

I

The first news of 2012 based on ASER 2011 is that private school enrollment in most states is increasing although the Right to Education Act for free and compulsory education is in place. Over 25% of rural India's children go to private schools and the numbers will rise in coming years as education and wealth increase. ASER covers rural districts. The urban numbers are probably changing more rapidly towards private education.

The second piece of news is that not only are India's learning levels very poor on an international absolute scale, the levels in government schools in the North have steadily declined with the exception of Punjab and Himachal Pradesh. The decline is quite alarming and we expect that the results will be discussed, debated and perhaps even contested in some states. At first glance the decline of reading levels by 10-20 percentage points can seem shockingly impossible but I think there is enough in the data gathered over the years that indicates that this has been gradually building up possibly due to multiple factors, and something like Census 2011 has caused a major dip in the less functional state systems. It is noteworthy that private schools by and large everywhere, and the states of the South plus Gujarat and Maharashtra do not show a decline of reading levels as measured by ASER. In fact, some states show steady improvement over the years. On another note, a recent study by Education Initiatives concludes that scores on common questions in tests given five years apart have declined about 7-10% among Std 4 children of elite schools of India.² There is an urgent need to find out why learning levels are declining and to at least arrest the decline and improve the learning levels.

II

When we started seven years ago, many doubted that we could do the first survey successfully and yet we called it the ANNUAL Status of Education Report from the very first year. Later there were questions raised if there was a need to do this massive survey every year. Those who do this year after year also wondered when not much change was observed year after year, whether all this annual business was worthwhile. But in 2011, the efforts in doing the annual survey seem to be even more justifiable at least for some time to come.

This article attempts to explore the trends as seen from ASER measurements and observations over the last half a dozen years, or over a whole Plan period of India. I am sure the issue is more complex and many factors can be studied. We will be more than happy if researchers feel inspired to use our data to explore this fascinating phase of gradual but big, measurable but unseen changes in elementary education.

Ever since we launched ASER, our focus has been on two simple key points. First; are all children enrolled in school? What kind of school? Second; are the children learning at least the very basics of reading and numeracy? While ASER has won many friends and admirers, we have had our share of critics. We have chosen to focus on some very basic outcomes of education. If these outcomes improve, there is reason to believe that inputs are working. When they decline, it is a sure sign that inputs are not working.

Before we did the first survey, it was difficult for us to believe that over 90% rural children of this vast country were enrolled in schools. But once we had done the survey, we believed it. Many others including some eminent people did not, and said it was not consistent with their experience. A government sponsored independent survey around the same time came up with practically the same proportion of enrolled children. Every subsequent ASER threw up self-consistent numbers and trends at state and national level to further emphasize the validity and utility of the survey. Subsequently we also measured attendance, which showed that while enrollment was increasing in the Northern states, attendance of children in schools, which should be the real measure of enrollment, remained poor.

The increase in enrollment was an intended clear goal of the system and the system responded to the signals coming from Delhi and state capitals. Large centralized systems respond to simple and clear instructions or goals and not fine print. In a centralized but ill-functioning system with huge gaps of knowledge and skill-sets, a complex message is lost in the game of Chinese whispers. Worse, it may lead to a dysfunctional system becoming worse. A few months ago a senior government official was heard explaining to a gathering of head teachers the essence of the Right to Education Act. "Enroll all children. Do not beat them. Promote them to the next class. Make sure they do not drop out. Once you have done all this, you will have achieved RTE". But will learning happen simply if children stay in school?

¹ Madhav Chavan is CEO and President, Pratham Education Foundation.

² See http://www.ei-india.com/wp-content/uploads/Executive_Summary.pdf

The Government of India has not emphasized improvement in learning goals. The results framework of the ministry that goes with the annual plan guidelines gives learning outcomes a late and vague mention - all this in spite of all the evidence pointing towards dismal learning by every measure.

The ASER survey of children's reading and arithmetic levels has its critics and admirers. Our admirers like its simplicity and the fact that it has been tested and proven to be robust. The tools and techniques have been replicated and found to work in other parts of the world. But, the detractors have other views ranging from doubting the very integrity of the exercise to whether it is correct to measure outcomes at all and everything in between. Unfortunately, surveys, their potential, their meaning, and their limitations are not well-understood. Subsequent to ASER, other higher level and more sophisticated studies have been undertaken by Education Initiatives. NCERT studies have been published, and many state governments have been measuring learning levels using different methods, some of which are close to the ASER approach. Often these results do not match thanks to different approaches, methods, and tools. However, broadly all indicate that learning is poor in Indian schools.

ASER has followed the same basic procedures and has made sure that basic testing tools and methods of sampling and testing are the same every year for the core tests. As a result, although some of our findings may be inconsistent with other studies, they are self consistent year after year indicating good precision of the method and the techniques used.

The massive data gathered over the last years are showing some interesting trends that deserve the attention of policy-makers and researchers alike. The right to free and compulsory education is now on the ground. How are people reacting to it? How is it impacting schools? We cannot merely look at its impact every five years. In five years a Std 1 child will complete primary education and a Std 6 child will either drop out or go on to complete secondary schooling. But, if we let things go on the way they are, demographic disaster awaits us at the end of the decade if not sooner.

