



# Annual Status of Education Report (Rural) 2016

Provisional

January 18, 2017

# ASER 2016 – Rural

Annual Status of Education Report (Rural)

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Also available on the ASER Centre website ([www.asercentre.org](http://www.asercentre.org))

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# What is ASER?

The Annual Status of Education Report (ASER) is a household survey that provides estimates of children's schooling status and their ability to read simple text and do basic arithmetic. The survey reaches almost all rural districts of India and covers children in the age group 3-16.

Unlike most other large scale learning assessments, ASER is a household based rather than school based survey. This design enables all children to be included – those who have never been to school or have dropped out, as well as those who are in government schools, private schools, religious schools or any other type of school. It thus generates estimates of basic learning for all children in rural India. ASER is the only annual source of information on children's learning outcomes available in India today.

Facilitated by Pratham, ASER is carried out by about 500 partner organizations and over 25,000 volunteers across the country. All kinds of institutions partner with ASER, such as colleges, universities, NGOs, youth groups, women's organizations, and self help groups. With the exception of 2015, ASER has been conducted every year since 2005. This is the eleventh ASER report.

## A S E R 2 0 1 6 C o v e r a g e



DISTRICTS  
SURVEYED

589



VILLAGES  
SURVEYED

17,473



HOUSEHOLDS  
SURVEYED

350,232



CHILDREN  
SURVEYED

562,305



PARTNER  
ORGANIZATIONS 499



VOLUNTEERS ~25,000



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# They reached the remotest villages of India

## Andhra Pradesh

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

## Arunachal Pradesh

Local volunteers of Changlang, East Siang, Lohit, Lower Dibang Valley, Lower Subansiri, Papum Pare, Tirap, Upper Siang, West Kameng and West Siang

## Assam

Bengtol College, Chirang  
District Institute of Education and Training, Biswanath Chariali, Sonitpur  
District Institute of Education and Training, Bongaigaon  
District Institute of Education and Training, Cachar  
District Institute of Education and Training, Darrang  
District Institute of Education and Training, Dhemaji  
District Institute of Education and Training, Dhubri  
District Institute of Education and Training, Dibrugarh  
District Institute of Education and Training, Dima Hasao  
District Institute of Education and Training, Dudhnoi, Goalpara  
District Institute of Education and Training, Howly, Barpeta  
District Institute of Education and Training, Jorhat  
District Institute of Education and Training, Kamrup  
District Institute of Education and Training, Karbi Anglong  
District Institute of Education and Training, Karimganj  
District Institute of Education and Training, Kokrajhar  
District Institute of Education and Training, Lakhimpur  
District Institute of Education and Training, Morigaon  
District Institute of Education and Training, Nagaon  
District Institute of Education and Training, Nalbari  
District Institute of Education and Training, Sivasagar  
Social Development Forum SDF, Golaghat  
Udayan, Ghograpar  
Vivekananda Samaj Unnayan Sangstha, Hailakandi  
Local volunteers of Tinsukia and Udalguri

## Bihar

All India Centre for Urban and Rural Development, Supaul  
District Institute of Education and Training, Babutola, Banka  
District Institute of Education and Training, Bikram, Patna  
District Institute of Education and Training, Chhatauni, Motihari, Purba Champaran  
District Institute of Education and Training, Dighi, Vaishali  
District Institute of Education and Training, Dumra, Sitamarhi  
District Institute of Education and Training, Dumraon, Buxar  
District Institute of Education and Training, Farbisganj, Araria  
District Institute of Education and Training, Fazalganj, Sasaram, Rohtas  
District Institute of Education and Training, Khirnighat, Bhagalpur  
District Institute of Education and Training, Kilaghat, Darbhanga  
District Institute of Education and Training, Kishanganj  
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, Muraul, Rambag, Muzaffarpur  
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, Panchayti Akhara, Gaya  
District Institute of Education and Training, Pashchim Champaran  
District Institute of Education and Training, Piraunta, Bhojpur  
District Institute of Education and Training, Pusa, Samastipur  
District Institute of Education and Training, Ramganj, Khagaria  
District Institute of Education and Training, Saharsa  
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, Shrinagar, Purnia  
District Institute of Education and Training, Siwan  
District Institute of Education and Training, Sonpur, Saran  
District Institute of Education and Training, Tarar, Daudnagar, Aurangabad  
District Institute of Education and Training, Thawe, Gopalganj  
District Institute of Education and Training, Tikapatti, Katihar  
Nai Sambhavana, Arwal  
Pahal Ek Nayi Soch, Laxmipur, Jamui  
Shiva Jan Vikash Foundation, Patna

## Chhattisgarh

District Institute of Education and Training, Ambikapur  
District Institute of Education and Training, Bastar  
District Institute of Education and Training, Dantewada  
District Institute of Education and Training, Dharamjaigarh  
District Institute of Education and Training, Durg  
District Institute of Education and Training, 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  
District Institute of Education and Training, Pendra, Bilaspur  
District Institute of Education and Training, Raipur  
District Institute of Education and Training, Uttar Bastar Kanker  
Prachalit Seva Samiti, Surguja

## Dadra and Nagar Haveli

Comrade Godavari Shamrao Parulekar College, Talasari

## Daman and Diu

Local volunteers of Daman

## Gujarat

Department of B.S.W., M.S.W. and B.B.A., Dr. V.R. Godhaniya B.Ed. College, Porbandar  
Department of Social Work, Sardar Patel University, Vallabh Vidyanagar, Anand  
Innovative Arts and B.S.W./M.S.W. College, Junagadh  
Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj, Kachchh  
Lokmanya Ekta Trust, Navsari  
M.A. Parikh Fine Arts and Arts College, Palanpur, Banaskantha  
P.G. Centre of Social Work, Vivekanand Post Graduate Academy, Bhavnagar  
Samajkarya Maha Vidhyalaya, Salal (Himatnagar), Sabarkantha  
Sheth P.T. Arts and Science College, Godhra  
Shikshan Ane Samaj Kalyan Kendra, Amreli  
Shree Saraswati College of Social Work, Bharuch  
Shree Sarvajani B.S.W./M.S.W. College, Mahesana  
Shree Surbhi M.S.W. College, Rajkot

## Haryana

District Institute of Education and Training, Beeswalmil, Sonapat  
District Institute of Education and Training, Birhi Kalan, Bhiwani  
District Institute of Education and Training, Ding, Sirsa  
District Institute of Education and Training, Gurgaon  
District Institute of Education and Training, Hussainpur, Rewari  
District Institute of Education and Training, Iccu, Jind  
District Institute of Education and Training, Janauli, Palwal  
District Institute of Education and Training, Kaithal  
District Institute of Education and Training, Machhroli, Jhajjar  
District Institute of Education and Training, Madina, Rohtak  
District Institute of Education and Training, Mahendragarh  
District Institute of Education and Training, Malab, Mewat  
District Institute of Education and Training, Matana, Fatehabad  
District Institute of Education and Training, Mathermass, Hisar  
District Institute of Education and Training, Mohra, Ambala  
District Institute of Education and Training, Pali, Faridabad  
District Institute of Education and Training, Palwal, Kurukshetra  
District Institute of Education and Training, Panchkula  
District Institute of Education and Training, Panipat  
District Institute of Education and Training, Shahpur, Karnal  
District Institute of Education and Training, Tejli, Yamunanagar

## Himachal Pradesh

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, Lahaul & Spiti  
District Institute of Education and Training, Mandi  
District Institute of Education and Training, Shimla  
District Institute of Education and Training, Sirmaur  
District Institute of Education and Training, Solan  
District Institute of Education and Training, Una  
Government Degree College, Kukumseri (Udaipur), Lahaul & Spiti  
Government Model Industrial Training Institute, Nalagarh, Solan  
Rajni Gramin Vikas Sanstha, Palampur, Kangra

## Jammu, Kargil and Leh

17000 ft Foundation, Leh  
Government Degree College, Doda  
Government Degree College, Poonch  
Government Degree College, Ramban  
Government Degree College, Udhampur  
Government Maulana Azad Memorial Post Graduate College, Jammu  
Government P.G. College, Rajouri  
Govt. General Zorawar Singh Memorial Degree College, Reasi

## Jharkhand

Abhiyan Sahibganj, Sahibganj  
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Association for Social and Human Awareness (ASHA), Dumra, Ghamriya, Saraikela-Kharsawan  
Association for Social and Human Awareness (ASHA), Madro Toli, Chikor, Khunti  
District Institute of Education and Training, Bokaro  
District Institute of Education and Training, Giridih  
District Institute of Education and Training, Godda  
District Institute of Education and Training, Latehar  
District Institute of Education and Training, Palamu  
District Institute of Education and Training, Ranchi  
District Institute of Education and Training, Saraikela-Kharsawan  
Gram Jyoti, Pakur  
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Lok Chirag Sewa Sansthan, Jamtara  
Samarpan, Koderma  
Sarwangin Vikas Kendra, Chatra  
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Vikas Bharti Bishunpur, Gumla  
Vikash Bharti Foundation, Dumka

## Karnataka

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Bhavya Jyothi Trust (R), Mysuru  
Centre for Rural Development, Ballari  
Chinthana Foundation, Chikkamagaluru  
Creative Trust, Uttara Kannada  
Global Sainik Academy, Bidar  
Government First Grade College, Madikeri  
Government First Grade College, Virajapete  
Gurushree College of Commerce and Social Work, Tumakuru  
Hongirana Nagara Mattu Grameena Abhiruddi Samsthe, Mysuru  
Jagruthi Seva Samsthe (R), Kolar  
Janani Nagara Mattu Grameena Abhiruddi Samsthe, Manvi  
Karanji Trust, Chamarajanagar  
Mahatma Gandhi Rural Development and Social Changes Trust, Shivamogga  
Navodaya Educational and Environment Development Service (NEEDS), Ranebenur, Haveri  
PADI - Value Oriented Education Program (VALORED), Dakshina Kannada  
People Organisation for Waste Land and Environment Regeneration (POWER), Vijayapura  
Pragathi Urban and Rural Development Seva Society, Belagavi  
REACH, Bagalkot  
SAMRUDDHI, Raichur  
Sanjeevini Integrated Development Association, Dharwad  
SEED Organisation, Kolar

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Vimukthi Vidya Samsthe, Chitradurga  
Pratham volunteers of Mysuru

## Kerala

Kudumbashree, Thiruvananthapuram

## Madhya Pradesh

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Ahimsa Welfare Society, Rajgarh  
Bhopal Jeevan Rekha Society, Ashoknagar  
Centre of Discovery for Village Development, Mandla  
Darshna Mahila Kalyan Samiti, Chhatarpur  
Dharti Gramotthan evam Sahbhagi Gramin Vikas Samiti, Morena  
District Institute of Education and Training, Alirajpur  
District Institute of Education and Training, Balaghat  
District Institute of Education and Training, Dhar  
District Institute of Education and Training, Keolari, Seoni  
District Institute of Education and Training, Khargone  
District Institute of Education and Training, Narsimhapur  
District Institute of Education and Training, Raisen  
Dr. Bhimrao Ambedkar Seva Parishad, Bhind  
Gram Vikash Prasfutan Samiti Barkheda Loya, Mandsaur  
Gramin Swavlamban Samiti, Tikamgarh  
Guru Jambh Sewa Samiti, Sagar  
Gwalior Catholic Seva Samaj, Gwalior  
Independent Thought, Indore  
Jai Narayan Sarvodaya Vidyalaya Samiti, Betul  
Jan Abhiyan Parishad, Barwani  
Kalptaru Vikas Samiti, Guna  
Kalyani Welfare Society, Umaria  
Krantanjali Social and Educational Welfare Association, Neemuch  
Life for Humanity Society, Burhanpur  
Lokrang Samajik Shodh Vikash Sansthan, Khandwa (East Nimar)  
Maa Pitambara Lokhit Sewa Sansthan, Dewas  
Madhav College, Ujjain  
Manav Foundation, Sheopur  
Manav Jeevan Vikas Samiti, Katni  
Narmadapur Shiksha Avam Jankalyan Samiti, Hoshangabad  
Omkar Krishak Avam Samaj Kalyan Samiti, Sidhi  
Parhit Samaj Sevi Sanstha, Datia  
Path Pragati Samaj Kalyan Samiti, Shahdol  
Prakash Yuva Mandal Itaura Samiti, Rewa  
Rang Welfare Society, Damoh  
RICHERD Sansthan, Panna  
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Sankalp Samajik Vikas Sansthan, Shivpuri  
Shiva Gramin Vikas Sansthan (SRDIM), Satna  
Shripati Shikshan Samajik Evam Lok Kalyan Samiti, Ratlam  
Social Advancement and Resource Foundation (SARF), Vidisha  
Swami Vivekanand Shiksha Samiti (SVSS), Sehore  
Synergy Sansthan, Harda  
The Kanchan Welfare and Education Society, Shajapur  
Udit Prakash Yuva Samarpan Samiti, Dindori  
Ujjwal Gramin Vikas Samiti Padhar, Barwani

## Maharashtra

Aathawale College of Social Work, Bhandara  
Acharya Narendra Dev Educational, Social Economical Development Research Centre, Parbhani  
Aniket College of Social Work, Wardha  
Arohan, Jawhar  
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College of Social Work, Badnera  
D.G. Tatkare Mahavidyalay, Mangaon  
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Fule Ambedkar College of Social Work, Gadchiroli  
Gramvikas Foundation, Karanja  
Institute for Rural Development and Social Services, Jalgaon  
Jagar Foundation, Khamgaon



Jijamata Sevabhavi Sanstha, Ahmadpur, Latur  
 Mahatma Phule College of Social Work, Taloda  
 Manavlok College of Social Science, Ambajogai  
 Maratha Vidya Prasarak Samaj's College of Social Work, Nashik  
 Prahar Samajik Kalyankari Sanstha, Goregaon, Gondiya  
 PULSE, Nagpur  
 Rajmata Jijau Bahuddeshiya Sanstha, Jalna  
 Ramkrishna Paramhansa Mahavidyalaya, Osmanabad  
 Sant Rawool Maharaj Mahavidyalaya, Kudal  
 Saptashringi Bahuddeshiya Yuva Mandal, Khadki  
 Savitri Jyotirao College of Social Work, Yavatmal  
 Sharadchandraji Pawar College of Agriculture, Ratnagiri  
 Shivaji College, Hingoli  
 Shrimati Panchaphuladevi Patil College of Social Work, Khadki  
 Suprabhat Mahila Mandal, Pune  
 Sushilabai Ramchandrarao Mamidwar College of Social Work, Chandrapur  
 Tilak Maharashtra Vidyapeeth, Sangli  
 Tirpude College of Social Work, Nagpur  
 Wanchit Vikas Loksanstha, Nanded  
 Yashwantrao Institute of Social Science, Satara  
 Yashwantrao Chavan School of Rural Development, Shivaji University, Kolhapur

### Manipur

Education Department, 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  
 Network of Economy and Welfare Service, Kumbi, Bishnupur  
 Participatory Action for Sustainable Development Organization, Hungbung, Ukhrul  
 Social Welfare, Economic, Development Society, Tousem, Tamenglong  
 The Youth Goodwill Association, Uripok, Imphal West

### Meghalaya

Capt. Williamson Memorial Government College, Baghmara  
 Lawei Phyrnai, Ri Bhoi  
 Martin Luther Christian University (Shillong Campus), East Khasi Hills  
 Thomas Jones Synod College, Jowai, Jaintia Hills  
 Tura Government College Student Union, Tura  
 Williamnagar Government College Student Union, Williamnagar  
 Local volunteers of West Khasi Hills

### Mizoram

Local volunteers of Aizawl, Champhai, Kolasib, Lawngtlai, Lunglei, Mamit, Saiha and Serchhip

### Nagaland

Local Volunteers of Dimapur, Kiphire, Kohima, Longleng, Mokokchung, Mon, Peren, Phek, Tuensang, Wokha and Zunheboto

### Odisha

Biswa Vikas, Sandunguriguda, Kalahandi  
 District Institute of Education and Training, Agarpada, Bhradak  
 District Institute of Education and Training, Anugul  
 District Institute of Education and Training, Bargarh  
 District Institute of Education and Training, Baudh  
 District Institute of Education and Training, Debagarh  
 District Institute of Education and Training, Dhenkanal  
 District Institute of Education and Training, Jagatsinghapur  
 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, Kendujhar  
 District Institute of Education and Training, Khordha  
 District Institute of Education and Training, Nabarangapur  
 District Institute of Education and Training, Nayagarh  
 District Institute of Education and Training, Nuapada  
 District Institute of Education and Training, Parlakhemundi, Gajapati  
 District Institute of Education and Training, Sambalpur  
 District Institute of Education and Training, Tikabali, Kandhamal  
 Government Elementary Teacher Education Institution, Ragadi, Banki  
 Maa Jageswari Kalaparisada, Ogalpur  
 National Institute for Rural Motivation Awareness and Training Activities (NIRMATA), Ganjam

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 (SIPHA), Basta, Baleswar  
 Utkalmani Gopabandhu Mahavidyalaya, Mathili, Malkangiri  
 World Odisha Techno Services, Cuttack

### Puducherry

Department of Social Work, Arignar Anna Government Arts and Science College, Karaikal  
 Department of Social work, Kasthurba College, Pudhucherry  
 Department of Social Work, Pondicherry University, Pudhucherry

### Punjab

Adesh Institute of Engineering & Technology (AIET), Sadiq Road, Faridkot  
 Akal College of Pharmacy & Technical Education, Mastuana Sahib, Sangrur  
 Beant College of Engineering & Technology, Gurdaspur  
 Bhai Gurdas Group of Institutions, Sangrur  
 Bhutta College of Education, Ludhiana  
 D.M college of Education, Moga  
 Giani Zail Singh Campus College of Engineering & Technology, Dabwali Road, Bathinda  
 Khalsa College of Education, Muksar  
 Lord Krishna Polytechnic College, Kapurthala  
 Rayat Institute of Management, Rail Majra, Balachaur, Nawashaher (SBS Nagar)  
 Rayat-Bahra Group of Institutes, Bohan, Hoshiarpur  
 School of Social Sciences, Guru Nanak Dev University (G.N.D.U.), Amritsar  
 Shaheed Bhagat Singh College of Education, Patti, Tarn Taran  
 Shaheed Bhagat Singh State Technical Campus, Ferozpur  
 Shaheed Udhham Singh College of Engineering & Technology, Tangori, Mohali (SAS Nagar)  
 Shukdeva Krishna College of Education for Girls, Moga  
 YS College, Barnala  
 Local volunteers of Fatehgarh Sahib

### Rajasthan

Azad Teacher Training College, Bundi  
 Bharatmata Teacher Training College, Baran  
 Central University of Rajasthan, Ajmer  
 Consumer Unity and Trust Society (CUTS), Chittaurgarh  
 District Institute of Education and Training, Bikaner  
 District Institute of Education and Training, Churu  
 District Institute of Education and Training, Dhaulpur  
 District Institute of Education and Training, Ganganagar  
 District Institute of Education and Training, Jalor  
 District Institute of Education and Training, Jhalawar  
 District Institute of Education and Training, Jhunjhunu  
 District Institute of Education and Training, Karauli  
 District Institute of Education and Training, Pali  
 District Institute of Education and Training, Rajsamand  
 District Institute of Education and Training, Sawai Madhopur  
 District Institute of Education and Training, Sirohi  
 District Institute of Education and Training, Tonk  
 District Institute of Education and Training, Udaipur  
 Gramin Vikas Vigyan Samiti (GRAVIS), Jodhpur  
 Gramotthan Vidyapeeth College Of Education, Sangaria  
 L.B.S. College, Pratapgarh  
 Maharaja Surajmal Teacher Training College, Bharatpur  
 Marwar Muslim Educational and Welfare Society, Jodhpur  
 Modi Institute of Management and Technology, Kota  
 Muskan Sansthan, Dungarpur  
 Prasadvi Teacher Training College, Dausa  
 Society to Uplift Rural Economy (SURE), Barmer  
 Sourabh Teacher Training College, Bhagwanpura, Alwar  
 Vardhman TT College, Sikar  
 Voluntary Association of Agriculture, General Development, Health and Reconstruction Alliance (VAAGDHARA), Banswara

### Sikkim

Gyalshing Government College, Gyalshing, West Sikkim  
 Namchi Government College, Upper Kamrang, South Sikkim  
 Rhenock Government College, Rhenock, East Sikkim

## Tamil Nadu

Abirami society india, Thoothukkudi  
Association of Rural Education and Development Service (AREDS), Karur  
Bharathidasan University, Trichy  
Centre for Education and Empowerment of the Marginalized (CEEMA), Erode  
Department of MSW, Kongu Arts and Science College, Erode  
Department of MSW, Srimad Andavan Arts and Science College, Trichy  
Department of Social Work, Loyola College, Chennai  
Health Environment Education Legal Protection Society, Kodaikannal  
Indo Sri Lankan Development Trust, Kotagiri  
Institute of Human Rights Education (IHRE), Madurai  
Krupalaya Charitable Trust, Vizhupuram  
Kuzhithurai Integral Development Social Service (KIDSS), Kanniyakumari  
Madras School of Social Work, Chennai  
Madurai Multipurpose Social Service Society (MMSSS), Madurai  
Mahendra Arts and Science College, Tiruchengode  
Nambikkai Foundation, Thiruvavur  
Odam Trust, Arupukottai  
Provide Charitable Trust, Cuddalore  
Raise India Trust, Ramanathapuram  
Rhythem Social Service Society for Women, Coimbatore  
Rural Development Council, Krishnagiri  
Rural Organization for Social and Education Trust (ROSE TRUST), Jeyankondam  
Rural Women Development Trust (RWDT), Salem  
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Commentary



# Motivation, action and impact

**Madhav Chavan<sup>1</sup>**

Every year as we bring out ASER there are plenty of people who point out that things don't seem to change or get better. The government of India and various state governments too agree that while enrollment is approaching near 100%, the quality of education leaves much to be desired. ASER only measures quality of education at the very basic level of being able to read simple text and being able to solve simple math tasks. The national and state curricula go way beyond that. Experts want holistic education. Ordinary parents may not understand all these debates and may not have a clear idea of what good quality of education is, but there is no doubt that they are in search of a good education for their children. The interplay of these different perspectives results in the change, or the lack of it, that we see reflected in ASER.

Around the turn of the last century, or even a decade before that, the need for education began to turn into a demand as the Indian economy started revving up and the connection between education and jobs became real. To the economists and other policy-makers looking at the country from Delhi, the term 'demographic dividend' became popular. This too connected education with economy and products of education with jobs, unlike in previous years when education was more a matter of social justice and nation-building. It should have been apparent that the larger goals of education were going to be in conflict with the immediate gains parents were looking for. What has unfolded over a dozen years is possibly the result of this conflict. Understanding it may help us think about how to shape future developments in education.

The first ASER of 2005 was quite shocking. It was the first time we quantified the poor quality of learning in Indian schools and for the first time reported that only about 51% children in government schools in Std 5 could read a Std 2 text. As a first report although people found it alarming, it did not lead to an uproar and it did not galvanize policy-makers, leaders and administrators into action to urgently correct this situation. Some states did respond but other government-led initiatives led to actions in other directions such as the formulation of the National Curriculum Framework with its philosophy of constructivism. As ASER 2006, 2007 and 2008 reported basically the same facts without any change in learning levels, our report was in danger of becoming boringly repetitive. The basic facts were noted but it did not seem that anyone was in a hurry to ensure that all children learned to read and do basic math at the primary stage as a preparation for higher levels of learning. There was clearly no motivation beyond the ordinary on part of the governments, therefore there was no action, and hence no impact.

At this stage UPA II took charge and as one of its first actions passed the Right to Education Act in 2009. This law was consistent with the thinking of the past six decades. Hence, it focused on inputs and failed to address the immediate challenges of quality. The Act came into force in April 2010, and in less than two years, the proportion of children attending rural private schools jumped from 21.5% to 28.1%. Why did this massive exodus from government schools happen just after passage of an Act that was meant to ensure free and compulsory education? We may never fully understand. But there was clearly a gap between governmental thinking and parental demand.

There was something else. ASER 2010, published six months after the enforcement of the RTE Act, showed that only 50.7% of India's government school children could read a Std 2 level text. That figure had been steady for nearly three years. Within two years after that, ASER 2012 reported this number to have dropped further to 41.7%. The Ministry of Human Resource Development, Government of India did not take ASER report seriously and instead claimed at that time that the learning levels had gone up. However, it has recently come out with its own report that clearly states that the learning levels had indeed dropped over that period.

These two big changes happened simultaneously. They were not anticipated at all. After the passage of RTE Act, children should have flocked to government schools and learning levels should have gone up. The exact opposite happened. Why did children in so many states move to private schools? Did that move have something to do with the dropping of learning levels in government schools? Again, we may never know but this simultaneous occurrence of two phenomena on such a massive scale cannot be a simple coincidence.

Clearly, the demand and motivation among the people was quite different from what the government was attempting. The government could not sell its vision and plan to the population.

<sup>1</sup> Co-founder and President, Pratham Education Foundation

The declining learning levels after the enforcement of RTE was linked by many critics with the formalization of the automatic promotion policy in the Act. More recently, as a new education policy came up for discussion, the demand that "children must be failed if they do not learn" started making the rounds. We may be seeing the beginning of a major error in the opposite direction.

The prevalent age-grade system expects the child to learn the prescribed content within that year. Naturally, the 'fail them' brigade would expect those who do not learn to stay back until they do. Experience shows that keeping children back in the same grade does not help learning. It is simply a punitive action that humiliates the child. So, we want the children to learn before moving up the age-grade ladder, but do not want to keep the child back. How is this to be accomplished?

Perhaps we should replace the rigid age-grade system with a flexible stage-age group system which will give all children opportunity to learn skills over 2-3 years.

Thanks to the universal schooling achieved over the last decade and more, there are very few older children who have never been enrolled in schools. Most children are entering schools at the age of 5 or 6 and increasingly staying in school well past Std 8 or the age of 14. Also, a large number of schools in India are not only multi-level but also multi-grade. It should be possible to organize children into different learning groups of mixed ages that they feel comfortable with rather than rigid 'standards' and 'classes' organized by age. We need to define learning outcomes by stages and assess children whenever they are ready. In today's age, it should be possible to assess children multiple times to enable them to improve their performance at their convenience, without the fear of failing.

Just as the 'promote all' policy was followed blindly without ensuring that children learned the basics properly, there is a good chance that the enthusiasm for 'fail them' will overshadow proper attention to children's learning. Either way, neither policy works unless children's learning is ensured.

Unfortunately we do not have cases of planned and sustained improvement of learning levels in government systems over the last ten years. ASER has seen some cases when learning levels improved somewhat, only to go down again as a key officer was moved or a policy was changed. This lack of sustained change or improvement suggests that there was neither underlying large scale demand from parents nor motivation of the government to drive change.

When such demand exists in society its impact is unmistakable. At the turn of the last century the fact that the 'need' for education was rapidly changing into 'demand' for education could be felt. This demand has been growing. It is this demand that has led to over 96% enrollment in schools. It is this demand that is leading to the growth of private schools and it is this unmet demand that is causing frustration among adolescents and youth whose aspirations are growing day by day.

One of the key features of this demand for education is related to learning English. It is not just the parents but also the children who want to learn English. The parents may want children to learn English because it is felt that English can get them good jobs and a secure future. The children may want it for other reasons, such as identity and a sense of dignity.

Is math in demand? No. Is reading in their mother tongue in demand? It does not appear to be. Is writing well in demand? Not at all. English? Yes, of course. Various state governments have responded to this demand by starting English learning from the first year in school even if there is no qualified teacher. But private schools are probably responding to this demand better.

ASER started assessing ability to read English in 2007. A couple of years later we also started checking if the children understood what they were reading. The table below shows interesting data from states which have a high proportion of students in private schools.

The data show that with the exception of UP, in all these states: a) private school enrollment in Std 5 is increasing, b) proportion of children in private schools who can read English sentences is increasing (except in Uttarakhand), and c) proportion of children in government schools who can read English sentences is increasing slowly but consistently.



	% Std 5 children ENROLLED in private schools			% Children in Std 5 who can read English sentences					
				Private schools			Government schools		
	2012	2014	2016	2012	2014	2016	2012	2014	2016
Uttar Pradesh	50.8	51.7	51.3	26.6	34.7	31.9	4.4	7.0	4.8
Rajasthan	42.1	40.0	42.0	27.8	30.4	35.0	5.1	5.4	9.4
Haryana	45.0	52.2	54.8	71.1	74.8	75.0	17.3	23.6	29.4
Uttarakhand	34.3	36.3	44.4	55.1	64.2	58.6	16.9	13.8	22.8
Punjab	42.3	45.5	51.6	72.3	77.9	83.2	36.9	29.7	34.0
Himachal Pradesh	27.8	34.8	40.2	79.3	81.5	91.0	45.5	38.8	44.0
Madhya Pradesh	15.5	20.4	23.7	27.3	30.0	35.9	4.8	4.3	5.6
Chhattisgarh	10.6	17.9	20.3	24.7	31.0	43.4	5.0	6.2	9.5
Maharashtra	43.6	41.0	43.4	26.9	31.7	34.8	16.7	14.6	22.7
Tamil Nadu	28.2	33.0	34.2	43.8	52.4	58.3	17.7	24.2	26.4
Kerala	58.7	56.2	54.1	70.0	81.5	77.7	52.4	51.4	57.4

Data for reading in mother tongue or solving math in Std 5 in these states do not show such consistent improvement for either government or private schools. But, clearly English reading does. Why is this the case?

At least two factors need to be in place in order to achieve consistent improvement. First, there has to be a strong demand from parents and possibly strong parental support for children's learning. Second, the human capital- the teachers- are probably also getting better at teaching English. A possible third factor could be the introduction of one or two years of pre-school that prepares children for primary school.

There is little doubt that there is a demand for education as reflected by the growing percentage of children in private schools, and also by the improving percentage of English readers in these schools. This demand may be more selective than we like, as we can see improvement in English but not in reading and math, the other two skills/sectors that we assess. School education cannot only be driven by popular demand. But it cannot ignore what popular demand is saying either. The skill will lie in creating demand and motivation for learning beyond what is needed for a job.

It appears to me that the age-grade system needs to be changed to a stage-group arrangement and we need to take a second look at what we mean by curriculum and syllabus. We need to rethink a number of things. For example, should we be teaching language the old fashioned way? Or, should we be more communication focused? In the area of math: Does everyone know how to use calculators and spreadsheets? This is not to say that we should not teach algebra but perhaps we need to ask ourselves whether everyone needs to study algebra at the same age or if this is something that can be studied when students are interested.

The digital age is almost here and its hallmark is non-linearity. This means that the economic efficiency that age-grade textbooks and syllabi provided in the past is no longer the best solution. Helping children create their own syllabi should be much more easily possible. Digital devices allow access to content without barriers, but our schools and education system is linear and full of barriers.

The short and selective history traced in this article says that we need to be aware of the conflict between the nature of the demand and the thinking of the government. This conflict has to be managed better. Measurements such as ASER can be helpful in understanding and managing this conflict.

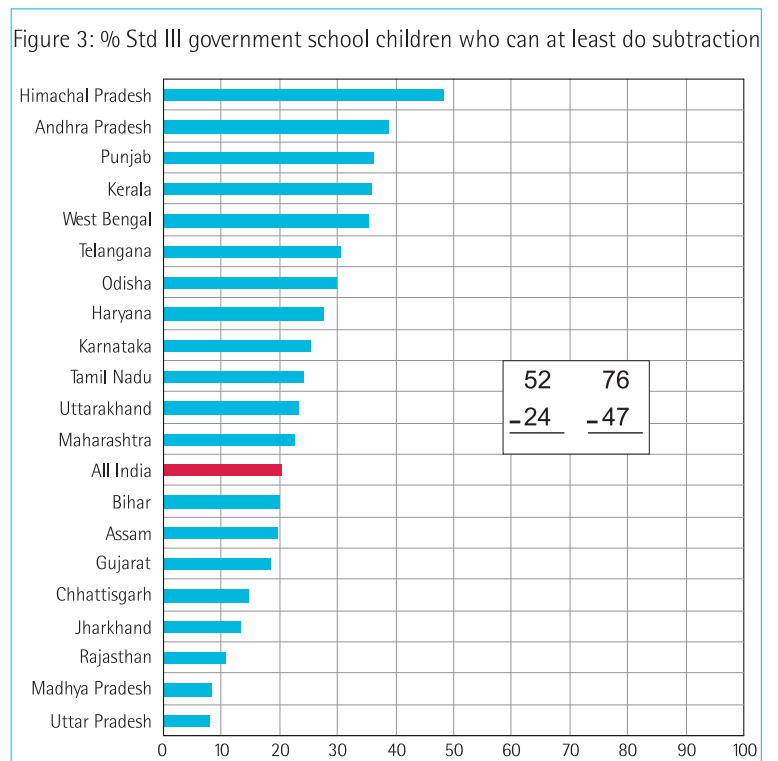
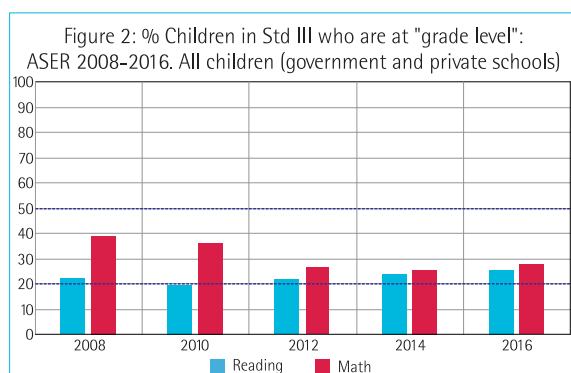
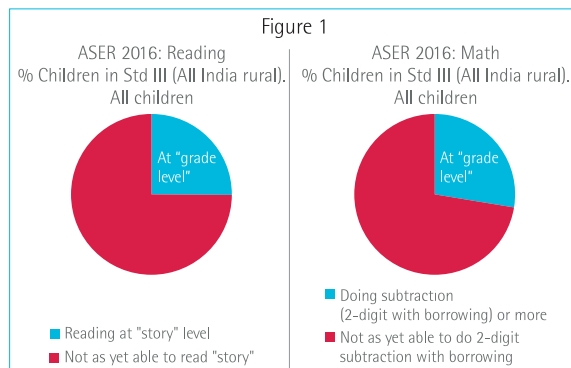
# Teaching "toppers" or learning for all?

Rukmini Banerji<sup>1</sup>

The meeting had been going on for almost an hour. One round of tea had come and gone and another round was starting. We were sitting around a long table - senior state level government officials from the education department and us. The focus was on student achievement data; some figures were from ASER and other findings were from recent research studies. We moved slowly through the presentation. As each PowerPoint slide came on the screen, there were many viewpoints to be aired and interpretations to be shared. At one point, the seniormost officer present said, "Yes, everyone knows that half the children in Std V cannot do what is expected of them in Std II. But tell me how many children in our schools are at grade level?"

There is a quick and intuitive answer to this question based on ASER data. Let's look at Std III. The highest reading task in ASER is an eight-ten line "story". The text for the "story" is like the texts found in Std II language textbooks of that state. Therefore, if a child is at "story" level and is currently studying in Std III, we can safely assume that the child is at "grade level", at least for reading. Similarly, for math, in most states children are expected to be able to do two-digit by two-digit subtraction sums with borrowing by Std II. Therefore, if a child can do such tasks in Std III, we can say that he or she can deal with what is expected of her in that grade.

With these "grade level" definitions in mind, let us look at what ASER says. Data for the current school year, from ASER 2016, suggests that today just about one in four children in Std III in an average rural school is at "grade" level in reading and in math (Figure 1). Nationally, this picture does not seem to have changed very much over the last decade, although there has been a slight increase between 2014 and 2016 (Figure 2).



But when we look at different states, we can see wide variations. Figure 3 gives the state-wise status for math for Std III children in government schools in 2016. The "grade level" situation (whether children can cope with what is expected of them) ranges from 50% in Himachal Pradesh to less than 10% in Uttar Pradesh.

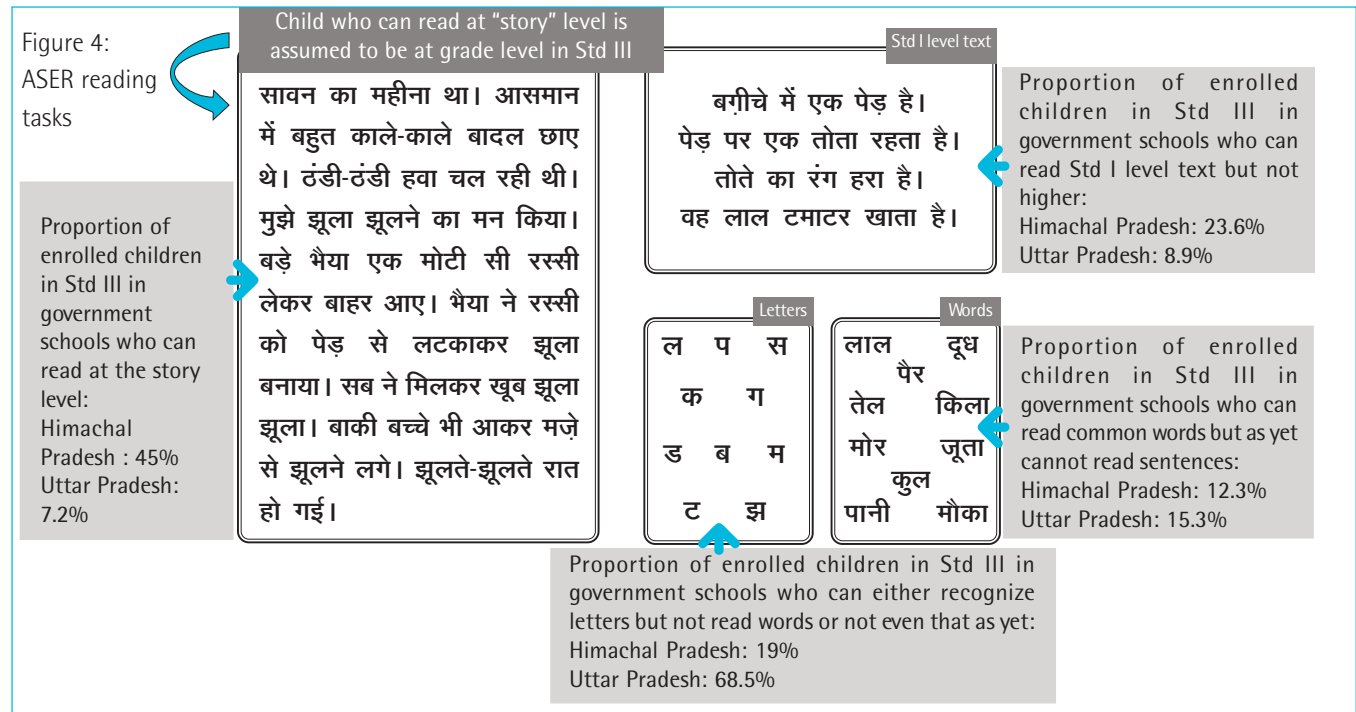
<sup>1</sup> Chief Executive Officer, Pratham Education Foundation

What are the implications of these trends? What factors influence them?

Close your eyes and visualize a typical Std III classroom. What does it look like? What happens there on a normal day? If you peek through an open window, you will see children, on benches or on the floor, sitting in rows looking towards the blackboard in the front of the class. The teacher is standing, facing the children. She is using the textbook prescribed for Std III. Children also have the textbook, open on the page that the teacher is using. The teacher talks about what is in the chapter that she is teaching. From time to time, she writes on the blackboard and sometimes she asks questions. Almost always, the textbook is the main anchor for the teaching-learning activity in the classroom.<sup>2</sup>

A set of assumptions underlies what we see in our typical primary school classroom. It is assumed that for each year that a child spends in school, some "value" is "added" to the child's basic capabilities. Textbooks are created with this progression in mind. Thus, when a child reaches Std III and has to deal with the Std III textbooks, the expectation is that the child has "completed" Std II and so is ready with the prerequisite knowledge, capabilities and skills that are needed to cope with the Std III curriculum.

The reality is quite different. Data from ASER clearly shows that there are many children who are not at all ready for what is expected of them in their current grade. Let us take the states that are at two ends of the learning spectrum - Himachal Pradesh and Uttar Pradesh (Figure 4). Using "story" level as the criterion for being at "grade level" in Std III, we can see that in Himachal Pradesh close to half of all children in Std III are at grade level. But the picture is very different in Uttar Pradesh, where less than 10% of children in Std III in an average Std III classroom can read simple text fluently. The distribution of reading levels for the other children is also distinctly different. In Himachal Pradesh, only 20% of children are still struggling to recognize letters whereas that figure for Uttar Pradesh is overwhelmingly large at 68%. The data imply that for Std III in Uttar Pradesh's government schools, approximately seven out of ten children cannot even read simple everyday words in Hindi.



<sup>2</sup> Over the last ten years, researchers at ASER Centre have been involved with three studies of teachers and teaching. Led by Prof. Geeta Kingdon, the first study, SchoolTELLS, studied a sample of government and private primary schools in Bihar and Uttar Pradesh in 2007-08 (Banerji & Kingdon 2009. Addressing School Quality. Some policy pointers from rural North India. Policy Brief. No. 5. RECOUP. Research Consortium on Educational Outcomes and Poverty). The second, "Inside Primary Schools" followed a cohort of children through two school years in Himachal Pradesh, Rajasthan, Jharkhand, Assam and Andhra Pradesh (Inside Primary Schools, www.asercentre.org). A total of close to 1000 schools were part of the study. The most recent project focused on 400 schools in four districts in Bihar. In each of these studies, repeat observations of classroom teaching were carried out. Each of these studies finds that teaching is almost entirely anchored by textbook content and that most teaching practices are based on "chalk and talk". (Banerji & Wadhwa et al (2016), Teacher Performance in Bihar. Implications for Education. Directions in Human Development. World Bank Group Publications. World Bank, Washington DC USA. <https://openknowledge.worldbank.org/handle/10986/23637>)

Let us return to the classroom we were visualizing earlier. How appropriate is it to use Std III textbook to anchor the teaching? Who in the classroom benefits? In Himachal Pradesh, half the class is fine; roughly another 25% can read simple text and so perhaps they too can follow and participate, even if it is a bit of a struggle. So about three quarters of all children can cope with what is going on in the class. In Himachal Pradesh, teaching from the textbook may be fine, although there too the outcomes will improve if additional attention is paid to the children who need more scaffolding and support.

But in Uttar Pradesh the current approach of using the grade level textbook is leaving practically everyone far behind. Three quarters of the children cannot even read words. If we really want children to have a real opportunity to learn then we must start from where they are. Without solid foundational skills, no one can move ahead. Barely 7% children (less than one in ten) in Std III in an average government school in Uttar Pradesh can cope with what the teacher is doing in class. Clearly the strategy for teaching in Uttar Pradesh needs to be completely rethought and totally redesigned. If the objective is to enable most children to make progress, then it is essential to go back to the drawing board in terms of learning goals, content and curriculum, pace and sequence of activities, realistic timelines and implementable methods. In many ways, Himachal Pradesh and Uttar Pradesh are at two ends of a spectrum; the rest of India's states are somewhere in between. The reality of each state and the track record of what has been achieved in recent years has to be considered in planning for the future.

Children not learning has deeper implications for the entire ecosystem of education. Think about the teachers. Many work hard and do their job of "completing the syllabus". Yet, more often than not, they do not see their children making adequate progress. This makes them disheartened. Think about the parents. Parents work hard to send their children to school. Often these are people who have not had much schooling themselves but have high hopes about the benefits and opportunities that schooling will bring to their children. When children don't make progress, parents are disappointed - with schools, with teachers and often with their children. Think about children. They go to class but many cannot understand or relate to what the teacher wants them to do. Children become disinterested with school and disengaged from the process of teaching and learning.<sup>3</sup> Low learning levels depress the whole ecosystem. We seem to have designed a system in which the assumption is that all children will progress to the next level. When this does not happen, everyone blames others. And we are stuck in a vicious cycle of high expectations and low capability to meet them.

*Back to the meeting in the secretariat. The empty tea cups from the second round of snacks were being cleared along with the leftover crumbs from the biscuits and samosas. The PowerPoint presentation was almost done. After almost two hours, debates and discussions were also winding down. In wrapping up, the senior officer summarized the day's interactions and exchanges and then continued thinking aloud. "Right now, based on what you are telling me, we have about 20% of our children in Std III at grade level. What would you want the figure to be?" he wanted to know. I remained silent for a while. The answer was obvious to me. I wondered what was in his mind. What did he want for his state? A few students who could excel? Or a majority who became capable of moving ahead? Priorities would determine the path forward.*

My immediate answer to the officer was that our responsibility should be to ensure that most children in Std III are able to cope with what is expected of them in Std III. Clearly, teaching to the "top of the class" is not an approach that reaps results in our context. In most states, the top of the class is like the tip of the iceberg; it is small and gets slimmer as children move through the school system. With not much visible change in children's learning trajectories in the last ten years, "business as usual" is not a strategy that is likely to work in getting us out of this low equilibrium or "big stuck".<sup>4</sup> "More of the same" - an input oriented approach will certainly bring more facilities to the schools but will not improve reading or arithmetic. Technocratic or managerial solutions which put a priority on monitoring teachers and school functioning may improve attendance but will not improve learning levels.<sup>5</sup>

<sup>3</sup> Interestingly, the attendance of children in a government primary school in Himachal Pradesh is almost 87% on an average day whereas that in Uttar Pradesh, the same number is close to 56%. While it is hard to disentangle cause and effect, there is a strong link between children's progress and their attendance and participation in school.

<sup>4</sup> This term is attributed to the economist Lant Pritchett of Harvard University.

<sup>5</sup> Using recent data on schooling and learning, a large part of Lant Pritchett's recent book "The Rebirth of Education" lays out in detail why these strategies are not likely to work.

To improve children's learning, we must take a hard look at our priorities and at our realities. We then need to think concretely of what we want to achieve. Is it excellence for a few or opportunity for all? If our real goal is opportunity for all, then we need to seriously consider how to do things differently. There are several parts to meeting this challenge. First is to think about what constitutes "grade level" expectations. What are these expectations based on? Common sense suggests that grade level expectations should be based on content and skills that most teachers can enable most children to acquire. As teachers become more capable and children become more able, what is expected at different grade levels could change. Second, to enable most children to learn, the fundamental principle is to begin where children are and to aim for achievable goals. In this framework of action, the priority is to teach children, not simply teach the curriculum or complete the syllabus. As the first goal post is reached, the confidence to aim for the next goal post and the capability and motivation to reach it is much stronger.

There are well studied and researched examples in India that show that substantial and significant changes in children's basic learning are possible. For example, regardless of grade and age, starting from where children are and using appropriate activities and materials for each level, has proved to be a very effective method. Pratham's teaching-learning approach which is called CAMaL (Combined Activities for Maximized Learning), also referred to as "teaching-at-the-right level", has been rigorously evaluated and found to be very effective in significantly and substantially raising basic reading and arithmetic levels. This change can happen in a period of just 30 to 50 days of instruction, working 2-3 hours a day with children from Std 3 to 5.<sup>6</sup> Even in a state like Uttar Pradesh, where children's learning levels are very low, independent evaluations of Pratham's work have shown that huge jumps in children's learning can happen.<sup>7</sup> There may be other home grown models on scale, as well, that have strong evidence of enabling children to learn. The key behind any such effort is the strong desire and the deep belief that all children can learn if we are able to provide the right opportunities and appropriate support. The most effective pathway emerges with continuous experimentation and openness to evidence.

On the face of it, India is close to "schooling for all". But our journey towards "learning for all" is yet to begin. Many parents and policy makers still believe that schooling leads to learning. More than ten years of data shows that the issue of learning needs urgent and direct attention. World renowned researchers (like Banerjee and Duflo as well as Pritchett) have strongly argued along these same lines using recent data from India.

Evidence strongly indicates that by the third year in school (well before they have spent even 1000 days in the education system), children's future is sealed. The equity and growth implications of teaching only to the "top of the class" are frightening; they are camouflaged by the outward signs and symbols of universal schooling. If "learning for all" is not given top most priority, if clear and achievable goals are not set, if teachers and parents are not supported in their efforts to help children learn, we will lose all the potential benefits of bringing every child to school. For a bright and hopeful future, whether as individuals, as families or even as a country, we must aim for "every child in school **and** learning well."

<sup>6</sup> For details about Pratham's teaching-learning approach, see Banerji and Chavan (2016) "Improving literacy and math instruction at scale in India's primary schools: The case of Pratham's Read India program". *Journal of Educational Change*. 17(4), 433-475. November. <http://link.springer.com/article/10.1007/s10833-016-9285-5e>. Also, see Banerji (2015), How Do Systems Respond to Disruptive Pedagogic Innovations? The Case of Pratham in Bihar. RISE Working Paper Series. RISE-WP-15/002 October 2015 [http://www.riseprogramme.org/sites/www.riseprogramme.org/files/151026\\_BanerjiWP.pdf](http://www.riseprogramme.org/sites/www.riseprogramme.org/files/151026_BanerjiWP.pdf) For impact evaluations of Pratham's work by JPAL, see Banerjee et al (2016). From Proof of Concept to Scalable Policies: Challenges and Solutions, with an Application. NBER Working Paper 22931. Issued in December 2016. <http://www.nber.org/papers/w22931>. Also, Banerjee et al (2016) "Mainstreaming an Effective Intervention: Evidence from Randomized Evaluations of "Teaching at the Right Level" in India". NBER Working Paper No. 22746. October 2016. <http://www.nber.org/papers/w22746?sy=746>.

<sup>7</sup> Details in the papers listed above.

**Wilima Wadhwa<sup>1</sup>**

ASER is back after a gap of a year! A lot has happened in the two years since ASER 2014 was released. In particular, there seems to be a general acceptance of the fact that learning levels are low and that something needs to be done about it. The government is in the process of launching a slew of learning assessments across the country; there is even talk about doing a learning census. A new education policy is being drafted after almost three decades. All of these are good developments, and one hopes that they will lead to changes in how teaching and learning happens in classrooms, and get reflected in improved learning outcomes for each successive cohort of children.

Between 2010 and 2013, ASER estimates showed indications of a decline in learning outcomes. What was more worrying was that the decline was primarily observed in government schools - private school learning levels were steady although not improving. In 2014, it seemed that this trend was arrested and learning levels seemed to stabilize. However, with no ASER in 2015, it was difficult to say whether the trend had been reversed. Therefore, ASER 2016 results were eagerly awaited with the hope that this year would give us some good news, especially for government schools. And, indeed there is good news! Learning levels - both reading and arithmetic - are up in government schools. However, there is also some bad news. Overall, this improvement is only seen in lower primary grades and in particular in Std 3. There is no change in learning levels in Std 5 and a slight decline is visible in Std 8.

In Std 3, the proportion of children who can read at least a Std 1 level text has increased from 40.2% in 2014 to 42.5% in 2016 at the all India level, and the proportion of children who can read at Std 2 level has also gone up from 23.6% to 25.2%. These changes seem small, but are significant given our past performance. Given the size of India and the diversity of states, often the all India estimate suffers from an averaging effect and hides the state level variations. For the all India figure to increase means that most states, especially large ones, are moving in the same direction.

The thing to note, though, is that in 2016 this improvement is being driven by learning gains in government schools as opposed to private schools. In Std 3 of government schools, the ability to read a Std 1 level text has increased from 31.8% to 34.8% and the ability to read a Std 2 level text from 17.2% to 19.3%. As always, there is a lot of variation at the state level. States like Punjab, Uttarakhand, Maharashtra, Chhattisgarh and Gujarat have experienced large gains (in excess of 8 percentage points) while states like Andhra Pradesh have seen a decline. However, by and large most states have seen an improvement in learning levels in Std 3 in government schools.

With government schools improving and private schools holding steady, this also means that the gap between government and private schools has narrowed. The superiority of learning outcomes in private schools has long been the subject of debate. While the public perception has always been that private schools provide a better quality education, research has shown that just comparing learning outcomes between government and private schools is not comparing apples with apples. Apart from school and classroom factors, there are many other factors that determine how, and how well, a child learns - her cognitive abilities, her parents' education, and the learning environment in her home are just a few of these. Therefore, attributing the difference in learning outcomes between children enrolled in government schools and those enrolled in private schools to the effect of schools is misleading.

It is well known that children who go to private schools come from relatively affluent backgrounds. They also 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 likely to attend government schools. Once we control for these other factors that affect learning, the gap in reading or math levels between children attending different types of schools narrows significantly. My analysis in the ASER 2014 report had shown that as much as 75% of this difference could be attributed to factors outside the school. In addition, over time the contribution of these "other" factors had increased.<sup>2</sup>

<sup>1</sup> Director, ASER Centre

<sup>2</sup> A similar analysis in the ASER 2009 Report had shown that about two thirds of the difference between government and private school learning levels could be attributed to the child's household characteristics.



These findings had other implications, as well, in view of the trends in enrollment and learning. Between 2006 and 2014 private school enrollment increased steadily from 18.7% to 30.8%. During the same period learning levels either languished or declined in government schools while those in private schools held steady - the gap between them widened. As rural India became more prosperous, parents with means shifted their children to private schools and the pool that government schools were drawing their students from became relatively more disadvantaged.

These trends seem to have been arrested this year. For the first time since 2006, private school enrollment has not increased - in fact, it has fallen marginally from 30.8% in 2014 to 30.5% in 2016. There also seem to be signs of resurgence in government schools. In Std 3, if we look at the proportion of children who can read at Std 1 level, the gap between government and private schools has narrowed by 2.6 percentage points. Even for Std 2 level readers the gap has reduced by 1.9 percentage points.

These numbers may seem disappointing to some and, therefore, not worth reporting. But they are worth unpacking a little bit. Consider the average child in Std 3 in a government school. The probability that this child can read a Std 1 level text is 34.8%, as compared to 59.4% in a private school. However, the likelihood that this child lives in a "pukka" home is only 36% as compared to 65.9% of an average Std 3 private school child. Similarly, the probability that this child has a television at home is 43.5% compared to 64.9% for a Std 3 private school child and the probability that this child has a mother who has some schooling is 48.4% compared to 66.5% for a private school child. How would this child perform if she had some of the advantages that most private school children have?

First, let's give her a pukka home to live in - immediately the probability that she can read increases from 34.8% to 41.7%. Now, let's give her a TV to watch so that she can see what's going on in the outside world - the likelihood of her being a reader increases to 49.9%. If she has a mother who has been to school, the probability that she can read increases even further to 57.4%. Just with these very basic advantages, she is almost at the average private school level. If in addition her mother maybe reads to her from print material available in her home, she outperforms the average private school child with a 62.2% chance of being a reader.

But we already knew this - the importance of household affluence and mother's education for learning outcomes is well established. A private school child with the same characteristics would have even higher learning levels. After all, the above comparison is between an advantaged government school child and an average private school child. How much higher, though? It turns out that a private school child with the same set of advantages would not be doing that much better - the likelihood that such a child is reader is 73.6%. The gap is much less! The average Std 3 private school child outperforms her government school counterpart by 24.6 percentage points while the difference here is only 11.4 percentage points. So when we compare children with similar home environments, the difference between government and private schools narrows significantly. Again, this has been shown by various research studies. The question here is, what is this advantage we are talking about? Does having a pukka home qualify as an advantage? How about a TV? A mother who has been to school and some reading materials in the home? These are all very basic things that many would take for granted.

So is it all about poverty? Would general prosperity make everything, including learning levels in schools, better? Not quite. Consider the case of Odisha and West Bengal as a case in point. Both these states have affluence indicators that are either below or at par with the national average. For instance, in both Odisha and West Bengal, about 23% Std 3 government school children live in pukka homes compared to 36% on average. Yet, learning levels in both these states are above the national average. In Odisha 45.5% children of Std 3 government schools are readers compared to the national average of 34.8%. The corresponding figure for West Bengal is 53.9%. What both these states have is a far larger proportion of mothers who have been to school - in excess of 60%. This correlation between mother's education and children's learning levels, again, is well established; learning support at home is very important in fueling children's progress.

However, while household and parental factors are important and often explain a large proportion of the difference between government and private school learning outcomes, they are not a substitute for what happens in school. Which brings us back to private schools - after all they do perform better than government schools. Should the government just get out of education, and leave it to the private

sector? If that were the case countries would not be spending, or targeting to spend, 6% of their GDP on public education of which school education forms a significant part. Further, in the case of India, even though private schools have higher learning levels as compared to government schools, it is not as if all children in private schools are at grade level - only 38% of children in Std 3 in private schools could read a Std 2 level text in 2016. Even today, 70% of rural children attend government schools; the push towards universal enrollment has resulted in almost all rural habitations having a government primary school within a kilometre. On the other hand only 40% villages had a private school (ASER 2014). Therefore, there isn't much of choice! The public school system must step up and improve the quality of education it provides.

Every year when the ASER Report is released and there is no improvement to report, we are asked what needs to be done to improve learning levels. But, ASER is not designed to answer this question. It is a rapid assessment that shows temperature on the ground. However, because it is done every year, at the same time, and has large sample sizes at the state level, it is able to pick up even small changes at that level. For instance, the Punjab government unleashed a state level intervention to improve learning levels in government primary schools in 2014-15. Even though there was no national ASER in 2015, at the request of the state government the assessment was done in Punjab. And sure enough, the improvement in learning levels was visible in the state estimates.

In the last few years, the focus has clearly shifted from enrollment to learning in education. This is true not just nationally but also internationally - the new Sustainable Development Goals for education are framed in terms of both access and learning outcomes. Nationally, various arms of the government - MHRD, NITI Aayog, state governments - are getting ready to unleash a variety of learning assessments in the country; there is talk about doing away with the automatic promotion policy introduced by the Right to Education (RTE) Act; the government is also looking to define grade wise learning goals. Clearly, something is also happening on the ground because this is the first year since 2010 that we have seen any improvement in learning levels in government schools, albeit small and restricted to lower primary grades. The important thing now is to sustain the momentum so that these small changes multiply and spread across the system.

# Money for nothing: lessons from PAISA studies<sup>1</sup>

Yamini Aiyar<sup>2</sup>

Back in 2012, Accountability Initiative researchers set out to understand the planning and budgeting process for elementary education. The focus of our analysis was the district education administration. Under the Sarva Shiksha Abhiyan (SSA, the Government of India's flagship program for elementary education) all districts are required to prepare an annual work plan (building on school level plans made by school management committees). These are in turn consolidated into a state plan which is presented to the Ministry of Human Resource Development (MHRD). Several interviews and participant observations later we arrived at the following conclusion: there is no such thing as a district annual work plan! Sure these plans documents exist. But there is no real "planning" involved in preparing these documents. As one candid planner put it: "district work plans are made by photocopying old plans and updating costs. The process is taken so lightly that in one district the planners forgot to update the district names and year on the photocopied plan documents".

To the casual observer, comments like this are yet another illustration of the apathy and lethargy that India's administration is infamous for. But our investigations into the planning and budgeting process for SSA and indeed for most other social programs, revealed a more complex story.

To begin with, although districts are expected to make annual plans, the plans are made without any relevant financial information. Districts are not given any information on budget estimates, nor do they have the mechanisms to track real-time expenditure. Plans are thus made without any evaluation of spending capacity in the district and are no more than a wish-list. This is one reason why final plan approvals are significantly different to plans submitted. For instance, our analysis of district plans in 2012-13 revealed that a mere 59% of the budget proposed by Nalanda district, Bihar was finally approved. Similarly in 2011-12, only 79% of the budget proposed by Kangra district in Himachal Pradesh was approved.<sup>3</sup>

These gaps in planning are exacerbated by the centralized structure of the SSA. In this system, state and district governments are expected to align themselves to central government priorities. To illustrate, in one instance a state government needed money to restructure its teacher-training model. To access SSA money, it had to seek Gol approvals through the state SSA authorities. Gol, however, refused to provide money because the restructuring wasn't aligned with the prescribed framework. Consequently, the final approved state budgets are often very different to what states ask for. In some years the gap between proposed and approved state budgets is as much as 50%. Moreover, state and therefore district priorities are often ignored in favor of pursuing norms and priorities set by the Government of India.<sup>4</sup>

Poor financial management makes matters worse. Our studies reveal that none of the districts analysed receive their entire approved budget in a financial year. And of the money that does reach, significant proportions arrive toward the second half of the financial year.

Faced with such constraints even the most well-intentioned district administrator will find it difficult to make a plan. And in such circumstances inaction and lack of planning may well be the rational thing to do. After all, why make a plan if you cannot finance it and why set goals and targets when you will be expected to respond to priorities set elsewhere!

In the words of one administrator: "Work plans function on the side. After that we receive orders which are very different from the plans noted in the AWP&B. Then we start fulfilling those."

But perhaps the biggest gap in the planning and budgeting system, to the extent that plans are made at all, is that it is based entirely on inputs. Goals and targets are linked to data collected through DISE (District School Information System for Education) which does not have a single indicator on learning. Thus learning goals are never specified and as a result budgets for specific initiatives aimed at improving learning quality (budgeted under the line-items for innovation and learning enhancement programs) account for less than

<sup>1</sup> The PAISA studies are a series of expenditure tracking studies undertaken by Accountability Initiative, Centre for Policy Research. One set of PAISA questions are asked during the school visit that is part of the ASER survey. These relate specifically to a set of annual grants that schools are expected to receive. For more details see [www.accountabilityindia.in](http://www.accountabilityindia.in)

<sup>2</sup> Director, Accountability Initiative

<sup>3</sup> For more details see: Aiyar et al (2015): "Rules Vs Responsiveness: Toward building an outcomes focused approach to governing India's finances". [http://www.accountabilityindia.in/sites/default/files/rules\\_vs\\_responsiveness\\_7.5.15\\_revised2\\_0.pdf](http://www.accountabilityindia.in/sites/default/files/rules_vs_responsiveness_7.5.15_revised2_0.pdf)

<sup>4</sup> *ibid*

1% of the SSA budget. It is instructive that the government discussions around annual budgets, recorded in the PAB minutes, reflect no discussion on learning goals and state specific proposals on how to achieve these goals.

All this was set to change in 2015. The acceptance of the 14th Finance Commission report, the creation (and subsequent endorsement) of a sub-committee to review centrally sponsored schemes under the NITI Aayog, and the rhetoric of co-operative federalism adopted by the government together held the promise of a more flexible, outcome oriented financing system for the social sector. But for the moment this promise remains unfulfilled.

Rather than initiate a substantive debate on a new financial architecture, the emphasis has been limited to introducing a few minor tweaks. For instance, all central schemes, including SSA, are expected to free up 25% of their budgets for a "flexible" pool for states to spend in accordance with their needs (although our informal conversations with education administrators indicate that even this isn't being implemented). At the same time, the promise of change brought with it much confusion on the ground and a significant slowdown in the movement of money. Accountability Initiative's analysis of the 2015-16 SSA budget suggested that a mere 57% of funds had been released to states in September 2015. Expenditure was even slower. Just 23% of the approved plan had been spent by September.<sup>5</sup>

These delays had a direct impact on fund flows to schools. The 3 school grants tracked by the PAISA questions in the ASER survey reveal that the number of schools that reported receiving the school development grant dropped from 76.76% in 2010-11 to 67.92% in 2015-16. The timings of grant receipt has also been affected. The number of schools receiving the school grant by October–November at the time of the ASER survey (half way through the school year) has dropped from 50.86% in 2011 to 45.17% in 2016. Importantly, money available for specific initiatives under the innovation and learning enhancement programs budget line item took a hit. In 2015-16, a mere 25% of state proposals for quality related activities were approved by MHRD.<sup>6</sup>

Interestingly, while ground level activity may have slowed down due to gaps in financing, the policy space has busied itself with expanding the range of tools available to measure learning in schools. These include the ongoing state level learning assessments, a census assessment being planned by the MHRD, and the NITI Aayog's efforts to rank states. For the moment the objective and audience for these different assessments are unclear. However, if the government chooses to use these assessments imaginatively, there is room to significantly alter the institutional architecture for elementary education. Here is our proposal: replace the SSA financing model with a three-window financing model that incentivizes states to build long-term, learning focused plans on the one hand and rewards performance on the other.<sup>7</sup>

The first window would be an annual grant for states to meet their basic infrastructure needs. Much of this has been prescribed by the RTE and most states in the country are still struggling to meet these requirements. For the moment, financing for the RTE is based on annual plans made by state line departments and approved by MHRD. Rather than spending energy on the same exercise every year (the entire state education department spends at least 2-3 months a year making, at times photocopying, annual plans and budget estimates) state governments should come up with a three-year budget estimation which can be funded annually by the centre. This will introduce some level of predictability in the current planning system as states will have a ballpark amount of money that they can expect from the centre. Based on Accountability Initiative's estimations of current expenditure, this window should account for no more than 50% of the current annual SSA budget. This funding window will address commonly expressed concerns of equity in financing among states and ensure that poorer states are compensated.

<sup>5</sup> For a detailed analysis of the 2015-16 SSA budget see: Kapur, A and Srinivas, V (2016): "Sarva Shiksha Abhiyan" Budget Briefs Volume 8, issue 1. <http://www.accountabilityindia.in/budget/briefs/download/1263>

<sup>6</sup> *ibid*

<sup>7</sup> For details see Aiyar et al (2015) Rules Vs Responsiveness. A version of this proposal on financing structures was published in Ideas for India in November 2015 and Livemint in February 2016

In keeping with the 14th Finance Commission's principles of greater state flexibility over planning and budgeting, the second window should be an untied learning grant given to the states for a 3-5 year period, based on a long-term strategy linked to clearly defined learning targets. Since this is an untied grant, the Centre will no longer need to spend time playing headmaster determining line-item wise expenditure for state governments. Rather, it can focus on providing technical support and guidance to states by undertaking assessments and facilitating knowledge sharing across state governments.

Finally, the third window could link the different assessments with state plans and budgets by offering a performance-based financial reward to states against set targets. Not only will this give much needed teeth to the measurement process, it also has the potential of creating competition amongst states, and over time building greater transparency and public debate on learning levels in India's schools.

Weeks after the launch of the 2016 ASER report the National Democratic Alliance will present its 3rd and penultimate budget to the nation. ASER 2016 is yet another reminder that even as governments change, very little changes for India's school going children. The 2017-18 budget may be this government's last chance to give India's school going students hope for the future. This is the time for radical change.



