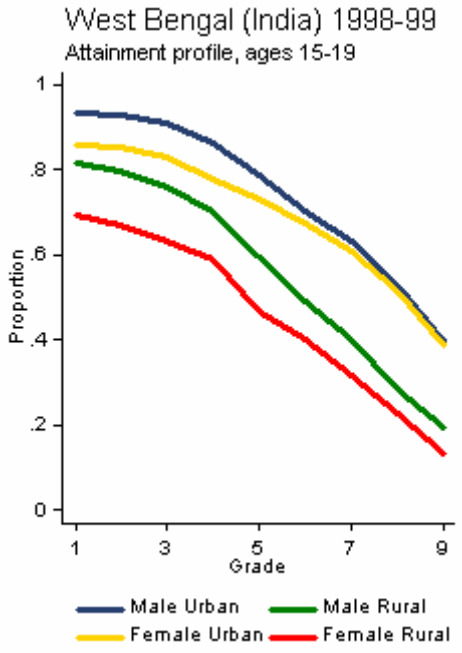
Age
Richest 20%
Middle 40%
Poorest 40%


West Bengal (India) 1998-99
Attainment profile, ages 15-19
Proportion
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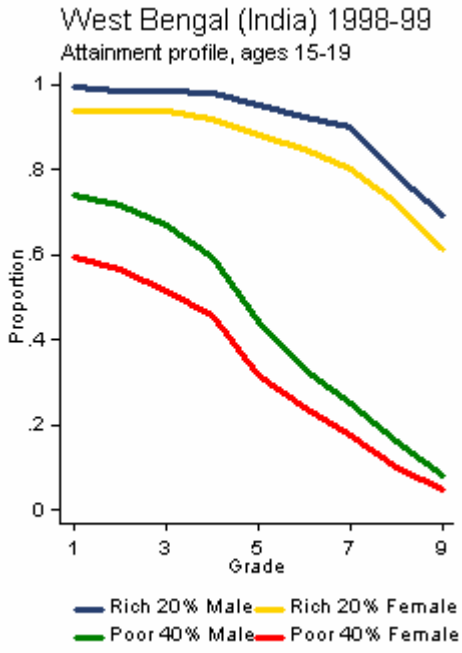
Grade
Male Urban
Male Rural
Female Urban
Female Rural


West Bengal (India) 1998-99
Attainment profile, ages 15-19
Proportion
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1
1
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7
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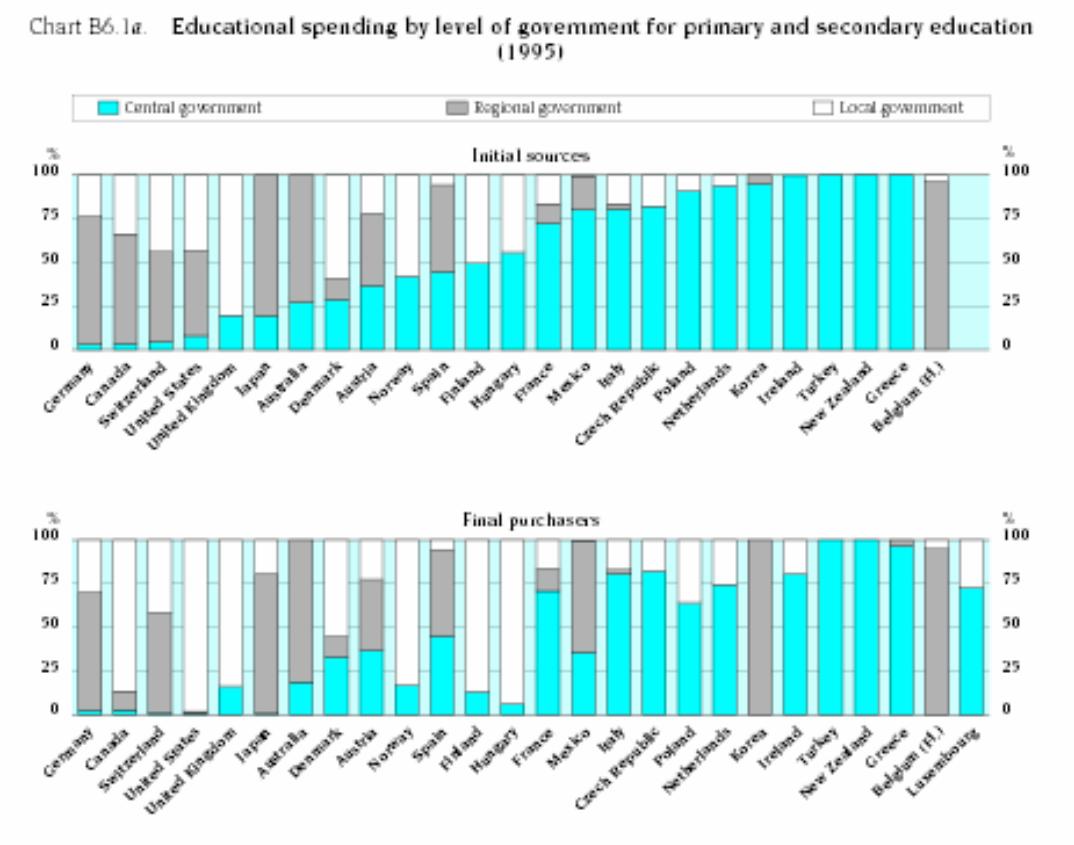
Grade
Rich 20% Male
Rich 20% Female
Poor 40% Male
Poor 40% Female

Evidence from the OECD

We first see the pattern of education spending and provision in main OECD countries. As the figure below shows, there is no single service delivery or financing model followed by all of the OECD countries. Different countries have a different mix of central, regional and local government involvement in finance and service provision. The figure shows that finance for basic education ranges widely across the nation/state/local spectrum from heavily local in the USA to heavily state in Germany to heavily central in France. The scope for control over expenditures (which can vary independently of the source of financing) also varies widely with almost complete local control over final purchases in the USA to centralized control in France and Italy. **This indicates that there is no one-size-fits-all formula of education decentralization that can be prescribed.**

Figure B.1:
In the OECD there is a wide variety in the financing of schools across tiers of government

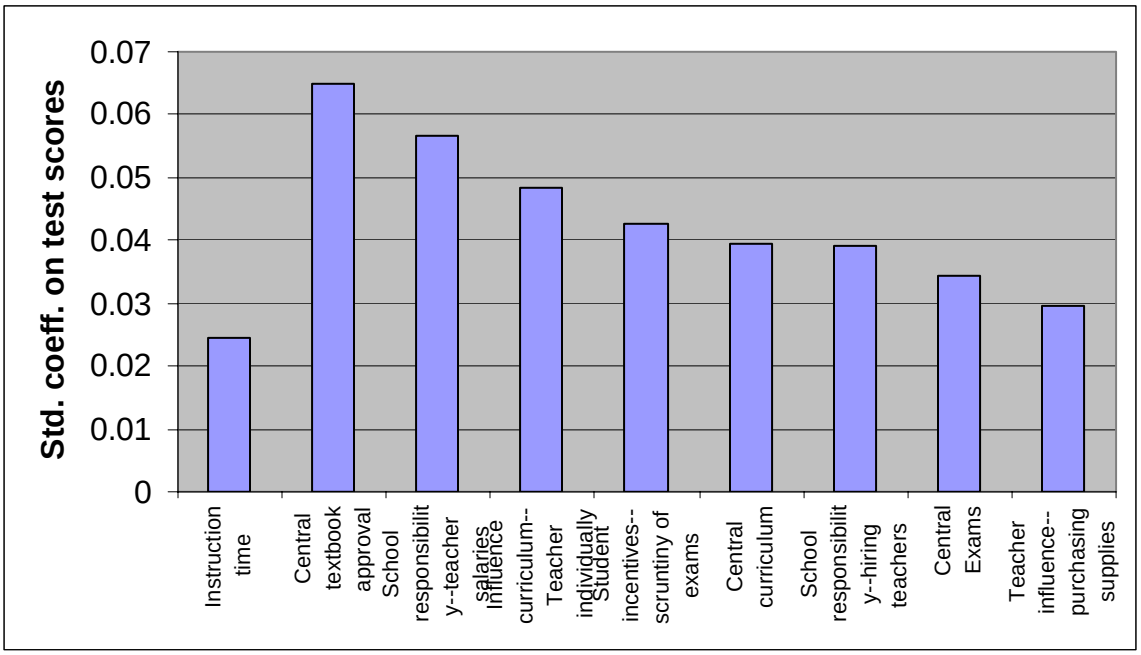


Source: OECD (1998)

While there is no "one size fits all" in the OECD countries, there is increasing evidence that pushing setting standards and monitoring performance to higher levels of government while pushing operational responsibilities to lower levels, where individuals schools and teachers have the maximum flexibility and autonomy to make the day to day decisions while making accountability for *learning outcomes* more powerful through greater internal and external information and feedback.

A recent study based on all of the information from the Third International Mathematics and Science Study (TIMSS) examined the student, school, and country level determinants of student learning achievement based on more than a quarter of a million students. After controlling for all of the usual covariates of student performance (parental background, country income, resources) it was also found that centralized curriculum and centralized examinations had an important positive effect. *School level responsibility* for hiring teachers and compensation of teachers had a positive association with performance. *Teacher* control over applying the curriculum and purchasing supplies also had positive impacts. All of these impact were substantial—as large or larger (measured as the impact on learning impact for a standard deviation increase in the variable) than an increase in instructional time for instance.

Figure B.2:
Empirical evidence from the OECD suggests aligning accountabilities at the right level of jurisdiction matters for student learning…



Alternative models in other developing countries

In drawing on experience from other countries around the world with "decentralization" it is good to keep in mind the relative size of other countries compared to the relevant units of jurisdiction in India. For instance, in this section we discuss experiences in Chile, with EDUCO in El Salvador, and the state of Minas Gerais in Brazil, three Latin American examples where different models of education decentralization have been tried and have met with varying success[12]. In discussing "decentralization" in the Latin American context for its relevance for India it should be kept in mind that the populations of all of the four Indian *states* considered here are substantially larger than the *countries* discussed.

[12] This section draws particularly from Winkler et al (2000)

Chile: Municipalization plus vouchers. Chile's educational system was substantially reformed in 1981 by two basic changes: first, responsibility from education went from being a *national* responsibility to a *municipal* responsibility in which each municipality received a fixed transfer from the center primarily based on student enrollment in the government schools, the second major feature was allowing public funds to flow to private schools that met certain criteria (e.g. aided schools could not receive additional fees). Basic education service delivery model is largely controlled *either* by local government institutions or directly by the private schools themselves.

There are three exceptions. First, curriculum is set nationally. Second, the Chilean system has introduced testing of learning achievement and the tests are designed and carried out at the national level for each school (government, private aided, and private unaided). Third, while the private teachers are private employees and the government school teachers are (with some exceptions) municipal employees the wages of the municipal teachers are set centrally via negotiations with the teachers unions.

Obviously given the controversial step of introducing payments that follow the student that allowed a significant expansion of students in private aided schools, the reforms in Chile are hotly debated. There are certain facts that are undisputed. First, the Chilean case does prove that t. There are certain facts that are undisputed. First, the Chilean case does prove that a *system* based on the idea that money should follow the student to increase client power is *feasible*—the system has been in place for more than 20 years and there are no signs the system is dysfunctional. Second, the introduction of money following the student has implied a substantial shift from government (now municipal) schools into private aided schools. Roughly 20 percent of the all students shifted into private aid schools.

El Salvador: EDUCO, complete community control. El Salvador during a period of civil unrest created a program in which any community group could form a school and receive transfers of resources from the government to run the school. Individual school committees were given complete authority to hire headmasters and teachers (from those qualified) who were given fixed term one-year renewable contracts. This put the community group in charge of everything from building the school, maintenance, hiring (and firing) instructional staff. The program has since been "mainstreamed"

Brazil (Minas Gerais): The model followed by Minas Gerais province in Brazil lies between the two decentralization 'extremes' seen in Chile and Mexico (which has pursued a regional/provincial level decentralization). Whereas schools have the responsibility for choosing textbooks and teaching methods, allocation non-personnel budget and hiring/firing the school director, the regional government decides on teacher hiring and pay scales, allocation of personnel budgets and setting exams.

Table B.1: Alternative schemes for allocation of responsibilities in Latin American countries

		Chile	EDUCO	Brazil (Minas)
Standard Setting	**Curriculum design** **Learning achievement standards/goals**	Nation Nation	Nation Nation	
Planning	**Plans for physical expansion** **Plans for quality improvement**	Schools Schools	Community School	
Asset Creation	**Social Capital** **Physical Capital** School Construction	 Municipal/ Private	 Community	
Operation	**Beneficiary Selection** Choice of students for targeted programs Promotion of universal enrollment **Recurrent expenditures (non-wage)** Textbook choice/purchase Learning materials **Maintenance** Maintenance of school buildings/facilities **Personnel** Compensation Hiring of teachers Assignment of teachers to specific classes Performance evaluation In-service training Promotion across grades	 National Private schools made all operational choices Muncipal school decisions taken at municipal level	 EDUCO schools community groups make all operational decisions, including school direct and teacher hiring	 School School School Municipal Municipal Municipal
Monitoring and Evaluation	**Monitoring** Individual student progress School processes **Evaluation** Assessment of learning achievement	 National National School	 National National School	

Appendix C: Private Schooling in India

An alternative mode of organizing the production of schooling are private schools. In India, there are two main types of private schools, private aided schools, which do receive direct government support, and private unaided schools. Without suggesting either that private schools are superior or can play a role in rural India (an issued to be examined) it is at least worth reviewing how private school handles the allocation of responsibilities.

First, all of the "accountability" of private schools is via the short route of client power directly. This does not necessarily mean that accountability is effective in improving learning outcomes, but it does mean that the budgets of schools are directly linked to their ability to attract fee paying students.

Second, the "management" leg of accountability between the school and the teachers is handled very differently. Teachers in private schools are chosen by the school and headmaster directly, not typically assigned by a larger body. Moreover, teachers in private schools can be dismissed for poor effort[13]. In the absences survey of Kremer et al (2004) which found very high levels of absences they also report that 35 out of 600 private schools reported a case of the head teacher dismissing a teacher for repeated absence or tardiness compared with only *one* case *ever* in *any* of the 3000 government schools surveyed. Not surprisingly, Kremer et al (2004) shows that private-school teachers are 8 percentage points less likely to be absent than public-school teachers in the same village. This is consistent with the earlier PROBE Report, which found "feverish" levels of teaching activity in private schools with a "a consistent emphasis on instruction".

Similar to the experiences with community controlled schools, this improved attendance is likely due to greater accountability not superior pay. Kremer et al (2004) mention that private schools have much lower wages than public-school teachers in India. In particular, regular teachers in rural government schools typically get paid about 3 to 8 times more than their counterparts in the rural private schools. Similarly, Kingdon (1996b) finds that the gross pay of government school teachers is 60 percent more than PUA teachers.

In studies of performance private unaided schools typically do at least as well as government schools—and because wage costs are lower produce the same or superior results for much lower cost (Tooley, 2001). Interestingly, PA schools in Kingdon's sample actually demonstrated slightly inferior achievement to government schools, after controlling for student and family characteristics and selection bias. This finding illustrates that there is nothing magic about being "private" only mechanisms to enforce accountability.

Private schools in India demonstrate the feasibility of creating schools that make all of the relevant choices at the service provider level and that it is at least possible to create mechanism of accountability through greater client power. This is *not* a recommendation of "privatization" of schools in India.

[13] Kingdon (1996b) finds that in her sample 95.7 percent of government school teachers have permanent contracts, whereas only 68.7 percent PUA teachers have such contracts. This does not even reflect the fact that even the permanent contracts of PUA teachers are cancelable, whereas government school teachers are on a lifelong contract.

Appendix D: An Evaluation of the Status Quo

The *de jure* allocation of responsibilities (mainstream)

The analysis of the legal assignment of functions across jurisdictional levels reveals three key features that are common across all three states.

First, the assignment of responsibilities in the law is heavily oriented to the *state*, with functions delegated by the state to lower levels of *administrative* responsibility such as district and bloc educational offices--but very little delegation of functions as the PRI as autonomous units of self-government. What few items that are delegated are usually the least critical elements of schooling.