III

Private school enrollment is increasing. So, what's new?

There is plenty new. The RTE act, if seriously implemented, will make it impossible for 'low cost' or 'affordable' schools to operate. But over the last six years private school enrollment in rural India has gone up by 5.5 percentage points, which translates into an increase of just over 25%. It is quite likely that many, if not most, of the rural private schools do not meet RTE norms. So unless these children are all enrolled in RTE-compliant private schools, nearly 40 million rural children will have to be provided place in government schools. But, will the parents want to put their children in government schools even if they are 'good'? Can they be compelled to do so? What information do we have relevant to this question?

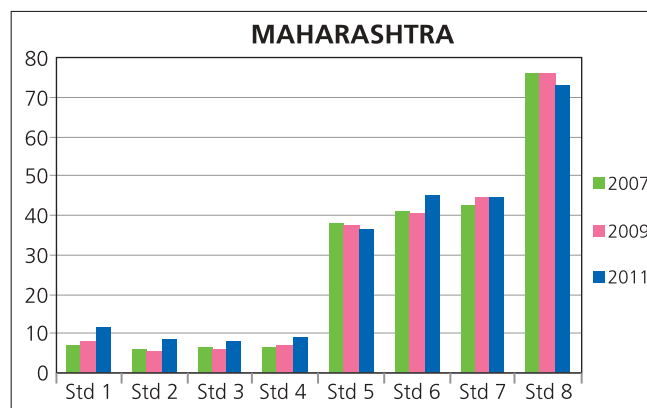
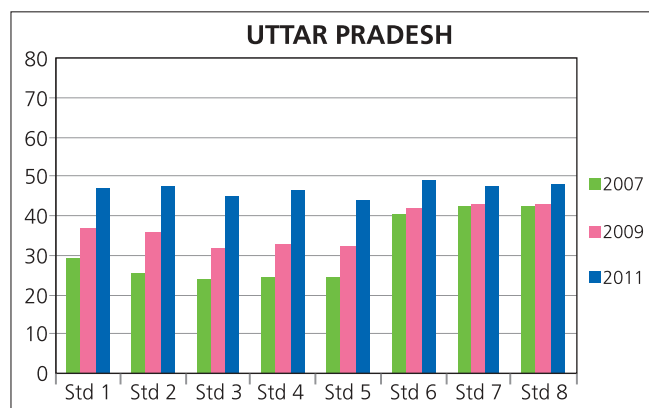
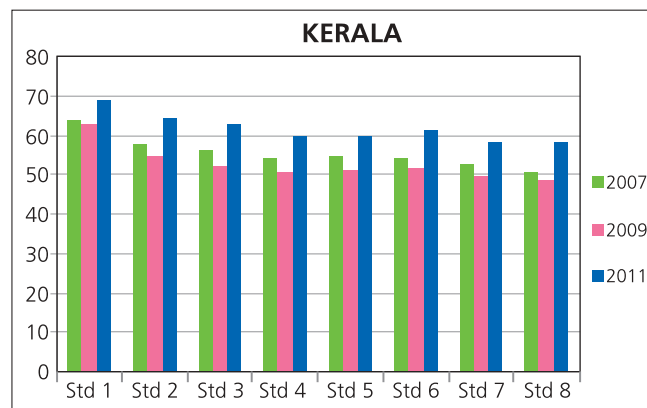
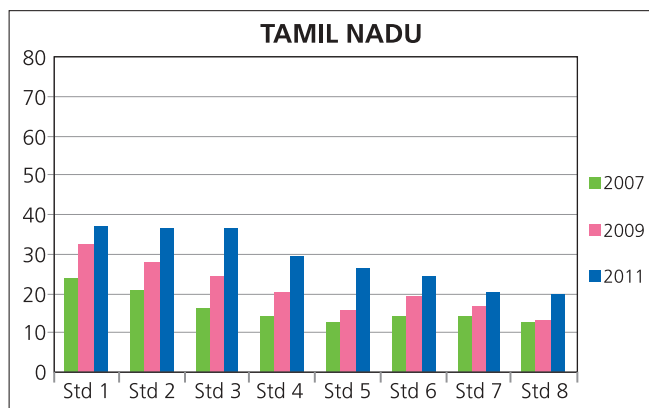
As far as private school enrollment is concerned, India can be divided into some broad regions. In the North-West, states like Punjab, Rajasthan, Haryana have had high enrollment in private schools. Since 2006, these enrollment numbers have gone up by 5-7 percentage points- that is a 15-20% increase. The North-East shows mixed ratios with Assam and Arunachal being moderate, Tripura low, and Meghalaya, Mizoram, Nagaland and Manipur on the high side of private enrollment. In the East, states have traditionally had low enrollment in private schools, and these have gone up by about 1-3 percentage points- also a 20% increase. In this region Bihar has the unique distinction of actually decreasing the proportion enrolled in private school which is a likely reflection of the massive efforts to open schools, bring out of school children into school and appointing large numbers of teachers. But we also know that children's attendance in Bihar is the lowest in the country and nearly 60% elementary school children in this state go to private tutors. Bihar's immediate neighbors are also high tutor states. Maharashtra and AP show under 10% increase over their previous level of about 29% private school enrollment. But, the rest of the South is increasingly sending children to private schools.

