

# Annual Status of Education Report (Rural) 2018

January 15, 2019



# ASER 2018 - Rural

Annual Status of Education Report (Rural)

Date of publication: January 15, 2019

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Also available on the ASER Centre website (www.asercentre.org) THIS IS THE PROVISIONAL ASER 2018 REPORT BASED ON DATA RECEIVED FROM STATES AND DISTRICTS BY DECEMBER 30, 2018.

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Provisional January 15, 2019



# About ASER 2018

ASER 2018 is a nation-wide household survey that provides a snapshot of children's schooling and learning for a representative sample of children across rural India. Children in the age group 3 to 16 are surveyed to find out their enrollment status in school or pre-school. Children in the age group 5 to 16 are assessed one-on-one to understand their basic reading and arithmetic abilities. ASER continues to be the only national source of information about children's foundational skills across the country.

The methodology and content of ASER 2018 continues the pattern followed each year for the first decade of our existence (2005-2014), during which ASER reached almost all rural districts in India and generated district, state, and national estimates of foundational reading and arithmetic abilities of children in the age group 5 to 16 years.

A national survey was not conducted in 2015. Starting its second decade of existence in 2016, ASER surveys now use Census 2011 as the sampling frame. In addition, in 2016 ASER changed to an alternate-year cycle, conducting the 'basic' ASER in one year and using a different lens to examine new aspects of children's learning the following year. Thus, ASER 2016 followed the 'basic' model, sampling children age 3 to 16 and testing reading, arithmetic, and English for children age 5 to 16. In 2017 we conducted the first alternate-year design known as ASER 'Beyond Basics', focusing on youth in the 14 to 18 age group in 28 districts across India. ASER 2017 inquired about what youth are currently doing and aspiring to, in addition to assessing their foundational skills and their ability to apply these to everyday tasks.

In 2018, ASER returns once again to the 'basic' model. A total of 546,527 children in the age group 3 to 16 years were surveyed this year. ASER 2018 is the thirteenth ASER report.

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# They reached the remotest villages of India

## **Andhra Pradesh**

District Ins	titute of	Education	and	Training,	Anantapur
District Ins	titute of	Education	and	Training,	Chittoor
District Ins	titute of	Education	and	Training,	East Godavari
District Ins	titute of	Education	and	Training,	Guntur
District Ins	titute of	Education	and	Training,	Krishna
District Ins	titute of	Education	and	Training,	Kurnool
District Ins	titute of	Education	and	Training,	Prakasam
District Ins	titute of	Education	and	Training,	Sri Potti Sriramulu,
Nellore					
District Ins	titute of	Education	and	Training,	Srikakulam
District Ins	titute of	Education	and	Training,	Visakhapatnam
District Ins	titute of	Education	and	Training,	Vizianagaram
District Ins	titute of	Education	and	Training,	West Godavari
District Ins	titute of	Education	and	Training,	YSR District, Kadapa

#### **Arunachal Pradesh**

- District Institute of Education and Training, Changlang
- District Institute of Education and Training, Dirang, West Kameng
- District Institute of Education and Training, Kamki, West Siang
- District Institute of Education and Training, Khonsa, Tirap
- District Institute of Education and Training, Pasighat, East Siang
- District Institute of Education and Training, Roing, Lower Dibang Vallev
- District Institute of Education and Training, Seppa, East Kameng District Institute of Education and Training, Yachuli, Lower Subansiri

#### Assam

Aaranyak, Guwahati, Kamrup

District Institute of Education and Training, Biswanath Chariali, Sonitour

District Institute of Education and Training, Bongaigaon
District Institute of Education and Training, Chabua, Dibrugarh
District Institute of Education and Training, Dalgaon, Darrang
District Institute of Education and Training, Dergaon, Golaghat
District Institute of Education and Training, Dhemaji
District Institute of Education and Training, Dima Hasao
District Institute of Education and Training, Dudhnoi, Goalpara
District Institute of Education and Training, Golakganj, Dhubri
District Institute of Education and Training, Hailakandi
District Institute of Education and Training, Howly, Barpeta
District Institute of Education and Training, Kaliganj, Karimganj
District Institute of Education and Training, Kokrajhar
District Institute of Education and Training, Mirza, Kamrup
District Institute of Education and Training, Morigaon
District Institute of Education and Training, Nalbari
District Institute of Education and Training, North Lakhimpur
District Institute of Education and Training, Samaguri, Nagaon
District Institute of Education and Training, Sonari, Sivasagar
District Institute of Education and Training, Tinsukia
District Institute of Education and Training, Titabor, Jorhat
District Institute of Education and Training, Udharbond, Cachar
District Institute of Education and Training, Karbi Anglong
SPARSH-AXOM, Udalguri

# **Bihar**

ABHIYAN, Jehanabad College of Teacher Education, Saharsa District Institute of Education and Training, Babutola, Banka District Institute of Education and Training, Bikram, Patna District Institute of Education and Training, Chhatauni, Purbi Champaran District Institute of Education and Training, Dumra, Sitamarhi District Institute of Education and Training, Dumraon, Buxar District Institute of Education and Training, Forbesganj, Araria District Institute of Education and Training, Fazalganj, Rohtas District Institute of Education and Training, Khirnighat, Bhagalpur District Institute of Education and Training, Kishanganj

District Institute of Education and Training, Kumarbagh, Pashchim Champaran

District Institute of Education and Training, Lakhisarai District Institute of Education and Training, Madhepura District Institute of Education and Training, Mohania, Kaimur District Institute of Education and Training, Munger District Institute of Education and Training, Narar, Madhubani District Institute of Education and Training, Nawada District Institute of Education and Training, Noorsarai, Nalanda District Institute of Education and Training, Panchayati Akhara, Gaya District Institute of Education and Training, Pirauta, Bhojpur District Institute of Education and Training, Pusa, Samastipur District Institute of Education and Training, Quilaghat, Darbhanga District Institute of Education and Training, Rambagh, Muzaffarpur District Institute of Education and Training, Sansarpur, Khagaria District Institute of Education and Training, Shahpur, Begusarai District Institute of Education and Training, Sheikhpura District Institute of Education and Training, Sheohar District Institute of Education and Training, Srinagar, Purnia District Institute of Education and Training, Siwan District Institute of Education and Training, Sonpur, Saran District Institute of Education and Training, Daudnagar, Aurangabad District Institute of Education and Training, Thawe, Gopalganj District Institute of Education and Training, Tikapatti, Katihar District Institute of Education and Training, Vaishali i-Saksham Education and Learning Foundation, Jamui Nai Sambhavana, Arwal Radhe Shyam Teachers Training College, Supaul

## Chhattisgarh

District Institute of Education and Training, Dantewada District Institute of Education and Training, Dharamjaigarh, Raigarh District Institute of Education and Training, Janjgir, Janjgir-Champa District Institute of Education and Training, Jashpur District Institute of Education and Training, Kabeerdham District Institute of Education and Training, Khairagarh, Rajnandgaon District Institute of Education and Training, Korba District Institute of Education and Training, Mahasamund District Institute of Education and Training, Nagri, Dhamtari District Institute of Education and Training, Uttar Bastar Kanker Help You Education and Welfare Society, Raipur Local volunteers of Dakshin Bastar Dantewada, Durg, Raipur and Uttar Bastar Kanker Prachalit Seva Samiti, Surguja Prakriti Sewa Sansthan, Bilaspur Saathi Samaj Sevi Sansthan, Kondagaon, Bastar Surya College, Jagdalpur, Bastar

Women Tribal Welfare Society, Ambikapur

#### **Dadra and Nagar Haveli**

Tilak Maharashtra Vidyapeeth, Pune

## **Daman and Diu**

Local volunteers of Daman and Diu

#### Goa

Don Bosco College, Punjim

#### Gujarat

Department of Social Work, Ganpat University, Mehsana Institute of Language Studies and Applied Social Sciences (ILSASS), Anand Kartavya Women and Child Development Trust, Mehsana Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj, Kachchh Lokmanya Ekta Trust, Navsari Lokniketan Samaj Karya Mahavidhyalay, Ratanpur, Banaskantha Samajkarya Mahavidhyalaya, Salal (Himatnagar), Sabarkantha Sheth P.T. Arts and Science College, Godhra, Panch Mahals Shikshan Ane Samaj Kalyan Kendra, Amreli Shree Saraswati College of Social Work, Bharuch Shree Surabhi M.S.W. College, Rajkot Shri Sarvajanik B.S.W. and M.S.W. College, Mehsana Smt. Laxmiben and Shri Chimanlal Mehta Arts College, Ahmedabad Tarang Foundation, Surendranagar

#### Haryana

Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan, Sonipat Central University of Haryana, Jant-Pali, Mahendergarh Chaudhary Devi Lal University, Sirsa District Institute of Education and Training, Beeswamil, Sonipat District Institute of Education and Training, Birhi Kalan, Bhiwani District Institute of Education and Training, Gurugram District Institute of Education and Training, Hussainpur, Rewari District Institute of Education and Training, Iccus, Jind District Institute of Education and Training, Janauli, Palwal District Institute of Education and Training, Kaithal District Institute of Education and Training, Machhhroli, Jhajjar District Institute of Education and Training, Matana, Fatehabad District Institute of Education and Training, Mattarsham, Hisar District Institute of Education and Training, Mewat District Institute of Education and Training, Panchkula District Institute of Education and Training, Shahpur, Karnal District Institute of Education and Training, Tejli, Yamuna Nagar Maharshi Dayanand University, Rohtak Pt. Jawahar Lal Nehru Government College, Faridabad Sanatan Dharma College, Ambala S.D. (P.G.) College, Panipat

#### **Himachal Pradesh**

Chamba Millennium B.Ed. College, Saru, Chamba District Institute of Education and Training, Bilaspur District Institute of Education and Training, Chamba District Institute of Education and Training, Hamirpur District Institute of Education and Training, Kangra District Institute of Education and Training, Kinnaur District Institute of Education and Training, Kullu District Institute of Education and Training, Kullu District Institute of Education and Training, Lahaul & Spiti District Institute of Education and Training, Mandi District Institute of Education and Training, Shimla District Institute of Education and Training, Solan District Institute of Education and Training, Value

## Jammu and Kashmir

17000 ft Foundation, Leh Government Degree College, Bandipora Government Degree College, Baramulla Government Degree College, Doda Government Degree College, Ganderbal Government Degree College, Gurez Government Degree College, Mendhar, Poonch Government Degree College, Poonch Government Degree College, Pulwama Government Degree College, Ramban Government Degree College, Ramban Government Degree College, Ramban Government Degree College, Rajouri Rehmat-e-Alam College of Education, Anantnag Sheikh-ul-Alam College of Education, Kupwara Sheikh-ul-Alam Memorial Degree College, Budgam

#### Jharkhand

Apna Anubhaw, Banka ASHA (Association for Social and Human Awareness), Khunti Bihar Pradesh Yuva Parishad, Palamu District Institute of Education and Training, Bagodar, Giridih District Institute of Education and Training, Garhwa District Institute of Education and Training, Gumma, Godda District Institute of Education and Training, Gamharia, Saraikela-Kharsawan District Institute of Education and Training, Pindrajora, Bokaro Dr. Bhim Rao Ambedkar Siksha Sansthan, Dhanbad Dridh Sankalp, Jamtara Gram Jyoti, Pakur Lohardaga Gram Swarajya Sansthan, Lohardaga Lok Prerna Kendra, Chatra Primary Teachers' Education College, Chainpur, West Singhbhum Primary Teachers' Education College, Ghormara, Deoghar

Primary Teachers' Education College, Chitarpur, Ramgarh Primary Teachers' Education College, Satbarwa, Palamu Primary Teachers' Education College, Simdega Primary Teachers' Education College, Bundu, Ranchi Primary Teachers' Education College, Chakulia, East Singhbhum Samadhan, Hazaribagh Samarpan, Koderma Vikas Bharti, Bishunpur, Gumla

#### Karnataka

Bhavya Jyothi Trust, Ramnagara

- BOFFO Ventures, Dharwad
- Centre for Inclusive Social Development, Tumakuru
- Centre for Rural Development, Bellary
- Chinthana Foundation, Chikkamagaluru

Government First Grade College, Virajapet, Kodagu

Government First Grade College, Yadgir

Jagruthi Seva Samsthe, Kolar

- Jeevan Jyothi NGO Society Organisations, Bidar
- Little Champs School, Gundlupet, Chamarajanagar
- Mahatma Gandhi Rural Development and Social Changes Trust, Shivamogga
- Margadarshi Society, Kalaburagi
- Navodaya Educational and Environment Development Service (NEEDS), Ranebennur, Haveri
- PADI Value Oriented Education Program (VALORED), Dakshina Kannada
- People Organisation for Waste Land and Environment Regeneration (POWER), Vijayapura
- Post Graduate Centre, Chikka Aluvara, Kodagu
- REACH, Bagalkot
- SAMRUDDHI, Raichur

Sarvodaya Integrated Rural Development Society, Koppal

- Shikshana Sampanmula Kendragala Okkuta, Dakshina Kannada Sir M. Visvesvaraya Postgraduate Centre, Mandya
- Spoorthy Samsthe, Davanagere

Sri H.D. Devegowda Government First Grade College, Hassan Sri Krishna College Of Education, Devanahalli, Bengaluru Rural Swabhimani Minorities Women's Welfare Association, Chitradurga Swastha Samrudhi Samithi, Chikkaballapura University of Mysore, Mysuru

#### Kerala

B.C.M. College, Kottayam B.V.M. College, Pala, Kottayam Central University of Kerala, Kasaragod Christ College, Irinjalakuda, Thrissur Ideal Arts and Science College, Cherpulassery, Palakkad Ideal College for Advanced Studies, Thavanur, Malappuram Little Flower Institute of Social Sciences and Health, Calicut, Kozhikode Loyola College of Social Sciences, Thiruvananthapuram Mannam Memorial N.S.S. College, Konni, Pathanamthitta Marian College Kuttikkanam, Idukki Mercy College, Palakkad National College of Arts and Science, Thiruvananthapuram Nethaji Memorial Arts and Science College, Palakkad Safa College of Arts and Sciences, Pookkattiri, Malappuram Sree Sankara University of Sanskrit Regional Centre, Payyanoor, Kannur Sree Sankaracharya University of Sanskrit Regional Centre, Tirur, Malappuram Sree Sankaracharya University of Sanskrit, Kalady, Ernakulam St. Joseph's College, Irinjalakuda, Thrissur St. Thomas College, Thrissur St. Albert's College, Ernakulam St. Joseph's College, Devagiri, Kozhikode Vidhyadhiraja College of Arts and Science, Karunagappally, Kollam Vimala College, Thrissur

## Madhya Pradesh

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#### Maharashtra

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- College of Social Work, Badnera, Amravati
- D.G. Tatkare Mahavidyalay, Mangaon, Raigad
- Dadasaheb Dhanaji Nana Choudhary Social Work College, Malkapur, Buldhana
- Department of Mass Communication, School of Social Sciences, Solapur University, Solapur
- Diganta Swaraj Foundation, Mumbai
- Dr. Babasaheb Ambedkar College of Social Work, Morane, Dhule Fule-Ambedkar College of Social Work, Gadchiroli Gramvikas Foundation, Karanja, Washim
- Institute for Rural Development and Social Services, Jalgaon Kavikulaguru Kalidas Sanskrit University, Ramtek, Nagpur Mahatma Phule College of Social Work, Taloda, Nandurbar Maratha Vidya Prasarak Samaj's College of Social Work, Nashik Masum Vikas Mahila Bahuuddeshiya Sanstha, Akola
- MGM's College of Journalism and Mass Communication, Aurangabad
- Nirmik Samajik Sansodhan Vikas Kendra, Latur
- OM Sevabhavi Sanstha, Digras, Parbhani
- PAHAL Multipurpose Society, Chandrapur

PARIS Bahuuddeshiya Sanstha, Khadki, Akola Prahar Samajik Kalyankari Sanstha, Goregaon, Gondiya Ramkrishna Paramhansa Mahavidyalaya, Osmanabad Sant Rawool Maharaj Mahavidyalaya, Kudal, Sindhudurg Saraswati Sevabhavi Sanstha, Bhatwadgaon, Bid Savitri Jyotirao College of Social Work, Yavatmal Sharadchandraji Pawar College of Agriculture, Ratnagiri Shri Sai Sankalp Bahuuddeshiya Seva Bhavi Sanstha, Jalna Shrimati Panchafuladevi Patil College of Social Work, Khadki, Akola Suprabhat Mahila Mandal, Pune Tilak Maharashtra Vidyapeeth, Pune Wanchit Vikas Loksanstha, Nanded Yashwantrao Chavan School of Social Work, Satara Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur, Bhandara Yuva Prerna Vidhyarthi Seva Sanstha, Wadner, Wardha Manipur

#### Manipur

Chanambam Ibomcha College, Bishnupur Department of Education, South East Manipur College, Kapaam, Chandel

- International Ministry Centre, Sagang, Churachandpur
- Justice, Unity, Peace and Security Organisation, Shikhong Bazar, Thoubal
- Kangchup Twikun Youth Organisation, Kangchup Twikun, Senapati People's Endeavour for Social Change, Tamenglong
- Social Help Organisation, Chingamakha Yanglem Leikai, Imphal West Ura Charitable Trust, Ukhrul Bazar, Ukhrul
- Yaawol, Sagolband Tera Sapam Leirak, Imphal West

#### Meghalaya

- Local volunteers of Ri-Bhoi, South Garo Hills and West Khasi Hills Martin Luther Christian University, Shillong Campus, East Khasi Hills
- Thomas Jones Synod College, Jowai, Jaintia Hills
- Tura Government College Student Union, Tura, West Garo Hills
- Williamnagar Government College Student Union, Williamnagar, East Garo Hills

#### Mizoram

- Hmar Students' Association, Kolasib
- Local volunteers of Aizawl, Champhai, Lawngtlai, Mamit, Saiha and Serchhip
- Lunglei Government College, Lunglei

#### Nagaland

District Institute of Education and Training, Dimapur District Institute of Education and Training, Kohima District Institute of Education and Training, Mokokchung District Institute of Education and Training, Mon District Institute of Education and Training, Phek District Institute of Education and Training, Teunsang District Institute of Education and Training, Wokha District Institute of Education and Training, Zunheboto Local volunteers of Kiphire and Longleng People's Agency for Development, Peren

#### **Odisha**

All Odisha Martial Arts Association (AOMAA), Malkangiri Anchalika Vikash Parishada, Cuttack Biswa Vikas, Sandunguriguda, Kalahandi District Institute of Education and Training, Agarpada, Bhadrak District Institute of Education and Training, Anugul District Institute of Education and Training, Bargarh District Institute of Education and Training, Debagarh District Institute of Education and Training, Dhenkanal District Institute of Education and Training, Ganjam District Institute of Education and Training, Jagatsinghapur District Institute of Education and Training, Jajapur District Institute of Education and Training, Jajapur District Institute of Education and Training, Jharsuguda District Institute of Education and Training, Kalahandi, Bhawanipatna District Institute of Education and Training, Kandhamal, Tikabali District Institute of Education and Training, Kenduihar District Institute of Education and Training, Navagarh District Institute of Education and Training, Nuapada District Institute of Education and Training, Parlakhemundi, Gajapati District Institute of Education and Training, Sambalpur Good Luck Computer, Sundargarh Maa Jageswori Kalaparisada, Ogalpur, Puri Narayana Computer, Khordha National Institute of Computer Education and Training (NICET), Jeypore, Koraput Nature's Club, Kendrapara Research Academy for Rural Enrichment, Subarnapur Social Integrity Programme for Health and Education (SIPHAE), Basta, Baleshwar Vikram Dev Autonomous College, Jeypore, Koraput Young India, Rayagada

#### **Puducherry**

Avvai Village Welfare Society, Karaikal Trust for Youth and Child Leadership, Puducherry

#### Punjab

Bhutta College of Education, Ludhiana Department of Economics, Panjab University, Chandigarh Department of Sociology, Punjabi University, Patiala District Institute of Education and Training, Faridkot District Institute of Education and Training, Fatehgarh Sahib District Institute of Education and Training, Gurdaspur Guru Nanak Dev University College, Verka, Amritsar Hans Raj Mahila Maha Vidyalaya, Jalandhar J.D. College of Education, Muktsar Lovely Professional University, Jalandhar Maharaja Ranjit Singh Punjab Technical University, Bathinda Rayat Institute of Management, Balachaur, Nawashaher (SBS Nagar) Shaheed Bhagat Singh College of Education, Patti, Tarn Taran Shaheed Bhagat Singh State Technical Campus, Ferozpur Shivam College of Education, Sangrur Shukdeva Krishna College of Education for Girls, Moga Y.S. College, Barnala

#### Rajasthan

Adarsh Navyuvak Mandal, Jaipur Aravali Paradise Sansthan, Bharatpur Bamu Systems and Training Centre, Jaipur Bhagwati Shikshak Prashikshan Mahavidyalaya, Gangapur City, Sawai Madhopur Consumer Unity and Trust Society (CUTS), Chittorgarh Digital Computer Centre, Pilani Doosra Dashak, Jaipur Educate Girls Globally, Ajmer Ekal Jan Seva Sansthan, Ajmer Jain Group of Institutions, Sri Ganganagar Local volunteers of Dungarpur Maulana Azad University, Jodhpur Modi Institute of Management and Technology, Kota Shiv Charan Mathur Manav Seva Sansthan, Bhilwara Shiv Shiksha Samiti Ranoli, Tonk Shri Guru Nanak Khalsa Teacher Training College, Hanumangarh Society for Sustainable Development, Karauli Softtech Education Society, Osian, Jodhpur Vidya Bhawan Society, Udaipur

#### Sikkim

Government Arts College, Mangshila, North Sikkim Government College, Rhenock, East Sikkim Gyalshing Government College, Gyalshing, West Sikkim Namchi Government College, Kamrang, South Sikkim

#### Tamil Nadu

Anbu Trust, Sivagangai Association of Rural Education and Development Service (AREDS), Karur Centre for Education and Empowerment of the Marginalized (CEEMA), Erode Coimbatore Multipurpose Social Service Society (CMSSS), Coimbatore District Institute of Education and Training, Keelapaluvur, Ariyalur District Institute of Education and Training, G.Ariyur, Villupuram District Institute of Education and Training, Kilpennathur, Tiruvannamalai District Institute of Education and Training, Kothagiri, The Nilgiris District Institute of Education and Training, Munanjipatti, Tirunelveli District Institute of Education and Training, Palayampatti, Virudhunagar District Institute of Education and Training, Pudukkottai District Institute of Education and Training, Ranipet, Vellore District Institute of Education and Training, Thanjavur District Institute of Education and Training, Tirur, Thiruvallur District Institute of Education and Training, Uthamapalayam, Theni District Institute of Education and Training, Vanaramutti, Thoothukudi Foundation for Friendly Environment and Medical Awareness, Chennai HELPS, Kodaikanal, Dindigul Krupalaya Charitable Trust, Villupuram Kuzhithurai Integral Development Social Service (KIDSS), Kanniyakumari New Creations Trust, Madurai Rural Education and Economic Development Society (REEDS), Ramanathapuram Rural Organisation for Social Education (ROSE TRUST), Ariyalur Salem District Network of Positive People, Salem SIBWE FOUNDATION, Thanjavur Society for Development of Economically Weaker Section (SODEWS), Vellore Tamil Nadu Science Forum, Tiruchirappalli Village Improvement Project Society, Dharmapuri

#### Telangana

District Institute of Education and Training, Warangal Dr. Rajendra Prasad B.Ed. College, Adilabad KIMS Post Graduate College, Karimnagar Local volunteers of Chittoor and Adilabad Mahatma Gandhi University, Nalgonda Palamuru University, Mahabubnagar Post Graduate Centre, Palamuru University, Kollapur, Mahabubnagar Roda Mistry College of Social Work and Research Centre, Rangareddy Shashank Degree and Post Graduate College, Banswada, Nizamabad Telangana University, Nizamabad Vivekananda College of Education, Adilabad

#### Tripura

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# Something is changing...

# Madhav Chavan<sup>1</sup>

ASER has been witness to changes in India's school education landscape over more than a decade now. In the first years of ASER it was a bit difficult to justify this annual effort. But, as years went by, the individual dots started looking like trends. A look at the proportion of children in Std V who can read Std II level text over the last 10 years indicates that at the national level the proportion was the highest in 2008. This declined till 2012. Over the last six years the level has been rising slowly and unevenly, although the level in 2018 is still substantially lower than in 2008. Something is changing and ASER is sensitive enough to catch the change.

Table 1: % Children in government schools in Std V who can read									
	Std II le	evel text	, 2008-2	018					
	2008	2010	2012	2014	2016	2018			
India	53.1	50.7	41.7	42.2	41.7	44.2			
Group 1									
Kerala	73.3	74.0	59.9	61.3	63.3	73.1			
Maharashtra	74.3	71.0	55.3	51.7	63.1	66.0			
Punjab	61.3	68.7	69.5	60.9	64.0	68.7			
Uttarakhand	64.6	63.7	52.2	52.0	55.9	58.0			
Haryana	61.1	60.7	43.5	53.9	54.6	58.1			
Chhattisgarh	74.1	61.0	44.0	47.1	51.0	57.1			
Assam	40.9	42.6	33.3	30.6	32.2	33.5			
Madhya Pradesh	86.8	55.2	27.5	27.5	31.4	34.4			
Group 2									
Karnataka	42.9	42.9	47.2	45.7	41.9	47.6			
Himachal Pradesh	73.6	75.7	71.2	71.5	65.3	74.5			
Odisha	59.6	45.5	46.1	49.1	48.8	56.2			
Uttar Pradesh	33.4	36.0	25.6	26.8	24.3	36.2			
Group 3									
Jharkhand	51.9	48.4	32.5	29.1	31.4	29.4			
West Bengal	45.2	54.2	48.7	51.8	50.2	50.5			
Gujarat	43.8	43.5	46.3	44.6	52.3	52.0			
Rajasthan	45.1	44.2	33.3	34.4	42.5	39.1			
Tamil Nadu	26.7	30.9	30.2	49.9	49.4	46.3			
Bihar	62.8	57.9	43.1	44.6	38.0	35.1			

Although ASER does not analyze the causes of poor or improved learning levels, it is but natural to correlate changes with probable causes. Passage and implementation of the Right to Education Act in the 2009-10 period has to be correlated with the decline of subsequent reading ability at the national level and in most states. In 2012, the then Planning Commission acknowledged for the first time that there was a problem with learning outcomes, although the Ministry of Human Resource Development had been maintaining that learning levels had not gone down. The emphasis on learning of basic reading and arithmetic was not clear for about two to four years after that. This is apparent in the mixed bag of improvement, decline or status guo in state level results over that period. Over the last two years, however, many states have shown big changes, indicative of a change of emphasis towards improved learning outcomes. We can only hope that this emphasis continues regardless of changes of officials and/or political parties in different states and at the national level.

The learning levels of children are indicators of effectiveness or productivity of the education system. Anyone looking at the levels in 2008 and 2018 would conclude that its productivity is down by nearly 9 percentage points, or about

18 percent. However, the fact that numbers for all years in between are available means that we can catch the little ups and downs in different states and at the national level too. In Table 1, I have divided some of the states excluding Goa and most of the north-eastern states into three groups. In the first group there is a decline in reading levels till 2014 followed by a steady, even if small rise over the next four years. In Group 2, the rise is restricted to the 2016-18 period. Group 3 shows ups and downs in learning levels every two years. It is easy to see how each state has behaved over the years. There is clearly a positive change in most states over the last two years, not only in the Std V learning levels, but also in other classes. This change points towards an increased emphasis on improved learning levels in many states. It will be worthwhile watching if the trend of positive change continues in most states and the productivity of the system reaches and then overtakes where it was in 2008.

<sup>1</sup> President and member of the Board of Directors, Pratham Education Foundation

As we have noted in previous reports, while the productivity of the government school system has declined overall, the effectiveness of the private schools has not changed as dramatically. In 2008, 68% Std V children in private schools could read a Std II level text. This went down to 61% in 2012 and then went up again to 65% by 2018.

Table 2: % Children who can read a Std II level text, government vs private schools									
Std V	2008	2010	2012	2014	2016	2018			
Govt	53.1	50.7	41.7	42.2	41.7	44.2			
Pvt	67.9	64.2	61.2	62.6	63.0	65.1			

The important thing to note is that in 2008, the percentage of Std II level readers in government schools was at 53%, or 15 percentage points lower than the 68% children in private schools. By 2018, this gap has widened to 21 percentage points on a national scale. At the same time, the proportion of children enrolled

in private schools in rural India has gone up from 22% in 2008 to 30% in 2018.

There is no doubt that thanks to the poor reading ability at Std V, the overall ability to deal with textbooks in higher standards is that much poorer as the curriculum becomes increasingly ambitious and texts become complex in more than one way. The highest level of reading that ASER measures is at Std II. So, we do not know if those who learn to read by Std II improve their skill with age or additional years in the school. But as we can see in Table 3, the proportion of children who can read at Std II level increases by a good 25 to 30 percentage points between Std V and Std VIII.

Table 3: % Children in government schools who can read a Std II level text, Std V vs Std VIII									
India	2008	2010	2012	2014	2016	2018			
Std V	53.1	50.7	41.7	42.2	41.7	44.2			
Std VIII	83.6	82.0	73.4	71.5	70.0	69.0			

The declining productivity of schools leads to a substantially smaller number of students learning to read basic texts by the time they reach Std V every year. But, the fact that the proportion of 'readers' grows 1.4 or 1.5 times by the time they reach Std VIII means that as children continue to use books, more children learn to read fluently even if not at the desired level. It also

suggests that while efforts have to be made to ensure that 100% children are reading fluently by the time they reach Std V, efforts to improve reading ability should be continued even after Std V.



Table 4: % Children in government schools in Std V who can do division, 2008-2018									
	2008	2010	2012	2014	2016	2018			
India	34.4	33.9	20.3	20.7	21.1	22.7			
Group 1									
Himachal Pradesh	57.4	61.8	40.7	37.9	47.4	51.5			
Punjab	39.7	70.8	48.6	37.1	42.4	50.1			
Uttar Pradesh	15.8	18.7	9.1	12.1	10.4	17.0			
Kerala	38.3	43.1	38.0	25.6	27.1	33.5			
Chhattisgarh	59.5	37.8	13.1	14.1	18.6	26.1			
Maharashtra	46.9	39.9	20.2	16.6	19.7	31.7			
Madhya Pradesh	77.5	38.0	8.9	10.0	15.3	16.5			
Gujarat	24.1	19.6	12.4	13.9	14.5	18.4			
Uttarakhand	38.4	48.7	27.3	21.4	25.5	26.7			
Group 2									
Assam	15.5	22.6	8.9	9.0	9.1	14.4			
West Bengal	29.4	38.1	28.7	31.3	28.6	29.2			
Haryana	45.7	50.5	25.4	30.8	30.1	34.4			
Karnataka	14.9	18.7	17.4	16.7	17.2	19.6			
Tamil Nadu	9.0	14.1	9.6	25.6	21.4	27.1			
Group 3									
Bihar	50.9	51.0	30.0	31.4	28.9	24.1			
Jharkhand	30.5	40.1	20.1	17.6	20.0	15.6			
Rajasthan	25.9	25.2	9.9	12.0	15.6	14.1			
Odisha	36.0	31.3	17.2	19.9	23.8	23.8			

Table 5: % Children in government schools who can do division, Std V vs Std VIII								
India	2008	2010	2012	2014	2016	2018		
Std V	34.4	33.9	20.3	20.7	21.1	22.7		
Std VIII         65.2         67.0         44.5         40.0         40.2         40.0								

Table 6: % Children in private schools who can do division, Std V vs Std VIII									
India	2008	2010	2012	2014	2016	2018			
Std V	47.1	44.2	37.8	39.3	38.0	39.8			
Std VIII         71.8         72.0         57.1         54.2         51.2         54.2									

Just as reading levels have shown some improvement for the last four odd years in several states, arithmetic levels too have improved noticeably in some states compared to what they were four years ago (Table 4). However, the change at the national level is comparatively small. Again, the small improvements over the last four to six years have not been enough to bring the arithmetic ability levels to what they were ten years ago.

Although we see small but consistent improvement in arithmetic learning levels in many states, we cannot ignore the fact that the highest proportion of Std V children who can do division are in Himachal Pradesh and Punjab at just over 50%. The national average is at 22% with Assam, Gujarat, Karnataka, Rajasthan, and Jharkhand showing numbers in the teens.

As in reading, it is apparent from Table 5 that the proportion of children who can solve division sums (and hence, we conclude, all basic arithmetic operations) almost doubles between Std V and VIII in government schools. In private schools too, as seen in Table 6, this proportion increases but it does not quite double. Every year about 4 to 6 percentage point more children in each cohort learn to do division. But, between 2008 and 2018, the proportion of 'division solvers' in Std V in government schools went down from 34% to 22.7%.

Although we can see that the proportion of children who know division does improve within a cohort, it does not reach 100% even after 8 years of schooling. Further, as we saw in ASER 2017 'Beyond Basics', only 15.4% of young adults had the ability to do simple financial calculations involving computation of simple interest.

This means that not only are we not creating a sufficiently literate population, but that most of our population is functionally illiterate.

The fact that we are seeing some improvement in learning outcomes now is a welcome change, assuming that the improvement will continue. But, first of all, the positive change is slow and uncertain. It has to be understood that we are struggling even with basic literacy and numeracy.

We are far from becoming an educated nation.

Can our country take an educational quantum leap? But, which way are we to jump? Should we leap-frog over some curricular goals? Do we have different options in terms of the goals we want to achieve? Or, are we going to continue on the path of linear improvement of the system and all of its components?

These are difficult questions to answer. We have a system of education and we are dependent on it although it is dysfunctional to say the least. There is a curriculum - it expects teachers to teach and children to learn. Everything we know from ASER surveys and NAS results - two different ways of assessing children - indicates that a very small percentage of children are likely to come close to fulfilling all the curricular expectations. The government is talking about unburdening the children by cutting down the curriculum. It sounds like a good idea. But is it? Will the curriculum be cut horizontally, lowering standards in each subject? Or vertically, by dropping certain subjects altogether? Will the curriculum for the various competitive entrance examinations be cut down to half? That seems unlikely given the need to select 'the best' candidates out of hundreds of thousands who compete. If that curriculum is not reduced but the school curriculum is, some children will effectively have to choose a watered down curriculum, while the others go for the higher level of education through coaching classes for competitive examinations.

Is there any other way of unburdening? What if children could appear for examinations whenever they felt they were ready? What if there was no barrier to joining university courses? Any person passing a qualifying examination could register to study degree courses. What if there was no need to enroll in a college and have 75% attendance but instead, have complete access to lectures, notes, assignments, and examinations? There can be many 'what if's if we choose a path to leap-frog and decide to take a non-linear path to change.

There is a lot going on by way of application of digital technology in the field of education in India. But, we need to do more, and it appears to me that all our technology efforts are tied to the dysfunctional system and its old ways. This is unlikely to give the technology the full play it deserves. There is a need to think differently if we want to make a quantum leap.

India is a country where everything has to happen on a massive scale. Developing one successful model and replicating in state after state is one possibility. A decade ago this was attempted with Activity-Based Learning, ABL. The original ABL model left something to be desired and the replication was probably done without much conviction. In the current phase, the emphasis seems to be coming from goal setting and assessment rather than specific models of teaching-learning or teacher training. A motivated state machinery with leadership and consistent policy backing is the key to big systemic changes. NGOs and foundations can be helpful but not without energy from state functionaries. The transparent and simple methodology of assessment of basic learning outcomes developed by ASER has been replicated in other countries in South Asia, Sub-Saharan Africa, and even Latin America. Perhaps India could show the way for massive improvement in learning outcomes too?

# Behind the headlines

# Rukmini Banerji<sup>1</sup>

Thanks to more than a decade of ASER reports, the main headlines from the surveys are widely known.<sup>2</sup> Even those who are not education experts or researchers can tell you that after five years of schooling, only half of all children in India can read at Std II level. And that the results for basic arithmetic are even more worrying.

In the early years of ASER, there was disbelief. Whether in meetings in the Planning Commission or in discussions at village level, people would say "how is it that children cannot read, after all they are going to school!" Sceptics would question the sampling. Critics would reject the tools. Others would be doubtful about how volunteers could pull off such a massive exercise. But year after year, like clockwork, the report would become available in mid January. The results were consistently saying that learning needs attention. The relentless hard work of thousands of people involved in the effort began to pay off. More studies of children's learning began to appear. All of this influenced and contributed to local as well as national debates on education.<sup>3</sup>

Acknowledging and accepting a problem is certainly an important first step. It is now well recognized that learning levels are low and that they are not changing much as years go by. In fact, for a few years, we even saw distinct declining patterns. What is also known is that although children continue to add years of schooling to their portfolio, for many, learning trajectories remain relatively flat. As Pritchett (2017) puts it, "if a learning profile is flat, schooling only measures 'time served' and not 'skills gained'."<sup>4</sup>

The next step beyond acknowledging, recognizing, and accepting is understanding. Which in turn requires going behind the headlines. The World Development Report 2018 argues that when issues of learning are taken seriously, and learning becomes a high priority, then progress can be made towards solving the learning crisis (WDR 2018). The three fronts on which the report recommends action are assessing learning outcomes; acting on the evidence to make schools work for all learners; and aligning all actors to make the whole system work for learning.

Now that everyone accepts that learning outcomes are worryingly low, let us take a closer look at ASER data to see what else it can tell us. For the purposes of this discussion, let us focus on Std III. After spending two years in the formal education system, children are 'settled' in school. Std III is also the earliest grade at which the national achievement test is administered. It is also relatively straightforward to align what children are expected to do by the end of Std II or beginning of Std III with several of the ASER tasks. In the ASER process, the 'highest' level task, at least in reading, is to ask a child to read a text at Std II level of difficulty. In arithmetic, children are asked to recognize numbers, do a numerical two-digit subtraction problem with borrowing, and finally solve a numerical division problem (e.g. divide a three-digit number by a one-digit number). The ASER tests are progressive, so each child is marked at the highest level that she can comfortably reach. In most states, by the time children enter Std III, they are expected to be reading a simple text fluently and confidently doing arithmetic operations like addition or subtraction with numbers at least up to 100. Hence, if a child can read text at Std II level of difficulty and correctly solve numerical subtraction problems, then we can say that the child is at 'grade level' for Std III.

According to ASER 2018, the all India figure for the percentage of all children in Std III who are able to read at Std II level is 27.2. The corresponding number for the proportion of children who can at least do subtraction is 28.1. It is obvious that these figures are low; in Std III, only a quarter of all children are 'ready' for the grade in which they currently are. In addition, year after year, ASER data has been pointing to the wide spread of learning levels within the same grade. Table 1 shows the distribution of learning levels for a national sample of Std III children (all India rural) in 2018.

<sup>&</sup>lt;sup>1</sup> Chief Executive Officer, Pratham Education Foundation

<sup>&</sup>lt;sup>2</sup> Oza and Bethell (2013). Assessing Learning Outcomes: Policies, Progress and Challenges. Sarva Shiksha Abhiyan. Dfid Funded Research Study. The authors state that "there are still many lessons that can be learnt from the reporting formats used by, for example, Pratham/ASER and Educational Initiatives. Notwithstanding any technical limitations, these agencies consistently produce reports which are attractive and eminently readable. ASER, in particular, has been extremely successful in extracting from its studies "headline findings" which catch the attention of the media and, hence, generate a great deal of press coverage" (p 46).

<sup>&</sup>lt;sup>3</sup> Oza and Bethell (2013). See p.22 reference to ASER being influential in policy formulation by both the Central and State governments. "The grassroots approach utilised has been significant in bringing attention to learning outcomes in India."

<sup>&</sup>lt;sup>4</sup> The Pivot from Schooling to Education. RISE Vision Document 1. https://www.riseprogramme.org/sites/www.riseprogramme.org/files/2017-11/ RISE\_Vision\_document-1.pdf

Table 1: ASER 2018: % Of all children in Std III (rural) who:												
Reading level	Cannot recognize letters yet	Can recognize letters but cannot read words	Can read words but cannot read sentences	Can read text at Std I level but not higher	Can read Std II level text	Total						
Std III	12.1	22.6	20.8	17.3	27.2	100						
Arithmetic level	Cannot recognize numbers till 9 yet	Can recognize numbers till 9 but not higher	Can recognize numbers till 99 but cannot subtract	Can do 2-digit by 2-digit subtraction but not division	Can do 3-digit by 1-digit division or higher	Total						
Std III	7.6	26.9	37.5	19.6	8.5	100						

All these children are in the same grade and in the same age group but their ability to read or do arithmetic varies widely. Data indicate that in a Std III class, we may have some children who are at Std II level, some at Std I level and some who are like pre-schoolers in terms of their literacy and numeracy levels. This variation has been referred to as one of the "most critical constraints in the structure of the Indian education system today".<sup>5</sup>

Table 1 suggests that only about a quarter of all children in Std III in rural India can read fluently. If you cannot read, you cannot be expected to do a pen-and-paper test. The data in Table 1 clearly shows that the vast majority of children cannot read, which means that they cannot follow written instructions. The first implication of looking closely at the data is that assessment methods for Std III cannot only have the usual written tests. ASER uses tools that are used one-on-one with each child. If we want to understand whether a child can read, there is no way to figure this out, other than asking her to read and then listening to her.

To go one step deeper, let us look at the spread of learning levels in two states - Himachal Pradesh and Uttar Pradesh (Table 2). Both are states where improvement in learning levels is visible in ASER data between 2016 and 2018.

Table 2: ASER 2016-2018, Himachal Pradesh and Uttar Pradesh % Children reading at different levels (Std III, Government schools)												
	Cannot recognize letters yet	Can recognize letters but cannot read words	Can read words but cannot read sentences	Can read text at Std I level but not higher	Can read Std II level text	Total						
Himacha	Himachal Pradesh											
2016	2.4	16.6	12.3	23.6	45	100						
2018	2.4 10.6		15.5	24.1	47.4	100						
Uttar Pradesh												
2016	28.2	40.3	15.3	8.9	7.2	100						
2018	18 24.5 36.7		16.8	9.7	12.3	100						

Even with a cursory look, several patterns are clearly visible. First is the variation between the two states. If there were to be a league table of reading for Std III, Himachal Pradesh would be at the top end of this list while Uttar Pradesh would be towards the bottom. In Himachal Pradesh, almost half of all children can read at Std II level and another quarter are close behind. The picture from UP is exactly opposite. In 2018, in UP, 12% children are at grade level and another roughly 10% are close behind. That leaves three quarters of the children who are at least two grade levels behind. Compared to what is expected in Std III, this suggests that 75% to 80% of children in UP who have reached Std III are still at pre-school level of literacy and numeracy. (As children move up in the school system, the dispersion gets wider. By Std V, there are children who are at grade level as well as children who are still struggling with numbers or letters - so at least five grade levels behind!).

<sup>&</sup>lt;sup>5</sup> Karthik Muralidharan (2018). School Education Reforms in India. Dec 2018. https://uchicago.app.box.com/s/ifxfg8fsz3cj5p4lbtef2rl24juc2vze

Imagine the challenge that teachers face in teaching in such contexts. Not only is there vast variation in the levels of children in the class, but distance between the expectations of the curriculum and where children currently are is also massive. The usual teaching-learning approach used in most Indian classrooms is to teach from the grade level textbook and focus on "teaching to the top of the class" (Banerjee and Duflo 2012).<sup>6</sup> Further, "the curriculum targets only the very top of the distribution and leaves most students behind; the immense variation within a classroom makes the delivery of any effective instruction very hard; and, consequently, most students are far from grade-appropriate standards even after completing the full course of elementary education." (Muralidharan 2018)

In an article published in Times of India on January 1, 2019, Raghuram Rajan and Abhijit Banerjee lay out eight things that India needs to do in 2019. For education, they say "The Right to Education Act focuses on input requirements for schools that have little bearing on learning outcomes, which have deteriorated alarmingly. Learning must be our central focus, with all schools, public and private, responsible for delivering a minimum level of basic skills to every child. Bringing those falling behind up to par through remedial teaching will be critical."

Effective ways to bring forward children who are falling behind are available. Pratham's "Teaching at the Right Level" interventions have been rigorously evaluated by MIT's Abdul Latif Jameel Poverty Action Lab over the past two decades. This research has shown that the approach has led to some of the largest and most cost-effective learning gains of any primary education program evaluated. The most recent study in Uttar Pradesh showed that the overall large learning increases in a classroom were particularly driven by the children who most needed help - those who began at the lowest levels of literacy and numeracy. Thus, even the very low learning situation and highly skewed distributions seen in Uttar Pradesh can be reversed in a matter of days with the right focus and effort. As the WDR 2018 suggests, making learning high priority and aligning the system to ensure learning for all can reap good results. Based on these experiences, several state governments across the country are putting time aside during the school day to be used specifically for building foundational skills, and children are being grouped by level rather than grade for instruction. Promising results from the 'teaching-at-the-right-level' approach are becoming visible in large scale implementation by states. More work of this kind will lead to a national belief that the situation seen for Std III in the ASER data can be improved, across states and in other grades, without too much additional cost.

But what led to this learning crisis to begin with? There are many contributing factors. Poorly educated parents and the lack of learning support at home is certainly a contributor. Inadequate school readiness, rote learning methods of teaching, paucity of appropriately trained teachers, and no system of identifying or helping children who are not making adequate progress in the early grades - all can be listed as problems.

However, a key underlying feature is what has been termed the "negative consequences of over-ambitious curriculum" (Beatty & Pritchett 2012).<sup>7</sup> For example, in the Std III textbook in Uttar Pradesh, there is a section where a young child goes with her father to a shop to buy a mobile phone. Her father has Rs. 3975. They see several mobile phones - one for Rs.3260, another for Rs. 3460, yet another for Rs. 3874 and a last one for Rs. 4077. The child and her father have to take a decision on which phone they can buy and how much money they would have left over after buying a mobile phone. Remember this is a situation in which 60% children in the state cannot as yet recognize numbers till 100, and only 11% children can actually do operations involving subtraction.

In conclusion, once the headlines of this year's ASER have been absorbed, anyone reading the ASER 2018 report and analysing the implications of the evidence for policy and practice, must leave with at least these three action points in mind:

• Appropriate assessment: Pen-and-paper assessments do not make sense for most children in Std III in India. Understanding their current level of reading or arithmetic will need other methods like working with them one-on-one with oral, interactive tasks.

<sup>&</sup>lt;sup>6</sup> Abhijit Banerjee and Esther Duflo 2012. Poor Economics: A radical rethinking of the way to flight global poverty. New York. NY: Public Affairs. <sup>7</sup> https://www.cgdev.org/publication/negative-consequences-overambitious-curricula-developing-countries-working-paper-293

- Catch up' action is needed urgently and on large scale. If most children can acquire basic foundational skills like reading and arithmetic by the end of Std II, then a huge national problem of later learning gaps can be solved. Existing research and practice show that effective programs can be implemented to solve the learning crisis early. But this requires moving away, at least for part of the school day or school year, from the current curriculum and textbook content to focus on foundations. To ensure that every child has the opportunity to 'catch up' requires a significant realigning of all elements of the education system. This 'catch up' will involve millions of children and hence how to get this done must be the highest priority for policy makers, planners, and practitioners.
- Immediate and thorough re-visioning is needed for the early grades. This extends to rethinking both 'what' and 'how'. What are the goals? What should a child entering Std III be able to do? How can curriculum in the first two years support teachers and schools to enable children to reach these goals? How should it be reflected in textbooks and other content? How should teaching practice and assessment methods be changed? It is not simply a question of 'lightening' the load but more of reconceptualizing what is needed and at what pace. Today's textbooks expect a far higher level of literacy and numeracy ability than today's children bring to the classroom in Std I, II, or III. It is essential and urgent to realign academic expectations with the system's ability to deliver, with teachers' capability to support, and children's capacity to acquire, accumulate, and progress.

All available data shows that India is close to achieving 'schooling for all'. Now is the time to make 'learning for all' a national priority. We need to move beyond this year's ASER headlines into meaningful action. Ensuring that every child has the opportunity to acquire foundational skills in primary school will need substantial changes in the ways that the system currently works. We need to rework what we are doing, why we are doing it, and how we do it, from the policy level to the classroom level.

As a country, we have acknowledged that we have a crisis of learning on hand. Now it is time to understand the contours of the problem and take decisions accordingly, so that year on year there is progress. The first step to lift up the learning trajectory of children is to ensure foundational skills. To enable millions of children to learn how to read, to comprehend and to calculate we need a massive 'catch up' effort. This 'catch up' needs a 'push forward' and not a 'hold back'. We need to believe that the real right to education is not only in terms of years of schooling but 'value added' in terms of learning; first foundational skills, then higher level capabilities and knowledge, and finally to being able to cope with a dynamic and changing wide world beyond.



# Equity in learning?

# Wilima Wadhwa<sup>1</sup>

This year, ASER visited all rural districts and assessed children on foundational reading and math after a gap of a year. And, the slight signs we had seen of a resurgence in government school learning levels in 2016 seem to have taken root! Learning levels are up in most states in Std III and Std V - this is good news indeed!

Between 2005 and 2014 - the first 10 years of ASER - there were 3 main trends that emerged from the data: First, learning levels were low and slow to change till 2010. There was very little change in learning levels at the all India level till 2010 and a slight decline after that. The decline, post 2010, was coming entirely from government schools, with learning levels in private schools holding up or improving slightly. Second, while children did learn as they progressed through school, these learning trajectories were fairly flat. Even in Std VIII close to a fourth of the children were not fluent readers. And, third, there was a year on year increase in private school enrollment. By 2014, almost a third of all rural children were enrolled in private schools.

ASER data from 2016 and now 2018 suggest that two of these trends seem to be changing since 2014. First, the year on year increase in private school enrollment seems to have stopped. Between 2006 and 2014 private school enrollment increased steadily from 18.7% to 30.8%. Since then, it has remained at about the same level, i.e. 30.6% in 2016 and 30.9% in 2018.

Second, the decline in learning levels observed in government schools after 2010 is slowly reversing, at least in primary grades. Between 2010 and 2013, ASER estimates showed indications of a decline in learning outcomes in government schools. In 2014, it seemed that this trend was arrested and learning levels seemed to stabilize. In ASER 2016, for the first time since 2010, there was an improvement in government school learning levels, even though it was only observed in Std III. This year, not only do we continue to see an improvement in government schools in Std III but also in Std V. In Std III the percentage of children who are at grade level (those who can read a Std II level text) fell from 17.4% in 2009 to 15.9% in 2013. This proportion subsequently increased to 17.2% in 2014, 19.3% in 2016 and now stands at 20.9% in 2018. In Std V, on the other hand, the percentage of children who could read a Std II level text fell steadily from 50.7% in 2010 to 41.7% in 2016. But finally this figure shows an improvement in 2018 at 44.2%.

Two points should be noted here: First, while at the all India level these changes may seem small, they are not insignificant; there is a lot of variation across states with some states showing gains of close to 10 percentage points in 2018. Second, even though the declining trend in learning outcomes of government schools seems to have been arrested and even reversed, it is important to remember that we are talking about foundational abilities. There is still a long way to go to bring children up to grade level.

In the early years of ASER, the fact that learning levels were low and unchanging always needed defending. When learning levels began to decline in 2010, initially that was also viewed with scepticism. However, today there is general acceptance of the fact that India is in a 'learning crisis' requiring urgent action. Since 2014, the government has initiated a variety of learning assessments; NAS is being done more regularly and results are now available at the district level. The ASER 2018 results seem to indicate that there have been changes in teaching-learning in schools as well.

However, the debate has always been around learning levels and whether they have moved up or down. But what about equity? In the context of education, we can think about inequality across three dimensions. First, we can use the lens of school type to examine differences in outcomes. There is a substantial body of literature looking at the differences between government and private schools - in terms of access, facilities as well as learning outcomes. Second, we can look at the entire distribution of learning outcomes. Here, while we know something about the mean of the distribution, there has not been that much discussion on its spread. The spread of the distribution is equally if not more important, because the mean could be increasing for a small proportion of children, thereby pulling up the mean of the entire distribution, with little or no change in the outcomes of the majority of the population. The ideal situation, of course, is one where the mean is rising and the dispersion is falling, so that learning outcomes are improving both overall as well as for all children. And, third, we can use the lens of geographic location to look at inequality across states. The all India figures move slowly, but hide a lot of variation across states.

First, let's look at the evidence on the differences in learning outcomes of government and private schools. On the face of things, private schools consistently perform better than government schools. However, this is not a fair comparison because of the self-selection associated with children who attend private schools. It is well known that children who go to private schools come from relatively affluent backgrounds and tend to have more educated parents. This affords them certain advantages that aid learning. These advantages are not available to children who are from less advantaged families and are more likely to attend government schools. Once we control for these factors that affect learning, the gap in reading or math levels between children attending different types of schools narrows considerably.

Be that as it may, between 2009 and 2014 the gap between the government and private school outcomes was increasing, even after controlling for other factors outside the school. Government school learning levels were declining and private school outcomes were holding steady or improving. As rural India became more prosperous, parents began to shift their children to private schools, reflected in rising private school enrollments. The pool of children that government schools were drawing their students from thus became steadily more disadvantaged.

Since 2014, however, with outcomes in government schools improving, the gap between government and private schools has narrowed or remained constant. This is true for both reading and math in Std III and Std V. In addition, the contribution of home factors to children's learning outcomes, which had increased between 2009 and 2014, has also remained about the same since then. So, while children in private schools continue to outperform their government school peers, at least the gap between the two seems to have stabilized. From an equity point of view this is certainly a step in the right direction.

We turn now to the second point regarding the distribution of learning outcomes. With 70% of rural children still attending government schools, and the government's continued commitment to the Right of Children to Free and Compulsory Education (RTE), the distribution of learning outcomes in government schools becomes extremely important. The RTE was envisaged as a tool to guarantee access to education to all children in the country, thereby levelling the playing field and removing disadvantages associated with poverty, caste and gender. To a large extent it has been successful in achieving that goal. Even though enrollment in the 6-14 year age group was already over 96% in 2010 when the RTE came into effect, there were still large numbers of children out of school in the 11-14 year age group, especially among girls. In 2010, close to 6% girls in this age group were out of school and 9 major states had numbers in excess of 5%. Today the overall number has decreased to 4%, and there are only 4 states where it is more than 5%. Therefore, the RTE, as an overarching legislation, has also reduced the inequalities in access between states. By and large, this is also true for school facilities. In the last 8 years, as states have beefed up infrastructure in government schools to comply with RTE norms, not only has mean compliance gone up but dispersion across states has also gone down for most indicators.

How has this push towards universalization affected the distribution of learning outcomes in government schools? The fact that learning levels fell after the RTE came into effect in 2010 is well documented now. The observed decline in learning outcomes could be due to a variety of reasons, but one possible explanation could be a direct consequence of bringing children who had never enrolled or had dropped out back into school. These children, understandably, would have had lower learning levels and needed supplementary help to be at par with their peers. If teachers were unable to provide this extra help, the result would lower the average learning levels in government schools. Over time, as these children caught up and progressed through the system, we would expect learning levels to start rising.

But has this happened? Consider children in Std III of government schools. In 2014, there was a slight increase in learning levels for this grade for the first time after 2010, which was sustained in 2016. This year we see an increase in Std III and Std V, suggesting that the 2016 Std III cohort sustained their learning gains and there was value added for the new Std III cohort as well. But did all children gain in the system? If so, we should observe a fall in the dispersion of the Std III learning outcome distribution, at least in the last two years. Instead, what we find is that the standard deviation of the distribution which was unchanging between 2006 and 2010, rose sharply till 2014, increased marginally in 2016 and seems to have stabilized in 2018, albeit at the high 2016 level. So, during the period when learning outcomes were falling, the dispersion was also increasing; and this trend has so far, not been reversed.

This is not surprising since there is a lot of variation across states not just in the level of learning outcomes but also how they have changed over time. For instance, when the overall proportion of Std III children who could read at grade level fell from 16.8% in 2010 to 14.7% in 2011, there were states like Punjab and Gujarat that posted increases of close to 6 percentage points; Meghalaya, Mizoram and Arunachal Pradesh gained 9 percentage points or more. At the other end of the spectrum, in Haryana and Rajasthan this proportion fell by 5 percentage points and in Bihar by 9 percentage points. This large variation across states is evident not just in 'bad times' but also in 'good times'. This year, when most states have shown an improvement, in Rajasthan the percentage of Std III readers fell by 5 percentage points; and in Tamil Nadu the drop was even greater, at over 8 percentage points. This seems to suggest that there is no tendency towards convergence in learning levels across states.

When we look at the dispersion of learning outcomes over time within states, the pattern is similar with most states showing an increase in dispersion between 2010 and 2014. The pattern is less clear in 2016 and 2018. For instance, in Uttar Pradesh dispersion increased in both years; it fell in both years in Himachal Pradesh; it went down and then up in north-eastern states like Arunachal, Mizoram and Manipur; and it went up and then down in Rajasthan. This means that changes in learning levels have been jumpy within states as well.

It is not surprising, therefore, that there was no sustained trend in learning outcomes between 2010 and 2014. Even after 2014, when overall learning levels have shown a slight upward trend, there are very few states where the process has been sustained. For instance, Rajasthan had a big jump of 5 percentage points in 2016, but an equally large fall in 2018, bringing it back to the 2014 level. Telangana is another case in point with a 3 percentage point increase in 2016 and a similar fall in 2018. Just a handful of states have shown a sustained and significant increase in learning outcomes post 2014. Only 4 states showed an improvement of 3 percentage points or more in both 2016 and 2018 - Punjab, Haryana, Gujarat and Maharashtra.

This rising dispersion is reflected in longer tails of the learning distribution over time. This is evident particularly in the left tail. In Table 1 we present the distribution of reading in Std III from 2010 to 2018. While the distribution has shifted to the right, its tails, particularly the lower tail has also become longer. In 2010, while there were only 16.8% children in Std III who could be said to be at grade level (i.e. able to read Std II level text), there were also only 6.5% children who were unable to read even letters. By 2014, this number had more than tripled to 19.2%.

Table 1: % Children able to read at different levels         (Std III, Government schools)												
	Not even Letter         Letter         Word         Std. 1 text         Std. 2 text											
2010	6.5	19.9	31.2	25.7	16.8	100						
2011	10.1	25.3	29.4	20.5	14.7	100						
2012	14.8	29.3	23.6	15.7	16.7	100						
2013	15.9	28.7	22.8	16.7	15.9	100						
2014	19.2	28.8	20.3	14.5	17.2	100						
2016	17.1	27.8	20.3	15.5	19.3	100						
2018	15.7	26.0	21.5	15.9	20.9	100						

Between 2014 and 2018, while the bottom end of the distribution has moved up a little bit, we are still far from where we started in 2010. This is an extremely worrying trend from an equity point of view because it suggests that in each successive cohort more and more children are getting stuck at the bottom end of the distribution. Addressing their learning deficits is not only going to be more difficult as they progress through the system but also of paramount importance if we are to achieve sustained improvements in learning.

In the last few years, the focus has clearly shifted from enrollment to learning in education. The

governments - state as well as Central - have instituted their own learning assessments. In 2017, an amendment to the RTE required all states, except Jammu and Kashmir, to prepare "class-wise, subject-wise learning outcomes for all elementary classes" and to also devise "guidelines for putting into practice continuous and comprehensive evaluation, to achieve the defined learning outcomes." Just a few days ago, the second amendment to the RTE did away with the no-detention policy in Std V and Std VIII, giving states flexibility to detain students if they did not pass the relevant examinations. But, as states embark on achieving the goals of RTE 2.0, they must ensure that all children participate and gain from the process.

# The early years

# Suman Bhattacharjea<sup>1</sup> and Purnima Ramanujan<sup>2</sup>

## Young children in ASER 2018

Adaptation is perhaps a key feature of ASER. Each year, while preserving the basic architecture of the survey, ASER adds new questions and domains in order to uncover and report new insights on the status of enrollment and learning in the country.

This year, among other changes, the ASER household questionnaire was modified to add to our collective understanding of what young children in India do in the early years. In previous ASERs, the questions we asked were guided by prescribed policy norms for children's participation. For 3- and 4-year-old children, we asked only about preschool enrollment. For children who were 7 or older we asked only about school (Std I and above) enrollment. Children aged 5 or 6 could be included in either category - preschool or primary school. In ASER 2018, we removed these restrictions. For all children aged 3-16, we simply asked whether they were enrolled, and if so, the school or preschool type and grade.

While this means that ASER 2018 enrollment data for 3- and 4-year-olds is not comparable with previous years, we believe it will generate a more accurate picture of what young children in rural India are doing. We have observed over the years that the age-grade distribution in schools does not conform to policy norms, an observation that is also a major finding emerging from recent research conducted by ASER Centre and the Centre for Early Childhood Education and Development (CECED) at Ambedkar University Delhi. The India Early Childhood Education (IECEI) Study, a first of its kind longitudinal study that tracked 14,000 children in 3 major states of India from age 4 to age 8, showed clearly that children take many different pathways through the early years, moving frequently between different preschools and schools as well as periods of non-participation.<sup>3</sup> Moreover, these patterns look very different across states. In other words, the assumption in policy documents that there is a universal, age-based trajectory that children follow from home to preschool to primary school is very far from what happens on the ground.

## Where are our young children? The national picture

There are currently two main avenues for accessing early childhood education in India. Far and away the most common provision comprises the 1.3 million Anganwadi centres (AWCs) run by the Ministry of Women and Child Development across the country under the Integrated Child Development Services (ICDS) scheme.<sup>4</sup> The other is the burgeoning private sector, with privately managed primary schools offering pre-primary LKG and UKG classes, spread across rural as well as urban India.<sup>5</sup> A few states in India offer a third possibility as well, in the form of preschool classes integrated within government primary schools, for example in Assam and Jammu and Kashmir.



Given this context, what were young children doing towards the end of 2018 in rural India?

According to the RTE Act, enrollment in formal school should begin at age 6, with ECE exposure recommended for children between age 3 to 6. However, 26 of India's 35 states and Union Territories allow children to enter Std I at age 5.<sup>6</sup> National-level trends from ASER 2018 indicate that enrollment patterns broadly meet these policy prescriptions (Fig. 1). At age 3, two-thirds of children were enrolled in some form of preschool while at age 6, 7 out of 10 children were enrolled in primary school. But we also see sizeable numbers of children in the 3 to 8 age group with unexpected enrollments. Even at age 3 and 4, a proportion of children are already in primary grades - about 1 out of 10 children

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<sup>6</sup> Selected Educational Statistics 2011-12, Ministry of Human Resource Development, 2014.

These broad trends match quite closely with the findings of the IECEI study in the 3 states where it was conducted - Assam, Telangana, and Rajasthan.

<sup>&</sup>lt;sup>3</sup> For more on the IECEI Study, see the policy brief and the published report, both available for download at http://www.asercentre.org/Keywords/p/ 342.html.

<sup>&</sup>lt;sup>4</sup> Annual Report, 2016-2017, Ministry of Women and Child Development, Government of India.

<sup>&</sup>lt;sup>5</sup> According to DISE 2014-2015, 43.26% private schools in the country provided pre-primary classes. For more information, see report on 'Pre-primary sections in government schools', Central Square Foundation, 2016.

at age 4. The same proportion is still in preschool at age 7, as is a small percentage of 8-year-olds. Corroborating findings from the IECEI Study, we see that enrollment patterns only stabilise at age 8 when over 90% of all children are enrolled in primary school.

As with many estimates at the all-India level, these national trends hide major variations, not only between states but also with respect to the types of institutions that children attend within each category. The category labelled 'preschool' in Fig 1, for example, includes the three different types of institutions mentioned earlier: ICDS Anganwadi centres; private



preschool classes; and pre-primary classes in government primary schools. Each of these provide very different kinds of inputs and experiences for children. Likewise, the category of 'in school' children includes children going to government, private, and other types of schools; again, these differ in the kinds of environments they offer to children.

## From age 3 to age 6, what children do varies enormously

A quick glance at the charts alongside provides a sense of how young children's participation in preschool or school varies, both across the country as well as at different ages.

At **age 3**, national policy recommends that children should be in an ECE program. Gujarat comes closest to meeting the norm, with well over 90% children in some form of preschool, the majority in AWCs. In contrast, in Uttar Pradesh, almost two thirds are not attending anywhere. Assam and Punjab each have close to 80% children enrolled in preschool, but more than a third in Punjab attend a private preschool, while in Assam 70% are in AWCs.

At **age 4**, the proportion of children not enrolled declines substantially across the country. But the variations in what children are doing begin to multiply. For example, in Rajasthan, almost a quarter of all 4-year-olds are already in primary school - with almost equal proportions in government and private schools. In Punjab, while the majority of children enrol in private preschools, about 10% attend a pre-primary class in a government primary school. In Assam, about 7 out of 10 children are attending an AWC at age 4.

At **age 5**, nationally, fewer than 1 child in 10 continues to be out of school or preschool, and about a third of all children are already in primary school. In Uttar Pradesh, close to 2 in every 10 children are not enrolled anywhere. But in Telangana, more than half are in private LKG/UKG classes while in Gujarat, more than half are in AWCs. On the other hand, over 60% children in Rajasthan are in primary grades with a majority in government schools.

At **age 6**, although all children are expected to be in primary school, nationally 3 out of 10 children are not yet at this stage. Over 40% of all 6-year-olds in both Telangana and Assam continue in some form of pre-primary class; while in both Gujarat and Rajasthan, over 80% children are in primary grades. But, while in Gujarat almost all are in government schools, in Rajasthan almost a third are in private schools.

## Implications

The varied pathways that young children take in the early years have major consequences for what they experience and learn along the way, both before joining primary school as well as once they reach Std I.

In terms of children's 'readiness' to handle primary school content, the IECEI Study demonstrated that neither AWCs nor pre-primary classes in private schools provide children with the opportunities they need to develop sound foundations. Early childhood education is one of six services offered by AWCs and arguably the least developed, given that a single Anganwadi worker is tasked with implementing all six services with little by way of training, resources, or support. While children in AWCs learn to spend time away from home and in the company of other children, there are few structured learning opportunities in place. Pre-primary classes in private schools, on the other hand, look much like primary school classrooms, with teachers focused on (for example) rote-repetition of numbers without helping children to first understand the concept of quantity.

From the perspective of the primary school, children in Std I are far from homogenous in terms of age. ASER 2018 data shows that nationally, more than a quarter of all children entering primary school are 5 years old or younger. Less than 40% are at the mandated age of 6 years, and a third are 7 or older. These age-grade distributions have obvious implications for teaching and learning. A 3-, 4-, or 5-year-old child is simply not developmentally ready to handle the Std I curriculum; the IECEI Study, which measured children's school readiness and early grade learning, showed clearly that younger children are at a disadvantage. From the point of view of a teacher, moreover, teaching the same content to a 5-year-old as to an 8-year-old is not a trivial challenge. The requirement that teachers complete the curriculum for a given grade in a given year - and, by extension, that the children master the content being taught - does a huge disservice to both.

The enormous expansion in the numbers of children entering the education system has meant that there is much more diversity among children than was the case a generation ago. Neither pre-primary nor primary school classrooms are designed to address the issue of increasing diversity in the needs and characteristics of the children they cater to. The outcome in terms of learning is clearly visible. In the elementary school sector, ASER has demonstrated for more than a decade that getting all children into school, while undoubtedly a major achievement, does not by itself ensure that children are able to learn at the level prescribed by the curriculum. ASER data shows that gaps between what children can do and what is expected of them emerge very early in children's school trajectories and widen as children move through the system. A quick look at the Std I language textbook in any state provides a good indication of what children are expected to be able to do when they enter primary school and the huge distance they are expected to travel during the first year itself. But in 2018, ASER data shows that several months into Std I, nationally more than 40% of children are unable to recognize letters of the alphabet, let alone read words or connected text.

# The challenge ahead

Extensive international research in disciplines as varied as neuroscience, psychology, and economics shows that early childhood - defined internationally as the age group of 0-8 years - is a critical period during which the foundations of lifelong learning are built. 90% of all brain development takes place by the age of 6. Giving children the kind of inputs and experiences they need in the early years has been proven to have positive effects not only on children's academic performance in school, but also on a range of social and economic outcomes even many years later.

Today, the importance of ECE is widely recognized internationally and is included in the Sustainable Development Goals (SDGs) for 2030 that were approved by countries around the globe, including India. SDG Target 4.2 states that by 2030 countries should 'ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education'.

In India too, the importance of early care and stimulation has been recognized in the National Policy on Early Childhood Care and Education (2013), which aims to provide 'developmentally appropriate preschool education for 3 to 6 year olds with a more structured and planned school readiness component for 5 to 6 year olds.' These recommendations have been

incorporated into the recently created Samagra Shiksha Abhiyan scheme of the Government of India, which has brought renewed focus and attention on ECE through the Integrated Scheme on School Education that aims to treat school education 'holistically without segmentation from pre-nursery to Class 12'. This scheme aims for greater coordination and convergence with the Ministry of Women and Child Development to focus on preschool education for children aged 4-6 years; states are encouraged to co-locate Anganwadi centres in government primary schools or else implement pre-primary classes of up to two years duration prior to Std I.

The limited information available so far suggests that different states are putting different mechanisms in place in order to achieve this integration, which requires coordination not only between academic stages (preschool and primary school), but also between ministries and their respective structures on the ground. In this process, it is also important to take into account the differing contexts across individual states, some of which find expression in the different pathways that children take in the early years. A 'one size fits all' solution for young children is unlikely to be successful.

In both international and national policy documents, the key words are 'quality' and 'developmentally appropriate' education in the early years. The answer is not only to ensure that children attend preschool followed by primary school, but also to ensure that these provide environments that help children to grow and thrive. The continuum envisaged for the early years curriculum should start from and build on what children bring with them when they enter preschool and school; but so far, beyond the IECEI study that looked only at 3 states, little information is available on scale on children's 'school readiness' across the country. Perhaps this will be the question addressed by a future ASER.



# A fitter future

# Ranajit Bhattacharyya<sup>1</sup>

Since last year, there has been a buzz in our country to popularise sports. Much is being said in terms of getting our youngsters to play. Our sporting icons have been exhorting the government to not only include sports in the school curriculum, but also to increase funding to improve sports infrastructure, thereby creating equal opportunity for both boys and girls to participate in sports across the country. The central government, on its part, has expressed its desire to get 300 million school children to play for an hour each day.

Physical education and sports, though an integral part of education policy documents, has always remained on the fringe and has not received much importance until recent times. India has traditionally been a sports viewing country, and the proliferation of cable TV together with the different professional sports leagues that are now being played and telecast in India, has only accentuated this trend. While children can be seen playing in all fields, grounds, and open-air spaces around the country, much of this play is organized by the children themselves. The culture of playing sports in an organised manner, on a large scale, has never existed in India.

Lamentably, not much data exists on school physical education and sports in India. We do not know how many potential Sainas, Sindhus, and Himas exist in our country, leave alone what kind of facilities exist in the grassroots to produce them.

World over, in most countries, physical education is an integral part of school education, with a consistent allocation in primary and lower secondary education in OECD countries - 9% of school time in primary and 8% in lower secondary.<sup>2</sup> These countries, with higher GDPs, already have good sports infrastructure and facilities, and in recent times they have stepped up their efforts to promote physical education/sports in schools from the perspective of improving academic achievement.<sup>3</sup>

China, after a hiatus of 32 years, participated in the Los Angeles Olympics in 1984<sup>4</sup> and passed the Sports Law of the People's Republic of China in August 1995. The law determined that schools must offer physical education and ensure physical exercise time for students.<sup>5</sup> Physical Education (PE) is part of the compulsory national curriculum set by The Ministry of Education (MOE) of the People's Republic of China from the first year of primary school to the second year of college. The weekly PE time for Grades 1 to 2 should be four hours, and for Std 3 to 6, three hours. Children are required to pass standardized PE tests (modifed for children with special needs) in order to continue their education to the next level.<sup>6</sup>

Late last year, the great Sachin Tendulkar made an impassioned plea to include sports in the school syllabus.<sup>7</sup> Sports, he felt, not only unites people, but also inculcates a sense of responsibility and cooperation. Mary Kom, in her year-end editorial in a leading English daily, lamented the lack of funding to improve school sports infrastructure and thereby scope of nurturing young talent. In the same editorial, she drew our attention to the fact that it is our women who are excelling in international sports, hence, there should not be any gender bias!<sup>8</sup> Kom's comment on gender bias is significant, as it is our 'women power' who have been capturing global audiences' attention with their performance. Sports provides an opportunity to break the gender divide.

Perhaps responding to these comments and trends, the government of India has recently initiated a couple of important initiatives related to school sports and education. The first is Khelo India, a national programme for the development of sports. Initiated by the Ministry of Youth Affairs & Sports, Department of Sports, Khelo India is envisaged to be an annual national sports meet. Every year 1,000 top performing sportspersons will be selected for an annual scholarship, which they will get for 8 years, to help them prepare for international events. The 1st Khelo India School Games, a multidisciplinary

<sup>&</sup>lt;sup>1</sup> An ASER veteran and a sports enthusiast

<sup>&</sup>lt;sup>2</sup> http://www.oecd.org/education/skills-beyond-school/EDIF%202014--N22%20(eng).pdf

<sup>&</sup>lt;sup>3</sup> http://www.oecd.org/education/ceri/physicalactivityandlearning.htm

<sup>&</sup>lt;sup>4</sup> Since 1984, China has been consistently ranking amongst the top 4 nations in terms of the number of Olympic medals they have won, barring the Seoul games in 1988, which has made China an object of both intrigue and envy.

<sup>&</sup>lt;sup>5</sup> https://www.shs-conferences.org/articles/shsconf/pdf/2016/02/shsconf\_sshe2016\_02017.pdf

<sup>&</sup>lt;sup>6</sup> https://helda.helsinki.fi//bitstream/handle/10138/240233/1420.pdf?sequence=1

 $<sup>^7</sup>$  http://timesofindia.indiatimes.com/articleshow/66709568.cms?utm\_source = contentofinterest&utm\_medium = text&utm\_campaign = cppst

<sup>&</sup>lt;sup>8</sup> https://indianexpress.com/article/opinion/columns/tokyo-olympics-2020-target-olympic-podium-scheme-ssa-5517660/

grassroot games scheme for under 17 children, were held in New Delhi in January last year. Haryana, Maharashtra, and Delhi were the top performing states. The 2nd Khelo India Games are being held in January 2019 in Pune.

The second initiative is Samagra Shiksha Abhiyan, an overarching programme for the school education sector extending from pre-school to Std 12, which was announced in the last union budget. It articulates four important ways in which the new scheme will support school sports:<sup>9</sup> sports equipment will be provided to all schools; sports Education will be an integral part of curriculum; every school will receive sports equipment under the scheme to inculcate and emphasize relevance of sports in the school curriculum; and support to 'Khelo India'.

Physical education and sports have also been included on the list of '17 trades' that 'the Centrally Sponsored Scheme of Vocationalisation of Secondary Education has included to enhance individual employability that provides an alternative for those pursuing higher education'.<sup>10</sup>

Policy wise, school sports has never been so good! But do we know where we are at for the 'baseline' of sports expansion in India? Unless we know the status and the gaps, how can we plan adequately to fill them? With this in mind, we were tempted to add a few questions to our ASER 2018 School Observation Sheet to see what kind of physical education facilities currently exist in rural government primary schools. Given the architecture of ASER,<sup>11</sup> where our volunteers collect information on children, teachers, and infrastructure, it was not possible to add detailed probing questions. After multiple field pilots, we decided to collect information on the following aspects of physical education in schools: Dedicated time allocated to physical education, availability of a separate physical education teacher, availability of a playground inside or near the school premises, and availability of sports equipment.

# Some school physical education trends captured in ASER 2018<sup>12</sup>

# Physical education period in timetable

Two thirds of the schools visited across the country had a timetable with a physical education period. Top states included: Maharashtra (93%), Tamil Nadu (82%), Gujarat (72%), Kerala (83%), and Andhra Pradesh (78%).

Amongst the bottom 7 states with regard to a dedicated period for sports in schools, 6 are from the north-east, including almost three quarters of the schools visited in Manipur and Nagaland and two thirds in Arunachal Pradesh and Meghalaya. These findings are a little surprising because many of these states have a strong culture of sports. Perhaps sports in the north-east is organized in locations other than school. Similarly, in states like Haryana and Punjab, which have traditionally excelled in sports, only half the schools have a physical education period in the time table.

## Physical education teacher

Across all states, less than 2 out of 10 primary schools have a dedicated physical education teacher. Most often one of the subject teachers was reported to conduct the physical education period as well.

Among the top states, half the schools in Rajasthan were seen to have dedicated physical education teacher, followed by Kerala, Bihar and Karnataka, where just over a third of the schools had one. A fifth of Haryana schools and a third in Punjab do not have either a physical education teacher or any other subject teacher to supervise the physical education period.

<sup>9</sup> http://samagra.mhrd.gov.in/features.html

<sup>&</sup>lt;sup>10</sup> http://mhrd.gov.in/vocationalisation

<sup>&</sup>lt;sup>11</sup> Every year ASER visits a government school with primary sections in the sampled village, if one exists. Preference is given to government schools with classes from 1 to 7/8, in the absence of which we visit government schools with classes from 1 to 4/5. In case of multiple government primary schools in a sampled village, we visit the government primary school with higher enrollment.

<sup>&</sup>lt;sup>12</sup> This year our volunteers visited almost 16,000 government primary schools: over 9,000 schools with classes 1 to 4/5 and nearly 7,000 schools with classes 1 to 7/8.

# Availability of playground

A more positive finding is that across India, more than two thirds of the schools visited had a playground inside the school premises. 88% schools in Sikkim, 87% in Maharashtra, 86% in Tripura, 84% in Haryana, 83% in Himachal Pradesh, 82% in Gujarat, and 81% in Karnataka are the top states in this category.

Many schools do not have a playground inside the school but use stretches of land just outside the school premises. Almost a third of the schools in Odisha and Jharkhand have playgrounds outside the school premises. Also in these two states, another third of the schools in Odisha and quarter in Jharkhand have no playground at all, either inside or outside the school premises.

## Availability of sports equipment

In the case of sports equipment available inside schools, nationally, almost two thirds of the schools visited seemed to fulfil this objective of Samagra Shiksha Abhiyan. In Gujarat, Andhra Pradesh, Sikkim, Jammu and Kashmir, Mizoram, Maharashtra, and Tamil Nadu, almost three quarters of schools were seen to have some form of sports equipment. Lamentably, schools in four north-eastern states: Meghalaya (20%), Arunachal Pradesh (29%), Nagaland (43%), and Manipur (49%), are once again in the bottom with regard to availability of sports equipment.

## Supervised physical education activity

Our volunteers did not see much supervised physical education activity at the time of their visit to government primary schools in the sampled villages. Nationally, some form of supervised physical activity was observed in about a quarter of the schools visited. Sikkim is the top performing state in this category, with some supervised physical activity observed in just over half the schools. We cannot say that the remaining schools did not have any supervised physical activity, as our volunteers do not spend the whole day in each school. But, when we look at the states placed in the bottom in this category, we again notice these are the north-eastern states of Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram, and Tripura. These are states where private school enrollments are high and in most states have gone up since ASER 2016. Uttar Pradesh, which also has a similar trend in private school enrollment seems to have a better record of physical education indicators in ASER 2018 than these states.

The ASER 2018 questions on school physical education and sports are just a beginning to know what is happening in schools. There is also plenty of scope for a detailed in-depth assessment to know the perception of communities, particularly youngsters, towards physical education and sports. Are they aware of the alternate career options it provides? As we have noted earlier for OECD countries and China, we need to know more about the number of hours our school children spend a week participating in sports-based physical activity and the kind of games they play, and to maintain a record of their physical attributes. We also need to map the sports infrastructure that exists at district level. All this will not only help us plan and implement better, but also give us a fair idea of kind of allocations that will have to be made.

In conclusion, we can say that we have made a good beginning by including physical education as a component not only in our school education policy documents, but also starting pan-India school games in the form of Khelo India. We now need to ensure that physical activity becomes an integral part of school life, which leads to widespread participation of our youngsters in sporting activities. We also have to create a system whereby potential talent from this pool of youngsters can be detected and nurtured to compete and excel in various sporting disciplines. Of course, for this to happen we need to create an ecosystem in terms of infrastructure and manpower, for which an enormous amount of planning and money is required. This cannot be achieved unless industry and civil society come out to support these initiatives. The world over, potential sportspersons are selected, irrespective of the type of sports, in their early teens, of which India has aplenty.<sup>13</sup> With a third of our population in the age group of 0 to 18 years, there exists great potential to provide them a meaningful vocation in physical education and sports, as well as a healthy future.

<sup>&</sup>lt;sup>13</sup> India's 0-18 population is larger than the entire population of USA, and almost touching the combined population of the European Union.



ASER 2018 coverage





DISTRICTS

596





G









# **ASER** survey calendar



# Summary of the ASER survey process



A team of two surveyors goes to the village assigned to them by the ASER Master Trainer. They take the Village Pack given to them in the training.

Once in the village, the surveyors meet the Sarpanch/village representative and:

- Clearly explain what ASER is and why it is important.
- Give him/her the 'Letter for Sarpanch' and request cooperation to conduct the survey in the village.





The surveyors go to the largest government school with primary sections in the village. They:

- Meet the Head Master/senior most teacher and explain what ASER is and why it is important.
- ► Give him/her the 'Letter for Head Master' and ask permission to collect information about the school.
- Collect information about the school and record it in the School Observation Sheet.





Next, to begin the household survey, the surveyors:

- ► Divide the map into 4 sections or select 4 hamlets.
- ▶ Randomly select 5 households from each hamlet/section using the 'every 5<sup>th</sup> household rule'.
- Survey a total of 20 households from the selected sections/hamlets.

In each sampled household the surveyors do the following:

- ▶ Record information about children in the age group of 3-16 years.
- ► Use the testing tool to assess the basic reading and arithmetic levels of children in the age group of 5-16 years with the testing tool, and record the highest level they can do comfortably.
- Additionally, assess 14-16 year olds on application of basic arithmetic skills to everyday tasks using the bonus tool and record their response to each question.
- ▶ Record information about household assets.





After all 20 households are surveyed, the surveyors submit the completed survey booklets to their respective ASER Master Trainers.

# Domains covered in ASER, 2005-2018

	• •	
Child	inform	nation
0		

	Indicator / Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2016	2018
nation	Age and sex												
	Enrollment status												
	Tuition status												
Infor	Tuition fees												
General	Mother's age and education												
	Father's age and education												
	School attendance last week (For children currently enrolled in school)												
	Foundational reading												
	Foundational arithmetic												
	Reading comprehension												
Testing	<b>Word problems</b> (Arithmetic)												
	<b>English</b> (Reading and meaning)												
	Writing												
	<b>Bonus tool'</b> (Critical thinking applied to everyday tasks)												

<sup>1</sup>Bonus tool tasks varied over the years.

# Household information

	Indicator / Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2016	2018
eneral rmation	No. of HH <sup>2</sup> members who eat from the same kitchen												
	No. of 12th pass HH members												
	No. of computer proficient HH members												
D O	Age and education of adult females in the HH												
	Occupation of HH children living outside village												
	Type of house												
	Motorized 4-wheeler					3							
	Motorized 2-Wheeler					3							
S	Electricity connection												
Asse	Toilet												
old /	Television												
lseh	Newspaper/Reading material												
Hot	Mobile phone												
	Domestic animals												
	DVD/VCD player												
	Language spoken at home												
ing	Adult female testing (Easy para level reading task)												
Test	Mother's mobile test (Ability to dial a number)												

<sup>2</sup>HH is household.

<sup>3</sup>Both motorized and non-motorized vehicles were recorded.
Indicator / Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2016	2018
School level												
Class-wise enrollment and attendance												
Medium of instruction												
Teacher appointment and attendance												
Classroom observation (Std II and IV)												
Mid-day meal												
School facilities⁵												
Physical education												
Toilets												
School Management Committee												
Pre-primary class												
School grants information												
School development plan												
Continuous and Comprehensive Evaluation												
School maintenance activities												

### School information<sup>4</sup>

<sup>4</sup>In each sampled village, the largest government school with primary sections is visited on the day of survey. Information about schools in this report is based on these visits. <sup>5</sup>From 2010 onward, school facilities observations were based on observable RTE indicators.

### Village information

Indicator / Year	2008	2009	2010	2011	2012	2013	2014	2016	2018
ASHA volunteer									
STD booth									
Pre-school/Anganwadi									
Private schools									
Government schools									
Solar energy equipment									
Computer centre/Internet café									
Private health clinic									
Government primary/Sub health centre									
PDS shop									
Bank									
Post office									
Electricity connection									
Pucca road to the village									

# ASER assessment tasks

The testing process addresses ASER's central question are children acquiring foundational reading and arithmetic skills? The process is designed to record the highest level that each child can comfortably achieve. That is, rather than testing grade-level competencies, ASER is a 'floor test' focusing on basic learning.

Testing is conducted at home, rather than in schools, so as to include out of school children and children attending different types of schools. All children in the 5-16 age group in a sampled household are tested using the same tools, irrespective of age, grade, or schooling status. Children are assessed on basic reading and simple arithmetic. In 2018, ASER included a 'bonus tool' that tested children in the 14-16 age group on their ability to apply basic arithmetic skills to some everyday tasks.

ASER's testing process incorporates various measures to ensure that the it captures the best that each child can do. Surveyors are trained to build rapport with children to create a relaxed and encouraging environment. Testing is conducted in the local language of the child. Children are given the time they need to do each task on the assessment. The testing process is adaptive to the child's ability so that she does not have to attempt all levels. Thus, at the core of this test design is the child's comfort and a commitment to accurately record the highest level the child can perform at.

The following pages outline the ASER testing process used to assess each child on reading, arithmetic, and the bonus tool.

### **READING TASKS:**

### All children are assessed using a simple reading tool. The reading test has 4 tasks:

- Letters: Set of commonly used letters.
- Words: Common, familiar words with 2 letters and 1 or 2 matras.
- Std I level text: Set of 4 simple linked sentences, each having no more than 6 words. These words (or their equivalent) are in the Std I textbooks of the states.
- Std II level text: Short story with 7-10 sentences. Sentence construction is straightforward, words are common and the context is familiar to children. These words (or their equivalent) are in the Std II textbooks used in all states.

While developing the reading tool in each regional language, care is taken to ensure:

- Comparability with previous years' tools with respect to word count, sentence count, type of words and conjoint letters in words.
- Compatibility with the vocabulary and sentence construction used in Std I and Std II language textbooks of the states.
- Familiarity of words and context, established through extensive field piloting.

### Sample: Reading test (Hindi)\*

#### Std II level text

राजू नाम का एक लड़का था। उसकी एक बड़ी बहन व एक छोटा भाई था। उसका भाई गाँव के पास के विद्यालय में पढ़ने जाता था। वह खूब मेहनत करता था। उसकी बहन बहुत अच्छी खिलाड़ी थी। उसे लंबी दौड़ लगाना अच्छा लगता था। वे तीनों रोज़ साथ-साथ मौज-मस्ती करते थे।

#### Std I level text

हर रविवार नानी घर आती है। हमारे लिए मिठाई लाती है। मैं नानी के साथ सोता हूँ। वह मुझे कहानी सुनाती है।

Letters	Words
ह च ट	कुल बड़ा रोटी
ल न	पानी चूना
फ म र	चलो हीरा
स त	देर कौन

\* This is a sample. It has been shortened to a more concise layout for purposes of this report. However, the four components or 'levels' of the tool remain the same in the full version. Assessments in reading are conducted in 19 languages across the country.



In the Household Survey Sheet, mark the child at the highest level she can reach. If the child is at 'Letter Level', then ask her to try to read the same words again and then follow the instructions for word level testing.

If she can recognize at least 4 out of 5 letters but cannot read words, then mark the child at **'Letter Level'**. If the child is not at **'Letter Level'** (cannot recognize at least 4 out of 5 letters chosen), then mark the child at **'Beginner Level'**.

### **ARITHMETIC TASKS:**

All children are assessed using a simple arithmetic tool. The arithmetic test has 4 tasks:

- Number recognition 1 to 9
- Number recognition 10 to 99
- **Subtraction:** 2-digit numerical subtraction problems with borrowing.
- Division: 3-digit by 1-digit numerical division problems with remainder.

While developing the arithmetic tool for the ASER age group, care is taken to ensure compatibility with the learning outcomes defined for number recognition, subtraction (with borrowing), division (3-digits by 1-digit) in state textbooks for Std I, II and III/IV, respectively.



### Sample: Arithmetic test

अंक पहचान 1-9	संख्या पहचान 10–99	घटाव	भाग
2 7	76 58	74 63 <u>- 57 - 27</u>	8) 993
5 3	48 99	47 84 - 29 - 35	6)758
	34 61	41 32 - 15 - 17	7) 865
	46 25	31 68	1)003
4 1	86 62	<u>- 18</u> <u>- 49</u>	4) 658
बच्चे से कोई भी 5 अंक पहचानने को कहें। कम से कम 4 सही होने चाहिए।	बच्चे से कोई भी 5 संख्या पहचानने को कहें। कम से कम 4 सही होनी चाहिए।	बच्चे से कोई भी 2 घटाव के सवाल करने को कहें। दोनों ही सही होने चाहिए।	बच्चे से कोई भी 1 भाग का सवाल करने को कहें। वह सही होना चाहिए।



### **BONUS TOOL TASKS:**

Last year, ASER 2017 'Beyond Basics' survey tested youth in the age group 14 to 16 on their ability to apply basic reading and arithmetic skills to everyday tasks. These tasks included common calculations like counting money, adding weights, measuring length, and calculating the time; specific financial calculations like managing a budget, financial decision making using simple operations, and computing discounts and interest on loans; reading and understanding written instructions; and general knowledge. Out of all the questions asked in 2017, four were selected to be administered to 14 to 16 year olds as a 'Bonus tool' in addition to the basic ASER assessment in reading and arithmetic in ASER 2018. These four questions involved calculating time, applying unitary method, using simple operations for financial decision making, and computing a discounted price. Each question is mapped to learning outcomes reflected in state textbooks for Std III, V or VII.



To standardize the testing process, surveyors adhered to a set of instructions while administering these questions to 14 to 16 year olds only:

- For each task, the surveyor showed the visual and read out the question. She was not permitted to change/alter the question or give the child an additional explanation, restricting the variation in oral stimulus.
- The surveyor could repeat each question only once. However, the child had the option to read it multiple times on her own.
- The exact answer given by the child for each question was recorded by the surveyor.
- The child could review each answer once.

# Note on sampling: ASER 2018 rural

The purpose of ASER's rapid assessment survey in rural areas is twofold: (i) to obtain reliable estimates of the status of children's schooling and basic learning (reading and arithmetic level); and (ii) to measure the change in these basic learning and school statistics over time. Every year a core set of questions regarding schooling status and basic learning levels remains the same. However, new questions are added for exploring different dimensions of schooling and learning at the elementary stage. The latter set of questions is different each year.

The core questions on schooling status and basic reading in the state's local language(s) and arithmetic used in ASER 2018 are identical to those in ASER 2016. In addition, in 2018 we retain questions on paid tuition, parents' education, and selected household and village characteristics from various previous editions of ASER.

New in ASER 2018 are some 'bonus' questions for older children (age 14-16) to test their ability to apply basic arithmetic skills to everyday tasks such as calculating time, applying unitary method, finacial decision making, and computing a discount.<sup>1</sup> ASER 2018 also visited one government primary school in each sampled village, as has been done every year since 2009.

## Sampling strategy (Household sample - children's learning and enrollment data)

The sampling strategy used in ASER is designed to generate a representative picture of each district. All rural districts are surveyed. The estimates obtained are then aggregated (using appropriate weights) to the state and all-India levels. As in previous years, the sample size is 600 households per district. The sample is obtained by selecting 30 villages per district and 20 households per village.

The sample design of ASER is a two-stage design, with villages being sampled in the first stage and households in the second stage. In the first stage, in each district, 30 villages are sampled using the PPS (Probability Proportional to Size) sampling technique. PPS is a widely used standard sampling technique for the first stage when the sampling units are of different sizes. In our case, the sampling units are the villages. In the second stage, 20 households are sampled using SRS (Simple Random Sampling) in each of these 30 villages. This method ensures that each household in the district has an equal probability of being selected into the sample.

For ASER 2016, 30 villages were randomly selected in each district using the village directory of the 2011 Census. Because 2016 marked the start of a new series using the Census 2011 frame, no villages were retained from previous ASERs. In ASER 2018, we retain 20 villages from 2016 by randomly dropping 10 from the original sample, and add 10 new villages from the Census 2011 village directory.

#### For further information

For more information, please see the Frequently Asked Questions (page 323) and the full sampling note (page 261) in this report.

<sup>&</sup>lt;sup>1</sup>These questions are taken from ASER 2017 'Beyond Basics', the ASER survey that was designed for and administered to youth in the 14 to 18 age group in 28 districts across the country.

# Sample description 2018

	Cancilic 2011	Surveyad					ASER	2018				
State	Actual	Districts	Cumioriod	Curranto	Cuminical		Surveyec	children		Ť	ested children	
	Districts	(ASER 2016)	Districts	Villages	Households	Age 3-16	Age 3-5	Age 6-14	Age 15-16	Reading (Age 5-16)	Arithmetic (Age 5-16)	Bonus Tool (Age 14-16)
Andhra Pradesh	13	13	13	390	7794	7579	1495	5207	877	5395	5381	837
Arunachal Pradesh	16	10	8	235	4446	5416	1309	3609	498	3830	3820	462
Assam	27	26	26	780	15521	21940	4159	15297	2484	16074	16026	2503
Bihar	38	38	38	1140	22817	50338	10453	34642	5243	33839	33712	4953
Chhattisgarh	18	16	16	479	9579	14145	2765	9395	1985	10295	10277	2098
Dadra and Nagar Haveli	1	1	1	28	600	887	188	575	124	547	546	115
Daman and Diu	2	2	2	17	1180	1152	160	839	153	807	806	142
Goa	2		2	47	906	688	119	479	06	546	542	93
Gujarat	26	26	26	779	15551	18650	3190	13016	2444	12821	12791	2172
Haryana	21	21	21	628	12562	19006	3791	13011	2204	14224	14191	2417
Himachal Pradesh	12	12	12	358	7105	9811	1782	6876	1153	7595	7577	1503
Jammu and Kashmir	22	6	14	409	8157	14343	2598	9954	1791	10092	10032	1593
Jharkhand	24	24	24	720	14423	28585	5640	19935	3010	19369	19284	2518
Karnataka	30	30	30	006	17999	29312	4839	21295	3178	23634	23635	4103
Kerala	14	12	12	352	7202	6375	1151	4314	910	4688	4646	983
Madhya Pradesh	50	50	50	1500	29961	48791	9604	32856	6331	31409	31328	5273
Maharashtra	33	33	33	990	19765	25979	4685	18242	3052	19606	19554	3450
Manipur	9	6	9	263	5104	7802	1803	5390	609	5741	5719	750
Meghalaya	7	7	7	210	4113	7979	1757	5332	890	5439	5369	754
Mizoram	8	8	8	223	4769	6978	1386	5021	571	5904	5889	860
Nagaland	11	11	11	320	6506	11039	2451	7595	993	8740	8720	980
Odisha	30	30	30	900	17916	24650	4545	17145	2960	17393	1 73 48	2257
Puducherry	2	2	2	55	1178	995	179	669	147	724	718	138
Punjab	20	20	20	596	11865	12799	2425	8693	1681	9461	9429	1731
Rajasthan	33	33	33	989	19713	34952	6828	23810	4314	23918	23833	3804
Sikkim	4	3	4	116	2366	2606	416	1741	449	1685	1637	206
Tamil Nadu	31	31	31	923	18557	20435	3170	14665	2600	15749	15706	2655
Telangana	6	6	6	270	5394	6033	1175	4106	752	4185	4125	646
Tripura	4	4	4	120	2399	2663	503	1809	351	2161	2158	452
Uttar Pradesh	71	70	70	2100	41984	82470	15898	56742	9830	59342	59157	8612
Uttarakhand	13	13	13	383	7320	10157	1823	6887	1447	7496	7473	1579
West Bengal	18	18	17	510	10192	11972	2441	7924	1607	8121	8067	1606
All India	619	591	596	17730	354944	546527	104728	377071	64728	390830	389496	62245
*State/UT pages for Dadra **Andhra Pradesh was bift Andhra Pradesh, 9 rural dis *** ASFR 2018 was unahl	and Nagar Hav urcated into Tel stricts are locate e to reach som	veli, Daman an langana and An ed in Telangana e districts of Ar	d Diu, Goa, a Idhra Pradesh a and the rem	ind Puducherr in 2014. As a aining 13 dist esh. Chhattisg	y have not bee result, the sar ricts are locate arh. lammu an	en presented i nple frames o d in Andhra F d Kashmir, Ke	in this report c f Census 2011 Pradesh. ASER	lue to insufficie do not have th estimates for th theorgal due to	int sample siz ne new state o ne two states o no logistical co	e. Jivisions. Of th are based on th instraints and s	ne 22 districts his separation security concer	n undividec of districts. ns.

ASER 2018

# The national picture



# ASER 2018 (Rural) findings

ASER 2018 reached 596 districts in rural India. A total of 354,944 households and 546,527 children in the age group 3 to 16 were surveyed.

#### Schooling levels: enrollment and attendance

- **Overall enrollment (age 6-14):** For more than ten years, since 2007, the enrollment of children for the age group 6 to 14 has been above 95%. The proportion of children (age 6-14) who are not enrolled in school has fallen below 3% for the first time and stands at 2.8% in 2018.
- Girls out of school: In 2006, the all India proportion of girls in the age group 11 to 14 who were out of school stood at 10.3%. In that year, 9 major states had out of school figures for girls (age 11-14) above 10%. In 2018, the overall proportion of girls in the 11 to 14 age group out of school has fallen to 4.1%. This figure is more than 5% in only 4 states.

Further, ten years ago in 2008, nationally, more than 20% of girls in the 15 to 16 age group were not enrolled in school. In 2018, this figure has decreased to 13.5%.

Private school enrollment: The period 2006 to 2014 saw a year-on-year increase in the proportion of children (age 6-14) enrolled in private school. In 2014, this figure stood at 30.8%. Since then private school enrollment appears to have plateaued for this age group. The percentage of children (age 6-14) enrolled in private school was 30.6% in 2016 and is almost unchanged at 30.9% in 2018.

The national average hides changes in private school figures across states. There has been a decline in private school enrollment of more than 2 percentage points over 2016 levels in Rajasthan, Uttar Pradesh, and Kerala. An increase of more than 2 percentage points over 2016 is visible in Jammu and Kashmir, Himachal Pradesh, Bihar, and Gujarat. Most states in the north-east, other than Mizoram, see an increase in private school enrollment between 2016 and 2018.

#### Learning levels: foundational skills in reading and arithmetic

**Reading:** The ASER reading test assesses whether a child can read letters, words, a simple paragraph at Std I level of difficulty, or a 'story' at Std II level of difficulty. The test is administered one on one to all children in the age group 5 to 16 and the child is marked at the highest level that she or he can reach.

- Std III: The percentage of all children in Std III who can read at Std II level has been climbing slowly over the past few years. This figure has increased from 21.6% in 2013 to 23.6% in 2014 to 25.1% in 2016, and finally to 27.2% in 2018. Among children enrolled in Std III in government schools, six states (Punjab, Haryana, Mizoram, Uttar Pradesh, Gujarat, and Kerala) show an improvement of more than 5 percentage points over 2016 levels.
- Std V: Slightly more than half of all children enrolled in Std V can read at least a Std II level text. This figure has inched up from 47.9% in 2016 to 50.3% in 2018. For government school children enrolled in Std V, states showing an increase of 5 percentage points or more from 2016 to 2018 are Himachal Pradesh, Uttar Pradesh, Odisha, Chhattisgarh, Karnataka, Kerala, Arunachal Pradesh, and Mizoram; with Punjab and Andhra Pradesh close behind.
- Std VIII: By Std VIII, the last year of compulsory schooling in India, children are expected not only to have mastered foundational skills but to have proceeded well beyond the basic stage. ASER 2018 data indicates that of all children enrolled in Std VIII in India, about 73% can read at least a Std II level text. This number is unchanged from 2016.

**Arithmetic:** The ASER arithmetic test assesses whether a child can recognize numbers from 1 to 9, recognize numbers from 10 to 99, do a 2-digit numerical subtraction problem with borrowing, or correctly solve a numerical division problem (3-digit by 1-digit). The tasks are administered one on one to all children in the age group 5 to 16 and the child is marked at the highest level that she or he can reach.

- Std III: The all India figure for children in Std III who are able to do at least subtraction has not changed much, from 27.6% in 2016 to 28.1% in 2018. For government school children, this figure was 20.3% in 2016 and 20.9% in 2018. However, government school children in some states are doing significantly better, with an increase of 3 percentage points or more over 2016. These include Punjab, Haryana, Assam, Uttar Pradesh, Gujarat, Maharashtra, and Kerala.
- Std V: The proportion of children in Std V across India who are able to do division has inched up slightly, from 26% in 2016 to 27.8% in 2018. But among government school children, some states have shown significant improvements of 5 percentage points or more over 2016 levels. These include Punjab, Uttar Pradesh, Assam, Chhattisgarh, Maharashtra, Kerala, and Tamil Nadu.
- Std VIII: The overall performance of Std VIII in basic arithmetic has not changed much over time. Currently about 44% of all children in Std VIII can solve a 3-digit by 1-digit numerical division problem correctly. While this figure has gone down from 2016 to 2018 in many states, government school children in some states show substantial improvements in the last two years: for example, Punjab (from 48% to 58.4%), Uttar Pradesh (from 25.5% to 32%), Maharashtra (from 32.4% to 41.4%), and Tamil Nadu (from 42.6% to 49.6%).

#### Learning levels: 'beyond basics'

In ASER 2018, children in the age group 14 to 16 were given a few tasks which required calculations to be done in everyday contexts. Children were asked to calculate time, compute how many tablets would be required to purify water (application of unitary method), figure out where to buy books given two different price lists (financial decision making), and compute a discount. Each of these tasks was done one on one. Results are reported for those children in this age group who could do at least subtraction correctly.

Gender differences in reading and arithmetic the 14-16 age group: For the age group 14 to 16, the all India figure for the proportion of girls who can read at least a Std II level text is very similar to that of boys. Both are around 77%. However, girls outperform boys in many states like Himachal Pradesh, Punjab, West Bengal, Assam, Chhattisgarh, Maharashtra, Karnataka, and Tamil Nadu.

In basic arithmetic, boys seem to hold a substantial advantage. Nationally, 50% of all boys in the age group 14 to 16 can correctly solve a division problem as compared to 44% of all girls. But in states like Himachal Pradesh, Punjab, Karnataka, Kerala, and Tamil Nadu, girls in this age group are doing better than boys in arithmetic.

'Beyond basics' - bonus tool tasks: Of the 14-16 year olds who could solve a numerical division problem, a little under half could compute the time question correctly, 52% could apply the unitary method to calculate how many tablets were needed to purify a given volume of water, about 37% were able to take the correct decision regarding the purchase of books, and less than 30% could compute the discount correctly. In all cases, fewer girls could solve questions correctly as compared to boys.