Suman Bhattacharjea<sup>1</sup>

Every year, the first few pages of the ASER report acknowledge those who "reached the remotest corners of India" - the hundreds of organizations and institutions that partner with ASER to make the survey possible on the scale and at the speed at which it is conducted. This year, as every year, many different kinds of organizations were ASER partners. These ranged from self help groups to universities; from non government organizations to teacher training colleges.

It is the 25,000 or so people from these partner organizations who actually reach each sampled village - 17,473 such villages in ASER 2016. They are trained for three days, tested on their understanding and ability to conduct the survey, and then sent in pairs to sampled villages. Before embarking on the survey, they take a pledge to conduct the survey "with utmost sincerity".<sup>2</sup>

Who are these people? Although we acknowledge our partner organizations by name, we are not able to do the same for our volunteers - doing so would add significantly to the time and cost of producing the ASER report, and make an already thick publication unmanageably bulky. Given the short time frame between data collection and report release, at the time that the report goes to print we don't even know exactly how many volunteers participated in all. But here are some things we do know about those who volunteered to conduct this 11th edition of ASER.<sup>3</sup>

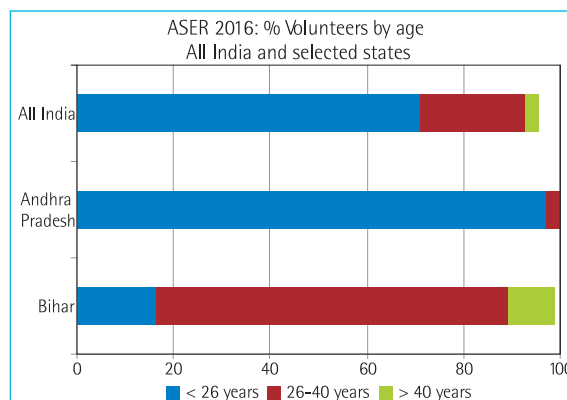
## They're mostly young.

Overall, more than 7 out of every 10 volunteers for ASER 2016 are 25 years old or younger.

No surprises here - around the world it is mostly young people who believe that change is possible. Pratham's work over the last twenty years is an ongoing demonstration of the fact that given the opportunity, youth in India are more than willing to volunteer their time to contribute when they believe the cause is important and they feel they can make a difference. In Pratham programs, young people volunteer a few hours to teach children over a period of several months, while for ASER volunteers a shorter but more intensive stint is required.

Remarkably, more than 700 ASER 2016 volunteers were under 18 - still legally minors, but already participating in an important national effort. Anecdotal evidence suggests that "doing ASER" is an experience that often changes people's perceptions and understanding of the contexts they live in and thought they knew well. How important, then, to offer experiences like these to young people - opportunities to construct a concrete understanding of real issues facing their own communities, at a time when they have many years ahead to help resolve these issues if they so choose.<sup>4</sup>

In 2016 our youngest volunteers were spread across many states, but the largest numbers were in two states - Andhra Pradesh and Haryana. In both these states ASER partnered with the District Institutes for Education and Training (DIETs) to conduct the survey. DIETs are government teacher training colleges, and DIETs in Andhra Pradesh are among our oldest partners - having conducted ASER every year since 2007, or nine times in a row. DIETs participated in ASER in several other states too - 169 DIETs in all this year. In Bihar, DIET students were in-service, rather than pre-service teachers, resulting in a significantly older age profile; but in all other case these were young people who are in the process of becoming teachers.



<sup>1</sup> Director of Research, ASER Centre

<sup>2</sup> The ASER pledge is taken each year by all ASER staff, all Master Trainers and all volunteers. See the full ASER 2016 pledge at <https://www.youtube.com/watch?v=3znMFpxiXbk>

<sup>3</sup> Because the first priority for data entry is to enter survey data as quickly as possible, information on the people responsible for collecting it is still being entered at the time of going to press. The characteristics discussed here are based on self-reported information from about 20,000 volunteers for whom data entry is complete. They are located in 540 districts, or 92% of the total of 589 districts that were surveyed in ASER 2016.

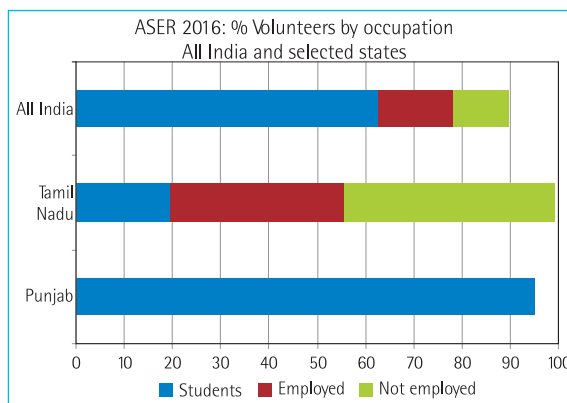
<sup>4</sup> Taking this idea forward, since last year ASER Centre has been working with the Government of Punjab to implement a module on water and sanitation in government upper primary schools in the state. The module aims to help children understand major issues related to water and sanitation in their communities, in their homes and their schools, and integrates activities to collect and analyze data from their own localities with a range of other activities intended to deepen their understanding of the issues involved.

If the ASER experience is an eye opener for volunteers in general, it is perhaps even more important for future teachers. ASER provides insights into aspects of children's learning needs that are different from what is usually available in teacher training programs. Can making these young people aware of just how far most children are from grade level, help to change the way they will teach in the future? We don't yet have an answer, but observing the fact that there is a problem is surely the first step towards a solution.<sup>5</sup>

### They're mostly students.

In addition to the DIETs, increasing numbers of universities and colleges have also opted to partner with ASER over the years: teacher training colleges, colleges and departments of social work, and others. Overall, in ASER 2016 well over half of our partners nationwide were institutions of higher education of one kind or another.

ASER volunteers' occupational profile reflects these affiliations. Across the country, 63% of all volunteers were students. In many states all ASER partners were DIETs, colleges or universities, and in these states - such as Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Punjab, Sikkim and Telangana - well over 90% of volunteers were students. On the other hand, in states such as Jharkhand, Karnataka, and Tamil Nadu, where most ASER partners were NGOs, there were fewer students and the proportion of volunteers who were employed was substantially higher.

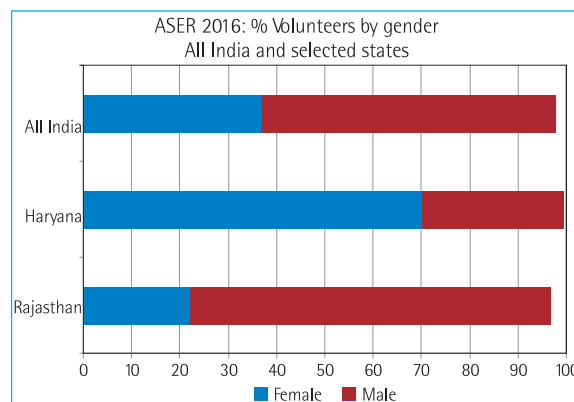


As these numbers indicate, institutions of higher education in rural India are often happy to partner with ASER and to explore other avenues to expand the range of opportunities they can make available to their students. Over the past few years ASER Centre has been able to partner with some of them to offer longer, deeper "capacity building" modules to their students, similar to those conducted in the DIETs, with similarly positive feedback.

### Almost 40% are women.

ASER survey teams are required to travel to villages across India, sometimes fairly remote and difficult to access, and knock on the doors of complete strangers in order to collect data for ASER. Given the real or perceived limitations on women's mobility in India, one might imagine that few women would volunteer to participate in this kind of exercise. But the ASER volunteer profile shows that women do in fact participate in large numbers. Across India, almost 4 out of every 10 volunteers for ASER 2016 were women - close to 10,000 women in all.

In Haryana, for example, between September and November of 2016 almost 700 young women (and also about 300 young men) traveled the length and breadth of the state, visiting households and testing children. This is not the kind of image that normally comes to mind when thinking about Haryana, a state perhaps better known for having the most adverse sex ratio in the country. But in neighbouring Rajasthan, just 2 out of every 10 volunteers were women.



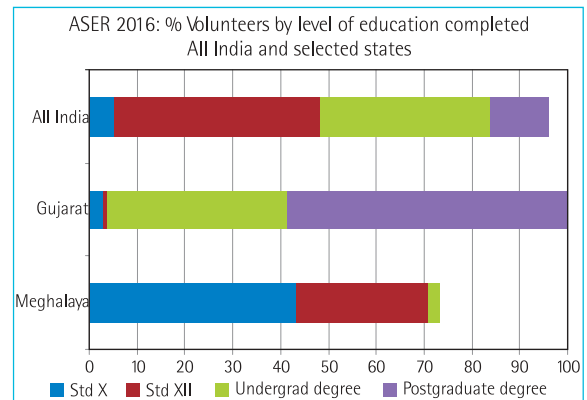
<sup>5</sup> Given interest from many DIETs in constructing longer and deeper such experiences for their students, starting in 2015 Pratham and ASER Centre have partnered with about 50 DIETs to implement a series of modules aiming to explore the gaps between policy objectives and ground realities in education. Each module focuses on a different aspect of the elementary education domain and includes both classroom sessions and structured field exercises to collect data. In many DIETs students were taught how to use Pratham's CAMaL approach to identify children's current learning levels, group them by level, and teach using methods and materials appropriate for each level. They subsequently implemented this methodology in nearby schools as part of their practice teaching. This collaboration is currently in its second year; trained students will be tracked to understand what impact the training has on their teaching.

Nationwide, women's participation is driven largely, though not exclusively, by the participation of large numbers of colleges, especially teacher training institutions and departments of social work, many of which enroll a majority of female students. In Haryana, Andhra Pradesh, and Sikkim, more than 7 out of every 10 volunteers were women. A very different example is that of Kerala, where the survey was done almost entirely by women, who comprised 92% of all volunteers in the state - thanks to a state-wide partnership with Kudumbashree, the government of Kerala's women-based, community oriented initiative to eradicate poverty.

### They've completed Grade 12 or an undergraduate degree.

Overall, more than 9 out of every 10 volunteers for ASER 2016 had completed grade 12 or higher - making them a far more highly educated set of individuals than the average Indian.<sup>6</sup>

The largest single group of volunteers had completed Grade 12 - nearly half of all volunteers for ASER 2016. More than a third had an undergraduate degree. Volunteers' educational profile varied across the country, however, and tended to be lower in some states in the northeast of India. In Meghalaya, Nagaland and Sikkim, for example, significant proportions of volunteers listed grade 10 as their highest educational level. At the other extreme is Gujarat, where the participation of a large number of university departments of social work meant that close to 60% volunteers had completed a postgraduate degree.



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Over 11 editions of ASER, an estimated 2.5 lacs of people - a quarter of a million - have volunteered to participate in ASER.

As this brief description indicates, they are mostly young and educated. Because they are affiliated with district partner organizations, most are familiar with rural contexts and willing to engage with the issues their communities face - not from a safe distance, but from up close. Although the majority participated for the first time in 2016, about 1 in every 10 has participated in ASER at least once before.

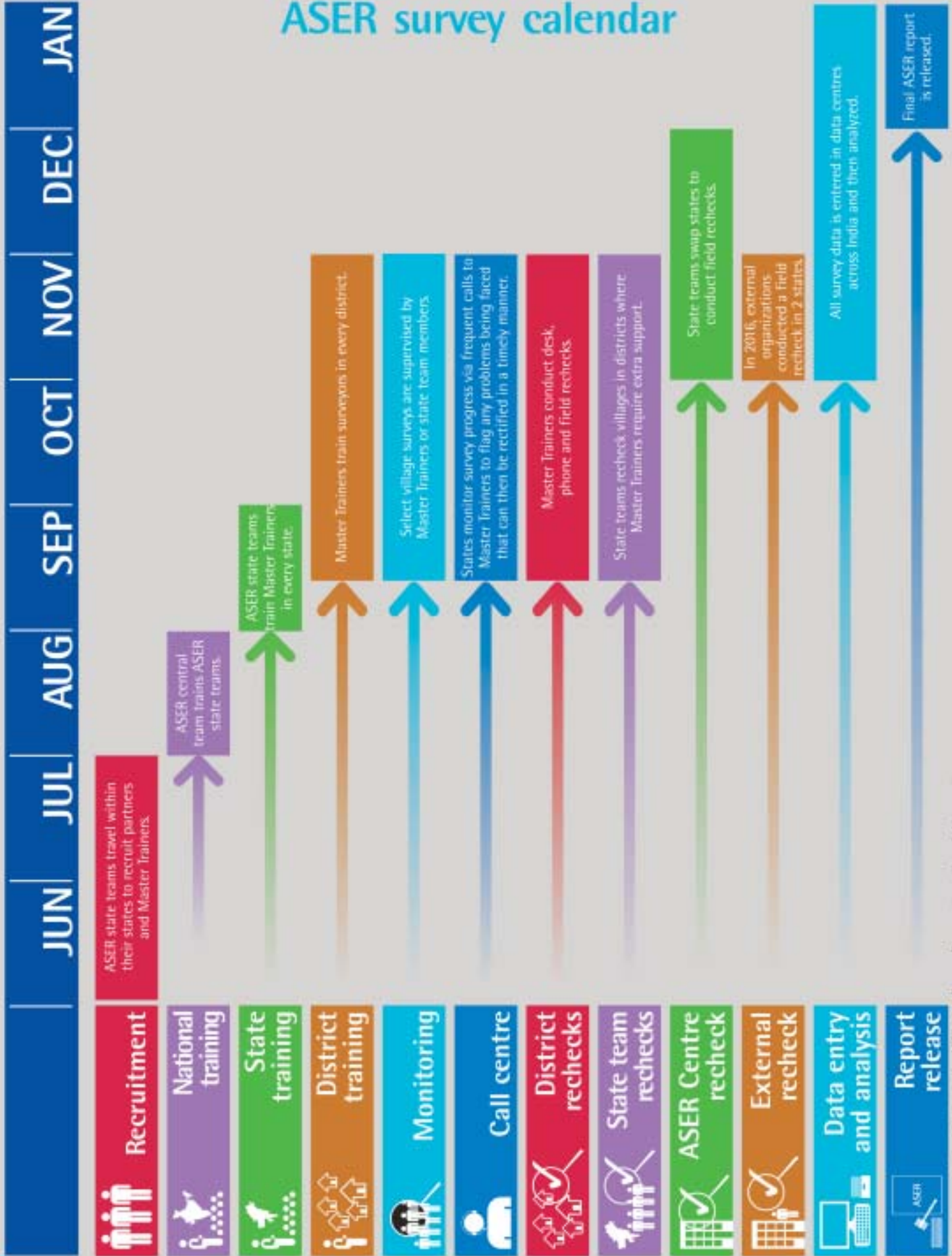
Year after year, ASER findings show that the challenges facing our education system are enormous. But its operational model shows that as a country we already have the most important resource needed to resolve these challenges: people who are willing to help.<sup>7</sup> Finding ways to include them, rather than exclude them from the process of finding and implementing solutions is key to moving forward as a country, in education and in other sectors.

<sup>6</sup> The Human Development Index for 2014 estimates that Indians have on average completed 5.4 years of schooling.

<sup>7</sup> A striking example of this is Pratham's 'Lakhon mein Ek' campaign of 2015, during which more than 300,000 local volunteers were found in about 150,000 rural and urban communities across India in a period of under 3 months. They assessed the status of schooling and learning in their own communities, made community report cards, and discussed what needed to be done to improve children's learning. In about 25,000 of these communities, this was followed by a "Reading week" where Pratham staff demonstrated simple activities that could be done by children, parents, and neighbours to build children's foundational skills in reading and arithmetic.

## About ASER

# ASER survey calendar



Processes are described further in the ASER 2016 Process Documents section of this report.



# Summary of the ASER survey process

The ASER survey is done over 2 days in a village. The first day of the survey is on a school day (preferably Saturday) and the second day is on a holiday (preferably Sunday). A step-wise overview of the entire process of the survey in a village is given below:

**1** 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 to the village.

**2** Once in the village, the surveyors *meet the Sarpanch/village representative* and do the following:

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

**3** The surveyors then *walk around the entire village* and do the following:

- Make a rough map of the village, marking the important landmarks. Once the surveyors have walked around the entire village, they make a final map in the survey booklet.
- Fill up the Village Information Sheet, based on what they observe in the village.

**4** The surveyors *go to a government school* with classes I-VII/VIII and do the following:

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

**5** Next, the surveyors *begin the household survey*. They:

- Divide the map into 4 sections or select 4 hamlets, depending on how the village is organised.
- Randomly select 5 households from each hamlet/section using the 'every 5th household rule'.
- Survey a total of 20 households from the 4 selected sections/hamlets.

**6** In each sampled household the surveyors do the following:

- Record information about children in the age group of 3-16 years.
- Use the testing tools to assess the basic reading, arithmetic and English levels of children in the age group of 5-16 years. **Testing is done only in households.**
- Record basic information about the households, such as household assets.

**7** After all 20 households are surveyed, the surveyors immediately submit the completed survey booklet to the ASER district Master Trainers.

See the section on ASER village process of this report for more details.

# ASER assessment tasks

The testing process addresses ASER's central question – are children acquiring foundational 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 2016, tests of basic English reading and comprehension were also conducted.

ASER's testing process incorporates various measures to ensure that 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, placed 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 information about ASER testing and the process followed to assess each child on reading, arithmetic and English.

## 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 of the states.

While developing 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: Hindi reading test\*

पढ़ने की जाँच SAMPLE

कहानी	अनुक्रम
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 लेकर बाहर आए। भैया ने रस्सी को पेड़ से लटकाकर झूला बनाया। सब ने मिलकर खूब झूला झूला। बाकी बच्चे भी आकर मजे से झूलने लगे। झूलते-झूलते रात हो गई।	बगीचे में एक पेड़ है। पेड़ पर एक तोता रहता है। तोते का रंग हरा है। वह लाल टमाटर खाता है।
ल प स क ग ड ब म ट झ	लाल दूध पैर तेल किला मोर जूला कुल पानी मौका

Similar tests are developed in 19 regional languages

\* 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.

## How to test reading?

### PARAGRAPH

**START  
HERE** →

Ask the child to read either of the 2 paragraphs.  
Let the child choose the paragraph herself. If the child does not choose give her any one paragraph to read.  
Ask her to read it. Listen carefully to how she reads.

The child is not at **'Paragraph Level'** if the child:

- Reads the paragraph like a string of words, rather than sentences.
- Reads the paragraph haltingly and stops very often.
- Reads the paragraph fluently but with **more than 3 mistakes**.

The child is at **'Paragraph level'** if the child:

- Reads the paragraph like she is reading sentences, rather than a string of words.
- Reads the paragraph fluently and with ease, even if she is reading slowly.
- Reads the full paragraph with **3 or less than 3 mistakes**.

If the child is not at **'Paragraph Level'** then ask the child to read words.

If the child can read a paragraph, then ask the child to read the story.

### WORDS

Ask the child to read any 5 words from the word list.  
Let the child choose the words herself. If the child does not choose, then point out any 5 words to her.  
The child is at **'Word Level'** if the child reads at least **4 out of the 5 words** correctly.

If the child is at **'Word Level'**, then ask her to try to read the same paragraph again and then follow the instructions for paragraph level testing.  
If she can correctly and comfortably read at least 4 out of 5 words but is still struggling with the paragraph, then mark the child at **'Word Level'**.  
If the child is not at **'Word Level'** (cannot correctly read at least 4 out of the 5 words chosen), then show her the list of letters.

### LETTERS

Ask the child to recognize any 5 letters from the letter list.  
Let the child choose the letters herself. If the child does not choose, then point out any 5 letters to her.  
The child is at **'Letter Level'** if the child correctly recognizes at least **4 out of 5** letters correctly.

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'**.

**ON THE HOUSEHOLD SURVEY SHEET, MARK THE CHILD AT THE HIGHEST LEVEL SHE CAN REACH.**

## ARITHMETIC TASKS:

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

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



### Sample: Arithmetic test

गणित की जाँच SAMPLE			
अंक पहचान 1-9	संख्या पहचान 10-99	घटाव	भाग
1      4	51      83	$\begin{array}{r} 46 \\ - 29 \\ \hline \end{array}$	$\begin{array}{r} 7 \overline{) 879} \\ \hline \end{array}$
7      3	37      65	$\begin{array}{r} 47 \\ - 28 \\ \hline \end{array}$	$\begin{array}{r} 6 \overline{) 824} \\ \hline \end{array}$
6      9	55      26	$\begin{array}{r} 92 \\ - 76 \\ \hline \end{array}$	$\begin{array}{r} 8 \overline{) 985} \\ \hline \end{array}$
5      2	91      43	$\begin{array}{r} 52 \\ - 14 \\ \hline \end{array}$	$\begin{array}{r} 4 \overline{) 517} \\ \hline \end{array}$
36      27		$\begin{array}{r} 66 \\ - 48 \\ \hline \end{array}$	

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।
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## How to test arithmetic?

### SUBTRACTION 2-digit with borrowing

**START  
HERE** →

The child is required to solve 2 subtraction problems. Show the child the subtraction problems. First ask the child to choose a problem. If the child does not choose, pick a problem.

**Ask the child what the numbers are, then ask the child to identify the subtraction sign.**

If the child is able to identify the numbers and the sign, ask her to write and solve the problem at the back of the Household Survey sheet. Observe if the answer is correct.

**Even if the first subtraction problem is answered incorrectly, ask the child to solve the second question following the process explained above. If the second problem is correct, ask the child to try and do the first problem again.**

If the child makes a careless mistake, then give the child another chance with the same question.

If the child **cannot do both** subtraction problems correctly, then ask the child to recognize numbers from 10-99. Even if the child does just one subtraction problem wrong, give her the number recognition (10-99) task.

If the child **does both** the subtraction problems correctly, ask her to do a division problem.

### NUMBER RECOGNITION (10-99)

Ask the child to identify any 5 numbers from the list. Let the child choose the numbers herself. If the child does not choose, then point out any 5 numbers to her.

If she can correctly recognize at least **4 out of 5** numbers, then mark her at **'Number Recognition (10-99) Level'**.

### DIVISION 3 DIGIT BY 1 DIGIT

The child is required to solve 1 division problem. Show the child the division problems. She can choose any one problem. If not, pick one for the child.

Ask her to write and solve the problem.

Observe what she does. If she is able to correctly solve the problem, then mark the child at **'Division Level'**.

**Note: The quotient and the remainder both have to be correct.**

If the child makes a careless mistake, then give the child another chance with the same question.

If the child is not at **'Number Recognition (10-99) Level'** (cannot correctly recognize at least 4 out of 5 numbers chosen), then ask her to recognize numbers from 1-9.

If the child is unable to solve a division problem correctly, mark the child at **'Subtraction Level'**.

### NUMBER RECOGNITION (1-9)

Ask the child to identify any 5 numbers from the list. Let the child choose the numbers herself. If the child does not choose, then point out any 5 numbers to her.

If she can correctly recognize at least 4 out of 5 numbers, then mark her at **'Number Recognition (1-9) Level'**.

If the child is not at **'Number Recognition (1-9) Level'** (cannot recognize at least 4 out of 5 numbers chosen), then mark her at **'Beginner Level'**.

**THE CHILD MUST SOLVE THE ARITHMETIC PROBLEMS AT THE BACK OF THE HOUSEHOLD SURVEY SHEET.**

**ON THE HOUSEHOLD SURVEY SHEET, MARK THE CHILD AT THE HIGHEST LEVEL SHE CAN REACH.**



## ENGLISH TASKS:

All children are assessed in English reading and comprehension using a simple tool. The test has 4 tasks:

- **Capital letters:** Set of commonly used capital letters.
- **Small letters:** Set of commonly used small letters.
- **Words:** Common, familiar 3 letter words. After reading, the child is asked for meaning of the words in her local language.
- **Simple sentences:** Set of 4 simple sentences, each having no more than 4-5 words. These words (or their equivalent) are in the introductory English textbooks of the states. After reading, the child is asked to say the meaning of the sentences in her local language.



## Sample: English test

<b>ENGLISH TEST SAMPLE</b>	
<p>Give this test to <b>ALL</b> children. Record the highest reading level. Note the ability of the child to tell the meaning of words <b>OR</b> sentences depending on the child's highest reading level.</p>	
<p><b>Capital letter</b></p> <p>A J Q</p> <p>N E</p> <p>Y R O</p> <p>Ask the child to recognize any 5 letters. At least 4 must be correct.</p>	<p><b>Small letter</b></p> <p>h p x</p> <p>u m</p> <p>d g t</p> <p>Ask the child to recognize any 5 letters. At least 4 must be correct.</p>
<p><b>Word</b></p> <p>cat red</p> <p>sun</p> <p>new fan</p> <p>bus</p> <p>Ask the child to read any 5 words. At least 4 must be correct. If the highest level that the child has reached in reading English is the 'Word Level', then ask the child to say the meaning of <u>those words</u> she has read correctly. She can say the word meaning in the local language. The meaning of at least 4 words must be correct.</p>	<p><b>Sentence</b></p> <p><u>What is the time?</u></p> <p><u>This is a large house.</u></p> <p><u>I like to read.</u></p> <p><u>She has many books.</u></p> <p>Ask the child to read all sentences. At least 2 must be correct. If the highest level that the child has reached in reading English is the 'Sentence Level', then ask the child to say the meaning of <u>those sentences</u> she has read correctly. She can say the meaning in the local language. The meaning of at least 2 sentences must be correct.</p>

## How to test English?

There are 2 parts in the English tool: Reading and Meaning.

- First administer the reading section and mark the highest reading level of the child.

- Then administer the meaning section. **This is only for children who are marked at word or sentence level in the English reading section.**

### PART 1: READING

#### CAPITAL LETTERS

**START  
HERE** →

Ask the child to recognize any 5 capital letters from the capital letter list. Let the child choose the letters herself. If the child does not choose, point out any 5 letters to her.

The child is not at '**Capital Letter Level**' if the child cannot recognize at least **4 out of the 5** letters.

The child is at '**Capital Letter Level**' if the child correctly recognizes at least **4 out of the 5** letters.

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

If the child is at '**Capital Letter Level**', then ask the child to recognize small letters.

#### SMALL LETTERS

Ask the child to recognize any 5 small letters from the small letter list. Let the child choose the letters herself. If the child does not choose, then point out any 5 letters to her.

The child is not at '**Small Letter Level**' if the child cannot recognize at least **4 out of the 5** letters.

The child is at '**Small Letter Level**' if the child correctly recognizes at least **4 out of the 5** letters.

If the child is not at '**Small Letter Level**' (cannot recognize at least 4 out of 5 letters chosen), then mark the child at '**Capital Letter Level**'.

If the child is at '**Small Letter Level**', then ask the child to read the words.

#### SIMPLE WORDS

Ask the child to read any 5 words from the word list. Let the child choose the words herself. If the child does not choose, then point out any 5 words to her.

The child is not at '**Word Level**' if the child cannot read at least **4 out of the 5** words.

The child is at '**Word Level**' if the child correctly reads at least **4 out of the 5** words.

If the child is not at '**Word Level**' (cannot read at least 4 out of the 5 words chosen), then mark the child at '**Small Letter Level**'.

If the child is at '**Word Level**', then ask the child to read the sentences.

Continued on the next page...

## EASY SENTENCES

Ask the child to read all four of the given sentences.



The child is not at '**Sentence Level**' if the child:

- Cannot read at least **2 out of the 4** sentences fluently.
- Reads the sentences like a string of words, rather than a sentence.
- Reads the sentences haltingly or stops very often.



The child is at '**Sentence Level**' if the child:

- Reads at least **2 out of the 4** sentences fluently
- Reads the sentence like a sentence and not a string of words
- Reads the sentence fluently and with ease, even if she is reading slowly

ON THE HOUSEHOLD SURVEY SHEET, MARK THE CHILD AT THE HIGHEST LEVEL SHE CAN REACH.

If the child is not at '**Sentence Level**', then mark the child at '**Word Level**'  
AND

Ask the child to tell you the meaning of the words she has read correctly.

If the child can read 2 out of 4 sentence, then mark the child at '**Sentence Level**'  
AND

Ask the child to tell you the meaning of the sentences she has read correctly.

## PART 2: MEANING

For **WORD LEVEL CHILDREN**

For **SENTENCE LEVEL CHILDREN**

**WORD MEANINGS**

**SENTENCE MEANINGS**

Ask the child to tell the meaning of the words she has read correctly, **in her local language**.

Ask the child to tell you the meaning of the sentences she has read correctly, in her local language.



The child knows the meaning of the words, if the child can correctly tell the meaning of at least 4 of the read words. She can tell the meaning of the words by:

- Saying the correct meaning in her local language
- OR
- Pointing to an object, which explains the meaning of the word. For eg. pointing to her father while explaining the meaning of 'man'; pointing to something red to explain the meaning of 'red'.

The child knows the meaning of the sentences, if the child can correctly tell the meaning of at least 2 of the read sentences. She can tell the meaning of the sentences by:

- Saying the correct meaning in her local language
- OR
- Explaining the meaning of at least the main underlined words in the sentence. For eg. For a sentence like 'What is the time?' the child should at least be able to say 'kya/kitna' and 'samay/waqt'.

**Note: Do not ask the meaning of the main underlined words by pointing at them one by one**



If the child can correctly tell the meaning of **at least 4** of the words, then mark the child as '**Can say**' in the word meaning column.

If the child cannot correctly tell the meaning of at least 4 of the words, then mark the child as '**Cannot say**' in the word meaning column.

If the child can correctly tell the meaning of **at least 2** of the sentences, then mark the child as '**Can say**' under the sentence meaning column.

If the child cannot tell the meaning of **at least 2** of the sentences, then mark the child as '**Cannot say**' under the sentence meaning column.

NOTE: IF THE CHILD IS MARKED AT WORD LEVEL, THEN ASK ONLY WORD MEANING. IF THE CHILD IS MARKED AT SENTENCE LEVEL, THEN ASK ONLY SENTENCE MEANING.

# Note on sampling: ASER 2016 rural

The purpose of ASER is twofold: (i) to obtain reliable estimates of the status of children's schooling and basic learning (reading and arithmetic 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 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 child's local language, and arithmetic that are used in ASER 2016 are identical to those in ASER 2014. These bring together elements from various previous ASERs. From 2009-14, we retain questions on paid tuition, parents' education, household and village characteristics. For the first time, ASER 2007 introduced testing on basic English. English testing was repeated in ASER 2009, 2012 and 2014. This year we tested children once again on English. ASER 2016 also visited one government primary school in every 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. Almost 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.

2016 marks an important departure from previous ASER survey rounds. ASER 2016 is the first of a new series that uses Census 2011 as the sampling frame. All previous ASERs (2005-2014) used the 2001 Census as the sampling frame.

The sample design of ASER is a two-stage design, with villages being sampled in the first stage and households in the second stage. For ASER 2016, 30 villages were randomly selected in each district using the village directory of the 2011 Census. Because this is a new series, no villages were retained from previous ASERs. The sampling was done 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 simple random sampling in each of these 30 villages, giving a sample size of 600 households per district. This method ensures that each household in the district has an equal probability of being selected into the sample.

Each district receives a village list with appropriate block information along with the data from the 2011 Census on total number of households and total population in the village. Like past ASERs, the village list is final and cannot be replaced. This is to maintain randomness of the sample to obtain reliable estimates.

## **For further information**

The ASER team has consulted with national level sampling experts including those at NSSO and ISI. For more information, please see Frequently Asked Questions and the full sampling note in this report.





# From 2005 to 2016: Evolution of ASER<sup>1</sup>

## ASER 2005

### Age group 6–14

#### Children were asked:

- Enrollment status
- Type of school

#### Children also did:

- Reading tasks
- Arithmetic tasks

#### Other information collected:

- School information

#### Sampling:

Randomly selected  
20 ASER 2005 villages

## ASER 2006

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks
- Comprehension tasks
- Writing tasks

#### Other information collected:

- Mother's education
- Mothers were also asked to read a simple text

#### Sampling:

Randomly selected  
20 ASER 2005 villages  
10 new ASER 2006 villages

## ASER 2007

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks
- Comprehension tasks
- Problem solving tasks
- English tasks

#### Other information collected:

- Mother's education
- School information

#### Sampling:

Randomly selected  
10 ASER 2005 villages  
10 ASER 2006 villages  
10 new ASER 2007 villages

## ASER 2008

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

- Telling time
- Currency tasks

#### Other information collected:

- Mother's education

- Household characteristics
- Village information

#### Sampling:

Randomly selected  
10 ASER 2006 villages  
10 ASER 2007 villages  
10 new ASER 2008 villages

## ASER 2009

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status
- Pre-school status (Age 3–6)

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

- English tasks

#### Other information collected:

- Mother's education
- Father's education
- Mothers were also asked to read a simple text

- Household characteristics
- Village information
- School information

#### Sampling:

Randomly selected  
10 ASER 2007 villages  
10 ASER 2008 villages  
10 new ASER 2009 villages

## ASER 2010

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status
- Pre-school status (Age 3–6)

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

- Everyday math tasks

#### Other information collected:

- Mother's education
- Father's education
- Mothers were also asked to dial a mobile number

- Household characteristics
- Village information
- School information

#### Sampling:

Randomly selected  
10 ASER 2008 villages  
10 ASER 2009 villages  
10 new ASER 2010 villages

1. For more information on the evolution of ASER over the years, visit [www.asercentre.org](http://www.asercentre.org)

## ASER 2011

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status
- Pre-school status (Age 3–6)

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

#### Other information collected:

- Mother's education
- Father's education
  
- Household characteristics
- Village information
- School information

#### Sampling:

Randomly selected  
10 ASER 2009 villages  
10 ASER 2010 villages  
10 new ASER 2011 villages

## ASER 2012

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status
- Pre-school status (Age 3–6)

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

- English tasks

#### Other information collected:

- Mother's education
- Father's education
  
- Household characteristics
- Village information
- School information

#### Sampling:

Randomly selected  
10 ASER 2010 villages  
10 ASER 2011 villages  
10 new ASER 2012 villages

## ASER 2013

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status and fees
- Pre-school status (Age 3–6)

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

#### Other information collected:

- Mother's education
- Father's education
  
- Household characteristics
- Village information
- School information

#### Sampling:

Randomly selected  
10 ASER 2011 villages  
10 ASER 2012 villages  
10 new ASER 2013 villages

## ASER 2014

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status and fees
- Pre-school status (Age 3–6)

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

- English tasks

#### Other information collected:

- Mother's education
- Father's education
  
- Household characteristics
- Village information
- School information

#### Sampling:

Randomly selected  
10 ASER 2012 villages  
10 ASER 2013 villages  
10 new ASER 2014 villages

## ASER 2016

### Age group 3–16

#### Children were asked:

- Enrollment status
- Type of school
- Tuition status and fees
- Pre-school status (Age 3–6)

#### Children 5–16 also did:

- Reading tasks
- Arithmetic tasks

- English tasks

#### Other information collected:

- Mother's education
- Father's education
  
- Household characteristics
- Village information
- School information

#### Sampling:

Randomly selected  
30 new ASER 2016 villages



# Designing learning assessments: key decisions for the Indian context

In India, our current knowledge of and experience with large scale measurements of student achievement is largely based on models, measures, methods and mechanisms that have evolved over time in 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.

The objective of any assessment is to guide action to improve children's learning. As India develops and experiments with metrics and measurement, we need to consider how much of the existing assessment approaches and models are appropriate, relevant or useful for our current context. Should we modify or adapt existing paradigms? Or do we need to develop different indicators, tasks and processes that better serve our current needs and are more aligned to existing capabilities?

The architecture of ASER is based on ground realities that need to be taken into consideration if assessment data is to be translated easily into effective interventions. The table below summarizes and explains some of the key decisions that were taken as ASER evolved into the annual exercise that it is today.

Key issues	Characteristics of developed country contexts	Ground realities in India	Design elements to consider for assessment in India	Decision taken in ASER
WHERE? School or household	Universal school enrollment and comprehensive lists of all schools makes it possible to obtain a representative sample of schools and children. Hence, learning assessments can reasonably be done in school.	Not all children are enrolled in school. Of those who are, many attend unrecognized private schools or other kinds of schools. Daily attendance in school is also variable. Hence a school based assessment may not represent all children.	Given the variety of schools and variability in information available about schools, all children cannot be found in schools. (This point is further elaborated on in a later section).	ASER assessments are conducted in the household.  A representative sample of households is selected in each rural district.
HOW? <sup>1</sup> Pen-paper and group, or oral and one-on-one	By third or fourth grade, most children are reading. Since children can read, pen-paper tests can be administered.	Even after several years of attending school, many children have not acquired foundational skills like reading. Without reading, a child cannot progress. <sup>2</sup> It cannot be assumed that children can read and comprehend the contents of a pen paper test.	Children who cannot read cannot be assessed using written tests. Oral one-on-one assessment is the only meaningful option for understanding learning outcomes of a majority of primary school children in India.	ASER conducts oral one-on-one assessments with children on basic reading (in own language) and arithmetic.

<sup>1</sup> How to measure - census or sample based? This is a question that often comes up. It is important to consider the purpose of the assessment. If the objective of a measurement is to obtain reliable estimates, then, statistically well designed and carefully administered surveys can provide reliable estimates of most variables of interest. 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. For instance, poverty estimates are routinely obtained from surveys conducted by the NSS. However, a BPL ("below poverty line") census had to be undertaken in order to identify the recipients of poverty alleviation programs.

<sup>2</sup> Every year since 2005, ASER data has indicated that about half of all children in Std V cannot read at a basic Std II level.

Key issues	Characteristics of developed country contexts	Ground realities in India	Design elements to consider for assessment in India	Decision taken in ASER
WHAT? Level/subject	The gap between curriculum expectations and children's actual levels is not large; hence grade level assessments are reasonable.	Learning outcomes are far below grade level for many children currently enrolled in school. Even in upper primary grades, significant proportions of children still struggle with foundational skills. <sup>3</sup>	For the first few years of any assessment, it may be useful to focus on a few basic skills and on several stages/levels for all children, rather than implement grade wise and subject wise tests.	ASER tests <b>basic reading (in own language) and arithmetic</b> . The highest level of reading is at grade 2 level. The highest level of arithmetic is at grade 3 or 4 level.
WHAT? Age/grade	Most cross-national assessments target students in older age groups (such as PISA, which is designed for 15 year olds). By this age, the issue of non-readers does not arise.	While younger children are harder to assess, data like that generated by ASER in India indicates that children start getting left behind even in early grades in primary school. The 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.	ASER administers <b>"floor" tests in reading and arithmetic</b> which are administered to all sampled children in the age group 5 to 16.
WHAT? Simple or detailed	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.	Culture of measurement is not well developed in India. The capacity to analyze data and the ability to link assessment results to action on the ground has yet to be built at state, district, block, cluster and school level.	Simple, easy to use tools, easily understandable data, and evidence that can effectively be translated into action are all important elements that can fuel action in the Indian context. Concerted and consistent efforts over time are needed to build capacity of government officials at different levels to help them connect assessment to action for improving learning. <sup>4</sup>	Each of the ASER tools has 5 levels. The reading and arithmetic tools have tasks that are progressive in nature. Each child is recorded at the highest level that he/she can comfortably achieve.
WHAT? Basic or complex	Most parents have been to school and are therefore able to relate to, and participate in, discussions related to children's learning.	Many parents of school-going children do not have any/much education. They understand the importance of schooling but often do not understand how they can support children's "learning". Hence, there is a need to de-mystify "learning" to involve parents.	Simplicity of tools is essential in order to engage a wide range of people in understanding and supporting children's learning. Parents need to understand learning goals expected of children at different stages of the school system.	ASER tools are <b>easy to understand</b> even for illiterate parents.

<sup>3</sup> ASER 2016 indicates that even in grade VIII, close to 25% of enrolled children are unable to read fluently at grade II level. Similarly, less than half of all children in grade VIII can correctly solve a simple numerical division problem (3-digit number divided by 1-digit number).

<sup>4</sup> This is another reason why in the initial years of building assessment systems, the focus should be on a few subjects. As the system becomes increasingly capable of implementing, analysing and effectively using data, more subjects and more levels can be incrementally incorporated.

Key issues	Characteristics of developed country contexts	Ground realities in India	Design elements to consider for assessment in India	Decision taken in ASER
WHEN? Periodic or annual	Assessment systems operate at different levels to measure children's learning and feed this information back into the system.	National large scale learning assessments are done with a gap of several years. Frequent, regular, timely and current assessments are needed to bring about a significant change in priorities and mindsets.	To make data useful for action, assessment findings should be available at predictable intervals that are designed to fit into the school planning and implementation calendar.	ASER is <b>done annually</b> , except for a break of one year in 2015. The assessment timeline is the same every year. <sup>5</sup> ASER 2016 is the eleventh report in this series.
SCALE? National, state or other		In the elementary education sector, the unit for planning, allocation and implementation is the district and the city.	To make data useful, learning estimates are needed at district level as well as state and national levels.	ASER aims to reach <b>all rural districts</b> each year. <sup>6</sup> Estimates of learning are generated at national, state, and district levels.
WHO? School system and/or others	Most school based testing (whether cross country assessments or national assessments) is carried out by the schools or in close collaboration with the education system.	In developed countries, years of schooling are highly correlated to "value" added in terms of learning for each year spent in school. This is not the case in India, or in many developing countries.	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.	ASER <b>partners with local institutions and organizations in each district</b> 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>7</sup>
FOR WHOM?	Depending on the purpose of the measurement, there are different stakeholders for assessment data. International tests and cross country data are often of interest to donors and international agencies and sometimes, governments too, who want comparable data across contexts.	Currently the grade 10 examinations (at age 16) are the first "external" measurements of student learning. These exams are run by state and national examination authorities. Not much common benchmarking of student progress takes place prior to this.	Given that children are often far behind grade level even in early grades, it is essential to implement a system to track children's progress in primary school itself. It is important to do this in ways that respond to the needs of teachers and parents.	ASER makes data available even for early grades. It is <b>easy, both to collect and to understand, thus facilitating appropriate action</b> to improve children's learning.

<sup>5</sup> Each year data collection for ASER is carried out between September and November and the report is released in mid January of the following year. Thus data for the current school year is available in that year itself. Further, the data for the year is available before plans for the following year are finalized.

<sup>6</sup> ASER has not been done in urban areas, for several reasons. For example, many urban areas have a large proportion of low income, undocumented populations that are not covered by the available sampling frames. Also, a representative sample of 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 single urban authority in a state with whom educational planning can be discussed for the state as a whole.

<sup>7</sup> The involvement of college students has several advantages. First, in many districts, these college students are the "success" cases of the school system and often the first generation in their families to reach beyond school. As they grow up, they will be opinion makers in their local areas. Second, even while they are students, the ASER experience gives them firsthand experience of how to collect data and how to understand evidence - these are important inputs into an education system that neither provides applied hands-on experiences nor inculcates a culture of measurement. Finally, past ASER experience shows that many teacher training colleges are interested in this approach and with some help often get involved in enabling teacher-trainees to work in schools to improve learning outcomes of children in schools in their district.

The national picture



# ASER 2016 (Rural) findings

ASER 2016 reached 589 rural districts across India. The survey was carried out in 17,473 villages, covering 350,232 households and 562,305 children in the age group 3-16.

## **At the all India level, enrollment increased for all age groups between 2014 and 2016.**

- Enrollment for the age group 6-14 has been 96% or above since 2009. This proportion increased from 96.7% in 2014 to 96.9% in 2016.
- Enrollment for the age group 15-16 has also improved for both boys and girls, rising from 83.4% in 2014 to 84.7% in 2016.
- However, in some states, the fraction of out of school children (age 6-14) has increased between 2014 and 2016. These include Madhya Pradesh (from 3.4% to 4.4%), Chhattisgarh (from 2% to 2.8%), and Uttar Pradesh (from 4.9% to 5.3%).
- In some states the proportion of girls (age group 11-14) out of school remains greater than 8%. These states are Rajasthan (9.7%) and Uttar Pradesh (9.9%). Joining them in 2016 is Madhya Pradesh (8.5%).

## **No increase in private school enrollment between 2014 and 2016.**

- At the all India level, the proportion of children (age 6-14) enrolled in private schools is almost unchanged at 30.5% in 2016, as compared to 30.8% in 2014.
- The gender gap in private school enrollment has decreased slightly in both the 7-10 and the 11-14 age group. In 2014, among children age 11-14, the gap between boys' and girls' enrollment in private school was 7.6 percentage points. In 2016, this gap had decreased to 6.9 percentage points.
- Two states show significant increases in government school enrollment relative to 2014 levels. In Kerala, the proportion of children (age 11-14) enrolled in government school increased from 40.6% in 2014 to 49.9% in 2016. In Gujarat, this proportion increased from 79.2% in 2014 to 86% in 2016.
- Three states show substantial increases since 2014 in private school enrollment among children in the elementary school age group (age 6-14): Uttarakhand (from 37.5% to 41.6%), Arunachal Pradesh (from 24.4% to 29.5%), and Assam (from 17.3% to 22%).

## **Nationally, reading ability has improved especially in early grades in government schools.**

- Nationally, the proportion of children in Std III who are able to read at least Std I level text has gone up slightly, from 40.2% in 2014 to 42.5% in 2016. This proportion shows substantial increases among children in government schools in many states: Punjab, Uttarakhand, Haryana, Chhattisgarh, Gujarat, Maharashtra and Telangana. All these states show an improvement of more than 7 percentage points since 2014.
- Overall reading levels in Std V are almost the same year on year from 2011 to 2016. However, the proportion of children in Std V who could read a Std II level text improved by more than 5 percentage points from 2014 to 2016 in Gujarat, Maharashtra, Tripura, Nagaland and Rajasthan. This improvement is driven by gains in learning levels in government schools in these states.
- Nationally, reading levels in Std VIII show a slight decline since 2014 (from 74.7% to 73.1%). Then and now, three out of every four children enrolled in Std VIII can read at least Std II level (the highest level assessed in the ASER survey). The state-wise picture for Std VIII reading levels does not show much improvement except for government schools in Manipur, Rajasthan, Maharashtra and Tamil Nadu.



### **Arithmetic shows improvement in government schools in primary grades.**

- Although low, the all India (rural) figures for basic arithmetic have improved slightly for Std III in 2016 as compared to 2014. This is the first year since 2010, that there is an upward trend in arithmetic figures.
- In 2014, for the country 25.4% of Std III children could do a 2-digit subtraction. This number has risen slightly to 27.7% in 2016. This improvement has come primarily from government schools where the percentage of Std III children who could do a 2-digit subtraction increased from 17.2% in 2014 to 20.2% in 2016.
- In almost all states there is some improvement in the arithmetic levels of children enrolled in government schools in Std III. States with an increase of 5 percentage points or more since 2014 include Himachal Pradesh, Uttarakhand, Gujarat, Andhra Pradesh, Telangana, Odisha and Chhattisgarh.
- From 2014 to 2016, for Std V children, the level of arithmetic as measured by children's ability to do simple division problems has remained almost the same at 26%. Only five major states show an improvement of more than 5 percentage points. These are Himachal Pradesh, Madhya Pradesh, Odisha, Chhattisgarh and Uttarakhand.
- However, the ability to do division among Std VIII students has continued to drop. This declining trend has been observed since 2010. The proportion of Std VIII students who could correctly do a 3-digit by 1-digit division problem was 68.4% in 2010. This number dropped to 44.2% in 2014, and has further declined to 43.3% in 2016. Only children in Manipur, Karnataka and Telangana show an increase of 5 percentage points or more.

### **Ability to read English is unchanged for lower primary grades.**

Assessments of basic English have been carried out in 2007, 2009, 2012, 2014 and 2016.

- Children's ability to read English is slightly improved in Std III but relatively unchanged in Std V. In 2016, 32% children in Std III could read simple words in English as compared to 28.5% in 2009.
- In comparison, in 2016, 24.5% of children enrolled in Std V could read simple English sentences. This number is virtually unchanged since 2009. However, a few states show improvements since 2014 for government school children enrolled in Std V. These states are Himachal Pradesh, Uttarakhand, Haryana, Maharashtra and Kerala (all with improvements of 5 percentage points or more). In nine states, the levels of English reading of private schools has also improved. These are Himachal Pradesh, Punjab, Assam, Jharkhand, Chhattisgarh, Madhya Pradesh, Tamil Nadu, Andhra Pradesh and Telangana.
- However, the decline in upper primary grades continues. For example, in 2009, 60.2% of children in Std VIII could read simple sentences in English; in 2014, this figure was 46.7% and in 2016 this ability has further declined to 45.2%.
- In 2016, of those who can read words (regardless of grade), roughly 60% could explain the meanings of the words read. Of those who can read sentences, 62.4% in Std V could explain the meaning of the sentences. Both these levels are virtually unchanged since 2014.

## School observations

As part of the ASER survey, one government school with primary sections is visited in each sampled village.

ASER 2016 visited 15,630 government schools with primary sections. Of these 9,644 were primary schools and 5,986 were upper primary schools which also had primary sections.

### Children's attendance shows no major change from 2014.

- In 2016, ASER data indicates that 71.4% of enrolled children in primary schools and 73.2% of enrolled children in upper primary schools were present on the day of the visit. In 2014, these figures were 71.3% in primary schools and 71.1% in upper primary schools.
- As in previous years, children's attendance varies considerably across the country. States like Himachal Pradesh, Punjab, Uttarakhand, Haryana, Nagaland, Mizoram, Gujarat, Maharashtra, Karnataka, Andhra Pradesh, Kerala and Tamil Nadu have attendance levels that are above 80%. But in states like Uttar Pradesh, Bihar, Manipur, West Bengal, and Madhya Pradesh, attendance rates range from 50 to 60%.
- Trends over time show that children's attendance in both primary and upper primary schools was higher in 2009 as compared to 2016. In 2009, attendance was at 74.3% in primary schools. The figure for 2016 is 71.4%. Similar data for upper primary schools shows a decline from 77% in 2009 to 73.2% in 2016.

### The proportion of "small schools" in the government primary school sector continues to grow. The percentage of multigrade classrooms has also increased.

- Of the government primary schools visited in 2016, close to 40% are "small schools" with a total enrollment of 60 children or less. 8.9% of the upper primary schools visited had a total enrollment of 60 children or less.
- In 2009, the percentage of government primary schools visited that were "small" was 26.1%. The corresponding number for upper primary schools was 4.5%.
- ASER also notes the proportion of children enrolled in Std II and Std IV who are sitting with other grades. This proportion has been going up over time. In primary schools, in 2010, 55.2% of Std II classes sat with other grades. This figure has gone up to 63.7% in 2016. Similar trends are also visible for Std IV. The proportion of classes in which Std IV children are sitting with other grades increased from 49% in 2010 to 58% in 2016.

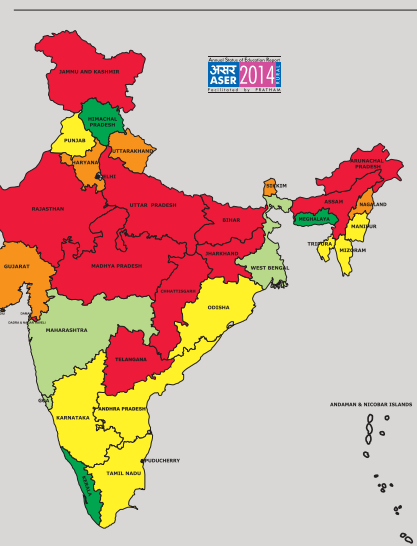
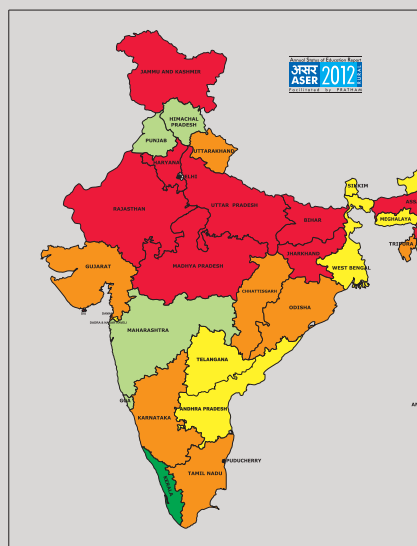
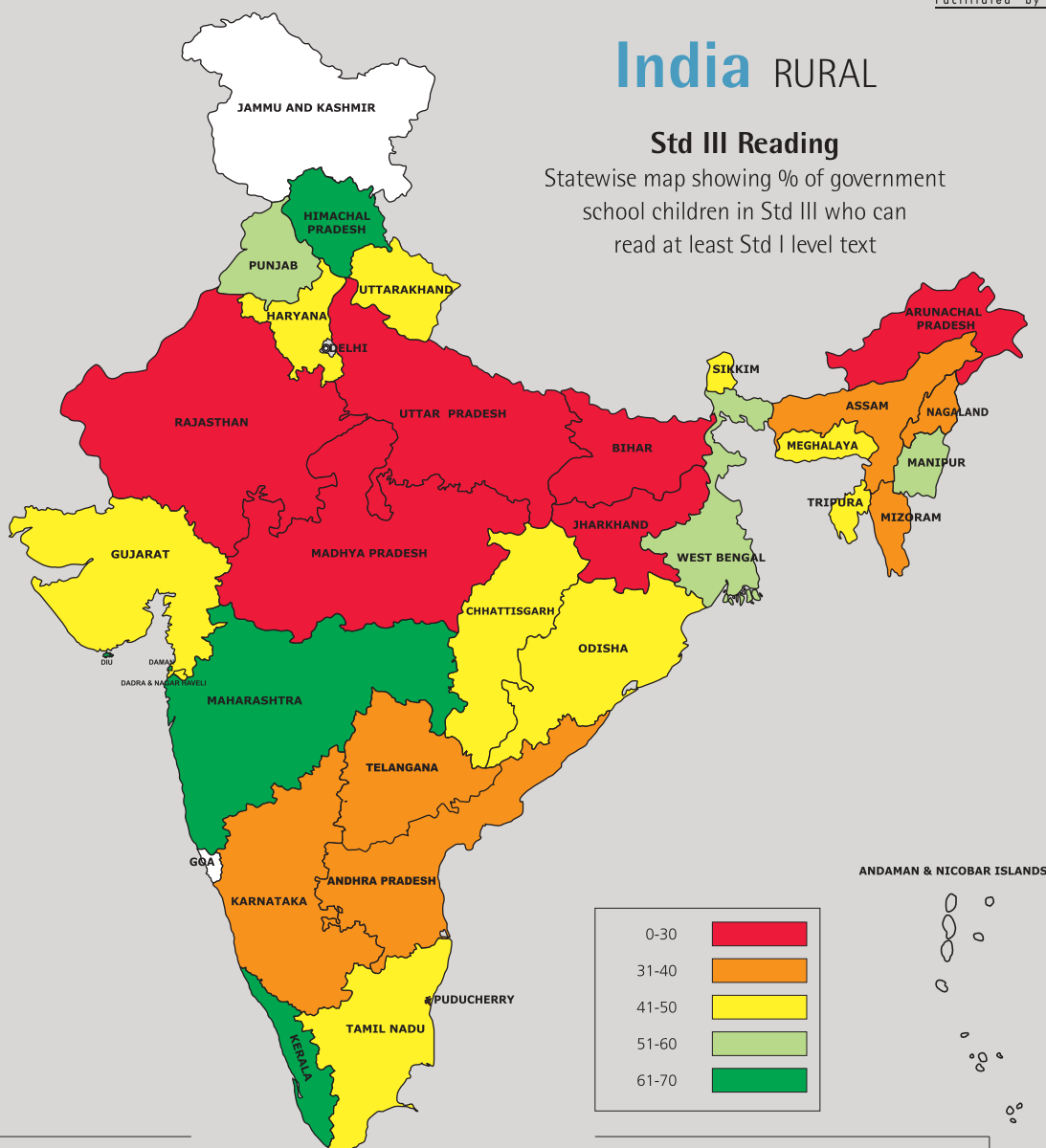
### For the most part, improvement in school facilities continues.

- ASER records whether toilets are available and useable on the day of the visit. Since 2010, there has been significant progress in the availability of useable toilets. Nationally in 2016, 68.7% of schools visited had toilet facilities that were useable as compared 47.2% in 2010. In 2016, only 3.5% of the schools visited had no toilet facility.
- The proportion of schools visited where girls' toilets were available and useable has gone up from 32.9% in 2010 to 55.7% in 2014 to 61.9% in 2016. In four states, 80% or more schools visited had useable girls' toilets. These states are Gujarat, Rajasthan, Himachal Pradesh and Haryana.
- Drinking water was available in 74.1% of the schools that were visited in 2016, down from 75.6% in 2014. In 2010, this figure was 72.7%. In four states (Bihar, Chhattisgarh, Gujarat and Himachal Pradesh), drinking water was available in 85% or more of schools.
- There has been no change in the availability of computers in schools since 2014. The 2016 figure is 20% as compared to 19.6% in 2014. However, some states stand out in terms of high provision of computers. In Kerala, 89% of schools visited had computers; this number was 75.2% in Gujarat, 55.1% in Maharashtra and 57.3% in Tamil Nadu.
- The proportion of schools with libraries has fallen from 78.1% in 2014 to 75.5% in 2016. However, children were seen using library books in more schools in 2016. In 42.6% of schools that were visited, children were seen using library books as compared to 40.7% in 2014.

# India RURAL

## Std III Reading

Statewise map showing % of government school children in Std III who can read at least Std I level text



Maps may not be accurate or to scale. These are mere representations.

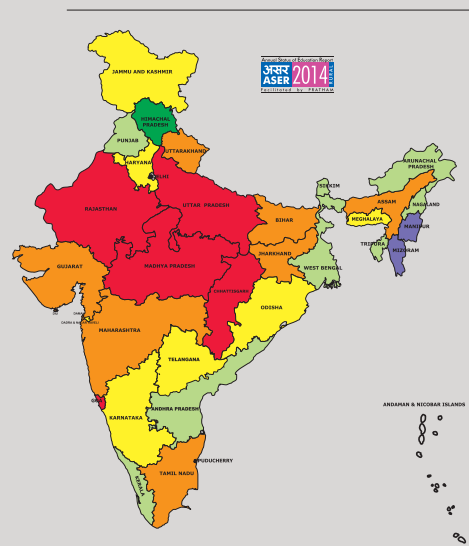
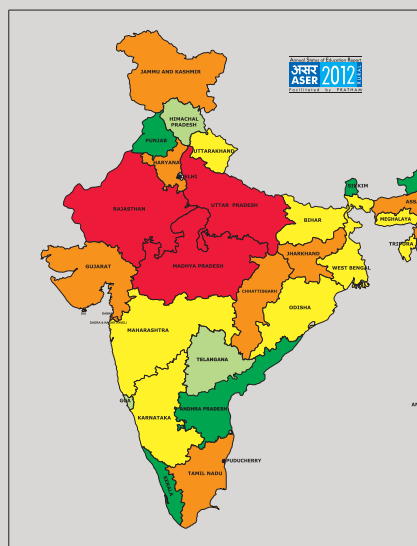
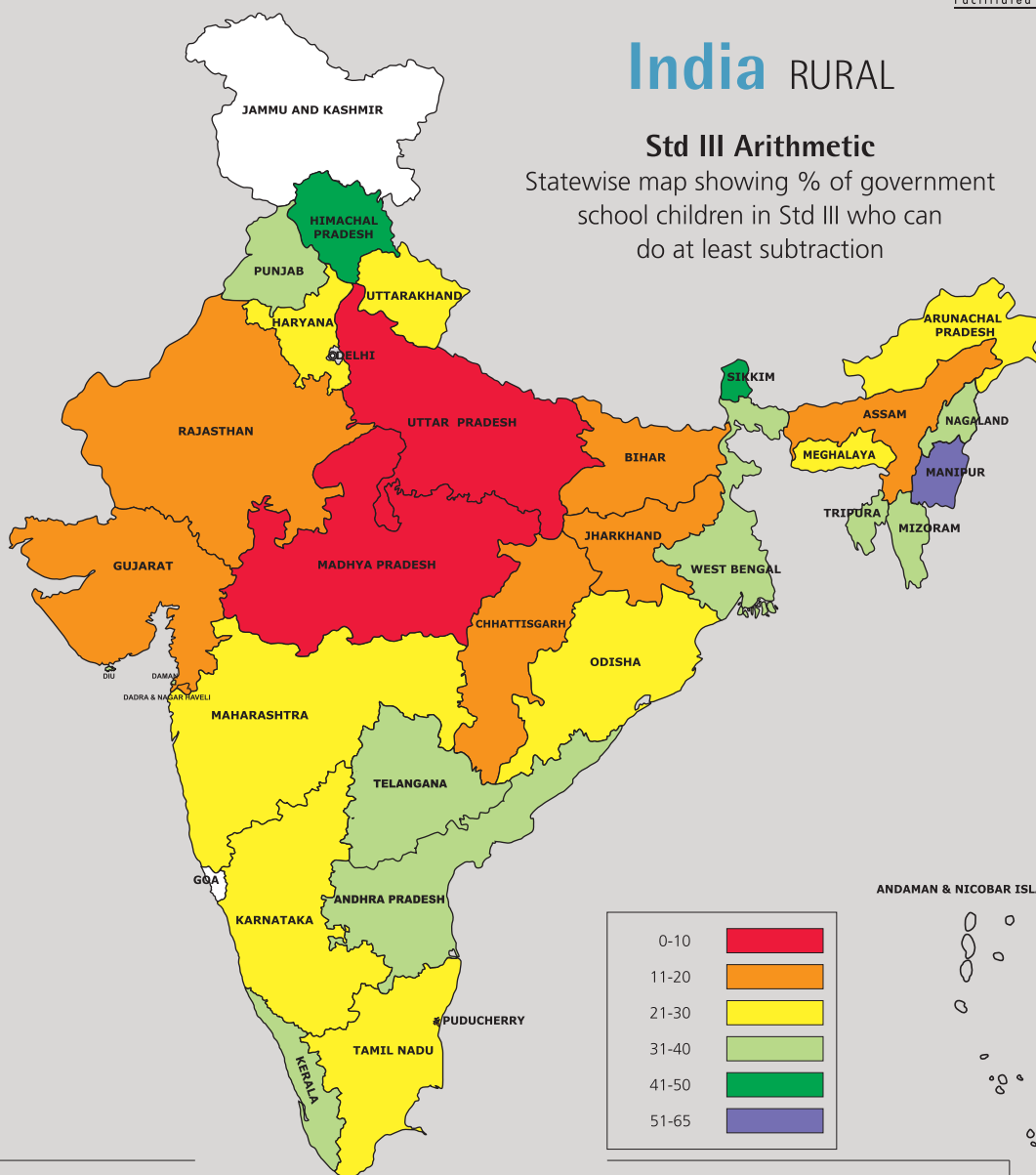
Andhra Pradesh was bifurcated into Telangana and Andhra Pradesh in 2014. As a result, the sample frames of Census 2001 and Census 2011 do not have the new state divisions. Of the 22 districts in undivided Andhra Pradesh, 9 rural districts are located in Telangana and the remaining 13 districts are located in Andhra Pradesh. ASER estimates for the two states are based on this separation of districts.

Due to security concerns, ASER 2016 was unable to reach 10 districts in Kashmir Valley and 3 districts in Jammu. Therefore, state level estimates are not available for Jammu and Kashmir for 2016.

# India RURAL

## Std III Arithmetic

Statewise map showing % of government school children in Std III who can do at least subtraction



Maps may not be accurate or to scale. These are mere representations.

