More Recovery than Loss

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After a break of 4 years, ASER was back in the field across 616 rural districts of the country in 2022. In 2016, we had started a new cycle of ASER wherein we did the 'basic' survey across all districts every other year, instead of annually. The planning process for ASER 2020 had already started when India and the world shut down in March of 2020 due to the COVID pandemic. Schools shut down across the globe and the educational system had to pivot and switch to remote learning. India had one of the longest durations of school closures – primary schools were closed for almost two years. In addition, restricted economic activity and the migrant crisis resulted in loss of livelihoods across the country. The impact of the pandemic on the education sector, therefore, was feared to be twofold – learning loss associated with long school closures and the possibility of rising dropout rates, especially among older children, due to squeezed family budgets.

While ASER was not conducted in the field in 2020, a phone survey representative at the state and national levels was conducted in September-October 2020, focusing on children's access to learning materials while schools were closed, as well as their enrollment status. At the time, everyone thought that children would soon be back in school. However, the devastating second COVID wave delayed school opening for another year and ASER 2021 was again conducted over the phone, a year later, exploring the same themes as ASER 2020. While both these surveys could give some idea about what had happened to enrollment during the pandemic, they had no information on learning levels since children were not tested over the phone. However, ASER looked for opportunities to go back to the field and was able to conduct representative surveys in three states in 2021 – Karnataka in February 2021, Chhattisgarh in October 2021 and West Bengal in December 2021. These three state-level surveys gave estimates of learning levels that could be used to understand the extent of learning loss suffered during the pandemic. These state-level estimates are extremely useful as they are the only ASER estimates of learning we have between 2018 and 2022.

First, let's look at enrollment between 2018 and 2022 to see if the pandemic resulted in more children dropping out from school. According to ASER 2020, the proportion of children in the age group of 6-14 years not currently enrolled in school went up from 2.8% to 4.6% between 2018 and 2020. This almost doubling of out of school numbers, while alarming at first, was seen to be concentrated in the youngest age group of 6-10 years, and could be explained by the fact that many young children (6-7-year-olds) were waiting to seek admission when schools reopened. In 2021, the proportion of 6-14-year-olds not enrolled in school remained the same at 4.6% with little or no change for other age groups in the 6-14 range. However, with schools closed, it was difficult to say whether what we were seeing in 2020 and 2021 was a "new normal" or a temporary blip. Indeed, the ASER 2022 figures show that the increase in out of school numbers during 2020-21 was a temporary phenomenon caused by uncertainty and possibly a lag in recording enrollments. According to ASER 2022, the proportion of not currently enrolled 6-14-year-old children is down to 1.6% – almost half of what was observed in 2018 and the lowest we have seen in the decade since the Right to Education Act came into effect.

Even more heartening is that we see a secular decline in the proportion of children not currently enrolled in the 15-16 age group – the age group considered most at risk for dropping out. In 2010, the proportion of 15-16-year-olds who were out of school was 16.1%. Driven by the government's push to universalise secondary education, this number has been steadily declining and stood at 13.1% in 2018. The decline continued in 2020 to 9.9% and this proportion stands at 7.5% in 2022.

What about learning levels – has there been significant learning loss due to the pandemic? Learning levels had been rising slowly between 2014 and 2018, after being stagnant for several years, and the fear was that the pandemic would interrupt this trend. At the all-India level, the proportion of children in Std III who could read a Std II level text rose from 23.6% in 2014 to 27.2% in 2018. In 2022, however, there is a big drop in this proportion to 20.5%. Similarly, the proportion of children in Std V who could read at Std II level rose from 48% in 2014 to 50.4% in 2018, but fell to 42.8% in 2022. This fall – of 7 percentage points in both cases – is a huge drop, given how slowly the all-India numbers move, and confirms fears of large learning losses caused by the pandemic.