Further, performance on these everyday tasks was uniformly lower among those in this age group who could do subtraction but not division, as compared to those who could do division.

#### **School observations**

As part of the ASER survey, one government school with primary sections is visited in each sampled village. Preference is given to a government upper primary school (Std I-VII/VIII) if one exists in the village.

In 2018, ASER surveyors visited 15,998 government schools with primary sections. 9,177 were primary schools and 6,821 were upper primary schools. This represented an increase of almost 13.6% over the number of upper primary schools visited in 2016. Large increases in the number of sampled villages with upper primary schools were visible in Haryana, Uttar Pradesh, Assam, and Madhya Pradesh.

#### Small schools

- Nationally, in 2018, 4 out of 10 government primary schools visited had less than 60 students enrolled. This number has increased every year over the last decade. It was 26.1% in 2009, 30% in 2011, 33.1% in 2013, 39.8% in 2016, and stands at 43.3% in 2018.
- This decade-long pattern of year-on-year increase in the proportion of small schools is seen in Himachal Pradesh (from 58.1% in 2009 to 84% in 2018), Chhattisgarh (from 19.3% in 2009 to 40.7% in 2018), and Madhya Pradesh (from 18.1% in 2009 to 49.6% in 2018).

#### Teacher and student attendance

- At the all India level, no major change is seen in students' and teachers' attendance. Average teacher attendance has hovered at around 85% and average student attendance at around 72% for the past several years in both primary and upper primary schools.
- However, states exhibit very different patterns of attendance. States with student attendance of 90% or more in primary schools in 2018 were Karnataka and Tamil Nadu. Those with teacher attendance of 90% or more in 2018 were Jharkhand, Odisha, Karnataka, and Tamil Nadu.
- In primary schools, student attendance improved by 3 percentage points or more over 2016 levels in Uttar Pradesh, Rajasthan, Punjab, Odisha, and Chhattisgarh.

#### **School facilities**

- The Right to Education Act was implemented in 2010 and the first cohort of students to benefit from its provisions completed 8 years of compulsory schooling in 2018. Nationally, substantial improvements are visible over this 8-year period in the availability of many school facilities mandated by RTE. The fraction of schools with usable girls' toilets doubled, reaching 66.4% in 2018. The proportion of schools with boundary walls increased by 13.4 percentage points, standing at 64.4% in 2018. The percentage of schools with a kitchen shed increased from 82.1% to 91%, and the proportion of schools with books other than textbooks available increased from 62.6% to 74.2% over the same period.
- However, the national averages hide major variations across states. Deficiencies are particularly marked in Jammu and Kashmir and most of the north-eastern states. In these states, less than 50% of schools had provision for drinking water or girls' toilets available in 2018. With the exception of Assam, majority of schools in states in the north-east did not have library books available for students in 2018. While elsewhere in the country the mid-day meal was served on the day of the visit in well over 80% of schools, this proportion was less than 50% in many states in this region.

#### Physical education and sports facilities

This year, ASER introduced a series of questions on the availability of sports infrastructure in schools.

- In 2018, about 8 out of 10 schools had a playground available for students, either within the school premises or close by. A playground was accessible in more than 90% of schools in Himachal Pradesh, Haryana, and Maharashtra. But more than a quarter of all schools in Jammu and Kashmir, Bihar, Odisha, and Jharkhand did not have access to a playground.
- Physical education teachers are scarce in schools across rural India. Only 5.8% of all primary schools and 30.8% of upper primary schools had a physical education teacher available. In majority of schools, another teacher was tasked with supervising physical education activities as well. But in Haryana, Rajasthan and Kerala, the proportion of schools with a physical education teacher is significantly higher than the national average.
- Sports equipment of some kind was observed in 55.8% of primary schools and 71.5% of upper primary schools. States
  where significantly higher proportions of schools had sports equipment available included Himachal Pradesh, Tamil
  Nadu, and Andhra Pradesh.



Statewise chart showing percentage point change in government school children in Std III who can read Std II level text (ASER 2016-2018)



	-10	-5	0	5	10	15	20
Andhra Pradesh							
Arunachal Pradesh							
Assam							
Bihar							
Chhattisgarh							
Gujarat							
Haryana							
Himachal Pradesh							
Jammu and Kashmir							
Jharkhand							
Karnataka							
Kerala							
Madhya Pradesh							
Maharashtra							
Manipur							
Meghalaya							
Mizoram							
Nagaland							
Odisha							
Punjab							
Rajasthan							
Sikkim							
Tamil Nadu							
Telangana							
Tripura							
Uttar Pradesh							
Uttarakhand							
West Bengal							
All India							



Statewise chart showing percentage point change in government school children in Std III who can do at least subtraction (ASER 2016-2018)

-15 -10 -5 0 5 10 15 20 25



Arunachal Pradesh Assam	•
Assam	
Bihar	
Chhattisgarh	
Gujarat	
Haryana	
Himachal Pradesh	
Jammu and Kashmir	
Jharkhand	
Karnataka	
Kerala	
Madhya Pradesh	
Maharashtra	
Manipur	
Meghalaya	
Mizoram	
Nagaland	
Odisha	
Punjab	
Rajasthan	
Sikkim	
Tamil Nadu	
Telangana	
Tripura	
Uttar Pradesh	
Uttarakhand	
West Bengal	
All India	



Statewise chart showing percentage point change in government school children in Std V who can read Std II level text (ASER 2016-2018)



	-15	-10	) -5	5 (	0	5	10	15	20
Andhra Pradesh									
Arunachal Pradesh									
Assam									
Bihar									
Chhattisgarh									
Gujarat									
Haryana									
Himachal Pradesh									
Jammu and Kashmir									
Jharkhand									
Karnataka									
Kerala									
Madhya Pradesh									
Maharashtra									
Manipur									
Meghalaya									
Mizoram									
Nagaland									
Odisha									
Punjab									
Rajasthan									
Sikkim									
Tamil Nadu									
Telangana									
Tripura									
Uttar Pradesh									
Uttarakhand									
West Bengal									
All India									
	-								



Statewise chart showing percentage point change in government school children in Std V who can do division (ASER 2016-2018)

-10 -5

0

5

10 15



Andhra Pradesh Arunachal Pradesh Assam Bihar Chhattisgarh Gujarat Haryana **Himachal Pradesh** Jammu and Kashmir Jharkhand Karnataka Kerala Madhya Pradesh Maharashtra Manipur Meghalaya Mizoram Nagaland Odisha Punjab Rajasthan Sikkim Tamil Nadu Telangana Tripura **Uttar Pradesh** Uttarakhand West Bengal All India 47



Statewise chart showing percentage point change in government school children in Std VIII who can read Std II level text (ASER 2016-2018)

-10 -5

Andhra Pradesh

0

10

5



MaharashtraIIIManipurIIIMeghalayaIIIMizoramIIINagalandIIIOdishaIIIPunjabIIIRajasthanIIISikkimIIITamil NaduIIITipuraIIIUttar PradeshIIIUttarakhandIIIAll IndiaIIIASER 2018<tdI</td>II



Statewise chart showing percentage point change in government school children in Std VIII who can do division (ASER 2016-2018)



	-20	-15	-10	-5	0	5	10	15
Andhra Pradesh								
Arunachal Pradesh								
Assam								
Bihar								
Chhattisgarh								
Gujarat								
Haryana								
Himachal Pradesh								
Jammu and Kashmir								
Jharkhand								
Karnataka								
Kerala								
Madhya Pradesh								
Maharashtra								
Manipur								
Meghalaya								
Mizoram								
Nagaland								
Odisha								
Punjab								
Rajasthan								
Sikkim								
Tamil Nadu								
Telangana								
Tripura								
Uttar Pradesh								
Uttarakhand								
West Bengal								
All India								



ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 596 OUT OF 619 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in differ	ent types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	65.6	30.9	0.7	2.8	100
Age 7-16: All	64.2	30.8	0.7	4.4	100
Age 7-10: All	66.0	31.7	0.7	1.6	100
Age 7-10: Boys	62.4	35.4	0.7	1.6	100
Age 7-10: Girls	69.9	27.8	0.7	1.6	100
Age 11-14: All	65.0	30.6	0.7	3.7	100
Age 11-14: Boys	61.6	34.4	0.7	3.3	100
Age 11-14: Girls	68.4	26.8	0.8	4.1	100
Age 15-16: All	57.4	28.9	0.6	13.1	100
Age 15-16: Boys	55.7	31.2	0.5	12.6	100
Age 15-16: Girls	59.0	26.9	0.7	13.5	100

'Other' includes children going to Madarsa or EGS.

Chart 2: Trends over time

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 36.9% as compared to 28.6% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 22.6% in 2006, 17.9% in 2012, and 13.5% in 2018.

Tabl % Cl	e 2: hildr	Age en i	-grac n ea	le di ch gi	strib rade	by a	n ige 2	2018					
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
T	27.6	38.1	20.5	7.8				6	.1				100
II	5.9	13.5	37.3	28.3	7.0				8.0				100
Ш	4.	1	12.6	39.4	25.7	11.2			6	.9			100
IV		4.5		14.2	33.1	33.0	7.5	5.2		100			
V		5	5.5		9.3	41.7	26.0	11.4		6	o.2		100
VI			4.4			13.9	34.1	33.7	9.0		4.9		100
VII			5	5.5			10.3	42.5	29.2	8.3	4.	.2	100
VIII				4.5				15.2	41.4	27.0	8.4	3.5	100

This table shows the age distribution for each grade. For example, of all children in Std III, 39.4% children are 8 years old but there are also 12.6% who are 7, 25.7% who are 9, 11.2% who are 10, and 6.9% who are 11 or older.

### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types ofpre-schools and schools 2018

I									
		Pre	-school			School		Not in	
	Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
	Age 3	55.8	1.0	9.9	3.3	1.1	0.1	28.8	100
	Age 4	49.0	2.1	23.2	6.8	3.2	0.2	15.6	100
	Age 5	27.6	2.8	27.4	23.9	9.9	0.3	8.1	100
	Age 6	7.6	1.9	16.4	49.5	20.7	0.5	3.3	100
	Age 7	1.8	0.8	7.3	59.1	28.7	0.6	1.8	100
	Age 8	0.7	0.4	3.3	62.6	30.8	0.7	1.5	100



ASER 2018

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018												
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total						
Ι	42.7	32.6	13.7	5.2	5.8	100						
II	21.3	30.2	21.3	12.5	14.7	100						
III	12.1	22.6	20.8	17.3	27.2	100						
IV	7.6	15.9	16.6	19.3	40.7	100						
V	5.9	11.7	13.0	19.1	50.3	100						
VI	3.8	8.8	10.5	17.2	59.8	100						
VII	2.5	6.5	8.3	15.0	67.7	100						
VIII	1.9	5.3	6.7	13.2	72.8	100						

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 12.1% cannot even read letters, 22.6% can read letters but not words or higher, 20.8% can read words but not Std I level text or higher, 17.3% can read Std I level text but not Std II level text, and 27.2% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Children in Std III who can read Std II level text									
	Govt	Pvt	Govt & Pvt*							
2012	16.7	33.8	21.5							
2014	17.2	37.8	23.6							
2016	19.3	38.0	25.2							
2018	20.9	40.6	27.3							

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

			in in stu		2000,	2010, 4	2012 110	2014
100								
90								
80		2012		2014		2016		2018
70		010				_		
dren 00			2012		2	014	2016	
50 Uil		_						
<sup>%</sup> 40	2008		2010		2012		2014	-
30					_			
20					_			
10			_					
0	Caba		Calaart	1	Cab	ant in	Cabart	
	Std IV	ort in in 2008	Std IV in	IN 2010	Cohort In Std IV in 2012		Std IV in	10 2014
	50010		Std IV	Std	VI	■ Std \	/	2017

Chart 3: Trends over time % Children who can read Std II level text Coborts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 41% and in Std VI (in 2010) was 68.2%. When the cohort reached Std VIII in 2012, this figure was 76.5%. The progress of each of these cohorts can be understood in the same way.

#### Reading Tool (Hindi)

#### Std I level text

रामपुर में एक मैदान था। वहाँ कुछ नहीं उगता था। वहाँ कोई खेलने नहीं जाता था। एक दिन कुछ लोग आए। उन्होंने गाँव के लोगों को बुलाया। सबने मिलकर तय किया कि यहाँ बग़ीचा बनाया जाए। खाद मंगाकर तरह-तरह के पौधे लगाए गए। सही समय पर पानी दिया गया। आज वहाँ एक सुंदर बग़ीचा है। इसलिए वहाँ सभी खेलने जाते हैं।

Std II level text

रूपा बाहर र	बेल रही थी।
खेलते-खेलते	रात हो गई।
रूपा अपने घ	ार चली गई।
वह खाना खा	कर सो गई।
Letters	Words

	_01101	3	110143					
t	क	च	नाक	त्तोता				
ē	ю - з	व	यूर खुश	इ। मैना				
5	থ	त	मौका	सेव				
Ŧ		ज	झोला	विन				

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text				
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*		
2012	41.7	61.2	46.9	73.4	84.2	76.5		
2014	42.2	62.6	48.0	71.5	82.4	74.7		
2016	41.7	63.0	47.9	70.0	81.0	73.1		
2018	44.2	65.1	50.5	69.0	82.9	73.0		

\* This is the weighted average for children in government and private schools only.







### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018											
Std	Not even 1-9	Recognize	e numbers 10-99	Subtract	Divide	Total					
I	35.7	37.1	21.3	3.9	2.0	100					
	14.9	36.1	34.6	10.6	3.8	100					
	7.6	26.9	37.5	19.6	8.5	100					
IV	4.4	19.2	34.2	24.6	17.6	100					
V	3.3	13.8	30.5	24.5	27.8	100					
VI	2.2	9.7	29.4	24.0	34.7	100					
VII	1.6	7.5	28.0	24.0	39.0	100					
VIII	1.1	5.6	27.3	22.1	43.9	100					

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 7.6% cannot even recognize numbers 1-9, 26.9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 37.5% can recognize numbers up to 99 but cannot do subtraction, 19.6% can do subtraction but cannot do division, and 8.5% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can do at least subtraction								
	Govt	Pvt	Govt & Pvt*						
2012	19.8	43.4	26.4						
2014	17.2	43.4	25.4						
2016	20.3	44.1	27.7						
2018	20.9	43.5	28.2						

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 24.1% and in Std VI (in 2010) was 50.2%. When the cohort reached Std VIII in 2012, this figure was 48.1%. The progress of each of these cohorts can be understood in the same way.

### Arithmetic Tool (Hindi)



#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012 2014 2016 and 2018

2012, 2	2012, 2011, 2010 and 2010											
Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division								
	Govt	Pvt	Pvt Govt & Govt Pvt* Govt		Pvt	Govt & Pvt*						
2012	20.3 37.8		24.9	44.5	57.1	48.1						
2014	20.7	39.3	26.1	40.0	54.2	44.2						
2016	21.1	38.0	26.0	40.2	51.2	43.3						
2018	22.7	39.8	27.9	40.0	54.2	44.1						

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

	Basic reading and arithmetic												
Table 10: Basic reading by age group and gender 2018					Table 11: Basic arithmetic by age group and gender 2018								
Age group	% Children who can read Std II level text				Age group	% Children who can do at least subtraction			% Children who can do division				
	Male	Female	All			Male	Female	All	Male	Female	All		
Age 8-10	33.2	36.8	35.0		Age 8-10	36.4	35.7	36.1	15.7	14.4	15.0		
Age 11-13	61.2	64.1	62.7		Age 11-13	61.1	58.4	59.7	38.0	35.0	36.4		
Age 14-16	76.9	76.9	76.9		Age 14-16	69.6	64.4	66.8	50.1	44.1	46.9		

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



Table 12: can corre	Table 12: Of all children who can do subtraction but not division, % children whocan correctly answer by age and gender 2018											
Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
Ŭ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	33.8	31.8	32.7	38.6	34.1	36.2	27.0	24.3	25.5	15.2	10.7	12.8
Age 15	36.0	32.9	34.3	40.4	33.1	36.4	28.4	24.1	26.0	19.8	12.5	15.8
Age 16	38.3	31.5	34.4	41.4	32.6	36.4	28.3	23.1	25.3	21.0	11.9	15.8
Age 14-16	35.7	32.1	33.7	39.9	33.4	36.3	27.8	23.9	25.6	18.3	11.6	14.6

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calc	ulating	time	App	lying un method	itary	Finan	icial dec making	ision	Calcul	ating dis	scount
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	47.6	43.0	45.4	56.4	47.3	52.0	38.2	34.5	36.4	31.3	23.6	27.5
Age 15	49.9	44.9	47.4	56.7	48.1	52.4	38.5	36.5	37.5	34.7	25.5	30.1
Age 16	51.6	45.8	48.6	55.3	50.1	52.6	38.4	36.7	37.5	36.4	27.8	31.9
Age 14-16	49.5	44.5	47.0	56.2	48.4	52.3	38.3	35.8	37.1	33.8	25.5	29.6



Data is not presented where sample size is insufficient.

# Annual Status of Education Report

### Performance of states

Table 14: Private	school enrol	lment, girls n	ot in school,	and learning	levels by sta	te 2018			
	Private school	Not in	school	Std III: Lear	ning levels	Std V: Lear	ning levels	Std VIII: Lea	rning levels
State	% Children (Age 6-14) enrolled in private schools	% Girls (Age 11-14) not enrolled in school	% Girls (Age 15-16) not enrolled in school	% Children who can read Std II level text	% Children who can do at least subtraction	% Children who can read Std II level text	% Children who can do division	% Children who can read Std II level text	% Children who can do division
Andhra Pradesh	35.2	2.9	9.7	22.4	38.4	59.7	39.3	78.2	47.6
Arunachal Pradesh	35.2	2.9	8.6	18.8	33.9	37.1	27.3	70.5	50.1
Assam	24.8	2.6	9.6	19.9	29.7	40.1	17.8	60.8	31.2
Bihar	16.9	4.2	9.8	23.5	28.4	41.3	29.9	71.2	56.9
Chhattisgarh	20.0	5.6	21.2	29.8	19.3	59.5	26.9	78.7	31.1
Gujarat	12.4	3.6	24.9	33.1	25.6	53.7	20.1	73.2	35.6
Haryana	55.3	2.3	6.8	46.2	53.7	69.1	50.9	81.2	63.2
Himachal Pradesh	40.7	0.5	2.0	47.8	50.2	76.9	56.6	89.9	61.0
Jammu and Kashmir	40.1	2.4	12.5	22.3	36.2	41.9	25.0	64.8	32.9
Jharkhand	19.0	3.4	11.2	18.8	22.5	34.4	19.0	66.4	44.0
Karnataka	29.1	1.2	7.8	19.2	26.3	46.0	20.5	70.3	39.0
Kerala	46.9	0.5	0.6	52.5	47.9	77.2	43.7	89.6	51.8
Madhya Pradesh	26.1	7.7	26.8	17.6	13.9	41.6	19.8	64.4	36.6
Maharashtra	37.6	1.6	5.1	42.0	27.2	66.4	30.2	80.2	40.5
Manipur	70.4	1.6	5.4	35.8	58.5	67.5	50.5	86.5	72.5
Meghalaya	58.6	2.0	9.2	24.6	19.2	50.1	7.2	82.8	28.1
Mizoram	27.2	0.2	3.7	25.6	58.9	64.3	40.2	89.4	71.0
Nagaland	48.6	2.6	6.4	22.6	36.9	48.0	25.8	83.6	51.3
Odisha	10.5	2.1	12.3	38.7	30.9	58.4	25.4	72.6	42.5
Punjab	52.2	1.6	6.2	39.4	49.7	71.6	53.0	85.1	62.4
Rajasthan	35.8	7.4	20.1	20.4	17.3	49.1	23.3	78.3	41.6
Sikkim	30.7	0.9	5.1	29.4	41.0	41.7	12.5	79.0	44.6
Tamil Nadu	32.1	0.2	1.4	10.2	26.0	40.7	25.4	73.2	50.2
Telangana	41.8	0.9	6.2	18.0	34.3	43.7	27.1	69.0	48.3
Tripura	13.9	0.4	1.2	25.6	34.8	45.0	19.2	68.3	30.7
Uttar Pradesh	49.7	7.4	22.2	28.1	26.6	52.0	29.6	73.7	44.4
Uttarakhand	42.7	2.2	6.6	34.5	32.3	64.3	37.5	83.8	48.6
West Bengal	7.9	1.3	4.8	40.0	38.4	50.7	29.7	61.8	28.7
All India	30.9	4.1	13.5	27.2	28.1	50.3	27.8	72.8	44.0

ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 596 OUT OF 619 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 15: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	8419	8858	9675	9177
Upper primary schools (Std I-VII/VIII)	5821	6378	6007	6821
Total schools visited	14240	15236	15682	15998

Table 16: Trends over timeStudent and teacher attendan2010, 2014, 2016 and 2018	ce on th	ne day o	f visit	
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Enrolled children present (Average)	72.9	71.3	71.4	72.4
% Teachers present (Average)	87.1	85.0	85.4	85.1
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Enrolled children present (Average)	73.4	71.1	73.2	72.3
% Teachers present (Average)	86.4	85.8	84.7	85.8

Table 17: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	55.2	62.8	63.7	63.4
% Schools where Std IV children were observed sitting with one or more other classes	49.0	56.8	58.0	58.0
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	54.0	59.9	59.3	60.9
% Schools where Std IV children were observed sitting with one or more other classes	41.6	48.4	49.2	48.1

### **School facilities**

Table 18: % School: 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	82.1	88.1	89.7	91.0
meal	Mid-day meal served in school on day of visit	84.6	85.1	87.1	87.1
	No facility for drinking water	17.0	13.9	14.8	13.9
Drinking	Facility but no drinking water available	10.3	10.5	11.2	11.3
water	Drinking water available	72.7	75.6	74.0	74.8
	Total	100	100	100	100
	No toilet facility	11.0	6.3	3.5	3.0
Toilet	Facility but toilet not useable	41.8	28.5	27.9	22.8
TOHEL	Toilet useable	47.2	65.2	68.6	74.2
	Total	100	100	100	100
	No separate provision for girls' toilet	31.2	18.8	12.4	11.5
Cirle	Separate provision but locked	18.7	12.9	11.6	10.5
toilet	Separate provision, unlocked but not useable	17.2	12.6	14.1	11.7
tonot	Separate provision, unlocked and useable	32.9	55.7	61.9	66.4
	Total	100	100	100	100
	No library	37.4	21.9	24.6	25.8
Library	Library but no books being used by children on day of visit	24.7	37.4	32.9	37.3
LIDIALY	Library books being used by children on day of visit	37.9	40.7	42.6	36.9
	Total	100	100	100	100
	Electricity connection			67.9	75.0
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		75.0	78.5
	No computer available for children to use	84.2	80.4	80.0	78.7
0	Available but not being used by children on day of visit	7.2	12.6	11.9	14.8
Computer	Computer being used by children on day of visit	8.6	7.0	8.1	6.5
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 19: Trends over time % Schools with total enrollment of 2010, 2014, 2016 and 2018	f 60 or less	5		
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	27.3	36.0	39.8	43.3
Upper primary schools (Std I-VII/VIII)	2.7	7.2	8.9	10.7

#### Table 20: Physical education and sports in schools 2018

% Schools v	vith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	58.4	69.1	62.9
Dedicated time for	No physical education period but dedicated time allotted	22.4	17.0	20.1
physical education	No physical education period and no dedicated time allotted	19.2	14.0	17.0
	Total	100	100	100
	Separate physical education teacher	5.8	30.8	16.5
Physical	Other physical education teacher	63.0	46.6	56.0
teacher	No physical education teacher	31.2	22.6	27.5
	Total	100	100	100
	Playground inside the school premises	65.0	70.3	67.2
Playaround	Playground outside the school premises	15.9	15.0	15.5
Flayground	No accessible playground	19.1	14.7	17.2
	Total	100	100	100
Availability of	of any sports equipment	55.8	71.5	62.5
Supervised p of visit	hysical education activity observed on day	23.5	30.3	26.4

Table 21: School Management Committee (2014, 2016 and 2018	(SMC) in sc	hools	
	2014	2016	201
% Schools which reported having an SMC	94.0	94.8	95.5
Of all schools that have an SMC, % schools that ha	ad the last SN	1C meeting	
Before July	10.7	7.7	6.9

Before July	10.7	7.7	6.9
Between July and September	74.1	63.0	72.1
After September	15.2	29.4	21.0







Data is not presented where sample size is insufficient.





Girls' toilet available

and useable

Toilet available and useable

Drinking water available

Kitchen shed for cooking

mid-day meal 2014 65.1 57.4 82.7 87.7

% Schools with: School facilities

Data is not presented where sample size is insuf

2018

2016 72.8

2014

2010

2018

2016 82.9

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2010 38.6

2018

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Jammu and Kashmir

Himachal Pradesh

Haryana Gujarat

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Arunachal Pradesh

Assam Bihar

Andhra Pradesh

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44.3

uffic	cient																			1	AS Facil	itate	d by	/ P.R.
75.7	87.4	84.4	86.3	48.2	72.5	66.4	83.4	56.5	63.9	15.4	29.9	34.9	47.0	69.3	83.9	80.9	75.7	86.2	71.9	32.7	67.2	67.2	67.7	66.4
70.2	81.1	82.3	79.5		61.4	59.3	78.8	45.9	62.4	24.5	38.5	25.3	40.9	65.8	75.4	79.8	75.0	76.2	64.2	40.0	51.5	61.3	63.0	61.9
53.4	81.4	79.6	86.2	46.7	48.0	55.1	80.2	40.3	59.1	19.8	16.8	28.1	45.0	53.3	71.6	73.7	65.2	68.7	54.2	57.1	49.1	53.7	46.9	55.7
20.0	49.9	52.8	38.7		20.9	31.8	43.9	28.9	43.2	8.4	14.8	30.8	30.6	34.7	49.4	50.3	37.5	35.1	25.4	30.3	33.9	24.0	23.7	32.9
85.7	91.3	90.8	94.2	73.0	74.9	70.8	89.4	68.3	70.1	44.9	44.8	44.6	61.8	75.7	89.5	84.9	82.4	90.2	77.0	53.0	72.7	85.8	81.1	74.2
78.1	82.9	85.5	84.0		62.8	63.1	82.0	58.5	67.9	43.8	51.9	40.0	50.0	75.5	80.1	83.2	77.4	79.3	74.7	65.8	54.8	74.9	76.9	68.6
68.9	84.8	81.8	87.6	58.1	52.9	60.2	84.8	55.1	66.3	53.1	38.8	33.7	68.0	63.2	79.2	81.5	73.0	79.8	64.3	58.7	54.9	69.2	70.8	65.2
29.6	64.8	67.9	56.0		26.8	38.4	58.2	50.3	53.0	40.2	24.5	55.6	53.9	44.4	61.2	65.4	59.4	44.6	38.6	43.0	47.4	53.4	52.1	47.2
82.5	88.0	82.0	89.4	54.6	82.6	76.8	52.9	71.0	70.9	6.5	15.5	57.4	27.3	82.9	82.7	72.8	74.5	80.2	57.2	45.6	85.1	75.6	81.3	74.8
85.0	84.6	75.8	84.7		81.5	75.3	80.5	73.0	67.1	15.3	19.8	64.7	22.6	77.7	81.9	70.1	71.1	82.4	56.6	59.1	82.0	72.1	78.4	74.0
80.3	87.0	76.2	87.7	51.6	80.2	81.2	83.0	75.3	70.5	15.7	16.5	68.5	23.4	81.4	81.0	73.4	74.0	79.8	61.2	56.2	85.8	69.2	78.4	75.6
77.6	79.4	74.6	83.2		73.8	75.8	85.7	78.5	69.0	5.1	23.9	48.5	37.0	70.3	83.1	68.0	76.8	80.5	64.8	40.0	82.2	68.3	67.2	72.7
97.0	90.4	88.2	99.3	86.3	88.7	93.0	99.2	85.7	94.9	61.6	84.5	96.1	83.0	89.9	99.1	92.8	95.3	96.2	86.4	98.3	95.4	98.0	94.0	91.0
94.7	91.9	82.0	97.5		88.4	95.1	98.1	85.7	95.6	51.5	86.7	93.6	84.0	87.8	96.9	90.8	97.6	97.9	80.8	99.1	96.5	95.6	93.2	89.7
92.9	90.0	75.8	97.1	75.5	83.9	93.0	98.8	89.8	92.0	52.8	83.3	94.0	79.2	82.8	94.5	89.8	97.3	97.5	76.1	97.1	96.0	97.3	95.4	88.1
86.1	88.3	51.0	82.5		73.5	92.9	98.1	89.9	78.2	58.4	60.6	96.2	81.7	74.4	94.7	83.8	95.7	96.7	71.0	88.2	89.3	96.3	86.3	82.1
71.8	96.3	90.8	63.6	38.7	34.8	84.7	80.2	44.7	74.0	14.4	12.7	35.5	36.4	50.5	92.6	84.6	35.9	75.6	71.4	31.6	72.4	58.3	55.1	64.4
62.4	94.2	91.6	57.4		33.0	81.2	79.3	39.7	74.4	9.5	6.8	26.7	40.8	47.4	91.9	82.4	38.8	72.9	69.3	39.5	66.9	56.7	56.5	60.3

71.0

60.7

Tamil Nadu

Rajasthan

Sikkim

Telangana

Tripura

42.7

58.9 28.2 64.3

61.2 19.4 44.4 66.8 34.5 51.0

56.6

Uttar Pradesh

Uttarakhand West Bengal

All India

48.7 58.8

52.6 48.2 88.9 84.5

42.8 40.8 82.8 70.1 14.5

Nagaland

Odisha

Punjab

Mizoram

37.7



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Table 22: Trends over time

Performance of schools with respect to selected Right to Education indicators by state 2010, 2014, 2016 and 2018

Data is not presented where sample size is insufficient.

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Table 23: Trends over time

Performance of schools with respect to other selected indicators by state 2010, 2014, 2016 and 2018

Data is not presented where sample size is insufficient.

Table 23: Trends over ti Performance of schools	ime with respec	t to other se	lected indic	ators by stat	te 2010, 201	4, 2016 anc	1 2018					
						% Scho	ols with:					
State	C	omputer avails	able for childre	ue	Computer	available and them on c	children obse lay of visit	ved using	Mid-day	meal served ir	n school on da	ly of visit
	2010	2014	2016	2018	2010	2014	2016	2018	2010	2014	2016	2018
Andhra Pradesh	9.3	13.6	17.4	22.6	6.2	5.6	9.5	6.6	99.7	99.5	99.5	96.0
Arunachal Pradesh	14.3	10.2	12.3	7.7	8.0	3.2	1.0	1.3	47.1	57.5	50.5	36.2
Assam	1.8	2.4	1.2	6.5	0.2	0.7	0.3	1.6	67.3	61.7	70.8	64.0
Bihar	6.9	5.7	7.1	3.4	4.0	0.7	0.8	0.6	57.2	69.2	76.5	84.5
Chhattisgarh	4.1	0.5	1.5	2.4	1.7	0.0	0.2	0.4	94.6	86.1	80.1	91.7
Gujarat	52.2	81.3	75.2	66.9	27.9	28.5	31.5	24.0	96.2	94.2	95.4	94.1
Haryana	17.4	11.5	10.6	18.3	6.9	3.7	2.4	5.1	93.7	91.7	92.5	85.3
Himachal Pradesh	6.7	5.5	7.8	6.6	3.2	3.3	1.8	2.1	98.0	93.8	98.9	93.1
Jammu and Kashmir		8.8		17.2		2.6		4.6		74.7		77.3
Jharkhand	7.0	4.0	4.3	6.6	4.1	1.3	1.1	1.1	92.6	78.6	80.7	79.0
Karnataka	29.4	39.5	45.0	41.8	13.4	15.9	14.6	9.9	96.0	98.9	98.8	97.5
Kerala	82.8	89.8	89.0	75.4	66.7	41.1	69.9	22.4	100.0	74.6	94.1	96.1
Madhya Pradesh	7.5	4.2	2.5	3.8	1.7	0.9	0.3	0.7	94.7	88.3	88.4	82.9
Maharashtra	33.3	46.3	55.1	64.6	19.8	14.7	17.8	19.0	90.7	94.8	94.5	94.7
Manipur	8.5	16.3	15.0	9.0	2.5	5.1	4.4	3.2	47.8	34.5	49.4	46.4
Meghalaya	2.8	1.6	1.7	2.1	0.9	0.8	0.9	0.7	51.9	40.7	47.9	47.9
Mizoram	7.7	1.6	5.0	9.9	5.9	0.5	0.9	0.4	94.0	72.0	91.7	89.2
Nagaland	14.8	11.4	14.6	13.2	3.7	5.5	3.1	2.4	31.9	24.1	24.6	27.4
Odisha	7.1	13.9	15.5	18.7	4.4	5.8	6.4	6.1	88.8	96.8	98.1	98.8
Punjab	10.7	8.7	8.9	21.5	5.2	2.2	3.2	3.8	97.9	92.7	95.2	93.4
Rajasthan	15.7	33.8	34.9	38.6	5.3	8.2	10.5	11.6	94.8	82.7	91.8	95.1
Sikkim	39.1	42.9	39.0	33.6	24.6	24.7	18.3	9.4	98.6	85.1	86.8	78.5
Tamil Nadu	47.0	62.4	57.5	57.9	29.4	27.1	33.1	29.3	99.4	99.8	99.2	98.7
Telangana	9.3	13.6	12.2	10.6	6.2	5.6	4.6	3.1	98.4	99.6	98.9	95.8
Tripura	8.5	7.8	10.1	4.4	5.3	3.9	1.8	0.9	74.7	97.1	98.2	96.5
Uttar Pradesh	1.4	2.2	2.7	3.3	0.3	0.3	0.6	0.7	71.3	93.9	91.2	93.3
Uttarakhand	6.7	8.8	9.6	9.8	1.5	2.0	2.5	0.7	95.0	92.3	95.0	88.1
West Bengal	1.3	2.0	4.1	6.7	0.5	1.5	1.1	1.2	63.4	66.7	67.4	81.6
All India	15.8	19.6	20.0	21.3	8.6	7.0	8.1	6.5	84.6	85.1	87.1	87.1



# Andhra Pradesh, Arunachal Pradesh

Assam, Bihar

Chhattisgarh



## Andhra Pradesh RURAL

ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 13 OUT OF 13 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in a	different types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	63.2	35.2	0.3	1.4	100
Age 7-16: All	62.1	35.0	0.3	2.6	100
Age 7-10: All	59.9	39.5	0.2	0.4	100
Age 7-10: Boys	56.5	42.8	0.3	0.4	100
Age 7-10: Girls	63.1	36.3	0.1	0.5	100
Age 11-14: All	66.5	30.6	0.4	2.5	100
Age 11-14: Boys	63.8	33.8	0.3	2.1	100
Age 11-14: Girls	68.9	27.7	0.5	2.9	100
Age 15-16: All	57.1	33.7	0.2	9.0	100
Age 15-16: Boys	57.8	33.7	0.2	8.3	100
Age 15-16: Girls	56.4	33.7	0.2	9.7	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 43.3% as compared to 29.6% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 21.3% in 2006, 21.6% in 2012, and 9.7% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	23.2	48.8	20.6	5.5		2.1					100		
	II	3.2	15.1	55.0	20.5		6.1					100		
	111	C	).9	19.1	53.1	19.0	5.0	.0 2.8				100		
	IV		2.1		17.3	49.5	49.5 23.2 5.2 2.7					100		
	V		2	2.3		15.5	15.5 <mark>55.9</mark> 20.1 6.2					100		
	VI			2.9		15.5 50.8 23.3 6.3 1.2					100			
	VII	2.3						12.5	55.1	24.1	5.2	0.	.9	100
	VIII	2.3 13.2 56.4 22.4 5.7							100					

This table shows the age distribution for each grade. For example, of all children in Std III, 53.1% children are 8 years old but there are also 19.1% who are 7, 19% who are 9, 5% who are 10, and 2.8% who are 11 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

I									
I		Pre-school				School	Not in		
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total	
	Age 3	71.3	0.9	6.6	1.4	1.6	0.0	18.2	100
	Age 4	53.4	1.5	36.6	2.2	2.1	0.0	4.2	100
	Age 5	30.4	1.6	41.8	15.8	8.4	0.0	2.0	100
	Age 6	2.3	0.3	25.7	46.6	24.4	0.0	0.7	100
	Age 7	0.4	0.2	5.6	53.9	39.5	0.2	0.3	100
	Age 8	0.2	0.0	1.1	58.3	40.2	0.0	0.2	100



ASER 2018

## Andhra Pradesh RURAL





Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading levelAll children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	30.5	36.0	28.0	4.3	1.2	100				
II	11.9	24.8	42.9	11.3	9.2	100				
III	6.1	13.8	36.6	21.1	22.4	100				
IV	2.7	6.0	24.8	22.7	43.8	100				
V	1.6	3.9	13.8	21.0	59.7	100				
VI	1.4	3.1	11.7	19.8	63.9	100				
VII	2.0	5.2	10.4	12.2	70.3	100				
VIII	1.4	2.5	7.6	10.3	78.2	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 6.1% cannot even read letters, 13.8% can read letters but not words or higher, 36.6% can read words but not Std I level text or higher, 21.1% can read Std I level text but not Std II level text, and 22.4% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can read Std II level text								
. oui	Govt	Pvt	Govt & Pvt*						
2012	28.0	28.9	28.3						
2014	21.3	32.0	24.7						
2016	19.0	28.3	22.6						
2018	22.6	22.5	22.6						

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 48.4% and in Std VI (in 2010) was 75.9%. When the cohort reached Std VIII in 2012, this figure was 88.1%. The progress of each of these cohorts can be understood in the same way.

### Reading Tool (Telugu)





#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Children in Std V who can read Std II level text			% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	64.0	58.8	62.4	87.7	89.1	88.1	
2014	57.0	58.2	57.4	79.5	87.4	81.6	
2016	52.6	60.6	55.3	73.5	91.1	78.0	
2018	57.1	64.8	59.7	78.6	77.5	78.2	

\* This is the weighted average for children in government and private schools only.






### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level         All children 2018								
Std	Not even 1-9	Recognize	e numbers 10-99	Subtract	Divide	Total		
I	23.8	33.3	39.3	3.2	0.6	100		
	8.4	19.0	57.4	12.9	2.3	100		
	3.9	7.0	50.8	32.8	5.5	100		
IV	1.1	3.6	35.5	40.9	19.0	100		
V	0.4	1.8	24.8	33.8	39.3	100		
VI	0.6	1.0	24.3	32.6	41.5	100		
VII	0.4	1.0	19.8	35.6	43.3	100		
VIII	0.6	0.2	19.8	31.8	47.6	100		

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 3.9% cannot even recognize numbers 1-9, 7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 50.8% can recognize numbers up to 99 but cannot do subtraction, 32.8% can do subtraction but cannot do division, and 5.5% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018								
Year	% Children in Std III who can do at least subtraction							
	Govt	Pvt	Govt & Pvt*					
2012	46.3	67.1	54.1					
2014	31.4	57.8	39.8					
2016	39.1	62.9	48.3					
2018	34.1	45.6	38.5					

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 2012 70 09 Children 2012 2014 2016 2018 2014 2016 °<sup>8</sup> 40 30 2008 2010 2012 2014 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 28.7% and in Std VI (in 2010) was 57.2%. When the cohort reached Std VIII in 2012, this figure was 68.9%. The progress of each of these cohorts can be understood in the same way.



#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

2012, 2011, 2010 and 2010									
Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division					
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*			
2012	41.8	53.4	45.4	65.0	80.5	68.9			
2014	37.8	37.3	37.6	53.0	65.7	56.4			
2016	35.9	40.3	37.4	41.2	76.9	50.5			
2018	36.7	45.3	39.7	44.0	56.1	47.6			

\* This is the weighted average for children in government and private schools only.



Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.

# Annuel Status of Education Report

Basic reading and arithmetic											
Table 10: Basic reading by age group and gender 2018				Table	e 11: Basic	arithmetic	: by age gro	oup and ger	nder 2018		
Age group	% Children who can read Std II level text			Age g	roup	% Children who can do at least subtraction			% Children who can do division		
	Male	Female	All			Male	Female	All	Male	Female	All
Age 8-10	35.0	42.6	39.0	Age 8	-10	50.5	56.7	53.7	18.0	20.0	19.1
Age 11-13	61.3	73.3	67.9	Age 1	1-13	73.6	76.4	75.1	40.8	44.2	42.7
Age 14-16	79.6	83.0	81.4	Age 1	4-16	79.8	81.4	80.6	58.1	56.2	57.1

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018												
Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	35.2	38.5	36.9	36.4	46.1	41.5	15.5	29.1	22.6	14.7	12.0	13.3
Age 15	36.8	40.0	38.8	19.2	40.8	32.5	19.2	21.1	20.4	11.0	17.9	15.3
Age 16	47.8	44.9	46.0	22.6	30.5	27.4	19.2	13.1	15.5	31.9	11.7	19.8
Age 14-16	38.8	40.8	39.9	27.9	40.0	34.8	17.5	21.9	20.0	17.8	14.0	15.6

## Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	56.4	36.7	45.6	64.5	51.3	57.2	25.9	28.1	27.1	31.1	27.2	28.9
Age 15	53.9	53.5	53.7	55.3	55.6	55.4	21.4	26.3	23.9	38.6	21.6	29.9
Age 16	53.4	42.8	47.8	54.0	51.0	52.4	34.5	26.7	30.4	32.7	29.1	30.8
Age 14-16	54.6	44.1	49.0	58.1	52.6	55.2	26.8	27.1	26.9	34.3	25.9	29.8



Table 12. Of all abildren w

ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 13 OUT OF 13 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	275	276	296	309
Upper primary schools (Std I-VII/VIII)	99	104	84	70
Total schools visited	374	380	380	379

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018								
Primary schools (Std I-IV/V)	2010	2014	2016	2018				
% Enrolled children present (Average)	76.0	79.5	83.5	81.5				
% Teachers present (Average)	83.7	84.5	87.3	82.5				
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018				
% Enrolled children present (Average)	74.5	79.8	81.5	84.1				
% Teachers present (Average)	82.3	78.8	87.2	80.1				

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	66.4	67.3	62.2	63.0
% Schools where Std IV children were observed sitting with one or more other classes	58.0	58.2	58.0	59.0
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	55.7	67.0	71.4	57.4
% Schools where Std IV children were observed sitting with one or more other classes	47.9	52.0	63.1	50.0

## School facilities

Table 17: % School 2010, 20	Fable 17: Trends over time         % Schools with selected facilities         2010, 2014, 2016 and 2018         % Schools with         2010							
% Schools	with	2010	2014	2016	2018			
Mid-day	Kitchen shed for cooking mid-day meal	64.2	65.1	70.0	72.9			
meal	Mid-day meal served in school on day of visit	99.7	99.5	99.5	96.0			
	No facility for drinking water	22.8	16.2	15.0	12.7			
Drinking	Facility but no drinking water available	12.4	22.6	28.4	29.2			
water	Drinking water available	64.8	61.2	56.6	58.1			
	Total	100	100	100	100			
	No toilet facility	23.4	13.0	4.2	2.9			
Toilot	Facility but toilet not useable	38.1	22.7	12.9	10.6			
Tonet	Toilet useable	38.6	64.3	82.9	86.4			
	Total	100	100	100	100			
Cirla	No separate provision for girls' toilet	53.1	28.4	15.6	8.9			
	Separate provision but locked	9.2	8.7	6.3	4.2			
toilet	Separate provision, unlocked but not useable	12.3	8.7	5.3	5.9			
tonot	Separate provision, unlocked and useable	25.4	54.2	72.8	81.1			
	Total	100	100	100	100			
	No library	8.0	2.8	5.3	9.0			
Library	Library but no books being used by children on day of visit	14.4	31.6	24.2	36.2			
LIDIALY	Library books being used by children on day of visit	77.6	65.6	70.5	54.8			
	Total	100	100	100	100			
	Electricity connection			95.5	96.5			
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	89.8	93.1					
	No computer available for children to use	90.7	86.5	82.6	77.5			
Computer	Available but not being used by children on day of visit	3.0	7.9	7.9	15.9			
Computer	Computer being used by children on day of visit	6.2	5.6	9.5	6.6			
	Total	100	100	100	100			







Data is not presented where sample size is insufficient.

## Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
Primary schools (Std I-IV/V)	36.9	40.4	39.2	43.8					
Upper primary schools (Std I-VII/VIII)	16.3	13.5	25.0	15.7					

### Table 19: Physical education and sports in schools 2018

% Schools v	vith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	76.7	85.5	78.3
Dedicated time for physical education	No physical education period but dedicated time allotted	16.1	11.6	15.2
	No physical education period and no dedicated time allotted	7.2	2.9	6.4
	Total	100	100	100
Physical education teacher	Separate physical education teacher	2.3	8.7	3.5
	Other physical education teacher	70.8	68.1	70.3
	No physical education teacher	26.9	23.2	26.2
	Total	100	100	100
	Playground inside the school premises	60.8	64.3	61.4
Playaround	Playground outside the school premises	18.0	20.0	18.4
Flayground	No accessible playground	21.2	15.7	20.2
	Total	100	100	100
Availability	79.0	88.4	80.7	
Supervised p of visit	hysical education activity observed on day	37.0	44.6	38.4

Table 20: School Management Committee ( 2014, 2016 and 2018	(SMC) in sc	hools	
	2014	2016	2018
% Schools which reported having an SMC	99.2	98.4	99.2
Of all schools that have an SMC, % schools that ha	ad the last SN	1C meeting	
Before July	5.7	1.4	1.1
Between July and September	94.1	89.4	84.5

After September

0.3

9.2

14.4







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 8 OUT OF 16 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Table 1: % Children enro	olled in different	types of schools by
age group and gender 2	018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	60.1	35.2	0.8	3.9	100
Age 7-16: All	63.0	31.9	0.8	4.3	100
Age 7-10: All	55.8	40.4	0.7	3.1	100
Age 7-10: Boys	53.3	43.7	0.8	2.2	100
Age 7-10: Girls	58.3	37.2	0.5	3.9	100
Age 11-14: All	66.4	29.0	1.0	3.6	100
Age 11-14: Boys	65.3	29.7	0.8	4.3	100
Age 11-14: Girls	67.6	28.4	1.2	2.9	100
Age 15-16: All	74.8	14.5	0.6	10.1	100
Age 15-16: Boys	74.5	13.7	0.3	11.5	100
Age 15-16: Girls	75.1	15.4	0.9	8.6	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 38.3% as compared to 23% in Std VIII.



Chart 1: Trends over time

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 20.2% in 2006, 10.9% in 2012, and 8.6% in 2018.

Tabl % Cl	e 2: hildr	Age∙ en i	·grac n ea	le di ch g	strib rade	utio by a	n age 2	2018					
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	31.1	31.7	17.4	10.8		9.1					100		
II	5.7	17.2	34.2	18.6	11.2	6.1			7	7.1			100
III	5	.2	12.4	29.5	24.6	<b>4.6 14.3 5.4 6.1 2.7</b>			100				
IV		4.3		14.8	24.7	24.7 23.9 12.1 11.3 8.8				100			
V			6.1		12.1	12.1 26.1 27.4 13.8 6.9 7.6					100		
VI			3.3			11.5	26.2	25.2	19.4	10.6	3.	.8	100
VII			e	5.3			12.4	25.1	26.6	14.9	10.0	4.8	100
VIII				4.8				15.6	23.1	29.8	17.0	9.8	100

This table shows the age distribution for each grade. For example, of all children in Std III, 29.5% children are 8 years old but there are also 12.4% who are 7, 24.6% who are 9, 14.3% who are 10, 5.4% who are 11, 6.1% who are 12, and 2.7% who are 13 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre-school			School			Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	35.2	3.8	17.9	3.0	0.4	0.0	39.7	100
Age 4	25.6	8.0	39.4	6.9	1.9	0.0	18.2	100
Age 5	17.1	8.4	36.1	24.0	7.7	0.0	6.8	100
Age 6	12.1	4.1	20.1	32.7	24.7	0.0	6.4	100
Age 7	8.7	2.1	10.7	40.1	34.6	0.4	3.4	100
Age 8	3.6	3.0	3.4	51.5	36.3	0.4	1.9	100



like ant

hot

dark

gold

Data is not presented where sample size is insufficient.

Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

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Table All ch	4: % Chi ildren 20	ldren by 18	grade and	d reading le	vel	
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
Ι	25.5	48.6	19.5	5.5	1.0	100
II	6.6	48.0	29.3	8.7	7.4	100
III	5.4	34.3	28.1	13.4	18.8	100
IV	1.2	23.0	31.2	20.4	24.3	100
V	1.0	18.0	23.3	20.6	37.1	100
VI	0.6	12.5	17.8	17.3	51.7	100
VII	0.4	4.9	12.4	20.1	62.2	100
VIII	0.0	5.4	8.2	16.0	70.5	100

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 5.4% cannot even read letters, 34.3% can read letters but not words or higher, 28.1% can read words but not Std I level text or higher, 13.4% can read Std I level text but not Std II level text, and 18.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Reading 2012, 2	Trends c in Std III 014, 201	over time I by scho 6 and 20	ol type 18				
Year	% Children in Std III who can read Std II level text						
	Govt	Govt & Pvt*					
2012	15.5	42.1	21.2				
2014	5.8	24.9	10.3				
2016	2.3	33.5	11.8				
2018	4.8	44.0	18.7				

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 32.7% and in Std VI (in 2010) was 55.8%. When the cohort reached Std VIII in 2012, this figure was 85.9%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I le	vel text
t was the rainy season. The	This is a b	ig monkey.
ky was full of clouds. There	He lives	on a tree.
was a cool breeze blowing.	He likes	s to jump.
wif was eager to play on a	He also lik	ses bananas.
thick rone. They tied it on	Letters	Words
he tree and made a swing.	rok	moon ant
Aany children joined them	di	sun
nd they all started playing.	fys	baby di

Reading Tool (English)

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	Children in Std V who can read Std II level text			ren in Std V ad Std II Iev	VIII who vel text
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*
2012	52.1	68.8	55.4	84.4	95.6	85.9
2014	43.4	51.2	44.5	70.5	83.8	72.5
2016	16.7	52.6	25.3	63.1	89.3	68.1
2018	22.1	64.7	37.0	64.1	91.8	70.1

\* This is the weighted average for children in government and private schools only.



#### Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All chi	7: % Chil ildren 20	dren by g 18	rade and	arithmeti	c level	
Std	Not even 1-9	Recognize	e numbers	Subtract	Divide	Total
I	21.0	30.1	36.4	7.1	5.3	100
	4.3	17.6	56.9	16.7	4.6	100
	2.4	10.1	53.6	27.1	6.8	100
IV	1.2	4.6	47.4	35.1	11.8	100
V	0.2	2.9	36.7	32.9	27.3	100
VI	0.6	2.1	33.4	32.0	31.9	100
VII	0.0	1.0	26.5	31.3	41.3	100
VIII	0.0	0.5	21.4	28.0	50.1	100

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.4% cannot even recognize numbers 1-9, 10.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 53.6% can recognize numbers up to 99 but cannot do subtraction, 27.1% can do subtraction but cannot do division, and 6.8% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Arithme 2012, 2	Trends c tic in Std 014, 201	over time III by sch 6 and 20	nool type 18			
Year	% Children in Std III who can do at least subtraction					
	Govt	Govt & Pvt*				
2012	47.9	70.1	52.6			
2014	34.0	47.3	37.1			
2016	22.2	53.2	31.6			
2018	23.5	51.7	33.5			

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

Chart 4: Trends over time % Children who can do division

#### Cohorts of children in Std IV in 2008, 2010, 2012 and 2014 100 90 2012 80 70 Children 20 2012 2014 2016 2018 2010 °<sup>8</sup> 40 2014 2008 30 2016 20 2010 2014 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 31.1% and in Std VI (in 2010) was 49.2%. When the cohort reached Std VIII in 2012, this figure was 81.1%. The progress of each of these cohorts can be understood in the same way.

6 58	74 63	8) 993(
		- ``
8 99	47 84 - 29 - 35	6) 758(
61	41 32 - 15 - 17	7) 865
6 25	31 68 - 18 - 49	4) 658
	18 99 14 61 16 25 16 62	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Arithmetic Tool (English)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	43.1	61.4	46.7	79.5		81.1	
2014	35.6	36.9	35.8	59.7		59.5	
2016	11.7	41.2	18.7	52.5		55.5	
2018	22.1	36.4	27.1	42.6		49.3	

\* This is the weighted average for children in government and private schools only.







Busior outung and diffinitions											
Table 10: Basic reading by age group and       Table 11: Basic arithmetic by age group and gender 2018         gender 2018       Table 11: Basic arithmetic by age group and gender 2018											
Age group	% Chil S	ldren who ca itd II level tex	an read kt		Age group	% Childr	en who can o subtraction	do at least	% C	hildren who do division	can
	Male	Female	All			Male	Female	All	Male	Female	All
Age 8-10	21.3	23.8	22.6		Age 8-10	40.7	36.5	38.5	11.5	10.9	11.2
Age 11-13	46.0	45.8	45.9		Age 11-13	60.2	58.8	59.5	34.4	30.5	32.4
Age 14-16	58.1	66.3	62.3		Age 14-16	71.4	70.1	70.7	39.5	46.4	43.1

**Basic reading and arithmetic** 

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018											
Age	Calculating time		Appl	Applying unitary Financial decision method making		sision	Calculating discount					
Ŭ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	33.8	15.7	23.6	19.7	24.0	22.1	12.8	26.2	20.4	2.9	3.1	3.0
Age 15	37.9	21.5	29.3	30.1	23.5	26.7	20.2	8.9	14.3	12.8	2.8	7.6
Age 16	36.0	23.3	33.3	32.9	41.3	34.7	25.7	0.0	20.2	7.4	8.7	7.6
Age 14-16	35.9	18.9	28.1	27.9	26.0	27.0	20.0	16.2	18.3	7.5	3.7	5.8

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calc	ulating	time	Applying unitary method		Financial decision making			Calculating discount			
Ŭ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	37.4	41.5	40.0	51.8	31.1	38.8	26.8	26.7	26.7	15.1	9.4	11.5
Age 15	41.5	51.7	47.3	65.4	38.1	50.0	32.1	31.4	31.7	21.6	13.8	17.2
Age 16	56.6	44.8	50.2	52.3	27.8	38.9	36.7	39.0	38.0	15.0	21.3	18.4
Age 14-16	44.3	45.9	45.2	57.1	32.8	42.9	31.6	31.3	31.4	17.6	13.8	15.3



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 8 OUT OF 16 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	152	91	86	58
Upper primary schools (Std I-VII/VIII)	107	98	126	101
Total schools visited	259	189	212	159

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018						
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018		
% Enrolled children present (Average)	82.5	84.4	76.2	77.7		
% Teachers present (Average)	85.3	83.5	81.2	71.1		

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	30.7	39.0	33.5	37.9
% Schools where Std IV children were observed sitting with one or more other classes	26.7	30.3	27.3	27.5

## School facilities

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-dav	Kitchen shed for cooking mid-day meal	64.0	57.4	56.0	57.4
meal	Mid-day meal served in school on day of visit	47.1	57.5	50.5	36.2
	No facility for drinking water	36.9	40.1	37.0	35.9
Drinking	Facility but no drinking water available	9.9	6.4	12.3	19.5
water	Drinking water available	53.2	53.5	50.7	44.7
	Total	100	100	100	100
	No toilet facility	20.8	30.8	11.9	12.0
Toilot	Facility but toilet not useable	53.9	34.1	38.9	38.0
TOHEL	Toilet useable	25.3	35.1	49.3	50.0
	Total	100	100	100	100
	No separate provision for girls' toilet	60.4	51.6	34.7	42.3
Cirla	Separate provision but locked	11.3	10.1	12.6	16.8
toilet	Separate provision, unlocked but not useable	16.2	13.8	16.8	12.8
tonet	Separate provision, unlocked and useable	12.2	24.5	35.8	28.2
	Total	100	100	100	100
	No library	87.0	75.0	65.4	76.0
Library	Library but no books being used by children on day of visit	6.7	16.9	26.1	19.6
LIDIALY	Library books being used by children on day of visit	6.3	8.2	8.5	4.4
	Total	100	100	100	100
	Electricity connection			57.5	62.8
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		72.8	46.2
	No computer available for children to use	85.7	89.8	87.7	92.3
Computer	Available but not being used by children on day of visit	6.4	7.0	11.4	6.4
Computer	Computer being used by children on day of visit	8.0	3.2	1.0	1.3
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018						
	2010	2014	2016	2018		
All schools (Std I-IV/V and Std I-VII/VIII)	33.9	38.0	40.7	49.0		

Table 19: Physical education and sports in schools 2018							
% Schools v	vith	All schools (Std I-IV/V and Std I-VII/VIII)					
	Physical education period in the timetable	23.0					
Dedicated time for physical education	No physical education period but dedicated time allotted	16.2					
	No physical education period and no dedicated time allotted	60.8					
	Total	100					
Physical	Separate physical education teacher	16.2					
	Other physical education teacher	12.2					
teacher	No physical education teacher	71.6					
	Total	100					
	Playground inside the school premises	57.3					
Playaround	Playground outside the school premises	13.3					
Tayground	No accessible playground	29.3					
	Total	100					
Availability of	of any sports equipment	28.9					
Supervised p of visit	hysical education activity observed on day	8.3					

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018					
	2014	2016	2018		
% Schools which reported having an SMC 96.1 98.1 93.0					
Of all schools that have an SMC, % schools that ha	ad the last SN	1C meeting			
Before July	36.0	31.4	20.3		
Between July and September	59.8	62.8	62.2		
After September	4.3	5.8	17.5		







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 26 OUT OF 27 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled i	n different types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	71.7	24.8	1.2	2.3	100
Age 7-16: All	70.1	24.4	1.4	4.2	100
Age 7-10: All	71.6	26.9	0.5	0.9	100
Age 7-10: Boys	68.6	29.8	0.6	1.1	100
Age 7-10: Girls	74.8	24.1	0.4	0.8	100
Age 11-14: All	71.4	23.2	1.9	3.6	100
Age 11-14: Boys	68.6	24.9	2.0	4.6	100
Age 11-14: Girls	74.0	21.6	1.8	2.6	100
Age 15-16: All	62.8	21.4	2.1	13.7	100
Age 15-16: Boys	59.2	21.0	2.2	17.7	100
Age 15-16: Girls	66.3	22.0	2.1	9.6	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 30.9% as compared to 22.3% in Std VIII.



% Children not enrolled in school by age group and gender

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 15% in 2006, 14.9% in 2012, and 9.6% in 2018.

Tabl % Cl	Table 2: Age-grade distribution% Children in each grade by age 2018												
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	25.9	36.8	24.6	8.7			4.1						100
II	3.2	11.9	33.9	33.3	9.7	5.2			3	.0			100
111	2	.3	10.5	32.7	29.8	14.5	5.3			4.9			100
IV		2.4		10.5	28.2	37.7	11.3	6.5		3	8.4		100
V		2	2.6		7.4	34.8	32.9	15.1	5.2 1.9				100
VI			2.4			9.6	25.4	42.8	14.0		5.8		100
VII			2	2.2			6.1	33.4	39.7	12.8	5.	8	100
VIII				2.8				9.2	34.0	37.5	11.7	4.9	100

This table shows the age distribution for each grade. For example, of all children in Std III, 32.7% children are 8 years old but there are also 10.5% who are 7, 29.8% who are 9, 14.5% who are 10, 5.3% who are 11, and 4.9% who are 12 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School	Not in		
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	70.5	1.5	4.7	1.6	0.4	0.1	21.4	100
Age 4	68.1	2.6	13.7	3.5	1.4	0.0	10.7	100
Age 5	40.5	4.4	22.3	21.9	6.6	0.0	4.3	100
Age 6	24.6	4.3	14.9	42.0	12.8	0.0	1.5	100
Age 7	12.7	8.4	6.9	50.5	21.1	0.2	0.2	100
Age 8	3.4	6.1	4.7	61.5	23.3	0.1	0.9	100



ASER 2018

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018												
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total						
Ι	36.0	37.3	16.8	6.2	3.8	100						
II	14.0	29.5	31.8	14.3	10.5	100						
III	7.6	22.6	28.2	21.7	19.9	100						
IV	5.6	16.4	23.3	24.4	30.4	100						
V	4.1	10.6	19.4	25.8	40.1	100						
VI	2.8	7.7	15.7	26.4	47.5	100						
VII	2.2	5.8	11.7	24.3	55.9	100						
VIII	0.8	5.0	8.8	24.6	60.8	100						

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 7.6% cannot even read letters, 22.6% can read letters but not words or higher, 28.2% can read words but not Std I level text or higher, 21.7% can read Std I level text but not Std II level text, and 19.9% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Children in Std III who can read Std II level text									
	Govt	Govt & Pvt*								
2012	10.4	32.1	14.5							
2014	10.7	35.2	14.8							
2016	12.8	32.2	17.2							
2018	14.4	35.4	20.0							

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 32.3% and in Std VI (in 2010) was 58.4%. When the cohort reached Std VIII in 2012, this figure was 67.8%. The progress of each of these cohorts can be understood in the same way.

### Reading Tool (Assamese)

### Std II level text জেউতি আৰু মাইনু সখী। দুয়ো একেলগে খেলা-ধূলা কৰে। এদিন দুয়োৰে আম খাবলৈ মন গ'ল। দুয়োৰে ঘৰত আমৰ গছ নাই। সেইবাৰে দুয়োজনীয়ে গাঁৱত থকা আমৰ বাগিচালৈ গ'ল। সেই সময়ত বাগিচাৰ চকিদাৰজন আম গছৰ তলতে বহি আছিল। দুয়োজনীয়ে বাগিচাৰ চকিদাৰজনক সুধি গছৰ পৰা আম পাৰি খালে। আবেলি হোবাৰ আগতে দুয়োজনীয়ে ৰং মনেৰে ঘৰলৈ উভতিল।



#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text				
	Govt Pvt		Govt & Pvt*	Govt	Pvt	Govt & Pvt*		
2012	33.3	52.9	36.4	66.2	77.6	67.8		
2014	30.6	52.2	33.4	62.2	73.3	63.9		
2016	32.2	61.1	37.8	62.4	68.1	63.4		
2018	33.5 60.9		40.3	58.1	70.8	61.1		

\* This is the weighted average for children in government and private schools only.







### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018											
Std	Not even	Recognize	e numbers	Subtract	Divide	Total					
	1-9	1-9	10-99								
I	30.9	41.7	19.6	2.9	4.9	100					
Ш	11.0	36.6	32.8	15.4	4.3	100					
	5.8	27.7	36.9	22.8	6.9	100					
IV	4.4	22.2	33.0	29.3	11.1	100					
V	2.7	16.1	30.9	32.6	17.8	100					
VI	1.7	10.8	33.3	33.2	21.0	100					
VII	1.7	9.3	33.2	30.5	25.4	100					
VIII	0.6	7.2	28.8	32.2	31.2	100					

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 5.8% cannot even recognize numbers 1-9, 27.7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 36.9% can recognize numbers up to 99 but cannot do subtraction, 22.8% can do subtraction but cannot do division, and 6.9% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018										
Year	% Chilo can do a	% Children in Std III who can do at least subtraction								
	Govt	Govt & Pvt*								
2012	15.1	39.9	19.8							
2014	15.6	43.3	20.3							
2016	26.6									
2018	23.4	47.1	29.8							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 13.6% and in Std VI (in 2010) was 35.8%. When the cohort reached Std VIII in 2012, this figure was 32.3%. The progress of each of these cohorts can be understood in the same way.



#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

2012/2											
Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division							
	Govt	Pvt Govt & Pvt*		Govt	Pvt	Govt & Pvt*					
2012	8.9	26.9	11.7	29.5	49.2	32.2					
2014	9.0	30.3	11.8	21.7	43.8	25.0					
2016	9.1	32.8	13.7	25.3	44.2	28.8					
2018	14.4	28.2	17.8	28.1	42.9	31.5					

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

	Basic reading and an inmetic												
Table 10: Basic gender 2018	: reading by	y age group	and		Table 11: Basic arithmetic by age group and gender 2018								
Age group	% Children who can read Std II level text		Age group	% Childro	en who can o subtraction	do at least	% Children who can do division						
	Male	Female	All			Male	Female	All	Male	Female	All		
Age 8-10	25.0	26.8	25.9		Age 8-10	35.6	33.9	34.8	9.7	9.6	9.7		
Age 11-13	46.2	48.9	47.6		Age 11-13	54.5	51.2	52.8	22.3	20.6	21.4		
Age 14-16	65.0	68.2	66.7		Age 14-16	68.2	62.1	64.9	39.2	32.2	35.5		

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



l able 12: can corre	Of all children wh ctly answer by age	o can do subtractio and gender 2018	on but not division,	% children who
	Calculating time	Applying unitary	Financial decision	Calculating discour

Age				methou			Пактту					
Ŭ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	35.8	26.6	30.7	36.4	31.2	33.5	19.1	17.7	18.3	16.0	14.7	15.3
Age 15	29.0	28.2	28.6	37.0	32.8	35.0	22.9	26.9	24.8	16.4	15.0	15.7
Age 16	38.2	34.2	35.7	27.2	35.3	32.1	21.5	14.5	17.3	23.1	18.4	20.2
Age 14-16	33.6	29.2	31.2	34.7	32.8	33.7	21.2	19.7	20.4	17.6	15.8	16.7

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	46.6	39.8	43.0	52.8	42.0	47.1	32.2	27.1	29.5	34.9	24.7	29.5
Age 15	40.2	36.9	38.5	46.8	44.8	45.8	30.6	30.0	30.3	39.5	31.9	35.7
Age 16	40.7	37.7	39.4	40.8	41.9	41.3	30.8	26.3	28.9	33.7	27.1	30.9
Age 14-16	42.7	38.3	40.5	47.3	43.0	45.2	31.3	28.0	29.7	36.2	27.8	32.1



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 26 OUT OF 27 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	503	567	663	597
Upper primary schools (Std I-VII/VIII)	16	30	38	117
Total schools visited	519	597	701	714

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018									
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	69.0	70.8	72.1	72.9					
% Teachers present (Average)	90.0	87.5	89.7	87.4					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	43.8	58.9	58.5	52.2
% Schools where Std IV children were observed sitting with one or more other classes	41.0	55.4	53.7	46.5

### **School facilities**

Table 17: Trends over time% Schools with selected facilities2010, 2014, 2016 and 2018								
% Schools	% Schools with 2010							
Mid-dav	Kitchen shed for cooking mid-day meal	80.2	82.7	86.7	92.2			
meal	Mid-day meal served in school on day of visit	67.3	61.7	70.8	64.0			
	No facility for drinking water	23.2	19.4	21.0	17.5			
Drinking	Facility but no drinking water available	16.0	15.4	12.3	14.5			
water	Drinking water available	60.9	65.3	66.7	68.0			
	Total	100	100	100	100			
	No toilet facility	19.1	8.0	3.6	3.1			
Toilot	Facility but toilet not useable	47.8	33.3	34.8	75.7			
TOHEL	Toilet useable	33.1	58.7	61.7	21.2			
	Total	100	100	100	100			
	No separate provision for girls' toilet	52.2	22.8	11.9	13.3			
Cirla	Separate provision but locked	18.5	19.0	18.3	62.3			
toilet	Separate provision, unlocked but not useable	15.6	11.3	15.6	8.6			
tonet	Separate provision, unlocked and useable	13.7	47.0	54.2	15.9			
	Total	100	100	100	100			
	No library	79.2	54.7	40.7	26.9			
Library	Library but no books being used by children on day of visit	10.3	21.7	24.7	34.3			
LIDIALY	Library books being used by children on day of visit	10.5	23.6	34.6	38.8			
	Total	100	100	100	100			
	Electricity connection			23.6	35.5			
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		71.4	80.1			
	No computer available for children to use	98.3	97.7	98.9	93.5			
Computer	Available but not being used by children on day of visit	1.6	1.7	0.9	5.0			
Computer	Computer being used by children on day of visit	0.2	0.7	0.3	1.6			
	Total	100	100	100	100			







Data is not presented where sample size is insufficient.

## Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018								
	2010	2014	2016	2018				
All schools (Std I-IV/V and Std I-VII/VIII)	40.9	36.1	44.6	41.0				

Table 19: Physical education and sports in schools 2018								
% Schools w	/ith	All schools (Std I-IV/V and Std I-VII/VIII)						
	Physical education period in the timetable	65.3						
Dedicated time for	No physical education period but dedicated time allotted	20.1						
physical education	No physical education period and no dedicated time allotted	14.6						
	Total	100						
	Separate physical education teacher	3.9						
Physical	Other physical education teacher	62.3						
teacher	No physical education teacher	33.9						
	Total	100						
	Playground inside the school premises	61.3						
Playaround	Playground outside the school premises	18.2						
Tayground	No accessible playground	20.6						
	Total	100						
Availability of	of any sports equipment	50.2						
Supervised p of visit	hysical education activity observed on day	29.8						

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018									
	2014	2016	2018						
% Schools which reported having an SMC	97.8	98.5	96.2						
Of all schools that have an SMC, % schools that ha	Of all schools that have an SMC, % schools that had the last SMC meeting								
Before July	30.6	19.5	12.1						
Between July and September	61.3	57.4	72.7						
After September 8.1 23.1 15.									







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 38 OUT OF 38 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Table 1: % Child	ren enrolled in c	different types o	of schools by
age group and ge	ender 2018		

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	78.1	16.9	1.0	3.9	100
Age 7-16: All	78.9	15.6	0.9	4.7	100
Age 7-10: All	76.4	19.4	1.2	3.1	100
Age 7-10: Boys	72.1	23.7	1.2	3.0	100
Age 7-10: Girls	80.8	14.9	1.1	3.2	100
Age 11-14: All	80.4	14.8	0.8	4.0	100
Age 11-14: Boys	76.3	19.2	0.7	3.9	100
Age 11-14: Girls	84.3	10.7	0.8	4.2	100
Age 15-16: All	81.6	7.2	0.4	10.8	100
Age 15-16: Boys	78.5	9.3	0.4	11.8	100
Age 15-16: Girls	84.3	5.5	0.4	9.8	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 29.7% as compared to 8.9% in Std VIII.

Chart 1: Trends over time % Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 28.2% in 2006, 14.6% in 2012, and 9.8% in 2018.

Tabl % Cl	le 2: Age-grade distribution Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total	
I	28.1	30.3	18.0	11.3		1				12.4				
II	9.9	15.1	15.1 25.4 26.9 8.6 8.7 5.4					i.4			100			
111	2.2	5.4	12.5	29.3	20.9	18.0		11.8					100	
IV	2	.6	5.3	17.0	19.2	34.3	8.7	9.2		3.8			100	
V		2.8		6.7	9.2	34.2	19.8	17.6	5.7	4.0			100	
VI	7.9					18.3	21.0	33.7	11.5	7.6			100	
VII	2.3				7.8	10.8	34.5	26.2	11.2	7.	.4	100		
VIII	8.2							20.4	27.2	27.3	11.5	5.4	100	

This table shows the age distribution for each grade. For example, of all children in Std III, 29.3% children are 8 years old but there are also 5.4% who are 6, 12.5% who are 7, 20.9% who are 9, 18% who are 10, and 11.8% who are 11 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

l									
		Pre	-school			School	Not in		
	Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
	Age 3	56.6	0.4	3.9	4.5	1.3	0.1	33.3	100
	Age 4	55.8	0.8	11.3	10.3	3.5	0.5	17.8	100
	Age 5	36.4	0.7	17.0	27.4	6.3	0.8	11.5	100
	Age 6	13.3	0.5	16.5	52.9	10.1	1.0	5.7	100
I	Age 7	3.5	0.6	13.8	62.9	14.8	0.9	3.6	100
	Age 8	1.7	0.2	8.3	68.9	16.9	1.2	2.9	100



ASER 2018

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level       All children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	53.9	21.5	8.2	5.2	11.2	100				
II	35.0	29.0	12.6	8.0	15.5	100				
	24.0	26.6	15.2	10.7	23.5	100				
IV	16.1	23.4	14.0	13.2	33.3	100				
V	12.7	17.7	12.5	15.9	41.3	100				
VI	6.7	14.5	12.1	14.1	52.7	100				
VII	4.2	8.7	8.4	12.0	66.7	100				
VIII	2.9	7.7	7.2	11.1	71.2	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 24% cannot even read letters, 26.6% can read letters but not words or higher, 15.2% can read words but not Std I level text or higher, 10.7% can read Std I level text but not Std I level text, and 23.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014, 2016 and 2018										
Year	% Children in Std III who can read Std II level text									
	Govt	Pvt	Govt & Pvt*							
2012	14.2	52.7	16.8							
2014	15.6	66.1	21.9							
2016	13.9	62.5	20.8							
2018	12.3	62.0	23.7							

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 45.6% and in Std VI (in 2010) was 73.1%. When the cohort reached Std VIII in 2012, this figure was 80.7%. The progress of each of these cohorts can be understood in the same way.

## Reading Tool (Hindi)

#### Std II level text Std I level text नगमा समझदार लडकी थी। रात हो गई है। मगर उसका छोटा भाई अमन चाँद दिख रहा है। बहुत नटखट था। एक दिन दोनों तारे भी चमक रहे हैं। बाज़ार में घूम रहे थे। अमन ने सब लोग सो गए हैं। रास्ते में पकौडे देखे। उसे पकौडे Letters Words बहुत पसंद थे। माँ उसके लिए पकौडे बनाती थी। नगमा ने कहा सोच न T आग ताला यह पकौडे तीखे होंगे। मगर अमन गिर पानी नहीं माना। अमन ने पकौडे खाए ग ਰ मौका धुन और उसकी आँखों से आँसू टेश

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#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

निकलने लगे।

Year	% Childre read	n in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	43.1	74.8	44.4	80.3	93.1	80.7	
2014	44.6	87.8	48.2	76.9	86.8	77.3	
2016	38.0	82.6	41.8	73.9	96.0	75.2	
2018	35.1	78.1	41.3	69.5	93.0	71.4	

\* This is the weighted average for children in government and private schools only.



#### Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014





### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018									
Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total			
I	42.7	29.4	15.4	6.9	5.7	100			
	22.7	36.9	22.2	9.4	8.9	100			
	12.1	32.6	26.9	13.9	14.6	100			
IV	7.8	26.2	27.2	15.7	23.1	100			
V	6.6	18.6	27.8	17.1	29.9	100			
VI	3.2	12.4	26.8	17.4	40.3	100			
VII	2.5	6.3	21.5	18.9	50.8	100			
VIII	1.3	4.9	20.4	16.4	56.9	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 12.1% cannot even recognize numbers 1-9, 32.6% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 26.9% can recognize numbers up to 99 but cannot do subtraction, 13.9% can do subtraction but cannot do division, and 14.6% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can do at least subtraction								
	Govt	Pvt	Govt & Pvt*						
2012	25.1	68.4	28.1						
2014	18.0	68.0	24.2						
2016	20.0	72.0	27.3						
2018	18.0	65.6	28.9						

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 35.1% and in Std VI (in 2010) was 68.9%. When the cohort reached Std VIII in 2012, this figure was 67%. The progress of each of these cohorts can be understood in the same way.



## Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012 2014 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division				
	Govt	Pvt	Govt & Pvt* Govt		Pvt	Govt & Pvt*		
2012	30.0	60.6	31.3	66.4	85.2	67.0		
2014	31.4	72.4	34.9	60.3	80.9	61.2		
2016	28.9	72.5	32.6	61.0	85.4	62.4		
2018	24.1	64.0	29.9	55.1	78.7	57.0		

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

	Basic reading and arithmetic										
Table 10: Basic gender 2018	: reading by	y age group	and	Table 11: Basic arithmetic by age group and gender 2018							
Age group	% Chi	Idren who ca Std II level tex	in read (t		Age group	% Children who can do at least subtraction			% Children who can do division		
	Male	Female	All			Male	Female	All	Male	Female	All
Age 8-10	30.7	28.3	29.6		Age 8-10	37.2	31.5	34.4	21.5	16.7	19.2
Age 11-13	59.0	57.9	58.5		Age 11-13	66.7	58.6	62.5	49.8	41.2	45.3
Age 14-16	79.2	72.0	75.1		Age 14-16	80.4	70.3	74.7	65.9	54.3	59.3

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018												
Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	43.7	29.7	35.3	32.1	28.2	29.8	26.7	16.6	20.6	24.2	9.6	15.5
Age 15	40.7	25.4	32.0	38.1	30.4	33.8	20.6	20.8	20.7	20.6	9.7	14.4
Age 16	48.0	36.9	41.1	39.4	31.8	34.7	20.4	11.7	15.0	22.6	6.4	12.5
Age 14-16	43.8	30.5	35.9	36.1	29.9	32.4	23.0	16.4	19.1	22.5	8.7	14.3

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	49.0	42.3	45.9	54.9	41.3	48.5	32.9	26.5	29.9	32.6	23.8	28.5
Age 15	48.8	40.3	44.4	54.4	41.5	47.7	37.9	27.9	32.7	35.3	21.7	28.3
Age 16	52.7	39.0	44.6	53.1	44.9	48.3	37.1	28.0	31.7	39.6	23.3	30.0
Age 14-16	49.8	40.6	45.1	54.3	42.4	48.2	35.5	27.4	31.3	35.1	23.0	28.8



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 38 OUT OF 38 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	265	224	245	237
Upper primary schools (Std I-VII/VIII)	702	864	866	863
Total schools visited	967	1088	1111	1100

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018										
Primary schools (Std I-IV/V)	2010	2014	2016	2018						
% Enrolled children present (Average)	56.1	58.2	59.1	56.5						
% Teachers present (Average)	84.6	77.5	74.6	68.5						
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	55.9	52.1	52.0	52.9						
% Teachers present (Average)	80.6	76.0	76.5	73.0						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	67.6	79.3	71.8	83.3
% Schools where Std IV children were observed sitting with one or more other classes	63.7	79.0	67.1	74.0
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	53.0	58.8	56.9	61.9
% Schools where Std IV children were observed sitting with one or more other classes	43.4	52.8	50.6	50.3

## School facilities

Table 17: % School 2010, 20 <sup>-</sup>	Trends over time s with selected facilities 14, 2016 and 2018							
% Schools	% Schools with 2010							
Mid-day	Kitchen shed for cooking mid-day meal	64.0	87.7	87.2	91.6			
meal	Mid-day meal served in school on day of visit	57.2	69.2	76.5	84.5			
	No facility for drinking water	9.6	2.3	3.5	3.5			
Drinking	Facility but no drinking water available	11.7	7.3	7.1	6.8			
water	Drinking water available	78.7	90.4	89.5	89.7			
	Total	100	100	100	100			
	No toilet facility	19.3	6.4	4.8	3.4			
Toilet	Facility but toilet not useable	47.2	33.0	24.6	21.1			
TOHEL	Toilet useable	33.6	60.6	70.6	75.6			
	Total	100	100	100	100			
	No separate provision for girls' toilet	49.9	25.4	17.4	16.7			
Cirla	Separate provision but locked	15.1	14.3	7.5	9.1			
toilet	Separate provision, unlocked but not useable	16.9	14.1	14.3	11.2			
tonot	Separate provision, unlocked and useable	18.1	46.2	60.8	63.0			
	Total	100	100	100	100			
	No library	47.1	23.7	30.7	40.9			
Library	Library but no books being used by children on day of visit	24.7	45.8	36.6	31.6			
LIDIALY	Library books being used by children on day of visit	28.2	30.5	32.8	27.5			
	Total	100	100	100	100			
	Electricity connection			72.6	69.5			
Electricity	Of schools with electricity connection, % schools with electr	icity		63.6	71.4			
		02.1	04.2	02.0	0( (			
	No computer available for children to use	93.1	94.3	92.9	96.6			
Computer	Available but not being used by children on day of visit	2.9	5.0	6.3	2.8			
-	Computer being used by children on day of visit	4.0	0.7	0.8	0.6			
	lotal	100	100	100	100			







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018											
	2010	2014	2016	2018							
Primary schools (Std I-IV/V)	0.4	1.8	2.1	5.9							
Upper primary schools (Std I-VII/VIII)	0.2	0.0	0.1	0.0							

### Table 19: Physical education and sports in schools 2018

		Std LIV/	Std I VII/	Δ11
% Schools v	vith	V	VIII	schools
	Physical education period in the timetable	35.7	64.7	58.5
Dedicated time for	No physical education period but dedicated time allotted	22.2	17.5	18.5
physical education	No physical education period and no dedicated time allotted	42.2	17.8	23.0
	Total	100	100	100
	Separate physical education teacher	4.4	46.7	37.6
Physical education teacher	Other physical education teacher	44.3	32.9	35.4
	No physical education teacher	51.3	20.4	27.0
	Total	100	100	100
	Playground inside the school premises	42.0	55.0	52.2
Playaround	Playground outside the school premises	22.9	20.2	20.8
Flayground	No accessible playground	35.1	24.8	27.0
	Total	100	100	100
Availability of	of any sports equipment	34.9	59.9	54.5
Supervised p of visit	hysical education activity observed on day	14.2	26.4	23.6

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018										
	2014	2016	2018							
% Schools which reported having an SMC 91.0 94.2 95										
Of all schools that have an SMC, % schools that had the last SMC meeting										
Before July 13.7 8.7 7.4										
Between July and September	71.2	65.9	80.4							

After September

15.1

25.4

12.1







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 16 OUT OF 18 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in	different types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	76.4	20.0	0.0	3.6	100
Age 7-16: All	74.6	18.2	0.0	7.2	100
Age 7-10: All	75.7	22.6	0.0	1.7	100
Age 7-10: Boys	73.7	24.1	0.0	2.2	100
Age 7-10: Girls	77.7	21.1	0.0	1.2	100
Age 11-14: All	78.0	16.4	0.1	5.5	100
Age 11-14: Boys	75.4	19.1	0.1	5.5	100
Age 11-14: Girls	80.3	14.1	0.1	5.6	100
Age 15-16: All	65.1	13.1	0.0	21.7	100
Age 15-16: Boys	61.9	15.6	0.0	22.5	100
Age 15-16: Girls	67.7	11.1	0.1	21.2	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 25.6% as compared to 15.7% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 33.6% in 2006, 18.1% in 2012, and 21.2% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	17.1	57.9	19.8		5.2							100	
II	2.7	10.8	53.5	28.6				4	1.5				100
111	2	.5	11.1	53.3	25.7	5.6		1.9				100	
IV		1.9		12.8	45.7	33.4			6	o.2			100
V		2	2.9		9.1	52.3	28.6	5.3		1.	.9		100
VI	2.8 11.2					48.1	31.2	5.0		1.7		100	
VII	1.7 10.54					49.0	30.7	6.3	1.	.8	100		
VIII	2.0						11.9	49.7	27.3	7.5	1.6	100	

This table shows the age distribution for each grade. For example, of all children in Std III, 53.3% children are 8 years old but there are also 11.1% who are 7, 25.7% who are 9, 5.6% who are 10, and 1.9% who are 11 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

I									
		Pre	-school			School		Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total	
	Age 3	75.4	0.0	9.1	0.6	0.4	0.0	14.5	100
Ì	Age 4	69.9	0.3	19.8	1.4	1.1	0.0	7.6	100
	Age 5	45.4	0.5	25.5	16.4	7.3	0.0	5.0	100
	Age 6	7.8	0.0	7.4	60.4	21.8	0.0	2.6	100
	Age 7	0.7	0.0	2.0	71.3	24.8	0.0	1.2	100
	Age 8	0.6	0.0	0.2	73.2	24.4	0.0	1.6	100



ASER 2018

Data is not presented where sample size is insufficient.



आती है।

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Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018											
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	45.6	39.7	9.7	2.0	2.9	100					
II	19.5	39.5	19.1	10.5	11.3	100					
III	10.4	25.4	17.8	16.5	29.8	100					
IV	5.8	13.8	15.2	18.7	46.6	100					
V	3.4	12.1	9.3	15.8	59.5	100					
VI	2.5	7.7	7.5	16.0	66.4	100					
VII	1.3	5.8	6.7	10.1	76.1	100					
VIII	1.7	5.0	5.8	8.8	78.7	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 10.4% cannot even read letters, 25.4% can read letters but not words or higher, 17.8% can read words but not Std I level text or higher, 16.5% can read Std I level text but not Std II level text, and 29.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018									
Year	% Chilo can rea	% Children in Std III who can read Std II level text							
	Govt Pvt		Govt & Pvt*						
2012	15.7	41.0	19.9						
2014	15.4	42.3	21.3						
2016	22.2	47.3	28.1						
2018	25.0	46.7	29.8						

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 56% and in Std VI (in 2010) was 78.2%. When the cohort reached Std VIII in 2012, this figure was 77.5%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I le	evel text
राजू नाम का एक लड़का था। उसकी एक बड़ी बहन व एक छोटा भाई था। उसका भाई गाँव के पास के विद्यालय में पढ़ने जाता था। वह खब मेहनत	हर रविवार ना हमारे लिए नि मैं नानी के वह मुझे कह	नी घर आती है मेठाई लाती है। साथ सोता हूँ। ानी सुनाती है।
करता था। उसकी बहन बहुत	Letters	Words
अच्छी खिलाड़ी थी। उसे लेबी दौड़ लगाना अच्छा लगता था। वे तीनों रोज़ साथ-साथ मौज-मस्ती करते थे।	ह च ट ल न फ म र स त	कुल ब रोटी पानी चू चलो ही पैर देर कौ

**Reading Tool (Hindi)** 

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can % Children in S text can read Std I			VIII who vel text				
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	44.0	64.2	46.2	76.2	89.0	77.5				
2014	47.1	76.6	52.4	73.8	90.6	75.9				
2016	51.0	75.9	56.0	70.9	89.9	73.5				
2018	57.1	70.2	59.6	77.0	87.8	78.7				

\* This is the weighted average for children in government and private schools only.



Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018									
Std	Not even 1-9	Recognize	Recognize numbers		Divide	Total			
I	37.8	47.6	13.1	1.0	0.6	100			
	11.4	50.7	33.4	4.2	0.4	100			
	6.6	34.5	39.6	16.9	2.4	100			
IV	2.7	23.5	38.6	23.9	11.3	100			
V	1.7	17.4	32.6	21.6	26.8	100			
VI	1.3	15.2	31.0	22.7	29.8	100			
VII	0.8	12.3	36.4	24.1	26.4	100			
VIII	1.3	6.7	39.8	21.2	31.0	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 6.6% cannot even recognize numbers 1-9, 34.5% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 39.6% can recognize numbers up to 99 but cannot do subtraction, 16.9% can do subtraction but cannot do division, and 2.4% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018								
Year	% Children in Std III who can do at least subtraction							
	Govt Pvt		Govt & Pvt*					
2012	12.1	27.3	14.6					
2014	9.6	31.1	14.2					
2016	14.5	37.7	20.0					
2018	16.0	30.7	19.3					

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 09 Children 2010 °<sup>8</sup> 40 2008 2012 2018 2014 30 2016 2016 2014 2012 20 10 2014 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 39.5% and in Std VI (in 2010) was 55.2%. When the cohort reached Std VIII in 2012, this figure was 31.4%. The progress of each of these cohorts can be understood in the same way.



Arithmetic Tool (Hindi)

## Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012 2014 2016 and 2018

2012/2										
Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	13.1	22.3	14.1	29.8	46.0	31.4				
2014	14.1	35.7	18.0	25.4	58.7	29.6				
2016	18.6	40.8	23.1	25.3	45.6	28.1				
2018	26.1	30.2	26.9	28.0	47.3	31.0				

\* This is the weighted average for children in government and private schools only.



### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



Table 10: Basic gender 2018		Table 11: Bas	ic a					
Age group		Age group						
	Male	Female	All					
Age 8-10	38.3	44.0	41.3	-	Age 8-10			
Age 11-13	66.6	73.5	70.3		Age 11-13			
Age 14-16	76.9	83.0	80.5		Age 14-16			

### **Basic reading and arithmetic**

Table 11: Basic arithmetic by age group and gender 2018								
Age group	% Childro	en who can o subtraction	do at least	% Children who can do division				
	Male	Female	All	Male	Female	All		
Age 8-10	29.3	32.0	30.7	11.0	12.3	11.7		
Age 11-13	51.3	50.2	50.7	28.4	28.0	28.2		
Age 14-16	54.5	51.9	53.0	32.5	31.1	31.7		

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018												
Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	28.3	27.9	28.1	28.3	33.2	30.9	34.3	18.9	26.0	5.2	2.0	3.5
Age 15	40.2	33.5	35.8	44.0	28.6	33.9	40.1	38.3	38.9	15.6	9.4	11.5
Age 16	36.5	36.2	36.4	46.1	31.8	39.2	48.8	25.1	37.3	21.4	10.2	16.0
Age 14-16	34.2	32.2	33.1	38.5	31.1	34.3	40.9	27.9	33.6	13.5	7.0	9.8

## Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	45.6	35.8	39.8	58.0	50.2	53.3	47.3	50.4	49.1	34.2	18.9	25.1
Age 15	47.1	40.3	43.3	61.0	49.6	54.6	52.5	45.3	48.5	38.9	25.6	31.4
Age 16	40.3	44.8	42.9	61.5	47.5	53.6	45.8	53.7	50.2	39.6	27.8	32.9
Age 14-16	44.4	40.1	41.9	60.1	49.2	53.8	48.6	49.8	49.3	37.5	23.8	29.7



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 16 OUT OF 18 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	301	431	468	459
Upper primary schools (Std I-VII/VIII)	124	11	5	9
Total schools visited	425	442	473	468

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018									
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	70.5	74.6	68.3	75.2					
% Teachers present (Average)	86.5	82.2	79.6	84.2					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	64.8	76.2	75.8	71.3
% Schools where Std IV children were observed sitting with one or more other classes	51.1	53.9	56.0	53.3

## School facilities

Table 17: % School 2010, 20 <sup>-</sup>	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	86.1	92.9	94.7	97.0
meal	Mid-day meal served in school on day of visit	94.6	86.1	80.1	91.7
	No facility for drinking water	12.9	10.2	5.5	7.9
Drinking	Facility but no drinking water available	9.6	9.5	9.5	9.6
water	Drinking water available	77.6	80.3	85.0	82.5
	Total	100	100	100	100
	No toilet facility	28.9	8.2	5.1	2.1
Toilot	Facility but toilet not useable	41.5	22.9	16.8	12.2
TOHEL	Toilet useable	29.6	68.9	78.1	85.7
	Total	100	100	100	100
	No separate provision for girls' toilet	46.2	29.8	13.7	10.1
Cirla	Separate provision but locked	16.3	7.6	4.7	3.2
toilet	Separate provision, unlocked but not useable	17.5	9.2	11.4	11.0
tonet	Separate provision, unlocked and useable	20.0	53.4	70.2	75.7
	Total	100	100	100	100
	No library	27.1	10.5	14.0	10.3
Library	Library but no books being used by children on day of visit	36.5	63.3	61.5	66.0
LIDIALY	Library books being used by children on day of visit	36.5	26.2	24.5	23.8
	Total	100	100	100	100
	Electricity connection			86.6	91.6
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	73.1	82.0		
	No computer available for children to use	95.9	99.5	98.5	97.7
Computer	Available but not being used by children on day of visit	2.4	0.5	1.3	1.9
Computer	Computer being used by children on day of visit	1.7	0.0	0.2	0.4
	Total	100	100	100	100









### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
All schools (Std I-IV/V and Std I-VII/VIII)	16.1	33.6	41.0	40.2					

Table 19: Physical education and sports in schools 2018								
% Schools v	vith	All schools (Std I-IV/V and Std I-VII/VIII)						
	Physical education period in the timetable	65.9						
Dedicated time for	No physical education period but dedicated time allotted	24.1						
physical education	No physical education period and no dedicated time allotted	10.1						
	Total	100						
	Separate physical education teacher	8.5						
Physical	Other physical education teacher	73.4						
teacher	No physical education teacher	18.1						
	Total	100						
	Playground inside the school premises	70.0						
Playaround	Playground outside the school premises	18.2						
Tayground	No accessible playground	11.8						
	Total	100						
Availability of	of any sports equipment	49.6						
Supervised p of visit	hysical education activity observed on day	18.7						

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018								
	2014	2016	2018					
% Schools which reported having an SMC	99.8	99.2	98.9					
Of all schools that have an SMC, % schools that ha	ad the last SN	IC meeting						
Before July	4.9	4.4	1.8					
Between July and September	94.2	95.2	80.5					
After September	0.9	0.4	17.7					







# Gujarat, Haryana

# Himachal Pradesh, Jammu and Kashmir

Jharkhand



ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 26 OUT OF 26 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

0

2006

2008

Table 1: % Chi	Idren enrolled	in different	types of	schools by
age group and	gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	85.6	12.4	0.1	1.8	100
Age 7-16: All	81.2	13.7	0.1	5.0	100
Age 7-10: All	86.2	13.1	0.1	0.6	100
Age 7-10: Boys	83.4	15.6	0.2	0.8	100
Age 7-10: Girls	89.3	10.2	0.1	0.4	100
Age 11-14: All	84.4	12.4	0.1	3.1	100
Age 11-14: Boys	83.6	13.8	0.0	2.6	100
Age 11-14: Girls	85.3	11.0	0.1	3.6	100
Age 15-16: All	61.7	18.4	0.1	19.8	100
Age 15-16: Boys	65.0	19.6	0.0	15.4	100
Age 15-16: Girls	57.9	17.0	0.2	24.9	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 13.7% as compared to 7.4% in Std VIII.

2006, 2008, 2010, 2012, 2014, 2016 and 2018

% Children not enrolled in school by age group and gender

Chart 1: Trends over time

— 11 to 14 Boys — 11 to 14 Girls — 15 to 16 Boys — 15 to 16 Girls Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 27.3% in 2006, 30.1% in 2012, and 24.9% in 2018.

2012

2014

2016

2018

2010

Tabl % Cl	Fable 2: Age-grade distribution% Children in each grade by age 2018												
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	17.2	72.4	8.3					2.1					100
II	1.3	7.4	79.0	11.2				1.	.1				100
III	0	.7	9.5	76.0	12.1				1.7				100
IV		1.3		10.7	69.0	15.9				3.2			100
V		0	.8		8.0	75.0	13.0			3.2	2		100
VI			0.9		7.570.317.7 3.7					100			
VII		1.2 8.268.618.4 3.6						100					
VIII				1.3				7.9	72.1	13.0	5	.7	100

This table shows the age distribution for each grade. For example, of all children in Std III, 76% children are 8 years old but there are also 9.5% who are 7, 12.1% who are 9, and 1.7% who are 10 or older.

### Young children in pre-school and school

Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	Pre-school			School Not in			
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	89.2	1.1	4.7	0.0	0.0	0.0	4.9	100
Age 4	88.0	0.9	7.8	0.7	0.2	0.0	2.5	100
Age 5	54.9	2.3	11.8	23.0	5.3	0.0	2.7	100
Age 6	6.1	0.2	2.4	81.2	9.0	0.0	1.1	100
Age 7	0.6	0.0	0.1	85.9	12.5	0.1	0.9	100
Age 8	0.0	0.0	0.0	86.6	12.8	0.0	0.6	100

ASER 2018

Data is not presented where sample size is insufficient.



0.0

### Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018											
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	36.5	40.8	14.7	4.2	3.8	100					
II	13.0	24.3	33.1	19.1	10.6	100					
	6.1	15.5	22.5	22.7	33.1	100					
IV	3.7	10.0	13.9	22.6	49.8	100					
V	2.7	7.8	12.3	23.5	53.7	100					
VI	2.0	4.9	10.5	20.7	61.9	100					
VII	1.5	3.9	6.9	17.2	70.4	100					
VIII	0.6	4.8	5.5	15.9	73.2	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 6.1% cannot even read letters, 15.5% can read letters but not words or higher, 22.5% can read words but not Std I level text or higher, 22.7% can read Std I level text but not Std II level text, and 33.1% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Children in Std III who can read Std II level text							
	Govt	Govt & Pvt*						
2012	19.5	34.2	20.9					
2014	17.6	41.8	20.3					
2016	21.6	36.7	23.0					
2018	32.3	39.3	33.3					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 31.5% and in Std VI (in 2010) was 59.2%. When the cohort reached Std VIII in 2012, this figure was 80.9%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I le	vel text
શિયાળો આવે એટલે ઠંડી લાગે અને ઊનનાં કપડાં પહેરવાં ગમે. રાતે તાપણું કરી તેની ફરતે ગોળ બેસી વાતો કરવી ગમે. ઉનાળો આવે ત્યારે	રમણ વા મામાની વા મામાની વાડી જામફળ જામફળ ખાવા	ડીએ ચાલ. ડીએ જઈએ. માં જઈએ અને ખાઈએ. ની મજા આવશે.
ગરમાં શરૂ થઇ જાય. પાતળાં કપડા પડેટનાં ગમે અને પંખામાં મનંગમે	Letters	Words
રહારવા પંચ અપ વગાવા પૂતુ પંચ. ચોમાસું આવે એટલે ખૂબ વરસાદ પડે. નદીમાં પૂર આવે અને ખેતરમાં અનાજ ઊગી નીકળે. બહાર જતાં છત્રી સાથે રાખવી પડે.	ह ७ व ८७ ख ब ढ त भ ७४	000 0 000 1 000 1 40 40

Reading Tool (Gujarati)

## Table 6: Trends over time

Year	% Children in Std V who can read Std II level text			in Std V who can % Children in td II level text can read Sto			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	46.3	66.3	47.7	80.2	86.2	80.9	
2014	44.6	64.1	46.6	76.4	84.2	77.6	
2016	52.3	59.1	52.9	75.7	85.7	76.6	
2018	52.0	68.1	53.8	72.5	84.4	73.3	

\* This is the weighted average for children in government and private schools only.



#### Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014





### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level         All children 2018										
Std	Not even	Recognize	e numbers	Subtract	Divide	Total				
Jiu	1-9	1-9	10-99	Jublidet	Divide	Total				
I	33.5	51.2	10.7	2.6	2.0	100				
	13.8	45.1	33.6	6.5	1.0	100				
	5.8	26.1	42.5	23.3	2.3	100				
IV	4.9	17.8	35.4	27.8	14.1	100				
V	2.3	12.5	34.4	30.7	20.1	100				
VI	2.2	10.1	28.0	32.3	27.4	100				
VII	1.8	5.8	26.4	31.6	34.3	100				
VIII	0.8	7.7	23.3	32.5	35.6	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 5.8% cannot even recognize numbers 1-9, 26.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 42.5% can recognize numbers up to 99 but cannot do subtraction, 23.3% can do subtraction but cannot do division, and 2.3% can do subtraction but categories is 100%.

Table 8: Trends over time Arithmetic in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Children in Std III who can do at least subtraction							
	Govt	Govt & Pvt*						
2012	12.0	33.6	14.0					
2014	12.4	35.2	14.9					
2016	18.3	31.9	19.6					
2018	22.8	43.1	25.7					

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

Chart 4: Trends over time % Children who can do division

#### 100 90 80 70 Children 20 2012 °<sup>8</sup> 40 2018 2016 2014 2010 30 2016 2014 2012 20 2008 2010 10 2012 2014 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 13.2% and in Std VI (in 2010) was 30.4%. When the cohort reached Std VIII in 2012, this figure was 41.4%. The progress of each of these cohorts can be understood in the same way.



#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division				
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*		
2012	12.4	34.0	13.9	39.2	58.2	41.4		
2014	13.9	34.8	16.1	29.3	50.4	32.6		
2016	14.5	32.2	16.1	33.9	44.4	34.8		
2018	18.4	34.2	20.2	35.8	32.4	35.6		

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

#### **Basic reading and arithmetic** Table 10: Basic reading by age group and Table 11: Basic arithmetic by age group and gender 2018 gender 2018 % Children who can read % Children who can do at least % Children who can do division Age group Std II level text Age group subtraction Male Female All Male Female All Male Female All Age 8-10 41.9 48.1 44.9 Age 8-10 37.9 38.5 38.2 12.7 10.5 11.6 32.0 Age 11-13 64.8 72.0 68.4 Age 11-13 63.9 65.4 64.7 30.3 33.6 77.7 77.8 77.7 64.0 38.9 39.1 Age 14-16 Age 14-16 62.8 65.1 39.0

### Beyond basics

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018												
Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	19.5	18.2	18.7	35.3	17.7	24.4	22.1	15.8	18.2	16.5	4.9	9.3
Age 15	22.6	34.7	29.4	29.6	27.6	28.5	6.0	12.6	9.7	10.9	6.8	8.6
Age 16	27.3	26.0	26.7	34.4	37.2	35.7	13.7	15.4	14.5	23.5	1.5	13.2
Age 14-16	22.9	26.5	24.9	32.7	25.5	28.7	13.2	14.4	13.9	16.2	5.0	9.9

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	34.1	28.2	30.9	48.5	45.2	46.8	25.2	27.1	26.2	20.4	14.7	17.4
Age 15	43.1	33.8	38.4	48.9	51.3	50.1	22.3	21.4	21.8	19.6	8.2	13.8
Age 16	36.5	36.3	36.4	36.4	39.6	38.0	13.3	24.5	18.8	17.0	11.5	14.3
Age 14-16	37.7	32.2	34.9	44.9	45.5	45.2	20.7	24.6	22.7	19.1	11.8	15.4



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 26 OUT OF 26 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	66	67	82	105
Upper primary schools (Std I-VII/VIII)	557	653	562	539
Total schools visited	623	720	644	644

Table 15: Trends over time         Student and teacher attendance on the day of visit         2010, 2014, 2016 and 2018								
Primary schools (Std I-IV/V)	2010	2014	2016	2018				
% Enrolled children present (Average)	87.4	85.5	89.4	89.1				
% Teachers present (Average)	94.7	94.1	91.6	89.1				
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018				
% Enrolled children present (Average)	84.4	82.5	83.0	84.9				
% Teachers present (Average)	95.9	93.5	90.8	92.9				

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	56.1	77.3	89.0	71.4
% Schools where Std IV children were observed sitting with one or more other classes	51.7	69.4	88.5	70.6
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	33.6	45.2	47.4	46.9
% Schools where Std IV children were observed sitting with one or more other classes	30.7	37.5	43.6	40.4

### **School facilities**

Table 17: % School: 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools with			2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	88.3	90.0	91.9	90.4
meal	Mid-day meal served in school on day of visit	96.2	94.2	95.4	94.1
	No facility for drinking water	14.2	8.5	9.7	6.4
Drinking	Facility but no drinking water available	6.5	4.5	5.8	5.6
water	Drinking water available	79.4	87.0	84.6	88.0
	Total	100	100	100	100
	No toilet facility	2.6	1.7	0.3	0.2
Toilet	Facility but toilet not useable	32.6	13.5	16.8	8.5
Tonet	Toilet useable	64.8	84.8	82.9	91.3
	Total	100	100	100	100
	No separate provision for girls' toilet	12.7	5.8	2.4	2.6
Cirle	Separate provision but locked	20.7	5.6	6.5	1.1
toilet	Separate provision, unlocked but not useable	16.7	7.2	10.0	8.8
tonot	Separate provision, unlocked and useable	49.9	81.4	81.1	87.4
	Total	100	100	100	100
	No library	16.2	7.7	12.2	14.7
Library	Library but no books being used by children on day of visit	35.2	54.0	45.5	44.8
LIDIALY	Library books being used by children on day of visit	48.5	38.3	42.3	40.5
	Total	100	100	100	100
	Electricity connection			99.2	99.4
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		94.0	96.5
0	No computer available for children to use	47.8	18.7	24.8	33.1
Computer	Available but not being used by children on day of visit	24.3	52.8	43.7	42.9
Computer	Computer being used by children on day of visit	27.9	28.5	31.5	24.0
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018								
	2010	2014	2016	2018				
Primary schools (Std I-IV/V)	33.3	43.3	68.4	52.4				
Upper primary schools (Std I-VII/VIII)	1.3	2.8	4.0	5.0				

#### Table 19: Physical education and sports in schools 2018

% Schools v	vith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	68.4	72.6	72.0
Dedicated time for	No physical education period but dedicated time allotted	23.2	23.7	23.6
physical education	No physical education period and no dedicated time allotted	8.4	3.7	4.5
	Total	100	100	100
	Separate physical education teacher	34.7	28.8	29.7
Physical education teacher	Other physical education teacher	51.0	56.9	56.0
	No physical education teacher	14.3	14.3	14.3
	Total	100	100	100
	Playground inside the school premises	78.8	83.0	82.4
Playaround	Playground outside the school premises	6.1	8.9	8.4
Flayground	No accessible playground	15.2	8.1	9.2
	Total	100	100	100
Availability of any sports equipment		63.6	84.4	81.0
Supervised p of visit	hysical education activity observed on day	48.5	44.0	44.7

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018						
	2014	2016	2018			
% Schools which reported having an SMC	99.2	98.9	98.9			
Of all schools that have an SMC, % schools that had the last SMC meeting						
Before July	8.0	8.1	2.5			
Between July and September	88.9	72.6	96.7			

After September

3.1

19.4

0.8






ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 21 OUT OF 21 DISTRICTS Data is not presented where sample size is insufficient.