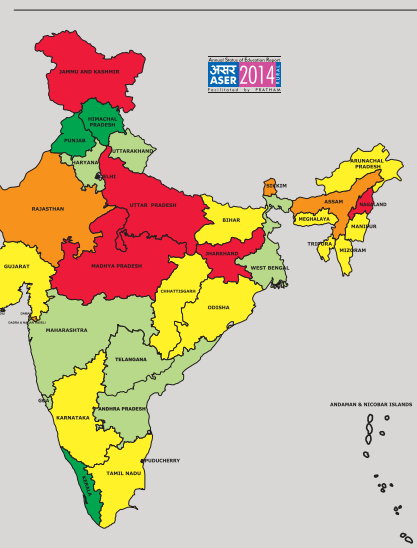
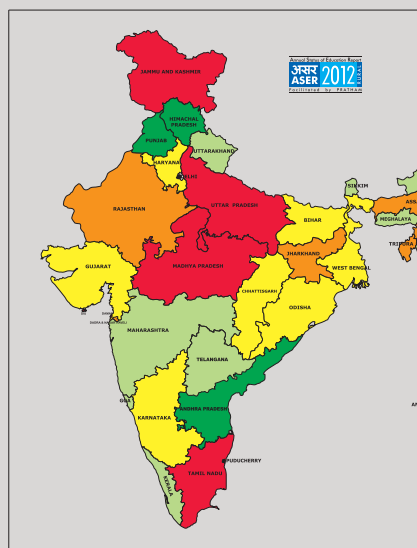
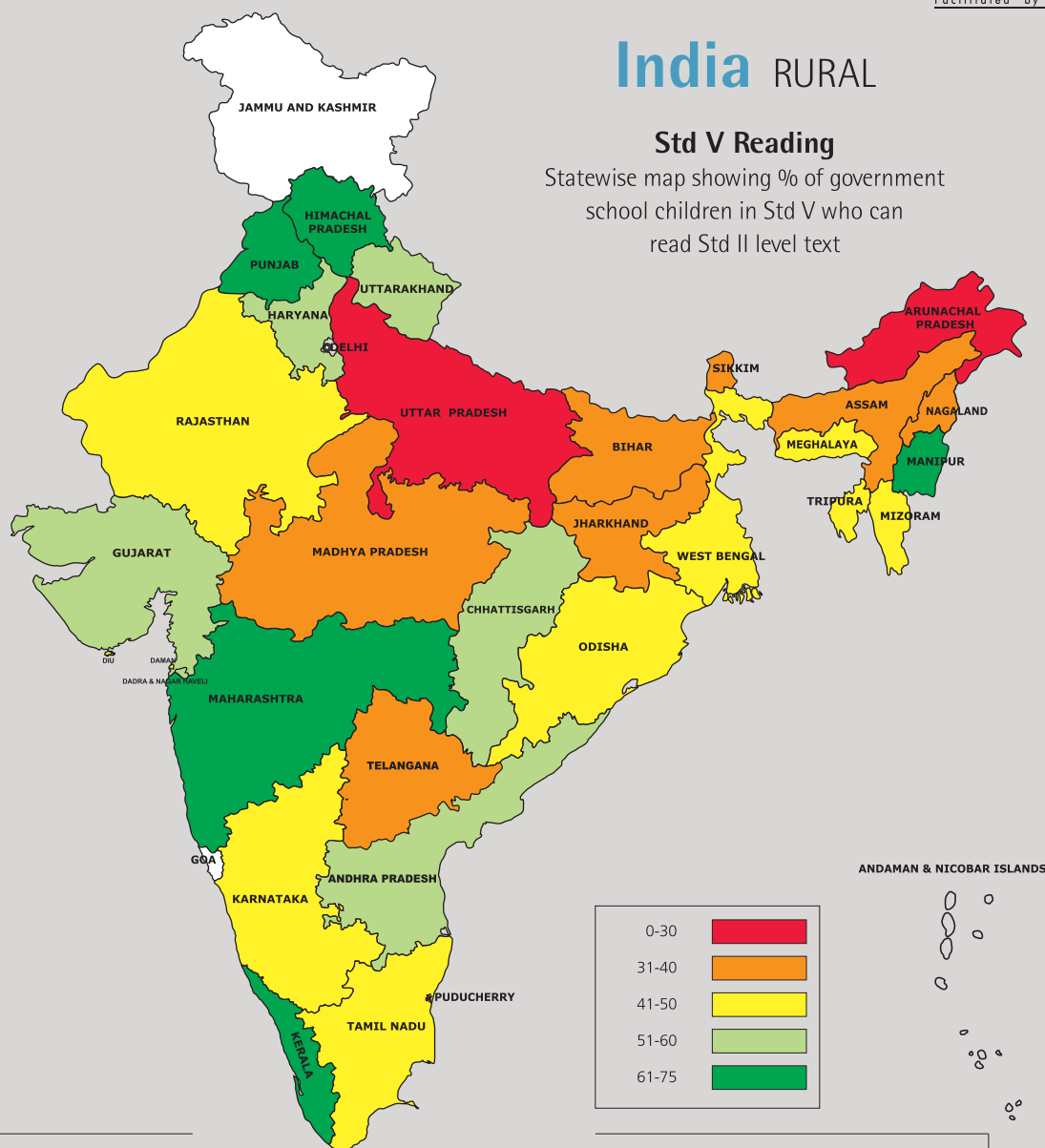
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Due to security concerns, ASER 2016 was unable to reach 10 districts in Kashmir Valley and 3 districts in Jammu. Therefore, state level estimates are not available for Jammu and Kashmir for 2016.

# India RURAL

## Std V Reading

Statewise map showing % of government school children in Std V who can read Std II level text



Maps may not be accurate or to scale. These are mere representations.

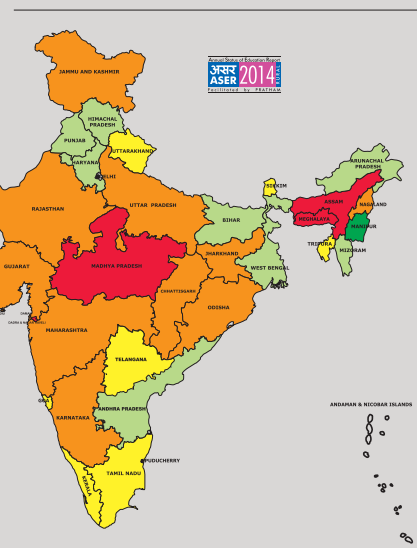
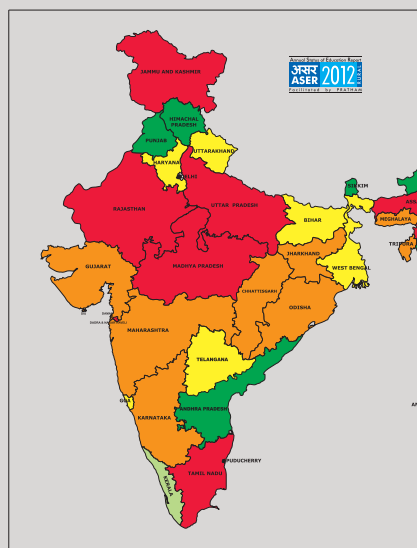
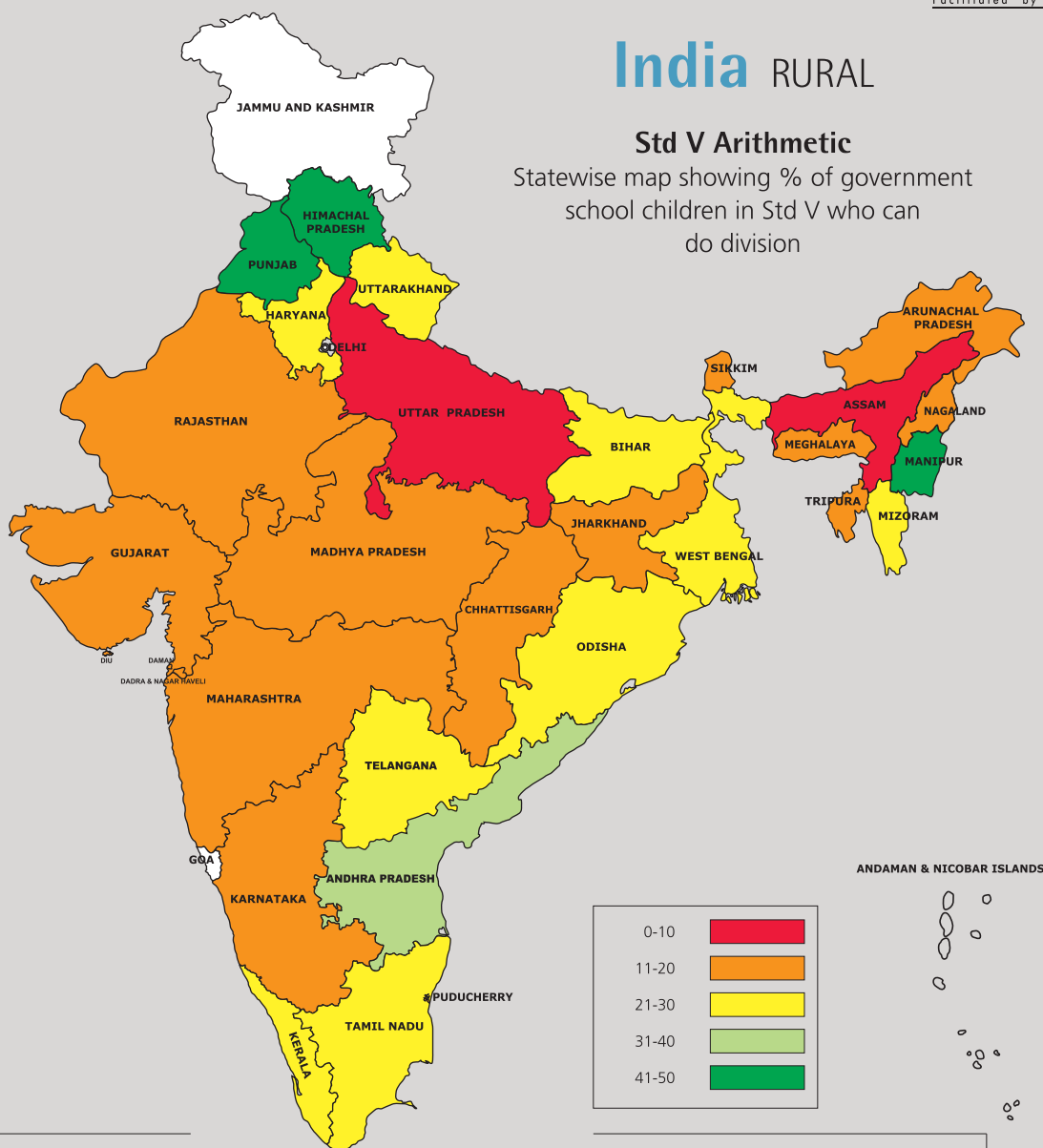
Andhra Pradesh was bifurcated into Telangana and Andhra Pradesh in 2014. As a result, the sample frames of Census 2001 and Census 2011 do not have the new state divisions. Of the 22 districts in undivided Andhra Pradesh, 9 rural districts are located in Telangana and the remaining 13 districts are located in Andhra Pradesh. ASER estimates for the two states are based on this separation of districts.

Due to security concerns, ASER 2016 was unable to reach 10 districts in Kashmir Valley and 3 districts in Jammu. Therefore, state level estimates are not available for Jammu and Kashmir for 2016.

# India RURAL

## Std V Arithmetic

Statewise map showing % of government school children in Std V who can do division



Maps may not be accurate or to scale. These are mere representations.

Andhra Pradesh was bifurcated into Telangana and Andhra Pradesh in 2014. As a result, the sample frames of Census 2001 and Census 2011 do not have the new state divisions. Of the 22 districts in undivided Andhra Pradesh, 9 rural districts are located in Telangana and the remaining 13 districts are located in Andhra Pradesh. ASER estimates for the two states are based on this separation of districts.

Due to security concerns, ASER 2016 was unable to reach 10 districts in Kashmir Valley and 3 districts in Jammu. Therefore, state level estimates are not available for Jammu and Kashmir for 2016.





## School enrollment

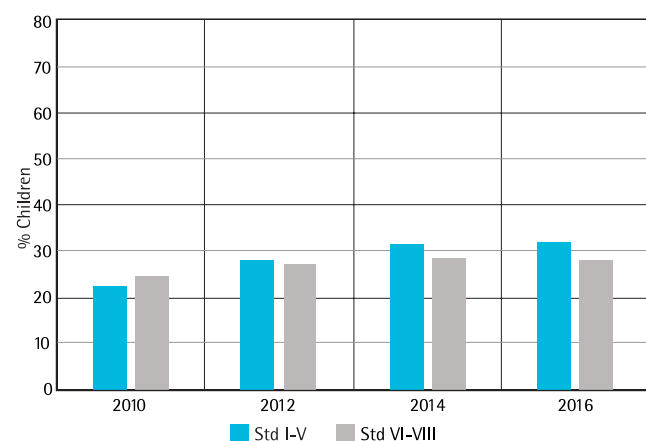
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	65.4	30.5	1.0	3.1	100
Age 7-16: All	63.7	30.1	1.0	5.3	100
Age 7-10: All	65.0	32.0	1.1	1.9	100
Age 7-10: Boys	61.6	35.6	1.1	1.8	100
Age 7-10: Girls	68.7	28.2	1.1	2.0	100
Age 11-14: All	65.5	28.9	0.9	4.6	100
Age 11-14: Boys	62.5	32.4	0.9	4.1	100
Age 11-14: Girls	68.4	25.6	0.9	5.2	100
Age 15-16: All	55.8	28.1	0.8	15.3	100
Age 15-16: Boys	54.1	30.5	0.8	14.6	100
Age 15-16: Girls	57.2	26.0	0.8	16.1	100

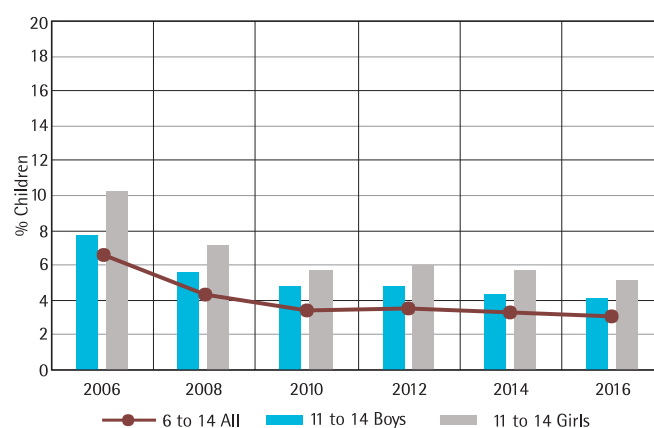
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	21.9	43.0	21.6	8.1	5.4							100		
II	3.2	13.4	38.6	29.8	7.4	7.6							100	
III	3.1	12.2	39.9	27.1	11.2	6.4							100	
IV	4.1	14.2	33.9	32.8	7.3	5.2	2.6							100
V	5.5	9.1	41.7	26.3	11.4	6.0							100	
VI	4.1	13.3	34.6	34.3	8.5	5.2							100	
VII	5.1	10.6	41.6	29.2	9.3	4.2					100			
VIII	4.5	15.2	39.9	28.7	8.5	3.3					100			

This table shows the age distribution for each grade. For example, in Std III, 39.9% children are 8 years old but there are also 12.2% who are 7, 27.1% who are 9, 11.2% who are 10, and 6.4% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	53.6	8.2				38.3	100
Age 4	52.3	22.5				25.3	100
Age 5	22.5	17.7	30.7	17.5	0.9	10.6	100
Age 6	5.6	10.3	53.3	25.1	1.0	4.9	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	46.1	31.7	12.4	5.0	4.8	100
II	23.5	31.5	19.8	11.8	13.4	100
III	13.6	24.1	19.9	17.3	25.1	100
IV	8.5	17.2	17.7	19.2	37.4	100
V	6.0	13.3	14.2	18.6	47.8	100
VI	4.0	9.6	11.6	18.0	56.9	100
VII	2.8	7.2	8.9	15.1	66.1	100
VIII	2.0	5.4	6.5	13.0	73.0	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 13.6% cannot even read letters, 24.1% can read letters but not words or higher, 19.9% 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 25.1% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

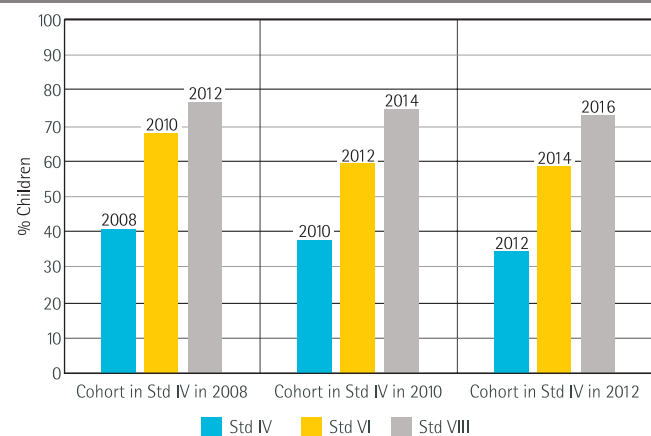
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	16.8	29.7	19.6
2012	16.7	33.8	21.5
2014	17.2	37.8	23.6
2016	19.3	38.0	25.2

\* 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.

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



This graph shows the progress of three 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

Std II level text	Std I level text
<p>नगमा समझदार लड़की थी। मगर उसका छोटा भाई अमन बहुत नटखट था। एक दिन दोनों बाज़ार में घूम रहे थे। अमन ने रास्ते में पकौड़े देखे। उसे पकौड़े बहुत पसंद थे। माँ उसके लिए पकौड़े बनाती थी। नगमा ने कहा यह पकौड़े तीखे होंगे। मगर अमन नहीं माना। अमन ने पकौड़े खाए और उसकी आँखों से आँसू निकलने लगे।</p>	<p>रात हो गई है। चाँद दिख रहा है। तारे भी चमक रहे हैं। सब लोग सो गए हैं।</p>
<p>न प म च स थ ग द र ल</p>	<p>Letters: आग सोच, ताला, गिर पानी, मौका धुन, देश, पैसा बूढ़ा</p>

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	50.7	64.2	53.7	82.0	87.5	83.5
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	41.6	62.9	47.8	70.0	80.9	73.1

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	39.9	35.1	20.0	3.5	1.5	100
II	17.7	35.0	32.8	10.6	3.8	100
III	9.3	27.6	35.6	19.2	8.4	100
IV	5.8	19.8	32.7	25.3	16.6	100
V	4.0	15.5	30.0	24.6	25.9	100
VI	2.5	11.4	28.7	24.9	32.5	100
VII	2.0	8.1	27.7	24.5	37.7	100
VIII	1.2	6.1	26.2	23.3	43.2	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 9.3% cannot even recognize numbers 1-9, 27.6% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 35.6% can recognize numbers up to 99 but cannot do subtraction, 19.2% can do subtraction but cannot do division, and 8.4% can do division. For each grade, the total of these exclusive categories is 100%.

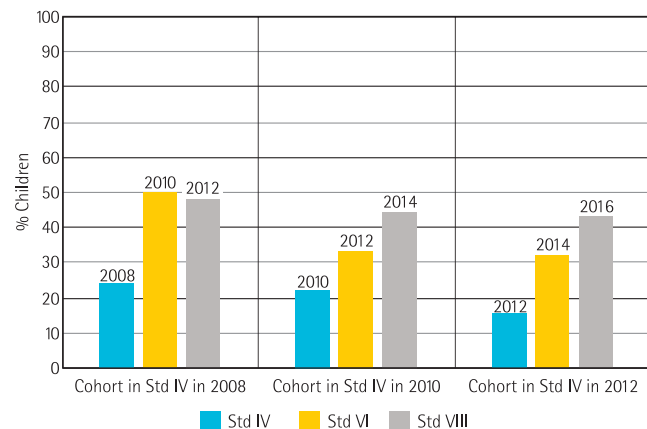
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	33.2	47.8	36.3
2012	19.8	43.4	26.4
2014	17.2	43.4	25.4
2016	20.2	44.0	27.7

\* 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.

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



This graph shows the progress of three 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.

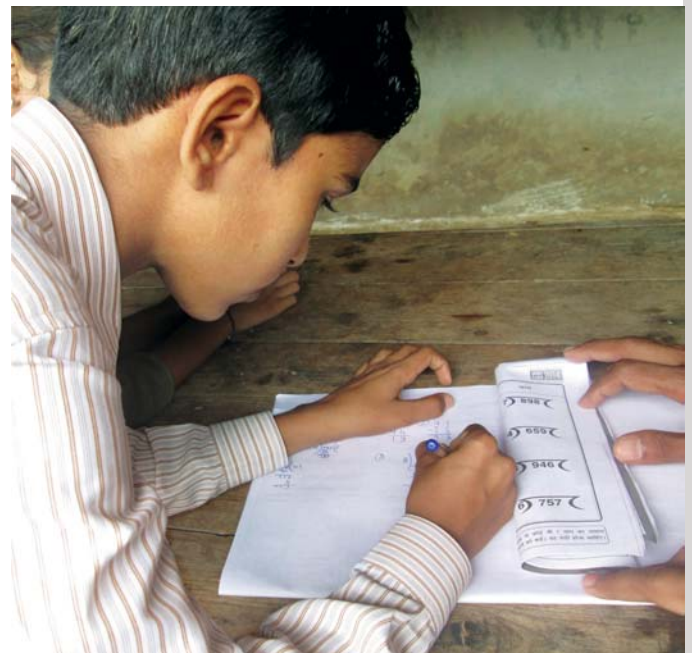
## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		भाग
5	7	74	23	63 - 44	51 - 35	7) 898
8	4	91	86	92 - 48	71 - 35	4) 659
2	9	24	79	45 - 27	34 - 19	8) 946
3	1	37	61	43 - 29	46 - 17	6) 757

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	33.9	44.2	36.2	67.0	72.0	68.4
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	37.9	26.0	40.2	51.2	43.3

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	53.2	16.8	17.2	9.6	3.2	100
II	33.2	20.3	24.2	14.6	7.7	100
III	22.8	19.1	26.2	19.3	12.7	100
IV	16.0	16.1	26.3	23.0	18.5	100
V	11.9	13.7	25.6	24.3	24.5	100
VI	8.2	11.0	23.5	25.7	31.7	100
VII	5.9	8.9	20.8	26.1	38.2	100
VIII	4.5	7.2	18.4	24.7	45.2	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 22.8% cannot even read capital letters, 19.1% can read capital letters but not small letters or higher, 26.2% can read small letters but not words or higher, 19.3% can read words but not sentences, and 12.7% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	60.9	42.4
II	60.2	50.9
III	61.6	56.5
IV	59.8	60.7
V	59.9	62.4
VI	59.7	64.7
VII	59.8	65.9
VIII	60.8	67.8

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	61.5	55.8	52.3	51.1
	Govt. + Tuition	15.7	15.3	15.7	16.6
	Pvt. no tuition	17.7	22.4	24.0	24.3
	Pvt. + Tuition	5.0	6.5	8.1	7.9
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	54.6	53.1	50.7	50.7
	Govt. + Tuition	20.3	19.3	20.2	21.1
	Pvt. no tuition	19.2	21.6	22.6	22.0
	Pvt. + Tuition	5.9	6.0	6.4	6.2
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	50.3	35.7	8.1	5.9	100
Std I-V	Pvt.	26.4	35.0	18.2	20.4	100
Std VI-VIII	Govt.	27.4	45.8	14.1	12.8	100
Std VI-VIII	Pvt.	17.9	34.5	20.9	26.7	100

Data is not presented where sample size is insufficient.

## Performance of states

**Table 14: Private school enrollment, girls not in school, and learning levels by state 2016**

State	Private school	Not in school	Std III: Learning levels		Std V: Learning levels		Std VIII: Learning levels	
	% Children (Age 6-14) enrolled in private schools	% Girls (Age 11-14) 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	34.2	3.6	22.7	48.1	55.1	37.2	77.8	50.4
Arunachal Pradesh	29.5	2.2	11.8	31.6	25.5	19.0	68.0	55.5
Assam	22.0	4.1	17.2	26.5	38.0	13.6	63.6	28.6
Bihar	12.9	4.4	20.7	27.1	42.0	32.6	75.1	62.3
Chhattisgarh	19.9	3.7	28.1	20.0	55.9	23.0	73.5	28.1
Gujarat	10.2	4.9	23.0	19.6	53.0	16.1	76.6	34.8
Haryana	55.7	3.4	46.1	54.7	68.3	48.9	83.7	65.4
Himachal Pradesh	38.5	0.4	47.0	57.4	70.5	53.7	87.9	59.2
Jharkhand	17.4	5.7	16.4	20.4	36.4	23.5	67.8	42.7
Karnataka	27.4	2.1	19.8	29.0	42.1	19.7	70.1	42.1
Kerala	54.8	0.1	45.5	45.6	69.2	38.6	85.3	53.0
Madhya Pradesh	24.7	8.5	16.6	13.8	38.7	19.4	64.3	33.4
Maharashtra	38.3	1.9	40.7	23.9	62.5	20.3	75.8	31.5
Manipur	71.7	2.1	32.2	59.7	70.7	52.5	91.4	78.6
Meghalaya	55.2	2.6	19.3	22.2	47.9	10.7	85.8	31.4
Mizoram	30.9	2.6	10.3	36.9	46.0	27.7	83.5	76.5
Nagaland	42.4	1.7	15.5	42.7	50.1	21.2	88.0	65.7
Odisha	8.9	3.7	35.4	33.9	51.6	26.6	72.6	39.6
Punjab	51.6	1.2	35.1	48.8	69.2	47.9	86.3	58.0
Rajasthan	39.2	9.7	23.7	21.5	54.2	28.2	80.9	46.7
Tamil Nadu	32.7	0.6	17.7	24.8	45.2	21.4	71.0	44.8
Telangana	40.4	4.7	18.6	42.2	47.1	30.4	75.8	55.1
Tripura	9.7	1.4	28.0	36.0	51.0	19.9	75.0	32.6
Uttar Pradesh	52.1	9.9	22.5	23.2	43.2	22.6	67.9	37.4
Uttarakhand	41.6	1.9	38.5	36.7	63.7	37.0	81.3	46.0
West Bengal	9.3	1.8	38.8	39.6	50.2	29.0	72.1	31.7
All India	30.5	5.2	25.1	27.6	47.8	25.9	73.0	43.2





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	83.7	76.8	85.2
April 2011 to March 2012	86.5	79.0	89.1
April 2013 to March 2014	79.6	67.5	17.7
April 2015 to March 2016	80.8	67.3	13.6

**Table 20: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	55.1	50.9	53.2
April 2012 to date of survey (2012)	56.0	51.2	54.7
April 2014 to date of survey (2014)	41.2	34.3	7.6
April 2016 to date of survey (2016)	54.3	45.5	13.4

Note for Tables 19 and 20: Grant information was not collected in ASER 2013.

**Table 21: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	15.3	11.4
	White wash/plastering	55.9	55.4
Repair	Repair of drinking water facility	46.8	49.7
	Repair of toilet	38.6	43.6
Purchase	Mats, Tat patti etc.	50.6	52.2
	Charts, globes or other teaching material	62.3	63.0

**Table 22: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	94.0	94.8
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	10.7	7.6
Between July and September	74.1	63.0
After September	15.2	29.4

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



Data is not presented where sample size is insufficient.

Table 23: Trends over time Performance of schools with respect to selected Right to Education indicators by state 2010, 2012, 2014 and 2016																					
State	Number of schools visited 2010	Number of schools visited 2012	Number of schools visited 2014	Number of schools visited 2016	PTR & CTR				School facilities												
					% Schools complying with:				% Schools that have:												
					Pupil-teacher ratio		Classroom-teacher ratio		Office/store/office cum store		Playground										
					2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016	
Andhra Pradesh	374	387	380	380	60.0	53.8	47.5	58.6	53.9	62.8	76.0	70.6	70.6	57.0	48.0	53.2	58.5	61.2	58.2	57.4	54.2
Arunachal Pradesh	259	178	189	212	78.0	75.3	69.4	71.1	79.8	77.6	68.7	84.3	84.3	77.7	79.1	75.6	82.9	58.9	59.3	61.7	68.5
Assam	519	492	597	700	33.6	35.2	34.0	35.2	67.7	64.4	70.1	73.5	73.5	57.5	49.3	52.1	53.9	61.5	59.3	56.3	68.7
Bihar	967	1057	1088	1111	8.8	8.5	12.7	11.7	48.2	56.7	60.5	65.8	65.8	69.0	69.0	77.7	83.2	48.3	43.1	50.9	47.5
Chhattisgarh	425	430	442	473	39.6	48.3	53.8	55.2	64.2	70.2	68.1	67.9	67.9	79.0	80.9	82.3	84.4	45.0	49.2	64.2	67.2
Gujarat	623	692	720	644	62.7	55.3	69.0	81.6	84.2	89.7	90.5	90.5	90.5	80.2	79.0	86.2	82.1	75.5	79.7	88.1	79.4
Haryana	528	513	577	593	40.3	40.3	46.0	52.6	75.1	76.7	70.4	77.5	77.5	85.8	84.0	84.5	89.6	79.7	82.3	81.8	84.3
Himachal Pradesh	261	239	277	283	60.6	68.0	60.7	61.5	76.7	78.4	78.2	81.5	81.5	75.9	74.8	79.3	82.0	75.6	74.3	81.0	81.9
Jharkhand	547	438	625	576	11.2	15.0	21.9	22.4	81.2	76.9	83.1	82.2	82.2	84.9	85.0	87.7	83.9	37.9	37.5	33.3	33.3
Karnataka	769	756	712	808	69.4	66.9	70.4	72.8	82.8	83.2	84.1	84.7	84.7	72.1	76.2	78.7	80.6	66.0	73.1	72.0	73.0
Kerala	275	347	265	328	89.2	92.0	96.6	91.7	80.3	89.5	89.4	93.2	93.2	88.4	91.3	96.5	95.2	76.3	66.5	74.7	81.7
Madhya Pradesh	1219	1211	1257	1457	19.4	32.9	48.6	51.6	81.4	68.9	63.0	64.1	64.1	69.5	67.2	67.1	67.9	61.1	56.6	66.3	66.4
Maharashtra	902	822	875	779	58.9	63.2	72.7	77.1	87.6	83.3	85.3	80.7	80.7	34.3	27.1	36.2	36.5	84.7	84.0	88.3	89.9
Manipur	125	186	179	180	74.3	85.8	92.6	93.0	62.5	41.5	36.1	22.5	22.5	67.5	66.3	79.2	76.6	71.8	49.7	51.4	46.5
Meghalaya	110	129	129	129	54.3	65.1	60.0	49.6	84.2	72.7	67.3	90.5	90.5	34.6	42.4	41.2	44.3	45.8	36.8	54.0	55.7
Mizoram	174	199	187	222	89.1	86.5	83.9	68.7	57.6	75.9	77.3	74.3	74.3	78.5	78.3	91.7	81.9	39.0	44.7	72.2	55.8
Nagaland	223	272	255	300	91.9	93.0	92.1	97.1	78.6	63.3	73.9	57.5	57.5	83.8	86.9	81.0	86.9	64.2	41.6	43.8	53.8
Odisha	741	809	824	840	22.5	28.0	38.4	50.3	74.0	78.2	68.8	72.8	72.8	74.7	80.4	80.4	79.9	44.4	31.4	32.4	29.2
Punjab	449	525	496	544	34.9	34.6	64.0	67.8	76.9	80.3	69.3	64.8	64.8	78.5	80.0	78.5	81.1	69.3	71.0	70.6	69.0
Rajasthan	896	877	903	919	46.4	51.1	66.6	65.2	82.0	80.1	72.2	78.4	78.4	91.2	89.0	93.2	91.9	51.7	57.7	62.6	64.6
Tamil Nadu	662	656	648	708	47.0	49.2	58.6	52.0	75.2	81.7	74.0	82.0	82.0	54.8	49.8	58.2	54.6	68.7	69.7	66.2	71.0
Telangana	258	262	264	264	64.2	60.1	58.5	60.1	52.6	58.6	66.7	73.3	73.3	75.1	81.6	87.0	84.6	83.9	81.5	76.7	78.3
Tripura	98	102	105	111	68.5	82.6	81.4	85.2	60.0	63.6	47.7	52.9	52.9	89.6	83.7	87.6	92.5	89.5	92.0	75.2	81.7
Uttar Pradesh	1896	1887	1971	1966	16.1	15.6	19.9	30.8	81.6	78.4	79.8	73.8	73.8	88.6	88.4	88.3	87.8	60.8	66.9	78.1	66.4
Uttarakhand	337	287	301	323	13.7	23.2	24.6	28.9	87.4	89.1	86.1	78.5	78.5	87.7	84.9	88.3	88.0	67.0	65.0	68.1	63.4
West Bengal	408	408	456	429	26.2	33.2	46.9	51.1	64.8	67.4	68.6	63.3	63.3	79.0	78.3	84.8	86.8	42.1	54.3	50.7	55.5
<b>All India</b>	<b>14240</b>	<b>14662</b>	<b>15236</b>	<b>15630</b>	<b>38.9</b>	<b>42.9</b>	<b>49.3</b>	<b>53.0</b>	<b>76.2</b>	<b>73.7</b>	<b>72.8</b>	<b>73.5</b>	<b>73.5</b>	<b>74.1</b>	<b>73.5</b>	<b>76.6</b>	<b>77.4</b>	<b>62.0</b>	<b>61.1</b>	<b>65.3</b>	<b>64.5</b>

Data is not presented where sample size is insufficient.

State	School facilities																			
	% Schools with:											Girls toilet available and useable								
	Boundary wall			Kitchen shed for cooking mid-day meal			Drinking water available			Toilet available and useable										
2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016					
Andhra Pradesh	47.2	40.3	44.3	49.5	64.2	54.7	65.1	70.0	64.8	66.3	61.2	56.6	38.6	47.7	64.3	82.9	25.4	38.2	54.2	72.8
Arunachal Pradesh	24.5	40.7	44.9	50.0	64.0	51.5	57.4	56.0	53.2	48.9	53.5	50.7	25.3	35.1	35.1	49.3	12.2	23.2	24.5	35.8
Assam	19.1	27.8	24.3	32.5	80.2	84.1	82.7	86.7	60.9	65.4	65.3	66.7	33.1	52.8	58.7	61.6	13.7	40.4	47.0	54.3
Bihar	48.1	47.9	52.4	50.3	64.0	74.1	87.7	87.2	78.7	85.4	90.4	89.5	33.6	51.2	60.6	70.6	18.1	42.0	46.2	60.8
Chhattisgarh	48.8	50.5	60.8	62.4	86.1	89.0	92.9	94.7	77.6	79.2	80.3	85.0	29.6	51.4	68.9	78.1	20.0	41.6	53.4	70.2
Gujarat	84.4	87.4	90.9	94.2	88.3	88.7	90.0	91.9	79.4	82.3	87.0	84.6	64.8	70.0	84.8	82.9	49.9	65.8	81.4	81.1
Haryana	82.7	88.9	91.4	91.6	51.0	68.3	75.8	82.0	74.6	75.7	76.2	75.8	67.9	73.5	81.8	85.5	52.8	70.8	79.6	82.3
Himachal Pradesh	37.9	49.4	66.4	57.4	82.5	94.5	97.1	97.5	83.2	83.4	87.7	84.7	56.0	74.2	87.6	84.0	38.7	70.4	86.2	79.5
Jharkhand	27.0	21.6	24.7	33.0	73.5	77.0	83.9	88.4	73.8	78.1	80.2	81.5	26.8	37.0	52.9	62.8	20.9	32.0	48.0	61.4
Karnataka	59.3	70.2	73.7	81.2	92.9	94.1	93.0	95.1	75.8	81.3	81.2	75.3	38.4	59.5	60.2	63.1	31.8	54.0	55.1	59.3
Kerala	81.8	72.9	77.7	79.3	98.1	95.6	98.8	98.1	85.7	85.1	83.0	80.5	58.2	75.7	84.8	82.0	43.9	73.5	80.2	78.8
Madhya Pradesh	37.3	37.8	40.2	39.8	89.9	88.0	89.8	85.7	78.5	70.5	75.3	73.0	50.3	46.7	55.1	58.5	28.9	34.4	40.3	45.9
Maharashtra	57.5	52.9	66.9	74.4	78.2	70.9	92.0	95.6	69.0	69.5	70.5	67.1	53.0	57.3	66.3	68.0	43.2	53.1	59.1	62.5
Manipur	11.3	6.7	9.6	9.5	58.4	53.4	52.8	51.5	5.1	7.1	15.7	15.3	40.2	40.9	53.1	43.8	8.4	23.0	19.8	24.5
Meghalaya	14.2	12.7	9.7	6.8	60.6	69.1	83.3	86.7	23.9	12.8	16.5	19.8	24.5	31.7	38.8	51.9	14.8	20.5	16.8	38.5
Mizoram	37.7	45.2	51.1	26.7	96.2	95.0	94.0	93.6	48.5	65.0	68.5	64.7	55.6	44.2	33.7	40.0	30.8	30.0	28.1	25.3
Nagaland	42.8	52.9	52.6	40.8	81.7	85.3	79.2	84.0	37.0	22.2	23.4	22.6	53.9	52.5	68.0	50.0	30.6	32.7	45.0	40.9
Odisha	40.8	44.9	48.2	47.4	74.4	80.2	82.8	87.8	70.3	78.7	81.4	77.7	44.4	49.3	63.2	75.5	34.7	41.4	53.3	65.8
Punjab	82.8	83.0	88.9	91.8	94.7	97.7	94.5	97.0	83.1	82.8	81.0	81.7	61.2	70.5	79.2	80.5	49.4	65.6	71.6	75.8
Rajasthan	70.1	77.3	84.5	82.4	83.8	85.6	89.8	90.8	68.0	67.1	73.4	70.1	65.4	72.0	81.5	83.2	50.3	65.1	73.7	79.8
Tamil Nadu	60.7	66.7	71.0	72.9	96.7	98.6	97.5	97.9	80.5	81.0	79.8	82.5	44.6	68.1	79.8	79.4	35.1	61.4	68.7	76.3
Telangana	61.2	64.3	58.9	69.6	71.0	75.1	76.1	81.1	64.8	66.3	61.2	56.8	38.6	47.7	64.3	75.0	25.4	38.2	54.2	64.4
Tripura	19.4	20.0	28.2	39.5	88.2	95.0	97.1	99.1	40.0	48.5	56.2	59.1	43.0	50.0	58.7	65.8	30.3	33.0	57.1	40.0
Uttar Pradesh	44.4	58.5	64.3	66.9	89.3	94.2	96.0	96.5	82.2	81.3	85.8	82.0	47.4	52.5	54.9	54.8	33.9	43.7	49.1	51.5
Uttarakhand	66.8	56.9	56.6	56.4	96.3	94.1	97.3	95.6	68.3	71.0	69.2	72.3	53.4	64.4	69.2	74.8	24.0	52.9	53.7	61.2
West Bengal	34.5	44.0	48.7	57.3	86.3	90.2	95.4	93.4	67.2	71.9	78.4	79.4	52.1	58.8	70.8	79.0	23.7	44.0	46.9	64.3
<b>All India</b>	<b>51.0</b>	<b>54.7</b>	<b>58.8</b>	<b>60.4</b>	<b>82.1</b>	<b>84.3</b>	<b>88.1</b>	<b>89.7</b>	<b>72.7</b>	<b>73.0</b>	<b>75.6</b>	<b>74.1</b>	<b>47.2</b>	<b>56.4</b>	<b>65.2</b>	<b>68.7</b>	<b>32.9</b>	<b>48.1</b>	<b>55.7</b>	<b>61.9</b>

Data is not presented where sample size is insufficient.

Table 24: Trends over time Performance of schools with respect to other selected indicators by state 2010, 2012, 2014 and 2016

% Schools with:

State	Total enrollment of 60 or less				Std II children observed sitting with one or more classes				Std IV children observed sitting with one or more classes				Library books available				Library books being used by children on day of visit			
	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016
	Andhra Pradesh	31.5	33.3	33.0	36.1	63.3	66.3	67.1	64.2	55.3	60.6	56.3	59.2	92.0	94.7	97.2	94.7	77.6	74.4	65.6
Arunachal Pradesh	33.9	34.3	38.0	40.7	31.7	25.6	39.3	33.5	26.9	20.5	31.3	27.2	130	15.9	25.0	34.6	6.3	4.6	8.2	8.5
Assam	40.9	33.7	36.1	44.7	43.4	56.3	58.9	58.6	40.8	54.7	55.4	53.5	20.8	39.6	45.3	59.3	10.5	21.0	23.6	34.5
Bihar	0.2	0.4	0.4	0.5	57.1	64.2	63.1	60.3	48.3	57.6	58.2	54.4	52.9	74.6	76.3	69.3	28.2	45.3	30.5	32.8
Chhattisgarh	16.1	29.3	33.6	41.0	64.9	75.8	76.4	75.9	51.1	54.0	54.0	56.0	72.9	88.3	89.5	86.0	36.5	32.9	26.2	24.5
Gujarat	4.6	5.5	6.6	12.3	36.5	44.7	48.4	53.3	33.0	40.1	40.5	50.1	83.8	85.6	92.3	87.8	48.5	41.4	38.3	42.3
Haryana	6.5	9.2	10.0	15.3	32.5	42.0	34.4	46.0	29.7	34.3	27.4	38.6	64.6	84.5	84.2	83.2	31.6	38.7	36.0	40.9
Himachal Pradesh	48.6	68.5	71.3	80.8	58.3	62.3	74.1	73.9	52.4	56.3	73.0	71.0	80.3	96.6	95.7	94.6	41.3	43.2	40.6	32.5
Jharkhand	7.7	12.6	15.9	19.7	66.1	74.3	76.3	78.1	60.7	70.8	72.3	71.7	61.6	79.0	89.7	81.1	28.4	45.1	60.7	49.7
Karnataka	17.8	21.4	22.3	25.7	75.6	84.4	80.4	77.9	37.0	40.5	39.2	44.1	92.4	94.2	91.8	91.6	64.8	55.3	54.3	50.4
Kerala	19.9	26.9	30.5	20.7	7.1	6.9	11.5	13.0	5.4	8.2	9.8	10.9	83.1	95.7	94.7	93.6	62.4	93.9	82.2	81.4
Madhya Pradesh	10.4	18.7	26.2	31.7	66.9	73.4	77.8	78.2	57.4	64.6	69.3	71.1	56.3	71.0	84.0	79.5	29.1	39.3	43.7	40.1
Maharashtra	16.7	21.0	21.1	25.9	40.3	43.8	45.5	50.3	36.3	38.6	40.2	46.1	86.1	86.3	82.6	83.7	66.5	53.1	36.4	46.0
Manipur	35.3	47.8	52.5	58.1	37.7	50.3	33.3	44.0	32.1	37.1	31.3	41.3	9.2	11.5	18.0	11.7	5.9	2.7	2.8	3.3
Meghalaya	71.0	65.1	68.6	69.9	64.0	69.3	67.5	60.3	60.4	66.1	61.0	59.3	22.0	24.0	23.6	28.7	15.6	15.2	22.1	22.5
Mizoram	39.8	53.8	63.7	57.3	28.0	44.4	25.3	27.7	25.8	33.1	25.3	27.8	6.4	22.2	16.9	9.1	1.7	11.6	6.0	3.6
Nagaland	45.8	45.4	35.2	52.9	19.0	12.0	17.1	11.9	17.9	8.8	17.2	10.7	13.3	12.2	14.6	17.4	9.2	4.1	5.5	8.0
Odisha	21.4	24.0	23.7	30.8	72.8	79.8	77.6	80.1	62.1	71.8	67.1	71.0	65.3	88.3	88.2	82.1	46.8	64.5	65.6	61.0
Punjab	17.2	17.4	25.4	33.2	52.2	53.5	47.6	55.3	37.5	44.5	42.3	50.4	96.0	90.7	88.7	92.0	66.0	46.0	39.7	49.7
Rajasthan	13.0	17.3	17.9	19.5	66.2	80.6	78.3	73.5	52.9	62.2	65.9	63.9	63.7	76.9	87.8	86.0	23.3	32.9	38.8	40.2
Tamil Nadu	24.4	33.0	35.7	36.7	79.3	69.0	69.1	71.1	74.4	60.2	64.6	64.4	79.1	83.8	86.5	84.1	57.8	64.3	52.3	60.5
Telangana	17.2	18.0	19.7	26.5	57.1	53.4	57.3	51.9	48.3	45.6	46.3	43.2	92.0	94.7	97.2	86.9	77.6	74.4	65.6	58.9
Tripura	9.4	17.0	21.9	24.6	40.0	43.6	43.7	42.2	21.5	34.6	29.9	20.4	35.4	32.4	60.0	50.0	19.8	26.5	43.8	39.1
Uttar Pradesh	4.6	6.7	9.1	12.4	51.0	63.4	62.8	62.8	45.9	60.8	59.1	57.7	48.7	82.2	74.6	71.5	22.9	41.0	36.2	42.8
Uttarakhand	69.0	72.8	76.7	75.2	61.9	73.6	80.1	77.5	56.8	71.4	76.9	75.2	47.7	82.1	85.9	86.9	20.4	39.6	36.9	41.1
West Bengal	10.1	15.7	23.3	22.0	42.5	38.8	47.2	44.2	33.9	30.9	36.4	44.3	49.5	64.7	66.3	59.5	31.8	40.7	43.6	47.5
<b>All India</b>	<b>17.3</b>	<b>21.8</b>	<b>24.0</b>	<b>28.0</b>	<b>54.8</b>	<b>61.1</b>	<b>61.6</b>	<b>62.1</b>	<b>45.9</b>	<b>52.4</b>	<b>53.3</b>	<b>54.7</b>	<b>62.6</b>	<b>75.9</b>	<b>78.1</b>	<b>75.5</b>	<b>37.9</b>	<b>43.8</b>	<b>40.7</b>	<b>42.6</b>



Data is not presented where sample size is insufficient.

State	% Schools with:															
	Computers available for children					Computers available and children observed using them on day of visit					Mid-day meal served in school on day of visit					
	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016	2010	2012	2014	2016
Andhra Pradesh	9.3	10.4	13.6	17.4	6.2	6.0	5.6	9.5	99.7	99.5	99.5	99.5	99.7	99.5	99.5	99.5
Arunachal Pradesh	14.3	14.2	10.2	12.3	8.0	5.7	3.2	1.0	47.1	49.7	57.5	50.5	47.1	49.7	57.5	50.5
Assam	1.8	2.9	2.4	1.2	0.2	0.8	0.7	0.3	67.3	67.4	61.7	70.9	67.3	67.4	61.7	70.9
Bihar	6.9	6.2	5.7	7.1	4.0	1.4	0.7	0.8	57.2	75.0	69.2	76.5	57.2	75.0	69.2	76.5
Chhattisgarh	4.1	2.8	0.5	1.5	1.7	0.0	0.0	0.2	94.6	91.8	86.1	80.1	94.6	91.8	86.1	80.1
Gujarat	52.2	86.4	81.3	75.2	27.9	38.7	28.5	31.5	96.2	95.1	94.2	95.4	96.2	95.1	94.2	95.4
Haryana	17.4	20.1	11.5	10.6	6.9	5.9	3.7	2.4	93.7	91.7	91.7	92.5	93.7	91.7	91.7	92.5
Himachal Pradesh	6.7	5.5	5.5	7.8	3.2	3.4	3.3	1.8	98.0	97.0	93.8	98.9	98.0	97.0	93.8	98.9
Jharkhand	7.0	4.4	4.0	4.3	4.1	0.9	1.3	1.1	92.6	84.2	78.6	80.7	92.6	84.2	78.6	80.7
Karnataka	29.4	36.4	39.5	45.0	13.4	13.6	15.9	14.6	96.0	98.5	98.9	98.8	96.0	98.5	98.9	98.8
Kerala	82.8	92.5	89.8	89.0	66.7	73.3	41.1	69.9	100.0	98.2	74.6	94.1	100.0	98.2	74.6	94.1
Madhya Pradesh	7.5	7.2	4.2	2.5	1.7	2.2	0.9	0.3	94.7	90.2	88.3	88.4	94.7	90.2	88.3	88.4
Maharashtra	33.3	43.3	46.3	55.1	19.8	16.9	14.7	17.9	90.7	93.2	94.8	94.5	90.7	93.2	94.8	94.5
Manipur	8.5	10.4	16.3	15.0	2.5	6.0	5.1	4.4	47.8	41.1	34.5	49.4	47.8	41.1	34.5	49.4
Meghalaya	2.8	2.4	1.6	1.7	0.9	2.4	0.8	0.9	51.9	30.5	40.7	47.9	51.9	30.5	40.7	47.9
Mizoram	7.7	8.7	1.6	5.0	5.9	3.1	0.5	0.9	94.0	91.4	72.0	91.7	94.0	91.4	72.0	91.7
Nagaland	14.8	14.9	11.4	14.6	3.7	5.6	5.5	3.1	31.9	38.2	24.1	24.6	31.9	38.2	24.1	24.6
Odisha	7.1	7.8	13.9	15.5	4.4	4.4	5.8	6.4	88.8	96.1	96.8	98.1	88.8	96.1	96.8	98.1
Punjab	10.7	11.0	8.7	9.1	5.2	2.5	2.2	3.4	97.9	95.5	92.7	95.2	97.9	95.5	92.7	95.2
Rajasthan	15.7	25.6	33.8	34.9	5.3	7.3	8.2	10.5	94.8	93.9	82.7	91.8	94.8	93.9	82.7	91.8
Tamil Nadu	47.0	56.6	62.4	57.3	29.4	39.0	27.1	32.9	99.4	99.8	99.8	99.2	99.4	99.8	99.8	99.2
Telangana	9.3	10.4	13.6	12.2	6.2	6.0	5.6	4.6	98.4	96.5	99.6	99.2	98.4	96.5	99.6	99.2
Tripura	8.5	12.8	7.8	10.1	5.3	8.8	3.9	1.8	74.7	95.0	97.1	98.2	74.7	95.0	97.1	98.2
Uttar Pradesh	1.4	2.9	2.2	2.7	0.3	0.4	0.3	0.6	71.3	85.6	93.9	91.2	71.3	85.6	93.9	91.2
Uttarakhand	6.7	7.8	8.8	9.7	1.5	1.8	2.0	2.5	95.0	94.1	92.3	94.9	95.0	94.1	92.3	94.9
West Bengal	1.3	1.2	2.0	3.5	0.5	0.3	1.5	0.5	63.4	59.7	66.7	66.7	63.4	59.7	66.7	66.7
<b>All India</b>	<b>15.8</b>	<b>20.1</b>	<b>19.6</b>	<b>20.0</b>	<b>8.6</b>	<b>9.3</b>	<b>7.0</b>	<b>8.1</b>	<b>84.6</b>	<b>87.0</b>	<b>85.1</b>	<b>87.1</b>	<b>84.6</b>	<b>87.0</b>	<b>85.1</b>	<b>87.1</b>





Andhra Pradesh, Arunachal Pradesh

Assam, Bihar

Chhattisgarh





## School enrollment

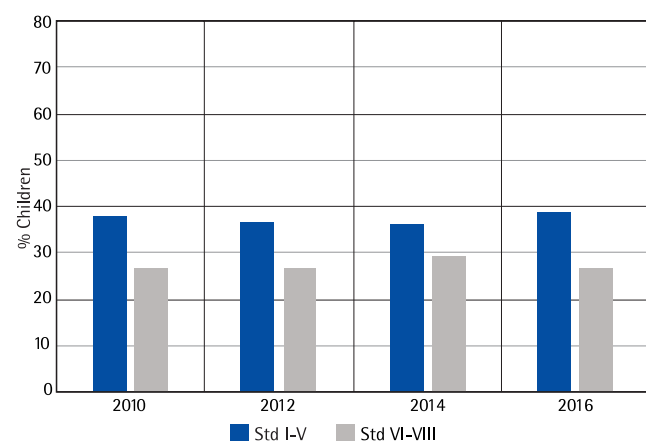
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	63.0	34.2	0.1	2.6	100
Age 7-16: All	61.1	33.9	0.2	4.8	100
Age 7-10: All	59.5	38.7	0.0	1.8	100
Age 7-10: Boys	54.8	42.9	0.1	2.2	100
Age 7-10: Girls	64.3	34.4	0.0	1.4	100
Age 11-14: All	66.7	29.1	0.3	4.0	100
Age 11-14: Boys	60.8	34.3	0.5	4.4	100
Age 11-14: Girls	72.2	24.1	0.1	3.6	100
Age 15-16: All	51.1	33.6	0.5	14.9	100
Age 15-16: Boys	52.7	33.5	0.7	13.2	100
Age 15-16: Girls	49.3	33.7	0.2	16.8	100

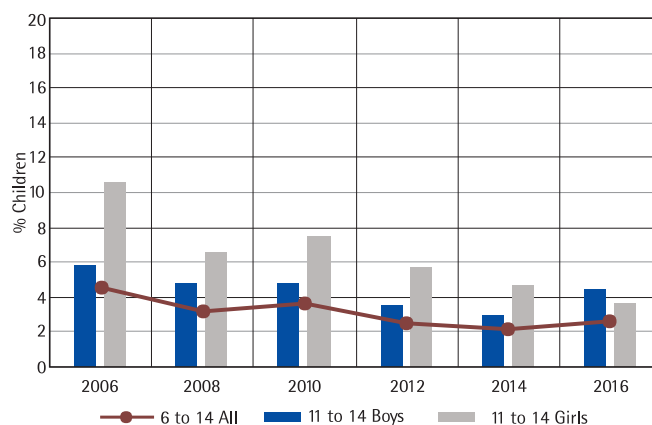
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII  
 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age  
 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	15.8	53.6	20.9	6.7	3.0							100		
II	1.4	14.2	51.6	24.6	7.3	0.9							100	
III	1.6	16.6	50.4	21.4	8.6	1.5							100	
IV	3.0		16.2	50.8	24.8	5.2							100	
V	2.5			13.8	50.3	22.7	7.3	3.4					100	
VI	2.3			12.1	50.5	26.2	7.2	1.8					100	
VII	1.7				15.3	46.0	27.3	8.2	1.4					100
VIII	2.9				15.9	54.4	20.4	5.4	1.1					100

This table shows the age distribution for each grade. For example, in Std III, 50.4% children are 8 years old but there are also 16.6% who are 7, 21.4% who are 9, 8.6% who are 10, and 1.5% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	54.4	6.3				39.2	100
Age 4	59.2	32.3				8.5	100
Age 5	25.9	28.5	21.2	20.0	0.0	4.5	100
Age 6	3.0	19.7	48.2	28.0	0.0	1.2	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	33.4	35.9	24.5	4.0	2.1	100
II	12.5	26.3	34.8	17.6	8.9	100
III	8.1	16.8	29.8	22.8	22.7	100
IV	4.5	8.4	20.1	22.9	44.1	100
V	4.5	7.3	11.5	21.6	55.1	100
VI	2.4	4.2	11.2	22.6	59.6	100
VII	2.3	3.1	7.6	17.6	69.4	100
VIII	1.6	2.4	4.3	13.8	77.8	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 8.1% cannot even read letters, 16.8% can read letters but not words or higher, 29.8% 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 22.7% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

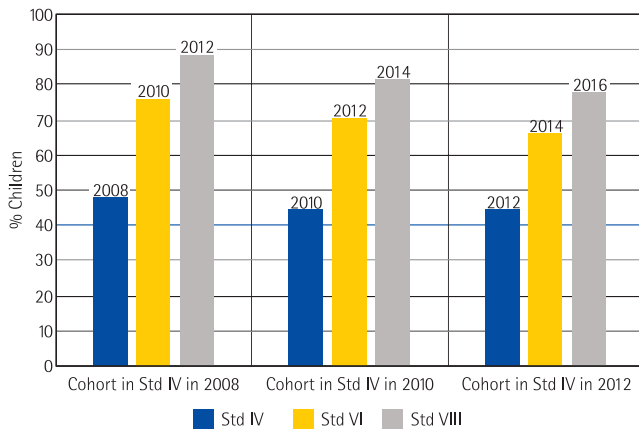
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	19.1	35.4	25.2
2012	28.0	28.9	28.3
2014	21.3	32.0	24.7
2016	19.1	28.3	22.7

\* 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.

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



This graph shows the progress of three 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

Std II level text	Std I level text
<p>అది ఎండాకాలం. రమేష్ వాళ్ళు మామయ్య ఇంటికి బయలుదేరాడు. అతనికి దారిలో దాహం వేసింది. రమేష్ కు చుట్టు ప్రక్కల ఎక్కడా నీళ్ళు కనిపించలేదు. కొంత దూరములో ఒక కొబ్బరి చెట్టు మీద కొంత కనిపించింది. రమేష్ కు మెరుపులా ఒక ఆలోచన వచ్చింది. వెంటనే ఒక రాయి తీసి దాన్ని బలంగా కొట్టేసి విసిరాడు. కొంత కూడ కొబ్బరి కాయను తెంపి రమేష్ పైకి తిరిగి విసిరింది. రమేష్ కొబ్బరి కాయను వగలగొట్టి దాని నీళ్ళు తాగి దాహం తీర్చుకున్నాడు. హాయిగా అతని మామయ్య ఇంటికి బయలు దేరాడు.</p>	<p>భవాని బడికి వెళ్ళింది ఆమెకి దాహం వేసింది కుండలో నీటిని చూసింది నీటిలో రాళ్ళను వేసింది.</p>
<p>అ న ఉ క న ర ద గ మ</p>	<p>అట ఊడ ఈట జాతీయ క్షిట ఒంటి నూది పూట నమలి రూపాయి</p>

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	58.9	65.9	61.2	86.1	91.0	87.3
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	52.4	60.6	55.1	73.5	91.1	78.0

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	25.5	29.2	41.5	3.2	0.6	100
II	7.3	17.1	55.7	18.8	1.1	100
III	2.8	8.3	40.8	41.5	6.6	100
IV	1.4	3.6	29.6	41.1	24.4	100
V	2.7	1.8	26.6	31.7	37.2	100
VI	1.7	0.9	20.9	34.1	42.5	100
VII	1.4	0.9	22.9	33.5	41.4	100
VIII	1.0	0.0	17.3	31.3	50.4	100

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, 8.3% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 40.8% can recognize numbers up to 99 but cannot do subtraction, 41.5% can do subtraction but cannot do division, and 6.6% can do division. For each grade, the total of these exclusive categories is 100%.

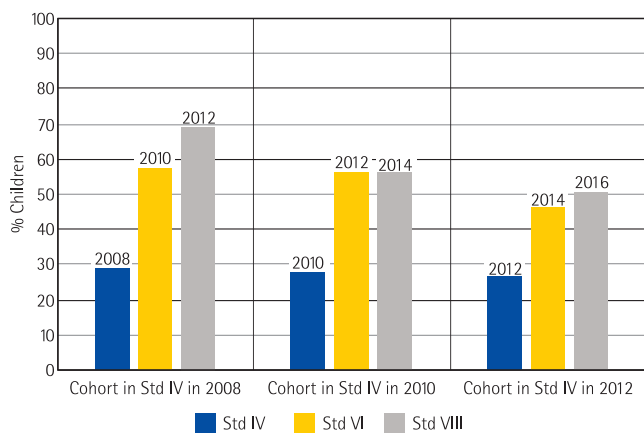
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	38.8	66.8	49.1
2012	46.3	67.1	54.1
2014	31.4	57.8	39.8
2016	38.8	62.8	48.1

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

అంకము గుర్తించండి 1-9	సంఖ్యను గుర్తించండి 10 - 99	తీసివేయండి	జాబ్ చేయండి
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	4) 517
	36 27		

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	40.2	51.6	43.9	68.4	77.8	70.8
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	35.7	40.3	37.2	41.2	76.9	50.5

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English All children 2016**

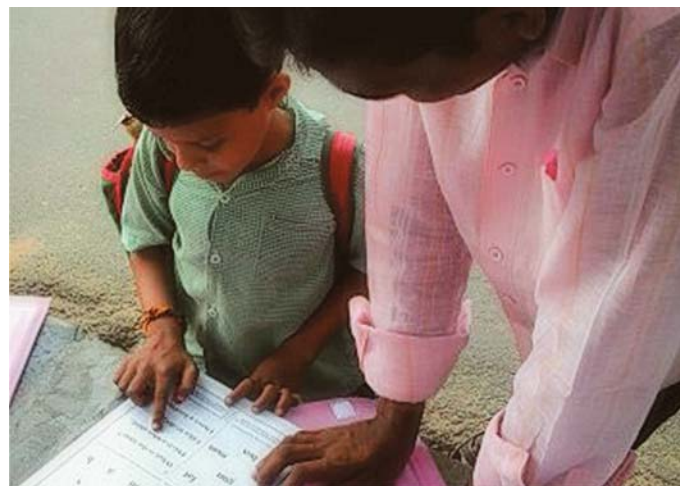
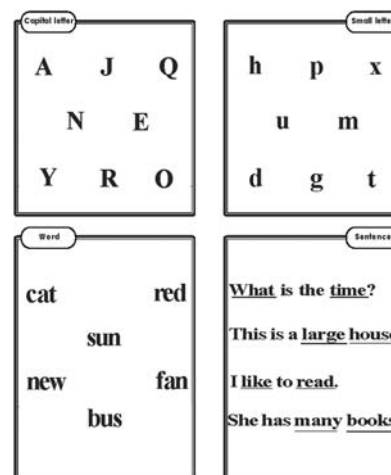
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	31.8	15.5	23.4	22.2	7.2	100
II	16.8	12.5	25.3	27.2	18.2	100
III	9.8	8.0	26.6	26.4	29.2	100
IV	7.3	4.3	20.6	27.5	40.3	100
V	5.8	2.8	15.3	28.8	47.3	100
VI	4.2	4.6	12.5	21.3	57.5	100
VII	3.5	2.9	12.6	21.0	60.0	100
VIII	2.2	1.6	9.4	15.5	71.3	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 9.8% cannot even read capital letters, 8% can read capital letters but not small letters or higher, 26.6% can read small letters but not words or higher, 26.4% can read words but not sentences, and 29.2% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English All children 2016**

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	59.9	
II	61.8	
III	69.4	63.1
IV	65.4	66.0
V	65.4	74.5
VI	67.6	78.7
VII		77.9
VIII		81.9

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016**

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	50.4	53.2	52.9	53.1
	Govt. + Tuition	12.0	9.7	10.3	7.5
	Pvt. no tuition	25.8	26.5	28.0	32.4
	Pvt. + Tuition	11.8	10.5	8.8	7.0
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	58.9	62.3	62.4	64.7
	Govt. + Tuition	14.6	10.6	8.1	8.5
	Pvt. no tuition	17.3	19.4	23.8	22.2
	Pvt. + Tuition	9.2	7.7	5.7	4.6
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type 2016**

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	84.3	12.8	1.8	1.2	100
Std I-V	Pvt.	61.3	27.9	3.1	7.7	100
Std VI-VIII	Govt.	62.3	30.6	3.7	3.4	100
Std VI-VIII	Pvt.					

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	275	310	276	296
Upper primary schools (Std I-VII/VIII)	99	77	104	84
Total schools visited	374	387	380	380

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	76.0	79.7	79.5	83.5
% Teachers present (Average)	83.7	84.0	84.5	87.3
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	74.5	80.7	79.8	81.5
% Teachers present (Average)	82.3	80.4	78.8	87.2

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	36.9	38.7	40.4	39.2
% Schools where Std II children were observed sitting with one or more other classes	66.4	67.9	67.3	62.2
% Schools where Std IV children were observed sitting with one or more other classes	58.0	62.9	58.2	58.0
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	16.3	11.7	13.5	25.0
% Schools where Std II children were observed sitting with one or more other classes	55.7	60.0	67.0	71.4
% Schools where Std IV children were observed sitting with one or more other classes	47.9	51.4	52.0	63.1

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	64.2	54.7	65.1	70.0
	Mid-day meal served in school on day of visit	99.7	99.5	99.5	99.5
Drinking water	No facility for drinking water	22.8	18.7	16.2	15.0
	Facility but no drinking water available	12.4	15.0	22.6	28.4
	Drinking water available	64.8	66.3	61.2	56.6
	Total	100	100	100	100
Toilet	No toilet facility	23.4	15.6	13.0	4.2
	Facility but toilet not useable	38.1	36.8	22.7	12.9
	Toilet useable	38.6	47.7	64.3	82.9
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	53.1	32.6	28.4	15.6
	Separate provision but locked	9.2	12.2	8.7	6.3
	Separate provision, unlocked but not useable	12.3	17.0	8.7	5.3
	Separate provision, unlocked and useable	25.4	38.2	54.2	72.8
	Total	100	100	100	100
Library	No library	8.0	5.3	2.8	5.3
	Library but no books being used by children on day of visit	14.4	20.3	31.6	24.2
	Library books being used by children on day of visit	77.6	74.4	65.6	70.5
	Total	100	100	100	100
Electricity	Electricity connection				95.5
	Of schools with electricity connection, % schools with electricity available on day of visit				89.8
Computer	No computer available for children to use	90.7	89.6	86.5	82.6
	Available but not being used by children on day of visit	3.0	4.3	7.9	7.9
	Computer being used by children on day of visit	6.2	6.0	5.6	9.5
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	93.0	91.4	92.5
April 2011 to March 2012	97.1	92.6	93.2
April 2013 to March 2014	98.2	85.7	7.9
April 2015 to March 2016	93.7	82.3	6.6

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	61.6	61.2	54.7
April 2012 to date of survey (2012)	78.9	77.0	49.0
April 2014 to date of survey (2014)	88.4	75.3	2.1
April 2016 to date of survey (2016)	43.8	36.0	2.1

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	19.2	22.7
	White wash/plastering	51.6	41.9
Repair	Repair of drinking water facility	45.7	40.7
	Repair of toilet	50.5	40.0
Purchase	Mats, Tat patti etc.	39.5	29.9
	Charts, globes or other teaching material	83.4	84.0

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	99.2	98.4
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	5.7	1.4
Between July and September	94.1	89.4
After September	0.3	9.2

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

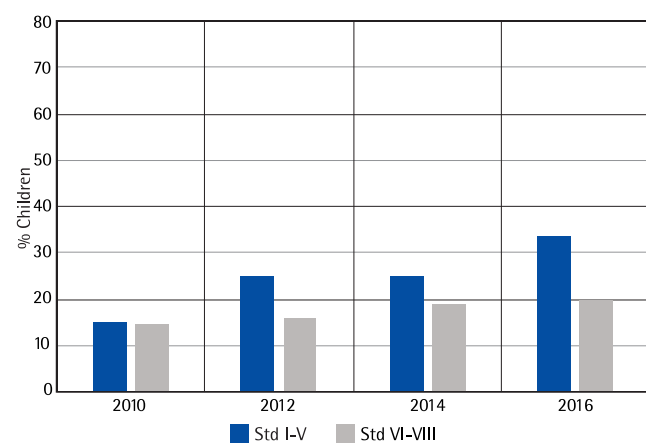
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	67.9	29.5	0.2	2.4	100
Age 7-16: All	71.0	25.7	0.1	3.1	100
Age 7-10: All	63.0	34.2	0.1	2.7	100
Age 7-10: Boys	61.1	36.6	0.1	2.2	100
Age 7-10: Girls	65.5	31.4	0.2	3.0	100
Age 11-14: All	75.7	21.8	0.2	2.3	100
Age 11-14: Boys	75.7	22.0	0.1	2.2	100
Age 11-14: Girls	76.0	21.5	0.3	2.2	100
Age 15-16: All	80.9	12.2	0.0	6.8	100
Age 15-16: Boys	78.5	13.8	0.0	7.7	100
Age 15-16: Girls	82.8	10.9	0.0	6.3	100

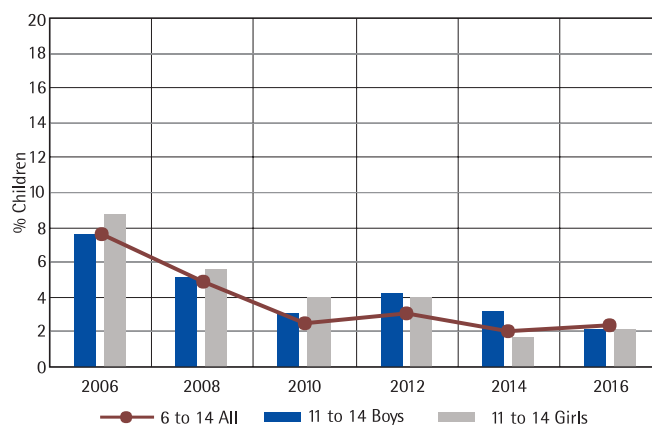
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	22.8	32.5	23.1	10.0	6.2	5.4						100	
II	16.9	18.2	22.1	20.6	12.2	10.1						100	
III	3.4	11.6	27.7	28.3	14.4	6.7	7.8						100
IV	5.0	11.6	23.6	29.1	15.1	8.9	6.8						100
V	4.6	9.6	25.8	23.9	16.3	8.9	5.7	5.2					100
VI	4.3	14.0	21.3	27.4	17.5	9.2	6.4						100
VII	3.4	8.7	27.8	29.4	18.1	8.6	4.0						100
VIII	4.1	12.6	26.6	27.1	17.7	12.0							100

This table shows the age distribution for each grade. For example, in Std III, 27.7% children are 8 years old but there are also 11.6% who are 7, 28.3% who are 9, 14.4% who are 10, 6.7% who are 11, and 7.8% who are 12 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/ UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	22.8	21.4				55.7	100
Age 4	19.1	40.2				40.7	100
Age 5	2.1	4.7	41.8	43.0	0.0	8.5	100
Age 6	1.2	3.3	51.8	37.5	0.2	6.0	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	19.0	51.6	21.9	5.3	2.2	100
II	10.0	49.6	27.5	9.0	3.8	100
III	2.0	34.2	36.3	15.7	11.8	100
IV	1.0	16.6	34.9	27.0	20.4	100
V	0.4	11.9	34.5	27.8	25.5	100
VI	0.0	5.7	22.7	33.5	38.1	100
VII	0.4	3.3	12.0	31.4	53.0	100
VIII	0.0	2.1	6.7	23.2	68.1	100

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, 34.2% can read letters but not words or higher, 36.3% can read words but not Std I level text or higher, 15.7% can read Std I level text but not Std II level text, and 11.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

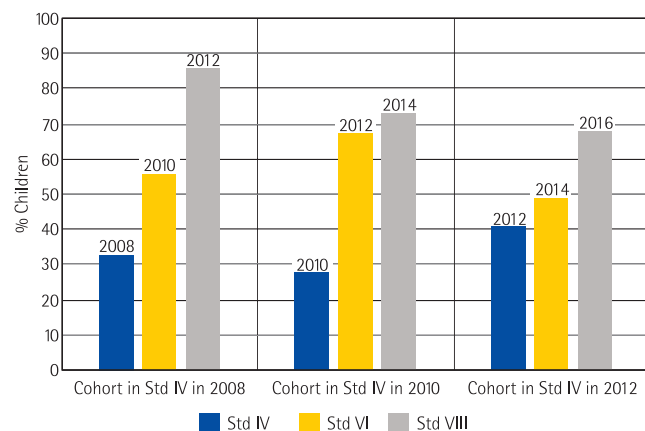
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	7.2	40.9	11.0
2012	15.5	42.1	21.2
2014	5.8	24.9	10.3
2016	2.3	33.5	11.8

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

Std II 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 बगीचा बनाया जाए। खाद मंगाकर तरह-तरह के पौधे लगाए गए। सही समय पर पानी दिया गया। आज वहाँ एक सुंदर बगीचा है। इसलिए वहाँ सभी खेलने जाते हैं।

Std I level text

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

Letters

द क च  
ल ब  
ह थ त  
म ख

Words

नाक तोला  
कूड़ा  
खुश मैना  
मोका सेब  
पीला  
झोला दिन

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	39.3	67.6	41.8	80.2	85.2	80.8
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	13.1	27.7	53.4	4.7	1.0	100
II	8.3	18.7	59.3	12.3	1.5	100
III	1.6	8.0	58.7	27.8	3.9	100
IV	0.3	2.2	47.2	36.4	14.0	100
V	0.0	1.8	42.9	36.4	19.0	100
VI	0.0	0.7	30.0	42.5	26.8	100
VII	0.0	0.8	17.6	39.1	42.5	100
VIII	0.0	0.3	15.2	29.0	55.5	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 1.6% cannot even recognize numbers 1-9, 8% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 58.7% can recognize numbers up to 99 but cannot do subtraction, 27.8% can do subtraction but cannot do division, and 3.9% can do division. For each grade, the total of these exclusive categories is 100%.