Table D.1: Matrix for Allocation of Responsibilities

Function	Activity	Centre	State				District				Block				Village								Service Provider (school)			
															Gram Panchayat				User Groups							
Policies/ Design Standards	Curriculum design		k	ke		wb																				
	Learning achievement standards		k	ke		wb																				
Planning	Plans for physical expansion		k	ke																						
	Plans for quality improvement		k	ke																						
Asset Creation	***Human capital***																									
	Social Capital																									
	Physical Capital																									
	School Construction					wb	k	ke					R			ke										
Operation	***Beneficiary Selection***																									
	Choice of students for targeting programs		k														R									
	Enrolment		k								k				k											
	Recurrent																									
	Textbook choice/purchase		k	ke		wb																				
	Learning materials		k	ke																						
	Pre-service training		k	ke																						
	Hiring of teachers		k	ke		wb																				
	Assignment of teachers to specific schools/classes		k	ke																						
	Performance evaluation			ke		wb																				
	In-service training			ke																						
	Promotion					wb	k		R		k		R		k		R									
	Timing																									
	Personnel																									
	Supervision			ke				ke								ke										
	Maintenance																									
	Maintenance of school buildings/facilities		k			wb	k	ke	R	wb			R	wb		ke										
	Monitoring of school processes			ke			k	ke								ke										
M&E	Tests of learning achievement		k	ke		wb																				

Code	
Karnataka	k
Kerala	ke
Rajasthan	R
West Bengal	wb

Second, where functions are explicitly delegated to the PRI they are often as *concurrent* responsibilities, with allocations among the three tiers left unclear. For instance, the maintenance of school buildings is allocated the states, districts, and blocks simultaneously in both Karnataka and West Bengal. Who really has the power or responsibility in these cases then depends on the specifics of implementation.

Third, there are key functions for which the law does not allocate responsibility. This is not necessarily a weakness and not all of the detailed organization of a sector need be specified in law. However, one of the key problems with the system is that the monitoring and tracking of learning achievement and meeting learning standards (not just enrollment targets) is, by and large, not clearly assigned to any given level.

Specifically, the de jure analysis reveals the following for the states.

Karnataka:

The delivery of primary education in Karnataka is governed by the Karnataka Education Act of (1983)[14] and the Karnataka Panchayat Raj act (1994). The Karnataka Education Act deals mostly with regulatory functions of the state government in providing education in the state. Specifically for Primary Education, the act delegates the state government with the responsibility to develop syllabi and curricula; provide funding for primary schools; ensure adequate staffing; manage staffing; and provide basic facilities to primary schools. The act carves a strong role for the state in fulfilling GOI's commitment towards universalizing primary education. To this end, the act empowers the state government to ensure full enrolment and reduce drop out rates in primary schools. In essence, the act allocates to the state government all the key responsibilities related to the provision of primary education in the state. *The act does not explicitly articulate a role for PRI's in this process.*

The role of the PRI's in primary education is addressed in the state Panchayat Raj act (1994). Accordingly the **GP** is responsible for promoting public awareness and ensuring enrollment in its area of jurisdiction. The **PS** is responsible for promotion as well construction, repair and maintenance of primary school buildings and the **ZP** is responsible for the promotion as well as establishment and maintenance of all education activities within its district. The ZP is also empowered to monitor and supervise the activities of the lower tiers. As is evident, the delegation of responsibility in the Panchayat Raj act delegates functions such that it creates concurrent responsibilities across all the three tiers as well as ambiguities in the specific roles assigned to each tier of government.

In essence, the legal framework for the assignment of functions in Karnataka favors the state government. The delegation of functions to PRI's as articulated in the Panchayat Raj Act is weak with all critical functions related to primary schooling concentrated at the state level.. Crucially both the Education and Panchayat Raj Act delegate similar functions to the state and PRI's leading to concurrent allocation of responsibilities across tiers of government.

Kerala:

Primary education in Kerala is governed by the Kerala Education Act, (1958)[15] and the Kerala Panchayat Act (1994). The Kerala Education Act deals with both the regulatory as well as functional aspects of primary education. It mandates a role for the state government in all critical functional

[14] The Act was amended in 1995. We refer to the amended act in this discussion.
[15] This act was amended in 2000 and is now referred to as Act 16 (2000).

areas of primary education ranging from establishing and recognizing state government primary schools; teacher training; providing policy and administrative guidance to primary schools and finally funding primary schools.

The state Panchayat Act (1994)[16], addresses the issue of the functional responsibilities of PRI's. The act reflects a clear delegation of responsibility between the GP and the ZP in the management of primary schools. The TP has not been assigned any responsibilities in primary education. The act mandates that the **GP** is in charge of the overall 'management of Government Pre-Primary schools and Government Primary schools' while the **ZP** is in-charge of the 'management of upper primary schools.'[17]

In 2000, the Kerala state legislative assembly amended the Education Act of 1958 to incorporate in to it the provisions of the Panchayat Raj Act in primary education. This was part of a larger exercise in the state to harmonize existing legislation with the mandate of the Panchayat Raj Act. Accordingly, section 5A of the act (referred to as Act 16) was amended to give GP's the powers to manage pre-primary and primary schools while ZP's have the mandate to manage upper-primary schools. Further, the amended act empowers panchayats to appoint temporary teachers in any school under its management. Despite this amendment however, all critical activities related to the provision of primary education including preparation of schemes related to primary education and assessing the need for establishing schools remain the responsibility of the state government.

In essence the legal framework for the provision of primary education for the assignment of functions in Kerala favors the state government. What distinguishes the Kerala legal framework from that of other states is the clear delineation of responsibilities between the PRI's and the attempt at harmonizing the state education Act with the provisions of the Panchayat Raj Act.

Rajasthan:

The Panchayat Raj Act (1994) is the only law in the state of Rajasthan that deals with the issue of primary education. The Panchayat Act articulates specific roles for all three tiers of government in the delivery of primary education. Accordingly, the **GP** is responsible for promoting public awareness and ensuring enrollment in primary schools. The **PS** is responsible for 'running' or managing primary schools as well as school construction and maintenance, and the **ZP** is responsible for all promotional and management related activities in primary and upper primary schooling.

As is evident from even this brief discussion, the allocation of responsibilities across PRI's as mandated by the Panchayat Raj Act in Rajasthan is characterized by ambiguity in terms of the specific roles to be played by each tier of government and concurrency in the roles assigned. Further, it does not identify roles for any of the critical functions associated with primary schooling. In the absence of a state law to this effect, these decisions are left with the executive.

West Bengal:

The implementation of primary education in West Bengal is governed by two pieces of legislation. These are the state Primary Education Act (1973) and the state Panchayat Act (1973)[18]. The state primary education act empowers the state government with the responsibility to perform all the key functions related to primary education through the state department of education. Consequent to the provisions in the act, the state department appointed the West Bengal Primary Education board

[16] This act was amended in 1999. We refer to the amended act in this discussion.
[17] Schedule V part I and PartIII, Panchayat Raj Act (1994)
[18] This act was amended in 1994. We refer to the amended act in this discussion.

(WBPPE). All key functional responsibilities ranging from curriculum design, teacher training, teacher hiring, preparation of text books and learning materials to monitoring and evaluation are performed through this board. *This act does not address the role of PRI's in primary education.*

The state Panchayat Raj Act (1973) articulates a nominal role for PRI's in the provision of primary education. The GP has been assigned no functions except for the rather ambiguous provision which states that 'the gram panchayat shall also perform other functions as the state may assign in respect of primary education'. The ZP and the PS on the other hand have been assigned overlapping functions. Here too the functions have been defined in a broad and vague terms as responsibility to 'undertake schemes or adopt measures including the giving of financial assistance relating to the development of primary education'.

As with the states of Karnataka and Kerala, the legal framework for primary education in West Bengal explicitly favors the state government. The Panchayat Raj Act does articulate a role for PRI's but this is weak because of overlap in roles and ambiguity in the specific responsibilities to be undertaken by each of the three tiers.

De-facto Allocation of Responsibilities

Overview:

Having analyzed the legal framework for the assignment of functions across government tiers, we now come to an analysis of how this plays out on the ground i.e. the *de facto* status of the allocation of responsibilities across the tiers of government. The analysis that follows is based on surveys conducted in the states of Karnataka, Kerala and West Bengal (for details see methodology chapter). Table 7 highlights some of the key findings of the survey, which largely conveys the "common sense" observations of practitioners.

Crucially, **they survey reveals that in all the states under observation, the de-facto status mirrors the dejure and the state government plays a predominant role in implementing most of the key functions associated with the delivery of Primary Education.** What follows is a detailed discussion of the de-facto allocation of responsibilities in the states of Karnataka, Kerala and West Bengal.

Table D.2: De-facto Status Primary Education*

Function	Activity	Centre			State			District			Block			Village						Service Provider (school)		
														Gram Panchayat			User Groups					
Policies/ Design Standards	Curriculum design	k	ke	wb	k	ke	wb															
	Learning achievement standards	k	ke	wb	k	ke	wb															
Planning	Plans for physical expansion				k		wb								ke							
	Plans for quality improvement				k		wb								ke							
Asset Creation	***Human capital***																					
	Social Capital																					
	Physical Capital																					
	School Construction				k		wb						wb	k	ke							
Operation	***Beneficiary Selection***																					
	Choice of students for targeting programs				k		wb								ke							
	Enrolment				k		wb						wb	k	ke	wb						
	Recurrent																					
	Textbook choice/purchase				k	ke	wb															
	Learning materials				k	ke	wb															
	Pre-service training				k	ke	wb															
	Hiring of teachers				k	ke	wb															
	Assignment of teachers to specific schools/classes				k	ke	wb															
	Performance evaluation				k	ke	wb															
	In-service training				k	ke	wb															
	Promotion				k	ke	wb															
	Timing				k		wb															
	Personnel																					
	Supervision				k	ke	wb															
	Maintenance																					
	Maintenance of school buildings/facilities				k		wb							k	ke							
	Monitoring of school processes				k		wb								ke							
M&E	Tests of learning achievement				k	ke	wb															

Karnataka	k
Kerala	ke
West Bengal (Gvt. Schools only)	wb

**source: SIRD 2005/ SIPRD 2005/ KILA 2005*

Karnataka

In Karantaka, the state bureaucratic machinery is responsible for implementing most functions related to the delivery of primary education. Part of the explanation for this lies in the fact that the Sarva Shiksha Abhiyaan (a centrally sponsored scheme) is the dominant source of financing (approximately 50% of the plan budget) for primary education in the state. SSA mandates a relatively limited role (an issue to which we will return later in this chapter) for PRI's thus ensuring that the state bureaucracy plays a key role in all activities.

Role of the ZP: The survey highlighted that neither the ZP nor the standing committee on education of the ZP has any role either in policy making or the day to day administration of primary schools. This is revealing particularly because critical policy activities such as the development of school curricula and teacher training are usually undertaken at the district level. However, these decisions are made by the DIET, a state institution, and the ZP members are not encouraged to participate in these

processes.. Other activities such as procurement and distribution of text books, uniforms and scholarships are all handled at the state government level.

Role of the PS: The block is usually the institutional unit through which all implementation related functions are performed. However, just as at the district level, here too it is the state administrative machinery that controls all functional responsibilities. The PS has no role to play. At the block level, the Block Education Officer (BEO) is responsible for overseeing the implementation of all key activities. These include undertaking need assessments for equipment and teachers; and overseeing the day to day management of schools including monitoring of teacher attendance. Crucially, the BEO is responsible for hiring of teachers. This is usually undertaken on the basis of approvals from the Deputy Director of Public Instruction (a state level body). Since the BEO is an employee of the state department for education, the Block Panchayat and the BEO operate in parallel to one another.

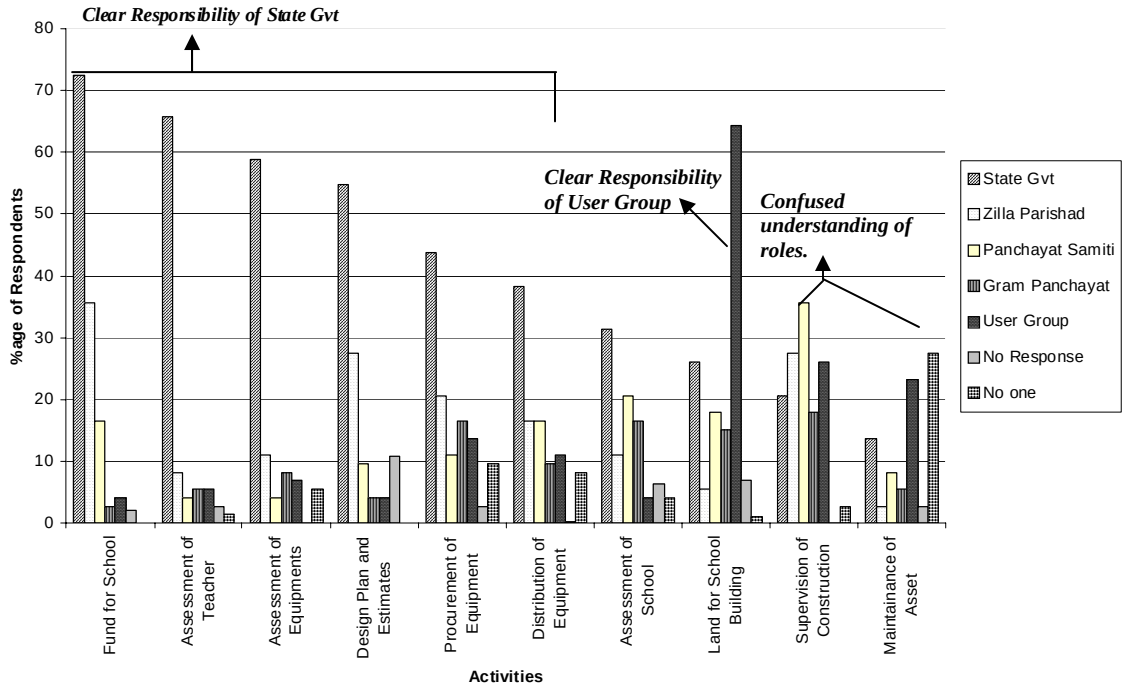
Role of the GP: The guidelines for SSA provide for the formation of School Development and Management Committees (SDMC's) at the GP level that are responsible for all operational activities related to the delivery of education. Although the SDMC's are expected to interact with the GP, in practice they operate primarily as a parallel organization to the GP. In some cases the SDMC's approach GP's to assist them in construction related activities such as toilets, kitchens for mid day meal schemes and drinking water facilities. The SDMC's also play an active role in facilitating student enrollment, an activity that the Panchayat Raj Act (1994) assigns to the GP. All assets at the school level are maintained by the SDMC. The survey highlighted that in most cases GP members were either unaware of or ambivalent towards their duties and responsibilities in the area of primary education.

West Bengal

An examination of the de-facto status of service delivery in West Bengal, highlights an interesting trend in the case of primary education. At present, primary education in the state is delivered through two key parallel systems. The first focuses on mainstream primary education which is delivered primarily through funds obtained from the SSA program. Parallel to this in 1997-98, the Government of West Bengal introduced the Shishu Siksha Karmasuchi (SSK) (an alternative para-teacher scheme) with the objective of providing primary educational facilities to students living in areas that do not have access to the formal education system.