The major enrollment story is in Tamil Nadu, Kerala, Maharashtra, and Uttar Pradesh. Each story is different in these extremely diverse states.

In Tamil Nadu, there are several strong reasons for attracting children to government schools - mid-day meal is said to be a major success over many years in bringing children to government schools. A few years ago a new child-centric, joyful, print-rich ABL methodology was introduced across the state. Yet, there is an overall increase of about 8 to 12 percentage points in private enrollment between Std 1 and 8 over five years. But a look at the charts below makes it obvious that the major increase is in Std 1-5 amounting to about 16 percentage points or

almost a doubling of private school enrollment. In Std 6-7-8 the increase is about 7 percentage points. It appears that the government schools in Tamil Nadu are not able to convince the parents that government schools are better. Is this only because parents associate some kind of a status with private schools and are not concerned with what goes on in the classroom? If so, is there not a need to reach out to parents and convince them?

Chart 1. Tamil Nadu, Kerala, Uttar Pradesh and Maharashtra: Trends in percentage of children enrolled in private schools, Std 1-8



In Uttar Pradesh, which could be seen as the exact opposite of Tamil Nadu as far as government school functioning is concerned, private school enrollment in Std 1-5 has jumped up almost 20 percentage points to double the original number; while in upper primary segments, which had a high private enrollment, the increase is small but still substantial at 5 percentage points. The data suggest that in earlier cohorts private school enrollment in the early grades was relatively low and it rose as we moved to higher grades. Now it looks like private school enrollment starts high from as early as Std 1. Perhaps, upper primary private schools are expanding to include primary segments and those who can afford it are sending their children to private schools.

What is common between UP and Tamil Nadu apart from this big move towards private education? Serious research is needed to understand why parents in these two very different states are behaving similarly in massive numbers.

In Kerala, where there was already more than 50% enrollment in private schools, there is still an eight percentage point increase in private enrollment. In the North-Western states, private school enrollment seems to have remained steady around 35-40% or inched up slowly, indicating a saturation effect. But Kerala seems to be breaking through any such saturation. It must be remembered that a very large proportion of private schools in Kerala are government aided, which are largely absent in the North-Western states. It is not clear if the existing private schools in Kerala are expanding, or more unaided private schools are opening.

The RTE Act offers 'per child cost' to unaided schools to accept 25% children of weaker sections. In Kerala, where only 40% are now in government schools and the number is going down, would it not make more sense to convert all government schools into 'aided schools' rather than keeping them under a centralized government control? Why not opt for a 'government funded locally managed school' model with either private groups or

Panchayats running the schools? Or, Kerala, with a very high proportion of private schools, may be ready for vouchers even though there will be political question marks.

Maharashtra presents a different case in contrast. Its private enrollment in primary segments has hardly gone up and the enrollments in upper primary segment, which are largely government aided schools, show no major increase either. The secondary segment in Maharashtra is largely private and aided, which is reflected in the chart. Why is the Maharashtra response to private schools like that of the Eastern states, which are poorer economically and educationally and not like Kerala?

These four states in some ways represent the variation among education systems in different states of India. Is there one "Indian education system"?

These questions present good research opportunities. However, it is almost predictable that unless regulation prevents it or unless suddenly a large population starts believing in neighborhood/common schools run by the government, the proportion of children going to private schools will go on increasing. The question is, how far? Based on previous ASERs and other studies, it is quite obvious that with increasing income and education of parents, people want to send their children to a private school if one is available nearby. Can government schools alone convince parents to do otherwise? Is there a need for greater social and political mobilization? Can it succeed?

IV

How effective are Bihar schools? What helps learning?

When we published ASER2005 (the first one) many people were shocked (as were we), and some actually angry that the proportion of government school children in Bihar who could read was higher than in many other economically better off states. "Bihar, of all the places!" was an exclamation full of contempt often heard. But no one seemed to object that the ability to read in Bihar government schools was much higher than in UP or Rajasthan government schools.

As gurus of surveys say, what surveys provide are measurements and observations. These give estimates upon processing, which are perceptions of reality through the lenses of the survey tools. There are statistical methods available to measure how good these are (and ASER passes these tests quite well³). ASER methods and tools have been replicated successfully by different groups in African countries and in Pakistan. What they mean or might mean is another thing. It is up to individuals to decide what comparisons to draw and what interpretations and inferences to make.

So, let us try to unravel the mystery of why Bihar children do better in reading. I will leave it to the economists to do detailed work and test a primary hypothesis that emerges from the table below.