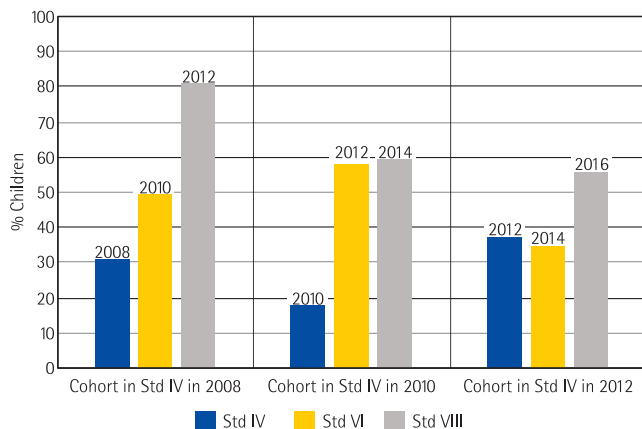
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	38.2	70.0	41.7
2012	47.9	70.1	52.6
2014	34.0	47.3	37.1
2016	22.2	53.2	31.6

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		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	54	87	45 - 18	53 - 24	4)519

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	28.9	60.8	31.7	71.5	78.7	72.3
2012	43.1	61.4	46.7	79.5	90.9	81.1
2014	35.6	36.9	35.8	59.7	58.5	59.5
2016	11.7	41.2	18.7	52.5	68.6	55.5

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

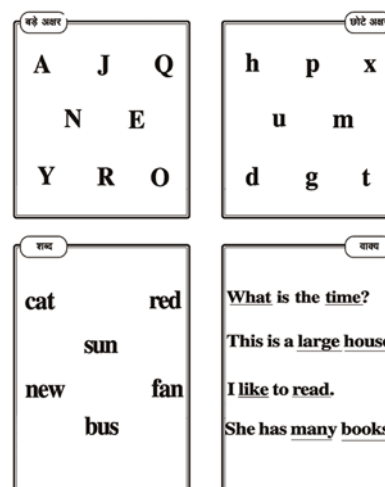
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	15.3	17.9	45.7	16.5	4.6	100
II	9.3	11.5	47.4	24.7	7.1	100
III	1.6	3.5	38.8	39.0	17.1	100
IV	1.2	0.7	19.0	48.8	30.3	100
V	0.4	0.6	15.1	50.4	33.4	100
VI	0.5	0.4	7.5	47.3	44.3	100
VII	0.1	0.8	3.2	32.6	63.3	100
VIII	0.3	0.2	2.5	21.1	75.9	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 1.6% cannot even read capital letters, 3.5% can read capital letters but not small letters or higher, 38.8% can read small letters but not words or higher, 39% can read words but not sentences, and 17.1% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	62.4	
II	57.2	
III	60.6	83.5
IV	59.0	82.6
V	65.3	82.5
VI	68.6	82.9
VII	67.4	89.4
VIII	66.5	93.0

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	78.5	63.8	67.8	61.2
	Govt. + Tuition	7.9	10.3	8.6	5.0
	Pvt. no tuition	8.9	13.0	16.1	23.8
	Pvt. + Tuition	4.7	12.9	7.6	10.0
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	80.3	69.8	71.9	73.7
	Govt. + Tuition	8.6	14.4	9.7	6.3
	Pvt. no tuition	7.2	7.3	13.2	13.8
	Pvt. + Tuition	4.0	8.5	5.2	6.2
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	1.4	17.3	45.5	35.8	100
Std I-V	Pvt.	1.2	11.2	39.4	48.2	100
Std VI-VIII	Govt.	2.9	3.0	14.3	79.9	100
Std VI-VIII	Pvt.	0.9	1.1	16.8	81.2	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	152	103	91	86
Upper primary schools (Std I-VII/VIII)	107	75	98	126
Total schools visited	259	178	189	212

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	82.8	82.1	83.7	74.1
% Teachers present (Average)	86.1	81.4	84.7	81.5
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	82.0	82.3	85.0	77.6
% Teachers present (Average)	84.2	87.0	82.3	81.0

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	52.1	55.0	62.1	68.6
% Schools where Std II children were observed sitting with one or more other classes	35.4	31.3	48.3	42.2
% Schools where Std IV children were observed sitting with one or more other classes	28.6	26.4	40.0	38.0
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	7.1	6.7	15.2	21.1
% Schools where Std II children were observed sitting with one or more other classes	23.7	16.9	30.5	27.6
% Schools where Std IV children were observed sitting with one or more other classes	23.9	12.1	22.2	20.2

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	64.0	51.5	57.4	56.0
	Mid-day meal served in school on day of visit	47.1	49.7	57.5	50.5
Drinking water	No facility for drinking water	36.9	44.9	40.1	37.0
	Facility but no drinking water available	9.9	6.2	6.4	12.3
	Drinking water available	53.2	48.9	53.5	50.7
	Total	100	100	100	100
Toilet	No toilet facility	20.8	20.2	30.8	11.9
	Facility but toilet not useable	53.9	44.6	34.1	38.9
	Toilet useable	25.3	35.1	35.1	49.3
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	60.4	45.6	51.6	34.7
	Separate provision but locked	11.3	23.2	10.1	12.6
	Separate provision, unlocked but not useable	16.2	8.0	13.8	16.8
	Separate provision, unlocked and useable	12.2	23.2	24.5	35.8
	Total	100	100	100	100
Library	No library	87.0	84.1	75.0	65.4
	Library but no books being used by children on day of visit	6.7	11.4	16.9	26.1
	Library books being used by children on day of visit	6.3	4.6	8.2	8.5
	Total	100	100	100	100
Electricity	Electricity connection				57.5
	Of schools with electricity connection, % schools with electricity available on day of visit				72.8
Computer	No computer available for children to use	85.7	85.8	89.8	87.7
	Available but not being used by children on day of visit	6.4	8.5	7.0	11.4
	Computer being used by children on day of visit	8.0	5.7	3.2	1.0
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	67.8	63.7	70.0
April 2011 to March 2012	59.8	51.2	60.5
April 2013 to March 2014	69.9	58.9	30.8
April 2015 to March 2016	63.8	47.1	9.5

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	39.6	37.0	36.4
April 2012 to date of survey (2012)	27.6	21.2	37.3
April 2014 to date of survey (2014)	26.4	22.6	19.4
April 2016 to date of survey (2016)	10.9	7.1	2.2

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	24.3	12.7
	White wash/plastering	34.3	36.2
Repair	Repair of drinking water facility	31.4	27.8
	Repair of toilet	21.4	26.6
Purchase	Mats, Tat patti etc.	23.9	22.9
	Charts, globes or other teaching material	46.0	44.1

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	96.1	98.1
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	36.0	31.4
Between July and September	59.8	62.8
After September	4.3	5.8

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

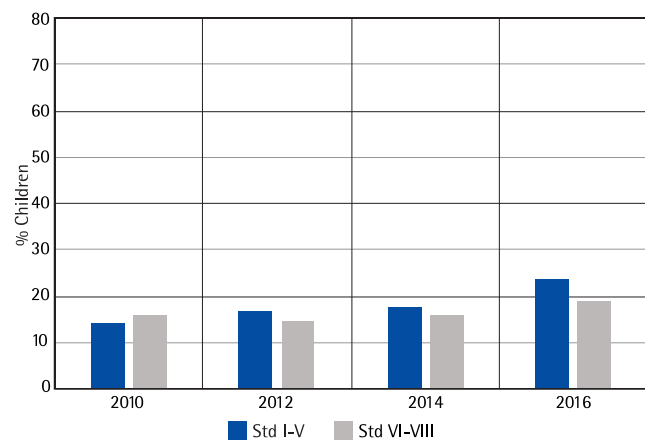
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	73.2	22.0	1.8	3.1	100
Age 7-16: All	72.5	20.4	2.0	5.2	100
Age 7-10: All	73.6	23.9	0.9	1.6	100
Age 7-10: Boys	71.1	26.0	1.1	1.8	100
Age 7-10: Girls	76.2	21.8	0.7	1.4	100
Age 11-14: All	73.2	18.7	3.0	5.1	100
Age 11-14: Boys	71.0	19.5	3.3	6.3	100
Age 11-14: Girls	74.7	18.4	2.7	4.1	100
Age 15-16: All	67.5	14.7	2.5	15.3	100
Age 15-16: Boys	63.8	15.9	2.5	17.9	100
Age 15-16: Girls	71.8	13.7	2.5	12.0	100

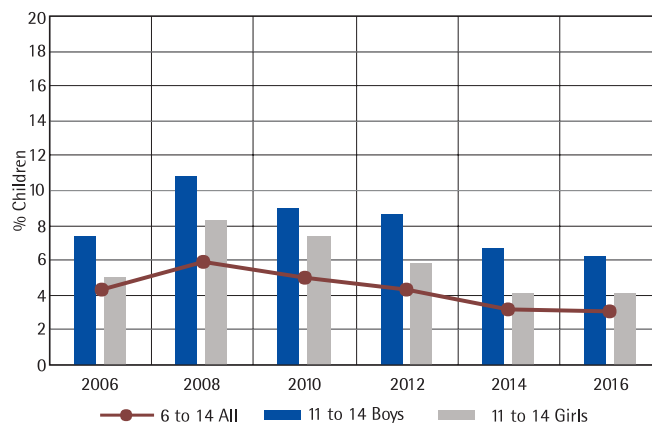
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	24.7	37.9	24.4	9.0	4.1							100		
II	3.9	12.6	37.8	29.5	10.0	6.2							100	
III	1.8	10.9	40.4	28.0	12.2	6.7							100	
IV	4.0	11.9	30.6	36.9	8.5	5.1	3.1							100
V	3.0	7.9	39.6	28.3	14.0	7.1							100	
VI	2.9	9.2	28.9	38.5	14.1	6.4							100	
VII	2.4	7.5	40.3	32.8	12.4	4.5							100	
VIII	2.4	10.5	39.0	35.6	9.0	3.5							100	

This table shows the age distribution for each grade. For example, in Std III, 40.4% children are 8 years old but there are also 10.9% who are 7, 28% who are 9, 12.2% who are 10, and 6.7% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	66.1	3.3				30.7	100
Age 4	71.4	11.9				16.7	100
Age 5	13.6	2.8	54.6	23.2	0.5	5.4	100
Age 6	4.3	2.1	66.1	25.3	0.6	1.7	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	45.3	29.7	17.0	5.0	3.1	100
II	22.0	31.6	26.5	11.3	8.5	100
III	12.8	21.1	27.8	21.1	17.2	100
IV	9.0	14.4	26.8	20.1	29.7	100
V	5.5	11.6	22.7	22.2	38.0	100
VI	4.3	7.6	19.9	23.2	44.9	100
VII	2.5	5.6	13.1	21.8	56.9	100
VIII	1.7	3.5	10.8	20.3	63.6	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 12.8% cannot even read letters, 21.1% can read letters but not words or higher, 27.8% 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 17.2% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

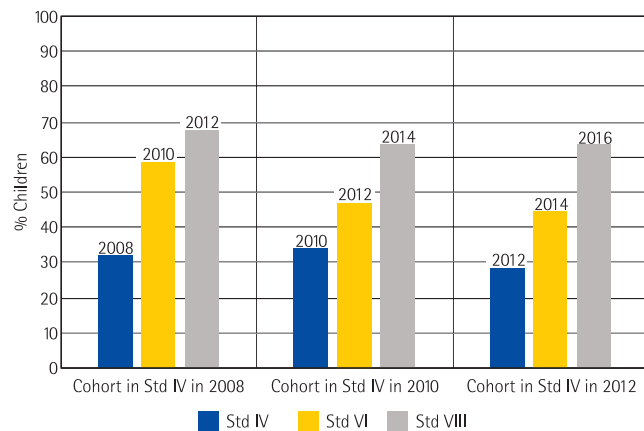
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	15.1	29.9	16.9
2012	10.4	32.1	14.5
2014	10.7	35.2	14.8
2016	12.8	32.2	17.2

\* 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.

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



This graph shows the progress of three 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

Std II level text

জোন আৰু বুৰু দুয়ো ককাই-ভাই। জোন পঢ়াত আৰু খেলাত খুউব ভাল। বুৰুৱে পঢ়িবলৈ আৰু লিখিবলৈ ভালদৰে নাজানে। বুৰুক যদি জোনে পঢ়িবলৈ কয় সি খেলিবলৈহে ধৰে। সেইবাবে জোনে তাৰ এটা উপায় উলিয়ালে। পিছদিনাৰ পৰা সি তাৰ লগত খেলিবলৈ ধৰিলে। খেলাৰ মাজেৰে সি বুৰুক পঢ়িবলৈ আৰু লিখিবলৈ শিকালে। ইয়াৰ ফলত সঁচাকৈয়ে বুৰুৱে বৰ্ণ আৰু সংখ্যা চিনি পোৱা হ'ল।

Std I level text

জুমিয়ে গাখীৰ খায়।  
 গাখীৰ দেখিবলৈ বগা।  
 গাখীৰৰ পৰা মাখন হয়।  
 তাই মাখন ভাল পায়।

Letters

ঠ ফ দ  
 চ ব  
 ক্ষ য ত  
 হ জ

Words

কাপ খালে  
 বৃক্ষ বেল  
 নীলা হাতী  
 জুই পাখি  
 মূঢ়া গোল

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	42.6	57.0	45.1	76.6	78.7	76.9
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	32.3	61.1	37.9	62.4	68.1	63.4

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	40.5	36.3	19.1	3.7	0.5	100
II	18.2	36.0	31.8	12.9	1.1	100
III	10.7	26.8	36.0	23.5	3.0	100
IV	6.9	19.6	37.6	26.7	9.2	100
V	4.0	16.4	37.6	28.4	13.6	100
VI	3.4	10.8	36.0	32.1	17.7	100
VII	1.7	8.0	32.1	35.6	22.6	100
VIII	1.4	6.5	30.4	33.1	28.6	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 10.7% cannot even recognize numbers 1-9, 26.8% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 36% can recognize numbers up to 99 but cannot do subtraction, 23.5% can do subtraction but cannot do division, and 3% can do division. For each grade, the total of these exclusive categories is 100%.

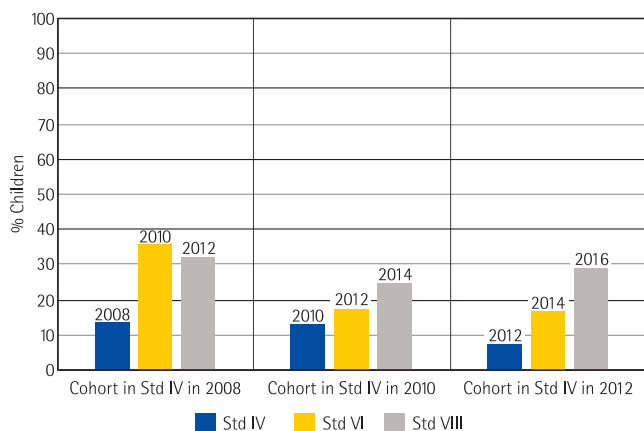
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	29.1	50.6	31.8
2012	15.1	39.9	19.8
2014	15.6	43.3	20.3
2016	19.8	50.0	26.6

\* 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.

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



This graph shows the progress of three 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.

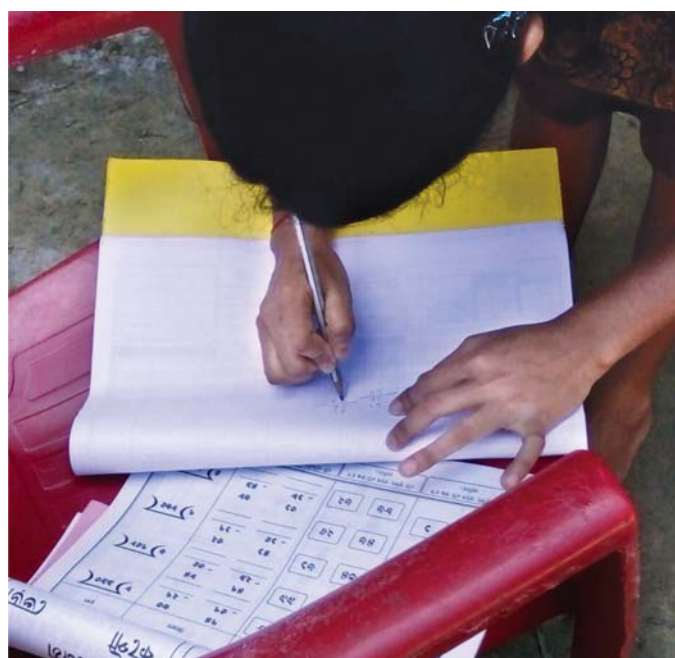
## Arithmetic Tool

সংখ্যা চিনাক্তকৰণ ১-৯	সংখ্যা চিনাক্তকৰণ ১০-৯৯	বিয়োগ	স্থল
১ ৪	৫১ ৮৩	৪৬ - ৬৩ - ২৯ - ৩৯	১) ৮৭৯
৭ ৩	৩৭ ৬৫	৪৭ - ২৮ - ২৮ - ১৭	৬) ৮২৪
৬ ৯	৫৫ ২৬	৯২ - ৭৬ - ৫৭ - ৮৪	৮) ৯৮৫
৫ ২	৯১ ৪৩	৫২ - ১৮ - ৪৮ - ৮৮	৪) ৫১৭
	৩৬ ২৭		

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	22.6	36.9	25.1	54.4	51.6	54.0
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	32.9	13.7	25.3	44.3	28.8

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English All children 2016**

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	54.2	20.1	15.0	8.7	2.1	100
II	32.9	23.8	21.9	16.3	5.1	100
III	21.6	21.8	25.2	22.0	9.4	100
IV	14.9	19.3	24.6	25.5	15.8	100
V	10.7	14.4	25.4	27.2	22.3	100
VI	7.8	10.3	21.4	30.9	29.6	100
VII	3.7	8.9	15.9	32.2	39.3	100
VIII	2.7	5.8	15.4	28.3	47.8	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 21.6% cannot even read capital letters, 21.8% can read capital letters but not small letters or higher, 25.2% can read small letters but not words or higher, 22% can read words but not sentences, and 9.4% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English All children 2016**

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	63.7	
II	59.2	
III	58.6	59.7
IV	63.3	51.6
V	53.2	54.2
VI	56.4	60.3
VII	61.6	55.6
VIII	56.2	59.8

### English Tool

Capital letter	Small letter
A J Q N E Y R O	h p x u m d g t
Word	Sentence
cat red sun new fan bus	What is the time? This is a large house. I like to read. She has many books.



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016**

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	75.3	73.5	71.7	66.8
	Govt. + Tuition	10.4	9.0	9.6	8.6
	Pvt. no tuition	10.3	12.3	11.6	16.7
	Pvt. + Tuition	4.0	5.2	7.2	7.9
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	64.8	69.3	68.6	66.3
	Govt. + Tuition	18.6	15.1	14.9	14.0
	Pvt. no tuition	11.8	9.3	9.4	12.2
	Pvt. + Tuition	4.8	6.4	7.1	7.6
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type 2016**

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	11.1	44.1	26.7	18.2	100
Std I-V	Pvt.	2.7	15.9	26.3	55.1	100
Std VI-VIII	Govt.	2.7	20.1	40.2	37.1	100
Std VI-VIII	Pvt.	1.8	8.7	22.7	66.9	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	503	468	567	662
Upper primary schools (Std I-VII/VIII)	16	24	30	38
Total schools visited	519	492	597	700

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	69.0	71.1	70.8	72.1
% Teachers present (Average)	90.0	90.4	87.5	89.7

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	40.9	33.7	36.1	44.7
% Schools where Std II children were observed sitting with one or more other classes	43.8	56.1	58.9	58.6
% Schools where Std IV children were observed sitting with one or more other classes	41.0	54.3	55.4	53.8

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	80.2	84.1	82.7	86.7
	Mid-day meal served in school on day of visit	67.3	67.4	61.7	70.9
Drinking water	No facility for drinking water	23.2	23.5	19.4	21.0
	Facility but no drinking water available	16.0	11.0	15.4	12.4
	Drinking water available	60.9	65.4	65.3	66.7
	Total	100	100	100	100
Toilet	No toilet facility	19.1	8.6	8.0	3.6
	Facility but toilet not useable	47.8	38.6	33.3	34.8
	Toilet useable	33.1	52.8	58.7	61.6
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	52.2	30.1	22.8	11.7
	Separate provision but locked	18.5	14.1	19.0	18.4
	Separate provision, unlocked but not useable	15.6	15.3	11.3	15.6
	Separate provision, unlocked and useable	13.7	40.4	47.0	54.3
	Total	100	100	100	100
Library	No library	79.2	60.4	54.7	40.8
	Library but no books being used by children on day of visit	10.3	18.6	21.7	24.7
	Library books being used by children on day of visit	10.5	21.0	23.6	34.5
	Total	100	100	100	100
Electricity	Electricity connection				23.6
	Of schools with electricity connection, % schools with electricity available on day of visit				71.4
Computer	No computer available for children to use	98.3	97.2	97.7	98.9
	Available but not being used by children on day of visit	1.6	2.0	1.7	0.9
	Computer being used by children on day of visit	0.2	0.8	0.7	0.3
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	78.7	70.9	87.0
April 2011 to March 2012	77.6	63.4	85.9
April 2013 to March 2014	65.4	48.0	18.1
April 2015 to March 2016	62.7	38.8	11.8

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	42.0	40.0	55.0
April 2012 to date of survey (2012)	41.7	35.8	51.3
April 2014 to date of survey (2014)	17.5	12.8	8.4
April 2016 to date of survey (2016)	47.7	21.4	7.4

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	15.2	5.0
	White wash/plastering	26.7	20.7
Repair	Repair of drinking water facility	24.2	25.5
	Repair of toilet	18.5	20.8
	Mats, Tat patti etc.	23.0	26.0
Purchase	Charts, globes or other teaching material	37.7	33.5

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	97.8	98.5
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	30.6	19.5
Between July and September	61.3	57.5
After September	8.1	23.0

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

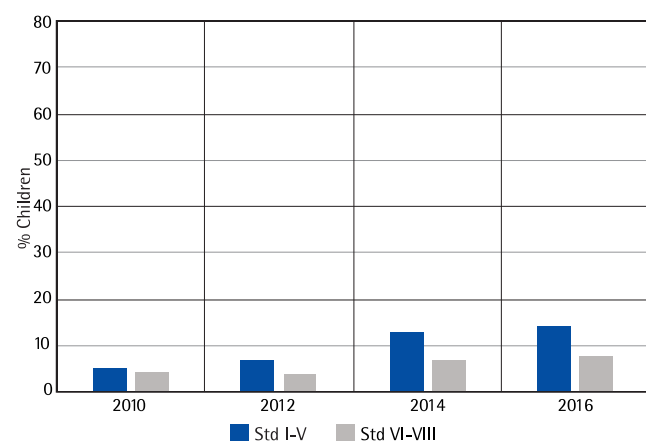
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	82.8	12.9	1.3	3.0	100
Age 7-16: All	82.4	12.0	1.2	4.5	100
Age 7-10: All	80.1	16.0	1.4	2.4	100
Age 7-10: Boys	76.5	19.5	1.6	2.4	100
Age 7-10: Girls	84.0	12.3	1.3	2.5	100
Age 11-14: All	84.9	10.0	1.0	4.1	100
Age 11-14: Boys	81.8	13.3	1.0	4.0	100
Age 11-14: Girls	88.0	6.6	0.9	4.4	100
Age 15-16: All	81.6	5.8	0.8	11.8	100
Age 15-16: Boys	79.1	7.5	1.0	12.4	100
Age 15-16: Girls	83.9	4.2	0.7	11.3	100

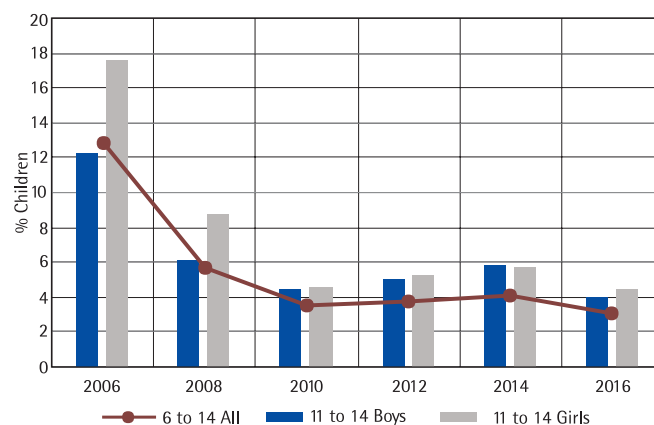
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	21.4	42.8	19.4	9.4	7.0						100		
II	2.3	13.2	33.3	32.8	8.0	6.9	3.7			100			
III	3.1	10.7	32.8	30.2	14.6	8.6			100				
IV	5.0	13.8	21.7	41.0	8.3	7.3	3.0			100			
V	6.1	7.2	32.9	30.1	15.8	8.1			100				
VI	4.6	15.3	22.5	40.7	10.1	6.8			100				
VII	1.3	5.1	8.4	35.8	32.4	11.7	5.3			100			
VIII	4.9	15.7	30.6	35.4	9.9	3.6			100				

This table shows the age distribution for each grade. For example, in Std III, 32.8% children are 8 years old but there are also 10.7% who are 7, 30.2% who are 9, 14.6% who are 10, and 8.6% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/ UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	50.4	2.8				46.8	100
Age 4	60.4	7.4				32.2	100
Age 5	36.3	12.0	32.0	4.6	1.6	13.5	100
Age 6	10.8	10.2	62.5	8.1	1.7	6.7	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	61.2	21.1	6.7	3.9	7.1	100
II	38.4	29.9	12.1	6.2	13.4	100
III	21.6	28.6	17.4	11.7	20.7	100
IV	13.1	22.6	17.3	14.3	32.7	100
V	9.3	17.5	15.4	15.8	42.0	100
VI	5.7	11.7	10.9	15.1	56.8	100
VII	3.2	8.7	9.1	13.5	65.5	100
VIII	2.4	5.7	5.8	11.0	75.1	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 21.6% cannot even read letters, 28.6% can read letters but not words or higher, 17.4% can read words but not Std I level text or higher, 11.7% can read Std I level text but not Std II level text, and 20.7% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

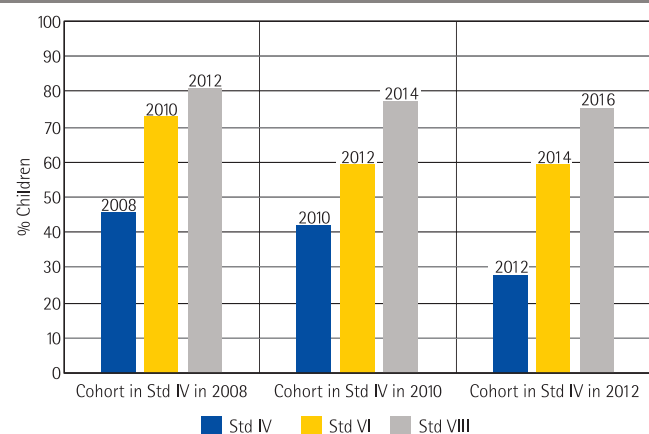
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	22.8	42.6	23.7
2012	14.2	52.7	16.8
2014	15.6	66.1	21.9
2016	13.9	62.5	20.8

\* 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.

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



This graph shows the progress of three 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

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 मौज़-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

ह च ट  
ल न  
फ म र  
स त

Words

कुल बड़ा  
रोटी  
पानी चूना  
चलो हीरा  
पैर  
देर कौन

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	57.9	70.9	58.4	87.3	84.6	87.2
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

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	51.7	28.3	11.1	4.8	4.1	100
II	28.0	35.1	19.4	9.0	8.5	100
III	12.5	32.7	27.8	12.9	14.2	100
IV	8.1	21.6	28.5	19.6	22.2	100
V	5.6	16.2	26.6	19.0	32.6	100
VI	3.2	9.9	20.9	20.9	45.0	100
VII	2.1	5.8	19.3	17.7	55.2	100
VIII	1.6	3.9	14.7	17.5	62.3	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 12.5% cannot even recognize numbers 1-9, 32.7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 27.8% can recognize numbers up to 99 but cannot do subtraction, 12.9% can do subtraction but cannot do division, and 14.2% can do division. For each grade, the total of these exclusive categories is 100%.

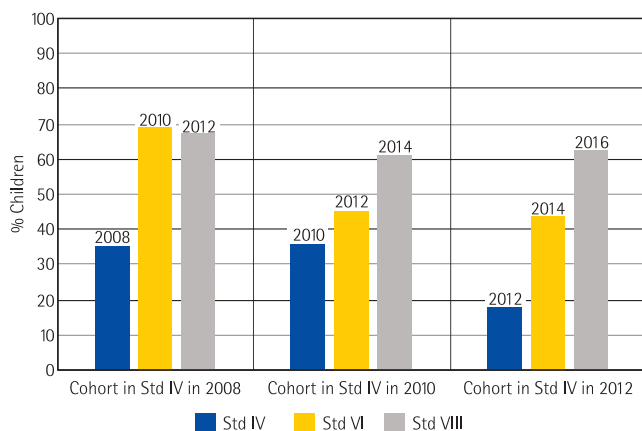
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	43.5	60.8	44.3
2012	25.1	68.4	28.1
2014	18.0	68.0	24.2
2016	20.0	72.0	27.3

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		भाग
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
4	1	46	25	31 - 18	68 - 49	4) 658

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	51.0	68.2	51.7	85.9	84.0	85.8
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

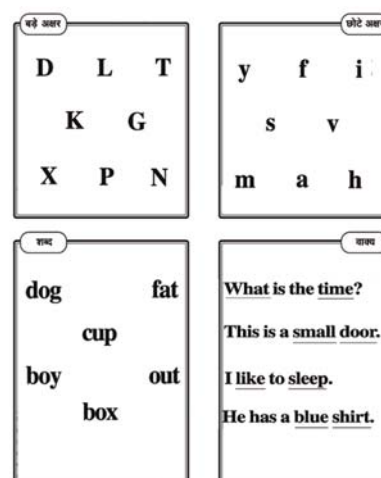
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	67.5	10.6	8.5	8.3	5.1	100
II	49.8	16.4	14.2	11.2	8.4	100
III	33.1	18.6	21.4	15.6	11.3	100
IV	23.0	15.6	23.8	23.2	14.4	100
V	18.1	12.2	23.4	28.2	18.1	100
VI	10.6	9.0	22.2	31.6	26.7	100
VII	7.4	7.4	18.1	32.4	34.7	100
VIII	5.4	5.3	15.5	30.1	43.8	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 33.1% cannot even read capital letters, 18.6% can read capital letters but not small letters or higher, 21.4% can read small letters but not words or higher, 15.6% can read words but not sentences, and 11.3% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	62.4	39.0
II	62.9	46.4
III	59.9	54.2
IV	59.0	47.3
V	56.7	50.2
VI	60.2	48.9
VII	62.2	51.7
VIII	64.3	56.0

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	53.8	52.4	45.3	40.9
	Govt. + Tuition	40.8	40.6	41.5	44.7
	Pvt. no tuition	2.6	2.6	5.0	4.9
	Pvt. + Tuition	2.8	4.4	8.2	9.5
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	38.9	38.4	35.4	32.2
	Govt. + Tuition	56.8	58.0	57.7	60.0
	Pvt. no tuition	1.4	1.2	2.4	2.3
	Pvt. + Tuition	2.8	2.5	4.5	5.5
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	54.5	35.4	6.2	4.0	100
Std I-V	Pvt.	25.6	38.7	12.8	23.0	100
Std VI-VIII	Govt.	33.6	49.6	10.0	6.8	100
Std VI-VIII	Pvt.	13.3	35.3	18.6	32.9	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	265	284	224	245
Upper primary schools (Std I-VII/VIII)	702	773	864	866
Total schools visited	967	1057	1088	1111

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	56.1	58.3	58.2	59.1
% Teachers present (Average)	84.6	78.1	77.5	74.6
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	55.9	55.5	52.1	52.0
% Teachers present (Average)	80.6	82.4	76.0	76.5

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	0.4	0.7	1.8	2.1
% Schools where Std II children were observed sitting with one or more other classes	67.6	75.5	79.3	71.8
% Schools where Std IV children were observed sitting with one or more other classes	63.7	72.5	79.0	67.1
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	0.2	0.3	0.0	0.1
% Schools where Std II children were observed sitting with one or more other classes	53.0	60.1	58.8	56.9
% Schools where Std IV children were observed sitting with one or more other classes	43.4	52.0	52.8	50.6

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	64.0	74.1	87.7	87.2
	Mid-day meal served in school on day of visit	57.2	75.0	69.2	76.5
Drinking water	No facility for drinking water	9.6	7.5	2.3	3.5
	Facility but no drinking water available	11.7	7.1	7.3	7.1
	Drinking water available	78.7	85.4	90.4	89.5
	Total	100	100	100	100
Toilet	No toilet facility	19.3	12.6	6.4	4.8
	Facility but toilet not useable	47.2	36.2	33.0	24.6
	Toilet useable	33.6	51.2	60.6	70.6
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	49.9	26.9	25.4	17.4
	Separate provision but locked	15.1	11.4	14.3	7.5
	Separate provision, unlocked but not useable	16.9	19.7	14.1	14.3
	Separate provision, unlocked and useable	18.1	42.0	46.2	60.8
	Total	100	100	100	100
Library	No library	47.1	25.4	23.7	30.7
	Library but no books being used by children on day of visit	24.7	29.3	45.8	36.6
	Library books being used by children on day of visit	28.2	45.3	30.5	32.8
	Total	100	100	100	100
Electricity	Electricity connection				72.6
	Of schools with electricity connection, % schools with electricity available on day of visit				63.6
Computer	No computer available for children to use	93.1	93.8	94.3	92.9
	Available but not being used by children on day of visit	2.9	4.8	5.0	6.3
	Computer being used by children on day of visit	4.0	1.4	0.7	0.8
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	79.2	82.7	85.2
April 2011 to March 2012	78.7	83.3	84.6
April 2013 to March 2014	80.3	83.0	12.1
April 2015 to March 2016	69.2	69.1	1.8

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	28.4	29.3	32.4
April 2012 to date of survey (2012)	22.1	23.4	25.5
April 2014 to date of survey (2014)	25.8	27.0	2.0
April 2016 to date of survey (2016)	30.1	49.9	2.0

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	24.6	14.9
	White wash/plastering	70.9	59.0
Repair	Repair of drinking water facility	71.4	72.0
	Repair of toilet	49.6	47.3
	Mats, Tat patti etc.	39.1	34.8
Purchase	Charts, globes or other teaching material	54.3	44.9

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	91.0	94.2
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	13.7	8.7
Between July and September	71.2	65.9
After September	15.1	25.4

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

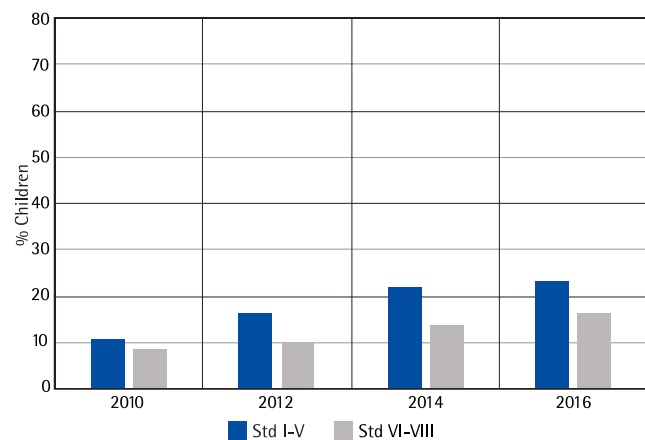
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	77.3	19.9	0.1	2.8	100
Age 7-16: All	75.9	17.9	0.1	6.1	100
Age 7-10: All	75.6	22.9	0.1	1.4	100
Age 7-10: Boys	73.4	25.0	0.1	1.5	100
Age 7-10: Girls	77.8	20.8	0.2	1.3	100
Age 11-14: All	79.2	16.2	0.0	4.6	100
Age 11-14: Boys	76.8	17.7	0.0	5.5	100
Age 11-14: Girls	81.5	14.8	0.0	3.7	100
Age 15-16: All	69.2	11.9	0.2	18.8	100
Age 15-16: Boys	64.8	15.9	0.1	19.3	100
Age 15-16: Girls	73.1	8.4	0.2	18.4	100

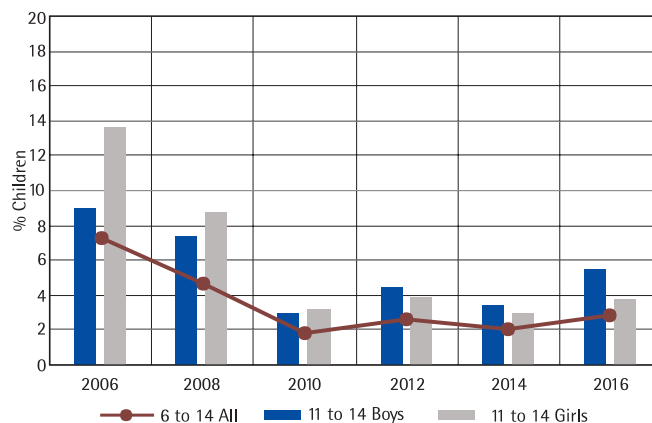
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	21.0	57.1	16.2	5.7									100
II	2.1	14.5	51.4	27.3	4.6								100
III	1.9	11.6	49.8	29.8	5.4	1.5							100
IV	2.4	14.8	41.8	35.4	5.6								100
V	3.4	11.0	45.9	31.2	6.0	2.4							100
VI	1.7	10.4	42.3	38.8	5.0	1.8	100						
VII	2.3	13.7	44.0	32.4	5.9	1.7	100						
VIII	2.7	12.8	43.4	32.0	7.3	1.8	100						

This table shows the age distribution for each grade. For example, in Std III, 49.8% children are 8 years old but there are also 11.6% who are 7, 29.8% who are 9, 5.4% who are 10, and 1.5% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	73.9	6.7				19.4	100
Age 4	73.5	16.5				10.1	100
Age 5	32.6	12.4	32.6	16.8	0.0	5.6	100
Age 6	6.6	4.8	65.0	21.6	0.0	2.1	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	45.4	43.0	6.6	2.4	2.7	100
II	18.0	39.9	17.4	13.1	11.7	100
III	8.8	27.3	16.4	19.4	28.1	100
IV	6.8	18.8	13.7	17.7	43.1	100
V	4.1	12.9	9.1	17.9	55.9	100
VI	2.4	8.1	10.0	15.0	64.5	100
VII	1.8	8.3	7.5	13.9	68.5	100
VIII	1.4	6.0	5.7	13.5	73.5	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 8.8% cannot even read letters, 27.3% can read letters but not words or higher, 16.4% 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 28.1% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

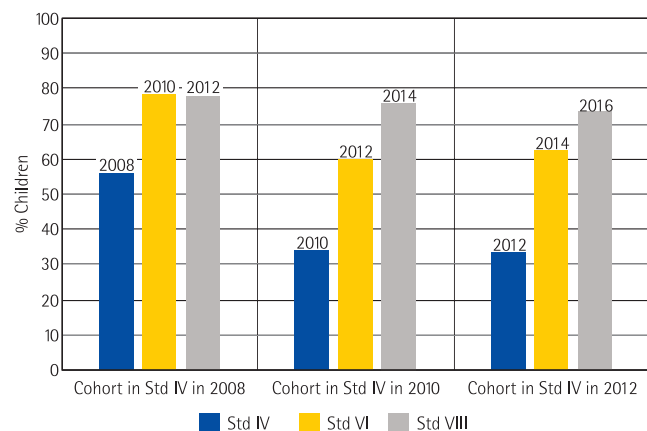
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	9.7	24.8	11.3
2012	15.7	41.0	19.9
2014	15.4	42.3	21.3
2016	22.2	47.3	28.1

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

Std II level 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 लेकर बाहर आए। भैया ने रस्सी को पेड़ से लटकाकर झूला बनाया। सब ने मिलकर खूब झूला झूला। बाकी बच्चे भी आकर मजे से झूलने लगे। झूलते-झूलते रात हो गई।

Std I level text

बगीचे में एक पेड़ है। पेड़ पर एक तोता रहता है। तोते का रंग हरा है। वह लाल टमाटर खाता है।

Letters

ल प स  
क ग  
ड ब म  
ट झ

Words

लाल दूध  
पैर किला  
तेल जूता  
मोर कुल  
पानी मौका

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	61.0	69.0	61.6	93.0	89.7	92.7
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	39.2	48.5	11.2	0.7	0.4	100
II	11.8	51.3	31.5	4.7	0.8	100
III	3.8	38.6	37.6	16.5	3.5	100
IV	2.6	32.2	30.1	22.9	12.2	100
V	1.5	21.6	31.4	22.5	23.0	100
VI	0.7	15.7	33.4	24.9	25.2	100
VII	1.0	13.1	37.1	24.4	24.4	100
VIII	0.4	8.2	39.8	23.4	28.1	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 3.8% cannot even recognize numbers 1-9, 38.6% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 37.6% can recognize numbers up to 99 but cannot do subtraction, 16.5% can do subtraction but cannot do division, and 3.5% can do division. For each grade, the total of these exclusive categories is 100%.

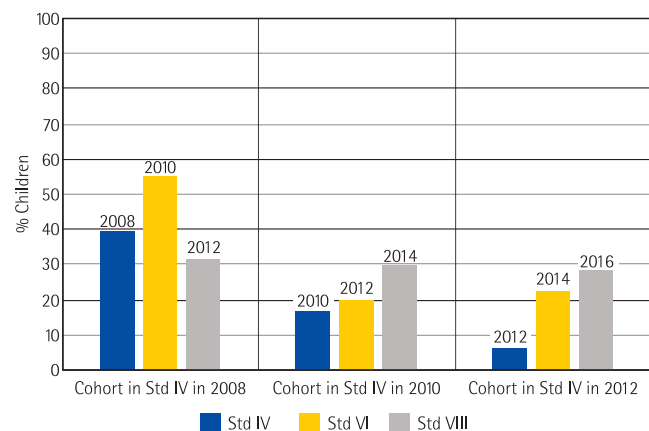
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	29.7	51.4	32.0
2012	12.1	27.3	14.6
2014	9.6	31.1	14.2
2016	14.5	37.7	20.0

\* 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.

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



This graph shows the progress of three 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

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		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	4) 517
		36	27			

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	37.8	53.0	38.9	77.8	74.6	77.6
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	52.9	25.6	18.1	2.6	0.9	100
II	28.6	27.2	38.0	4.0	2.3	100
III	22.8	23.2	39.9	9.0	5.2	100
IV	19.1	20.3	41.9	8.1	10.5	100
V	12.4	16.1	41.5	13.8	16.3	100
VI	9.8	11.6	37.2	18.9	22.5	100
VII	7.6	12.1	35.0	17.8	27.5	100
VIII	4.3	8.6	32.8	18.2	36.2	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 22.8% cannot even read capital letters, 23.2% can read capital letters but not small letters or higher, 39.9% can read small letters but not words or higher, 9% can read words but not sentences, and 5.2% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I		
II		
III		
IV		
V	51.3	56.4
VI	46.2	53.5
VII	45.1	52.9
VIII	46.7	56.8

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	88.3	82.7	77.8	76.0
	Govt. + Tuition	1.3	1.1	0.8	0.7
	Pvt. no tuition	9.5	14.5	19.9	21.9
	Pvt. + Tuition	1.0	1.8	1.4	1.5
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	89.1	88.4	84.3	82.7
	Govt. + Tuition	2.1	1.6	1.2	0.7
	Pvt. no tuition	7.9	9.0	13.0	15.4
	Pvt. + Tuition	1.0	1.0	1.5	1.2
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.					
Std I-V	Pvt.					
Std VI-VIII	Govt.					
Std VI-VIII	Pvt.					



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	301	388	431	468
Upper primary schools (Std I-VII/VIII)	124	42	11	5
Total schools visited	425	430	442	473

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	70.5	75.2	74.6	68.3
% Teachers present (Average)	86.5	84.5	82.2	79.6

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	16.1	29.3	33.6	41.0
% Schools where Std II children were observed sitting with one or more other classes	64.8	75.9	76.2	75.8
% Schools where Std IV children were observed sitting with one or more other classes	51.1	54.2	53.9	56.0

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	86.1	89.0	92.9	94.7
	Mid-day meal served in school on day of visit	94.6	91.8	86.1	80.1
Drinking water	No facility for drinking water	12.9	9.8	10.2	5.5
	Facility but no drinking water available	9.6	11.0	9.5	9.5
	Drinking water available	77.6	79.2	80.3	85.0
Total		100	100	100	100
Toilet	No toilet facility	28.9	15.9	8.2	5.1
	Facility but toilet not useable	41.5	32.7	22.9	16.8
	Toilet useable	29.6	51.4	68.9	78.1
Total		100	100	100	100
Girls' toilet	No separate provision for girls' toilet	46.2	34.7	29.8	13.7
	Separate provision but locked	16.3	8.4	7.6	4.7
	Separate provision, unlocked but not useable	17.5	15.3	9.2	11.4
	Separate provision, unlocked and useable	20.0	41.6	53.4	70.2
Total		100	100	100	100
Library	No library	27.1	11.7	10.5	14.0
	Library but no books being used by children on day of visit	36.5	55.4	63.3	61.5
	Library books being used by children on day of visit	36.5	32.9	26.2	24.5
Total		100	100	100	100
Electricity	Electricity connection				86.6
	Of schools with electricity connection, % schools with electricity available on day of visit				73.1
Computer	No computer available for children to use	95.9	97.2	99.5	98.5
	Available but not being used by children on day of visit	2.4	2.8	0.5	1.3
	Computer being used by children on day of visit	1.7	0.0	0.0	0.2
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	85.5	81.8	90.5
April 2011 to March 2012	93.2	90.6	93.9
April 2013 to March 2014	83.5	71.5	11.5
April 2015 to March 2016	86.4	79.7	8.1

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	34.9	40.4	39.0
April 2012 to date of survey (2012)	65.8	63.1	64.5
April 2014 to date of survey (2014)	64.6	23.6	4.2
April 2016 to date of survey (2016)	6.6	6.6	2.1

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	11.9	8.9
	White wash/plastering	87.4	85.3
Repair	Repair of drinking water facility	48.0	51.5
	Repair of toilet	31.8	42.7
Purchase	Mats, Tat patti etc.	61.2	63.8
	Charts, globes or other teaching material	75.2	80.7

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	99.8	99.2
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	4.9	4.4
Between July and September	94.2	95.2
After September	0.9	0.4

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	





Gujarat, Haryana

Himachal Pradesh, Jammu, Kargil and Leh

Jharkhand



## School enrollment

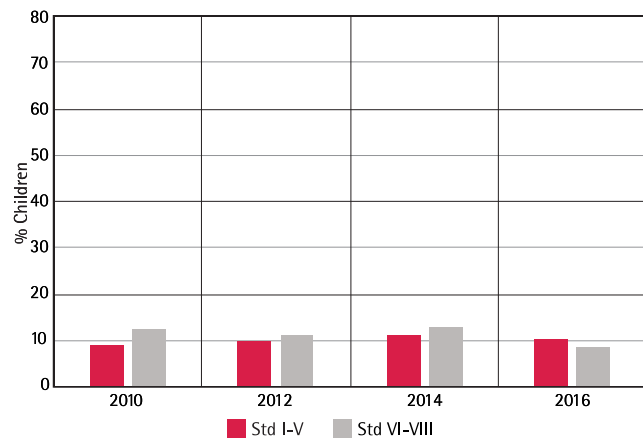
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	87.4	10.2	0.1	2.4	100
Age 7-16: All	83.0	11.5	0.1	5.4	100
Age 7-10: All	88.3	10.5	0.1	1.2	100
Age 7-10: Boys	86.3	12.5	0.0	1.2	100
Age 7-10: Girls	90.5	8.3	0.1	1.2	100
Age 11-14: All	86.0	10.1	0.1	3.8	100
Age 11-14: Boys	85.6	11.3	0.1	3.0	100
Age 11-14: Girls	86.3	8.7	0.1	4.9	100
Age 15-16: All	60.8	18.0	0.3	21.0	100
Age 15-16: Boys	62.7	18.6	0.1	18.7	100
Age 15-16: Girls	58.8	17.3	0.4	23.5	100

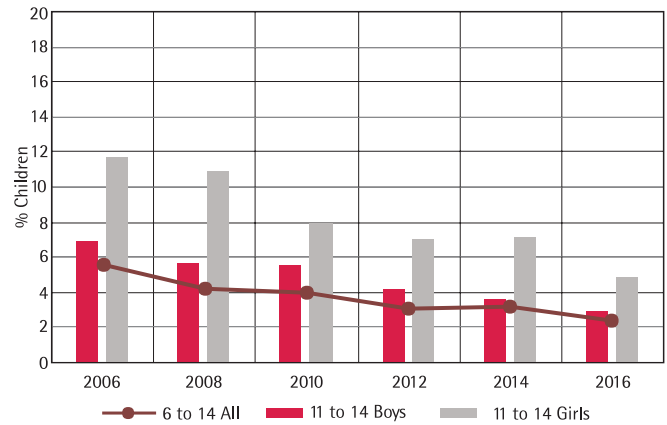
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	21.2	63.3	12.7				2.8					100	
II	0.8	11.0	67.3	17.4				3.4			100		
III	0.8		14.2	65.0	15.4				4.5			100	
IV	1.6		13.0	61.9	18.1				5.4			100	
V	1.3			7.9	66.7	18.4				5.7			100
VI	2.0			11.1	58.4	24.1				4.4			100
VII	2.2			11.3	58.0	20.5	6.3	1.7			100		
VIII	3.9			11.6	63.8	14.7	6.0			100			

This table shows the age distribution for each grade. For example, in Std III, 65% children are 8 years old but there are also 14.2% who are 7, 15.4% who are 9, and 4.5% who are 10 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	78.8	2.7				18.5	100
Age 4	78.1	9.3				12.7	100
Age 5	47.3	13.2	28.8	3.1	0.0	7.7	100
Age 6	7.4	2.9	78.8	7.9	0.0	3.0	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	46.3	42.2	7.9	2.7	0.9	100
II	17.5	30.9	25.0	16.5	10.2	100
III	11.1	22.1	19.8	24.0	23.0	100
IV	5.2	12.2	18.1	25.5	39.1	100
V	4.0	9.0	14.8	19.3	53.0	100
VI	3.5	6.8	11.2	23.5	55.0	100
VII	3.0	4.0	7.2	16.8	69.0	100
VIII	0.8	2.5	6.8	13.3	76.6	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 11.1% cannot even read letters, 22.1% can read letters but not words or higher, 19.8% can read words but not Std I level text or higher, 24% can read Std I level text but not Std II level text, and 23% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

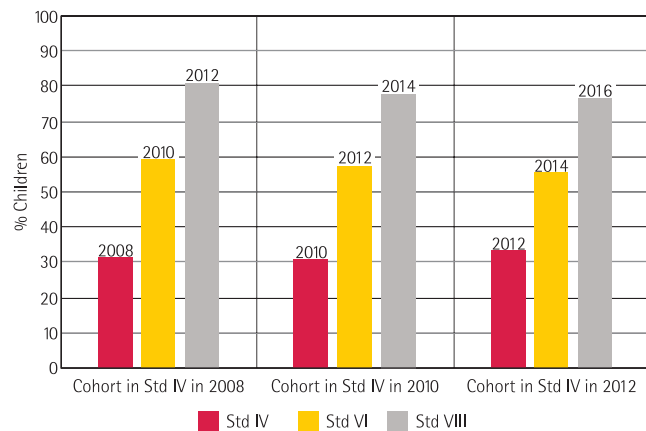
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	12.6	30.3	14.1
2012	19.5	34.2	20.9
2014	17.6	41.8	20.3
2016	21.6	36.7	23.0

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

Std II level text	Std I level text																								
<p>જંગલમાં વાંદરાનું એક ટોળું હતું. તે ચાંદની રાતે નદી કાંઠે ઝાડ પર સૂતું હતું. એક તળાવમાં ચાંદો જોયો. તેણે બધાને જગાડી દીધા. બધાને થયું કે આ તો મોટું ક્ષણ છે. પણ તેને કેવી રીતે લેવું? એકે બીજાની અને બીજાએ ત્રીજાની પૂંછડી પકડી અને નદી સુધી પહોંચ્યા. નદીમાં ચાંદો પકડે તે પહેલાં પકડ છૂટી ગઈ અને બધા ધબાક કરતા પાણીમાં પડ્યાં.</p>	<p>મારી પાસે મોટર છે. મોટર બોલે પોમ...પોમ... એમા દૂર ફરવાની બહુ મજા. એનો રંગ કાળો છે.</p>																								
<p>Letters</p> <table border="1"> <tr><td>મ</td><td>ર</td><td>થ</td></tr> <tr><td>હ</td><td>સ</td><td></td></tr> <tr><td>લ</td><td>ઝ</td><td>ન</td></tr> <tr><td>ક</td><td>દ</td><td></td></tr> </table>	મ	ર	થ	હ	સ		લ	ઝ	ન	ક	દ		<p>Words</p> <table border="1"> <tr><td>ગામ</td><td>મોજ</td></tr> <tr><td>સામા</td><td></td></tr> <tr><td>રેવા</td><td>પાણી</td></tr> <tr><td>ચુંદ</td><td>દિલ</td></tr> <tr><td>ઘસ</td><td></td></tr> <tr><td>હાદી</td><td>પેડું</td></tr> </table>	ગામ	મોજ	સામા		રેવા	પાણી	ચુંદ	દિલ	ઘસ		હાદી	પેડું
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ચુંદ	દિલ																								
ઘસ																									
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**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	43.5	63.9	45.5	78.0	82.9	79.1
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

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	46.9	43.4	8.4	1.1	0.1	100
II	19.9	42.3	32.6	4.1	1.1	100
III	13.6	33.4	33.4	16.7	2.8	100
IV	6.6	20.2	38.7	27.8	6.8	100
V	3.9	18.4	35.0	26.7	16.1	100
VI	4.7	15.4	33.9	25.5	20.6	100
VII	3.7	10.8	31.8	26.9	26.8	100
VIII	1.3	6.2	28.7	28.9	34.8	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 13.6% cannot even recognize numbers 1-9, 33.4% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 33.4% can recognize numbers up to 99 but cannot do subtraction, 16.7% can do subtraction but cannot do division, and 2.8% can do division. For each grade, the total of these exclusive categories is 100%.

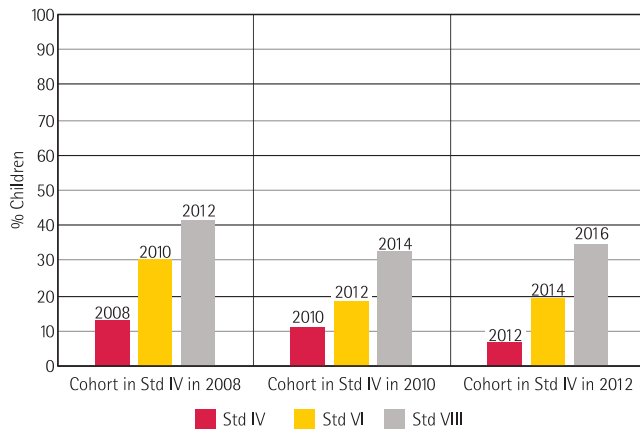
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	23.5	44.8	25.4
2012	12.0	33.6	14.0
2014	12.4	35.2	14.9
2016	18.3	31.9	19.6

\* 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.

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



This graph shows the progress of three 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 13.2%, 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.

## Arithmetic Tool

અંક ઓળખ ૧-૯		સંખ્યા ઓળખ ૧૦-૯૯		ભાદભાડી		ભાગાકાર
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૫	૨	૯૧	૪૩	૫૨	૬૬	૪) ૫૧૭
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**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	19.6	34.0	21.1	54.1	55.1	54.3
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

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

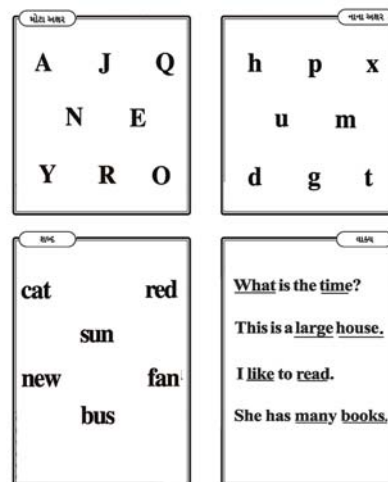
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	82.4	9.5	6.3	1.4	0.4	100
II	65.7	17.0	12.8	3.3	1.3	100
III	49.8	24.4	16.0	7.6	2.3	100
IV	36.2	22.6	23.1	14.4	3.6	100
V	20.9	28.1	25.9	17.7	7.4	100
VI	18.3	19.4	27.2	19.7	15.5	100
VII	12.6	13.3	27.8	23.9	22.3	100
VIII	6.5	12.9	16.8	26.2	37.6	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 49.8% cannot even read capital letters, 24.4% can read capital letters but not small letters or higher, 16% can read small letters but not words or higher, 7.6% can read words but not sentences, and 2.3% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I		
II		
III		
IV	47.0	
V	56.3	66.4
VI	54.2	66.6
VII	49.5	61.7
VIII	55.9	66.3

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	83.1	82.8	80.3	81.6
	Govt. + Tuition	7.9	7.4	8.1	7.9
	Pvt. no tuition	5.7	5.7	6.8	5.7
	Pvt. + Tuition	3.3	4.1	4.9	4.8
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	78.5	79.7	76.7	82.1
	Govt. + Tuition	9.1	9.3	10.3	9.3
	Pvt. no tuition	8.2	6.3	7.6	5.1
	Pvt. + Tuition	4.2	4.7	5.5	3.6
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	36.7	44.7	13.7	5.0	100
Std I-V	Pvt.	24.1	40.6	17.6	17.7	100
Std VI-VIII	Govt.	32.2	40.3	18.3	9.2	100
Std VI-VIII	Pvt.	20.6	32.8	16.0	30.6	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	66	70	67	82
Upper primary schools (Std I-VII/VIII)	557	622	653	562
Total schools visited	623	692	720	644

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	87.4	84.1	85.5	89.4
% Teachers present (Average)	94.7	90.9	94.1	91.6
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	84.4	83.9	82.5	83.0
% Teachers present (Average)	95.9	91.1	93.5	90.8

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	33.3	43.1	43.3	68.4
% Schools where Std II children were observed sitting with one or more other classes	56.1	85.1	77.3	89.0
% Schools where Std IV children were observed sitting with one or more other classes	51.7	78.8	69.4	88.5
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	1.3	1.5	2.8	4.0
% Schools where Std II children were observed sitting with one or more other classes	33.6	40.4	45.2	47.4
% Schools where Std IV children were observed sitting with one or more other classes	30.7	36.0	37.5	43.6

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	88.3	88.7	90.0	91.9
	Mid-day meal served in school on day of visit	96.2	95.1	94.2	95.4
Drinking water	No facility for drinking water	14.2	11.1	8.5	9.7
	Facility but no drinking water available	6.5	6.6	4.5	5.8
	Drinking water available	79.4	82.3	87.0	84.6
	Total	100	100	100	100
Toilet	No toilet facility	2.6	1.3	1.7	0.3
	Facility but toilet not useable	32.6	28.6	13.5	16.8
	Toilet useable	64.8	70.0	84.8	82.9
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	12.7	5.5	5.8	2.4
	Separate provision but locked	20.7	11.3	5.6	6.5
	Separate provision, unlocked but not useable	16.7	17.4	7.2	10.0
	Separate provision, unlocked and useable	49.9	65.8	81.4	81.1
	Total	100	100	100	100
Library	No library	16.2	14.4	7.7	12.2
	Library but no books being used by children on day of visit	35.2	44.3	54.0	45.5
	Library books being used by children on day of visit	48.5	41.4	38.3	42.3
	Total	100	100	100	100
Electricity	Electricity connection				99.2
	Of schools with electricity connection, % schools with electricity available on day of visit				94.0
Computer	No computer available for children to use	47.8	13.6	18.7	24.8
	Available but not being used by children on day of visit	24.3	47.7	52.8	43.7
	Computer being used by children on day of visit	27.9	38.7	28.5	31.5
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	79.3	82.6	91.2
April 2011 to March 2012	85.8	88.6	94.2
April 2013 to March 2014	76.2	79.9	21.1
April 2015 to March 2016	79.3	83.9	58.8

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	65.3	67.0	70.1
April 2012 to date of survey (2012)	82.8	84.4	90.5
April 2014 to date of survey (2014)	69.0	73.1	16.2
April 2016 to date of survey (2016)	73.1	77.9	75.4

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	26.0	19.9
	White wash/plastering	48.0	48.1
Repair	Repair of drinking water facility	53.3	60.9
	Repair of toilet	49.8	59.3
Purchase	Mats, Tat patti etc.	58.7	85.1
	Charts, globes or other teaching material	61.7	71.9

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	99.2	98.9
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	8.0	8.1
Between July and September	88.9	72.6
After September	3.1	19.4

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

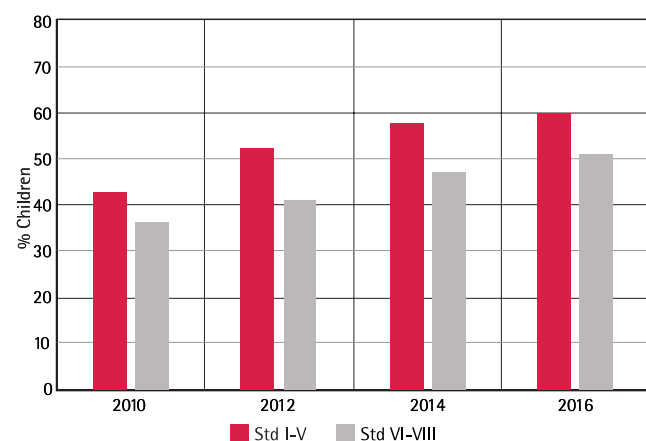
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	41.7	55.7	0.6	2.0	100
Age 7-16: All	43.3	52.9	0.6	3.2	100
Age 7-10: All	39.6	58.2	0.7	1.6	100
Age 7-10: Boys	35.6	62.5	0.6	1.3	100
Age 7-10: Girls	44.2	53.2	0.8	1.8	100
Age 11-14: All	45.2	51.6	0.6	2.6	100
Age 11-14: Boys	39.6	57.7	0.7	2.0	100
Age 11-14: Girls	52.1	44.0	0.5	3.4	100
Age 15-16: All	47.5	43.3	0.4	8.9	100
Age 15-16: Boys	42.7	49.7	0.4	7.3	100
Age 15-16: Girls	52.7	36.1	0.4	10.7	100

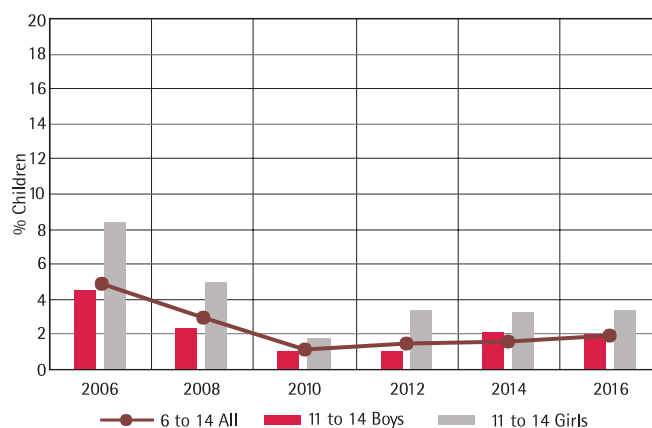
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total		
I	28.4	41.8	19.9	6.3	3.6								100		
II	5.1	22.6	38.5	23.4	6.7	3.6							100		
III	0.8	5.4	21.6	40.9	20.6	7.7	3.0							100	
IV	0.8	5.1	22.5	36.2	24.3	6.8	4.3							100	
V	5.6			17.0	42.7	21.5	10.2	3.0							100
VI	5.7			22.1	35.3	26.4	7.7	2.9							100
VII	5.3			17.5	40.9	24.3	8.0	4.1							100
VIII	4.8			26.6	35.2	24.2	6.8	2.5							100

This table shows the age distribution for each grade. For example, in Std III, 40.9% children are 8 years old but there are also 21.6% who are 7, 20.6% who are 9, 7.7% who are 10, and 3% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	48.8	24.3				26.9	100
Age 4	23.1	55.9				20.9	100
Age 5	3.8	31.7	19.2	37.0	0.8	7.6	100
Age 6	1.1	14.4	27.9	52.2	0.5	3.8	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	23.4	29.3	21.1	12.4	13.8	100
II	9.3	20.7	23.5	20.6	26.0	100
III	6.3	10.8	16.1	20.8	46.1	100
IV	3.3	8.8	10.4	21.4	56.1	100
V	2.4	5.0	6.8	17.6	68.3	100
VI	1.9	3.9	5.1	13.9	75.2	100
VII	1.4	3.2	3.3	10.1	82.0	100
VIII	1.2	3.1	2.8	9.2	83.7	100

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, 10.8% can read letters but not words or higher, 16.1% can read words but not Std I level text or higher, 20.8% can read Std I level text but not Std II level text, and 46.1% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

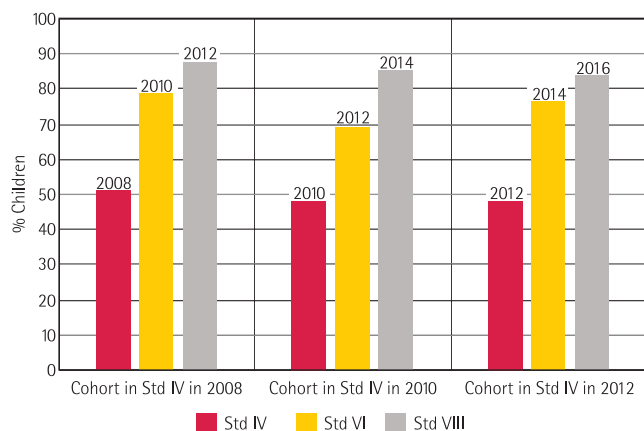
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	23.1	44.4	31.6
2012	14.7	52.4	34.1
2014	21.7	61.5	45.4
2016	25.1	60.9	46.2

\* 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.