#### School enrollment

Table 1: % Ch	ildren enrolled i	n different t	ypes of a	schools by
age group and	gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	42.6	55.3	0.4	1.7	100
Age 7-16: All	43.4	53.8	0.4	2.5	100
Age 7-10: All	39.7	58.7	0.4	1.2	100
Age 7-10: Boys	35.1	63.6	0.3	0.9	100
Age 7-10: Girls	45.3	52.7	0.5	1.5	100
Age 11-14: All	45.8	51.7	0.4	2.2	100
Age 11-14: Boys	39.6	58.0	0.3	2.1	100
Age 11-14: Girls	52.8	44.5	0.4	2.3	100
Age 15-16: All	47.0	46.0	0.3	6.8	100
Age 15-16: Boys	40.4	52.7	0.2	6.7	100
Age 15-16: Girls	54.1	38.8	0.4	6.8	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 60.6% as compared to 50.8% in Std VIII.

Chart 1: Trends over time % Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 19.4% in 2006, 9.3% in 2012, and 6.8% in 2018.

l abl % Cl	e 2: hildr	Age ren i	-grac n ea	ie di ch gi	rade	by a	n ige 2	2018					
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	40.3	33.7	17.8	5.0		3.2			100				
II	7.2	22.7	38.3	23.0	5.8				3.0				100
III	4	.8	21.6	38.9	22.2	8.9			3	8.6			100
IV		5.6		22.9	37.3	23.9	6.1			4.2			100
V		5	5.3		20.5	43.9	19.9	6.8		3	8.6		100
VI			4.8			22.5	37.5	26.8	6.0		2.4		100
VII			5	5.2			19.7	44.6	22.3	5.4	2.	.9	100
VIII				4.9				27.3	38.2	21.7	5.9	2.0	100

This table shows the age distribution for each grade. For example, of all children in Std III, 38.9% children are 8 years old but there are also 21.6% who are 7, 22.2% who are 9, 8.9% who are 10, and 3.6% who are 11 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

4									
		Pre	-school			School		Not in	
	Age	Anganwadi	Govt	Pvt	Govt	P <sub>V</sub> t	Other	school	Total
		Anganwau	UKG/	UKG/	001	TVL	Other	or school	
	Age 3	34.7	2.1	36.2	1.9	2.7	0.1	22.4	100
Ì	Age 4	15.0	3.8	54.2	8.3	7.8	0.3	10.7	100
	Age 5	4.0	2.1	46.9	20.7	22.0	0.1	4.4	100
	Age 6	1.2	0.8	21.3	31.3	43.4	0.3	1.7	100
	Age 7	0.5	0.2	5.2	35.0	57.4	0.3	1.3	100
	Age 8	0.2	0.1	1.4	39.3	57.4	0.4	1.3	100



Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All ch	4: % Chi ildren 20	ldren by 18	grade and	d reading le	vel	
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
Ι	23.0	29.3	27.4	10.5	9.8	100
II	8.2	20.9	23.1	20.9	26.9	100
	4.2	9.7	17.1	22.7	46.2	100
IV	2.9	6.0	11.0	18.7	61.4	100
V	2.1	4.8	7.6	16.4	69.1	100
VI	1.0	2.6	4.7	13.2	78.6	100
VII	1.2	2.9	3.9	10.7	81.4	100
VIII	1.5	2.7	3.5	11.1	81.2	100

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 4.2% cannot even read letters, 9.7% can read letters but not words or higher, 17.1% can read words but not Std I level text or higher, 22.7% can read Std I level text but not Std II level text, and 46.2% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Reading 2012, 2	Trends o in Std II 014, 201	over time by scho 6 and 20	ol type 18			
Year	% Children in Std III who can read Std II level text					
	Govt	Pvt	Govt & Pvt*			
2012	14.7	52.4	34.1			
2014	21.7	61.5	45.4			
2016	25.1	61.0	46.2			
2018	33.5	56.1	46.4			

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 51.4% and in Std VI (in 2010) was 79%. When the cohort reached Std VIII in 2012, this figure was 87.4%. The progress of each of these cohorts can be understood in the same way.

### Reading Tool (Hindi)

### Std I level text

रामपुर में एक मैदान था। वहाँ कुछ नहीं उगता था। वहाँ कोई खेलने नहीं जाता था। एक दिन कुछ लोग आए। उन्होंने गाँव के लोगों को बुलाया। सबने मिलकर तय किया कि यहाँ बग़ीचा बनाया जाए। खाद मंगाकर तरह-तरह के पौधे लगाए गए। सही समय पर पानी दिया गया। आज वहाँ एक सुंदर बग़ीचा है। इसलिए वहाँ सभी खेलने जाते हैं।

Std II level text

रूपा बाहर खेल रही थी।
खेलते-खेलते रात हो गई।
रूपा अपने घर चली गई।
वह खाना खाकर सो गई।

Letters	Words
दिक च	नाक तोता
ल व	कूडा खुश मैना
ह थ त	मौका सेब
म ख	पाला झोला दिन

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text		
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*
2012	43.5	79.2	59.7	82.3	94.5	87.4
2014	53.9	81.3	68.2	78.4	93.5	85.2
2016	54.6	79.1	68.3	76.4	91.6	83.8
2018	58.1	78.3	69.3	73.4	88.7	81.3

\* This is the weighted average for children in government and private schools only.







#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All chi	7: % Chil Idren 20	dren by g 18	rade and	arithmeti	c level	
Std	Not even	Recognize	e numbers	Subtract	Divide	Total
510	1-9	1-9	10-99	Jublidet	Divide	rotar
I	17.3	29.3	44.2	7.6	1.6	100
Ш	5.3	22.5	39.7	27.1	5.4	100
	2.7	12.8	30.8	34.3	19.4	100
IV	1.6	8.0	23.2	26.7	40.6	100
V	1.3	5.4	16.3	26.1	50.9	100
VI	0.6	3.6	16.6	19.5	59.8	100
VII	1.1	4.3	15.2	18.9	60.5	100
VIII	1.2	3.4	13.3	19.0	63.2	100

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.7% cannot even recognize numbers 1-9, 12.8% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 30.8% can recognize numbers up to 99 but cannot do subtraction, 34.3% can do subtraction but cannot do division, and 19.4% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Arithme 2012, 2	Trends c tic in Std 014, 201	over time III by sch 6 and 20	nool type 18		
Year	% Children in Std III wh can do at least subtractio				
	Govt	Pvt	Govt & Pvt*		
2012	20.0	70.8	46.0		
2014	24.0	74.7	54.1		
2016	27.7	73.7	54.8		
2018	31.6	70.7	53.9		

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

Chart 4: Trends over time % Children who can do division

#### 100 90 80 2010 70 2014 2016 2018 Children 20 2016 2012 °<sup>8</sup> 40 2010 2014 2008 2012 30 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 39.6% and in Std VI (in 2010) was 71.8%. When the cohort reached Std VIII in 2012, this figure was 67.2%. The progress of each of these cohorts can be understood in the same way.

अक पहचान 1—9	शंख्या पहचान 10	षटाव	भाग
3 7	65 38	41 - 13 -	64 48 7)928
1 4	92 23	84 - 49 -	73 36 6) 769 (
8 2	47 72	56 - 37 -	31 13 8) 987 (
5 9	29 11	45 - 18 -	53 24 4) 519 (

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	n in Std V to division	who can	% Children in Std VIII who can do division					
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*			
2012	25.4	63.7	42.9	56.0	82.6	67.2			
2014	30.8	71.0	51.9	50.7	86.1	66.7			
2016	30.1	63.8	48.9	53.4	78.0	65.3			
2018	34.4	64.5	51.0	49.1	76.8	63.3			

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

	Basic reading and arithmetic											
Table 10: Basic gender 2018	: reading by	y age group	and	Table 11: Basic arithmetic by age group and gender 2018         0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0								
Age group	% Chi	Idren who ca Std II Ievel tex	an read (t		Age group	% Children who can do at least subtraction			% Children who can do division			
	Male	Female	All			Male	Female	All	Male	Female	All	
Age 8-10	52.4	61.4	56.6		Age 8-10	62.5	63.7	63.0	32.6	37.1	34.7	
Age 11-13	78.1	80.1	79.0		Age 11-13	80.6	78.4	79.6	61.8	58.4	60.2	
Age 14-16	86.9	87.4	87.1		Age 14-16	81.8	82.1	82.0	66.5	66.7	66.6	

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018											
Age	Calculating time			Applying unitary method		Financial decision making			Calculating discount			
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	30.3	41.6	35.8	48.2	46.5	47.4	40.4	33.9	37.2	22.1	10.5	16.5
Age 15	22.9	42.2	35.4	48.5	36.8	41.0	30.7	24.1	26.4	15.3	6.1	9.3
Age 16	44.1	32.0	38.2	39.0	38.6	38.8	40.9	42.8	41.8	13.8	10.5	12.2
Age 14-16	31.9	39.9	36.2	46.0	40.9	43.2	38.0	31.7	34.6	18.2	8.7	13.1

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	48.6	48.7	48.6	57.3	56.1	56.7	43.2	43.7	43.4	35.3	25.8	30.6
Age 15	52.5	53.1	52.8	63.6	54.2	58.7	43.2	46.3	44.8	39.9	27.2	33.3
Age 16	56.3	54.6	55.4	62.7	57.2	60.0	43.1	43.8	43.4	39.0	25.9	32.6
Age 14-16	52.1	51.9	52.0	61.0	55.7	58.3	43.2	44.6	43.9	37.9	26.3	32.1



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 21 OUT OF 21 DISTRICTS Data is not presented where sample size is insufficient.



#### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	302	445	439	392
Upper primary schools (Std I-VII/VIII)	226	132	154	221
Total schools visited	528	577	593	613

Table 15: Trends over time         Student and teacher attendance on the day of visit         2010, 2014, 2016 and 2018									
Primary schools (Std I-IV/V)	2010	2014	2016	2018					
% Enrolled children present (Average)	82.9	78.7	82.3	77.7					
% Teachers present (Average)	89.8	85.8	85.3	87.0					
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	81.7	79.6	83.8	77.6					
% Teachers present (Average)	87.8	86.1	85.8	88.5					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	33.0	34.0	43.3	40.9
% Schools where Std IV children were observed sitting with one or more other classes	30.1	27.4	32.9	36.2
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	31.3	35.2	53.6	42.9
% Schools where Std IV children were observed sitting with one or more other classes	28.9	27.3	54.7	40.6

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	51.0	75.8	82.0	88.2
meal	Mid-day meal served in school on day of visit	93.7	91.7	92.5	85.3
	No facility for drinking water	17.7	15.5	16.6	11.6
Drinking	Facility but no drinking water available	7.7	8.4	7.6	6.4
water	Drinking water available	74.6	76.2	75.8	82.0
	Total	100	100	100	100
	No toilet facility	2.0	2.4	0.5	0.7
Toilet	Facility but toilet not useable	30.1	15.8	14.0	8.5
Tonet	Toilet useable	67.9	81.8	85.5	90.8
	Total	100	100	100	100
	No separate provision for girls' toilet	10.0	4.6	2.9	4.8
Cirle	Separate provision but locked	13.4	3.3	3.4	2.3
toilet	Separate provision, unlocked but not useable	23.9	12.5	11.4	8.5
tonot	Separate provision, unlocked and useable	52.8	79.6	82.3	84.4
	Total	100	100	100	100
	No library	35.4	15.8	16.8	16.0
Library	Library but no books being used by children on day of visit	33.0	48.2	42.3	44.8
LIDIALY	Library books being used by children on day of visit	31.6	36.0	40.9	39.1
	Total	100	100	100	100
	Electricity connection			96.2	95.7
Electricity	Of schools with electricity connection, % schools with electr	icity		105	70.8
	available on day of visit	47.5	70.0		
	No computer available for children to use	82.6	88.5	89.4	81.7
Computer	Available but not being used by children on day of visit	10.5	7.9	8.2	13.3
Computer	Computer being used by children on day of visit	6.9	3.7	2.4	5.1
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time % Schools with total enrollment of 60 or less 2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
Primary schools (Std I-IV/V)	10.3	12.4	18.9	25.3					
Upper primary schools (Std I-VII/VIII)	1.4	1.5	5.2	4.1					

Table 19: Physical education and sports in schools 2018							
% Schools w	vith	Std I-IV/ V	Std I-VII/ VIII	All schools			
	Physical education period in the timetable	30.8	67.9	44.6			
Dedicated time for	No physical education period but dedicated time allotted	47.3	22.0	37.9			
physical education	No physical education period and no dedicated time allotted	21.9	10.1	17.5			
	Total	100	100	100			
Physical	Separate physical education teacher	9.7	63.4	29.2			
	Other physical education teacher	65.1	25.5	50.8			
teacher	No physical education teacher	25.2	11.1	20.1			
	Total	100	100	100			
	Playground inside the school premises	82.0	88.1	84.3			
Playaround	Playground outside the school premises	9.4	8.7	9.1			
Flayground	No accessible playground	8.6	3.2	6.6			
	Total	100	100	100			
Availability of	of any sports equipment	59.3	64.7	61.2			
Supervised p of visit	hysical education activity observed on day	30.6	36.6	32.8			

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018							
	2014	2016	2018				
% Schools which reported having an SMC	98.9	96.6	99.0				
Of all schools that have an SMC, % schools that ha	ad the last SN	1C meeting					
Before July	4.0	5.7	2.3				
Between July and September	72.6	83.3	58.9				
After September	23.4	11.0	38.8				







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 12 OUT OF 12 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

### Table 1: % Children enrolled in different types of schools by age group and gender 2018

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	58.9	40.7	0.0	0.4	100
Age 7-16: All	63.2	36.1	0.1	0.7	100
Age 7-10: All	54.7	45.0	0.1	0.2	100
Age 7-10: Boys	51.8	48.1	0.0	0.1	100
Age 7-10: Girls	57.6	41.8	0.2	0.4	100
Age 11-14: All	65.4	34.1	0.0	0.6	100
Age 11-14: Boys	62.4	36.9	0.0	0.7	100
Age 11-14: Girls	68.5	31.0	0.0	0.5	100
Age 15-16: All	79.5	18.2	0.1	2.2	100
Age 15-16: Boys	76.4	21.0	0.3	2.4	100
Age 15-16: Girls	82.9	15.2	0.0	2.0	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 53.7% as compared to 33.5% in Std VIII.

2006, 2008, 2010, 2012, 2014, 2016 and 2018 40 35 30 25 Childrer 20 15 % 10 5 0 2008 2010 2016 2018 2006 2012 2014 11 to 14 Boys — 11 to 14 Girls — 15 to 16 Boys — 15 to 16 Girls

% Children not enrolled in school by age group and gender

Chart 1: Trends over time

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 5.6% in 2006, 3.8% in 2012, and 2% in 2018.

Tabl % Cl	ble 2: Age-grade distribution Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total	
T	33.2	53.2	11.6		2.0									
II	2.6	25.2	57.1	12.7	2.7 2.5								100	
Ш	1.4 21.9 57.9 16.7 2.2							100						
IV		2.4		29.5	51.1	13.6	6 3.4						100	
V			2.9		28.8	51.9	14.1	2.3					100	
VI			2.7			33.0	50.9	12.3		1	.1		100	
VII			3	3.7			28.2	52.4	14.1		1.7		100	
VIII				3.6				40.2	46.1	8.7	1	.4	100	

This table shows the age distribution for each grade. For example, of all children in Std III, 57.9% children are 8 years old but there are also 21.9% who are 7, 16.7% who are 9, and 2.2% who are 10 or older.

#### Young children in pre-school and school

Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

I		Pre	-school			School		Not in	
	Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
	Age 3	57.6	2.6	30.6	1.6	1.0	0.0	6.6	100
	Age 4	37.4	3.4	51.4	3.3	1.3	0.0	3.1	100
	Age 5	15.8	5.9	36.3	21.4	18.9	0.0	1.7	100
	Age 6	1.2	0.5	6.0	41.5	50.4	0.0	0.3	100
	Age 7	0.1	0.4	1.8	48.8	48.2	0.3	0.4	100
	Age 8	0.3	0.0	0.3	56.3	42.7	0.1	0.3	100

ASER 2018



Data is not presented where sample size is insufficient.

Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

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Table 4: % Children by grade and reading level       All children 2018														
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total								
Ι	18.3	43.8	24.6	7.4	5.8	100								
II	4.0	20.8	22.7	26.4	26.0	100								
	2.0	9.2	15.7	25.4	47.8	100								
IV	2.7	5.9	6.8	14.1	70.7	100								
V	1.8	3.1	4.7	13.4	76.9	100								
VI	0.5	3.0	4.8	10.0	81.6	100								
VII	0.3	1.9	3.9	6.2	87.8	100								
VIII	0.4	2.2	3.0	4.5	89.9	100								

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 2% cannot even read letters, 9.2% can read letters but not words or higher, 15.7% can read words but not Std I level text or higher, 25.4% can read Std I level text but not Std II level text, and 47.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018											
Year	% Children in Std III who can read Std II level text										
	Govt	Pvt	Govt & Pvt*								
2012	32.8	51.0	38.7								
2014	43.6	51.3	46.6								
2016	45.0	49.0	47.0								
2018	47.4	48.0	47.7								

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 58.1% and in Std VI (in 2010) was 89.4%. When the cohort reached Std VIII in 2012, this figure was 90.1%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I le	evel text
तगमा समझदार लड़की थी। तगर उसका छोटा भाई अमन बहुत नटखट था। एक दिन दोनों बाज़ार में घूम रहे थे। अमन ने रास्ते में पकौडे देखे। उसे पकौडे	रात हे चाँद दिर तारे भी च सब लोग	। गई है। ख रहा है ामक रहे सो गए
हुत पसंद थे। माँ उसके लिए	Letters	V
रकौड़े बनाती थी। नगमा ने कहा	नि प म	आग
ग्ह पकौड़े तीखे होंगे। मगर अमन	च स	गिर
१हा माना। अनन न पकाड़ खाए प्रौर उसकी आँखों से आँसू	थ ग द	मौका
नेकलने लगे।	र ल	पैसा

Reading Tool (Hindi)



etters	VVO	ras
प म	आग	सोच
स	ता गिर	ला पानी
ग द	मौका	धुन
ল	यैसा वैसा	श बूढ़ा

### Table 6: Trends over time 2012, 2014, 2016 and 2018

	% Childre	en in Std V	who can	% Children in Std VIII who can read Std II level text				
Year	read	Std II level	text					
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*		
2012	71.2	76.9	72.8	88.9	94.6	90.1		
2014	71.5	82.5	75.3	90.5	94.8	91.9		
2016	65.3	78.0	70.5	84.9	94.9	87.9		
2018	74.5	80.4	76.9	87.4	95.4	89.9		

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018													
Std	Not even	Recognize	e numbers	Subtract	Divide	Total							
510	1-9	1-9	10-99	Jublidet	Divide	Total							
I	13.1	34.3	48.2	4.0	0.3	100							
	1.7	18.0	48.7	28.9	2.7	100							
	0.7	9.7	39.5	33.1	17.0	100							
IV	1.2	4.9	23.4	29.7	40.9	100							
V	0.6	5.6	14.8	22.4	56.6	100							
VI	0.3	2.5	17.1	27.3	52.8	100							
VII	0.0	0.7	16.8	24.2	58.3	100							
VIII	0.3	1.8	16.5	20.4	61.0	100							

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 0.7% cannot even recognize numbers 1-9, 9.7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 39.5% can recognize numbers up to 99 but cannot do subtraction, 33.1% can do subtraction but cannot do division, and 17% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018										
Year	% Children in Std III who can do at least subtraction									
	Govt	Pvt	Govt & Pvt*							
2012	39.5	72.6	50.3							
2014	40.6	70.6	52.4							
2016	48.4	66.7	57.4							
2018	42.4	58.7	50.1							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 2010 2012 70 2014 2018 Children 20 201 2014 2016 °<sup>8</sup> 40 2008 2010 2014 2012 30 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 40.3% and in Std VI (in 2010) was 75.5%. When the cohort reached Std VIII in 2012, this figure was 71.7%. The progress of each of these cohorts can be understood in the same way.



### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012 2014 2013 2014

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division									
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*							
2012	40.7	70.3	48.7	67.7	86.8	71.8							
2014	37.9	63.9	46.9	55.9	74.2	61.8							
2016	47.4	63.0	53.7	50.4	79.5	59.2							
2018	51.5	64.0	56.6	54.7	74.4	61.0							

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

#### **Basic reading and arithmetic** Table 10: Basic reading by age group and Table 11: Basic arithmetic by age group and gender 2018 gender 2018 % Children who can read % Children who can do at least % Children who can do division Age group Std II level text Age group subtraction Male Female All Male Female All Male Female All Age 8-10 59.3 70.3 64.8 Age 8-10 65.7 66.1 65.9 36.6 39.4 38.0 Age 11-13 84.7 89.2 87.0 Age 11-13 80.3 83.2 81.8 56.5 62.5 59.5 Age 14-16 90.4 95.4 93.0 Age 14-16 83.4 84.5 84.0 60.7 65.2 63.0

### Beyond basics

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018														
Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount					
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All			
Age 14	36.7	29.9	33.9	52.7	32.2	44.2	37.0	43.0	39.5	18.2	15.8	17.2			
Age 15	30.3	42.2	36.1	49.4	48.1	48.8	39.7	38.6	39.2	20.1	6.1	13.3			
Age 16	34.6	35.9	35.3	65.2	36.0	48.3	46.7	29.2	36.5	26.7	0.9	11.7			
Age 14-16	33.8	36.5	35.1	53.7	39.6	46.9	39.9	37.4	38.7	20.5	7.8	14.4			

Table 12: Of all children who can do subtraction but not division, % children who

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	49.0	46.9	47.9	68.1	58.5	63.0	46.4	51.1	48.9	36.3	26.6	31.2
Age 15	50.4	53.0	51.8	71.9	53.8	62.7	48.9	51.5	50.2	39.7	28.5	34.0
Age 16	42.1	58.8	51.4	72.0	65.5	68.4	45.2	46.9	46.1	46.2	40.7	43.2
Age 14-16	48.2	51.8	50.1	70.3	58.4	64.1	47.1	50.3	48.8	39.6	30.5	34.8



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 12 OUT OF 12 DISTRICTS Data is not presented where sample size is insufficient.



#### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	195	250	260	284
Upper primary schools (Std I-VII/VIII)	66	27	23	9
Total schools visited	261	277	283	293

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018										
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	90.0	86.3	85.8	83.4						
% Teachers present (Average)	88.0	76.7	82.6	75.8						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	58.6	74.1	73.7	80.8
% Schools where Std IV children were observed sitting with one or more other classes	52.8	73.0	70.7	74.3

#### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-dav	Kitchen shed for cooking mid-day meal	82.5	97.1	97.5	99.3
meal	Mid-day meal served in school on day of visit	98.0	93.8	98.9	93.1
	No facility for drinking water	12.5	5.4	8.9	5.5
Drinking	Facility but no drinking water available	4.3	6.9	6.4	5.1
water	Drinking water available	83.2	87.7	84.7	89.4
	Total	100	100	100	100
	No toilet facility	10.8	0.4	1.8	0.3
Toilot	Facility but toilet not useable	33.2	12.0	14.2	5.5
TOHEL	Toilet useable	56.0	87.6	84.0	94.2
	Total	100	100	100	100
	No separate provision for girls' toilet	31.1	1.6	6.0	5.5
Cirle	Separate provision but locked	10.6	3.6	6.0	2.1
toilet	Separate provision, unlocked but not useable	19.6	8.5	8.6	6.2
tonot	Separate provision, unlocked and useable	38.7	86.2	79.5	86.3
	Total	100	100	100	100
	No library	19.7	4.4	5.4	2.7
Library	Library but no books being used by children on day of visit	39.0	55.1	62.1	73.0
LIDIALY	Library books being used by children on day of visit	41.3	40.6	32.5	24.3
	Total	100	100	100	100
	Electricity connection			92.1	94.5
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		92.6	86.0
	No computer available for children to use	93.3	94.6	92.2	93.5
<b>o</b> <i>i</i>	Available but not being used by children on day of visit	3.5	2.2	6.1	4.5
Computer	Computer being used by children on day of visit	3.2	3.3	1.8	2.1
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018								
	2010	2014	2016	2018				
All schools (Std I-IV/V and Std I-VII/VIII)	48.6	71.3	80.8	83.1				

#### Table 19: Physical education and sports in schools 2018

% Schools v	vith	All schools (Std I-IV/V and Std I-VII/VIII)
	Physical education period in the timetable	46.1
Dedicated time for	No physical education period but dedicated time allotted	39.6
physical education	No physical education period and no dedicated time allotted	14.3
	Total	100
	Separate physical education teacher	2.8
Physical	Other physical education teacher	74.2
teacher	No physical education teacher	23.0
	Total	100
	Playground inside the school premises	82.6
Playaround	Playground outside the school premises	10.8
Flayground	No accessible playground	6.6
	Total	100
Availability of	of any sports equipment	69.9
Supervised p of visit	hysical education activity observed on day	17.3

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018									
	2014	2016	2018						
% Schools which reported having an SMC	99.6	98.9	99.7						
Of all schools that have an SMC, % schools that ha	ad the last SN	IC meeting							
Before July	8.2	7.8	5.5						
Between July and September	83.3	74.4	84.5						
After September	8.6	17.8	10.0						







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 14 OUT OF 22 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Table 1: % Children enrolled	in different types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	58.3	40.1	0.4	1.3	100
Age 7-16: All	59.6	37.3	0.4	2.7	100
Age 7-10: All	54.9	44.3	0.3	0.6	100
Age 7-10: Boys	50.1	49.3	0.2	0.4	100
Age 7-10: Girls	59.8	39.1	0.3	0.8	100
Age 11-14: All	61.0	36.8	0.5	1.8	100
Age 11-14: Boys	58.5	39.9	0.5	1.2	100
Age 11-14: Girls	63.4	33.7	0.4	2.4	100
Age 15-16: All	67.4	22.5	0.3	9.9	100
Age 15-16: Boys	66.2	26.6	0.1	7.1	100
Age 15-16: Girls	68.5	18.6	0.4	12.5	100

Table 2: Age-grade distribution% Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
T	23.3	30.3	25.6	13.4				7	.5				100
II	5.9	13.6	25.2	35.2	12.1	5.1			2	.9			100
Ш	3	.5	13.9	26.9	34.7	15.0	6.0						100
IV		4.5		14.3	23.6	39.4	9.9	9 6.3 2.0					100
V		5.2 1		10.6	32.9	27.9	16.9		6	.5		100	
VI		3.8 13.627.539.610.0 5.6						100					
VII		5.8				9.931.037.910.9 4.5					5	100	
VIII				3.4				15.8	30.6	37.5	8.5	4.2	100

This table shows the age distribution for each grade. For example, of all children in Std III, 26.9% children are 8 years old but there are also 13.9% who are 7, 34.7% who are 9, 15% who are 10, and 6% who are 11 or older.

'Other' includes children going to Madarsa or EGS. 'Not in school' includes children who never enrolled or have dropped out.

### Young children in pre-school and school

	Pre-school				School	Not in		
Age	ge Anganwadi LKG/ LKG/ C UKG UKG	Govt	Pvt	Other	school or school	Total		
Age 3	56.6	3.5	12.0	2.8	0.8	0.0	24.2	100
Age 4	31.8	10.1	31.6	7.9	2.9	0.1	15.5	100
Age 5	9.7	13.4	42.3	18.8	9.8	0.0	6.1	100
Age 6	2.9	10.8	30.2	34.9	19.3	0.3	1.8	100
Age 7	0.3	3.2	15.1	44.5	35.9	0.1	0.9	100
Age 8	0.4	0.5	5.3	53.3	39.9	0.4	0.3	100







step rope

hat

doll

Data is not presented where sample size is insufficient.

Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018												
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total						
Ι	17.8	38.1	28.6	10.5	5.1	100						
II	8.1	31.0	35.1	16.0	9.8	100						
III	3.2	19.8	34.3	20.5	22.3	100						
IV	1.6	17.0	31.4	23.0	27.0	100						
V	1.1	11.2	24.5	21.2	41.9	100						
VI	1.1	7.3	17.6	23.3	50.6	100						
VII	0.4	6.9	15.4	24.4	52.9	100						
VIII	1.1	4.6	8.5	21.0	64.8	100						

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 3.2% cannot even read letters, 19.8% can read letters but not words or higher, 34.3% can read words but not Std I level text or higher, 20.5% can read Std I level text but not Std II level text, and 22.3% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014 and 2018							
Year	% Children in Std III who can read Std II level text						
	Govt	Pvt	Govt & Pvt*				
2012	10.9	44.1	26.3				
2014	10.0	29.9	20.0				
2016							
2018	5.4	42.0	22.1				

\* This is the weighted average for children in government and private schools only.

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.



Reading To	ool (English)	
Std II level text	Std I le	vel text
Gita is a little girl. Her mother gave her a book. It had lots of stories and nice pictures. Gita read it every morning on her	Amar goes to It is very He take The bus take	o the market. far away. s the bus. es four hours.
many words. That made her	Letters	Words
teacher happy. The teacher gave Gita another book. It had more stories. She showed it to all her friends.	mtz fk iar vp	both str cup out roj dog h key wish de

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	24.6	64.1	41.2	54.3	84.7	64.5	
2014	21.0	58.8	38.7	54.4	76.5	63.9	
2016							
2018	24.3	69.1	42.0	55.5	83.0	65.0	

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level           All children 2018								
Std	Not even	Recognize	e numbers	Subtract	Divide	Total		
ota	1-9	1-9	10-99	Gabilaot	Divido	Total		
I	16.5	33.3	41.3	7.8	1.1	100		
	6.8	24.4	48.1	18.4	2.3	100		
	2.3	16.3	45.2	30.2	6.0	100		
IV	1.7	13.1	40.8	30.4	14.1	100		
V	1.2	7.2	35.8	30.7	25.1	100		
VI	0.7	6.1	34.4	32.4	26.4	100		
VII	0.3	5.8	32.0	33.8	28.1	100		
VIII	0.3	3.4	30.3	33.1	32.9	100		

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.3% cannot even recognize numbers 1-9, 16.3% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 45.2% can recognize numbers up to 99 but cannot do subtraction, 30.2% can do subtraction but cannot do division, and 6% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over time Arithmetic in Std III by school type 2012, 2014 and 2018							
Year	% Children in Std III who can do at least subtraction						
	Govt Pvt		Govt & Pvt*				
2012	18.9	64.2	39.7				
2014	22.8	59.2	41.1				
2016							
2018	20.2	55.0	36.1				

\* This is the weighted average for children in government and private schools only.

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.



### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012 2014 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	7.8	39.3	21.2	25.0	60.3	36.9	
2014	13.7	38.0	25.0	27.6	55.1	39.3	
2016							
2018	13.6	42.6	25.1	25.3	47.3	32.9	

\* This is the weighted average for children in government and private schools only.





ASER 2018



Data is not presented where sample size is insufficient.

#### **Basic reading and arithmetic** Table 10: Basic reading by age group and Table 11: Basic arithmetic by age group and gender 2018 gender 2018 % Children who can read % Children who can do at least % Children who can do division Age group Std II level text Age group subtraction Male Female All Male Female All Male Female All Age 8-10 24.2 25.0 24.6 Age 8-10 39.5 34.6 37.2 11.0 9.5 10.3 Age 11-13 50.5 53.5 52.0 Age 11-13 62.8 62.3 62.6 29.5 25.5 27.5 69.5 70.7 71.9 69.8 41.2 35.2 Age 14-16 72.1 Age 14-16 68.0 37.9

### Beyond basics

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



### Table 12: Of all children who can do subtraction but not division, % children whocan correctly answer by age and gender 2018

Age	Calc	ulating	time	App	lying un method	itary	Financial decision making		Calculating discount			
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	32.0	40.7	37.2	40.7	42.6	41.8	16.5	13.3	14.6	14.1	13.1	13.5
Age 15	30.3	42.7	37.6	51.9	38.8	44.1	23.9	17.4	20.1	18.1	11.4	14.2
Age 16	28.3	44.8	37.1	49.2	26.7	37.3	22.4	15.5	18.7	14.5	15.7	15.1
Age 14-16	30.2	42.6	37.3	47.2	36.6	41.1	20.9	15.3	17.7	15.5	13.3	14.2

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	48.1	37.0	42.2	57.5	44.5	50.7	21.6	14.7	18.0	34.0	28.8	31.2
Age 15	52.5	43.6	48.0	44.9	59.1	52.2	22.5	26.7	24.7	27.2	15.0	20.9
Age 16	44.6	49.4	46.9	48.8	41.8	45.4	19.8	22.4	21.1	29.9	24.8	27.4
Age 14-16	48.5	43.0	45.7	50.2	48.9	49.6	21.4	21.3	21.3	30.3	22.7	26.4



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 14 OUT OF 22 DISTRICTS Data is not presented where sample size is insufficient.



#### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2014 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)		92		53
Upper primary schools (Std I-VII/VIII)		251		323
Total schools visited		343		376

Table 15: Trends over timeStudent and teacher attendance on the day of visit2014 and 2018							
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018			
% Enrolled children present (Average)		73.9		76.9			
% Teachers present (Average)		83.2		82.4			

Table 16: Trends over time Multigrade classes 2014 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes		65.9		60.8
% Schools where Std IV children were observed sitting with one or more other classes		61.0		51.7

#### **School facilities**

Table 17: % Schools 2014 and	Trends over time s with selected facilities 2018				
% Schools	with	2010	2014	2016	2018
Mid-dav	Kitchen shed for cooking mid-day meal		75.5		86.3
meal	Mid-day meal served in school on day of visit		74.7		77.3
	No facility for drinking water		41.4		36.6
Drinking	Facility but no drinking water available		7.0		8.9
water	Drinking water available		51.6		54.6
	Total		100		100
	No toilet facility		17.0		4.6
Toilot	Facility but toilet not useable		24.9		22.5
TOHEL	Toilet useable		58.1		73.0
	Total		100		100
	No separate provision for girls' toilet		34.4		30.2
Cirle	Separate provision but locked		10.0		7.4
toilet	Separate provision, unlocked but not useable		8.9		14.3
tonot	Separate provision, unlocked and useable		46.7		48.2
	Total		100		100
	No library		45.6		41.1
Library	Library but no books being used by children on day of visit		26.3		32.3
LIDIAIY	Library books being used by children on day of visit		28.1		26.6
	Total		100		100
	Electricity connection				31.2
Electricity	Of schools with electricity connection, % schools with electr	icity			507
	available on day of visit		56.7		
	No computer available for children to use		91.2		82.8
Computer	Available but not being used by children on day of visit		6.2		12.6
Computer	Computer being used by children on day of visit		2.6		4.6
	Total		100		100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2014 and 2018							
	2010	2014	2016	2018			
All schools (Std I-IV/V and Std I-VII/VIII)		55.9		52.4			

Table 19: Physical education and sports in schools 2018							
% Schools w	vith	All schools (Std I-IV/V and Std I-VII/VIII)					
	Physical education period in the timetable	41.0					
Dedicated time for	No physical education period but dedicated time allotted	27.0					
physical education	No physical education period and no dedicated time allotted	32.0					
	Total	100					
	Separate physical education teacher	23.4					
Physical	Other physical education teacher	30.1					
teacher	No physical education teacher	46.5					
	Total	100					
	Playground inside the school premises	56.6					
Playaround	Playground outside the school premises	16.1					
Tayground	No accessible playground	27.3					
	Total	100					
Availability of	of any sports equipment	76.2					
Supervised p of visit	hysical education activity observed on day	24.1					

Table 20: School Management Committee (SMC) in schools2014 and 2018								
	2014	2016	2018					
% Schools which reported having an SMC	84.4		85.2					
Of all schools that have an SMC, % schools that ha	id the last SN	1C meeting						
Before July	19.3		22.2					
Between July and September	41.3		65.3					
After September	39.4		12.5					







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 24 OUT OF 24 DISTRICTS Data is not presented where sample size is insufficient.



#### School enrollment

Chart 1: Trends over time

Table 1: % Chi	Idren enrolled	in different	types of	schools by
age group and	gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	78.0	19.0	0.4	2.7	100
Age 7-16: All	76.1	19.4	0.3	4.2	100
Age 7-10: All	79.0	19.2	0.3	1.5	100
Age 7-10: Boys	75.8	22.2	0.2	1.8	100
Age 7-10: Girls	82.1	16.1	0.4	1.3	100
Age 11-14: All	76.1	19.7	0.4	3.8	100
Age 11-14: Boys	73.0	22.5	0.4	4.1	100
Age 11-14: Girls	79.3	16.9	0.4	3.4	100
Age 15-16: All	67.2	19.6	0.0	13.2	100
Age 15-16: Boys	64.8	20.0	0.0	15.3	100
Age 15-16: Girls	69.4	19.3	0.1	11.2	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 26.2% as compared to 15.3% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 29.2% in 2006, 15.5% in 2012, and 11.2% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I.	34.6	32.9	16.2	8.7		7.7					100		
II	8.9	19.4	28.4	23.7	7.4	7.4 6.9 5.4					100		
111	6	.6	16.3	34.0	18.5	14.3	3 10.3					100	
IV	2	.2	5.1	18.4	22.9	30.9	8.1	8.6		3	.8		100
V		2.3		7.4	10.0	36.1	19.0	15.9	5.4		3.9		100
VI		3	8.0		5.0	5.0 18.8 21.6 32.4 12.1 7.2					100		
VII			1.5			6.3	10.3	38.2	25.7	11.7	6.	3	100
VIII			6	b.0		17.3 30.1 26.413.7 6.4					6.4	100	

This table shows the age distribution for each grade. For example, of all children in Std III, 34% children are 8 years old but there are also 16.3% who are 7, 18.5% who are 9, 14.3% who are 10, and 10.3% who are 11 or older.

#### Young children in pre-school and school

Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School	Not in		
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	72.0	1.3	4.5	4.2	0.7	0.0	17.3	100
Age 4	59.1	3.0	13.0	11.7	2.7	0.1	10.4	100
Age 5	28.2	5.0	15.2	38.1	7.7	0.3	5.5	100
Age 6	6.7	2.6	12.4	63.9	11.8	0.3	2.3	100
Age 7	1.4	0.7	7.4	72.4	16.8	0.3	1.1	100
Age 8	0.5	0.4	3.4	76.8	17.3	0.4	1.3	100



ASER 2018

Data is not presented where sample size is insufficient.



द्वा

किला

जूता

मौका

Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	53.1	27.5	9.1	4.6	5.7	100				
II	32.2	35.1	15.0	8.8	8.9	100				
III	17.1	29.6	21.9	12.7	18.8	100				
IV	9.7	25.2	19.6	16.9	28.6	100				
V	8.0	18.6	18.0	21.1	34.3	100				
VI	4.9	13.4	13.8	20.6	47.3	100				
VII	2.3	8.5	8.9	20.7	59.6	100				
VIII	1.8	5.6	9.1	17.1	66.4	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 17.1% cannot even read letters, 29.6% can read letters but not words or higher, 21.9% can read words but not Std I level text or higher, 12.7% can read Std I level text but not Std II level text, and 18.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Children in Std III who can read Std II level text							
	Govt	Govt Pvt						
2012	10.0	42.2	14.5					
2014	8.7	38.5	14.2					
2016	2016 10.7 44.7 16.2							
2018	11.0	47.0	18.7					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only

00	10113 01	Chinard			2000,	2010, 2		12014
100								
90								
80		2012						
70	201	0		2014		2016		2018
<u>5</u> 60						_		
ic FO			2012				201	6
0.20					20	14		
<sup>≈</sup> 40	2008	-						-
30			2010		2012			
20		-	_				2014	-
10		-			_			
0								
	Cohoi	rt in	Cohort	in	Coho	ort in	Coho	rt in
	Std IV ir	1 2008 ו	Std IV in	2010	Std IV i	in 2012	Std IV i	2014 ו
			Std IV	Sto	l VI	Std V		

Chart 3: Trends over time % Children who can read Std II level text

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 36.4% and in Std VI (in 2010) was 67.1%. When the cohort reached Std VIII in 2012, this figure was 75.8%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I le	evel text
सावन का महीना था। आसमान में बहुत काले-काले बादल छाए थे। ठंडी-ठंडी हवा चल रही थी। मुझे झूला झूलने का मन किया। बडे भैया एक मोटी सी रस्सी	बग़ीचे में पेड़ पर एक तोते का वह लाल टम्	एक पेड़ है। तोता रहता है। रंग हरा है। गटर खाता है।
लेकर बाहर आए। भैया ने रस्सी	Letters	Words
को पेड़ से लटकाकर झूला बनाया। सब ने मिलकर खूब झूला झूला। बाकी बच्चे भी आकर मज़े से झूलने लगे। झूलते-झूलते रात हो गई।	ल प स क ग ड ब म ट झ	लाल कू पैर तेल किल मोर जूत कुल पानी मौक

**Reading Tool (Hindi)** 

#### Table 6: Trends over time 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt Govt & C		Govt	Pvt	Govt & Pvt*	
2012	32.5	75.4	37.7	73.2	93.5	75.8	
2014	29.1	64.0	34.4	68.2	84.9	70.4	
2016	31.4	64.9	36.3	66.1	80.9	67.7	
2018	29.4	63.5	34.3	64.4	79.2	66.6	

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level         All children 2018									
Std	Not even	Recognize	e numbers	Subtract	Divide	Total			
ota	1-9	1-9	10-99	oubtruot	Divido	Total			
I	45.4	33.4	15.2	4.4	1.6	100			
	23.6	41.8	23.1	8.6	2.9	100			
	12.0	35.1	30.4	13.8	8.7	100			
IV	6.0	27.1	34.6	17.7	14.7	100			
V	4.6	18.7	34.5	23.2	19.1	100			
VI	3.4	11.3	31.6	26.2	27.4	100			
VII	1.5	8.7	28.5	25.0	36.4	100			
VIII	1.2	5.2	25.4	24.2	44.0	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 12% cannot even recognize numbers 1-9, 35.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 30.4% can recognize numbers up to 99 but cannot do subtraction, 13.8% can do subtraction but cannot do division, and 8.7% can do subtraction. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can do at least subtraction								
	Govt	Pvt	Govt & Pvt*						
2012	19.3	54.7	24.3						
2014	12.1	51.9	19.5						
2016	13.4	55.6	20.3						
2018	14.8	50.9	22.6						

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 Children 20 2010 2012 2014 2018 2016 °<sup>8</sup> 40 2012 2016 30 2014 2008 20 2014 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 19.3% and in Std VI (in 2010) was 58.2%. When the cohort reached Std VIII in 2012, this figure was 57.5%. The progress of each of these cohorts can be understood in the same way.

अंक पहचान 1—9	गांसया पहचान 10—99	ų	घटाव		
1 4	51 83	46 _ 29	63 - 39	7)879(	
7 3	37 65	47 - 28	45 - 17	6) 824(	
6 9	55 26	92 - 76	84 - 57	8) 985 (	
50	91 43	52 - 14	66 - 48		
<u> </u>	36 27			4) 517(	

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division					
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*			
2012	20.1	54.6	24.3	54.8	75.9	57.5			
2014	17.6	42.7	21.4	48.0	71.0	51.0			
2016	20.0	44.1	23.6	42.3	49.3	43.0			
2018	15.6	39.6	19.0	42.2	57.0	44.4			

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

	Basic reading and arithmetic											
Table 10: Basic gender 2018	: reading by	y age group	and		Table 11: Basic arithmetic by age group and gender 2018							
Age group	ge group % Children who can read Std II level text		an read kt		Age group	% Childr	% Children who can do at least subtraction			% Children who can do division		
	Male	Female	All			Male	Female	All	Male	Female	All	
Age 8-10	23.6	24.6	24.1		Age 8-10	30.3	27.4	28.9	13.1	10.2	11.7	
Age 11-13	53.2	51.0	52.1		Age 11-13	58.8	53.4	56.1	35.8	28.7	32.2	
Age 14-16	72.2	72.7	72.4		Age 14-16	73.6	67.8	70.5	55.4	45.8	50.3	

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018											
Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	19.3	35.0	28.3	32.5	26.2	28.9	18.6	17.1	17.8	7.6	10.9	9.5
Age 15	42.1	27.5	33.0	41.8	17.0	26.3	19.9	11.6	14.7	10.9	9.7	10.1
Age 16	45.0	27.0	33.4	27.7	28.5	28.2	18.4	18.9	18.7	20.4	10.1	13.7
Age 14-16	31.0	30.7	30.8	34.0	24.1	28.0	18.9	16.0	17.1	11.3	10.3	10.7

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method			Financial decision making			Calculating discount			
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	43.6	39.9	41.8	53.5	41.5	47.8	28.8	25.8	27.4	28.8	22.3	25.8
Age 15	42.5	38.5	40.5	49.3	40.7	45.0	30.4	27.4	28.9	27.5	22.4	24.9
Age 16	55.4	45.0	50.3	52.9	44.9	49.0	34.9	30.3	32.6	32.6	24.0	28.3
Age 14-16	46.6	40.9	43.8	51.9	42.2	47.2	31.1	27.7	29.4	29.4	22.8	26.2



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 24 OUT OF 24 DISTRICTS Data is not presented where sample size is insufficient.



#### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	188	209	193	228
Upper primary schools (Std I-VII/VIII)	359	416	383	446
Total schools visited	547	625	576	674

Student and teacher attendance on the day of visit 2010, 2014, 2016 and 2018									
Primary schools (Std I-IV/V)	2010	2014	2016	2018					
% Enrolled children present (Average)	62.3	61.7	66.0	65.5					
% Teachers present (Average)	89.4	91.0	84.6	92.0					
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	58.7	56.5	60.9	60.1					
% Teachers present (Average)	81.8	87.6	70.1	89.7					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	76.9	86.5	88.4	89.0
% Schools where Std IV children were observed sitting with one or more other classes	75.3	83.6	86.6	85.3
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	59.7	71.4	72.8	72.6
% Schools where Std IV children were observed sitting with one or more other classes	52.4	66.8	63.6	61.4

### **School facilities**

Table 17: % School: 2010, 20 <sup>-</sup>	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	73.5	83.9	88.4	88.7
meal	Mid-day meal served in school on day of visit	92.6	78.6	80.7	79.0
	No facility for drinking water	15.8	9.5	8.3	6.6
Drinking	Facility but no drinking water available	10.4	10.3	10.2	10.9
water	Drinking water available	73.8	80.2	81.5	82.6
	Total	100	100	100	100
	No toilet facility	18.0	10.9	1.9	2.4
Toilet	Facility but toilet not useable	55.2	36.2	35.3	22.7
	Toilet useable	26.8	52.9	62.8	74.9
	Total	100	100	100	100
	No separate provision for girls' toilet	29.7	17.4	3.3	5.6
Cirla	Separate provision but locked	24.6	13.6	11.2	8.6
toilet	Separate provision, unlocked but not useable	24.8	21.0	24.1	13.3
tonet	Separate provision, unlocked and useable	20.9	48.0	61.4	72.5
	Total	100	100	100	100
	No library	38.4	10.3	18.9	12.9
Library	Library but no books being used by children on day of visit	33.2	29.0	31.5	36.6
LIDIALY	Library books being used by children on day of visit	28.4	60.7	49.7	50.5
	Total	100	100	100	100
	Electricity connection			22.7	78.4
Electricity	Of schools with electricity connection, % schools with electr	icity		55.7	56.3
	No computer available for children to use	03.0	96.0	05.7	03.1
	Available but not being used by children on day of visit	20	27	30.7	55
Computer	Computer being used by children on day of visit	Z.7	1.2	1.1	1 1
	Total	4.1	1.3	1.1	1.1
	IUldi	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
Primary schools (Std I-IV/V)	20.0	42.5	52.1	50.9					
Upper primary schools (Std I-VII/VIII)	1.2	2.7	3.2	2.5					

Table 19: Physical education and sports in schools 2018									
% Schools w	vith	Std I-IV/	Std I-VII/	All					
70 3010013 0		V	VIII	schools					
	Physical education period in the timetable	34.8	49.3	44.4					

	Physical education period in the timetable	34.8	49.3	44.4
Dedicated time for	No physical education period but dedicated time allotted	33.0	30.8	31.6
physical education	No physical education period and no dedicated time allotted	32.1	19.9	24.0
	Total	100	100	100
	Separate physical education teacher	2.7	5.3	4.4
Physical education	Other physical education teacher	56.5	66.4	63.0
teacher	No physical education teacher	40.8	28.3	32.6
	Total	100	100	100
	Playground inside the school premises	36.2	42.0	40.0
Playaround	Playground outside the school premises	38.4	33.3	35.1
riayground	No accessible playground	25.5	24.7	25.0
	Total	100	100	100
Availability of	of any sports equipment	58.2	72.3	67.5
Supervised p of visit	hysical education activity observed on day	20.4	26.9	24.7

Table 20: School Management Committee (SMC) in schools           2014, 2016 and 2018								
	2014	2016	2018					
% Schools which reported having an SMC	94.7	97.3	98.8					
Of all schools that have an SMC, % schools that ha	ad the last SN	IC meeting						
Before July	9.3	11.0	13.3					
Between July and September 90.3 55.4 83.8								
After September	0.4	33.7	2.9					









# Karnataka, Kerala

# Madhya Pradesh, Maharashtra

# Manipur, Meghalaya



ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 30 OUT OF 30 DISTRICTS Data is not presented where sample size is insufficient.



#### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in differen	t types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	69.9	29.1	0.3	0.7	100
Age 7-16: All	69.7	28.4	0.2	1.7	100
Age 7-10: All	67.7	31.8	0.3	0.2	100
Age 7-10: Boys	63.2	36.5	0.2	0.2	100
Age 7-10: Girls	72.1	27.2	0.5	0.3	100
Age 11-14: All	72.8	25.8	0.2	1.3	100
Age 11-14: Boys	68.2	30.3	0.1	1.4	100
Age 11-14: Girls	77.1	21.5	0.3	1.2	100
Age 15-16: All	66.5	26.0	0.1	7.4	100
Age 15-16: Boys	65.9	27.0	0.1	7.0	100
Age 15-16: Girls	66.9	25.1	0.1	7.8	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 37.8% as compared to 26.4% in Std VIII.



% Children not enrolled in school by age group and gender

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 17.4% in 2006, 11.2% in 2012, and 7.8% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	6.7	57.3	33.0		3.1						100		
	II	5	.7	39.1	50.3				4	.9				100
	Ш		5.2		37.2	52.9				4.7				100
	IV		0.8		6.4	33.9	53.5			5.	.4			100
	V			6.1			37.2	51.1			5.6			100
	VI			1.	.3	5.431.356.6 5.5					100			
	VII				1.8	.8 5.533.752.4 6.2 0.5					100			
	VIII				1	.2			8.2	40.1	47.4	3.	1	100

This table shows the age distribution for each grade. For example, of all children in Std III, 37.2% children are 8 years old but there are also 5.2% who are 7 or younger, 52.9% who are 9, and 4.7% who are 10 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School		Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	82.6	1.2	7.2	1.3	0.0	0.0	7.8	100
Age 4	65.7	1.4	29.9	0.8	0.5	0.0	1.8	100
Age 5	44.6	2.2	43.7	5.5	3.4	0.1	0.6	100
Age 6	10.0	0.9	16.2	48.0	24.3	0.3	0.3	100
Age 7	0.8	0.1	2.0	58.8	37.8	0.4	0.2	100
Age 8	0.2	0.0	0.2	65.9	33.1	0.4	0.1	100



ASER 2018





Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018											
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	40.3	39.9	15.4	2.5	1.9	100					
II	17.2	31.7	30.6	13.0	7.6	100					
	9.2	19.8	30.3	21.5	19.2	100					
IV	5.1	13.5	23.4	24.8	33.2	100					
V	4.5	8.7	16.9	23.8	46.0	100					
VI	4.2	6.7	12.8	20.5	55.8	100					
VII	2.5	6.3	12.2	18.0	61.2	100					
VIII	2.0	4.9	6.9	15.9	70.3	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 9.2% cannot even read letters, 19.8% can read letters but not words or higher, 30.3% can read words but not Std I level text or higher, 21.5% can read Std I level text but not Std II level text, and 19.2% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Children in Std III who can read Std II level text							
	Govt	Govt & Pvt*						
2012	21.2	28.1	22.7					
2014	16.4	23.3	18.4					
2016	19.0	22.1	19.8					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

19.0

19.4

2018



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 34.1% and in Std VI (in 2010) was 54.2%. When the cohort reached Std VIII in 2012, this figure was 74.6%. The progress of each of these cohorts can be understood in the same way.

#### Reading Tool (Kannada)

#### Std II level text ಎಂದು ಊರಿನಲ್ಲಿ ಎಂದು ಅನೆ ಇತ್ತು. ಆ ಅನೆಗೆ ಗುಹ್ಜ. ನಾಯ ಹಾಗೂ ರಮೇಶ ಎಂಬ ಗಳೆಯರಿದ್ದರು. ಅನೆಯನ್ನು ಕಂಡರೆ ಗುಹ್ಜ. ನಾಯ ಹಾಗೂ ರಮೇಶನಿಗೆ ಬಹಕ ಇಷ್ಟ ಎಂದು ದಿನ ಕಟ್ಟೆ ಹಾಕಿ ಅದರ ದಂತವನ್ನು ತೆಗೆಯಲು ಪ್ರಯತ್ನಿಸಿದರು. ಅದೇ ಮರದ ಮೇಲೆ ಅನೆಯ ಗಳೆಯ ಗುಹ್ಜ ಕುಳಿತಿತ್ತು. ಅನೆಗೆ ಆದ ಪಾಡನ್ನು ನೋಡಿ ಗುಹ್ಜ ಹಾರಿ ಹೋಗಿ ನಾಯ ಮತ್ತು ರಮೇಶನಿಗೆ ಹೇಳತು. ಆಗ ರಮೇಶ ಅವರ ಹೊತೆ ಊರಿನ ಜನರನ್ನು ಕರೆದುಕೊಂಡು ಓಡಿ ಬಂದ ಊರ ಜನರು ಕಕ್ಷಿರನ್ನು ಹಿಡಿದರು. ಅನೆಯನ್ನು ಐಡಿಸಿದರು.

Lei			
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ಪುರ	ട്രമ്.	ಅದ ನನ್ನು	ಕಡಿದು

ರಣವ

Std I level text

ರಂಗಪ್ಪ ಕಣ್ಣಗೆ ಕಡಿದು ಜೀವನ ನಡೆಸುತ್ತಿದ್ದ.

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text					
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*			
2012	47.2	54.6	48.5	71.6	82.4	74.6			
2014	45.7	53.5	47.3	70.1	72.2	70.6			
2016	41.9	42.8	42.1	69.7	71.2	70.1			
2018	47.6	41.8	46.1	70.1	71.5	70.5			

\* This is the weighted average for children in government and private schools only.



Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

19.3





#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018										
Std	Not even 1-9	Recognize	e numbers 10-99	Subtract	Divide	Total				
I	29.7	38.2	30.3	1.5	0.4	100				
II	10.9	24.5	54.7	9.3	0.6	100				
	4.9	13.9	54.9	23.3	3.0	100				
IV	2.9	7.3	48.2	29.5	12.1	100				
V	2.3	5.1	38.0	34.1	20.5	100				
VI	2.4	3.3	34.7	30.0	29.6	100				
VII	1.1	2.1	36.1	27.2	33.6	100				
VIII	1.0	1.3	32.0	26.6	39.0	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 4.9% cannot even recognize numbers 1-9, 13.9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 54.9% can recognize numbers up to 99 but cannot do subtraction, 23.3% can do subtraction but cannot do division, and 3% can do division. For each grade, the total of these exclusive categories is 100%.

Arithmetic in Std III by school type 2012, 2014, 2016 and 2018									
Year	% Children in Std III who can do at least subtraction								
	Govt	Pvt	Govt & Pvt*						
2012	26.6	46.3	30.8						
2014	21.9	38.2	26.4						
2016	25.5	38.7	28.9						
2018	23.5	32.8	26.4						

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 Children 20 2013 2016 °<sup>8</sup> 40 2018 2014 2012 2010 30 2016 2014 20 2014 2012 2008 2010 10 $\cap$ Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 8.5% and in Std VI (in 2010) was 29.6%. When the cohort reached Std VIII in 2012, this figure was 46.1%. The progress of each of these cohorts can be understood in the same way.

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3	7	65	38	41 - 13	64 - 48	7)928(
1	4	92	23	84 - 49	73 - 36	6) <sup>769</sup> (
8	2	47	72	56 - 37	31 - 13	8 987
5	9	54	87	45	53	N 510 (
notenting size	adusč (	29 1 3 208 90	11 xcat/wai	-10	- 24	4) 519 (

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	17.4	31.3	19.9	42.0	56.6	46.1	
2014	16.7	33.2	20.2	34.9	43.3	37.0	
2016	17.2	28.1	19.7	39.9	49.2	42.2	
2018	19.6	23.0	20.5	36.1	47.4	39.0	

\* This is the weighted average for children in government and private schools only.



Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

#### **Basic reading and arithmetic** Table 10: Basic reading by age group and Table 11: Basic arithmetic by age group and gender 2018 gender 2018 % Children who can read % Children who can do at least % Children who can Age group Std II level text Age group subtraction do division Male Female All Male Female All Male Female All Age 8-10 23.2 31.0 27.2 Age 8-10 32.3 35.2 33.8 8.4 9.7 9.1 Age 11-13 50.0 62.1 56.3 Age 11-13 56.4 61.6 59.1 26.9 32.8 30.0 80.4 68.7 45.0 Age 14-16 72.5 76.8 Age 14-16 67.1 70.0 40.8 43.1

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018												
Age	Calculating time		Applying unitary method		Financial decision making			Calcul	ating dis	scoun		
U	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All

		l'entitatio		linaro	· onnano	,	linaro	. ornaro		linaro	. on and	
Age 14	29.7	34.0	31.9	36.7	35.7	36.1	26.2	25.9	26.0	15.3	12.0	13.6
Age 15	36.8	33.9	35.2	35.1	31.5	33.2	31.3	25.8	28.3	22.4	14.2	17.9
Age 16	35.5	37.0	36.3	35.9	26.6	30.7	25.4	27.0	26.3	11.1	13.3	12.3
Age 14-16	33.3	34.9	34.1	36.0	31.8	33.7	27.5	26.2	26.8	16.3	13.0	14.5

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calc	ulating	time	Appl	lying un method	itary	Finan	ncial decision making		Calcul	Calculating discount		
Ū	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
Age 14	45.6	44.5	44.9	53.0	46.2	49.0	36.9	39.9	38.7	27.7	25.7	26.5	
Age 15	52.7	44.1	47.7	48.2	44.2	45.9	38.7	41.2	40.2	28.5	24.0	25.9	
Age 16	38.0	49.9	44.3	47.6	47.5	47.5	33.0	42.1	37.9	27.3	20.3	23.6	
Age 14-16	45.7	45.7	45.7	49.7	45.9	47.5	36.3	40.9	39.0	27.9	23.7	25.5	



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 30 OUT OF 30 DISTRICTS Data is not presented where sample size is insufficient.



#### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	113	121	138	134
Upper primary schools (Std I-VII/VIII)	656	591	670	714
Total schools visited	769	712	808	848

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018									
Primary schools (Std I-IV/V)	2010	2014	2016	2018					
% Enrolled children present (Average)	81.7	88.9	89.8	90.0					
% Teachers present (Average)	92.9	89.5	91.2	89.6					
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	70.9	84.6	87.9	83.1					
% Teachers present (Average)	88.9	90.9	92.7	89.9					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	85.9	86.6	94.1	87.5
% Schools where Std IV children were observed sitting with one or more other classes	71.7	73.1	82.0	76.6
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	73.5	79.1	74.8	82.9
% Schools where Std IV children were observed sitting with one or more other classes	31.2	32.1	36.3	38.3

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	92.9	93.0	95.1	93.0
meal	Mid-day meal served in school on day of visit	96.0	98.9	98.8	97.5
	No facility for drinking water	17.3	12.7	15.0	13.4
Drinking	Facility but no drinking water available	7.0	6.1	9.7	9.9
water	Drinking water available	75.8	81.2	75.3	76.8
	Total	100	100	100	100
	No toilet facility	5.6	1.6	3.1	3.3
Toilet	Facility but toilet not useable	56.0	38.2	33.8	25.9
TOHEL	Toilet useable	38.4	60.2	63.1	70.8
	Total	100	100	100	100
	No separate provision for girls' toilet	18.2	6.2	7.7	7.6
Cirla	Separate provision but locked	31.1	30.3	21.5	18.8
toilet	Separate provision, unlocked but not useable	18.9	8.4	11.6	7.1
tonot	Separate provision, unlocked and useable	31.8	55.1	59.3	66.4
	Total	100	100	100	100
	No library	7.6	8.2	8.4	17.0
Library	Library but no books being used by children on day of visit	27.6	37.5	41.3	46.8
LIDIALY	Library books being used by children on day of visit	64.8	54.3	50.4	36.1
	Total	100	100	100	100
	Electricity connection			94.9	95.3
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	80.5	87.5		
	No computer available for children to use	70.6	60.5	55.0	58.2
Computer	Available but not being used by children on day of visit	16.0	23.6	30.4	31.9
Computer	Computer being used by children on day of visit	13.4	15.9	14.6	9.9
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
Primary schools (Std I-IV/V)	84.6	82.5	80.4	83.5					
Upper primary schools (Std I-VII/VIII)	6.3	10.0	14.3	15.5					

#### Table 19: Physical education and sports in schools 2018

% Schools w	/ith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	66.4	79.9	78.0
Dedicated time for	No physical education period but dedicated time allotted	20.7	12.9	14.0
physical education	No physical education period and no dedicated time allotted	12.9	7.2	8.0
	Total	100	100	100
Physical education teacher	Separate physical education teacher	1.6	42.3	36.0
	Other physical education teacher	63.0	44.7	47.5
	No physical education teacher	35.4	13.0	16.4
	Total	100	100	100
	Playground inside the school premises	57.4	84.8	80.7
Playaround	Playground outside the school premises	15.6	8.6	9.6
Flayground	No accessible playground	27.1	6.7	9.7
	Total	100	100	100
Availability of	of any sports equipment	51.9	76.4	72.5
Supervised p of visit	hysical education activity observed on day	21.5	35.0	32.9

Table 20: School Management Committee (2014, 2016 and 2018	(SMC) in sc	hools	
	2014	2016	2018
% Schools which reported having an SMC	92.1	90.5	93.7

Of all schools that have an SMC, % schools that had the last SMC meeting

Before July	8.8	5.3	4.8
Between July and September	88.3	78.1	88.5
After September	2.9	16.6	6.7







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 12 OUT OF 14 DISTRICTS Data is not presented where sample size is insufficient.



#### School enrollment

Chart 1: Trends over time

Table 1: % Childre	en enrolled in diff	ferent types of schoo	ls by
age group and gei	nder 2018		

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	48.1	46.9	5.0	0.1	100
Age 7-16: All	50.3	44.2	5.3	0.3	100
Age 7-10: All	44.8	51.1	4.1	0.0	100
Age 7-10: Boys	41.9	54.1	4.0	0.0	100
Age 7-10: Girls	47.6	48.3	4.1	0.0	100
Age 11-14: All	52.1	41.8	5.8	0.2	100
Age 11-14: Boys	50.7	43.7	5.6	0.0	100
Age 11-14: Girls	53.5	40.0	6.1	0.5	100
Age 15-16: All	58.1	34.2	6.8	0.9	100
Age 15-16: Boys	58.5	34.3	6.1	1.2	100
Age 15-16: Girls	57.7	34.2	7.5	0.6	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 55.1% as compared to 39.6% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 1.1% in 2006, 0.7% in 2012, and 0.6% in 2018.

Tabl % Cl	e 2: hildr	Age en i	-grac n ea	le di ch g	strib rade	utio by a	n ige 2	2018					
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
T	9.4	59.1	15.5					15.9					100
Π	2.0	9.0	64.5	20.5				4	1.0				100
===	0	.7	8.7	66.9	20.2				3.5				100
IV		1.3		10.1	66.8	21.3			C	).6			100
V		C	).8		8.3	73.0	16.3			1.7			100
VI			0.4			8.5	62.7	25.4		3.	.0		100
VII			1	.8			12.3	62.9	21.8		1.3		100
VIII				1.3				13.1	68.5	16.0	1.	.1	100

This table shows the age distribution for each grade. For example, of all children in Std III, 66.9% children are 8 years old but there are also 8.7% who are 7, 20.2% who are 9, and 3.5% who are 10 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School		Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	60.0	9.9	11.8	2.4	1.0	0.0	15.0	100
Age 4	20.9	20.1	53.0	0.6	1.2	0.2	3.9	100
Age 5	3.8	22.7	60.3	7.8	3.5	1.2	0.7	100
Age 6	0.3	5.8	11.3	37.1	41.2	4.3	0.0	100
Age 7	0.0	0.3	0.5	41.6	54.5	3.2	0.0	100
Age 8	0.2	0.2	0.0	43.1	52.9	3.6	0.0	100



Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All ch	4: % Chi ildren 20	ldren by 18	grade and	d reading le	vel	
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
Ι	5.5	33.1	39.8	4.4	17.3	100
II	1.8	13.6	32.7	16.2	35.8	100
III	0.7	9.7	19.7	17.4	52.5	100
IV	0.4	3.1	9.8	14.7	72.0	100
V	1.3	1.9	7.6	12.0	77.2	100
VI	0.5	1.8	4.5	12.0	81.2	100
VII	1.7	2.5	3.9	5.0	86.8	100
VIII	0.3	1.2	2.4	6.5	89.6	100

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 0.7% cannot even read letters, 9.7% can read letters but not words or higher, 19.7% can read words but not Std I level text or higher, 17.4% can read Std I level text but not Std II level text, and 52.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading	in Std II 014, 201	over time I by scho 6 and 20	ol type 18
Year	% Chilo can rea	lren in Std ad Std II Iev	III who /el text
	Govt	Pvt	Govt & Pvt*
2012	38.1	43.2	41.2
2014	36.6	40.3	39.0
2016	38.0	51.5	45.7
2018	43.8	60.2	52.2

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 63.1% and in Std VI (in 2010) was 82.9%. When the cohort reached Std VIII in 2012, this figure was 84.3%. The progress of each of these cohorts can be understood in the same way.

#### Reading Tool (Malayalam)



#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	nildren in Std V who can read Std II level text			ren in Std V ad Std II Iev	VIII who vel text
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*
2012	59.9	69.0	65.2	83.9	84.6	84.3
2014	61.3	70.7	66.6	89.2	88.1	88.5
2016	63.3	74.5	69.4	83.0	87.7	85.3
2018	73.1	81.8	77.5	87.0	91.9	89.1

\* This is the weighted average for children in government and private schools only.



Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All chi	7: % Chil Idren 20	dren by g 18	rade and	arithmeti	c level	
Std	Not even 1-9	Recognize	e numbers 10-99	Subtract	Divide	Total
I	4.0	24.4	59.6	2.0	9.9	100
	2.0	6.0	71.6	17.5	2.9	100
	0.8	3.1	48.2	42.7	5.2	100
IV	0.0	2.7	35.4	46.5	15.5	100
V	0.3	1.5	28.7	25.8	43.7	100
VI	0.3	0.7	25.3	22.4	51.3	100
VII	0.8	0.8	21.0	28.2	49.1	100
VIII	0.3	0.0	21.2	26.7	51.8	100

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 0.8% cannot even recognize numbers 1-9, 3.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 48.2% can recognize numbers up to 99 but cannot do subtraction, 42.7% can do subtraction but cannot do division, and 5.2% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Arithme 2012, 2	Trends c tic in Std 014, 201	over time III by sch 6 and 20	nool type 18				
Year	% Children in Std III who can do at least subtraction						
	Govt	Pvt	Govt & Pvt*				
2012	43.4	58.5	52.7				
2014	36.0	51.7	46.1				
2016	35.9	53.2	45.7				
2018	44.7	52.4	48.7				

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in

#### 100 90 80 2012 70 2010 09 Children 201 2016 2018 2016 2014 °<sup>8</sup> 40 2012 30 2008 2014 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 23% and in Std VI (in 2010) was 65.1%. When the cohort reached Std VIII in 2012, this figure was 75%. The progress of each of these cohorts can be understood in the same way.

		and the second sec
65 38	41 64 - 13 - 48	7)928(
92 23	84 73 - 49 - 36	6)769(
47 72	56 31 - 37 - 13	8) 987 (
54 87	45 53 - 18 - 24	4) 519
	65     38       92     23       47     72       54     87       29     11	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Arithmetic Tool (Malayalam)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt Govt & Pvt*		Govt	Pvt	Govt & Pvt*				
2012	38.0	51.5	45.9	74.7	75.2	75.0				
2014	25.6	49.7	39.3	52.2	64.3	59.4				
2016	27.1	48.5	38.7	49.1	57.8	53.2				
2018	33.5	52.5	43.2	43.3	63.5	51.8				

\* This is the weighted average for children in government and private schools only



government and private schools only.

Chart 4: Trends over time % Children who can do division





Table 10: Basic gender 2018	: reading by	y age group	and	Table 11: B	Table 11: Basic arithmetic by age group and gender 2018								
Age group	% Children who can read Std II level text			Age group	% Childro	en who can o subtraction	do at least	% Children who can do division					
	Male	Female	All		Male	Female	All	Male	Female	All			
Age 8-10	56.2	74.2	65.4	Age 8-10	54.4	61.2	57.9	19.3	21.5	20.4			
Age 11-13	81.0	89.1	85.3	Age 11-13	73.3	79.0	76.3	48.1	51.3	49.8			
Age 14-16	90.0	92.7	91.4	Age 14-16	81.8	80.9	81.4	62.1	67.7	64.9			

Basic reading and arithmetic

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



### Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	43.6	39.5	41.6	58.4	35.3	47.1	41.7	58.0	49.7	26.0	13.1	19.7
Age 15	74.6	31.9	56.6	47.1	43.3	45.5	32.9	27.8	30.7	46.1	17.2	33.9
Age 16	56.4	36.0	50.4	51.5	44.3	49.4	22.7	21.1	22.2	22.2	12.0	19.2
Age 14-16	57.7	36.2	49.1	52.4	40.0	47.4	31.6	39.5	34.8	30.4	14.1	23.9

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	76.4	71.5	73.8	61.5	64.0	62.8	58.7	67.4	63.3	44.0	28.8	35.9
Age 15	82.7	71.7	76.6	66.3	57.8	61.5	60.2	58.3	59.1	55.3	40.8	47.2
Age 16	70.3	75.2	73.0	56.5	69.9	63.8	55.8	62.1	59.2	46.9	46.0	46.4
Age 14-16	76.3	72.8	74.4	61.3	64.0	62.8	58.2	62.5	60.5	48.6	38.8	43.3


# Kerala RURAL

ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 12 OUT OF 14 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	176	145	160	138
Upper primary schools (Std I-VII/VIII)	99	120	168	141
Total schools visited	275	265	328	279

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018							
Primary schools (Std I-IV/V)	2010	2014	2016	2018			
% Enrolled children present (Average)	93.1	90.6	91.3	82.7			
% Teachers present (Average)	94.0	89.9	91.1	85.8			
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018			
% Enrolled children present (Average)	91.2	89.9	92.4	83.8			
% Teachers present (Average)	90.2	89.9	89.4	84.1			

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	7.9	11.2	12.5	16.2
% Schools where Std IV children were observed sitting with one or more other classes	7.1	9.8	11.3	19.9
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	6.3	12.1	13.9	18.8
% Schools where Std IV children were observed sitting with one or more other classes	2.2	9.5	10.3	22.0

### **School facilities**

Table 17: % Schools 2010, 207	Trends over time s with selected facilities 14, 2016 and 2018								
% Schools	% Schools with 2010 2014								
Mid-day	Kitchen shed for cooking mid-day meal	98.1	98.8	98.1	99.2				
meal	Mid-day meal served in school on day of visit	100.0	74.6	94.1	96.1				
	No facility for drinking water	2.6	4.2	5.3	2.2				
Drinking	Facility but no drinking water available	11.7	12.8	14.2	44.9				
water	Drinking water available	85.7	83.0	80.5	52.9				
	Total	100	100	100	100				
	No toilet facility	0.4	0.0	0.0	0.0				
Toilet	Facility but toilet not useable	41.4	15.2	18.0	10.6				
TOHEL	Toilet useable	58.2	84.8	82.0	89.4				
	Total	100	100	100	100				
	No separate provision for girls' toilet	5.1	1.9	1.5	3.3				
Cirle	Separate provision but locked	8.7	4.6	3.1	8.5				
toilet	Separate provision, unlocked but not useable	42.3	13.3	16.6	4.8				
tonot	Separate provision, unlocked and useable	43.9	80.2	78.8	83.4				
	Total	100	100	100	100				
	No library	16.9	5.3	6.4	10.0				
Library	Library but no books being used by children on day of visit	20.7	12.5	12.2	59.5				
LIDIAIY	Library books being used by children on day of visit	62.4	82.2	81.4	30.5				
	Total	100	100	100	100				
	Electricity connection			93.5	99.6				
Electricity	Of schools with electricity connection, % schools with electr	icity		00 J	06.1				
	available on day of visit		00.4	90.1					
	No computer available for children to use	17.2	10.2	11.0	24.6				
Computer	Available but not being used by children on day of visit	16.1	48.7	19.0	52.9				
Computer	Computer being used by children on day of visit	66.7	41.1	69.9	22.4				
	Total	100	100	100	100				





# Kerala RURAL



Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018							
	2010	2014	2016	2018			
Primary schools (Std I-IV/V)	29.0	43.4	31.7	37.2			
Upper primary schools (Std I-VII/VIII)	4.1	14.7	10.2	10.9			

Table 19: Physical education and sports in schools 2018						
% Schools w	vith	Std I-IV/ V	Std I-VII/ VIII	All schools		
	Physical education period in the timetable	69.8	94.9	82.8		
Dedicated time for	No physical education period but dedicated time allotted	20.2	5.1	12.4		
physical education	No physical education period and no dedicated time allotted	10.1	0.0	4.9		
	Total	100	100	100		
	Separate physical education teacher	14.8	62.0	38.6		
Physical education	Other physical education teacher	54.1	27.0	40.4		
teacher	No physical education teacher	31.1	11.0	21.0		
	Total	100	100	100		
	Playground inside the school premises	67.2	72.8	70.0		
Playaround	Playground outside the school premises	9.0	11.8	10.4		
Tayground	No accessible playground	23.9	15.4	19.6		
	Total	100	100	100		
Availability of	of any sports equipment	56.0	75.5	65.9		
Supervised p of visit	hysical education activity observed on day	11.9	23.9	18.0		

Table 20: School Management Committee (SMC) in schools<br/>2014, 2016 and 20182014, 2016 and 2018201420162018% Schools which reported having an SMC99.296.698.2Of all schools that have an SMC, % schools that he last SWC meetingBefore July1.23.00.0

After September

23.2

75.6

33.1

63.9

30.9

69.1

Between July and September







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 50 OUT OF 50 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Table 1: % Children enrolled in different	types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	69.6	26.1	0.1	4.2	100
Age 7-16: All	68.0	24.2	0.1	7.7	100
Age 7-10: All	68.7	29.1	0.1	2.2	100
Age 7-10: Boys	64.7	33.2	0.1	1.9	100
Age 7-10: Girls	72.7	24.7	0.1	2.4	100
Age 11-14: All	70.7	22.8	0.1	6.5	100
Age 11-14: Boys	67.4	27.2	0.1	5.3	100
Age 11-14: Girls	74.2	18.0	0.1	7.7	100
Age 15-16: All	60.2	16.3	0.1	23.4	100
Age 15-16: Boys	59.4	20.3	0.1	20.2	100
Age 15-16: Girls	61.0	12.1	0.1	26.8	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 33.7% as compared to 22.2% in Std VIII.



% Children not enrolled in school by age group and gender

Chart 1: Trends over time

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 23.4% in 2006, 18.6% in 2012, and 26.8% in 2018.

l abl % Cl	e 2: Age-grade distribution hildren in each grade by age 2018												
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	36.6	39.1	15.9	5.6		2.9					100		
II	4.9	18.1	46.1	22.5		8.3				100			
III	4	.6	18.7	49.5	17.3	7.2		2.8				100	
IV		5.5		20.0	40.3	24.8	5.6			3.8			100
V		1.8		6.0	12.6	48.5	19.2	8.3		3	.7		100
VI			5.9			18.3 39.6 27.1 5.8 3.3						100	
VII			1.6		6.1 14.3 48.0 21.7 6.0 2.4				.4	100			
VIII	6.1 18.6 42.2 22.1 7.6 3.5					100							

This table shows the age distribution for each grade. For example, of all children in Std III, 49.5% children are 8 years old but there are also 18.7% who are 7, 17.3% who are 9, 7.2% who are 10, and 2.8% who are 11 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

ł								Not in	
		Pre	-school			School			
	Age		Govt	Pvt				school	Total
	5	Anganwadi	nganwadi LKG/ LKG/ Govt	Govt	Pvt	Other	or		
			UKG	UKG				school	
	Age 3	72.6	0.3	11.3	1.4	0.6	0.0	13.7	100
	Age 4	61.4	0.4	21.5	5.3	3.0	0.0	8.4	100
	Age 5	24.4	0.4	23.3	32.0	13.0	0.1	6.7	100
	Age 6	5.0	0.3	13.4	56.3	22.1	0.1	2.9	100
	Age 7	1.1	0.1	3.5	63.9	29.4	0.1	2.0	100
	Age 8	0.5	0.1	1.1	66.6	29.8	0.1	1.9	100



ASER 2018





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Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

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Table 4: % Children by grade and reading level         All children 2018									
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total			
Ι	53.5	33.9	6.4	2.8	3.5	100			
II	28.7	42.4	13.4	6.4	9.1	100			
	15.3	36.4	17.3	13.4	17.6	100			
IV	9.8	25.5	16.4	16.2	32.2	100			
V	7.2	19.2	15.1	16.9	41.6	100			
VI	5.2	14.7	10.4	16.1	53.6	100			
VII	3.9	12.0	9.6	15.1	59.3	100			
VIII	2.4	10.5	8.3	14.5	64.4	100			

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 15.3% cannot even read letters, 36.4% can read letters but not words or higher, 17.3% can read words but not Std I level text or higher, 13.4% can read Std I level text but not Std II level text, and 17.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Chilo can rea	% Children in Std III who can read Std II level text						
	Govt	Govt & Pvt*						
2012	7.0	32.9	12.1					
2014	8.1	33.4	14.1					
2016	10.3	33.1	16.6					
2018	10.4	33.6	17.6					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 65.9% and in Std VI (in 2010) was 75.9%. When the cohort reached Std VIII in 2012, this figure was 67.8%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I level text					
जू नाम का एक लड़का था। सकी एक बड़ी बहन व एक टा भाई था। उसका भाई गाँव पास के विद्यालय में पढ़ने ाता था। वह खूब मेहनत रता था। उसकी बहन बहत	हर रविवार नानी घर आती है। हमारे लिए मिठाई लाती है। मैं नानी के साथ सोता हूँ। वह मुझे कहानी सुनाती है।					
रता था। उसकी बहन बहुत	Letters	Words				
च्छी खिलाड़ी थी। उसे लेंबी ड़ लगाना अच्छा लगता था। तीनों रोज़ साथ-साथ ज-मस्ती करते थे।	ह चट लन फमर सत	कुल बढ़ा रोटी पानी चूना चलो हीरा पैर देर कौन				

**Reading Tool (Hindi)** 

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	n in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt* Govt P		Pvt	Govt & Pvt*	
2012	27.5	64.5	33.1	64.6	85.9	67.8	
2014	27.5	58.9	34.1	61.5	87.1	65.8	
2016	31.4	63.3	38.8	59.4	85.4	64.3	
2018	34.4	63.1	41.6	57.9	86.3	64.4	

\* This is the weighted average for children in government and private schools only.



### Chart 3: Trends over time % Children who can read Std II level text



Data is not presented where sample size is insufficient.

### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018									
Std	Not even	Recognize	e numbers	Subtract	Divide	Total			
	1-9	1-9	10-99	oubtruot	Divido	rotar			
I	48.6	35.8	13.5	1.5	0.7	100			
	23.7	46.4	24.7	3.9	1.3	100			
	11.8	40.7	33.6	9.8	4.1	100			
IV	6.2	31.7	34.7	16.9	10.5	100			
V	4.5	23.4	34.7	17.7	19.8	100			
VI	3.3	17.3	32.1	19.9	27.4	100			
VII	2.3	15.3	29.7	19.9	32.9	100			
VIII	1.3	10.6	30.8	20.8	36.6	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 11.8% cannot even recognize numbers 1-9, 40.7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 33.6% can recognize numbers up to 99 but cannot do subtraction, 9.8% can do subtraction but cannot do division, and 4.1% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018								
Year	% Children in Std III who can do at least subtraction							
. oui	Govt	Govt Pvt						
2012	6.8	31.7	11.7					
2014	5.5	27.1	10.6					
2016	8.4	27.9	13.8					
2018	8.5	25.6	13.9					

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 2010 Children 20 2008 °<sup>8</sup> 40 2018 2012 2016 2014 30 2017 2010 2012 2014 20 2014 10 2012 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 53.6% and in Std VI (in 2010) was 60.5%. When the cohort reached Std VIII in 2012, this figure was 34.7%. The progress of each of these cohorts can be understood in the same way.

76 58	74 6	3
	_ 57 _ 2	8) 993 (
48 99	47 8 - 29 - 3	14 15 6) 758 (
34 61	41 3 - 15 - 1	7 7) 865 (
46 25	31 ( - 18 - 4	i8 19
	48     99       34     61       46     25       86     62	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Arithmetic Tool (Hindi)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012 2014 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt* Govt		Pvt	Govt & Pvt*				
2012	8.9	31.2	12.3	30.5	58.8	34.7				
2014	10.0	28.9	13.9	24.8	58.0	30.4				
2016	15.3	33.0	19.4	29.2	51.5	33.4				
2018	16.5	29.5	19.8	32.1	52.0	36.6				

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.

gender

### **Basic reading and arithmetic**

able 10: Basic reading by age group and ender 2018										
Age group	% Chi	Idren who ca Std II level tex	in read (t	Age group	% Childr	en who can o subtraction	do at least	% Children who can do division		
	Male	Female	All		Male	Female	All	Male	Female	All
Age 8-10	27.8	31.1	29.5	Age 8-10	24.5	24.8	24.6	10.8	10.8	10.8
Age 11-13	58.1	55.4	56.8	Age 11-13	52.8	47.4	50.1	32.5	27.3	29.9
Age 14-16	74.6	70.1	72.3	Age 14-16	Age 14-16         62.8         53.3         57.9         44.5         33.6				33.6	38.9

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018												
Age	Calc	ulating	time	Applying unitary Financial decision method making			sision	Calcul	alculating discount			
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	30.3	30.3	30.3	44.0	32.7	38.2	21.5	23.2	22.4	14.7	5.3	9.8
Age 15	36.7	32.7	34.7	46.0	28.8	37.3	31.7	19.7	25.6	14.9	8.4	11.6
Age 16	30.6	28.0	29.1	42.4	33.2	37.2	35.7	23.3	28.7	11.2	12.0	11.6
Age 14-16	32.4	30.2	31.2	44.2	31.8	37.6	28.8	22.2	25.3	13.8	8.4	10.9

#### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		App	lying un method	itary	Financial decision making Calcul		ating discount				
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	42.5	36.9	40.2	51.0	42.6	47.5	33.7	33.5	33.6	21.1	16.2	19.1
Age 15	45.2	40.3	43.0	54.4	48.7	51.9	31.9	36.4	33.9	26.9	21.7	24.6
Age 16	53.1	37.0	45.5	56.8	50.5	53.8	38.4	37.3	37.9	32.1	23.4	28.0
Age 14-16	46.3	38.1	42.7	53.7	47.1	50.8	34.4	35.7	34.9	26.1	20.3	23.5





ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 50 OUT OF 50 DISTRICTS Data is not presented where sample size is insufficient.



#### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	709	902	1085	922
Upper primary schools (Std I-VII/VIII)	510	355	373	529
Total schools visited	1219	1257	1458	1451

Table 15: Trends over time Student and teacher attendance on the day of visit 2010, 2014, 2016 and 2018										
Primary schools (Std I-IV/V)	2010	2014	2016	2018						
% Enrolled children present (Average)	65.9	62.5	58.5	57.1						
% Teachers present (Average)	88.5	84.4	83.5	85.6						
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	67.6	57.5	54.8	53.4						
% Teachers present (Average)	87.1	84.7	82.2	85.9						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	68.9	78.5	78.9	85.0
% Schools where Std IV children were observed sitting with one or more other classes	59.9	70.5	71.5	78.4
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	63.8	76.3	76.6	78.4
% Schools where Std IV children were observed sitting with one or more other classes	53.9	66.6	70.1	68.8

### **School facilities**

Table 17: % School 2010, 20	Table 17: Trends over time% Schools with selected facilities2010, 2014, 2016 and 2018											
% Schools	with	2010	2014	2016	2018							
Mid-day	Kitchen shed for cooking mid-day meal	89.9	89.8	85.7	85.7							
meal	Mid-day meal served in school on day of visit	94.7	88.3	88.4	82.9							
	No facility for drinking water	13.4	12.7	15.6	16.8							
Drinking	Facility but no drinking water available	8.1	12.0	11.4	12.2							
water	Drinking water available	78.5	75.3	73.0	71.0							
	Total	100	100	100	100							
	No toilet facility	20.0	8.7	5.6	5.2							
Toilet	Facility but toilet not useable	29.8	36.3	35.9	26.5							
TOHEL	Toilet useable	50.3	55.1	58.5	68.3							
	Total	100	100	100	100							
	No separate provision for girls' toilet	50.8	33.5	23.4	18.6							
Cirla	Separate provision but locked	8.5	10.5	11.0	7.9							
toilet	Separate provision, unlocked but not useable	11.8	15.8	19.6	17.0							
tonot	Separate provision, unlocked and useable	28.9	40.3	45.9	56.5							
	Total	100	100	100	100							
	No library	43.7	16.0	20.5	16.0							
Library	Library but no books being used by children on day of visit	27.3	40.3	39.5	40.3							
LIDIALY	Library books being used by children on day of visit	29.1	43.7	40.0	43.8							
	Total	100	100	100	100							
	Electricity connection			26.2	40.8							
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		47.0	59.4							
	No computer available for children to use	92.6	95.9	97.5	96.2							
Computer	Available but not being used by children on day of visit	5.7	3.3	2.2	3.1							
Computer	Computer being used by children on day of visit	1.7	0.9	0.3	0.7							
	Total	100	100	100	100							







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018											
	2010	2014	2016	2018							
Primary schools (Std I-IV/V)	17.8	35.8	40.6	49.6							
Upper primary schools (Std I-VII/VIII)	0.2	1.7	5.7	6.2							

#### Table 19: Physical education and sports in schools 2018

% Schools v	/ith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	56.8	65.1	59.8
Dedicated time for	No physical education period but dedicated time allotted	19.1	15.1	17.6
physical education	No physical education period and no dedicated time allotted	24.1	19.8	22.5
	Total	100	100	100
	Separate physical education teacher	5.5	9.6	7.0
Physical education teacher	Other physical education teacher	59.1	58.2	58.7
	No physical education teacher	35.4	32.3	34.3
	Total	100	100	100
	Playground inside the school premises	65.7	77.9	70.2
Playaround	Playground outside the school premises	14.8	8.1	12.3
Playground	No accessible playground	19.5	14.0	17.5
	Total	100	100	100
Availability of	of any sports equipment	53.5	64.2	57.4
Supervised p of visit	hysical education activity observed on day	20.7	24.5	22.1

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018										
2014 2016 2018										
% Schools which reported having an SMC	98.1	97.7	97.8							

Of all schools that have an SMC, % schools that had the last SMC meeting

Before July	5.0	4.3	4.6
Between July and September	69.6	60.6	82.9
After September	25.4	35.1	12.5







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 33 OUT OF 33 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in different	types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	61.6	37.6	0.1	0.8	100
Age 7-16: All	54.0	44.7	0.1	1.3	100
Age 7-10: All	76.5	23.1	0.1	0.3	100
Age 7-10: Boys	73.6	26.0	0.1	0.3	100
Age 7-10: Girls	79.7	19.9	0.1	0.3	100
Age 11-14: All	44.9	53.8	0.1	1.2	100
Age 11-14: Boys	42.9	56.2	0.1	0.8	100
Age 11-14: Girls	46.9	51.3	0.1	1.6	100
Age 15-16: All	20.2	75.5	0.0	4.3	100
Age 15-16: Boys	20.8	75.7	0.1	3.4	100
Age 15-16: Girls	19.6	75.4	0.0	5.1	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 22% as compared to 70.9% in Std VIII.



% Children not enrolled in school by age group and gender

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 16.4% in 2006, 8.5% in 2012, and 5.1% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	8.1	57.5	31.4		3.1								100
	II	5.	8	36.8	52.9				Z	1.5				100
			4.8		33.8	3.8 55.8 5.5							100	
	IV		4	1.1		30.1	60.0			5	5.8			100
	V			4.1			31.0	59.7			5.3			100
	VI		5.5 28.060.8 5.6							100				
	VII	5.0 33.2 54.4 6.4 1.0						.0	100					
	VIII	1.1 5.636.351.9 5.1								100				

This table shows the age distribution for each grade. For example, of all children in Std III, 33.8% children are 8 years old but there are also 4.8% who are 7 or younger, 55.8% who are 9, and 5.5% who are 10 or older.

### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School		Not in					
Age	Anganwadi	di LKG/ LKG/ Govt Pvt Oth UKG UKG		Other	school or school	Total						
Age 3	77.9	1.7	10.5	0.7	0.5	0.0	8.7	100				
Age 4	72.4	2.9	20.8	0.7	0.5	0.0	2.7	100				
Age 5	56.2	3.7	27.4	7.7	3.6	0.1	1.5	100				
Age 6	13.0	0.9	9.0	59.0	17.3	0.1	0.8	100				
Age 7	1.2	0.1	1.4	73.1	23.8	0.2	0.2	100				
Age 8	0.2	0.2	0.7	77.1	21.6	0.1	0.2	100				



ASER 2018

Data is not presented where sample size is insufficient.



Words

स

g

त

Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level       All children 2018													
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total							
Ι	29.5	45.4	17.0	5.7	2.6	100							
II	11.8	23.6	21.4	22.1	21.2	100							
III	5.4	13.0	16.3	23.3	42.0	100							
IV	2.8	7.1	11.7	19.8	58.6	100							
V	2.7	5.6	7.0	18.4	66.4	100							
VI	2.1	3.6	5.6	14.5	74.3	100							
VII	1.5	3.7	4.5	12.1	78.3	100							
VIII	1.8	2.7	4.3	11.0	80.2	100							

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 5.4% cannot even read letters, 13% can read letters but not words or higher, 16.3% can read words but not Std I level text or higher, 23.3% can read Std I level text but not Std II level text, and 42% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Chilo can rea	lren in Std ad Std II Iev	III who vel text							
	Govt	Govt Pvt								
2012	34.9	37.6	35.3							
2014	33.1	37.0	33.8							
2016	41.1	38.5	40.6							
2018	44.2	33.6	42.1							

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 53% and in Std VI (in 2010) was 82.6%. When the cohort reached Std VIII in 2012, this figure was 83.3%. The progress of each of these cohorts can be understood in the same way.

#### **Reading Tool (Marathi)** Std II level text Std I level text फुगेवाला आला. एक होती आजी. एकदा तिला तिच्या बहिणीचे लाल, निळे फुगे आणले. पत्र आले. आजीला तिने आपल्या घरी पूजेला मुलांनी फुगे घेतले. बोलाविले होते. आजीने आपल्या सामानाचे हातातून ते सुटून गेले. गाठोडे बांचले. निघताना तिने घराला कुलूप लावले. ती प्रवासाला पायी निपाली. वाटेत आजीला झरा दिसला. चालून चालून थकल्याने Letters ती झऱ्याकाठी बसली. योडे खाऊन ती थंड समार पाणी प्यायली आणि झोपी गेली. काही वेळाने बस राजम केरी समोरून एक टांगा आला. टांग्यातील माणसाने टिव मोती तिला बहिणीकडे सोडले. आजीने त्याचे आभार मानले आणि ती घरात गेली. चिमटा तूप मौज

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, Ž014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text		
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*
2012	55.3	62.2	58.3	81.4	83.7	83.3
2014	51.7	56.2	53.5	71.6	78.3	76.5
2016	63.1	62.6	62.9	75.2	76.1	75.9
2018	66.0	67.1	66.5	79.4	80.4	80.1

\* This is the weighted average for children in government and private schools only.



Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018									
Std	Not even	Recognize	Recognize numbers		Divide	Total			
	1-9	1-9	10-99	0.0	0.4	4.0.0			
	28.8	51.1	18.9	0.8	0.4	100			
П	10.1	39.1	44.4	5.9	0.4	100			
	5.2	21.6	46.2	23.7	3.4	100			
IV	2.8	11.7	36.5	31.6	17.6	100			
V	1.8	9.5	29.7	28.8	30.2	100			
VI	1.8	7.3	29.6	25.0	36.3	100			
VII	1.8	6.2	30.4	23.5	38.2	100			
VIII	1.6	5.3	32.0	20.5	40.5	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 5.2% cannot even recognize numbers 1-9, 21.6% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 46.2% can recognize numbers up to 99 but cannot do subtraction, 23.7% can do subtraction but cannot do division, and 3.4% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018								
Year	% Children in Std III who can do at least subtraction							
	Govt Pvt		Govt & Pvt*					
2012	22.5	34.1	24.0					
2014	17.9	22.6	18.7					
2016	22.4	29.0	23.8					
2018	28.1	23.3	27.1					

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 27.5% and in Std VI (in 2010) was 55%. When the cohort reached Std VIII in 2012, this figure was 44.3%. The progress of each of these cohorts can be understood in the same way.



#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	20.2	25.8	22.6	45.1	44.2	44.4				
2014	16.6	22.2	18.9	30.8	33.6	32.9				
2016	19.7	21.7	20.5	32.4	31.0	31.4				
2018	31.7	28.0	30.2	41.4	40.4	40.7				

\* This is the weighted average for children in government and private schools only.



Data is not presented where sample size is insufficient.



Table 10: Basic reading by age group and gender 2018										
	Age group	% Chi		Age						
		Male	Female	All						
	Age 8-10	42.5	51.7	47.0		Age				
	Age 11-13	71.3	77.7	74.5		Age				
	Age 14-16	79.7	84.3	82.1		Age				

### **Basic reading and arithmetic**

Table 11: Basic arithmetic by age group and gender 2018									
Age group	% Childro	en who can o subtraction	do at least	% Children who can do division					
	Male	Female	All	Male	Female	All			
Age 8-10	35.0	35.3	35.1	11.2	11.4	11.3			
Age 11-13	58.1	62.7	60.4	33.8	37.6	35.6			
Age 14-16	58.2	59.9	59.1	38.5	40.6	39.6			

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018												
Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	40.3	20.0	29.6	53.1	37.9	45.1	38.6	24.1	31.0	16.0	10.3	13.0
Age 15	42.2	37.0	39.5	48.9	39.7	44.1	44.1	30.5	37.0	29.9	9.1	19.1
Age 16	32.2	28.4	30.3	53.8	40.5	47.3	36.0	20.4	28.4	20.2	19.6	19.9
Age 14-16	38.6	27.6	33.0	51.9	39.1	45.4	39.6	25.3	32.2	21.6	12.2	16.8

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
Ū	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	43.2	37.9	40.5	63.4	54.8	59.1	43.2	38.7	40.9	32.1	23.9	28.0
Age 15	41.4	47.7	44.8	56.8	57.1	57.0	42.6	44.3	43.5	40.3	25.2	32.2
Age 16	54.9	45.4	49.3	67.3	58.5	62.1	38.2	37.0	37.5	37.5	29.0	32.5
Age 14-16	45.6	43.5	44.4	62.2	56.7	59.2	41.7	40.0	40.8	36.2	25.9	30.7



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 33 OUT OF 33 DISTRICTS Data is not presented where sample size is insufficient.



#### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	435	409	354	419
Upper primary schools (Std I-VII/VIII)	467	466	427	508
Total schools visited	902	875	781	927

Student and teacher attendance on the day of visit 2010, 2014, 2016 and 2018									
Primary schools (Std I-IV/V)	2010	2014	2016	2018					
% Enrolled children present (Average)	91.5	85.1	85.1	86.5					
% Teachers present (Average)	93.8	90.8	91.8	88.3					
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	92.4	86.9	86.9	86.2					
% Teachers present (Average)	91.7	91.8	91.5	90.3					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	47.5	53.2	55.6	56.9
% Schools where Std IV children were observed sitting with one or more other classes	46.8	49.4	51.9	52.7
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	34.3	38.9	45.5	44.0
% Schools where Std IV children were observed sitting with one or more other classes	26.9	32.1	40.9	37.9

### **School facilities**

Table 17: % School 2010, 20	Table 17: Trends over time% Schools with selected facilities2010, 2014, 2016 and 2018									
% Schools	with	2010	2014	2016	2018					
Mid-day	Kitchen shed for cooking mid-day meal	78.2	92.0	95.6	94.9					
meal	Mid-day meal served in school on day of visit	90.7	94.8	94.5	94.7					
	No facility for drinking water	18.7	15.9	14.6	15.7					
Drinking	Facility but no drinking water available	12.3	13.7	18.4	13.4					
water	Drinking water available	69.0	70.5	67.1	70.9					
	Total	100	100	100	100					
	No toilet facility	2.9	2.9	3.1	1.7					
Toilet	Facility but toilet not useable	44.1	30.9	29.0	28.2					
Tonet	Toilet useable	53.0	66.3	67.9	70.1					
	Total	100	100	100	100					
0.1.4	No separate provision for girls' toilet	13.7	9.8	7.8	6.6					
	Separate provision but locked	32.3	18.2	12.1	14.6					
toilet	Separate provision, unlocked but not useable	10.8	13.0	17.7	14.9					
tonot	Separate provision, unlocked and useable	43.2	59.1	62.4	63.9					
	Total	100	100	100	100					
	No library	14.0	17.4	16.3	11.6					
Library	Library but no books being used by children on day of visit	19.6	46.2	37.8	51.5					
LIDIAIY	Library books being used by children on day of visit	66.5	36.4	45.9	36.9					
	Total	100	100	100	100					
	Electricity connection			92.0	91.8					
Electricity	Of schools with electricity connection, % schools with electr available on day of visit		78.3	78.9						
	No computer available for children to use	66.7	53.7	44.9	35.4					
Computer	Available but not being used by children on day of visit	13.5	31.6	37.2	45.5					
Computer	Computer being used by children on day of visit	19.8	14.7	17.8	19.0					
	Total	100	100	100	100					







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
Primary schools (Std I-IV/V)	33.0	39.5	44.0	45.4					
Upper primary schools (Std I-VII/VIII)	1.3	5.0	10.6	10.7					

Table 19: Physical education and sports in schools 2018									
% Schools w	vith	Std I-IV/ V	Std I-VII/ VIII	All schools					
	Physical education period in the timetable	91.0	94.4	92.9					
Dedicated time for	No physical education period but dedicated time allotted	7.5	4.0	5.6					
physical education	No physical education period and no dedicated time allotted	1.5	1.6	1.5					
	Total	100	100	100					
Physical	Separate physical education teacher	6.2	16.4	11.8					
	Other physical education teacher	88.8	77.9	82.8					
teacher	No physical education teacher	5.0	5.7	5.4					
	Total	100	100	100					
	Playground inside the school premises	83.6	89.9	87.0					
Playaround	Playground outside the school premises	8.0	5.8	6.8					
Playground	No accessible playground	8.5	4.4	6.2					
	Total	100	100	100					
Availability of	68.8	78.7	74.2						
Supervised p of visit	Supervised physical education activity observed on day of visit			27.5					

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018									
	2014	2016	2018						
% Schools which reported having an SMC	98.7	98.8	98.9						
Of all schools that have an SMC, % schools that ha	Of all schools that have an SMC, % schools that had the last SMC meeting								
Before July	5.1	4.9	2.9						
Between July and September	85.9	71.9	77.2						
After September	9.1	23.2	19.9						







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 9 OUT OF 9 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

able 1: % Children enrolled in different types of schools by
ge group and gender 2018

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	28.0	70.4	0.3	1.3	100
Age 7-16: All	27.6	70.3	0.3	1.9	100
Age 7-10: All	27.0	71.8	0.2	0.9	100
Age 7-10: Boys	27.4	71.6	0.0	1.0	100
Age 7-10: Girls	26.9	71.7	0.5	0.9	100
Age 11-14: All	28.0	70.1	0.4	1.6	100
Age 11-14: Boys	25.9	72.0	0.5	1.6	100
Age 11-14: Girls	29.9	68.3	0.2	1.6	100
Age 15-16: All	28.2	65.6	0.1	6.1	100
Age 15-16: Boys	25.9	67.1	0.0	7.0	100
Age 15-16: Girls	30.1	64.3	0.2	5.4	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 68.7% as compared to 75.7% in Std VIII.

Chart 1: Trends over time % Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 14.5% in 2006, 9.7% in 2012, and 5.4% in 2018.

% Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	11.4	30.1	38.0	14.7				5	.8				100
II	3.1	10.3	31.9	32.2	12.8	2.8 6.8 3.0					100		
111	1	.7	8.9	27.0	28.5	20.7	8.3			5.0			100
IV		1.4		7.9	22.9	35.5	17.4	10.0		5	5.0		100
V		2	2.3		6.5	27.3	31.0	20.4	9.1 3.6				100
VI			1.7			10.0	28.4	36.1	15.7	6.1	2.	.0	100
VII		2.2 10.5			32.1	31.3	16.7	7.	.3	100			
VIII				1.5				13.5	30.4	33.4	16.7	4.6	100

This table shows the age distribution for each grade. For example, of all children in Std III, 27% children are 8 years old but there are also 8.9% who are 7, 28.5% who are 9, 20.7% who are 10, 8.3% who are 11, and 5% who are 12 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre-school School						Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	16.2	15.2	21.9	0.0	0.8	0.0	46.0	100
Age 4	11.4	22.6	41.7	2.3	2.0	0.0	19.9	100
Age 5	5.6	22.7	59.3	4.6	4.3	0.0	3.5	100
Age 6	9.4	10.7	41.6	14.1	23.4	0.2	0.7	100
Age 7	8.3	5.4	15.9	17.9	51.7	0.1	0.7	100
Age 8	4.0	2.8	7.9	22.9	61.1	0.5	0.7	100

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All ch	Table 4: % Children by grade and reading level         All children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	4.1	34.8	45.2	11.8	4.1	100					
II	2.1	22.3	31.4	25.0	19.2	100					
	0.9	12.3	20.5	30.5	35.8	100					
IV	0.2	6.8	11.4	21.2	60.5	100					
V	0.0	6.4	9.5	16.6	67.5	100					
VI	0.2	2.9	8.2	12.7	75.9	100					
VII	0.7	2.1	5.5	10.4	81.4	100					
VIII	0.0	1.8	3.0	8.7	86.5	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 0.9% cannot even read letters, 12.3% can read letters but not words or higher, 20.5% can read words but not Std I level text or higher, 30.5% can read Std I level text but not Std II level text, and 35.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Chilc can rea	Iren in Std ad Std II Iev	III who /el text					
	Govt	Pvt	Govt & Pvt*					
2012	21.1	36.4	31.2					
2014	17.3	40.2	34.5					
2016	21.9	37.5	32.2					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

42.2

24.5

2018



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 54.2% and in Std VI (in 2010) was 73.4%. When the cohort reached Std VIII in 2012, this figure was 85.3%. The progress of each of these cohorts can be understood in the same way.

#### Reading Tool (English)



#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Children in Std V who can read Std II level text			% Children in Std V who can read Std II level text			% Child can rea	% Children in Std VIII who can read Std II level text		
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	46.9	71.0	63.6	68.1	92.6	85.3				
2014	43.1	74.7	66.6	72.2	92.9	88.3				
2016	64.7	73.5	70.7	82.4	94.2	91.4				
2018	50.6	74.0	67.6	72.5	90.9	86.5				

\* This is the weighted average for children in government and private schools only.



#### Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

35.8

Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018										
Std	Not even	Recognize	e numbers	Subtract	Divide	Total				
510	1-9	1-9	10-99	Jubliact	Divide	Total				
I	2.0	11.6	75.1	7.2	4.1	100				
	1.4	5.1	56.6	27.7	9.3	100				
	0.3	1.9	39.3	35.5	23.1	100				
IV	0.2	1.0	24.7	30.4	43.8	100				
V	0.0	0.4	22.6	26.5	50.5	100				
VI	0.2	0.0	16.9	24.3	58.6	100				
VII	0.7	0.5	14.8	20.8	63.2	100				
VIII	0.0	0.1	11.3	16.1	72.5	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 0.3% cannot even recognize numbers 1-9, 1.9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 39.3% can recognize numbers up to 99 but cannot do subtraction, 35.5% can do subtraction but cannot do division, and 23.1% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can do at least subtraction								
	Govt	Govt & Pvt*							
2012	38.4	61.1	53.3						
2014	52.0	61.9	59.4						
2016	53.2 63.0 59.7								
2018	53.5	61.5	58.6						

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

Chart 4: Trends over time % Children who can do division

#### Cohorts of children in Std IV in 2008, 2010, 2012 and 2014 100 90 80 2016 2012 2014 2018 70 2016 2012 2014 09 Children 2010 2008 °<sup>8</sup> 40 2014 30 2010 2012 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 41.7% and in Std VI (in 2010) was 59.2%. When the cohort reached Std VIII in 2012, this figure was 73.9%. The progress of each of these cohorts can be understood in the same way.

Number recognition 1-9	Number recognition 10-99	Subtraction	Division
5 7	74 23	63 51 - 44 - 35	7) 898 (
8 4	91 86	92 71 - 48 - 35	4) 659(
29	24 79	45 34 - 27 - 19	8) 946(
3 1	37 61	43 46	6 757 (
And the phild to recognize any \$	58 14	Ant Technick and Indexton	And the shift to be any 1 days

### Arithmetic Tool (English)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	26.5	52.9	44.7	58.1	80.5	73.9	
2014	43.1	58.7	54.7	48.3	79.2	72.5	
2016	46.9	55.1	52.5	67.3	82.1	78.6	
2018	38.4	55.2	50.6	62.3	75.7	72.5	

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

#### **Basic reading and arithmetic** Table 10: Basic reading by age group and Table 11: Basic arithmetic by age group and gender 2018 gender 2018 % Children who can read % Children who can do at least % Children who can Age group Std II level text Age group subtraction do division Male Female All Male Female All Male Female All Age 8-10 39.6 41.4 40.5 Age 8-10 57.4 56.2 56.8 29.1 27.1 28.1 Age 11-13 71.5 70.3 70.9 Age 11-13 81.0 76.6 78.8 57.6 54.2 55.9 89.1 Age 14-16 82.7 86.1 Age 14-16 83.4 85.6 84.6 67.6 69.1 68.4

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



### Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018

Age	Calc	Calculating time App		Applying unitary method		itary	Financial decision making		Calcul	ating di	scount	
5	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	33.7	40.5	37.7	34.8	30.1	32.1	7.5	8.8	8.3	16.1	20.2	18.5
Age 15	38.6	38.8	38.7	55.9	22.1	40.5	14.2	2.7	8.9	16.0	21.9	18.7
Age 16	55.6	43.5	47.3	19.7	15.8	17.0	5.4	0.0	1.7	13.6	4.7	7.5
Age 14-16	39.4	40.9	40.2	40.9	24.1	31.3	9.9	4.8	7.0	15.6	16.3	16.0

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		time	Applying unit method		nitary Financial decision d making		Calcul	ating di	scount		
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	40.9	48.0	44.9	51.8	47.0	49.1	8.7	9.7	9.2	30.0	32.7	31.5
Age 15	41.9	40.4	41.1	60.7	47.4	53.7	11.8	9.9	10.8	30.5	31.1	30.8
Age 16	55.6	38.7	45.7	40.7	47.9	44.9	9.2	16.6	13.5	37.2	29.2	32.5
Age 14-16	43.7	43.9	43.8	53.1	47.3	49.9	9.9	11.1	10.5	31.4	31.6	31.5



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 9 OUT OF 9 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	97	100	107	89
Upper primary schools (Std I-VII/VIII)	28	79	73	69
Total schools visited	125	179	180	158

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018						
Primary schools (Std I-IV/V)	2010	2014	2016	2018		
% Enrolled children present (Average)	66.1	57.0	56.7	57.8		
% Teachers present (Average)	70.8	63.5	65.2	66.9		
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018		
% Enrolled children present (Average)	71.3	52.6	53.9	56.1		
% Teachers present (Average)	75.1	70.6	71.2	70.0		

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	40.7	39.3	49.5	50.0
% Schools where Std IV children were observed sitting with one or more other classes	35.2	38.5	50.0	42.9
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	28.0	25.7	36.7	36.5
% Schools where Std IV children were observed sitting with one or more other classes	20.0	23.2	29.5	32.8

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	58.4	52.8	51.5	61.6
meal	Mid-day meal served in school on day of visit	47.8	34.5	49.4	46.4
	No facility for drinking water	84.6	75.8	80.8	88.9
Drinking	Facility but no drinking water available	10.3	8.4	4.0	4.6
water	Drinking water available	5.1	15.7	15.3	6.5
	Total	100	100	100	100
	No toilet facility	21.4	15.6	9.0	14.7
Toilet	Facility but toilet not useable	38.5	31.3	47.2	40.4
TOHEL	Toilet useable	40.2	53.1	43.8	44.9
	100	100	100	100	
	No separate provision for girls' toilet	78.5	64.3	50.3	64.0
Cirle	Separate provision but locked	4.7	10.8	17.9	15.4
toilet	Separate provision, unlocked but not useable	8.4	5.1	7.3	5.2
tonet	Separate provision, unlocked and useable	8.4	19.8	24.5	15.4
	Total	100	100	100	100
	No library	90.8	82.0	88.3	91.0
Library	Library but no books being used by children on day of visit	3.4	15.2	8.3	5.8
LIDIALY	Library books being used by children on day of visit	5.9	2.8	3.3	3.2
	Total	100	100	100	100
	Electricity connection			36.3	55.6
Electricity	Electricity Of schools with electricity connection, % schools with electricity available on day of visit				
	No computer available for children to use	91.5	83.7	85.0	91.0
Computer	Available but not being used by children on day of visit	5.9	11.2	10.6	5.8
Computer	Computer being used by children on day of visit	2.5	5.1	4.4	3.2
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018							
	2010	2014	2016	2018			
Primary schools (Std I-IV/V)	40.4	74.5	73.3	78.2			
Upper primary schools (Std I-VII/VIII)	17.9	25.3	34.8	44.8			

Table 19: Physical education and sports in schools 2018						
% Schools w	<i>v</i> ith	Std I-IV/ V	Std I-VII/ VIII	All schools		
	Physical education period in the timetable	3.7	15.2	8.8		
Dedicated time for	No physical education period but dedicated time allotted	13.6	22.7	17.7		
physical education	No physical education period and no dedicated time allotted	82.7	62.1	73.5		
	Total	100	100	100		
Physical	Separate physical education teacher	2.5	6.2	4.1		
	Other physical education teacher	17.5	13.9	15.9		
teacher	No physical education teacher	80.0	80.0	80.0		
	Total	100	100	100		
	Playground inside the school premises	50.0	73.1	60.1		
Playaround	Playground outside the school premises	20.9	11.9	17.0		
riayground	No accessible playground	29.1	14.9	22.9		
	Total	100	100	100		
Availability of	41.2	58.5	48.7			
Supervised p of visit	hysical education activity observed on day	9.4	13.2	11.1		

Table 20: School Management Committee (SMC) in schools         2014, 2016 and 2018						
	2014	2016	2018			
% Schools which reported having an SMC	87.6	94.2	97.5			

Of all schools that have an SMC, % schools that had the last SMC meeting

Before July	35.5	33.1	23.8
Between July and September	59.7	38.6	58.0
After September	4.8	28.4	18.2







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 7 OUT OF 7 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Chil	dren enrolled ir	different	types of s	schools by
age group and	gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	35.7	58.6	0.5	5.3	100
Age 7-16: All	35.5	58.0	0.5	6.0	100
Age 7-10: All	31.1	64.0	0.4	4.5	100
Age 7-10: Boys	31.0	62.8	0.5	5.7	100
Age 7-10: Girls	31.4	64.9	0.3	3.5	100
Age 11-14: All	40.3	54.6	0.6	4.6	100
Age 11-14: Boys	39.0	53.2	0.5	7.3	100
Age 11-14: Girls	41.5	55.9	0.7	2.0	100
Age 15-16: All	32.3	55.0	0.4	12.3	100
Age 15-16: Boys	31.8	52.2	0.2	15.9	100
Age 15-16: Girls	32.3	57.9	0.6	9.2	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 62% as compared to 66.3% in Std VIII.

2006, 2008, 2010, 2012, 2014, 2016 and 2018 40 35 30 25 Children 20 15 % 10 5 0 2006 2012 2014 2018 2008 2010 2016

% Children not enrolled in school by age group and gender

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 17.1% in 2006, 13.7% in 2012, and 9.2% in 2018.

11 to 14 Boys — 11 to 14 Girls — 15 to 16 Boys — 15 to 16 Girls

Table 2: Age-grade distribution      % Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	10.6	25.3	27.5	12.6	10.8	5.8			7	.4			100
II	3.7	5.3	17.5	27.8	15.5	14.5	8.3		7.4				100
Ш	1	.7	5.9	16.1	24.7	19.7	13.0	10.3	8.7			100	
IV	5.8 15.6			22.1	19.3	16.5	10.7	6.1	3	.9	100		
V			5.6			15.6	21.2	21.6	18.5	11.0	6	.6	100
VI	1.2			6.1	15.1	20.8	25.9	16.1	8.0	6.9	100		
VII	3.2						13.1	24.7	25.0	18.7	15.3	100	
VIII	4.8								21.3	27.9	28.9	17.1	100

This table shows the age distribution for each grade. For example, of all children in Std III, 16.1% children are 8 years old but there are also 5.9% who are 7, 24.7% who are 9, 19.7% who are 10, 13% who are 11, 10.3% who are 12, and 8.7% who are 13 or older.

### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	Pre-school			School	Not in		
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	9.1	8.3	16.5	0.4	0.4	0.0	65.4	100
Age 4	9.5	19.6	41.1	0.3	3.1	0.0	26.4	100
Age 5	7.9	25.3	49.6	3.8	4.4	0.0	8.9	100
Age 6	13.6	22.1	34.7	6.8	16.9	0.0	6.0	100
Age 7	16.8	13.5	21.4	13.9	30.9	0.1	3.3	100
Age 8	11.9	13.7	11.6	16.9	41.7	0.0	4.1	100

ASER 2018



Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level       All children 2018											
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	12.3	47.9	29.6	7.2	3.0	100					
II	5.9	33.5	32.6	16.5	11.7	100					
	1.9	19.0	29.6	24.9	24.6	100					
IV	0.9	14.6	21.7	25.7	37.2	100					
V	0.2	6.9	17.0	25.9	50.1	100					
VI	0.2	3.6	9.3	25.1	61.8	100					
VII	0.2	3.6	8.3	18.3	69.6	100					
VIII	0.4	2.2	6.0	8.7	82.8	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 1.9% cannot even read letters, 19% can read letters but not words or higher, 29.6% can read words but not Std I level text or higher, 24.9% can read Std I level text but not Std II level text, and 24.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014, 2016 and 2018								
Year	% Chilo can rea	% Children in Std III who can read Std II level text						
	Govt	Pvt	Govt & Pvt*					
2012	23.9	38.7	30.1					
2014	23.2	25.2	24.3					
2016	16.9	22.1	19.6					
2018	19.6	28.0	24.7					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 42% and in Std VI (in 2010) was 84.5%. When the cohort reached Std VIII in 2012, this figure was 78.6%. The progress of each of these cohorts can be understood in the same way.

#### Reading Tool (English)

Std II level text	Std I level text					
Salma is a little girl. She had a pretty doll. She loved playing with her doll. One day the doll fell from her	Ravi is a boy. He has many friends. He loves to draw. He does not like to sing.					
hand to the floor. It broke	Letters	Words				
very sad. She cried a lot. Her mother gave her another doll. Now she is happy again.	bso km yrh tx	ring bad ball cold king clap foot fan girl crow				

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	n in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	58.4	69.3	64.5	69.0	86.6	78.4	
2014	46.1	69.1	58.3	86.8	88.6	88.0	
2016	41.3	53.0	47.6	84.5	87.2	86.0	
2018	38.9	58.1	50.2	76.9	85.5	82.5	

\* This is the weighted average for children in government and private schools only.



#### Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018										
Std	Not even 1-9	Recognize	Recognize numbers		Divide	Total				
I	11.1	39.9	47.7	1.1	0.2	100				
II	4.3	21.8	66.3	7.2	0.4	100				
	2.8	11.3	66.8	18.1	1.2	100				
IV	1.7	7.3	58.8	26.2	6.0	100				
V	0.2	3.5	53.0	36.2	7.2	100				
VI	0.6	1.7	45.1	39.2	13.3	100				
VII	0.3	1.3	37.1	42.9	18.5	100				
VIII	0.4	1.2	32.9	37.5	28.1	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.8% cannot even recognize numbers 1-9, 11.3% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 66.8% can recognize numbers up to 99 but cannot do subtraction, 18.1% can do subtraction but cannot do division, and 1.2% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over time Arithmetic in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Children in Std III who can do at least subtraction							
	Govt	Govt & Pvt*						
2012	27.7	32.7	29.9					
2014	23.1	33.8	28.8					
2016	21.6	23.0	22.3					
2018	14.2	22.6	19.3					

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 2010 09 Children 2012 2014 °<sup>8</sup> 40 2016 2012 30 2018 2008 2014 20 2010 2016 2012 10 2014 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 24.9% and in Std VI (in 2010) was 65.1%. When the cohort reached Std VIII in 2012, this figure was 52.8%. The progress of each of these cohorts can be understood in the same way.

Number recognition 1-9	Number recognition 10-99	Subtraction	Division	
1 4	51 83	46 63 - 29 - 39	7)879(	
73	37 65	47 45 - 28 - 17	6) 824(	
69	55 26	92 84 - 76 - 57	8) 985(	
5 2	91 43 36 27	52 66 - 14 - 48	4) 517(	
test the child to recognize any T	And the chief to manageria any 1	Ask the child to do any 2 submaction	Ask file (1981) 50 any 1 division	

Arithmetic Tool (English)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	17.3	20.1	18.8	37.5	65.0	52.5				
2014	5.9	15.4	10.9	45.8	49.6	48.3				
2016	11.4	10.0	10.6	30.2	33.9	32.2				
2018	4.7	8.8	7.1	23.3	30.3	27.9				

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



	Table 10: Basic reading by age group and gender 2018								
	Age group	% Chi		Age					
		Male	Female	All					
	Age 8-10	18.9	24.9	21.9		Age			
	Age 11-13	41.2	53.6	47.6		Age			
	Age 14-16	63.3	72.3	68.0		Age			

### **Basic reading and arithmetic**

Table 11: Basic arithmetic by age group and gender 2018										
Age group	% Childro	Children who can do at least % Children who can do division								
	Male Female		All	Male	Female	All				
Age 8-10	15.3	19.8	17.5	1.9	4.3	3.1				
Age 11-13	39.8	42.7	41.3	7.5	11.8	9.7				
Age 14-16	54.4	59.6	57.1	17.2	23.1	20.2				

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can correctly answer by age and gender 2018									
	Calculating time	Applying unitary	Financial decision	Calculating discoun					

Age	Age			method			making			ourouluting alcooulli		
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	20.6	41.2	28.9	25.7	19.6	23.2	14.4	25.4	19.6	7.0	0.0	4.2
Age 15	33.9	27.2	30.0	35.1	23.1	28.1	10.1	19.6	14.8	14.9	8.4	11.1
Age 16	37.4	18.0	27.6	42.9	35.5	39.2	45.8	46.0	45.9	1.4	5.4	3.5
Age 14-16	29.2	28.3	28.8	33.6	26.4	30.1	21.6	30.5	26.1	7.0	4.8	5.9

### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	29.5	50.5	42.8	27.5	38.2	34.2	83.3	27.0	47.0	8.8	14.9	12.6
Age 15	29.8	46.7	38.8	30.2	45.2	38.2	33.7	14.4	23.2	18.7	15.0	16.8
Age 16	56.4	51.8	53.8	50.9	35.4	42.2	29.7	43.6	39.0	17.4	5.6	10.8
Age 14-16	39.6	49.8	45.4	37.2	39.4	38.5	48.4	31.4	37.7	15.7	11.6	13.4



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 7 OUT OF 7 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	101	114	118	127
Upper primary schools (Std I-VII/VIII)	9	15	11	16
Total schools visited	110	129	129	143

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018										
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	75.5	73.8	74.8	74.9						
% Teachers present (Average)	93.0	88.3	83.0	86.6						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	64.7	66.9	59.8	76.8
% Schools where Std IV children were observed sitting with one or more other classes	61.3	60.7	59.0	75.0

### **School facilities**

Table 17: % Schools 2010, 201	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	60.6	83.3	86.7	84.5
meal	Mid-day meal served in school on day of visit	51.9	40.7	47.9	47.9
	No facility for drinking water	70.6	71.7	72.2	76.1
Drinking	Facility but no drinking water available	5.5	11.8	7.9	8.5
water	Drinking water available	23.9	16.5	19.8	15.5
	Total	100	100	100	100
	No toilet facility	34.9	20.2	2.3	7.0
Toilot	Facility but toilet not useable	40.6	41.1	45.7	48.3
ronet	Toilet useable	24.5	38.8	51.9	44.8
	Total	100	100	100	100
	No separate provision for girls' toilet	64.8	52.5	29.4	37.3
Cinlar	Separate provision but locked	9.1	19.8	24.8	20.9
toilet	Separate provision, unlocked but not useable	11.4	10.9	7.3	11.9
tonet	Separate provision, unlocked and useable	14.8	16.8	38.5	29.9
	Total	100	100	100	100
	No library	78.0	76.4	71.3	89.4
Librony	Library but no books being used by children on day of visit	6.4	1.6	6.2	7.8
LIDIALY	Library books being used by children on day of visit	15.6	22.1	22.5	2.8
	Total	100	100	100	100
	Electricity connection			16.8	15.9
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		38.9	80.0
	No computer available for children to use	98.5	98.3	97.9	
	Available but not being used by children on day of visit	1.8	0.8	0.9	1.4
Computer	Computer being used by children on day of visit	0.9	0.8	0.9	0.7
	Total	100	100	100	100
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018										
	2010	2014	2016	2018						
All schools (Std I-IV/V and Std I-VII/VIII)	71.0	68.6	69.9	69.0						

#### Table 19: Physical education and sports in schools 2018 All schools % Schools with (Std I-IV/V and Std I-VII/VIII) Physical education period in the timetable 22.0 No physical education period but Dedicated 18.2 time for dedicated time allotted physical No physical education period and 59.9 education no dedicated time allotted Total 100 Separate physical education teacher 6.8 Physical Other physical education teacher 15.8 education teacher No physical education teacher 77.4 Total 100 Playground inside the school premises 54.3 Playground outside the school premises 13.6 Playground No accessible playground 32.1 Total 100 Availability of any sports equipment 19.7 Supervised physical education activity observed on day 8.6 of visit

Table 20: School Management Committee ( 2014, 2016 and 2018	Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018										
	2014	2016	2018								
% Schools which reported having an SMC	91.3	78.9	90.1								
Of all schools that have an SMC, % schools that ha	nd the last SN	1C meeting									
Before July	56.1	48.2	32.5								
Between July and September	41.1	39.5	48.8								
After September 2.8 12.4											







# Mizoram, Nagaland

Odisha, Punjab

Rajasthan, Sikkim



of Education Re . કેસર ASER

ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 8 OUT OF 8 DISTRICTS Data is not presented where sample size is insufficient.

Table 1: % Children enrolled in different types of schools byage group and gender 2018											
Age group	Govt	Pvt	Other	Not in school	Total						
Age 6-14: All	72.4	27.2	0.0	0.4	100						
Age 7-16: All	72.9	26.1	0.0	1.0	100						
Age 7-10: All	70.3	29.4	0.0	0.3	100						
Age 7-10: Boys	71.6	28.0	0.0	0.4	100						
Age 7-10: Girls	68.9	31.0	0.0	0.1	100						
Age 11-14: All	75.8	23.7	0.0	0.5	100						
Age 11-14: Boys	76.9	22.4	0.0	0.7	100						
Age 11-14: Girls	74.5	25.3	0.0	0.2	100						
Age 15-16: All	72.8	21.7	0.2	5.3	100						
Age 15-16: Boys	71.7	21.0	0.5	6.9	100						
Age 15-16: Girls	73.8	22.5	0.0	3.7	100						
'Other' includes children	ining to Mag	darsa or EGS	2								

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 29.7% as compared to 22.5% in Std VIII.

% Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 18.9% in 2006, 12.9% in 2012, and 3.7% in 2018.

Tab % C	Table 2: Age-grade distribution         % Children in each grade by age 2018												
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
- I	23.5	36.5	28.0	9.0		3.0						100	
II	4.9	12.0	27.2	34.0	11.4	5.7		4.9					100
Ш	3	8.7	9.0	23.4	32.5	15.4	7.1	6.1		2	100		
IV		3.7		9.2	17.8	29.8	14.4	14.2	7.7	7 3.3			100
V		1.9		6.8	7.8	30.0	22.9	21.1	7.4		2.1		100
VI		4.4				10.4	23.6	33.8	16.2	7.1	4	.4	100
VII		1.6				5.8	5.0	27.4	37.6	12.9 9.8			100
VIII			1	.8				8.0	41.0	35.3	9.1	4.8	100

This table shows the age distribution for each grade. For example, of all children in Std III, 23.4% children are 8 years old but there are also 9% who are 7, 32.5% who are 9, 15.4% who are 10, 7.1% who are 11, 6.1% who are 12, and 2.9% who are 13 or older.

### Young children in pre-school and school

School enrollment

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School		Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school school	Total
Age 3	96.7	0.2	2.1	1.0	0.0	0.0	0.0	100
Age 4	74.5	1.9	14.4	7.1	1.7	0.0	0.4	100
Age 5	34.8	4.0	26.3	24.5	10.1	0.0	0.3	100
Age 6	13.3	6.3	17.6	42.0	20.8	0.0	0.0	100
Age 7	4.7	5.1	4.9	57.6	27.6	0.0	0.3	100
Age 8	1.9	3.2	2.4	65.4	26.9	0.0	0.2	100

ASER 2018



Data is not presented where sample size is insufficient.



### Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level       All children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	23.4	29.8	32.1	11.9	2.8	100				
II	6.3	18.9	38.3	25.3	11.2	100				
	1.0	4.0	33.2	36.2	25.6	100				
IV	0.6	2.0	15.9	34.1	47.4	100				
V	0.6	1.2	8.0	25.9	64.3	100				
VI	0.0	1.9	4.4	19.4	74.4	100				
VII	0.3	0.8	2.1	11.8	85.0	100				
VIII	0.0	0.3	2.1	8.3	89.4	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 1% cannot even read letters, 4% can read letters but not words or higher, 33.2% can read words but not Std I level text or higher, 36.2% can read Std I level text but not Std II level text, and 25.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

#### Table 5: Trends over time Reading in Std III by school type 2012, 2014, 2016 and 2018

Year	% Children in Std III who can read Std II level text						
	Govt	Pvt	Govt & Pvt*				
2012	19.2	31.5	22.4				
2014	14.8	25.8	19.0				
2016	7.2	18.0	10.5				
2018	25.2	26.8	25.6				

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

### % Children who can read Std II level text

Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 68.1% and in Std VI (in 2010) was 85.6%. When the cohort reached Std VIII in 2012, this figure was 94.3%. The progress of each of these cohorts can be understood in the same way.

#### **Reading Tool (Mizo)**

#### Std II level text

Ka thian tha ber chu Laldika ani a Kan kawmthlangah an awm. A felin lehkha a thiam thei a, kan in kawmngeih ble thin. Nitinin sikul kan kal rual thin a pawili zirlai kan ni a. Kan khaw sikul ah kan kal thin. Zirtirtu ten a fel em avangin an duhsak thin hle. Laldika chuan sikul kalloh a hreh thin hle. Tulloa sikul thulh a duh ngai lo. Laldika chu Tlai tin a nuin lehkha a zirtir thin a, zanah a zir ziah thin bawk. Laldika chuan mi tanpui nuam a ti hle a. A theih ang chin chinah mi a tanpui fo thin. Pathian thu awih tak ani a, a inkhawm ziah bawk. Vanram kai loh a blau ble.



Std I level text

### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012 2014 2013 2014

2012,2	2014, 201		/10				
Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	55.2	71.5	59.6	95.6	89.2	94.3	
2014	47.1	60.9	52.1	83.6	81.0	82.8	
2016	41.0	61.2	46.6	81.9	88.4	83.5	
2018	58.6	74.2	64.3	86.7	98.5	89.3	

\* This is the weighted average for children in government and private schools only.



Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018									
Std	Not even 1-9	Recognize numbers 1-9 10-99		Subtract	Divide	Total			
I	21.4	27.3	41.6	9.0	0.8	100			
	6.4	14.1	46.2	29.4	3.9	100			
	1.0	5.3	34.9	50.3	8.6	100			
IV	0.2	2.6	18.3	54.9	24.0	100			
V	0.3	0.9	11.4	47.2	40.2	100			
VI	0.0	1.2	7.6	40.0	51.2	100			
VII	0.3	0.1	2.7	26.4	70.4	100			
VIII	0.0	0.0	5.5	23.5	71.0	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 1% cannot even recognize numbers 1-9, 5.3% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 34.9% can recognize numbers up to 99 but cannot do subtraction, 50.3% can do subtraction but cannot do division, and 8.6% can do division. For each grade, the total of these exclusive categories is 100%.

### Table 8: Trends over time Arithmetic in Std III by school type 2012, 2014, 2016 and 2018

Year	can do at least subtraction						
	Govt	Pvt	Govt & Pvt*				
2012	58.1	69.4	61.0				
2014	63.9	67.7	65.3				
2016	33.1	45.9	37.0				
2018	57.4	62.7	58.8				

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 67.9% and in Std VI (in 2010) was 76.4%. When the cohort reached Std VIII in 2012, this figure was 85.7%. The progress of each of these cohorts can be understood in the same way.

#### Arithmetic Tool (English)



#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Child ca	Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*					
	2012	41.6	49.0	43.6	86.0	84.8	85.7				
	2014	37.1	45.1	40.0	84.2	88.5	85.5				
	2016	25.3	35.3	28.1	76.7	76.9	76.7				
	2018	35.8	48.0	40.2	67.5	82.8	71.0				

\* This is the weighted average for children in government and private schools only.



Annuel Status of Education Report

Data is not presented where sample size is insufficient.

#### **Basic reading and arithmetic** Table 10: Basic reading by age group and Table 11: Basic arithmetic by age group and gender 2018 gender 2018 % Children who can read % Children who can do at least % Children who can Age group Std II level text Age group subtraction do division Male Female Male Male Female All All Female All Age 8-10 34.2 34.3 Age 8-10 62.2 61.3 61.8 15.4 16.0 34.4 16.6 Age 11-13 66.3 71.3 68.7 Age 11-13 86.0 88.5 87.2 48.8 48.7 48.7 Age 14-16 88.7 89.1 88.9 Age 14-16 94.0 95.2 94.6 79.6 79.9 79.7

### Beyond basics

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	27.9	14.8	21.8	30.9	27.2	29.1	19.6	37.2	27.8	6.4	3.9	5.2
Age 15	70.7	29.3	47.9	41.1	8.4	23.0	44.1	30.2	36.4	0.0	9.3	5.1
Age 16	33.6	30.4	31.4	33.6	38.3	36.8	66.4	38.3	47.4	32.9	9.2	16.9
Age 14-16	38.0	21.9	29.5	33.4	25.0	29.0	30.5	35.7	33.2	8.1	6.4	7.2

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	47.9	50.9	49.4	34.6	38.1	36.4	46.3	44.7	45.5	20.1	18.9	19.5
Age 15	42.8	58.7	50.7	37.9	42.1	40.0	43.8	51.7	47.8	23.6	28.1	25.8
Age 16	55.4	45.5	50.7	40.2	39.5	39.9	38.0	34.9	36.5	17.7	16.7	17.2
Age 14-16	48.6	51.7	50.1	37.2	39.6	38.4	43.2	44.1	43.6	20.4	21.0	20.7



# Annual Status of Education Report

### ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 8 OUT OF 8 DISTRICTS Data is not presented where sample size is insufficient.

### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	166	184	218	228
Upper primary schools (Std I-VII/VIII)	8	3	4	5
Total schools visited	174	187	222	233

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018									
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	85.8	86.8	86.2	83.4					
% Teachers present (Average)	94.4	88.7	89.4	83.2					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	31.8	25.3	28.5	2.2
% Schools where Std IV children were observed sitting with one or more other classes	29.9	25.1	28.4	1.7

#### **School facilities** Table 17: Trends over time 2010, 2014, 2016 and 2018 % Schools with 2010 2014 2016 2018 94.0 Kitchen shed for cooking mid-day meal 96.2 93.6 Mid-day 96.1 Mid-day meal served in school on day of visit meal 94.0 72.0 91.7 89.2 No facility for drinking water 47.3 24.5 31.2 39.6 Facility but no drinking water available 4.1 7.1 4.1 3.0 Drinking water Drinking water available 48.5 68.5 64.7 57.4 Total 100 100 100 100 7.6 No toilet facility 7.1 5.1 17.6 Facility but toilet not useable 37.3 58.7 54.9 37.8 Toilet 44.6 Toilet useable 55.6 33.7 40.0 Total 100 100 100 100 No separate provision for girls' toilet 43.4 21.1 26.2 29.8 Separate provision but locked 14.5 47.4 41.1 30.7 Girls' Separate provision, unlocked but not useable 11.3 3.5 7.4 4.6 toilet Separate provision, unlocked and useable 30.8 28.1 25.3 34.9 Total 100 100 100 100 No library 93.6 83.2 91.0 82.4 Library but no books being used by children on day of visit 4.7 10.9 5.4 15.0 Library Library books being used by children on day of visit 1.7 6.0 3.6 2.6 Total 100 100 100 100 Electricity connection 79.7 77.6 Electricity Of schools with electricity connection, % schools with electricity 89.0 82.2 available on day of visit No computer available for children to use 92.4 98.4 95.1 90.1

Available but not being used by children on day of visit

Computer being used by children on day of visit





4.1

0.9

100

1.1

0.5

100

1.8

5.9

100

9.5

0.4

100

Total

Computer



Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time % Schools with total enrollment of 60 or less 2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
All schools (Std I-IV/V and Std I-VII/VIII)	39.8	63.7	57.3	84.1					

Table 19: Physical education and sports in schools 2018							
% Schools v	vith	All schools (Std I-IV/V and Std I-VII/VIII)					
	Physical education period in the timetable	47.6					
Dedicated time for	No physical education period but dedicated time allotted	24.9					
physical education	No physical education period and no dedicated time allotted	27.5					
	Total	100					
	Separate physical education teacher	15.1					
Physical	Other physical education teacher	47.3					
teacher	No physical education teacher	37.6					
	Total	100					
	Playground inside the school premises	65.8					
Playaround	Playground outside the school premises	18.0					
Flayground	No accessible playground	16.2					
	Total	100					
Availability of	of any sports equipment	75.0					
Supervised p of visit	hysical education activity observed on day	14.9					

Table 20: School Management Committee (SMC) in schools         2014, 2016 and 2018									
	2014	2016	2018						
% Schools which reported having an SMC	95.6	97.7	95.7						
Of all schools that have an SMC, % schools that ha	nd the last SN	1C meeting							
Before July	68.9	47.0	39.2						
Between July and September	29.9	43.4	43.7						
After September	1.2	9.6	17.1						







### Nagaland RURAL

ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 11 OUT OF 11 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Chi	Idren enrolled	in different	types of s	chools by
age group and	gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	49.3	48.6	0.0	2.1	100
Age 7-16: All	49.3	47.7	0.0	3.0	100
Age 7-10: All	48.4	50.1	0.0	1.5	100
Age 7-10: Boys	47.2	50.8	0.1	1.9	100
Age 7-10: Girls	49.1	49.9	0.0	1.1	100
Age 11-14: All	50.0	47.5	0.0	2.5	100
Age 11-14: Boys	47.9	49.8	0.0	2.3	100
Age 11-14: Girls	51.8	45.5	0.0	2.6	100
Age 15-16: All	49.6	41.3	0.0	9.2	100
Age 15-16: Boys	45.6	42.4	0.0	12.0	100
Age 15-16: Girls	52.7	40.9	0.0	6.4	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 43.9% as compared to 53% in Std VIII.

2006, 2008, 2010, 2012, 2014, 2016 and 2018 40 35 30 25 Children 12 15 % 10 5 0 2006 2008 2014 2018 2010 2012 2016 11 to 14 Boys — 11 to 14 Girls — 15 to 16 Boys — 15 to 16 Girls

% Children not enrolled in school by age group and gender

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 17.2% in 2006, 13.3% in 2012, and 6.4% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	10.2	35.5	32.0	12.1		10.3					100		
	II	4.2	9.3	32.6	30.2	11.8	11.8 7.6 4.3					100		
	III	2	2.7	6.3	32.9	28.4	15.4	6.2			8.3			100
	IV		1.4		6.2	27.3	33.2	14.4	10.0	5.0	2.5			100
	V	1.9 5.1				31.8	30.0	17.2	7.9		6.1		100	
	VI	1.6				5.0	25.2	36.5	14.9	9.5	5.3	2.1	100	
	VII	4.4						28.2	32.7	19.4	11.9	3.5	100	
	VIII	1.1							5.4	26.5	34.1	19.8	13.1	100

This table shows the age distribution for each grade. For example, of all children in Std III, 32.9% children are 8 years old but there are also 6.3% who are 7, 28.4% who are 9, 15.4% who are 10, 6.2% who are 11, and 8.3% who are 12 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

I		Pre-school				School	Not in		
Age	Anganwadi	Govt LKG/	Pvt LKG/	Govt	Pvt	Other	school or	Total	
ļ			UKG	UKG				school	
	Age 3	22.7	9.6	5.9	1.4	0.6	0.0	59.9	100
	Age 4	8.8	35.4	33.6	1.7	1.7	0.2	18.6	100
	Age 5	4.4	40.8	40.4	6.5	4.0	0.0	3.9	100
	Age 6	11.6	20.0	24.2	22.7	19.6	0.0	1.8	100
	Age 7	10.9	8.9	9.2	34.8	35.2	0.0	1.0	100
	Age 8	3.2	6.7	5.9	41.3	41.2	0.0	1.6	100



ASER 2018

### Nagaland RURAL

Data is not presented where sample size is insufficient.



like

hot

dark

gold

ant

bus

Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	10.8	35.2	42.6	7.8	3.6	100				
II	5.9	22.6	44.1	19.8	7.6	100				
III	1.9	14.2	36.2	25.1	22.6	100				
IV	0.9	7.0	27.3	28.5	36.2	100				
V	0.7	3.2	17.3	30.8	48.0	100				
VI	0.1	1.0	9.3	28.2	61.4	100				
VII	0.0	0.5	6.7	19.1	73.7	100				
VIII	0.0	0.0	2.3	14.1	83.6	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 1.9% cannot even read letters, 14.2% can read letters but not words or higher, 36.2% can read words but not Std I level text or higher, 25.1% can read Std I level text but not Std II level text, and 22.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Children in Std III who can read Std II level text							
	Govt Pvt		Govt & Pvt*					
2012	12.8	33.7	20.5					
2014	4.6	17.6	9.1					
2016	7.9	27.1	15.6					
2018	7.4	39.0	22.6					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 46.2% and in Std VI (in 2010) was 62.1%. When the cohort reached Std VIII in 2012, this figure was 88.5%. The progress of each of these cohorts can be understood in the same way.

#### Reading Tool (English) Std II level text Std I level text It was the rainy season. The This is a big monkey. He lives on a tree. sky was full of clouds. There He likes to jump. was a cool breeze blowing. He also likes bananas. Asif was eager to play on a swing. His older brother got Letters Words a thick rope. They tied it on moon the tree and made a swing. Many children joined them sun and they all started playing. baby They played till it got dark.

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	n in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	42.3	68.6	52.5	85.4	92.9	88.6	
2014	27.4	60.7	41.6	86.3	95.1	90.3	
2016	37.8	64.9	50.1	82.4	93.9	88.0	
2018	31.7	67.3	48.1	76.3	90.8	83.8	

ь

\* This is the weighted average for children in government and private schools only.






### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level         All children 2018									
Std	Not even	Recognize	e numbers	Subtract	Divide	Total			
010	1-9	1-9	10-99	oubtruot	Divido	Total			
I	9.3	23.8	57.8	4.8	4.4	100			
Ш	5.1	14.6	62.0	14.6	3.8	100			
	1.8	6.8	54.5	30.3	6.7	100			
IV	1.0	3.4	43.1	37.9	14.6	100			
V	0.8	1.6	32.0	39.7	25.8	100			
VI	0.3	0.7	22.3	47.2	29.5	100			
VII	0.0	0.4	22.3	36.5	40.9	100			
VIII	0.0	0.0	14.6	34.1	51.3	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 1.8% cannot even recognize numbers 1-9, 6.8% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 54.5% can recognize numbers up to 99 but cannot do subtraction, 30.3% can do subtraction but cannot do division, and 6.7% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can do at least subtraction								
	Govt Pvt		Govt & Pvt*						
2012	44.5	69.0	53.6						
2014	35.4	49.3	40.2						
2016	39.2	48.1	42.8						
2018	26.3	48.5	37.0						

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

Std IV

#### 100 90 2012 80 2014 70 2016 Children 20 2012 2018 2010 °<sup>8</sup> 40 2016 2008 2014 30 2012 2010 20 2014 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 31.9% and in Std VI (in 2010) was 46.1%. When the cohort reached Std VIII in 2012, this figure was 81.6%. The progress of each of these cohorts can be understood in the same way.

Std VI

Std VIII



Arithmetic Tool (English)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	27.3	46.0	34.6	78.0	86.6	81.6				
2014	18.3	35.3	25.6	66.6	74.5	70.2				
2016	13.0	31.1	21.2	60.2	71.5	65.7				
2018	19.3	33.5	25.8	40.7	61.6	51.5				

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

basic reading and an inmetic										
Table 10: Basic reading by age group and gender 2018Table 11: Basic arithmetic by age group and gender 2018										
Age group % Children who can read Std II level text		Age group	% Childre	en who can o subtraction	do at least	% Children who can do division				
Male	Female	All			Male	Female	All	Male	Female	All
25.5	27.3	26.4		Age 8-10	40.7	41.1	40.9	9.1	11.3	10.2
53.9	55.6	54.7		Age 11-13	65.8	64.5	65.2	30.9	28.2	29.6
74.2	80.0	77.1		Age 14-16	78.0	79.6	78.8	47.4	52.8	50.1
	reading by % Chil S Male 25.5 53.9 74.2	reading by age group % Children who ca Std II level tex Male Female 25.5 27.3 53.9 55.6 74.2 80.0	reading by age group and % Children who can read Std II level text Male Female All 25.5 27.3 26.4 53.9 55.6 54.7 74.2 80.0 77.1	Basreading by age group and% Children who can read Std II level textMaleFemaleAll25.527.326.453.955.654.774.280.077.1	Basic reading allreading by age group and% Children who can read Std II level textTable 11: BasicMaleFemaleAll25.527.326.453.955.654.774.280.077.1	Basic reading and arithmeticreading by age group and% Children who can read Std II level textTable 11: Basic arithmeticMaleFemaleAll25.527.326.453.955.654.774.280.077.1Age 14.1678.0	Basic reading and artificationreading by age group and% Children who can read Std II level textTable 11: Basic arithmetic by age groupMaleFemaleAll25.527.326.453.955.654.774.280.077.1Age 11-1365.864.5Age 14-1678.079.6	Basic reading and arithmeticBasic reading and arithmeticreading by age group and% Children who can read Std II level textTable 11: Basic arithmetic by age group and gerMaleFemaleAll25.527.326.453.955.654.774.280.077.1	Basic reacing and arithmeticBasic reacing and arithmeticreading by age group and% Children who can read Std II level textTable 11: Basic arithmetic by age group and gender 2018MaleFemaleAll25.527.326.453.955.654.774.280.077.1Age 14-1678.079.678.847.4	Basic reading and arithmeticBasic reading and arithmetic by age group and gender 2018Table 11: Basic arithmetic by age group and gender 2018% Children who can read Std II level text% Children who can do at least subtraction% Children who do divisionMaleFemaleAllMaleFemaleAllMaleFemale25.527.326.4MaleFemaleAllMaleFemale53.955.654.7Age 11-1365.864.565.230.928.2Age 14-1678.079.678.847.452.8

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	ectly answer by age	and gender 2018	on but not aivision,	% children who
Age	Calculating time	Applying unitary method	Financial decision making	Calculating discount
	Male Female All	Male Female All	Male Female All	Male Female All

	Innaro	l'onnaio	,	Innaro	r onnaro	,	Innaro	l' ornaro	,	iviaro	l'onnaro	,
Age 14	43.0	26.6	35.1	23.6	18.5	21.1				16.4	8.6	12.6
Age 15	32.7	19.9	27.3	24.0	25.5	24.7		Data		22.2	4.4	14.6
Age 16	34.4	32.8	33.5	35.4	26.3	29.9	in	sufficie	ent	30.9	10.6	18.8
Age 14-16	36.8	26.1	31.6	26.0	23.2	24.6				21.6	7.7	14.9

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	41.2	50.3	45.9	37.1	35.9	36.5				24.5	31.2	28.0
Age 15	43.4	35.7	39.4	46.0	40.1	42.9		Data	_	17.8	27.8	23.1
Age 16	52.3	40.8	46.1	37.0	34.3	35.6	in	sufficie	ent	27.3	33.4	30.6
Age 14-16	45.0	42.6	43.7	40.1	36.9	38.4				23.0	30.7	27.0



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 11 OUT OF 11 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	202	160	195	159
Upper primary schools (Std I-VII/VIII)	21	95	105	130
Total schools visited	223	255	300	289

Table 15: Trends over time         Student and teacher attendance on the day of visit         2010, 2014, 2016 and 2018										
Primary schools (Std I-IV/V)	2010	2014	2016	2018						
% Enrolled children present (Average)	81.9	81.7	83.1	77.2						
% Teachers present (Average)	87.2	86.1	88.6	82.9						
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	83.0	81.0	84.5	79.4						
% Teachers present (Average)	86.3	84.2	82.5	74.9						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	18.7	18.8	13.0	12.8
% Schools where Std IV children were observed sitting with one or more other classes	17.5	20.0	9.9	12.2
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	28.6	15.1	9.5	9.5
% Schools where Std IV children were observed sitting with one or more other classes	28.6	13.3	11.8	10.9

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	81.7	79.2	84.0	83.0
meal	Mid-day meal served in school on day of visit	31.9	24.1	24.6	27.4
	No facility for drinking water	56.9	73.4	70.7	63.8
Drinking	Facility but no drinking water available	6.0	3.2	6.7	8.9
water	Drinking water available	37.0	23.4	22.6	27.3
	Total	100	100	100	100
	No toilet facility	13.8	4.4	4.8	5.9
Toilet	Facility but toilet not useable	32.3	27.7	45.2	32.3
TOHEL	Toilet useable	53.9	68.0	50.0	61.8
	Total	100	100	100	100
	No separate provision for girls' toilet	47.8	31.1	17.4	26.9
Cirle	Separate provision but locked	9.4	16.7	31.4	18.1
toilet	Separate provision, unlocked but not useable	12.2	7.2	10.3	8.0
tonot	Separate provision, unlocked and useable	30.6	45.0	40.9	47.0
	Total	100	100	100	100
	No library	86.7	85.4	82.6	87.2
Library	Library but no books being used by children on day of visit	4.1	9.1	9.4	5.9
LIDIALY	Library books being used by children on day of visit	9.2	5.5	8.0	6.9
	Total	100	100	100	100
	Electricity connection			60.1	72.0
Electricity	Of schools with electricity connection, % schools with electr	icity		82.4	71.2
	available on day of visit		02.4	/1.2	
	No computer available for children to use	85.3	88.6	85.4	86.8
Computer	Available but not being used by children on day of visit	11.1	5.9	11.5	10.8
Computer	Computer being used by children on day of visit	3.7	5.5	3.1	2.4
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018										
	2010	2014	2016	2018						
Primary schools (Std I-IV/V)	50.3	45.6	67.2	81.8						
Upper primary schools (Std I-VII/VIII)	0.0	17.9	26.7	36.9						

Table 19: Physical education and sports in schools 2018							
% Schools v	vith	Std I-IV/ V	Std I-VII/ VIII	All schools			
Dedicated time for physical education	Physical education period in the timetable	8.1	19.1	13.1			
	No physical education period but dedicated time allotted	10.8	20.6	15.3			
	No physical education period and no dedicated time allotted	81.1	60.3	71.5			
	Total	Carectication and sports in schools 2018Std I-IV/ VStd I-IV/ VIIIStd I-IV/ schoolsical education period in the timetable8.119.113.1physical education period but icated time allotted10.820.615.3physical education period and dedicated time allotted81.160.371.5al100100100100arate physical education teacher4.724.413.7er physical education teacher87.371.780.1al100100100100ground inside the school premises42.065.152.5/ground outside the school premises31.222.527.3accessible playground26.812.420.3al100100100100r sports equipment27.561.242.9al education activity observed on day4.514.89.2	100				
	Separate physical education teacher	4.7	24.4	13.7			
Physical education	Other physical education teacher	8.0	3.9	6.1			
teacher	No physical education teacher	87.3	71.7	80.1			
	Total	100	100	100			
	Playground inside the school premises	42.0	65.1	52.5			
Playaround	Playground outside the school premises	31.2	22.5	27.3			
Tayground	No accessible playground	26.8	12.4	20.3			
	Total	100	100	100			
Availability of	of any sports equipment	27.5	61.2	42.9			
Supervised p of visit	hysical education activity observed on day	4.5	14.8	9.2			

Table 20: School Management Committee (SMC) in schools           2014, 2016 and 2018							
	2014	2016	2018				
% Schools which reported having an SMC	95.5	97.4	92.2				

Of all schools that have an SMC, % schools that had the last SMC meeting

Before July	48.6	31.1	30.0
Between July and September	49.5	46.6	52.8
After September	1.8	22.3	17.2







## Odisha rural

ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 30 OUT OF 30 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Table 1: % (	Children enrolled	in different	types of schools by	
age group a	nd gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	88.0	10.5	0.1	1.5	100
Age 7-16: All	87.3	9.4	0.1	3.2	100
Age 7-10: All	86.0	13.1	0.2	0.8	100
Age 7-10: Boys	83.7	15.2	0.2	0.9	100
Age 7-10: Girls	88.3	10.9	0.1	0.7	100
Age 11-14: All	91.0	6.8	0.1	2.1	100
Age 11-14: Boys	90.2	7.7	0.1	2.1	100
Age 11-14: Girls	91.9	5.8	0.2	2.1	100
Age 15-16: All	80.5	6.6	0.2	12.7	100
Age 15-16: Boys	79.4	7.3	0.1	13.3	100
Age 15-16: Girls	81.5	6.0	0.2	12.3	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 21.1% as compared to 5.9% in Std VIII.

Chart 1: Trends over time

% Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 31.4% in 2006, 28.2% in 2012, and 12.3% in 2018.

Tabl % Cl	le 2: Age-grade distribution Children in each grade by age 2018												
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	49.3	35.7	11.4		3.5						100		
II	7.9	9.9	61.3	17.6	5 3.4						100		
111	1	.7	9.5	65.6	18.7	4.5					100		
IV		1.6		11.3	63.9	19.9			3	3.3			100
V		2	.8		6.5	68.7	16.5			5.6			100
VI			2.4			7.161.325.0 4.1						100	
VII			3	8.4	6.869.716.8 3.4					100			
VIII				3.0				9.6	66.8	16.8	3.	.9	100

This table shows the age distribution for each grade. For example, of all children in Std III, 65.6% children are 8 years old but there are also 9.5% who are 7, 18.7% who are 9, and 4.5% who are 10 or older.

### Young children in pre-school and school

Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

J									
		Pre-school				School	Not in		
	Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
	Age 3	57.4	0.1	2.2	31.6	2.4	0.0	6.4	100
	Age 4	55.5	0.8	7.1	30.7	4.8	0.0	1.1	100
	Age 5	37.5	0.6	7.8	42.1	11.1	0.0	0.9	100
	Age 6	7.9	0.3	4.5	71.6	14.3	0.0	1.4	100
	Age 7	0.6	0.2	1.2	81.1	16.3	0.0	0.7	100
	Age 8	0.2	0.1	0.4	84.7	14.0	0.1	0.6	100



## Ddisha rural

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All ch	Table 4: % Children by grade and reading level         All children 2018									
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	39.9	26.7	16.2	7.2	10.1	100				
II	18.9	22.2	21.6	13.0	24.3	100				
	8.6	15.7	22.8	14.2	38.7	100				
IV	5.9	11.1	17.6	16.2	49.2	100				
V	3.3	9.3	13.5	15.4	58.4	100				
VI	2.5	6.1	12.6	13.6	65.3	100				
VII	1.9	4.6	9.9	14.8	68.9	100				
VIII	1.5	3.8	9.4	12.8	72.6	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 8.6% cannot even read letters, 15.7% can read letters but not words or higher, 22.8% can read words but not Std I level text or higher, 14.2% can read Std I level text but not Std II level text, and 38.7% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014, 2016 and 2018							
Year	% Children in Std III who can read Std II level text						
	Govt	Pvt	Govt & Pvt*				
2012	24.7	53.4	26.5				
2014	28.9	70.8	33.0				
2016	31.5	69.2	35.5				
2018	35.0	64.5	38.7				

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 45.5% and in Std VI (in 2010) was 61.6%. When the cohort reached Std VIII in 2012, this figure was 73.2%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I le	evel text
ବରଷା ଦିନ । ଆକାଶରେ ଜଳା ବାଦଲ ଭାସୁଥିଲା । ଶୀତଳ ପବନ ବୋହୁଥିଲା । କୁନି ଦୋଳି ଖେଳିବା ପାଇଁ ମନ ବଳାଇଲା । ସେ ତାର ବଡ଼ ଭାରକୁ ଦଉଡ଼ି ଆଶିବା ପାଇଁ କହିଲା । ତେଣୁ ତା ଭାଇ	ବରଷା ପରେ ଶ ଏହି ରତୁରେ ବ୍ୟ ବାପା ଗରମ ସେ ଆମେ ତାକୁ ପାଣ	ୀତ ରତୁ ଆସିଛି । ହୁତ ଶୀତ ହୁଏ । ଧାଷାକ ଆଶିଲେ । ର ଖୁସି ହେଲୁ ।
ଗୋଟିଏ ଦରଡ଼ି ଆଶିଲା । କୁନି ତାକୁ ଗଛରେ ଝୁଲାଇ ଦୋଳି ତିଆରି କଲା ।	Letters	Words
ଦୁଇ ଜଣ ମିଶି ଦୋଳି ଖେଳିଲେ । ଆଉ ବହୁତ ପିଲା ଦୋକି ଖେଳିବାକୁ ଆସିଲେ । ଖେକୁ ଖେକୁ ରାତି ହୋଇଗଲା । କୁନିକୁ ବହୁତ ତର ଲାଗିଲା । ସେ ତା ଭାଇ ସହିତ ମିଶି ଖୁସି ମନରେ ଘରକୁ ଫେରିଲା ।	ଷ କ ମ ହ ତ ସ ଭ ଦ ପ ମ	ସୋଲାପ କୁଡ଼ା ପାଣି ବାଳକ ମୋକ କୁଜ ନେଭ ଡ଼ାଇ ଡ଼ାଇ

**Reading Tool (Odia)** 



### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Child can rea	ren in Std ' ad Std II Iev	VIII who vel text		
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*		
2012	46.1	75.7	47.1	72.8	84.5	73.2		
2014	49.1	76.5	50.9	74.5	82.9	74.9		
2016	48.8	81.7	51.6	72.0	85.9	72.6		
2018	56.2	81.1	58.4	72.3	79.8	72.7		

\* This is the weighted average for children in government and private schools only.



Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018									
Std	Not even	Recognize	e numbers	Subtract	Divide	Total			
	1-9	1-9	10-99	Jubliact	Divide	Total			
I	39.4	32.3	20.9	5.8	1.5	100			
	16.3	32.5	32.2	15.5	3.4	100			
	7.8	24.9	36.5	21.5	9.4	100			
IV	4.8	19.2	35.5	24.5	16.1	100			
V	3.2	13.8	33.1	24.5	25.4	100			
VI	2.6	10.5	31.4	21.9	33.7	100			
VII	1.7	8.1	29.7	24.2	36.2	100			
VIII	1.0	8.0	28.7	19.8	42.5	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 7.8% cannot even recognize numbers 1-9, 24.9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 36.5% can recognize numbers up to 99 but cannot do subtraction, 21.5% can do subtraction but cannot do division, and 9.4% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018										
Year	% Children in Std III who can do at least subtraction									
1 cui	Govt	Govt & Pvt*								
2012	23.9	59.2	26.2							
2014	23.7	62.9	27.6							
2016	29.8	69.0	33.9							
2018	28.3	49.3	30.9							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 Children 20 2010 2012 2018 °<sup>8</sup> 40 2016 2014 2016 2012 2014 30 2008 20 2010 2012 2014 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 24.1% and in Std VI (in 2010) was 44.8%. When the cohort reached Std VIII in 2012, this figure was 42.9%. The progress of each of these cohorts can be understood in the same way.

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Arithmetic Tool (Odia)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	17.2	51.0	18.3	42.3	57.0	42.9	
2014	19.9	45.9	21.6	37.5	45.4	37.9	
2016	23.8	57.7	26.6	38.7	63.5	39.6	
2018	23.8	43.2	25.5	41.7	59.4	42.6	

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

Basic reading and antimetic											
Table 10: Basic reading by age group andgender 2018					Table 11: Basic	c arithmetic	: by age gro	oup and gei	nder 2018		
% Children who can readAge groupStd II level text		in read (t		Age group	% Children who can do at least subtraction			% Children who can do division			
	Male	Female	All			Male	Female	All	Male	Female	All
Age 8-10	45.1	49.0	46.9		Age 8-10	38.2	39.9	39.0	16.5	14.8	15.7
Age 11-13	66.7	69.6	68.1		Age 11-13	58.3	59.0	58.6	36.4	35.9	36.1
Age 14-16	77.0	77.7	77.4		Age 14-16	64.1	61.8	62.9	45.5	41.6	43.4

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### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method		Financial decision making			Calculating discount			
ů.	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	28.3	44.8	37.5	24.6	35.5	30.7	25.6	35.3	31.0	13.5	19.5	16.8
Age 15	25.2	26.2	25.8	35.9	27.9	31.2	30.3	16.9	22.5	15.5	18.6	17.3
Age 16	30.7	36.2	34.0	43.7	32.5	37.0	31.3	20.1	24.5	18.0	21.1	19.9
Age 14-16	27.7	35.2	32.0	33.5	31.7	32.5	28.8	24.0	26.0	15.4	19.6	17.8

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
5	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	47.5	47.6	47.5	64.3	49.0	56.6	36.6	32.5	34.5	29.8	25.6	27.7
Age 15	48.5	43.9	46.1	63.9	55.7	59.5	33.6	31.4	32.4	44.5	28.0	35.8
Age 16	46.4	50.8	48.8	58.5	52.7	55.4	26.1	37.4	32.1	48.5	33.4	40.4
Age 14-16	47.6	47.0	47.3	62.9	52.2	57.4	33.4	33.2	33.3	38.6	28.2	33.2



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 30 OUT OF 30 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	383	378	405	360
Upper primary schools (Std I-VII/VIII)	358	446	435	452
Total schools visited	741	824	840	812

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018								
Primary schools (Std I-IV/V)	2010	2014	2016	2018				
% Enrolled children present (Average)	71.9	78.5	77.7	82.0				
% Teachers present (Average)	89.1	87.0	90.5	94.4				
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018				
% Enrolled children present (Average)	72.3	76.3	78.3	80.1				
% Teachers present (Average)	83.8	82.7	90.0	92.7				

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	77.0	81.1	82.9	79.2
% Schools where Std IV children were observed sitting with one or more other classes	66.8	72.8	76.7	73.9
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	69.4	74.8	77.3	78.3
% Schools where Std IV children were observed sitting with one or more other classes	58.1	62.0	65.5	66.2

## School facilities

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	74.4	82.8	87.8	89.9
meal	Mid-day meal served in school on day of visit	88.8	96.8	98.1	98.8
	No facility for drinking water	15.2	9.3	9.2	8.0
Drinking	Facility but no drinking water available	14.5	9.3	13.1	9.1
water	Drinking water available	70.3	81.4	77.7	82.9
	Total	100	100	100	100
	No toilet facility	15.5	15.7	6.7	3.0
Toilet	Facility but toilet not useable	40.1	21.1	17.8	21.4
	Toilet useable	44.4	63.2	75.5	75.7
	Total	100	100	100	100
	No separate provision for girls' toilet	30.3	29.1	17.6	9.6
Cirle	Separate provision but locked	19.5	7.9	6.7	5.2
toilet	Separate provision, unlocked but not useable	15.5	9.7	10.0	16.0
tonot	Separate provision, unlocked and useable	34.7	53.3	65.8	69.3
	Total	100	100	100	100
	No library	34.7	11.8	17.9	19.7
Library	Library but no books being used by children on day of visit	18.5	22.6	21.1	26.4
LIDIALY	Library books being used by children on day of visit	46.8	65.6	61.0	54.0
	Total	100	100	100	100
	Electricity connection			53.0	56.7
Electricity	Of schools with electricity connection, % schools with electr available on day of visit		78.0	80.3	
	No computer available for children to use	92.9	86.1	84.5	81.3
Computer	Available but not being used by children on day of visit	2.7	8.1	9.1	12.6
Computer	Computer being used by children on day of visit	4.4	5.8	6.4	6.1
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018								
	2010	2014	2016	2018				
Primary schools (Std I-IV/V)	38.2	46.5	57.8	60.7				
Upper primary schools (Std I-VII/VIII)	3.9	4.5	5.6	8.0				

Table 1	19:	Physical	education	and sports	in schools 2018	

% Schools v	vith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	68.7	83.0	76.7
Dedicated time for	No physical education period but dedicated time allotted	20.0	12.8	16.0
physical education	No physical education period and no dedicated time allotted	11.3	4.1	7.3
	Total	100	100	100
	Separate physical education teacher	3.6	25.9	16.2
Physical	Other physical education teacher	66.8	52.7	58.8
teacher	No physical education teacher	29.6	21.5	25.0
	Total	100	100	100
	Playground inside the school premises	30.5	35.0	33.0
Playaround	Playground outside the school premises	29.6	36.6	33.5
Tayground	No accessible playground	39.9	28.4	33.5
	Total	100	100	100
Availability of	of any sports equipment	61.3	77.8	70.5
Supervised p of visit	hysical education activity observed on day	21.3	27.5	24.8

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018 2014 2016 2018 % Schools which reported having an SMC 89.7 95.1 96.7 Of all schools that have an SMC, % schools that had the last SMC meeting Before July 4.6 4.3 2.9 Between July and September 61.2 43.0 48.9 After September 34.2 52.6 48.2







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 20 OUT OF 20 DISTRICTS Data is not presented where sample size is insufficient.



2018

## School enrollment

0

2006

2008

Table 1: %	Children enrolled	in different types	of schools by
age group a	and gender 2018		

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	46.7	52.2	0.0	1.0	100
Age 7-16: All	47.9	50.1	0.1	2.0	100
Age 7-10: All	41.7	57.8	0.1	0.5	100
Age 7-10: Boys	39.5	59.8	0.1	0.7	100
Age 7-10: Girls	44.1	55.5	0.1	0.3	100
Age 11-14: All	51.7	46.7	0.0	1.6	100
Age 11-14: Boys	47.9	50.5	0.0	1.6	100
Age 11-14: Girls	56.0	42.4	0.0	1.6	100
Age 15-16: All	52.8	40.9	0.1	6.2	100
Age 15-16: Boys	52.2	41.3	0.2	6.2	100
Age 15-16: Girls	53.4	40.4	0.0	6.2	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.





The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 61.9% as compared to 41.2% in Std VIII.

2006, 2008, 2010, 2012, 2014, 2016 and 2018

% Children not enrolled in school by age group and gender

Chart 1: Trends over time

— 11 to 14 Boys — 11 to 14 Girls — 15 to 16 Boys — 15 to 16 Girls Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 11.7% in 2006, 10.3% in 2012, and 6.2% in 2018.

2012

2014

2016

2010

Tabl % C	e 2: hildr	Age en i	-grac n ea	le di ch g	strib rade	outio by a	n 1ge 2	2018					
Age	$\leq 5$	6	7	8	9	10	11	12	13	14	15	16	Total
I	26.2	31.7	29.2	7.9				5	.0				100
II	5.5	16.2	36.9	29.9	7.9				3.7				100
Ш	3	.6	18.7	38.5	25.0	11.3			4	2.9			100
IV		5.4		17.4	34.8	31.4	7.9			3.1			100
V		4	ł.7		17.3	39.2	27.6	8.6		2.	.7		100
VI			4.0			18.7	37.1	29.8	7.1		3.4		100
VII			2	1.4			16.3	44.8	25.5	7.5	1	.5	100
VIII				4.9				23.4	38.1	25.2	6.3	2.2	100

This table shows the age distribution for each grade. For example, of all children in Std III, 38.5% children are 8 years old but there are also 18.7% who are 7, 25% who are 9, 11.3% who are 10, and 2.9% who are 11 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types ofpre-schools and schools 2018

	Pre	-school			School		Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	32.3	5.4	37.4	1.6	1.2	0.0	22.1	100
Age 4	16.3	11.2	58.9	5.2	4.2	0.0	4.2	100
Age 5	5.4	8.2	57.0	17.0	10.6	0.0	1.8	100
Age 6	1.6	2.5	32.5	28.7	34.5	0.0	0.3	100
Age 7	0.1	0.7	9.3	34.8	54.9	0.1	0.1	100
Age 8	0.1	0.1	1.0	39.2	59.1	0.0	0.5	100



ASER 2018

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All ch	4: % Chi ildren 20	ldren by 18	grade and	d reading le	vel	
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
Ι	25.0	41.1	23.7	5.0	5.3	100
II	10.2	23.9	29.1	15.0	21.7	100
	7.1	15.5	19.0	19.1	39.4	100
IV	3.5	7.9	7.6	15.2	65.8	100
V	2.4	5.9	7.0	13.2	71.6	100
VI	1.4	3.6	7.7	8.2	79.0	100
VII	1.8	3.7	5.3	6.3	82.9	100
VIII	1.9	3.7	2.8	6.5	85.1	100

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 7.1% cannot even read letters, 15.5% can read letters but not words or higher, 19% can read words but not Std I level text or higher, 19.1% can read Std I level text but not Std II level text, and 39.4% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Reading 2012, 2	: Trends c j in Std III 014, 201	over time I by scho 6 and 20	ol type 18
Year	% Chilo can rea	Iren in Std ad Std II Iev	III who vel text
	Govt	Pvt	Govt & Pvt*
2012	33.5	43.7	38.3
2014	24.1	41.4	33.6
2016	30.6	39.2	35.2
2018	36.4	41.8	39.4

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 38.7% and in Std VI (in 2010) was 80.1%. When the cohort reached Std VIII in 2012, this figure was 86.3%. The progress of each of these cohorts can be understood in the same way.

#### Std II level text Std I level text ਸਾਡੇ ਘਰ ਇੱਕ ਦਰੱਖਤ ਹੈ। ਕੱਲ੍ਹ ਬਹੁਤ ਗਰਮੀ ਸੀ। ਸਾਰੇ ਗਰਮੀ ਉਸ 'ਤੇ ਬੜੇ ਅੰਬ ਲਗਦੇ ਹਨ। ਕਾਰਨ ਪਰੇਸ਼ਾਨ ਸਨ। ਅੱਜ ਸਵੇਰੇ ਅਚਾਨਕ ਕਾਲੇ-ਕਾਲੇ ਬੱਦਲ ਛਾ WF ਗਏ। ਚਾਰੇ ਪਾਸੇ ਹਨ੍ਹੇਰਾ ਛਾ ਗਿਆ। ਕੱਚੇ ਅੰ ਸਾਰੇ ਬਦੱਲ ਦੇਖ ਕੇ ਬਹੁਤ ਖੁਸ਼ ਹੋ ਗਏ। ਠੰਡੀ--ਠੰਡੀ ਹਵਾ ਚੱਲਣ ਲੱਗੀ। Lette ਫ਼ਿਰ ਮੀਂਹ ਪੈਣ ਲੱਗਿਆ। ਸਾਰੇ ਮੀਂਹ ਵਿੱਚ ਨਹਾਉਣ ਲੱਗੇ। ਮੈਂ ਵੀ ਮੀਂਹ ਵਿੱਚ ਨਹਾਉਣ ਲੱਗਿਆ। ਨਹਾਉਂਦੇ-ਨਹਾਉਂਦੇ ਮੈਨੂੰ ਠੰਡ ਲੱਗਣ ਲੱਗੀ। ਫ਼ਿਰ ਮੈਂ ਘਰ ਆ ਗਿਆ।

Reading Tool (Punjabi)

ੀਂ ਮਿੰਠੇ ਅ ਬਾਂ ਦਾ ਅ	ਅੰਬ ਖਾਂਦੇ ਹ ਜ਼ਾਰ ਪਾਉਂਦੇ	†। ਏਹ†।
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*	-0 चुमा	ਕਾ ਵੇਜ
н	1000	ਟੋਪੀ
a.	ਤੀਰ	ਰ ਦਿਨ

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, Ž014, 2016 and 2018

Year	% Childre read	% Children in Std V who car read Std II level text			% Children in Std VIII w can read Std II level tex		
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	69.5	73.5	71.2	84.4	90.0	86.3	
2014	60.9	73.8	66.6	87.3	84.4	86.2	
2016	64.0	73.8	69.1	83.6	90.0	86.3	
2018	68.7	74.4	71.6	83.8	87.1	85.1	

\* This is the weighted average for children in government and private schools only.



Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table All chi	7: % Chil Idren 201	dren by g 18	rade and	arithmeti	c level	
Std	Not even	Recognize	e numbers	Subtract	Divide	Total
010	1-9	1-9	10-99	oubtruot	Divide	Total
I	15.0	28.1	47.2	8.1	1.8	100
	4.9	18.3	48.4	27.0	1.5	100
	2.4	12.6	35.3	38.8	10.9	100
IV	1.0	5.9	24.3	34.0	34.8	100
V	1.1	3.2	18.4	24.3	53.0	100
VI	0.6	2.6	15.4	23.9	57.6	100
VII	0.2	2.0	19.8	20.7	57.3	100
VIII	0.9	3.3	13.2	20.2	62.4	100

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.4% cannot even recognize numbers 1-9, 12.6% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 35.3% can recognize numbers up to 99 but cannot do subtraction, 38.8% can do subtraction but cannot do division, and 10.9% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Arithme 2012, 2	Trends c tic in Std 014, 201	over time III by sch 6 and 20	nool type 18		
Year	% Children in Std III who can do at least subtraction				
	Govt	Pvt	Govt & Pvt*		
2012	40.6	64.8	52.0		
2014	32.1	60.6	47.7		
2016	36.3	59.4	48.6		
2018	40.5	57.1	49.8		

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 2012 2018 2014 09 Children 2012 2016 2014 2016 2010 °<sup>8</sup> 40 2012 2014 30 2008 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 25.1% and in Std VI (in 2010) was 76.2%. When the cohort reached Std VIII in 2012, this figure was 63.8%. The progress of each of these cohorts can be understood in the same way.

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3 7	65	38	41 - 13	64 - 48	7)928(
1 4	92	23	84 - 49	73 - 36	6)769(
8 2	47	72	56 - 37	31 - 13	0 007/
	54	87			9 307
5 9	29	11	- 18	- 24	4) 519(

Arithmetic Tool (Punjabi)

## 

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	48.6	56.5	52.0	59.9	71.3	63.8	
2014	37.1	53.9	44.4	56.4	70.7	61.8	
2016	42.4	53.5	48.1	48.0	72.0	58.0	
2018	50.1	55.7	52.9	58.4	68.6	62.5	

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

Basic reading and antimetic											
Table 10: Basic reading by age group and gender 2018Table 11: Basic arithmetic by age group and gender 2018											
Age group	% Chil S	ldren who ca itd II level tex	in read (t		Age group	% Childro	en who can o subtraction	do at least	% Children who can do division		
	Male	Female	All		Male	Female	All	Male	Female	All	
Age 8-10	47.4	62.5	54.6		Age 8-10	55.6	65.2	60.2	25.4	33.3	29.2
Age 11-13	73.8	87.3	80.3		Age 11-13	77.5	80.6	79.0	53.9	60.0	56.9
Age 14-16	85.9	92.9	89.4		Age 14-16	76.9	80.2	78.5	59.0	64.8	61.9

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018												
Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
5	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	27.1	32.6	29.6	31.9	29.5	30.8	25.6	25.6	25.6	16.4	12.6	14.6
Age 15	20.8	47.9	32.1	55.4	40.3	49.1	37.3	49.4	42.4	25.2	5.3	16.9
Age 16	34.6	26.7	30.6	39.9	29.5	34.6	41.9	33.6	37.7	13.1	15.1	14.1
Age 14-16	27.2	34.7	30.6	41.7	32.4	37.3	33.9	34.6	34.2	18.3	11.5	15.1

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method		Financial decision making			Calculating discount				
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	52.2	44.9	48.6	55.6	40.1	48.0	46.1	39.1	42.7	31.2	22.3	26.8
Age 15	54.9	46.6	50.3	59.5	46.5	52.3	44.6	39.3	41.7	38.1	18.2	27.2
Age 16	57.2	51.1	54.0	69.5	45.7	57.2	52.2	45.8	48.9	41.5	22.7	31.8
Age 14-16	54.5	47.3	50.8	60.9	44.0	52.1	47.5	41.1	44.2	36.3	21.0	28.4



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 20 OUT OF 20 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	391	473	523	536
Upper primary schools (Std I-VII/VIII)	58	23	23	18
Total schools visited	449	496	546	554

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018								
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018				
% Enrolled children present (Average)	82.7	81.4	79.8	83.0				
% Teachers present (Average)	88.5	85.5	84.8	85.5				

Table 16: Trends over timeMultigrade classes2010, 2014, 2016 and 2018								
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018				
% Schools where Std II children were observed sitting with one or more other classes	52.5	47.5	55.5	58.4				
% Schools where Std IV children were observed sitting with one or more other classes	37.6	42.4	50.4	53.7				

### **School facilities**

Table 17: % School 2010, 20	Table 17: Trends over time% Schools with selected facilities2010, 2014, 2016 and 2018								
% Schools	with	2010	2014	2016	2018				
Mid-day	Kitchen shed for cooking mid-day meal	94.7	94.5	96.9	99.1				
meal	Mid-day meal served in school on day of visit	97.9	92.7	95.2	93.4				
	No facility for drinking water	8.9	8.3	9.2	7.6				
Drinking	Facility but no drinking water available	8.0	10.7	8.9	9.6				
water	Drinking water available	83.1	81.0	81.9	82.7				
	Total	100	100	100	100				
	No toilet facility	0.9	1.4	0.2	0.0				
Toilot	Facility but toilet not useable	37.9	19.4	19.7	10.5				
lollet	Toilet useable	61.2	79.2	80.1	89.5				
	Total	100	100	100	100				
	No separate provision for girls' toilet	7.3	6.5	4.6	3.4				
Cirle	Separate provision but locked	16.9	5.8	4.2	2.4				
toilet	Separate provision, unlocked but not useable	26.5	16.2	15.8	10.3				
tonot	Separate provision, unlocked and useable	49.4	71.6	75.4	83.9				
	Total	100	100	100	100				
	No library	4.1	11.3	8.2	11.9				
Library	Library but no books being used by children on day of visit	30.0	49.0	42.5	43.3				
LIDIALY	Library books being used by children on day of visit	66.0	39.7	49.4	44.9				
	Total	100	100	100	100				
	Electricity connection			98.9	99.6				
Electricity	Of schools with electricity connection, % schools with electr available on day of visit		95.0	93.6					
	No computer available for children to use	89.3	91.3	91.1	78.5				
Computer	Available but not being used by children on day of visit	5.5	6.5	5.7	17.7				
Computer	Computer being used by children on day of visit	5.2	2.2	3.2	3.8				
	Total	100	100	100	100				







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018								
	2010	2014	2016	2018				
All schools (Std I-IV/V and Std I-VII/VIII)	17.2	25.4	32.7	38.2				

### Table 19: Physical education and sports in schools 2018

% Schools v	vith	All schools (Std I-IV/V and Std I-VII/VIII)
	Physical education period in the timetable	55.6
Dedicated time for physical education	No physical education period but dedicated time allotted	25.4
	No physical education period and no dedicated time allotted	19.0
	Total	100
Physical education teacher	Separate physical education teacher	5.6
	Other physical education teacher	61.0
	No physical education teacher	33.4
	Total	100
	Playground inside the school premises	72.1
Dlavaround	Playground outside the school premises	16.1
Playyrounu	No accessible playground	11.8
	Total	100
Availability of	of any sports equipment	58.4
Supervised p of visit	hysical education activity observed on day	24.8

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018							
	2014	2016	2018				
% Schools which reported having an SMC	96.9	96.1	99.3				
Of all schools that have an SMC, % schools that had the last SMC meeting							
Before July	4.6	3.8	12.9				
Between July and September	85.0	79.4	69.2				
After September	10.4	16.8	17.9				







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 33 OUT OF 33 DISTRICTS Data is not presented where sample size is insufficient.



## School enrollment

Table 1: % (	Children enrolled	in different	types of schools by	
age group a	nd gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	60.0	35.8	0.4	3.8	100
Age 7-16: All	59.7	34.3	0.3	5.7	100
Age 7-10: All	59.7	37.8	0.5	2.0	100
Age 7-10: Boys	54.6	43.5	0.4	1.5	100
Age 7-10: Girls	65.5	31.4	0.5	2.6	100
Age 11-14: All	60.5	33.9	0.3	5.4	100
Age 11-14: Boys	56.1	40.1	0.3	3.5	100
Age 11-14: Girls	65.2	27.1	0.2	7.4	100
Age 15-16: All	57.6	26.6	0.2	15.7	100
Age 15-16: Boys	56.1	32.1	0.1	11.7	100
Age 15-16: Girls	59.3	20.4	0.2	20.1	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 42.5% as compared to 31.9% in Std VIII.

Chart 1: Trends over time

% Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 37.7% in 2006, 29.8% in 2012, and 20.1% in 2018.

Table 2: Age-grade distribution         % Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	46.4	29.9	14.3	5.6		3.8							100
	II	14.7	21.6	31.4	20.8	5.4	6.1							100
	Ш	1.7	6.4	22.3	38.0	17.2	9.8		4.7					100
	IV	1	.9	7.1	22.9	27.2	27.5	7.5	5.9					100
	V		2.4		8.2	14.7	39.9	18.6	11.2 5.1					100
	VI		2	2.4		6.0	23.7	29.0	26.6	8.5		3.8		100
	VII	2.7					8.7	15.6	37.6	23.8	7.3	4.	.3	100
	VIII			2	2.9			5.1	23.5	37.4	19.7	8.5	2.9	100

This table shows the age distribution for each grade. For example, of all children in Std III, 38% children are 8 years old but there are also 6.4% who are 6, 22.3% who are 7, 17.2% who are 9, 9.8% who are 10, and 4.7% who are 11 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School	Not in		
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	34.5	0.4	10.3	2.3	2.8	0.2	49.5	100
Age 4	29.4	1.1	21.0	12.2	10.5	0.2	25.7	100
Age 5	11.6	1.0	16.7	39.9	21.6	0.4	8.9	100
Age 6	2.8	0.5	8.2	52.7	31.2	0.5	4.1	100
Age 7	1.0	0.3	3.1	57.4	35.7	0.4	2.1	100
Age 8	0.3	0.0	1.0	57.9	38.0	0.7	2.2	100



Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018											
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	63.8	24.7	5.5	2.9	3.1	100					
II	30.7	37.7	14.5	8.7	8.5	100					
	14.1	30.9	18.3	16.3	20.4	100					
IV	6.6	21.1	17.1	19.9	35.3	100					
V	3.9	12.3	14.1	20.6	49.1	100					
VI	2.4	8.4	11.2	17.1	60.9	100					
VII	2.1	5.0	7.3	14.6	70.9	100					
VIII	1.5	3.8	4.5	11.9	78.3	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 14.1% cannot even read letters, 30.9% can read letters but not words or higher, 18.3% can read words but not Std I level text or higher, 16.3% can read Std I level text but not Std II level text, and 20.4% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018											
Year	% Children in Std III who can read Std II level text										
	Govt	Govt & Pvt*									
2012	7.1	32.4	17.6								
2014	10.7	33.3	21.1								
2016	15.1	35.0	23.7								
2018	10.3	37.0	20.6								

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

% Children who can read Std II level text

Chart 3: Trends over time



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 34.8% and in Std VI (in 2010) was 66.2%. When the cohort reached Std VIII in 2012, this figure was 77.5%. The progress of each of these cohorts can be understood in the same way.

## Reading Tool (Hindi)

### Std I level text

रामपुर में एक मैदान था। वहाँ कुछ नहीं उगता था। वहाँ कोई खेलने नहीं जाता था। एक दिन कुछ लोग आए। उन्होंने गाँव के लोगों को बुलाया। सबने मिलकर तय किया कि यहाँ बग़ीचा बनाया जाए। खाद मंगाकर तरह-तरह के पौधे लगाए गए। सही समय पर पानी दिया गया। आज वहाँ एक सुंदर बग़ीचा है। इसलिए वहाँ सभी खेलने जाते हैं।

Std II level text



#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	n in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text				
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*		
2012	33.3	65.0	46.8	71.2	88.6	77.5		
2014	34.4	65.4	46.6	74.9	89.4	80.6		
2016	42.5	69.8	54.1	77.7	87.1	80.9		
2018	39.1	65.8	49.3	74.6	87.0	78.5		

\* This is the weighted average for children in government and private schools only.







### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018											
Std	Not even	Recognize	e numbers	Subtract	Divide	Total					
	1-9	1-9	10-99	oubliddt	Bindo	rotar					
I	56.6	30.7	10.4	1.8	0.5	100					
Ш	21.8	46.6	24.1	5.6	1.9	100					
	8.1	40.8	33.8	12.4	5.0	100					
IV	4.0	29.5	36.7	18.5	11.3	100					
V	2.2	18.8	32.3	23.4	23.3	100					
VI	1.5	13.6	31.4	24.7	28.9	100					
VII	1.2	9.5	30.2	25.1	34.1	100					
VIII	0.8	6.8	29.4	21.3	41.6	100					

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 8.1% cannot even recognize numbers 1-9, 40.8% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 33.8% can recognize numbers up to 99 but cannot do subtraction, 12.4% can do subtraction but cannot do division, and 5% can do division. For each grade, the total of these exclusive categories is 100%.

Arithmetic in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Chilo can do a	% Children in Std III who can do at least subtraction								
	Govt	Govt & Pvt*								
2012	6.2	36.6	18.8							
2014	8.7	36.6	21.5							
2016	11.0	35.4	21.5							
2018	8.1	32.2	17.4							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

Chart 4: Trends over time % Children who can do division

#### 100 90 80 70 Children 20 2010 2014 2016 2012 2018 °<sup>8</sup> 40 2016 2012 30 2008 2010 20 014 2012 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 20.4% and in Std VI (in 2010) was 50.2%. When the cohort reached Std VIII in 2012, this figure was 45.1%. The progress of each of these cohorts can be understood in the same way.

अंक पहचान 1—9	शंख्या पहचान 10-99	घटाव	भाग
3 7	65 38	41 64 - 13 - 48	7)928(
1 4	92 23	84 73 - 49 - 36	6)769(
8 2	47 72	56 31 - 37 - 13	8) 987 (
	54 87	45 53	
2 a	29 11	- 18 - 24	4) 519(

Arithmetic Tool (Hindi)

## Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

2012, 2	.014, 201		10				
Year	% Children in Std V who can do division % Children in Std VIII w						
	Govt	Pvt Govt & Pvt*		Govt	Pvt	Govt & Pvt*	
2012	9.9	36.4	21.2	35.0	63.1	45.1	
2014	12.0	41.3	23.6	38.3	63.7	48.3	
2016	15.6	45.5	28.2	39.3	61.2	46.8	
2018	14.1	38.1	23.3	34.3	57.8	41.6	

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

	Basic reading and an infinitetic												
Table 10: Basic gender 2018	: reading by	y age group	and		Table 11: Basic arithmetic by age group and gender 2018								
Age group	% Children who can read Std II level text		Age group	% Childre	en who can o subtraction	do at least	% Children who can do division						
	Male	Female	All			Male	Female	All	Male	Female	All		
Age 8-10	34.7	35.9	35.3		Age 8-10	32.7	29.4	31.2	14.8	11.8	13.4		
Age 11-13	66.7	65.7	66.2		Age 11-13	59.0	52.5	56.0	37.1	28.9	33.2		
Age 14-16	83.1	80.4	81.8		Age 14-16	70.3	62.5	66.5	52.1	43.3	47.8		

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018												
Age	Calc	ulating	time	Applying unitary method			Financial decision making			Calculating discount			
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
Age 14	35.0	39.6	37.2	36.4	34.1	35.3	26.9	28.6	27.7	13.3	14.1	13.7	
Age 15	25.7	31.6	28.4	44.5	35.6	40.5	23.9	22.1	23.1	14.0	12.3	13.3	
Age 16	45.5	33.6	38.6	39.3	35.6	37.2	31.2	29.8	30.4	20.0	14.9	17.0	
Age 14-16	33.9	35.5	34.7	39.9	35.0	37.4	26.8	27.0	26.9	15.0	13.8	14.4	

## Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	46.8	44.1	45.6	62.8	51.1	57.6	50.8	37.0	44.7	34.5	20.2	28.2
Age 15	52.5	46.8	50.1	63.4	54.1	59.5	44.6	45.8	45.1	30.3	26.5	28.7
Age 16	54.7	50.1	52.7	57.8	52.8	55.5	43.7	35.1	39.8	35.7	25.0	30.8
Age 14-16	51.0	46.8	49.2	61.7	52.6	57.7	46.6	39.4	43.5	33.3	23.7	29.1



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 33 OUT OF 33 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	290	146	210	172
Upper primary schools (Std I-VII/VIII)	606	757	709	665
Total schools visited	896	903	919	837

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018										
Primary schools (Std I-IV/V)	2010	2014	2016	2018						
% Enrolled children present (Average)	71.2	68.0	69.7	74.1						
% Teachers present (Average)	90.1	90.3	85.9	83.7						
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	73.6	68.6	71.8	75.4						
% Teachers present (Average)	88.0	87.0	87.1	86.5						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	65.6	89.0	87.7	86.8
% Schools where Std IV children were observed sitting with one or more other classes	53.6	79.3	83.6	83.4
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	66.0	76.3	69.3	68.9
% Schools where Std IV children were observed sitting with one or more other classes	52.3	63.4	58.0	54.0

### **School facilities**

Table 17: % School 2010, 20 <sup>-</sup>	Trends over time s with selected facilities 14, 2016 and 2018							
% Schools with 2010 2014								
Mid-day	Kitchen shed for cooking mid-day meal	83.8	89.8	90.8	92.8			
meal	Mid-day meal served in school on day of visit	94.8	82.7	91.8	95.1			
	No facility for drinking water	20.9	15.0	18.3	17.5			
Drinking	Facility but no drinking water available	11.1	11.6	11.6	9.7			
water	Drinking water available	68.0	73.4	70.1	72.8			
	Total	100	100	100	100			
	No toilet facility	3.5	2.0	1.2	1.3			
Toilot	Facility but toilet not useable	31.1	16.5	15.6	13.8			
TOHEL	Toilet useable	65.4	81.5	83.2	84.9			
	Total	100	100	100	100			
	No separate provision for girls' toilet	19.6	8.9	4.7	4.0			
Cirla	Separate provision but locked	13.3	5.5	5.1	3.6			
toilet	Separate provision, unlocked but not useable	16.8	12.0	10.5	11.5			
tonot	Separate provision, unlocked and useable	50.3	73.7	79.8	80.9			
	Total	100	100	100	100			
	No library	36.3	12.2	14.0	18.2			
Library	Library but no books being used by children on day of visit	40.4	48.9	45.8	47.7			
LIDIALY	Library books being used by children on day of visit	23.3	38.8	40.2	34.1			
	Total	100	100	100	100			
	Electricity connection			71.2	81.6			
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	icity		84.8	87.3			
	No computer available for children to use	84.3	66.2	65.1	61.4			
0	Available but not being used by children on day of visit	10.4	25.6	24.4	27.0			
Computer	Computer being used by children on day of visit	5.3	8.2	10.5	11.6			
	Total	100	100	100	100			







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018										
	2010	2014	2016	2018						
Primary schools (Std I-IV/V)	35.9	63.0	61.5	61.4						
Upper primary schools (Std I-VII/VIII)	2.0	9.2	7.0	6.3						

Table	19:	Physical	education	and sports	in schools 2018	

% Schools v	<i>v</i> ith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	43.4	71.5	65.8
Dedicated time for	No physical education period but dedicated time allotted	12.7	14.2	13.9
physical education	No physical education period and no dedicated time allotted	44.0	14.3	20.4
	Total	100	100	100
	Separate physical education teacher	8.8	62.0	51.5
Physical	Other physical education teacher	47.2	20.8	26.0
teacher	No physical education teacher	44.0	17.2	22.5
	Total	100	100	100
	Playground inside the school premises	64.2	72.9	71.2
Playaround	Playground outside the school premises	10.9	12.0	11.8
Flayground	No accessible playground	24.9	15.1	17.1
	Total	100	100	100
Availability of	of any sports equipment	39.8	72.1	65.4
Supervised p of visit	hysical education activity observed on day	20.6	26.7	25.4

Table 20: School Management Committee (SMC) in schools<br/>2014, 2016 and 20182014, 2016 and 2018201420162018% Schools which reported having an SMC97.998.299.1Of all schools that have an SMC, % schools that had the last SMC meeting97.997.997.9

Before July	2.3	1.0	0.5
Between July and September	93.2	77.1	79.2
After September	4.5	21.9	20.3







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 4 OUT OF 4 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Chi	dren enrolled in d	lifferent types (	of schools by
age group and	gender 2018		

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	68.6	30.7	0.0	0.7	100
Age 7-16: All	73.2	25.0	0.1	1.7	100
Age 7-10: All	56.4	43.2	0.0	0.5	100
Age 7-10: Boys	52.5	47.1	0.0	0.4	100
Age 7-10: Girls	59.8	39.6	0.0	0.6	100
Age 11-14: All	80.3	18.7	0.0	1.0	100
Age 11-14: Boys	76.8	22.1	0.0	1.1	100
Age 11-14: Girls	82.5	16.5	0.1	0.9	100
Age 15-16: All	85.9	9.0	0.2	4.9	100
Age 15-16: Boys	87.9	7.3	0.0	4.8	100
Age 15-16: Girls	84.5	10.0	0.4	5.1	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 55.1% as compared to 14.6% in Std VIII.

% Children not enrolled in school by age group and gender 2008, 2010, 2012, 2014, 2016 and 2018 40 35 30 25 Childrer 20 15 % 10 5 0 2008 2010 2012 2016 2018 2014 11 to 14 Boys — 11 to 14 Girls — 15 to 16 Boys — 15 to 16 Girls

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 13.3% in 2008, 5% in 2012, and 5.1% in 2018.

Table 2: Age-grade distribution % Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	19.8	34.6	36.0	9.1		0.4						100	
	II	4.8	15.2	41.8	27.8	7.7		2.7						100
		5.	1	16.1	38.8	26.1	10.3		3.7				100	
	IV		3.0		20.6	31.4	30.1	8.9	6.0				100	
	V	3.7 8.9					34.3	26.0	17.4	6.4		3.3		100
	VI			5.6			12.5	29.0	29.7	15.4	5.6	2.	.3	100
	VII	1.1					7.0	6.7	29.0	36.1	16.0	4.	.1	100
	VIII				4.5				7.7	29.0	32.5	18.5	7.8	100

This table shows the age distribution for each grade. For example, of all children in Std III, 38.8% children are 8 years old but there are also 16.1% who are 7, 26.1% who are 9, 10.3% who are 10, and 3.7% who are 11 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School			
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	59.6	11.3	24.6	3.6	0.2	0.0	0.7	100
Age 4	14.5	21.0	55.8	5.9	2.4	0.0	0.3	100
Age 5	1.5	20.3	54.1	11.3	12.0	0.0	0.8	100
Age 6	0.8	13.2	27.9	31.6	26.4	0.0	0.0	100
Age 7	0.0	3.4	6.6	40.2	49.5	0.0	0.4	100
Age 8	0.7	0.7	0.9	51.4	46.4	0.0	0.0	100



ASER 2018

Data is not presented where sample size is insufficient.



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Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	7.7	25.6	45.9	16.0	4.8	100				
II	5.7	14.3	38.2	25.3	16.5	100				
III	3.1	7.6	30.0	29.8	29.4	100				
IV	1.0	3.2	19.9	31.2	44.7	100				
V	0.2	4.6	17.9	35.6	41.7	100				
VI	1.0	1.7	12.6	26.5	58.1	100				
VII	0.0	3.7	3.3	26.5	66.6	100				
VIII	0.0	1.5	1.5	18.1	79.0	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 3.1% cannot even read letters, 7.6% can read letters but not words or higher, 30% can read words but not Std I level text or higher, 29.8% can read Std I level text but not Std II level text, and 29.4% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014, 2016 and 2018								
Year	% Children in Std III who can read Std II level text							
	Govt	Pvt	Govt & Pvt*					
2012			26.9					
2014	Da	ta	14.3					
2016	insuffi	cient	28.2					
2018			29.7					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 37% and in Std VI (in 2010) was 71.4%. When the cohort reached Std VIII in 2012, this figure was 93.5%. The progress of each of these cohorts can be understood in the same way.

Ctd Llo	
Sturre	vel text
Ravi i He has ma He loves He does not	s a boy. my friends to draw. t like to sin
Letters	Word
b s o k m y r h t x	ring ball cold clap fan girl
	Ravi i He has ma He loves He does not Letters

Reading Tool (English)

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text		
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*
2012			61.6			93.4
2014	Da	ta	43.4	Da	ta	91.3
2016	insuff	cient	42.5	insuff	icient	85.7
2018			41.7			78.9

\* This is the weighted average for children in government and private schools only.



Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018									
Std	Not even	Recognize	e numbers	Subtract	Divide	Total			
	1-9	1-9	10-99						
I	5.3	22.0	62.1	10.6	0.0	100			
	3.1	14.6	60.8	20.6	1.0	100			
	2.2	8.0	48.8	34.7	6.4	100			
IV	0.5	8.3	35.5	39.7	16.0	100			
V	1.0	5.5	25.7	55.4	12.5	100			
VI	0.8	3.0	28.2	34.5	33.5	100			
VII	0.0	2.8	17.2	44.0	35.9	100			
VIII	0.6	0.6	12.9	41.2	44.6	100			

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.2% cannot even recognize numbers 1-9, 8% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 48.8% can recognize numbers up to 99 but cannot do subtraction, 34.7% can do subtraction but cannot do division, and 6.4% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over time Arithmetic in Std III by school type 2012, 2014, 2016 and 2018							
Year	% Children in Std III who can do at least subtraction						
	Govt	Pvt	Govt & Pvt*				
2012			55.0				
2014	Da	ta	42.6				
2016	insuffi	cient	52.5				
2018			40.5				

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

Chart 4: Trends over time % Children who can do division

#### Cohorts of children in Std IV in 2008, 2010, 2012 and 2014 100 90 80 2012 70 2010 2014 Children 20 2016 2018 °<sup>8</sup> 40 2014 2016 2012 2008 30 2010 20 2014 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 29.6% and in Std VI (in 2010) was 66.6%. When the cohort reached Std VIII in 2012, this figure was 77.6%. The progress of each of these cohorts can be understood in the same way.

10-99	Subtraction	Division	
51 83	46 63 - 29 - 39	7)879(	
37 65	47 45 - 28 - 17	6)824(	
55 26	92 84 - 76 - 57	8) 985(	
91 43	52 66 - 14 - 48	4) 517(	
36 27	- 1448	4) 517(	
	10-99         51       83         37       65         55       26         91       43         36       27	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	

### Arithmetic Tool (English)

Table 9: Trends over time
Arithmetic in Std V and Std VIII by school type
2012 2014 2016 and 2018

	% Childre	en in Std V	who can	% Children in Std VIII who			
Year	c	do division	l	can do division			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	43.5		43.8	77.2		77.4	
2014	24.4		33.3	59.5		63.1	
2016	19.9		22.2	44.9		49.3	
2018	10.9		12.5	38.6		44.7	

\* This is the weighted average for children in government and private schools only.





Data is not presented where sample size is insufficient.

Basic reading and arithmetic											
Table 10: Basic reading by age group and gender 2018					Table 11: Basic arithmetic by age group and gender 2018						
Age group	% Children who can read Std II level text		Age group	% Children who can do at least subtraction			% Children who can do division				
	Male	Female	All			Male	Female	All	Male	Female	All
Age 8-10	36.8	37.5	37.1		Age 8-10	49.1	49.0	49.0	11.9	11.5	11.7
Age 11-13	55.3	69.6	62.5		Age 11-13	74.5	76.9	75.7	28.6	34.5	31.6
Age 14-16	88.1	84.8	86.2		Age 14-16	86.7	81.1	83.5	56.9	53.4	54.9

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018								
	Calculating time	Applying unitary	Financial decision	Calculating discour				

Age	Calculating time			method			making			Calculating discount		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14			25.0			34.2			25.0	_		18.9
Age 15	Da	ata	22.9	Da	ata	20.6	Da	ata	0.0	Da	ita	10.6
Age 16	insuff	icient	23.9	insuff	icient	17.6	insuff	icient	32.2	insuff	icient	26.7
Age 14-16			24.1			24.4			22.6			20.4

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	calc		Calculating time			Applying unitary method			Financial decision making			Calculating discount		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All		
Age 14			39.1			39.1			15.0			11.1		
Age 15	D	ata	29.4	Da	ata	48.2	Da	ata	11.3	Da	ita	31.2		
Age 16	insuff	icient	50.9	insuff	icient	40.4	insuff	icient	18.2	insuff	icient	22.0		
Age 14-16			41.6			41.8			15.5			20.5		



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 4 OUT OF 4 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	28	25	27	37
Upper primary schools (Std I-VII/VIII)	41	52	57	71
Total schools visited	69	77	84	108

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018										
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	83.7	83.6	87.7	84.5						
% Teachers present (Average)	80.4	87.5	86.8	81.1						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	9.0	17.6	28.6	23.6
% Schools where Std IV children were observed sitting with one or more other classes	9.2	18.3	25.6	20.2

### **School facilities**

Table 17: Trends over time% Schools with selected facilities2010, 2014, 2016 and 2018											
% Schools	with	2010	2014	2016	2018						
Mid-day	Kitchen shed for cooking mid-day meal	95.7	97.3	97.6	95.3						
meal	Mid-day meal served in school on day of visit	98.6	85.1	86.8	78.5						
	No facility for drinking water	11.6	15.6	16.9	15.1						
Drinking	Facility but no drinking water available	11.6	10.4	12.1	10.4						
water	Drinking water available	76.8	74.0	71.1	74.5						
	Total	100	100	100	100						
	No toilet facility	1.5	2.7	1.2	0.0						
Toilot	Facility but toilet not useable	39.1	24.3	21.4	17.6						
TOHEL	Toilet useable	59.4	73.0	77.4	82.4						
	Total	100	100	100	100						
	No separate provision for girls' toilet	17.2	10.6	1.3	3.7						
Cirle	Separate provision but locked	26.6	15.2	13.8	7.5						
toilet	Separate provision, unlocked but not useable	18.8	9.1	10.0	13.1						
tonot	Separate provision, unlocked and useable	37.5	65.2	75.0	75.7						
	Total	100	100	100	100						
	No library	55.9	44.7	42.7	47.7						
Library	Library but no books being used by children on day of visit	17.7	14.5	17.1	20.6						
LIDIALY	Library books being used by children on day of visit	26.5	40.8	40.2	31.8						
	Total	100	100	100	100						
	Electricity connection			86.8	87.9						
Electricity	Of schools with electricity connection, % schools with electr	icity		87.1	84.0						
	available off day of visit	<b>F71</b>	(1.0								
	Available but not being used by abildren on day of visit	00.9	57.1	01.0	24.2						
Computer	Available but not being used by children on day of VISIT	14.5	18.2	20.7	24.3						
	Computer being used by children on day of visit	24.6	24.7	18.3	9.4						
	10(a)	100	100	100	100						







Data is not presented where sample size is insufficient.

## Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018										
	2010	2014	2016	2018						
All schools (Std I-IV/V and Std I-VII/VIII)	23.2	26.7	39.8	53.3						

Table 19: Physical education and sports in schools 2018									
% Schools w	<i>v</i> ith	All schools (Std I-IV/V and Std I-VII/VIII)							
	Physical education period in the timetable	62.6							
Dedicated time for	No physical education period but dedicated time allotted	21.5							
physical education	No physical education period and no dedicated time allotted	15.9							
	Total	100							
	Separate physical education teacher	26.2							
Physical education	Other physical education teacher	45.8							
teacher	No physical education teacher	28.0							
	Total	100							
	Playground inside the school premises	88.0							
Dlavaround	Playground outside the school premises	4.6							
Flayground	No accessible playground	7.4							
	Total	100							
Availability of	of any sports equipment	79.4							
Supervised p of visit	hysical education activity observed on day	53.3							

Table 20: School Management Committee (SMC) in schools         2014, 2016 and 2018										
	2014	2016	2018							
% Schools which reported having an SMC	78.1	97.6	97.2							
Of all schools that have an SMC, % schools that had the last SMC meeting										
Before July	38.2	29.5	35.9							
Between July and September	54.6	41.0	43.7							
After September	7.3	29.5	20.4							







# Tamil Nadu, Telangana

# Tripura, Uttar Pradesh, Uttarakhand

West Bengal



ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 31 OUT OF 31 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in different	types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	67.4	32.1	0.2	0.3	100
Age 7-16: All	69.5	29.8	0.2	0.6	100
Age 7-10: All	64.4	35.4	0.1	0.0	100
Age 7-10: Boys	61.0	38.9	0.1	0.0	100
Age 7-10: Girls	67.8	32.0	0.1	0.0	100
Age 11-14: All	72.9	26.3	0.3	0.5	100
Age 11-14: Boys	70.2	28.8	0.2	0.8	100
Age 11-14: Girls	75.5	24.0	0.3	0.2	100
Age 15-16: All	73.9	23.7	0.1	2.3	100
Age 15-16: Boys	70.1	26.5	0.0	3.5	100
Age 15-16: Girls	76.9	21.5	0.2	1.4	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 40.1% as compared to 25.7% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 17.6% in 2006, 5.7% in 2012, and 1.4% in 2018.

Table 2: Age-grade distribution         % Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	32.8	56.8	7.8		2.5							100	
II	2.6	20.1	65.7	8.8	8.8 2.8						100		
111	1	.8	16.8	72.9	7.7 0.8						100		
IV		2.1		20.0	68.2	8.9	0.7						100
V		2	2.2		9.6	77.8	8.5	8.5 1.9					100
VI			1.6			10.6	71.7	14.6		1	.5		100
VII	1.7						11.8 71.2 14.1 1.2				100		
VIII				2.3				10.3	78.4	7.9	1.	.1	100

This table shows the age distribution for each grade. For example, of all children in Std III, 72.9% children are 8 years old but there are also 16.8% who are 7, 7.7% who are 9, and 0.8% who are 10 or older.