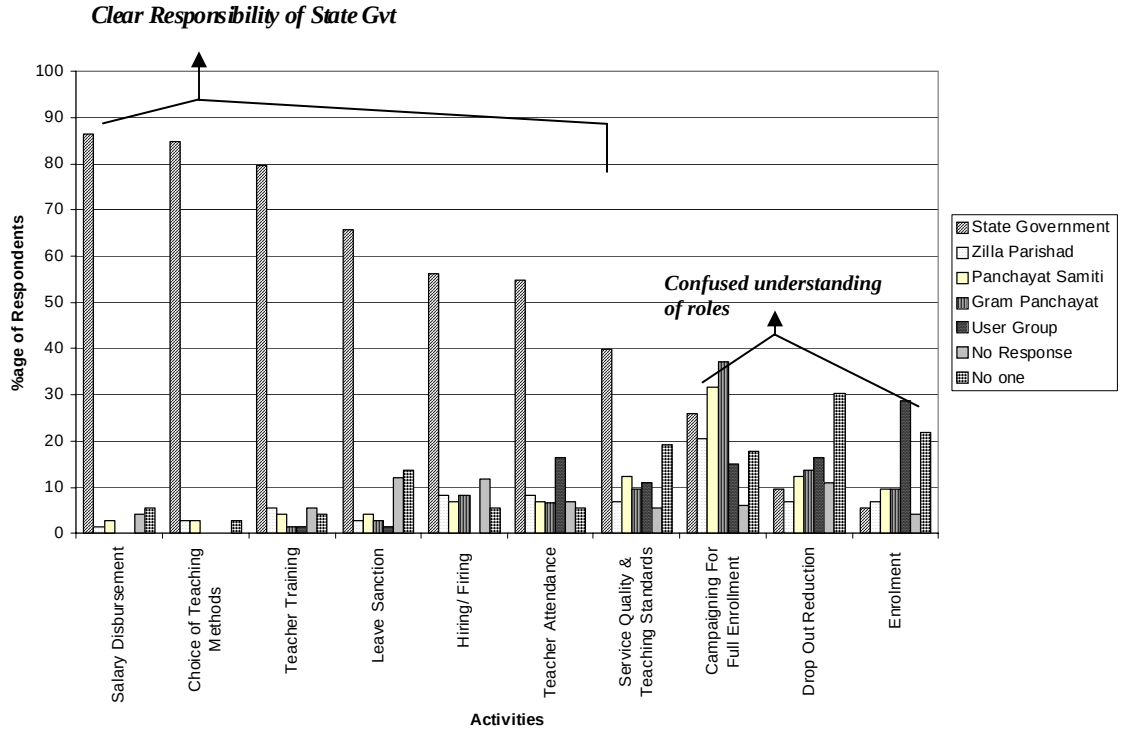
Our survey examined the de-facto status of the institutional arrangements of both these approaches to primary education on the basis of two main parameters. The first is what we have called 'infrastructure' related activities i.e. all activities related to the physical asset i.e. the school building. These include constructing the primary school, providing equipment for the school and finally maintaining the school building. The second parameter includes all activities that relate to the teaching process. We call this the 'teaching sector'. Activities include enrolment, hiring and firing of teachers, supervising teacher attendance and monitoring the quality of service. As Fig3 and 4 demonstrate on both these parameters, respondents perceived a predominant role played by the state government in the delivery of mainstream primary education.

Figure D.1: De-facto Status of Infrastructure – Gvt. Primary Schools (Non-SSK)



Responses not mutually exclusive
Source: SIPRD Report, 2005

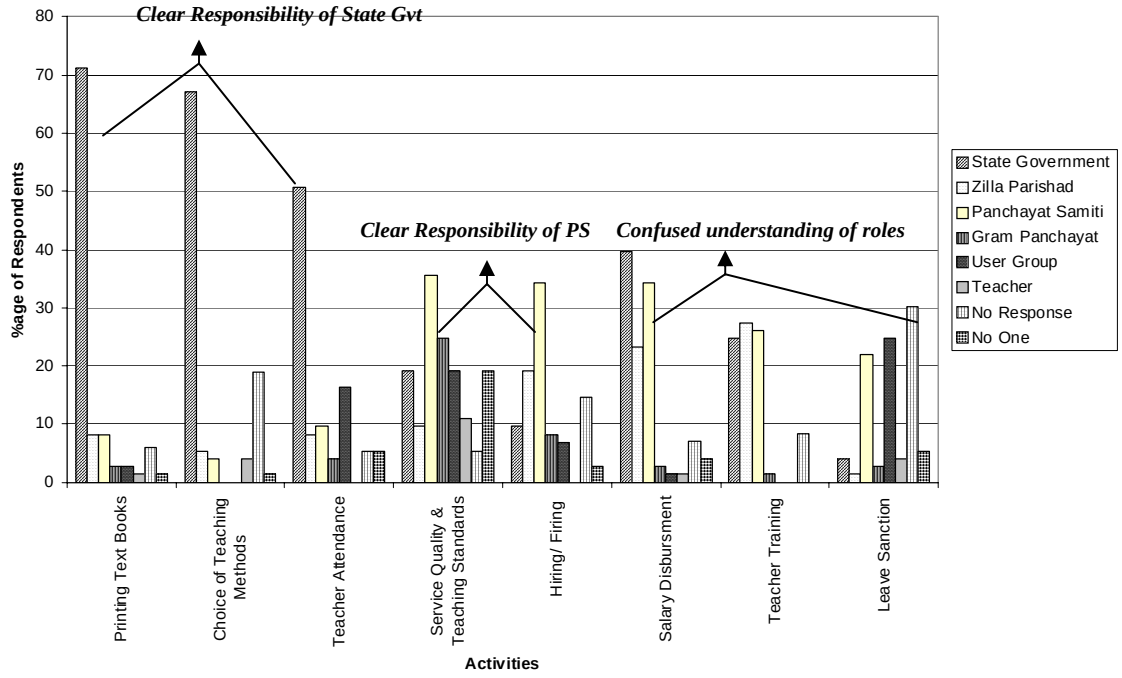
Figure D.2: De-facto Status of Teaching Sector – Gvt. Primary Schools (non-SSK)



n/b *Responses not mutually exclusive*
Source: SIPRD Report, 2005

In the case of SSK however, respondents identified a stronger role for PRI's and user groups in implementing the scheme. Respondents identified the PS as the key institution responsible for assessing the need for schools, teachers and equipment as well as constructing the school building. With regard to the teaching sector, the survey revealed (see table 5 below) that the PS is responsible for key functions such as hiring of teachers and supervising and monitoring their quality of service. The survey also revealed that respondents did seem confused on the specific role of the PS and the state government is areas such as teacher training and salary disbursement. *Overall (this is an issue to which we will return later in the discussion) our survey identified a stronger role for PRI's in implementing SSK than in mainstream education policies and programs of the state government.*

Figure D.3: De-facto Status of Teaching Sector –SSK



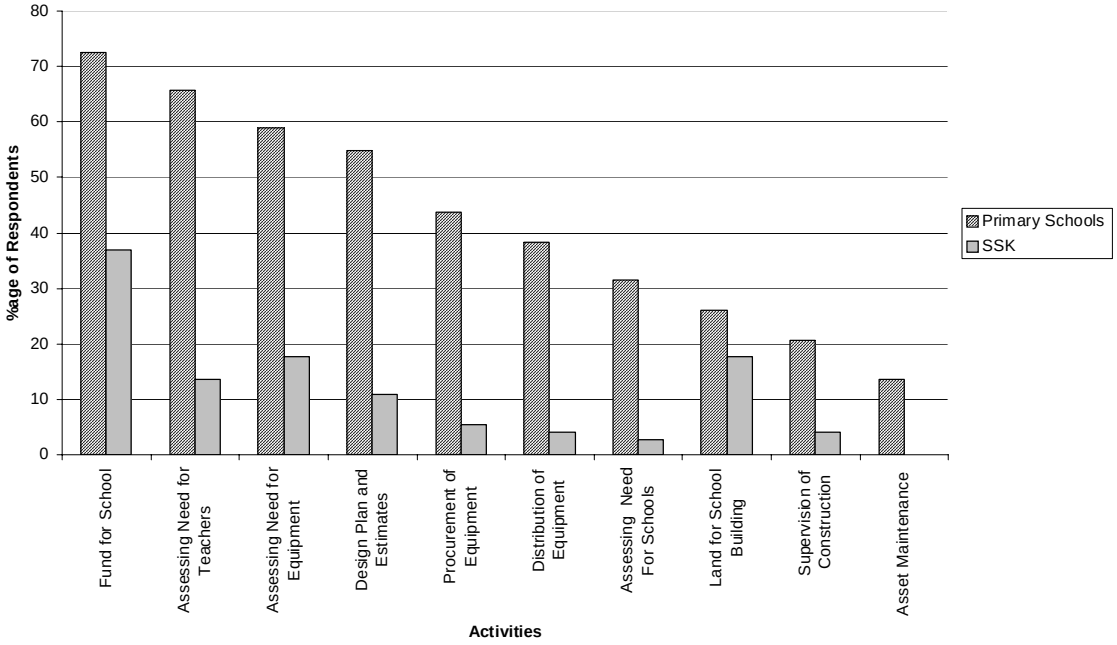
n/b *Responses not mutually exclusive*
Source: SIPRD Report, 2005

Role of the State Government: According to our survey, in both SSA and mainstream primary education activities, the state government plays a predominant role both in the infrastructure and the teaching sector. Most primary education activities are governed through the West Bengal Board of Primary Education (WBBPE), that is responsible for all key policy decisions such as curriculum setting, preparation of text books and teachers training. At the district level the WBBPE has set up District Primary School Councils (DPSC) that are responsible for all the operational activities related to primary schooling in the district. This includes teacher's recruitment, salary disbursement and procurement. The WBPE and the DPSC are the organizational bodies that run the SSA program in the state.

The experience of SSK on the other hand, reveals a different story. According to our survey, SSK is implemented primarily through PRI's. This is in consonance with the policy guidelines (or dejure position). The state government however, is perceived to play a critical role in supervisory activities particularly monitoring teacher attendance and disbursing teacher salaries. Figures 6 and 7 contrast

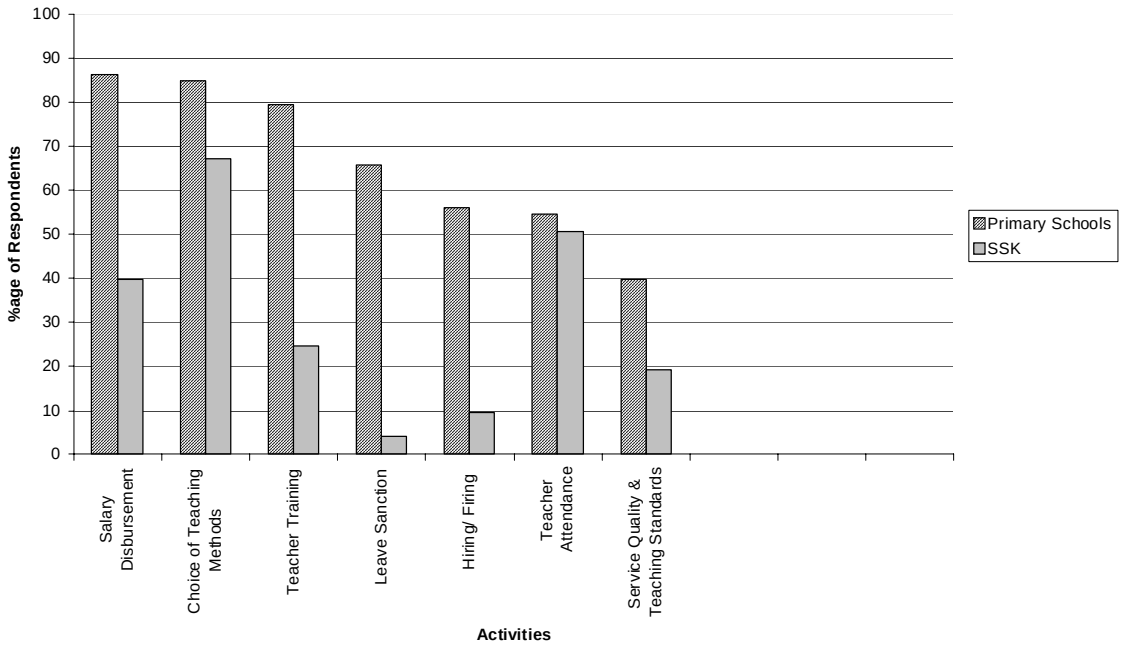
the role of the state government in running of government primary schools vs. SSK's. Both figures indicate clearly the diminishing role of the state government in SSK schools.

Figure D.4: Respondent Perception of Role of the State Government in Infrastructure Activities Gvt. Primary Schools vs. SSK



n/b *Responses not mutually exclusive*
Source: SIPRD Report, 2005

Figure D.5: Respondent Perception on the Role of the State Government in the Teaching Sector Gvt. Primary Schools vs. SSK



n/b

Responses not mutually exclusive
Source: SIPRD Report, 2005

Role of the ZP: The ZP has no real role to play in the administration of primary education in its area of jurisdiction. This despite the fact that key policy and administrative decisions are made at the district level through the WBBPE and DPSC.

In SSK too, the general perception amongst respondents is that the ZP plays almost no role since all operational responsibilities lie with the GP and PS. The ZP however is seen to play a critical role in the fund disbursement and teacher training related activities.

Role of the PS: Our survey revealed that all activities related to the implementation of SSA and primary schools are undertaken at the state level. Some respondents did identify a role for the PS in campaigning for student enrolment and undertaking needs assessments for schools in their areas of jurisdiction. By all accounts these are not the most critical activities in primary education.

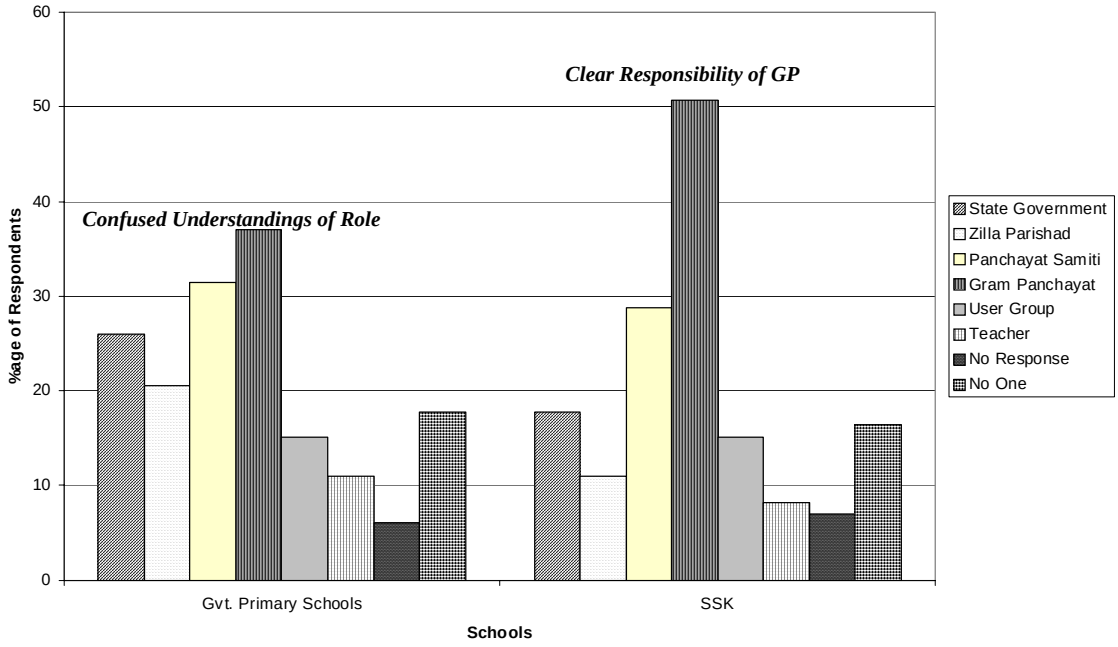
SSK however tells a different story. According to the survey results, the PS is the key institutional agency responsible for the implementation of SSK. Interestingly, respondents demonstrated greater clarity in the role of the PS in infrastructure related activities rather than in the teaching sector. In the teaching sector there appears to be some confusion in understandings of the role of the state government and the PS. On a few key activities such as disbursement of salaries and monitoring teacher attendance, respondents identified both the PS and the state government as responsible. This trend is reflected at the GP level as well where respondents saw an overlap in activities such as enrolment between the PS and the GP. However despite these ambiguities the overall perception clearly indicates a strong role played by the PS in implementing SSK.

Role of the GP: In SSA and other primary education schemes, the GP's role is confined to campaigning for enrollment. Here too, the GP is not seen as the key institutional body for ensuring

enrollment and respondents demonstrated some confusion in identifying the institutional body responsible for this. The SSA guidelines mandate the appointment of village education committees. However the VEC's too have a limited role to play. Their main activities are to identify land and supervise the construction of primary schools. The general perception at the GP level is that all activities related to the delivery of primary education are implemented and controlled by the state government.

With regard to SSK, our survey highlights that the GP is responsible for a range of operational activities such as conducting need assessments for teachers and schools, procurement of equipment, supervision of construction, asset maintenance and campaigning for enrollment. The survey also highlighted some level of confusion amongst respondents of the specific role played by PS's and GP's in SSK with many respondents being unable to distinguish between the two institutions. Crucially, our survey identified a clear role played by GP's in enrolment related campaigns (see fig 7 below).