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



This graph shows the progress of three 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.

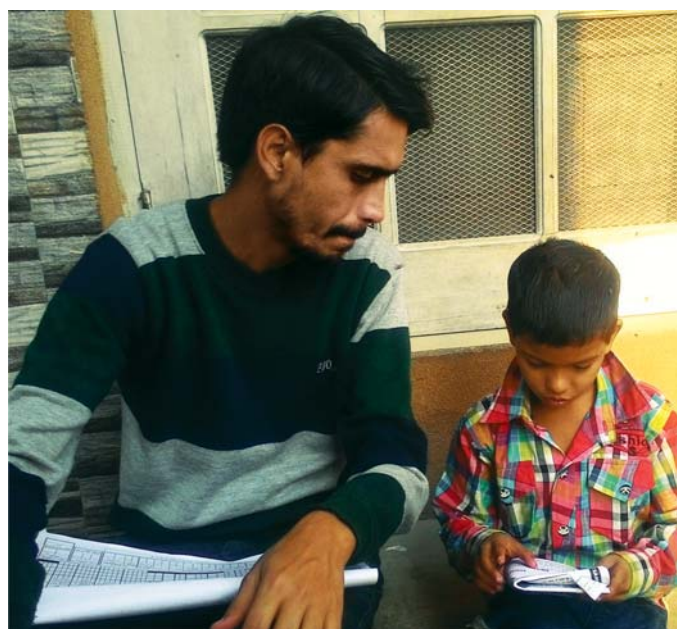
## Reading Tool

Std II level text	Std I level text
<p>नगमा समझदार लड़की थी। मगर उसका छोटा भाई अमन बहुत नटखट था। एक दिन दोनों बाज़ार में घूम रहे थे। अमन ने रास्ते में पकौड़े देखे। उसे पकौड़े बहुत पसंद थे। माँ उसके लिए पकौड़े बनाती थी। नगमा ने कहा यह पकौड़े तीखे होंगे। मगर अमन नहीं माना। अमन ने पकौड़े खाए और उसकी आँखों से आँसू निकलने लगे।</p>	<p>रात हो गई है। चाँद दिख रहा है। तारे भी चमक रहे हैं। सब लोग सो गए हैं।</p>
<p>Letters</p> <p>न प म च स थ ग द र ल</p>	<p>Words</p> <p>आग सोच ताला पानी गिर धुन मौका देश पैसा बूढ़ा</p>

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	60.7	78.3	67.6	86.6	90.0	87.9
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	79.2	68.4	76.3	91.6	83.7

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	19.9	25.9	40.2	11.9	2.2	100
II	6.7	22.5	35.4	27.8	7.6	100
III	5.4	13.7	26.1	33.1	21.6	100
IV	3.0	9.5	18.8	33.4	35.4	100
V	1.7	6.9	15.4	27.2	48.9	100
VI	1.4	5.3	14.0	23.8	55.5	100
VII	1.0	4.0	11.8	23.3	59.9	100
VIII	0.7	4.2	11.9	17.8	65.4	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 5.4% cannot even recognize numbers 1-9, 13.7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 26.1% can recognize numbers up to 99 but cannot do subtraction, 33.1% can do subtraction but cannot do division, and 21.6% can do division. For each grade, the total of these exclusive categories is 100%.

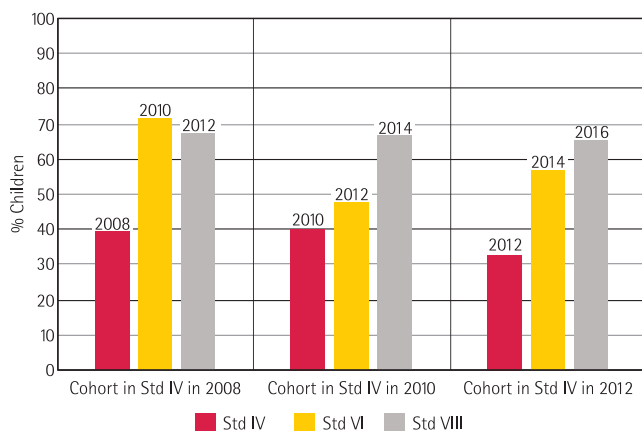
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	42.2	67.9	52.5
2012	20.0	70.8	46.0
2014	24.0	74.7	54.1
2016	27.7	73.6	54.8

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		भाग
5	7	74	23	63 - 44	51 - 35	7) 898
8	4	91	86	92 - 48	71 - 35	4) 659
2	9	24	79	45 - 27	34 - 19	8) 946
3	1	37	61	43 - 29	46 - 17	6) 757

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	50.5	70.8	58.4	79.7	88.6	83.1
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	63.9	49.0	53.5	78.1	65.4

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	24.4	19.2	20.9	25.5	10.1	100
II	12.2	16.9	22.7	26.4	21.9	100
III	8.2	10.5	19.9	26.2	35.2	100
IV	4.9	10.1	12.7	28.4	44.0	100
V	3.6	6.6	10.4	24.6	54.8	100
VI	3.1	6.2	9.2	19.8	61.7	100
VII	2.2	4.9	6.7	17.8	68.4	100
VIII	1.9	4.5	7.7	14.6	71.4	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 8.2% cannot even read capital letters, 10.5% can read capital letters but not small letters or higher, 19.9% can read small letters but not words or higher, 26.2% can read words but not sentences, and 35.2% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	58.7	43.1
II	63.8	50.1
III	67.3	64.5
IV	66.8	64.3
V	60.7	73.7
VI	58.9	75.5
VII	73.0	76.2
VIII	63.2	79.7

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	50.0	42.9	37.4	33.1
	Govt. + Tuition	5.6	3.4	4.4	4.9
	Pvt. no tuition	35.1	42.5	44.8	46.1
	Pvt. + Tuition	9.3	11.3	13.5	15.9
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	54.3	55.1	47.5	42.0
	Govt. + Tuition	7.7	3.1	5.1	5.9
	Pvt. no tuition	29.3	34.7	38.4	39.8
	Pvt. + Tuition	8.7	7.1	8.9	12.2
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	23.7	39.7	23.0	13.6	100
Std I-V	Pvt.	5.3	26.1	33.5	35.1	100
Std VI-VIII	Govt.	5.8	31.7	30.8	31.7	100
Std VI-VIII	Pvt.	1.4	10.1	26.9	61.6	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	302	352	445	439
Upper primary schools (Std I-VII/VIII)	226	161	132	154
Total schools visited	528	513	577	593

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	82.9	77.2	78.7	82.3
% Teachers present (Average)	89.8	85.5	85.8	85.3
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	81.7	77.8	79.6	83.8
% Teachers present (Average)	87.8	83.4	86.1	85.8

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	10.3	12.8	12.4	18.9
% Schools where Std II children were observed sitting with one or more other classes	33.0	40.1	34.0	43.3
% Schools where Std IV children were observed sitting with one or more other classes	30.1	32.5	27.4	32.9
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	1.4	1.3	1.5	5.2
% Schools where Std II children were observed sitting with one or more other classes	31.3	44.6	35.2	53.6
% Schools where Std IV children were observed sitting with one or more other classes	28.9	36.7	27.3	54.7

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	51.0	68.3	75.8	82.0
	Mid-day meal served in school on day of visit	93.7	91.7	91.7	92.5
Drinking water	No facility for drinking water	17.7	13.9	15.5	16.6
	Facility but no drinking water available	7.7	10.4	8.4	7.6
	Drinking water available	74.6	75.7	76.2	75.8
	Total	100	100	100	100
Toilet	No toilet facility	2.0	3.0	2.4	0.5
	Facility but toilet not useable	30.1	23.6	15.8	14.0
	Toilet useable	67.9	73.5	81.8	85.5
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	10.0	5.9	4.6	2.9
	Separate provision but locked	13.4	3.0	3.3	3.4
	Separate provision, unlocked but not useable	23.9	20.3	12.5	11.4
	Separate provision, unlocked and useable	52.8	70.8	79.6	82.3
	Total	100	100	100	100
Library	No library	35.4	15.5	15.8	16.8
	Library but no books being used by children on day of visit	33.0	45.8	48.2	42.3
	Library books being used by children on day of visit	31.6	38.7	36.0	40.9
	Total	100	100	100	100
Electricity	Electricity connection				96.2
	Of schools with electricity connection, % schools with electricity available on day of visit				49.5
Computer	No computer available for children to use	82.6	79.9	88.5	89.4
	Available but not being used by children on day of visit	10.5	14.2	7.9	8.2
	Computer being used by children on day of visit	6.9	5.9	3.7	2.4
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	91.3	83.6	92.0
April 2011 to March 2012	95.8	84.0	93.1
April 2013 to March 2014	66.4	44.8	18.4
April 2015 to March 2016	77.8	59.3	14.0

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	62.8	48.8	61.7
April 2012 to date of survey (2012)	84.5	73.6	58.9
April 2014 to date of survey (2014)	45.7	33.0	8.5
April 2016 to date of survey (2016)	48.9	30.5	5.7

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	15.2	8.5
	White wash/plastering	36.4	30.7
Repair	Repair of drinking water facility	45.8	45.8
	Repair of toilet	35.0	42.3
	Mats, Tat patti etc.	34.8	32.2
Purchase	Charts, globes or other teaching material	46.0	38.3

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	98.9	96.6
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	4.0	5.7
Between July and September	72.6	83.3
After September	23.4	11.0

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



# Himachal Pradesh RURAL

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

## School enrollment

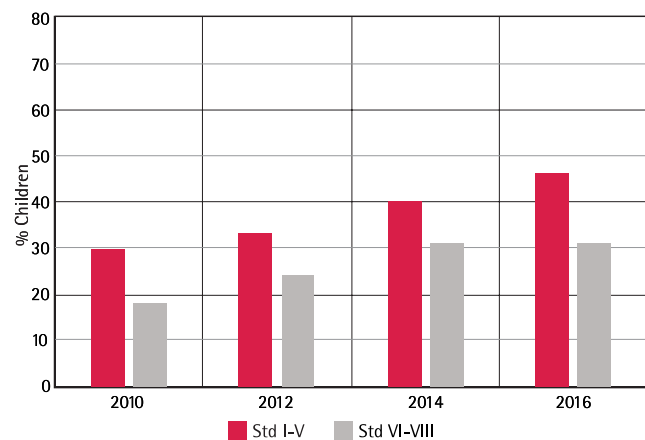
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	61.3	38.5	0.0	0.2	100
Age 7-16: All	64.8	34.4	0.0	0.8	100
Age 7-10: All	54.8	45.0	0.0	0.2	100
Age 7-10: Boys	51.6	48.2	0.1	0.1	100
Age 7-10: Girls	58.2	41.6	0.0	0.2	100
Age 11-14: All	69.3	30.4	0.0	0.3	100
Age 11-14: Boys	64.8	34.9	0.1	0.3	100
Age 11-14: Girls	73.8	25.9	0.0	0.4	100
Age 15-16: All	77.0	19.2	0.1	3.8	100
Age 15-16: Boys	71.3	24.6	0.1	4.0	100
Age 15-16: Girls	82.5	13.9	0.0	3.6	100

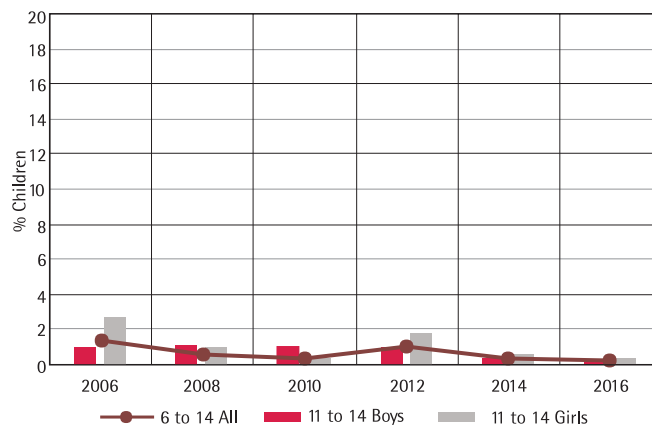
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII  
2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age  
2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	31.4	50.2	16.7	1.7									100
II	1.0	28.1	53.7	13.8	3.4								100
III	1.9	24.7	58.0	12.6	2.9								100
IV	2.2	29.3	49.5	16.5	2.6								100
V	3.3	22.7	54.8	15.7	3.4								100
VI	3.1	30.8	50.2	13.9	2.0								100
VII	4.0	27.9	49.0	16.2	2.9								100
VIII	3.9	31.8	48.9	13.5	1.9								100

This table shows the age distribution for each grade. For example, in Std III, 58% children are 8 years old but there are also 24.7% who are 7, 12.6% who are 9, and 2.9% who are 10 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	55.4	26.5				18.1	100
Age 4	36.0	56.4				7.6	100
Age 5	9.8	41.4	24.2	16.2	0.1	8.3	100
Age 6	0.7	8.8	45.2	44.3	0.0	1.0	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	15.0	43.4	21.7	12.5	7.4	100
II	5.6	19.2	21.8	24.5	28.9	100
III	1.2	12.9	11.8	27.2	47.0	100
IV	1.8	6.0	7.5	23.0	61.8	100
V	0.4	4.4	7.1	17.6	70.5	100
VI	1.3	3.2	4.4	16.5	74.7	100
VII	0.5	3.7	4.2	8.0	83.6	100
VIII	0.6	1.8	1.1	8.7	87.9	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 1.2% cannot even read letters, 12.9% can read letters but not words or higher, 11.8% can read words but not Std I level text or higher, 27.2% can read Std I level text but not Std II level text, and 47% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

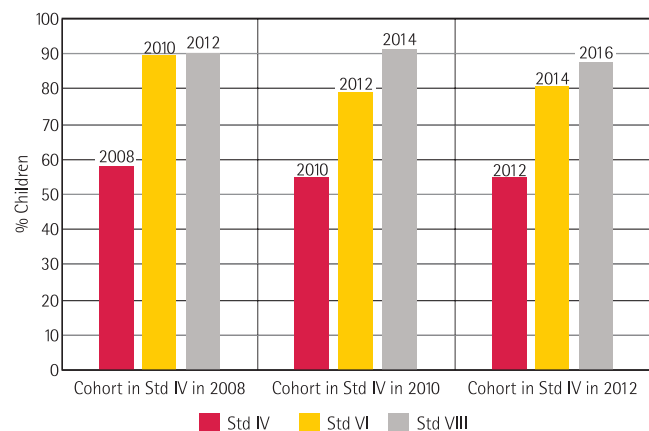
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	25.3	44.2	30.9
2012	32.8	51.0	38.7
2014	43.6	51.3	46.6
2016	45.0	49.0	47.0

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

Std II level text	Std I level text
<p>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 बगीचा बनाया जाए। खाद मंगाकर तरह-तरह के पौधे लगाए गए। सही समय पर पानी दिया गया। आज वहाँ एक सुंदर बगीचा है। इसलिए वहाँ सभी खेलने जाते हैं।</p>	<p>रूपा बाहर खेल रही थी। खेलते-खेलते रात हो गई। रूपा अपने घर चली गई। वह खाना खाकर सो गई।</p>
<p>द क च ल ब ह थ त म ख</p>	<p>नाक तोला कूड़ा खुश मैना मोका सेब पीला झोला दिन</p>

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	75.7	82.8	77.4	93.2	92.9	93.1
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	8.2	34.1	47.6	8.4	1.8	100
II	2.5	17.5	44.1	32.4	3.6	100
III	1.1	10.0	31.5	38.9	18.5	100
IV	1.3	5.5	22.5	31.1	39.6	100
V	0.1	5.5	15.8	24.9	53.7	100
VI	0.3	4.8	19.7	23.6	51.6	100
VII	0.2	1.9	17.4	27.7	52.7	100
VIII	0.0	1.4	17.5	21.9	59.2	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 1.1% cannot even recognize numbers 1-9, 10% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 31.5% can recognize numbers up to 99 but cannot do subtraction, 38.9% can do subtraction but cannot do division, and 18.5% can do division. For each grade, the total of these exclusive categories is 100%.

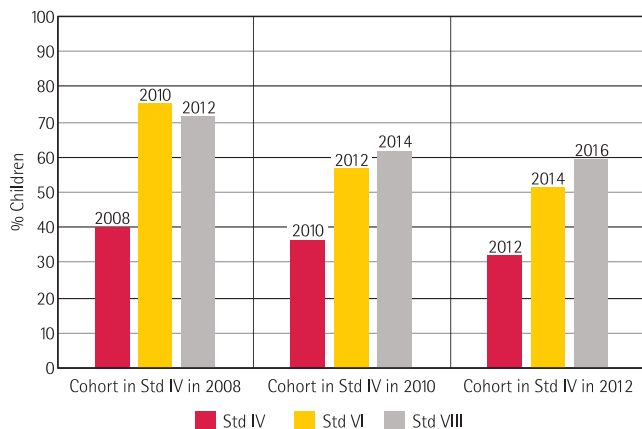
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	53.9	76.0	60.4
2012	39.5	72.6	50.3
2014	40.6	70.6	52.4
2016	48.4	66.7	57.4

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		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	54	87	45 - 18	53 - 24	4)519

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	61.8	67.7	63.2	85.1	87.3	85.5
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English All children 2016**

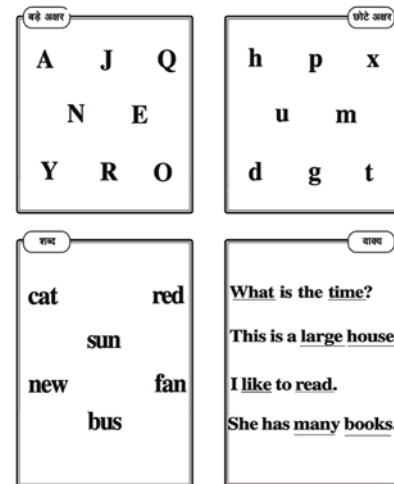
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	18.4	15.4	31.2	25.2	9.8	100
II	7.2	9.7	28.9	31.1	23.2	100
III	4.5	3.9	24.4	28.7	38.5	100
IV	3.3	5.1	16.6	26.5	48.6	100
V	1.5	4.8	12.4	18.2	63.2	100
VI	2.2	3.0	13.9	19.9	61.1	100
VII	1.4	3.5	10.0	13.9	71.2	100
VIII	0.5	1.4	9.4	14.6	74.0	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 4.5% cannot even read capital letters, 3.9% can read capital letters but not small letters or higher, 24.4% can read small letters but not words or higher, 28.7% can read words but not sentences, and 38.5% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English All children 2016**

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	50.1	
II	58.2	43.5
III	59.9	52.9
IV	65.4	55.7
V	66.5	64.8
VI	64.2	64.0
VII	70.1	67.3
VIII	71.9	75.2

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016**

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	65.3	64.9	58.1	52.0
	Govt. + Tuition	3.3	2.1	1.6	1.9
	Pvt. no tuition	25.5	28.2	35.4	41.9
	Pvt. + Tuition	6.0	4.8	4.8	4.1
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	75.1	72.2	66.8	66.8
	Govt. + Tuition	5.5	3.7	2.4	2.4
	Pvt. no tuition	15.1	19.6	25.4	27.2
	Pvt. + Tuition	4.4	4.5	5.4	3.6
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type 2016**

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.					
Std I-V	Pvt.	4.8	24.5	35.8	34.9	100
Std VI-VIII	Govt.					
Std VI-VIII	Pvt.					

Data insufficient



# Himachal Pradesh RURAL

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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	195	222	250	260
Upper primary schools (Std I-VII/VIII)	66	17	27	23
Total schools visited	261	239	277	283

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	90.0	90.0	86.3	85.8
% Teachers present (Average)	88.0	84.5	76.7	82.6

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	48.6	68.5	71.3	80.8
% Schools where Std II children were observed sitting with one or more other classes	58.6	62.5	74.1	73.7
% Schools where Std IV children were observed sitting with one or more other classes	52.8	56.1	73.0	70.7

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	82.5	94.5	97.1	97.5
	Mid-day meal served in school on day of visit	98.0	97.0	93.8	98.9
Drinking water	No facility for drinking water	12.5	10.6	5.4	8.9
	Facility but no drinking water available	4.3	6.0	6.9	6.4
	Drinking water available	83.2	83.4	87.7	84.7
	Total	100	100	100	100
Toilet	No toilet facility	10.8	5.1	0.4	1.8
	Facility but toilet not useable	33.2	20.8	12.0	14.2
	Toilet useable	56.0	74.2	87.6	84.0
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	31.1	10.8	1.6	6.0
	Separate provision but locked	10.6	4.0	3.6	6.0
	Separate provision, unlocked but not useable	19.6	14.8	8.5	8.6
	Separate provision, unlocked and useable	38.7	70.4	86.2	79.5
	Total	100	100	100	100
Library	No library	19.7	3.4	4.4	5.4
	Library but no books being used by children on day of visit	39.0	53.4	55.1	62.1
	Library books being used by children on day of visit	41.3	43.2	40.6	32.5
	Total	100	100	100	100
Electricity	Electricity connection				92.1
	Of schools with electricity connection, % schools with electricity available on day of visit				92.6
Computer	No computer available for children to use	93.3	94.5	94.6	92.2
	Available but not being used by children on day of visit	3.5	2.1	2.2	6.1
	Computer being used by children on day of visit	3.2	3.4	3.3	1.8
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	94.3	92.3	98.9
April 2011 to March 2012	95.8	86.8	97.1
April 2013 to March 2014	88.6	77.5	7.1
April 2015 to March 2016	91.5	75.9	8.9

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	84.5	81.8	87.2
April 2012 to date of survey (2012)	60.0	54.5	61.6
April 2014 to date of survey (2014)	38.0	32.2	2.0
April 2016 to date of survey (2016)	74.9	61.8	37.3

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	6.0	8.8
	White wash/plastering	52.8	63.1
Repair	Repair of drinking water facility	37.8	49.8
	Repair of toilet	34.5	46.4
Purchase	Mats, Tat patti etc.	26.8	30.3
	Charts, globes or other teaching material	44.0	51.9

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	99.6	98.9
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	8.2	7.8
Between July and September	83.3	74.4
After September	8.6	17.8

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



# Jammu, Kargil and Leh RURAL

ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 9 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 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	59.7	35.1	2.8	2.4	100
Age 7-16: All	61.2	32.3	2.7	3.8	100
Age 7-10: All	57.2	37.7	2.8	2.2	100
Age 7-10: Boys	55.1	40.0	3.1	1.9	100
Age 7-10: Girls	59.6	35.3	2.5	2.6	100
Age 11-14: All	62.9	31.6	2.9	2.6	100
Age 11-14: Boys	59.5	35.3	3.0	2.2	100
Age 11-14: Girls	66.9	27.3	2.8	3.0	100
Age 15-16: All	66.6	21.1	1.8	10.5	100
Age 15-16: Boys	66.9	21.5	2.4	9.3	100
Age 15-16: Girls	66.3	20.6	1.0	12.1	100

'Other' includes children going to Madarsa and EGS.

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

**Table 2: Age-grade distribution % Children in each grade by age 2016**

Std \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total	
I	22.8	40.3	25.5	6.6	4.9								100	
II	3.9	15.1	39.6	28.6	8.1	4.6								100
III	3.7		13.4	37.9	26.2	13.6	5.1						100	
IV	3.2			16.1	29.8	35.0	8.7	7.3						100
V	7.0				10.7	33.4	26.9	17.0	5.1					100
VI	3.6				12.5	28.4	38.9	13.3	3.4					100
VII	3.9					9.6	35.7	35.9	12.1	2.8				100
VIII	4.0							14.3	34.5	31.8	13.4	2.0	100	

This table shows the age distribution for each grade. For example, in Std III, 37.9% children are 8 years old but there are also 13.4% who are 7, 26.2% who are 9, 13.6% who are 10, and 5.1% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/ UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	31.9	18.4				49.8	100
Age 4	22.1	40.3				37.6	100
Age 5	5.3	25.7	24.7	27.2	1.6	15.4	100
Age 6	3.2	14.9	43.8	30.8	2.2	5.1	100

For 3 and 4 year old children, only pre-school status is recorded.



## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	30.2	38.4	21.1	6.0	4.3	100
II	11.6	37.3	29.8	13.7	7.7	100
III	4.3	26.0	32.4	22.4	15.0	100
IV	3.0	15.2	31.0	27.7	23.2	100
V	1.7	9.6	24.8	32.4	31.6	100
VI	0.6	4.7	19.6	32.6	42.5	100
VII	0.7	5.0	13.8	25.4	55.3	100
VIII	0.0	3.0	8.4	26.4	62.1	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 4.3% cannot even read letters, 26% can read letters but not words or higher, 32.4% can read words but not Std I level text or higher, 22.4% can read Std I level text but not Std II level text, and 15% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

### Reading Tool

Std II 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 hand to the floor. It broke into many pieces. Salma was very sad. She cried a lot. Her mother gave her another doll. Now she is happy again.**

Std I level text

**Ravi is a boy. He has many friends. He loves to draw. He does not like to sing.**

Letters

b	s	o
k	m	
y	r	h
t	x	

Words

ring	bad
ball	king
cold	foot
clap	fan
girl	crow

Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 5: % Children by grade and arithmetic level**  
All children 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	25.4	31.8	35.6	5.2	2.0	100
II	9.0	28.6	45.4	13.7	3.3	100
III	3.4	17.5	47.9	25.0	6.2	100
IV	2.1	10.7	40.8	31.7	14.9	100
V	2.1	7.9	33.2	35.1	21.8	100
VI	0.8	4.3	28.3	38.8	27.8	100
VII	0.6	2.0	29.9	30.6	36.9	100
VIII	0.2	2.3	20.8	28.6	48.1	100

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, 17.5% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 47.9% can recognize numbers up to 99 but cannot do subtraction, 25% can do subtraction but cannot do division, and 6.2% can do division. For each grade, the total of these exclusive categories is 100%.

### Arithmetic Tool

Number recognition 1 & 9		Number recognition 10 & 99		Subtraction		Division
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	4)517
		36	27			

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 6: % Children by grade and reading level in English**  
All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	29.9	17.2	26.2	18.8	8.0	100
II	10.8	14.6	29.8	33.4	11.4	100
III	5.1	9.4	21.2	40.3	24.0	100
IV	2.6	6.2	16.1	41.7	33.5	100
V	1.8	4.6	8.6	36.8	48.3	100
VI	0.4	2.5	5.7	36.4	54.9	100
VII	0.6	2.1	5.9	24.3	67.2	100
VIII	0.3	0.8	3.7	20.4	74.7	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 5.1% cannot even read capital letters, 9.4% can read capital letters but not small letters or higher, 21.2% can read small letters but not words or higher, 40.3% can read words but not sentences, and 24% can read sentences. For each grade, the total of these exclusive categories is 100%.

### English Tool

Capital letter	Small letter
A J Q N E Y R O	h p x u m d g t
Word	Sentence
cat red sun new fan bus	What is the <u>time</u> ? This is a <u>large</u> house. I like to <u>read</u> . She has <u>many</u> books.

**Table 7: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	41.3	
II	44.4	44.0
III	43.1	51.4
IV	46.2	55.6
V	49.7	43.5
VI	55.3	56.2
VII	61.3	59.0
VIII	55.8	64.4



## School enrollment

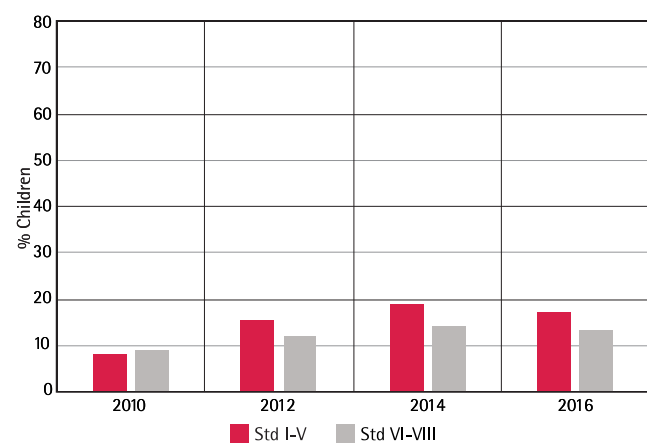
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	78.0	17.4	0.9	3.8	100
Age 7-16: All	75.9	17.5	0.9	5.8	100
Age 7-10: All	78.2	18.5	0.9	2.5	100
Age 7-10: Boys	76.1	20.8	0.8	2.3	100
Age 7-10: Girls	80.5	15.9	0.9	2.8	100
Age 11-14: All	76.8	16.8	1.0	5.5	100
Age 11-14: Boys	75.1	18.8	1.2	4.9	100
Age 11-14: Girls	78.8	14.6	0.9	5.7	100
Age 15-16: All	66.6	16.4	0.8	16.2	100
Age 15-16: Boys	64.0	16.6	1.0	18.4	100
Age 15-16: Girls	68.9	16.1	0.7	14.3	100

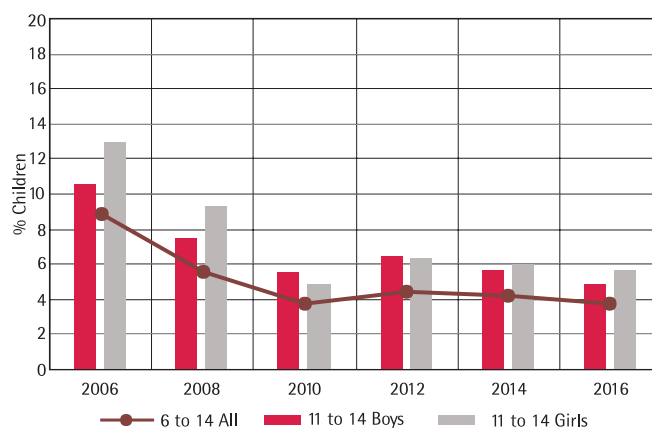
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	24.1	41.1	18.5	9.6	6.8								100
II	4.3	16.1	31.3	29.9	7.4	6.7	4.2						100
III	5.1	13.0	35.3	23.7	14.6	8.3						100	
IV	1.5	5.1	17.3	22.3	32.4	8.4	8.9	4.2					100
V	2.2	6.6	9.5	33.6	24.0	16.2	8.0					100	
VI	6.6	17.4	21.0	36.4	11.7	6.8					100		
VII	2.1	6.7	8.9	36.8	26.5	12.2	5.1	1.7				100	
VIII	4.8	17.5	30.2	29.2	11.5	6.8					100		

This table shows the age distribution for each grade. For example, in Std III, 35.3% children are 8 years old but there are also 13% who are 7, 23.7% who are 9, 14.6% who are 10, and 8.3% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	66.4	4.7				28.9	100
Age 4	64.3	11.6				24.1	100
Age 5	27.5	13.5	40.7	8.2	0.7	9.5	100
Age 6	7.9	8.7	65.5	11.6	0.6	5.8	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	56.6	27.7	7.7	3.9	4.0	100
II	31.6	36.6	13.8	8.1	10.0	100
III	17.1	32.7	22.2	11.5	16.5	100
IV	12.2	23.0	20.4	16.6	27.8	100
V	7.2	22.3	17.4	16.8	36.4	100
VI	4.2	14.4	14.2	15.8	51.3	100
VII	3.6	11.5	10.3	15.2	59.4	100
VIII	2.1	7.9	8.8	13.5	67.7	100

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, 32.7% can read letters but not words or higher, 22.2% can read words but not Std I level text or higher, 11.5% can read Std I level text but not Std II level text, and 16.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

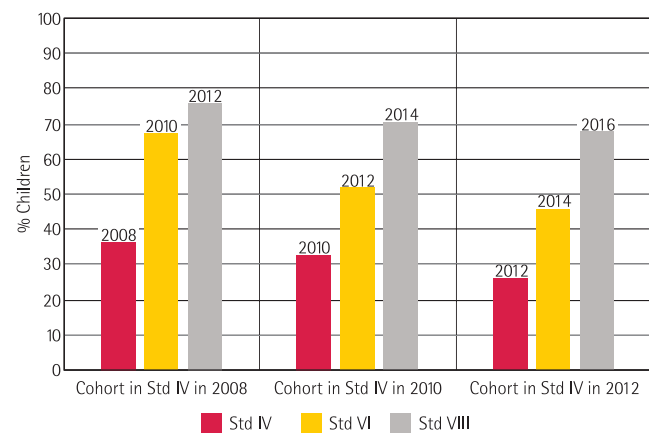
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	11.2	31.3	12.7
2012	10.0	42.2	14.5
2014	8.7	38.5	14.2
2016	10.7	44.7	16.2

\* 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.

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



This graph shows the progress of three 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.

### Reading Tool

Std II level text	Std I level text
<p>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 मौज़-मस्ती करते थे।</p>	<p>हर रविवार नानी घर आती है। हमारे लिए मिठाई लाती है। मैं नानी के साथ सोता हूँ। वह मुझे कहानी सुनाती है।</p>
<p>Letters</p> <p>ह च ट ल न फ म र स त</p>	<p>Words</p> <p>कुल बड़ा रोटी पानी चूना चलो हीरा पैर देर कौन</p>

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	48.4	65.4	49.6	85.1	88.4	85.4
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	48.1	33.8	12.8	3.7	1.6	100
II	21.3	43.4	22.4	9.5	3.4	100
III	9.4	38.1	32.1	12.3	8.1	100
IV	6.5	27.4	32.3	18.1	15.7	100
V	3.6	24.3	28.7	20.0	23.5	100
VI	2.4	14.7	28.1	22.1	32.6	100
VII	1.6	11.6	26.3	22.2	38.3	100
VIII	1.0	7.1	24.3	24.7	42.9	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 9.4% cannot even recognize numbers 1-9, 38.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 32.1% can recognize numbers up to 99 but cannot do subtraction, 12.3% can do subtraction but cannot do division, and 8.1% can do division. For each grade, the total of these exclusive categories is 100%.

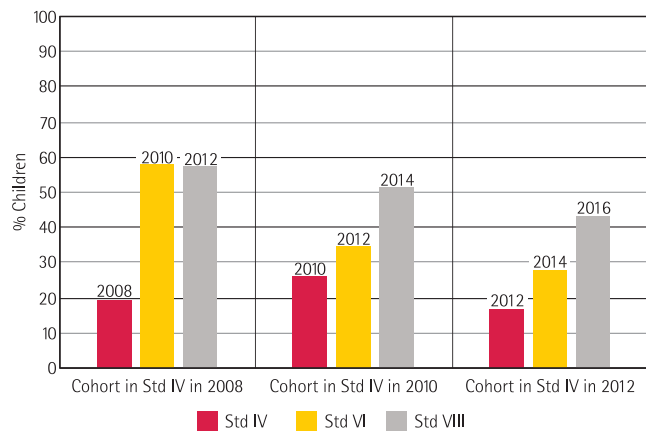
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	31.7	47.0	32.8
2012	19.3	54.7	24.3
2014	12.1	51.9	19.5
2016	13.4	55.6	20.3

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		भाग
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
4	1	46	25	31 - 18	68 - 49	4) 658

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	40.1	50.7	40.8	79.6	78.2	79.4
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

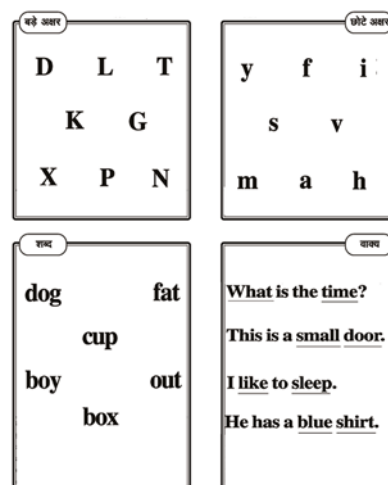
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	60.7	19.4	10.8	6.4	2.7	100
II	38.9	23.9	20.8	11.2	5.2	100
III	25.2	25.5	26.5	14.7	8.1	100
IV	17.1	22.0	28.6	21.1	11.2	100
V	11.9	20.8	29.4	23.2	14.8	100
VI	8.2	14.3	25.9	27.8	23.8	100
VII	6.4	11.2	23.6	31.8	27.1	100
VIII	4.3	10.4	19.0	32.9	33.5	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 25.2% cannot even read capital letters, 25.5% can read capital letters but not small letters or higher, 26.5% can read small letters but not words or higher, 14.7% can read words but not sentences, and 8.1% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	56.8	
II	59.0	34.2
III	56.8	53.4
IV	53.1	57.0
V	63.8	62.2
VI	61.1	60.3
VII	61.6	63.8
VIII	60.0	55.7

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	70.0	62.9	59.9	59.2
	Govt. + Tuition	21.5	20.3	20.5	23.0
	Pvt. no tuition	5.3	9.4	11.7	10.5
	Pvt. + Tuition	3.1	7.5	7.8	7.4
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	57.5	56.7	52.1	53.8
	Govt. + Tuition	32.8	30.4	33.3	32.6
	Pvt. no tuition	5.3	6.6	8.4	8.3
	Pvt. + Tuition	4.5	6.4	6.2	5.3
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	62.2	33.7	2.8	1.2	100
Std I-V	Pvt.	31.6	41.6	15.1	11.8	100
Std VI-VIII	Govt.	42.2	49.8	5.8	2.2	100
Std VI-VIII	Pvt.	14.4	51.1	22.2	12.3	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	188	121	209	193
Upper primary schools (Std I-VII/VIII)	359	317	416	383
Total schools visited	547	438	625	576

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	62.3	58.0	61.7	66.0
% Teachers present (Average)	89.4	78.3	91.0	84.6
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	58.7	52.8	56.5	60.9
% Teachers present (Average)	81.8	62.1	87.6	70.1

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	20.0	38.8	42.5	52.1
% Schools where Std II children were observed sitting with one or more other classes	76.9	87.4	86.5	88.4
% Schools where Std IV children were observed sitting with one or more other classes	75.3	86.7	83.6	86.6
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	1.2	2.6	2.7	3.2
% Schools where Std II children were observed sitting with one or more other classes	59.7	69.5	71.4	72.8
% Schools where Std IV children were observed sitting with one or more other classes	52.4	64.8	66.8	63.6

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	73.5	77.0	83.9	88.4
	Mid-day meal served in school on day of visit	92.6	84.2	78.6	80.7
Drinking water	No facility for drinking water	15.8	9.5	9.5	8.3
	Facility but no drinking water available	10.4	12.5	10.3	10.2
	Drinking water available	73.8	78.1	80.2	81.5
	Total	100	100	100	100
Toilet	No toilet facility	18.0	16.4	10.9	1.9
	Facility but toilet not useable	55.2	46.6	36.2	35.3
	Toilet useable	26.8	37.0	52.9	62.8
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	29.7	25.3	17.4	3.3
	Separate provision but locked	24.6	19.3	13.6	11.2
	Separate provision, unlocked but not useable	24.8	23.4	21.0	24.1
	Separate provision, unlocked and useable	20.9	32.0	48.0	61.4
	Total	100	100	100	100
Library	No library	38.4	21.0	10.3	18.9
	Library but no books being used by children on day of visit	33.2	33.9	29.0	31.5
	Library books being used by children on day of visit	28.4	45.1	60.7	49.7
	Total	100	100	100	100
Electricity	Electricity connection				22.7
	Of schools with electricity connection, % schools with electricity available on day of visit				55.7
Computer	No computer available for children to use	93.0	95.6	96.0	95.7
	Available but not being used by children on day of visit	2.9	3.5	2.7	3.2
	Computer being used by children on day of visit	4.1	0.9	1.3	1.1
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	83.8	84.5	86.5
April 2011 to March 2012	88.4	89.1	91.8
April 2013 to March 2014	83.4	82.2	18.2
April 2015 to March 2016	88.4	83.8	17.9

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	28.1	29.9	32.4
April 2012 to date of survey (2012)	43.7	43.9	44.6
April 2014 to date of survey (2014)	22.5	21.8	7.0
April 2016 to date of survey (2016)	50.8	50.9	22.6

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	23.8	16.1
	White wash/plastering	72.7	76.5
Repair	Repair of drinking water facility	59.1	67.0
	Repair of toilet	38.6	50.6
	Mats, Tat patti etc.	52.4	54.1
Purchase	Charts, globes or other teaching material	67.0	65.2

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	94.7	97.3
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	9.3	11.0
Between July and September	90.3	55.4
After September	0.4	33.7

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



Karnataka, Kerala

Madhya Pradesh, Maharashtra, Manipur

Meghalaya



## School enrollment

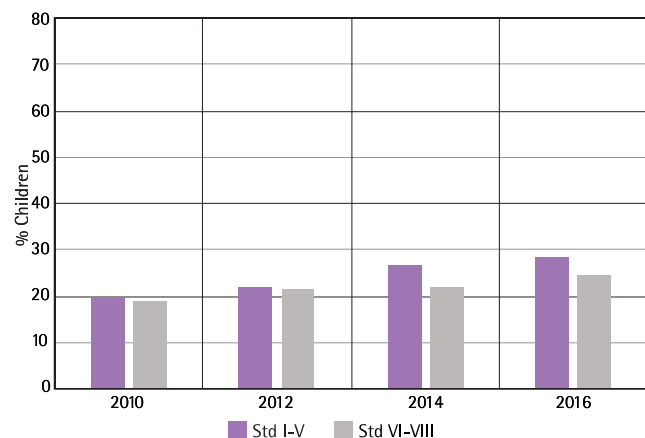
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	71.3	27.4	0.2	1.1	100
Age 7-16: All	70.6	26.7	0.2	2.5	100
Age 7-10: All	70.5	28.9	0.2	0.4	100
Age 7-10: Boys	66.0	33.5	0.3	0.3	100
Age 7-10: Girls	75.3	24.1	0.2	0.5	100
Age 11-14: All	73.1	24.6	0.2	2.1	100
Age 11-14: Boys	70.3	27.4	0.2	2.0	100
Age 11-14: Girls	75.7	22.0	0.2	2.1	100
Age 15-16: All	63.4	26.7	0.2	9.7	100
Age 15-16: Boys	61.1	29.0	0.2	9.7	100
Age 15-16: Girls	65.6	24.6	0.1	9.7	100

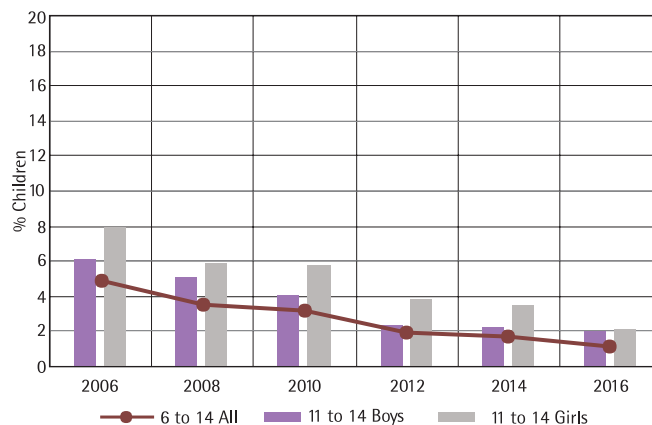
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	7.1	60.1	29.6	3.3									100
II	4.8		39.5	50.8	5.0								100
III	4.5			33.3	56.2	5.1	1.0						100
IV	1.0			6.7	30.5	56.4	5.4						100
V	5.9				33.9		53.2	5.9	1.2				100
VI	1.2				6.1	28.0	58.7	5.0	1.0				100
VII	2.3					6.7	31.9	50.8	7.2	1.1			100
VIII	2.0					7.8	33.9	52.4	4.0			100	

This table shows the age distribution for each grade. For example, in Std III, 33.3% children are 8 years old but there are also 4.5% who are 7 or younger, 56.2% who are 9, 5.1% who are 10, and 1% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	71.3	9.1				19.6	100
Age 4	66.1	25.7				8.2	100
Age 5	28.8	23.0	23.8	21.9	0.2	2.3	100
Age 6	5.4	8.9	55.5	28.3	0.2	1.8	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	46.2	33.1	16.4	2.8	1.6	100
II	22.7	26.8	34.1	9.3	7.2	100
III	11.6	18.0	31.4	19.2	19.8	100
IV	7.1	13.8	25.4	23.7	30.1	100
V	5.6	8.3	20.1	23.9	42.1	100
VI	4.3	6.5	16.4	21.5	51.3	100
VII	3.1	5.3	11.3	17.6	62.7	100
VIII	2.1	3.3	8.6	16.0	70.0	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 11.6% cannot even read letters, 18% can read letters but not words or higher, 31.4% can read words but not Std I level text or higher, 19.2% can read Std I level text but not Std II level text, and 19.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

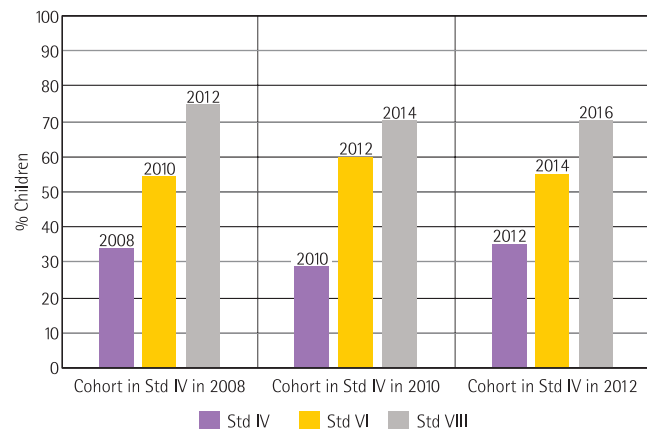
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	16.9	26.1	18.7
2012	21.2	28.1	22.7
2014	16.4	23.3	18.4
2016	19.0	22.1	19.8

\* 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.

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



This graph shows the progress of three 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

Std II level text

ಅಮೆ ಮತ್ತು ಮೊಲ ಒಕ್ಕಯ ಸ್ವೀಕರಿಸು. ಒಂದು ದಿನ ಅಮೆ ಮತ್ತು ಮೊಲ ಸ್ವರ್ಗ ಏರ್ಪಾಟು ಮಾಡಿಕೊಂಡವು. ಯಾರು ಮೊದಲು ಪಕ್ಕದ ಊರನ್ನು ತಲುಪುವರೋ ಅವರಿಗೆ ಬಹುಮಾನ ಎಂದು ಘೋಷಿಸಿದವು. ಮೊಲ ಓಡುತ್ತಾ ಮುಂದೆ ಸಾಗಿತು. ಅರ್ಧ ಸಾಗಿದ ಮೇಲೆ ಮೊಲ ವಿಶ್ರಾಂತಿ ಪಡೆಯಲು ಬಯಸಿತು. ಅಲ್ಲೇ ಮರದ ಕೆಳಗೆ ನಿಲ್ಲ ಮಾಡಿತು. ಅಷ್ಟರಲ್ಲೇ ಅಮೆ ಬೇಗನೇ ಸಾಗಿ ಊರನ್ನು ತಲುಪಿತು. ಸ್ವರ್ಗಯಲ್ಲ ಅಮೆ ಬಯಸಿದಾಗ ಮೊಲ ಸಪ್ಪೆ ಮೋಲೆ ಮಾಡಿ ಕುಳಿತುಕೊಂಡಿತು.

Std I level text

ಕಮಲೆಗೆ ಗುಲಾಜಿ ಹೂವು ಅಂದರೆ ಬಹಳ ಇಷ್ಟ. ಇದು ನೋಡಲು ಬಹಳ ಅಂದ. ಕಮಲೆಯ ಮನೆಯ ಅಂಗಳದಲ್ಲಿ ಬಣ್ಣ ಬಣ್ಣದ ಗುಲಾಜಿ ಹೂವುಗಳ ಅಂದವಾದ ತೋಟವಿದೆ.

Letters

ಎ ಖ ಐ  
ಠ ಪ  
ದ ಠ ಬ  
ಒ ಡ

Words

ಕೊಡ ಮಳ ಭರ  
ನಾರು ಭಯ  
ದಾರಿ ಭಡಿ  
ದೇವ ದೂರು

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	42.9	55.1	45.1	71.3	77.5	72.9
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	36.1	34.2	26.8	2.4	0.5	100
II	13.9	22.2	50.3	12.4	1.3	100
III	7.1	14.3	49.7	25.0	3.9	100
IV	4.4	8.5	43.9	30.6	12.6	100
V	3.2	5.6	33.4	38.1	19.7	100
VI	2.5	4.5	29.0	35.7	28.3	100
VII	2.1	2.7	27.1	33.8	34.4	100
VIII	1.1	2.0	25.4	29.4	42.2	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 7.1% cannot even recognize numbers 1-9, 14.3% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 49.7% can recognize numbers up to 99 but cannot do subtraction, 25% can do subtraction but cannot do division, and 3.9% can do division. For each grade, the total of these exclusive categories is 100%.

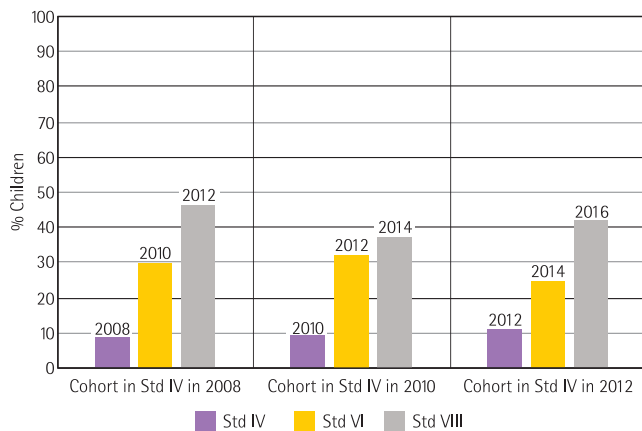
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	24.9	37.6	27.3
2012	26.6	46.3	30.8
2014	21.9	38.2	26.4
2016	25.5	38.7	28.9

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

ಅಂಕಿ ಗುರುತಿಸುವಿಕೆ 1 ರಿಂದ 9		ಎರಡು ಅಂಕಗಳ ಸಂಖ್ಯೆ ಗುರುತಿಸುವಿಕೆ 10 ರಿಂದ 99		ಕಳೆಯುವುದು		ಭಾಗಾಕಾರ
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	4) 517
		36	27			

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	18.7	26.5	20.1	43.9	50.5	45.6
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

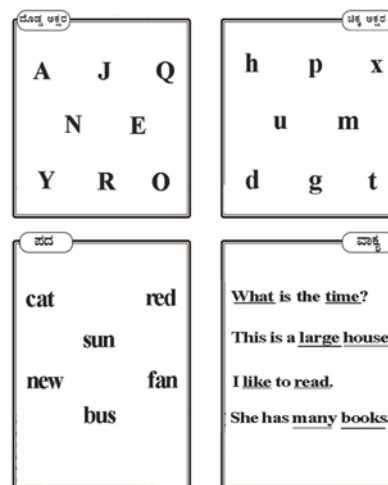
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	52.1	16.7	19.4	9.2	2.7	100
II	30.8	22.4	26.8	13.4	6.6	100
III	19.2	23.3	28.9	19.0	9.6	100
IV	12.5	18.2	29.0	24.5	15.8	100
V	8.1	14.1	26.4	26.7	24.8	100
VI	5.8	8.6	21.6	28.6	35.5	100
VII	3.5	8.1	19.6	27.3	41.6	100
VIII	2.7	5.2	16.7	25.8	49.6	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 19.2% cannot even read capital letters, 23.3% can read capital letters but not small letters or higher, 28.9% can read small letters but not words or higher, 19% can read words but not sentences, and 9.6% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	58.4	
II	61.9	65.9
III	59.1	62.7
IV	61.5	72.1
V	64.6	73.6
VI	61.3	73.4
VII	63.0	75.7
VIII	64.5	76.9

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	74.5	70.7	67.8	65.3
	Govt. + Tuition	5.4	7.0	5.1	6.1
	Pvt. no tuition	16.2	17.3	21.6	22.6
	Pvt. + Tuition	3.9	5.0	5.6	6.1
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	75.9	71.5	72.9	71.0
	Govt. + Tuition	5.2	6.7	5.2	4.2
	Pvt. no tuition	16.0	17.7	18.7	20.8
	Pvt. + Tuition	2.8	4.0	3.3	4.0
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	71.8	18.4	6.1	3.7	100
Std I-V	Pvt.	48.9	28.1	15.4	7.7	100
Std VI-VIII	Govt.	59.9	26.4	6.2	7.5	100
Std VI-VIII	Pvt.	34.0	34.9	18.8	12.3	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	113	117	121	138
Upper primary schools (Std I-VII/VIII)	656	639	591	670
Total schools visited	769	756	712	808

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	81.7	89.1	88.9	89.8
% Teachers present (Average)	92.9	93.7	89.5	91.2
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	70.9	83.1	84.6	87.9
% Teachers present (Average)	88.9	87.9	90.9	92.7

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	84.6	84.5	82.5	80.4
% Schools where Std II children were observed sitting with one or more other classes	85.9	93.0	86.6	94.1
% Schools where Std IV children were observed sitting with one or more other classes	71.7	69.4	73.1	82.0
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	6.3	9.9	10.0	14.3
% Schools where Std II children were observed sitting with one or more other classes	73.5	82.9	79.1	74.8
% Schools where Std IV children were observed sitting with one or more other classes	31.2	35.2	32.1	36.3

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	92.9	94.1	93.0	95.1
	Mid-day meal served in school on day of visit	96.0	98.5	98.9	98.8
Drinking water	No facility for drinking water	17.3	12.8	12.7	15.0
	Facility but no drinking water available	7.0	6.0	6.1	9.7
	Drinking water available	75.8	81.3	81.2	75.3
	Total	100	100	100	100
Toilet	No toilet facility	5.6	2.3	1.6	3.1
	Facility but toilet not useable	56.0	38.3	38.2	33.8
	Toilet useable	38.4	59.5	60.2	63.1
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	18.2	8.2	6.2	7.7
	Separate provision but locked	31.1	28.3	30.3	21.5
	Separate provision, unlocked but not useable	18.9	9.5	8.4	11.6
	Separate provision, unlocked and useable	31.8	54.0	55.1	59.3
	Total	100	100	100	100
Library	No library	7.6	5.8	8.2	8.4
	Library but no books being used by children on day of visit	27.6	38.9	37.5	41.3
	Library books being used by children on day of visit	64.8	55.3	54.3	50.4
	Total	100	100	100	100
Electricity	Electricity connection				94.9
	Of schools with electricity connection, % schools with electricity available on day of visit				80.5
Computer	No computer available for children to use	70.6	63.6	60.5	55.0
	Available but not being used by children on day of visit	16.0	22.8	23.6	30.4
	Computer being used by children on day of visit	13.4	13.6	15.9	14.6
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	95.1	89.9	95.0
April 2011 to March 2012	93.4	87.4	95.2
April 2013 to March 2014	94.6	82.2	8.5
April 2015 to March 2016	93.6	77.8	9.5

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	75.6	70.0	74.2
April 2012 to date of survey (2012)	85.0	80.4	89.0
April 2014 to date of survey (2014)	88.8	75.2	5.4
April 2016 to date of survey (2016)	89.5	74.9	8.1

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	15.9	9.9
	White wash/plastering	55.0	49.0
Repair	Repair of drinking water facility	51.1	52.5
	Repair of toilet	46.7	47.0
Purchase	Mats, Tat patti etc.	33.8	32.3
	Charts, globes or other teaching material	62.5	57.2

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	92.1	90.5
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	8.8	5.3
Between July and September	88.3	78.1
After September	2.9	16.6

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

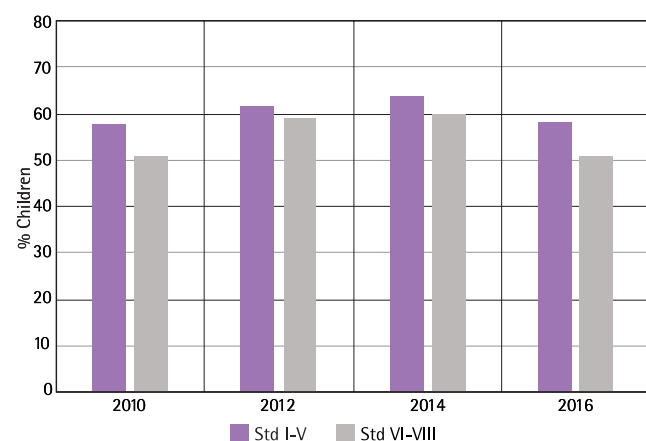
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	44.9	54.8	0.2	0.1	100
Age 7-16: All	47.5	52.0	0.1	0.4	100
Age 7-10: All	42.0	57.9	0.0	0.2	100
Age 7-10: Boys	40.7	59.1	0.0	0.1	100
Age 7-10: Girls	43.2	56.7	0.0	0.2	100
Age 11-14: All	49.9	49.8	0.2	0.2	100
Age 11-14: Boys	46.6	53.0	0.2	0.3	100
Age 11-14: Girls	53.1	46.6	0.2	0.1	100
Age 15-16: All	53.4	45.2	0.0	1.4	100
Age 15-16: Boys	55.5	43.1	0.0	1.4	100
Age 15-16: Girls	51.5	47.2	0.0	1.4	100

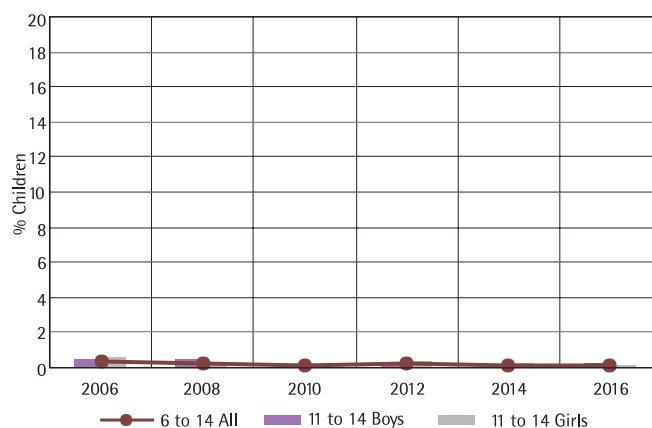
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	13.2	63.1	20.2	3.5								100	
II	0.7	12.7	60.4	23.6	2.6						100		
III	0.0	11.1	63.4	23.8	1.7						100		
IV	0.1	9.9	63.4	23.7	2.8						100		
V	1.4	8.9	66.9	20.6	2.2						100		
VI	1.6	13.0	60.1	23.3	2.1						100		
VII	1.0	12.8	64.6	19.8	1.9						100		
VIII	1.0	16.1	67.7	13.6	1.6						100		

This table shows the age distribution for each grade. For example, in Std III, 63.4% children are 8 years old but there are also 11.1% who are 7, 23.8% who are 9, and 1.7% who are 10 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/ UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	63.0	12.4				24.6	100
Age 4	34.7	57.6				7.7	100
Age 5	2.5	12.7	19.2	63.9	0.1	1.5	100
Age 6	0.2	2.4	33.8	62.6	0.4	0.6	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	12.8	33.9	40.4	7.6	5.4	100
II	5.3	11.2	32.2	24.4	26.9	100
III	3.5	8.0	19.8	23.1	45.5	100
IV	2.2	3.3	11.0	17.8	65.8	100
V	0.9	2.8	10.3	16.7	69.2	100
VI	1.0	1.4	6.0	17.1	74.5	100
VII	0.9	1.3	4.6	10.0	83.2	100
VIII	0.9	2.3	3.6	8.0	85.3	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 3.5% cannot even read letters, 8% can read letters but not words or higher, 19.8% can read words but not Std I level text or higher, 23.1% can read Std I level text but not Std II level text, and 45.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

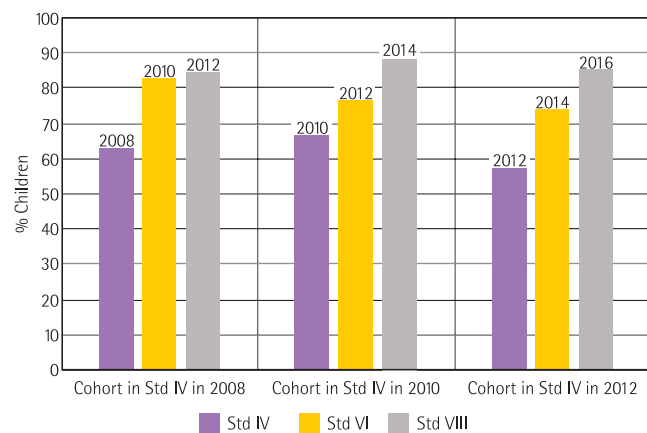
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	43.2	53.7	49.3
2012	38.1	43.2	41.2
2014	36.6	40.3	39.0
2016	38.0	51.5	45.7

\* 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.

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



This graph shows the progress of three 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

Std II level text	Std I level text
<p>വേനൽ അവധി കഴിഞ്ഞ് സ്കൂൾ തുറന്നു. അപ്പുവും മീനും കൂട്ടുകാരോടൊപ്പം സ്കൂളിലേക്ക് പുറപ്പെട്ടു. അവരെ നനക്കാൻ കാത്തിരുന്ന പോലെ മഴ പെയ്തു. രണ്ടു പേർക്കും മഴ വലിയ ഇഷ്ടമാണ്. മഴ പെയ്തപ്പോൾ അവർ തുള്ളിച്ചാടി. കടലാസുവഞ്ചികൾ ഉണ്ടാക്കി വെള്ളത്തിൽ ഒഴുക്കി രസിച്ചു. വീട്ടിലേക്ക് മടങ്ങുവഴി അവർ തോട്ടിൽ ഇറങ്ങി മീൻ പിടിച്ചു. മഴക്കാലം എന്തു രസമാണ്.</p>	<p>ഞാൻ ഒരു പുസ്തകം ആണ്. പല നിറമാണ് എനിക്ക്. ഞാൻ തേൻ കുടിക്കും. പുസ്തകം തോറും പാറി നടക്കും.</p>
<p>Letters</p> <p>ട ഗ മ ഴ ന ക ത യ വ ശ</p>	<p>Words</p> <p>ആന തവി സം വഴ വീട് മേലം കാറ്റ് പ്രാവി തോണി നിലം</p>

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	74.0	77.9	76.1	88.4	90.8	89.6
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	10.8	27.0	58.4	2.6	1.2	100
II	5.9	6.5	61.1	23.3	3.2	100
III	3.0	6.4	45.0	36.9	8.7	100
IV	1.7	4.3	34.4	39.7	20.0	100
V	1.0	1.9	32.5	26.0	38.6	100
VI	1.7	1.0	24.9	23.0	49.4	100
VII	0.8	1.7	21.6	21.7	54.3	100
VIII	0.3	0.7	25.1	20.9	53.0	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 3% cannot even recognize numbers 1-9, 6.4% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 45% can recognize numbers up to 99 but cannot do subtraction, 36.9% can do subtraction but cannot do division, and 8.7% can do division. For each grade, the total of these exclusive categories is 100%.