Table 1. Percent children in different states and systems who can read at least a Std 1 text in Std 3, 2006-11; and % going to tutors in 2011

| State and school type * | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | % going to tutors in 2011 |
|-------------------------|------|------|------|------|------|------|---------------------------|
| Bihar (Govt) | 51.7 | 52.6 | 49.7 | 42.3 | 43.9 | 29.9 | 42.0 |
| Bihar (Pvt) | 69.6 | 71.4 | 73.4 | 72.5 | 65.9 | 72.7 | 67.2 |
| W Bengal (Govt) | X | X | 47.9 | 49.3 | 51.7 | 46.8 | 67.9 |
| Rajasthan(Govt) | 31.6 | 28.7 | 31.5 | 25.8 | 27.2 | 22.6 | 4.7 |
| Rajasthan(Pvt) | 53.9 | 53.8 | 60.2 | 52.1 | 50.3 | 53.2 | 9.4 |
| UP (Govt) | 23.5 | 25.8 | 24.5 | 23.3 | 26.5 | 18.0 | 1.2 |
| UP (Pvt) | 50.3 | 53.2 | 56.3 | 48.7 | 51.3 | 50.7 | 13.5 |

* W Bengal private school data not included due to small observation numbers. Bihar private school data points are also small.

Note that the estimated percentage of children who can at least read a Std 1 text in Std 3 in Bihar and West Bengal lies in between private schools and government schools of Rajasthan and UP. There is a dip in 2011 in all these government schools. We shall deal with the decline in 2011 a bit later. For the moment let us work only

³ See http://images2.asercentre.org/ASER_survey/ASER-Reliability-Validity-Evaluation.pdf

with numbers up to 2010. We know that there are many household factors that affect the learning levels of a child. Once these are controlled, as Dr. Wilima Wadhwa has shown in ASER 2009, the contribution of the private schools to the child's learning seems negligible in several states. In the present case, does tutoring represent all these factors to equalize?

Table 2. Percent government school children who can read depending upon whether they go to tutor or not

| Based on ASER2011 | W Bengal Government school | | Odisha Government school | | Bihar Government school | | Jharkhand Government school | |
|--|----------------------------|---------------|--------------------------|---------------|-------------------------|---------------|-----------------------------|---------------|
| | with tutor | without tutor | with tutor | without tutor | with tutor | without tutor | with tutor | without tutor |
| % Std 3 who can read at least a Std 1 text | 53.9 | 32.9 | 55.9 | 27.6 | 35.5 | 27.9 | 38.1 | 24.0 |
| % Std 5 who can read at least a Std 2 text | 44.1 | 35.0 | 52.8 | 31.3 | 53.8 | 44.1 | 52.9 | 33.1 |

In all of the above states large but varied proportions of children go to private tutors. In other states the corresponding data points are low. The percentage of readers among government school children who go to tutors is unmistakably high in these high tutor and low private school states.

If the effectiveness of a school system was measured by the proportion of children without tutors who can read texts of Std 1 and 2 respectively at Std 3 or Std 5, we see an even worse picture. In fact, for those who wish to compare states, once the tutor effect is removed, most states excepting Kerala, Maharashtra, Punjab, and Himachal Pradesh start looking very similar.

It is observed in states where learning levels are declining that while the same proportion of children go to tutors year after year, their contribution to the child's learning level diminishes. This may mean that the tutor is a complementary factor and if the school functioning declines, the effectiveness of tutoring is lower too. This should make sense. It is noticeable that the impact of tutors is not the same in every state and in every class. It is as though tutoring is also a 'system', that functions well in some states and not in others.

In other words, the learning level of a child in a government school results from many factors. School is an important factor but it is only one of the factors.

Let us come to the observation that in 2011 the learning levels of government schools drop substantially. In fact, in government schools in Rajasthan, UP, and Bihar there is a continuous decline in learning levels over time until it drops sharply in 2011. It is noteworthy at the same time that the private school learning levels remain more or less unchanged.

What is going on? One likely contributing factor for big a drop in 2011 is that there was Census in early 2011 and teachers were pulled out of classrooms right in the most productive part of the school year after the October-November festive season. But there are other factors changing as well.

The school observation data from ASER can be used to track trends.⁴ The school attendance observed in UP and Bihar over the last five years is down from 67% in 2007 to 57% in UP and from 59% to 50% in Bihar. The drop between 2010 and 2011 is sharp. Rajasthan shows no such drop but W Bengal does so in 2011. Teacher attendance in Bihar and Rajasthan remains at around 85-90% but has declined in UP from 92% to 82%.

Another important observation is that in Rajasthan, which remained unchanged in terms of children's or teachers' attendance, the proportion of multigrade classrooms has gone up from 52% to 62%. In UP it has gone up from 43% to 52%. In Kerala it has gone up from 2% to 9%. Note that all these are states with high proportions of children moving to private schools. With the exception of Maharashtra, Karnataka, and Tamil Nadu, the proportion of multigrade classes has increased in most states. Whether this is a consequence of a consciously adopted pedagogy or whether this reflects rationalization of teachers is not clear.

⁴ ASER is a household survey with sampling done to ensure a representative sample of children at the district level. However for every village that is sampled for the survey, one government school with primary sections is also visited. The ASER school data is based on these school observations.

Just to be clear, I am not at all opposed to multigrade classrooms. In fact, I would prefer grouping children according to their current level rather than age alone. But the classroom management techniques and teacher preparation required in such situations is very high. If these are weak, as they today are, a multigrade classroom can prove to be a disaster. If ASER school observations over the years are correct, we are witnessing a quiet disaster.

V

Learning levels declining? Where? Why?

The declining levels of learning and other factors are not unique to Rajasthan, UP, and Bihar. But there are exceptions as well.