Figure D.6:
Respondent Perception of Role of GP in Campaigning for Enrollment SSK vs. Gvt. Primary Schools



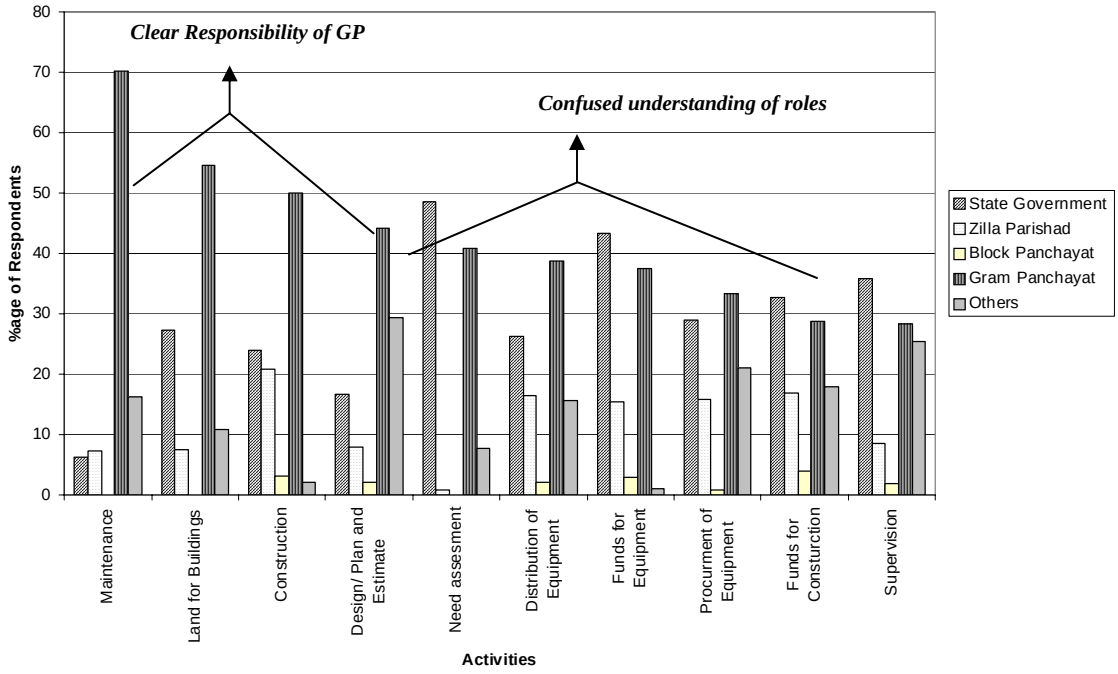
n/b *Responses not mutually exclusive*
Source: SIPRD Report, 2005

Kerala

As in West Bengal, in Kerala too, our survey on the de facto status of primary education was conducted using infrastructure and the teaching sector as the two main parameters for analysis. Interestingly, our survey revealed a huge variation in the institutional arrangements in both these areas. As fig 6 highlights, for most infrastructure related activities, the Gram Panchayat is perceived to play either a predominant role or a somewhat critical role. While as fig. 7 reveals that for the teaching sector, the state government is perceived to be the key implementing institution. One explanation for this rather skewed result can be said to lie in the fact that teachers are essentially employees of the state government who are deputed to PRI's for a short duration. This creates a dual line of authority which in practice implies that the state government rather than the PRI's can hold

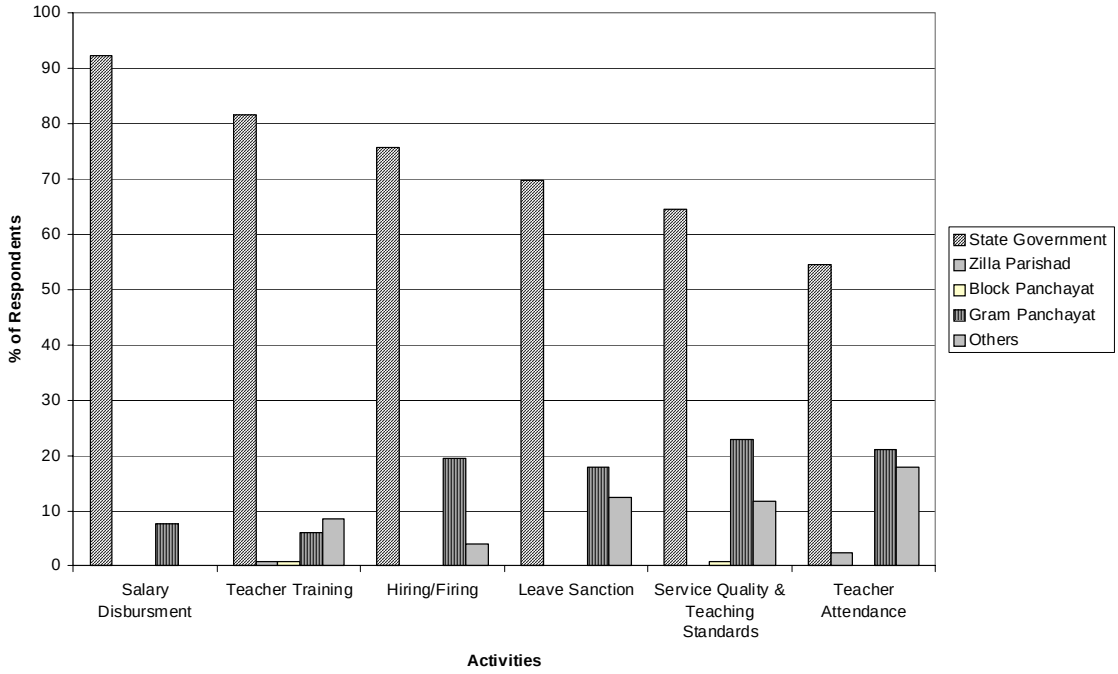
teachers accountable. The issue of the dual line of authority between the state line departments and PRI's holds true in most other states in India (as demonstrated in our earlier discussions of Karnataka and West Bengal). However, in most of these states, the role of the state government goes beyond the teaching sector to infrastructure related activities indicating that the state government is the key institutional agency for the delivery of all activities related to primary education. What distinguishes Kerala from other states is that the PRI's, particularly the GP, have a clearly defined role to play in infrastructure activities with the state government playing a minimal role in this process.

Figure D.7: De-facto Status of Infrastructure Activities



n/b *Responses not mutually exclusive*
Source:KILA Report, 2005

Figure D.8: De-facto Status of Teaching Sector in Primary Education



n/b Responses not mutually exclusive
Source: KILA Report, 2005

Role of the State: As mentioned earlier, the state government plays a predominant role in all activities that relate to the teaching sector. This includes activities such as hiring teachers and monitoring the quality of teaching services. The state also plays a supervisory role in infrastructure related activities and is generally perceived to be the institution responsible for funding all activities related to primary education.

Role of the ZP: In accordance with the survey, the ZP is seen to play a minimal role in the delivery of primary education.

Role of the PS: Our survey reveals that the PS plays no role in this sector. This is in consonance with the Kerala state Panchayat Raj Act (1994) that does not devolve any functions related to primary education to the PS.

Role of the GP: The GP is perceived to be the key player in infrastructure related activities in primary education. The survey revealed that respondents clearly identified the GP as responsible for activities such as maintenance, school construction and preparing designs and estimates for the school buildings. The construction of these schools is generally funded through the plan funds available at the GP. However, there does appear to be some confusion amongst respondents on the specific flow of funds with many identifying the state government as the source of funds along with the GP.

Appendix E:
The Para-teacher Revolution in India – Three Case Studies

1. Madhya Pradesh Education Guarantee Scheme

The Madhya Pradesh Education Guarantee Scheme (MP EGS) is often cited as an example of successful reform in basic education. While this is not one of the study states, since this is directly relevant to our study, we analyze this scheme in this section. To implement the District Primary Education Program (DPEP)[19] in the state, the Madhya Pradesh government set up a society *independent* of the State Department of Education, called the Rajiv Gandhi Shiksha Mission (RGSM). One of the first tasks of the RGSM was to undertake the Lok Sampark Abhiyan (LSA), a community driven micro-planning process to get a true measure the extent and nature of non-enrollment. The LSA, which used local groups (Panchayat representatives and literacy activists) to collect data (as opposed to teachers, who were usually used for such surveys), came out with the thus far ignored conclusion that the significant proportion of the 'out of school' children were ' not enrolled' and not 'dropped out', as was previously believed. Specifically, 32% of villages in MP did not have access to adequate primary schools – *access itself was a problem.*

The EGS was a response and had a different structure than the "mainstream" educational service delivery. The RGSM is the state apex and below this, each district has a Zila Shiksha Kendra (ZSK) committee to administer the EGS which comprises the Panchayat CEO, DPEP Project Coordinator, District Education Officer and the District Collector and a similar block committee (Block Shiksha Kendra (BSK).

The EGS responds directly to community demand—and allows communities control. If 40 parents in a hamlet / locality (25 in a tribal region) put in a request for a school, along with a recommendation of a locally qualified teacher and offer of providing teaching space, the state government guarantees to provide such a school within 90 days[20]. The BSK assesses the request within three days and once the committee decides that the group's request for an EGS school qualifies the funds are transferred directly to a bank account of the School Management Committee (SMC), which is the group of parents. A fixed amount is allocated which covers 12 months salary of teacher, training cost, instructional material, funds for textbooks and a school contingency fund ($30). To withdraw funds, 2 SMC members have to sign, along with the teacher and a person at the cluster level.

The following are noteworthy about the EGS. *First*, the scheme guarantees a primary school to all hamlets / clusters of parents – not just villages. This is important because often divisions exist within villages, which leads to inequitable access to the primary school (especially for children of backward communities), even if such a school exists in the village. *Second*, the teacher is chosen by the community, and is paid directly from the SMC bank account which increases "client power" and accountability. Evaluation studies indicate that teacher motivation and quality of In-class instructional service is high and absenteeism is very low. *Third*, EGS schools are much more cost

[19] DPEP is a donor-funded centrally sponsored scheme, involving financial transfers to districts where female literacy is below the national average. It focuses expenditure on retention and learning (textbook revision, community mobilization, in-service training), caps expenditure on civil works (24%), and excludes teacher's salaries, except in case of additional enrolment

20 The "guarantee" of providing the school is not a legally enforceable to keep the scheme from getting embroiled in litigation.

effective as compared to traditional primary schools. Teacher salaries account for 70% of the allocation in EGS schools as opposed to 80-90% in traditional primary schools. EGS teachers are paid a third or less of what regular school teachers are paid. *Fifth*, a fairly simple monitoring and evaluation system is in place – district league tables with input and outcome indicators are sent to the RGSM / State Government, which awards well-performing VECs.

The EGS was far from perfect. *First*, financial standardization means that the distinctiveness of each school and its context is ignored – a fixed amount is allocated to each school, without considering the size of the student body and the varying ability of the community to contribute. *Second*, by ignoring funding of physical infrastructure, the scheme may be perpetuating inequity, as the disadvantaged are being asked to provide space for their own schools. *Third*, whereas the program may have got the incentives right at the school / community level, there is a need to establish a system of incentives at the level of the administration – at the district and sub-district level – so that the program is managed and monitored more effectively, and the program is systematically replicable. *Fourth*, the monitoring and evaluation system may need to be made more sophisticated, to more truly reflect the marginal contribution of EGS schools, by taking into account the different income levels of communities and existing levels of educational attainment of students. *Fifth*, the pressure of regularizing EGS 'para-teachers' into regular state government employees like other teachers, may take away the community control benefits of EGS (by weakening the 'short route to accountability') and impose additional fiscal burden on the state government ('para-teachers' on average cost a third of regular teachers).

2. Shiksha Karmi Project, Rajasthan

Background

The late 1980s and 1990s were a period of substantive educational achievement in Rajasthan. In comparison to the other Indian states with literacy rates below 10 percent in 1961 (an Index of educational backwardness), Rajasthan has performed better in improving literacy and gross enrolment rates (GERs).

A substantial part of this success has been attributed to the alternative teaching models tried out in the state in the late 1980s and 1990s that used principles of community participation and monitoring. In particular, the Shiksha Karmi (SK) program, considered a pioneer among para-teacher models in India, stands out, and is examined in detail below.

Program Details / Process

The following features are noteworthy:

- **Remote Areas Program:** SK was established in 1987 to meet access requirements of children living in remote, inaccessible and backward areas of the state, especially habitations with populations less than 200 people that had hitherto either been ignored by the state Department of Education, or where teacher absenteeism was very high.
- **Community Demand:** The establishment of a school under SK required the Gram Sabha of the village to vote for the need for a school, after which the school was established with two para-teachers (one male and one female).

- **Parallel Structure[21]:** It is noteworthy that the SK project operated almost under a structure parallel to and distinct from the state primary education department teaching structure. At the *state-level* was an autonomous SK Board (SKB) headed by the state secretary of Education, which reported to a state-level Governing Council, Executive Council and the Education Minister of the State. Teachers were under the authority of the SKB which could dismiss them for bad performance[22]. The SKB was also closely supported by the NGO called Sandhan, which was involved in policy-level decision-making, development of training and monitoring. At the *regional level* there were 9 Resource Units comprising NGOs and DIETs (district level teacher training institutes). At the *block level* there was a SK *sahayogi* who was in-charge of managing the program at that level. Finally at the *village-level* were Village Education Committees (VECs) which comprised of 11-15 members representing different groups – lower castes, minorities, women included. The VEC was meant to ensure complete enrolment and primary completion of all children in the 6-15 year age group in the village, support the SK para-teachers, pitch in with survey activities, provide space for the school, and monitor teachers. According to a SIDA (the Swedish International Development Agency, which was a major donor) evaluation, the project managed to activate 2,137 VECs[23]. The success of VECs in the SK program led to the inclusion of the concept in the future centrally sponsored schemes in basic education in India.
- **Selection of Teachers:** The Gram Sabha identified suitable candidates from within the village to be parateachers, with candidates requiring a minimum of Class 8 education in the case of men candidates, and Class 5 education in the case of women. The recommended candidates were then examined by a selection committee with representatives from the Board, a local NGO, the Panchayat *Pradhan* (village government chief), the Block Development Officer (BDO) and a Women's Development Program representative[24]. Candidates also undertook written exams in various subjects as well as induction training before recruitment. Once selected, the parateachers ran a day school and an evening school to cater to children who couldn't attend school during normal hours.
- **Special Training Module:** A special training module was developed for these "under-qualified" para-teachers to nurture their prior knowledge as well as to give them supplementary knowledge equivalent to what they would acquire if they had completed a teaching diploma The teaching methodology, that was developed by a group of education department officials and educators, and that evolved out of trial and error, was arguably the "most significant contribution of the program"[25]. The fact that a new module was constructed (and not borrowed from the curriculum of existing teacher training colleges), allowed it to be flexible and cognizant of the needs of the para-teachers. The training cycle under the SK Project is shown below.

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[21] Although the SIDA evaluation says "unlike a parallel system unrelated to or competing with the state…system, the SK project is designed in the spirit of partnership", there is little to suggest this is the case, as Clarke and Jha point out in their report, SK was not incorporated into a coherent overall education policy framework, causing its lack of scalability

[22] What were the criteria on which they could be dismissed and how often was this done is not clear

[23] It is not clear from any of the reports how active the VECs actually were. We saw in other reports (e.g.: the Comptroller and Auditor General Report on the DPEP (2002) that in most places in India where the District Primary Education Program (DPEP) was evaluated, VECs only existed on paper)

[24] The WDP (Women's Development Program) was the first program of its kind in the state to initiate state-NGO partnerships for development programs

[25] This view is shared by Clarke and Jha and the SIDA evaluation. If the training program was indeed as good as the authors believe, it could be used as a framework for new teacher recruitment / other para-teacher models across the country

Figure E.1: Training Cycle in Shiksha Karmi Project

Training Cycle in Shiksha Karmi Project

Shiksha Karmi	41 Day induction training (earlier 37 days or 50 days depending on the model being used – Sandhan or Sankalp)
	30 Days First Training
	30 Days Second Training
	20 Days Training after two years
	10 Days Training – every subsequent year.
	2 Days monthly review, planning and difficulty removal meetings.
Master Trainers	In addition to the above – SKs selected as Master Trainers undergo a 26 days MT training.
Shiksha Karmi Sahyogi	10 Days additional training
Mahila Sahayogi	1 Day additional training
MPK Teachers	10 Days quarterly training every year

Source: Report of the Management Review of Shiksha Karmi Project, MSG, December 1997

Source: Ramachandran and Sethi (2000) for SIDA

In particular, it included:

- "Internationally accepted best practices" for developing teachers' skills. The aim of an entire teaching cycle with gaps in the middle, was to enable the parateachers to be able to relate what is being taught in training to their own instructional practice. According to the SIDA evaluation, training was based on participatory principles and rejected the traditional didactic training followed in conventional teacher training institutes in India.
- Consistent, regular and facilitated reflective action that took place in the school, facilitated by visiting trainers called SK Sahayogis (there was one sahayogi appointed per block for overall guidance to parateachers and village-level training). Note that this is in contrast to the traditional teacher training system in India, which has little provision for regular facilitated feedback.