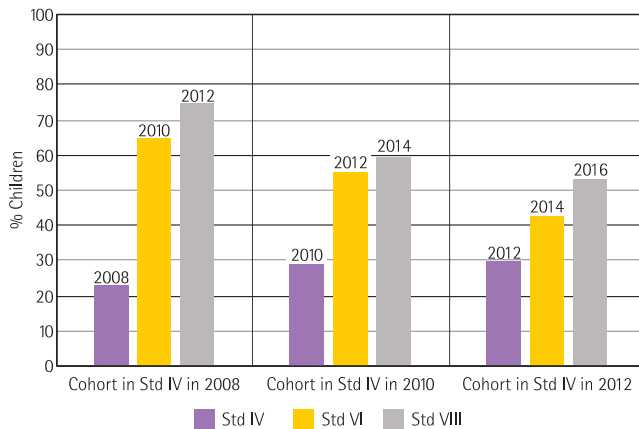
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	57.5	72.8	66.5
2012	43.4	58.5	52.7
2014	36.0	51.7	46.1
2016	35.9	53.2	45.7

\* 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.

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



This graph shows the progress of three 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.

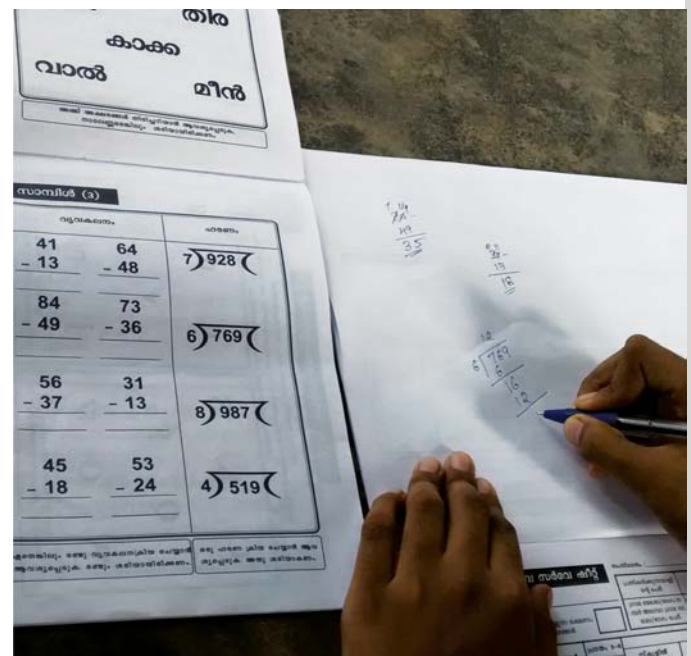
## Arithmetic Tool

സംഖ്യ തിരിച്ചറിയൽ 1-9	സംഖ്യ തിരിച്ചറിയൽ 10-99	വ്യവകലനം		ഹരണം
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	4) 517

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	43.1	52.9	48.5	77.7	82.6	80.1
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

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

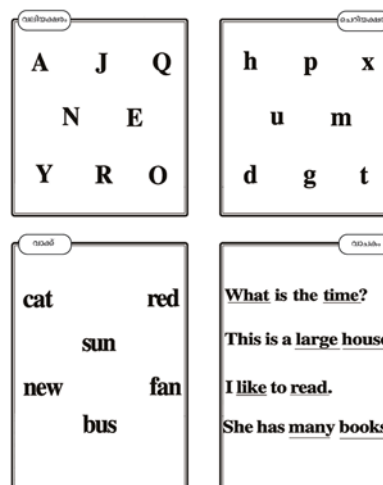
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	14.9	15.1	23.6	33.5	13.0	100
II	6.9	8.2	17.8	38.4	28.7	100
III	5.4	4.9	12.4	32.1	45.3	100
IV	3.9	4.3	8.0	23.0	61.0	100
V	1.6	3.3	7.4	19.2	68.5	100
VI	1.1	2.2	4.3	16.1	76.4	100
VII	0.9	1.3	3.0	13.5	81.3	100
VIII	1.6	1.4	4.2	13.2	79.6	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 5.4% cannot even read capital letters, 4.9% can read capital letters but not small letters or higher, 12.4% can read small letters but not words or higher, 32.1% can read words but not sentences, and 45.3% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	70.3	
II	75.0	68.5
III	69.7	80.1
IV	74.4	84.5
V	69.8	86.7
VI		89.7
VII		89.5
VIII		91.4

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	26.4	27.8	27.2	33.2
	Govt. + Tuition	14.1	10.1	9.1	7.7
	Pvt. no tuition	37.1	45.4	47.7	47.9
	Pvt. + Tuition	22.3	16.7	16.1	11.3
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	27.2	26.5	27.3	35.8
	Govt. + Tuition	21.4	13.7	12.4	13.2
	Pvt. no tuition	29.5	38.0	39.0	39.1
	Pvt. + Tuition	22.0	21.8	21.3	12.0
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	14.6	42.1	35.1	8.2	100
Std I-V	Pvt.	9.7	36.3	36.4	17.7	100
Std VI-VIII	Govt.	7.3	24.1	41.6	27.1	100
Std VI-VIII	Pvt.	1.2	28.5	36.8	33.5	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	176	167	145	160
Upper primary schools (Std I-VII/VIII)	99	180	120	168
Total schools visited	275	347	265	328

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	93.1	94.4	90.6	91.3
% Teachers present (Average)	94.0	90.8	89.9	91.1
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	91.2	93.3	89.9	92.4
% Teachers present (Average)	90.2	91.2	89.9	89.4

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	29.0	48.8	43.4	31.7
% Schools where Std II children were observed sitting with one or more other classes	7.9	6.8	11.2	12.5
% Schools where Std IV children were observed sitting with one or more other classes	7.1	8.9	9.8	11.3
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	4.1	6.3	14.7	10.2
% Schools where Std II children were observed sitting with one or more other classes	6.3	7.3	12.1	13.9
% Schools where Std IV children were observed sitting with one or more other classes	2.2	7.5	9.5	10.3

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	98.1	95.6	98.8	98.1
	Mid-day meal served in school on day of visit	100.0	98.2	74.6	94.1
Drinking water	No facility for drinking water	2.6	6.4	4.2	5.3
	Facility but no drinking water available	11.7	8.5	12.8	14.2
	Drinking water available	85.7	85.1	83.0	80.5
	Total	100	100	100	100
Toilet	No toilet facility	0.4	0.3	0.0	0.0
	Facility but toilet not useable	41.4	24.0	15.2	18.0
	Toilet useable	58.2	75.7	84.8	82.0
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	5.1	1.5	1.9	1.5
	Separate provision but locked	8.7	3.0	4.6	3.1
	Separate provision, unlocked but not useable	42.3	22.1	13.3	16.6
	Separate provision, unlocked and useable	43.9	73.5	80.2	78.8
	Total	100	100	100	100
Library	No library	16.9	4.3	5.3	6.4
	Library but no books being used by children on day of visit	20.7	1.7	12.5	12.2
	Library books being used by children on day of visit	62.4	93.9	82.2	81.4
	Total	100	100	100	100
Electricity	Electricity connection				93.5
	Of schools with electricity connection, % schools with electricity available on day of visit				80.4
Computer	No computer available for children to use	17.2	7.5	10.2	11.0
	Available but not being used by children on day of visit	16.1	19.1	48.7	19.0
	Computer being used by children on day of visit	66.7	73.3	41.1	69.9
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	95.1	82.4	96.6
April 2011 to March 2012	93.1	77.7	98.2
April 2013 to March 2014	87.4	67.5	9.9
April 2015 to March 2016	87.2	70.6	93.5

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	79.5	72.0	89.6
April 2012 to date of survey (2012)	87.3	76.0	95.3
April 2014 to date of survey (2014)	42.3	38.2	8.6
April 2016 to date of survey (2016)	76.0	61.7	84.7

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	16.5	15.1
	White wash/plastering	67.7	56.9
Repair	Repair of drinking water facility	58.9	66.5
	Repair of toilet	57.6	65.1
Purchase	Mats, Tat patti etc.	32.6	34.0
	Charts, globes or other teaching material	76.7	86.3

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	99.2	96.6
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	1.2	3.0
Between July and September	23.2	33.1
After September	75.6	63.9

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

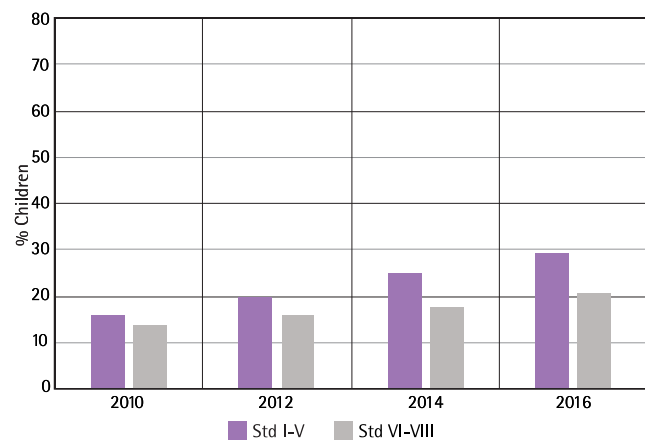
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	70.7	24.7	0.1	4.4	100
Age 7-16: All	68.6	22.7	0.1	8.5	100
Age 7-10: All	69.2	28.1	0.2	2.5	100
Age 7-10: Boys	65.8	31.9	0.2	2.2	100
Age 7-10: Girls	72.9	24.0	0.1	2.9	100
Age 11-14: All	72.5	20.5	0.1	6.9	100
Age 11-14: Boys	70.5	23.9	0.1	5.5	100
Age 11-14: Girls	74.7	16.7	0.1	8.5	100
Age 15-16: All	58.7	15.8	0.2	25.4	100
Age 15-16: Boys	59.3	19.4	0.1	21.2	100
Age 15-16: Girls	58.0	12.0	0.2	29.8	100

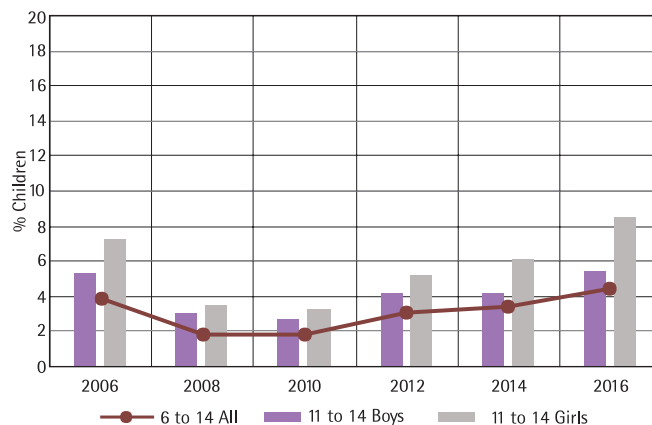
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	28.2	45.6	17.0	6.6				2.6				100		
II	3.9	19.0	44.1	24.8				8.3				100		
III	5.0	16.2	46.6	20.6	8.0				3.7			100		
IV	5.1			19.8	39.3	26.8	5.1			3.9			100	
V	1.7			6.3	10.7	46.1	22.4	8.7			4.2		100	
VI			5.5			16.4	37.1	30.1	7.0			3.8	100	
VII			1.5			5.7	13.4	44.8	23.6	7.7			3.3	100
VIII					5.1			18.3	39.4	25.8	8.1	3.3	100	

This table shows the age distribution for each grade. For example, in Std III, 46.6% children are 8 years old but there are also 16.2% who are 7, 20.6% who are 9, 8% who are 10, and 3.7% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	74.4	8.5				17.2	100
Age 4	67.1	19.7				13.3	100
Age 5	27.0	17.5	31.6	14.7	0.2	9.2	100
Age 6	5.3	9.0	56.8	24.2	0.1	4.6	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	52.8	33.4	7.8	3.0	3.0	100
II	27.7	42.2	13.3	8.1	8.8	100
III	18.6	34.3	17.6	12.8	16.6	100
IV	10.8	26.7	17.1	17.6	27.7	100
V	8.5	20.2	14.3	18.3	38.7	100
VI	5.8	16.5	12.8	16.9	48.1	100
VII	4.3	13.5	10.5	15.2	56.5	100
VIII	2.9	10.8	8.5	13.5	64.3	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 18.6% cannot even read letters, 34.3% can read letters but not words or higher, 17.6% can read words but not Std I level text or higher, 12.8% can read Std I level text but not Std II level text, and 16.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

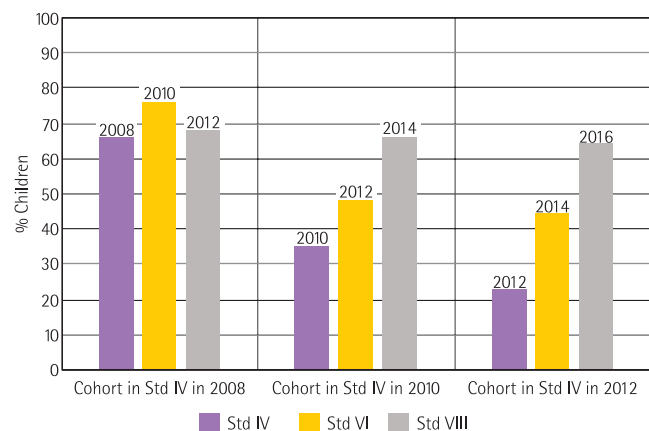
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	11.3	24.2	13.3
2012	7.0	32.9	12.1
2014	8.1	33.4	14.1
2016	10.2	33.1	16.6

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

Std II level 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 लेकर बाहर आए। भैया ने रस्सी को पेड़ से लटकाकर झूला बनाया। सब ने मिलकर खूब झूला झूला। बाकी बच्चे भी आकर मजे से झूलने लगे। झूलते-झूलते रात हो गई।

Std I level text

बगीचे में एक पेड़ है। पेड़ पर एक तोता रहता है। तोते का रंग हरा है। वह लाल टमाटर खाता है।

Letters

ल प स  
क ग  
ड ब म  
ट झ

Words

लाल दूध  
पैर किला  
तेल जूता  
मोर कुल  
पानी मौका

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	55.2	66.0	56.7	89.8	91.8	90.1
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	31.3	63.3	38.7	59.4	85.4	64.3

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	49.0	34.3	15.0	1.0	0.7	100
II	23.2	44.9	26.1	4.4	1.4	100
III	14.5	40.3	31.4	9.6	4.2	100
IV	8.6	32.2	32.0	16.0	11.2	100
V	6.7	24.2	30.6	19.1	19.4	100
VI	3.7	20.3	28.9	20.9	26.3	100
VII	2.9	15.7	33.5	22.0	25.9	100
VIII	1.6	10.8	33.5	20.7	33.4	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 14.5% cannot even recognize numbers 1-9, 40.3% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 31.4% can recognize numbers up to 99 but cannot do subtraction, 9.6% can do subtraction but cannot do division, and 4.2% can do division. For each grade, the total of these exclusive categories is 100%.

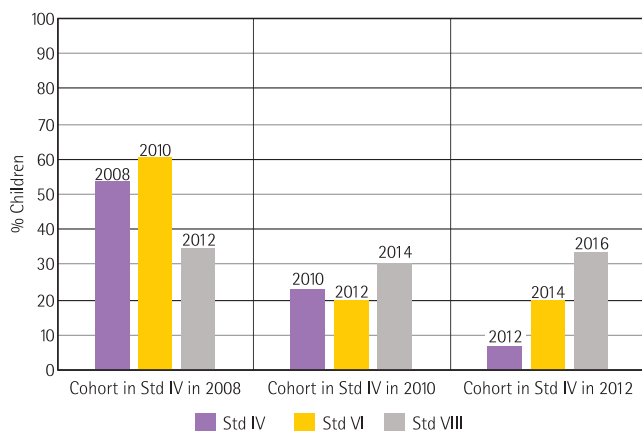
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	31.2	49.1	34.1
2012	6.8	31.7	11.7
2014	5.5	27.1	10.6
2016	8.4	27.9	13.8

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		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	4) 517

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	38.0	50.7	39.8	79.2	85.8	80.1
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	59.6	18.2	16.3	4.7	1.2	100
II	38.5	25.1	26.2	7.2	3.1	100
III	29.8	25.2	29.4	10.5	5.1	100
IV	22.6	22.6	32.4	13.8	8.6	100
V	18.4	18.5	34.3	16.3	12.6	100
VI	12.6	17.0	32.7	20.0	17.7	100
VII	10.2	15.5	31.6	21.5	21.2	100
VIII	8.1	11.9	30.4	22.9	26.7	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 29.8% cannot even read capital letters, 25.2% can read capital letters but not small letters or higher, 29.4% can read small letters but not words or higher, 10.5% can read words but not sentences, and 5.1% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	54.7	
II	55.5	
III	56.8	37.0
IV	52.3	51.2
V	51.6	48.6
VI	51.8	53.2
VII	49.3	48.3
VIII	52.1	55.9

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	80.2	74.2	68.0	64.6
	Govt. + Tuition	4.0	5.7	6.7	6.0
	Pvt. no tuition	13.5	17.1	21.6	25.2
	Pvt. + Tuition	2.4	3.1	3.7	4.2
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	76.4	76.8	73.2	70.3
	Govt. + Tuition	9.5	7.2	8.4	8.8
	Pvt. no tuition	10.1	13.2	15.3	17.2
	Pvt. + Tuition	4.0	2.8	3.1	3.7
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	44.8	44.2	6.9	4.1	100
Std I-V	Pvt.	29.0	41.8	18.2	11.0	100
Std VI-VIII	Govt.	29.8	54.7	10.3	5.3	100
Std VI-VIII	Pvt.	15.4	43.0	26.4	15.3	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	709	843	902	1084
Upper primary schools (Std I-VII/VIII)	510	368	355	373
Total schools visited	1219	1211	1257	1457

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	65.9	60.1	62.5	58.5
% Teachers present (Average)	88.5	84.9	84.4	83.5
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	67.6	59.3	57.5	54.8
% Teachers present (Average)	87.1	87.2	84.7	82.2

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	17.8	26.1	35.8	40.7
% Schools where Std II children were observed sitting with one or more other classes	68.9	76.1	78.5	78.8
% Schools where Std IV children were observed sitting with one or more other classes	59.9	67.0	70.5	71.4
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	0.2	1.6	1.7	5.7
% Schools where Std II children were observed sitting with one or more other classes	63.8	66.9	76.3	76.6
% Schools where Std IV children were observed sitting with one or more other classes	53.9	59.3	66.6	70.1

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	89.9	88.0	89.8	85.7
	Mid-day meal served in school on day of visit	94.7	90.2	88.3	88.4
Drinking water	No facility for drinking water	13.4	17.3	12.7	15.6
	Facility but no drinking water available	8.1	12.2	12.0	11.4
	Drinking water available	78.5	70.5	75.3	73.0
	Total	100	100	100	100
Toilet	No toilet facility	20.0	11.3	8.7	5.6
	Facility but toilet not useable	29.8	42.1	36.3	35.9
	Toilet useable	50.3	46.7	55.1	58.5
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	50.8	35.0	33.5	23.4
	Separate provision but locked	8.5	10.9	10.5	11.0
	Separate provision, unlocked but not useable	11.8	19.7	15.8	19.7
	Separate provision, unlocked and useable	28.9	34.4	40.3	45.9
	Total	100	100	100	100
Library	No library	43.7	29.1	16.0	20.5
	Library but no books being used by children on day of visit	27.3	31.7	40.3	39.4
	Library books being used by children on day of visit	29.1	39.3	43.7	40.1
	Total	100	100	100	100
Electricity	Electricity connection	26.2			
	Of schools with electricity connection, % schools with electricity available on day of visit	47.0			
Computer	No computer available for children to use	92.6	92.8	95.9	97.5
	Available but not being used by children on day of visit	5.7	5.1	3.3	2.2
	Computer being used by children on day of visit	1.7	2.2	0.9	0.3
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	77.7	65.3	77.1
April 2011 to March 2012	85.4	68.1	86.4
April 2013 to March 2014	82.5	57.3	15.1
April 2015 to March 2016	84.7	59.7	6.1

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	46.7	41.1	38.6
April 2012 to date of survey (2012)	71.4	59.2	74.7
April 2014 to date of survey (2014)	62.4	42.1	8.2
April 2016 to date of survey (2016)	78.0	56.0	4.8

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	10.4	5.8
	White wash/plastering	78.3	75.2
Repair	Repair of drinking water facility	43.7	40.9
	Repair of toilet	35.3	38.9
Purchase	Mats, Tat patti etc.	83.0	83.3
	Charts, globes or other teaching material	80.1	81.0

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	98.1	97.7
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	5.0	4.3
Between July and September	69.6	60.6
After September	25.4	35.1

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

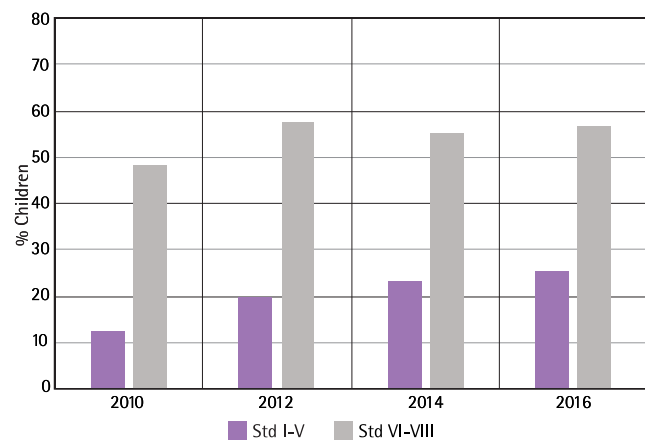
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	60.6	38.3	0.2	0.9	100
Age 7-16: All	52.3	45.7	0.1	1.8	100
Age 7-10: All	75.8	23.6	0.1	0.4	100
Age 7-10: Boys	72.8	26.6	0.2	0.4	100
Age 7-10: Girls	79.2	20.3	0.1	0.5	100
Age 11-14: All	43.0	55.4	0.2	1.5	100
Age 11-14: Boys	40.9	57.7	0.2	1.2	100
Age 11-14: Girls	45.0	53.0	0.1	1.9	100
Age 15-16: All	19.6	74.5	0.1	5.9	100
Age 15-16: Boys	20.9	73.5	0.0	5.6	100
Age 15-16: Girls	18.3	75.5	0.1	6.1	100

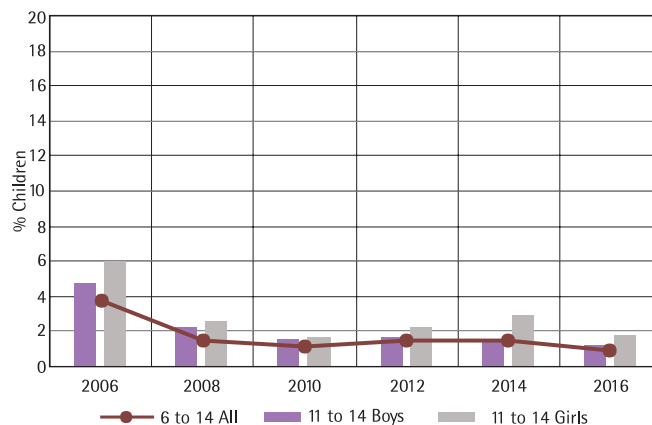
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	7.3	56.1	32.3				4.4					100	
II	0.8	5.1	37.2	51.1				5.7			100		
III	0.8	5.2	36.3	52.5				5.3			100		
IV	5.4				32.5	55.9				6.2		100	
V	4.5					32.9	54.7	6.8	1.0			100	
VI	0.8					5.4	31.6	55.8	5.0	1.4		100	
VII	0.9						5.5	34.2	50.6	7.6	1.2	100	
VIII	1.4							5.6	37.1	49.9	5.3	0.8	100

This table shows the age distribution for each grade. For example, in Std III, 36.3% children are 8 years old but there are also 5.2% who are 7, 52.5% who are 9, and 5.3% who are 10 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	78.9	7.8				13.3	100
Age 4	76.2	18.3				5.5	100
Age 5	58.7	19.6	11.8	5.2	0.3	4.3	100
Age 6	15.1	7.3	59.2	16.3	0.2	1.9	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	39.3	37.3	15.2	5.9	2.3	100
II	11.8	23.2	20.7	22.3	22.0	100
III	8.7	14.4	15.4	20.9	40.7	100
IV	4.0	8.6	11.2	21.0	55.2	100
V	4.2	6.9	8.8	17.6	62.5	100
VI	3.2	6.1	7.2	17.2	66.2	100
VII	2.2	5.3	5.6	13.7	73.2	100
VIII	2.3	4.3	5.8	11.8	75.8	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 8.7% cannot even read letters, 14.4% can read letters but not words or higher, 15.4% can read words but not Std I level text or higher, 20.9% can read Std I level text but not Std II level text, and 40.7% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

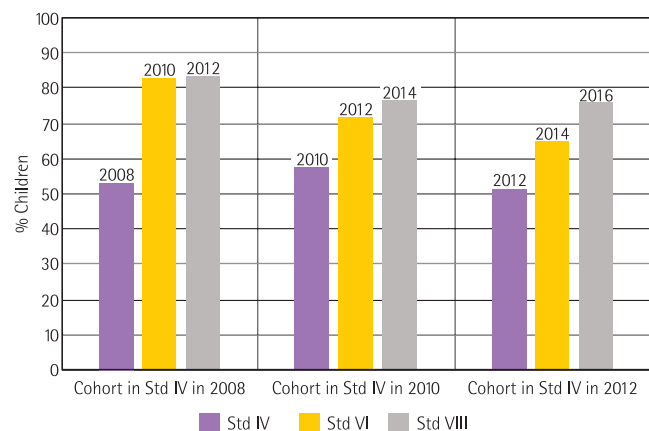
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	26.7	33.6	27.2
2012	34.9	37.6	35.3
2014	33.1	37.0	33.8
2016	41.2	38.8	40.7

\* 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.

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



This graph shows the progress of three 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

Std II level text

दाजी आजोबा आजारी असतात. ते खूप थकलेले दिसतात. हल्ली त्यांना नीट दिसत नाही. आजोबांचा नातू रमेश त्यांची खूप काळजी घेतो. त्यांना खूप खोकलाही झाला आहे. रमेश त्यांना येळेवर औषध देतो. नीट दिसत नसल्यामुळे आजोबा घरात बसून असतात. रमेश त्यांच्या हाताला धरून घरातल्या घरात फिरवतो. घरात बसून आजोबा जुनी गाणी ऐकतात. त्यांना नवीन गाणीही ऐकायला आवडतात. आजोबांना बरे वाटल्यावर दोघे लांबवर फिरायला जाणार आहेत.

Std I level text

आज गावाहून मामा आला.  
मला खाऊ व फुगे घेऊन आला.  
ताईला बाहुली घेऊन आला.  
आईला छान साडी आणली.

Letters

ख	ल
ब	ग
फ	भ
ण	ड
व	ढ

Words

खडू	पतंग
टोपी	लाल
विमान	केळे
चौदा	
पाऊस	झाडू
सैल	

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	71.0	77.6	73.2	88.2	92.9	91.7
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	62.7	62.4	62.6	75.4	76.0	75.9

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	33.6	48.2	17.1	0.9	0.2	100
II	10.3	37.4	44.5	7.1	0.7	100
III	6.8	22.8	46.6	21.3	2.6	100
IV	3.3	16.6	35.6	33.0	11.5	100
V	2.7	12.9	34.8	29.3	20.3	100
VI	2.2	12.7	34.2	24.1	26.8	100
VII	2.0	8.1	35.6	23.4	30.9	100
VIII	1.8	6.9	38.6	21.2	31.5	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 6.8% cannot even recognize numbers 1-9, 22.8% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 46.6% can recognize numbers up to 99 but cannot do subtraction, 21.3% can do subtraction but cannot do division, and 2.6% can do division. For each grade, the total of these exclusive categories is 100%.

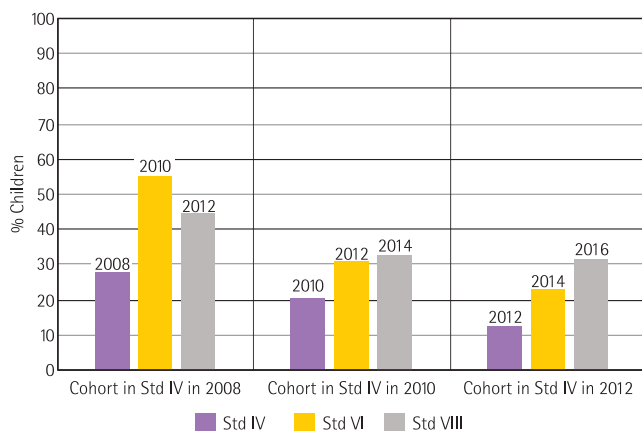
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	46.5	51.9	46.8
2012	22.5	34.1	24.0
2014	17.9	22.6	18.7
2016	22.5	29.2	23.9

\* 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.

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



This graph shows the progress of three 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 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.

## Arithmetic Tool

अंक ओळखा १ ते ९	संख्या ओळखा १० ते ९९	बजाबाकी	भागकार
१ ४	५९ ८३	४६ ६३ - २९ - ३९	७) ८७९
७ ३	३७ ६५	४७ ४५ - २८ - १७	६) ८२४
६ ९	५५ २६	९२ ८४ - ७६ - ५७	८) ९८५
५ २	९९ २७	५२ ६६ - १४ - ४८	४) ५९७

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	39.9	44.6	41.4	72.0	74.3	73.8
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	19.4	21.5	20.3	32.5	31.2	31.6

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English All children 2016**

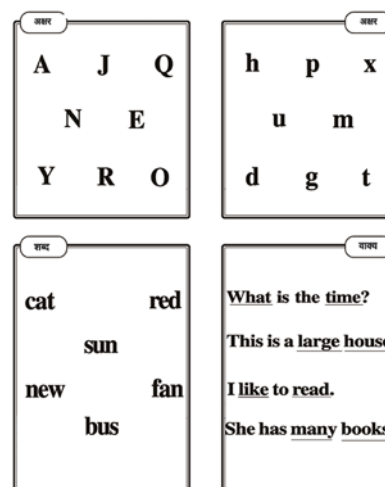
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	58.2	18.3	15.7	6.7	1.2	100
II	31.8	22.8	26.6	13.3	5.6	100
III	20.7	17.5	29.8	21.8	10.3	100
IV	13.0	15.4	27.3	25.9	18.5	100
V	10.2	11.1	25.1	25.7	27.9	100
VI	8.8	10.6	21.8	25.5	33.4	100
VII	5.7	8.3	19.2	26.0	40.9	100
VIII	5.8	6.9	17.7	23.8	45.9	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 20.7% cannot even read capital letters, 17.5% can read capital letters but not small letters or higher, 29.8% can read small letters but not words or higher, 21.8% can read words but not sentences, and 10.3% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English All children 2016**

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	47.5	
II	59.5	45.3
III	66.6	46.1
IV	65.7	60.7
V	64.9	63.2
VI	64.2	64.9
VII	59.7	65.0
VIII	60.3	67.9

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016**

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	82.7	74.8	70.4	68.3
	Govt. + Tuition	4.6	5.1	6.0	6.0
	Pvt. no tuition	10.4	15.8	18.2	19.7
	Pvt. + Tuition	2.3	4.3	5.4	6.0
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	46.9	38.7	40.3	39.5
	Govt. + Tuition	4.2	3.5	4.1	3.6
	Pvt. no tuition	42.0	49.3	47.8	48.3
	Pvt. + Tuition	6.9	8.5	7.9	8.7
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type 2016**

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	51.0	36.1	7.1	5.8	100
Std I-V	Pvt.	27.9	31.4	23.2	17.4	100
Std VI-VIII	Govt.	37.1	42.4	12.7	7.8	100
Std VI-VIII	Pvt.	29.8	34.8	14.7	20.6	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	435	400	409	354
Upper primary schools (Std I-VII/VIII)	467	422	466	425
Total schools visited	902	822	875	779

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	91.5	90.5	85.1	85.1
% Teachers present (Average)	93.8	92.3	90.8	91.8
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	92.4	90.6	86.9	86.9
% Teachers present (Average)	91.7	91.9	91.8	91.5

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	33.0	37.7	39.5	44.0
% Schools where Std II children were observed sitting with one or more other classes	47.5	52.0	53.2	55.6
% Schools where Std IV children were observed sitting with one or more other classes	46.8	46.5	49.4	51.9
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	1.3	5.3	5.0	10.6
% Schools where Std II children were observed sitting with one or more other classes	34.3	35.4	38.9	45.5
% Schools where Std IV children were observed sitting with one or more other classes	26.9	30.7	32.1	41.1

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	78.2	70.9	92.0	95.6
	Mid-day meal served in school on day of visit	90.7	93.2	94.8	94.5
Drinking water	No facility for drinking water	18.7	17.2	15.9	14.5
	Facility but no drinking water available	12.3	13.3	13.7	18.4
	Drinking water available	69.0	69.5	70.5	67.1
	Total	100	100	100	100
Toilet	No toilet facility	2.9	1.9	2.9	3.1
	Facility but toilet not useable	44.1	40.9	30.9	29.0
	Toilet useable	53.0	57.3	66.3	68.0
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	13.7	7.2	9.8	7.8
	Separate provision but locked	32.3	26.2	18.2	12.1
	Separate provision, unlocked but not useable	10.8	13.6	13.0	17.7
	Separate provision, unlocked and useable	43.2	53.1	59.1	62.5
	Total	100	100	100	100
Library	No library	14.0	13.7	17.4	16.3
	Library but no books being used by children on day of visit	19.6	33.2	46.2	37.6
	Library books being used by children on day of visit	66.5	53.1	36.4	46.0
	Total	100	100	100	100
Electricity	Electricity connection				92.1
	Of schools with electricity connection, % schools with electricity available on day of visit				78.4
Computer	No computer available for children to use	66.7	56.7	53.7	44.9
	Available but not being used by children on day of visit	13.5	26.4	31.6	37.2
	Computer being used by children on day of visit	19.8	16.9	14.7	17.9
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	92.4	76.1	93.5
April 2011 to March 2012	94.4	82.2	96.5
April 2013 to March 2014	89.0	63.3	13.5
April 2015 to March 2016	90.1	62.6	6.8

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	65.7	57.6	66.3
April 2012 to date of survey (2012)	60.3	60.7	68.4
April 2014 to date of survey (2014)	24.8	18.8	4.6
April 2016 to date of survey (2016)	27.5	18.6	6.2

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	14.6	8.8
	White wash/plastering	56.4	65.7
Repair	Repair of drinking water facility	48.9	52.4
	Repair of toilet	42.1	37.4
	Mats, Tat patti etc.	36.2	28.8
Purchase	Charts, globes or other teaching material	61.5	63.2

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	98.7	98.8
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	5.1	4.8
Between July and September	85.9	72.1
After September	9.1	23.2

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

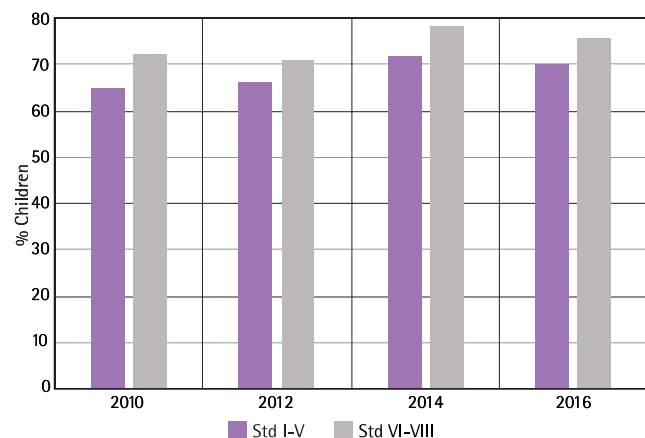
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	26.9	71.7	0.1	1.3	100
Age 7-16: All	26.6	71.0	0.0	2.3	100
Age 7-10: All	29.4	69.5	0.0	1.1	100
Age 7-10: Boys	25.5	73.6	0.0	0.9	100
Age 7-10: Girls	33.0	65.7	0.0	1.3	100
Age 11-14: All	24.3	73.6	0.1	2.0	100
Age 11-14: Boys	20.6	77.3	0.1	2.0	100
Age 11-14: Girls	27.6	70.2	0.1	2.1	100
Age 15-16: All	24.2	67.9	0.0	7.9	100
Age 15-16: Boys	19.1	71.0	0.0	9.8	100
Age 15-16: Girls	28.5	65.1	0.0	6.4	100

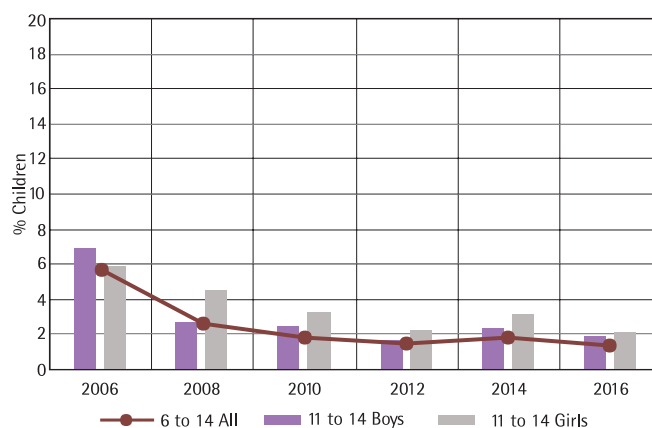
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII  
 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age  
 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	10.5	35.2	28.4	19.0	6.9							100	
II	16.7	14.3	25.8	23.4	11.2	5.8	2.8					100	
III	6.8		27.9	27.9	21.2	9.3	5.0	1.9				100	
IV	2.0		10.1	23.7	33.7	15.8	10.9	3.8				100	
V	2.2			7.1	21.7	28.9	24.8	11.1	4.3				100
VI	1.6			9.7	20.2	39.0	18.2	7.8	3.5			100	
VII	2.7				7.3	27.8	33.0	18.6	6.0	4.6			100
VIII	2.0				7.6	33.0	32.8	16.2	8.4			100	

This table shows the age distribution for each grade. For example, in Std III, 27.9% children are 8 years old but there are also 6.8% who are 7 or younger, 27.9% who are 9, 21.2% who are 10, 9.3% who are 11, 5% who are 12, and 1.9% who are 13 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	17.4	29.4				53.3	100
Age 4	9.4	72.1				18.5	100
Age 5	0.6	1.0	27.8	66.4	0.2	4.0	100
Age 6	0.0	1.0	25.5	72.3	0.2	1.1	100

For 3 and 4 year old children, only pre-school status is recorded.







Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	4.8	12.5	71.4	10.8	0.5	100
II	3.4	12.8	60.6	20.7	2.5	100
III	0.5	1.6	38.3	39.2	20.6	100
IV	0.2	0.7	23.4	41.4	34.3	100
V	0.0	0.6	13.7	33.2	52.5	100
VI	0.2	0.4	13.2	24.3	62.0	100
VII	0.2	0.6	11.3	21.9	66.0	100
VIII	0.0	0.0	6.5	14.9	78.6	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 0.5% cannot even recognize numbers 1-9, 1.6% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 38.3% can recognize numbers up to 99 but cannot do subtraction, 39.2% can do subtraction but cannot do division, and 20.6% can do division. For each grade, the total of these exclusive categories is 100%.

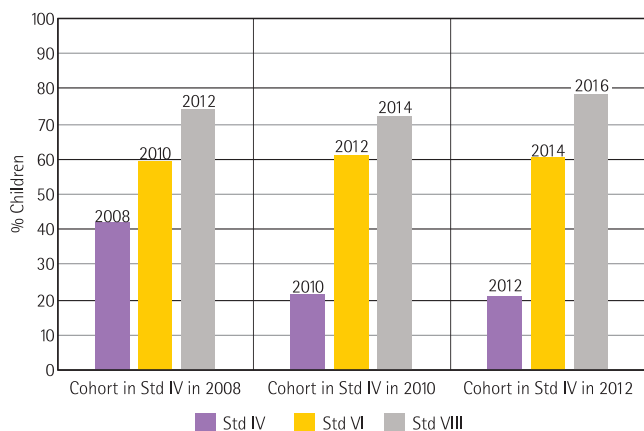
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	26.8	61.5	48.3
2012	38.4	61.1	53.3
2014	52.0	61.9	59.4
2016	53.2	63.0	59.7

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

ਸਕੂਲੀ ਪੜ੍ਹਾਈ	ਸਕੂਲੀ ਪੜ੍ਹਾਈ	ਸਕੂਲੀ ਪੜ੍ਹਾਈ	ਸਕੂਲੀ ਪੜ੍ਹਾਈ	ਸਕੂਲੀ ਪੜ੍ਹਾਈ	ਸਕੂਲੀ ਪੜ੍ਹਾਈ
੧	੨	੩	੪	੫	੬
੭	੮	੯	੧੦	੧੧	੧੨
੧੩	੧੪	੧੫	੧੬	੧੭	੧੮
੧੯	੨੦	੨੧	੨੨	੨੩	੨੪
੨੫	੨੬	੨੭	੨੮	੨੯	੩੦

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	20.3	54.2	41.9	63.9	89.6	82.1
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

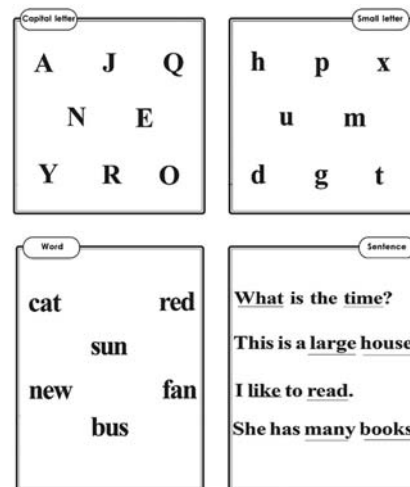
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	5.6	5.0	42.1	37.1	10.2	100
II	3.6	4.0	37.4	35.1	19.9	100
III	1.2	0.4	11.3	34.5	52.7	100
IV	0.2	0.6	4.8	18.6	75.8	100
V	0.1	0.0	3.0	11.9	85.0	100
VI	0.0	0.0	3.0	9.8	87.2	100
VII	0.0	0.6	3.4	3.3	92.7	100
VIII	0.0	0.2	1.4	4.3	94.1	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 1.2% cannot even read capital letters, 0.4% can read capital letters but not small letters or higher, 11.3% can read small letters but not words or higher, 34.5% can read words but not sentences, and 52.7% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	60.1	
II	57.8	60.0
III	68.3	67.8
IV	63.0	74.9
V		77.8
VI		82.1
VII		81.8
VIII		88.7

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	30.1	25.3	19.9	21.5
	Govt. + Tuition	4.7	6.4	7.7	7.9
	Pvt. no tuition	35.1	35.7	36.9	35.5
	Pvt. + Tuition	30.2	32.6	35.5	35.2
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	23.0	20.2	14.5	19.0
	Govt. + Tuition	5.6	7.8	7.1	5.3
	Pvt. no tuition	30.1	37.2	44.2	43.5
	Pvt. + Tuition	41.3	34.8	34.2	32.3
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	3.2	26.5	45.8	24.5	100
Std I-V	Pvt.	1.0	15.0	35.1	48.9	100
Std VI-VIII	Govt.					
Std VI-VIII	Pvt.	0.7	5.0	28.6	65.7	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	97	129	100	107
Upper primary schools (Std I-VII/VIII)	28	57	79	73
Total schools visited	125	186	179	180

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	66.1	52.7	57.0	56.7
% Teachers present (Average)	70.8	72.8	63.5	65.2
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	71.3	59.5	52.6	53.9
% Teachers present (Average)	75.1	79.6	70.6	71.2

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	40.4	59.2	74.5	73.3
% Schools where Std II children were observed sitting with one or more other classes	40.7	54.2	39.3	49.5
% Schools where Std IV children were observed sitting with one or more other classes	35.2	39.6	38.5	50.0
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	17.9	22.8	25.3	34.8
% Schools where Std II children were observed sitting with one or more other classes	28.0	42.9	25.7	36.7
% Schools where Std IV children were observed sitting with one or more other classes	20.0	33.9	23.2	29.5

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	58.4	53.4	52.8	51.5
	Mid-day meal served in school on day of visit	47.8	41.1	34.5	49.4
Drinking water	No facility for drinking water	84.6	90.1	75.8	80.8
	Facility but no drinking water available	10.3	2.8	8.4	4.0
	Drinking water available	5.1	7.1	15.7	15.3
	Total	100	100	100	100
Toilet	No toilet facility	21.4	27.8	15.6	9.0
	Facility but toilet not useable	38.5	31.3	31.3	47.2
	Toilet useable	40.2	40.9	53.1	43.8
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	78.5	56.1	64.3	50.3
	Separate provision but locked	4.7	12.2	10.8	17.9
	Separate provision, unlocked but not useable	8.4	8.8	5.1	7.3
	Separate provision, unlocked and useable	8.4	23.0	19.8	24.5
	Total	100	100	100	100
Library	No library	90.8	88.5	82.0	88.3
	Library but no books being used by children on day of visit	3.4	8.7	15.2	8.3
	Library books being used by children on day of visit	5.9	2.7	2.8	3.3
	Total	100	100	100	100
Electricity	Electricity connection				36.3
	Of schools with electricity connection, % schools with electricity available on day of visit				
Computer	No computer available for children to use	91.5	89.6	83.7	85.0
	Available but not being used by children on day of visit	5.9	4.4	11.2	10.6
	Computer being used by children on day of visit	2.5	6.0	5.1	4.4
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	66.7	55.6	68.3
April 2011 to March 2012	80.4	64.9	84.0
April 2013 to March 2014	72.3	49.7	29.0
April 2015 to March 2016	74.7	57.1	16.3

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	11.3	9.6	9.4
April 2012 to date of survey (2012)	36.0	27.8	37.7
April 2014 to date of survey (2014)	14.4	6.9	3.5
April 2016 to date of survey (2016)	59.2	46.7	11.2

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	15.1	30.9
	White wash/plastering	29.3	32.0
Repair	Repair of drinking water facility	20.5	21.3
	Repair of toilet	15.7	22.9
	Mats, Tat patti etc.	35.0	37.8
Purchase	Charts, globes or other teaching material	53.9	56.5

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	87.6	94.2
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	35.5	33.1
Between July and September	59.7	38.6
After September	4.8	28.4

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

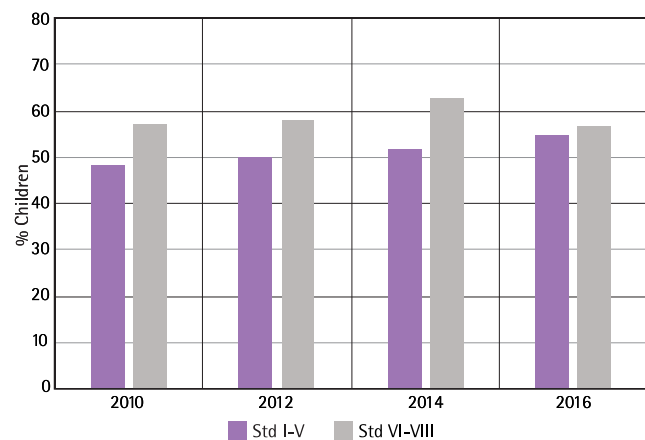
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	40.8	55.2	1.2	2.8	100
Age 7-16: All	41.5	52.7	1.3	4.5	100
Age 7-10: All	40.2	56.4	1.3	2.1	100
Age 7-10: Boys	41.7	54.2	1.8	2.4	100
Age 7-10: Girls	38.0	59.6	0.8	1.6	100
Age 11-14: All	42.8	52.1	1.2	3.9	100
Age 11-14: Boys	44.1	49.7	0.9	5.3	100
Age 11-14: Girls	41.0	54.8	1.7	2.6	100
Age 15-16: All	41.5	45.6	1.5	11.4	100
Age 15-16: Boys	43.1	40.8	2.0	14.2	100
Age 15-16: Girls	39.3	51.0	1.0	8.7	100

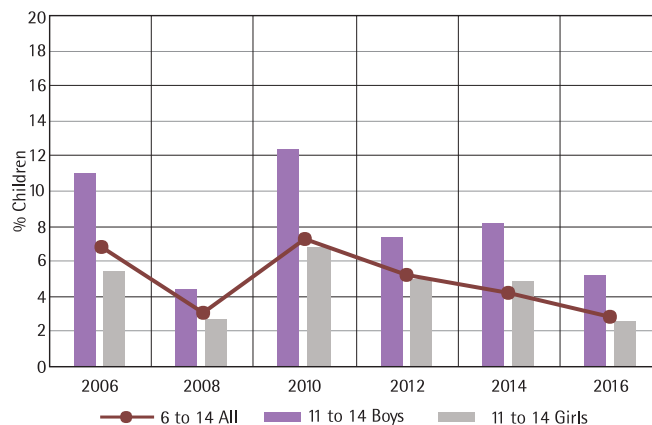
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	8.0	26.4	25.7	19.9	7.0	7.4	5.7						100
II	9.5	11.6	17.7	23.1	13.1	11.0	3.9	5.6	4.5				100
III	3.6		14.1	23.0	22.1	15.7	10.9	10.8					100
IV	2.0		5.7	11.4	23.1	16.6	16.0	10.8	6.4	5.2	2.8	100	
V	5.8			16.5			17.9	23.9	15.7	10.6	5.3	4.3	100
VI	1.7			5.8			13.0	25.2	19.1	16.7	10.5	8.0	100
VII	4.1				15.1				24.6	23.8	18.4	14.0	100
VIII	4.6				17.7				27.7	24.1	25.8	100	

This table shows the age distribution for each grade. For example, in Std III, 14.1% children are 8 years old but there are also 3.6% who are 7 or younger, 23% who are 9, 22.1% who are 10, 15.7% who are 11, 10.9% who are 12, and 10.8% who are 13 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	42.9	22.5				34.7	100
Age 4	27.9	61.9				10.2	100
Age 5	3.2	8.9	31.0	49.9	1.2	5.9	100
Age 6	1.1	5.6	32.3	56.8	0.9	3.3	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	10.8	49.9	31.1	6.9	1.3	100
II	12.3	32.1	33.0	16.8	5.7	100
III	2.4	13.6	37.5	27.2	19.3	100
IV	0.3	6.2	26.9	34.8	31.8	100
V	0.4	1.1	12.2	38.4	47.9	100
VI	0.0	1.3	10.7	34.5	53.5	100
VII	0.9	0.8	3.9	17.7	76.7	100
VIII	0.0	0.5	3.7	10.0	85.8	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 2.4% cannot even read letters, 13.6% can read letters but not words or higher, 37.5% can read words but not Std I level text or higher, 27.2% can read Std I level text but not Std II level text, and 19.3% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

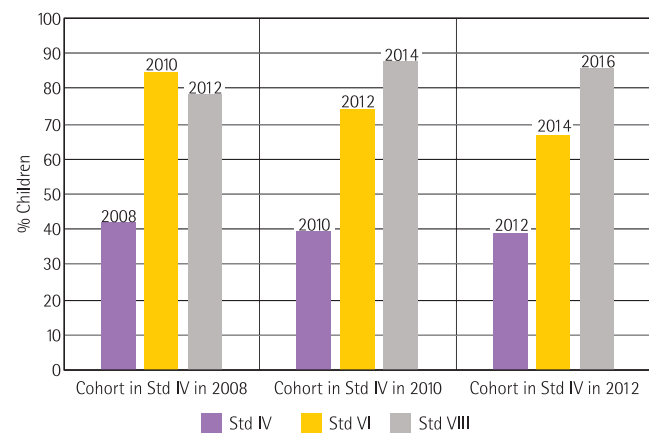
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	8.6	19.2	13.1
2012	23.9	38.7	30.1
2014	23.2	25.2	24.3
2016	16.9	22.1	19.6

\* 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.

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



This graph shows the progress of three 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

Std II level text

**Ka Mary Ka dei ka khynnah ba dang rit. Ka don u khunmyrriew ba itynnat bha. ka sngwtynnad ban ialehkai bad la u khunmyrriew. Ha kawei ka sngi une u khunmyrriew u la hap na kti jong ka ha madan, u la pait lyngkhot lyngkhai. Ka Mary ka la sngewsih bha. Ka la iam tynggeh. ka kmie jong ka, ka ia ka da uwei u khunmyrriew, mynta ka la kmen biang.**

Std I level text

**U John u leit sha ka iew. Ka iew ka jngai bha. U liet da ka bus. Ka bus ka shim saw kynta.**

Letters

e d q  
t k  
s n y  
x m

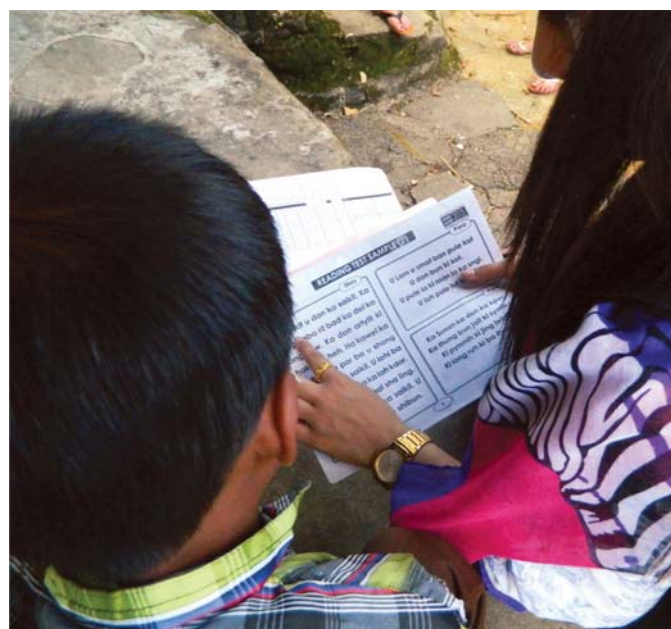
Words

shamoit jaiñ  
sta  
um khmut  
khmat kti  
kjat  
phan khaw

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	65.7	63.7	64.6	95.3	89.7	92.5
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

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	10.8	33.8	52.9	2.3	0.2	100
II	11.5	20.6	59.8	7.8	0.3	100
III	1.8	6.9	69.1	21.2	1.0	100
IV	0.4	3.7	60.6	29.6	5.6	100
V	0.6	1.3	50.6	36.9	10.7	100
VI	0.0	0.1	40.7	47.3	11.9	100
VII	0.2	0.6	32.3	48.1	18.7	100
VIII	0.0	0.0	21.3	47.3	31.4	100

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, 6.9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 69.1% can recognize numbers up to 99 but cannot do subtraction, 21.2% can do subtraction but cannot do division, and 1% can do division. For each grade, the total of these exclusive categories is 100%.

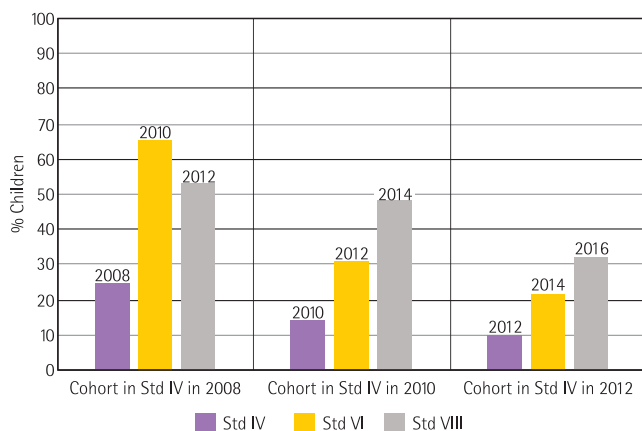
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	32.9	42.6	37.0
2012	27.7	32.7	29.9
2014	23.1	33.8	28.8
2016	21.6	23.0	22.3

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

Number recognition 1 & 9		Number recognition 10 & 99		Subtraction		Division
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	4)517(
		36	27			

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	40.0	38.5	39.2	86.2	75.9	81.0
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

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

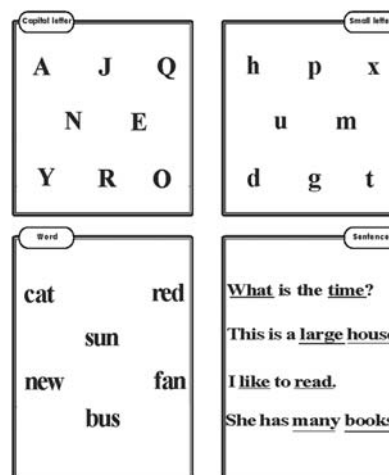
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	16.1	21.5	30.0	30.1	2.3	100
II	15.1	15.8	22.4	39.1	7.6	100
III	4.4	7.2	15.5	54.5	18.4	100
IV	2.4	4.1	11.1	47.0	35.4	100
V	0.4	3.6	5.4	39.0	51.6	100
VI	0.5	0.5	3.5	33.3	62.2	100
VII	0.2	0.7	1.3	16.1	81.7	100
VIII	0.0	0.3	1.4	11.1	87.3	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 4.4% cannot even read capital letters, 7.2% can read capital letters but not small letters or higher, 15.5% can read small letters but not words or higher, 54.5% can read words but not sentences, and 18.4% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	36.3	
II	50.0	
III	58.0	
IV	61.9	65.4
V	68.0	66.4
VI	65.5	76.6
VII		80.0
VIII		86.9

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	47.2	45.1	44.2	38.8
	Govt. + Tuition	4.1	3.7	2.7	5.1
	Pvt. no tuition	39.3	41.1	42.7	44.8
	Pvt. + Tuition	9.4	10.2	10.5	11.2
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	34.7	38.7	34.3	35.1
	Govt. + Tuition	6.8	1.9	2.0	7.4
	Pvt. no tuition	48.0	47.8	53.0	45.5
	Pvt. + Tuition	10.5	11.5	10.7	12.0
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	3.3	31.8	42.3	22.6	100
Std I-V	Pvt.	4.3	39.8	30.2	25.8	100
Std VI-VIII	Govt.					
Std VI-VIII	Pvt.	1.2	22.2	23.4	53.3	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	101	109	114	118
Upper primary schools (Std I-VII/VIII)	9	20	15	11
Total schools visited	110	129	129	129

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	75.5	74.2	73.8	74.8
% Teachers present (Average)	93.0	87.2	88.3	83.0

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	71.0	65.1	68.6	69.9
% Schools where Std II children were observed sitting with one or more other classes	64.7	69.3	66.9	59.8
% Schools where Std IV children were observed sitting with one or more other classes	61.3	66.1	60.7	59.0

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	60.6	69.1	83.3	86.7
	Mid-day meal served in school on day of visit	51.9	30.5	40.7	47.9
Drinking water	No facility for drinking water	70.6	82.4	71.7	72.2
	Facility but no drinking water available	5.5	4.8	11.8	7.9
	Drinking water available	23.9	12.8	16.5	19.8
	Total	100	100	100	100
Toilet	No toilet facility	34.9	23.6	20.2	2.3
	Facility but toilet not useable	40.6	44.7	41.1	45.7
	Toilet useable	24.5	31.7	38.8	51.9
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	64.8	46.6	52.5	29.4
	Separate provision but locked	9.1	26.1	19.8	24.8
	Separate provision, unlocked but not useable	11.4	6.8	10.9	7.3
	Separate provision, unlocked and useable	14.8	20.5	16.8	38.5
	Total	100	100	100	100
Library	No library	78.0	76.0	76.4	71.3
	Library but no books being used by children on day of visit	6.4	8.8	1.6	6.2
	Library books being used by children on day of visit	15.6	15.2	22.1	22.5
	Total	100	100	100	100
Electricity	Electricity connection				16.8
	Of schools with electricity connection, % schools with electricity available on day of visit				
Computer	No computer available for children to use	97.3	97.6	98.5	98.3
	Available but not being used by children on day of visit	1.8	0.0	0.8	0.9
	Computer being used by children on day of visit	0.9	2.4	0.8	0.9
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	62.3	46.1	83.3
April 2011 to March 2012	58.4	33.1	71.2
April 2013 to March 2014	75.0	46.5	53.1
April 2015 to March 2016	52.4	31.0	22.1

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	38.4	24.6	47.2
April 2012 to date of survey (2012)	35.7	19.4	49.6
April 2014 to date of survey (2014)	45.2	25.4	21.9
April 2016 to date of survey (2016)	29.4	17.7	11.9

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	17.8	7.1
	White wash/plastering	36.0	21.1
Repair	Repair of drinking water facility	10.2	8.7
	Repair of toilet	17.3	22.9
Purchase	Mats, Tat patti etc.	21.7	17.1
	Charts, globes or other teaching material	56.3	37.4

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	91.3	78.9
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	56.1	48.2
Between July and September	41.1	39.5
After September	2.8	12.4

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



Mizoram, Nagaland

Odisha, Punjab

Rajasthan, Tamil Nadu





## School enrollment

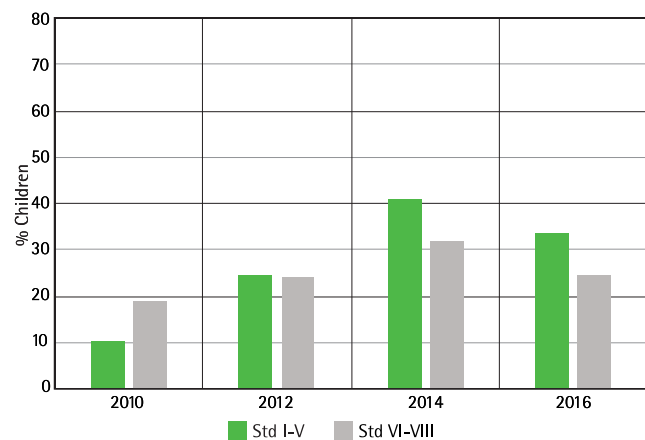
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	65.8	30.9	1.7	1.5	100
Age 7-16: All	67.8	26.8	1.7	3.6	100
Age 7-10: All	66.9	30.6	1.6	1.0	100
Age 7-10: Boys	67.8	29.7	1.6	0.8	100
Age 7-10: Girls	65.9	31.5	1.5	1.1	100
Age 11-14: All	70.0	25.1	2.1	2.8	100
Age 11-14: Boys	71.9	23.2	2.0	2.9	100
Age 11-14: Girls	68.8	26.2	2.4	2.6	100
Age 15-16: All	65.4	18.5	1.4	14.8	100
Age 15-16: Boys	67.4	15.4	1.0	16.2	100
Age 15-16: Girls	62.5	20.7	2.0	14.8	100

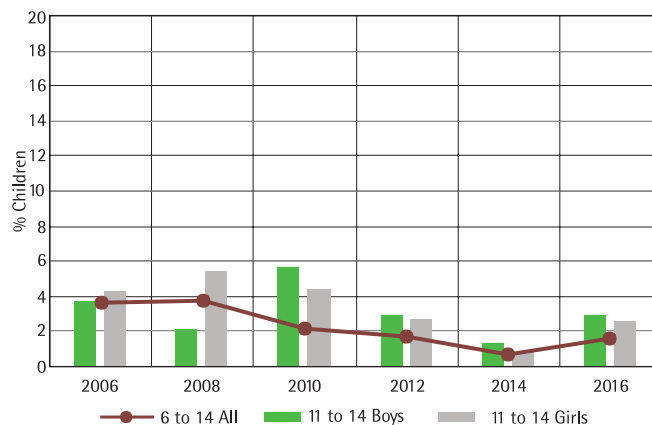
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	22.7	48.7	18.7	5.8	4.1								100
II	8.4	11.3	36.8	24.9	10.3	8.3							100
III	2.7	10.5	31.3	31.6	14.5	9.4							100
IV	4.4	9.9	31.6	32.4	8.5	8.2	4.9						100
V	3.3	7.3	42.6	22.1	13.2	6.4	5.2						100
VI	2.7	8.9	24.4	34.5	14.9	10.9	3.8						100
VII	5.2	6.5	20.6	41.4	12.5	9.6	4.2						100
VIII	4.0	7.1	28.3	41.8	12.2	6.6						100	

This table shows the age distribution for each grade. For example, in Std III, 31.3% children are 8 years old but there are also 10.5% who are 7, 31.6% who are 9, 14.5% who are 10, and 9.4% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	80.8	3.3				15.9	100
Age 4	67.7	12.8				19.5	100
Age 5	4.4	1.5	39.4	52.5	0.3	2.1	100
Age 6	0.6	1.2	48.5	46.7	1.2	1.7	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	23.6	54.8	16.4	4.4	0.9	100
II	6.6	37.0	42.3	11.4	2.7	100
III	0.8	16.9	39.3	32.7	10.3	100
IV	0.0	6.5	33.1	32.3	28.2	100
V	0.4	1.1	20.9	31.6	46.0	100
VI	0.7	0.8	13.7	27.5	57.3	100
VII	0.0	0.5	4.8	24.1	70.6	100
VIII	0.0	0.3	3.5	12.7	83.5	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 0.8% cannot even read letters, 16.9% can read letters but not words or higher, 39.3% can read words but not Std I level text or higher, 32.7% can read Std I level text but not Std II level text, and 10.3% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

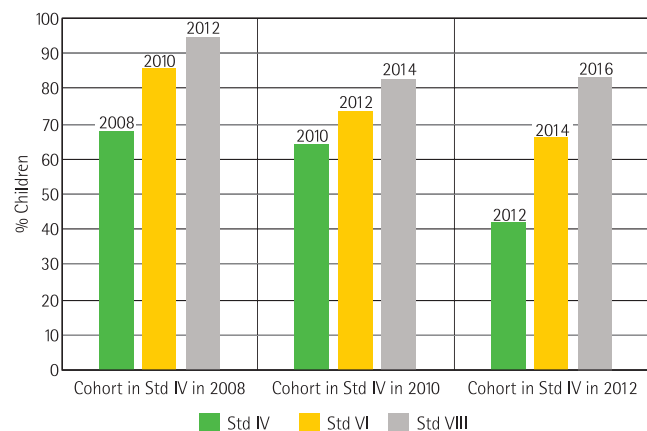
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	27.5	37.1	28.1
2012	19.2	31.5	22.4
2014	14.8	25.8	19.0
2016	7.2	18.0	10.5

\* 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.