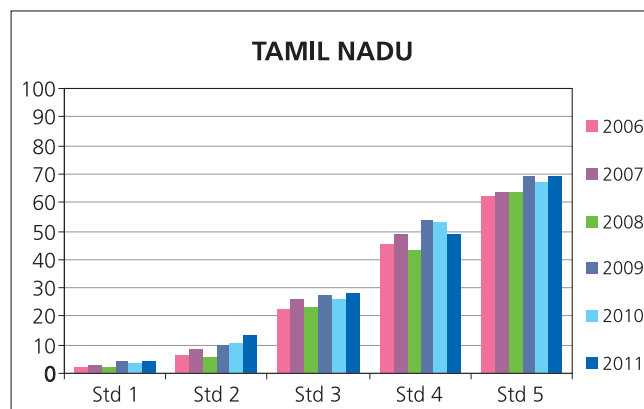
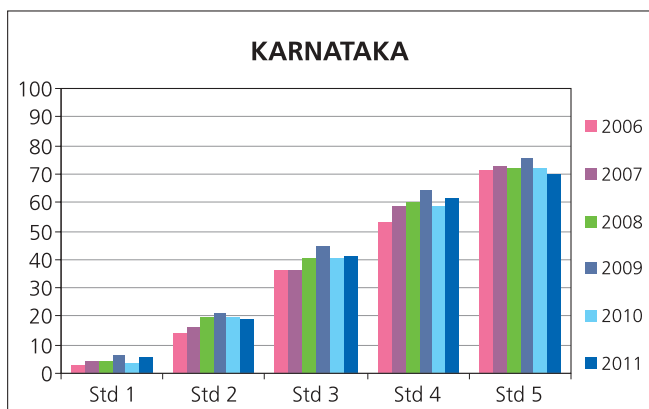
The effectiveness of a system can be increased or decreased by changing a variety of factors. But to clearly identify these, we first need to have a measure of effectiveness of the system. This is only possible if the system defines the outcomes it wants and works towards achieving them. If construction of toilets and ensuring that they function is the desired outcome that the system is aiming for, then the system will respond accordingly as long as there are no other conflicting factors such as lack of water. If the idea is to ensure that children learn reading, writing, arithmetic, a focused system can achieve this. If we further want the child to be free of fear, able to think and express, that can be done. But for all this, the system must function and it should be capable of receiving messages and translating them effectively into appropriate action.

The exact opposite is also possible. In other words, the estimates of declining percentage of readers in every class may lead us to infer that the message being interpreted is that learning is not important.

Below are some charts of learning levels of government school systems as measured by ASER in different states over the years. A quick look at these charts makes it evident that as they move from one class to the next, a higher proportion of children can read Std 1 level text or more. This is what one would expect, given that some children do acquire the very basic skills measured by ASER with every additional year in school – although many do not. In Karnataka in 2011, for example, about 5.3% of children can read Std 1 level text in Std 1. This number grows to 41.5% by Std 3, and 70% in Std 5. In Tamil Nadu in 2011, 3.9% in Std 1, 26.1 in Std 3, and 67.5% in Std 5 can read a Std 1 level text.

But to assess whether the system is becoming more effective at teaching children to read, we need to compare the proportion of children who could read Std 1 level text in 2006 with the same proportion in successive years at the same Std. If the ability of the system to teach basic reading is improving, this should be reflected in an increase in the proportion of children in (say) Std 3 who could read from 2006 to 2011.

Chart 2. Tamil Nadu and Karnataka: Percent government schools children able to read at least Std 1 text in respective Std and year



A look at Std 4 in Karnataka and Std 5 in Tamil Nadu suggests that the effectiveness of the classroom as per the measure of “% children who can read at least a Std 1 text” is improving year after year. Although the proportion of children able to read a Std 1 text remains low in absolute terms at every Std in Tamil Nadu, the levels appear to be rising slowly year after year. At least they are not deteriorating for certain. In both states about 60-65% children can read at this level by the time they are in Std 5. However, in getting there, more Karnataka children

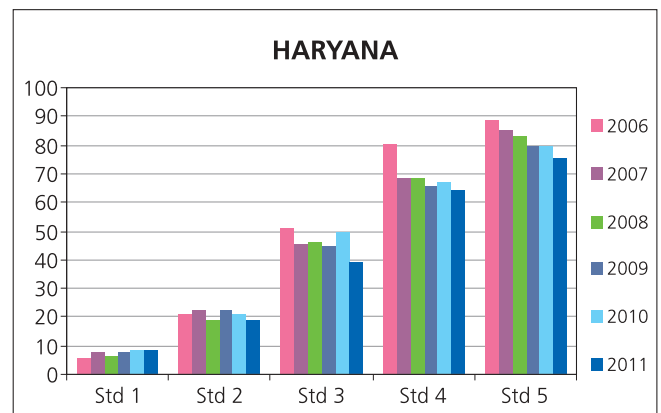
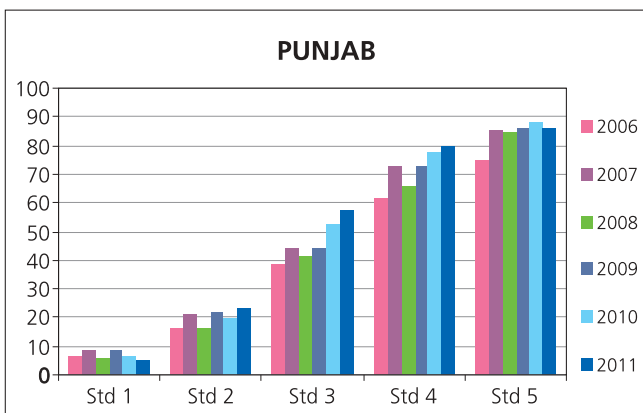
learn to read in Std 2 and 3, while more Tamil Nadu children become readers with a jump as they move from Std 3 and 4.