- **Teacher accountability:** Unlike regular government teachers (who were on permanent contracts under the state department of education), the SK parateachers could be removed by the SK Board. In addition, they were to be monitored by the VECs.
- **Management Practices and Incentives:** According to Clarke and Jha, good management practices were embedded in the program's design. These included:
  - Incentives Framework: Financial increments were provided after three years of satisfactory service and through a clearly defined career path. After being a teacher for three years, the teacher could become a master trainer, after six years a SK Sahayogi, and after eight years and completing secondary education, a senior SK, by which time he/she would reach the benefits and salary scale of a regular primary teacher[26].
  - Assessment Criteria: There were both classroom performance criteria (enrolment, attendance, achievement and retention) as well as teacher criteria (participation in training)[27].

[26] Its not clear if in addition to parity of pay-scales, Senior SKs are also regularized. If yes, the model seems to have an inbuilt incentive for ex-post regularization.
[27] It is not clear how and to what extent these assessment criteria were actually used

- Monitoring Structure: An SK team regularly assessed teachers' commitment and technical skills, and teachers were then grouped for remedial training.
- Grievance and Reverse Accountability Structure: Regular review and planning meetings provided teachers with opportunities to air grievances.

- **Regular Donor Involvement and Monitoring:** The SK was initially funded by the Swedish International Development Agency (SIDA), which gave 90 percent of the funding until 1998 when it withdrew funding after India's nuclear tests. Since 1998, the project expenditure was shared 50:50 by Department For International Development, UK (DFID) contribution and the state government. The significant contribution and interest of donors meant that the program was monitored in detail at least twice a year.

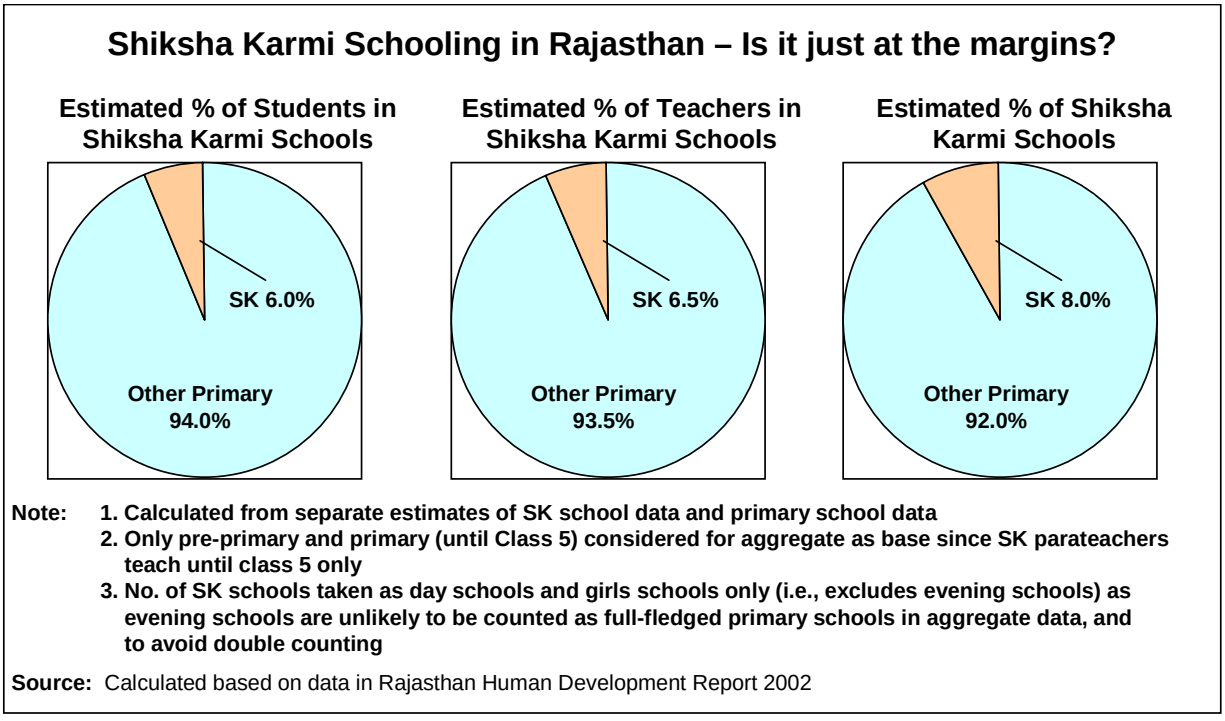
Facts / Outputs

Size

The Rajasthan Human Development Report 2002 states that the program covers 216,084 students spread over 146 blocks in all 32 districts in the state. Under the program, there are 2,600 day schools, 4,829 flexible evening schools and 97 schools for girls. To get an idea of whether the scheme was just at the margins or whether it was a substantial player in basic education in the state, lets compare number of schools, number of students and number of teachers in SK schools with the total in Rajasthan.

It is clear that even after all these years in operation, Shiksha Karmi Schooling has less than 10 percent reach in the state – it remains at the margins.

Figure E.2: Shiksha Karmi Schooling in Rajasthan – Is it just at the Margins?



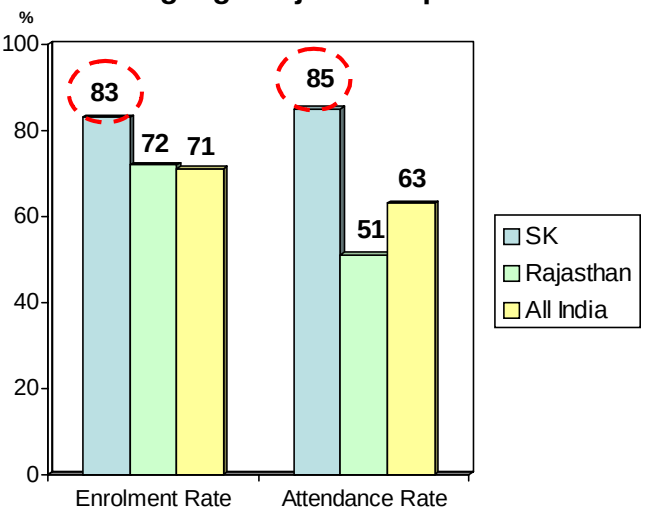
Note:
1. **Calculated from separate estimates of SK school data and primary school data**
2. **Only pre-primary and primary (until Class 5) considered for aggregate as base since SK parateachers teach until class 5 only**
3. **No. of SK schools taken as day schools and girls schools only (i.e., excludes evening schools) as evening schools are unlikely to be counted as full-fledged primary schools in aggregate data, and to avoid double counting**

Source: Calculated based on data in Rajasthan Human Development Report 2002

Performance / Achievement
On *input measures*, the SIDA Report states, in the project villages 87% boys and 78% girls were enrolled, with average attendance at 85%. Retention was 65%.

To get an idea of whether this is good, we compare this with the enrolment and attendance data of the regular government schools, in the table below.

Figure E.3: Shiksha Karmi Shcoolin in Rajasthan—Is it doing a good ob on input indicators?



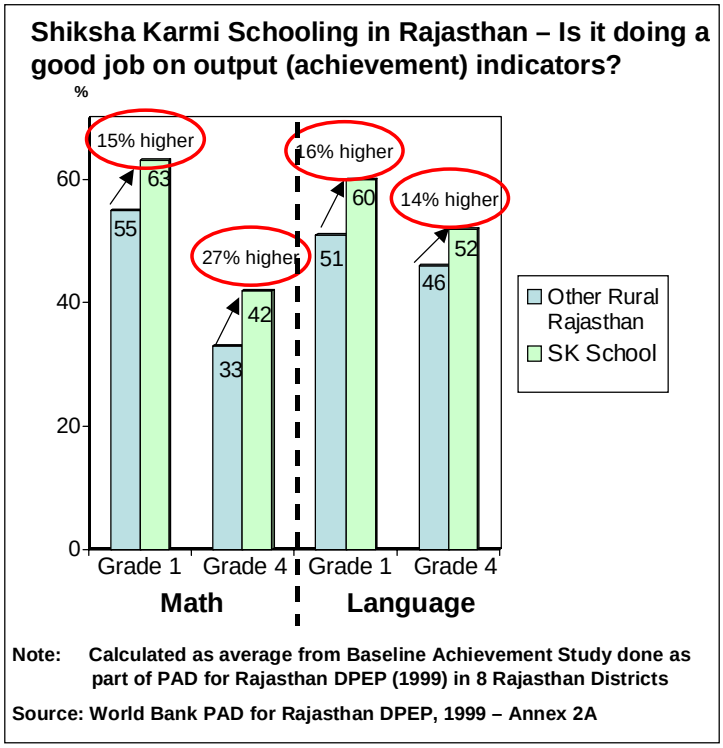
Note: 1. Calculated from separate estimates of SK school data and Rajasthan / All India data
2. Net enrolment rates taken for Rajasthan and All India to compare with enrolment and attendance rates of SK; SK Enrolment rate calculated by averaging girl and boy rates

Source: SK data: SIDA report by Ramachandran and Sethi (2000) Seth; and Rajasthan and All India (Attendance Rate: http://education.nic.in/htmlweb/iamr3.htm#top quoting National Sample Survey Organisation, 52nd Round (July 1995-June 1996); Enrolment Rate: http://www.azimpremjifoundation.org/html/statistics.htm quoting Thakur and Mehta (2000): EFA Year 2000 Assessment Indicators and MHRD Publication)

The above table clearly shows that the SK seems to be doing a much better job than government schools on input indicators of enrolment and student attendance. It seems to have higher enrolment and attendance rates when compared to government primary schools in Rajasthan and the rest of India.

On *output measures*, the performance of SK school students seems to be better than students in regular government schools. This is based on the achievement evaluation survey commissioned by the World Bank, which uses a sample of 13,625 students. Both in Math and Language competencies, SK school students tend to be doing better than regular government school students in the same districts. This is shown in the table below.

Figure E.3: Shiksha Karmi Schooing in Rajasthan—Is it doing a good job on output (achievement) indicators



Note: Calculated as average from Baseline Achievement Study done as part of PAD for Rajasthan DPEP (1999) in 8 Rajasthan Districts

Source: World Bank PAD for Rajasthan DPEP, 1999 – Annex 2A

District-level data gives a similar picture. For Grade 1 math, SK school students performed as good as or better than rural government school students in 7 out of 8 districts. The comparable numbers for Grade 4 Math, Grade 1 Language, and Grade 4 Math are 7 out of 8, 6 out of 8 and 8 out of 8 respectively. Clearly, SK schools tend to be performing better than regular government schools on achievement indicators.

Cost Effectiveness

The SIDA Report says that in 1996-97, average expenditure per student in SK schools was Rs1,480/year compared to Rs1,260/year in primary education in general (i.e., approx 17% higher in SK schools). This statistic, compared with the finding that achievement scores of students in SK schools 14-27% higher compared to government schools, suggests that the program does not have a significantly higher achievement score/rupee compared to government primary school education.

This might seem disappointing to some who consider para-teacher models as a much more cost-effective alternative, but given that the SK program was targeted only to backward and remote regions, where cost of set-up and cost of operation can be considerably higher, and where the state department of education was unable to set up schools, this is a commendable achievement. The program has been able to address the access problem in difficult regions more cost-effectively.

Political Economy

An important question to answer on para-teacher schemes is how these were made politically feasible and implementable – for example, how did they manage to avoid a backlash from teachers unions, how did they get implemented 'despite' the bureaucratic odds usually stashed against any major reform. We can think of some reasons why SK succeeded on political dimensions.

First, it was **implemented largely in areas where the mainstream system did not exist**. As such it did not endanger the interests of teachers and other vested interests in the short run and did not aim to challenge the mainstream system. Instead it promised political dividends for local politicians if it worked well. Thus it managed to avoid opposition as there were no real 'losers' in the short run.

Second, the **financing was largely incremental and from external sources** (90% from SIDA in the initial phase), so it did not require significant re-allocation of the 'business as usual' government expenditure, which would have met with more opposition from the 'losers'. There may be a lesson here. The recently levied education cess by the GOI on income tax payers can be used to finance innovative programs (or target particular inputs that are known to be more effective) rather than using it to expand the business-as-usual government education budget. This is likely to be more politically feasible than re-allocation of government expenditure once the allocations are made.

Third, the **scheme had a champion in the early stages** of the project who was a senior bureaucrat with connections within the government machinery and with NGOs that enabled him to nurture and then shepherd the scheme in its early years, getting through the web of government red tape.

Note that as soon as the pressures of mainstreaming / scaling up came up, the scheme faced hurdles because:

- it seemed to be dependent on key champions (and champions are not easily institutionalized);
- because it began to more directly threaten incumbents (government teachers); and
- because it would require significant re-allocation of the business-as-usual government education budget

Tensions of Scalability / Sustainability

Scaling up the innovative features

As is the problem with most para-teacher models, the SK program also faced the problem that since it was a parallel system, its strengths were not locked in, institutionalized and scaled up. Some of the innovative features of the program were incorporated in mainstream government programs. For e.g., features like the formation of VECs, collaboration with NGOs, school mapping etc., formed part of subsequent centrally sponsored schemes like the DPEP and SSA, but "most of these remained mere terms" on paper (Clarke and Jha). As the Comptroller and Auditor General of India Report on the DPEP in 2002 pointed out, the level of actual active VECs (awareness and participation by villagers/parents) under the DPEP was very poor.

Ex-post regularization

As the SIDA Report argues, a major problem faced by the scheme is the "eventual parity with and absorption into the system of formal government school teachers". In fact, it seems the program has an inbuilt incentive for ex-post regularization, as after eight years of service and completing secondary education, the SK's pay scale is meant to be at par with government school teachers[28].

Children moving on after SK schools

Since SK schools are mostly only until Class V, one test of project success is whether students are getting into mainstream upper-primary schools after completing SK schools. There is little data available on this, except the quote we have from the Indian Institute of Management study that says that students from SK schools "are gaining admission to regular schools".

[28] It is not clear whether this also means a permanent contract like government school teachers. A more recent update on the program would be useful.

3. Shishu Siksha Karmasuchi (SSK), West Bengal

Background

After coming to power in the mid-1970s in West Bengal, the Left-front government undertook a number of 'social justice' reforms. One of their principal stated goals was to expand state-run and state-funded educational opportunities. The Left-front government increased outlays significantly from $145mn equivalent in 1976-77 to $937mn equivalent in 2001-02 (an increase of 546 percent!). Unfortunately, the bulk of this budgetary expansion went to fund 'non-plan expenditure' (90 percent of which, by the admission of the State Minister of Finance, consists of teachers salaries). Whereas non-plan expenditure increased 642 percent in this period (in $ equivalent), plan expenditure (which loosely corresponds to non-recurring expenditure) increased only by 62 percent![29].

In a recent discussion during his visit to Harvard University, the State Minister of Education, Asim Dasgupta, suggested three reasons for this unbalanced increase in expenditures. *First*, 80 percent of the government teachers in West Bengal are members of powerful trade unions, and many are members of the ruling left parties, and thus have tremendous leverage in expenditure decisions. *Second*, the Education Minister under the Left Front government has always been a trade union leader, who has to inherently cater to his natural constituency of school teachers. *Third*, the recent generous award of salary increments to civil servants by India's Fifth Pay Commission has further skewed the balance of plan and non-plan expenditure.

In order to overcome these constraints, and to focus on improving enrolment and quality, the Government of West Bengal launched in 1997-98, the Shishu Siksha Karmasuchi Scheme – an alternative para-teacher scheme – which envisaged setting up of Shishu Siksha Kendras (SSK or Child Education Centers) to give a thrust to primary education in the state.