### Young children in pre-school and school

## Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School		Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	61.1	1.2	24.4	2.1	0.6	0.0	10.6	100
Age 4	42.6	1.9	47.2	1.9	2.5	0.0	3.8	100
Age 5	15.3	1.8	34.5	27.0	20.2	0.0	1.3	100
Age 6	1.4	0.1	4.1	51.3	42.9	0.1	0.2	100
Age 7	0.1	0.1	0.6	61.0	38.2	0.1	0.1	100
Age 8	0.2	0.0	0.3	61.6	37.8	0.1	0.0	100

ASER 2018

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level       All children 2018												
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total						
Ι	41.1	39.8	15.5	2.2	1.4	100						
II	13.8	29.8	39.7	13.0	3.7	100						
	6.4	17.1	39.8	26.5	10.2	100						
IV	4.0	7.9	27.5	34.5	26.1	100						
V	3.5	4.9	17.2	33.6	40.7	100						
VI	1.1	3.7	11.5	28.6	55.1	100						
VII	1.1	2.6	9.0	22.6	64.8	100						
VIII	0.4	2.0	6.9	17.5	73.2	100						

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 6.4% cannot even read letters, 17.1% can read letters but not words or higher, 39.8% can read words but not Std I level text or higher, 26.5% can read Std I level text but not Std II level text, and 10.2% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Children in Std III who can read Std II level text									
	Govt Pvt		Govt & Pvt*							
2012	8.5	8.4	8.4							
2014	16.8	14.4	15.9							
2016	20.2	13.5	17.7							
2018	11.6	7.6	10.2							

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 15.8% and in Std VI (in 2010) was 49.5%. When the cohort reached Std VIII in 2012, this figure was 65.8%. The progress of each of these cohorts can be understood in the same way.

Reading I	ool (Tamii)			
Std II level text	Std I le	vel text		
ஒரு mifio ஒரு ஏழை விவசாயி இருந்தார். அவரிடம் ஒரே ஒரு பானை இருந்தது. அதில் அவர் தினமும் விட்டிற்ற தண்ணீர் கொண்டு வருவார். ஒருநாள் அந்த பானையில் ஒரு ஒட்டை விழுந்து விட்டது.	ஒரு புலி மான மான் வேகம குகைக்குள் ஒ புலி ஏமாந்	ளத் துரத்தியது. மக ஒடியது. அடி மறைந்தது. து போனது.		
என்ன செய்வது என்று போரித்தார். அவர் தண்ணீர் கொண்டு வரும் பாதையில் பூ	Letters	Words		
வீதைகளை விதைத்தார். அந்த ஓட்டை பானைபிலிருந்து ஒழுகிய தீர்னம் அந்த விதைகள் நொகனாக வளந்தன. அழகான பூக்கள் மலந்தன.	Ся ж. е р ш 6 ф р с р	tena daa dana gana owawa dang fiana fiang fiana tinag fiana		

## Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	an % Children in Std VIII w can read Std II level tex					
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*			
2012	30.2	30.6	30.3	65.3	67.6	65.8			
2014	49.9	40.2	46.9	68.3	72.9	69.3			
2016	49.4	37.0	45.3	71.2	70.1	70.9			
2018	46.3	28.8	40.8	75.0	67.4	73.1			

\* This is the weighted average for children in government and private schools only.



#### Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level       All children 2018												
Std	Not even	Recognize	e numbers	Subtract	Divide	Total						
510	1-9	1-9	10-99	Jublidet	Divide	Total						
I	27.5	46.5	23.4	1.9	0.7	100						
	8.1	28.6	55.8	6.3	1.2	100						
	3.4	14.7	55.9	25.0	1.0	100						
IV	1.3	7.3	41.6	43.5	6.3	100						
V	1.1	3.8	32.2	37.4	25.4	100						
VI	0.5	2.0	26.2	34.8	36.5	100						
VII	0.4	1.6	22.9	31.7	43.4	100						
VIII	0.2	0.6	22.9	26.2	50.2	100						

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 3.4% cannot even recognize numbers 1-9, 14.7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 55.9% can recognize numbers up to 99 but cannot do subtraction, 25% can do subtraction but cannot do division, and 1% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018										
Year	% Children in Std III who can do at least subtraction									
	Govt	Pvt	Govt & Pvt*							
2012	14.4	23.6	17.6							
2014	20.4	31.2	24.3							
2016	24.2	25.7	24.8							
2018	23.6	30.0	25.9							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 Children 20 2018 2016 2014 °<sup>8</sup> 40 2012 014 2016 30 2010 2012 20 2014 10 010 2008 2012 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 5.5% and in Std VI (in 2010) was 27.3%. When the cohort reached Std VIII in 2012, this figure was 37.2%. The progress of each of these cohorts can be understood in the same way.

nimait aglipă 1-9	شوکور <del>است</del> 10 - 99	شوؤوره	வருத்தம்
3 7	65 38	41 64 - 13 - 48	7)928(
1 4	92 23	84 73 - 49 - 36	6)769(
8 2	47 72	56 31 - 37 - 13	8) 987 (
5 9	54 87	45 53 - 18 - 24	4) 519(
	29 11	<u>- 10</u> <u>- 24</u>	4) 519(

Arithmetic Tool (Tamil)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division							
	Govt	Pvt	t Govt & Govt Pvt		Govt & Pvt*						
2012	9.6	22.4	13.1	35.7	43.2	37.2					
2014	25.6	26.1	25.8	39.6	50.3	42.0					
2016	21.4	21.1	21.3	42.6	51.0	44.8					
2018	27.1	22.2	25.6	49.6	51.3	50.0					

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.

# Annual Status of Education Report

	Basic reading and arithmetic												
Table 10: Basic gender 2018	c reading b	y age group	and		Table 11: Basic arithmetic by age group and gender 2018								
Age group	% Children who can read Std II level text		Age group	% Children who can do at least subtraction			% Children who can do division						
0 0 1	Male	Female	All			Male	Female	All	Male	Female	All		
Age 8-10	22.4	32.4	27.6		Age 8-10	44.7	50.4	47.7	11.3	12.8	12.1		
Age 11-13	56.8	71.3	64.6		Age 11-13	72.1	77.2	74.9	39.3	47.4	43.7		
Age 14-16	80.0	87.8	84.4		Age 14-16	78.3	84.9	82.0	56.8	64.5	61.1		

## **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



## Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	39.7	38.5	39.1	50.3	48.5	49.4	30.4	27.4	28.9	22.4	17.7	20.1
Age 15	45.9	34.7	40.3	49.7	31.7	40.6	27.7	33.0	30.4	31.4	17.6	24.5
Age 16	44.9	35.5	38.9	32.2	28.4	29.8	28.6	35.6	33.0	34.5	13.9	21.4
Age 14-16	43.1	36.3	39.5	46.2	36.8	41.1	29.0	31.8	30.5	28.3	16.5	21.9

## Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	57.0	49.5	52.9	58.9	52.6	55.5	43.2	34.8	38.6	37.3	29.4	33.0
Age 15	56.1	52.6	54.0	60.6	53.3	56.1	43.1	42.8	42.9	36.3	36.5	36.4
Age 16	60.6	57.3	58.5	55.5	55.6	55.6	43.4	42.8	43.0	43.2	37.1	39.4
Age 14-16	57.9	53.4	55.2	58.3	53.9	55.7	43.2	40.3	41.5	38.9	34.5	36.3



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 31 OUT OF 31 DISTRICTS Data is not presented where sample size is insufficient.



### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	395	450	513	522
Upper primary schools (Std I-VII/VIII)	267	198	195	228
Total schools visited	662	648	708	750

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018						
Primary schools (Std I-IV/V)	2010	2014	2016	2018		
% Enrolled children present (Average)	89.9	89.5	90.9	91.1		
% Teachers present (Average)	86.5	91.7	91.8	93.9		
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018		
% Enrolled children present (Average)	90.7	87.7	90.9	91.0		
% Teachers present (Average)	79.9	87.8	85.8	91.4		

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	81.8	71.3	73.2	62.8
% Schools where Std IV children were observed sitting with one or more other classes	78.3	65.8	66.9	61.5
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	76.2	64.6	65.5	66.7
% Schools where Std IV children were observed sitting with one or more other classes	69.5	62.5	57.2	58.5

## **School facilities**

Table 17: % School: 2010, 20 <sup>-</sup>	Trends over time s with selected facilities 14, 2016 and 2018		_		
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	96.7	97.5	97.9	96.2
meal	Mid-day meal served in school on day of visit	99.4	99.8	99.2	98.7
	No facility for drinking water	12.8	9.9	10.7	9.7
Drinking	Facility but no drinking water available	6.7	10.3	7.0	10.1
water	Drinking water available	80.5	79.8	82.4	80.2
	Total	100	100	100	100
	No toilet facility	7.0	2.5	1.8	0.8
Toilet	Facility but toilet not useable	48.5	17.7	18.9	9.0
TOHEL	Toilet useable	44.6	79.8	79.3	90.2
	Total	100	100	100	100
	No separate provision for girls' toilet	20.8	13.0	5.9	3.9
Cirle	Separate provision but locked	23.0	9.1	9.0	3.9
GILIS' toilet	Separate provision, unlocked but not useable	21.0	9.2	9.0	6.0
tonot	Separate provision, unlocked and useable	35.1	68.7	76.2	86.2
	Total	100	100	100	100
	No library	20.9	13.5	15.7	16.2
Library	Library but no books being used by children on day of visit	21.3	34.2	23.7	31.4
LIDIALY	Library books being used by children on day of visit	57.8	52.3	60.6	52.4
	Total	100	100	100	100
	Electricity connection			97.7	97.9
Electricity Of schools with electricity connection, % schools with electric available on day of visit		icity		95.3	94.5
	No computer available for children to use	53.0	37.6	42.6	42.1
Computer	Available but not being used by children on day of visit	17.6	35.4	24.4	28.6
Computer	Computer being used by children on day of visit	29.4	27.1	33.1	29.3
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

## Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018						
	2010	2014	2016	2018		
Primary schools (Std I-IV/V)	38.4	46.4	45.8	49.8		
Upper primary schools (Std I-VII/VIII)	3.8	10.8	12.9	16.3		

Table 19: Physical education and sports in schools 2018	
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% Schools with		Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	78.9	89.7	82.2
Dedicated time for	No physical education period but dedicated time allotted	15.6	9.9	13.8
physical education	No physical education period and no dedicated time allotted	5.5	0.5	4.0
	Total	100	100	100
	Separate physical education teacher	3.9	12.0	6.4
Physical education teacher	Other physical education teacher	61.9	70.4	64.5
	No physical education teacher	34.1	17.7	29.1
	Total	100	100	100
	Playground inside the school premises	71.3	76.2	72.8
Playground	Playground outside the school premises	10.9	15.4	12.3
	No accessible playground	17.8	8.4	14.9
	Total	100	100	100
Availability of	of any sports equipment	70.2	80.9	73.5
Supervised p of visit	hysical education activity observed on day	37.6	40.0	38.3

Table 20: School Management Committee (SMC) in schools           2014, 2016 and 2018						
	2014	2016	2018			
% Schools which reported having an SMC	95.4	96.0	95.1			
Of all schools that have an SMC, % schools that had the last SMC meeting						
Before July	3.4	1.2	2.3			
Between July and September	62.1	40.8	74.2			
After September	34.5	57.9	23.5			






ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 9 OUT OF 9 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Table 1: % Children enrolled in differen	t types of schools by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	57.4	41.8	0.2	0.6	100
Age 7-16: All	58.4	40.1	0.2	1.4	100
Age 7-10: All	49.8	49.8	0.2	0.3	100
Age 7-10: Boys	46.3	53.3	0.2	0.3	100
Age 7-10: Girls	53.2	46.4	0.2	0.2	100
Age 11-14: All	65.5	33.3	0.2	1.0	100
Age 11-14: Boys	61.3	37.7	0.0	1.0	100
Age 11-14: Girls	69.9	28.7	0.5	0.9	100
Age 15-16: All	63.5	31.3	0.2	5.1	100
Age 15-16: Boys	64.7	30.8	0.4	4.1	100
Age 15-16: Girls	62.0	31.8	0.0	6.2	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 54.4% as compared to 24.7% in Std VIII.

Chart 1: Trends over time % Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 15.1% in 2006, 12.1% in 2012, and 6.2% in 2018.

Table 2: Age-grade distribution         % Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	22.0	35.3	30.6	9.2		3.0					100		
	II	5.0	10.9	39.4	30.0	10.3		4.4				100		
	III	2	.8	10.5	41.2	30.6	10.4	4.5				100		
	IV		2.2		12.2	43.1	31.0	8.3			3.3			100
	V		3	.8		11.2	44.5	26.7	7 11.3 2.5				100	
	VI	2.7				12.3	42.8	31.4	4 8.4 2.3			100		
	VII	2.3						11.0	49.7	24.5	9.6	3.	.0	100
	VIII				1.8				13.6	50.4	23.2	9.5	1.6	100

This table shows the age distribution for each grade. For example, of all children in Std III, 41.2% children are 8 years old but there are also 10.5% who are 7, 30.6% who are 9, 10.4% who are 10, and 4.5% who are 11 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

I									
		Pre	-school			School		Not in	
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total	
	Age 3	69.2	1.7	12.4	0.2	3.1	0.0	13.5	100
	Age 4	48.3	3.6	37.9	4.4	3.3	0.0	2.5	100
	Age 5	20.2	4.2	51.9	15.7	7.7	0.0	0.4	100
	Age 6	2.8	2.8	38.3	32.5	23.3	0.0	0.3	100
ĺ	Age 7	0.9	0.2	12.2	41.9	44.4	0.0	0.4	100
	Age 8	0.4	0.0	1.6	47.3	50.2	0.0	0.4	100

Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018										
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total				
Ι	24.2	38.7	30.8	3.9	2.5	100				
II	11.3	26.4	41.9	11.9	8.7	100				
	6.5	17.6	35.2	22.8	18.0	100				
IV	4.3	9.0	24.7	27.8	34.2	100				
V	2.1	6.5	18.9	28.8	43.7	100				
VI	1.4	6.0	16.3	25.4	50.9	100				
VII	1.8	2.2	14.5	17.0	64.4	100				
VIII	0.5	3.4	9.6	17.5	69.0	100				

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 6.5% cannot even read letters, 17.6% can read letters but not words or higher, 35.2% can read words but not Std I level text or higher, 22.8% can read Std I level text but not Std II level text, and 18% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018								
Year	% Children in Std III who can read Std II level text							
	Govt	Govt & Pvt*						
2012	18.2	25.9	21.6					
2014	12.2	30.6	19.9					
2016	14.9	22.5	18.6					
2018	12.6	24.4	18.1					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

		Cillure	sii ili siu		2000, 2	2010,	2012 011	u 2014
100								
90		2012						
80		-		2014		2016		
70	201	0				-		2018
dren 60		-	2012		201	4	20	16
ie 50		-		-		-		-
° 40	2008	-	2010		2012	-	2014	-
30		-	_			-		-
20		-	_			-		-
10		-	_			-		-
0								
	Cohoi	rt in	Cohort	in	Coho	rt in	Coho	ort in
	Std IV ir	ו 2008 ו	Std IV in	2010	Std IV i	า 2012	Std IV i	n 2014
			Std IV	Sto	I VI	Std V	VIII	

Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 41.8% and in Std VI (in 2010) was 67.4%. When the cohort reached Std VIII in 2012, this figure was 85.6%. The progress of each of these cohorts can be understood in the same way.

#### Reading Tool (Telugu)

Std II level text రమ, రాము అన్నా రెల్లెళ్ళు, రమ అంటే రాముకు ఎంతో ఇష్టం. ఒకరోజు రమ రాముతో ఆదుకుంటున్నది. రమ ఆదుతూ దోమల మందు చక్రం చూసింది, రమ చక్రంతో అదుకోవాలని అనుకుంది. చక్రం కావాలని అన్నయ్యను అదిగింది. అన్నయ్య ఇవ్వలేదని ఏడ్చింది. రాము కొంచెం సేష ఆలోచించాడు. అతనికి ఒక ఉపాయం తట్టింది. వెంటనే లోపలికి వెళ్ళి అమ్యను అదిగి ఒక చక్కిలం తెచ్చి చెల్లికి ఇచ్చాడు. చక్కిలం కూడా దోమల మందు చక్రుంలా గుండంగా ఉంది. రమ ధానిని తీసుకొని ఏడుపు అపింది. రమ, రాము కలిసి ఆదుకున్నారు.



### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	n in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	53.3	58.3	54.9	83.6	92.2	85.6	
2014	53.7	55.7	54.5	73.9	82.2	75.9	
2016	40.0	59.1	47.1	71.7	86.6	76.1	
2018	41.3	47.0	43.6	63.1	88.9	69.5	

\* This is the weighted average for children in government and private schools only.







#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018										
Std	Not even	Recognize	e numbers	Subtract	Divide	Total				
510	1-9	1-9	10-99	Jublidet	Divide	Total				
I	20.0	29.8	46.0	3.1	1.1	100				
	9.2	14.7	60.5	13.6	2.0	100				
	4.9	9.4	51.5	31.2	3.2	100				
IV	3.3	6.2	37.5	36.2	16.8	100				
V	1.8	3.9	28.5	38.8	27.1	100				
VI	1.6	0.7	30.6	32.6	34.6	100				
VII	2.7	1.3	20.0	33.4	42.6	100				
VIII	1.1	1.1	16.0	33.4	48.3	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 4.9% cannot even recognize numbers 1-9, 9.4% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 51.5% can recognize numbers up to 99 but cannot do subtraction, 31.2% can do subtraction but cannot do division, and 3.2% can do subtraction but categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018								
Year	% Children in Std III who can do at least subtraction							
	Govt	Govt & Pvt*						
2012	35.1	56.7	44.6					
2014	25.6	47.2	34.7					
2016	30.7	54.6	42.2					
2018	30.6	38.9	34.5					

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 2012 Children 20 2016 2018 2010 2014 °<sup>8</sup> 40 0142016 30 2010 2012 20 2008 2014 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 15.7% and in Std VI (in 2010) was 45%. When the cohort reached Std VIII in 2012, this figure was 61.6%. The progress of each of these cohorts can be understood in the same way.

అంకెడు గుర్తించంది 1-9	ಸಂಕೃಸ 10	0 Aŭĝođođ 0 + 99	4	రితేత	లాగపారం	
2 7	76	58	74 - 57	63 - 27	8) 993 (	
5 3	48	99	47 - 29	84 - 35	6) 758	
9 8	34	61	41 - 15	32 - 17	7) 865	
	46	25	31	68	.,,	
4 1	86	62	- 18	- 49	4) 658	

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	29.2	46.0	34.7	56.1	79.6	61.6				
2014	29.5	39.7	33.7	43.7	46.1	44.3				
2016	26.0	37.6	30.4	51.4	63.2	54.9				
2018	26.7	28.0	27.3	43.0	65.4	48.7				

\* This is the weighted average for children in government and private schools only.



Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014



Data is not presented where sample size is insufficient.

Basic reading and arithmetic											
Table 10: Basic reading by age group and       Table 11: Basic arithmetic by age group and gender 2018         gender 2018       Table 11: Basic arithmetic by age group and gender 2018											
Age group	% Children who can read Std II level text		Age group	% Children who can do at least subtraction			% Children who can do division				
	Male	Female	All			Male	Female	All	Male	Female	All
Age 8-10	21.8	30.1	26.2		Age 8-10	40.3	46.3	43.5	11.3	13.4	12.4
Age 11-13	54.4	64.0	59.4		Age 11-13	69.5	75.6	72.6	34.1	41.3	37.8
Age 14-16	75.4	83.0	79.3		Age 14-16	81.6	83.7	82.7	55.9	57.8	56.9

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018												
Calc		Calculating time		Applying unitary method		Financial decision making			Calculating discount			
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	34.4	40.4	37.8	28.2	46.9	38.8	10.9	18.2	15.1	7.7	13.7	11.1
Age 15	37.5	47.0	41.1	25.1	39.7	30.6	18.2	16.8	17.7	20.8	16.8	19.3
Age 16	35.4	21.6	27.1	36.1	36.2	36.2	0.0	25.8	15.6	16.8	16.1	16.4
Age 14-16	35.8	34.5	35.1	29.3	41.3	35.6	10.6	20.9	16.0	15.1	15.3	15.2

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time		Applying unitary method			Financial decision making			Calculating discount			
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	47.3	46.2	46.7	52.8	41.0	46.2	24.1	17.6	20.4	23.2	17.9	20.2
Age 15	40.7	42.2	41.5	41.2	36.7	38.8	15.0	22.0	18.8	27.7	21.3	24.2
Age 16	62.3	50.1	56.3	52.2	40.9	46.7	34.3	32.7	33.5	21.2	19.8	20.5
Age 14-16	49.8	45.8	47.7	48.7	39.5	43.8	24.2	23.2	23.7	24.1	19.6	21.7



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 9 OUT OF 9 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	200	203	210	196
Upper primary schools (Std I-VII/VIII)	58	61	55	63
Total schools visited	258	264	265	259

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018								
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018				
% Enrolled children present (Average)	67.9	70.4	75.4	74.9				
% Teachers present (Average)	82.3	77.2	82.1	84.7				

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	57.3	57.3	52.1	60.5
% Schools where Std IV children were observed sitting with one or more other classes	48.5	46.3	43.5	49.0

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-dav	Kitchen shed for cooking mid-day meal	71.0	76.1	80.8	86.4
meal	Mid-day meal served in school on day of visit	98.4	99.6	98.9	95.8
	No facility for drinking water	22.8	16.2	16.2	20.4
Drinking	Facility but no drinking water available	12.4	22.6	27.2	22.4
water	Drinking water available	64.8	61.2	56.6	57.2
	Total	100	100	100	100
	No toilet facility	23.4	13.0	1.9	3.5
Toilot	Facility but toilet not useable	38.1	22.7	23.4	19.5
TOHEL	Toilet useable	38.6	64.3	74.7	77.0
	Total	100	100	100	100
	No separate provision for girls' toilet	53.1	28.4	15.1	8.7
Cirla	Separate provision but locked	9.2	8.7	12.5	8.7
toilet	Separate provision, unlocked but not useable	12.3	8.7	8.3	10.7
tonet	Separate provision, unlocked and useable	25.4	54.2	64.2	71.9
	Total	100	100	100	100
	No library	8.0	2.8	13.4	22.4
Library	Library but no books being used by children on day of visit	14.4	31.6	28.0	22.0
LIDIALY	Library books being used by children on day of visit	77.6	65.6	58.6	55.7
	Total	100	100	100	100
	Electricity connection			89.1	86.4
Electricity	Of schools with electricity connection, % schools with electr	icity		81.3	86.9
	available on day of visit	00.7	045	07.0	00.5
	No computer available for children to use	90.7	86.5	87.8	89.5
Computer	Available but not being used by children on day of visit	3.0	/.9	/.6	/.4
•	Computer being used by children on day of visit	6.2	5.6	4.6	3.1
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018								
	2010	2014	2016	2018				
All schools (Std I-IV/V and Std I-VII/VIII)	17.2	19.7	26.8	34.8				

Table 19: Physical education and sports in schools 2018							
% Schools w	vith	All schools (Std I-IV/V and Std I-VII/VIII)					
	Physical education period in the timetable	62.7					
Dedicated time for physical education	No physical education period but dedicated time allotted	21.0					
	No physical education period and no dedicated time allotted	16.3					
	Total	100					
Physical	Separate physical education teacher	10.9					
	Other physical education teacher	49.2					
teacher	No physical education teacher	39.9					
	Total	100					
	Playground inside the school premises	77.0					
Playaround	Playground outside the school premises	6.2					
riayground	No accessible playground	16.7					
	Total	100					
Availability of	of any sports equipment	59.1					
Supervised p of visit	hysical education activity observed on day	36.1					

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018							
2014	2016	2018					
97.3	98.1	97.2					
Of all schools that have an SMC, % schools that had the last SMC meeting							
4.4	1.2	2.1					
46.3	55.6	44.6					
After September         49.4         43.2         53.3							
	5MC) in sc 2014 97.3 d the last SM 4.4 46.3 49.4	2014       2016         97.3       98.1         d the last SWC meeting         4.4       1.2         46.3       55.6         49.4       43.2					







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 4 OUT OF 4 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

U 15

Table 1: % Children enrolled	in different	types of s	schools by
age group and gender 2018			

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	85.2	13.9	0.5	0.4	100
Age 7-16: All	85.9	12.3	0.7	1.2	100
Age 7-10: All	79.9	19.7	0.0	0.3	100
Age 7-10: Boys	76.2	23.3	0.0	0.6	100
Age 7-10: Girls	83.4	16.5	0.0	0.1	100
Age 11-14: All	89.7	9.0	1.0	0.3	100
Age 11-14: Boys	86.2	11.4	2.1	0.2	100
Age 11-14: Girls	93.0	6.7	0.0	0.4	100
Age 15-16: All	88.9	5.1	1.1	4.9	100
Age 15-16: Boys	84.7	6.2	2.0	7.1	100
Age 15-16: Girls	94.9	3.9	0.0	1.2	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 22.2% as compared to 5.7% in Std VIII.

% Children not enrolled in school by age group and gender 2006, 2008, 2010, 2012, 2014, 2016 and 2018

Chart 1: Trends over time



1	4.1 48.1	42.5		5.3								
П	2.6	31.2	54.3	11.0		1.0						100
Ш	1.1 23.9			60.6	11.5		2.9					100
IV	4.9 15				67.5	9.5	.5 2.2					100
V	2.0				21.5	59.3	14.1	1 3.1				100
VI	4.1					23.5	59.6	10.8	.8 2.0			100
VII	2.1						18.7	63.4	<mark>14.1</mark> 1.8		100	
VIII		4.2						15.9	69.5	5.4	5.0	100

This table shows the age distribution for each grade. For example, of all children in Std III, 23.9% children are 8 years old but there are also 1.1% who are 7 or younger, 60.6% who are 9, 11.5% who are 10, and 2.9% who are 11 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

Age	Pre	-school			School		Not in	
	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	73.9	2.4	11.8	0.6	0.6	0.0	10.6	100
Age 4	67.4	0.0	29.1	0.0	0.0	0.0	3.5	100
Age 5	50.9	3.4	41.4	3.0	1.1	0.0	0.3	100
Age 6	24.4	0.5	26.7	41.5	5.8	0.0	1.1	100
Age 7	8.0	1.7	6.4	63.8	18.8	0.0	1.2	100
Age 8	0.9	2.0	0.3	71.3	25.6	0.0	0.0	100



Data is not presented where sample size is insufficient.



Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level       All children 2018												
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total						
Ι	18.0	43.2	23.6	11.8	3.4	100						
II	12.6	31.3	28.2	15.7	12.2	100						
III	7.1	19.4	26.6	21.3	25.6	100						
IV	2.7	16.4	27.6	25.5	27.7	100						
V	2.8	7.3	18.9	26.0	45.0	100						
VI	2.6	7.7	10.6	25.7	53.4	100						
VII	0.8	3.5	11.9	17.4	66.4	100						
VIII	0.0	2.5	10.9	18.4	68.3	100						

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 7.1% cannot even read letters, 19.4% can read letters but not words or higher, 26.6% can read words but not Std I level text or higher, 21.3% can read Std I level text but not Std II level text, and 25.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Children in Std III who can read Std II level text									
	Govt	Govt & Pvt*								
2012	15.7		16.8							
2014	25.6		24.4							
2016	27.3		28.0							
2018	25.3		25.6							

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 22.8% and in Std VI (in 2010) was 58%. When the cohort reached Std VIII in 2012, this figure was 65.8%. The progress of each of these cohorts can be understood in the same way.

### Reading Tool (Bengali)

তিথি ৰাড়ির একমাত্র মেয়ে। বাবা মা তাকে খুব ভালোবাসেন। সে মাছ খেতে ভালোবাসে। ওর বাবা রোজ বাড়িতে মাছ আনেন। তিথি তখন মায়ের পাশে ঘুরঘুর করতে থাকে। মাছ তেলে ছাড়া হলেই তার মন খুশিতে তরে যায়। তিথি একসাথে তিন চারটে মাছ ভাজা খেয়ে নেয়। বাবা তিথিকে নিয়ে বাজারে যান। মাঝে মাঝে বাজার থেকে বাবা ইলিশ মাছও আনেন। সেদিন তিথির খুশির সীমা থাকে না।

Std II level text

আজ মাঠে ৫ রানা আর মাল সাথে যাবে ফ ওরা সবাই ভি	মলা বসেছে। । মেলায় যাবে। ।া আর বাবা। হলিপি খাবে।				
Letters	Words				
ন প ম চ স থ গ দ	বাষ নোট নালা দিন চুন কৌটা রানী				
র ল	দেশ ভোট বডো				

Std I level text

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text							
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*					
2012	36.5		36.8	65.7		66.0					
2014	45.2		45.7	75.0		74.3					
2016	49.0		51.0	75.1		75.3					
2018	45.9		45.2	68.3		68.3					

\* This is the weighted average for children in government and private schools only.



#### Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014





#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level       All children 2018													
Std	Not even	Recognize	e numbers	Subtract	Divide	Total							
Jiu	1-9	1-9	10-99	Jubliaci	Divide	Total							
I	12.9	50.8	29.9	4.4	1.9	100							
	9.9	37.2	39.1	11.5	2.3	100							
	2.9	23.7	38.6	28.6	6.2	100							
IV	0.6	24.4	38.1	24.7	12.1	100							
V	1.3	13.7	37.1	28.7	19.2	100							
VI	0.4	5.1	47.8	25.3	21.5	100							
VII	0.0	6.1	34.3	37.2	22.4	100							
VIII	0.0	5.2	33.8	30.3	30.7	100							

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.9% cannot even recognize numbers 1-9, 23.7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 38.6% can recognize numbers up to 99 but cannot do subtraction, 28.6% can do subtraction but cannot do division, and 6.2% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018										
Year	% Children in Std III who can do at least subtraction									
	Govt	Govt & Pvt*								
2012	28.0		29.6							
2014	35.8		38.4							
2016	33.0		36.0							
2018	33.1		34.8							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 Children 20 2010 2014 2012 °<sup>8</sup> 40 2016 2018 2012 30 2014 2010 2016 20 012 2008 2012 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 11.7% and in Std VI (in 2010) was 51.8%. When the cohort reached Std VIII in 2012, this figure was 42.9%. The progress of each of these cohorts can be understood in the same way.

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Arithmetic Tool (Bengali)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2014 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	20.5		20.8	42.2		42.7				
2014	20.8		22.6	45.1		46.2				
2016	17.3		19.9	33.5		32.9				
2018	16.6		19.1	30.6		31.0				

\* This is the weighted average for children in government and private schools only.



Chart 4: Trends over time % Children who can do division



Data is not presented where sample size is insufficient.

	Basic reading and arithmetic												
Table 10: Basic reading by age group andgender 2018					Table 11: Basic arithmetic by age group and gender 2018								
Age group	% Children who can read Std II level text				Age group	% Childre	en who can o subtraction	do at least	% Children who can do division				
	Male	Female	All			Male	Female	All	Male	Female	All		
Age 8-10	23.9	27.0	25.5		Age 8-10	33.2	33.0	33.1	9.4	8.6	9.0		
Age 11-13	54.4	56.7	55.5		Age 11-13	51.7	50.6	51.2	22.0	19.4	20.7		
Age 14-16	66.4	81.4	74.1		Age 14-16	59.3	67.0	63.2	31.1	36.4	33.8		

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018												
Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount			
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
Age 14	27.6	15.0	20.0	27.0	11.5	17.6	26.7	21.8	23.7	12.3	2.4	6.3	
Age 15	23.5	29.3	26.0	25.1	32.0	28.0	5.2	34.6	17.7	13.1	10.1	11.8	
Age 16	20.1	26.7	24.1	20.1	28.7	25.4	12.9	11.8	12.2	12.9	24.2	19.8	
Age 14-16	24.1	21.9	22.9	24.5	21.6	22.9	15.2	21.3	18.6	12.8	11.2	11.9	

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Finan	Financial decision making			Calculating discount		
0	Male	Female	All	Male	Female	e         AII         Male         Female         AII         Male         Female           46.2         15.2         29.9         24.5         27.6         27.4	All						
Age 14	44.2	37.8	40.1	52.6	42.5	46.2	15.2	29.9	24.5	27.6	27.4	27.5	
Age 15	35.1	13.5	23.7	64.2	29.5	45.9	31.2	19.5	25.0	55.2	8.4	30.5	
Age 16	44.0	52.3	47.9	45.7	33.3	39.8	27.1	28.4	27.7	30.1	61.5	44.9	
Age 14-16	41.1	34.0	37.1	54.2	36.5	44.4	24.4	26.5	25.5	37.6	29.7	33.2	



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 4 OUT OF 4 DISTRICTS Data is not presented where sample size is insufficient.



### School observations

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	44	58	75	45
Upper primary schools (Std I-VII/VIII)	54	47	36	70
Total schools visited	98	105	111	115

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018									
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	64.7	70.9	72.1	63.1					
% Teachers present (Average)	84.6	87.7	87.4	81.8					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	39.6	43.7	41.8	53.5
% Schools where Std IV children were observed sitting with one or more other classes	22.2	29.9	20.2	27.4

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	2016	2018			
Mid-day	Kitchen shed for cooking mid-day meal	88.2	97.1	99.1	98.3
meal	Mid-day meal served in school on day of visit	74.7	97.1	98.2	96.5
	No facility for drinking water	32.6	33.3	29.1	39.5
Drinking	Facility but no drinking water available	27.4	10.5	11.8	14.9
water	Drinking water available	40.0	56.2	59.1	45.6
	Total	100	100	100	100
	No toilet facility	8.6	3.9	4.5	6.1
Toilet	Facility but toilet not useable	48.4	37.5	29.7	40.9
	Toilet useable	43.0	58.7	65.8	53.0
	Total	100	100	100	100
	No separate provision for girls' toilet	48.5	20.0	39.0	37.4
Cirle	Separate provision but locked	15.2	17.1	12.0	20.6
toilet	Separate provision, unlocked but not useable	6.1	5.7	9.0	9.4
tonot	Separate provision, unlocked and useable	30.3	57.1	40.0	32.7
	Total	100	100	100	100
	No library	64.6	40.0	50.0	58.8
Library	Library but no books being used by children on day of visit	15.6	16.2	10.9	11.4
LIDIAIY	Library books being used by children on day of visit	19.8	43.8	39.1	29.8
	Total	100	100	100	100
	Electricity connection			38.0	51.3
Electricity	Of schools with electricity connection, % schools with electr	icity		90.0	82.1
	available on day of visit				
	No computer available for children to use	91.5	92.2	89.9	95.6
Computer	Available but not being used by children on day of visit	3.2	3.9	8.3	3.5
1	Computer being used by children on day of visit	5.3	3.9	1.8	0.9
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time % Schools with total enrollment of 2010, 2014, 2016 and 2018	f 60 or less	5		
	2010	2014	2016	2018
All schools (Std I-IV/V and Std I-VII/VIII)	9.4	21.9	24.6	28.7

Table 19: Physical education and sports in schools 2018								
% Schools v	vith	All schools (Std I-IV/V and Std I-VII/VIII)						
	Physical education period in the timetable	36.6						
Dedicated time for	No physical education period but dedicated time allotted	23.2						
physical education	No physical education period and no dedicated time allotted	40.2						
	Total	100						
	Separate physical education teacher	9.3						
Physical education	Other physical education teacher	39.8						
teacher	No physical education teacher	50.9						
	Total	100						
	Playground inside the school premises	85.7						
Playaround	Playground outside the school premises	3.6						
Tayground	No accessible playground	10.7						
	Total	100						
Availability of	of any sports equipment	54.9						
Supervised p of visit	hysical education activity observed on day	15.0						

Table 20: School Management Committee (SMC) in schools         2014, 2016 and 2018									
	2014	2016	2018						
% Schools which reported having an SMC	96.2	99.1	99.1						
Of all schools that have an SMC, % schools that ha	ad the last SN	1C meeting							
Before July	17.7	8.3	11.6						
Between July and September	76.0	47.7	87.5						
After September	6.3	44.0	0.9						







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 70 OUT OF 71 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

age group and gender 2018										
Age group	Govt	Pvt	Other	Not in school	Total					
Age 6-14: All	44.3	49.7	1.3	4.9	100					
Age 7-16: All	40.7	51.3	1.2	6.9	100					
Age 7-10: All	48.1	47.7	1.4	2.8	100					
Age 7-10: Boys	44.2	51.7	1.4	2.7	100					
Age 7-10: Girls	52.6	43.1	1.5	2.8	100					
Age 11-14: All	38.5	54.3	1.1	6.2	100					
Age 11-14: Boys	35.8	58.2	1.0	5.0	100					
Age 11-14: Girls	41.5	49.9	1.2	7.4	100					
Age 15-16: All	27.5	52.8	0.6	19.1	100					

54.4

51.2

0.5

0.8

16.0

22.2

100

100

'Other' includes children going to Madarsa or EGS.

Age 15-16: Boys

Age 15-16: Girls

'Not in school' includes children who never enrolled or have dropped out.

29.2

25.8



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 51.7% as compared to 51.1% in Std VIII.

2006, 2008, 2010, 2012, 2014, 2016 and 2018 40 35 30 25 Children 20 15 % 10 5 0 2006 2012 2016 2018 2008 2010 2014 11 to 14 Boys — 11 to 14 Girls — 15 to 16 Boys — 15 to 16 Girls

% Children not enrolled in school by age group and gender

Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 25.6% in 2006, 26.5% in 2012, and 22.2% in 2018.

Table 2: Age-grade distribution         % Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	27.8	29.7	19.8	12.7				10	0.0	.0			100
	II	6.0	14.1	27.3	26.1	11.2	8.6			6	6.7			100
	Ш	5	.8	12.3	29.5	19.4	17.9	6.1	5.7		3.4			100
	IV		6.4		15.0	21.7	27.7	11.9	11.3		6.0			100
	V		2.1		5.7	10.0	30.3	20.5	18.0	7.8	<mark>7.8</mark> 5.7			100
	VI		!	5.2			16.0	23.5	30.8	14.8 6.0 3.7			100	
	VII			2.0			6.8	10.9	32.7	26.4 12.6 6.1 2.4			100	
	VIII		6.2 18.1 31.5 24.3 13.5 6.5						100					

This table shows the age distribution for each grade. For example, of all children in Std III, 29.5% children are 8 years old but there are also 12.3% who are 7, 19.4% who are 9, 17.9% who are 10, 6.1% who are 11, 5.7% who are 12, and 3.4% who are 13 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

I		Pre	-school			School	Not in		
	Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
	Age 3	19.2	0.4	12.5	1.9	1.2	0.2	64.7	100
	Age 4	19.2	1.2	26.4	6.5	4.1	0.4	42.3	100
	Age 5	11.1	1.0	32.2	24.3	12.8	0.6	18.0	100
	Age 6	3.3	0.4	24.2	39.4	25.3	0.9	6.4	100
ĺ	Age 7	1.0	0.3	13.4	44.6	35.9	1.2	3.6	100
	Age 8	0.4	0.2	5.3	45.5	44.8	1.6	2.3	100

ASER 2018

Data is not presented where sample size is insufficient.



Words

टेश

आग ताला

गिर

मौका

पैसा

सोच

पानी

धुन

बुढा

Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level       All children 2018											
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	47.2	32.3	9.4	5.3	5.9	100					
II	24.0	33.7	15.4	10.5	16.5	100					
III	15.1	27.2	15.7	14.0	28.1	100					
IV	9.8	19.5	12.5	15.8	42.3	100					
V	7.8	14.6	10.9	14.8	52.0	100					
VI	5.0	11.1	8.2	15.1	60.6	100					
VII	3.3	8.4	6.9	13.3	68.1	100					
VIII	2.6	6.7	6.0	11.0	73.7	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 15.1% cannot even read letters, 27.2% can read letters but not words or higher, 15.7% can read words but not Std I level text or higher, 14% can read Std I level text but not Std II level text, and 28.1% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Reading in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Children in Std III who can read Std II level text									
	Govt Pvt		Govt & Pvt*							
2012	6.5	31.5	18.8							
2014	6.0	36.0	21.7							
2016	7.2	36.6	22.6							
2018	12.3	45.4	28.3							

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

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90								
80								
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20				_		_		-
10				_				-
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	Col	nort in	Coho	ort in	Cohort	in	Cohoi	t in
	Std IV	/ in 2008	B Std IV i	n 2010	Std IV in	2012	Std IV ir	n 2014
			Std IV	Sto	d VI	Std V	11	

Chart 3: Trends over time % Children who can read Std II level text

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 30.4% and in Std VI (in 2010) was 60.6%. When the cohort reached Std VIII in 2012, this figure was 69.7%. The progress of each of these cohorts can be understood in the same way.

#### Std II level text Std I level text नगमा समझदार लडकी थी। रात हो गई है। मगर उसका छोटा भाई अमन चाँद दिख रहा है। बहुत नटखट था। एक दिन दोनों तारे भी चमक रहे हैं। बाज़ार में घूम रहे थे। अमन ने सब लोग सो गए हैं। रास्ते में पकौड़े देखे। उसे पकौड़े Letters बहुत पसंद थे। माँ उसके लिए पकौडे बनाती थी। नगमा ने कहा न ч यह पकौड़े तीखे होंगे। मगर अमन स नहीं माना। अमन ने पकौडे खाए ग ਰ और उसकी आँखों से आँसू निकलने लगे। ल

**Reading Tool (Hindi)** 

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text				
	Govt	Pvt	Pvt Govt & Pvt*		Pvt	Govt & Pvt*		
2012	25.6	59.6	42.7	57.3	81.8	69.7		
2014	26.8	61.4	44.6	59.3	81.9	70.9		
2016	24.3	61.2	43.1	56.3	78.6	67.9		
2018	36.2	68.8	52.4	62.0	85.0	73.8		

\* This is the weighted average for children in government and private schools only.







#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018										
Std	Not even	Recognize	e numbers	Subtract	Divide	Total				
510	1-9	1-9	10-99	Jublidet	Divide	Total				
I	38.7	38.2	18.1	3.8	1.2	100				
	15.5	41.0	28.1	10.9	4.5	100				
	9.5	33.2	30.7	15.2	11.4	100				
IV	5.8	23.7	30.3	19.3	20.9	100				
V	4.6	17.7	27.9	20.2	29.7	100				
VI	2.8	12.4	28.7	20.6	35.4	100				
VII	2.0	11.0	27.2	20.9	38.9	100				
VIII	1.3	7.7	26.9	19.7	44.4	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 9.5% cannot even recognize numbers 1-9, 33.2% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 30.7% can recognize numbers up to 99 but cannot do subtraction, 15.2% can do subtraction but cannot do division, and 11.4% can do division. For each grade, the total of these exclusive categories is 100%.

Arithmetic in Std III by school type 2012, 2014, 2016 and 2018										
Year	% Children in Std III who can do at least subtraction									
	Govt Pvt		Govt & Pvt*							
2012	6.7	32.0	19.1							
2014	6.6	38.5	23.3							
2016	7.9	37.5	23.4							
2018	11.2	43.7	26.9							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 Children 20 2014 2018 °<sup>8</sup> 40 2010 2012 2016 2014 30 2016 2012 20 2008 2014 2010 2012 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 15.5% and in Std VI (in 2010) was 37.8%. When the cohort reached Std VIII in 2012, this figure was 36.6%. The progress of each of these cohorts can be understood in the same way.



Arithmetic Tool (Hindi)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2014 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt Pvt		Govt & Pvt*				
2012	9.1	33.3	21.3	24.4	48.4	36.6				
2014	12.1	38.7	25.8	30.5	56.6	43.9				
2016	10.4	34.6	22.7	25.5	48.4	37.4				
2018	17.0	42.9	29.8	32.0	56.5	44.6				

\* This is the weighted average for children in government and private schools only.



Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



Table 10: Basic reading by age group and gender 2018Table 11: Basic arithmetic by age group and gender 2018													
Age group	% Chi	Idren who ca Std II level tex	an read kt		Age group	% Childr	% Children who can do at least subtraction			% Children who can do division			
	Male	Female	All			Male	Female	All	Male	Female	All		
Age 8-10	32.2	32.7	32.4		Age 8-10	33.1	28.0	30.6	16.8	13.3	15.1		
Age 11-13	61.5	58.6	60.1		Age 11-13	59.0	49.3	54.2	40.1	29.0	34.6		
Age 14-16	77.5	72.4	74.8		Age 14-16	71.0	56.5	63.4	53.9	37.3	45.1		

**Basic reading and arithmetic** 

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



Table 12: Of all children who can do subtraction but not division, % children who can correctly answer by age and gender 2018												
Age	Calculating time			Applying unitary method		Financial decision making			Calculating discount			
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	32.1	29.7	30.8	36.0	31.2	33.4	21.7	23.9	22.9	11.0	8.4	9.6
Age 15	38.4	28.2	32.5	39.5	32.0	35.2	26.2	20.6	23.0	15.4	8.3	11.3
Age 16	31.5	27.8	29.3	40.1	31.1	34.8	26.6	26.6	26.6	18.1	10.0	13.4
Age 14-16	34.1	28.6	31.0	38.3	31.4	34.4	24.6	23.6	24.0	14.5	8.8	11.3

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calculating time			Applying unitary method			Financial decision making			Calculating discount		
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	46.9	43.3	45.4	54.0	44.6	50.0	39.2	33.8	36.9	29.5	22.0	26.3
Age 15	50.8	42.3	47.2	57.0	44.2	51.6	40.0	34.0	37.4	31.9	23.7	28.4
Age 16	50.7	42.5	46.9	55.3	48.2	52.0	38.4	36.2	37.4	36.9	28.0	32.8
Age 14-16	49.3	42.7	46.4	55.4	45.6	51.1	39.3	34.6	37.2	32.4	24.4	28.9



ASER 2018

ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 70 OUT OF 71 DISTRICTS Data is not presented where sample size is insufficient.



#### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over timeNumber of schools visited2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	1633	1543	1757	1606
Upper primary schools (Std I-VII/VIII)	263	428	209	392
Total schools visited	1896	1971	1966	1998

Student and teacher attendance on the day of visit 2010, 2014, 2016 and 2018										
Primary schools (Std I-IV/V)	2010	2014	2016	2018						
% Enrolled children present (Average)	57.6	55.1	56.0	59.9						
% Teachers present (Average)	81.0	84.7	85.6	85.2						
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018						
% Enrolled children present (Average)	57.6	54.7	55.8	59.5						
% Teachers present (Average)	79.8	85.6	83.0	87.0						

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
Primary schools (Std I-IV/V)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	51.4	63.7	64.7	63.8
% Schools where Std IV children were observed sitting with one or more other classes	46.5	60.8	59.4	60.4
Upper primary schools (Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	48.4	59.7	47.1	55.4
% Schools where Std IV children were observed sitting with one or more other classes	42.0	53.0	44.8	52.7

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	89.3	96.0	96.5	95.4
meal	Mid-day meal served in school on day of visit	71.3	93.9	91.2	93.3
	No facility for drinking water	6.9	2.5	5.4	3.3
Drinking	Facility but no drinking water available	10.9	11.7	12.6	11.5
water	Drinking water available	82.2	85.8	82.0	85.1
	Total	100	100	100	100
	No toilet facility	6.7	4.2	4.7	3.0
Toilet	Facility but toilet not useable	45.9	40.9	40.5	24.4
TOHEL	Toilet useable	47.4	54.9	54.8	72.7
	Total	100	100	100	100
	No separate provision for girls' toilet	24.9	12.3	10.5	8.4
Cirle	Separate provision but locked	25.3	18.6	16.6	6.5
toilet	Separate provision, unlocked but not useable	15.9	20.0	21.5	17.9
tonot	Separate provision, unlocked and useable	33.9	49.1	51.5	67.2
	Total	100	100	100	100
	No library	51.4	25.5	28.5	36.9
Library	Library but no books being used by children on day of visit	25.8	38.4	28.8	27.5
LIDIALY	Library books being used by children on day of visit	22.9	36.2	42.8	35.7
	Total	100	100	100	100
	Electricity connection			52.0	66.5
Electricity	Of schools with electricity connection, % schools with electr available on day of visit	tricity connection, % schools with electricity isit			
	No computer available for children to use	98.6	97.8	97.3	96.7
Computer	Available but not being used by children on day of visit	1.1	1.9	2.1	2.6
Computer	Computer being used by children on day of visit	0.3	0.3	0.6	0.7
	Total	100	100	100	100







Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018								
	2010	2014	2016	2018				
Primary schools (Std I-IV/V)	5.3	11.2	13.5	12.4				
Upper primary schools (Std I-VII/VIII)	0.4	1.4	2.4	2.3				

Table 19: Physical education and sports in schools 201	8
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% Schools v	vith	Std I-IV/ V	Std I-VII/ VIII	All schools
	Physical education period in the timetable	61.7	70.0	63.3
Dedicated time for	No physical education period but dedicated time allotted	23.8	21.8	23.4
physical education	No physical education period and no dedicated time allotted	14.5	8.2	13.3
	Total	100	100	100
	Separate physical education teacher	5.0	15.6	7.1
Physical education teacher	Other physical education teacher	72.9	66.9	71.7
	No physical education teacher	22.1	17.5	21.2
	Total	100	100	100
	Playground inside the school premises	69.6	80.8	71.8
Playaround	Playground outside the school premises	12.9	11.4	12.6
Playground	No accessible playground	17.5	7.8	15.6
	Total	100	100	100
Availability of	of any sports equipment	55.2	64.8	57.1
Supervised p of visit	hysical education activity observed on day	24.9	33.8	26.6

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018								
	2014	2016	2018					
% Schools which reported having an SMC	97.2	93.7	96.7					
Of all schools that have an SMC, % schools that had the last SMC meeting								
Before July	7.3	2.6	2.2					
Between July and September	77.5	57.1	64.5					
After September	15.2	40.3	33.4					







ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 13 OUT OF 13 DISTRICTS Data is not presented where sample size is insufficient.



#### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in different types of school	bls by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	55.0	42.7	0.8	1.5	100
Age 7-16: All	57.1	39.7	0.8	2.4	100
Age 7-10: All	49.4	48.6	1.2	0.8	100
Age 7-10: Boys	48.0	50.4	1.0	0.6	100
Age 7-10: Girls	50.9	46.6	1.5	0.9	100
Age 11-14: All	60.0	37.6	0.4	2.0	100
Age 11-14: Boys	55.5	42.3	0.5	1.8	100
Age 11-14: Girls	65.2	32.3	0.3	2.2	100
Age 15-16: All	66.1	26.5	0.6	6.9	100
Age 15-16: Boys	62.8	29.7	0.4	7.1	100
Age 15-16: Girls	69.7	22.9	0.8	6.6	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 49.8% as compared to 34.6% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 13.8% in 2006, 8.8% in 2012, and 6.6% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018													
Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
I	28.6	35.7	22.4	8.4		4.9						100	
II	4.1	12.9	37.2	27.7	9.3	5.0		3.8					100
III	3	.3	13.0	37.8	28.2	10.5	7.2				100		
IV		3.2		12.3	30.7	33.0	12.8	12.8 5.3 2.6				100	
V		4	l.1		10.0	38.8	3 <mark>25.1 14.1 6.0</mark> 1.7				100		
VI	3.0				11.2	33.9	33.1	11.9	5.3	1.	.6	100	
VII	5.0			11.9	39.8	29.2	9.8	4.	.4	100			
VIII	5.6						17.2	38.9	25.5	10.9	1.9	100	

This table shows the age distribution for each grade. For example, of all children in Std III, 37.8% children are 8 years old but there are also 13% who are 7, 28.2% who are 9, 10.5% who are 10, and 7.2% who are 11 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre-school				School	Not in		
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	51.8	0.3	21.6	0.8	1.7	0.3	23.4	100
Age 4	45.5	1.8	38.0	2.7	2.1	0.6	9.4	100
Age 5	16.7	1.5	46.0	20.2	10.4	0.9	4.3	100
Age 6	5.1	0.6	25.4	37.5	29.5	0.6	1.4	100
Age 7	0.0	0.2	10.2	46.8	40.0	1.3	1.5	100
Age 8	0.2	0.1	3.3	44.0	50.7	1.0	0.8	100

ASER 2018

Data is not presented where sample size is insufficient.



द्वा

किला

जूता

मौका

#### Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018									
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total			
Ι	29.9	37.0	17.9	8.9	6.3	100			
II	11.6	26.3	22.1	18.7	21.3	100			
III	6.3	18.2	19.1	21.9	34.5	100			
IV	3.4	9.4	13.3	21.5	52.4	100			
V	2.9	7.5	8.4	16.9	64.3	100			
VI	2.2	4.3	6.0	14.3	73.2	100			
VII	1.7	3.7	2.6	13.2	78.8	100			
VIII	1.1	2.1	2.6	10.5	83.8	100			

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 6.3% cannot even read letters, 18.2% can read letters but not words or higher, 19.1% can read words but not Std I level text or higher, 21.9% can read Std I level text but not Std II level text, and 34.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014, 2016 and 2018								
Year	% Children in Std III who can read Std II level text							
	Govt	Pvt	Govt & Pvt*					
2012	20.7	48.8	31.7					
2014	23.3	51.7	35.3					
2016	25.3	54.1	38.2					
2018	24.7	43.3	34.5					

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 49% and in Std VI (in 2010) was 80%. When the cohort reached Std VIII in 2012, this figure was 83.8%. The progress of each of these cohorts can be understood in the same way.

Std II level text	Std I le	vel text
सावन का महीना था। आसमान में बहुत काले-काले बादल छाए थे। ठंडी-ठंडी हवा चल रही थी। मुझे झूला झूलने का मन किया। बड़े भैया एक मोटी सी रस्सी	बग़ीचे में पेड़ पर एक तोते का वह लाल टम्	एक पेड़ है। तोता रहता है। रंग हरा है। गटर खाता है।
लेकर बाहर आए। भैया ने रस्सी	Letters	Words
को पेड़ से लटकाकर झूला बनाया। सब ने मिलकर खूब झूला झूला। बाकी बच्चे भी आकर मज़े से झूलने लगे। झूलते-झूलते रात हो गई।	ल प स क ग ड ब म ट झ	लाल कू पैर तेल किल मोर जूत युल पानी मौक

**Reading Tool (Hindi)** 

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, Ž014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	52.2	70.1	58.1	81.7	89.9	83.9	
2014	52.0	75.0	60.3	77.3	90.7	81.2	
2016	55.9	73.7	63.6	79.4	86.7	81.4	
2018	58.0	72.8	64.6	81.6	87.7	83.7	

\* This is the weighted average for children in government and private schools only.



Chart 3: Trends over time % Children who can read Std II level text Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic level         All children 2018										
Std	Not even	Recognize	e numbers	Subtract	Divide	Total				
510	1-9	1-9	10-99	Jublidet	Divide	Total				
I	26.8	34.7	34.1	4.4	0.1	100				
II	8.4	32.1	43.7	14.2	1.6	100				
	4.6	22.4	40.7	23.9	8.4	100				
IV	2.8	14.1	41.3	22.9	19.0	100				
V	1.4	10.9	27.2	23.0	37.5	100				
VI	1.4	8.3	31.0	22.1	37.3	100				
VII	0.4	5.1	27.6	24.1	42.8	100				
VIII	0.5	2.6	27.2	21.2	48.6	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 4.6% cannot even recognize numbers 1-9, 22.4% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 40.7% can recognize numbers up to 99 but cannot do subtraction, 23.9% can do subtraction but cannot do division, and 8.4% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018										
Year	% Chilo can do a	Iren in Std III who at least subtraction								
	Govt	Pvt	Govt & Pvt*							
2012	23.4	58.0	37.1							
2014	17.2	45.8	29.3							
2016	23.4	53.3	36.8							
2018	18.5	45.2	32.6							

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.

#### 100 90 80 70 2010 09 Children 2012 2012 2014 2018 2016 °<sup>8</sup> 40 2014 2016 2010 30 2008 2012 2014 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 25% and in Std VI (in 2010) was 68%. When the cohort reached Std VIII in 2012, this figure was 57.4%. The progress of each of these cohorts can be understood in the same way.

अंक पहचान 1—9	रांख्या पहचान 10-99	घट	ra)	भाग
1 4	51 83	46 _ 29	63 - 39	7)879(
7 3	37 65	47 - 28	45 - 17	6) 824(
6 9	55 26	92 - 76	84 - 57	8) 985 (
5 2	91 43	52 - 14	66 - 48	1) 517(
	30 27			19317

Arithmetic Tool (Hindi)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division						
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*				
2012	27.3	50.1	34.9	50.2	76.7	57.4				
2014	21.4	46.1	30.3	38.1	70.6	47.7				
2016	25.5	51.6	36.8	38.5	66.5	45.9				
2018	26.7	50.9	37.5	41.6	62.7	48.7				

\* This is the weighted average for children in government and private schools only.



#### Chart 4: Trends over time % Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.



All

16.2

40.9

51.0

	Dasie reading and artificate											
Table 10: Basic reading by age group and         gender 2018					Table 11: Basi	c arithmetic	c by age gro	oup and gei	nder 2018			
Age group	% Children who can read Std II level text				Age group	% Children who can do at least subtraction			% Children who can do division			
	Male	Female	All			Male	Female	All	Male	Female		
Age 8-10	42.3	48.7	45.3	-	Age 8-10	39.4	37.7	38.6	17.3	14.9		
Age 11-13	71.7	78.5	74.9		Age 11-13	64.5	61.9	63.3	40.7	41.1		
Age 14-16	85.4	87.5	86.4	_	Age 14-16	75.6	66.5	71.2	59.8	41.5	!	

**Basic reading and arithmetic** 

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018											
Age	Calculating time		time	Applying unitary method		Financial decision making			Calculating discount			
0	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	26.6	38.4	33.4	29.4	40.1	35.6	24.0	33.8	29.7	5.2	9.3	7.6
Age 15	28.1	27.9	28.0	48.8	22.0	32.3	32.2	29.1	30.3	12.4	6.8	8.9
Age 16	46.4	36.8	40.4	41.8	29.8	34.3	35.3	30.9	32.6	25.4	11.2	16.6
Age 14-16	32.7	34.5	33.8	38.8	31.2	34.2	29.7	31.4	30.7	13.1	9.1	10.7

#### Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calc	ulating	time	Applying unitary method		itary	Financial decision making			Calculating discount		
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	42.4	37.1	40.2	55.7	46.9	52.1	44.2	37.9	41.6	31.3	14.9	24.6
Age 15	46.7	48.6	47.4	53.8	46.1	50.9	44.0	46.4	44.9	32.0	17.1	26.4
Age 16	53.3	40.8	48.3	61.2	49.8	56.7	45.1	49.9	47.0	33.7	24.4	30.0
Age 14-16	47.1	42.2	45.2	56.6	47.5	53.0	44.4	44.3	44.3	32.2	18.4	26.8



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 13 OUT OF 13 DISTRICTS Data is not presented where sample size is insufficient.



#### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	321	297	317	286
Upper primary schools (Std I-VII/VIII)	16	4	7	10
Total schools visited	337	301	324	296

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018									
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018					
% Enrolled children present (Average)	89.7	80.2	82.4	82.9					
% Teachers present (Average)	90.9	81.0	79.7	86.2					

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	61.9	80.1	76.9	75.9
% Schools where Std IV children were observed sitting with one or more other classes	57.0	76.9	74.6	71.9

### **School facilities**

Table 17: % School 2010, 20	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-dav	Kitchen shed for cooking mid-day meal	96.3	97.3	95.6	98.0
meal	Mid-day meal served in school on day of visit	95.0	92.3	95.0	88.1
	No facility for drinking water	22.1	17.7	14.0	13.2
Drinking	Facility but no drinking water available	9.7	13.0	14.0	11.2
water	Drinking water available	68.3	69.2	72.1	75.6
	Total	100	100	100	100
	No toilet facility	5.8	5.0	2.8	1.7
Toilot	Facility but toilet not useable	40.9	25.8	22.3	12.5
TOHEL	Toilet useable	53.4	69.2	74.9	85.8
	Total	100	100	100	100
	No separate provision for girls' toilet	47.7	26.2	17.3	17.8
Cirle	Separate provision but locked	11.5	8.8	10.0	5.1
toilet	Separate provision, unlocked but not useable	16.9	11.3	11.3	9.9
tonet	Separate provision, unlocked and useable	24.0	53.7	61.3	67.2
	Total	100	100	100	100
	No library	52.3	14.1	13.0	15.3
Librory	Library but no books being used by children on day of visit	27.2	49.0	45.7	58.6
LIDIALY	Library books being used by children on day of visit	20.4	36.9	41.3	26.1
	Total	100	100	100	100
	Electricity connection			83.6	86.3
Electricity	Of schools with electricity connection, % schools with electr available on day of visit		74.3	74.8	
	No computer available for children to use	93.3	91.2	90.4	90.2
Computer	Available but not being used by children on day of visit	5.2	6.8	7.1	9.1
Computer	Computer being used by children on day of visit	1.5	2.0	2.5	0.7
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

### Other school indicators

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018									
	2010	2014	2016	2018					
All schools (Std I-IV/V and Std I-VII/VIII)	69.0	76.7	75.0	73.1					

#### Table 19: Physical education and sports in schools 2018 All schools % Schools with (Std I-IV/V and Std I-VII/VIII) Physical education period in the timetable 59.2 No physical education period but Dedicated 25.6 dedicated time allotted time for physical No physical education period and 15.2 education no dedicated time allotted Total 100 Separate physical education teacher 7.5 Physical Other physical education teacher 70.4 education teacher No physical education teacher 22.1 Total 100 Playground inside the school premises 68.8 Playground outside the school premises 11.5 Playground No accessible playground 19.7 Total 100 Availability of any sports equipment 50.5 Supervised physical education activity observed on day 22.0 of visit

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018									
	2014	2016	2018						
% Schools which reported having an SMC	98.3	98.7	97.0						
Of all schools that have an SMC, % schools that ha	nd the last SN	1C meeting							
Before July	9.9	7.3	7.1						
Between July and September	71.7	33.0	61.8						
After September	18.4	59.7	31.1						









ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 17 OUT OF 18 DISTRICTS Data is not presented where sample size is insufficient.



### School enrollment

Chart 1: Trends over time

Table 1: % Children enrolled in different types of school	bls by
age group and gender 2018	

Age group	Govt	Pvt	Other	Not in school	Total
Age 6-14: All	88.1	7.9	1.9	2.0	100
Age 7-16: All	87.8	6.5	2.1	3.6	100
Age 7-10: All	85.5	12.5	1.0	1.1	100
Age 7-10: Boys	84.5	12.9	1.2	1.5	100
Age 7-10: Girls	86.4	12.2	0.7	0.7	100
Age 11-14: All	91.8	2.8	3.1	2.4	100
Age 11-14: Boys	90.7	3.1	2.7	3.5	100
Age 11-14: Girls	92.8	2.5	3.4	1.3	100
Age 15-16: All	84.1	1.9	2.4	11.7	100
Age 15-16: Boys	76.8	2.8	1.3	19.2	100
Age 15-16: Girls	90.9	1.1	3.3	4.8	100

'Other' includes children going to Madarsa or EGS.

'Not in school' includes children who never enrolled or have dropped out.



The proportion of children going to private school often varies by grade. There are also changes over time. For example, in 2018 private school enrollment in Std II is 16.7% as compared to 2.2% in Std VIII.



Each line shows trends in the proportion of children not enrolled in school for a particular subset of children. For example, the proportion of girls (age 15-16) not enrolled in school was 24.9% in 2006, 13.8% in 2012, and 4.8% in 2018.

Table 2: Age-grade distribution% Children in each grade by age 2018														
	Age Std	≤5	6	7	8	9	10	11	12	13	14	15	16	Total
	I	16.2	31.9	37.7	11.2				3	.0				100
	II	2.1	6.4	26.6	47.7	10.8				6.4				100
		1.	8	7.0	25.9	45.8	17.0				2.5			100
	IV		6.6			22.3	54.9	11.9			4.3			100
	V		3	8.1			31.1	45.2	16.0		4	.5		100
	VI	6.2 24.3				47.5	14.8		7.3		100			
	VII		1.6 7.3 39					39.1	37.3	11.2	3.	6	100	
	VIII				1.4				9.3	38.2	36.1	10.7	4.2	100

This table shows the age distribution for each grade. For example, of all children in Std III, 25.9% children are 8 years old but there are also 7% who are 7, 45.8% who are 9, 17% who are 10, and 2.5% who are 11 or older.

#### Young children in pre-school and school

### Table 3: % Children age 3-8 enrolled in different types of pre-schools and schools 2018

	Pre	-school			School	Not in		
Age	Anganwadi	Govt LKG/ UKG	Pvt LKG/ UKG	Govt	Pvt	Other	school or school	Total
Age 3	72.7	0.8	5.1	2.0	0.7	0.0	18.8	100
Age 4	69.6	1.5	14.1	3.7	1.0	0.3	9.9	100
Age 5	44.0	9.6	21.5	16.8	3.0	0.0	5.1	100
Age 6	14.2	14.0	16.5	44.8	7.0	0.5	3.1	100
Age 7	2.8	2.8	5.4	77.2	10.3	0.5	1.0	100
Age 8	0.8	1.2	4.0	78.8	13.8	0.4	1.0	100



Data is not presented where sample size is insufficient.



#### Reading

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 4: % Children by grade and reading level         All children 2018											
Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total					
Ι	24.8	33.3	22.8	10.9	8.2	100					
II	10.3	20.6	24.6	21.0	23.5	100					
	8.3	16.0	16.3	19.4	40.0	100					
IV	7.4	13.0	16.1	21.5	42.0	100					
V	5.1	9.8	13.2	21.2	50.7	100					
VI	5.3	8.7	14.7	16.8	54.6	100					
VII	2.3	8.8	10.6	19.6	58.7	100					
VIII	3.0	6.1	10.9	18.3	61.8	100					

The reading tool is a progressive tool. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 8.3% cannot even read letters, 16% can read letters but not words or higher, 16.3% can read words but not Std I level text or higher, 19.4% can read Std I level text but not Std II level text, and 40% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 5: Trends over timeReading in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can read Std II level text								
	Govt	Govt & Pvt*							
2012	26.1		28.1						
2014	32.9		36.3						
2016	34.0		38.5						
2018	36.6		40.0						

The highest level in the ASER reading assessment is a Std II level text. Table 5 shows the proportion of children in Std III who can read Std II level text. This figure is a proxy for "grade level" reading for Std III. Data for children enrolled in government schools and private schools is shown separately.

\* This is the weighted average for children in government and private schools only.



This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who could read Std II level text in Std IV (in 2008) was 37% and in Std VI (in 2010) was 66.3%. When the cohort reached Std VIII in 2012, this figure was 76.7%. The progress of each of these cohorts can be understood in the same way.

Reading To	ool (Bengali)	
Std II level text	Std I le	vel text
খড়িয়া গ্রামে একটা বড়ো খেলার মাঠ আছে। রোজ বিকেলে ছেলে মেয়েরা খেলতে আসে। কেউ ফুটবল খেলে, কেউ দৌড়াদৌড়ি করে। মাঝে মাঝে খেলার আয়োজন হয় বড়ো করে।	রাজা দাদা খুব ও রোজ খুব ব্যাট বল নি তারপর ফিরে দ	। ভালো খেলে। ভোরে ওঠে। য়ে মাঠে যায়। নদা পড়তে বসে
তথন সবাই মাঠের ধারে আলো লাগায়। বেজারি ধারের বাঁজি নিয়ে। সার্চার	Letters	Words
দেশায় থাকেন খানে দিয়ে। নাচেয় চারধারে কতলোক জড়ো হয়। লোকে খেলা দেখে, হাততালি দেয়। যে দল খেলায় জেতে, তাদের নিয়ে সবাই হই-চই করে। শেষে মিষ্টি খাওয়া হয়।	হ চ ট ল ন ফ ম র স ত	ভুল আত ডোজ রাগী পৃত্ত আলো মাসি লোভ বেল নৌব

#### Table 6: Trends over time Reading in Std V and Std VIII by school type 2012, Ž014, 2016 and 2018

Year	% Childre read	en in Std V Std II level	who can text	% Children in Std VIII who can read Std II level text			
	Govt	Pvt	Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	48.7		48.9	76.9		76.7	
2014	51.8		53.1	76.3		76.3	
2016	50.2		51.1	72.3		72.7	
2018	50.5		51.3	63.0		62.9	

\* This is the weighted average for children in government and private schools only.



### Chart 3: Trends over time % Children who can read Std II level text

Data is not presented where sample size is insufficient.



#### Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

Table 7: % Children by grade and arithmetic levelAll children 2018										
Std	Not even	Recognize	e numbers	Subtract	Divide	Total				
510	1-9	1-9	10-99	Jublidet	Divide	Total				
I	20.4	43.1	25.8	8.2	2.5	100				
	6.7	33.2	33.3	18.0	8.9	100				
	4.2	24.5	32.9	20.3	18.2	100				
IV	4.1	19.6	33.6	21.7	21.1	100				
V	2.8	13.6	34.5	19.4	29.7	100				
VI	2.8	10.3	38.5	17.0	31.4	100				
VII	1.0	10.0	40.2	16.9	31.8	100				
VIII	1.7	7.4	46.8	15.5	28.7	100				

The arithmetic tool is a progressive tool. Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 4.2% cannot even recognize numbers 1-9, 24.5% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 32.9% can recognize numbers up to 99 but cannot do subtraction, 20.3% can do subtraction but cannot do division, and 18.2% can do division. For each grade, the total of these exclusive categories is 100%.

Table 8: Trends over timeArithmetic in Std III by school type2012, 2014, 2016 and 2018									
Year	% Children in Std III who can do at least subtraction								
100	Govt Pvt Govt & Pvt*								
2012	25.1		28.2						
2014	33.0		36.2						
2016	35.5		40.4						
2018	35.4		38.6						

In most states, children are expected to do 2-digit by 2-digit subtraction with borrowing by Std II. Table 8 shows the proportion of children in Std III who can do subtraction. This figure is a proxy for "grade level" arithmetic for Std III. Data for children enrolled in government schools and private schools is shown separately.

This is the wei government and private schools only.

Chart 4: Trends over time

#### 100 90 80 70 Children 20 2010 2012 °<sup>%</sup> 40 2014 2014 2016 2012 2016 2018 30 2010 2008 2014 20 10 0 Cohort in Cohort in Cohort in Cohort in Std IV in 2008 Std IV in 2010 Std IV in 2012 Std IV in 2014 Std IV Std VI Std VIII

This graph shows the progress of four cohorts from Std IV to Std VIII. For example, the first cohort was in Std IV in 2008, in Std VI in 2010, and in Std VIII in 2012. For this cohort, % children who were at division level in Std IV (in 2008) was 23.6% and in Std VI (in 2010) was 50.7%. When the cohort reached Std VIII in 2012, this figure was 43.5%. The progress of each of these cohorts can be understood in the same way.

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	85         85           88         83           88         84           89         84	10     10     - (4)     - 29       8b     55     89     58       08     55     - 30       85     20     - 50       85     20     - 50       95     20     - 50       95     20     - 50       95     20     - 50       95     20     - 50

Arithmetic Tool (Bengali)

#### Table 9: Trends over time Arithmetic in Std V and Std VIII by school type 2012, 2014, 2016 and 2018

Year	% Childre	en in Std V do division	who can	% Children in Std VIII who can do division			
	Govt Pvt		Govt & Pvt*	Govt	Pvt	Govt & Pvt*	
2012	28.7		29.2	43.0		43.5	
2014	31.3		32.5	40.4		40.8	
2016	28.6		29.7	32.5		32.7	
2018	29.2		29.7	28.9		29.1	

\* This is the weighted average for children in government and private schools only.



			Pvt*	(			
2012	25.1		28.2	i			
2014	33.0		36.2	i			
2016	35.5		40.4	1			
2018	35.4		38.6	(			
* This is the weighted average for children in							

% Children who can do division Cohorts of children in Std IV in 2008, 2010, 2012 and 2014

Data is not presented where sample size is insufficient.

## Annual Status of Education Report

Basic reading and antimetic											
Table 10: Basic reading by age group and gender 2018					Table 11: Basic arithmetic by age group and gender 2018						
Age group	% Chi	Idren who ca Std II level tex	an read kt		Age group	% Children who can do at least subtraction			% Children who can do division		
	Male	Female	All			Male	Female	All	Male	Female	All
Age 8-10	35.2	39.3	37.4		Age 8-10	37.2	38.7	38.0	17.6	18.6	18.1
Age 11-13	52.7	59.9	56.7		Age 11-13	48.8	48.3	48.5	31.5	29.9	30.6
Age 14-16	60.3	69.1	65.3		Age 14-16	52.2	49.4	50.6	33.3	30.8	31.9

### **Beyond basics**

These questions were asked only to children in the age group 14-16. For each task, the surveyor showed the visual and read out the question to the child. The exact answer given by the child was recorded. The results are reported only for those children who were able to do at least subtraction correctly.



can corre	can correctly answer by age and gender 2018											
Age	Calc	ulating	time	Applying unitary method		Financial decision making			Calculating discount			
Ŭ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	38.1	36.2	37.1	43.2	39.8	41.5	41.5	31.9	36.7	18.7	14.0	16.3
Age 15	37.6	40.6	39.5	44.6	41.1	42.4	47.9	31.2	37.3	32.6	26.5	28.8
Age 16	56.0	19.4	35.5	64.8	37.2	49.4	37.4	24.5	30.2	47.1	6.8	24.5
Age 14-16	42.0	34.2	37.6	48.6	39.7	43.6	42.6	29.9	35.5	29.5	17.6	22.8

Table 13: Of all children who can do division, % children who can correctly answer by age and gender 2018

Age	Calc	ulating	time	Applying unitary method		Financial decision making			Calculating discount			
Ũ	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Age 14	45.4	46.7	46.0	56.0	55.2	55.6	45.9	45.5	45.7	41.2	31.1	36.0
Age 15	59.5	49.9	54.0	69.5	50.7	58.6	51.5	48.2	49.6	53.6	41.8	46.7
Age 16	43.7	41.5	42.4	55.4	54.1	54.6	48.3	42.4	44.8	48.2	41.6	44.3
Age 14-16	49.4	46.4	47.7	60.0	53.3	56.3	48.2	45.6	46.8	46.7	37.7	41.7



ANALYSIS BASED ON DATA FROM GOVERNMENT SCHOOLS. 17 OUT OF 18 DISTRICTS Data is not presented where sample size is insufficient.



#### **School observations**

In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 14: Trends over time Number of schools visited 2010, 2014, 2016 and 2018				
	2010	2014	2016	2018
Primary schools (Std I-IV/V)	406	443	442	437
Upper primary schools (Std I-VII/VIII)	2	13	4	4
Total schools visited	408	456	446	441

Table 15: Trends over timeStudent and teacher attendance on the day of visit2010, 2014, 2016 and 2018						
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018		
% Enrolled children present (Average)	68.5	55.8	60.1	54.9		
% Teachers present (Average)	85.6	80.3	82.9	76.7		

Table 16: Trends over time Multigrade classes 2010, 2014, 2016 and 2018				
All schools (Std I-IV/V and Std I-VII/VIII)	2010	2014	2016	2018
% Schools where Std II children were observed sitting with one or more other classes	42.4	47.1	43.8	46.0
% Schools where Std IV children were observed sitting with one or more other classes	33.6	36.3	44.0	38.8

### **School facilities**

Table 17: % School 2010 201	Trends over time s with selected facilities 14, 2016 and 2018				
% Schools	with	2010	2014	2016	2018
Mid-day	Kitchen shed for cooking mid-day meal	86.3	95.4	93.2	94.0
meal	Mid-day meal served in school on day of visit	63.4	66.7	67.4	81.6
	No facility for drinking water	19.3	13.9	11.9	8.0
Drinking	Facility but no drinking water available	13.5	7.7	9.7	10.7
water	Drinking water available	67.2	78.4	78.4	81.3
	Total	100	100	100	100
	No toilet facility	7.6	2.2	0.7	0.7
Toilot	Facility but toilet not useable	40.3	27.0	22.4	18.2
TOHEL	Toilet useable	52.1	70.8	76.9	81.1
	Total	100	100	100	100
	No separate provision for girls' toilet	44.5	30.8	16.8	14.5
Cirle	Separate provision but locked	14.5	18.8	13.2	12.2
toilet	Separate provision, unlocked but not useable	17.4	3.6	7.0	5.7
tonet	Separate provision, unlocked and useable	23.7	46.9	63.0	67.7
	Total	100	100	100	100
	No library	50.5	33.7	41.7	33.9
Library	Library but no books being used by children on day of visit	17.8	22.7	12.2	27.7
LIDIALY	Library books being used by children on day of visit	31.8	43.6	46.2	38.4
	Total	100	100	100	100
	Electricity connection			94.3	97.7
Electricity	Of schools with electricity connection, % schools with electr available on day of visit		89.3	91.0	
	No computer available for children to use	98.7	98.0	95.9	93.3
Computer	Available but not being used by children on day of visit	0.8	0.4	2.9	5.5
Computer	Computer being used by children on day of visit	0.5	1.5	1.1	1.2
	Total	100	100	100	100









In each sampled village, the largest government school with primary sections is visited on the day of the survey. Information about schools in this report is based on these visits.

Table 18: Trends over time% Schools with total enrollment of 60 or less2010, 2014, 2016 and 2018							
	2010	2014	2016	2018			
All schools (Std I-IV/V and Std I-VII/VIII)	10.1	23.3	23.3	20.2			

Table 19: Physical education and sports in schools 2018							
% Schools v	vith	All schools (Std I-IV/V and Std I-VII/VIII)					
	Physical education period in the timetable	62.7					
Dedicated time for physical education	No physical education period but dedicated time allotted	22.4					
	No physical education period and no dedicated time allotted	14.9					
	Total	100					
Physical	Separate physical education teacher	2.8					
	Other physical education teacher	70.9					
teacher	No physical education teacher	26.3					
	Total	100					
	Playground inside the school premises	52.9					
Playaround	Playground outside the school premises	27.7					
riayground	No accessible playground	19.5					
	Total	100					
Availability of	of any sports equipment	54.3					
Supervised p of visit	hysical education activity observed on day	17.3					

Table 20: School Management Committee (SMC) in schools2014, 2016 and 2018			
	2014	2016	2018
% Schools which reported having an SMC	33.2	51.7	50.3
Of all schools that have an SMC, % schools that had the last SMC meeting			
Before July	33.9	14.9	19.8
Between July and September	65.4	72.9	79.7
After September	0.8	12.2	0.5



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## **Divisional estimates**



# Divisional estimates of learning outcomes and schooling status: precision of ASER estimates

Every year since 2005, ASER has presented estimates of learning and schooling status at the state and district level. The survey design of ASER is based on the premise of generating estimates at the district level, which is desirable since education plans are made at this level. As a result, ASER is one of the largest sample-based surveys conducted in India, with a sample size of approximately 650,000 children in the age group of 3-16 years.

ASER is a household survey, undertaken in almost all rural districts of India. Within each district, 30 villages are randomly chosen.<sup>1</sup> In each village, 20 households are randomly selected for a total of 600 households per district. All children in the age group of 3-16 years who regularly live in the sampled households are recorded in the survey. This translates into 900-1,200 children per district.<sup>2</sup>

The statistical precision of district level estimates is an issue because of the ASER sample design - namely clustering and absence of stratification at the village level. In a design without clustering, children in the relevant age group would be directly sampled. Not only is this expensive (in terms of survey time), it is also difficult to have a reliable population frame that could be used for sampling. Instead, ASER employs a two-stage clustering design. The first stage clustering happens when villages are randomly picked. The second stage clustering is when households within a village are randomly selected and the children belonging to that household are tested.

While this is an inexpensive and practical way of sampling children, it is well known that clustering increases the variability of estimates. One way of increasing precision at the district level would have been to stratify the village sample according to age of children or school type. However, this would require a prior house list, which is expensive to generate in terms of both time and resources.

The ASER sample is stratified, however, at the district level. Insofar as outcomes within a district are more homogenous than across districts, stratification within the district leads to more precise estimates at the state level.

Ramaswami and Wadhwa (2009)<sup>3</sup> studied the precision of ASER state and district level estimates for a selection of states and variables for the year 2008. They found that state level averages are estimated precisely, with a margin of error of 5% or less. However, district-level estimates are less precisely estimated. The precision varies across states and districts, and also according to the learning outcome. In both cases, learning outcomes of children in Std III-V are relatively less precisely estimated than those of children in Std VI-VIII.

Two commonly used measures of precision are the margin of error and the 95% confidence interval.

The margin of error is the % interval around the point estimate that almost certainly contains the population estimate (i.e., with 95% probability). For instance, if x is the margin of error, then the population proportion lies within  $\pm x\%$  of the sample proportion with 95% probability.

Suppose  $\hat{p}$  is the estimated sample proportion and is  $\hat{\sigma}$  the associated standard error. From statistical theory, it is known that the interval [ $\hat{p} \pm 2\hat{\sigma}$ ] contains the population proportion with 95% probability - 95% confidence interval. The margin of error expresses the confidence interval in terms of the sample estimate. It is thus defined as

$$me = \frac{2\hat{\sigma}}{\hat{p}}$$

A margin of error of 10% is regarded as an acceptable degree of precision in many studies (United Nations, 2005).<sup>4</sup> Estimates with a margin of error in excess of 20% are regarded as estimates with low precision.

Note that the margin of error depends on the standard error and the estimated proportion and the standard error itself depends on the estimated proportion. For a given sample size, therefore, a lower precision will be associated with a variable which has a lower incidence in the population and/or a higher standard error. Further, in the case of proportions, for a given sample size, the standard error is the largest for a population proportion close to 0.5. On the other hand, for a given incidence, one way to reduce the standard error and therefore increase precision is to increase the sample size.

In the case of ASER, as shown by Ramaswami and Wadhwa (2009), precision is not an issue at the state level. But at the district level, since sample sizes in sub-populations of interest are much smaller than the total sample size, precision can be an issue.

<sup>&</sup>lt;sup>1</sup> Villages are chosen from the Census Directory using PPS (Probability Proportional to Size) sampling.

<sup>&</sup>lt;sup>2</sup> Over time the rural household size, in India, has been steadily falling. Since ASER samples households and not children, the sample size in terms of children has also been falling. For instance, in 2006, a sample of 322,425 households in 15,841 villages yielded 762,252 children in the age group 3-16 years. In comparison, ASER 2016 surveyed 350,232 households in 17,473 villages and the total sample of 3-16 year olds was 562,305.

<sup>&</sup>lt;sup>3</sup> Ramaswami, Bharat and Wadhwa, Wilima (2009), "Survey Design and Precision of ASER Estimates", available at http://img.asercentre.org/docs/ Aser%20survey/Technical%20Papers/precisionofaserestimates ramaswami wadhwa.pdf.

<sup>&</sup>lt;sup>4</sup> United Nations (2005), Designing Household Survey Samples: Practical Guidelines, Studies in Methods, Series F No. 98, Department of Economic and Social Affairs, Statistics Division.

However, increasing the sample size at the district level, for a national survey, is extremely costly. In the past, ASER has clubbed classes while presenting district level estimates, in an attempt to increase the sample size. However, precision gains from this strategy were limited, especially for variables whose estimated proportions were in the vicinity of 0.5.

One way to provide sub-state estimates with acceptable levels of precision is to club districts within a state.<sup>5</sup> Many states have administrative divisions, comprised of two or more districts that can be used as units of analysis. These divisions are at a level of aggregation between the state and district level. Since 2011, ASER has provided estimates for selected indicators at the divisional level.<sup>6</sup> In the 2014 report, these estimates were provided for the period 2010 to 2014 for the states that have administrative divisions.

As discussed in the sampling note in this report, ASER has used Census 2011 as the sampling frame since ASER 2016. Between Census 2001 and 2011, 31 new rural districts were created. Since divisions are constituted from districts, some of the divisional boundaries have changed as a result of this redistricting. In addition, in some states like Punjab, administrative divisions have been formed, which have replaced the geographical divisions used in ASER 2011-14. ASER 2016, therefore, started a new series of divisional estimates; and this year, divisional trends from 2018 have been added.<sup>7</sup>

ASER 2018 presents divisional estimates for Andhra Pradesh, Assam, Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, and West Bengal.<sup>8</sup> In addition, in Gujarat, divisions were formed using geographical regions commonly used in the state.<sup>9</sup>

Divisional estimates are provided for the following 6 variables:<sup>10</sup>

% Children in the age group 6-14 years who are out of school

% Children in the age group 6-14 years who are in private school

% Children in Std III-V who can read at least Std II level text in own language

% Children in Std III-V who can do at least subtraction

% Children in Std VI-VIII who can read at least Std II level text in own language

% Children in Std VI-VIII who can do division

In addition to point estimates, the 95% confidence interval [ $\hat{p} \pm 2\hat{\sigma}$ ] is also presented. The last row of each state table presents both these statistics for the state as a whole as well.

Figure 1 presents the margin of error for the four learning outcomes in selected states in 2018. As is clear from the figure, most of these are below 5%. Also, note that learning outcomes in arithmetic are less precisely estimated as compared to those in reading - that is, the margin of error for math learning outcomes is consistently higher as compared to that for reading learning outcomes. This is true for both Std III-V and Std VI-VIII. Across all states,<sup>11</sup> reading in Std VI-VIII has the lowest average margin of error (3.2%), followed by reading in Std III-V and arithmetic in Std III-V (5.3%). The margin of error is the highest for Std VI-VIII arithmetic (6.1%). As compared to 2016, the margins of error at the state level are lower in 2018 for comparable learning outcomes.



<sup>&</sup>lt;sup>5</sup> For instance, NSS surveys are not representative at the district level. However, they are representative for NSS regions, which are formed using agroclimatic criteria.

<sup>&</sup>lt;sup>6</sup> We decided to go with the state administrative divisions, rather than the NSS regions, since these are more commonly used within the state.

<sup>&</sup>lt;sup>7</sup> In three states – Haryana, Chhattisgarh and West Bengal – divisions are re-constituted and new divisions added between 2016 and 2018. These changes have been incorporated to make the divisions comparable between 2016 and 2018.

<sup>&</sup>lt;sup>8</sup> The district composition was obtained from the relevant state websites. See the section on Divisional Estimates in this report for the exact composition. <sup>9</sup> See the section on Divisional Estimates in this report for the exact composition.

<sup>&</sup>lt;sup>10</sup> In ASER 2016 we replaced learning levels in Std I-II (used in ASER 2011-14) with those in Std VI-VIII. Further, in 2018 we change the learning outcome for reading in Std III-V that was used in ASER 2016.

<sup>&</sup>lt;sup>11</sup> Here we are only including states for which divisional estimates are presented.

At the division level, margins of error are, understandably, higher because sample sizes are smaller. For instance, the average margin of error for reading in Std VI-VIII is 3.2% at the state level and 7.4% at the divisional level. Among the four learning outcomes, while average standard errors are similar, these translate into quite different margins of error. Arithmetic learning outcomes have higher margins of error as compared to reading. In reading, Std III-V learning outcomes have a higher margin of error as compared to Std VI-VIII. The highest average margin of error is for arithmetic in Std VI-VIII at 13.5%. In discussing the division level estimates we concentrate on Std VI-VIII learning outcomes since they represent the best case (reading) and the worst case (arithmetic) scenarios.

Figures 2.1 and 2.2 present the 2018 margins of error for language and arithmetic in Std VI-VIII, across divisions of selected states. With the exception of a few divisions, language learning outcomes in most states are estimated with margins of under or close to 10%. Across the board, precision levels are lower for arithmetic learning outcomes. Even in this case, most states now have margins of error within 10-15%, with the exception of Chhattisgarh.









Figures 3.1 and 3.2 present the margins of error for language and arithmetic in Std III-V respectively, for one division each in the selected states, in 2016 and 2018. Margins of error are fairly robust over time and in most cases are lower in 2018 as compared to 2016. Across all districts, average margins of error are lower in 2018 for all learning outcomes.

Why are margins of error consistently higher for arithmetic in Std VI-VIII? Similarly, in reading, why are learning outcomes in Std III-V less precisely estimated as compared to Std VI-VIII? First, for a given sample size, the margin of error is inversely proportional to the incidence of the variable concerned. This implies that any variable that has a low incidence in the population will be estimated with a high margin of error. Intuitively this makes sense because if something is not observed very frequently, one would need a much larger sample size to measure it accurately. However, this is not that much of a problem if the standard error is small. To understand why, consider the case of out of school children - say the point estimate is 0.04 (i.e., 4%) with a standard error of 0.01. The margin of error would be 50% (=((2 \* 0.01)/0.04)\*100), which is very high. However, note that this translates into confidence bounds of  $\pm 2$  percentage points, i.e., with 95% probability the true proportion of out of school children lie between 2% and 6%. In other words, given a low incidence, a high margin of error may still translate into tight confidence bands. Another way of looking at this is by focusing on children enrolled in schools instead of out of school children. If out of school children are 4% then enrolled children will be 96% with the same standard error of 1%, giving a margin of error of only 2.1% and confidence bounds of  $\pm 2$  percentage points around the point estimate of 96%.

Second, the margin of error is directly proportional to the standard error. For a given sample size, a large standard error, implying imprecise estimation, not surprisingly will result in a high margin of error. In the case of proportions, the standard error itself depends on the value of the proportion, and is larger when the value is closer to 0.5.

Intuitively the reason behind this is that the greatest uncertainty is associated with a proportion of 0.5, requiring larger sample sizes to measure it accurately.

By and large, learning levels in reading are higher as compared to arithmetic, resulting in lower margins of error for arithmetic. Often, arithmetic learning levels are closer to 0.5, again resulting in high margins of error.

Overall, the divisional estimates are more precisely estimated as compared to district level estimates. Clubbing districts increases the sample size and lowers the standard errors. It also smooths the jumpiness in point estimates often observed at the district level. One of the problems associated with large standard errors, and therefore wide confidence intervals, is that it is difficult to identify significant changes across districts and time. That problem is ameliorated with divisional estimates to a large extent.




Districts have been clubbed into divisions to produce these estimates. The grouping of districts is based on administrative divisions used in the state or on geographical regions.

The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Coastal Andhra division of Andhra Pradesh, in 2018, proportion of Std III-V children who can read Std II level text is 41.4%. With 95% probability, the true population proportion lies within 4.08% points of the estimate, i.e., between 45.5% and 37.3%.

### Andhra Pradesh

							Learni	ng leve	ls: All so	chools			List of districts u	ndar aach division
	Not in	school	Private	school		Std	-V	-		Std V	/I-VIII			
Division/Region	% Ch (Age 6-	ildren 14) not	% Ch (Age	ildren 6-14)	% Ch who ca	ildren in read	% Ch who d	ildren can at	% Ch who	ildren can	% Ch	ildren	Coastal Andhra	Visakhapatnam
	enrol	led in	enrol	led in school	Std II	level xt	leas subtra	t do	read	Std II	who do div	can vision	East Godavari	Vizianagaram
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Guntur	West Godavari
	2.1	1.6	37.1	38.3	41.1	41.4	61.5	58.9	69.3	70.3	44.7	42.8	Krishna	Rayalaseema
Coastal Andhra	+0.62	+0.62	+ 2.90	+ 3.24	+ 3.94	+ 4.08	+ 3.92	+ 4.08	+ 3.58	+ 4.04	+ 4.06	+ 4.10	Prakasam	Anantapur
	3.6	1.0	28.7	30.0	40.2	41.3	59.9	52.8	66.0	71.4	43.7	46.3	Sri Potti Sriramulu	Chittoor
Rayalaseema	+ 2.04	+ 0.52	+ 4.04	+ 4.58	+ 5.64	+ 4.64	+ 5.58	+ 5.42	+ 4.88	+ 5.16	+ 6.04	+ 5.70	Nellore	Kurnool
:	± =	± • • • =		±	± • • • •	±		<b>T D D D</b>	±	<b>T</b> 0 0	±		Srikakulam	Y.S.R.
Andhra Dradach	2.6	1.4	34.2	35.2	40.7	41.4	60.9	56.6	68.3	70.7	44.4	44.1		
Andhra Pradesh	±0.82	±0.44	±2.38	±2.68	± 3.26	± 3.08	±3.22	±3.30	±2.90	±3.18	±3.38	±3.34		

### Assam

	Not in	school	Drivato	cchool			Learni	ng leve	ls: All s	chools			List of districts u	nder each division
	NOT III	SCHOOL	FIIVale	SCHOOL		Std	III-V			Std V	/I-VIII			
Division/Region	% Ch (Age 6-	iildren -14) not	% Ch (Age	ildren 6-14)	% Ch who ca	ildren an read	% Ch who	ildren can at	% Ch who	ildren can	% Ch	ildren	Barak Valley	Kamrup
	enrol sch	led in 100l	enrol private	led in school	Std II te	level xt	leas subtra	t do action	read leve	Std II I text	do di	vision	Cachar	Kamrup Metropolitan*
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Hailakandi	Kokrajhar
	2.8	2.4	18.7	21.1	22.2	22.2	35.2	32.3	49.8	42.7	23.2	19.9	Karimganj	Nalbari
Barak Valley	± 1.24	±0.76	± 3.78	±4.16	±4.64	$\pm 4.40$	$\pm 6.12$	± 5.82	±6.48	±6.62	± 5.30	± 5.08	Central Assam	North Assam
	3.2	2.4	27.7	23.6	29.1	24.8	35.8	30.8	53.9	46.2	27.2	16.8	Dima Hasao	Darrang
Central Assam	+ 1 52	$\pm 0.82$	+ 5 72	+ 3 98	+6.06	+6.78	+ 6 66	+ 7 72	+ 7 50	+ 7 00	+ 6 94	+4 00	Karbi Anglong	Sonitpur
	2.5	2.0	20.0	1 9.90	20.1	21.0	27.5	47.2		57.00	22.6	1.00	Morigaon	Udalguri
Lower Assam	2.5	2.0	20.8	25.2	30.1	31.0	37.5	47.2	33.6	57.2	22.6	33.0	Nagaon	Upper Assam
	±0.66	$\pm 0.58$	$\pm 2.70$	±3.54	$\pm 4.24$	± 3.48	±4.84	$\pm 4.54$	±4.36	±4.14	±3.48	±4.86	Lower Assam	Dhemaji
North Assam	4.4	3.3	19.9	27.5	27.7	30.4	29.5	34.7	50.3	54.9	19.0	19.6	Baksa	Dibrugarh
	± 1.82	±1.78	± 3.62	±4.26	± 5.78	±5.84	$\pm 5.56$	±7.04	±8.52	±8.28	±5.68	± 5.02	Barpeta	Golaghat
Lipper Assam	3.4	2.2	23.2	26.1	30.6	37.4	32.2	42.3	60.2	64.8	20.8	24.8	Bongaigaon	Jorhat
	±1.14	±0.64	± 3.44	±3.24	±4.14	±4.34	± 4.46	±4.46	±4.46	±4.28	±3.62	±3.78	Chirang	Lakhimpur
Assam	3.1	2.3	21.9	24.8	28.3	29.8	34.8	39.8	54.7	54.4	22.7	25.6	Dhubri	Sivasagar
Assam	±0.50	±0.38	±1.68	±1.80	± 2.20	±2.16	± 2.50	±2.64	±2.60	±2.56	±2.14	±2.38	Goalpara	Tinsukia

\* District not surveyed in ASER 2018.



Districts have been clubbed into divisions to produce these estimates. The grouping of districts is based on administrative divisions used in the state or on geographical regions.

The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Bhagalpur division of Bihar, in 2018, proportion of Std III-V children who can read Std II level text is 30.9%. With 95% probability, the true population proportion lies within 4.76% points of the estimate, i.e., between 35.7% and 26.1%.

	1						Loorpi	nglovo		choole		_		
	Not in	school	Private	school		Std	III-V	ng leve		Std \	/I-VIII		List of districts u	Inder each division
Division/Region	% Ch (Age 6-	nildren -14) not	% Ch (Age	ildren 6-14)	% Ch who ca	ildren an read	% Ch who	ildren can at	% Ch who	ildren can	% Ch who	ildren can	Bhagalpur	Patna
	sch	iea in iool	private	school	te	xt	subtra	action	leve	l text	do di	vision	Banka	Bhojpur
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Bhagalpur	Buxar
	2.9	5.8	12.2	11.6	26.9	30.9	40.9	39.2	60.4	61.1	55.1	55.2	Darbhanga	Kaimur
Bhagalpur	± 1.20	$\pm 2.00$	± 3.42	± 2.90	±4.94	$\pm 4.76$	± 5.32	± 5.88	± 5.20	± 5.84	± 5.84	±6.46	Darbhanga	Nalanda
	2.0	2.7	11.0	15.9	32.0	30.0	39.4	32.7	64.1	59.9	52.9	48.8	Madhubani	Patna
Darbhanga	+0.60	+0.92	+ 2 60	+ 2 74	+ 3 98	+ 5.04	4 + 5 16	+ 5.06	+ 4 80	+6.10	$\pm 5.12$	+ 6 46	Samastipur	Rohtas
	2.1	6.5	<u> </u>	6.2	20.2	20.2	42.2	27.5	£4.5	<u> </u>	E7 E	<u> </u>	Kosi	Purnia
Kosi	5.1	0.5	5.2	0.2	29.5	20.2	42.5	37.5	64.5	50.7	57.5	52.5	Madhepura	Araria
	$\pm 0.94$	± 1.48	± 1.50	±1.58	±4.56	$\pm 3.74$	± 5.18	$\pm 4.50$	$\pm 5.32$	± 5.52	$\pm 5.84$	$\pm 5.02$	Saharsa	Katihar
Magadh	3.3	4.0	11.7	18.7	38.9	35.2	46.1	43.7	70.2	64.0	58.6	50.6	Supaul	Kishanganj
	±1.22	2±1.26	±2.24	±2.86	±4.64	±4.96	$\pm 4.48$	± 5.56	± 3.80	$\pm 4.88$	±4.52	$\pm 4.70$	Magadh	Purnia
Munger	2.1	2.6	11.6	13.3	32.2	36.1	43.4	45.1	65.0	68.7	56.0	57.9	Arwal	Saran
	±0.60	± 0.70	±2.00	±1.98	±4.22	± 3.50	± 4.22	±3.38	±4.36	±3.24	±4.70	±3.88	Aurangabad	Gopalganj
Patna	2.8	3.4	19.4	24.4	39.5	40.8	49.3	46.3	69.5	68.2	58.7	51.4	Gaya	Saran
Γαιτα	± 1.38	± 1.00	±2.76	±3.04	± 3.62	± 3.70	$\pm 4.02$	±4.28	± 3.56	±3.78	± 3.72	± 3.76	Jehanabad	Siwan
Durpio	7.2	6.9	6.7	9.1	28.0	23.3	31.5	28.2	57.7	56.5	43.6	37.2	Nawada	Tirhut
Futfild	± 1.56	±1.44	± 1.70	±2.80	± 3.46	± 4.28	$3 \pm 4.16$	± 4.84	± 5.28	±5.86	± 5.72	±4.96	Munger	East Champaran
6	0.9	1.3	20.5	26.7	35.2	39.4	41.9	43.4	70.9	63.9	52.6	46.3	Begusarai	Muzaffarpur
Saran	$\pm 0.40$	$\pm 0.50$	± 3.06	± 3.56	±4.62	± 4.26	± 5.20	$\pm 4.08$	±4.74	±4.84	±4.82	± 5.52	Jamui	Sheohar
	2.8	3.8	13.8	19.2	27.5	32.8	35.7	36.2	64.9	63.6	52.9	47.6	Khagaria	Sitamarhi
Tirhut	+ 0.62	2+0.90	+ 2.44	+ 2.44	+ 3.24	+ 3.58	3+4.08	+ 3.66	+ 3.54	+ 3.48	+ 4.22	+ 3.60	Lakhisarai	Vaishali
	3.0	3.9	12.9	16.9	31.9	32.8	40.2	38.2	65.5	63.1	53.9	49.0	Munger	West Champaran
Bihar	1024	1 0 39	10.00	10.9	1 20	1 1 5 3	10.2	1 1 6 3	1 52	1.1.69	1 69	13.0	Sheikhpura	
	$\pm 0.54$	TT0.30	1±0.90	T 0.90	TT1.20	[±1.32	JI 1.02	[± 1.02	1±1.52	T 1.00	$ \pm 1.00 $	$\pm 1.70$		

## Bihar



Districts have been clubbed into divisions to produce these estimates. The grouping of districts is based on administrative divisions used in the state or on geographical regions.

The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Bastar division of Chhattisgarh, in 2018, proportion of Std III-V children who can read Std II level text is 37%. With 95% probability, the true population proportion lies within 6.34% points of the estimate, i.e., between 43.3% and 30.7%.

## **Chhattisgarh**

	Not in	school	Privato	school			Learni	ng leve	ls: All s	chools			l ist of districts u	nder each division
		SCHOOL	Filvale	e school		Std	III-V			Std \	/I-VIII			
Division/Region	% Cł (Age 6	nildren -14) not	% Cł t (Age	nildren 6-14)	% Ch who ca	ildren an read	% Ch who d	ildren can at	% Ch who	ildren can	% Ch	ildren	Bastar	Durg
	enrol sch	led in nool	enrol private	led in school	Std II te	level xt	leas subtra	t do action	read leve	Std II I text	do div	vision	Bastar	Durg
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Bijapur*	Kabirdham
_	7.8	7.9	8.9	8.2	38.4	37.0	32.0	23.5	67.0	67.8	21.9	20.0	Dantewada	Rajnandgaon
Bastar	±1.98	± 2.82	± 3.18	± 2.96	± 7.80	±6.34	±6.78	± 5.00	± 5.66	± 5.36	± 5.54	± 5.38	Narayanpur*	Raipur
	3.2	2.9	22.7	24.4	40.2	37.8	31.3	31.1	70.0	69.6	26.5	26.6	North Bastar Kanker	Dhamtari
Bilaspur	+ 1.10	+1.00	+ 3.82	+ 4.10	+ 5.42	+ 5.42	+ 4.90	+ 4.92	+ 5.18	+ 4.56	+ 4.28	+ 4.54	Bilaspur	Mahasamund
	-		-	-			20.6	-					Bilaspur	Raipur
Durg	1.6	2.9	14.9	16.6	49.4	55.2	38.6	44.5	69.9	82.1	27.9	38./	Janjgir-Champa	Surguja
	±0.90	±1.16	± 3.26	± 3.96	$\pm 6.90$	±6.26	± 5.08	±5.76	± 5.78	$\pm 4.54$	± 4.60	±5.22	Korba	lashpur
Painur	1.5	2.2	19.1	20.9	47.5	54.5	38.7	41.1	74.8	77.2	28.6	33.4	Raigarh	Koriva
кари	$\pm 0.68$	$\pm 0.98$	$\pm 5.04$	$\pm 6.58$	±6.62	±6.50	± 6.00	±6.32	± 5.10	± 4.72	± 5.08	± 5.42		Surguia
	2.4	4.9	27.0	22.8	35.4	40.2	27.4	25.2	58.5	69.6	21.0	19.1	* District not surveyed in ASI	ER 2018.
Surguja	±0.92	$2 \pm 1.90$	± 5.18	± 5.56	±6.28	±7.64	±6.48	±5.44	±6.42	±6.94	± 5.04	±5.32		
Chhattiagach	2.8	3.6	19.9	20.0	42.5	45.5	33.6	34.4	68.8	73.9	25.9	29.1		
Chhattisgarh	$\pm 0.48$	$\pm 0.62$	$\pm 2.00$	± 2.28	± 2.90	± 2.98	± 2.58	±2.66	±2.62	± 2.36	± 2.22	± 2.40		

### Gujarat

	Not in	ممامما	Duiturate				Learn	ing leve	ls: All s	chools			List of districts u	under each division
	NOT IN	school	Private	school		Std	-V			Std \	/I-VIII			
	% Cł	nildren	% Ch	nildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	Central	Bhavnagar
Division/Region	(Age 6 enrol	-14) not led in	enrol	6-14) led in	who ca Std II	an read Ievel	who   leas	can at st do	read	std II	who	can	Ahmedabad	Jamnagar
	sch	nool	private	school	te	ext	subtr	action	leve	l text	do di	vision	Anand	Junagadh
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Dahod	Kachchh
	1.7	1.7	12.5	13.8	35.0	39.9	27.7	32.4	63.0	65.9	22.9	26.4	Kheda	Porbandar
Central	$\pm 0.76$	$\pm 0.60$	± 2.38	± 2.96	± 4.98	± 4.06	± 4.44	± 3.72	$\pm 4.56$	± 4.28	±4.12	± 3.92	Narmada	Rajkot
	2.6	2.2	9.4	10.5	112	16.0	36.7	40.8	71.2	70.3	28.0	34.2	Panchmahal	Surendranagar
North	2.0	2.2	9.4	10.5	44.2	40.0	50.7	40.0	71.2	70.5	20.0	34.2	Vadodara	South
	±1.74	$\pm 0.80$	± 2.38	$\pm 2.52$	± 5.10	± 5.28	± 5.18	± 5.32	$\pm 4.92$	± 5.16	± 4.46	±5.34	North	Bharuch
Sourachtra	2.7	2.0	9.4	11.0	40.0	49.3	36.8	43.6	66.8	70.4	32.1	36.4	Banaskantha	Navsari
Saurasinira	±0.86	$\pm 0.80$	± 2.18	± 2.42	±4.82	± 3.68	± 4.98	±4.28	±4.28	$\pm 3.70$	± 4.04	± 3.80	Gandhinagar	Surat
	2.6	1.1	8.2	15.4	36.6	49.1	28.4	44.3	68.7	69.1	25.1	34.9	Mahesana	Тарі
South	. 1.02	. 0. 4.4		. 2 24				. 1.00	. 1 00	. 4 20	. 5 10	. 5.00	Patan	The Dangs
	$\pm 1.02$	$\pm 0.44$	± 2.02	$\pm 3.34$	± 5.26	$\pm 4.34$	± 4.26	$\pm 4.90$	$\pm 4.90$	$\pm 4.38$	± 5.18	± 5.90	Sabarkantha	Valsad
Gujarat -	2.4	1.8	10.2	12.4	39.0	45.5	32.7	39.4	66.9	68.8	27.4	32.7	Saurashtra	
	$\pm 0.56$	±0.36	± 1.18	± 1.42	±2.56	± 2.22	$\pm 2.46$	$\pm 2.28$	$\pm 2.40$	± 2.22	± 2.22	±2.32	Amreli	

List of districts u	nder each division
entral	Bhavnagar
hmedabad	Jamnagar
nand	Junagadh
ahod	Kachchh
heda	Porbandar
armada	Rajkot
anchmahal	Surendranagar
adodara	South
orth	Bharuch
anaskantha	Navsari
andhinagar	Surat
lahesana	Тарі
atan	The Dangs
abarkantha	Valsad
aurashtra	
mreli	



Districts have been clubbed into divisions to produce these estimates. The grouping of districts is based on administrative divisions used in the state or on geographical regions.