Apart from reading, ASER also tests children in foundational numeracy. In math also, learning levels had been rising between 2014 and 2018. Overall, the proportion of children in Std III who could do at least subtraction rose from 25.3% in 2014 to 28.1% in 2018. Similarly, the proportion of children in Std V who could solve a simple division problem rose from 26% in 2014 to 27.8% in 2018. If we look at the 2022 learning levels, there is not much drop in these foundational arithmetic competencies. The proportion of children in Std III at subtraction level is 25.9% in 2022 and the proportion of Std V children at division level is 25.6%. In both cases, while there has been a drop in learning levels, it is of a much smaller magnitude as compared to the drop in reading.

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Clearly, the pandemic has resulted in learning loss. However, what the ASER 2022 figures seem to suggest is that the loss is much greater in reading as compared to arithmetic. We know that during 2020 and 2021, schools pivoted fairly fast and shifted to a remote learning environment. Government schools were extremely successful in getting textbooks to children. According to ASER 2020, almost 85% children enrolled in government schools had textbooks for their current grade. While schools were less successful in getting other learning materials to children, about a third did get other learning resources remotely from their schools. Also, parents and other family members stepped up to help children with their studies – about 75% children in 2020 got some help from family members. And, finally, incidence of tuition that had been flat at about 25% for many years, rose sharply to almost 40% in 2021. So, even though schools were closed, children had access to other kinds of learning resources during the pandemic. Is it the case that these resources were more successful in preventing learning loss in math as compared to reading? Alternatively, is it possible that in the period since schools have reopened there has been a recovery in math but not so much in reading?

The last measurement we have for ASER learning levels at the national level is from 2018. In the four years since then, we have had the pandemic-induced school closures for almost two years in 2020 and 2021, followed by almost a year when children were back in school in 2021-22, before the current ASER was conducted in October 2022. However, as mentioned earlier, during the period of school closures ASER managed to assess learning levels in three states – Karnataka, Chhattisgarh and West Bengal – in 2021, when schools were still closed or had just re-opened. While these are not national estimates, they are useful insofar as they are more reflective of the pandemic-induced learning loss than the estimates for 2022. Tables 1 and 2 give learning levels in reading and arithmetic for these three states from 2014 to 2022.

Table 1: Reading level across selected states – 2014-2022

Year	Std III: % Children reading at Std II level			Std V: % Children reading at Std II level		
	Karnataka	Chhattisgarh	West Bengal	Karnataka	Chhattisgarh	West Bengal
2014	18.3	21.3	36.1	47.2	52.4	53.2
2016	19.8	28.1	38.4	42.1	55.9	50.4
2018	19.2	29.8	39.9	46.0	59.5	50.7
2021	9.8	12.3	29.5	33.6	44.6	48.5
2022	8.6	24.2	33.0	30.2	55.2	47.3

Table 2: Arithmetic level across selected states – 2014-2022

Year	Std III: % Children who can do at least subtraction			Std V: % Children who can do division		
	Karnataka	Chhattisgarh	West Bengal	Karnataka	Chhattisgarh	West Bengal
2014	26.3	14.2	35.9	20.1	18.0	32.5
2016	28.9	20.0	40.0	19.7	23.0	29.3
2018	26.3	19.3	38.6	20.5	26.8	29.7
2021	17.3	9.0	29.4	12.1	13.0	26.2
2022	22.2	19.6	34.2	13.3	24.9	27.5

The first thing to note is that across all three states, there were large learning losses in both reading and math in 2021 – in excess of 7 percentage points, except in the case of Std V in West Bengal. The loss in reading is a little higher, though not by much. In both reading and math, the 2021 learning levels in these three states fell below their 2014 levels. Second, across all these states there has been a recovery in both reading and math (with the exception of Karnataka in reading and West Bengal in reading in Std V) once schools reopened in 2021-22. Moreover, the magnitude of recovery, though different across states, is similar in both reading and math within each state. So, while the 2022 learning levels are still below or in some cases close to the 2018 levels, comparing 2018 with 2022 hides the dramatic fall in learning levels observed between these two points and the subsequent recovery that has happened in the last year.