Program Details / Process

The following features are noteworthy:

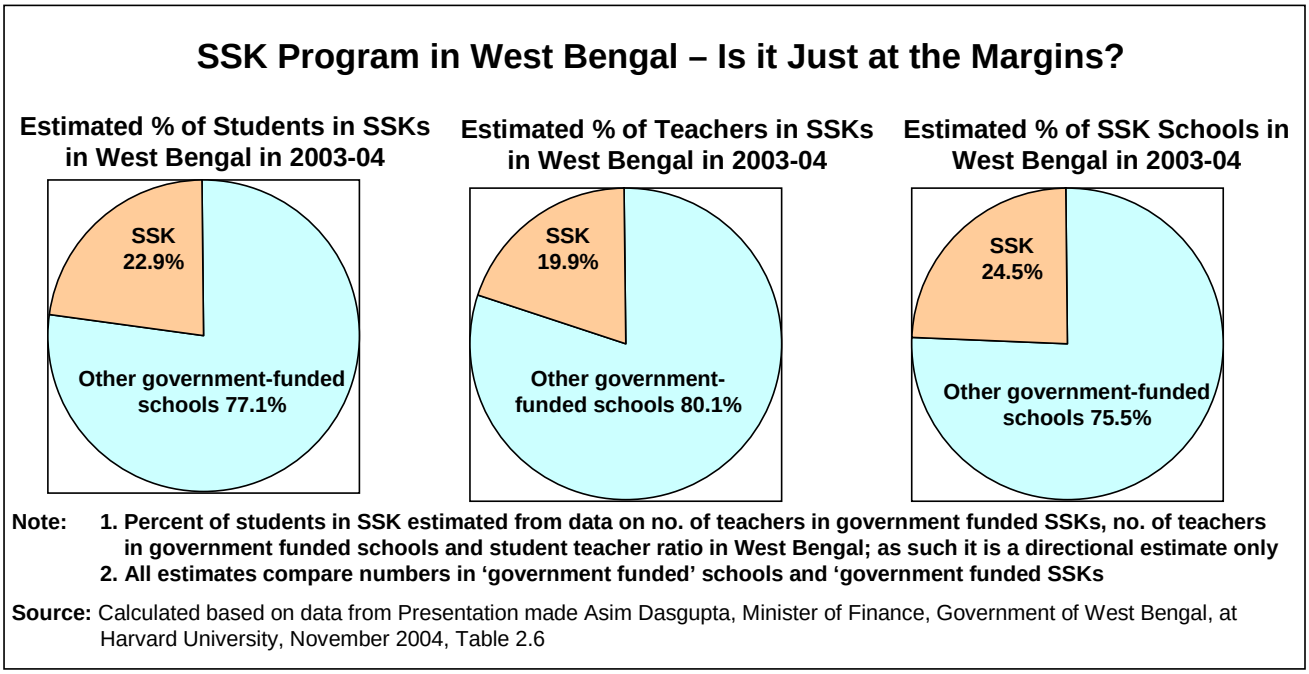
- **Demand Driven:** The SSK program allows for an SSK to be set up in any village where there are twenty or more children in the age group of 5-9 years who do not have access to the formal school system, with the proposal coming from the Gram Sansad (the village level general body) and being vetted by the Panchayat system.
- **Innovative Management Structure:** Each SSK has a Managing Committee (SMC) constituted by the Gram Sansad, with 7 representatives of guardians, 1 person "interested in education", and 1 member of the Gram Panchayat – and at least 3 out of the 9 members must be women. The SSKs have to run for at least 3 hours a day, for 200 years in a year, but timings are flexible. There are to be at least two teachers (called Sahayikas) in each SSK, who must be local women above the age of 35.
- **Government Support:**
  - The state government does:
    - provide the honorarium for the Sahayika
    - free textbooks (which are the same as those used in the formal system)
  - The state government does not:
    - provide infrastructure support – this has to be provided by the Panchayat from its own resources
    - make arrangements for other incentives like mid-day meals or school uniforms

[29] Source: Presentation done at Harvard University by Asim Dasgupta, Minister of Finance, Government of West Bengal in November 2004, Table 2.5

- There is a proposal to provide additional support to SSK – a one-time grant of Rs.5000, a teaching and Learning Material (TLM) grant of Rs.250 per Sahayika, and an annual grant of Rs.1000 per SSK – but it is not clear if this has been implemented. In addition, UNICEF is planning to provide funds for SSK teacher training and purchasing TLM.

- **Teachers on Contracts:**
  - **Hiring and Dismissal:** Sahayikas are appointed by the SMC on a renewable annual contract. The contract is renewable at the will of the SMC based on the SMC's assessment of the performance of the Sahayika in the previous year. So, the parateachers are effectively employees of the SMC, unlike the regular government school teachers who are permanent employees of the state department of education.
  - **Payment of Salaries:** Sahayikas are paid a monthly honorarium of Rs.1000 (compared to Rs.5000-8000 earned by government primary school teachers). Importantly, this payment is done from the SMC bank account although it is funded by the state government. This is unlike government schools= teachers who are paid directly by the state government, and thus the local government has no control over the disbursement of their salary.
  - **Performance and Monitoring:** At the end of each period, the SMC has to certify that Sahayikas have fulfilled their duties, and only then is the honorarium paid. The contract is renewable at the will of the SMC based on their assessment of the performance of the Sahayika in the previous year.

Figure E.4: SSK Program in West Bengal – Is it just at the margins?



Note: **1. Percent of students in SSK estimated from data on no. of teachers in government funded SSKs, no. of teachers in government funded schools and student teacher ratio in West Bengal; as such it is a directional estimate only**
2. All estimates compare numbers in 'government funded' schools and 'government funded SSKs

Source: Calculated based on data from Presentation made Asim Dasgupta, Minister of Finance, Government of West Bengal, at Harvard University, November 2004, Table 2.6

Facts / Outputs

Size

According to the Department of School Education, Government of West Bengal, the state had 16,209 government funded SSKs, with 39,078 teachers in 2003-04. To get an idea of whether the scheme was just at the margins or whether it was a substantial player in basic education in the state, we compare number of schools, number of students and number of teachers in SK schools with the total in West Bengal.

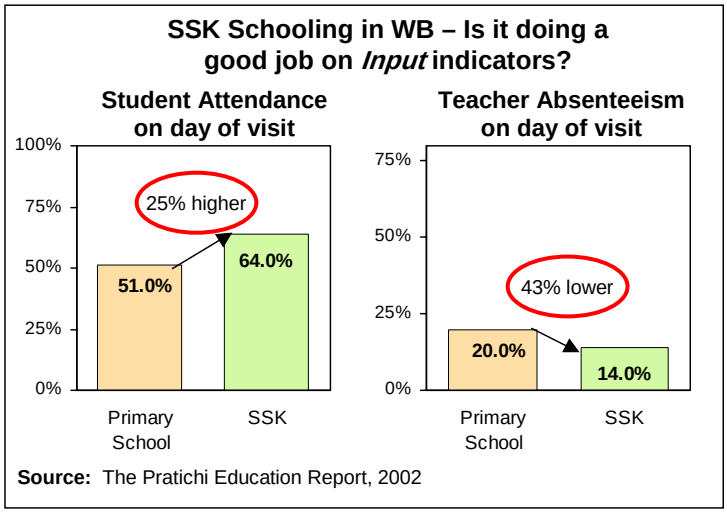
Performance / Achievement

The data for this section comes from a recent field survey done by the Pratichi Trust under the guidance of Amartya Sen, in villages in three WB districts. Birbhum was taken as an average district, and Medinipur and Puruliya were selected to give opposite pictures – one positive and the other negative. Blocks within the village were randomly selected, and selection of villages was done on the basis of the presence of an SSK in the village and access to at least another primary school. In all, 71 villages were covered.

I separate the comparative performance assessment data into three categories: input measures, intermediate measures and output measures.

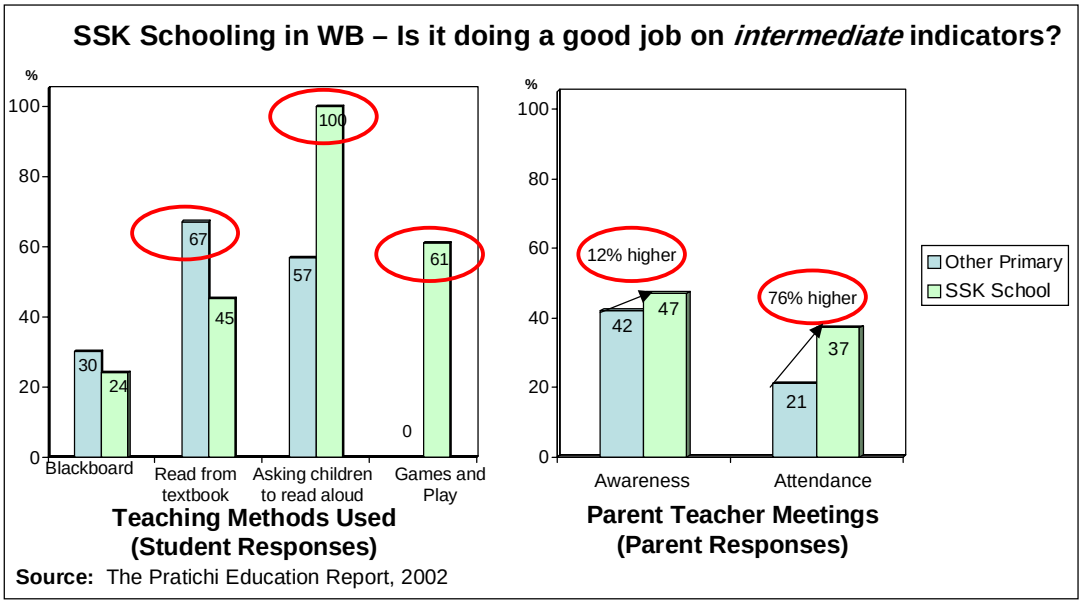
On *input indicators*, we see that SSK schools have higher student attendance and lower teacher absenteeism than regular primary schools in the village. This is seen in the table below.

Figure E.5: SSK Schooling in WB – Is it doing a good job on Input indicators?



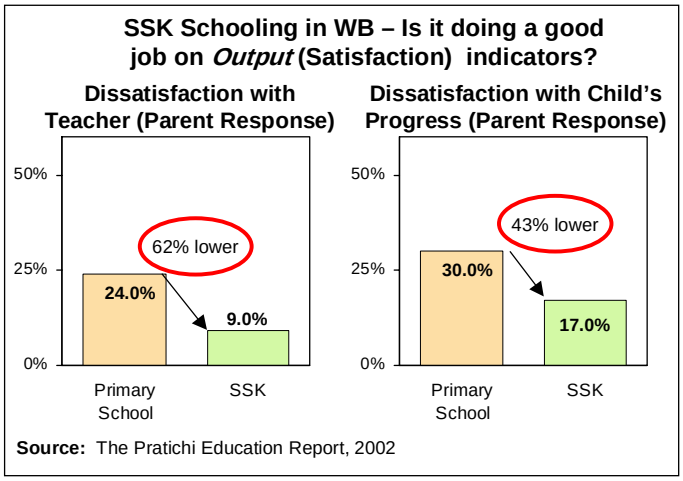
On *intermediate indicators*, we see that that the pedagogy seems to be significantly different in SSK schools (and more interactive, e.g., more use of games and play and asking children to read aloud). There is also higher awareness of and participation in Parent Teacher meetings in SSK schools. This is shown in the table below.

Figure E.6: SSK Schooling in WB—Is it doing a good job on intermediate indicators?



On *output indicators*, we do not have any data on test scores, but can use proxies of output, such as level of parental satisfaction. Observe that parental dissatisfaction with teacher performance and child progress is significantly less in SSK schools than in regular government primary schools as is shown in the table below.

Figure E.7: SSK Schooling in WB—Is it doing a good job on output (satisfaction) indicators?



So, the available data shows that on input, intermediate and output indicators, SSK schools tend to be doing a very good job compared to regular government primary schools in the same villages[30].

[30] There is a possibility of sample selection bias – the fact that gram sansads in these villages decided to set up SSKs in the first place may have been because the quality of the local primary schools was particularly bad (note that SSK schools were not randomly placed).

Political Economy

What factors have made the SSK politically feasible and implementable until now. We can think of a few reasons.

First, the **program is run through the State Department of Panchayats and Rural Development, not the Department of Education**. This had two advantages: (a) The program did not have to go through the regular education service delivery channel and could incorporate alternatives into its structure which would have been difficult to implement otherwise (e.g., paying Sahayikas one-fifth to one-eighth of the regular teacher salary); (b) It did not threaten the position of the incumbent teachers or education administrators in the short run.

Second, whether by design or by chance, the **scheme involved local politicians into its fold**, who could have formed a vocal opposition to the program otherwise. As the Pratichi Report says, at least in 7 out of 18 SSKs visited, local politics played a major role in the establishment of the SSK (pg 88). It provided a useful political harvest local politicians could reap by taking credit for it.

Third, the **scheme chose to use SMCs (which are school specific) instead of VECs (which are village specific).** As Asim Dasgupta stated in his talk at Harvard, this has known to work much better as a tool for ensuring teacher accountability. It is also possible that SMCs are less politicized (and more focused in their role) than VECs (which are much more closely related to the Gram Panchayat and hence to local politics).

Tensions of Scalability / Sustainability

Scaling up the scheme

Much like many other para-teacher schemes, it continues to look difficult to scale up the SSK scheme due to several reasons.

First, the realistic danger of ex-post regularization looms large. Seeing the initial success of the scheme, teachers trade unions are feeling threatened. As Asim Dasgupta mentioned in his talk at Harvard, there is a growing demand for regularizing SSK parateachers that is emerging, not from among the SSK parateachers themselves, but from the incumbent teachers trade union! Given the political leverage of trade unions in West Bengal politics, this is a clear and present danger. Already, Asim Dasgupta was talking about raising the pay-scales of the SSK parateachers by a fixed amount every year to reduce the lack of pay-parity with regular school teachers.

Second, there seems to be ambiguity about functional allocation of responsibilities with respect to the scheme at the district level. The Pratichi Report finds that in each of the districts surveyed, a different entity seems to be running the program. In Medinipur, the program is looked after by the District Planning Office; in Puruliya jointly by the Zila Parishad the the District Rural Development Authority; and in Birbhum by the Department of Panchayats and Rural Development (Pratichi Report pg: 21-23). This does not bode well for institutionalization.

Third, there seems to be no emphasis on training the parateachers on curriculum or pedagogy[31]. This is bound to become a constraint as the program is expanded, as in several villages it may be difficult to identify suitable women candidates above the age of 35 who have the required knowledge expertise and pedagogical skills and don't require further training.

[31] There seems to be some recent talk of para-teacher training funded by a UNICEF grant, but nothing concrete seems to have materialized yet.

Children moving on after SSK schools

There is no direct data on this, except that to keep up the positive momentum generated by the SSK primary schools, the state government is trying to extend the model to cover middle-school children as well. The Madhya Siksha Karmasuchi (MSK) was launched in 2001 to provide community managed secondary education to children in the age group 9 years and above, who for various reasons are unable to attend formal secondary schools (West Bengal HDR Pg 162). It would also make a natural extension for SSK students. The system is broadly similar to the SSK; but the teacher can be male or female without age bar; the head teacher receives Rs.3000 per month and the other teachers Rs.2000 or Rs.2500 depending on their qualification. Given that the scheme was launched in 2001 and not much has been reported on its progress until late-2004, it is unlikely to have been expanded very much. The effort to extend the parateacher model to middle schools – which requires even greater level of capacity building and training – without first institutionalizing the SSK schools model at the primary level is one which is fraught with danger.

Appendidx F: Existing modes of "community" engagement—"single sector participatory"

It is widely recognized that greater parental engagement can be a force to improve service delivery. But how to structure that engagement is the key question.

In all recent education reforms there has been increasing attention to the creation and strengthening of "school management committees" and "village education committees." This committees are usually single sector, and in many cases are not functionally linked to local governments—they are only vertically linked via schools to line ministry.

User groups or local government institutions can be ineffective or dysfunctional. The SSA, like most other CSSs, does not seem to have enough substantive detail on how SMCs/VECs/PTAs will be made effective instruments, overcoming the problems of elite capture, non-participation and corruption that are faced by user groups.

There is widespread evidence to show that although community control institutions such as Village Education Committees (VECs) exist in India, they are not particularly effective. A Comptroller and Auditor General of India (CAG) report on the District Primary Education Programme (DPEP) shows that the functional status of community based structures is very poor – in their study, in the villages where the VEC was existent, only one-third (34 per cent) of the households/parents affirmed the existence of these structures.