The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Ambala division of Haryana, in 2018, proportion of Std III-V children who can read Std II level text is 60.4%. With 95% probability, the true population proportion lies within 5.08% points of the estimate, i.e., between 65.5% and 55.3%.

								nary	/alla					
	Not in	school	Private	school		Std	Learni III-V	ng leve	ls: All s	chools Std V	/ -\/		List of districts	under each division
Division/Region	% Ch (Age 6-	ildren 14) not	% Ch (Age	ildren 6-14)	% Ch who ca	ildren an read	% Ch who d	ildren can at	% Ch who	ildren can	% Ch	ildren	Ambala	Hisar
	enroll sch	led in ool	enrol private	led in school	Std II	level xt	leas subtra	t do action	read leve	Std II I text	do div	vision	Ambala	Fatehabad
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Kurukshetra	Hisar
	0.6	0.6	50.9	53.3	56.8	60.4	66.0	62.5	77.4	81.6	52.5	58.5	Panchkula	Jind
Ambala	±0.34	±0.48	±4.36	±4.56	± 5.70	± 5.08	±5.42	±4.86	±6.26	±4.00	±5.82	±5.86	Yamunanagar	Sirsa
	8.5	7.7	38.9	39.8	31.3	34.6	42.8	47.1	62.2	62.8	36.7	44.8	Faridabad	Karnal
Faridabad	+ 2 80	+ 2 60	+ 5.30	+ 5 52	+ 5.70	+6.52	+ 6 86	+6.22	+6.32	+ 7.80	+6.72	+ 8 38	Faridabad	Kaithal
	0.4	0.3	64.3	67.5	64.9	70.1	75.9	77 1	85.6	88.6	70.4	71.4	Nuh	Karnal
Gurugram	0.4	0.5	04.5	07.5	5.50	70.1	13.5	77.1	5.00	00.0	70.4	71.4	Palwal	Panipat
	$\pm 0.44$	$\pm 0.40$	±4.72	±4.84	± 5.50	±7.10	±4./4	± 5.36	± 5.60	±4.30	± 5.58	± 5.86	Gurugram	Rohtak
Hisar	1.0	0.3	56.1	53.9	59.1	61.1	69.4	69.9	83.2	83.1	66.0	65.1	Gurugram	Bhiwani
	±0.42	±0.20	±4.04	±4.68	± 5.48	±5.68	±4.76	±4.22	± 3.86	±4.82	±4.84	±4.82	Mahendragarh	Jhajjar
Rohtak	0.2	0.3	71.8	71.2	69.4	70.1	80.9	76.7	89.3	85.3	74.4	70.2	Rewari	Rohtak
	±0.30	±0.28	±4.24	±4.52	± 5.80	±4.34	±5.28	±4.82	±2.92	±3.76	±5.44	±5.52		Sonipat
Karnal	0.8	0.9	56.4	55.3	60.9	58.2	65.7	60.6	80.0	79.5	55.3	55.0		
Kalliai	$\pm 0.44$	±0.54	±5.24	±5.56	±6.32	±7.22	± 5.58	±6.80	±4.36	±4.94	±5.64	±6.34		
Harvana	2.0	1.7	55.8	55.3	56.9	58.7	66.6	65.8	80.2	80.4	60.1	61.1		
riaryana	$\pm 0.50$	$\pm 0.48$	± 1.98	± 2.20	±2.54	±2.66	± 2.36	±2.26	± 2.02	$\pm 2.30$	±2.44	±2.56		

### **Himachal Pradesh**

	NI-4		Duiterete				Learni	ng leve	ls: All s	chools		
	Not in	school	Private	school		Std	111-V			Std V	/I-VIII	
Division/Region	% Ch (Age 6- enrol sch	iildren 14) not led in iool	% Ch (Age enrol private	iildren 6-14) led in school	% Ch who ca Std II te	ildren an read level xt	% Ch who leas subtra	ildren can at t do action	% Ch who read level	ildren can Std II text	% Ch who do div	ildren can vision
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018
Kangra	0.3	0.5	41.2	44.8	53.2	57.2	61.9	59.4	80.0	86.6	53.4	56.4
	±0.30	$\pm 0.40$	±4.78	±5.42	±6.58	±4.62	± 5.70	±5.28	±6.48	±3.72	±6.78	±4.78
Mandi	0.1	0.2	37.7	40.0	64.3	68.4	76.4	72.8	83.0	85.9	57.1	60.8
Manui	±0.10	±0.20	± 5.74	±5.22	± 5.82	±5.68	±4.68	±4.78	±4.64	±5.68	±5.88	±5.74
Shimla	0.3	0.6	35.2	35.0	62.5	69.5	68.2	65.6	84.6	87.2	53.0	53.6
	±0.26	±0.38	±5.18	±6.26	±6.14	±4.62	± 5.06	±5.14	±4.48	±3.74	±6.32	±4.90
Himachal	0.2	0.4	38.5	40.7	59.6	64.1	68.8	65.7	82.1	86.5	54.5	57.4
Pradesh	±0.14	±0.20	± 3.04	±3.24	± 3.70	± 3.06	± 3.14	± 3.00	±3.38	±2.72	± 3.82	±3.10

List of districts under each division

Kangra	Shimla
Chamba	Kinnaur
Kangra	Shimla
Una	Sirmaur
Mandi	Solan
Bilaspur	
Hamirpur	
Kullu	
Lahul and Spiti	
Mandi	



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The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Kolhan division of Jharkhand, in 2018, proportion of Std III-V children who can read Std II level text is 27%. With 95% probability, the true population proportion lies within 5% points of the estimate, i.e., between 32% and 22%.

## Jharkhand

	Not in	school	Privato	school			Learni	ng leve	ls: All s	chools			List of districts ur	nder each division
		301001	Thvate	301001		Std	III-V			Std \	/I-VIII			
	% Ch	ildren	% Ch	ildren	% Ch	ildren '	% Ch	ildren	% Ch	ildren	% Ch	ildren	Kolhan	Santhal Pargana
Division/Region	(Age 6-	-14) not led in	enrol	6-14) led in	wno ca Std II	an read level	wno (   leas	can at t do	read	can Std II	who	can	Fast Singhbhum	Deoghar
	sch	iool	private	school	te	xt	subtra	action	leve	l text	do di	vision	Constitute 1/h annua	Dumla
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Saraikeia-Kharsawah	 
	37	16	12.0	10.0	24.5	27.0	31.0	21.2	56.5	53.1	35.7	31.8	West Singhbhum	Godda
Kolhan	5.7	4.0	12.9	10.9	24.5	27.0	51.0	51.5	50.5	55.1	55.7	51.0	North Chota Nagpur	Jamtara
	±1.24	±1.30	± 3.40	±2.68	$\pm 4.32$	± 5.00	± 4.56	±5.56	±6.44	±6.20	±6.52	±5.84	Bokaro	Pakur
North	2.0	1.4	23.7	24.4	36.4	30.7	39.5	35.3	63.3	62.3	44.0	39.7	Chatra	Sahibganj
Chota Nagpur	$\pm 0.56$	±0.72	± 2.98	± 3.10	±4.24	± 3.34	± 3.90	± 3.36	± 3.60	$\pm 4.00$	± 3.80	± 3.96	Dhanbad	South Chota Nagpur
	2.0	2.2	10.8	15.0	27.6	25.8	29.4	31.5	60.6	58.3	36.2	41.3	Giridih	Gumla
Palamu	±0.78	±0.92	± 2.52	± 3.78	±4.18	± 4.78	± 4.68	± 3.98	± 5.38	± 5.90	±6.60	± 5.78	Hazaribagh	Khunti
	5.8	3.5	10.3	11.3	19.9	21.2	30.8	29.9	53.4	48.3	39.3	31.4	Koderma	Lohardaga
Santhal Pargana	1 76	1 1 36	1 2 12	1 2 08	1 2 60	1 2 78	1 3 5 2	1374	1 1 31	1 1 5 2	1 3 5 1	1 4 50	Ramgarh	Ranchi
	± 1.70	± 1.50	± 2.42	± 2.00	± 2.00	± 2.70	± 3.32	± 3.74	± 4.54	±4.32	± 3.34	± 4.30	Palamu	Simdega
South	5.8	2.5	29.4	32.7	24.9	32.8	27.5	32.1	63.5	63.5	23.8	29.0	Garhwa	
Chota Nagpur	± 3.70	±0.78	± 4.72	± 4.44	±4.72	± 4.86	± 5.56	$\pm 4.94$	± 5.36	± 5.96	±4.22	±4.62	Latehar	
	3.8	2.6	17.4	19.0	26.8	27.1	32.4	32.3	59.2	57.3	37.7	35.6	Palamu	
Jharkhand	±0.76	±0.48	± 1.42	± 1.46	± 1.80	± 1.78	± 1.96	±1.84	±2.16	± 2.30	±2.18	± 2.20		

### Karnataka

							Learni	ng leve	els: All s	chools			list of districts w	ndar aach division
	Not in	school	Private	school		Std	III-V			Std \	/I-VIII			nuer each division
Division/Region	% Ch (Age 6-	ildren ·14) not	% Ch (Age	ildren 6-14)	% Ch who ca	iildren an read	% Ch who	ildren can at	% Ch who	ildren can	% Ch	ildren	Bangalore	Vijayapura
Ŭ	enrol	led in	enrol	led in	Std II	level	leas	t do	read	Std II	who do di	can	Bengaluru Urban	Kalaburagi
	sch	lool	private	school	l te	ext	subtra	action	leve	l text	uo ur	VISION	Bengaluru Rural	Bellary
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Chikkaballapur	Bidar
	0.9	0.5	32.6	34.1	28.9	30.4	45.6	44.9	60.1	59.3	36.2	37.1	Chitradurga	Kalaburagi
Bangalore	$\pm 0.32$	$\pm 0.22$	+ 2 80	+ 2 46	+ 3 24	+ 2 90	+ 3 48	+ 3 24	+ 3 80	+ 3 24	+ 3 44	+ 3 44	Davanagere	Koppal
± .	10.52	10.22	1 2.00	1 2.10	1 5.2 1	12.50	1 5.10	1 9.2 1	1 5.00	1 9.21	1 9.11	<u>1</u> 9.11	Kolar	Raichur
Relgaum	0.6	0.5	24.0	23.8	34.5	35.2	43.7	38.4	63.4	63.3	37.9	32.4	Ramanagara	Yadgir
Delgaum	$\pm 0.28$	±0.24	$\pm 4.78$	± 2.98	± 5.62	$\pm 3.66$	± 4.96	$\pm 4.04$	±6.18	$\pm 4.68$	± 5.28	$\pm 4.00$	Shivamogga	Mysore
	2.8	1.6	21.6	23.4	22.5	23.0	31.0	29.7	51.9	55.7	25.1	25.5	Tumakuru	Chamarajanagar
Kalaburagi		0.40											Belgaum	Chikkamagaluru
	$\pm 0.80$	$\pm 0.40$	$\pm 2.62$	± 3.06	$\pm 2.90$	± 3.06	$\pm 3.14$	$\pm 3.44$	$\pm 4.04$	$\pm 3.98$	$\pm 3.08$	$\pm 3.22$	Bagalkot	Dakshina Kannada
A 4 40 0 M 0	0.4	0.3	31.3	35.7	35.3	43.7	52.1	51.0	66.5	70.3	37.2	40.3	Belgaum	Hassan
Mysore	±0.24	±0.18	± 3.52	± 3.16	± 3.80	± 3.24	$\pm 4.08$	± 3.40	±4.16	± 3.24	± 4.06	± 3.58	Dharwad	Kodagu
	1 1	0.7	27.4	20.1	20.6	22.0	42.2	41.1	60.0	62.0	246	22.7	Gadag	Mandya
Karnataka	1.1	0.7	27.4	29.1	30.0	33.0	43.2	41.1	00.9	02.0	54.0	33./	Haveri	Mysuru
	$\pm 0.22$	$\pm 0.14$	$\pm 1.84$	± 1.44	±2.14	$\pm 1.64$	$\pm 2.10$	$\pm 1.80$	$\pm 2.42$	±1.96	±2.12	±1.82	Uttara Kannada	Udupi



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The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Central division of Kerala, in 2018, proportion of Std III-V children who can read Std II level text is 70.1%. With 95% probability, the true population proportion lies within 5.42% points of the estimate, i.e., between 75.5% and 64.7%.

								Ker	ala					
	Not in	school	Private	school		Std	Learni III-V	ng leve	ls: All s	chools Std V	/I-VIII		List of districts u	nder each division
Division/Region	% Ch (Age 6-	nildren -14) not	% Ch (Age	nildren 6-14)	% Ch who ca	ildren an read	% Ch who	ildren can at	% Ch who	ildren can	% Ch	ildren	Central	Malappuram
	enrol sch	led in 1001	enrol private	led in school	Std II te	level xt	leas subtra	t do action	read level	Std II text	do div	vision	Ernakulam	Wayanad*
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Idukki	South
Central	0.1	0.2	60.3	47.0	64.0	70.1	59.6	60.6	80.4	86.4	53.3	47.8	Palakkad	Alappuzha*
	±0.10	±0.26	± 5.46	± 5.02	± 5.88	± 5.42	±6.32	± 5.66	±4.88	±5.04	±5.46	±6.62	Thrissur	Kollam
	0.1	0.1	45.2	38.8	57.2	64.7	48.7	52.9	80.3	87.4	43.5	45.2	North	Kottayam
North	+0.12	+0.20	+ 4.28	+ 5.02	+ 5.22	+ 5.74	+ 5.08	+ 5.92	+ 5.42	+ 3.92	+ 5.56	+5.00	Kannur	Pathanamthitta
	0.1	0.0	62.4	55.3	59.3	67.2	64.9	66.4	83.7	84.0	64.3	58.8	Kasaragod	Thiruvananthapuram
South			16.00	55.5	1 7 02	1 5 29	6.94	6 1 9	4.70	1.06	5.04	16.16	Kozhikode	
:	±0.20	±0.00	± 0.00	± 5.12	±7.02	± 5.50	±0.04	± 0.70	±4.70	± 4.00	± 3.94	±0.70	* District not surveyed in AS	ER 2018.
Kerala -	0.1	0.1	54.8	46.9	60.2	67.4	56.7	60.0	81.2	85.9	52.3	50.8		
	$\pm 0.08$	$\pm 0.12$	$\pm 3.00$	$\pm 2.94$	$\pm 3.42$	$\pm 3.20$	$\pm 3.50$	$\pm 3.46$	$\pm 3.00$	$\pm 2.50$	$\pm 3.34$	$\pm 3.46$		



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The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Bhopal division of Madhya Pradesh, in 2018, proportion of Std III-V children who can read Std II level text is 29.2%. With 95% probability, the true population proportion lies within 4.04% points of the estimate, i.e., between 33.2% and 25.2%.

## Madhya Pradesh

	Not in	school	Private	school		Std	Learnii III-V	ng level	ls: All so	chools Std V	/I-VIII		List of districts u	nder each division
Division/Region	% Ch (Age 6-	iildren •14) not	% Ch (Age	ildren 6-14)	% Ch who ca	ildren an read	% Ch who d	ildren can at	% Ch who	ildren can	% Ch	ildren can	Bhopal	Mandla
	enrol	led in Iool	enrol private	led in school	Std II	level xt	leas subtra	t do action	read	Std II Ltext	do div	vision	Bhopal	Narsimhapur
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Raisen	Seoni
	4.0	3.3	32.9	35.5	28.1	29.2	27.7	26.8	58.3	57.6	25.6	27.6	Rajgarh	Narmadapuram
Bhopal	± 1.20	±0.82	±3.96	±4.18	± 3.74	±4.04	±4.06	± 3.90	± 4.80	±5.44	±3.64	±4.10	Sehore	Betul
	2.5	3.7	21.2	26.5	29.2	36.1	32.4	33.7	50.5	60.8	37.1	44.0	Vidisha	Harda
Chambal	+0.88	+ 1.10	+ 4 54	+ 4 6 4	+6.10	+ 5.60	+ 5 44	+ 4.94	+ 5 82	+6.62	+ 5.08	+ 5.94	Chambal	Hoshangabad
	5.8	4.0	17.2	17.6	23.1	25.3	24.0	24.1	44 5	47.6	29.0	30.7	Bhind	Rewa
Gwalior	5.0	1.0 06	17.2	17.0	1 5 22	23.5	1 1 90	2 1.1	- E 64	17.0	23.0	1 1 16	Morena	Rewa
	± 1.50	±0.96	± 3.20	± 3.20	± 3.32	±4.10	± 4.00	$\pm 3.40$	± 3.04	± 4.90	± 4.40	± 4.40	Sheopur	Satna
Indore	10.7	12.0	23.4	25.8	23.6	26.4	22.7	20.4	57.1	59.8	22.1	22.8	Gwalior	Sidhi
	±1.64	±2.32	±2.70	±3.30	± 3.66	±3.82	± 3.52	± 3.50	± 4.90	$\pm 4.40$	±4.54	$\pm 3.40$	Ashoknagar	Singrauli
Jabalpur	2.4	1.9	21.6	19.3	31.1	28.6	31.7	25.5	60.2	53.6	28.2	28.0	Datia	Sagar
	±0.62	±0.46	±2.96	±3.04	± 3.96	±4.32	± 3.94	± 3.42	± 3.82	±5.08	±3.50	±3.78	Guna	Chhatarpur
Narmadanuram	4.1	3.0	23.1	23.4	31.1	41.0	30.5	37.0	57.0	70.6	25.0	42.2	Gwalior	Damoh
Namadapuram	±1.32	±1.26	± 5.08	±5.34	± 5.46	$\pm 6.84$	±6.06	± 5.86	$\pm 6.80$	±6.02	±5.78	±6.38	Shivpuri	Panna
Paula	2.2	2.4	27.8	32.4	30.9	32.1	26.7	28.7	56.9	56.7	32.4	34.1	Indore	Sagar
Kewa	±0.74	±0.72	±3.58	± 3.94	± 4.32	±5.20	±4.06	± 4.54	± 4.78	±4.70	±4.08	±4.04	Alirajpur	Tikamgarh
	3.0	3.7	17.5	17.6	23.5	26.5	22.3	23.5	50.4	57.8	28.2	35.4	Barwani	Shahdol
Sagar	$\pm 0.74$	±0.82	±3.26	± 3.30	± 3.86	±3.84	± 3.88	± 3.70	± 4.80	±4.34	± 3.40	±5.34	Burhanpur	Anuppur
	2.6	2.0	13.7	15.6	26.9	25.6	21.2	23.5	54.4	54.4	25.8	26.4	Dhar	Shahdol
Shahdol	+ 0.90	+0.78	+4.00	+ 4.74	+ 5.92	+ 5.78	+ 4.70	+ 5.48	+ 6.86	+ 6.46	+ 4.94	+ 5.02	Indore	Umaria
	27	2.2	41.4	42.7	32.4	41.6	28.6	30.8	68.9	76.0	32.4	38.9	Jhabua	Ujjain
Ujjain	+0.64	+0.68	+ 4 06	+ 4 36	+ 3.82	+ 4 68	+ 3 64	+ 4.06	1 3 48	+ 4 08	+ 3 60	± 4 44	Khandwa	Dewas
	±0.04	1.2	± 4.00	± 4.50	± 5.02	± 4.00	± 5.04	± 4.00	± 5.40	± 4.00	± 5.00	± +. + +	Khargone	Mandsaur
Madhya Pradesh	4.4	4.2	24./	20.0	27.0	30.0	20.7	20.4	30.4	59.0	20.0	32.2	Jabalpur	Neemuch
	$\pm 0.40$	$\pm 0.42$	±1.16	±1.26	± 1.42	±1.52	±1.36	$\pm 1.32$	± 1.60	±1.68	±1.36	±1.50	Balaghat	Ratlam
													Chhindwara	Shajapur
													Dindori	Ujjain

Jabalpur Katni



Districts have been clubbed into divisions to produce these estimates. The grouping of districts is based on administrative divisions used in the state or on geographical regions.

The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Amravati division of Maharashtra, in 2018, proportion of Std III-V children who can read Std II level text is 44.1%. With 95% probability, the true population proportion lies within 4.62% points of the estimate, i.e., between 48.7% and 39.5%.

### Maharashtra

	Not in	school	Private	school			Learni	ng leve	ls: All s	chools			List of districts u	nder each division
		301001	Thrac	301001		Std	III-V			Std V	/I-VIII			
	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	Amravati	Nagpur
Division/Region	(Age 6-	·14) not led in	(Age enrol	6-14) led in	who ca Std II	an read level	who of leas	can at t do	who read	can Std II	who	can	Akola	Bhandara
	sch	ool	private	school	te	xt	subtra	action	leve	l text	do di	vision	Amravati	Chandrapur
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Buldhana	Gadchiroli
	0.5	0.4	40.9	32.2	43.5	44.1	29.9	40.2	67.1	72.6	26.3	36.1	Washim	Gondia
Amravati	+0.38	$\pm 0.24$	+4 52	+ 3 88	+4 66	+462	$\pm 4.08$	+4 66	+4 60	+ 4 60	+ 4 30	+ 4 96	Yavatmal	Nagpur
	10.50	10.27	1.52	1 5.00	1.00	1.02	1.00	1.00	1.00	1.00	1.50	1.50	Aurangabad	Wardha
Aurangahad	0.9	0.5	36.4	32.2	46.8	48.7	35.4	41.3	67.2	73.9	30.4	34.9	Aurangabad	Nashik
Aurangubuu	$\pm 0.36$	±0.28	± 3.52	± 3.02	$\pm 3.68$	± 3.98	± 3.18	± 3.78	±3.18	± 3.22	±2.84	±3.68	Beed	Ahmednagar
	1.6	0.6	26.0	29.0	58.5	60.8	43.5	52.8	78.5	81.7	32.5	47.4	Hingoli	Dhule
Konkan		0.46	= 10	1.00			6.04						Jalna	Jalgaon
	$\pm 1.10$	$\pm 0.46$	$\pm 5.12$	±4.88	$\pm 5.70$	±5./2	$\pm 6.04$	±5./0	± 5.00	± 5.08	±7.38	±7.38	Latur	Nandurbar
Normun	0.3	0.4	34.0	41.2	49.3	53.8	38.1	48.6	68.2	75.2	26.3	43.9	Nanded	Nashik
Nagpur	±0.28	±0.24	± 3.98	± 3.50	±4.26	± 3.92	± 3.58	± 3.90	± 3.68	± 3.20	± 3.60	± 3.94	Osmanabad	Pune
	1.7	2.0	42.4	44.4	E1.0	E4.0	25.4	26.6	69.0	75.0	24.0	27.2	Parbhani	Kolhapur
Nashik	1.7	2.0	45.4	44.4	51.0	54.0	55.4	30.0	00.0	75.0	24.0	27.2	Konkan	Pune
	±0.60	$\pm 0.74$	±4.16	±4.50	±4.10	±4.46	±4.24	±4.66	±4.12	±3.90	±4.62	±4.60	Raigarh	Sangli
	0.5	0.5	42.4	43.1	70.4	71.7	55.9	54.4	84.2	86.1	38.8	45.4	Ratnagiri	Satara
Pune	+0.42	$\pm 0.32$	+ 4 36	+ 4 50	+ 3 96	+ 4 10	+ 4 84	+ 4 34	+ 3 22	+ 3.06	+ 3 98	+ 4 88	Sindhudurg	Solapur
	10.12	10.52	1.50	1.50	1 5.50	1.10	1.01	± 1.5 1	1 9.22	1 9.00	1 5.50	1.00	Thane	
Maharashtra	0.9	0.8	38.4	37.6	52.6	55.5	39.2	44.8	71.6	77.5	29.6	38.3		
manurusiittu	$\pm 0.20$	±0.18	± 1.74	±1.70	±1.76	±1.88	± 1.72	±1.84	±1.66	± 1.58	± 1.76	$\pm 2.00$		

## Odisha

	Not in	school	Drivata	cchool			Learni	ng leve	ls: All s	chools			List of districts u	nder each division
		school	Privale	school		Std	III-V			Std \	/I-VIII			
	% Ch	nildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	0/ Ch	: laluana	Central	Jharsuguda
Division/Region	(Age 6-	-14) not	(Age	6-14)	who ca	an read	who	can at	who	can	% Ch	naren	Baleshwar	Kendujhar
	enrol	led in	enrol	led in	Std II	level	leas	t do	read	Std II	do di	vision	Bhadrak	Sambalpur
	sch	lool	private	school	l te	xt	subtra	action	leve	text		/151011	Cuttack	Subarnapur
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Jagatsinghpur	Sundargarh
	0.8	0.4	117	14.0	55.5	60.3	63.4	52.6	73.8	78.1	18.0	48.5	Jajpur	South
Central	0.0	0.4	11.7	14.0	55.5	00.5	05.4	52.0	75.0	70.1	40.9	40.5	Kendrapara	Baudh
	$\pm 0.34$	$\pm 0.20$	±1.54	±1.74	± 3.94	± 3.32	± 3.12	± 3.12	± 3.82	±3.52	±3.48	$\pm 3.34$	Khordha	Gajapati
	1.2	0.0	0 E	0.6	41 1	46.2	276	24.0	62.4	60.2	21 E	22.1	Mayurbhanj	Ganjam
North	1.3	0.8	0.5	9.6	41.1	46.2	37.6	34.0	63.4	66.3	31.5	33.1	Nayagarh	Kalahandi
- total	$\pm 0.48$	$\pm 0.30$	±1.38	±1.52	± 4.24	± 3.72	$\pm 3.72$	± 3.46	± 3.62	±3.84	± 3.54	±3.68	Puri	Kandhamal
	1.0	2.5	FC	6.0	22.0	20.1	26.5	21.0	54.0	<b>FC</b> 4	22.5	25.0	North	Koraput
South	4.9	3.5	5.6	6.9	32.8	38.1	26.5	31.8	54.8	56.4	22.5	25.9	Angul	Malkangiri
5000	$\pm 1.00$	$\pm 0.88$	±1.20	±1.40	± 3.56	$\pm 4.12$	± 3.58	$\pm 4.14$	± 3.86	±4.04	± 3.36	±3.66	Balangir	Nabarangpur
													Bargarh	Nuapada
Odisha	2.2	1.5	8.9	10.5	44.5	49.0	44.7	40.7	65.3	68.9	36.2	37.4	Deogarh	Rayagada
Ouisila	$\pm 0.36$	$\pm 0.30$	$\pm 0.82$	±0.92	$\pm 2.30$	$\pm 2.08$	$\pm 2.14$	$\pm 2.04$	+ 2.22	± 2.20	± 2.12	± 2.10	Dhenkanal	



Districts have been clubbed into divisions to produce these estimates. The grouping of districts is based on administrative divisions used in the state or on geographical regions.

The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Faridkot division of Punjab, in 2018, proportion of Std III-V children who can read Std II level text is 62.4%. With 95% probability, the true population proportion lies within 5.86% points of the estimate, i.e., between 68.3% and 56.5%.

								Pun	Jab					
	Not in	school	Private	school		Std	Learni III-V	ng leve	els: All s	chools Std V	/ -\/		List of districts	under each division
Division/Region	% Ch (Age 6-	ildren ·14) not	% Ch (Age	ildren 6-14)	% Ch who ca	ildren an read	% Ch who	ildren can at	% Ch who	ildren can	% Ch	ildren	Faridkot	Tarn Taran
	enrol sch	led in Iool	enrol private	led in school	Std II te	level xt	leas subtra	t do action	read leve	Std II I text	do di	vision	Bathinda	Patiala
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Faridkot	Barnala
	0.7	0.2	47.0	45.9	61.8	62.4	65.5	68.6	81.9	84.0	49.6	62.6	Mansa	Fatehgarh Sahib
Faridkot	±0.48	±0.24	± 5.96	± 5.58	± 5.90	± 5.86	± 6.08	±4.62	±6.00	±4.30	± 7.66	± 5.46	Firozpur	Ludhiana
	1.7	2.2	46.9	47.2	55.6	62.6	59.7	63.1	82.6	86.0	54.4	57.6	Firozpur	Patiala
Firozpur	+0.90	+ 1.08	+ 5.48	+ 5.60	+ 5.26	+ 6.94	+ 6.06	+ 5.36	+ 4.96	+ 3.68	+ 5.56	+ 5,48	Moga	Sangrur
	0.9	0.9	53.4	55.1	51.5	57.2	67.5	66.4	78.3	78.9	51.2	57.0	Muktsar	Ropar
Jalandhar	0.5	0.5	2 50.1	1 2 96	51.5	1 1 70	1 1 00	4.60	10.5	10.5	1 1 76	1.4.62	Jalandhar	Rupnagar
	±0.40	±0.40	± 3.30	± 3.00	± 3.00	± 4.70	± 4.00	± 4.60	± 3.90	± 3.60	± 4.70	±4.02	Amritsar	Sahibzada Ajit Singh
Patiala	0.7	0.7	54.3	53.5	51.2	58.9	61.3	64.6	81.0	82.6	53.5	61.3	Gurdaspur	Nagar
	$\pm 0.46$	±0.40	± 4.54	±4.20	±4.82	± 5.62	± 5.06	±4.50	± 3.78	±4.32	± 5.28	$\pm 6.08$	Hoshiarpur	Shahid Bhagat Singh
Ropar	1.0	1.0	50.3	53.4	49.0	58.1	60.1	65.8	81.2	85.9	50.9	58.9	Jalandhar	- Nagar
Ropul	±0.84	±0.78	± 5.66	± 5.02	±6.42	±6.24	±6.72	± 5.60	± 3.96	± 3.84	±6.80	±7.10	Kapurthala	-
Pupiah	1.0	1.0	51.7	52.2	52.9	59.2	63.7	65.5	80.3	82.3	52.2	59.1		-
ruijab	±0.28	±0.30	± 2.20	± 2.18	± 2.64	± 2.72	± 2.46	± 2.38	± 2.16	± 1.94	± 2.68	±2.62		



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The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Ajmer division of Rajasthan, in 2018, proportion of Std III-V children who can read Std II level text is 33.7%. With 95% probability, the true population proportion lies within 4.3% points of the estimate, i.e., between 38% and 29.4%.

							N	ajas	IIIal					
	Not in	school	Private	school		Std	Learni III-V	ng leve	ls: All s	chools Std V	/I-VIII		List of districts u	nder each division
Division/Region	% Ch (Age 6- enroll sch	ildren 14) not led in ool	% Ch (Age enrol private	ildren 6-14) led in school	% Ch who ca Std II te	ildren in read level xt	% Ch who o leas subtra	ildren can at t do action	% Ch who read leve	ildren can Std II I text	% Ch who do div	ildren can vision	Ajmer Ajmer	Jodhpur Barmer
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Bhilwara	Jaisalmer
Aimor	4.4	2.1	39.3	36.8	45.6	33.7	40.1	29.7	74.1	60.9	39.9	30.4	Nagaur	Jalor
Ajmer	±1.12	±0.68	±4.08	±4.18	± 5.04	±4.30	±4.84	±4.38	±4.84	± 5.00	± 5.02	±4.48	Tonk	Jodhpur
	2.9	2.7	54.7	47.2	41.9	39.0	46.7	37.8	77.4	73.0	57.5	44.5	Bharatpur	Pali
Bharatpur	+0.74	+ 1 38	+ 5.02	+ 4 90	+ 5 22	+ 4 94	+ 5 64	+ 4 46	+ 4 36	+462	+ 4 90	+4.00	Bharatpur	Sirohi
	±0.74	± 1.50	± 5.02	± 4.50	± <i>J</i> .22	24.6	± 9.04	25.0	± 4.50	<u>+</u> +.02	± 4.90	12.4	Dhaulpur	Kota
Bikaner	3.4	2.5	45.5	40.0	46.3	34.6	50.1	35.9	/0./	/3.1	53.0	42.4	Karauli	Baran
	$\pm 0.94$	±1.06	$\pm 5.24$	±4.50	± 5.00	±4.84	±5.10	±5.00	±4.24	±4.36	±5.16	±5.84	Sawai Madhopur	Bundi
laipur	1.9	1.7	53.6	55.8	47.9	49.4	50.0	44.6	81.0	82.0	52.0	44.5	Bikaner	Jhalawar
21.	±0.84	±0.78	±4.20	±4.20	±4.76	±4.16	±4.56	±4.74	±3.84	±3.30	±4.44	±4.24	Bikaner	Kota
lodbour	6.5	6.8	31.6	26.0	32.2	27.4	28.9	23.6	64.8	66.0	29.0	31.2	Churu	Udaipur
Jounpui	±1.32	±1.50	±3.90	±3.74	±3.76	±3.90	±3.46	±3.86	±4.50	±4.14	±4.88	±4.56	Ganganagar	Banswara
Kata	3.8	2.9	35.1	28.5	40.9	33.4	34.7	32.0	70.5	70.2	38.3	39.0	Hanumangarh	Chittaurgarh
NOId	±1.26	±1.06	± 5.26	±4.64	± 5.82	±5.20	±4.76	±4.46	± 5.10	±4.66	±4.64	± 5.52	Jaipur	Dungarpur
	6.0	5.5	20.6	18.8	27.1	27.0	20.5	19.9	62.6	64.7	22.9	20.3	Alwar	Pratapgarh
Udaipur	±1.44	±1.42	±3.18	±3.30	±3.94	± 3.82	±3.74	±3.96	± 5.08	±4.28	±4.32	±3.50	Dausa	Rajsamand
	4.3	3.8	39.2	35.8	39.1	34.7	37.3	31.1	71.8	70.0	39.7	34.9	Jaipur	Udaipur
Rajasthan	±0.46	±0.48	±1.66	±1.62	±1.82	±1.66	±1.76	±1.72	±1.86	±1.70	±1.92	± 1.74	Jhunjhunun	
													Sikar	



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The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Agra division of Uttar Pradesh, in 2018, proportion of Std III-V children who can read Std II level text is 46.3%. With 95% probability, the true population proportion lies within 4.52% points of the estimate, i.e., between 50.8% and 41.8%.

## **Uttar Pradesh**

	Not in	school	Private	school		Std	Learni III-V	ng leve	ls: All so	chools Std V	/ -\/		List of districts	under each division
	% Ch	nildren	% Ch	ildren	% Ch	ildren		ildren	% Ch	ildren			Agra	Kanpur
Division/Region	(Age 6-	-14) not	(Age	6-14)	who ca	an read	who	can at	who	can	% Ch	ildren	Agra	Auraiya
Ű	enrol	led in	enrol	led in	Std II	level	leas	t do	read	Std II	who	can	Firozabad	Etawah
	sch	nool	private	school	te	ext	subtra	action	level	text	do dr	vision	Mainpuri	Farrukhabad
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Mathura	Kannauj
	4.0	3.1	61.8	62.0	31.0	16.3	30.0	48.1	61.8	74.5	40.9	54.0	Aligarh	Kanpur Dehat
Agra	4.0	J.1	01.0	02.0	51.5	40.5	39.0	40.1	01.0	74.5	40.9	54.0	Aligarh	Kanpur Nagar*
	$\pm 1.32$	$\pm 1.16$	$\pm 3.34$	±3./8	± 4.22	$\pm 4.52$	$\pm 4.68$	$\pm 4.66$	$\pm 4.64$	$\pm 3.68$	$\pm 5.02$	$\pm 4.48$	Etah	Lucknow
Aligarh	5.9	5.6	59.2	54.4	34.1	46.7	36.3	45.3	57.7	66.3	38.5	46.7	Hathras	Hardoi
0	±1.44	$^{l} \pm 1.32$	±4.16	±3.82	$\pm 4.52$	$\pm 4.56$	$\pm 4.80$	$\pm 3.98$	± 5.22	±4.82	$\pm 6.10$	±4.98	Kashganj	Kheri
Avadbya	4.0	3.1	53.7	51.0	34.2	38.9	34.3	34.0	58.6	62.7	27.9	27.5	Ayodhya	Lucknow
Лубинуа	±1.08	$\pm 0.92$	$\pm 4.14$	±4.38	± 3.98	$\pm 4.86$	$\pm 4.08$	$\pm 4.94$	±4.76	±4.84	± 5.02	$\pm 4.60$	Ambedkar Nagar	Raebareli
	1.7	1.5	63.2	63.2	39.5	48.2	39.7	51.3	64.0	74.4	38.7	52.0	Ayodhya	Sitapur
Azamgarh	$\pm 0.76$	+ 0.60	$\perp 4 14$	+ 5 08	± 4 92	+6.22	$2 \pm 5.62$	$\pm 5.74$	$\pm 5.14$	+ 4 68	1 5 54	+ 5 18	Bara Banki	Unnao
	12.70	12.00	12.0	± 9.00	± 7.52	± 0.22	± 5.02	± 5.7 4	± J.1+	± 4.00	± 3.34	± 5.10	Sultanpur	Meerut
Bareilly	12.2	12.6	42.0	39.3	24.3	29.6	20.6	28.5	51.4	55.6	22.3	25.8	Azamgarh	Baghpat
	$\pm 2.06$	$\pm 2.54$	$\pm 3.76$	$\pm 3.96$	$\pm 4.50$	$\pm 4.88$	$3 \pm 4.00$	$\pm 4.16$	$\pm 5.44$	$\pm 5.52$	$\pm 4.22$	±4.92	Azamgarh	Bulandshahr
Racti	3.6	3.5	53.8	50.4	33.5	36.0	32.6	41.9	59.6	64.5	30.6	38.0	Ballia	Gautam Buddha
Dasti	± 1.00	$\pm 1.32$	± 5.12	±4.70	$\pm 4.98$	$\pm 5.50$	$\pm 3.86$	$\pm 5.40$	$\pm 5.46$	±6.06	$\pm 4.92$	± 5.16	Mau	– Nagar
	5.6	3.7	37.2	31.1	29.0	33.9	28.8	38.3	63.0	60.0	34.9	41.4	Bareilly	Ghaziabad
Chitrakoot	+ 1 1 2	1 1 16	1 3 74	1 1 08	1 1 1 1	1 4 56	1 3 90	1 1 90	1 4 40	1 1 60	1 1 1 1	1 4 5 4	Bareilly	Meerut
	± 1.12	± 1.10	± 3.74	± 4.00	± 4.14	± 4.90	± 5.50	± 4.90	± 4.40	± 4.00	± 4.14	± 4.54	Budaun	Mirzapur
Devipatan	7.0	9.3	34.0	37.1	19.9	30.3	18.6	30.5	43.8	57.3	19.9	31.2	Pilibhit	Mirzapur
•	$\pm 1.44$	$\pm 1.48$	$\pm 3.70$	±3.66	$\pm 3.50$	$\pm 4.80$	$\pm 3.90$	$\pm 4.46$	$\pm 6.10$	±6.26	$\pm 4.80$	$\pm 4.84$	Shahjahanpur	Bhadohi
Corakhnur	1.7	2.0	64.1	58.0	41.8	48.6	40.7	41.0	70.5	75.2	37.7	40.0	Basti	Sonbhadra
Golakiipui	$\pm 0.56$	$\pm 0.60$	± 3.24	±4.00	±4.82	±4.26	$\pm 4.14$	±4.24	± 3.88	±3.36	±4.96	±4.28	Basti	Moradabad
	2.7	3.5	35.2	36.1	32.8	39.9	36.8	40.4	58.3	66.3	41.3	38.9	Sant Kabir Nagar	Amroha
Jhansi	+0.86	+1.26	+ 4.82	+ 4.82	+ 4.88	+4.84	4 + 5.60	+ 5.98	+4.70	+ 5.60	+ 5.46	+5.54	Siddharth Nagar	Bijnor
	37	47	575	48 7	38.3	40.2	33.7	395	613	- 65.8	-	41 7	Chitrakoot	Moradabad
Kanpur	5.7	1.7	. 2 70	10.7	50.5	10.2	2.2.00	. 2 50	1.1.50	. 4 1 4	55.5	. 2 00	Banda	Rampur
	±0.98	$\pm 1.08$	$\pm 3.70$	± 3.44	$\pm 4.14$	± 3.00	$\pm 3.90$	± 3.30	$\pm 4.50$	± 4.14	$\pm 4.06$	$\pm 3.90$	Chitrakoot	Prayagraj
Lucknow	8.2	5.7	41.7	40.6	27.4	32.4	24.2	28.7	54.4	61.5	21.9	33.2	Hamirpur	Fatehpur
	±1.36	± 1.12	± 3.18	±3.34	$\pm 3.92$	$\pm 3.22$	$2 \pm 3.38$	$\pm 3.36$	$\pm 4.36$	$\pm 3.50$	±3.72	$\pm 3.92$	Mahoba	Kaushambi
Moorut	5.4	3.6	60.5	61.9	40.3	58.7	41.4	56.9	69.1	84.2	44.8	58.2	Devipatan	Pratapgarh
Meerul	+ 1.68	+ 1.02	+ 3.84	+ 4.22	+ 4.06	+ 3.98	8+4.18	+ 4.82	+ 4.82	+2.80	+ 4.74	+ 3.80	Bahraich	Prayagraj
	3.9	37	44 7	377	32.2	38.9	28.4	28.0	56.3	66.3	28.7	31.9	Balrampur	Saharanpur
Mirzapur	1.1.1.1	J.7	1 2	57.7	1 1 70	50.5	1 . 1 6 2	20.0	50.5	UU.5	20.7	51.5	Gonda	Muzaffarnagar
	± 1.44	$\pm 1.20$	± 5.12	± 3.30	$\pm 4.70$	± 5.04	$\pm 4.02$	$\pm 4.20$	± 5.10	± 5.40	± 5.12	± 5.50	Shrawasti	Saharanpur
Moradabad	8.8	8.1	54.2	55.6	26.9	35.2	24.2	31./	58.3	65.4	25.2	33.5	Gorakhpur	Varanasi
	± 1.60	$\pm 1.66$	± 3.98	±4.56	$\pm 4.60$	$\pm 5.50$	$\pm 4.04$	$\pm 6.26$	$\pm 6.02$	±5.36	$\pm 4.78$	± 5.44	Deoria	Chandauli
Pravagrai	4.4	3.1	62.1	57.1	34.8	45.3	36.0	41.7	61.7	69.5	35.3	41.6	Gorakhpur	Ghazipur
Пауадгај	± 1.02	$\pm 0.70$	$\pm 3.94$	±4.52	$\pm 4.54$	$\pm 4.56$	$\pm 4.58$	$\pm 4.84$	$\pm 6.34$	±4.18	$\pm 5.54$	$\pm 5.00$	Kushinagar	Jaunpur
	6.0	4.4	56.8	53.3	37.6	46.6	37.9	45.3	71.7	76.8	40.0	50.3	Mahrajganj	Varanasi
Saharanpur	+1.68	+ 1 87	+6.44	+6.76	+ 7 00	+ 7 74	+6.26	+ 7 72	+6.24	+638	+810	+8.10	Jhansi	
	1.00	2.1	± 0.74	± 0.70	42.2		41 7		70.0	70.1	40.0	14.2	Jalaun	
Varanasi	1.2	2.1	54.0	52.2	42.2	45.4	41.7	44./	70.0	70.1	40.8	44.2	Jhansi	
	$\pm 0.48$	$\pm 0.74$	±4.26	±4.20	$\pm 4.90$	$\pm 4.56$	$\pm 4.88$	$\pm 4.32$	±4.20	±4.86	$\pm 5.76$	$\pm 4.84$	Lalitpur	
Uttar Pradesh	5.3	4.8	52.0	49.7	33.2	40.6	32.5	38.6	60.5	67.1	32.4	39.3		
	$\pm 0.34$	$\pm 0.34$	$\pm 0.98$	±1.06	±1.14	±1.16	$\pm 1.10$	±1.16	±1.28	±1.18	±1.28	$\pm 1.22$	* District not surveyed in A	ASER 2018.



Districts have been clubbed into divisions to produce these estimates. The grouping of districts is based on administrative divisions used in the state or on geographical regions.

The first row for each division gives the estimate of the relevant variable. The numbers below the estimate, in the second row, are twice the standard error of the corresponding estimate and represent the 95% confidence interval for the estimate. For instance, in Garhwal division of Uttarakhand, in 2018, proportion of Std III-V children who can read Std II level text is 50%. With 95% probability, the true population proportion lies within 5.12% points of the estimate, i.e., between 55.1% and 44.9%.

### Uttarakhand

	Not in	school	Privato	school			Learni	ng leve	ls: All s	chools			List of districts ur	der each division
	NOUTI	301001	Thvate	school		Std	III-V			Std V	/I-VIII			
	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildron	Carbural	V
Division/Region	(Age 6-	14) not	(Age	6-14)	who ca	in read	who o	can at	who	can	,o Ch	can	Garliwai	Kumaon
0	enrol	led in	enrol	led in	Std II	level	leas	t do	read	Std II	do div	vision	Chamoli	Almora
	sch	001	private	school	le	xt	Subtra	action	leve	liexi			Debradup	Pagachwar
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018		Dagestiwal
	1.2	1.8	42.0	41.3	48.4	50.0	47.8	44.6	74.6	79.0	38.8	43.5	Garhwal	Champawat
Garhwal	+0.54	+0.92	+ 4.30	+ 4.56	+ 5.62	+ 5.12	+ 5.56	+ 4.74	+ 5.34	+ 4.74	+ 4.86	+ 4.98	Hardwar	Nainital
	1 010 1	1 0102	1.150	1 1100	10102	10112	10100	±	1 010 1	±	1 1100	1 1100	Budraprayag	Dithorogarh
	1.1	1.0	40.7	44.5	53.6	51.7	49.8	46.6	75.2	78.3	39.9	42.3	Кишартауад	Fillioragam
Kumaon													Tehri Garhwal	Udham Singh Nagar
	$\pm 0.48$	$\pm 0.54$	$\pm 4.80$	$\pm 4.80$	±5.16	$\pm 5.44$	$\pm 4.90$	$\pm 4.84$	$\pm 5.76$	$\pm 4.64$	$\pm 5.00$	$\pm 4.88$		
	1.0						10.6					12.0	Uttarkashi	
Line	1.2	1.4	41.4	42.7	50.7	50.7	48.6	45.4	/4.9	/8./	39.3	43.0		
Uttaraknand	+0.36	+0.58	+ 3.20	+ 3.32	+ 3.92	+ 3.78	+ 3.80	+ 3.46	+ 3.92	+ 3.34	+ 3.48	+ 3.50		

### West Bengal

	Not in	school	Drivoto	cchool	1		Learni	ng leve	ls: All s	chools			List of districts u	inder each division
	NOT IN	SCHOOL	Frivale	school		Std	III-V			Std V	/I-VIII			
Division/Region	% Ch (Age 6-	nildren -14) not	% Ch (Age	nildren 6-14)	% Ch who ca	ildren an read	% Ch who	ildren can at	% Ch who	ildren can	% Ch	ildren	Burdwan	Medinipur
	enrol sch	led in 100l	enrol private	led in school	Std II te	level xt	leas subtra	t do action	read leve	Std II I text	do di	vision	Barddhaman	Bankura
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	Birbhum	Paschim Medinipur
	2.3	1.7	5.8	8.4	42.3	49.2	37.7	42.5	64.2	66.1	31.3	38.0	Hooghly	Purba Medinipur
Burdwan	±0.98	± 1.06	± 2.24	± 3.44	± 7.22	± 6.00	$\pm 8.06$	± 7.58	±6.74	± 7.20	± 5.78	± 7.94	Jalpaiguri	Puruliya
	0.8	1.8	15.5	11.7	34.6	37.7	37.3	38.3	59.0	52.8	28.2	22.2	Cooch Behar	Presidency
Jalpaiguri	+0.56	$\pm 0.86$	+ 3 46	+ 3 16	+ 6.98	+6.76	+6.10	+ 6 40	+ 7 14	+8.12	+6.26	+6.60	Darjiling*	Howrah
	10.50	10.00	11 5	1 9.10	27.0	10.70	21.1	21.2	<u> </u>	10.12	10.20	21.2	Jalpaiguri	Nadia
Maldah	3.9	3.9	11.5	9.6	27.8	33.1	31.1	31.3	52.9	45.6	20.8	21.2	Maldah	North Twenty Four
	±1.08	±1.28	± 2.22	±2.16	± 5.06	$\pm 6.50$	$\pm 5.50$	±7.84	± 7.26	±6.02	±5.54	±5.36	Dakshin Dinajpur	Parganas
Medininur	1.2	1.3	10.2	6.9	52.6	49.6	58.2	52.0	72.5	62.6	40.5	37.8	Maldah	South Twenty Four
meanipui	±0.62	$\pm 0.60$	± 3.58	±1.78	±5.68	± 5.52	$\pm 6.74$	± 5.60	± 5.24	±6.30	±6.28	±6.26	Murshidabad	Parganas
Presidency	2.5	1.3	8.5	5.7	52.1	45.9	49.5	46.3	69.0	64.0	32.4	28.8	Uttar Dinajpur	
Fresidency	± 1.28	±0.68	± 2.10	±1.72	± 5.56	$\pm 6.52$	$\pm 6.84$	± 5.72	± 5.38	± 5.98	± 5.80	±6.84	* District not surveyed in As	SER 2018.
Mart Dava and	2.4	2.0	9.9	7.9	42.6	44.1	43.6	43.3	63.8	58.8	30.6	30.6		
vvest Bengal	$\pm 0.48$	±0.42	±1.22	± 1.04	± 2.78	±2.88	± 3.12	± 3.00	± 2.98	± 3.02	±2.76	± 3.08		

# ASER 2018 process documents



## Sample design of rural ASER 2018

The purpose of ASER is twofold: (i) to obtain reliable estimates of the status of children's schooling and basic learning (reading and math ability); and (ii) to measure the change in these basic learning and school statistics over time. Every year a core set of questions regarding schooling status and basic learning levels remains the same. However, new questions are added to explore different dimensions of schooling and learning at the elementary stage. The latter set of questions can vary each year.

ASER 2006 and 2007 tested reading comprehension for different kinds of readers. ASER 2007 introduced testing in English, which has been repeated in four subsequent editions of ASER (2009, 2012, 2014, and 2016). ASER 2018 also included guestions on paid tuition, which have been repeated every year since 2009. ASER 2008, for the first time, had questions on telling time and oral math problems using currency. In addition, ASER 2008 incorporated questions on village infrastructure and household assets. Investigators were asked to record whether the village visited had a pucca road leading to it, whether it had a bank, PDS shop, etc. In the sampled households, information on assets like type of house, phone, television, etc was recorded. These questions were repeated in 2009 and in addition, father's education was also recorded. ASER 2010, while retaining the core questions on parents' education, household and village characteristics, introduced higher level testing tools for the first time. Questions on critical thinking were introduced, based on simple mathematical operations that appear in Std V textbooks. These were further refined and expanded in ASER 2011. Testing of reading and comprehension of English was first introduced in 2007, repeated in 2009 and 2012. ASER 2013 added expenditure on private tuition to the household guestionnaire.<sup>1</sup>

Every year, ASER surveyors visit a government primary or upper primary school in each sampled village. The school information is recorded based either on direct observation (such as attendance or usability of facilities) or on information provided by the school (such as grants information). School observations have been reported in 2005, 2007, and every year since 2009. Beginning in 2010, information is also collected on schools' RTE compliance.

ASER 2016 started a new series of ASER estimates after a break of one year,<sup>2</sup> and included the largest set of core questions. In ASER 2018, we continue with largely the same set of indicators. This year we have dropped the English assessment and instead added some "bonus" questions for older children to test their ability to apply basic arithmetic skills to everyday tasks such as calculating

### Wilima Wadhwa, Director, ASER Centre

time, applying unitary method, financial decision making and calculating discount.<sup>3</sup>

Finally, ASER continues the process of strengthening and streamlining started in 2008. Recheck of 4 or more villages in each district was introduced in 2008. This process was further strengthened in 2009. In ASER 2010, special attention was focused on improving training. In ASER 2011, in addition, Master Trainers monitored the survey process in the field. In ASER 2012, in addition, phone recheck was used on a large scale. During the survey, Master Trainers were called from a call centre in the state to get feedback on the progress of the survey on a daily basis. ASER 2013 incorporated all of these procedures, further streamlining processes in the field. ASER 2014 added external rechecks to the process. ASER 2018 includes all the monitoring and rechecks.

ASER has a two-stage sample design. In the first stage, for each rural district, villages are randomly selected from the Census village directory. Therefore, the coverage of ASER is the population of rural India.<sup>4</sup> ASER 2005-2014 uses the Census 2001 village directory as the sampling frame. The Census 2011 sampling frame became available in the public domain in 2015 and ASER 2016 uses this frame. In the second stage, households are randomly selected in each of the villages selected in the first stage. This sampling strategy generates a representative picture of each district. All rural districts are surveyed. The estimates obtained are then aggregated to the state and all-India levels.

Since estimates are generated at the district level, the minimum sample size calculations are done at the district level. The sample size is determined by the following considerations:

- Incidence of what is being measured in the population: Prior to ASER 2005, a survey of foundational learning outcomes had never been done in India. Therefore, the incidence of what we were trying to measure was unknown in the population. However, now we can use estimates from previous ASERs for sample size calculations.
- Confidence level of estimates: The standard used is 95%.
- Precision required on either side of the true value: The standard degree of accuracy most surveys employ is between 5% and 10%. An absolute precision of 5% along with a 95% confidence level implies that the estimates generated by the survey will be within 5

<sup>&</sup>lt;sup>1</sup> For more details, see the section 'Domains covered in ASER (2005-2018)' in this report.

<sup>&</sup>lt;sup>2</sup> In 2015, ASER was done in only two states, Maharashtra and Punjab.

<sup>&</sup>lt;sup>3</sup> Some of these questions are taken from ASER 2017 'Beyond Basics', the ASER survey that was designed for and administered to youth in the 14-18 age group in 28 districts across the country.

<sup>&</sup>lt;sup>4</sup> No adjustments are made to the population as given in the Census.

percentage points of the true values with a 95% probability. The precision can also be specified in relative terms — a relative precision of 5% means that the estimates will be within 5% of the true value. Relative precision requires higher sample sizes.

Sample size calculations can be done in various ways, depending on what assumptions are made about the underlying population. With a 50% incidence, 95% confidence level, and 5% absolute precision, the minimum sample size required in each stratum<sup>5</sup> is 384.<sup>6</sup> This derivation assumes that the population proportion is normally distributed. A sample size of 384 would imply a relative precision of 10%. If we were to require a 5% relative precision, on the other hand, the sample size would increase to 1600.7 Note that all the sample size calculations require estimates of the incidence in the population. In our case, we can get an estimate of the incidence from previous ASER surveys. However, incidence varies across different indicators - so incidence of reading ability is different from incidence of dropouts. In addition, we often want to measure things that are not binary, for which we need more observations.

Given these considerations, the sample size was decided to be 600 households in each district.<sup>8</sup> At the state level and at the all-India level, the survey has many more observations, lending estimates at those levels much higher levels of precision.

Since ASER has a two-stage sample design,<sup>9</sup> the district level sample size of 600 households has to be allocated to the two stages of sampling. ASER samples 30 villages in the first stage. These are randomly selected using the village directory of the Census as the sample frame.<sup>10</sup> In the second stage 20 households are randomly selected in each of the 30 selected villages in the first stage.<sup>11</sup>

Villages are selected using the Probability Proportional to Size (PPS) sampling method. This method allows villages with larger populations to have a higher chance of being selected in the sample. It is most useful when the first stage sampling units vary considerably in size, because it ensures that households in larger villages have the same probability of getting into the sample as those in smaller villages, and vice-versa.<sup>12,13</sup>

In the selected villages, 20 households are surveyed. Ideally, a complete house list of the selected village should be made and 20 households selected randomly from it. However, given time and resource constraints, a procedure for selecting households is adopted that preserves randomness as much as possible. The field investigators are asked to divide the village into four parts. This is done because villages often consist of hamlets and a procedure that randomly selects households from some central location may miss out households on the periphery of the village. In each of the four parts, investigators are asked to start at a central location and pick every 5<sup>th</sup>

<sup>5</sup> Stratification is discussed below.

<sup>7</sup> The sample size with relative precision is given by  $\frac{z^2 q}{r^2 p}$ , where z is the standard normal deviate corresponding to 95% probability (=1.96), p is

the incidence in the population (0.5), q = (1-p) and r is the degree of relative precision required (0.1).

<sup>8</sup> Sample size calculations assume simple random sampling. However, simple random sampling is unlikely to be the method of choice in an actual field survey. Therefore, often a "design effect" is added to the sample size. A design effect of 2 would double the sample size. At the district level a 7% precision along with a 95% confidence level would imply a sample size of 196, giving us a design effect of approximately 3. However, note that a sample size of 600 households gives us approximately 1000-1200 children per district.

<sup>9</sup> For a two-stage sample design, as explained above, sample size calculations have to take into account the design effect, which is the increase in variance of estimates due to departure from simple random sampling. This design effect is a function of the intra-cluster correlation. The greater this  $me = \frac{2\sigma}{p} = \frac{2\sqrt{\frac{d p(1-p)}{N-1}}}{p}$  where *d* is the design effect, *p* is the incidence in the population, its standard error, and N the correlation, the larger is the design effect implying a larger sample size for a given level of precision. For a given margin of error (me), the sample size can be backed out from sample size.

<sup>10</sup> Since the sampling frame is not current, sometimes sampled villages need to be replaced. However, as far as possible, villages are not replaced. There are three main reasons for replacing a village: first, if it has been converted to an urban municipality; second, due to natural disasters, like floods; or third, due to insurgency problems. Replacement villages are also drawn as an independent sample.

<sup>11</sup> This allocation of the total sample size to the different sampling stages is often based on logistical and cost considerations. For instance, a sample size of 600 households per district could have been allocated into 40 villages per district and 15 households per village; or 20 villages per district and 30 households per village. The first allocation would yield higher precision but cost more. Precision increases with a larger number of first-stage units since that reduces the adverse effect of a large intra-cluster correlation; however, cost also increases with a larger number of first-stage units, since that entails travelling to more villages (the marginal cost of surveying additional households in a given village is negligible). Therefore, there is a tradeoff between precision and cost.

<sup>12</sup> Probability Proportional to Size (PPS) is a sampling technique in which the probability of selecting a sampling unit (village, in our case) is proportional to the size of its population. The method works as follows: first, the cumulative population by village is calculated. Second, the total household population of the district is divided by the number of sampling units (villages) to get the Sampling Interval (SI). Third, a random number between 1 and the SI is chosen. This is referred to as the Random Start (RS). The RS denotes the site of the first village to be selected from the cumulative population. Fourth, the following series of numbers is formed: RS; RS+SI; RS+SI; RS+SI; rs+SI; maintenance and the series of numbers is formed. which the cumulative population contains the numbers in the series.

<sup>13</sup> Most large household surveys in India, like the National Sample Survey and the National Family Health Survey, also use this two-stage design and use PPS to select villages in the first stage.

<sup>&</sup>lt;sup>6</sup> The sample size with absolute precision is given by  $\frac{z^2 p q}{d^2}$ , where z is the standard normal deviate corresponding to 95% probability (=1.96), p is the incidence in the population (0.5), q = (1-p) and d is the degree of precision required (0.05).

household in a circular fashion till 5 households are selected. In each selected household, information on all resident children in the age group of 3-16 years is recorded and all children in the age group of 5-16 years are tested.

Since one of the goals of ASER is to generate estimates of change in learning, a panel survey design would provide more efficient estimates of change. However, given the large sample size of the ASER surveys and cost considerations, we adopted a rotating panel of villages rather than children. For ASER 2008-2014, each year, 10 villages from three years ago are dropped; 20 villages from the previous two years are retained and 10 new villages are added.<sup>14</sup> Given the sample size of 30 villages per district, this procedure creates a 3-year cycle in which the entire village sample is replaced. For instance, in ASER 2014 we dropped the 10 villages from ASER 2011, kept the 20 villages from 2012 and 2013 and added 10 more villages from the 2001 census village directory. However, for ASER 2016 a fresh sample of 30 villages was drawn for each district because we were using a new sampling frame – Census 2011. In ASER 2018, we have randomly dropped 10 villages from the 2016 sample, and added 10 new villages. Like before, these 10 new villages are drawn as an independent sample from the Census 2011 frame. In the next ASER, we will drop another 10 villages from the 2016 sample, retain the 10 villages added in 2018, and add another 10 villages.<sup>15</sup>

The survey provides estimates at the district, state and national levels. In order to aggregate estimates up from the district level, households have to be assigned weights — also called inflation factors. The inflation factor corresponding to a particular household denotes the number of households that the sampled household represents in the population. Given that 600 households are sampled in each district regardless of the size of the district, a household in a larger district will represent many more households and, therefore, have a larger weight associated with it than one in a sparsely populated district. The advantage of using PPS sampling in the first stage is that the sample is self-weighting at the district level. In other words, in each district the weight assigned to each of the sampled household turns out to be the same. This is because the inflation factor associated with a household is simply the inverse of the probability of it being selected into the sample. Since PPS sampling in the first stage and SRS sampling in the second stage, ensures that all households have an equal chance of being selected at the district level, the weights associated with households within a district are the same.<sup>16</sup> Therefore, weighted estimates are exactly the same as the unweighted estimates at the district level. However, to get estimates at the state and national levels, weighted estimates are needed since states have a different number of districts and districts vary by population.

Even though the purpose of the survey is to estimate learning levels among children, the household was chosen as the second stage sampling unit. This has a number of advantages. First, children are tested at home rather than in school, allowing all children to be tested rather than just those in school. Further, testing children in school might create a self-selection bias since many children don't attend school regularly and/or teachers may encourage testing the brighter children in class. Second, a household sample will generate an age distribution of children that can be cross-checked with other data sources, like the Census and the NSS. Third, a household sample makes calculation of the inflation factors easier since the population of children is no longer needed.

Often household surveys are stratified on various parameters of interest. The reason for stratification is to get enough observations on entities that have the characteristic that is being studied. The ASER survey stratifies the sample by population in the first stage. No stratification was possible at the second stage. In order to stratify on households with children in the 3-16 age group, in the second stage, we would need the population of such households in the village, which is not possible without a complete house list of the village.

<sup>&</sup>lt;sup>14</sup> The 10 new villages are drawn as an independent sample from the same sampling frame.

<sup>&</sup>lt;sup>15</sup> Note that starting in 2016, the "regular" ASER that visits all rural districts and assesses all children in basic reading and arithmetic is being done every other year rather than every year. Therefore, the entire village sample will be replaced in 6 rather than 3 years.

<sup>&</sup>lt;sup>16</sup> The probability that household *j* gets selected in village *i* ( $p_{ij}$ ) is the product of the probability that village *i* gets selected ( $p_{ij}$ ) and the probability that household *j* gets selected ( $p_{ij}$ ). This is given by:

 $p_{ij} = p_i p_{ji0} = \frac{30 v pop_i}{d pop} \frac{20}{v pop_i} = \frac{600}{d pop}$ , where  $v pop_i$  is the household population of village *i* and *dpop* is the number of households in the district.

Therefore, the weight associated with each sampled household within a district is the same and is the inverse of the probability of selection.

# ASER 2018 – Training

The ASER survey is conducted in almost every rural district in India with the help of local organisations and institutions including universities and colleges, nongovernmental organisations, self-help groups, youth clubs, government departments, District Institutes of Education and Training (DIETs), etc. On average ASER reaches over 560 districts each year, surveying an average of 650,000 children in more than 16,000 villages across the country. For ASER surveyors to succeed in this endeavour, they need to be trained rigorously. The ASER training process gives surveyors the skills needed to survey a village, assess children's learning levels reliably and record the information accurately.

In 2018, ASER reached 17,730 villages in 596 districts of India. A notable feature this year was ASER's partnership with DIETs. DIET volunteers surveyed 237 districts out of all 596 surveyed districts. ASER provides a unique opportunity to DIET and university/college students to understand and apply simple methods of assessment, survey and research, and an important exposure to the current realities of children's learning in the Indian education system. ASER survey trainings follow a threetier model that consists of:

### National training:

ASER state team members are trained by the ASER central team

**State level training:** Master Trainers\* are trained by the ASER state teams

District level training:

Surveyors are trained by Master Trainers

Standardisation in training and survey is extremely important in order to ensure that the data collected is reliable and valid across districts and states. For this purpose, ASER Centre ensures that the guidelines and instructions for the trainings delivered at all three tiers are kept clear and consistent so that each participant is able to conduct the survey accurately. The three-tiered structure is as follows:

Tier I: National training: Each year ASER survey begins with a 6-day national training. It brings together 100 + people - the core team, ASER state teams from across the country, participants from other countries, external guests, independent researchers, and others. The main objective of the national training is to thoroughly train teams on all survey tools and processes.

This year, the national training was held in Agra, Uttar Pradesh from 4 August to 11 August. Around 130 participants attended 6 days of classroom sessions and 2 days of field visits to villages to pilot ASER 2018 survey instruments.

#### Key features of the national training include:

- Classroom sessions: These are designed to provide a theoretical understanding of the survey process, quality control processes, sampling, financial planning for the survey, etc. Instruction manuals, role plays, group work, energizers, and presentations are used to make the classroom sessions effective and engaging. Energizers are used to enhance audience engagement during or in between classroom sessions. They make good icebreakers for people attending the national workshop for the first time, creating a more participative and positive learning environment.
- Field visits: One day of the national training is devoted to practicing the actual survey. An additional field day is devoted to rechecking\*\* the villages surveyed on the first field visit day. The two field visit days are extremely useful for the participants to get hands-on experience of doing the survey and recheck.
- Quizzes: Quizzes are administered in order to ensure that every participant understands the survey content and other processes thoroughly. Post training, additional sessions are organised to fill learning gaps identified through the quiz results.

This year, the ASER team successfully piloted an online quiz format in the national training which was also replicated in some state level trainings.

- Mock training: An entire day in the national training is devoted to mock trainings. Participants prepare on given topics after which each of them conducts a training session. Mock training sessions are organised to gauge participants' training ability and assist them in improving the same. Participants are assessed by experienced ASER trainers and personalized feedback is given to each participant. This session prepares the participants to lead and deliver trainings in the next tier more efficiently and confidently.
- Clarification and feedback: Short feedback and clarification rounds are conducted to provide additional

<sup>\*</sup> ASER Centre recruits Master Trainers in each district for the entire survey period. Two Master Trainers are responsible for the successful execution of the complete survey in each district, including quality control processes.

<sup>\*\*</sup> Rechecks are conducted in the surveyed villages to ensure that the survey was conducted properly.

support, close any gaps and ensure participants' complete understanding of the survey processes.

State planning: The national training is also a time to finalize the survey roll-out plans for each state, including identification of partners, plans for state level trainings and calendars for execution of the survey. Experience of the previous years' ASER survey is reviewed, manpower requirements are identified, partner lists are drawn up, tentative timelines are made, and detailed budgeting is done.

**Tier II: State level training:** These trainings are conducted in every state just before the district trainings. The national training process is replicated in the state level trainings. State level trainings are scheduled for 5 to 6 days with 3 to 4 days of classroom sessions and 2 days of field visits. The main objective is to prepare the Master Trainers as lead trainers so that they can successfully train the surveyors in their own districts. Approximately 843 Master Trainers participated in ASER 2018.

The structure of state level trainings is kept as close as possible to that of the national training. State level trainings too have five major components: classroom sessions, field visits, quizzes, mock trainings and district level planning.

Performance in mock trainings, field visits and quiz results are analysed to identify under-confident or under-prepared Master Trainers, who are either replaced, re-trained or provided with additional support during district trainings. It is mandatory for all participants to be present on all days of the training. Any participant who is not present for all sessions of the training cannot qualify as a Master Trainer for ASER.

**Tier III: District level training:** The district level training is the last tier of the training for the ASER survey. Master Trainers who were trained in the state level training, now train surveyors who carry out the survey in the villages.

District level trainings usually span 2-3 days. Like state level trainings, key elements of district trainings include classroom sessions, field practice sessions and a quiz. In most districts, surveyors who score low on the quiz are either replaced or are paired with stronger surveyors to carry out the survey. After the district level training, the survey is conducted by a team of two surveyors in each village.

**Monitoring of trainings:** Specific steps are taken to ensure that key aspects of training are implemented across all state level and district level trainings:

- State level trainings are usually attended and monitored by the head of the Pratham programs in the state as well as members of the central ASER team.
- To support district level activities of ASER including district level training, a call centre is set up to monitor and support ASER teams in some states. The call centre leader also attends the state level training to get a clear understanding of the ASER process. A trained call centre person interacts with Master Trainers on a daily basis to ensure that they complete all basic processes during training, survey and recheck. In states without a call centre, district activities are monitored by the ASER state teams.
- In all district level trainings, records are maintained for each ASER surveyor. These records contain attendance for each day of training and quiz marks of all surveyors. The data in this sheet is used for surveyor selection and pairing of surveyors for the ASER survey.

**Feedback on trainings:** ASER teams collect training feedback for all trainings - national, state level and district level. This exercise will help the core team assess quality of trainings delivered to the respective participants and aid review and improvement in training design, methods and materials and capability of trainers.

For a more detailed report on ASER 2018 trainings, please visit www.asercentre.org

# ASER village process

The following process explanations are excerpts from the ASER 2018 instruction manual, used by our volunteers during trainings. The sections covered are: talking to the Sarpanch, how to collect village information, how to make a map and divide it into sections, what to do in each hamlet/section, what to do in each household, what to do with children, and what to do in a school. Sample English versions of the survey formats have been provided in between sections. All formats are translated into regional languages for the survey along with the instruction manual.

### Talking to the Sarpanch

**Purpose:** Inform the Sarpanch about the ASER survey process and request cooperation for the survey.

Go to the village assigned to you. Two surveyors will survey one village. Once you are in the village, meet the Sarpanch and give him the 'Letter for Sarpanch'. Explain the purpose and importance of conducting the ASER survey and the activities you'll be doing in the village. If the Sarpanch is not present, then meet a village representative, such as the Panchayat Secretary. People may come up to you and ask what you are doing. Use the same points to explain the purpose of your visit.

### How to collect village information?

**Purpose:** To note the presence or absence of some basic facilities in the village.

Write the name of the state, district, block/taluk, village, surveyors, and date and day of the survey on the Village Information Sheet.

As you are walking around the village, look out for the basic facilities and schools listed on the Village Information Sheet and tick the 'Yes' box if they are available. If you are unable to locate these facilities and schools, ask the villagers and then observe yourself. While observing educational facilities in the village, go inside the facility to verify the information required before ticking the appropriate box. After you have walked around the entire village, if there are facilities on the Village Information Sheet that you could not observe, tick 'No' in the appropriate box. Every facility should be ticked either 'Yes' or 'No'.

Refer to page 270 for the Village Information Sheet.

How to make a map and divide it into sections?

**Purpose:** To divide the village into hamlets/sections and to randomly select households. The map is also used later for the recheck process.

**Get to know the village:** Walk around the village and talk to the local people. Ask them how many hamlets/sections are there in the village and where are they located? Where are the starting and ending points of the village? You could ask the villagers/village children to take you around as well.

**Make a rough map:** As you walk around, draw a rough map of how the village is laid out. The rough map will help you understand the pattern of habitations in the village. Use the help of local people to show you the main landmarks, such as places of worship, river, schools, bus stops, panchayat bhavans, anganwadis, ponds, clinics, ration shops, etc. Mark the main roads/streets/pathways

through the village prominently on the map. Mark each government school for which you have recorded the information in the Village Information Sheet on the map.

Verify the rough map: Get the Sarpanch or any other person who knows the village well to verify your rough map. Once everyone agrees that the map is a good representation of the village, finalize it.

**Make the final map:** Copy the final version of your rough map onto the map sheet given in the survey booklet (see page 269 for an example).

Once the final map has been made, make and number the sections as explained below:

### Case 1: Continuous village

- Divide the entire village into 4 sections geographically.
- Assign each section a number. Write the number on the map (see the example given below).
- Select 5 households from each section.



### Case 2: Village with hamlets/sections

If the village has discontinuous hamlets/sections, assign each hamlet/section a number. Write the number on the map. If the village has:

- 2 hamlets/sections: Divide each hamlet/section in 2 parts so that now you have 4 parts in all. Select 5 households from each part.
- 3 hamlets/sections: Take 7, 7 and 6 households from the 3 hamlets, respectively.
- 4 hamlets/sections: Select 5 households from each hamlet/section.
- More than 4 hamlets/sections: Randomly pick 4 hamlets/sections and then select 5 households from each of the 4 hamlets/sections. On the map, tick the hamlets/sections chosen for the survey on the map.



### What to do in each hamlet/section?

You need to pick 5 households from each of the 4 hamlets/ sections that you have selected, using the following procedure:

- Go to the selected hamlet/section. Try to find the central point in that hamlet/section. Standing in the centre of the hamlet/section, select the first household on your left. Begin the survey from this household.
- Thereafter, you must select every 5th household. This means that after you have surveyed the first household, skip the next 4 households and select the 5th one. While selecting households, count only those dwellings that are residential. 'Household' refers to every 'door or entrance to a house from the street'.
- If you have reached the end of the hamlet/section before surveying 5 households, go around the same hamlet/ section again using the 'every 5th household rule'.
- If a surveyed household gets selected again, go to the next/adjacent household, and continue till you have 5 households from the hamlet/section.
- If the hamlet/section has less than 5 households, then survey all the households. Survey the remaining households from other hamlets/sections.
- If the village has 20 or fewer households, then survey all the households in the village.

### SOME SPECIAL CASES

Household with multiple kitchens: In each house ask how many kitchens or chulhas are there. If there is more than one kitchen in a household, then select the kitchen from which the respondent's<sup>1</sup> family eats. You will survey only those individuals who regularly eat from the selected kitchen. After completing the survey in this household proceed to the next 5th household counting from the next household on the street, not from the next kitchen/chulha.

- Household with no children: If there are no children in the age group 3-16 in the selected household but there are inhabitants, include that household. Write the number of the hamlet/section from the map from which the household has been selected. Take information from the respondent about the name of the head of the household, total number of members in the household who eat from the same kitchen, household assets, name of the respondent and mobile number of the household. In addition, ask if anyone in the household has passed Std. 12 and if anyone knows how to use a computer. Such a household will be counted as one of the 5 surveyed households in each hamlet/section but no information about mother or father will be collected.
- Household locked: If the selected household is closed or if there is nobody at home, make a tally mark on the cover page of the survey booklet under 'Locked households'. This household does not count as a surveyed household. Do not include this household in the household survey sheet. Move to the next/adjacent household. After the survey is over, count the tally marks and write the total number of such cases in the same space on the cover page of the survey booklet.
- No response: If a household refuses to participate in the survey, make a tally mark on the cover page of the survey booklet under 'No response households'. This household does not count as a surveyed household. Do not include this household in the household survey sheet. Move to the next/adjacent household. After the survey is over, count the tally marks and write the total number of such cases in the same space on the cover page of the survey booklet.

After you have completed 5 households in the first hamlet/ section, move to the next hamlet/section. Follow the same process in all hamlets/sections to be surveyed.

Ensure that you go to households only when children are likely to be at home. This means that you will go to households after school hours and/or on a holiday/Sunday.

<sup>1</sup> Respondent is an adult who is present in the household during the survey and is providing information.

## Sample village information sheet

				11000	ited by f
Nan	ne of state:	HRUNACHAL PRADESH	Name of block:	NAFRA	-
Nan	ne of district:	WEST KAMENO	Name of village:	KHUPI	
	Surve	yors' names:	2 PELANA	NOKBU	1.19
Date	e of survey:	29/09/2019	Day of survey:	SATURDAY	
		1 22/01/2010		U	
	Please tick (✓	) the relevant box	Did you see th (Tick Yes/No	ne following facilities/services in village yourself? b based on your own observatio	the n)
	Pucca road le	eading to the village?	Ver	No	
	Electricity cor	nection in the village?	Ves	No	
TIES	Post office in	the village?	Yes	LNO	
ASIC FACILI	Bank (any typ	e) in the village?	Yes	V. 10	10
BJ	Govt. Primary village?	/Sub Health Centre in the	Yes	46	
	Private health	clinic in the village?	Yes	L Nor	6
	Computer ce village?	ntre/Internet café in the	Yes	UNG	
	Govt. Primary the village?	School (Std. 1 to 4/5) in	tes	No	
	Govt. Upper F in the village?	Primary School (Std. 1 to 7/8)	Yes	No	
HOOLS	Govt. School village?	(Std. 1 to 10/12) in the	Yes	VAD	
SCF	Govt. School village?	(Std. 6 to 8/10/12) in the	Vies	No	
	Private schoo	l in the village?	Yes	VM0	
	Anganwadi ir	ı village?	Yes	No	



Sample village map



## How to sample households in a hamlet?

### What to do in each household?

**Purpose:** To collect all required information about the selected households.

Refer to page 274 for the Household Survey Sheet.

### **GENERAL INFORMATION**

Fill in the general information about the household in the top block of the Household Survey Sheet:

- HH No.: Write the household number on every sheet. Write '1' for the first household surveyed, '2' for the second household surveyed and so on till the 20th household.
- Total number of members in the HH who regularly eat from the same kitchen: Ask this question to the adults present in the household and write the total number. If there are multiple kitchens/chulhas in the household, remember to include only those members who eat regularly from the respondent's kitchen.
- Note the following carefully:
  - Respondent name: 'Respondent' is an adult who is present in the household during the survey and is providing you with information.
  - Hamlet/Section no. (from the map) from which the household is selected.

## INFORMATION ABOUT CHILDREN AND ADULTS LIVING IN THE HOUSEHOLD

No information will be written in the Household Survey Sheet about any individual who does not regularly live in the household and does not eat from the respondent's kitchen.

Collect information from the sampled household about all children aged 3-16 years who regularly live in the household and eat from the same kitchen. Ask members of the household to help you identify these children. All such children should be included, even if their parents live in another village or if they are the children of the domestic help in the household.

### **RULES FOR SELECTING CHILDREN**

### Include all children who are:

- Older children: Often older girls and boys (in the age group of 11 to 16 years) may not be considered as children. Avoid saying 'children' in such cases. Probe about who all live in the household to make sure that nobody in this age group gets left out. Often older children who cannot read are very shy and hesitant about being tested. Be sensitive about this issue.
- Not at home during the time of the survey: Often children are busy in the household or on the farm. If the child is somewhere nearby, but not at home, take the information about the child, like the name, age, and schooling status. Ask the family members to call the child so that you can speak to her directly. If she does not come immediately, make a note of the

household and revisit it once you are done surveying the other households.

If there are children who regularly live in the household but who are out of the village on the day of the survey (e.g. a child has gone to visit her relatives) write their information even if you cannot test them. Record the reason for not testing her on the back of the Household Survey Sheet for that household.

- Relatives who live in the sampled household on a regular basis: Include these children because they live in the same household on a regular basis. But do not take information about their parents if parents do not live in this household.
- Do NOT include all children who are:
  - Not living in the household on a regular basis: DO NOT INCLUDE children of this family who do not regularly live in the household (e.g. children who are studying in another village/city or children who got married and are living elsewhere). Even if such children are present in the household during your visit, do not record their information.
  - Visiting children: DO NOT INCLUDE children who have come to visit their relatives or friends as they do not regularly live in the sampled household.

Many children may come up to you and want to be included out of curiosity. Do not discourage children who want to be tested. You can interact with them. But data must be recorded ONLY for children living in the 20 households that have been randomly selected.

**Mother's background information:** While beginning to record the information for each child, ask for the name of the child's mother. Note her name only if she is alive and regularly living in the household. If the child's mother is dead or not living in the household, do not write her name. If the mother has died or is divorced and the child's stepmother (father's present wife) is living in the household, include the stepmother as the child's mother. Note the mother's age and schooling information in the box 'Mother's Background Information'. While recording the mother's education, record the last class she has completed. For graduates, write B.A., B.Com. etc.

**Children:** Now that we have identified which children to survey, let us review what information is to be collected about each child. Remember, one row of the Household Survey Sheet will be used for each child.

- Collect the following information for ALL children aged 3-16:
  - Child's name, age, sex: The child's name, completed age and sex should be filled for all children in the sampled household. For female children write 'F' and for male children write 'M' (F = Female, M = Male).
- For children currently enrolled in school: Fill the child's class and type of school under 'In school children' in Household Survey Sheet as:

- If the child is attending an anganwadi, then put a tick under 'Anganwadi'. Tick under 'Government' in the 'Type of School' block.
- If the child is attending Lower Kindergarten (LKG), or Upper Kindergarten (UKG), or Nursery (NUR), or Balwadi, then tick under 'LKG/UKG/NUR/Balwadi'. Additionally, put a tick under 'Private' in case LKG/ UKG/NUR/Balwadi is a private school, OR under 'Government' in case of a pre-primary class of a government school.
- If the child is enrolled in Std. 1 to Std. 12, then write the Std. number under 'Std.' and put a tick under the appropriate type of school in the next column.
- If a child is double enrolled (i.e. enrolled in more than 1 school), then record the information only about the school she attends regularly.
- If child goes to the surveyed school: Ask the child if she attends the government school which you have or will be surveying. Do not ask this question to children who are not currently enrolled in school.
- Medium of Instruction: Record the language in which the child's school textbooks are written. For example, if the textbooks are in Hindi, write 'Hindi'. If you are unsure about this, ask the respondent which language the child's Math textbook is written in and note the answer.
- For out of school children (currently not enrolled in school): Fill the child's information under 'Out of school' as:
  - Never Enrolled: If the child has never been enrolled in school, then put a tick under 'Never enrolled'.
  - **Drop Out:** If the child has dropped out of school, then put a tick under 'Drop out'. Note the Std. in which the child was studying when she dropped out, irrespective of whether she passed or failed in that Std. Probe carefully to find out these details. Also note the actual year when the child left school. For example, if the child dropped out in 2012 write '2012'. Similarly, if the child dropped out in the last few months of this year, write '2018'.
- **Tuitions:** Ask the respondent if the child (aged 3-16) takes any tuition, meaning paid classes outside school.
  - If they take classes, then ask how much the parents pay for the child's tuition per month.
  - If the respondent cannot tell you the payment made per month, then leave the box blank.
  - If the child takes more than one paid tuition class, then add the payment for all the classes (per month) and write the total amount paid for the child's tuition classes per month.

**Father's background information:** At the end of the entry for each child, we ask for the age and schooling information of the child's father. We will only write this information if the father is alive and regularly living in the household.

If the father is dead or not living in the household, do not ask for this information. If the father has died or is divorced and the child's stepfather (mother's present husband) is living in the household, we will include the stepfather as the child's father. While recording the father's education, record the last class he has completed. For graduates, write B.A., B.Com. etc.

### HOUSEHOLD INDICATORS

All information on household indicators is to be recorded, based as much as possible, on observation. If for some reason you cannot observe them, note what is reported by the respondent/household members only and not by others. In case of assets like TV and mobile phone, ask whether it is there in the household and whether it is owned by the household or not. Some households might be hesitant to give this information. Explain to them that this information is being collected in order to link the education status of the child with the household's economic conditions.

- Type of house (the child lives in) are categorized as follows:
  - Pucca House: A pucca house is one which has walls and roof made of the following material:
  - Wall material: Burnt bricks, stones (packed with lime or cement), cement concrete, timber, ekra etc.
  - Roof Material: Tiles, GCI (Galvanised Corrugated Iron) sheets, asbestos cement sheet, RBC (Reinforced Brick Concrete), RCC (Reinforced Cement Concrete), timber etc.
  - Semi-Kutcha house: A house that has fixed walls made up of pucca material but roof is made up of material other than those used for pucca houses.
  - Kutcha House: The walls and roof are made of material other than those mentioned above, like unburnt bricks, bamboos, mud, grass, reeds, thatch, loosely packed stones etc.
- Motorized 4-wheeler: Ask the respondent and mark 'Yes' if the household owns a motorized 4-wheeler like a car, jeep etc., otherwise mark 'No'.
- Motorized 2-wheeler: Ask the respondent and mark 'Yes' if the household owns a motorized 2-wheeler like a motorcycle/scooter, otherwise mark 'No'.
- Electricity in the household:
  - Mark 'Yes' or 'No' by observing if the household has wires/electric meters and fittings, bulbs or not.
  - If there is an electricity connection, ask whether the household has had electricity at any time on the day of your visit, and not necessarily when you are doing the survey.
- Toilets: Mark 'Yes' or 'No' by observing if there is a constructed toilet in the house. If you are not able to observe, then ask whether there is a constructed toilet or not.

- **Television:** Mark 'Yes' or 'No' by observing if the household has a television or not. If you are not able to observe, then ask. It does not matter if the television is in working condition or not.
- Mobile phone: Mark 'Yes' if the household has a mobile phone, otherwise mark 'No'. In the next question, mark 'Yes' even if one mobile phone in the household is a smartphone. If there is no smartphone in the household, then mark 'No'. A smartphone is a phone with internet access.
- Reading material:
  - Newspaper: Mark 'Yes' if the household gets a newspaper every day. If not, mark 'No'.
  - Other reading material: This includes story books, magazines, comics, etc. but does not include calendars, religious books or textbooks. If any of the above reading material is available, mark 'Yes', otherwise mark 'No'.
- Other questions for the household:
  - Mark 'Yes' if anyone (apart from the mother(s) and father(s) whose background information has already been recorded earlier) in the household has completed Std. 12.
  - Mark 'Yes' if anyone in the household knows how to use a computer.
  - Mobile number of the household: Please note the mobile number in the box at the bottom of the sheet.
     Explain to the household members that the mobile number will only be used for the recheck process and not for any other purpose, and will not be shared with anyone else.

Note the end time of the survey.

If you do not get an answer for a question in the Household Survey Sheet, leave the appropriate box blank.

### What to do with children?

After filling the household information in the household survey sheet, you must test all children aged 5-16 in the household. Use the testing tool booklet to test each child and record the responses in the household survey sheet.

Who and what to test: You will test every child listed on the household survey sheet who is in the age group of 5-16 years, using the basic reading and arithmetic tool to find out the highest level they can do comfortably. In addition, older children in the age group 14-16 will also be tested on the bonus tool to assess their ability to apply basic arithmetic skills to everyday tasks.

How to we test: It is very important to be in the right frame of mind while assessing children. We are not going to the village/household as evaluators. Our objective is to find out the highest level that the child can do comfortably. Therefore, it is important to follow the guidelines given below while testing children:

- Relaxed environment for the child: Establish a relaxed environment by having a friendly conversation with the child before you start assessing the child. For example, ask the child about her favorite game/ sport, food, friend, festival, story, song; whether she has been to a fair and what did she enjoy the most in it, etc. When you feel that the child is comfortable, show her the tool and tell her that the tool has simple activities you would like her to participate in and that it is not an exam or test. Make sure that you and the child are seated at the same level, i.e. if you are sitting on a chair, then the child should also be seated on a chair. Try not to administer the test while standing.
- No pressure on the child from others: Often family members and neighbors gather around to watch how the child is performing. This can make the child nervous. The surveyors should try to make sure this does not happen. One of the surveyors can talk to the adults or do some activities with the other children while the other surveyor assesses the child.
- Encouragement and patience with the child: Encourage the child by appreciating the effort she is making. Be patient with her while she is reading or solving arithmetic problems. Give the child ample time to read, think and solve. Do not hurry her.
- Child's familiarity with the tool: To establish the highest level at which the child can comfortably do different tasks, you may need to take the child through a series of tasks until you can decide the level at which she really is. Practice and familiarity with a task improves the child's performance. For example, the child may not be able to read a simple paragraph fluently, but after successfully attempting an easier task like reading words, she may be able to read the same paragraph better. This is because now she is more comfortable with the tool and tasks. Hence, we give her another chance at reading the paragraph. In the case of solving subtraction/division problems in the arithmetic tool, ask the child to check her work once again if you think she has made careless mistakes.
- Different samples for different children: Each testing tool has 4 samples. In order to ensure that the children are not copying from each other, please use a different sample of the tool for children in the same household. Make sure you use all 4 samples equally during the entire survey in the village. This means that if you have finished testing the last child in a household using sample 3, then start the testing in the next household with sample 4.

For a step by step explanation of the testing process, please refer to the 'ASER assessment task' section of this report on pages 32-36.

hup?	23/09/2018	Survey 12:45 Phrases 2010	Bonus Tool Father's	st ALL children aged Background 14 -16 only) Information	the the exact answer	(leave blank if 'No onse' or 'Don't know')	Hour Jepi Toblets Bookshop Age Affended Trantrate Age Age Age Age Com Age	MUC 11 011 03 03 03 03	431 5	8 7 280 43 5	43 4 5					4-16 year old tested 1	Has anyone in the Does anyone in household ompleted 12th Std.?* know how to use	Yes No Don't a computer?	۶ ۶	to not include the	omerts) and ramerts).	Nd 14. 1. 1. 1. 1. 1.
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## Sample household survey sheet

### What to do in a school?

**Purpose:** To collect information on school enrolment, attendance, and basic facilities.

Refer to pages 277 and 278 for the School Observation Sheet.

Visit any government school (Std. 1 to 7/8) in the village. If there is no school in the village which has classes from Std. 1 to 7/8, then visit the government school in the village which has the highest enrolment in Std. 1 to 4/5. If there is no government school in the village with classes from Std. 1 to 4/5, then do not visit any school. In the top left box of the School Observation Sheet, tick according to the school visited.

- Meet the Head Master (HM). If the HM is not present, meet the seniormost teacher. The HM/seniormost teacher is your respondent. Explain the purpose and importance of ASER and give him/her the letter. Be very polite. Assure the respondent and teachers that the name of the school will not be shared with anybody.
- Ask the respondent for his/her phone number for the purpose of recheck. Explain that the number will not be used for any other purpose.
- Note the time of entry, date and day of visit to the school.
- Ask the HM for the enrolment register or any official document for the enrolment figures in that school.

### CHILDREN'S ENROLMENT AND ATTENDANCE

- Ask for the enrolment registers of all the classes to fill in the enrolment numbers. If a class has many sections, then take the total enrolment. If the enrolment register is not available or the HM refuses to show it, then write the enrolment numbers given by the HM.
- After filling in the enrolment, move around to the classrooms/areas where children are seated and note their attendance class-wise by counting them yourself. You may need to seek help from the teachers to distinguish children class-wise as they are often found seated in mixed groups. In such cases, ask children belonging to a particular class to raise their hands. Count the number of raised hands and accordingly fill the same in the observation sheet, class-wise. Please note that only children who are physically present in the class while you are counting should be included.
- Attendance of class with many sections: Take a headcount of the individual sections, add them up and write the total attendance.

### OFFICIAL MEDIUM OF INSTRUCTION IN THE SCHOOL

Note the official language used as the medium of instruction.

If the school has more than 1 official medium of instruction, note all of them in the box provided.

### TEACHERS

- Ask the following and mark accordingly. Do not include Anganwadi teachers or teachers appointed for pre-primary classes while counting teachers. Only include teachers for Std. 1 or higher.
- Ask the respondent and note the number of teachers appointed. Acting HM will be counted as a regular teacher. HM on deputation in the surveyed school will be counted under the regular HM category. The number of regular government teachers does not include the HM.
- Observe how many HMs/teachers are present and note the information.
- If the school has para-teachers, mark them separately. Para-teacher is a contract teacher with a different pay scale than that of a regular teacher. In many states para-teachers are called by different names such as Shiksha Mitra, Panchayat Shikshak, Vidya Volunteer etc.
- Do not include NGO volunteers in the list of teachers.

### **CLASSROOM OBSERVATIONS**

This section is for Std. 2 and Std. 4 only. If there is more than one section for a class, then randomly choose any one to observe. You may need to seek help from the teachers to distinguish children class-wise as more than one class may be seated together.

### **Observe the following and fill accordingly:**

- Seating arrangement of children: Are two or more classes sitting together in the same class or is a single class sitting separately?
- Is there a blackboard where the children are sitting? If yes, could you write on it easily?
- Was there any teaching material other than textbooks available like charts on the wall, picture/story cards etc.? Material painted on the walls of the classroom is not counted as teaching material.
- Where are children sitting? In the classroom, in the verandah or outside?

### **MID-DAY MEAL (MDM)**

- Ask the respondent whether the mid-day meal was served in the school today.
- Observe if there is a kitchen/shed for cooking the midday meal.
- Observe if any food is being cooked in the school today.
- Observe whether the mid-day meal was served in the school today (Look for the evidence of the mid-day meal in the school like dirty utensils or meal brought from outside). Mark accordingly.

### **FACILITIES OBSERVATION**

#### Observe the following and fill accordingly:

- Observe and count the total number of pucca rooms (excluding toilets). Also observe and count the total number of pucca rooms used for teaching on the day of the survey.
- Observe if there is an office/store/office-cum-store. Tick under 'Yes' if even one is present.
- Observe if there are library books in the school (even if kept in a cupboard).
- If there are library books, then observe if library books are being used by children.
- Observe if there is a hand pump/tap. If yes, check whether you could drink water from it. If there is no hand pump/tap or you could not drink water from it, check whether drinking water is available in any other way.
- Observe if the school has a complete boundary wall or complete fencing. It can be with or without a gate.
- Observe if the school has wires/electric meters and fittings, bulbs or not. If there is an electricity connection, ask whether the school has had electricity any time on the day of your visit to school, not necessarily when you are doing the survey.
- Observe if there are computers in the school to be used by children. If yes, then observe if computers are being used by children.

### PHYSICAL EDUCATION

Physical education includes all outdoor games with equipment (such as cricket, football etc.) or without equipment (such as yoga, kho-kho, kabaddi etc.) as well as indoor physical education games (such as table tennis, badminton etc.).

#### Observe/ask the following and fill accordingly:

- Ask the respondent if there is a timetable for the school and mark accordingly.
- If a timetable exists, request the respondent to show the timetable and observe if there is a physical education period in it. If you were able to observe the period in the timetable, then mark 'Yes', else mark 'No'.
- If there is no timetable, ask the respondent if dedicated time is allocated to physical education every week.
- Ask if a separate teacher has been appointed for physical education. A 'separate teacher' for physical education means a teacher who is responsible specifically for teaching physical education. Include this teacher even if he/she sometimes teaches another subject. For example, a physical education teacher who also takes a science class.

- If a separate teacher has not been appointed for physical education, ask if one or more teachers take the physical education class. 'Any other teacher' implies a teacher responsible for another subject who sometimes also teaches the physical education class. For example, a math teacher assigned with the additional responsibility of taking the physical education class would come under this category.
- Observe if there is a playground within the school premises. A playground is an area with a level playing field and/or playing equipment (e.g. slides, swings etc.). If there is a playground within the school premises, do not ask the next question.
- If there is no playground within the school premises, ask the respondent if there is any other playground where children play during school hours.
- Observe if any sports equipment is available in the school (even if kept in a cupboard). Do not include board games like ludo, chess, carom, and include indoor games like table tennis, badminton etc.
- Observe if the children were engaged in any physical education activity under the supervision of a teacher (physical education teacher/any other teacher). 'Under the supervision of a teacher' means that the teacher taking the physical education period was guiding the activity.

### TOILETS

- Observe whether the school has a common toilet, a separate toilet for girls, a separate toilet for boys and a separate toilet for teachers.
- Ask the HM, any teacher or any child if you cannot tell who the toilets are for.
- For each type of toilet facility that you find at the school, note whether it is locked or not. If it is unlocked, note whether it is usable or not. A usable toilet is a toilet with water available for use (running water/stored water) and a basic level of cleanliness.
- If more than 1 common toilet or other types of toilets are there in the school, then take information about the toilet that is in a better condition.

#### SCHOOL MANAGEMENT COMMITTEE (SMC)

- Ask the respondent if currently there is an SMC for this school.
- If there is an SMC for the school, then ask when the last meeting of SMC was held.

#### **PRE-PRIMARY CLASS**

- Observe if there is an Anganwadi in the school.
- Observe if there is a separate pre-primary class in the school (not an Anganwadi). If you are unable to locate, ask the respondent and observe yourself.

SCHO OBSERVATIC	OL NN SHEET		State: /	ALLA I the v	acha	L Pu Khu	adeu	الح	Istrict:	est l	Karn	Eng te school: _	Block: Nafra.	Wy School	ASE	20 20	18
INSTRUCTIONS: Visit ar in the village which h village with classes fr Documents required t	ny governme las the highe om Std. 1 to from the sch	ent sch est enro 4/5 th hool: R	ool (Sto siment i en do r egister	n Std. n Std. not visi with e	7/8) in 1 1 to 4/; t any s nrolme	the vill 5. Do r chool. nt det	age. If the of visit of	here is a gove he Hea childrer	no school i rnment sc d Master o	In the vi hool if i the sc	llage v t has n hool. I	which has a to classes to the abse	classes from Std. 1 to 7/8, th from Std. 1 to 4/5, If there i nce of the HM, meet the m	a visit the gov s no governme ost senior teacl	ernme ent sch her.	nt sch ool in	the
Arrival time in Schoo	of from which	Std. to	which		Res	ponde	at's infor	mation		Date	of	Dav of					ſ
school	Std.? (tick an	(auo Au		Name		d	Rya	Shar	ma	surve	2	survey	Surve	yors' names			
11 . NA AM	Std.	Ö	hers	Design	ation (T	ick)	¥	Te	eacher	-			1. Tenzena Nor	bu			
17 ONL	/5 1 to 6/7/	8		Phone	numbe	-	17160	XXX	××	2 2/09	2018	Sahada	2. Perma Zon	nba			Π
1. CHILDREN'S ENROLM ATTENDANCE	AENT AND S	td. 1 \$	td. 2 \$	td. 3	std. 4	Std. 5	Std. 6	Std. 7	Std. 8	AEDIUM	OF	(Do not includ	3. TEACHERS e anganwadi and pre-primary teac	Number hers) appointed (/	Ask)	nber pr Obsen	esent /e)
Children's enrolment (To	ake from	,					T	T	SNI	TRUCTIO	NN	Head Mast	er (Do not include acting HM)	-	-	4	
register yourselt). It more section, write the total.	e than 1	٩	11	4	8	8			1-1	Englis	4	Regular go include Hec	vernment teachers (Do not ad Master)	4	-	4	
Children's attendance t	oday"	ى م	8	Go	3	2			5		Π	Para-teach	SIG	٥	$\vdash$	۵	Π
*Note: Take headcount c	of children pre	esent. If	more th	an one	class is	seated	togethe	er. osk II	9		_		6. FACILITIES OB:	SERVATION			Γ
children of each class to do headcount in all sect	raise their har tions and write	nds sept	arately c	nd cou	int acco	ordingly	. If more	than 1 s	ection,			Total numb (count your	er of pucca rooms in the scho self and write)	ool excluding toil	ets .		2
4. CLA	SSROOM OB	SERVATI	SNO					5. MID-	DAY MEAL		$\left[ \right]$	Total numb (count your	er of rooms being used for teo self and write)	aching today			3
Tick the relevant box												Tick the relev	ant box			Yes	°N
Observe			td. 2	Ste	1.4	Tick	he relevo	int hox		Yes	oN N	Did you see	an office/store/office-cum sto	re?		7	
(If more than 1 section,	choose any	1) Yes	No	Yes	No							Did you see	library books in the school?				2
Are the children of this S with children from any a	std. sitting other Std.?	7			7	was	mid-day ol today	? (Ask)	erved in the	7	- 1-	If yes, did yo Did you see	u see library books being used a handpump/tap?	l/read by childre	n?		7
Is there a blackboard fo	or this class?	7	1	7		Is the	ere a kito	hen/she	ed for		Ī	f there is a f	andpump/tap, could you us	e it to drink wate	sr?		
If yes, could you easily w blackboard?	rite on the	7		7	ł	000	cing mid-	day me	al?(Observ	5		f there is no drinking wat	handpump/tap or it is not us er available?	able, did you see	0		2
Apart from textbooks, di	d you see an	A				Did the s	vou see 1 chool? (	ood be Observe	ing cooked	S	2	Did you see	a complete boundary wall or	fencing?		7	
other TLM (e.g. other bo the wall, picture/story co	oks, charts or ards etc.) in	c	7		7	Did y	ou see o	ny evid	ence of the			s there elec itting)	tricity connection in the scho	ol? (Look for wire	es &		2
the room?	Closesom	-	,		,	toda	y (Look f	or evide	ence like dir	1	-	f yes, was the	ere electricty in the school todo	3y? (Observe/ask			
Where is the class	Verandah	1		1	Ţ	uten	als or me	al brou	ght from	_		Did you see	computers to be used by child	dren in the schoo	212		7
farino vilit inernac	Outdoor	Н			Π	outsi	de etc.)?	(Obser	(e)	_	Ī	f yes, did yo	u see children using computer	52			

## Sample school observation sheet

7. PHYSICAL EDUCATION <sup>6</sup>		
Tick the relevant box	Yes	No
Is there a timetable in the school? (Ask)	2	
If yes, were you able to observe a physical education period in the timetable? (Observe)	7	
If not, is there a dedicated time allocated to physical education every week? (Ask)		-
Has a separate teacher been appointed for the physical education class? (Ask)		7
If a separate teacher has not been appointed, do any other teachers take the physical education class regularly? (Ask)	7	<b>`</b>
Did you see a playground in the school? (Observe)	.7	
If not, is there any other playground where children play during school hours? (Ask)		
Did you see sports equipment in the school? (Observe) (Do not include board games like ludo, chess, carrom etc.)		7
Did you see children engaging in any physical education activity under the supervision of a teacher? (Observe)		7
<ul> <li>Physical education includes all outdoor games with equipment (such as cricket, football etc.) or without equipment that the knowledge etc.</li> </ul>	uipment	(such as

\*Note: If there is more than one toilet of a particular type, then take information of the toilet in a better condition.