In Kerala, Andhra, and Maharashtra there is no observed improvement nor loss of effectiveness of schools by the same measure.⁵

Gujarat should be mentioned as a state that has also started showing a steady although slow improvement in reading levels over the last three years. One major initiative in the state for the last three years is that government officers visit randomly chosen schools to assess performance of children around November and cross check teachers' evaluations.

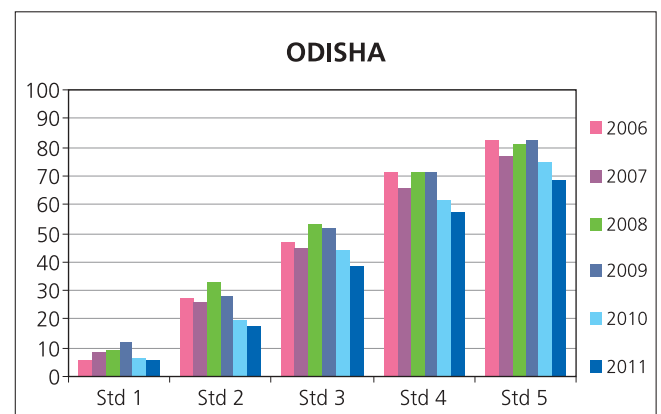
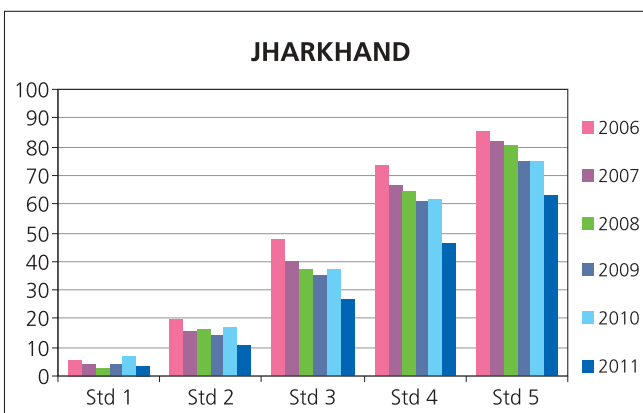
Children's attendance, teacher attendance, and the proportion of multigrade classrooms in these states are largely unchanged or have improved and remain at high levels.

Chart 3. Punjab and Haryana: Percent children in government schools able to read at least a Std 1 text in respective Std and year



Here is an interesting case: Haryana and Punjab - neighbours who share a common capital - show opposing trends. The two states are almost identical with respect to private school enrollment, student and teacher attendance, and multigrade classrooms. Outwardly, they should function with the same effectiveness. Yet, one is getting better while the other is in decline. While Punjab shows year after year improvement especially after Std 2, Haryana seems to show deterioration especially when children reach Std 5. In other words, the Punjab system has been converting non-readers into readers at Std 3 and 4 with increasing effectiveness year after year so far. In contrast, in Haryana, although more children learn to read as they go from say Std 2 to 3 or Std 3 to 4, each year fewer children are learning to read at each step and this shows up as a cumulative decline in the percentage of children reading at the same Std when compared across years. In Haryana, the proportion of children who can read in Std 5 was around 85% in 2006 while it has steadily declined to 75% in 2011. The increase in Punjab and the decline in Haryana are both obvious and statistically significant.

Chart 4. Odisha and Jharkhand: Percent children in government schools able to read at least a Std 1 text in respective Std and year.



⁵ I have used only reading at Std 1 text level as a measure. It could look different if we used another measure, say ability to solve division sums.