Table F.1: Little awareness of school related committees—even among members?

	Number and Percentage of Villages/CEBs where members were aware of their membership		Percentage of households/parents aware of existence and activities of school related committees:
	N	Percent aware	
VEC	883	66	34%
VCC	188	10	7%
PTA/MTA	562	42	29%
Source: Comptroller and Auditor General Report (2001)			

Besides, as Chaturvedi (2004) points out, VECs, where they exist, have little or no administrative or financial powers that would make them effective instruments of community-control. Chaudhury et al. (2004) find that mere existence of Parent Teacher Associations (PTAs) does not reduce teacher absence. All this evidence points to the fact that for community control to be effective, mere existence of community-based structures is not enough.

In Karnataka there are School Development and Monitoring Committees (SDMCs) exist in Karnataka. Some analysts believe these have not been particularly effective in improving education because of **a) Limited Role**: Function of SDMCs is limited to monthly meetings with school teachers to discuss pupil progress, mobilize community resources, sanction teacher leave (no powers to reprimand, hire/fire), limited expenditure powers (minor repairs etc.); role often not clear to SDMC members themselves and **b) Restricted Membership**: Members of SDMCs are nominated by the local MLA from among eligible pupil parents. In reality some would say SDMCs are not about community control, but local politician control (which is not the same thing)

Appendix G:
Teacher Compensation: An obstacle to accountability?

An issue that is often raised in the diagnosis of the problems of accountability is that public sector service providers cannot be reasonably expected to fulfill their duties because they are not adequately paid. However, in the case of teachers in India this is clearly not an issue. By any comparison teacher compensation is sufficient to expect them to fulfill their duties. In fact, by any of the standard comparisons of teacher pay--within the government sector, compared to international norms, compared to the private sector, compared to what people are willing to accept to be teachers—India's teachers are well paid.

The salary scales of elementary school teachers in government schools are India are set by states, guided by the central government guidelines. There are ranges within each of the grades of the teacher—but a figure of around Rs. 5,000-8,000 month is the base pay, on which there are many other benefits and allowances[32]. After the recommendations of the Fifth Pay Commission were accepted, most states followed the central government guidelines and made drastic upward revisions of about 30 percent in real wages paid to government school teachers in India. This was not accompanied by any change in contractual obligations (e.g.: pay for performance, greater monitoring, possibility of dismissal etc.).

Table F.2: Ratio of Average Wages in Public and Private Sectors

Ratio of average wages in public and private sectors		
Occupation	1993/94	1999/200
Service workers	2.25	2.45
Stenographers and typists	1.69	2.14
Teachers	**1.75**	**2.02**
Physicians and Surgeons	1.65	2
Nurses	2	2
Sweepers, cleaners, and building caretakers	1.79	1.93
Clerical and related workers	1.6	1.74
Professional, technicians, and related workers	1.52	1.72
General clerks	1.54	1.72
Administrative, executive, and managerial workers	1.26	1.42
Engineers	1.07	1.34
Engineering technicians	1.3	1.27

Source: World Bank Development Policy Review, 2003. Table 3.2

[32] This base-pay scale does not fully reflect the total annual compensation of teachers, which is significantly higher. In addition to salary, price-index linked 'dearness allowance' is given to all teachers. So, teachers are fully protected against inflation. Various other allowances are also granted to all categories of teachers to compensate them for the 'special stress' under which they work. These allowances include: city compensatory allowance, house rent allowance, hill allowance and other special allowances such as winter allowance, backward, remote and tribal area allowance, island allowance, etc. In addition there is a lifelong pension that is given to all civil servants in India.

Teacher pay is set compared to other civil servants, and are in the middle range of the scale—above revenue officers for instance, but below trained nurses or engineers. As Howes and Murgai (2004) report, public sector employees in India are paid substantially higher wages relative to their private sector counterparts as the table below shows. A large public-private wage differential exists in all states. In our focus states, the premium is 107 percent in Karnataka, 117 percent in WB and 170 percent in Rajasthan, with the national average at 133 percent. Howes and Murgai argue that the premiums in part reflect differences in human capital as the public sector tends to employ workers with "greater education and experience". But even if one adjusts for these differences in characteristics, premiums range from 62 percent to 102 percent with the private formal sector and between 164 percent and 259 percent over the private-informal sector. They conclude that it is clear that "post-independence, the civil service has benefited from a generous pace of real wage increase".

The real test is the market test—*whether people appropriately qualified can be attracted, motivated, and retained in teaching with the level and structure of compensation offered.* In this instance, since both teachers in the private sector and several large scale "para-teacher" programs have been able to attract teachers, who are producing learning achievement performance that appears to be roughly comparable with government schools, for a small fraction of the wages paid to government teachers.

This is not to say that cutting teacher pay would improve the schooling system, but only that one cannot blame "low pay" as a reason for teacher absence in India.

Appendix H:
"Yes, But…" Critiques of the causal role of accountability

It can be argued here that although we have shown evidence of high absenteeism and of poor teaching quality, we have not directly shown that it is lack of accountability that causes it. We have two type of responses to this critique.

First, there is overwhelming qualitative evidence – in one survey after another – that clearly shows the lack of low teacher involvement and poor teaching practices of government school teachers in India, pointing towards lack of accountability. The Pratichi Report has several examples of complete teacher non-involvement in teaching, such that effective teaching was taking place by only 45 percent of teachers When asked "According to you, what are the main problems of primary schooling", people often came up with simple, yet meaningful responses like "Teachers do not teach". Similarly, parents' resented that "Teaching for just two hours would suffice, yet they do not do this".

The PROBE Report finds that even when teachers were present in schools, there were several "instances where the element of plain negligence was also involved". Examples include teachers keeping schools non-functional for months at a time, teachers coming to school drunk, several cases of teachers sleeping in school, etc. As the Report argues, "generally, teaching activity has been reduced to a minimum, in terms of both time and effort. And this pattern is not confined to a minority of teachers – it has become a way of life in the profession."[33]. Such qualitative evidence, that clearly points to lack of accountability as a cause of poor teaching quality is abound in several studies in India, and this makes our causal argument hard to dismiss.

Second, we also analyze some oft-cited alternative explanations for poor quality of education in India, and find that these do not appear to be adequate.

Alternative Argument 1: It is the lack of adequate public expenditure on education that causes low level of achievement and low quality of pubic schooling in rural India

It has been argued that what is really causing the poor teaching quality is the lack of adequate public expenditure on schooling. Either a quantitative expansion of schooling facilities in rural areas (system expansion) or a radial expansion of primary education budgets (more spending on all expenditure heads under primary education) would do the trick. It is argued that this will disproportionately benefit poor children who face lack of access to quality schooling, and it is the lack of adequate public spending which is the real cause of low quality. I argue that lack of adequate public expenditure is unlikely to be a primary causal explanation for low quality.

First, evidence from evaluations of India's District Primary Education Program (DPEP) – which was clearly a massive supply side public expenditure expansion program – shows that expenditure expansion does not automatically lead to higher quality. Under the DPEP, the government of India spent US$1.62 *billion* since 1994 to expand schooling in a phased manner in 242 districts in India – chosen because they had low female literacy. As Jalan and Glinskaya (2003) show, between 1993 and 1999, the improvement in enrolment rate among 5-11 year olds in the DPEP districts was almost identical to the improvement in non-DPEP districts. Moreover, the impact varied hugely from one Indian state to another, though the program characteristics

[33] PROBE Report, page 63

were identical – suggesting that something other than system expansion was causing the impact[34]. Further, as Pritchett (2004) discusses, Hanushek and Kim (1995) and Hanushek and Kimko (2000) find that there is no statistically significant correlation between test scores and pupil-teacher ratios, current expenditures per pupil or expenditures on education as a fraction of GDP.

Second, there is evidence to show that expanding outlays on teachers salaries is also unlikely to improve teacher effort and hence achievement levels of poor children. As Chaudhury at al. (2004) show, teacher pay seems to have little effect on performance. On the contrary, they find that the highest-paid teachers are also absent most often. Since teachers face few threats or incentives to improve performance when given higher salaries, they are unlikely to improve teaching practices as a result of the pay raise. In fact since higher salaries are associated with longer tenure (with even more limited scope for dismissal of bad teachers), teaching practices can actually worsen – this probably explains their result that higher paid teachers are absent more often. All this clearly points to the fact that it is not the lack of adequate public expenditure that is the primary cause of low quality of primary schooling in rural India.

Alternative Argument 2: The presence of and demand for child labor is the main obstacle for low level of achievement of poor children

It has been argued that child labor is a major problem in India – poor children are often forced to or expected to work and earn money, and this is a major cause for low schooling achievement of poor children. I contend that this claim is misleading. As the PROBE Report shows, there are at least three arguments that show that child labor is not the primary obstacle to equality of opportunity[35].

First, although the phenomenon of child labor is disgraceful, its magnitude is often exaggerated. Both the National Sample Survey (1993) and the NCAER Survey (1994) show that less than 8 percent of children aged 5-14 years are in the active workforce in India. *Second*, the majority of child laborers work as family laborers, not wage laborers. The scope of adjustment in working hours is usually greater in family labor than wage labor, suggesting that these children could adjust work timings to go to school, if they or their parents wanted them to go to school. *Third*, there may be reverse causality – i.e., it is not clear that child laborers are unable to go to school because they have to work – it may well be that they work because they don't want to go to school because teaching quality is just not good enough. Once again, this suggests that the root cause underlying child labor may well be that the lack of teaching effort and poor teaching practices (caused by poor accountability) which causes the high dropouts that encourages child labor, and not the reverse. Hence, although child labor is an unfortunate phenomenon that must be tackled by government policy, it does not appear to be the root cause of low achievement and high dropouts among poor children – rather, child labor may well be a manifestation of the accountability causal hypothesis.

Alternative Argument 3: Lack of involvement or interest of poor parents in educating their children is the critical reason for poor schooling outcomes for the poor

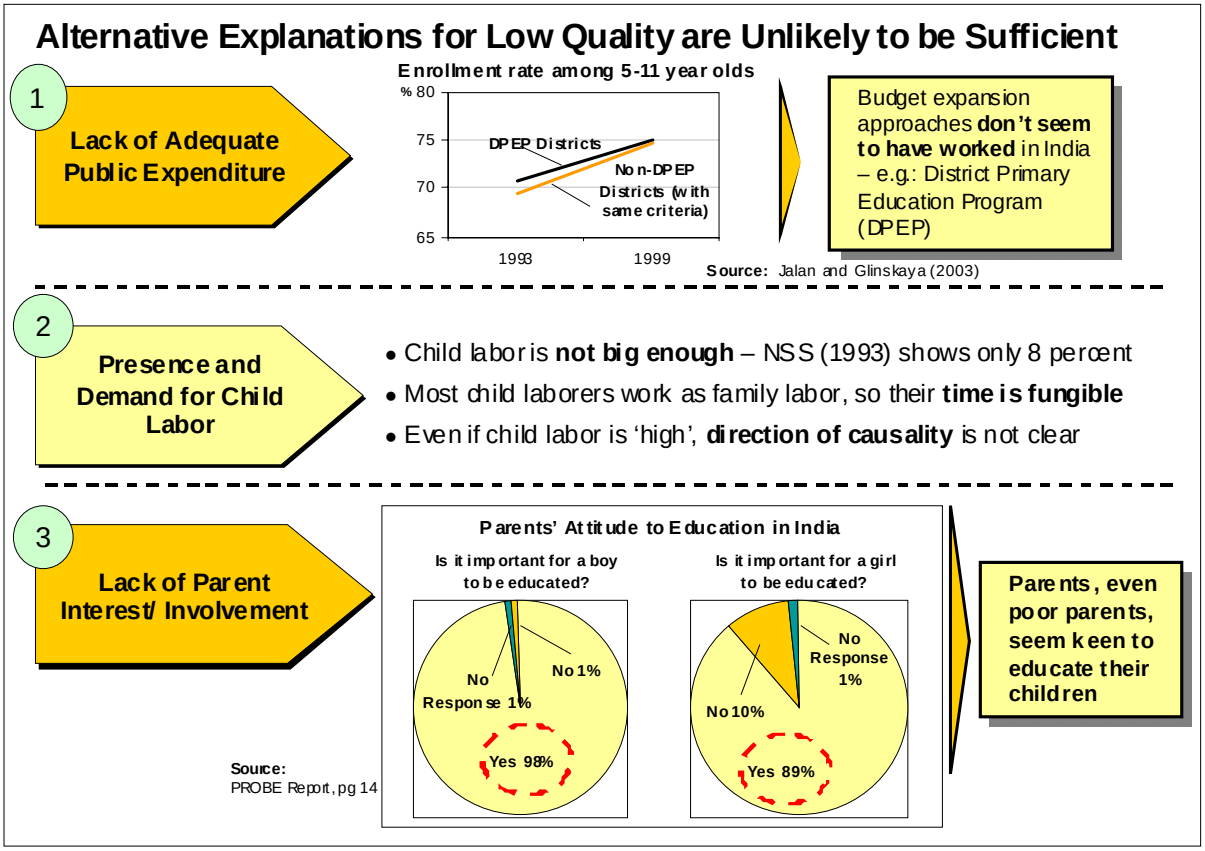
It is sometimes argued that non-involvement and indifference of parents (especially poor parents who are typically less educated) causes low enrolment and low learning achievement, and hence is a

[34] This is not to say that system expansion does not have *some* causal impact in *some* places – we are only arguing that lack of system expansion is not the primary cause of lack of achievement of poor children.
[35] Probe Report, page 14

barrier to equality of opportunity for poor children. I argue that this once again is an exaggerated myth. As the PROBE Report shows, most parents in India (including poor parents) attach significant importance to their children's education - more than 90 percent of the parents considered it important to educate their child. But as the evidence above shows, the phenomenon of parental indifference or parental non-involvement is not widespread enough for this to be the main causal explanation.

In summary, we have tried to reinforce our causal thesis, by using two techniques. First, support from qualitative evidence which appears repeatedly in surveys across India that clearly points out how lack of accountability is causing low quality education. Second, by analyzing (and dismissing as major causes) some popularly discussed alternative causal explanations for poor quality and educational outcomes among the poor. On the contrary, as we have argued, to the extent these competing explanations have grains of truth, underlying them may well be the root cause – that of lack of accountability. Figure 9 summarizes our arguments.

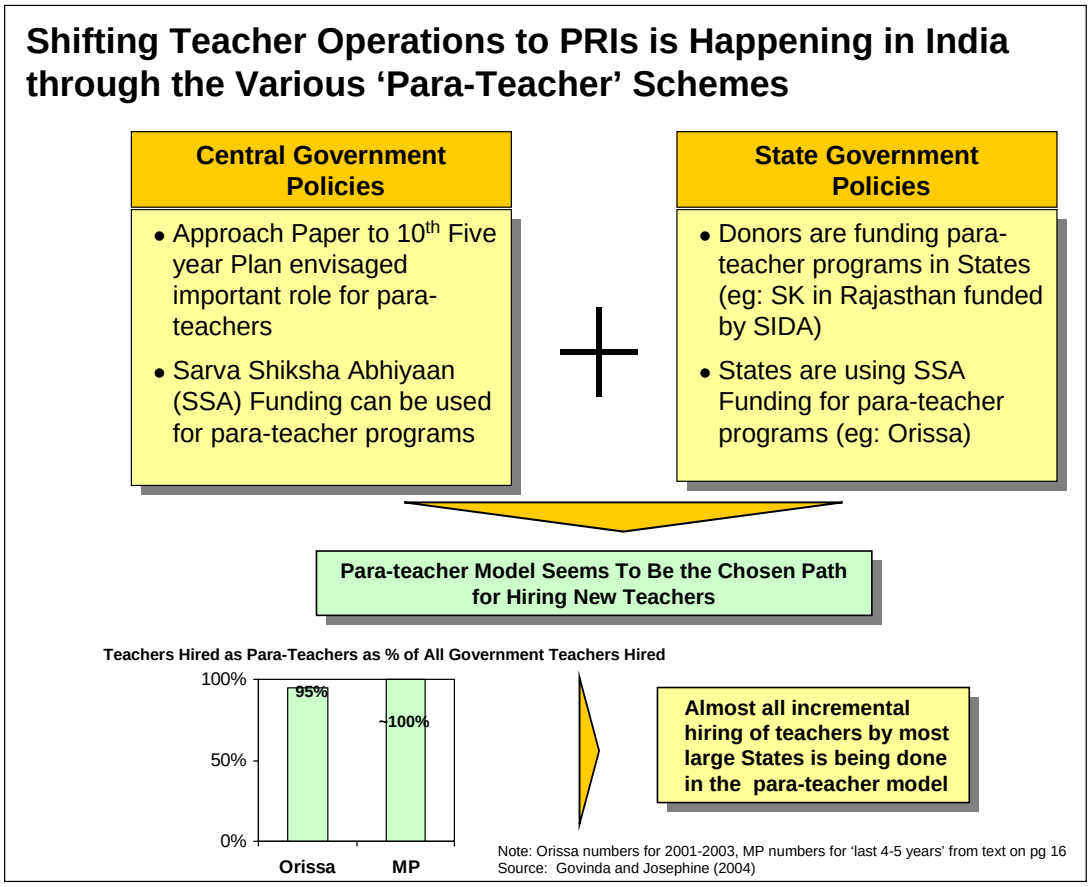
Figure H.1: Alternative Explanations for Low Quality of Primary Schooling



Appendix J: Para-teacher/contract teachers/alternative schools: experience and lessons

Here we present the takeaways from our analysis of two para-teacher programs where decentralization of teacher contracts has been tried out as an integral element of the programs. These are the Shiksha Karmi (SK) Program in Rajasthan, and the Shishu Siksha Karmasuchi (SSK) Program in West Bengal. The operational details, successes and limitations of these schemes are important elements that inform the details of our own proposal. A more detailed discussion of three major para-teacher schemes in 3 Indian states – Rajasthan, West Bengal and Madhya Pradesh – was presented in Appendix E above. .