	Ň
	- Yes
9. SCHOOL MANAGEMENT COMMITTEE (SMC)	rently is there a School Management Committee (SMC) this school? (Ask)

04 108,2018	(dd/mm/bb)	
If yes, then when was the last meeting of the	School Management Committee (SMC) held? (Ask)	

	Yes Nor	Yes UND
IU. FRE-FRIMARY CLASS	s there an anganwadi in the school premises? (Observe)	s there a separate pre-primary class in the school (not an anganwadi)? (Observe)



Departure time from school 12:15 PM

# ASER 2018 – Quality control

Quality control processes form an integral part of the ASER architecture, and quality control processes are reviewed and improved each year in order to ensure the credibility of ASER data. For ASER 2018 as well, these processes were laid out for every stage of the survey and were executed by the Master Trainers and ASER state team members in every surveyed district.

The quality control processes can be broadly divided into internal field-based processes, data entry processes and external partner rechecks.

### FIELD PROCESSES

These comprise 'monitoring' and 'recheck' activities. Each year these processes are reviewed and strengthened in order to improve the quality of the data collected.

**Monitoring:** During the survey, quality was controlled via oversight of field activities in selected villages while the survey was in progress. As in previous years, the ASER 2018 monitoring process comprised two kinds of activities:

- Field monitoring: The ASER survey in each district was led by two Master Trainers who underwent training at the state level. Their responsibilities included personally monitoring survey teams who were evaluated during the district level training as possibly requiring additional support during the actual field survey. Master Trainers monitored approximately 6 villages out of the 30 villages surveyed in each district.
- Phone monitoring: Master Trainers made phone calls to all the surveyors as the survey rolled out in a district. Information regarding the progress of survey activities was collected during the calls and surveyors' doubts were clarified. This helped to provide immediate corrective action and to avoid repetition of mistakes in case of a two-weekend survey.

**Recheck:** Information collected during the survey was verified at various levels. The following recheck activities were conducted in ASER 2018:

- Desk and phone recheck: On the completion of the survey in a district, Master Trainers conducted desk rechecks of the survey booklets received for all surveyed villages, as far as possible in presence of the surveyors. In addition, Master Trainers telephoned at least 8 out of 20 surveyed households in each village. These procedures enabled quick identification of villages which were not surveyed correctly.
- Field recheck: Based on the information collected from the desk and phone rechecks, villages were identified for an in-person field recheck by the Master Trainers. In each such village, 50% of all surveyed households were rechecked. This process involved verification of the key parameters of the survey - sampling, selection of children and testing.

- Desk and field recheck by ASER State Teams: After a preliminary desk recheck by the Master Trainers, the ASER State Teams rechecked the survey booklets of most districts. Based on this desk recheck and the performance of Master Trainers, they also carried out a field recheck of selected villages.
- Cross-state field rechecks: As the last stage to strengthen the quality control process, ASER state team members switched states and conducted a cross-state recheck. Some districts were chosen purposively and others were selected randomly. The recheck process remained the same.

Overall, 54.6% villages surveyed in ASER 2018 were either field monitored, field rechecked or both by ASER teams.

### DATA ENTRY

Data for the survey was recorded in hard copy survey booklets. To compile and then process this data for analysis, it was entered into a database (MS Access or MySQL). For each question in the survey, rules and validations were in place to control incorrect entries.

Once the software was ready, data entry centres were selected across the country. Due to the scale and short timeline of the survey, ensuring smooth movement of data to the entry centres was vital. The preference was to choose a centre that was within the surveyed state, so that the data could reach without delay. For ASER 2018, 11 data entry centres were selected across the country and their staff was trained in person on how to enter ASER data.

After data entry was completed, every 5th entry was crosschecked with hard copies to ensure that correct data had been entered. If more than 2 mistakes were found, data for the entire village was cross-checked. A final cross-check was done centrally between child-wise data and a sheet with compiled data. If there was more than a 2% difference between the two data sets, then the entire district's data was cross-checked. Additionally, this year, a few members from ASER state teams cross-checked the data entry for at least 5 districts for each state.

### **EXTERNAL RECHECK**

An external recheck is periodically conducted to provide objective feedback regarding the quality of the data collected. In 2018, external rechecks were conducted in Himachal Pradesh, Punjab and Karnataka. 3 organizations conducted external field rechecks in selected districts and villages that had been surveyed.

At the end of all these layers of quality control checks, villages with poor survey quality were either resurveyed or dropped from the data set.

For a more detailed report on the quality control framework of ASER, please visit www.asercentre.org





# Age-grade distribution in sample 2018

				A	ndl	hra	Pr	ade	esh				
Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Ι	78.6 83	83.4	88.8	75.2	21.4	5.6	1.1	0.7					13.6
П			9.7	23.0	56.5	20.6	5.1	0.7	3.2	26			13.4
Ш					19.8	53.7	21.0	5.3		5.0	2.5	2.2	13.6
IV						17.4	54.5	24.4	6.4			3.2	13.5
V	21.4	16.6	1 5	1 0			15.7	54.1	22.6	5.2			12.4
VI			1.5	1.0	2.3	2.0		14.0	53.3	23.4	7.2		11.5
VII						2.0	2.5	1.4	12.9	54.7	27.1	18.2	11.3
VIII								1.4	1.7	13.0	63.2	78.6	10.7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Assam

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	72.9	81.5	88.1	75.6	36.8	10.0	2.4	FO	1.6			6.0	13.4
П				8.1	19.8	41.3	31.4	9.7	5.0	4.2	10		10.9
Ш				4.6	17.8	42.7	41.1	15.1	7.2		4.0		15.1
IV					4.1	12.6	35.7	36.3	14.1	6.5			13.9
V	27.1	18.6	2.8				9.2	32.9	40.3	14.8	6.2		13.6
VI			5.0					8.5	29.2	39.0	15.6	8.1	12.6
VII						ر.ر	2.0	2 2	6.4	28.2	40.9	22.8	11.1
VIII								2.5	1.2	7.4	33.2	63.1	9.4
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

## Chhattisgarh

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total							
Std	%	%	%	%	%	%	%	%	%	%	%	%	%							
Ι	69.0	59.4	87.2	82.0	23.6	3.1	4.2	0.0					13.6							
										10.5	14.7	61.6	30.1	4.5	0.9	5.9 2.4	2.4			13.2
Ш												11.7	51.8	28.9	5.2		2.4	2.3	6.2	12.1
IV						13.1	53.8	32.3				0.2	12.8							
V	31.0	40.6	2.2	2.4			10.6	50.1	31.8	5.4			12.6							
VI			2.3	5.4	3.1	2.0		9.9	49.0	29.5	5.2		11.6							
VII						2.0	2.4	1.6	11.6	50.0	34.7	17.1	12.3							
VIII								1.0	1.7	12.6	57.8	76.7	11.8							
Total	100	100	100	100	100	100	100	100	100	100	100	100	100							

## All India

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total	
Std	%	%	%	%	%	%	%	%	%	%	%	%	%	
I	77.9	78.4	81.1	71.2	30.5	9.5	3.4	6.1					15.4	
П				14.8	21.9	48.1	30.1	9.0	0.1	6.2	12			13.4
111					15.8	40.6	32.2	10.4		т.Ј	8.5	7.5	13.0	
IV						14.1	40.0	29.4	9.0	5.0			12.6	
V	22.1	21.6	4.1	6.0			11.5	38.0	32.1	11.0			12.8	
VI			4.1	0.9	5.7	5.8		11.7	38.8	30.2	10.7	7.9	11.7	
VII						5.0	3.8	1 1	11.2	36.4	33.3	19.8	10.9	
VIII								7.4	2.7	13.1	47.5	64.8	10.1	
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	

## Arunachal Pradesh

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Ι	96.0	91.3	80.7	63.5	29.5	16.0	5.3	3.7	4 5	4.4			17.1
II			13.7	26.7	45.0	21.4	13.6	6.7	ч.5 -	4.4	3.4	3.0	13.3
III			5.2	6.0	18.4	38.2	33.5	17.7	7.1	7.5			15.0
IV						17.6	30.7	26.9	14.6	12.8	5.3	6.5	13.5
V	4.0	8.7		3.8	7.2	5.2	14.8	28.8	32.3	15.3	10.2	7.2	13.0
VI			0.4					11.7	28.4	25.8	26.0	18.4	11.9
VII						1.7	2.1	16	10.6	20.4	28.3	20.4	8.4
VIII								4.0	2.5	13.8	26.8	44.5	7.8
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

## Bihar

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total				
Std	%	%	%	%	%	%	%	%	%	%	%	%	%				
I	70.4	70.0	71.1	61.1	32.5	14.4	7.8	4.1	- 0				16.5				
П							21.4	26.1	39.4	29.7	13.8	7.6	5.0	7.7	6 5		14.3
Ш										8.5	17.4	29.1	30.2	14.1	6.9		6.5
IV					7.2	16.6	27.1	26.5	12.4	8.0			12.6				
V	29.6	30.0	7.0	4.3		6.7	13.4	27.2	29.0	15.7	8.8	5.9	12.8				
VI			7.0		2.6		5.7	13.6	28.8	28.3	16.5	10.5	11.9				
VII					5.0	3.6	1.0	7.0	12.5	24.4	31.8	21.3	9.6				
VIII							1.9	7.0	4.6	15.9	36.4	57.1	9.5				
Total	100	100	100	100	100	100	100	100	100	100	100	100	100				


					ł	lar	yaı	na					
Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	89.2	89.4	81.0	58.2	23.8	6.2	1.9	26					15.1
11			15.1	35.0	45.6	25.4	6.9	2.0	3.3	12			13.4
Ш				5.3	24.4	40.6	25.0	8.6		4.2	5.2	4.4	12.8
IV					5.1	22.4	39.4	21.8	6.7				11.9
V	10.8	10.6	4.0				22.6	41.6	22.9	6.5			12.4
VI			4.0	1.6	1 1			21.0	42.4	25.2	8.9	6.0	12.2
VII					1.1	5.5	4.1	4 5	20.7	38.9	30.5	16.9	11.1
VIII								4.3	4.1	25.3	55.4	72.6	11.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Jammu and Kashmir

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	68.2	72.6	79.3	65.4	39.9	15.8	5.4	6.6					14.6
11			17.8	26.5	35.5	37.9	14.5	0.0	6.4	2.9	1.0		13.3
Ш					17.5	25.8	37.0	12.4			1.9	5.5	11.8
IV						14.8	27.2	35.4	12.1	5.7			12.8
V	31.8	27.4	2.0	0 1			12.5	30.0	34.7	15.5	5.0		12.9
VI			2.9	0.1	7.1	57		12.0	32.9	35.1	12.1	6.2	12.3
VII						5.7	3.4	26	11.7	27.2	45.2	20.1	11.8
VIII								5.0	2.3	13.6	35.8	68.1	10.6
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Karnataka

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Ι	84.0	67.1	85.1	91.9	43.8	2.2	2 0						12.9
П			13.2	6.5	48.4	49.3	5.0	4.6	E 1	1.0			12.0
Ш					6.5	39.4	54.3		5.1	1.0	1.4	2.4	13.0
IV						7.0	35.9	52.1				2.4	13.4
V	16.0	32.9	1 0	1 6			5.1	37.2	56.8	5.0			13.7
VI			1.0	1.0	1.4	2.0		5.0	32.2	55.6	5.0		12.7
VII						2.0	0.9	1 1	5.4	31.7	56.2	12.7	12.1
VIII								1.1	0.4	6.7	37.4	84.9	10.3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

#### Gujarat

							, ,						
Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Ι	86.7	67.3	93.7	90.3	9.2	0.9	0.5						12.7
Ш			5.8	8.4	79.9	11.0	0.5	1.2	2.2				11.7
Ш					9.8	76.4	13.3		3.2	3.0	2.2	6.2	12.0
IV						10.7	75.6	15.3			5.5	0.5	11.9
V	13.3	32.7	0.5	1 2			9.1	75.1	13.6				12.3
VI			0.5	1.5	1.1	1.0		7.5	73.2	17.1			12.3
VII						1.0	1.5	0.0	9.1	70.6	17.6	15.4	13.0
VIII								0.9	1.0	9.3	79.1	78.4	14.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Himachal Pradesh

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	33.9	60.1	95.7	66.9	12.2	1.2	1 5						12.1
П				31.3	59.1	11.2	1.5	2.4	2.0				12.0
Ш					26.8	60.5	19.3		3.0	2.2	1.0		14.2
IV						24.7	47.3	12.0			1.0	3.3	11.4
V	66.1	39.9	4.3	1.0			29.6	50.7	14.3				12.6
VI				1.0	2.0	2 5		31.2	50.2	11.0			12.2
VII						2.5	2.4	2.0	28.6	47.8	21.9	13.8	12.5
VIII								5.0	3.3	39.0	76.3	82.9	13.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Jharkhand

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	85.3	80.0	77.2	61.4	28.1	11.2	5.2	2.7	4 5				16.8
П			17.2	28.6	38.9	24.3	11.0	6.1	4.5	6.2	6.2	6.0	13.3
111				7.1	23.1	36.0	28.4	13.0	6.9		0.5	0.0	13.7
IV					6.7	18.0	32.6	25.9	12.1	7.9			12.7
V	14.7	20.0	ΕG			7.6	14.9	31.7	29.7	15.3	8.2	5.3	13.1
VI			5.0	3.0	2.2		6.6	14.7	30.1	27.8	16.4	10.8	11.7
VII					3.2	2.8	1 2	БО	12.7	29.0	31.0	23.2	9.9
VIII							1.5	5.0	4.0	13.8	38.0	54.8	8.8
Total	100	100	100	100	100	100	100	100	100	100	100	100	100



Mad	hva	Prac	lesh
Triuu	i yu	I I UU	

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	82.4	82.9	86.5	65.4	19.8	5.9	1.8	2.0					14.2
П			10.3	27.8	52.5	21.7	6.3	2.9	2.5	2.0			13.1
Ш				5.3	21.1	47.2	22.3	6.7		5.0	5.0	4.2	12.9
IV						17.2	46.9	20.7	6.2				11.7
V	17.6	17.1	2.2			6.0	16.8	46.4	24.2	8.6			13.3
VI			5.2	1.5	6.7			16.4	47.0	26.3	8.2	7.3	12.4
VII						1.9	6.0	5.1	15.9	43.9	29.0	18.5	11.6
VIII								1.9	4.2	17.5	57.8	70.0	10.8
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

## Manipur

3	4	5	6	7	8	9	10	11	12	13	14	Total
%	%	%	%	%	%	%	%	%	%	%	%	%
24.8	60.5	85.0	71.4	47.2	16.8	4.2	1.7	1 5				13.8
		13.1	23.3	38.0	35.5	15.4	6.2	1.5	5.6	1.6	2.2	13.3
				12.7	35.6	41.2	22.5	10.5			2.2	15.9
					9.7	30.7	36.0	20.5	10.5	5.6		14.8
75.2	39.5	1.0	гa			7.3	23.2	30.6	18.1	11.1	5.3	12.3
		1.9	5.2	2.1	2 5		8.5	28.0	31.9	19.0	11.8	12.1
					2.5	1.1	2.0	8.7	23.9	31.9	27.1	9.7
							2.0	0.3	10.0	30.8	53.7	8.2
100	100	100	100	100	100	100	100	100	100	100	100	100
	3 % 24.8 75.2	3     4       %     %       24.8     60.5       75.2     39.5       100     100	3         4         5           %         %         %           24.8         60.5         85.0           75.2         39.5         13.1           75.2         1.9         1.9	3         4         5         6           %         %         %         %           24.8         60.5         85.0         71.4           75.2         39.5         13.1         23.3           75.2         39.5         1.9         5.2           100         100         100         100	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3         4         5         6         7         8         9           %         %         %         %         %         %         %           24.8         60.5         85.0         71.4         47.2         16.8         4.2           24.8         60.5         85.0         71.4         47.2         16.8         4.2           75.2         39.5         13.1         23.3         38.0         35.5         15.4           75.2         39.5         1.9         5.2         12.7         35.6         41.2           2.1         2.1         2.5         1.7         30.7         30.7         1.1           100         100         100         100         100         100         100         100	3         4         5         6         7         8         9         10           %         %         %         %         %         %         %         %         %           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7           75.2         39.5         13.1         23.3         38.0         35.5         15.4         6.2           75.2         39.5         1.9         5.2         2.1         9.7         30.7         36.0           75.2         2.9         2.1         2.5         1.1         2.5         1.1         2.0           100         100         100         100         100         100         100         100	3         4         5         6         7         8         9         10         11           %         %         %         %         %         %         %         %         %         %           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7         1.5           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7         1.5           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7         1.5           24.8         60.5         85.0         71.4         47.2         16.8         4.2         1.7         1.5           30.7         13.1         23.3         38.0         35.6         41.2         22.5         10.5           75.2         39.5         1.9         5.2         2.1         9.7         30.7         36.0         20.5           7.1         2.1         1.1         7.3         23.2         30.6           2.1         1.1         2.1         1.1         2.1         1.1         2.1         1.1         2.1         2.1         2	3         4         5         6         7         8         9         10         11         12           %	3         4         5         6         7         8         9         10         11         12         13 $\%$ </td <td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td>	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

### Mizoram

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	100.0	78.9	76.3	70.0	40.6	10.7	1.3	1.2	3.0	3.0			15.8
П			17.8	22.5	38.7	39.6	14.8	6.7	5.9	5.9	2.8	2.2	15.5
Ш				5.8	14.8	31.7	49.1	20.9	14.3	9.1			17.9
IV						12.0	25.7	38.9	27.8	20.0	12.2	5.1	17.0
V	0.0	21.1	5.9				6.1	21.2	24.0	16.2	6.4	2.3	9.3
VI			5.5	1.7	5.9	6.0		7.3	24.4	25.6	13.8	11.9	8.8
VII						0.0	3.0	3.8	5 5	19.2	29.7	19.9	7.7
VIII								5.0	5.5	6.1	35.1	58.7	8.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

						Ke	eral	a					
Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Ι	42.9	41.4	87.8	87.4	18.3	2.5	0.6						13.1
Ш			6.8	12.4	71.3	22.5	0.6	3.0	0.2				13.8
Ш					8.6	65.1	21.4		0.5	2.4	2.2	2.2	12.6
IV						9.5	68.2	18.9			5.5	2.2	12.2
V	57.1	58.7	E E	0.2			9.3	70.8	20.5				13.4
VI			5.5	0.2	1.8	0.4		6.8	64.6	22.9			10.9
VII						0.4	0.5	0.6	13.7	61.2	22.3	5.3	11.7
VIII								0.6	0.9	13.5	74.3	92.5	12.3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Maharashtra

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	52.7	39.5	89.1	92.4	44.9	2.2	4.0						13.2
П			8.7	6.3	48.7	55.2	4.0	5.2	E 7				12.3
111					6.0	37.8	59.4		5.7	5.6		2.2	13.1
IV							32.5	59.9			5.7	2.3	13.3
V	47.3	60.5	2.2	1 2				29.5	61.5				12.7
VI			2.2	1.5	0.4	4.8	4.2		28.4	58.3			12.4
VII							4.2	5.4	4.4	31.0	57.6	11.2	12.0
VIII									4.4	5.0	36.8	86.6	11.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

## Meghalaya

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	74.1	56.7	67.7	77.0	45.4	16.3	11.3	5.1	2.4	6.6	2.1	1.6	12.1
П			25.5	17.4	30.9	38.6	17.4	13.7	8.2	0.0	2.1	1.0	12.8
111					16.6	35.8	44.6	29.7	20.5	15.3	7.1	6.2	20.6
IV						7.0	21.8	25.9	23.7	19.0	12.1	9.0	15.5
V	25.9	43.3	6.8	5.6				18.8	26.7	25.5	21.6	16.7	15.4
VI			0.0	5.0	7.1	2.4	4.0	6.1	15.9	20.7	25.4	20.5	11.8
VII						2.4	4.9	0.8	25	11.0	20.5	27.0	7.8
VIII								0.0	2.5	1.9	11.2	19.2	4.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100



						Od	lish	a					
Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	95.3	88.1	84.8	82.9	19.1	2.6	2.0						19.1
II			12.8	15.3	68.6	19.1	2.9	3.6	26				12.8
Ш					9.6	64.1	20.7		2.0	6.8	5 5	86	11.5
IV						10.4	66.9	17.8			5.5	0.0	10.8
V	4.7	11.9	2.4	1 0			7.8	70.0	20.3				12.4
VI			2.4	1.0	2.8	27		6.5	67.6	21.4			11.1
VII						5.7	1.7	0.1	8.0	63.6	20.0	11.6	11.7
VIII								∠.1	1.5	8.2	74.5	79.8	10.7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Rajasthan

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	70.6	76.0	76.6	54.6	21.9	7.1	2.6	4.2					16.4
11			20.0	33.4	40.7	22.6	8.1	4.5	4.9	7.2	2.0		13.9
ш				9.0	26.3	37.6	23.6	8.9		1.2	5.0	7.1	12.8
IV					8.2	22.1	36.5	24.2	10.0				12.4
V	29.4	24.0	2.4			8.0	19.8	35.1	24.9	11.5	5.4		12.4
VI			3.4	2.9	2.0		7.4	19.2	35.8	25.2	11.4	8.0	11.4
VII					2.9	2.6	2.0	6.7	18.3	33.9	30.2	22.1	10.5
VIII							2.0	1.7	6.2	22.3	50.1	62.8	10.2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

### Tamil Nadu

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	42.7	41.8	92.6	68.7	7.6	0.5	1 1						10.9
П				27.6	72.0	8.5	1.1	1.3	1 1				12.4
Ш					17.9	68.3	8.2		1.1	1.7	2.2	11 1	12.2
IV						20.5	78.4	8.7			2.3	11.1	13.2
V	57.3	58.2	7.4	27			11.6	79.2	9.7				13.9
VI				5.7	2.6	2.2		10.0	76.2	15.5			12.9
VII						2.2	0.7	0.0	12.0	72.3	14.9	8.7	12.3
VIII								0.0	1.0	10.5	82.8	80.2	12.2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

#### Nagaland

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Ι	30.2	66.5	69.3	74.4	43.3	13.2	5.3	2.8	4.4	2.1			13.6
II			25.0	19.1	43.1	32.1	12.8	7.1	4.4	2.1	5.4	67	13.2
111				5.4	10.8	45.5	40.1	18.8	9.5	5.1		0.7	17.1
IV						7.8	34.8	36.2	19.8	12.1	7.3		15.5
V	69.9	33.5	57				5.8	30.7	36.5	18.3	10.2	6.9	13.4
VI			5.7	1.1	2.8	15			25.9	32.9	16.3	14.0	10.7
VII						1.5	1.3	4.4	4.0	25.3	35.6	28.6	9.8
VIII									4.0	4.2	25.2	43.8	6.7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

## Punjab

		-							-				
Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Т	78.4	73.4	79.2	64.1	33.8	8.5	1.3	2.4					12.9
II			14.3	30.0	39.2	29.3	8.4	2.4	3.3				12.1
Ш					20.4	38.9	27.6	10.3		3.2	3.3	2.9	12.5
IV					5.3	18.5	40.2	29.9	8.7				13.1
V	21.6	26.7	6 5	ΕQ			19.2	35.8	29.2	7.7			12.6
VI			0.5	5.9	1 2	4.0		16.8	38.4	26.3	9.4	7.3	12.3
VII					1.5	4.9	3.3	4.0	17.9	41.8	35.8	21.3	12.9
VIII								4.0	2.6	21.0	51.5	68.6	11.6
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

## Sikkim

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	18.1	56.7	73.0	61.0	35.0	8.1	0.5	0.0					10.4
П			23.8	28.8	43.7	26.5	8.9	0.0	1.1	4 5	1 0		11.2
Ш				7.4	17.6	38.6	31.4	9.0		4.5	1.5	5.3	11.6
IV						22.1	40.7	28.5	10.5				12.4
V	81.9	43.3	2.2				13.9	39.2	37.2	20.8	7.4		14.9
VI			5.5	2.8	3.7	10		13.6	39.6	33.9	17.0	9.1	14.2
VII						4.0	4.6	7.0	8.5	30.5	36.6	23.7	12.8
VIII								1.9	3.1	10.4	37.7	61.9	12.6
Total	100	100	100	100	100	100	100	100	100	100	100	100	100



						Tri	pur	a					
Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	50.0		92.5	94.4	50.6	2.2	0.0	1.0					10.0
11			7.5	5.6	45.4	62.8	11.6	1.0	1.5	20			12.3
Ш						29.4	67.7	10.3		2.9	3.8	2.2	13.1
IV							19.5	65.7	11.3			5.2	14.3
V	50.0				4.0			17.4	58.9	12.8			11.9
VI					4.0	5.6	1.2		26.9	62.5	12.2		13.6
VII							1.2	4.8	15	18.0	65.7	15.0	12.4
VIII									1.3	3.8	18.2	81.8	12.5
Total	100		100	100	100	100	100	100	100	100	100	100	100

### Uttarakhand

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	85.6	71.3	86.6	68.8	29.3	9.3	4.4	50					13.1
II			12.4	24.6	48.0	30.3	11.1	5.2	5.9	7.0	10		12.8
Ш				5.3	17.3	42.7	34.7	10.4		7.9	1.0	6.3	13.2
IV						12.5	34.0	29.5	13.0				11.9
V	14.4	28.7	1.0				12.9	40.6	29.8	13.8	7.6		13.9
VI			1.0	1.4	5.4	5 1		10.1	34.5	27.9	13.0	11.7	11.9
VII						5.1	2.9	13	12.7	35.3	33.6	23.0	12.2
VIII								4.5	4.1	15.1	44.1	59.0	10.9
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

#### Telangana

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
Ι	43.2	76.1	84.2	73.5	39.2	10.4	2.3	2.2					15.0
П			14.0	20.0	44.6	30.0	10.3	2.5	3.5	5.2			13.2
					13.2	45.6	34.0	12.1		5.2	3.2	0 0	14.7
IV						11.7	41.5	31.2	9.7			0.0	12.8
V	56.8	23.9	1 8	65			10.0	41.5	29.0	10.5			11.8
VI			1.0	0.5	3.0	22		11.2	45.3	28.4	9.9		11.5
VII						2.5	1.9	1.6	11.4	43.8	28.3	26.5	11.0
VIII								1.6	1.2	12.0	58.5	64.7	10.1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

#### Uttar Pradesh

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	80.4	85.3	80.2	64.3	35.0	17.4	7.7	3.9		1.0			17.7
II			15.7	25.5	40.5	29.9	17.7	8.9	5./	4.0	0.4		14.9
Ш				7.5	16.4	30.4	27.5	16.7	8.4	5.5	9.4	6.4	13.4
IV					5.8	14.3	28.4	23.8	15.0	10.0			12.3
V	19.6	14.7	4.1			5.6	13.4	26.8	26.7	16.4	10.3	8.1	12.4
VI			4.1	2.7	2.2			13.5	29.1	26.7	18.6	13.8	11.7
VII					2.5	2.5	5.3	6.4	11.6	24.2	28.3	24.7	9.5
VIII								0.4	3.6	13.2	33.4	47.0	8.2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

## West Bengal

Age	3	4	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%	%	%
I	38.0	70.5	90.9	83.2	58.1	15.4	2.5	2.1					17.3
Ш			5.9	13.3	32.3	52.0	13.6	5.1	4.4	47			13.7
Ш					8.1	26.9	54.7	15.4		4.7	4.9	3.5	13.0
IV							26.7	50.0	14.4				13.0
V	62.0	29.5	2.2	2.6				27.6	53.3	16.3			12.7
VI			5.2	5.0	1.5	5.7	25		18.2	30.6	10.7	6.1	7.9
VII							2.5	3.8	8.5	39.2	42.0	21.7	12.1
VIII									1.3	9.2	42.4	68.7	10.5
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

# Grade-wise composition of children in sample over time

Because ASER samples households and not children, there is no control on the number of children from each grade who are surveyed each year. However, given the sampling methodology and the sample size, it is reasonable to expect that at the state level, similar proportions of children in each grade will be covered each year.

The graphs below show the distribution of the ASER sample in each state by grade of sampled children, in 2010, 2012, 2014, 2016 and 2018. As is evident, the distribution is similar across all years. This implies that trends in schooling and learning estimates presented by ASER reveal underlying population trends and are not an artefact of the sample or the methodology.



























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						Al	l Ir	ndia	
Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018									
Std	Category	2010	2012	2014	2016	2018			
	Govt no tuition	61.5	55.8	52.3	51.1	49.8		Std	
Std I-V	Govt + tuition	15.7	15.3	15.7	16.6	16.6			
	Pvt no tuition	17.7	22.4	24.0	24.3	24.6			
	Pvt + tuition	5.0	6.5	8.1	8.0	9.0			
	Total	100	100	100	100	100		Std I-	
	Govt no tuition	54.6	53.1	50.7	50.7	49.7			
	Govt + tuition	20.3	19.3	20.2	21.2	21.0			
Std VI-VIII	Pvt no tuition	19.2	21.6	22.6	21.9	22.4		( المع	
	Pvt + tuition	5.9	6.0	6.4	6.2	7.0		5(0 V	
	Total	100	100	100	100	100			

Tuition expenditures by school type 2018									
Ctul	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
Sta	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
6+d I V/	Govt	38.1	42.6	11.6	7.7	100			
510 1-1	Pvt	20.3	35.0	19.7	25.0	100			
Std VI-VIII	Govt	19.4	46.5	18.3	15.8	100			
	Pvt	11.1	32.3	22.6	34.0	100			

### Andhra Pradesh

Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018										
Std	Category	Category 2010 2012 2014 2016 2018								
	Govt no tuition	50.4	53.2	52.9	53.2	49.6				
	Govt + tuition	12.0	9.7	10.3	7.5	8.3				
Std I-V	Pvt no tuition	25.8	26.5	28.0	32.3	34.6				
	Pvt + tuition	11.8	10.5	8.8	7.0	7.5				
	Total	100	100	100	100	100				
	Govt no tuition	58.9	62.3	62.4	64.7	60.7				
	Govt + tuition	14.6	10.6	8.1	8.5	7.8				
Std VI-VIII	Pvt no tuition	17.3	19.4	23.8	22.2	26.3				
	Pvt + tuition	9.2	7.7	5.7	4.6	5.3				
	Total	100	100	100	100	100				

### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt	71.6	20.3	6.9	1.2	100		
	Pvt	60.0	28.4	7.4	4.3	100		
Std VI-VIII	Govt	50.8	39.4	7.1	2.7	100		
	Pvt							

#### Arunachal Pradesh

Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018									
Std	Category	2010	2012	2014	2016	2018			
	Govt no tuition	78.5	63.8	67.8	61.2	54.7			
	Govt + tuition	7.9	10.3	8.6	5.0	7.7			
Std I-V	Pvt no tuition	8.9	13.0	16.1	23.8	22.6			
	Pvt + tuition	4.7	12.9	7.6	10.0	15.1			
	Total	100	100	100	100	100			
	Govt no tuition	80.3	69.8	71.9	73.7	57.1			
	Govt + tuition	8.6	14.4	9.7	6.3	12.3			
Std VI-VIII	Pvt no tuition	7.2	7.3	13.2	13.8	19.0			
	Pvt + tuition	4.0	8.5	5.2	6.2	11.6			
	Total	100	100	100	100	100			

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
510	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt	1.5	13.1	35.8	49.6	100		
	P∨t	1.6	6.7	28.0	63.7	100		
Std VI-VIII	Govt	1.1	4.9	11.2	82.8	100		
	Pvt	2.5	0.7	10.5	86.3	100		



#### Assam Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018 Std Category 2010 2012 2014 2016 2018 73.5 71.7 66.9 63.5 Govt no tuition 75.3 Govt + tuition 10.4 9.0 9.6 8.6 9.5 Std I-V Pvt no tuition 10.3 12.3 11.6 16.7 19.1 Pvt + tuition 4.0 5.2 7.2 7.9 7.9 100 Total 100 100 100 100 Govt no tuition 64.8 69.3 68.6 66.2 62.7 Govt + tuition 18.6 15.1 14.9 14.0 13.1 Std VI-VIII Pvt no tuition 11.8 9.3 9.4 12.2 15.8 Pvt + tuition 4.8 6.4 7.1 7.6 8.4 Total 100 100 100 100 100

Tuition expenditures by school type 2018								
Ctul	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Sta	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
6+d   \/	Govt	7.3	41.0	32.4	19.4	100		
510 1-1	Pvt	3.1	13.0	27.3	56.6	100		
Std VI-VIII	Govt	3.6	18.0	33.1	45.3	100		
	Pvt	0.9	6.7	18.5	74.0	100		

#### Bihar

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
Std I-V	Govt no tuition	53.8	52.4	45.3	40.9	33.6
	Govt + tuition	40.8	40.6	41.5	44.7	43.7
	Pvt no tuition	2.6	2.6	5.0	4.9	8.1
	Pvt + tuition	2.8	4.4	8.2	9.5	14.6
	Total	100	100	100	100	100
	Govt no tuition	38.9	38.4	35.4	32.2	27.0
	Govt + tuition	56.8	58.0	57.7	60.0	62.5
Std VI-VIII	Pvt no tuition	1.4	1.2	2.4	2.3	3.4
	Pvt + tuition	2.8	2.5	4.5	5.5	7.1
	Total	100	100	100	100	100

#### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt	41.5	44.2	9.0	5.3	100		
	Pvt	22.3	35.1	17.4	25.2	100		
Std VI-VIII	Govt	23.6	52.9	15.4	8.1	100		
	Pvt	8.5	29.3	22.2	40.0	100		

						Chhat				
Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018										
Std	Category	2010	2012	2014	2016	2018				
Std I-V	Govt no tuition	88.3	82.7	77.8	76.0	75.1				
	Govt + tuition	1.3	1.1	0.8	0.7	0.8				
	Pvt no tuition	9.5	14.5	19.9	21.9	22.1				
	Pvt + tuition	1.0	1.8	1.4	1.5	2.1				
	Total	100	100	100	100	100				
	Govt no tuition	89.1	88.4	84.3	82.7	81.9				
	Govt + tuition	2.1	1.6	1.2	0.7	0.9				
Std VI-VIII	Pvt no tuition	7.9	9.0	13.0	15.4	15.9				
	Pvt + tuition	1.0	1.0	1.5	1.2	1.2				
	Total	100	100	100	100	100				

#### Chhattisgarh

Ctul	Type of	% Childre	% Children in different tuition expenditure categories (in Rupees per month)						
Sia	school	Rs 100 or Rs 101- less 200		Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt								
	P∨t			 Data					
Std VI-VIII	Govt		' ir ∟	sufficient					
	Pvt								



#### Gujarat Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018 Std Category 2010 2012 2014 2016 2018 80.3 81.6 77.3 Govt no tuition 83.1 82.8 Govt + tuition 7.9 7.4 8.1 7.9 9.6 Std I-V Pvt no tuition 5.7 5.7 6.8 5.7 8.4 Pvt + tuition 3.3 4.1 4.9 4.8 4.7 100 Total 100 100 100 100 Govt no tuition 78.5 79.7 76.7 82.1 78.6 Govt + tuition 9.1 9.3 10.3 9.3 11.5 5.1 Std VI-VIII Pvt no tuition 8.2 7.6 5.8 6.3 Pvt + tuition 4.2 4.7 5.5 3.6 4.1 Total 100 100 100 100 100

Tuition expenditures by school type 2018								
Ctul	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Sta	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
6+d 1 V	Govt	27.4	53.0	14.4	5.3	100		
510 1-0	Pvt	10.5	31.3	23.6	34.6	100		
Std VI-VIII	Govt	15.9	54.2	16.4	13.5	100		
	Pvt	3.6	20.8	29.4	46.2	100		

#### Haryana

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	50.0	42.9	37.4	33.1	35.6
Std I-V	Govt + tuition	5.6	3.4	4.4	4.9	4.5
	Pvt no tuition	35.1	42.5	44.8	46.1	46.8
	Pvt + tuition	9.3	11.3	13.5	15.9	13.1
	Total	100	100	100	100	100
	Govt no tuition	54.3	55.1	47.5	42.0	42.1
	Govt + tuition	7.7	3.1	5.1	5.9	5.7
Std VI-VIII	Pvt no tuition	29.3	34.7	38.4	39.9	40.8
	Pvt + tuition	8.7	7.1	8.9	12.2	11.3
	Total	100	100	100	100	100

#### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
510	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt	17.7	41.6	25.9	14.8	100			
	P∨t	4.3	22.5	32.1	41.1	100			
Std VI-VIII	Govt	4.8	26.9	30.1	38.2	100			
	Pvt	0.4	10.1	21.8	67.7	100			

					H	imacr	al	ľ
Trends ove % Childre 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII 1 2018	by scho	ol type a	nd tuition	1		T 2
Std	Category	2010	2012	2014	2016	2018		
	Govt no tuition	65.3	64.9	58.1	52.0	50.6		S
	Govt + tuition	3.3	2.1	1.6	1.9	1.8		
Std I-V	Pvt no tuition	25.5	28.2	35.4	41.9	42.5	-	
	Pvt + tuition	6.0	4.8	4.8	4.1	5.1		
	Total	100	100	100	100	100		5
	Govt no tuition	75.1	72.2	66.8	66.8	61.2		
	Govt + tuition	5.5	3.7	2.4	2.4	2.7	-	
Std VI-VIII	Pvt no tuition	15.1	19.6	25.4	27.2	31.1		
	Pvt + tuition	4.4	4.5	5.4	3.6	5.1		2
	Total	100	100	100	100	100		

#### Himachal Pradesh

Ctul	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Sta	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt							
	P∨t	4.6	22.4	27.5	45.5	100		
Std VI-VIII	Govt		г —	 Data	·			
	P∨t		i i	nsufficien	t			



#### Jammu and Kashmir

Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2012, 2014 and 2018									
Std	Category	2010	2012	2014	2016	2018			
Std I-V	Govt no tuition		48.6	42.9		52.3			
	Govt + tuition		3.5	5.3		2.1			
	Pvt no tuition		36.4	38.5		39.3			
	Pvt + tuition		11.4	13.3		6.3			
	Total		100	100		100			
	Govt no tuition		55.5	47.0		59.5			
	Govt + tuition		6.2	6.7		3.8			
Std VI-VIII	Pvt no tuition		27.3	33.3		31.1			
	Pvt + tuition		11.0	13.1		5.7			
	Total		100	100		100			

Tuition expenditures by school type 2018									
Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std 1 1/	Govt	11.1	27.6	33.9	27.4	100			
510 1-1	Pvt	4.8	16.3	27.6	51.4	100			
Std VI-VIII	Govt	6.4	14.4	26.3	52.9	100			
Sta VI-VIII	Pvt	2.1	4.6	15.3	78.1	100			

#### Jharkhand

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	70.0	62.9	59.9	59.2	53.0
Std I-V	Govt + tuition	21.5	20.3	20.5	23.0	25.1
	Pvt no tuition	5.3	9.4	11.7	10.5	12.5
	Pvt + tuition	3.1	7.5	7.8	7.4	9.5
	Total	100	100	100	100	100
	Govt no tuition	57.5	56.7	52.1	53.8	49.2
	Govt + tuition	32.8	30.4	33.3	32.6	34.5
Std VI-VIII	Pvt no tuition	5.3	6.6	8.4	8.3	9.2
	Pvt + tuition	4.5	6.4	6.2	5.3	7.1
	Total	100	100	100	100	100

### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
Sta	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt	53.3	40.5	4.6	1.6	100			
	Pvt	22.2	48.1	16.9	12.8	100			
Std VI-VIII	Govt	30.9	58.1	8.7	2.3	100			
	Pvt	13.3	52.0	21.3	13.5	100			

	Karr										
Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018											
Std	Category	Category 2010 2012 2014 2016 2018									
Std I-V	Govt no tuition	74.5	70.7	67.8	65.3	62.6					
	Govt + tuition	5.4	7.0	5.1	6.1	6.0					
	Pvt no tuition	16.2	17.3	21.6	22.6	24.7					
	Pvt + tuition	3.9	5.0	5.6	6.1	6.8					
	Total	100	100	100	100	100					
	Govt no tuition	75.9	71.5	72.9	71.0	69.8					
	Govt + tuition	5.2	6.7	5.2	4.2	4.9					
Std VI-VIII	Pvt no tuition	16.0	17.7	18.7	20.8	21.6					
	Pvt + tuition	2.8	4.0	3.3	4.0	3.7					
	Total	100	100	100	100	100					

#### Karnataka

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Std	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt	62.5	25.1	6.6	5.7	100		
	Pvt	37.2	34.1	15.0	13.8	100		
Std VI-VIII	Govt	54.3	28.0	10.9	6.8	100		
	Pvt	27.0	36.9	17.2	18.9	100		



Ker								ala
Trends ove % Children 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII I 2018	by schoo	ol type a	nd tuition	ı		Tu 20
Std	Category	2010	2012	2014	2016	2018		
	Govt no tuition	26.4	27.8	27.2	33.2	38.6		Sto
Std I-V	Govt + tuition	14.1	10.1	9.1	7.7	9.3		
	Pvt no tuition	37.1	45.4	47.7	47.9	41.3		
	Pvt + tuition	22.3	16.7	16.1	11.3	10.9		
	Total	100	100	100	100	100		Sto
	Govt no tuition	27.2	26.5	27.3	35.8	38.4		
	Govt + tuition	21.4	13.7	12.4	13.2	15.7		
Std VI-VIII	Pvt no tuition	29.5	38.0	39.0	39.1	32.3		C to
	Pvt + tuition	22.0	21.8	21.3	12.0	13.7		510
	Total	100	100	100	100	100		

Tuition expenditures by school type 2018								
Ctul	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
510	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std IV	Govt	9.8	37.5	28.8	23.9	100		
Stu I-v	P∨t	1.4	20.0	32.2	46.5	100		
Std VI-VIII	Govt	0.0	17.7	25.3	57.1	100		
	P∨t	1.9	6.5	22.4	69.3	100		

#### Madhya Pradesh

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	80.2	74.2	68.0	64.6	62.0
	Govt + tuition	4.0	5.7	6.7	6.0	6.5
Std I-V	Pvt no tuition	13.5	17.1	21.6	25.2	27.5
	Pvt + tuition	2.4	3.1	3.7	4.2	4.0
	Total	100	100	100	100	100
	Govt no tuition	76.4	76.8	73.2	70.4	68.2
	Govt + tuition	9.5	7.2	8.4	8.8	8.5
Std VI-VIII	Pvt no tuition	10.1	13.2	15.3	17.2	19.8
	Pvt + tuition	4.0	2.8	3.1	3.7	3.6
	Total	100	100	100	100	100

### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
310	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt	39.8	44.0	11.6	4.5	100			
	P∨t	25.1	43.3	19.4	12.3	100			
Std VI-VIII	Govt	27.4	54.0	13.0	5.6	100			
	P∨t	11.6	46.1	25.1	17.2	100			

	Manar										
Trends ove % Children 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII I 2018	by schoo	ol type a	nd tuition	1					
Std	Category	2010	2012	2014	2016	2018					
Std I-V	Govt no tuition	82.7	74.8	70.4	68.2	69.6					
	Govt + tuition	4.6	5.1	6.0	6.0	5.0					
	Pvt no tuition	10.4	15.8	18.2	19.8	19.9					
	Pvt + tuition	2.3	4.3	5.4	6.0	5.5					
	Total	100	100	100	100	100					
	Govt no tuition	46.9	38.7	40.3	39.3	40.5					
	Govt + tuition	4.2	3.5	4.1	3.6	4.4					
Std VI-VIII	Pvt no tuition	42.0	49.3	47.8	48.4	45.9					
	Pvt + tuition	6.9	8.5	7.9	8.7	9.2					
	Total	100	100	100	100	100					

#### Maharashtra

C+d	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Std	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt	37.6	43.3	10.5	8.6	100		
	P∨t	19.0	37.8	20.0	23.2	100		
Std VI-VIII	Govt	24.6	41.0	17.8	16.6	100		
	Pvt	14.1	36.4	23.2	26.3	100		



Manipur										
Trends ove % Childre 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII 1 2018	by scho	ol type a	nd tuitior	ı		Tuitic 2018		
Std	Category	2010	2012	2014	2016	2018				
	Govt no tuition	30.1	25.3	19.9	21.5	20.6		Std		
Std I-V	Govt + tuition	4.7	6.4	7.7	7.9	10.5				
	Pvt no tuition	35.1	35.7	36.9	35.5	32.2				
	Pvt + tuition	30.2	32.6	35.5	35.2	36.7				
	Total	100	100	100	100	100		Std I-		
	Govt no tuition	23.0	20.2	14.5	19.0	17.8				
	Govt + tuition	5.6	7.8	7.1	5.3	7.6				
Std VI-VIII	Pvt no tuition	30.1	37.2	44.2	43.5	41.6		Cul V		
	Pvt + tuition	41.3	34.8	34.2	32.3	33.0		5(0 V		
	Total	100	100	100	100	100				

Tuition expenditures by school type 2018								
Ctul	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Sid	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
6+4 1 \/	Govt	0.9	17.5	41.1	40.5	100		
5tu I-V	Pvt	0.9	4.9	25.0	69.3	100		
Std VI-VIII	Govt							
	Pvt	1.6	2.1	15.8	80.5	100		

#### Meghalaya

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	47.2	45.1	44.2	38.8	35.0
	Govt + tuition	4.1	3.7	2.7	5.1	4.8
Std I-V	Pvt no tuition	39.3	41.1	42.7	44.8	47.5
	Pvt + tuition	9.4	10.2	10.5	11.2	12.8
	Total	100	100	100	100	100
	Govt no tuition	34.7	38.7	34.3	35.1	31.7
	Govt + tuition	6.8	1.9	2.0	7.4	4.6
Std VI-VIII	Pvt no tuition	48.0	47.8	53.0	45.5	53.3
	Pvt + tuition	10.5	11.5	10.7	12.0	10.4
	Total	100	100	100	100	100

### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
310	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt	7.0	43.7	27.2	22.2	100			
	Pvt	7.1	29.8	24.2	38.8	100			
Std VI-VIII	Govt								
	Pvt	2.2	22.3	25.2	50.3	100			

	MIZ										
Trends ove % Children 2010, 201	Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018										
Std	Category	Category 2010 2012 2014 2016 2018									
	Govt no tuition	86.4	72.4	58.7	62.2	70.1					
Std I-V	Govt + tuition	2.3	2.5	0.3	3.7	0.8					
	Pvt no tuition	9.7	22.3	37.7	30.9	27.1					
	Pvt + tuition	1.6	2.8	3.3	3.3	2.1					
	Total	100	100	100	100	100					
	Govt no tuition	74.2	70.6	68.3	71.6	74.7					
	Govt + tuition	4.5	5.0	0.3	3.4	1.6					
Std VI-VIII	Pvt no tuition	19.8	20.9	29.7	21.6	22.6					
	Pvt + tuition	1.5	3.6	1.7	3.5	1.1					
	Total	100	100	100	100	100					

## lizoram

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Std	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt	0.0	0.0	33.8	66.2	100		
	Pvt	1.7	11.2	10.9	76.2	100		
Std VI-VIII	Govt			 Data				
310 VI-VIII	Pvt		ii _	nsufficien	t			



	Nagaland									
Trends ove % Childre 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII I 2018	by schoo	ol type a	nd tuition			Tuitio 2018		
Std	Category	2010	2012	2014	2016	2018				
Std I-V	Govt no tuition	61.5	57.7	62.0	54.6	47.3		Std		
	Govt + tuition	5.1	5.7	3.8	5.0	5.5				
	Pvt no tuition	22.8	22.3	25.5	27.3	28.3				
	Pvt + tuition	10.5	14.3	8.8	13.1	18.8				
	Total	100	100	100	100	100		Std I-		
	Govt no tuition	55.0	51.4	49.5	45.5	41.1				
	Govt + tuition	4.5	6.9	4.0	5.6	8.2				
Std VI-VIII	Pvt no tuition	25.7	24.3	31.3	31.9	31.2		Ct-LV		
	Pvt + tuition	14.8	17.5	15.2	17.0	19.4		Sta V		
	Total	100	100	100	100	100				

Tuition expenditures by school type 2018									
C+d	Type of	% Childre	% Children in different tuition expenditure categories (in Rupees per month)						
510	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std LV	Govt	2.9	18.3	46.3	32.5	100			
510 1-0	Pvt	0.5	6.5	25.8	67.2	100			
Std VI-VIII	Govt								
	Pvt	0.3	3.7	17.9	78.1	100			

#### Odisha

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	51.8	53.7	50.3	47.2	44.2
	Govt + tuition	42.6	39.2	38.9	40.5	41.0
Std I-V	Pvt no tuition	1.9	2.4	3.3	2.8	3.9
	Pvt + tuition	3.8	4.8	7.5	9.5	10.9
	Total	100	100	100	100	100
	Govt no tuition	43.8	49.4	46.6	46.7	44.6
Std VI-VIII	Govt + tuition	51.1	46.0	47.8	48.1	48.4
	Pvt no tuition	2.0	1.7	2.1	1.4	1.7
	Pvt + tuition	3.1	3.0	3.5	3.9	5.3
	Total	100	100	100	100	100

#### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
310	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt	39.5	40.5	12.2	7.9	100			
	P∨t	14.4	29.5	23.3	32.8	100			
Std VI-VIII	Govt	10.6	40.6	28.0	20.9	100			
	Pvt	3.2	18.9	23.8	54.1	100			

						Pu	unj	ab
Trends ov % Childre 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII 1 2018	by scho	ol type a	nd tuitior	ı		Tuit 201
Std	Category	2010	2012	2014	2016	2018		
Std I-V	Govt no tuition	54.6	46.0	38.7	34.1	32.0		Std
	Govt + tuition	6.0	6.2	6.5	8.3	8.3		
	Pvt no tuition	28.1	32.5	36.4	36.6	35.4		
	Pvt + tuition	11.3	15.3	18.5	21.0	24.3		
	Total	100	100	100	100	100		Std
	Govt no tuition	59.8	58.6	51.1	47.9	43.3		
	Govt + tuition	7.1	5.7	6.9	7.6	10.5		
Std VI-VIII	Pvt no tuition	23.5	26.2	27.7	28.4	29.2		Cul
	Pvt + tuition	9.6	9.6	14.3	16.1	17.0		Std
	Total	100	100	100	100	100		

		% Children in different tuition expenditure categories							
Std	Type of	(in Rupees per month)							
510	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt	19.1	49.6	21.4	9.9	100			
	P∨t	2.1	20.5	34.2	43.2	100			
Std VI-VIII	Govt	6.3	20.9	37.3	35.5	100			
	Pvt	0.9	4.3	22.8	72.0	100			



#### Rajasthan Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018 Std Category 2010 2012 2014 2016 2018 52.2 54.5 59.5 Govt no tuition 62.2 54.4 Govt + tuition 2.1 1.3 1.4 1.4 1.8 Std I-V Pvt no tuition 31.9 41.1 41.8 41.5 36.4 Pvt + tuition 3.8 3.3 4.6 2.6 2.4 100 Total 100 100 100 100 Govt no tuition 65.0 58.4 57.3 61.3 62.7 Govt + tuition 4.2 1.9 2.3 2.6 2.5 Std VI-VIII Pvt no tuition 25.7 36.3 33.3 32.3 36.3 Pvt + tuition 5.2 2.7 2.5 3.4 4.1 Total 100 100 100 100 100

Tuition expenditures by school type 2018								
Ctol	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
Sta	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I V	Govt	22.7	46.8	20.2	10.3	100		
510 1-1	Pvt	14.7	25.4	25.4	34.5	100		
Std VI-VIII	Govt	14.6	43.1	20.9	21.4	100		
	Pvt	10.9	30.5	25.8	32.8	100		

#### Sikkim

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	61.9	55.2	51.8	52.7	48.3
	Govt + tuition	16.0	16.4	11.8	12.2	8.4
Std I-V	Pvt no tuition	11.5	14.4	18.5	19.0	24.5
	Pvt + tuition	10.6	14.0	17.9	16.1	18.8
	Total	100	100	100	100	100
	Govt no tuition	67.5	69.7	75.3	70.1	68.5
	Govt + tuition	19.6	12.8	8.8	16.2	15.1
Std VI-VIII	Pvt no tuition	6.1	9.1	6.9	8.7	8.4
	Pvt + tuition	6.8	8.5	9.1	5.0	8.0
	Total	100	100	100	100	100

#### Tuition expenditures by school type 2018

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)							
	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total			
Std I-V	Govt	0.5	21.2	35.2	43.1	100			
	Pvt	1.5	9.1	20.9	68.6	100			
Std VI-VIII	Govt	0.0	1.9	27.7	70.4	100			
	Pvt	0.0	6.9	10.2	82.9	100			

						Tami			
Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018									
Std	Category	2010	2012	2014	2016	2018			
	Govt no tuition	60.1	55.9	55.7	54.4	55.4			
	Govt + tuition	11.4	8.7	6.6	7.6	6.9			
Std I-V	Pvt no tuition	20.6	26.3	29.1	29.0	29.7			
	Pvt + tuition	7.9	9.1	8.6	9.0	8.0			
	Total	100	100	100	100	100			
	Govt no tuition	65.4	63.9	65.9	63.6	65.4			
	Govt + tuition	13.5	12.8	7.8	8.7	7.6			
Std VI-VIII	Pvt no tuition	15.2	16.8	21.2	21.6	21.2			
	Pvt + tuition	5.9	6.6	5.2	6.2	5.9			
	Total	100	100	100	100	100			

# mil Nadu

Std	Type of	% Children in different tuition expenditure categories (in Rupees per month)						
	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total		
Std I-V	Govt	82.0	16.4	1.6	0.0	100		
	Pvt	59.3	29.4	6.6	4.7	100		
Std VI-VIII	Govt	61.5	31.2	5.3	2.1	100		
	Pvt	39.5	45.9	8.4	6.2	100		



Telan									
Trends ove % Childre 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII I 2018	by scho	ol type a	nd tuition			Tuition 2018	
Std	Category	2010	2012	2014	2016	2018			
Std I-V	Govt no tuition	55.2	55.7	53.8	52.0	46.8		Std	
	Govt + tuition	1.9	2.0	1.8	2.0	1.8			
	Pvt no tuition	35.1	35.9	40.2	41.2	46.4			
	Pvt + tuition	7.9	6.4	4.2	4.9	5.1			
	Total	100	100	100	100	100		Std I-\	
	Govt no tuition	66.1	67.6	71.4	67.8	69.0			
	Govt + tuition	4.0	2.0	1.4	1.8	2.0			
Std VI-VIII	Pvt no tuition	25.0	24.7	25.3	29.0	26.7		CELLVI	
	Pvt + tuition	4.9	5.7	1.9	1.4	2.4		Sta VI	
	Total	100	100	100	100	100			

Tuition expenditures by school type 2018							
	Type of	% Childre	n in differe (in Ru	nt tuition e	xpenditure onth)	categories	
Std	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total	
Ctol 1 ) /	Govt						
510 1-V	P∨t	25.1	43.1	17.9	13.9	100	
Std VI-VIII	Govt		г —	 Data	·		
	P∨t		i	nsufficier	t		

#### Tripura

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	30.9	33.7	29.5	34.5	31.2
	Govt + tuition	66.2	62.8	59.1	54.3	50.0
Std I-V	Pvt no tuition	0.2	0.4	1.9	2.7	4.3
	Pvt + tuition	2.7	3.1	9.5	8.5	14.5
	Total	100	100	100	100	100
	Govt no tuition	19.3	21.6	24.1	30.6	22.3
	Govt + tuition	79.5	77.7	70.4	64.4	69.9
Std VI-VIII	Pvt no tuition	0.0	0.0	1.4	1.4	0.7
	Pvt + tuition	1.2	0.6	4.1	3.7	7.1
	Total	100	100	100	100	100

### Tuition expenditures by school type 2018

S+d	Type of	% Childre	n in differe (in Ru	nt tuition e ipees per m	xpenditure nonth)	categories
510	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total
Std I-V	Govt	0.4	12.4	33.5	53.7	100
510 1-V	P∨t	2.3	2.6	5.0	90.1	100
Std VI-VIII	Govt	0.9	5.3	31.8	62.1	100
	Pvt					

						Uttar
Trends ove % Children 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII 1 2018	by scho	ol type a	nd tuition	1
Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	59.2	46.8	43.8	43.3	44.9
	Govt + tuition	3.2	2.7	2.9	2.8	4.1
Std I-V	Pvt no tuition	32.5	42.7	42.7	44.6	40.0
	Pvt + tuition	5.2	7.7	10.7	9.4	11.0
	Total	100	100	100	100	100
	Govt no tuition	50.2	44.6	42.6	41.8	42.9
	Govt + tuition	4.5	4.2	4.0	3.9	5.5
Std VI-VIII	Pvt no tuition	37.3	42.3	42.7	43.3	39.7
	Pvt + tuition	8.0	8.9	10.7	11.0	11.9
	Total	100	100	100	100	100

#### Uttar Pradesh

	Type of	% Childre	n in differe (in Ru	nt tuition e Ipees per m	xpenditure	categories
Std	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total
Std I-V	Govt	45.3	42.6	7.5	4.5	100
Stu I-V	Pvt	20.6	44.6	19.1	15.7	100
Std VI-VIII	Govt	28.1	52.1	14.7	5.2	100
	Pvt	10.5	43.7	25.4	20.5	100



						Utta	ral	khand
Trends ove % Childre 2010, 201	er time n in Std I-V and St 2, 2014, 2016 and	td VI-VIII 1 2018	by scho	ol type a	nd tuitior	ı		Tuition e 2018
Std	Category	2010	2012	2014	2016	2018		
	Govt no tuition	63.1	55.5	53.5	48.1	45.7		Std
	Govt + tuition	4.1	4.1	3.0	3.3	4.0		
Std I-V	Pvt no tuition	24.8	27.8	29.5	33.3	33.6		
	Pvt + tuition	8.0	12.6	14.1	15.3	16.8		
	Total	100	100	100	100	100		Std I-V
	Govt no tuition	70.4	65.1	65.3	60.6	57.5		
	Govt + tuition	5.7	5.4	4.2	5.7	6.8		
Std VI-VIII	Pvt no tuition	16.6	18.8	20.2	21.8	23.6		CHAVIA V
	Pvt + tuition	7.3	10.7	10.3	12.0	12.2		Sta VI-V
	Total	100	100	100	100	100		

Tuition exp 2018	penditur	es by school type												
Ctol	Type of	% Childre	n in differe (in Ru	nt tuition e upees per n	xpenditure nonth)	categories								
Std I-V	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total								
Std I-V	Govt	24.4	32.3	34.8	8.6	100								
510 1-1	Pvt	9.4	40.9	25.7	23.9	100								
Std VI-VIII	Govt	9.2	41.8	34.1	14.9	100								
	Pvt	3.9	21.8	32.3	42.1	100								

#### West Bengal

Trends over time

% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014, 2016 and 2018

Std	Category	2010	2012	2014	2016	2018
	Govt no tuition	31.7	30.2	29.2	28.3	26.4
	Govt + tuition	61.4	60.4	58.4	59.3	61.9
Std I-V	Pvt no tuition	2.4	2.9	3.8	3.3	3.6
	Pvt + tuition	4.6	6.5	8.6	9.2	8.0
	Total	100	100	100	100	100
	Govt no tuition	20.1	18.3	22.1	20.8	22.3
	Govt + tuition	78.5	79.6	76.2	76.6	75.6
Std VI-VIII	Pvt no tuition	0.4	0.7	0.6	0.8	0.4
	Pvt + tuition	1.0	1.4	1.1	1.9	1.8
	Total	100	100	100	100	100

<b>C</b> 1	Type of	% Childre	n in differe (in Ru	nt tuition e Ipees per m	xpenditure nonth)	categories
Sta	school	Rs 100 or less	Rs 101- 200	Rs 201- 300	Rs 300 & more	Total
Ctd I V	Govt	26.8	46.3	15.2	11.7	100
510 1-0	Pvt	6.6	31.7	19.6	42.1	100
Std VI-VIII	Govt	6.3	41.6	21.7	30.5	100
	Pvt					

# Household characteristics over time



ch have a		% Househ motorize	ed two	wheeler	r r 2018 2	% Hou an el	ectric c	which onnection	have on	Of h connec electric	ction, %	hds with house house able on c	electric nolds wi day of vi	sit %	House	a toilet	hich ha	We Not 8
2 2014 2 3 65.8 7	016 2018 1.1 73.0	3 2010 2012 5	2014 33.6	2016 2 38.7	2018 2 48.0	010 201 96.9 96	12 201 .8 97.	4 2016 6 98.	5 2018 1 98.7	2010 84.6	2012 2 76.3	2014 2( 94.3 9(	016 20 <sup>7</sup> 6.1 97.	18 2010 3 53.2	) 2012 2 52.8	2014 55.3	2016 64.1	2018 83.9
-	3.8 18.	4	29.9	33.0	35.8	79.3 80	.2 91.	3 90.3	3 86.8	64.7	82.3	86.3 93	3.1 82.	3 69.(	69.8	72.3	82.7	87.2
$\sim$	2.0 28.3	8	22.0	23.8	28.6	48.7 65	.6 74.	5 76.3	3 84.2	45.2	83.7	82.7 8	8.8 86.	8 47.7	1 59.0	67.6	64.6	73.6
4	3.2 49.3	2	16.4	21.0	27.9	38.2 39	.9 49.	8 69.1	5 91.3	23.5	55.2	73.8 8	3.3 88.	8 22.7	1 20.1	26.5	33.3	57.2
7	5.7 34.	2	33.7	40.6	46.0 8	82.4 87	.4 92.	6 93.6	6 96.4	81.2	93.4	87.0 8.	5.1 90.	4 24.3	7 24.2	26.8	53.6	87.1
4	2.9 47.9	6	47.1	55.1	55.1	93.7 94	.1 96.	1 95.8	8 96.7	90.0	88.6	93.9	4.9 97.	4 44.9	9 46.9	54.4	68.6	79.5
	5.2 75.9	6	55.4	57.8	65.2	90.4 93	.2 95.	1 96.4	4 97.4	63.4	75.3	78.8 7	7.3 80.	7 75.3	3 76.6	85.3	90.9	94.2
	2.2 69.0		31.2	30.7	32.7	99.1 97	.96 99.	0 99.2	2 99.4	96.0	98.5	96.3 98	8.2 96.	6 77.3	81.1	84.1	89.1	92.3
4	7.6 53.		22.3	21.0	14.2	06	.4 93.	3 93.0	6 94.5		69.1	72.0 7	7.3 76.	3	49.4	62.5	58.9	75.4
2	0.4 22.	1	21.2	23.0	28.0	56.4 65	.5 70.	9 71.3	2 81.3	42.8	62.2	67.3 78	8.6 77.	4 15.0	0 10.6	9.7	21.5	56.4
3	9.8 67.	2	43.1	46.4	57.7	94.3 93	.7 95.	3 96.4	4 97.9	75.7	74.0	90.0	0.0 93.	9 35.0	38.6	44.9	56.8	75.2
8	3.8 92.3	8	53.6	48.7	60.1	96.9	.2 98.	7 97.8	8 99.3	95.1	97.4	98.1 98	8.6 97.	2 96.(	97.0	97.8	97.8	99.2
2	5.1 30.8	3	33.7	37.7	41.0	77.7 74	.2 85.	2 84.(	0 92.1	42.3	64.7	83.9 80	0.8 87.	5 32.4	4 22.8	28.5	45.6	72.2
4	8.7 57.	7	41.2	44.8	51.3 8	88.5 89	.9 92.	5 93.	1 95.5	76.8	82.8	89.5 90	0.7 90.	3 48.7	7 47.0	52.6	62.1	78.1
1	3.6 12.8	3	27.8	27.5	27.5	90.4 84	.6 84.	9 94.2	2 96.0	47.9	60.1	81.4 8	3.8 94.	7 86.0	90.1	96.5	96.8	96.6
-	4.8 15.4	4	14.4	12.9	14.9	77.2 73	.9 88.	4 83.1	5 87.9	67.7	85.3	72.2 83	2.2 87.	8 63.3	3 60.0	76.3	79.6	85.1
	5.4 7.3	3	27.5	28.1	32.5	91.3 91	.4 95.	5 96.	1 96.2	78.7	85.7	87.6 93	2.5 81.	1 63.5	5 79.8	91.9	86.5	87.5
	7.4 11.		24.3	18.0	18.1	97.1 97	.5 96.	6 96.3	2 96.6	82.4	86.0	88.3 8	7.2 86.	4 76.3	82.4	94.9	91.6	96.9
2	9.9 37.	2	27.7	31.4	38.0	57.0 70	.6 79.	9 81.(	0 88.6	53.7	84.8	89.1 9	1.8 90.	0 22.5	7 17.9	21.0	37.9	55.7
~	.6.2 77.	4	71.0	74.0	77.7	96.0 98	.4 99.	2 99.3	3 99.4	93.3	96.1	94.4 98	8.3 97.	3 81.2	2 88.0	90.8	93.3	94.9
9	5.0 68.0	0	43.3	46.4	53.0	74.2 77	.9 84.	8 84.8	8 88.3	61.4	81.7	90.3 90	0.2 92.	1 35.3	7 31.8	36.8	54.4	67.6
4	8.1 46.3	2	12.2	8.2	8.1	98.1 97	.5 98.	6 98.(	0.98.0	91.2	97.8	95.2 8	4.9 90.	7 94.7	7 95.0	96.9	96.1	97.4
8	4.6 85.	1	54.5	61.0	67.5	96.9	.5 97.	4 97.9	9 98.0	92.1	76.4	93.6 90	6.8 96.	5 33.2	2 36.6	41.2	53.1	71.0
9	9.0 58.		32.4	41.5	53.7	96.9	.9 96.	0 97.9	9 98.9	85.4	73.6	88.5 9.	4.5 96.	2 53.9	9 54.3	50.2	61.9	80.2
-	3.0 15.	10	21.4	23.2	29.4 8	32.8 85	.0 90.	2 91.9	9 95.2	80.6	88.3	96.0 9	4.4 86.	5 88.(	0 85.1	85.6	90.5	88.0
2	7.4 62.0	<u>ر</u>	32.7	32.8	42.2	41.5 48	.3 52.	4 57.0	0 74.4	30.7	61.5	63.8 7	7.2 82.	9 25.9	9 27.5	34.2	34.6	57.7
2	3.1 76.9	6	27.8	31.9	36.4	90.6 89	.1 93.	3 94.0	0 95.5	82.4	83.9	89.2 9.	4.9 92.	8 67.9	9 68.7	74.5	81.8	89.0
3	0.8 39.9	6	20.7	23.9	38.5 (	60.5 79	.7 90.	0 91.9	9 94.7	57.9	91.5	92.7 9	1.7 92.	0 56.7	1 53.6	60.9	66.2	76.2
4	9.2 55.	_	34.9	37.7	45.2	70.6 75	.4 80.	5 83.0	6 90.9	61.3	78.6	86.0 8	8.8 90.	4 40.8	3 40.3	45.5	53.5	71.5

# Household characteristics over time

Annual Status	of Edu	cation	Report
असर ASER	2(	)]	
Facilitated	bу	PRAT	ГНАМ

t one v to	2018	26.8	22.3	18.1	17.6	17.3	28.3	41.2	41.4	24.7	10.8	18.9	66.6	12.8	30.8	26.1	12.4	20.5	20.1	12.7	44.6	20.9	43.7	30.6	22.1	16.0	18.8	31.6	20.9	22.9
at leas ws hov iputer	2016	23.5	21.7	16.0	13.9	16.5	26.5	39.5	45.5	22.3	12.4	20.4	47.6	13.0	30.4	33.8	13.3	17.6	22.1	13.8	45.5	22.6	46.2	29.8	22.2	21.3	16.3	33.8	20.3	21.5
s with o knov a com	2014	21.5	17.4	15.5	12.9	13.2	30.4	36.8	41.5	27.1	9.0	19.0	49.1	11.0	28.5	25.2	15.5	15.5	20.3	12.8	46.8	22.6	43.4	30.1	19.3	17.1	19.3	30.4	19.3	21.8
sehold oer wh	2012	13.9	16.2	9.9	5.4	6.1	25.1	28.9	32.1	21.1	5.8	15.2	34.2	3.9	15.6	19.7	9.1	15.8	18.7	6.8	35.9	12.9	35.7	20.9	15.1	8.1	8.9	20.5	11.8	13.6
% Hou meml	2010	13.8	9.4	7.3	3.8	4.4	16.4	20.6	20.7		4.2	12.9	59.2	4.6	15.7	20.3	9.7	16.1	18.4	7.2	23.1	9.4	30.2	14.3	10.2	5.8	5.6	15.4	9.4	11.7
t one cd	2018	40.4	32.4	31.7	36.1	36.9	37.6	58.5	63.0	44.2	25.2	39.7	68.3	26.8	47.5	43.9	20.8	26.9	24.6	29.8	56.4	35.2	43.6	43.1	41.4	29.0	45.4	52.5	31.3	39.5
at leas mplete	2016	36.2	27.1	30.3	32.1	34.9	34.1	55.9	63.2	40.9	26.6	37.2	61.6	27.7	44.5	46.6	19.4	28.0	23.6	28.9	54.3	34.7	44.3	39.3	38.7	28.0	42.2	52.3	30.1	37.1
s with vho co I XII**	2014	34.2	23.6	29.9	31.1	30.7	34.4	54.6	57.1	42.4	21.1	36.5	63.0	25.3	43.2	43.1	20.2	25.6	25.9	27.7	52.4	34.3	39.6	37.9	33.2	24.5	42.4	52.4	29.0	36.4
isehold mber v Stc	2012																													
% Hou me	2010																													
e, k	2018	6.6	8.8	8.1	6.5	8.6	6.1	9.0	7.8	6.7	4.1	3.5	17.6	5.5	11.4	11.5	19.0	11.9	11.1	4.8	5.7	5.3	27.1	4.6	6.1	4.0	5.7	12.8	4.7	6.6
aterial <sup>3</sup>	2016	13.4	44.9	19.1	15.8	18.0	34.9	17.6	26.8	38.8	16.3	4.8	39.6	24.2	24.2	42.3	70.8	87.1	77.3	20.3	15.2	19.7	38.2	7.1	8.6	35.2	26.8	21.8	23.8	20.6
olds wh ding m	2014	14.1	38.4	21.7	28.3	21.8	31.1	22.5	28.9	57.8	16.9	3.8	29.2	22.8	24.5	47.9	69.8	82.7	87.0	20.8	18.4	23.1	37.0	8.4	5.5	43.3	29.3	26.5	26.4	23.3
ousehc ier read	2012	8.1	34.0	14.5	19.9	16.7	21.4	25.4	33.2	65.5	17.0	4.7	23.1	15.3	23.0	39.2	58.5	72.5	79.2	21.0	16.9	19.6	31.3	6.1	10.3	19.4	31.5	24.1	23.0	20.5
% H oth	2010	9.2	26.7	10.9	12.0	9.3	17.6	24.3	24.6		10.2	3.7	24.7	19.7	22.2	31.2	45.1	62.3	53.6	19.1	20.4	19.2	23.0	6.7	4.3	16.7	18.2	19.7	16.7	15.9
e e	2018	92.1	79.9	82.7	93.2	88.4	89.5	96.5	98.4	96.0	79.3	96.1	98.7	84.0	92.0	88.1	70.9	84.5	87.3	78.6	96.7	92.1	93.4	91.2	93.8	89.2	91.7	93.3	87.8	90.2
ch hav ne	2016	81.1	55.6	69.6	84.8	71.7	72.4	89.8	93.2	85.9	64.1	86.5	96.0	71.5	84.7	80.7	52.3	68.7	69.1	63.9	9.06	82.9	84.7	86.3	85.9	78.3	79.9	82.7	76.6	79.8
ds whi le pho	2014	77.7	48.7	63.3	78.0	60.9	73.6	87.9	89.9	86.6	56.8	78.5	94.4	64.9	80.4	75.8	53.0	70.0	53.8	60.4	87.3	85.5	78.8	83.1	84.6	66.3	75.0	76.1	71.1	75.6
usehol mobi	2012	74.8	33.6	57.1	51.2	40.4	52.1	35.8	35.1	32.6	51.3	55.4	91.6	45.1	56.1	53.7	47.4	59.4	51.2	46.9	35.3	76.1	77.0	74.8	34.2	54.2	71.2	77.3	53.3	56.1
% Hc	2010	72.4	50.1	59.5	48.1	41.2	55.1	32.5	90.4	~	36.2	73.5 0	34.9	52.7	57.5	77.0	55.6	57.6	53.9	44.0	32.8	77.5	33.3	77.7	76.4	50.8	59.7	76.7	54.9 (	64.8
a a	018 2	87.3	64.5	47.6	32.6	66.3	76.3	85.4	93.2	57.1	30.7	35.6	90.7	53.6	78.8	66.0	45.9	78.9	57.8	55.4	94.6	54.2	81.4	93.2	86.2	68.6	44.8	79.8	57.0	62.6
ch hav	016 2	34.3	55.6	13.1	22.8	52.8	75.1	35.0	92.6	59.4	25.9	32.0	39.5	47.6	74.8	52.3	14.7	75.7	52.7	t8.7	94.8	52.4	79.8	3.6	31.2	9.6	34.2	76.6	54.8	57.7
ds whic vision	014	32.5 8	52.2	12.3 ∠	8.3 2	59.2 <del>(</del>	0.69	33.9 8	90.8	0.7	24.8	7.3 8	92.5 8	±3.9 ∠	9.7 7	61.7	7 8.6t	30.7 7	5.6 5	15.1 2	92.9	51.9	33.2 7	3.0 5	74.9	67.6 €	84.7	5.8 7	54.4	5.8 5
usehold tele	012 2	8.4 8	1.2	9.1	3.8 1	1.6	1.2	3 6.7	5.8 9	9.6	1.7	1.0	2.0 9	5.9 4	4.6	5.8 6	3.4 2	8.1 8	9.3 5	6.1 2	2.8 5	4.9	1.6 8	2.7 5	7.7 7	0.5 6	9.9	0.0	4.4	0.9 5
% Hoi	010 2	4.5 7	5.8 6	4.2 3	8.3 1	4.1 5	3.1 6	4.9 7	87.68	5	5.5 2	4.5 7	:7.3 9	5.6 3	0.6 6	8.7 5	.7.6 4	3.5 6	9.6 4	5.0 3	7.0 9	6.3 4	5.5 8	3.0 9	1.0 7	2.1 6	0.4 2	1.3 6	9.1 4	9.5 5
	2		sh 5	°	-	4	10	~	sh 8	mir	2	9	8	4	9	9	4	2	4	3	8	4	7	6	~	9	3	~	3	4
State		Andhra Pradesh	Arunachal Prade	Assam	Bihar	Chhattisgarh	Gujarat	Haryana	Himachal Prade	Jammu and Kash	Jharkhand	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Manipur	Meghalaya	Mizoram	Nagaland	Odisha	Punjab	Rajasthan	Sikkim	Tamil Nadu	Telangana	Tripura	Uttar Pradesh	Uttarakhand	West Bengal	All India

\*Includes magazines, books other than school textbooks, etc. \*\*Excluding mother or father of the sampled child

# Mothers' schooling over time

Annual Status	of Edu	cation Re	port
असर ASER	2(	)18	RURAL
Facilitated	bу	PRATH	ΑM

		Above Std X	13.9	7.7	9.2	7.7	7.0	10.4	19.9	35.4	11.1	5.2	12.2	53.8	4.1	18.0	18.0	5.2	9.0	6.7	7.3	22.6	4.2	12.0	20.9	14.6	7.9	10.9	19.2	7.6	
18	ers with	Std VI-X	38.7	26.7	41.8	22.1	32.3	39.3	37.4	44.4	24.5	23.4	46.3	43.4	24.2	51.4	44.8	28.5	56.6	46.6	40.4	42.0	16.1	43.3	51.3	32.5	56.7	20.5	34.7	43.1	
20	6 Mothe	Std I-V	17.1	14.3	15.2	13.1	21.5	17.4	14.3	11.7	6.3	14.5	14.2	2.3	19.2	13.6	12.0	25.9	25.2	19.0	17.0	14.1	15.2	25.3	13.6	9.6	20.8	11.5	15.3	22.9	
	0.	N o school- ing	30.3	51.4	33.8	57.2	39.2	32.9	28.5	8.5	58.0	56.9	27.3	0.5	52.5	17.0	25.3	40.3	9.2	27.7	35.2	21.3	64.5	19.3	14.2	43.3	14.7	57.2	30.8	26.3	
		Above Std X	10.4	6.2	8.1	6.8	5.9	9.5	15.8	30.7	11.6	4.2	10.2	40.4	3.6	15.7	17.9	6.0	8.1	7.6	7.0	21.0	3.5	9.2	17.4	10.7	8.0	8.0	18.0	6.4	
9	rs with:	Std VI-X	35.0	27.3	40.0	20.8	29.2	37.1	37.9	45.7	33.5	23.0	43.2	54.6	22.2	50.1	40.6	29.0	48.2	49.3	36.8	41.9	15.3	41.6	48.7	29.1	52.4	18.1	33.7	41.6	
201	Mothe	Std I-V	17.2	15.2	13.7	13.7	21.4	17.2	14.8	13.0	9.6	13.8	13.6	3.7	18.1	13.7	11.8	26.7	28.8	17.0	18.2	13.9	13.3	26.9	15.2	10.1	21.3	10.5	15.1	21.2	
	%	N o chool- ing	37.4	51.4	38.2	58.7	43.5	36.1	31.5	10.6	45.3	59.0	33.0	1.3	56.0	20.4	29.7	38.3	15.0	26.1	38.1	23.2	67.9	22.3	18.7	50.2	18.3	63.4	33.2	30.8	
		Above std X	7.7	3.0	7.2	5.6	5.1	8.2	15.0	25.2	9.3	3.0	7.9	42.7	3.2	12.7	16.8	5.7	6.7	7.5	6.8	18.1	3.2	9.0	14.4	7.8	5.7	7.8	16.7	5.7	
4	s with:	Std /	34.9	18.1	37.7	19.2	27.2	32.1	36.6	46.5	26.5	19.4	39.0	53.0	20.2	46.5	42.4	30.6	53.8	44.7	35.0	41.6	14.5	40.7	44.4	26.9	50.9	18.0	32.9	40.7	
201	Mother	Std I-V	17.6	11.4	19.2	12.4	20.3	16.8	15.2	15.4	5.7	13.6	14.1	3.4	18.0	15.9	14.0	26.3	27.6	17.4	17.8	13.8	12.6	24.1	17.4	8.7	25.4	11.5	16.0	28.4	
	%	No chool- ing	8.68	57.6	35.9	52.7	47.4	12.9	33.2	12.9	58.5	54.0	9.0	0.9	58.7	24.9	26.9	37.4	12.0	30.4	40.5	26.5	59.7	26.3	23.7	<u>56.6</u>	18.0	52.7	34.4	25.1	1
		bove sc td X	6.6	9.4 (	6.6	4.0	3.5 4	6.4	0.4	9.7	7.6	2.9 0	6.8	6.1	3.0	1.4	5.3 2	5.2	5.6	7.4	5.3 4	3.9 2	2.5 (	8.8	2.2	6.4	7.3	5.2 (	3.5	3.9 2	
	with:	Std A /I-X S	32.0	32.7	37.5	17.9	23.6	31.8	34.3 1	44.7 1	24.5	18.8	38.6	57.5 3	18.1	14.4	t2.7 1	26.1	6.0t	18.3	30.0	<sup>‡2.2</sup> 1	13.2	13.4	13.3 1	24.4	42.4	15.1	29.3 1	36.8	1
2012	Mothers	std -V	8.3	2.6	8.3	3.1	1.3 2	8.3	5.8	6.3 4	7.4	4.0	5.3 3	5.0	8.9	7.6 4	1.0	2 6.7	0.1	6.8	0.2	6.5 4	3.1	2.4	1.5	1.1	8.4	1.8	8.5	2.2	
	%		3.1 1	5.3 1	7.6 1	4.9 1	1.6 2	3.5 1	9.5 1	9.3 1	0.6	4.3 1	9.4 1	1.4	0.0 1	6.6 1	1.0 1	0.8 2	4.4 3	7.4 1	4.5 2	7.4 1	1.2 1	5.5 2	3.1 2	8.1 1	2.0 2	8.0 1	8.6 1	7.2 2	
_		ove sch I X ii	.3 4	H.4 4	6 3	.1 6	.0 5	.9 4	.9 3	.3 1	9	9 6.	6.1 3	5	.3 6	0.0 2	.7 3	6.1 4	1.4	8.7 2	4 4	.9 2	5 7	.8 2	.3 2	H.4 5	6.1 2	9 6.	.7 3	.5 3	•
	vith:	d Abo -X Sto	.5	.7 4	.6 5	.9 3	.9 3	.4	8.	.0 17		.7 1	.7 6	.2 32	4.	.4 10	.8 17	.4	.3 13	8	4.	.6 10	.9	.3	5	3 4	9 9.	.3 3	.8 10	4.	1
2010	others v	I Sto	0 27	9 24	4 35	1 18	0 22	0 30	0 32	2 46		2 16	5 34	3 61	6 19	7 43	4 49	7 27	4 47	5 51	9 28	7 37	7 12	3 37	4 39	1 22	6 41	0 15	4 29	9 32	100
	% Me	ol- Stc I-V	20.	) 20.	5 17.	18.	22.	7 19.	18.	5 20.		18.	17.	.5.	5 23.	18.	2 13.	3 26.	9 21.	5 22.	3 22.	3 18.	15.	5 25.	5 22.	12.	3 24.	7 14.	20.	3 23.	10
		N o schoo ing	47.2	50.0	41.5	59.9	52.2	44.7	40.3	16.6		63.1	41.6	1.0	53.6	27.9	19.2	39.8	17.9	17.5	44.3	32.8	68.9	31.6	28.6	61.3	27.8	66.7	39.1	40.3	01
	State	Juic	Andhra Pradesh	Arunachal Pradesh	Assam	Bihar	Chhattisgarh	Gujarat	Haryana	Himachal Pradesh	Jammu and Kashmir	Jharkhand	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Manipur	Meghalaya	Mizoram	Nagaland	Odisha	Punjab	Rajasthan	Sikkim	Tamil Nadu	Telangana	Tripura	Uttar Pradesh	Uttarakhand	West Bengal	11 1-1;

# Fathers' schooling over time

Annual Status	of Edu	cation I	Report
असर ASER	2(	)]	<b>RURAL</b>
Facilitated	bу	PRAT	НАМ

		% Fathe	rs with			% Fathe	12 rs with·			201 % Father	4 s with·			201 6 Father	6 s with·			% Father	s with	
State		10 1 001																		
	school- ing	Std I-V	Std VI-X	Above Std X	school- ing	Std I-V	Std VI-X	Above Std X	school- ing	Std I-V	Std VI-X	Above Std X	school- ing	Std I-V	Std VI-X	Above Std X	school- ing	Std I-V	Std VI-X	Above Std X
Andhra Pradesh	36.8	16.9	32.2	14.1	34.9	14.9	34.7	15.5	33.5	14.2	37.4	14.9	31.1	15.6	36.3	17.1	27.4	14.8	38.1	19.8
Arunachal Pradesh	38.5	18.5	30.3	12.7	36.7	11.4	34.4	17.5	51.1	13.4	26.5	9.0	32.0	18.4	36.6	13.0	30.5	15.7	36.5	17.3
Assam	29.0	17.7	39.6	13.7	25.7	19.5	40.6	14.2	26.5	19.3	38.9	15.3	30.1	15.3	39.1	15.6	27.0	15.8	40.2	17.0
Bihar	38.3	13.7	35.4	12.6	36.6	14.0	35.3	14.0	35.0	13.0	34.8	17.3	32.2	13.1	37.0	17.7	32.2	12.4	37.3	18.1
Chhattisgarh	29.5	23.6	31.8	15.1	24.3	24.5	36.1	15.1	23.7	21.4	37.1	17.8	24.0	20.4	38.6	17.1	20.9	21.0	39.7	18.4
Gujarat	19.9	17.8	45.3	17.0	18.7	17.7	46.0	17.6	18.3	15.4	46.1	20.2	18.6	13.8	47.3	20.3	16.0	13.6	48.6	21.8
Haryana	17.0	10.7	46.2	26.1	16.6	10.1	45.5	27.8	13.3	8.7	44.9	33.2	13.2	8.9	44.0	33.9	11.9	9.4	41.1	37.6
Himachal Pradesh	5.0	11.9	54.0	29.1	7.2	11.7	50.8	30.3	5.7	9.5	50.6	34.3	4.2	8.4	49.0	38.5	3.7	8.8	46.6	40.9
Jammu and Kashmir					29.3	6.9	44.7	19.2	28.0	5.2	44.8	22.0	19.5	8.1	51.7	20.7	26.3	6.1	43.9	23.7
Jharkhand	38.3	17.0	35.6	9.1	34.6	17.0	37.6	10.8	37.4	14.8	37.0	10.8	33.7	14.0	39.9	12.4	33.0	14.1	40.7	12.1
Karnataka	36.1	15.1	34.7	14.1	31.0	15.6	37.0	16.3	31.7	14.7	37.1	16.5	29.9	13.9	38.1	18.1	24.1	14.7	41.8	19.5
Kerala	0.4	10.1	68.2	21.3	1.3	8.8	64.0	26.0	1.1	6.8	62.2	29.9	1.6	6.9	62.8	28.7	0.8	4.6	55.2	39.4
Madhya Pradesh	28.4	19.5	36.2	15.9	30.3	19.4	36.6	13.8	31.6	17.9	36.8	13.8	31.0	16.7	38.3	14.1	28.8	16.9	40.7	13.6
Maharashtra	14.8	16.7	45.1	23.4	14.0	17.1	44.3	24.6	14.1	14.6	44.6	26.7	11.8	14.2	45.8	28.2	10.8	12.4	46.1	30.7
Manipur	10.7	5.6	48.0	35.8	16.5	7.9	46.6	29.1	12.5	10.1	48.3	29.1	15.1	8.8	47.3	28.8	12.4	8.7	49.1	29.7
Meghalaya	42.0	17.8	29.3	10.9	41.5	21.0	28.4	9.1	39.4	19.8	31.2	9.6	41.0	19.1	32.0	8.0	41.9	20.3	29.8	8.1
Mizoram	13.8	15.9	49.2	21.1	8.6	23.6	54.6	13.2	6.2	21.2	60.0	12.6	9.2	23.9	51.1	15.8	5.9	17.1	61.2	15.9
Nagaland	12.6	15.8	53.8	17.8	19.8	13.6	52.6	14.0	21.9	13.1	49.5	15.5	20.3	13.9	50.9	14.9	19.4	15.8	52.6	12.2
Odisha	23.9	24.0	39.4	12.7	26.6	23.8	37.6	12.1	24.6	19.0	41.6	14.9	25.1	18.0	41.9	14.9	24.2	17.3	43.9	14.6
Punjab	21.0	12.3	47.9	18.8	18.4	10.5	49.2	21.9	18.0	9.0	48.5	24.6	15.7	10.0	47.4	27.0	15.4	8.8	47.0	28.7
Rajasthan	30.1	17.0	37.8	15.1	29.8	14.9	39.1	16.2	29.1	13.8	39.0	18.1	29.2	13.9	40.2	16.7	28.1	14.4	39.8	17.7
Sikkim	21.7	22.5	42.4	13.4	14.1	23.0	43.6	19.3	16.2	25.1	41.0	17.7	14.7	31.2	41.0	13.2	13.5	28.3	43.5	14.8
Tamil Nadu	22.0	19.5	44.3	14.2	18.5	18.2	46.1	17.3	17.4	16.7	48.2	17.8	16.5	14.6	50.4	18.6	14.0	13.9	51.4	20.8
Telangana	41.0	11.8	33.1	14.1	39.1	11.8	32.7	16.4	40.5	10.0	33.7	15.8	35.7	10.9	35.1	18.3	33.3	9.9	36.9	19.9
Tripura	20.5	23.5	42.5	13.5	18.0	27.9	41.2	12.9	16.2	25.5	46.4	12.0	12.9	22.3	50.5	14.3	11.9	19.5	53.5	15.1
Uttar Pradesh	30.7	14.0	37.4	17.9	29.4	13.7	38.6	18.3	27.0	11.3	39.6	22.1	30.5	11.5	38.4	19.5	26.3	11.2	39.3	23.3
Uttarakhand	11.0	12.4	45.6	31.1	12.2	10.4	48.3	29.1	12.9	9.1	45.0	33.1	13.8	9.2	44.8	32.2	13.4	9.6	45.1	31.9
West Bengal	29.1	24.7	36.2	10.0	28.3	23.1	37.8	10.8	20.4	28.3	38.5	12.9	26.4	22.1	39.6	11.9	23.4	23.8	40.0	12.8
All India	27.1	16.8	39.9	16.1	26.2	16.3	40.5	17.0	24.9	15.1	40.8	19.2	25.9	14.4	41.0	18.7	23.8	14.2	41.7	20.4

# Aspirational districts

The 'Transformation of Aspirational Districts' programme (2017) anchored by NITI Aayog aims to improve the socio-economic status of 117 districts across 28 states in India. "The programme focuses on five themes which have a direct bearing on the quality of life and economic productivity of citizens. Each of the five themes have been assigned different weightages, of which education is one of the highest. 81 data points are being tracked by the government."<sup>1</sup>

Given below are the ASER learning levels in reading and arithmetic of all children (age 5-16) from ASER 2016 and ASER 2018.