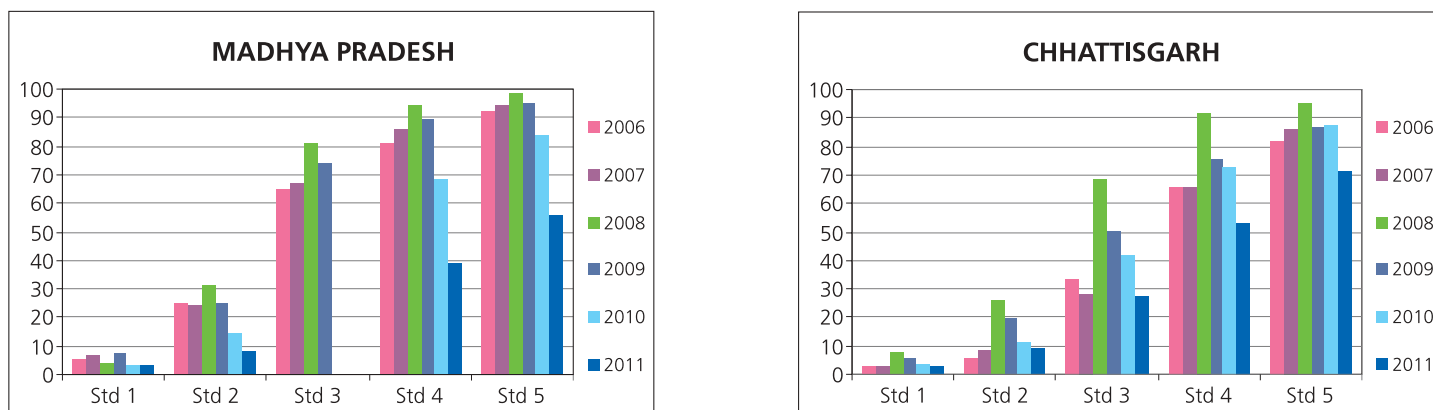
The estimated decline in learning levels at Std 3 in UP, W. Bengal, Rajasthan, and Bihar was already shown in a table above. The decline in Odisha and Jharkhand is sharper at all grade levels especially after 2008. Particularly noteworthy is the sharp decline at every Std in 2011. It may be noted that average attendance of children in these states is observed to be around 90%, and teacher attendance is also higher than the average among Northern and Eastern states. However, the main common factor is that multigrade classrooms have gone up by 7 to 10 percentage points. We are not aware of what else may have changed in the system. The sharp decline in 2011 is common with other Northern states and might be due to the additional Census factor laid over already poorly functioning systems.

It should be reiterated that private schools systems in the North do not show a similar decline in these basic learning levels.

These examples provide sufficient evidence that ASER can capture positive changes, negative changes, and note status quo in school systems over years.

This brings us to a major negative change in two states of Madhya Pradesh and Chhattisgarh. In Madhya Pradesh, according to ASER 2005 36% government school children in Std 3 could read at least a Std 1 text. By 2006 this had jumped to 65%. There was a further jump in 2008 to 81% after stability for one year. However, in subsequent years the Std 3 classes had lesser and lesser proportion of children who could read. The conversion to readers after Std 3 also slowed down. As a result we see that by 2011 the proportion of basic readers has fallen way below what it was in Std 3 and Std 5 in 2005-2006.

Chart 5. MP and Chhattisgarh: Percent children in government school able to read at least a Std 1 text in respective Std and year.



In neighbouring Chhattisgarh, the decline is observed after academic year 2008. The Chhattisgarh decline looks relatively smaller than in MP today. However, it is comparable to what MP had seen in 2010. In other words, it is more than likely that unless corrective action is taken, the Chhattisgarh chart of the next ASER in 2012 will look like the MP chart of 2011.

How are the two states doing on other parameters observed by ASER?

Table 3. MP and Chhattisgarh: School indicators, 2007 and 2011

| Data for primary schools (1-5) % | Madhya Pradesh | | Chhattisgarh | |
|----------------------------------|----------------|------|--------------|------|
| | 2007 | 2011 | 2007 | 2011 |
| Children's attendance | 67.0 | 54.5 | 72.0 | 73.1 |
| Teachers' attendance | 91.3 | 87.7 | 92.7 | 84.6 |
| Multigrade classrooms | 61.8 | 70.8 | 48.1 | 62.5 |
| Water provision and functioning | 78.5 | 69.1 | 77.6 | 73.4 |
| Private school enrollment | 13.0 | 19.0 | 9.0 | 12.5 |

It appears that there is a general decline. The increase in multigrade classrooms combined with increased teacher absenteeism and lower attendance of children (not in Chhattisgarh) from already low levels could cause a decline in reading levels like in other states. There is no documentation available for any other negative factors creeping into the MP and Chhattisgarh systems that could lead to additional negative effects.

The drops in learning levels are very high compared to other states because the baseline of learning levels in 2007-2008 for these two states was very high. How can such huge drops in the learning levels be explained? The answer may lie in why the learning levels might have gone up in the first place.

We have seen above that in Punjab and Tamil Nadu, although to varying extents, the proportion of children able to read has gone up steadily. In Punjab, the government took up a specific program to improve basic reading and numeracy for three years. The whole system was oriented towards achievement of goals that would be measured. The campaign had intended consequences as the State Project Director of SSA provided from-the-front leadership. The learning levels were quite high to begin with and they went up in small jumps over the years. In Tamil Nadu, the SSA provided similar leadership for about 4 years to establish the ABL methodology. The explicit and primary goal of ABL is not improvement of reading, which may be an outcome of an overall change in pedagogy that allows children to learn at their own pace rather than being encouraged to achieve reading skills as a priority. Hence, a slower pace of change may be expected. It is important to note that gains in reading levels due to both are captured by ASER over the years.

In Madhya Pradesh in 2005-06, and then again in 2007-08, the SSA took up very strong focused campaigns to improve reading and basic literacy with the involvement of teachers and village volunteers. In both years the respective State Project Directors provided leadership. Goals were set, officers and teachers were involved to achieve specific learning goals. In Chhattisgarh, there was a similar campaign for just one year, 2007-08. Once again, an energetic State Project Director of SSA led from the front, the school system was geared towards achieving set goals of basic reading and numeracy and there was a massive mobilization of volunteers in practically each village. In MP too, there was a massive volunteer campaign with volunteers working with children in each village.