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



This graph shows the progress of three 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

Std II level text	Std I level text
<p>Ramengi leh a t̄hiante chu Bazar-ah an kal a. Ramengi chuan naute lem a awt hle a. Mahse, pawisa a nei lo. A neitute hriatloh laiin naute lem chu a la ta a. Hlim takin an inah a tlan haw a. A nu te a hrihl a. A nu chuan thilruk thatlohzia a lo hrihl a. A inchhir em em a. A neitute hnen ah naute lem chu a pekir leh ta a.</p>	<p><b>Ka hming chu Huma a ni. Kum riat mi ka ni. Nitin Sikul ka kal t̄hin a. Kan Sikul chu a nuam hle.</b></p>
<p>Letters</p> <p>n h k i r b aw u ch p</p>	<p>Words</p> <p>Grep Tho Huaisen In Lawng Fanghma Pangpar Bawng Ngai Kal</p>

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	68.0	84.0	72.1	91.0	87.6	90.5
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

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	20.8	39.5	34.6	4.7	0.4	100
II	4.4	17.0	67.9	10.2	0.4	100
III	0.7	3.9	58.4	34.6	2.4	100
IV	0.2	0.6	23.1	69.4	6.8	100
V	0.2	1.1	11.2	59.8	27.7	100
VI	0.7	0.0	8.8	44.9	45.7	100
VII	0.0	0.3	1.2	40.8	57.7	100
VIII	0.0	0.0	0.8	22.7	76.5	100

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, 3.9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 58.4% can recognize numbers up to 99 but cannot do subtraction, 34.6% can do subtraction but cannot do division, and 2.4% can do division. For each grade, the total of these exclusive categories is 100%.

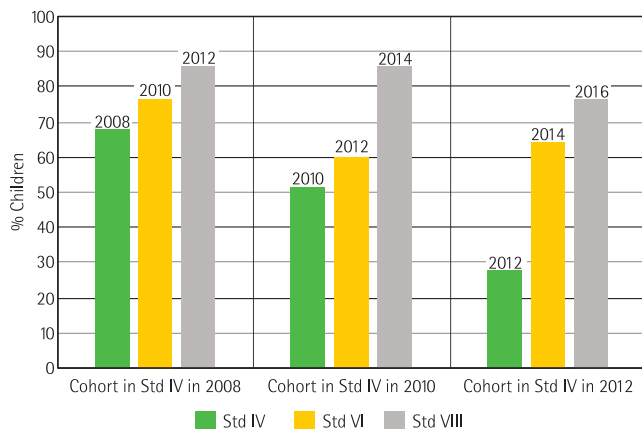
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	74.9	74.8	74.9
2012	58.1	69.4	61.0
2014	63.9	67.7	65.3
2016	33.1	45.9	37.0

\* 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.

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



This graph shows the progress of three 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

Number recognition 1 & 9		Number recognition 10 & 99		Subtraction		Division
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	4)517
		36	27			

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	57.0	76.1	62.0	86.4	77.5	85.1
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

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

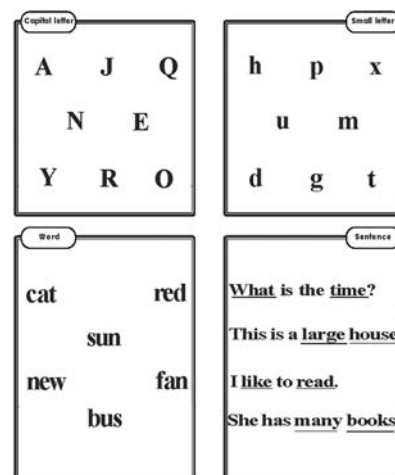
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	22.2	25.8	40.7	10.9	0.4	100
II	5.0	19.2	51.4	22.0	2.5	100
III	0.5	7.6	39.6	43.6	8.7	100
IV	0.0	2.7	18.4	62.6	16.4	100
V	0.4	1.1	7.6	52.5	38.5	100
VI	1.0	0.7	4.2	41.3	52.9	100
VII	0.3	0.0	1.6	31.2	66.9	100
VIII	0.0	0.1	0.9	16.2	82.8	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 0.5% cannot even read capital letters, 7.6% can read capital letters but not small letters or higher, 39.6% can read small letters but not words or higher, 43.6% can read words but not sentences, and 8.7% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	70.4	
II	59.4	
III	65.9	
IV	59.8	62.9
V	70.0	58.9
VI	72.1	75.6
VII	78.9	80.8
VIII		90.4

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	86.4	72.4	58.7	62.2
	Govt. + Tuition	2.3	2.5	0.3	3.7
	Pvt. no tuition	9.7	22.3	37.7	30.9
	Pvt. + Tuition	1.6	2.8	3.3	3.3
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	74.2	70.6	68.3	71.6
	Govt. + Tuition	4.5	5.0	0.3	3.4
	Pvt. no tuition	19.8	20.9	29.7	21.6
	Pvt. + Tuition	1.5	3.6	1.7	3.5
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	2.4	13.6	25.3	58.8	100
Std I-V	Pvt.	2.8	10.2	37.2	49.8	100
Std VI-VIII	Govt.					
Std VI-VIII	Pvt.					

Data 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	166	190	184	218
Upper primary schools (Std I-VII/VIII)	8	9	3	4
Total schools visited	174	199	187	222

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	85.8	85.9	86.8	86.2
% Teachers present (Average)	94.4	88.4	88.7	89.4

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	39.8	53.8	63.7	57.3
% Schools where Std II children were observed sitting with one or more other classes	31.8	44.4	25.3	28.5
% Schools where Std IV children were observed sitting with one or more other classes	29.9	33.1	25.1	28.4

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	96.2	95.0	94.0	93.6
	Mid-day meal served in school on day of visit	94.0	91.4	72.0	91.7
Drinking water	No facility for drinking water	47.3	32.5	24.5	31.2
	Facility but no drinking water available	4.1	2.5	7.1	4.1
	Drinking water available	48.5	65.0	68.5	64.7
	Total	100	100	100	100
Toilet	No toilet facility	7.1	7.6	7.6	5.1
	Facility but toilet not useable	37.3	48.2	58.7	54.9
	Toilet useable	55.6	44.2	33.7	40.0
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	43.4	25.6	21.1	26.2
	Separate provision but locked	14.5	39.4	47.4	41.1
	Separate provision, unlocked but not useable	11.3	5.0	3.5	7.4
	Separate provision, unlocked and useable	30.8	30.0	28.1	25.3
	Total	100	100	100	100
Library	No library	93.6	77.8	83.2	91.0
	Library but no books being used by children on day of visit	4.7	10.6	10.9	5.4
	Library books being used by children on day of visit	1.7	11.6	6.0	3.6
	Total	100	100	100	100
Electricity	Electricity connection				79.7
	Of schools with electricity connection, % schools with electricity available on day of visit				89.0
Computer	No computer available for children to use	92.4	91.3	98.4	95.1
	Available but not being used by children on day of visit	1.8	5.6	1.1	4.1
	Computer being used by children on day of visit	5.9	3.1	0.5	0.9
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	95.1	78.2	96.5
April 2011 to March 2012	94.0	73.6	94.0
April 2013 to March 2014	97.3	69.9	68.8
April 2015 to March 2016	96.9	76.6	9.5

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	78.6	63.3	76.8
April 2012 to date of survey (2012)	78.6	60.8	75.5
April 2014 to date of survey (2014)	56.5	52.5	25.1
April 2016 to date of survey (2016)	80.9	64.4	4.6

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	23.9	30.2
	White wash/plastering	27.7	38.4
Repair	Repair of drinking water facility	27.4	29.5
	Repair of toilet	47.9	33.0
Purchase	Mats, Tat patti etc.	14.7	18.1
	Charts, globes or other teaching material	41.2	46.4

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	95.6	97.7
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	68.9	47.0
Between July and September	29.9	43.4
After September	1.2	9.6

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

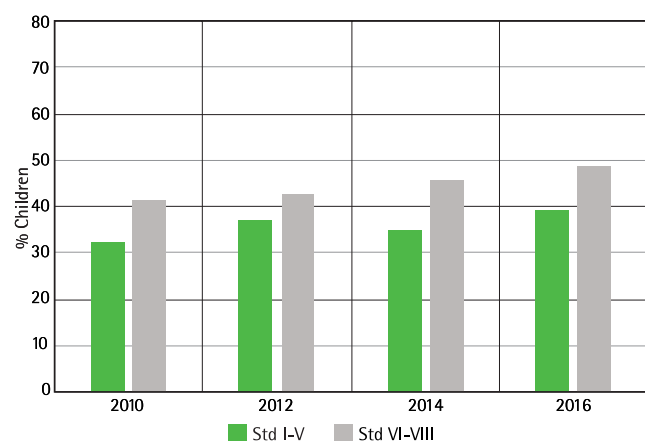
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	55.5	42.4	0.0	2.1	100
Age 7-16: All	52.9	42.9	0.0	4.1	100
Age 7-10: All	57.5	41.0	0.0	1.5	100
Age 7-10: Boys	55.9	42.2	0.0	1.9	100
Age 7-10: Girls	58.6	40.2	0.0	1.2	100
Age 11-14: All	50.0	46.6	0.0	3.4	100
Age 11-14: Boys	48.6	46.7	0.0	4.7	100
Age 11-14: Girls	52.3	46.0	0.0	1.7	100
Age 15-16: All	41.0	40.2	0.0	18.8	100
Age 15-16: Boys	39.0	40.2	0.0	20.8	100
Age 15-16: Girls	43.7	40.1	0.0	16.2	100

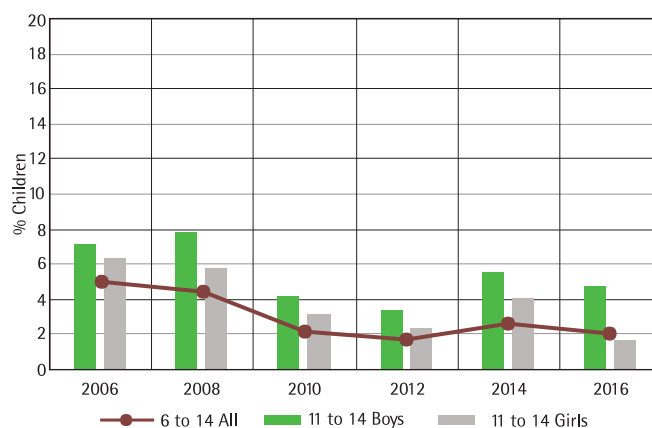
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	10.7	49.5	27.6	7.3	4.9							100		
II	22.3	14.2	31.7	20.8	6.8	4.2							100	
III	2.5	9.4	43.8	28.1	10.5	5.7							100	
IV	2.1		8.0	34.1	34.0	11.0	6.3	4.5					100	
V	1.3			5.9	39.1	30.1	15.0	5.5	3.0					100
VI	1.1				7.7	23.1	40.3	17.6	6.8	3.4				100
VII	3.4					34.6		30.4	20.7	8.0	3.0			100
VIII	0.7				6.7		30.9	35.7	15.1	10.8				100

This table shows the age distribution for each grade. For example, in Std III, 43.8% children are 8 years old but there are also 9.4% who are 7, 28.1% who are 9, 10.5% who are 10, and 5.7% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	29.7	16.4				54.0	100
Age 4	13.7	71.0				15.3	100
Age 5	0.2	3.0	59.8	32.4	0.1	4.5	100
Age 6	0.2	0.9	61.2	36.0	0.0	1.8	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	16.1	35.3	41.7	5.6	1.3	100
II	16.3	29.2	39.0	11.5	3.9	100
III	7.1	7.1	39.0	31.3	15.6	100
IV	1.6	6.2	30.5	29.8	31.9	100
V	1.9	2.7	22.8	22.6	50.1	100
VI	0.2	1.6	13.3	17.9	67.0	100
VII	0.0	1.0	7.6	13.5	77.9	100
VIII	0.0	0.0	5.0	7.0	88.0	100

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, 7.1% can read letters but not words or higher, 39% can read words but not Std I level text or higher, 31.3% can read Std I level text but not Std II level text, and 15.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

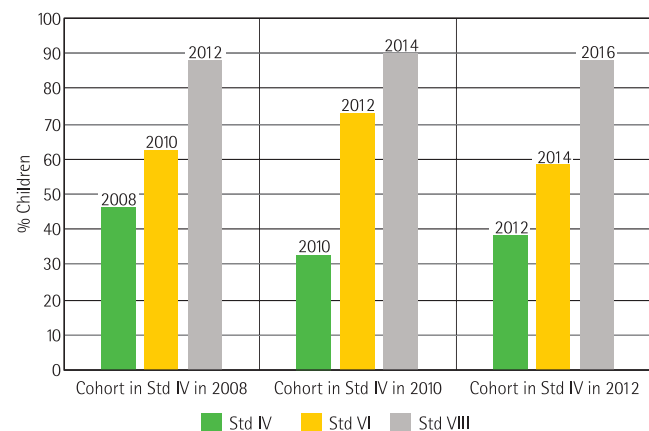
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	6.3	27.2	12.8
2012	12.8	33.7	20.5
2014	4.6	17.6	9.1
2016	7.9	27.1	15.6

\* 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.

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



This graph shows the progress of three 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

Std II level text	Std I level text
<p><b>A big tree stood in a garden. It was alone and lonely. One day a bird came and sat on it. The bird held a seed in its beak. It dropped the seed near the tree. A small plant grew there. Soon there was another tree. The big tree was happy.</b></p>	<p><b>Rani likes her school. Her class is in a big room. Rani has a bag and a book. She also has a pen.</b></p>
<p>Letters</p> <p>e d w s c g h z i q</p>	<p>Words</p> <p>hand star bus cat book day few old sing bold</p>

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	41.0	76.9	53.5	88.7	97.2	92.4
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	14.7	19.1	61.2	4.8	0.2	100
II	15.0	21.2	50.2	13.2	0.4	100
III	5.7	4.9	46.6	38.7	4.1	100
IV	1.4	3.5	38.0	45.2	12.0	100
V	1.6	1.3	25.6	50.4	21.2	100
VI	0.2	1.1	19.8	40.2	38.7	100
VII	0.0	0.4	16.7	36.3	46.6	100
VIII	0.0	0.0	9.6	24.7	65.7	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 5.7% cannot even recognize numbers 1-9, 4.9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 46.6% can recognize numbers up to 99 but cannot do subtraction, 38.7% can do subtraction but cannot do division, and 4.1% can do division. For each grade, the total of these exclusive categories is 100%.

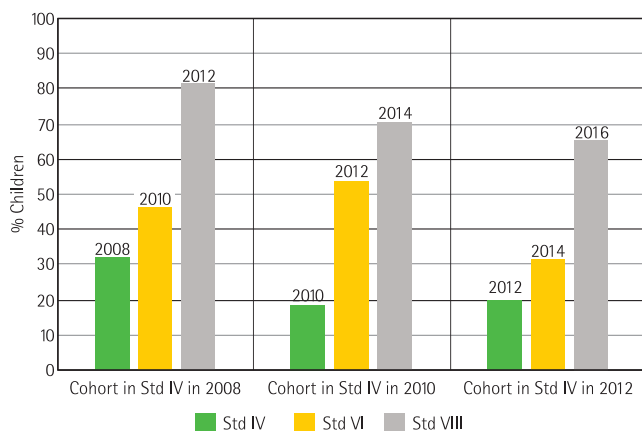
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	38.4	60.2	45.3
2012	44.5	69.0	53.6
2014	35.4	49.3	40.2
2016	39.2	48.1	42.8

\* 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.

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



This graph shows the progress of three 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 31.9%, 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.

## Arithmetic Tool

Number recognition 1 & 9		Number recognition 10 & 99		Subtraction		Division
5	7	74	23	63 - 44	51 - 35	7) 898
8	4	91	86	92 - 48	71 - 35	4) 659
2	9	24	79	45 - 27	34 - 19	8) 946
3	1	37	61	43 - 29	46 - 17	6) 757
		58	14			

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	26.7	52.4	35.7	78.9	85.4	81.7
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	16.7	9.0	29.7	38.6	6.1	100
II	19.4	10.1	21.2	36.8	12.5	100
III	7.6	2.7	7.9	45.7	36.1	100
IV	2.1	2.3	6.6	37.6	51.4	100
V	2.2	0.4	2.9	29.5	65.0	100
VI	0.4	0.6	1.4	19.5	78.2	100
VII	0.1	0.2	1.9	12.3	85.5	100
VIII	0.3	0.0	0.0	7.3	92.4	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 7.6% cannot even read capital letters, 2.7% can read capital letters but not small letters or higher, 7.9% can read small letters but not words or higher, 45.7% can read words but not sentences, and 36.1% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	55.4	
II	63.7	50.3
III	75.0	60.8
IV	80.5	69.6
V	81.5	83.2
VI	81.8	88.8
VII		91.5
VIII		95.0

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	61.5	57.7	62.0	54.6
	Govt. + Tuition	5.1	5.7	3.8	5.0
	Pvt. no tuition	22.8	22.3	25.5	27.3
	Pvt. + Tuition	10.5	14.3	8.8	13.1
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	55.0	51.4	49.5	45.5
	Govt. + Tuition	4.5	6.9	4.0	5.6
	Pvt. no tuition	25.7	24.3	31.3	31.9
	Pvt. + Tuition	14.8	17.5	15.2	17.0
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	4.3	34.9	52.2	8.6	100
Std I-V	Pvt.	0.5	9.8	51.6	38.2	100
Std VI-VIII	Govt.					
Std VI-VIII	Pvt.	0.5	2.3	40.4	56.9	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	202	189	160	195
Upper primary schools (Std I-VII/VIII)	21	83	95	105
Total schools visited	223	272	255	300

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	81.9	81.9	81.7	83.1
% Teachers present (Average)	87.2	87.8	86.1	88.6
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	83.0	81.5	81.0	84.5
% Teachers present (Average)	86.3	84.2	84.2	82.5

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	50.3	56.8	45.6	67.2
% Schools where Std II children were observed sitting with one or more other classes	18.7	13.4	18.8	13.0
% Schools where Std IV children were observed sitting with one or more other classes	17.5	9.9	20.0	9.9
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	0.0	18.2	17.9	26.7
% Schools where Std II children were observed sitting with one or more other classes	28.6	9.9	15.1	9.5
% Schools where Std IV children were observed sitting with one or more other classes	28.6	7.8	13.3	11.8

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	81.7	85.3	79.2	84.0
	Mid-day meal served in school on day of visit	31.9	38.2	24.1	24.6
Drinking water	No facility for drinking water	56.9	73.7	73.4	70.7
	Facility but no drinking water available	6.0	4.1	3.2	6.7
	Drinking water available	37.0	22.2	23.4	22.6
	Total	100	100	100	100
Toilet	No toilet facility	13.8	6.8	4.4	4.8
	Facility but toilet not useable	32.3	40.7	27.7	45.2
	Toilet useable	53.9	52.5	68.0	50.0
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	47.8	40.7	31.1	17.4
	Separate provision but locked	9.4	16.8	16.7	31.4
	Separate provision, unlocked but not useable	12.2	9.7	7.2	10.3
	Separate provision, unlocked and useable	30.6	32.7	45.0	40.9
	Total	100	100	100	100
Library	No library	86.7	87.8	85.4	82.6
	Library but no books being used by children on day of visit	4.1	8.2	9.1	9.4
	Library books being used by children on day of visit	9.2	4.1	5.5	8.0
	Total	100	100	100	100
Electricity	Electricity connection				60.1
	Of schools with electricity connection, % schools with electricity available on day of visit				82.4
Computer	No computer available for children to use	85.3	85.1	88.6	85.4
	Available but not being used by children on day of visit	11.1	9.3	5.9	11.5
	Computer being used by children on day of visit	3.7	5.6	5.5	3.1
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	95.8	89.2	94.9
April 2011 to March 2012	90.2	73.7	91.4
April 2013 to March 2014	94.9	76.1	61.0
April 2015 to March 2016	25.8	9.5	3.2

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	76.2	70.7	78.1
April 2012 to date of survey (2012)	68.6	58.2	72.4
April 2014 to date of survey (2014)	60.7	48.9	22.9
April 2016 to date of survey (2016)	23.3	12.4	1.9

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	26.1	8.8
	White wash/plastering	33.5	16.3
Repair	Repair of drinking water facility	35.3	17.5
	Repair of toilet	43.5	15.5
	Mats, Tat patti etc.	27.0	14.7
Purchase	Charts, globes or other teaching material	67.2	36.6

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	95.5	97.4
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	48.6	31.1
Between July and September	49.5	46.6
After September	1.8	22.3

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

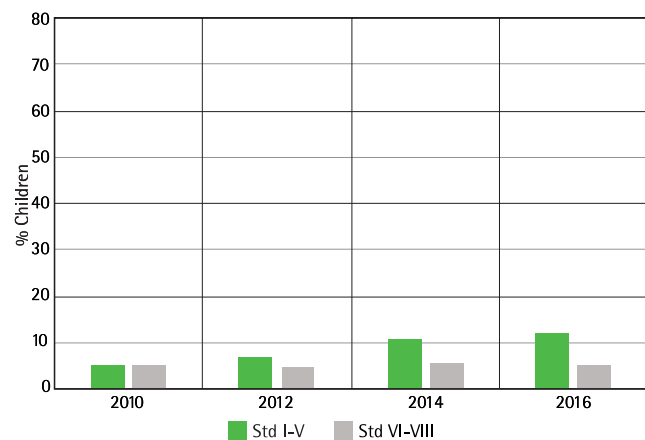
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	88.9	8.9	0.0	2.2	100
Age 7-16: All	87.1	8.0	0.0	4.9	100
Age 7-10: All	87.5	11.3	0.0	1.1	100
Age 7-10: Boys	86.2	12.8	0.0	1.1	100
Age 7-10: Girls	89.0	9.8	0.0	1.2	100
Age 11-14: All	91.3	5.1	0.0	3.6	100
Age 11-14: Boys	90.8	5.7	0.0	3.5	100
Age 11-14: Girls	91.9	4.4	0.0	3.7	100
Age 15-16: All	75.1	6.6	0.1	18.2	100
Age 15-16: Boys	74.4	8.4	0.2	17.1	100
Age 15-16: Girls	75.7	5.0	0.1	19.2	100

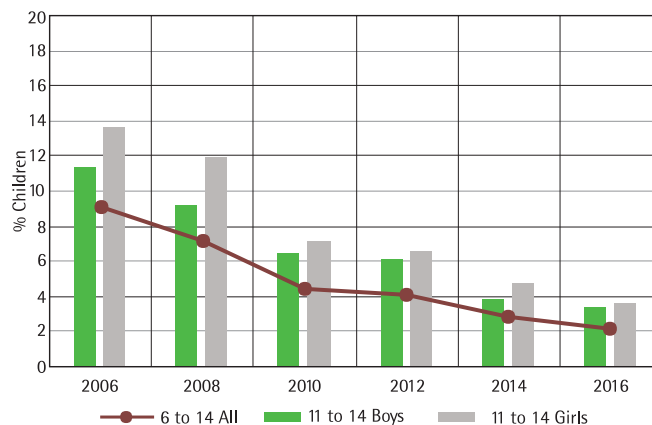
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total	
I	23.0	55.2	16.8	5.1									100	
II	1.9	9.1	63.4	20.5	5.1									100
III	1.8	9.8	64.9	16.5	7.0									100
IV	2.3	11.5		63.9	17.2	5.1							100	
V	3.4		7.0	68.3	15.3	6.1							100	
VI	2.1			8.6	60.8	22.9	5.7							100
VII	3.1				6.8	66.5	17.9	5.8						100
VIII	3.0					11.4	64.2	16.7	4.7				100	

This table shows the age distribution for each grade. For example, in Std III, 64.9% children are 8 years old but there are also 9.8% who are 7, 16.5% who are 9, and 7% who are 10 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	81.8	3.1				15.1	100
Age 4	83.9	10.8				5.2	100
Age 5	41.0	8.4	36.0	11.2	0.0	3.4	100
Age 6	8.8	5.4	69.5	14.5	0.2	1.7	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	38.0	29.3	14.2	6.2	12.2	100
II	17.9	25.9	20.6	10.6	25.1	100
III	9.7	19.9	20.9	14.1	35.5	100
IV	5.3	15.4	17.7	15.9	45.7	100
V	5.3	10.0	15.5	17.7	51.6	100
VI	4.1	8.4	10.8	18.8	58.0	100
VII	2.9	6.6	9.9	14.5	66.1	100
VIII	1.9	4.3	9.2	12.1	72.6	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 9.7% cannot even read letters, 19.9% can read letters but not words or higher, 20.9% can read words but not Std I level text or higher, 14.1% can read Std I level text but not Std II level text, and 35.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

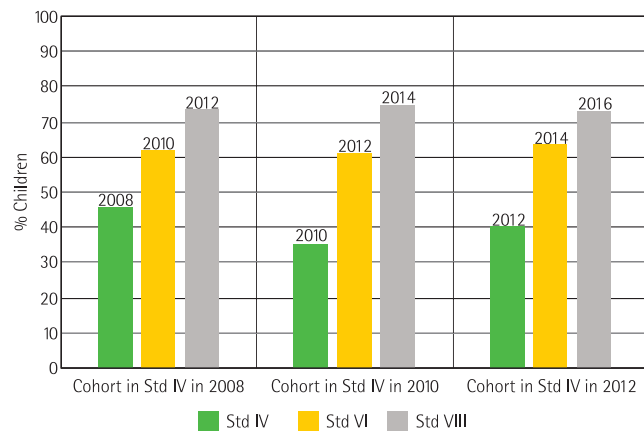
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	19.8	39.8	20.7
2012	24.7	53.4	26.5
2014	28.9	70.8	33.0
2016	31.5	69.2	35.5

\* 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.

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



This graph shows the progress of three 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.

### Reading Tool

Std II level text	Std I level text
<p>ବାଗ ପୁଅର ବାହାଘର ହେଉଥାଏ ।                      ବଣର ସବୁ ପଶୁପକ୍ଷୀ ବାଗ ପୁଅର                      ବାହାଘରକୁ ଆସିଲେ । ବାଗ ପୁଅ                      ବରବେଶ ହେଲା । ବର ସହିତ ହାତୀ,                      ଭାଲୁ, ଠେକୁଆ ଓ ହରିଣ ଗଲେ । ହାତୀ                      ତୂରୀ ବଜାଇଲା । ଠେକୁଆ ଗୀତି                      ବଜାଇଲା, ହରିଣ ହୁଳହୁଳି ଦେଲା,                      ଭାଲୁ ଥେଇ ଥେଇ ନାଚିଲା । ବହୁତ ମଜା                      ହେଲା । ସଭିଏଁ ଭୋଜି ଖାଇ ଘରକୁ                      ଫେରିଲେ ।</p>	<p>ସବୁଜ ପରିବା ଦେହକୁ ହିତ ।                      ମିଳିମିଶି ଆମେ ରହିବା ମିତ ।                      ସବୁବେଳେ ଆମେ କହିବା ସତ ।                      ଉଠରେ ପିଲାଏ ନ କରି ମଠ ।</p>
Letters	Words
<p>ନ କ ବ                      ଧ ଯ                      ଲ ପ ତ                      ଳ ଛ</p>	<p>ନାକ ବୃଦ୍ଧି                      ଶୁଆ                      ସେବା ନାହିଁ                      ନୌକା ଧୋବା                      କୁଳ                      ହୃଦୟ ଶୁଖିଲା</p>

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	45.5	60.7	46.0	77.9	77.5	77.8
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

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	36.9	34.6	19.5	6.9	2.2	100
II	15.1	30.5	31.6	18.9	3.9	100
III	7.7	26.1	32.3	24.5	9.4	100
IV	4.0	18.8	31.2	28.4	17.6	100
V	3.7	14.3	28.5	26.8	26.6	100
VI	2.9	10.4	27.4	26.4	32.8	100
VII	1.9	9.8	25.6	26.1	36.5	100
VIII	1.3	5.9	25.3	27.9	39.6	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 7.7% cannot even recognize numbers 1-9, 26.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 32.3% can recognize numbers up to 99 but cannot do subtraction, 24.5% can do subtraction but cannot do division, and 9.4% can do division. For each grade, the total of these exclusive categories is 100%.

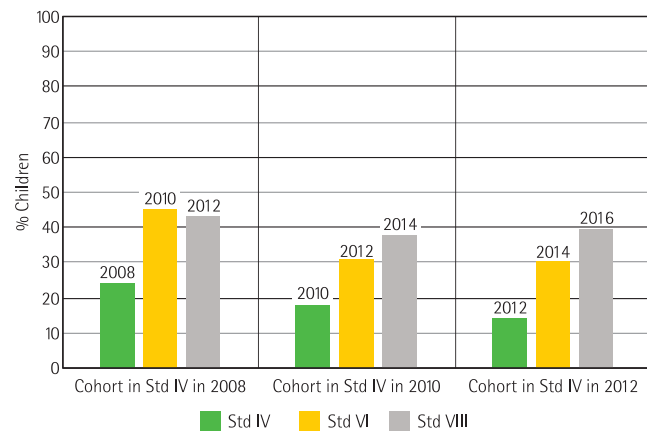
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	36.0	59.4	37.0
2012	23.9	59.2	26.2
2014	23.7	62.9	27.6
2016	29.8	69.0	33.9

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

ସଂଖ୍ୟା ଚିହ୍ନିତ ୧-୯	ସଂଖ୍ୟା ଚିହ୍ନିତ ୧୦-୯୯	ଯୋଡ଼ା	ଫଳ
୫ ୭	୭୪ ୭୩	୬୩ ୫୧ - ୪୪	୧୯୮୮
୮ ୪	୯୧ ୮୬	୯୨ ୭୧ - ୪୮	୪୭୫୯
୨ ୯	୨୪ ୭୯	୪୫ ୩୪ - ୨୭	୮୯୪୬
୩ ୧	୩୭ ୬୧	୪୩ ୪୬ - ୨୯	୬୭୫୭
	୫୮ ୧୪		

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	31.3	57.2	32.2	64.8		64.4
2012	17.2	51.0	18.3	42.3		42.9
2014	19.9	45.9	21.6	37.5		37.9
2016	23.8	57.7	26.6	38.7		39.6

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

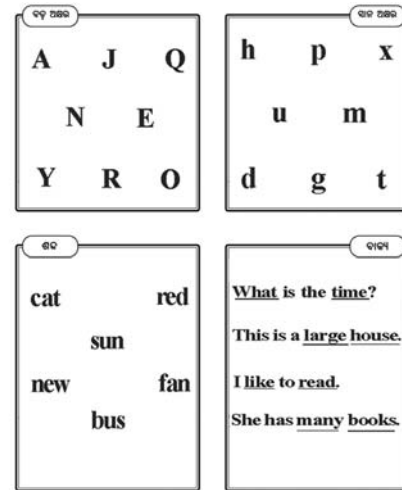
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	51.1	19.6	14.9	11.2	3.2	100
II	34.0	21.1	22.9	15.0	7.1	100
III	20.5	19.8	25.8	24.0	9.9	100
IV	11.9	15.3	25.9	30.9	16.1	100
V	9.3	11.7	24.3	30.0	24.8	100
VI	7.1	10.2	19.9	29.9	32.9	100
VII	6.2	7.7	18.4	29.5	38.2	100
VIII	3.3	7.0	15.4	28.9	45.4	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 20.5% cannot even read capital letters, 19.8% can read capital letters but not small letters or higher, 25.8% can read small letters but not words or higher, 24% can read words but not sentences, and 9.9% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	64.8	
II	72.2	51.9
III	64.7	52.4
IV	63.4	58.2
V	67.8	62.0
VI	65.8	61.2
VII	64.4	61.9
VIII	67.6	65.9

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	51.8	53.7	50.3	47.2
	Govt. + Tuition	42.6	39.2	38.9	40.5
	Pvt. no tuition	1.9	2.4	3.3	2.8
	Pvt. + Tuition	3.8	4.8	7.5	9.5
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	43.8	49.4	46.6	46.7
	Govt. + Tuition	51.1	46.0	47.8	48.1
	Pvt. no tuition	2.0	1.7	2.1	1.4
	Pvt. + Tuition	3.1	3.0	3.5	3.9
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	48.6	36.7	9.0	5.7	100
Std I-V	Pvt.	18.5	36.1	19.0	26.4	100
Std VI-VIII	Govt.	18.3	46.7	21.7	13.3	100
Std VI-VIII	Pvt.	12.8	21.9	22.2	43.2	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	383	419	378	405
Upper primary schools (Std I-VII/VIII)	358	390	446	435
Total schools visited	741	809	824	840

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	71.9	77.5	78.5	77.7
% Teachers present (Average)	89.1	91.4	87.0	90.5
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	72.3	73.7	76.3	78.3
% Teachers present (Average)	83.8	86.4	82.7	90.0

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	38.2	42.6	46.5	57.8
% Schools where Std II children were observed sitting with one or more other classes	77.0	81.8	81.1	82.9
% Schools where Std IV children were observed sitting with one or more other classes	66.8	78.2	72.8	76.7
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	3.9	4.2	4.5	5.6
% Schools where Std II children were observed sitting with one or more other classes	69.4	77.7	74.8	77.3
% Schools where Std IV children were observed sitting with one or more other classes	58.1	64.7	62.0	65.5

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	74.4	80.2	82.8	87.8
	Mid-day meal served in school on day of visit	88.8	96.1	96.8	98.1
Drinking water	No facility for drinking water	15.2	11.4	9.3	9.2
	Facility but no drinking water available	14.5	10.0	9.3	13.1
	Drinking water available	70.3	78.7	81.4	77.7
	Total	100	100	100	100
Toilet	No toilet facility	15.5	19.6	15.7	6.7
	Facility but toilet not useable	40.1	31.2	21.1	17.8
	Toilet useable	44.4	49.3	63.2	75.5
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	30.3	37.4	29.1	17.6
	Separate provision but locked	19.5	8.2	7.9	6.7
	Separate provision, unlocked but not useable	15.5	13.1	9.7	10.0
	Separate provision, unlocked and useable	34.7	41.4	53.3	65.8
	Total	100	100	100	100
Library	No library	34.7	11.7	11.8	17.9
	Library but no books being used by children on day of visit	18.5	23.7	22.6	21.1
	Library books being used by children on day of visit	46.8	64.5	65.6	61.0
	Total	100	100	100	100
Electricity	Electricity connection				53.0
	Of schools with electricity connection, % schools with electricity available on day of visit				78.0
Computer	No computer available for children to use	92.9	92.2	86.1	84.5
	Available but not being used by children on day of visit	2.7	3.4	8.1	9.1
	Computer being used by children on day of visit	4.4	4.4	5.8	6.4
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	82.5	82.2	84.5
April 2011 to March 2012	85.8	85.3	87.4
April 2013 to March 2014	72.2	69.1	17.6
April 2015 to March 2016	67.3	68.3	7.5

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	76.5	76.2	60.6
April 2012 to date of survey (2012)	59.2	57.7	58.2
April 2014 to date of survey (2014)	42.2	41.1	8.0
April 2016 to date of survey (2016)	30.6	30.0	6.4

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	27.8	15.9
	White wash/plastering	44.9	44.2
Repair	Repair of drinking water facility	36.6	44.6
	Repair of toilet	35.2	42.2
Purchase	Mats, Tat patti etc.	51.3	46.6
	Charts, globes or other teaching material	55.9	53.0

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	89.7	95.1
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	4.6	4.3
Between July and September	61.2	43.0
After September	34.2	52.6

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

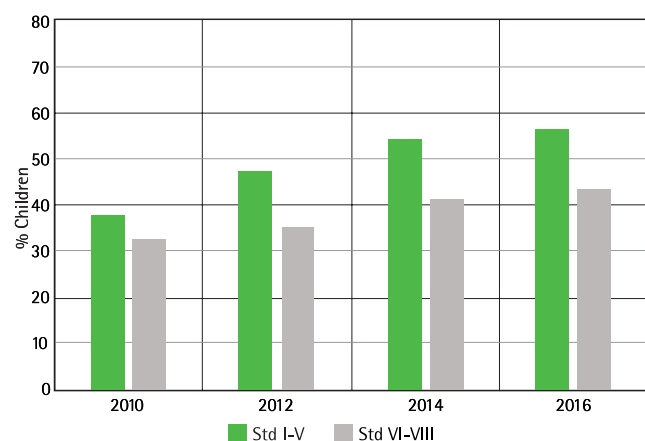
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	47.4	51.6	0.1	1.0	100
Age 7-16: All	49.1	48.8	0.1	2.1	100
Age 7-10: All	42.8	56.6	0.1	0.5	100
Age 7-10: Boys	38.4	60.7	0.2	0.7	100
Age 7-10: Girls	47.9	51.7	0.1	0.3	100
Age 11-14: All	52.8	45.6	0.0	1.6	100
Age 11-14: Boys	49.1	49.0	0.0	1.9	100
Age 11-14: Girls	56.8	42.1	0.0	1.2	100
Age 15-16: All	54.6	38.5	0.1	6.8	100
Age 15-16: Boys	53.7	40.7	0.1	5.6	100
Age 15-16: Girls	55.6	35.8	0.2	8.3	100

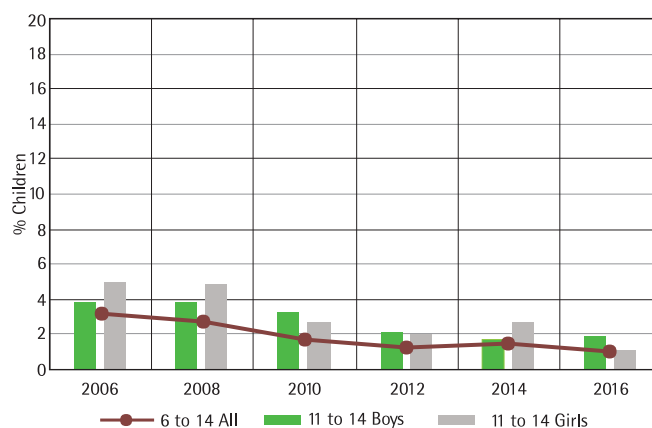
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	24.5	37.8	27.7	7.1	2.9							100		
II	5.6	19.6	35.0	30.0	8.1	1.8							100	
III	3.7	17.2	39.3	26.4	10.5	2.9							100	
IV	4.4	18.7	33.5	29.3	10.0	4.1							100	
V	1.4	5.2	16.2	39.7	23.5	10.1	4.1							100
VI	4.8	19.5	33.9	30.3	7.8	3.8							100	
VII	3.3	18.4	38.7	27.3	9.3	3.0							100	
VIII	4.3	17.1	35.0	32.3	8.7	2.5							100	

This table shows the age distribution for each grade. For example, in Std III, 39.3% children are 8 years old but there are also 17.2% who are 7, 26.4% who are 9, 10.5% who are 10, and 2.9% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	35.0	32.7				32.3	100
Age 4	21.5	65.1				13.4	100
Age 5	7.1	40.7	21.2	27.9	0.0	3.2	100
Age 6	1.3	20.7	32.3	44.0	0.2	1.5	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	26.2	43.1	19.6	6.3	4.8	100
II	12.5	24.2	28.5	17.3	17.4	100
III	4.4	16.0	20.3	24.2	35.1	100
IV	2.9	8.2	15.0	19.7	54.3	100
V	1.6	5.1	7.8	16.4	69.1	100
VI	1.5	4.0	7.0	12.3	75.2	100
VII	0.9	4.0	4.6	11.1	79.4	100
VIII	1.1	1.9	2.9	7.7	86.4	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 4.4% cannot even read letters, 16% can read letters but not words or higher, 20.3% can read words but not Std I level text or higher, 24.2% can read Std I level text but not Std II level text, and 35.1% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

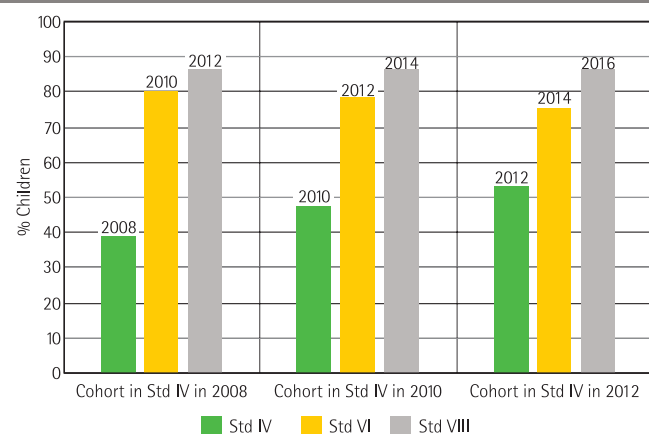
**Table 5: Trends over time  
Reading in Std III by school type  
2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	21.0	24.8	22.4
2012	33.5	43.7	38.3
2014	24.1	41.4	33.6
2016	30.6	39.2	35.2

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

Std II level text	Std I level text				
ਜੀਤੂ ਦੇ ਘਰ ਇੱਕ ਕੁੱਤਾ ਹੈ। ਉਸ ਦਾ ਨਾਮ ਜੈਕੀ ਹੈ। ਉਸ ਦਾ ਰੰਗ ਕਾਲਾ ਹੈ। ਇੱਕ ਦਿਨ ਰਾਤ ਨੂੰ ਉਹਨਾਂ ਦੇ ਘਰ ਚੋਰ ਆ ਗਏ। ਸਾਰੇ ਸੁੱਤੇ ਪਏ ਸਨ। ਜੈਕੀ ਨੂੰ ਚੋਰਾਂ ਦੀ ਅਵਾਜ਼ ਸੁਣਾਈ ਦਿੱਤੀ। ਉਸ ਨੇ ਜ਼ੋਰ-ਜ਼ੋਰ ਨਾਲ ਭੌਂਕਣਾ ਸ਼ੁਰੂ ਕਰ ਦਿੱਤਾ। ਅਵਾਜ਼ ਸੁਣ ਕੇ ਸਾਰੇ ਉੱਠ ਗਏ। ਜੀਤੂ ਨੇ ਚੋਰਾਂ ਨੂੰ ਫੜ ਲਿਆ। ਉਹਨਾਂ ਨੇ ਚੋਰਾਂ ਨੂੰ ਪੁਲਿਸ ਦੇ ਹਵਾਲੇ ਕਰ ਦਿੱਤਾ।	ਸਵੇਰ ਹੋ ਗਈ ਹੈ। ਸੂਰਜ ਚਮਕ ਰਿਹਾ ਹੈ। ਚਿੜੀਆਂ ਚੀਂ-ਚੀਂ ਕਰ ਰਹੀਆਂ ਹਨ। ਬੱਚੇ ਸਕੂਲ ਜਾ ਰਹੇ ਹਨ।				
	<table border="1"> <thead> <tr> <th>Letters</th> <th>Words</th> </tr> </thead> <tbody> <tr> <td>ਲ ਪ ਸ ਕ ਗ ਫ ਬ ਮ ਟ ਰ</td> <td>ਹਾਰ ਖੁਰ ਪਾਣੀ ਮੈਲਾ ਸਿਰ ਪੂਰਾ ਸੁਰ ਤੋਲ ਸ਼ੋਰ ਮੌਕਾ</td> </tr> </tbody> </table>	Letters	Words	ਲ ਪ ਸ ਕ ਗ ਫ ਬ ਮ ਟ ਰ	ਹਾਰ ਖੁਰ ਪਾਣੀ ਮੈਲਾ ਸਿਰ ਪੂਰਾ ਸੁਰ ਤੋਲ ਸ਼ੋਰ ਮੌਕਾ
Letters	Words				
ਲ ਪ ਸ ਕ ਗ ਫ ਬ ਮ ਟ ਰ	ਹਾਰ ਖੁਰ ਪਾਣੀ ਮੈਲਾ ਸਿਰ ਪੂਰਾ ਸੁਰ ਤੋਲ ਸ਼ੋਰ ਮੌਕਾ				

**Table 6: Trends over time  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016**

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.*
2010	68.7	71.9	69.7	87.4	89.7	88.2
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	64.2	73.7	69.1	83.8	90.0	86.4

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	16.8	33.7	41.2	6.6	1.6	100
II	5.0	24.3	41.2	26.9	2.6	100
III	2.6	13.0	35.6	38.5	10.3	100
IV	2.0	7.6	23.8	34.2	32.4	100
V	1.2	5.8	17.5	27.6	48.0	100
VI	1.0	3.6	22.2	25.0	48.2	100
VII	1.2	3.9	22.3	22.8	49.8	100
VIII	0.8	1.6	20.1	19.3	58.1	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 2.6% cannot even recognize numbers 1-9, 13% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 35.6% can recognize numbers up to 99 but cannot do subtraction, 38.5% can do subtraction but cannot do division, and 10.3% can do division. For each grade, the total of these exclusive categories is 100%.

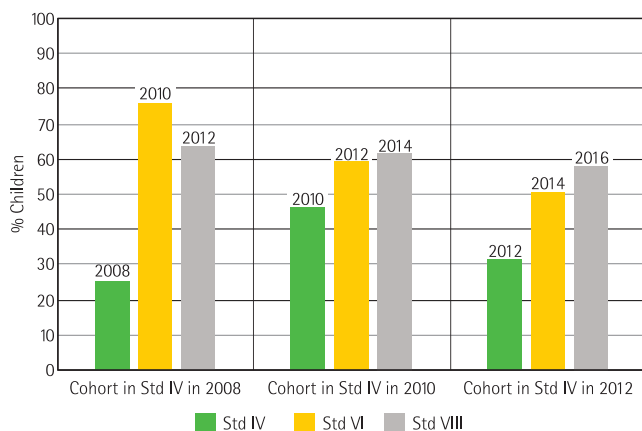
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	62.0	66.5	63.7
2012	40.6	64.8	52.0
2014	32.1	60.6	47.7
2016	36.3	59.6	48.7

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

ਅੰਕ ਪਹਿਚਾਣ 1-9		ਸੰਕਿਆ ਪਹਿਚਾਣ 10-99		ਘਟਾਉ		ਭਾਗ
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	4)517
		36	27			

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	70.8	68.0	69.9	80.2	85.6	82.1
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	42.5	53.3	48.0	48.1	71.9	58.1

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

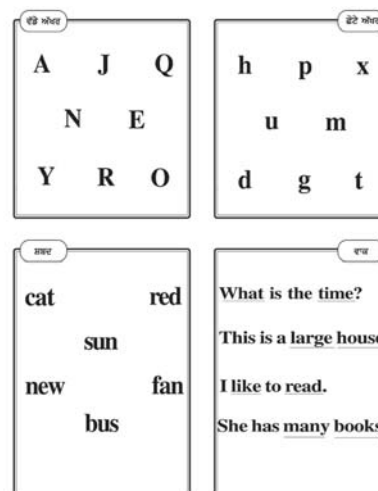
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	21.7	16.8	23.7	25.2	12.6	100
II	9.5	12.5	24.9	24.8	28.3	100
III	5.8	7.8	20.0	31.9	34.5	100
IV	4.4	6.0	14.6	26.5	48.5	100
V	2.4	4.0	11.0	23.6	59.1	100
VI	2.4	3.0	13.4	19.0	62.3	100
VII	1.2	3.8	10.2	16.4	68.4	100
VIII	1.1	2.4	6.7	14.9	75.0	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 5.8% cannot even read capital letters, 7.8% can read capital letters but not small letters or higher, 20% can read small letters but not words or higher, 31.9% can read words but not sentences, and 34.5% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	46.0	
II	57.2	53.4
III	54.3	62.9
IV	53.2	65.5
V	60.4	71.2
VI	51.7	72.7
VII	59.3	68.8
VIII	55.1	76.3

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	54.6	46.0	38.7	34.2
	Govt. + Tuition	6.0	6.2	6.5	8.3
	Pvt. no tuition	28.1	32.5	36.4	36.6
	Pvt. + Tuition	11.3	15.3	18.5	21.0
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	59.8	58.6	51.1	48.0
	Govt. + Tuition	7.1	5.7	6.9	7.6
	Pvt. no tuition	23.5	26.2	27.7	28.4
	Pvt. + Tuition	9.6	9.6	14.3	16.0
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	28.6	43.3	19.1	9.0	100
Std I-V	Pvt.	3.8	27.9	32.8	35.5	100
Std VI-VIII	Govt.	6.2	36.0	33.5	24.4	100
Std VI-VIII	Pvt.	0.7	10.9	24.5	63.9	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	391	469	473	520
Upper primary schools (Std I-VII/VIII)	58	56	23	24
Total schools visited	449	525	496	544

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	82.7	80.6	81.4	79.8
% Teachers present (Average)	88.5	80.4	85.5	84.8

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	17.2	17.4	25.4	33.2
% Schools where Std II children were observed sitting with one or more other classes	52.5	53.7	47.5	55.5
% Schools where Std IV children were observed sitting with one or more other classes	37.6	44.7	42.4	50.6

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	94.7	97.7	94.5	97.0
	Mid-day meal served in school on day of visit	97.9	95.5	92.7	95.2
Drinking water	No facility for drinking water	8.9	8.0	8.3	9.3
	Facility but no drinking water available	8.0	9.3	10.7	9.1
	Drinking water available	83.1	82.8	81.0	81.7
	Total	100	100	100	100
Toilet	No toilet facility	0.9	0.6	1.4	0.2
	Facility but toilet not useable	37.9	28.9	19.4	19.3
	Toilet useable	61.2	70.5	79.2	80.5
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	7.3	4.4	6.5	4.4
	Separate provision but locked	16.9	8.6	5.8	3.8
	Separate provision, unlocked but not useable	26.5	21.4	16.2	15.9
	Separate provision, unlocked and useable	49.4	65.6	71.6	75.8
	Total	100	100	100	100
Library	No library	4.1	9.4	11.3	8.0
	Library but no books being used by children on day of visit	30.0	44.7	49.0	42.3
	Library books being used by children on day of visit	66.0	46.0	39.7	49.7
	Total	100	100	100	100
Electricity	Electricity connection				98.9
	Of schools with electricity connection, % schools with electricity available on day of visit				94.9
Computer	No computer available for children to use	89.3	89.0	91.3	90.9
	Available but not being used by children on day of visit	5.5	8.5	6.5	5.8
	Computer being used by children on day of visit	5.2	2.5	2.2	3.4
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	84.6	78.1	92.5
April 2011 to March 2012	92.5	87.5	94.1
April 2013 to March 2014	82.4	69.8	15.3
April 2015 to March 2016	92.4	71.4	5.9

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	24.5	28.9	41.4
April 2012 to date of survey (2012)	73.6	70.6	69.8
April 2014 to date of survey (2014)	17.6	15.2	4.3
April 2016 to date of survey (2016)	85.4	65.6	4.4

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	6.2	11.6
	White wash/plastering	34.3	36.7
Repair	Repair of drinking water facility	47.4	56.5
	Repair of toilet	38.1	56.3
Purchase	Mats, Tat patti etc.	35.1	39.5
	Charts, globes or other teaching material	53.4	56.6

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	96.9	96.1
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	4.6	3.8
Between July and September	85.0	79.2
After September	10.4	17.0

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

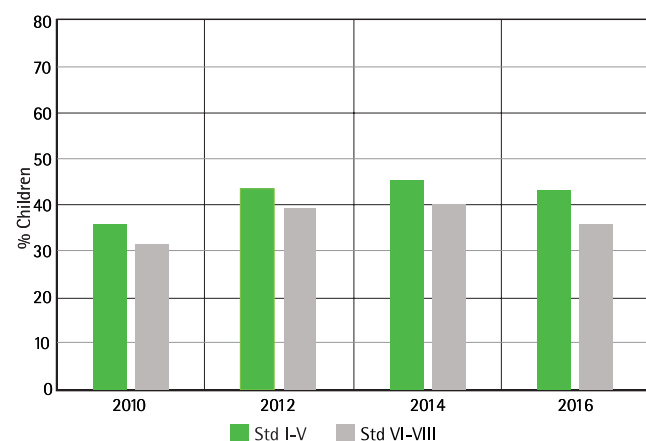
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	56.2	39.2	0.4	4.3	100
Age 7-16: All	55.1	37.1	0.3	7.6	100
Age 7-10: All	54.1	43.0	0.4	2.6	100
Age 7-10: Boys	50.0	47.7	0.3	2.0	100
Age 7-10: Girls	58.5	37.8	0.5	3.3	100
Age 11-14: All	58.1	34.8	0.3	6.9	100
Age 11-14: Boys	54.7	40.6	0.2	4.5	100
Age 11-14: Girls	61.4	28.6	0.3	9.7	100
Age 15-16: All	50.8	29.0	0.3	19.9	100
Age 15-16: Boys	51.0	33.6	0.4	15.0	100
Age 15-16: Girls	49.8	24.5	0.2	25.4	100

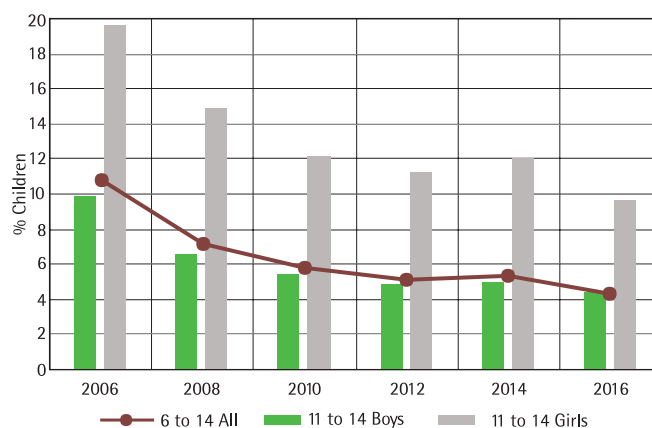
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std \ Age	5	6	7	8	9	10	11	12	13	14	15	16	Total	
I	35.9	34.4	17.4	7.5	4.8								100	
II	8.6	22.2	32.7	22.8	6.5	7.1							100	
III	2.2	6.0	21.9	35.5	16.6	12.2	5.6							100
IV	1.7	7.7	25.0	26.8	22.8	7.8	5.9	2.2						100
V	2.8		11.5	15.4	36.0	16.5	11.7	6.1						100
VI	4.0			5.7	24.4	28.5	24.6	8.4	4.5					100
VII	2.9				9.9	16.6	35.9	21.8	8.6	4.3			100	
VIII	4.0				6.1	24.3	32.1	20.4	9.1	4.1			100	

This table shows the age distribution for each grade. For example, in Std III, 35.5% children are 8 years old but there are also 21.9% who are 7, 16.6% who are 9, 12.2% who are 10, and 5.6% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	28.6	12.3				59.1	100
Age 4	23.6	25.1				51.3	100
Age 5	9.6	19.9	33.3	23.5	0.5	13.2	100
Age 6	2.8	11.2	46.3	34.1	0.6	5.0	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	58.5	28.5	6.6	2.7	3.7	100
II	26.9	39.7	14.9	8.8	9.8	100
III	13.1	27.6	18.5	17.2	23.7	100
IV	7.4	16.6	17.0	19.7	39.3	100
V	3.9	12.5	12.3	17.1	54.1	100
VI	2.1	8.0	9.1	17.8	63.1	100
VII	1.7	5.4	6.0	15.2	71.7	100
VIII	0.9	3.8	3.9	10.6	80.9	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 13.1% cannot even read letters, 27.6% can read letters but not words or higher, 18.5% can read words but not Std I level text or higher, 17.2% can read Std I level text but not Std II level text, and 23.7% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

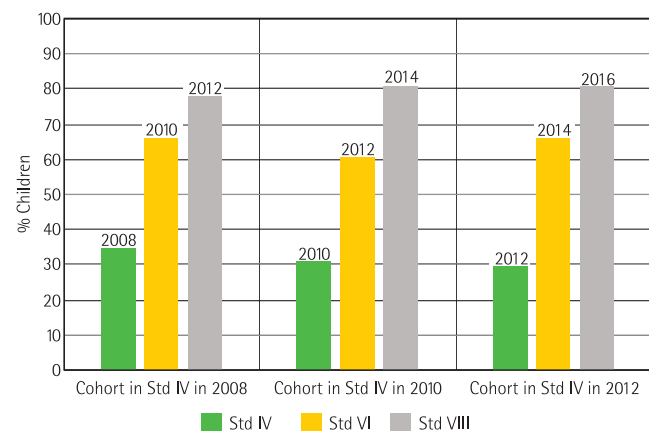
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	11.1	23.8	15.6
2012	7.1	32.4	17.6
2014	10.7	33.3	21.1
2016	15.1	35.0	23.7

\* 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.

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



This graph shows the progress of three 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

Std II level text	Std I level text
<p>नगमा समझदार लड़की थी। मगर उसका छोटा भाई अमन बहुत नटखट था। एक दिन दोनों बाज़ार में घूम रहे थे। अमन ने रास्ते में पकौड़े देखे। उसे पकौड़े बहुत पसंद थे। माँ उसके लिए पकौड़े बनाती थी। नगमा ने कहा यह पकौड़े तीखे होंगे। मगर अमन नहीं माना। अमन ने पकौड़े खाए और उसकी आँखों से आँसू निकलने लगे।</p>	<p>रात हो गई है। चाँद दिख रहा है। तारे भी चमक रहे हैं। सब लोग सो गए हैं।</p>
<p>Letters</p> <p>न प म च स थ ग द र ल</p>	<p>Words</p> <p>आग सोच ताला पानी गिर धुन मौका देश पैसा बूढ़ा</p>

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	44.2	64.5	51.0	86.6	89.8	87.6
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

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





Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	53.2	32.4	11.8	1.7	0.9	100
II	21.8	44.0	25.0	7.1	2.1	100
III	9.9	34.1	34.5	14.6	6.9	100
IV	5.1	23.6	33.3	21.7	16.4	100
V	3.0	17.7	27.0	24.1	28.2	100
VI	1.2	12.6	28.2	24.3	33.9	100
VII	1.4	8.7	26.3	24.9	38.8	100
VIII	0.7	6.7	22.8	23.2	46.7	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 9.9% cannot even recognize numbers 1-9, 34.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 34.5% can recognize numbers up to 99 but cannot do subtraction, 14.6% can do subtraction but cannot do division, and 6.9% can do division. For each grade, the total of these exclusive categories is 100%.

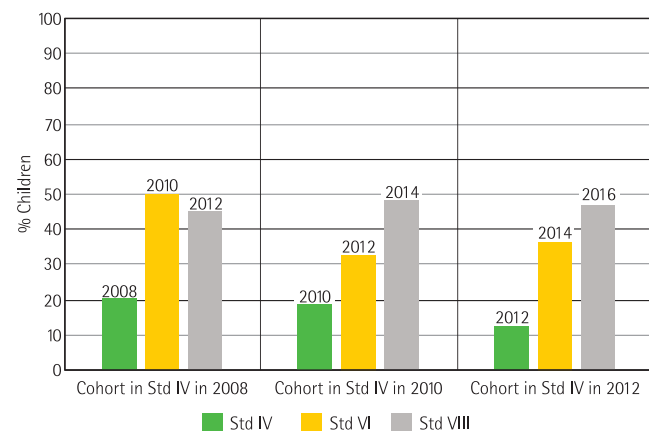
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	21.6	41.2	28.7
2012	6.2	36.6	18.8
2014	8.7	36.6	21.5
2016	11.0	35.4	21.5

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		भाग
5	7	74	23	63 - 44	51 - 35	7) 898
8	4	91	86	92 - 48	71 - 35	4) 659
2	9	24	79	45 - 27	34 - 19	8) 946
3	1	37	61	43 - 29	46 - 17	6) 757

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	25.2	47.8	32.7	69.4	81.0	73.1
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	46.7

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	66.3	15.5	12.5	3.9	1.8	100
II	38.2	23.4	25.8	9.6	2.9	100
III	21.7	24.1	33.4	14.5	6.3	100
IV	14.4	18.6	35.1	21.8	10.2	100
V	9.6	15.2	29.8	25.3	20.2	100
VI	5.5	12.2	28.5	27.3	26.5	100
VII	4.2	10.8	23.7	28.7	32.6	100
VIII	3.1	7.8	19.0	26.7	43.4	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 21.7% cannot even read capital letters, 24.1% can read capital letters but not small letters or higher, 33.4% can read small letters but not words or higher, 14.5% can read words but not sentences, and 6.3% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I		
II	50.5	
III	52.6	36.8
IV	51.3	47.7
V	58.8	44.5
VI	53.0	50.5
VII	52.8	57.1
VIII	58.4	58.6

### English Tool

छोटे अक्षर

**B H R**

**L V**

**M P F**

छोटे अक्षर

**z j o**

**w g**

**u s k**

बड़े अक्षर

**cow wet**

**big**

**hat man**

**pen**

वाक्य

**Where is your house?**

**This is a long road.**

**I like to play.**

**She has a green kite.**



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	62.2	54.4	52.2	54.5
	Govt. + Tuition	2.1	1.3	1.4	1.4
	Pvt. no tuition	31.9	41.1	41.8	41.5
	Pvt. + Tuition	3.8	3.3	4.6	2.6
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	65.0	58.4	57.3	61.3
	Govt. + Tuition	4.2	1.9	2.3	2.6
	Pvt. no tuition	25.7	36.3	36.3	33.3
	Pvt. + Tuition	5.2	3.4	4.1	2.7
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	31.8	43.5	11.8	13.0	100
Std I-V	Pvt.	17.0	39.5	20.8	22.8	100
Std VI-VIII	Govt.	19.8	50.4	15.9	13.9	100
Std VI-VIII	Pvt.	12.2	34.7	23.4	29.7	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	290	324	146	210
Upper primary schools (Std I-VII/VIII)	606	553	757	709
Total schools visited	896	877	903	919

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	71.2	66.3	68.0	69.7
% Teachers present (Average)	90.1	90.5	90.3	85.9
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	73.6	68.0	68.6	71.8
% Teachers present (Average)	88.0	88.4	87.0	87.1

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	35.9	41.3	63.0	61.5
% Schools where Std II children were observed sitting with one or more other classes	65.6	83.5	89.0	87.7
% Schools where Std IV children were observed sitting with one or more other classes	53.6	69.9	79.3	83.6
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	2.0	3.5	9.2	7.0
% Schools where Std II children were observed sitting with one or more other classes	66.0	78.7	76.3	69.3
% Schools where Std IV children were observed sitting with one or more other classes	52.3	57.8	63.4	58.0

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	83.8	85.6	89.8	90.8
	Mid-day meal served in school on day of visit	94.8	93.9	82.7	91.8
Drinking water	No facility for drinking water	20.9	21.0	15.0	18.3
	Facility but no drinking water available	11.1	11.9	11.6	11.6
	Drinking water available	68.0	67.1	73.4	70.1
	Total	100	100	100	100
Toilet	No toilet facility	3.5	2.6	2.0	1.2
	Facility but toilet not useable	31.1	25.3	16.5	15.6
	Toilet useable	65.4	72.0	81.5	83.2
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	19.6	10.9	8.9	4.7
	Separate provision but locked	13.3	6.6	5.5	5.1
	Separate provision, unlocked but not useable	16.8	17.5	12.0	10.5
	Separate provision, unlocked and useable	50.3	65.1	73.7	79.8
	Total	100	100	100	100
Library	No library	36.3	23.1	12.2	14.0
	Library but no books being used by children on day of visit	40.4	44.0	48.9	45.8
	Library books being used by children on day of visit	23.3	32.9	38.8	40.2
	Total	100	100	100	100
Electricity	Electricity connection				71.2
	Of schools with electricity connection, % schools with electricity available on day of visit				84.8
Computer	No computer available for children to use	84.3	74.4	66.2	65.1
	Available but not being used by children on day of visit	10.4	18.2	25.6	24.4
	Computer being used by children on day of visit	5.3	7.3	8.2	10.5
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	81.4	62.5	86.9
April 2011 to March 2012	79.9	70.2	90.8
April 2013 to March 2014	51.2	53.5	14.5
April 2015 to March 2016	76.5	59.8	14.7

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	50.5	41.9	57.1
April 2012 to date of survey (2012)	16.9	12.8	24.4
April 2014 to date of survey (2014)	28.9	31.4	3.4
April 2016 to date of survey (2016)	56.3	46.1	27.0

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	8.2	10.1
	White wash/plastering	33.4	51.9
Repair	Repair of drinking water facility	32.1	46.6
	Repair of toilet	26.2	44.9
Purchase	Mats, Tat patti etc.	31.2	43.8
	Charts, globes or other teaching material	42.6	54.0

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	97.9	98.2
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	2.3	1.0
Between July and September	93.2	77.1
After September	4.5	21.9

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

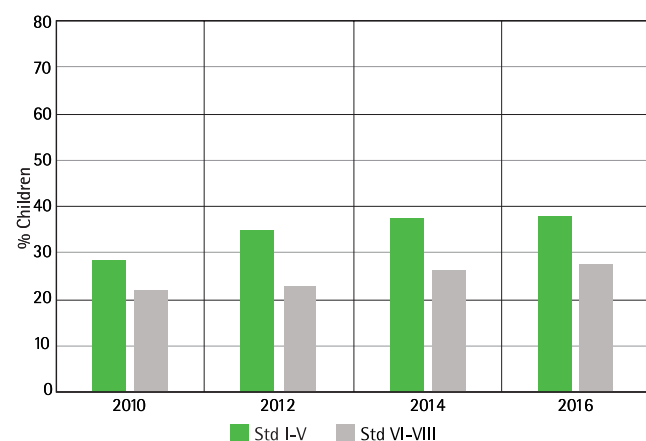
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	66.8	32.7	0.1	0.4	100
Age 7-16: All	68.7	30.0	0.2	1.1	100
Age 7-10: All	63.3	36.3	0.1	0.2	100
Age 7-10: Boys	60.5	39.1	0.1	0.3	100
Age 7-10: Girls	66.1	33.6	0.1	0.1	100
Age 11-14: All	72.3	27.1	0.2	0.5	100
Age 11-14: Boys	68.5	30.8	0.2	0.5	100
Age 11-14: Girls	75.8	23.6	0.1	0.6	100
Age 15-16: All	72.9	22.5	0.5	4.2	100
Age 15-16: Boys	70.4	23.3	0.8	5.5	100
Age 15-16: Girls	75.1	21.7	0.2	3.0	100

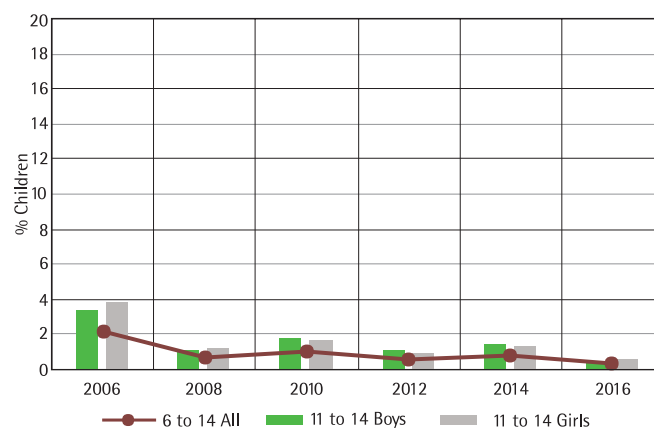
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	28.7	63.3	7.2	0.8									100
II	0.8	20.2	66.8	10.6	1.6								100
III	1.2	17.8	69.4	10.4	1.2								100
IV	1.4	20.6		66.8	10.0	1.3							100
V	2.1		11.7		73.9	10.5	1.7						100
VI	0.9			9.6		68.9	18.6	2.0					100
VII	1.8				12.7		65.1	17.5	2.9				100
VIII	1.9					13.6		70.0	13.0	1.6			100

This table shows the age distribution for each grade. For example, in Std III, 69.4% children are 8 years old but there are also 17.8% who are 7, 10.4% who are 9, and 1.2% who are 10 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	56.3	22.1				21.7	100
Age 4	36.7	54.0				9.3	100
Age 5	11.3	32.8	29.0	23.8	0.1	3.0	100
Age 6	0.6	3.8	54.4	40.1	0.0	1.0	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	49.4	35.0	11.5	3.2	1.0	100
II	22.1	28.9	32.1	11.7	5.3	100
III	11.3	16.7	31.1	23.2	17.7	100
IV	5.2	9.9	25.0	28.7	31.2	100
V	3.5	6.3	18.4	26.6	45.2	100
VI	2.8	4.2	14.5	23.2	55.3	100
VII	2.1	2.4	11.9	19.4	64.2	100
VIII	1.4	2.3	7.4	18.0	71.0	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 11.3% cannot even read letters, 16.7% can read letters but not words or higher, 31.1% can read words but not Std I level text or higher, 23.2% can read Std I level text but not Std II level text, and 17.7% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

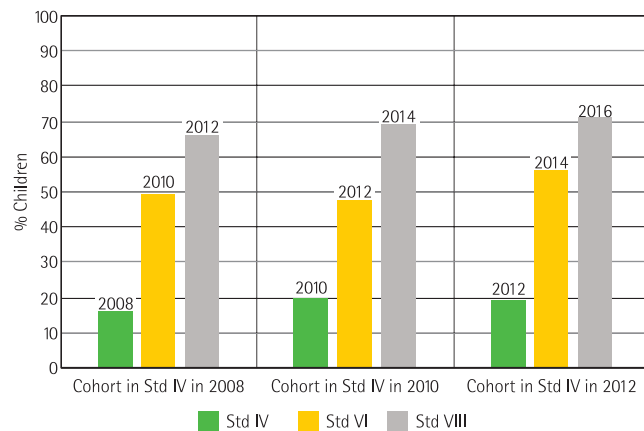
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	7.2	5.7	6.8
2012	8.5	8.4	8.4
2014	16.8	14.4	15.9
2016	20.2	13.5	17.7

\* 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.