		Not in	school	Private	school			Learr	ning leve	els: All sc	hools		
			school	TIVale	school		Std	III-V			Std V	/I-VIII	
Chata	District	% Ch	nildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren
State	District	age 6- enrol	led in	(age enrol	led in	who ca	an read	who car	n at least	who ca	an read	who o	an do
		sch	lool	private	school	Std II le	evel text	do sub	traction	Std II le	vel text	divi	sion
		2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018
	Visakhapatnam	3.0	1.7	39.3	38.4	44.1	30.0	57.8	44.4	64.0	53.2	48.3	33.9
Andhra Pradesh	Vizianagaram	5.6	3.7	26.3	28.6	40.6	48.8	62.4	59.3	73.4	80.8	63.3	61.6
	Y.S.R.	2.8	1.0	36.0	42.2	38.6	32.4	68.1	51.9	69.8	54.3	51.9	37.2
Arunachal Pradesh	Lohit	2.4		33.6		20.5		28.7		55.3		31.6	
	Baksa	0.4	0.7	22.3	21.6	26.5	40.5	15.9	35.8	41.2	72.7	6.5	27.3
	Barpeta	1.9	3.0	21.1	28.0	31.4	16.8	35.3	57.8	55.3	32.6	15.9	46.9
	Darrang	3.8	2.3	17.6	26.2	28.4	32.2	34.1	33.2	52.3	62.8	23.8	24.8
Assam	Dhubri	4.3	2.1	19.8	23.9	24.3	19.9	39.2	40.2	51.4	51.9	27.5	34.9
	Goalpara	1.9	2.2	17.2	17.9	26.0	41.5	40.3	48.3	59.0	67.9	19.6	27.7
	Hailakandi	6.8	2.7	15.4	20.9	10.3	15.8	20.1	23.6	23.1	27.8	5.9	11.8
	Udalguri	2.8	1.6	22.2	34.1	28.0	36.4	24.4	45.7	41.7	52.7	12.5	17.1
	Araria	8.2	10.2	9.1	14.9	27.6	31.2	30.7	35.8	62.5	54.3	55.3	37.8
	Aurangabad	0.3	2.7	16.4	27.1	47.0	47.7	47.2	56.2	69.3	71.3	51.2	64.8
	Banka	3.3	6.8	11.3	12.3	26.8	30.3	39.0	36.7	57.7	53.6	54.0	50.0
	Begusarai	1.4	3.5	12.2	14.9	33.0	37.5	45.4	37.6	62.3	67.4	55.1	51.0
	Gaya	6.2	4.8	12.3	16.8	41.3	31.1	44.1	39.7	74.5	61.6	61.5	48.0
Bihar	Jamui	1.9	0.9	7.1	11.1	27.7	30.8	35.7	38.0	65.2	67.1	47.3	59.2
	Katihar	4.7	5.6	6.6	5.8	27.7	21.2	32.6	24.3	50.3	53.9	40.3	33.7
	Khagaria	3.2	2.4	10.0	12.0	29.8	37.6	41.7	53.1	62.5	71.6	57.3	67.4
	Muzaffarpur	2.5	2.5	15.6	21.3	35.1	36.7	29.6	39.1	67.8	62.8	52.6	54.2
	Nawada	3.0	4.4	6.2	14.9	31.3	24.9	48.0	36.6	66.3	56.8	62.2	43.4
	Purnia	9.5	6.0	6.3	6.0	28.2	18.4	34.6	26.0	60.8	61.4	40.9	43.3
	Sheikhpura	3.4	5.1	13.0	17.0	40.2	31.1	53.5	39.4	76.8	66.7	70.9	49.4
	Sitamarhi	3.4	5.4	9.2	17.7	25.8	33.8	32.4	36.5	68.5	58.5	57.3	43.5
	Bastar	5.2	7.4	7.7	7.1	35.2	37.2	26.8	15.6	63.8	63.9	18.0	11.7
	Dakshin Bastar Dantewada	22.7	16.8	4.0	5.7	18.3	30.9	28.0	21.1	58.7	63.2	25.0	26.4
	Korba	3.9	4.6	11.4	16.4	37.7	30.0	29.2	27.5	66.2	62.6	16.9	20.6
Chhattisgarh	Mahasamund	2.1	3.8	19.0	19.6	47.3	62.6	43.0	42.9	74.9	76.1	34.8	32.1
0	Rajnandgaon	0.5	2.6	11.2	12.0	56.1	40.6	42.0	39.9	77.0	76.3	26.9	35.5
	Uttar Bastar Kanker	3.4	2.4	15.1	12.8	58.3	41.7	47.2	44.1	76.4	79.3	27.8	34.7
Guiarat	Dahod	1.0	1.3	9.3	16.8	33.3	40.4	21.6	30.5	61.3	67.6	20.9	35.5
Jujarat	Narmada	2.2	1.2	10.9	6.9	31.6	38.1	15.3	23.4	59.7	64.8	23.7	20.0
Haryana	Nuh	14.3	9.6	15.9	22.8	24.5	24.1	24.6	38.8	54.4	52.0	28.0	36.1
Himachal Pradesh	Chamba	1.1	1.1	12.2	10.9	54.2	55.4	56.3	43.5	84.9	77.5	43.0	38.5
Jammu and Kashmir	Baramulla		1.3		48.8		36.7		57.1		63.8		32.2
,	Kupwara		0.8		48.8		38.3		53.0		59.6		34.5

<sup>1</sup> http://niti.gov.in/writereaddata/files/FirstDeltaRanking-May2018-AspirationalRanking.pdf

# Aspirational districts



		Not in	school	Private	school			Lear	ning leve	ls: All sc	hools		
			301001	Thvatt	. 501001		Std	-V			Std V	/I-VIII	
Chata	District	% Ch	ildren	% Ch	nildren	% Ch	nildren	% Ch	ildren	% Ch	ildren	% Ch	ildren
State	District	enrol	led in	enrol	led in	who ca	an read	who car	n at least	who ca	an read	who c	an do
		sch	lool	private	school	Std II le	evel text	do sub	traction	Std II le	evel text	divi	sion
		2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018
	Bokaro	0.6	1.8	17.3	21.6	33.3	36.4	36.4	45.6	55.5	61.2	45.3	41.4
	Chatra	3.3	0.8	18.4	14.3	19.5	26.5	27.3	27.5	49.2	66.2	34.0	41.5
	Dumka	4.7	3.9	8.9	9.9	19.3	26.4	34.0	39.0	45.6	51.6	36.3	31.3
	East Singhbhum	2.1	2.1	17.3	12.1	37.0	27.6	34.2	32.4	67.7	56.4	40.1	30.8
	Garhwa	1.7	1.2	10.5	15.8	23.9	25.2	25.3	33.1	57.8	67.1	30.4	52.6
	Giridih	2.7	2.1	20.5	21.7	40.5	20.7	42.7	25.9	71.7	56.2	43.1	33.2
	Godda	1.8	1.1	15.7	10.8	24.2	26.9	39.0	40.9	67.3	51.4	48.1	32.4
	Gumla	4.0	3.2	24.2	31.6	18.1	29.4	22.2	36.0	57.5	61.0	24.0	31.6
	Hazaribagh	1.3	0.6	37.3	28.1	40.5	32.8	41.0	35.1	65.8	62.2	50.3	39.3
Jharkhand	Khunti	4.1	4.3	24.5	22.5	29.7	34.5	28.4	26.4	77.4	64.5	23.3	23.3
	Latehar	4.0	1.2	13.1	13.8	27.3	27.1	26.8	27.2	63.2	53.5	35.3	28.7
	Lohardaga	2.0	0.9	19.2	29.0	21.6	37.5	25.7	36.5	49.7	70.0	19.9	39.3
	Pakur	16.7	11.0	12.0	16.8	12.0	16.1	24.0	20.3	34.0	46.2	24.3	32.5
	Palamu	1.3	3.3	10.2	14.7	30.3	25.9	33.2	31.7	62.1	52.3	41.3	35.8
	Ramgarh	1.9	1.1	33.5	35.1	35.2	40.2	40.2	42.7	52.2	66.9	28.9	43.8
	Ranchi	9.9	2.4	40.1	39.0	36.9	37.4	39.7	32.6	75.3	63.3	28.2	28.3
	Sahibganj	8.9	4.3	7.8	11.8	13.3	14.6	23.6	15.6	43.6	34.1	36.5	19.5
	Simdega	4.4	1.5	26.6	30.1	15.1	23.4	17.0	27.7	54.7	63.6	19.5	25.8
Karnataka	West Singhbhum	6.5	7.6	11.3	8.1	8.3	12.8	16.6	18.7	34.5	37.6	18.6	22.2
	Raichur	4.7	1.2	16.4	13.1	17.8	26.8	19.8	28.1	54.4	56.5	20.5	26.6
	Yadgir	5.8	4.7	17.6	17.4	16.6	22.0	29.5	30.6	47.1	57.8	22.2	33.2
Kerala	Wayanad	0.8		39.5		49.4		43.7		79.7		37.1	
	Barwani	16.6	21.7	10.4	15.1	12.8	26.5	12.3	18.5	43.5	55.1	12.6	20.6
Madhya Pradesh	Chhatarpur	3.3	5.9	12.8	11.2	22.4	24.1	24.9	30.9	51.8	59.6	31.2	42.6
	Damoh	2.7	2.1	22.5	20.1	31.0	39.2	15.9	31.6	50.0	58.8	20.3	38.2
	Guna	9.1	4.8	18.2	20.1	29.2	24.1	30.3	20.9	42.5	53.8	24.2	30.1
	Khandwa	5.1	2.8	25.2	14.6	23.8	23.2	19.1	20.2	61.8	62.6	15.8	29.1
	Rajgarh	5.8	2.9	32.6	44.0	30.3	30.0	25.0	31.9	56.6	68.1	24.8	27.3
	Singrauli	3.2	2.2	16.5	25.0	22.8	25.9	18.0	27.7	54.3	54.8	28.5	29.9
	Vidisha	3.2	5.8	26.4	22.5	21.8	24.6	18.5	19.7	47.7	38.7	19.1	21.7
	Gadchiroli	1.1	0.5	21.5	24.4	30.2	34.2	30.2	38.6	56.0	55.3	19.5	26.2
	Nandurbar	2.4	4.1	21.0	37.2	28.4	33.9	14.7	19.4	46.4	62.9	7.8	6.3
Maharashtra	Osmanabad	0.2	0.7	30.1	30.7	45.7	53.4	38.1	31.3	73.3	75.2	37.7	27.6
	Washim	0.8	0.0	36.4	34.6	52.1	47.1	22.2	40.2	78.3	77.8	16.4	30.6
Manipur	Chandel	2.5	6.6	67.3	64.7	64.7	63.3	64.7	66.7	89.5	90.0	52.6	30.0
Meghalaya	Ri Bhoi	1.7	3.4	76.1	55.2	29.1	48.8	30.7	43.8	63.4	91.5	24.6	25.5
Mizoram	Mamit	0.0	0.4	15.1	24.6	34.6	33.7	67.2	68.7	80.9	86.5	89.1	55.6
Nagaland	Kiphire	3.1	4.5	33.6	29.5	45.3	6.5	57.3	10.1	67.7	26.3	43.6	0.9

# Aspirational districts



State         District         No. in zerosi w Childen ( $ge G - I \rightarrow introdentified(ge G - I \rightarrow introdentified)         No         Children(ho Can a I least(ho Can a I least(ho Can a I least(ho Can a I least(ho Can I le$			Not in	school	Private	school			Learr	ning leve	ls: All sc	hools		
State         District $\binom{9}{6}$ Children (age 6-1 m c) $\binom{9}{6}$ Children (age 7-1 m c) $\binom{9}{6}$ Children (age					THVac			Std	III-V			Std \	/I-VIII	
Balanci         Balangir         1.2         0.3         0.2         7.8         18.5         0.00         2016         2018	State	District	% Ch	14) not	% Ch (age	ildren 6-14)	% Ch	ildren	% Ch	ildren	% Ch	ildren	% Ch	ildren
Image: Private state         Private school         P	outo		enrol	led in	enrol	led in	who ca   Std II le	an read	who car	n at least traction	who ca Std II le	an read	who divi	can do
Image: Constant index         Constant index <thc< td=""><td></td><td></td><td>sch</td><td>nool</td><td>private</td><td>school</td><td></td><td></td><td>40 545</td><td></td><td></td><td></td><td></td><td></td></thc<>			sch	nool	private	school			40 545					
Balangir         1.2         0.3         0.2         7.8         18.5         30.2         21.0         21.4         36.9         51.6         13.5         20.5           Dhenkanal         0.5         0.6         13.4         13.4         58.6         54.3         39.6         43.6         77.6         71.4         35.8         37.6           Gajapati         3.4         1.9         9.6         7.9         31.4         33.6         43.2         34.4         51.5         50.8         38.8         20.2           Kalahandi         3.8         1.5         5.1         6.8         38.4         42.0         22.8         32.8         53.5         54.9         19.8         27.0           Kandhamal         2.2         0.9         7.0         3.2         34.3         35.9         31.6         38.7         71.7         52.9         26.3         26.1           Koraput         8.5         7.4         1.5         1.4         9.7         19.5         11.6         12.7         33.0         43.5         12.5         9.4           Malkangiri         10.2         7.1         3.2         2.6         15.5         14.0         7.3         16.4			2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018
Dhenkanal         0.5         0.6         13.4         13.4         58.6         54.3         39.6         43.6         77.6         71.4         35.8         37.6           Gajapati         3.4         1.9         9.6         7.9         31.4         33.6         43.2         34.4         51.5         50.8         38.8         20.2           Kalahandi         3.8         1.5         5.1         6.8         38.4         42.0         22.8         32.8         53.5         54.9         19.8         27.0           Kandhamal         2.2         0.9         7.0         3.2         34.3         35.9         31.6         38.7         71.7         52.9         26.3         26.1           Koraput         8.5         7.4         1.5         1.4         9.7         19.5         11.6         12.7         33.0         43.5         12.5         9.4           Malkangiri         10.2         7.1         3.2         2.6         15.5         14.0         7.3         16.4         41.5         53.2         5.7         28.4           Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3		Balangir	1.2	0.3	0.2	7.8	18.5	30.2	21.0	21.4	36.9	51.6	13.5	20.5
Gajapati         3.4         1.9         9.6         7.9         31.4         33.6         43.2         34.4         51.5         50.8         38.8         20.2           Malandi         3.8         1.5         5.1         6.8         38.4         42.0         22.8         32.8         53.5         54.9         19.8         27.0           Kandhamal         2.2         0.9         7.0         3.2         34.3         35.9         31.6         38.7         71.7         52.9         26.3         26.1           Koraput         8.5         7.4         1.5         1.4         9.7         19.5         11.6         12.7         33.0         43.5         12.5         9.4           Malkangiri         10.2         7.1         3.2         2.6         15.5         14.0         7.3         16.4         41.5         53.2         5.7         28.4           Rayagada         5.9         7.8         3.1         3.0         35.0         15.8         18.6         8.5         81.6         40.3         17.2         5.4           Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3		Dhenkanal	0.5	0.6	13.4	13.4	58.6	54.3	39.6	43.6	77.6	71.4	35.8	37.6
Kalahandi         3.8         1.5         5.1         6.8         38.4         42.0         22.8         32.8         53.5         54.9         19.8         27.0           Kandhamal         2.2         0.9         7.0         3.2         34.3         35.9         31.6         38.7         71.7         52.9         26.3         26.1           Koraput         8.5         7.4         1.5         1.4         9.7         19.5         11.6         12.7         33.0         43.5         12.5         9.4           Malkangiri         10.2         7.1         3.2         2.6         15.5         14.0         7.3         16.4         41.5         53.2         5.7         28.4           Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3         62.4         82.8         89.8         50.8         58.7           Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3         62.4         82.8         89.8         50.8         58.7           Moga         0.0         1.2         51.2         57.5         53.9         59.4		Gajapati	3.4	1.9	9.6	7.9	31.4	33.6	43.2	34.4	51.5	50.8	38.8	20.2
Kandhamal         2.2         0.9         7.0         3.2         34.3         35.9         31.6         38.7         71.7         52.9         26.3         26.1           Koraput         8.5         7.4         1.5         1.4         9.7         19.5         11.6         12.7         33.0         43.5         12.5         9.4           Malkangiri         10.2         7.1         3.2         2.6         15.5         14.0         7.3         16.4         41.5         53.2         5.7         28.4           Rayagada         5.9         7.8         3.1         3.0         35.0         15.5         14.0         7.3         16.4         41.5         53.2         5.7         28.4           Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3         62.4         82.8         89.8         50.8         58.7           Punjab         Moga         0.0         1.2         51.2         57.5         53.9         59.4         66.4         68.3         80.9         81.5         58.2         58.7           Moga         0.0         1.2         51.2         57.5         53.9	Odisha	Kalahandi	3.8	1.5	5.1	6.8	38.4	42.0	22.8	32.8	53.5	54.9	19.8	27.0
Koraput         8.5         7.4         1.5         1.4         9.7         19.5         11.6         12.7         33.0         43.5         12.5         9.4           Malkangiri         10.2         7.1         3.2         2.6         15.5         14.0         7.3         16.4         41.5         53.2         5.7         28.4           Rayagada         5.9         7.8         3.1         3.0         35.0         15.8         18.6         8.5         81.6         40.3         17.2         5.4           Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3         62.4         82.8         89.8         50.8         58.7           Moga         0.0         1.2         51.2         57.5         53.9         59.4         66.4         68.3         80.9         81.5         58.2         58.7           Moga         0.0         1.2         51.2         57.5         53.9         59.4         66.4         68.3         80.9         81.5         58.2         58.7           Moga         4.5         4.0         29.3         24.0         34.6         32.0         36.9         2	Caloria	Kandhamal	2.2	0.9	7.0	3.2	34.3	35.9	31.6	38.7	71.7	52.9	26.3	26.1
Malkangiri       10.2       7.1       3.2       2.6       15.5       14.0       7.3       16.4       41.5       53.2       5.7       28.4         Rayagada       5.9       7.8       3.1       3.0       35.0       15.8       18.6       8.5       81.6       40.3       17.2       5.4         Punjab       Firozpur       2.1       2.0       44.8       45.1       58.9       63.8       59.3       62.4       82.8       89.8       50.8       58.7         Moga       0.0       1.2       51.2       57.5       53.9       59.4       66.4       68.3       80.9       81.5       58.2       58.7         Baran       4.5       4.0       29.3       24.0       34.6       32.0       36.9       29.2       66.2       65.3       47.2       33.0		Koraput	8.5	7.4	1.5	1.4	9.7	19.5	11.6	12.7	33.0	43.5	12.5	9.4
Rayagada         5.9         7.8         3.1         3.0         35.0         15.8         18.6         8.5         81.6         40.3         17.2         5.4           Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3         62.4         82.8         89.8         50.8         58.7           Moga         0.0         1.2         51.2         57.5         53.9         59.4         66.4         68.3         80.9         81.5         58.2         58.8           Baran         4.5         4.0         29.3         24.0         34.6         32.0         36.9         29.2         66.2         65.3         47.2         33.0		Malkangiri	10.2	7.1	3.2	2.6	15.5	14.0	7.3	16.4	41.5	53.2	5.7	28.4
Punjab         Firozpur         2.1         2.0         44.8         45.1         58.9         63.8         59.3         62.4         82.8         89.8         50.8         58.7           Moga         0.0         1.2         51.2         57.5         53.9         59.4         66.4         68.3         80.9         81.5         58.2         58.8           Baran         4.5         4.0         29.3         24.0         34.6         32.0         36.9         29.2         66.2         65.3         47.2         33.0		Rayagada	5.9	7.8	3.1	3.0	35.0	15.8	18.6	8.5	81.6	40.3	17.2	5.4
Moga         0.0         1.2         51.2         57.5         53.9         59.4         66.4         68.3         80.9         81.5         58.2         58.8           Baran         4.5         4.0         29.3         24.0         34.6         32.0         36.9         29.2         66.2         65.3         47.2         33.0	Puniah	Firozpur	2.1	2.0	44.8	45.1	58.9	63.8	59.3	62.4	82.8	89.8	50.8	58.7
Baran         4.5         4.0         29.3         24.0         34.6         32.0         36.9         29.2         66.2         65.3         47.2         33.0	T unjub	Moga	0.0	1.2	51.2	57.5	53.9	59.4	66.4	68.3	80.9	81.5	58.2	58.8
		Baran	4.5	4.0	29.3	24.0	34.6	32.0	36.9	29.2	66.2	65.3	47.2	33.0
Dhaulpur         3.6         2.4         45.5         40.1         35.9         29.3         47.3         36.9         76.4         65.0         54.8         40.9		Dhaulpur	3.6	2.4	45.5	40.1	35.9	29.3	47.3	36.9	76.4	65.0	54.8	40.9
Rajasthan         Jaisalmer         15.2         8.2         22.1         19.3         30.9         18.9         33.8         14.4         68.8         51.2         41.4         17.0	Rajasthan	Jaisalmer	15.2	8.2	22.1	19.3	30.9	18.9	33.8	14.4	68.8	51.2	41.4	17.0
Karauli         2.0         2.5         55.8         43.6         45.1         32.9         47.5         35.0         72.8         66.5         58.2         34.6		Karauli	2.0	2.5	55.8	43.6	45.1	32.9	47.5	35.0	72.8	66.5	58.2	34.6
Sirohi         9.9         7.0         34.2         19.3         32.5         24.0         30.4         15.6         68.4         62.2         24.0         12.8		Sirohi	9.9	7.0	34.2	19.3	32.5	24.0	30.4	15.6	68.4	62.2	24.0	12.8
Sikkim         West District         0.3         0.8         30.2         30.1         48.4         33.3         58.9         52.5         79.3         65.3         30.4         29.3	Sikkim	West District	0.3	0.8	30.2	30.1	48.4	33.3	58.9	52.5	79.3	65.3	30.4	29.3
Ramanathapuram         0.4         0.5         36.3         30.9         42.4         21.7         41.9         50.4         70.6         68.6         44.5         28.9		Ramanathapuram	0.4	0.5	36.3	30.9	42.4	21.7	41.9	50.4	70.6	68.6	44.5	28.9
Tamil Nadu         Virudhunagar         0.4         0.6         24.1         22.9         43.0         27.9         54.1         49.4         80.6         57.5         54.9         45.7	Tamil Nadu Telangana	Virudhunagar	0.4	0.6	24.1	22.9	43.0	27.9	54.1	49.4	80.6	57.5	54.9	45.7
Adilabad         3.0         2.6         31.0         40.0         21.0         28.7         42.5         39.3         52.3         53.2         33.9         34.8		Adilabad	3.0	2.6	31.0	40.0	21.0	28.7	42.5	39.3	52.3	53.2	33.9	34.8
Telangana         Khammam         2.8         0.0         32.7         36.9         50.0         34.2         69.4         63.1         74.0         74.4         49.4         62.0		Khammam	2.8	0.0	32.7	36.9	50.0	34.2	69.4	63.1	74.0	74.4	49.4	62.0
Warangal         0.3         0.0         47.1         54.9         30.0         47.0         70.0         59.8         72.8         75.0         58.3         56.9		Warangal	0.3	0.0	47.1	54.9	30.0	47.0	70.0	59.8	72.8	75.0	58.3	56.9
Tripura         Dhalai         0.8         2.8         10.7         11.0         38.2         22.3         44.1         41.3         51.9         57.7         16.8         29.4	Tripura	Dhalai	0.8	2.8	10.7	11.0	38.2	22.3	44.1	41.3	51.9	57.7	16.8	29.4
Bahraich 6.2 9.4 25.6 26.6 12.0 31.4 11.3 28.6 39.2 55.8 15.3 25.4		Bahraich	6.2	9.4	25.6	26.6	12.0	31.4	11.3	28.6	39.2	55.8	15.3	25.4
Balrampur 9.1 9.1 34.1 38.0 26.4 22.3 22.3 29.4 46.0 52.2 20.6 39.1		Balrampur	9.1	9.1	34.1	38.0	26.4	22.3	22.3	29.4	46.0	52.2	20.6	39.1
Chandauli 2.0 5.0 47.9 43.7 33.5 52.5 36.5 41.9 57.6 77.3 37.9 45.4		Chandauli	2.0	5.0	47.9	43.7	33.5	52.5	36.5	41.9	57.6	77.3	37.9	45.4
Uttar Pradesh Chitrakoot 4.4 3.2 37.6 36.4 32.2 36.3 17.3 37.7 74.5 64.5 23.9 34.7	Uttar Pradesh	Chitrakoot	4.4	3.2	37.6	36.4	32.2	36.3	17.3	37.7	74.5	64.5	23.9	34.7
Fatehpur         5.8         2.9         50.8         50.4         21.7         47.7         24.0         45.0         47.5         67.8         22.3         40.0		Fatehpur	5.8	2.9	50.8	50.4	21.7	47.7	24.0	45.0	47.5	67.8	22.3	40.0
Shravasti         11.3         14.3         22.9         27.8         11.7         21.5         9.7         18.1         41.8         48.1         18.2         26.8		Shravasti	11.3	14.3	22.9	27.8	11.7	21.5	9.7	18.1	41.8	48.1	18.2	26.8
Siddharth Nagar         4.7         5.2         44.7         39.1         23.0         24.9         24.1         31.7         49.5         54.2         22.0         28.9		Siddharth Nagar	4.7	5.2	44.7	39.1	23.0	24.9	24.1	31.7	49.5	54.2	22.0	28.9
Haridwar 3.1 4.6 52.5 52.6 39.9 46.2 41.3 38.4 66.7 77.2 34.1 41.4		Haridwar	3.1	4.6	52.5	52.6	39.9	46.2	41.3	38.4	66.7	77.2	34.1	41.4
Uttarakhand Udham Singh Nagar 2.5 1.4 49.1 62.1 44.0 40.7 43.1 42.4 62.7 71.1 30.9 32.7	Uttarakhand	Udham Singh Nagar	2.5	1.4	49.1	62.1	44.0	40.7	43.1	42.4	62.7	71.1	30.9	32.7
Birbhum 4.5 1.4 2.8 4.3 26.3 44.1 36.7 36.3 50.0 66.0 22.8 32.3		Birbhum	4.5	1.4	2.8	4.3	26.3	44.1	36.7	36.3	50.0	66.0	22.8	32.3
Dakshin Dinajpur         1.6         0.9         6.3         8.7         42.3         31.7         42.3         45.0         56.5         46.4         32.2         24.7		Dakshin Dinaipur	1.6	0.9	6.3	8.7	42.3	31.7	42.3	45.0	56.5	46.4	32.2	24.7
West Bengal         Maldah         4.7         4.4         14.7         14.6         27.3         32.4         27.3         30.3         57.0         51.5         16.9         19.2	West Bengal	Maldah	4.7	4.4	14.7	14.6	27.3	32.4	27.3	30.3	57.0	51.5	16.9	19.2
Murshidabad         3.4         2.8         10.9         7.0         28.4         38.9         33.3         35.4         53.9         50.5         21.3         29.0		Murshidabad	3.4	2.8	10.9	7.0	28.4	38.9	33.3	35.4	53.9	50.5	21.3	29.0
Nadia         0.0         1.5         7.9         5.1         53.9         48.7         50.6         37.7         69.1         66.2         29.4         24.7		Nadia	0.0	1.5	7.9	5.1	53.9	48.7	50.6	37.7	69.1	66.2	29.4	24.7

# From assessment to action: ensuring foundational learning for ALL children

The child in this picture is reading. The text is in Hindi and it translates as: *The sun has come out*. *Light is spread* everywhere. *Darkness is gone*. *Children are going to school*.

This picture symbolises the promise of education to brighten lives and create happiness. Together we must ensure that all children can read and understand simple texts like these and do basic math.

But it is not enough to hope that they will acquire these skills just by staying in school.

#### From measuring schooling to measuring learning

The Millennium Development Goals (MDGs) adopted in the year 2000 created a push for universal access to education. Since then, many countries have acted to expand school enrollments.<sup>1</sup> But improvements in the quality of education outcomes have not kept pace.<sup>2</sup>

More recently, Goal 4 of the Sustainable Development Goals (SDGs), defined by world leaders in 2015, calls for a greater focus on inclusiveness, equity and quality in education. Learning outcomes feature prominently in SDG 4, with five targets and six indicators calling for data on learning outcomes and skills (UNESCO Institute of Statistics (UIS), 2018a).<sup>3</sup>

Within SDG 4, the first target - Target 4.1- states: "By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes."

In particular, Indicator 4.1.1 will measure the "proportion of children and young people:

(a) in Grade 2 or 3;

(b) at the end of primary education; and

(c) at the end of lower secondary education

achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex".

In order to enable monitoring of these new global education targets under the SDGs, specifically Target 4.1.1, robust, regular, and comparable (both within a country over time as well as cross-nationally) data are needed on children's learning outcomes.

#### Insufficient evidence on learning gaps in the early grades

New estimates from UNESCO Institute for Statistics (UIS)<sup>4</sup> show that 617 million children and adolescents worldwide



are not achieving minimum proficiency levels in reading and mathematics (though robust estimates are missing for many countries, particularly low and middle-income countries). About two-thirds of these children and youth are in school (UIS, 2017a). The gap between what children can do and what is expected of them often appears in the very first years of school. Almost all education systems expect children to acquire foundational abilities of reading and mathematics<sup>5</sup> by Grade 2 or 3 so that they can negotiate more difficult content in higher grades. In most school systems, classroom teaching is guided by the need to cover an ambitious curriculum. Keeping pace with children's learning, especially struggling learners, is seldom prioritised (Banerji, 2017). Children who lag behind in early grades are usually not offered a chance to catch up.

In the most recent World Development Report, the World Bank (2018) highlights that learning outcomes will not change unless learning is used as a guide and metric. The importance of assessments is emphasised by the fact that assessing learning is visualized as the first step in a 3-step strategy to tackle the learning crisis.<sup>6</sup> The other two being:

- 1) Acting on evidence collected from learning assessments; and
- 2) Aligning all actors to make the system of education work for learning.

<sup>&</sup>lt;sup>1</sup> See United Nations (2015) to understand progress made under the Millennium Development Goals.

<sup>&</sup>lt;sup>2</sup> For instance, see World Bank (2018) for a detailed discussion on the crisis of learning.

<sup>&</sup>lt;sup>3</sup> See UIS (2018b) for a list of all targets and indicators for SDG 4 on education.

<sup>&</sup>lt;sup>4</sup> UIS is the custodian UN agency for SDG 4 data. The UIS not only has the mandate to produce the global monitoring indicators but also to help all stakeholders - countries, donors, civil society groups, and technical partners - use the findings to get all children in school and learning by 2030.

<sup>&</sup>lt;sup>5</sup> Acquisition of these foundational skills in early grades is strongly positively associated with later school performance. For instance, see Glick & Sahn (2010).

<sup>&</sup>lt;sup>6</sup> Some critics would argue that in recent times a lot of assessments have mushroomed leading to a risk of an overemphasis on assessment data. But in many countries the problem is still availability of too little relevant and actionable assessment data - not too much.

Intuitively, it seems reasonable for all countries to assess learning in early grades (Grades 2 or 3) to ensure that all children are acquiring foundational abilities of reading and mathematics that are critical to successfully negotiating the curriculum in higher grades. Evidence from such an assessment would ensure that learning gaps are identified in time to provide effective remedial action where needed.

Currently, none of the major international assessments measure foundational learning abilities for Grades 2 or 3.7 And out of several regional assessment initiatives,<sup>8</sup> only the Programme for the Analysis of Education Systems of CONFEMEN (PASEC) and the Latin American Laboratory for Assessment of the Quality of Education (LLECE) assess learning outcomes for children in Grades 2 and 3, respectively. Some countries cover early grades in their national assessment programs. A recent review by UIS and UNESCO's International Bureau of Education (UNESCO-IBE) found that around 50 countries have assessment frameworks for Grades 2 or 3, but only a few publish learning outcomes or successfully complete the administration of their assessments (UIS, 2017b).9 One reason for this absence of attention to foundational skills is that they are much more difficult to assess.

Is there a viable assessment of foundational learning to produce actionable evidence as well as track progress on learning outcomes under SDG 4.1.1?

#### The Annual Status of Education Report (ASER) assessment: Relevant, robust, and replicable

Much before international acceptance of the existence of a learning crisis came about. Pratham.<sup>10</sup> one of the largest civil society organizations working to improve quality of education in India, realized the problem of low learning outcomes while working with children in its intervention programs. Pratham developed a simple assessment tool to help understand and track children's reading and numeracy levels. The assessment is oral, administered one on one with each child, and guick and simple both to do and to understand. This assessment fed directly into Pratham's instructional practice as children were grouped for instruction based on their level. It was also helpful in explaining to parents what their children were able to do and where they required more assistance, and for tracking children's progress over time. This assessment was later standardized and scaled up to form the core of a large scale household survey that collects data on schooling status and learning outcomes of children in rural India known as the Annual Status of Education Report, or ASER (ASER Centre, 2015).

Pratham pioneered the ASER assessment model in 2005. Since then, the ASER survey has been conducted every year across rural India using simple<sup>11</sup> but robust one-on-one assessment tools.<sup>12</sup> It engages citizens and local organisations/institutions in evaluating and understanding basic learning outcomes in reading and mathematics of a representative sample of over 600,000 children in approximately 16,000 villages and over 565 rural districts each year (Banerji, 2016).<sup>13</sup>

<sup>&</sup>lt;sup>7</sup> Progress in International Reading Literacy Study (PIRLS) is an international study of reading (comprehension) achievement in Grade 4. Similarly, Trends in International Mathematics and Science Study (TIMSS) is a series of international assessments of the mathematics and science knowledge of students around the world in Grades 4 and 8. Both PIRLS and TIMSS are conducted by the International Association for the Evaluation of Educational Achievement (IEA) using a pencil-and-paper format. The Programme for International Student Assessment (PISA) is a worldwide study by the Organisation for Economic Co-operation and Development (OECD) in member and non-member nations, intended to evaluate educational systems by measuring 15-year-old school pupils' scholastic performance in mathematics, science, and reading.

<sup>&</sup>lt;sup>8</sup> The Latin American Laboratory for Assessment of the Quality of Education (LLECE) is a regional assessment led by UNESCO's Regional Bureau for Education in Latin America and the Caribbean (OREALC/UNESCO). It has been administered in mathematics and language (reading and writing) in Grades 3 and 6, and in natural sciences (Grade 6 only).

The Programme for the Analysis of Education Systems of CONFEMEN (PASEC) is a regional assessment for monitoring the quality of education systems belonging to the CONFEMEN. It measures student competencies at the beginning (Grade 2) and end (Grade 6) of primary education, in language (oral/ listening comprehension, decoding and reading) and mathematics.

The Pacific Islands Literacy and Numeracy Assessment (PILNA) is a regional assessment that measures language/literacy and mathematics/numeracy skills in Grades 4 and 6. The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) is a regional assessment that assesses performance levels of students and teachers in Grade 6 in language/literacy, mathematics/numeracy, and health.

The Southeast Asia Primary Learning Metrics (SEA-PLM) is a regional assessment developed to assess Grade 5 students in language, mathematics, and global citizenship.

<sup>&</sup>lt;sup>9</sup> Due to lack of existing and clear methodologies, SDG 4, Target 4.1, Indicator 4.1.1(a) was only recently upgraded to a Tier II indicator (an indicator which is conceptually clear, established methodology and standards available but data are not regularly produced by countries) from a Tier III indicator (an indicator for which there is no established methodology and standards available or methodology and standards are being developed or tested). <sup>10</sup> For more information about Pratham, see - http://www.pratham.org

<sup>&</sup>lt;sup>11</sup> In ASER survey, children in the age group of 5 to 16 years are assessed in their homes. All children are assessed using the same tools as the objective of the survey is to ascertain whether or not children have attained foundational abilities of reading and mathematics. The ASER reading assessment has 4 tasks: recognizing letters, decoding words, decoding a Std I level text, and a Std II level text. The ASER mathematics assessment also has 4 tasks: recognizing numbers (1 to 9), recognizing numbers (11 to 99), subtraction, and division. For both reading and mathematics, each child is marked at the highest level of the assessment based on the tasks she completes successfully. A child who cannot even do tasks at the easiest level is marked as a "beginner".

For more details, see ASER assessments tasks - http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202016/aserassessmenttasks.pdf and ASER process for conducting the survey - http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202016/aservillageprocess.pdf.

<sup>&</sup>lt;sup>12</sup> See Vagh (2016) for a discussion on validity of ASER assessment tools. Also, see Banerji & Bobde (2013) to understand the development and evolution of ASER English tool.

<sup>&</sup>lt;sup>13</sup> See ASER's Trends over Time report that presents trends in enrolment, reading, mathematics, and English for children in rural India from 2006 to 2014 http://www.asercentre.org/Keywords/p/236.html

Over the past 13 years, the ASER assessment model has been borrowed and adapted by many countries. In 2015, the People's Action for Learning (PAL) Network - a partnership of member countries working across three continents to assess the basic reading and numeracy competencies of children, in their homes, through regular citizen-led assessments was formally established with a Secretariat based in Nairobi, Kenya.<sup>14</sup> The PAL Network believes that citizen-led, household-based ASER-like assessments of basic reading and numeracy competencies are the only way to find out whether ALL children are acquiring the foundational skills that are necessary for future progress.

By consistently producing data on low learning outcomes for the PAL Network member countries,<sup>15</sup> ASER and its family of assessment initiatives have been pushing to shift the focus from access and provision to learning for all and to bring children's learning to the centre of all global discussions and debates on education.

# Assessing foundational learning for ALL children: ASER architecture and its relevance for developing country contexts

Current knowledge of and experience with learning assessments is largely based on models and methods that have evolved over time in high income developed countries. Not surprisingly, these respond to the needs and capabilities of the contexts in which they originated. These contexts have characteristics that are often very different from those of developing countries. For example, they typically have child populations that are stable over time, several decades' worth of experience with universal enrollment, comprehensive records of all schools in the country, and significant proportions of parents who have themselves been to school. It is also the case that in these education systems, assessment is usually an integral part of the larger teaching-learning framework that guides the functioning of schools. Data on students' progress feeds into decisions and plans for improvements in the education system (ASER Centre, 2017a).

In the light of the widespread learning crisis and the recent push to assess learning for SDG 4.1.1 monitoring, as countries develop and experiment with metrics and measurement, they need to consider the extent to which the existing assessment approaches and models are appropriate, relevant or useful for their current context. Should they modify or adapt existing paradigms? Or do they need to develop/adapt different indicators, tasks and processes that better serve their current needs and are more aligned to existing capabilities?

The architecture of ASER and its family of assessments is based on ground realities that need to be taken into consideration if assessment data is to be translated easily into effective interventions. The points below summarize and explain some of the key decisions that were taken as the ASER assessment was evolved. These decisions are relevant for countries that have just started thinking or are in early phases of designing assessment programs to measure foundational learning.

- 1. Assessments conducted in the households, in order to include ALL children Despite making significant progress in increasing enrollments, not all children in the school going age-group in most developing countries are currently enrolled in school. Of those who are enrolled, many attend unrecognized schools. Education systems in many countries lack a comprehensive list of all kinds of schools. Attendance rates also vary vastly across and within countries, and school-based assessments generate estimates of learning that are biased towards students who attend more regularly. Hence, only a household-based assessment can adequately represent ALL children.<sup>16</sup>
- 2. Oral one-on-one assessments Even after several years of attending school, many children in developing countries lack foundational skills like reading. For instance, in Ghana and Malawi, more than four-fifths of students at the end of Grade 2 were unable to read a single familiar word such as 'the' or 'cat' (Gove & Cvelich, 2011). In Peru (a middle-income country) before the recent reforms only half of all children could do so. In 2016, national level ASER assessments in India and Pakistan<sup>17</sup> revealed that even in Grade 5 about half of all children could not read a Grade 2 level text (ASER Centre, 2017b; ASER Pakistan, 2017). Over 25% children in grade 5 in the Mexican state of Veracruz could not comprehend a simple story that they read (Medición Independiente de Aprendizajes (MIA), 2016).

<sup>&</sup>lt;sup>14</sup> See http://palnetwork.org for more information about the PAL Network.

Also, see http://palnetwork.org/our-growth/ for information on the growth of the Network over the years.

<sup>&</sup>lt;sup>15</sup> See http://palnetwork.org/wp-content/uploads/2017/11/2017\_COMMS\_InformationBrief\_CLA4PagerSDG4.1.1\_VO2\_EN.pdf for a quick snapshot of foundational learning levels in reading and mathematics in various PAL Network member countries across Africa, Asia and Latin America.

<sup>&</sup>lt;sup>16</sup> Is a sample based learning assessment appropriate, or is a census required? This is a question that often comes up in assessment-related discussions. To answer this question, it is important to consider the purpose of the assessment. If the objective is to obtain reliable estimates at a systemic level, then, statistically well designed and carefully administered assessments can provide reliable estimates of most variables of interest. Such assessments can also be administered more often. Schools/children participating in these assessments do not have to be identified. This helps lower the stakes, making the assessments less susceptible to biases and ill practices. However, if the objective of the assessment is to use these estimates for targeting of specific actions or interventions, then a census may be needed.

While deciding the sampling design (for sample-based assessments), care should be taken to ensure that learning assessment data that is generated is representative at the level of decision-making. In India, the unit for planning, allocation and implementation in the elementary education sector is the district and the city. Hence, the ASER survey in India aims to reach all rural districts to provide useful data for decision-making at district level as well as state and national levels.

<sup>&</sup>lt;sup>17</sup> For more information about ASER Pakistan, see - http://www.asercentre.org/#alu7g

Children who cannot read cannot be assessed using pencil-and-paper tests. Oral one-on-one assessment is the only meaningful option for understanding learning outcomes of a majority of children in the developing world at least at the primary school level.

- 3. Assessment of foundational abilities of reading and comprehension (in own language) and mathematics -Learning outcomes are far below grade level for many children currently enrolled in school. For instance, in rural Bangladesh, after completing Grade 9 about 80% of students attain Grade 5 competencies in oral and written mathematics. The fact that written mathematics competency is significantly lower than oral, points to the difficulties that children have in reading, understanding, and writing (Asadullah et al., 2009 as cited in Dundar et al., 2014). Therefore, in many developing countries, it will be useful to begin assessment programs with a focus on basic reading and comprehension (in own language) and mathematics, rather than implementing subject-wise tests. As the system becomes increasingly capable of implementing, analysing and effectively using data, more subjects and more levels can be incrementally incorporated.
- 4. Common, frequent, and consistent assessment in early grades and beyond to ensure tracking of foundational abilities - As elaborated earlier, most international assessments target children in older age groups. But learning deficits are harder to address for older children. Basic data on children's foundational skills in early grades can be linked to quick corrective action, thus preventing the accumulation of learning deficits if taken at the right time and at the appropriate level. Assessment of foundational abilities should also be continued for older age-groups (in addition to any other metric) to ensure that all children have successfully acquired these skills.<sup>18</sup> Also, to make such assessment data useful for monitoring and planning action, findings should be available at regular and predictable intervals.<sup>19</sup> The use of uniform methodologies, approaches, and psychometrics across different rounds of assessment is crucial for education systems to understand trends in learning over time.
- 5. Simple instruments, processes and data to generate awareness and build capacity Assessment of children's learning has a relatively long history in developed countries, making sophisticated measurement systems

for data collection and different levels of analysis possible. A culture of measurement is not well developed in most developing countries, where the capacity to design assessments, analyze learning outcomes data and link assessment results to action on the ground has yet to be built. Simple, easy to use assessment tools and processes, easily understandable data, and evidence that can effectively be translated into action are all important elements that can fuel policy dialogue and action in the developing country context. Concerted and consistent efforts using a hands-on approach over time will build assessment capacity of government officials at different levels. Simple tools can also engage teacher and parents to understand learning goals expected of children at different stages of the school system.

6. Collaboration with stakeholders - In most developing countries, years of schooling are not highly correlated to value-addition in terms of learning for each year spent in school. Involving a wide cross-section of stakeholders in the assessment is useful, given the need to highlight the fact that the issue of learning needs focus and national attention. Often it is only first-hand experience of a problem that changes mindsets. Assessments that are developed and administered with the collaboration of various stakeholders are more likely to be considered valid and relevant at local levels.<sup>20</sup> Local partnerships and simple tools and processes also help reduce the overall cost of assessment.<sup>21</sup>

#### Looking ahead

The SDGs ushered in a new era of ambitions for education aiming to ensure that every child is in school and learning well. The reporting format for SDG 4.1.1 has two basic requirements for assessment programs:

- 1) Content/skills covered that can be aligned to minimum proficiency levels (MPLs). The minimum proficiency levels agreed for monitoring under SDG 4.1.1(a) for Grades 2 and 3 are as follows (UIS, 2018c):<sup>22</sup>
  - Grade 2 reading Children read and comprehend most of written words, particularly familiar ones, and extract explicit information from sentences.
  - Grade 3 reading Children read written words aloud accurately and fluently. They understand the overall meaning of sentences and short texts, and identify the topic of texts.

<sup>&</sup>lt;sup>18</sup> ASER 2018 indicates that even in Grade 8, close to a quarter of enrolled children are unable to read fluently at Grade 2 level and less than half of all children in Grade 8 can correctly solve a simple numerical division problem (3-digit number divided by 1-digit number). Similar trends can be seen from ASER Centre's research studies with children in the post-primary age-group.

<sup>&</sup>lt;sup>19</sup> Since its inception in 2005, the ASER survey was done annually for 10 years till 2014. Two more rounds have been completed in 2016 and 2018.

<sup>&</sup>lt;sup>20</sup> In India, ASER partners with local institutions and organizations in each district to carry out the ASER survey and also to discuss and disseminate the ASER results. Partners are from varied backgrounds but a large proportion comprises teacher training colleges, other colleges and universities.

<sup>&</sup>lt;sup>21</sup> For instance, participation in one round of a large international assessment programme (such as TIMSS and PISA) costs a country around US\$800,000. The figure is lower - US\$200,000 to US\$500,000 - for regional cross-national programmes, such as LLECE and PASEC (UIS, 2018a). In comparison, despite a design that yields estimates at district, state and national levels covering over 550,000 children, ASER 2016 cost less than US\$1,000,000.

<sup>&</sup>lt;sup>22</sup> ASER Centre and the PAL Network played a critical role in shaping these MPLs (to include foundational learning) and achieving global consensus by actively participating in the UIS-Global Alliance to Monitor Learning (GAML) initiative. For more details on GAML see http://gaml.uis.unesco.org.

- Grade 2 and 3 mathematics Children demonstrate skills in number sense and computation, shape recognition, and spatial orientation.
- 2) Stringent quality control processes to ensure procedural consistency with data from other assessment programs/ countries.

ASER and its family of assessments are well aligned to both these requirements for successful reporting on SDG Indicator 4.1.1.<sup>23</sup>

In addition, though it is mostly known for its use in largescale ASER survey in India, the ASER assessment tool is also widely used for formative purposes in classroom intervention programs<sup>24</sup> and for program evaluation purposes.<sup>25</sup> Due to its rapid and simple design, ASER assessments can also be conducted along with existing school-based assessments to gain deeper insights on foundational learning levels.<sup>26</sup> ASER assessments can also be included at little additional cost with existing household surveys conducted both nationally (such as income and consumption surveys) and internationally.<sup>27</sup>

Lastly, the links from assessment to action are neither automatic nor straightforward. For learning to improve, not only does evidence from learning assessments need to be available, but also someone needs to act on them. The SDGs have provided a catalyst for focusing on learning; an assessment like ASER is available to provide relevant and actionable evidence that can kick-start the process of change. Now we need a concerted effort to ensure that education fulfills its promise of bringing light and happiness in every child's life.

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<sup>&</sup>lt;sup>23</sup> See page 279 of this report for a discussion on the ASER survey's quality control process.

Also, in May 2018, the PAL Network published network-wide Data Quality Standards Framework (see https://palnetwork.org/wp-content/uploads/2018/ 04/2018\_PAL-Network\_DQSF\_FINAL.pdf) as a central element to the network-wide commitment to producing high-quality and robust assessment data. <sup>24</sup> For instance, see Banerji & Chavan, 2016

<sup>&</sup>lt;sup>25</sup> For instance, recently, the ASER reading assessment was used along with Early Grade Reading Assessment's (EGRA) oral reading fluency measure to evaluate USAID funded early grade reading programs in 7 states of India.

<sup>&</sup>lt;sup>26</sup> In a school-based assessment conducted by ASER Centre in partnership with UNICEF in the state of Bihar, oral ASER assessment tools were used in addition to curriculum-pegged pencil-and-paper assessments. See - http://www.asercentre.org/Keywords/p/252.html for more details.

<sup>&</sup>lt;sup>27</sup> For instance, UNICEF's Multi Indicator Cluster Surveys (MICS) included a foundational learning module similar to the ASER assessment for its 6th round conducted in 2016-2018. Like ASER, MICS is also a household survey. For more details on MICS, see - http://mics.unicef.org/about.

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# Annual Status of Education Report (ASER) and National Achievement Survey (NAS): different metrics with a common goal

#### **Overview**

The economic and social climate of the globe is changing faster than ever. Through a series of 'global conversations' UN has put many goals/targets at the focal point of action for governments and citizens. Education is a key goal in the list of Sustainable Development Goals. With SDG 4<sup>1</sup>, the international community has pledged to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." The World Bank's World Development Report 2018<sup>2</sup> warns of a 'learning crisis' in global education. The report offers three policy recommendations: assess learning, so that it becomes measurable goal; make schools work for all children; and mobilize everyone who has stakes in learning.<sup>3</sup>

In India, NITI Aayog's vision and strategy document, Three-year Action Agenda (2017-18 to 2019-20),<sup>4</sup> seeks to orient the system towards outcomes and implement a time-bound program with focus on ensuring that all children attain basic skills. Focusing on quality education, the central RTE (Right of Children to Free and Compulsory Education Act 2009)<sup>5</sup> rules have been amended in 2017 to include class-wise, subject-wise learning outcomes for all elementary classes and also prepare guidelines for putting into practice Continuous and Comprehensive Evaluation, to achieve the defined learning outcomes.

All of this indicates a clear global and national mandate for quality education, in general, and for improving learning outcomes in particular.

In India, there are two large-scale nationwide learning assessments currently conducted periodically to track children's learning outcomes at the elementary stage. Pratham/ASER Centre's Annual Status of Education Report (ASER) has been published annually from 2005 to 2014, in 2016 and now in 2018.<sup>6</sup> The National Council for Educational Research and Training (NCERT) has conducted National Achievement Survey (NAS) periodically since 2001 for Classes III, V, VIII and X. NAS was most recently conducted in 2017, with major changes in scope, scale, methodology, and reporting, as compared to earlier versions.

Natio	onal Achiev	ement Sur	vey (NCE	RT)		ASER	Survey
Class Cycle	Class III	Class IV	Class VIII	Domains assessed	Year	Age group <sup>7</sup>	Domains assessed
Cycle 1	2003-04	2001-02	2002-03	<u>Class 3</u> - Language,	2005-2014	5-16	Basic reading, arithmetic and English (2007, 2009, 2012, and 2014)
Cycle 2	2007-08	2005-06	2007-08	<u>Class 5</u> -	2015		Not conducted
	20012-13	2009-11	2010-13	Math,	2016	5-16	Basic reading, arithmetic and English
Cycle 4	2015-16	2014-15	2015-16	<u>Class 8</u> - Language, Math,	2017 <sup>8</sup>	14-18	Application of basic arithmetic skills to everyday tasks
NAS 2017	Nov	ember 201	7	Science, Social	2018	5-16	Basic reading and arithmetic + Bonus tool
NAS 2018	Not	t conducte	d	studies	2010	510	(age 14-16)

The table below compares the implementation cycles of NAS and ASER:

<sup>1</sup> https://www.un.org/sustainabledevelopment/sustainable-development-goals/

<sup>2</sup> http://www.worldbank.org/en/news/press-release/2017/09/26/world-bank-warns-of-learning-crisis-in-global-education

<sup>4</sup> http://niti.gov.in/writereaddata/files/coop/ActionPlan.pdf

<sup>8</sup> http://www.asercentre.org/Keywords/p/305.html

<sup>&</sup>lt;sup>3</sup> The Global Partnership for Education (GPE2020) - the global fund solely dedicated to education in developing countries is committed to upholding education as a public good, a human right, and an enabler of other rights. It is essential for peace, tolerance, human fulfillment, and sustainable development. It also believes that it is essential to focus resources on securing learning, equity, and inclusion for the most marginalized children and youth, including those affected by fragility and conflict. GPE 2020 is a five-year strategic plan commencing January 1, 2016 and ending December 31, 2020. It aligns with the vision and mission of the Global Goals for Sustainable Development.

<sup>&</sup>lt;sup>5</sup> http://mhrd.gov.in/sites/upload files/mhrd/files/upload document/RTE Amendment 2017.pdf

<sup>&</sup>lt;sup>6</sup> In 2015, ASER was conducted only in two states - Punjab and Maharashtra. In 2017, ASER was conducted for youth age 14-18 in 28 districts of the country. See http://www.asercentre.org/Keywords/p/276.html

<sup>&</sup>lt;sup>7</sup> Since ASER is a household survey, a representative sample of children of the specific age groups were assessed. These children could be enrolled in various grades in government, private or other kinds of schools. There could also be children of that age gorup who were not enrolled in school.

Both ASER and NAS are large scale and national assessments. Although, they have a common overarching goal to measure learning outcomes in elementary grades, there are many important differences from objective to methodology to procedures. Since the purpose of each exercise is different, consequently, key elements like sampling, location of testing, test design, questionnaire content, methodology, and timeframe of assessment are also different. Results of NAS and ASER are computed, reported, and disseminated very differently. Since estimates generated by ASER and NAS neither cover the same population nor assess the same content, their results are not comparable.

However, it is worth highlighting that both ASER<sup>9</sup> and NAS<sup>10</sup> results over the years have brought the 'learning crisis' at the forefront of policy discussion and debate in India. For example, the Economic Survey of India has cited ASER results for several years. In fact, in 2017-18, they generated a "learning poverty headcount" and a "learning poverty gap".<sup>11</sup> NITI Aayog's Three-year Action Agenda (2017-18 to 2019-20), focuses on the urgent need for improving learning outcomes and reiterates this point using both ASER and NAS data.<sup>12</sup>

#### Key Features of ASER and NAS

Since the data on learning levels from ASER and NAS surveys have been used in policy formulation and advocacy, it is crucial to understand the key features of the two surveys. This part of the note summarizes and makes comparisons between ASER and NAS (for elementary grades). It is based on ASER 2005-2018<sup>13</sup> and a set of NAS documents available in the public domain<sup>14</sup> as well as official press releases pertaining to elementary education.<sup>15</sup> For NAS, this note largely focusses on NAS 2017 which had a number of key features that were improvements over previous NAS rounds.

#### Institutions

**ASER** is facilitated by Pratham, a non-governmental organization (NGO), and carried out by partner institutions in almost all rural districts of the country. These partner institutions include colleges, universities, District Institutes of Education and Training (DIETs), teacher training institutes, NGOs, and other types of organizations.

While many government institutions participate in conducting ASER, no funds are accepted from any government source. External evaluations and process audits of the ASER methodology are conducted from time to time by independent organizations.

**NAS** is carried out by the Educational Survey Division (ESD) of the NCERT. The design and implementation of NAS 2017 included in its ambit school leaders, teachers, and a network of officials at the cluster, block, DIET, State Council of Educational Research and Training (SCERT) and Directorates of Education in various states and union territories.<sup>16</sup>

Field investigators from outside the government education system were engaged to conduct the assessment, with preference given to DIET students. A monitoring team comprising observers from inter-ministerial departments was tasked with observing the implementation of the survey.<sup>17</sup>

<sup>13</sup> See www.asercentre.org for ASER reports from 2005 to 2018, and related documentation.

<sup>&</sup>lt;sup>9</sup> See http://www.asercentre.org/Keywords/p/236.html

<sup>&</sup>lt;sup>10</sup> Based on comparison of state-wise results of NAS - Class V (Cycles 3 and 4), it was found that 19 out of 31 states/union territories which participated in both cycles show a significant decline in learning outcomes in language and math. The steepest declines were observed in Uttar Pradesh, Madhya Pradesh, and Maharashtra. Learning levels in both subjects were found to be stagnant in 10 states/union territories, while significant improvement was observed only in Andaman and Nicobar Islands and Puducherry.

<sup>&</sup>lt;sup>11</sup> The Economic survey 2017-18 used ASER data to estimate a Learning Poverty Headcount (LPC) as well as a Learning Poverty Gap (LPG). "....on math and reading, India's absolute LPC is between 40 and 50 percent: in other words, roughly 40-50 percent of children in rural India in grades 3 to 8 cannot meet the fairly basic learning standard ....". The LPC simply measures the number of children who do not meet the basic learning benchmark, whereas the LPG additionally takes into account how far each student is from the benchmark.

<sup>&</sup>lt;sup>12</sup> NITI Aayog's Three-year Action Agenda (2017-18 to 2019-20), reiterates this using both ASER and NAS data. "...the proportion of children in grade III who can read at least a grade I level text dropped from 50.6 in 2008 to 40.3 in 2014, before increasing marginally to 42.5 in 2016 according to Pratham's Annual Status of Education Report (ASER) data. The proportion of children in grade III who can do at least subtraction fell from 39% in 2008 to 25.4% in 2014, and again increased slightly to 27.7% in 2016. Poor learning outcomes are reflected in multiple other sources as well, including the National Achievement Survey (NAS), which found worse results in Class V Cycle 4 (2015) compared to Cycle 3(2012)...."

<sup>&</sup>lt;sup>14</sup> While NAS reports, communication documents and sample items have been published by NCERT (available at http://www.ncert.nic.in/programmes/ education\_survey/Education\_survey.html), assessment tools and technical specifications relating to NAS 2017 are not available in the public domain as of December, 2018.

<sup>&</sup>lt;sup>15</sup> Two cycles of NAS for Class X have been conducted in 2014-15 and 2018. However, these have not been considered in this note, as they do not pertain to elementary education.

<sup>&</sup>lt;sup>16</sup> MHRD Press Release (26-07-2018): http://pib.nic.in/newsite/PrintRelease.aspx?relid = 181119

<sup>&</sup>lt;sup>17</sup> NAS 2017: Operational Guidelines cum Training Manual, retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/ Operational\_Guidelines\_Training\_Manual.pdf

#### **Objectives**

**ASER's** objective is to provide annual, reliable, current, and actionable evidence relating to enrollment and basic learning outcomes of children in rural India. It is designed to generate district, state, and national level estimates of children's schooling status for all children aged 3-16 years, and estimates of basic reading and arithmetic ability for all children aged 5-16 years.

ASER is designed as a household survey so as to include all children: those enrolled in government schools, private schools, other schools, as well as those not enrolled in school or not attending school on the day of the survey. It is a foundational assessment or "floor test". ASER 2018 also included additional "bonus" questions on application of basic arithmetic skills to daily tasks, for the age group 14-16 years. The major objective of conducting NAS is to have a system level reflection of the effectiveness of the government education system in India.<sup>18</sup> The findings from NAS 2017 are intended to guide education policy, planning and implementation at national, state, district, and classroom levels for improving learning levels of students and bringing about qualitative improvements.<sup>19</sup>

**NAS** 2017 is designed as a school-based survey of students enrolled in Std III, V and VIII in government and government-aided schools. It is a grade-level assessment based on class-wise, subject-wise learning outcomes developed by NCERT.<sup>20</sup> The attainment of learning outcomes in terms of competencies was tested. These learning outcomes have been incorporated into the central rules for the Right to Education (RTE) Act<sup>21</sup> in 2017, to serve as a guideline for states.

#### Sampling and coverage

**ASER** aims to reach all rural districts each year. It is a nationwide sample-based household survey. It employs a two-stage sample design. At the first stage, 30 villages are selected in each rural district from the Census<sup>22</sup> directory using Probability Proportional to Size (PPS).<sup>23</sup> In the second stage, 20 households are randomly selected in each village. Volunteers are provided with standardized instructions on sampling of households from various sections/hamlets within a village.

All children aged 3-16 years who regularly reside in the sampled households are surveyed. Of these, all children aged 5-16 years are assessed.<sup>24</sup>

ASER 2018 reached 354,944 households in 596 districts. 546,527 children aged 3-16 years were surveyed, of which 390,830 children aged 5-16 years were assessed using the ASER reading tool and 389,496 children were assessed using the ASER arithmetic tool. 62,245 children aged 14-16 years were assessed using the ASER bonus tool.

ASER also collects background information on parents, households, and village characteristics. One government school in each sampled village is also visited during the **NAS** covers rural as well as urban districts of India. NAS 2017 is a school-based nation-wide survey and focuses on Std III, V and VIII. While earlier versions of NAS involved sampling of districts at the state level, districts served as the basic sampling unit in NAS 2017 which included nearly all districts of India. In each district, a fixed number of schools<sup>25</sup> for each class were sampled using the Probability Proportional to Size (PPS) method. Within each school, 30 students from any one section of the class were selected through random sampling.

Although the issue of students' attendance is not explicitly addressed in NAS documents, the sampling procedure at the school level<sup>26</sup> seems to suggest that if a sampled child was not present on the day of the survey, she would be replaced by one who was, resulting in a self-selection bias.

NAS 2017 was implemented in 701 districts across 36 states/union territories. It covered a total of 2,121,173 students from Std III, V and VIII. A total of 116,534 schools were surveyed. Previous NAS surveys had a much smaller sample size. Cycle 3 of NAS included around 4.2 lac students from elementary grades.<sup>27</sup>

<sup>&</sup>lt;sup>18</sup> Post NAS Interventions: Communication and Understanding of the District Report Cards, 2017 (p.2), retrieved from http://www.ncert.nic.in/programmes/ NAS/pdf/DRC\_report.pdf

<sup>&</sup>lt;sup>19</sup> MHRD Press Release (12-11-2017): http://pib.nic.in/newsite/PrintRelease.aspx?relid = 173462

<sup>&</sup>lt;sup>20</sup> NAS 2017: District Workshop Module, retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/NAS District Workshop Module.pdf

<sup>&</sup>lt;sup>21</sup> MHRD Press Release (02-04-2018): http://pib.nic.in/newsite/PrintRelease.aspx?relid = 178287

<sup>&</sup>lt;sup>22</sup> Census 2001 frame was used for ASER surveys 2005-14 and Census 2011 frame was used for ASER 2016 onwards.

<sup>&</sup>lt;sup>23</sup> Except in ASER 2005, wherein 20 villages were sampled in each rural district based on PPS.

<sup>&</sup>lt;sup>24</sup> For more details on the ASER sampling methodology, see http://www.asercentre.org/overview/basic/pack/history/etc/p/56.html

<sup>&</sup>lt;sup>25</sup> 60 schools per district for Class III and V; and 50 schools per district for Class VIII

<sup>&</sup>lt;sup>26</sup> NAS 2017: Operational Guidelines-cum Training Manual, retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/ Operational\_Guidelines\_Training\_Manual.pdf

<sup>&</sup>lt;sup>27</sup> http://www.ncert.nic.in/programmes/nas/nas.html

ASER survey to collect information about school characteristics such as infrastructure, student attendance, School Management Committee (SMC) and finances. In 2018, 15,998 government schools were visited by ASER volunteers. NAS 2017 also collected background information on schools, teachers and students with the help of separate questionnaires. A total of 287,393 teachers were covered during NAS 2017.

#### **Tools and testing**

**ASER** assesses basic reading and arithmetic ability, which are foundational skills for language comprehension and mathematics.<sup>28</sup> Basic reading ability implies the acquisition of letter knowledge, ability to decode common everyday high-frequency words and to fluently read simple passages. Similarly, basic arithmetic implies the ability to recognize numbers and perform basic operations such as subtraction and division. Assessment tasks are developed based on analysis of state textbooks and curriculum framework documents.

All children aged 5-16 years are administered the same basic tests, regardless of age, grade or schooling status. ASER tools are designed to assess mastery of these foundational skills and are not intended to differentiate within each mastery level.<sup>29</sup> The highest level tested in reading is the ability to fluently read a Std II level text. The highest level tested in arithmetic is the ability to correctly do a 3-digit by 1-digit division question, usually taught in Std III or IV.

Additionally, ASER 2018 also included "bonus" questions on application of basic arithmetic skills to daily tasks, for the age group 14-16 years.

#### NAS assesses grade-level competencies.

Students are administered grade-specific tests based on class-wise, subject-wise learning outcomes developed by NCERT. These learning outcomes have also been incorporated into the central rules for the Right to Education (RTE) Act in 2017, to serve as a guideline to states. The range of learning outcomes assessed by NAS 2017 varies with class and subject.

The test instruments of present National Achievement Survey (2017) are competency-based and linked to learning outcomes recently developed by NCERT<sup>30</sup>. NCERT developed two sets of test forms for each class, and the duration of the NAS test was roughly 2 hours. Students of Std III and V were required to attempt 45 questions on language, mathematics, and EVS. Students of Std VIII were required to attempt 60 questions on language, mathematics, science, and social science.<sup>31</sup>

While limited information is available regarding the tool design methodology and technical specifications of the NAS assessment, NCERT states that "internationally accepted technical standards and practices are being adhered to while planning, designing, and implementing of NAS to ensure its robustness and sustainability."<sup>32</sup>

#### **Test administration**

**ASER** is a household survey. Children are tested at home. ASER reading and arithmetic assessments are administered orally, one on one. All children aged 5-16 years who reside regularly in the sampled household are given the same test, regardless of schooling status, age, or grade. Within each household, different children are administered different samples of the testing tool. The highest level of proficiency in reading and arithmetic is recorded. NAS is conducted in school (government and governmentaided schools). Students of different classes are given gradespecific tests in different subjects. Following an orientation by the Field Investigator, students answer a set of multiple choice questions and record their response in an Optical Mark Recognition (OMR) sheet. While the test for Std VIII was entirely pen-and-paper based, the test for Std III and Class V included an oral component, with questions and options being read aloud (not the reading passage) by Field Investigators.<sup>33</sup>

<sup>&</sup>lt;sup>28</sup> Additionally, ASER has periodically included elements of assessment relating to time, money, measurement, problem solving, listening comprehension, and English reading and comprehension.

<sup>&</sup>lt;sup>29</sup> ASER 2006 and 2007 included testing of reading and comprehension. The data indicates very high correlation between the ability to read a passage fluently and the ability to comprehend it. See http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202014/Articles/ ashokmutumsavitribobdeketanverma.pdf

<sup>&</sup>lt;sup>30</sup> http://www.ncert.nic.in/programmes/NAS/pdf/DRC\_report.pdf

<sup>&</sup>lt;sup>31</sup> NAS 2017: Module for Test Administration (Field Investigator), retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/ Module\_Administration\_Field\_Investigators.pdf

<sup>&</sup>lt;sup>32</sup> NAS 2017: Operational Guidelines-cum Training Manual, retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/ Operational\_Guidelines\_Training\_Manual.pdf

<sup>&</sup>lt;sup>33</sup> NAS 2017: Module for Test Administration (Field Investigator), retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/ Module\_Administration\_Field\_Investigators.pdf
#### Process implementation and monitoring

The **ASER** implementation process begins with a national workshop attended by the ASER central team and state teams. Subsequently, state level trainings are held in each state wherein the state ASER team trains Master Trainers from each district. The Master Trainers in turn conduct district level trainings for volunteers from local partner organizations such as colleges, universities, teacher training institutes, DIETs,<sup>34</sup> NGOs, and others. Volunteers receive intensive training over 2-3 days in preparation for the survey, including a day of practice in the field. They are then paired into teams and tasked with surveying the sampled villages. After conducting the survey, volunteers submit the survey booklets to Master Trainers for their districts.

ASER devotes considerable time and resources to ensure data quality through carefully designed training, monitoring, and recheck procedures, details of which are provided in each year's report and on the ASER Centre website.<sup>35</sup> A multi-layered system of field monitoring, desk recheck, and field recheck has been established wherein Master Trainers as well as ASER state and central teams travel to surveyed villages in order to check for adherence to survey process and protocols. Computer rechecks are also incorporated at the data entry and data consolidation stages. In addition, external process audits of the ASER data collection methodology are periodically conducted by independent bodies. 54.6% of all surveyed villages were monitored/rechecked in ASER 2018. **NAS** is coordinated by NCERT at the national level, with the support of agencies such as SCERTs, State Institutes of Education (SIEs), and State Project Directorate (SPDs) in the states and union territories. Coordinators at state and district level are trained on administration of the survey. In each district, Field Investigators are briefed by the district coordinators on field survey processes such as selection of students in the sampled schools, administration of tools, use of OMR sheets by students etc. It is not clear whether field practice is included as a part of the training of Field Investigators. After data collection, the filled OMR sheets, questionnaires and field notes are collected, scanned, verified, and uploaded at the district level. A web application enables data collation, monitoring of state implementation, and timely generation of reports.<sup>36</sup>

Monitoring guidelines were laid out by NCERT for NAS 2017. The State Project Director - Sarva Shiksha Abhiyan (SPD-SSA) was tasked with coordination of monitoring activities at the state level. In each district, a District Monitoring Unit (DMU) was constituted to monitor day to day activities relating to the survey, such as training and implementation. Additionally, observers drawn from interministerial departments were tasked with observing the implementation of the survey at the block level. However, there is no information in the public domain regarding the actual extent of monitoring during NAS 2017, or technical details regarding the reliability of NAS data.

#### **Precision of estimates**

**ASER** estimates are self-weighting at the district level. At the divisional, state, and national levels, estimates are weighted by the appropriate population weights. While ASER reports standard errors and margins of error at the divisional level, these are not reported at the state or national level. However, a study done on the precision of ASER enrollment and learning estimates shows that margins of error are well within 5% at the state level.

For every variable, sample sizes are checked and where the number of observations is found to be insufficient, estimates are not presented in the report.<sup>37</sup>

In earlier versions of **NAS**, weights were assigned as per the student response data, and standard errors were estimated using the jack-knife replication procedure.

Detailed district level report cards were generated by NAS for the first time in 2017. District reports included data on sample coverage, overall learning levels by grade and subject, and disaggregated learning outcomes by gender, location and social group, etc. However, since no standard errors are presented at the district level or at the state level, the precision of these estimates cannot be commented upon.

Note that while the average sample size per class in each district is stated to be approximately 1000, it is noted that several districts had much lower sample sizes, which may affect the precision of estimates at the district level.

<sup>&</sup>lt;sup>34</sup> 236 DIETs from 14 states participated in ASER 2018.

<sup>&</sup>lt;sup>35</sup> See http://www.asercentre.org/p/136.html

<sup>&</sup>lt;sup>36</sup> NAS 2017: Operational Guidelines-cum Training Manual, retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/ Operational\_Guidelines\_Training\_Manual.pdf

<sup>&</sup>lt;sup>37'</sup> See Ramaswami, B. & Wadhwa, W. (2010). Available at: http://img.asercentre.org/docs/Aser%20survey/Technical%20Papers/ precisionofaserestimates\_ramaswami\_wadhwa.pdf

#### Availability of tools and results

**ASER** findings are made available in the same school year in which the data is collected. The survey is conducted between September and November of each year and the report is published the following January. District, divisional, state, and national level estimates are made available in the public domain.

All ASER tools,<sup>38</sup> testing procedures and findings are available in the public domain.<sup>39</sup> All ASER data sets are available to researchers and research institutions upon request. **NAS** 2017 was conducted on 13th November, 2017 and district report cards were published in the same school year for the first time. Since then the state reports have also been published. However, an aggregated national report for NAS is yet to be published as of December, 2018.

While NAS reports, communication documents, and sample items have been published by NCERT, assessment tools used in NAS 2017 are not available in the public domain as of December, 2018. NCERT published "Data Sharing and Accessibility Policy"<sup>40</sup> in June, 2016, to facilitate public access to NAS data through a web-based portal. This portal has not been set up as of December, 2018.

#### Test reliability and validity

**ASER** testing tools assess achievement of mastery rather than the performance of children relative to their peers. Reliability in this case refers to the consistency of the decision making process in assigning children to a mastery level, across repeated administrations of the test. In addition, since examiners assign each child to a mastery level, it is important to estimate the consistency of the decision making process across examiners. This is referred to as inter-rater reliability. A series of studies<sup>41</sup> indicates substantial reliability of decisions across repeated measurements (test-retest) and satisfactory inter-rater reliability.

Validity of a test means the extent to which the test actually measures the constructs it is intended to measure. The validity of the ASER Hindi language tool was examined using the Fluency Battery test.<sup>42</sup> The ASER language assessment is strongly associated with the Fluency Battery, with magnitude of the correlation coefficients ranging from 0.90 to 0.94.<sup>43</sup>

**ASER** has used the same sampling procedures since 2006. The reading assessment framework has not changed since the first survey in 2005, and the arithmetic assessment framework has not changed since 2007. In addition, the survey is conducted at the same time during the school year. Therefore, ASER estimates are comparable over time, enabling the study of trends in elementary education in India.<sup>45</sup> Earlier versions of **NAS** used the Item Response Theory (IRT) model for designing test forms and analysis of data, and reliability coefficients were published. While no information is publicly available regarding the reliability and validity of the NAS 2017 assessment tools, NCERT states that "internationally accepted technical standards and practices are being adhered to while planning, designing and implementing of NAS to ensure its robustness and sustainability".<sup>44</sup>

#### **Comparisons over time**

**NAS** 2017 is not comparable with earlier versions due to changes in sampling, test design, and content of assessment. NAS 2017 is intended to provide a baseline for competency-based learning linked to learning outcomes recently developed by NCERT in different districts.<sup>46</sup>

<sup>43</sup> A correlation coefficient of 1 indexes a perfect and positive association between two measures.

<sup>&</sup>lt;sup>38</sup> In ASER 2018, testing was conducted in 19 languages across India.

<sup>&</sup>lt;sup>39</sup> See http://www.asercentre.org/p/141.html

<sup>&</sup>lt;sup>40</sup> See http://www.ncert.nic.in/pdf\_files/ESDDataSharingPolicy\_24.6.2016.pdf

<sup>&</sup>lt;sup>41</sup> See papers by Shaher Banu Vagh (2009 & 2013). Available at http://www.asercentre.org/sampling/precision/reliability/validity/p/180.html

<sup>&</sup>lt;sup>42</sup> The Fluency Battery is a test of early reading ability adapted from the Early Grade Reading Assessment (USAID, 2009) and the Dynamic Indicators of Basic Early Literacy Skills (University of Oregon Center on Teaching and Learning, 2002).

<sup>&</sup>lt;sup>44</sup> NAS 2017: Operational Guidelines-cum Training Manual, retrieved from http://www.ncert.nic.in/programmes/NAS/pdf/ Operational Guidelines Training Manual.pdf

<sup>&</sup>lt;sup>45</sup> See http://www.asercentre.org/Keywords/p/236.html

<sup>&</sup>lt;sup>46</sup> Post NAS Interventions: Communication and Understanding of the District Report Cards, 2017 (p.3), retrieved from http://www.ncert.nic.in/programmes/ NAS/pdf/DRC\_report.pdf

#### **Concluding thoughts**

Robust national scale assessments generate great value by monitoring learning outcomes. Both, ASER and NAS with their advantages and limitations align with global efforts to monitor SDGs in education. Both, NAS and ASER survey exercises continue to evolve and improve over time. However, there are many aspects of the ASER effort that can be considered for adoption or adaptation for government or state mandated assessments.

- 1. On assessment frameworks: While it is essential to assess a broad range of domains and competencies in order to get a comprehensive picture of what children know and can do, there remains an equal, if not greater, need to establish whether children possess foundational skills such as literacy and numeracy. These skills are a prerequisite for mastery of specific content in EVS, science, and social studies. Given the wide disparity of learning levels in the same grade, it may be useful to incorporate foundational skills regardless of grade.<sup>47</sup> For example, ASER assesses mastery of specific foundational skills which include NCERT learning outcomes listed for Std I and II. These include tasks like "Identifies orthography and sound of alphabets" and "reads and understands written alphabets, words, and sentences."
- 2. On sampling design: ASER has been criticized for not following a school-based survey design. However, an important limitation of the NAS 2017 model, as indeed of any school-based assessment, is that it excludes several categories of children such as those enrolled in private schools, unrecognized schools, institutions of religious learning, out of-school children as well as those children who are absent on the day of assessment. On the other hand, a household-based survey is more inclusive in coverage by design, aiming to reach a representative sample of all children in a given age group. This is crucial to ensuring that no child is written off.<sup>48</sup> Additionally, ASER is simple, understandable and rapid, in adherence to the requirements of a good quality household survey.
- 3. On implementation, participation, and testing method: NAS is implemented with the help of state machinery SCERTs, SPDs, DIETs etc. Although the government school system is an important component of education, the task of improving educational outcomes requires the collective participation of all actors involved in children's lives. ASER is a citizen-led participatory exercise, with the involvement of local partners and volunteers from diverse backgrounds. In addition to collection of field data, there is an organic element of engaging parents, ordinary citizens and a wide range of stakeholders in a debate around the quality of education in our schools. The eighth meeting of the Inter-agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) was held from 5 to 8 November 2018 in Stockholm, Sweden.<sup>49</sup> UIS proposed a set of definitions of the skills and performance levels that all children should acquire. Performance descriptor at Std III is *Students read aloud written words accurately and fluently and they understand the overall meaning of sentences and short texts*. ASER's method of one-on-one testing can generate reliable estimates against this descriptor.
- 4. On reporting and actionability: NAS 2017 results are communicated through State and District Report Cards with the help of generic parameters such as "average score" and theoretical concepts such as "learning outcomes". NAS has also developed a Data Visualisation Application, with technical support from UNICEF. NAS 2017 has made significant changes compared to earlier years in demystifying and dissemination of findings. Detailed guidelines have been laid down regarding dissemination of report cards to various educational functionaries, for qualitative improvement in learning levels in the government school system. ASER attempts to simplify the process of understanding learning assessments by displaying snapshots of the actual testing tool alongside proportion of children bucketed in various levels of proficiency. ASER continues to remain India's sole source of annual information regarding foundational abilities of children across all elementary grades. Notwithstanding criticism for its simplicity, ASER continues to serve as a resourceful source of educational information in India, as its findings are easy to understand and act on for policymakers, educationists, teachers, parents, and indeed children themselves.<sup>50</sup>

<sup>&</sup>lt;sup>47</sup> Lant Pritchett, 2018. https://www.cgdev.org/blog/india-massive-expansion-schooling-too-little-learning-now-what. Karthik Muralidharan, 2018 https:// www.bloombergquint.com/global-economics/an-economic-strategy-for-india-by-rajan-gopinath-and-others-full-report#gs.tGwU9ZFV

<sup>&</sup>lt;sup>48</sup> World Development Report 2018:Learning to Realize Education's Promise

<sup>&</sup>lt;sup>49</sup> https://sdg.uis.unesco.org/2018/11/09/we-are-ready-to-start-monitoring-early-grade-learning/

<sup>&</sup>lt;sup>50</sup> Oza & Bethell-Assessing Learning Outcomes: Policies, Progress and Challenges, Sarva Shiksha Abhiyan DFID funded research study, 2015. Another important aspect of these surveys lies in their effective reporting and advocacy- " ... Whilst the Class V NAS report is technically superior and visually more attractive than its predecessors, there are still many lessons that can be learnt from the reporting formats used by, for example, Pratham/ASER and Educational Initiatives. Notwithstanding any technical limitations, these agencies consistently produce reports which are attractive and eminently readable. ASER in particular has been extremely successful in extracting from its studies "headline findings" which catch the attention of the media and, hence, generate a great deal of press coverage....". Also, ASER survey, over the years have made significant contribution to provide complementary data on learning outcomes (12th JRM) and annual snapshot of learning in rural areas.

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### Frequently asked questions about ASER

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#### Overview

#### 1. What is ASER?

ASER stands for Annual Status of Education Report. It is a household-based survey of children's schooling and learning status. Schooling status is recorded for children in the age group 3 to 16, and children in the age group 5 to 16 are tested for their ability to read simple text and do basic arithmetic. Except for 2015, ASER has been conducted every year since 2005.

### 2. Why ASER? Isn't information on children's learning outcomes already available?

Traditionally, government policy and statistics have focused on inputs and enrollment - how many schools and teachers, how many children in school, and so on. When ASER began in 2005 there was very little focus on what children were actually learning. It is true that today many more large scale assessments are conducted in India as compared to 2005 when the first ASER survey was carried out. The National Achievment Survey (NAS) is conducted by NCERT, a central government institution, every few years with children in Grades III, V and VIII. Additionally, most states/UTs conduct their own State Learning Achievement Survey (SLAS). However, ASER remains the only annual source of data on children's learning outcomes available on scale in India. It is also the only large scale assessment that focuses on children's foundational skills. Most other assessments focus on grade level competencies and assume that children's foundational skills are in place.

#### 3. What is the geographical coverage of ASER?

ASER is a rural survey. Urban areas are not covered. In most years, ASER has attempted to reach every rural district of the country (although in some years certain states have been excluded for logistical reasons, such as Arunachal Pradesh in 2013 and Jammu and Kashmir in 2010). However, every year ASER is unable to reach some rural districts. Generally, this is due to natural disasters, situations of unrest or conflict in the district.

#### 4. Why is ASER done every year?

For several reasons. First, in addition to presenting district, state, and national level estimates each year, ASER also presents trends over time. Comparable measurements are needed periodically in order to see how the situation is changing. The ASER measurement is done annually because government plans and allocations for elementary education are made every year. If children's learning outcomes are to improve, then evidence on how much children are learning needs to be fed into the process of review and planning. Second, longer gaps between assessments can have serious implications for children currently in school. It is well

known that falling behind in school often leads to dropping out altogether. If several years go by between assessments, opportunities are lost to take rapid corrective action in order to ensure that children who are falling behind are able to catch up. Third, it takes time to shift the focus from schooling to learning. When ASER began in 2005, the issue of children's learning was rarely discussed. But after ten years of ASER, the topic of children's learning is very much on the national agenda.

# 5. ASER completed 10 years in 2014. Since then, the same report has not been coming out every year. There was no ASER in 2015 and a different one ('Beyond Basics') in 2017. Why these changes?

When we started ASER in 2005, we made a commitment to do it every year for five years because we believe that for data to feed into policy, it needs to be reliable, comparable, and available on a regular basis. At the end of five years the consensus was that it was too soon to discontinue ASER.

In 2014, we completed 10 years and so we decided to take a year off to reflect and consolidate our learnings. So in 2015, ASER was done only in two states - Punjab and Maharashtra - at the specific request of the respective state governments. There was no national ASER 2015 report.

Then in 2016, ASER began its second decade. Much had changed since 2005: there was far more awareness of the learning crisis, and learning assessments were being conducted regularly by the central and state governments. But despite all this attention, the problem of poor foundational reading and arithmetic abilities is still widespread. Even in 2016, less than half of all children in Std VIII could solve a simple division problem. Taking all these factors into account, we decided that for the next ten years (2016-25), ASER would switch to an alternate-year cycle. The basic ASER will be conducted every other year it was conducted in 2016 and again this year. The next basic ASER will be in 2020. And in alternate years ASER will focus on a different aspect of the education system. So, in 2017, we conducted 'Beyond Basics', focusing on the abilities, experiences, and aspirations of youth in the 14-18 age group. In 2019, ASER will retain the focus on learning but will aim to shine the spotlight on a different segment of the population.

### 6. What is the survey calendar? Why was this timeline selected?

The ASER survey calendar is provided at the beginning of this report. ASER is carried out in the middle of the school year - roughly between September and November. By this time children's enrollment patterns have settled down for the year. Data entry and analysis happens in November and December, and survey results are released in mid January of the following year. This calendar is designed to enable ASER data for the current school year to be available in time to feed into the district level annual planning process for the following year. Planning for elementary education takes place at the district level, and before ASER there was no source of district level data on children's learning outcomes that could provide inputs into this process.

#### 7. Who collects the data?

ASER is conducted by volunteers from local partner organizations in each district. A wide range of institutions partner with ASER each year. These include universities and colleges, self-help groups, non-government organizations, and government institutions, among others. For example, in 2018 ASER was conducted by students from the District Institutes of Education and Training (DIETs), the government teacher training colleges, in about 40% of all districts. ASER is facilitated by Pratham. The process of finding, training, and monitoring ASER partners and volunteers is led by ASER Centre, the research and assessment unit of Pratham.

#### 8. What is the per child cost of ASER?

An external evaluation of ASER conducted in 2013-14 calculated that the ASER survey costs a little over Rs 100 per child (approximately U.S. \$1.40). Compared to other large scale learning assessments, this is an extremely low cost.

### 9. How can the ASER results help plan action to improve children's learning?

A close look at any ASER table of results shows that even within a single grade, children's ability to read or do simple arithmetic varies enormously. Teaching from a grade level textbook will not work for children who are not at that level. In traditional classrooms, these children get left further and further behind as they move up through the system. Improving children's foundational learning levels requires an understanding of what children are currently able to do, so that teaching methods and materials can be designed to enable them to start from their current level and build towards the learning levels appropriate for their age and grade. ASER data tells us where most children are getting stuck, so that resources can be allocated accordingly. Children from different grades who are at the same level of reading ability can be grouped together. This approach has come to be known as 'Teaching at the Right Level', in other words teaching children based on what they know and can do, rather than based on their age or grade. Many schools and education programs already implement this approach. So do several state governments.

Understanding children's current learning status is the critical first step, and the ASER results can provide this. If data is required on a specific geography or group, the ASER tools and testing process can easily be used to generate this understanding for any class, school, or group of children.

#### About sampling

### 10. What is the purpose of sampling, and why does ASER do it?

Assessing foundational reading and arithmetic abilities of every child in India would be an enormous task, requiring a huge amount of resources. Fortunately, it is not necessary to do so. The careful selection of a sample of villages and households enables us to generate data that is just as accurate and reliable as testing every child in the country - provided that the process of sampling is done carefully by experts and strictly followed on the ground. This is why no large scale surveys cover every single unit in their target population, other than the Census of India, which is conducted every ten years. In the case of ASER, the sampling methodology used has been designed by experts and is standard for large scale surveys.

### **11.** What is the sample size of ASER? How does this compare with other large scale surveys?

ASER aims to generate district level estimates of children's schooling status, basic reading and arithmetic. Each year, ASER reaches close to 570 rural districts. In each district, 30 villages are selected and in each sampled village, 20 households are randomly selected. This gives a total of 30 x 20 = 600 households in each rural district. Depending on the exact number of districts surveyed, a total of between 320,000 and 350,000 households across the country are sampled for each year's ASER. In each surveyed household, all children in the age group 3 to 16 are surveyed and children in the age group 5 to 16 are tested. The same sample size is used in all districts regardless of population or socio-economic characteristics. Refer to Sample design of rural ASER 2018 on page 261. This design is the same across all ASER years.

The National Sample Survey (NSS) Survey conducted by the Government of India's National Sample Survey Organization is the main source of official data for estimating poverty, employment, and other socioeconomic indicators. The ASER sample of villages is about twice as large as the NSS sample for rural India. In 2011-12, the NSS Employment Survey was done in 7,469 villages across India with 8 households per village. In contrast, ASER 2018 surveyed 17,730 villages with 20 households per village. The National Achievement Survey 2017 conducted by NCERT was implemented in 701 districts across 36 states/ union territories. It covered a total of 2,121,173 students from Classes III, V and VIII. Students were tested in language, math, science, and social studies in schools. A total of 116,534 schools were surveyed.

# 12. Why does ASER select 30 villages per district and 20 households per village? How are villages selected? What happens if a village no longer exists, or has become an urban area?

ASER uses a two-stage sampling strategy which enables us to generate a representative picture of each district. Almost all rural districts are surveyed in ASER each year. The estimates obtained are then aggregated (using appropriate weights) to the state and all India levels. In the first stage, 30 villages are sampled from each district using Probability Proportional to Size (PPS). From 2005 to 2014, villages were sampled from the Census 2001 village list. From 2016 onwards, Census 2011 village directory has been used. In the second stage, 20 households are randomly selected in each sampled village following a procedure known as the "every fifth household rule". The total sample size for each district is thus  $30 \times 20 = 600$  households. This two-stage design ensures that every household in the district has an equal probability of being selected.

In previous years the 30 villages surveyed in a district comprised 10 villages from the last year's survey, 10 more from two years earlier, and 10 new villages selected from the Census village directory using PPS. The 20 old villages and 10 new villages gave us what is known as a "rotating panel" of villages, which generates more precise estimates of change. Having a rotating panel of villages means that every year some old and some new villages are included, which ensures that there is both continuity and change in the sample from previous years. Since 2016 was the first year of a new series of ASER reports that use Census 2011 as the basis for sampling, no villages from previous ASERs were retained. A fresh sample of 30 villages was generated from the Census 2011 village directory.

To maintain randomness of the sample, which is important in order to obtain reliable estimates, every year ASER Centre generates the ASER village list from the Census village directory. This village list is final. However, every year there are certain situations where replacement villages are required, such as when a village is affected by natural disasters, if it has been reclassified as a town, or due to insurgency. In such cases, ASER Centre provides the name of a replacement village.

#### 13. How can I find out which villages have been surveyed?

You can't. This information is not in the public domain; the ASER village list is confidential. In all large scale surveys

and research studies, it is standard practice to maintain the confidentiality of respondents. This means that all information that could enable someone to identify particular individuals, households, or villages is removed. This includes village names, respondent names, and so on.

#### 14. Is ASER data representative? At what levels?

ASER data is representative at district, state, and national levels.

### 15. Why does ASER aim to generate district level estimates?

Most official statistics in India produce estimates only at the state and national level. Even poverty estimates in India, obtained from the National Sample Survey Organization, are available only at state or regional level, not at the district level. However, planning and allocation of resources is often done at the district level. For example, in elementary education, annual work plans are made at the district level. While information for enrollment, access, and inputs is available annually for each district, estimates of children's learning are neither available at the district level, nor are they available annually. ASER aims to help fill these gaps.

#### 16. Who designed this sampling strategy?

The ASER sampling strategy was designed in consultation with experts at the Indian Statistical Institute, New Delhi. Inputs were also received from experts at the Planning Commission of India and the National Sample Survey Organization (NSSO).

### 17. Do the ASER estimates for a district also apply to individual villages or blocks in that district?

No, they don't. ASER estimates for a district are representative only at the district level, and provide a snapshot of children's schooling and learning status for the district as a whole. The sampling is not representative at the village or block level. The situation in individual villages or blocks can be different. To understand the status of a particular village or block, a different sampling strategy would have to be used.

# 18. ASER 2016 sampled villages from the 2011 Census village directory, whereas ASER 2005-2014 used the 2001 Census. Is data from ASER 2016 onwards comparable with earlier years?

ASER is representative at the state and district levels and a change in the sampling frame does not affect this feature of ASER. ASER 2006-2014 provided representative estimates of state and district boundaries as represented in

the Census 2001 frame, and ASER 2016 and ASER 2018 do so for the Census 2011 frame. In the case of states, since there has been no change in geographical boundaries, the state estimates are comparable. However, estimates for districts may not be comparable if geographical boundaries have changed. Census 2011 has added 31 rural districts. These new districts have been carved out of the old districts and are, therefore, not comparable. Since divisions are defined by grouping districts together, in ASER 2018 we present divisional estimates only for 2016 and 2018.

### 19. Is enrollment data for children age 3 and 4 comparable across all years?

Due to a change in the way this data was collected, ASER 2018 data for enrollment of children age 3 and 4 is not comparable with previous ASER years.

#### About design

### 20. Why does ASER test children at home and not in school?

The ASER survey generates estimates of schooling and basic learning levels for all children in rural India in the age group 5 to 16. This includes children enrolled in different types of schools (government, private, and others) as well as children currently not in school. The first problem with school-based testing is that there is no complete list of all schools in the country. In particular, there are many low cost private schools which are not found on any official list. Without a complete list of all schools, it is not possible to select an unbiased sample of schools. The second problem with school-based testing is that not all children are in school. Some have dropped out, some have never enrolled, and others are absent from school on the day of the survey. Testing in school would mean that all these children would be excluded. ASER tests children at home so as to include all these different kinds of children. Household-based testing is the only way to ensure that all children are included. In the Indian context, it is not possible to do this if testing is done in school.

### 21. How do you ensure that children are at home on the day of the survey?

The household survey is usually conducted on a Sunday and/or at other times when children are not in school. If a child is not found at home at the time of the survey, surveyors are asked to note down the child's details and return to the household at a time when family members say she will be available.

### 22. Why is the target age for children's assessment 5 to 16 years?

ASER was designed to capture the learning status of children in the elementary school age group. Many states allow children to enter Grade 1 at age 5, but children can start school much later. They can also drop out and then return to school, repeat grades, and so on. Therefore, although the official elementary school age range that is specified in policy documents is 6 to 14, in practice, large proportions of children who are younger than 6 and older than 14 continue to be in elementary grades.

#### 23. Why is ASER not done in urban areas?

For several reasons. First, many urban areas have large low income populations that are undocumented and therefore not included in the available sampling frames. These areas would be left out of a sample-based survey. Second, a representative sample of the urban population in any state would include not just metros but also a diverse range of urban habitations. Whereas for rural districts, the estimates generated by ASER can be shared with the district administration, there is usually no equivalent single urban authority in a state with whom educational planning can be discussed for the state as a whole.

### 24. What is the definition of 'rural' that is used in ASER data?

ASER uses the Census village directory as the sampling frame. When we say ASER (rural), we refer to the definition of rural habitations as used in the Census. It does not refer to rural districts, since the Census itself does not define districts as either rural or urban.

#### 25. Do you also collect information about the household?

Yes. In addition to children's schooling and learning status, some basic information about the household is collected (such as number of members, household assets, and parents' education). Household information collected can vary from year to year; details of what is asked are provided in each year's ASER report.

#### 26. Do you collect information about schools?

ASER has been doing school visits every year since 2009. Survey teams visit the largest government school with primary sections in each sampled village, and collect basic information on enrollment, staffing, and school infrastructure. Details of the specific questions asked are provided in each year's ASER report. However, learning assessments are always done during the household survey, not in school.

### 27. Why don't you collect information on children with disabilities/special needs/working children?

The ASER approach is designed to be rapid and easy to do. Assessing children with special needs requires more time, training and expertise than ASER surveyors have. Also, since ASER is a household survey, the sampling may not be suitable for reaching working children. While it is important to have data on children with disabilities, special needs and on working children, among others, ASER may not be the appropriate vehicle to collect it.

ASER Centre is developing a separate foundational literacy and numeracy assessment tool for children with disabilities. Implementation of this tool will be separate from the regular ASER survey.

#### About tools and testing

#### 28. Why does ASER assess only reading and arithmetic?

Since its inception, Pratham's work has focused on basic reading and arithmetic. Since the early years of our work we noted that a surprisingly large number of children in primary grades were struggling to acquire these basic skills. Difficulties in these two domains prevent children from acquiring higher level skills. A weak foundation of basic learning also weakens performance in other subject areas and adversely impacts children's academic outcomes. When ASER started in 2005, no estimates for learning for early grades were available in India. For these reasons assessment of basic reading and arithmetic ability came to be the primary focus of the ASER survey.<sup>1</sup> While these two competencies are assessed every year, additional competencies have been assessed in some years. For example, basic English was tested in 2007, 2009, 2012, 2014, and 2016. Additional arithmetic questions were asked in 2008 and 2010. Because our first priority is to ensure that the assessment process is simple and quick to administer, only a limited number of additional tasks are included in any given year.

### 29. What guidelines are followed in developing the reading and arithmetic assessment tools?

By design, ASER is a 'floor' test which aims to evaluate children's basic reading and arithmetic ability. The reading and arithmetic assessments, first used in 2005, were developed taking into account the state mandated curriculum for each state. The content of the reading assessment, i.e. the selection of words, the length of sentences and reading passages was aligned to the Grade 1 and 2 level textbooks in each state. At the letter level, recognition of only simple letters is assessed. At the word level, simple one and two syllable words, commonly used every day and appropriate for Grade 1 are included. In the development of Grade 1 and 2 level passages, orthography specific indicators such as the use of simple letters, secondary representations of letters, and conjoint letters have been considered along with sentence and passage length. Vocabulary used in the reading passages is aligned to the state mandated curriculum for appropriateness.

Since ASER 2010 we have also calculated the type-token ratios for the reading passages as an additional index to ensure comparability. A type-token ratio indexes the lexical diversity of a text. It is calculated by obtaining a ratio of the total number of unique words in the text (types) to the total number of words in the text (tokens). A higher typetoken ratio indexes greater lexical diversity, which is important in the measurement of fluency, as children who read passages with many repetitive words (lower type-token ratio) are likely to have an easier time and read faster than children who read passages that are more lexically diverse (higher type-token ratio) who have to decode a greater number of different words through the passage.

The ASER arithmetic assessment measures children's foundational skills in numeracy such as one- and two-digit number recognition and the ability to perform basic arithmetic operations such as subtraction (with borrowing) and division (3-digit by 1-digit). The content of the arithmetic assessment is aligned to grades 1, 2 and 3 or 4 level of the state mandated curriculum. 3-digit by 1-digit numerical division is expected of children in Grade 3 in some states and Grade 4 in others.

### 30. What languages do you test in? Are the reading assessments comparable across different languages?

The ASER reading tool is available in 19 languages including English.<sup>2</sup> The ASER reading assessments do not strive to be comparable across different languages. The objective is to develop a tool that assesses the most basic foundation skills for literacy acquisition, i.e. letter recognition, the reading of simple words and reading words in connected text that are of Grade 1 and Grade 2 level for each language. Consequently, the inference based on the ASER reading assessment is not about comparing performance across

<sup>&</sup>lt;sup>1</sup> The ASER reading assessment contains four levels: letters; common two-letter words; a simple four line "para" (Grade 1 level text); and a longer "story" (Grade 2 level text). The fifth level is that when a child has not yet learnt to recognize letters. The ASER arithmetic assessment also contains four levels: number recognition (1-9); number recognition (10-99); subtraction (2-digit by 2-digit); and division (3-digit by 1-digit). The fifth level is that when a child has yet to learn to recognize numbers. The testing process is explained at the beginning of this report.

<sup>&</sup>lt;sup>2</sup> Assamese, Bangla, Bodo, English, Garo, Gujarati, Kannada, Khasi, Hindi, Malayalam, Manipuri, Marathi, Mizo, Nepali, Odiya, Punjabi, Tamil, Telugu, and Urdu

different languages but to evaluate children's level of reading in relation to the state mandated curriculum for Grades 1 and 2.

### 31. Why does ASER test children individually and in an oral format?

Over the last decade, reading has come to be recognized as an important skill. The assessment of early reading can only be done orally and for each child individually. Assessments of early reading ability in other countries are also administered in this format, for example the Early Grade Reading Assessment (EGRA) and the Dynamic Indicators of Basic Literacy Skills (DIBELS, developed by the University of Oregon Center on Teaching and Learning)<sup>3</sup>. A typical pen-and-paper test of comprehension assumes that the child can read. Thus the oral format has emerged as the only way to separate 'reading' and 'comprehension'. A paper-and-pencil test is not a viable option for a child who is a beginning reader or a struggling reader as it places additional cognitive demands on the child to read and comprehend instructions. In ASER, to minimize the cognitive demands of reading and comprehending instructions and to maintain a standard administration approach, both the reading and the arithmetic assessment are administered individually in an oral format. However, children are provided a paper and pencil to solve the subtraction and division problems.

## 32. Why does the ASER assessment of reading begin at the Grade 1 passage level? Why does the ASER assessment of arithmetic begin at the Grade 2 subtraction level?

The content of the ASER assessments is aligned to Grades 1 and 2 for reading and Grades 1, 2, and 3 or 4 for arithmetic. Since the same assessments are also administered to children in Grade 3 or higher, an adaptive testing approach is used. Administration of the reading test begins at grade 1 passage level and the administration of the arithmetic test begins at Grade 2 subtraction level. If the child performs to a satisfactory standard, the child is given the task at the next level, i.e. Grade 2 passage for reading and Grade 3 or 4 level division for arithmetic. If the child does not perform to a satisfactory standard, the child is given the task at the lower level, i.e. reading simple words for reading and two-digit number recognition for arithmetic. Hence, the level of the task administered is adapted to match the child's ability. In this administration format, each child attempts only two or three tasks for each assessment instead of all four tasks, making the assessment quicker to administer without compromising the objective of identifying the child's reading and arithmetic level.

### 33. Why does the arithmetic testing process not include addition or multiplication?

Pratham's extensive experience of working with children indicates that when children are given all four basic numeric operations (addition, subtraction, multiplication, and division), practically every child who can do subtraction (2-digit operations with borrowing) can also do addition with carry over. Similarly, with division and multiplication. These trends were also observed in preparatory data work done for the ASER survey and in other data collection efforts.

## 34. Why are all children in the age group 5 to 16 assessed with the same tools? Why does ASER not assess children at their grade level?

All children are assessed with the same tools as the objective of the ASER survey is to ascertain whether or not children have attained early foundational skills in reading and arithmetic. This is irrespective of age or grade level. It is not designed to be a grade appropriate assessment, but rather to provide an understanding of school aged children's early reading and basic arithmetic ability.

### 35. What do we know about the reliability and validity of the ASER assessments?

Reliability is the consistency with which a test measures any given skill and thereby enables us to consistently distinguish between individuals of differing ability levels. Given that the ASER assessments evaluate mastery at different reading and arithmetic levels, reliability here is the consistency of the decision-making process. Validity indicates whether the test measures what it aims to measure - in other words, is the inference based on the ASER reading assessment about children's mastery of basic reading valid? Is the inference based on the ASER arithmetic assessment about children's mastery of basic arithmetic valid? Three studies have been conducted to explore the question of reliability and validity of ASER measurements. The findings from these studies provide favourable empirical evidence for the reliability and validity of the ASER assessments. The findings indicate (a) substantial reliability of decisions across repeated measurements, i.e. consistency in the level assigned to a child assessed by the same examiner on two different occasions and (b) satisfactory inter-rater reliability, i.e. consistency in the level assigned to a child assessed by different examiners. In 2010, an impact evaluation study of Pratham's Read India program was conducted by Abdul Jameel Poverty Action Lab (JPAL). In this evaluation, the measurement of children's learning outcomes included several literacy and arithmetic assessments including the

<sup>&</sup>lt;sup>3</sup> Technical analyses comparing ASER and EGRA have been carried out. See http://img.asercentre.org/docs/Aser%20survey Tools%20validating\_the\_aser\_testing\_tools\_\_oct\_2012\_\_2.pdf

ASER reading and arithmetic assessments. This allowed us to correlate children's performance on the ASER assessments with the additional assessments of reading and arithmetic. This empirical study provided compelling evidence for the validity of the ASER assessments.

#### 36. How long does the process of testing a child take?

ASER is designed to be easy and quick to administer. Depending on the age and ability of the child, the assessment of reading and arithmetic takes an average of about ten minutes per child.

#### About implementation

#### 37. Why does ASER use volunteers?

ASER is a citizens' initiative, implemented by partner organizations in every rural district across the country. One of the major aims of the survey is to generate awareness and mobilize people around the issue of children's learning. The entire design of ASER thus revolves around the fact that it aims to reach and involve 'ordinary people' rather than experts. All tools and procedures are designed to be simple to understand, quick to implement, and easy to communicate.

### 38. Which organizations partner with ASER? How do you find them?

Participation in ASER is open to any institution, organization, or group that can provide volunteers who are comfortable spending time in rural locations. Many different kinds of institutions participate. In the months leading up to the survey, ASER Centre staff travel extensively around their respective states to find institutions that are interested and willing to participate and that meet the criteria required of all ASER partners. Institutions often partner with ASER for more than one ASER cycle. Partner organizations sign a Memorandum of Agreement that lists their responsibilities and those of Pratham. A complete list of ASER partners is published in each year's ASER report.

### **39.** Are the volunteers capable and well trained to do the survey? How do you ensure data quality?

Yes! Volunteers are trained intensively prior to the survey, including a field pilot where they practice every procedure that they will be required to implement during the actual survey. During training, their performance is carefully monitored and documented. Once the survey is underway, trainers monitor their performance and help sort out any problems that are encountered. For more details, a training report is available on the ASER website at www.asercentre.org/p/136.html.

Even though ASER tools and procedures are simple and intuitive, enormous effort is dedicated to ensuring that the data produced by the survey meets stringent quality standards. Quality monitoring processes have been put in place at every stage of the process, from training of trainers and surveyors, to monitoring survey implementation in the field, to recheck of the data collected once the survey is complete. Every year these procedures are carefully reviewed, refined and improved. Details are available in each year's report. For more details, a quality control report is available on the ASER website at www.asercentre.org/p/ 136.html.

#### 40. How do volunteers collect the data?

To conduct the survey, a pair of volunteers is assigned to each sampled village. They work together to complete the survey of 20 households, usually over a period of two days. Usually village and school information is collected on the first day, and the household survey is conducted for the rest of that day and all of the next day. In each household, the survey team records basic household information and schooling status for all children age 3 to 16. They then assess the reading and arithmetic ability of children in the household age 5 to 16, one at a time. For more details, see the ASER village process section of this report on page 266.

#### About ASER results

### **41.** Why don't you provide district level reports on reading and arithmetic?

District level data is not published in the ASER report for reasons of space. However, divisional estimates are included in the report and district level data is available for download from the ASER Centre website.

### 42. Why don't you rank states? How can I compare my state with others?

ASER doesn't rank states because state rankings will vary depending upon the indicator that is selected - for example, children in Std I and II might be doing better in one state relative to others, but children in Std VII and VIII might be doing worse. Or, the proportion of children who can do arithmetic in a state could have improved, but the proportion of children who can read may not have. By providing the data, those wanting to compare states can choose the parameters on which to do so. However, the inference based on the ASER reading assessment is not about comparing performance across different languages but to evaluate children's level of reading in relation to the state mandated curriculum for Std 1 and 2.

### 43. What if the data I am looking for is not in the published report? Is the raw data available in the public domain?

ASER publishes this national report annually, which includes selected estimates at district, state, and national level. There is also an ASER Trends over Time report on the website which presents data on selected indicators from 2006 to 2014. All of this information is available for individual states as well as for India as a whole. ASER reports can be downloaded from the ASER Centre website (www.asercentre.org). Some additional data is available on the ASER Centre website, including estimates at district level. Data queries on some key parameters can also be run through the query function on the website. Beyond these options, ASER Centre makes the ASER data sets available for research purposes on request.

#### 44. ASER collects household information, so why does the ASER report not publish it? What is the relationship between household indicators and children's learning?

Information on selected household indicators is included in an annexure in each year's ASER report. The body of the report focuses on children's schooling and learning status because these are the main objectives of the survey. While it is true that household information is collected in order to understand the relationship between household characteristics and children's learning, unpacking these relationships requires more time and deeper analysis. The ASER report simply presents the findings of the survey, but these data have been used by researchers in India and abroad to explore many important questions about the nature of the influences on children's learning.

#### About impact

### 45. What impact has ASER had on education policy in India?

ASER has had a major influence in bringing the issue of learning to the centre of the stage in discussions and debates on education in India. In 2005, when ASER began, most people, from parents to government functionaries, were concerned with getting children into school. The assumption was that if children were in school, they must be learning. Today, the fact that large proportions of children are not learning even the basics is widely recognized. For example, ASER has been cited in major Government of India documents such as the XI and XII Five Year Plan and the Economic Survey of India. Most recently, ASER data has been used in following reports: Three Year Action Agenda of NITI Aayog, Economic Survey of India 2017-2018, and The World Development Report-Learning to Realize Education's Promise to make the learning crisis visible and advocate for remedial steps towards improving learning outcomes.

Many state governments are now implementing their own learning assessments, sometimes using tools very similar to the ASER tools; and some are implementing programs aimed at improving learning outcomes. A great deal remains to be done to ensure that every child in India is in school and learning well. But the first step is for the problem to be recognized. The second step is to have reliable evidence on the nature and extent of the problem. Only then can workable solutions be found.

### 46. What response do you get from the parents of children you test, or from the community in general?

In the village there is usually a great deal of curiosity and discussion as the ASER testing is being done. People crowd around to observe and talk about what is going on. The simplicity of the tool helps parents and community members to engage with the effort and also to engage with the question of whether their children are learning. Very often parents assume that because their children are going to school, they must be learning. ASER is sometimes the first time that parents become aware that their children may be lagging behind.

#### 47. Has ASER had an impact in other countries as well?

#### Yes, it has.

The ASER model is increasingly being recognized on global education platforms. The simplicity of ASER's tools and processes coupled with the rigor of its sampling methodology and low cost makes it an interesting option for many countries with contexts similar to India. The ASER methodology has spread organically to several other countries, all of which follow the same set of basic guiding principles while adapting the model to their own context. There is an ASER in Pakistan, conducted since 2008. The initiative is called Uwezo in East Africa (Kenya, Tanzania, Uganda), where it has been implemented since 2009. In Mali, the Beekungo initiative began in 2011 and Jangandoo in Senegal in 2012. In Mexico the Medición Independiente de Aprendizaje (MIA) began in 2014, and LearNigeria in 2015. The People's Action for Learning (PAL) Network was established in 2015 in order to strengthen, coordinate, and promote the work of these countries, and Bangladesh, Cameroon, Ghana, Mozambigue, Botswana and Nepal joined the network in 2016.

In the lead up to the establishment of the post 2015 Millennium Development Goals, members of the extended ASER network in many countries made concerted efforts to ensure that indicators of learning and not just schooling are included in the new Sustainable Development Goals. ASER and ASER-like initiatives are mentioned in documents of Global Education Monitoring Report brought out by UNESCO, the Learning Metrics Task Force (coordinated by Brookings Institution and UNESCO Institute of Statistics), and other UNESCO-UIS documents such as the recent Data Digest. The importance of large scale community-based assessments carried out by citizens has been recognized in international policy and advocacy circles as a viable alternative to other existing assessment models, especially with respect to providing data for Indicator 4.1.1a of the Millennium Development Goals, which examines children's proficiency in reading and arithmetic in Grade 2/3. The ASER model is designed to provide exactly this information.

The ASER survey model has been used by governments, international development organisations, and civil society groups in other contexts as well. For example, BRAC has used the ASER tool to test children of Rohingya refugees in Bangladesh to understand the learning levels of children in conflict zones. Similarly, the International Rescue Committee adapted the ASER tool into Arabic to assess children of Syrian refugees.

#### About resources

#### 48. Who funds ASER?

ASER is a citizens' initiative, designed by Pratham/ASER Centre and implemented each year by partner organizations in every rural district. Approximately 25,000 volunteers participate in ASER each year. People who conduct ASER each year donate their time to ASER and are compensated only for their local travel and food costs. The ASER survey receives support from a variety of sources including foundations, development agencies and corporates. Significant funding also comes from individuals. Each year the names of the partner organizations and sources of support are listed in the ASER report. ASER does not receive funding from any government institution.

#### 49. Can I volunteer for ASER or participate in any way?

Yes, you can; ASER depends on volunteers! You can reach out to us at ASER Centre by sending an email to contact@asercentre.org. Depending on your location, your interests, and your availability, we can figure out how best you can join in this effort.

#### 50. How can I contribute towards ASER surveys?

As a user of good quality data, you will appreciate the effort that goes into it. It takes about a lac of rupees (Rs 100,000) to conduct ASER in a district. While ASER reports and tools are available free of charge, donations of any amount are welcome and will help us continue to generate evidence on learning outcomes in India.

For online payments, please visit: http://www.pratham.org/get-involved/donate-now

For cheque payments, please send to our mailing address: ASER Centre, B4/54, Safdarjung Enclave, New Delhi -110029

Cheques can be written in favour of "ASER Centre NFC". All donations are eligible for tax exemptions under Section 80G.

### My ASER 2018 Experience

From the ASER 2018 blog

Sucheta Ray volunteered to be an ASER 2018 Master Trainer in West Bengal. She is a trained statistician and computer scientist from the Indian Statistical Institute, Kolkata. After spending more than a decade in the corporate sector she has made a switch to the development sector.

I have just completed the ASER survey in one of the districts in West Bengal as a Master Trainer(MT). After working in the corporate sector for more than 14 years I left my job with a genuine interest to work for the people in need. I wanted to see the direct impact of my work in the society. But I was completely driven by emotions. So within a few months I realized that it is not easy to reach people as an individual. I could help a few individuals by helping financially, but if I really want to add some value to the society then I have to be a part of some organisation for whom it's a mission to work toward the benefit of people in distress.

One of my friends told me about Pratham and ASER. Then I checked their websites and went through all blogs and videos. I was simply moved by the unique concept of ASER. I made up my mind that I have to be a part of this survey. When I contacted their Delhi office they were a little confused about what exactly I was looking for. I did not know the exact format of ASER so I could not tell them exactly what I wanted and that made them confused too. But they gave my reference to the West Bengal team. They asked me to attend the Master Trainers' workshop in Bolpur to know more about ASER.

#### **Sucheta Ray**

Before attending the training, I was a little skeptical about how I would be welcome as I was not a regular participant. But once the training started I had no uneasy feeling. From the very beginning I was treated as a regular participant by the state ASER team. I was included in every test and exercise and was given equal attention by them just like other participants.

The entire training module and the training process were very methodical and well thought. The way each step was designed and timed, it clearly showed the efforts and research put behind them by the ASER and Pratham teams.

And I must mention that I had never seen such energetic trainers. Whether it was 8 am in the morning or at 10 pm at night, the trainers' energy level remained the same. This is really commendable which I would certainly try to emulate in my professional life.

Personally I am grateful to Pratham for trusting me and assigning me as one of the MTs for district level training and survey for South 24 Parganas. I do not know if I could meet all the expectations and standards of ASER survey as an MT but I tried my best to do my part with utmost sincerity. It has been a long time since I have felt so content with my work. This survey gave me the opportunity to know the grim situation of education in the remote villages of our country and how Pratham is trying to address the issue at the grass root level. This whole experience enriched me in many ways, both personally and professionally.

Thanks Pratham.



### My ASER 2018 Experience

From the ASER 2018 blog

I had been introduced to Annual Status of Education Report (ASER) during the time of my MPhil programme, way back in 2012. Since then I have been ardently following it. To my knowledge, ASER remains the only comprehensive database on the health of elementary education - enrolment characteristics and learning outcomes - in India. It was through one of my students that I learnt about the activities of ASER in Koraput, Odisha. I took no time to call upon the ASER coordinator to discuss any possibilities of engaging my Department - PG Department of Economics, Vikram Dev (Autonomous) College, Jeypore, Odisha - with the

#### Panchendra K. Naik

Head of Department, Department of Economics, Vikram Dev Autonomous College, Jeypore, Odisha

survey processes. The coordinator agreed. Soon after, they conducted a training programme at the Department, where around 60 students, including teaching staff, have participated. The training session was quite interactive and illuminating; it could convince all the participants to join for the survey. For the participants, the survey experiences were educating. I may say that the engagement with the ASER survey helped my students not only learn methodological integrities to carry forth any survey as this, rather it also conscientized them. I am truly grateful to ASER team for this.



### My ASER 2018 Experience

From the ASER 2018 blog

नवीन कुमार झा प्रशिक्षु डायट (सीतामढ़ी)

### गावों में "असर"

जब से नींद टूटी हैं, स्वप्न की तलाश में हूँ शिक्षा दूत हूँ समाज का, शैक्षणिक आंकड़ो की तलाश में हूँ। बदहाली में गुम हो गई हैं गांवों की शिक्षा अँधेरो में उम्मीद की चिराग जला, आईना दिखाने की तलाश में हूँ। गांवों के असर में रह न जाएँ कोई कसर, उस असर की तलाश में हूँ। शिक्षा के हुनमान हैं हम सब मगर मन ही मन किसी विभीषण की तलाश में हूँ। शिक्षा के हुनमान हैं हम सब मगर मन ही मन किसी विभीषण की तलाश में हूँ। डायट के प्रशिक्षण ने हम पर किया हैं ऐसा "असर", ढाह देंगे अज्ञानता की लंका को बस उन मौकों की तलाश में हूँ। बेबसी – तंगहाली से सुनी हुई कई आँखों में, उम्मीद की किरण जगाने की तलाश में हूँ। प्रशिक्षु हूँ डायट का सुकून से कैसे बैठूँ जिले में "असर" का असर दिखाने की तलाश में हूँ।



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