The impact that a systemic momentum can have is easy to believe. What is missed is the impact that volunteers can have on such a large scale when working with the system.

Some individuals question our integrity and say that ASER cooks up figures to show Pratham's work in good light. There are others more kind in questioning our integrity. In our defence we can point out that similar campaigns taken up in UP or in Assam failed to show improvement although the government was involved and there were volunteers mobilized. In Uttarakhand, learning levels hardly moved. In Maharashtra and Gujarat the respective governments took certain steps without Pratham involvement and reading levels went up. It is our experience that when the government leadership took up something energetically and when volunteers also participated, learning levels showed improvements. With the momentum of the school system missing or weak, learning levels did not show improvement. In other words in the period 2007-2009, any large scale volunteer-based campaign without the government's involvement yielded no noticeable improvement. This is noted in various Pratham reports.

Fortunately, the world renowned MIT-based research group J-PAL has conducted rigorous randomized evaluations of Pratham's work with volunteers.⁶ These large scale studies conducted in varied places such as Mumbai, Baroda, Jaunpur (UP) and West Champaran (Bihar) all point to the impact volunteers have on learning levels of children at the very basic level that ASER measures. There is also a large scale study involving school teachers in Bettiah in West Champaran in summer camps, where children were grouped according to their learning levels rather than by grade or age and taught basic reading and literacy with focus. This study showed that not only did children who attended camps make progress, but they retained their advantage over other children for at least two years.⁷

We have already seen the impact tutors have on learning levels of children in government schools although the school attendance in Bihar is recorded at about 60%. If the school system was more effective, learning levels would probably be higher (unless parents stop sending their children to tutors because schools are more effective, but this does not seem to happen in private schools and in advanced states such as Kerala).

⁶ http://www.povertyactionlab.org/search/apachesolr_search/pratham?filters=type:evaluation

⁷ See Abhijit Banerjee and Esther Duflo's recent book *Poor Economics*, published in 2011.

The volunteers who helped children in massive numbers can be thought of as tutors focusing on certain tasks of reading. With this it is entirely possible to see the kind of jumps at the basic level of learning that are noted by ASER.

The effect of the campaigns in MP and Chhattisgarh is reflected in the measurement of their intended outcomes. The effect of campaigns of the previous year(s) is seen in ASER measurements which happen in October-November of the following academic year. The 2006 measurement in MP is a reflection of the campaign in 2005-2006 academic year and the 2008 measurement in Chhattisgarh is a reflection of the campaign of 2007-2008. The low learning levels jumped tremendously with the boost that came from the energetic campaigns. After 2008/2009, the campaigns were simply switched off by the new State Project Directors in the two states. The momentum was completely lost. Now, we see that not only are the focused learning improvement efforts off but other parameters are also going downhill.

The impact of school summer vacations on children's loss of learning has been studied in the United States and is said to impact socioeconomically disadvantaged children much more. Similar studies related to regular disruptions and vacations are badly needed in India. What happens if school and classroom functioning deteriorates? Is it possible that the fragile reading and numeracy skills acquired by a disadvantaged child in Std 2-3 will be forgotten or become rusty enough to once again classify the child as a non-reader? Our data suggests that this is what is happening in several states and needs to be studied further in depth.

In short, the rise in learning levels is a combination of an energised school system which would enhance its effectiveness as compared to other neighbouring states and the volunteer/tutor effect would be added on to this. Once these effects are switched off, and other parameters also deteriorate, the consequences can be dramatically observed in falling of learning levels as seen above.

VI

In summary

The ASER data over the years are self consistent and have thrown up trends in enrollment and changes in learning levels that require more research to be done but even as they are, they deserve close attention.

There are two clear trends observable around the country.

One is that private school enrollment is increasing in most states and where there are few private schools, private tutoring is a surrogate for private schooling that seems to have an equalizing impact to some extent in several backward states in the East. Should tutoring be seen as a harmful nuisance or a necessary support system in a society that is semi-literate with low skills and knowledge all around? At a time when the government has put in place an act for free and compulsory education with planned increase in spending on government schools and curbs on private schools, there is a need to understand why and how the private sector is expanding now that it caters to nearly half the rural children in several states, and a possibly larger share of urban children in many large states.

The second is that while there are differences in the effectiveness of systems in different states in teaching children at different stages of schooling, the general level of effectiveness is scattered in a narrow band around a poor mean. Fortunately, everyone agrees with this! Trends over the last five-six years indicate that learning levels are gradually dropping in most large Northern and Eastern states while they are steady or improving slowly in the Southern and Western states. Private school effectiveness varies from state to state but ASER cannot detect a decline in private school effectiveness at the level of its measurement. These observations of learning level changes in government schools are correlated to other school observations that might affect the teaching-learning process. In addition, the special efforts undertaken by different state systems or the absence or reversal of these have to be taken into account to understand why the outcome measurements show changes. If this is done, a more practical strategy to improve learning levels in the more backward states can be evolved.