Figure J.1: The Para-Teacher Revolution



In particular, we focused on four questions when analyzing these experiments:

- What were the **exact elements of these programs** and how were these any different from the 'business as usual' government primary education service delivery model in India?
- What were the **outcomes** – how big were these experiments, and is there evidence to show that these did/do actually perform better than regular government schools in terms of intermediate and output indicators and cost effectiveness?

- What were the **political economy dimensions** of the success of these programs – how did they manage to overcome the political odds stacked against reform and become 'success stories'?
- What were / are the **tensions of scalability and sustainability** faced by these experiments and how were these addressed?

Program Details

Some common trends that emerge from both programs that are particularly noteworthy.

Parallel Structures: Both programs were implemented by circumventing channel of the traditional service delivery provider for basic education which is the state Department of Education. In West Bengal, the scheme is run by the State Department of Panchayats and Rural Development, and in Rajasthan it was run by an autonomous body – the Shiksha Karmi Board (SKB). This could have been a potential reason for their success, as (a) the programs were flexible in incorporating alternatives into its structure which would have been difficult to implement otherwise (e.g., paying para-teachers a salary less than the salaries of regular government school teachers) and; (b) the programs did not threaten the position of the incumbent teachers or education administrators in the short run.

Demand Driven: Both programs are 'demand driven' in the sense that a school can be set up through the scheme only if the village-level *Gram Sabha* (Village Parliament) votes to set up a school. Further, the village has to suggest suitable candidates from within the village who could teach in these schools.

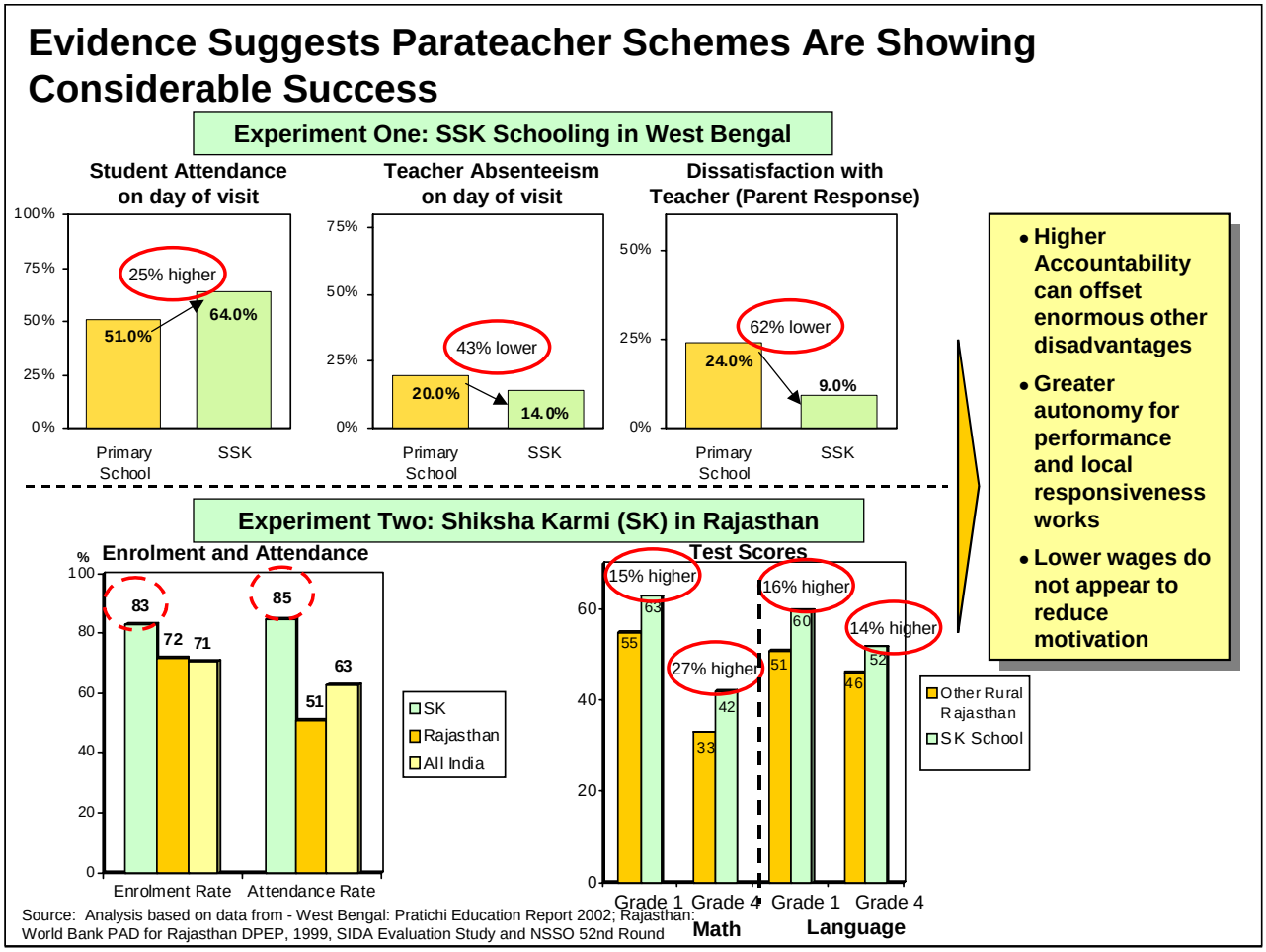
Customized Training Module: The 'para-teachers' under the schemes do not go through (the largely ineffective) teacher training colleges through which regular government school teaching aspirants have to go through. Instead, they go through a customized training program that after selection, that involves basic content and pedagogy modules, and regular follow-up training.

Teacher Accountability: This is where the big difference between these programs and regular government schools is clearly visible. Since these para-teachers are selected by the village, are regularly monitored by the Village Education Committee (VEC) or School Management Committee (SMC) comprising of parents, have contracts that are renewable at the discretion of the VEC/SMC, and are paid their salary from local government bank accounts; they have much more direct accountability to clients.

Program Performance

Do the results of the programs live up to the promise that is generated from the above program details? We summarize some key results of the two programs figure 27 below.

Figure J.2: Performance of two large 'Para-Teacher' Programs in India



As the figure suggests, when compared to government primary schools, these programs are performing better on several measures of performance – parental satisfaction, student enrolment, student and teacher attendance and test scores.

Political Economy Reasons for Program Success

Two common trends can be identified here, that we believe contributed to early program success.

First, both programs had **champions in the early stages** that helped transform them from drawing board ideas to actual government supported programs. In the West Bengal case, the current Finance Minister of the State, Asim Dasgupta, has championed the scheme and proudly talks about it, as in a recent talk attended by this Report's author at Harvard University in November 2004. In the Rajasthan case, a senior bureaucrat with major influence within the government machinery and with NGOs, nurtured and shepherded the scheme in its early years through the political and bureaucratic hurdles.

Second, both programs were **financed by incremental funding**, that did not take away from business-as-usual state education department budget. While the Rajasthan program was largely donor funded, the West Bengal Program has been funded by the state government from incremental funds, without reducing the recurring primary education budget of the state. This has been important in preventing political opposition to the project, as these did not hurt incumbents in the short run.

Tensions of Scalability

Not everything has gone according to plan. These programs are facing their own stresses and strains as attempts are made to scale them up. In particular, two points are noteworthy.

First, is the problem of '*ex post* regularization'. In West Bengal, as Minister Dasgupta mentioned in recent lecture, a growing demand for regularizing SSK para-teachers is emerging, not from among the SSK para-teachers themselves, but from the incumbent teachers trade unions. Given the political leverage of trade unions in West Bengal politics, this is a clear and present danger. In the Rajasthan case, a Swedish International Development Agency (SIDA) funded evaluation argues that a major problem faced by the scheme is the prospect of "eventual parity with and absorption into the system of formal government school teachers".

Second, there seems to be ambiguity about functional allocation of responsibilities with respect to the schemes and lack of institutionalization of the schemes' strengths. In West Bengal, the Pratichi Report finds that the program is run by different government bodies in different districts. This does not bode well for institutionalization. In Rajasthan, as the scheme was attempted to be scaled up, some of the innovative features of the program (such as formation of VECs) were incorporated in mainstream government programs in paper, but have been ineffective in practice.

An analysis of these para-teacher schemes shows the following lessons.

Complete decentralization can happen: Decentralizing teacher contracts can happen, even in India. The experiments we have in front of us shows that implementing them, at least in a small scale, is possible, even in states like West Bengal, where the left parties are in power and existing teacher unions are very strong.

Decentralization can improve teaching quality and accountability: Decentralization of teacher contracts can lead to better educational quality – the data shows that on input, intermediate and output indicators, these experiments are doing better than regular government schools. Even elite capture has not emerged as a major problem, perhaps because 'elite' children go to private schools in any case.

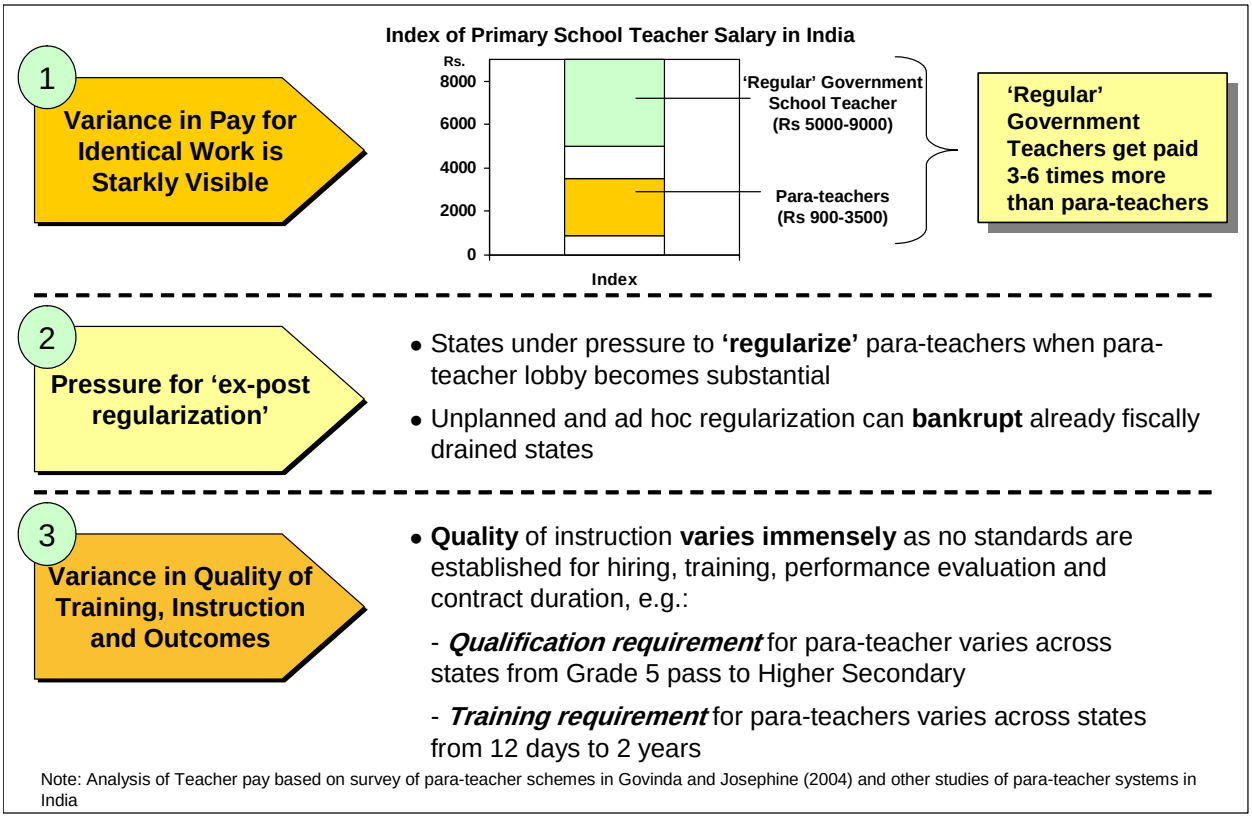
Scaling up is the major challenge: The key problems begin to emerge once these schemes attain a critical mass and an attempt is made to scale them up and institutionalize them. Both the Rajasthan and West Bengal experiences show us that expansion beyond a point is fraught with several problems such as demands for ex post regularization, lack of availability of qualified teachers, lack of uniformity in program design, and so on. These are kept in mind in making our proposal.

Para-teacher Programs – Unsustainable Quick Fixes

However, it is important to note that the para-teacher programs, although showing some promising results, are not a sustainable solution to the systemic weaknesses of government primary education in

India. The clearly visible inequity in salaries between 'regular' government school teachers, the pressure for ex-post regularization, and the variance in standards, quality of training, instructions and outcomes, suggests that this is not a sustainable system. This is shown in figure 29 below. This suggests that we need to look at developing a more institutional solution – one that can build on the promising features of the para-teacher programs that increase accountability, in a more institutionalized framework.

Figure J.3: Evidence of Non-Sustainability of Para-Teacher Systems



Note: Analysis of Teacher pay based on survey of para-teacher schemes in Govinda and Josephine (2004) and other studies of para-teacher systems in India

Box J.1: A Note on the "Identification" Problem in assessing "impact"

It is important to point out that the statistics we have shown in this section, especially when we are comparing performance and achievement of these 'experiment' schools with the regular government schools, are not a perfect comparison. There can be various other factors leading to the different outcomes in the government and experiment schools. For example, it can be argued the choice of location for the experiment schools could have led to better outcomes in these schools. In economist-speak, it is said that since the experiments were not truly 'random' with the assignment of proper treatment and control groups, attributing causality to our results would not be technically correct. However, we believe there is still significant value in our results and as such, our over-arching view remains that the experiment schools have performed better than regular government schools. We believe this for the following reasons:

First, qualitative evidence accompanying evaluations of para-teacher programs clearly shows that the level of teacher motivation and involvement is definitely higher in the experiment schools, which we believe is due to the difference in the nature of teacher contracts. We believe this is a major cause of the better outcomes in para-teacher schools. This qualitative evidence supplements our causal hypothesis and re-inforces our confidence in our results.

Second, there is no reason to believe that bias in the results, if it exists, goes against our causal explanation. In fact, it is possible that in truly randomized evaluations, the differentially superior impact of these 'experiment' para-teacher schools would have been even more than we see here. Note that the experiment schools have been set up in areas with very limited local resources, and the level of government support to these schools is also much lower than regular government schools. If these factors were controlled for, the differentially superior outcomes in the experiment para-teacher schools could have been even higher.

Third, we are all in favor of randomized studies which can help show our story causally. In fact, as part of our policy options in the next section, we propose a randomized set-up of implementation of these policies, so that these can be rigorously evaluated, and a more rigorous and compelling case can be made for our thesis.