The other big development during 2020-21 was that the new National Education Policy (NEP) was introduced in 2020. For the first time, there was a big focus on the early years and the importance of foundational competencies. To quote the NEP 2020, "the highest priority of the education system will be to achieve universal foundational literacy and numeracy in primary school by 2025." It further states that the "rest of this Policy will become relevant for our students only if this most basic learning requirement (i.e., reading, writing, and arithmetic at the foundational level) is first achieved." Once schools

reopened, states moved quickly to implement the NEP 2020. Almost all states have made a major push in the area of Foundational Literacy and Numeracy (FLN) under the NIPUN Bharat mission (National Initiative for Proficiency in Reading with Understanding and Numeracy). Measures undertaken include baseline FLN assessments once children came back to school, creation of new learning material geared towards FLN goals, and teacher training.

This push towards FLN is also reflected in the ASER 2022 data. As part of the survey, ASER field investigators also visit one government school in the sampled village to record enrollment, attendance, school facilities, etc. This year we also asked whether schools had received any directive from the government to implement FLN activates in the school and whether teachers had been trained on FLN. At the all-India level, 81% schools responded that they had received such a directive and 83% said that at least one teacher in the school had been trained on FLN.

Extrapolating from the experience of the three states for which we have 2021 data, we can assume that other states also experienced large learning losses during the pandemic. However, once schools reopened, states made a concerted effort to build or re-build foundational competencies, which has resulted in a partial and in some cases, a full recovery. The extent of the recovery, understandably, varies across states depending on how long their schools were closed as well as when they initiated learning recovery measures. For instance, Chhattisgarh was one of the earliest states to reopen their primary schools in July 2021, giving them a longer period to work with children, as compared to, for instance, Himachal Pradesh or Maharashtra, where schools reopened much later. Taking into account the 2021 figures, the 2022 estimates for Chhattisgarh point to a remarkable recovery, in both reading and math, that is hidden if we just compare 2022 with 2018.

Apart from the fact that we do not have estimates of learning for 2021 for most of the country, there is also a wide variation across states that the all-India figures hide. With schools reopening and often closing and then again reopening at different times across states, children have been back in school for varied durations. Further, there is no uniformity across states in terms of measures undertaken to address learning losses as well as the time when these measures were put in place. Not surprisingly, we see a lot of variation in the change in learning levels across the country. In Std III, for instance, while the proportion of children who could read at Std II level fell in all states, the extent of the fall varied from about 4 percentage points in Uttar Pradesh, Bihar and Jharkhand to 19 percentage points in Himachal Pradesh, 15 percentage points in Maharashtra and 13 percentage points in Kerala. In Std III math, we see a similar pattern: Bihar and Jharkhand show no change while Uttar Pradesh actually shows an improvement over 2018 levels; on the other hand, Himachal Pradesh and Maharashtra show drops of about 8 percentage points and Kerala, a drop of 10 percentage points. Since we don't have a 2021 measurement for these states it is difficult to say what the original pandemic induced learning loss was, from which these states are aiming to recover.

There are various other pieces that go into the story. A key piece is the incidence of tuition. At the all-India level incidence of tuition went up from about 25% in 2018 to 30% in 2022. But there is a lot of variation across states. Bihar and Jharkhand are high tuition states – 70% children in Bihar and 45% in Jharkhand are taking tuition in 2022 as compared to only 10% children in Himachal Pradesh and 15% in Maharashtra. It is entirely possible that this supplemental help in the form of tuition was successful in restricting the learning loss in these states. Tuition could also be behind the lower learning loss in math as compared to reading – anecdotally we know that tuition is used more for subjects like math and science rather than for reading.

India is an extremely diverse country with a lot of variation across states. Now that the NEP has set clear FLN goals for the entire country, states can find different pathways to achieve these goals. While there have been learning losses after almost two years of school closures, there has also been recovery once schools reopened. Accounting for all interim measurements, ASER 2022 estimates tell a story of recovery rather than one of loss.