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



This graph shows the progress of three 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 Tool

Std II level text

தேவி ஒரு அழகான நாய் குட்டியை தெருவில் பார்த்தாள். அதற்கு ராமு என்று பெயர் வைத்தாள். அதை விட்டிற்குக் கொண்டு வந்தாள். ராமுவை மறைத்து வைத்தாள். அம்மா அவளுக்குக் குடிக்க பால் கொடுத்தார். அதை தேவி ராமுவுக்குக் கொடுத்தாள். பாலைக் குடித்து விட்டு ராமு குரைக்க ஆரம்பித்தது. அதைக் கேட்ட அம்மா அறைக்குள் சென்றார். ராமுவைப் பார்த்தவுடன் அம்மாவிற்கு கோபம் வந்தது. ஆனால் ராமு அம்மாவின் காலை சுற்றி வந்தது. அம்மாவின் கோபம் தணிந்தது. அம்மாவிற்கும் ராமுவை பிடித்துப் போனது.

Std I level text

செடியில் அழகான பூ பூத்தது. தேவி ஒன்று அங்கே வந்தது. பூவில் உள்ள தேனைக் குடித்தது. பறந்து சென்றது.

Letters

#	எ	ம்
உ	த	
அ	ரு	ய
ட	ந	

Words

தேன்	மாடு
கல்	மண்
படி	தலை
கடை	பால்
காது	நரி

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	30.9	29.3	30.5	68.7	72.7	69.6
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	45.2	71.3	70.1	71.0

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	36.2	35.5	26.7	1.3	0.4	100
II	12.6	21.6	58.7	6.3	0.9	100
III	7.4	10.2	57.6	23.1	1.7	100
IV	3.3	4.9	42.6	43.2	6.0	100
V	1.5	3.9	36.0	37.3	21.4	100
VI	1.3	2.7	29.8	32.7	33.6	100
VII	1.5	1.2	25.0	32.5	39.9	100
VIII	0.6	1.2	22.4	31.0	44.8	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 7.4% cannot even recognize numbers 1-9, 10.2% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 57.6% can recognize numbers up to 99 but cannot do subtraction, 23.1% can do subtraction but cannot do division, and 1.7% can do division. For each grade, the total of these exclusive categories is 100%.

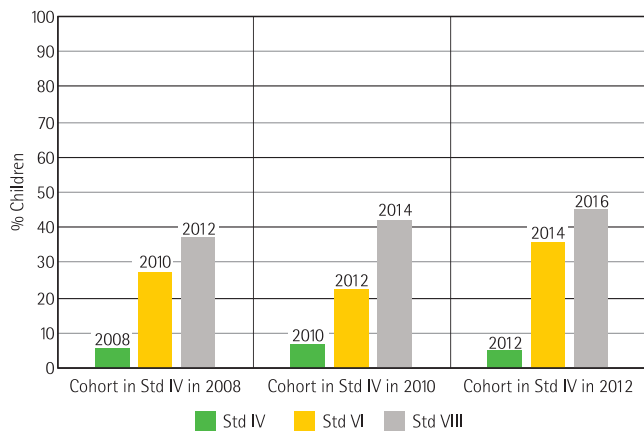
**Table 8: Trends over time**  
 Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	17.4	28.3	20.5
2012	14.4	23.6	17.6
2014	20.4	31.2	24.3
2016	24.2	25.7	24.8

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

எண்ணம் அறிதல் 1 - 9	எண்ணம் அறிதல் 10 - 99	கழித்தல்	வகுத்தல்
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	4) 517
	36 27		

**Table 9: Trends over time**  
 Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	14.1	17.9	15.0	46.3	55.3	48.3
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

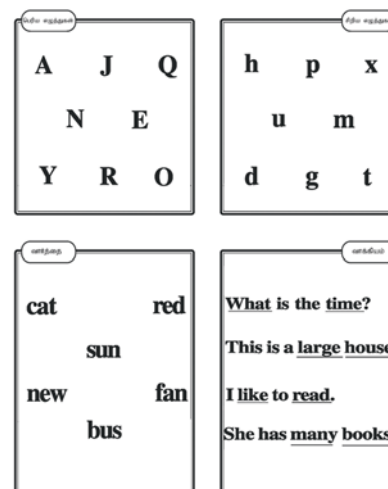
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	45.2	15.7	28.0	9.5	1.7	100
II	19.1	14.5	37.0	22.6	6.9	100
III	10.6	10.7	31.5	29.7	17.4	100
IV	6.0	7.5	24.3	35.8	26.4	100
V	4.1	5.8	21.1	31.8	37.2	100
VI	2.5	3.8	17.3	30.8	45.7	100
VII	1.5	3.1	13.6	27.9	53.9	100
VIII	1.4	1.9	11.8	26.0	58.9	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 10.6% cannot even read capital letters, 10.7% can read capital letters but not small letters or higher, 31.5% can read small letters but not words or higher, 29.7% can read words but not sentences, and 17.4% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	56.9	
II	53.6	70.6
III	66.8	64.4
IV	63.6	72.1
V	61.0	74.8
VI	61.1	75.5
VII	62.1	80.4
VIII	61.4	79.0

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	60.1	55.9	55.7	54.4
	Govt. + Tuition	11.4	8.7	6.6	7.6
	Pvt. no tuition	20.6	26.3	29.1	29.0
	Pvt. + Tuition	7.9	9.1	8.6	9.0
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	65.4	63.9	65.9	63.6
	Govt. + Tuition	13.5	12.8	7.8	8.7
	Pvt. no tuition	15.2	16.8	21.2	21.6
	Pvt. + Tuition	5.9	6.6	5.2	6.2
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	89.3	9.4	1.0	0.3	100
Std I-V	Pvt.	72.4	20.8	4.3	2.6	100
Std VI-VIII	Govt.	74.3	21.7	3.7	0.4	100
Std VI-VIII	Pvt.	58.6	29.7	7.3	4.4	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	395	444	450	513
Upper primary schools (Std I-VII/VIII)	267	212	198	195
Total schools visited	662	656	648	708

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	89.9	90.9	89.5	90.9
% Teachers present (Average)	86.5	93.9	91.7	91.8
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	90.7	88.9	87.7	90.9
% Teachers present (Average)	79.9	88.3	87.8	85.8

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	38.4	45.8	46.4	45.8
% Schools where Std II children were observed sitting with one or more other classes	81.8	69.0	71.3	73.2
% Schools where Std IV children were observed sitting with one or more other classes	78.3	62.1	65.8	66.9
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	3.8	6.2	10.8	12.9
% Schools where Std II children were observed sitting with one or more other classes	76.2	69.1	64.6	65.5
% Schools where Std IV children were observed sitting with one or more other classes	69.5	56.5	62.5	57.2

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	96.7	98.6	97.5	97.9
	Mid-day meal served in school on day of visit	99.4	99.8	99.8	99.2
Drinking water	No facility for drinking water	12.8	10.9	9.9	10.7
	Facility but no drinking water available	6.7	8.1	10.3	6.8
	Drinking water available	80.5	81.0	79.8	82.5
	Total	100	100	100	100
Toilet	No toilet facility	7.0	5.1	2.5	1.8
	Facility but toilet not useable	48.5	26.8	17.7	18.7
	Toilet useable	44.6	68.1	79.8	79.4
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	20.8	13.8	13.0	5.9
	Separate provision but locked	23.0	9.2	9.1	8.8
	Separate provision, unlocked but not useable	21.0	15.5	9.2	9.0
	Separate provision, unlocked and useable	35.1	61.4	68.7	76.3
	Total	100	100	100	100
Library	No library	20.9	16.2	13.5	15.9
	Library but no books being used by children on day of visit	21.3	19.5	34.2	23.7
	Library books being used by children on day of visit	57.8	64.3	52.3	60.5
	Total	100	100	100	100
Electricity	Electricity connection				97.7
	Of schools with electricity connection, % schools with electricity available on day of visit				95.3
Computer	No computer available for children to use	53.0	43.5	37.6	42.7
	Available but not being used by children on day of visit	17.6	17.6	35.4	24.4
	Computer being used by children on day of visit	29.4	39.0	27.1	32.9
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	91.0	82.9	53.6
April 2011 to March 2012	95.0	87.7	85.7
April 2013 to March 2014	91.8	72.0	10.9
April 2015 to March 2016	94.6	75.5	9.1

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	85.1	78.4	72.2
April 2012 to date of survey (2012)	87.3	79.1	51.7
April 2014 to date of survey (2014)	76.2	60.3	10.2
April 2016 to date of survey (2016)	87.7	69.4	9.1

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	10.7	11.1
	White wash/plastering	42.4	48.7
Repair	Repair of drinking water facility	67.2	72.0
	Repair of toilet	61.4	70.7
Purchase	Mats, Tat patti etc.	82.2	84.8
	Charts, globes or other teaching material	85.8	88.0

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	95.4	95.8
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	3.4	1.2
Between July and September	62.1	40.9
After September	34.5	57.9

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



Telangana, Tripura

Uttar Pradesh, Uttarakhand

West Bengal



## School enrollment

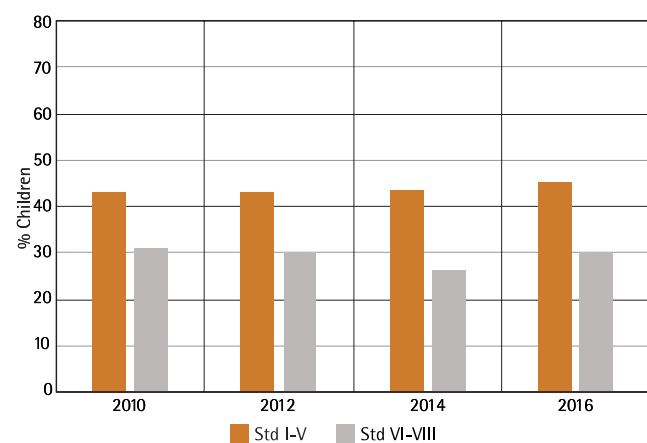
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	57.0	40.4	0.5	2.2	100
Age 7-16: All	57.7	37.7	0.6	4.1	100
Age 7-10: All	51.9	47.0	0.1	1.0	100
Age 7-10: Boys	47.8	51.3	0.0	1.0	100
Age 7-10: Girls	56.3	42.4	0.3	1.1	100
Age 11-14: All	63.1	32.0	1.0	3.9	100
Age 11-14: Boys	59.4	36.5	0.9	3.2	100
Age 11-14: Girls	66.8	27.4	1.1	4.7	100
Age 15-16: All	60.7	26.8	0.6	12.0	100
Age 15-16: Boys	60.7	27.7	0.5	11.2	100
Age 15-16: Girls	60.7	25.9	0.7	12.8	100

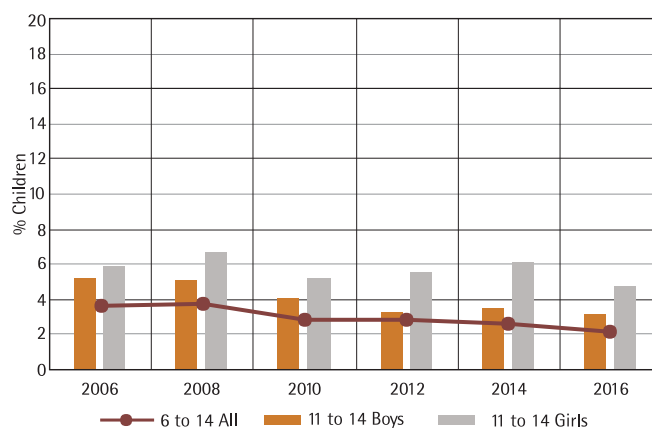
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII  
 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age  
 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	18.8	34.9	30.7	10.7	5.0								100	
II	2.6	12.6	42.3	29.4	10.7	2.4								100
III	3.0	15.5	38.3	27.2	12.8	3.3								100
IV	3.5	13.5	39.6	28.3	11.1	4.1								100
V	4.9	8.4	44.9	23.9	14.2	3.8								100
VI	3.2	13.4	34.1	36.4	8.2	4.7								100
VII	2.0	14.3	36.7	34.2	9.2	3.6								100
VIII	2.1	16.5	43.5	29.5	7.0	1.4								100

This table shows the age distribution for each grade. For example, in Std III, 38.3% children are 8 years old but there are also 15.5% who are 7, 27.2% who are 9, 12.8% who are 10, and 3.3% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	57.4	10.1				32.5	100
Age 4	42.7	42.5				14.8	100
Age 5	11.1	37.3	29.3	19.2	0.1	3.0	100
Age 6	1.4	19.7	42.5	34.0	0.0	2.4	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	36.5	34.2	24.7	3.2	1.5	100
II	19.0	33.6	33.3	9.6	4.5	100
III	8.3	21.8	29.5	21.7	18.6	100
IV	5.1	10.5	27.1	23.6	33.8	100
V	3.1	9.5	16.9	23.4	47.1	100
VI	4.9	6.9	15.3	15.6	57.3	100
VII	2.8	4.8	10.0	17.6	64.9	100
VIII	1.2	3.1	8.7	11.2	75.8	100

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, 21.8% can read letters but not words or higher, 29.5% 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 18.6% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

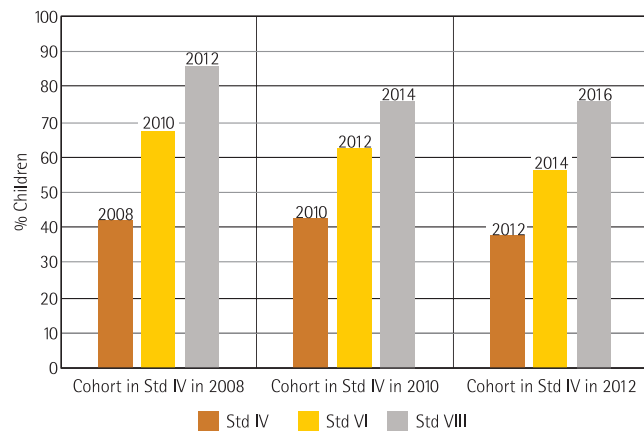
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	13.9	28.6	19.9
2012	18.2	25.9	21.6
2014	12.2	30.6	19.9
2016	14.9	22.5	18.6

\* 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.

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



This graph shows the progress of three 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

Std II level text

ఒక కొలనులో ఒక హంస ఉంది. ఆ కొలనులోకి ఒక కాకి వచ్చింది. హంసను చూసి నవ్వింది. నాలాగా నీవు ఎగురలేవని అవహేళన చేసింది హంస కాకికి బుద్ధి చెప్పాలి అని తలచింది. పందెమునకు సరే అని అంది. కాకి ఆకాశంలో వేగంగా, ముందుకూ వెనక్కూ ఎగురుతూ ఉంది. హంస మెట్టలా ఎగురుతూ వస్తోంది. కాకి అలా తిరిగి తిరిగి అలసిపోయింది. కొలనులో పడిపోతుండగా హంస దాన్ని కాపాడింది. ఎవ్వరూ తక్కువ కాదని, అందరూ సమానమేనని హితవు చెప్పింది.

Std I level text

మూడు రంగుల మన జెండా భారతదేశపు జాతీయ జెండా నింగికి ఎగరెను మన జెండా రెపరెపలాడెను జాతీయ జెండా.

Letters

ద	ఓ
అ	ఇ
ఆ	ఎ
ఉ	య
ల	వీ

Words

వీణ	ఫలం	కాకి
మేక	దోమ	
శంఖం	నేల	ఆకు
బడి	పాము	

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	53.9	67.8	59.0	82.5		85.0
2012	53.3	58.3	54.9	83.6		85.6
2014	53.7	55.7	54.5	73.9		75.9
2016	40.0	59.1	47.1	71.7		76.1

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	25.1	20.9	50.7	2.9	0.5	100
II	9.5	17.1	57.8	15.4	0.2	100
III	4.4	9.0	44.5	37.4	4.7	100
IV	2.5	2.8	33.7	42.6	18.3	100
V	2.2	2.4	26.9	38.1	30.4	100
VI	2.0	2.4	23.5	38.7	33.5	100
VII	1.5	0.4	19.0	37.1	42.0	100
VIII	0.7	0.2	16.8	27.2	55.1	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 4.4% cannot even recognize numbers 1-9, 9% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 44.5% can recognize numbers up to 99 but cannot do subtraction, 37.4% can do subtraction but cannot do division, and 4.7% can do division. For each grade, the total of these exclusive categories is 100%.

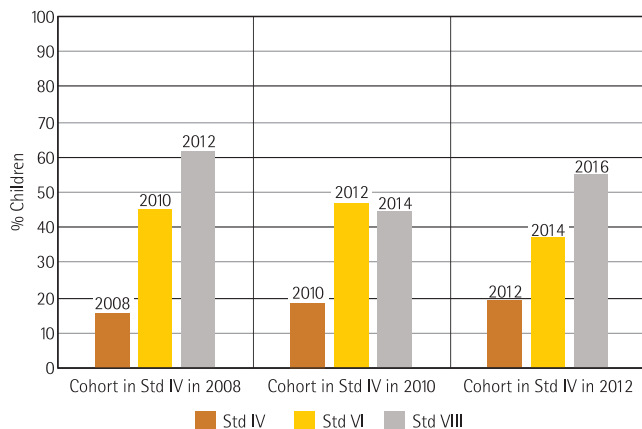
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	28.6	47.2	36.2
2012	35.1	56.7	44.6
2014	25.6	47.2	34.7
2016	30.7	54.6	42.2

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

అంకెను గుర్తించండి 1-9	సంఖ్యను గుర్తించండి 10 - 99	ఠీవీవేర		భాగవారం
5 7	74 23	63 - 44	51 - 35	7) 898
8 4	91 86	92 - 48	71 - 35	4) 659
2 9	24 79	45 - 27	34 - 19	8) 946
3 1	37 61	43 - 29	46 - 17	6) 757
	58 14			

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	29.6	45.2	35.3	61.2		66.8
2012	29.2	46.0	34.7	56.1		61.6
2014	29.5	39.7	33.7	43.7		44.3
2016	26.0	37.6	30.4	51.4		54.9

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	31.3	11.2	25.8	25.6	6.1	100
II	18.9	12.5	24.3	28.9	15.4	100
III	12.1	9.2	21.0	27.7	30.1	100
IV	5.8	5.8	20.1	26.4	41.9	100
V	5.2	5.3	22.1	23.2	44.1	100
VI	4.8	2.7	17.4	22.4	52.7	100
VII	3.7	2.7	13.7	22.0	57.9	100
VIII	3.4	2.6	13.7	12.2	68.1	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 12.1% cannot even read capital letters, 9.2% can read capital letters but not small letters or higher, 21% can read small letters but not words or higher, 27.7% can read words but not sentences, and 30.1% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	57.3	
II	61.6	
III	64.9	58.9
IV	64.4	73.2
V		76.4
VI		88.2
VII		83.3
VIII		88.5

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	55.2	55.7	53.8	52.0
	Govt. + Tuition	1.9	2.0	1.8	2.0
	Pvt. no tuition	35.1	35.9	40.2	41.2
	Pvt. + Tuition	7.9	6.4	4.2	4.9
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	66.1	67.6	71.4	67.8
	Govt. + Tuition	4.0	2.0	1.4	1.8
	Pvt. no tuition	25.0	24.7	25.3	29.0
	Pvt. + Tuition	4.9	5.7	1.9	1.4
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.					
Std I-V	Pvt.	53.0	32.3	5.6	9.2	100
Std VI-VIII	Govt.					
Std VI-VIII	Pvt.					

Data 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	200	213	203	210
Upper primary schools (Std I-VII/VIII)	58	49	61	54
Total schools visited	258	262	264	264

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	67.9	70.2	70.4	75.3
% Teachers present (Average)	82.3	84.5	77.2	82.0

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	17.2	18.0	19.7	26.5
% Schools where Std II children were observed sitting with one or more other classes	57.3	53.4	57.3	51.9
% Schools where Std IV children were observed sitting with one or more other classes	48.5	45.6	46.3	43.2

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	71.0	75.1	76.1	81.1
	Mid-day meal served in school on day of visit	98.4	96.5	99.6	99.2
Drinking water	No facility for drinking water	22.8	18.7	16.2	15.9
	Facility but no drinking water available	12.4	15.0	22.6	27.3
	Drinking water available	64.8	66.3	61.2	56.8
	Total	100	100	100	100
Toilet	No toilet facility	23.4	15.6	13.0	1.9
	Facility but toilet not useable	38.1	36.8	22.7	23.1
	Toilet useable	38.6	47.7	64.3	75.0
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	53.1	32.6	28.4	15.2
	Separate provision but locked	9.2	12.2	8.7	12.1
	Separate provision, unlocked but not useable	12.3	17.0	8.7	8.3
	Separate provision, unlocked and useable	25.4	38.2	54.2	64.4
	Total	100	100	100	100
Library	No library	8.0	5.3	2.8	13.1
	Library but no books being used by children on day of visit	14.4	20.3	31.6	28.1
	Library books being used by children on day of visit	77.6	74.4	65.6	58.9
	Total	100	100	100	100
Electricity	Electricity connection				89.4
	Of schools with electricity connection, % schools with electricity available on day of visit				81.3
Computer	No computer available for children to use	90.7	89.6	86.5	87.8
	Available but not being used by children on day of visit	3.0	4.3	7.9	7.6
	Computer being used by children on day of visit	6.2	6.0	5.6	4.6
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	91.5	84.2	88.8
April 2011 to March 2012	97.3	91.1	89.2
April 2013 to March 2014	88.9	76.6	7.0
April 2015 to March 2016	90.9	76.4	6.9

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	69.4	64.8	63.5
April 2012 to date of survey (2012)	80.6	78.8	31.6
April 2014 to date of survey (2014)	2.8	2.0	0.0
April 2016 to date of survey (2016)	22.5	9.2	1.2

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	15.3	11.9
	White wash/plastering	46.7	43.2
Repair	Repair of drinking water facility	40.1	43.4
	Repair of toilet	32.3	46.4
Purchase	Mats, Tat patti etc.	27.6	29.3
	Charts, globes or other teaching material	84.0	79.7

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	97.3	98.1
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	4.4	1.2
Between July and September	46.3	55.9
After September	49.4	43.0

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

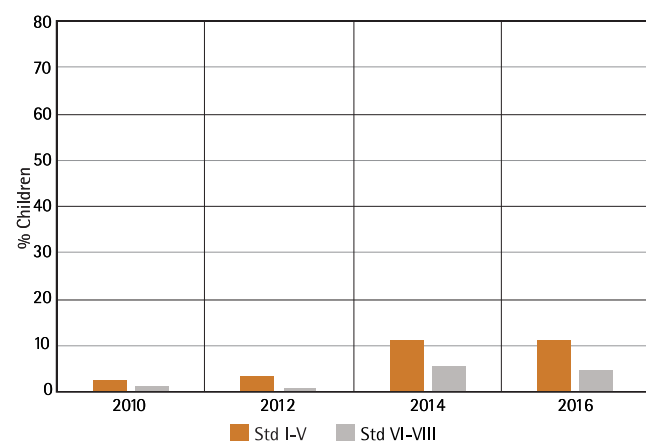
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	89.1	9.7	0.3	0.9	100
Age 7-16: All	90.7	7.0	0.3	2.0	100
Age 7-10: All	89.1	10.4	0.0	0.5	100
Age 7-10: Boys	88.9	10.6	0.0	0.5	100
Age 7-10: Girls	90.1	9.7	0.0	0.3	100
Age 11-14: All	91.7	6.5	0.6	1.2	100
Age 11-14: Boys	91.3	6.7	1.0	1.0	100
Age 11-14: Girls	91.9	6.5	0.2	1.4	100
Age 15-16: All	92.1	1.1	0.2	6.6	100
Age 15-16: Boys	89.0	1.5	0.0	9.5	100
Age 15-16: Girls	94.9	0.7	0.4	4.0	100

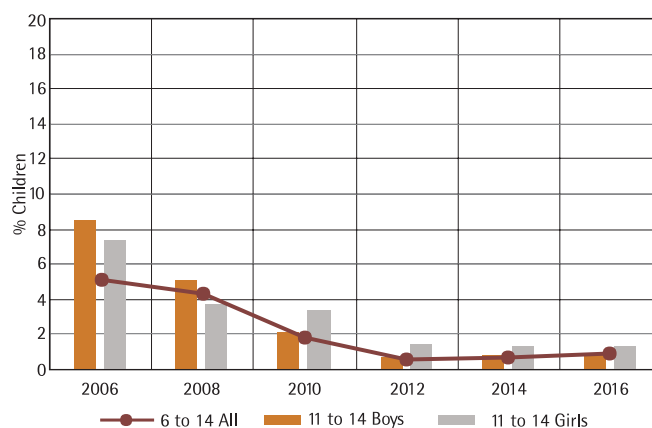
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
 % Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
 % Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	3.7	40.2	49.7	6.4	0.0								100	
II	3.0		26.9	54.9	14.2	1.0							100	
III	2.3		22.2		67.8	7.1	0.7							100
IV	2.7			20.1		65.4	9.8	2.0						100
V	4.4				22.3		60.7	11.1	1.4					100
VI	2.0				20.3		67.8	7.8	2.1					100
VII	2.7				18.7			60.0	15.2	3.3				100
VIII	2.5				17.5			72.3	5.2	2.6				100

This table shows the age distribution for each grade. For example, in Std III, 22.2% children are 8 years old but there are also 2.3% who are 7 or younger, 67.8% who are 9, 7.1% who are 10, and 0.7% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	73.3	14.8				11.8	100
Age 4	62.3	36.4				1.3	100
Age 5	37.4	11.4	28.1	21.1	0.0	1.9	100
Age 6	14.9	8.8	55.8	18.5	0.0	1.9	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	20.7	37.4	29.1	11.7	1.2	100
II	9.8	32.8	27.5	14.4	15.5	100
III	4.0	20.4	27.8	19.8	28.0	100
IV	3.6	11.3	23.0	21.7	40.4	100
V	2.3	16.3	13.9	16.4	51.0	100
VI	0.6	7.6	14.9	24.4	52.7	100
VII	2.8	6.6	11.2	14.4	64.9	100
VIII	0.0	1.5	5.1	18.4	75.0	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 4% cannot even read letters, 20.4% can read letters but not words or higher, 27.8% can read words but not Std I level text or higher, 19.8% can read Std I level text but not Std II level text, and 28% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

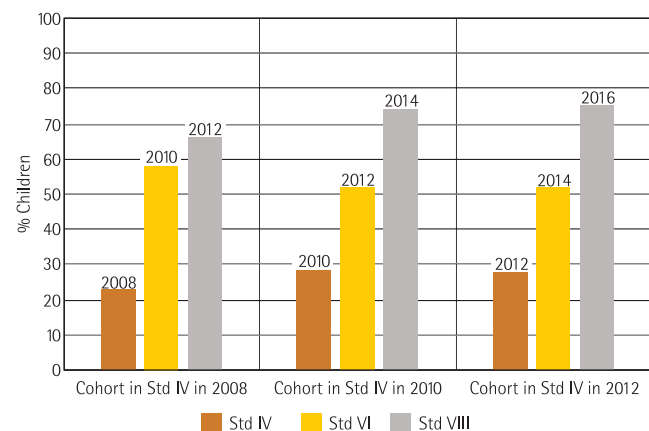
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	19.6		19.8
2012	15.7		16.8
2014	25.6		24.4
2016	27.3		28.0

\* 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.

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



This graph shows the progress of three 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

Std II level text	Std I level text
<p>আমার বাড়ির সামনে একটা ডাকঘর আছে। অনেক লোকের ভিড় হয় সেখানে। নানা দেশের চিঠি আসে। সেখানে টাকাও জমা রাখা যায়। আমার মা ডাকঘরে টাকা জমিয়ে রাখেন। আমি তিনবার ডাকঘরে গিয়েছি। বাবাকে দিনাজপুরে চিঠি লিখেছি। ঘাটালের পিসিকেও একটা বড়ো চিঠি লিখেছি। আর আজ দাদাকে লিখবো। আমি ডাকঘরে গিয়ে একটা ডাকটিকিট কিনবো। সেটা খামে লাগিয়ে ঠিকানা লিখবো। খামটা আমি দাদাকে পাঠাব।</p>	<p>গরমে আম পাওয়া যায়। মণির মা আমের আচার বানান। শীতকালে আপেল পাওয়া যায়। মণি আপেল খেতে ভালোবাসে।</p>
<p>Letters</p> <p>ল প স ক গ ড ব ম ট ঝ</p>	<p>Words</p> <p>লাল দুধ গোল তেল টিয়া ভোর বৃষা কুল পাখি মোটা</p>

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	40.6		41.1	75.9		76.1
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

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	21.1	36.6	37.4	4.8	0.0	100
II	9.2	33.4	39.8	16.4	1.2	100
III	1.0	21.3	41.7	31.6	4.4	100
IV	3.0	15.5	35.3	32.8	13.6	100
V	0.2	14.9	31.5	33.5	19.9	100
VI	0.6	9.3	34.3	35.1	20.7	100
VII	2.2	7.3	31.9	32.9	25.8	100
VIII	0.0	2.1	27.0	38.3	32.6	100

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, 21.3% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 41.7% can recognize numbers up to 99 but cannot do subtraction, 31.6% can do subtraction but cannot do division, and 4.4% can do division. For each grade, the total of these exclusive categories is 100%.

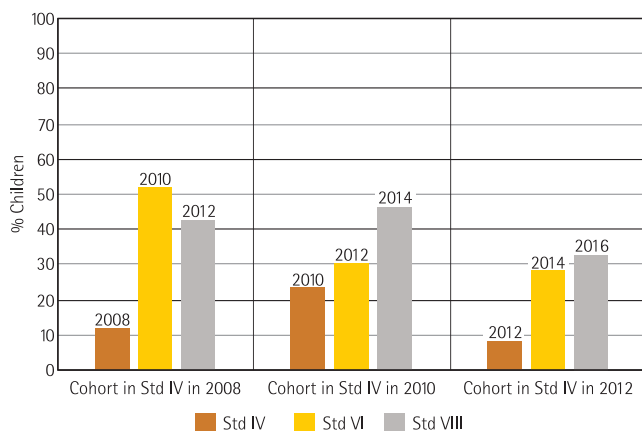
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	50.3		51.2
2012	28.0		29.6
2014	35.8		38.4
2016	33.0		36.0

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

संख्या परिचय १-९	संख्या परिचय १०-९९	विभाग	भाग
१ ८	६९ ८३	८६ - २९ = ५७	९) ८९९ (
९ ३	३९ ६६	८९ - २८ = ६१	६) ८२८ (
६ ९	६६ २६	९२ - १६ = ७६	८) ९८६ (
९ २	९९ ८३	६२ - १८ = ४४	८) ६२९ (

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	35.3		36.0	65.8		66.0
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

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	25.3	16.5	33.6	19.2	5.4	100
II	18.7	13.3	33.1	23.3	11.6	100
III	6.6	13.9	30.5	32.9	16.2	100
IV	6.0	12.1	25.0	31.8	25.1	100
V	3.0	11.2	28.0	33.1	24.7	100
VI	1.6	5.4	20.1	37.2	35.7	100
VII	1.6	6.8	18.5	32.4	40.7	100
VIII	1.2	4.4	14.3	30.1	50.0	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 6.6% cannot even read capital letters, 13.9% can read capital letters but not small letters or higher, 30.5% can read small letters but not words or higher, 32.9% can read words but not sentences, and 16.2% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I		
II		
III		
IV	Data insufficient	
V	Data insufficient	
VI		
VII		
VIII		

### English Tool

बड़े अक्षर पढ़ना

A J Q

N E

Y R O

छोटे अक्षर पढ़ना

h p x

u m

d g t

शब्द

cat red

sun fan

new bus

वाक्य

What is the time?

This is a large house.

I like to read.

She has many books.



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
% Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	30.9	33.7	29.5	34.5
	Govt. + Tuition	66.2	62.8	59.1	54.3
	Pvt. no tuition	0.2	0.4	1.9	2.7
	Pvt. + Tuition	2.7	3.1	9.5	8.5
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	19.3	21.6	24.1	30.6
	Govt. + Tuition	79.5	77.7	70.4	64.4
	Pvt. no tuition	0.0	0.0	1.4	1.4
	Pvt. + Tuition	1.2	0.6	4.1	3.7
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	2.2	22.6	33.2	42.1	100
Std I-V	Pvt.	0.5	2.3	11.7	85.5	100
Std VI-VIII	Govt.	0.1	12.1	33.0	54.9	100
Std VI-VIII	Pvt.					

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	44	36	58	75
Upper primary schools (Std I-VII/VIII)	54	66	47	36
Total schools visited	98	102	105	111

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	64.7	63.6	70.9	72.1
% Teachers present (Average)	84.6	81.3	87.7	87.4

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	9.4	17.0	21.9	24.6
% Schools where Std II children were observed sitting with one or more other classes	39.6	43.2	43.7	41.8
% Schools where Std IV children were observed sitting with one or more other classes	22.2	34.6	29.9	20.2

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	88.2	95.0	97.1	99.1
	Mid-day meal served in school on day of visit	74.7	95.0	97.1	98.2
Drinking water	No facility for drinking water	32.6	34.7	33.3	29.1
	Facility but no drinking water available	27.4	16.8	10.5	11.8
	Drinking water available	40.0	48.5	56.2	59.1
	Total	100	100	100	100
Toilet	No toilet facility	8.6	9.0	3.9	4.5
	Facility but toilet not useable	48.4	41.0	37.5	29.7
	Toilet useable	43.0	50.0	58.7	65.8
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	48.5	39.8	20.0	39.0
	Separate provision but locked	15.2	13.6	17.1	12.0
	Separate provision, unlocked but not useable	6.1	13.6	5.7	9.0
	Separate provision, unlocked and useable	30.3	33.0	57.1	40.0
	Total	100	100	100	100
Library	No library	64.6	67.7	40.0	50.0
	Library but no books being used by children on day of visit	15.6	5.9	16.2	10.9
	Library books being used by children on day of visit	19.8	26.5	43.8	39.1
	Total	100	100	100	100
Electricity	Electricity connection				38.0
	Of schools with electricity connection, % schools with electricity available on day of visit				
Computer	No computer available for children to use	91.5	87.3	92.2	89.9
	Available but not being used by children on day of visit	3.2	3.9	3.9	8.3
	Computer being used by children on day of visit	5.3	8.8	3.9	1.8
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	61.5	56.8	79.1
April 2011 to March 2012	76.5	67.7	93.1
April 2013 to March 2014	68.3	45.1	50.5
April 2015 to March 2016	82.0	57.7	29.7

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	18.8	23.1	29.1
April 2012 to date of survey (2012)	60.0	58.2	77.2
April 2014 to date of survey (2014)	21.6	16.7	21.8
April 2016 to date of survey (2016)	55.5	40.4	30.9

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	23.3	16.2
	White wash/plastering	33.7	44.3
Repair	Repair of drinking water facility	41.2	43.2
	Repair of toilet	37.0	42.2
Purchase	Mats, Tat patti etc.	27.6	49.1
	Charts, globes or other teaching material	63.1	69.4

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	96.2	99.1
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	17.7	8.3
Between July and September	76.0	47.7
After September	6.3	44.0

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

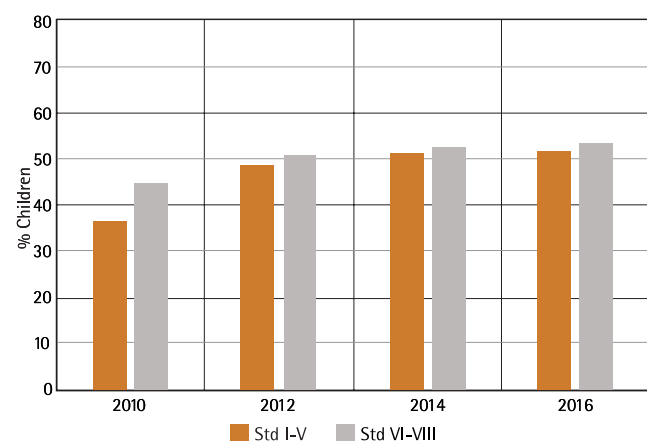
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	40.2	52.1	2.4	5.3	100
Age 7-16: All	37.2	52.2	2.1	8.4	100
Age 7-10: All	42.2	51.7	2.8	3.2	100
Age 7-10: Boys	38.5	56.2	2.4	3.0	100
Age 7-10: Girls	46.5	46.7	3.4	3.5	100
Age 11-14: All	36.3	53.7	1.8	8.2	100
Age 11-14: Boys	33.9	57.7	1.7	6.7	100
Age 11-14: Girls	38.9	49.2	2.0	9.9	100
Age 15-16: All	27.0	50.3	1.1	21.6	100
Age 15-16: Boys	27.3	53.2	1.0	18.5	100
Age 15-16: Girls	26.7	47.3	1.3	24.7	100

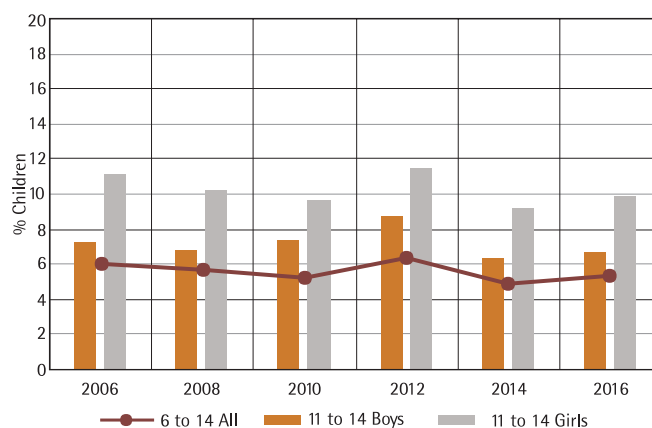
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII  
2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age  
2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	23.1	30.7	21.3	13.4	11.6							100	
II	3.5	12.9	29.4	26.6	10.6	10.2	6.9					100	
III	4.3	11.6	31.6	19.9	18.4	5.9	5.3	3.1					100
IV	5.8	14.0	24.5	28.6	11.2	10.0	5.9					100	
V	1.8	6.5	9.5	32.6	20.1	17.6	5.9	6.0					100
VI	6.2	14.6	25.9	30.6	12.5	6.5	3.8					100	
VII	1.9	5.9	10.2	36.1	24.8	13.2	6.4	1.5				100	
VIII	7.2	16.7	31.5	24.3	14.6	5.7					100		

This table shows the age distribution for each grade. For example, in Std III, 31.6% children are 8 years old but there are also 11.6% who are 7, 19.9% who are 9, 18.4% who are 10, 5.9% who are 11, 5.3% who are 12, and 3.1% who are 13 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	19.8	8.0				72.3	100
Age 4	21.8	22.3				56.0	100
Age 5	8.6	20.0	26.0	23.4	2.2	19.8	100
Age 6	2.6	16.2	36.1	33.4	2.5	9.3	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	49.7	32.8	8.3	4.8	4.4	100
II	27.3	36.4	14.4	10.1	11.9	100
III	16.8	29.9	15.7	15.1	22.5	100
IV	11.7	23.6	14.1	16.3	34.4	100
V	8.3	19.0	12.3	17.2	43.2	100
VI	5.2	14.7	11.0	16.5	52.7	100
VII	4.0	10.5	8.5	14.9	62.1	100
VIII	3.3	9.0	5.9	14.0	67.9	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 16.8% cannot even read letters, 29.9% can read letters but not words or higher, 15.7% can read words but not Std I level text or higher, 15.1% can read Std I level text but not Std II level text, and 22.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

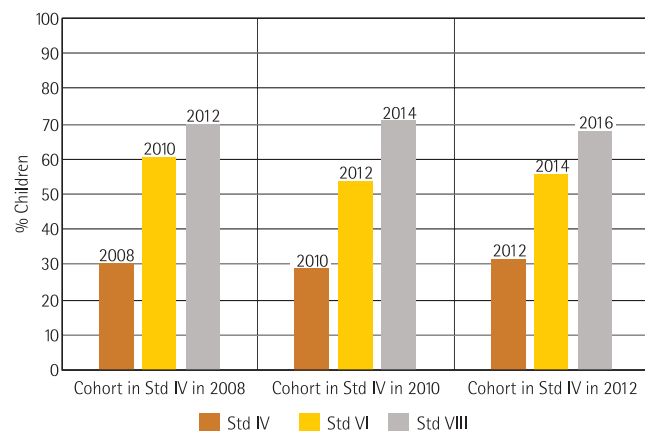
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	8.4	27.1	15.4
2012	6.5	31.5	18.8
2014	6.0	36.0	21.7
2016	7.2	36.6	22.6

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

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 मौज़-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

ह च ट  
ल न  
फ म र  
स त

Words

कुल बड़ा  
रोटी  
पानी चूना  
चलो हीरा  
पैर  
देर कौन

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	36.0	58.4	44.1	71.8	84.8	77.7
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	67.8

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	44.3	36.4	15.2	3.1	1.0	100
II	21.0	42.1	24.4	8.7	3.8	100
III	11.7	36.5	28.5	14.1	9.1	100
IV	7.9	29.1	29.5	17.0	16.5	100
V	5.9	23.7	29.2	18.7	22.6	100
VI	3.4	17.8	31.7	20.1	27.1	100
VII	2.5	13.2	29.3	21.4	33.7	100
VIII	1.8	10.8	29.1	20.9	37.4	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 11.7% cannot even recognize numbers 1-9, 36.5% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 28.5% can recognize numbers up to 99 but cannot do subtraction, 14.1% can do subtraction but cannot do division, and 9.1% can do division. For each grade, the total of these exclusive categories is 100%.

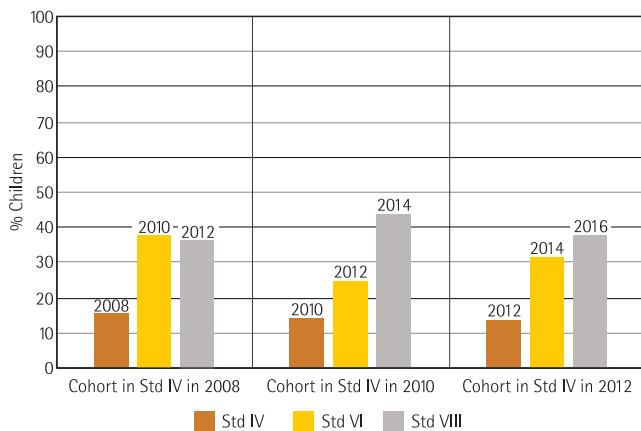
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	16.5	37.7	24.4
2012	6.7	32.0	19.1
2014	6.6	38.5	23.3
2016	7.9	37.5	23.4

\* 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.

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



This graph shows the progress of three 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

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		भाग
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
4	1	46	25	31 - 18	68 - 49	4) 658

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	18.7	36.3	25.0	48.2	65.9	56.3
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

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

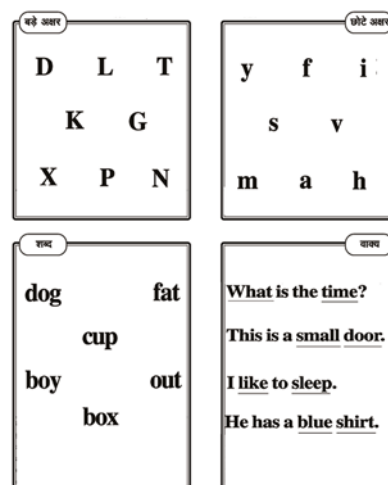
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	54.6	19.5	18.0	6.0	1.9	100
II	33.9	24.7	25.2	11.1	5.1	100
III	25.0	22.7	27.1	16.2	9.0	100
IV	19.0	20.5	28.0	18.6	14.0	100
V	15.0	18.9	28.2	19.5	18.4	100
VI	10.0	16.3	27.0	22.8	23.9	100
VII	7.3	12.9	25.0	24.6	30.3	100
VIII	6.6	11.0	23.0	24.1	35.4	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 25% cannot even read capital letters, 22.7% can read capital letters but not small letters or higher, 27.1% can read small letters but not words or higher, 16.2% can read words but not sentences, and 9% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	62.6	22.7
II	54.6	36.8
III	57.8	41.2
IV	54.9	49.4
V	56.3	51.3
VI	58.5	54.1
VII	57.9	57.4
VIII	56.9	59.3

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	59.2	46.8	43.8	43.3
	Govt. + Tuition	3.2	2.7	2.9	2.8
	Pvt. no tuition	32.5	42.7	42.7	44.6
	Pvt. + Tuition	5.2	7.7	10.7	9.4
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	50.2	44.6	42.6	41.8
	Govt. + Tuition	4.5	4.2	4.0	3.9
	Pvt. no tuition	37.3	42.3	42.7	43.3
	Pvt. + Tuition	8.0	8.9	10.7	11.0
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	55.9	36.5	6.1	1.5	100
Std I-V	Pvt.	28.2	42.4	16.8	12.7	100
Std VI-VIII	Govt.	31.2	49.7	15.7	3.4	100
Std VI-VIII	Pvt.	17.0	46.3	21.6	15.1	100



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	1633	1583	1543	1757
Upper primary schools (Std I-VII/VIII)	263	304	428	209
Total schools visited	1896	1887	1971	1966

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Enrolled children present (Average)	57.6	54.9	55.1	56.0
% Teachers present (Average)	81.0	80.0	84.7	85.6
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	57.6	56.7	54.7	55.8
% Teachers present (Average)	79.8	83.0	85.6	83.0

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

Primary schools (Std I-IV/V)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	5.3	7.6	11.2	13.5
% Schools where Std II children were observed sitting with one or more other classes	51.4	64.0	63.7	64.7
% Schools where Std IV children were observed sitting with one or more other classes	46.5	62.2	60.8	59.4
Upper primary schools (Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	0.4	2.0	1.4	2.4
% Schools where Std II children were observed sitting with one or more other classes	48.4	60.3	59.7	47.1
% Schools where Std IV children were observed sitting with one or more other classes	42.0	54.0	53.0	44.8

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	89.3	94.2	96.0	96.5
	Mid-day meal served in school on day of visit	71.3	85.6	93.9	91.2
Drinking water	No facility for drinking water	6.9	3.9	2.5	5.4
	Facility but no drinking water available	10.9	14.8	11.7	12.6
	Drinking water available	82.2	81.3	85.8	82.0
	Total	100	100	100	100
Toilet	No toilet facility	6.7	5.5	4.2	4.7
	Facility but toilet not useable	45.9	42.0	40.9	40.5
	Toilet useable	47.4	52.5	54.9	54.8
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	24.9	16.7	12.3	10.5
	Separate provision but locked	25.3	20.2	18.6	16.6
	Separate provision, unlocked but not useable	15.9	19.4	20.0	21.5
	Separate provision, unlocked and useable	33.9	43.7	49.1	51.5
	Total	100	100	100	100
Library	No library	51.4	17.8	25.5	28.5
	Library but no books being used by children on day of visit	25.8	41.3	38.4	28.8
	Library books being used by children on day of visit	22.9	41.0	36.2	42.8
	Total	100	100	100	100
Electricity	Electricity connection				52.0
	Of schools with electricity connection, % schools with electricity available on day of visit				41.0
Computer	No computer available for children to use	98.6	97.1	97.8	97.3
	Available but not being used by children on day of visit	1.1	2.6	1.9	2.1
	Computer being used by children on day of visit	0.3	0.4	0.3	0.6
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	80.2	72.3	80.5
April 2011 to March 2012	81.2	74.4	83.8
April 2013 to March 2014	84.5	76.0	12.7
April 2015 to March 2016	85.1	79.0	10.4

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	54.1	46.2	39.3
April 2012 to date of survey (2012)	25.4	21.3	24.9
April 2014 to date of survey (2014)	13.1	12.0	3.4
April 2016 to date of survey (2016)	62.9	57.0	10.6

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	4.6	6.6
	White wash/plastering	85.6	81.5
Repair	Repair of drinking water facility	52.5	55.2
	Repair of toilet	38.5	43.0
Purchase	Mats, Tat patti etc.	83.0	86.1
	Charts, globes or other teaching material	67.5	77.9

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	97.2	93.7
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	7.3	2.6
Between July and September	77.5	57.1
After September	15.2	40.3

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



## School enrollment

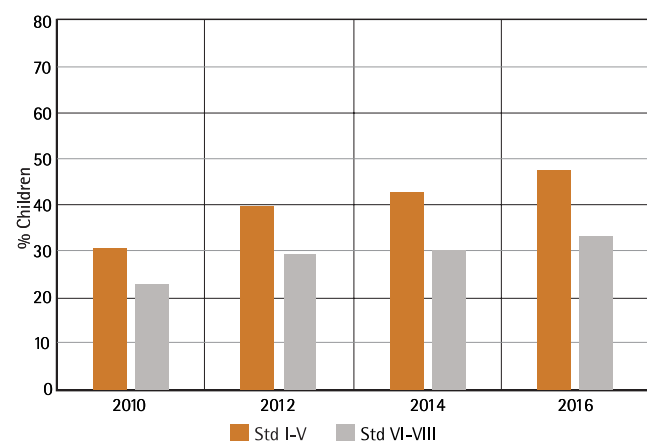
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	56.1	41.6	1.1	1.2	100
Age 7-16: All	58.6	37.9	0.9	2.6	100
Age 7-10: All	50.7	47.4	1.3	0.7	100
Age 7-10: Boys	46.2	51.5	1.8	0.6	100
Age 7-10: Girls	55.2	43.2	0.9	0.8	100
Age 11-14: All	61.6	35.7	0.9	1.8	100
Age 11-14: Boys	56.4	40.8	1.1	1.7	100
Age 11-14: Girls	67.2	30.1	0.8	1.9	100
Age 15-16: All	70.0	21.3	0.1	8.6	100
Age 15-16: Boys	66.1	24.8	0.2	8.8	100
Age 15-16: Girls	74.1	17.4	0.1	8.5	100

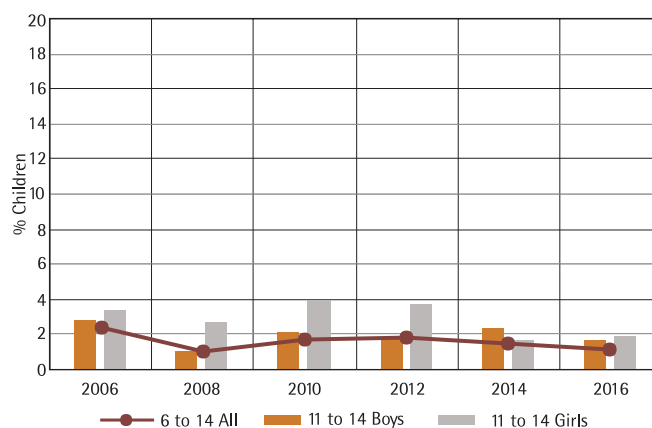
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total	
I	26.0	36.8	22.9	9.5	4.8							100		
II	1.6	13.5	36.4	28.8	11.7	5.4	2.7						100	
III	3.0		13.2	37.8	24.6	15.8	5.6						100	
IV	3.6		12.9	32.8	32.9	10.5	7.5						100	
V	4.6			9.9	41.0	26.8	13.3	4.5					100	
VI	3.0				15.1	35.2	30.8	10.8	5.2					100
VII	3.4					12.7	40.5	29.1	11.7	2.7				100
VIII	4.1				18.2			37.6	27.4	9.1	3.7			100

This table shows the age distribution for each grade. For example, in Std III, 37.8% children are 8 years old but there are also 13.2% who are 7, 24.6% who are 9, 15.8% who are 10, and 5.6% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	55.8	14.2				30.0	100
Age 4	44.8	39.9				15.3	100
Age 5	17.8	34.2	21.6	21.0	1.1	4.3	100
Age 6	3.0	18.9	42.4	31.5	0.7	3.6	100

For 3 and 4 year old children, only pre-school status is recorded.



Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016**

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	31.8	38.1	15.4	8.5	6.2	100
II	11.0	29.7	20.2	17.4	21.7	100
III	6.2	17.5	16.0	21.8	38.5	100
IV	5.2	11.6	12.2	20.6	50.5	100
V	4.7	6.2	9.8	15.5	63.7	100
VI	2.2	5.3	7.5	14.3	70.8	100
VII	3.8	5.9	5.4	12.0	72.9	100
VIII	1.0	2.6	4.0	11.1	81.3	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 6.2% cannot even read letters, 17.5% can read letters but not words or higher, 16% can read words but not Std I level text or higher, 21.8% can read Std I level text but not Std II level text, and 38.5% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

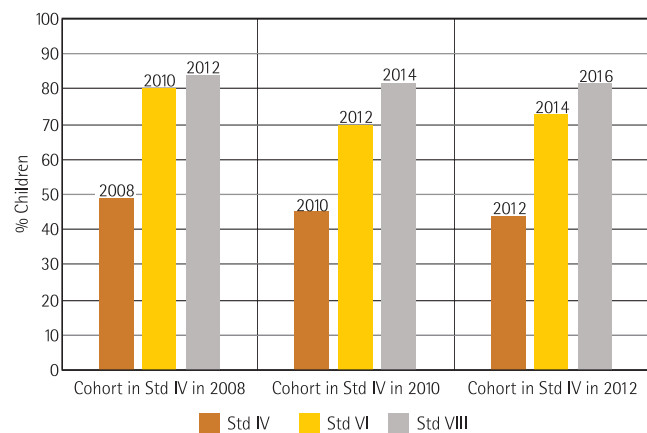
**Table 5: Trends over time Reading in Std III by school type 2010, 2012, 2014 and 2016**

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	16.3	40.1	23.8
2012	20.7	48.8	31.7
2014	23.3	51.7	35.3
2016	25.5	54.3	38.5

\* 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.

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



This graph shows the progress of three 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.

## Reading Tool

Std II 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 बगीचा बनाया जाए। खाद मंगाकर तरह-तरह के पौधे लगाए गए। सही समय पर पानी दिया गया। आज वहाँ एक सुंदर बगीचा है। इसलिए वहाँ सभी खेलने जाते हैं।

Std I level text

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

Letters

द क च  
ल ब  
ह थ त  
म ख

Words

नाक तोला  
कूड़ा  
खुश मैना  
मोका सेब  
पीला  
झोला दिन

**Table 6: Trends over time Reading in Std V and Std VIII by school type 2010, 2012, 2014 and 2016**

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.*
2010	63.7	72.5	65.8	89.6	93.8	90.5
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	56.1	74.0	63.9	79.3	86.6	81.2

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	26.6	35.1	31.7	5.2	1.4	100
II	9.2	32.9	37.2	17.7	3.1	100
III	5.7	25.2	32.5	25.6	11.0	100
IV	4.8	16.2	29.7	26.9	22.5	100
V	2.2	11.6	25.6	23.6	37.0	100
VI	2.5	8.9	26.7	28.9	33.1	100
VII	2.8	5.1	29.1	23.7	39.3	100
VIII	0.9	4.6	25.0	23.5	46.0	100

Each row shows the variation in children's arithmetic levels within a given grade. For example, among children in Std III, 5.7% cannot even recognize numbers 1-9, 25.2% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 32.5% can recognize numbers up to 99 but cannot do subtraction, 25.6% can do subtraction but cannot do division, and 11% can do division. For each grade, the total of these exclusive categories is 100%.

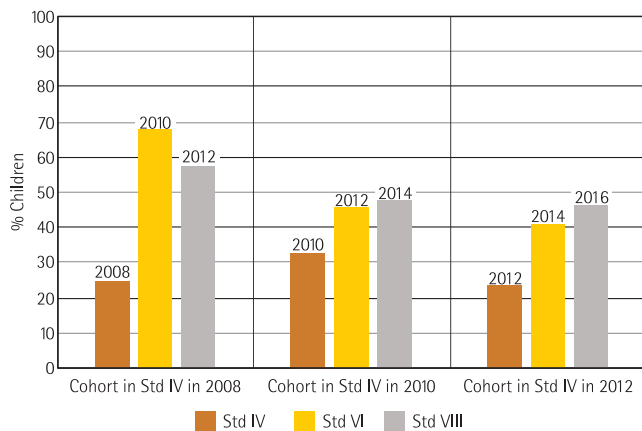
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	32.4	55.4	39.8
2012	23.4	58.0	37.1
2014	17.2	45.8	29.3
2016	23.3	53.5	36.9

\* 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.

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



This graph shows the progress of three 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.

## Arithmetic Tool

अंक पहचान 1-9		संख्या पहचान 10-99		घटाव		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	54	87	45 - 18	53 - 24	4) 519

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	48.7	61.0	51.6	83.7	86.8	84.4
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	25.7	51.9	37.1	38.7	66.5	46.1

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





Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

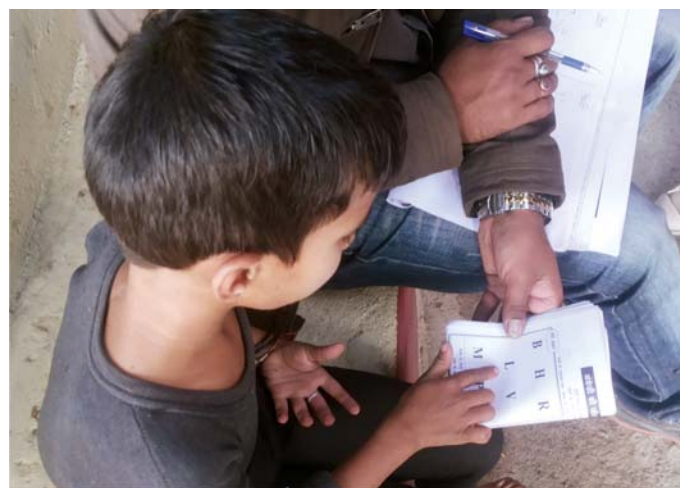
Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	34.5	20.8	24.0	14.5	6.3	100
II	15.9	19.6	31.2	18.6	14.7	100
III	10.5	16.1	27.4	24.2	21.9	100
IV	9.2	12.3	27.3	21.7	29.5	100
V	5.8	9.9	20.8	25.2	38.3	100
VI	3.9	5.9	22.5	28.4	39.3	100
VII	5.0	5.4	19.8	24.1	45.7	100
VIII	2.1	5.1	16.6	22.7	53.5	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 10.5% cannot even read capital letters, 16.1% can read capital letters but not small letters or higher, 27.4% can read small letters but not words or higher, 24.2% can read words but not sentences, and 21.9% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	62.4	
II	65.9	63.5
III	61.0	65.4
IV	63.6	64.9
V	60.3	73.6
VI	54.6	66.5
VII	56.9	73.5
VIII	60.4	73.8

### English Tool



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	63.1	55.5	53.5	47.9
	Govt. + Tuition	4.1	4.1	3.0	3.3
	Pvt. no tuition	24.8	27.8	29.5	33.7
	Pvt. + Tuition	8.0	12.6	14.1	15.2
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	70.4	65.1	65.3	60.5
	Govt. + Tuition	5.7	5.4	4.2	5.6
	Pvt. no tuition	16.6	18.8	20.2	21.8
	Pvt. + Tuition	7.3	10.7	10.3	12.1
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs.101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	22.4	52.7	18.4	6.5	100
Std I-V	Pvt.	15.2	43.0	26.6	15.2	100
Std VI-VIII	Govt.	17.7	49.0	19.3	14.1	100
Std VI-VIII	Pvt.	2.1	26.7	43.3	27.9	100

## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	321	280	297	316
Upper primary schools (Std I-VII/VIII)	16	7	4	7
Total schools visited	337	287	301	323

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	89.7	81.9	80.2	82.5
% Teachers present (Average)	90.9	86.9	81.0	79.7

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	69.0	72.8	76.7	75.2
% Schools where Std II children were observed sitting with one or more other classes	61.9	73.6	80.1	76.8
% Schools where Std IV children were observed sitting with one or more other classes	57.0	71.4	76.9	74.8

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	96.3	94.1	97.3	95.6
	Mid-day meal served in school on day of visit	95.0	94.1	92.3	94.9
Drinking water	No facility for drinking water	22.1	21.7	17.7	14.0
	Facility but no drinking water available	9.7	7.3	13.0	13.7
	Drinking water available	68.3	71.0	69.2	72.3
	Total	100	100	100	100
Toilet	No toilet facility	5.8	2.9	5.0	2.8
	Facility but toilet not useable	40.9	32.7	25.8	22.4
	Toilet useable	53.4	64.4	69.2	74.8
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	47.7	16.0	26.2	17.4
	Separate provision but locked	11.5	12.3	8.8	10.0
	Separate provision, unlocked but not useable	16.9	18.9	11.3	11.4
	Separate provision, unlocked and useable	24.0	52.9	53.7	61.2
	Total	100	100	100	100
Library	No library	52.3	17.9	14.1	13.1
	Library but no books being used by children on day of visit	27.2	42.5	49.0	45.8
	Library books being used by children on day of visit	20.4	39.6	36.9	41.1
	Total	100	100	100	100
Electricity	Electricity connection				83.5
	Of schools with electricity connection, % schools with electricity available on day of visit				75.0
Computer	No computer available for children to use	93.3	92.2	91.2	90.3
	Available but not being used by children on day of visit	5.2	6.0	6.8	7.2
	Computer being used by children on day of visit	1.5	1.8	2.0	2.5
	Total	100	100	100	100



Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	76.0	67.3	86.6
April 2011 to March 2012	86.1	79.6	87.6
April 2013 to March 2014	63.5	55.3	12.1
April 2015 to March 2016	82.1	77.4	6.3

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	59.9	55.8	60.8
April 2012 to date of survey (2012)	66.9	60.2	61.8
April 2014 to date of survey (2014)	51.4	46.1	5.3
April 2016 to date of survey (2016)	20.3	17.3	2.4

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	12.3	8.9
	White wash/plastering	45.0	62.8
Repair	Repair of drinking water facility	35.4	36.9
	Repair of toilet	29.4	38.4
Purchase	Mats, Tat patti etc.	65.9	64.2
	Charts, globes or other teaching material	70.6	73.3

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	98.3	98.7
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	9.9	7.3
Between July and September	71.7	33.0
After September	18.4	59.7

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



# West Bengal RURAL

ANALYSIS BASED ON DATA FROM HOUSEHOLDS. 17 OUT OF 18 DISTRICTS  
Data is not presented where sample size is insufficient.

## School enrollment

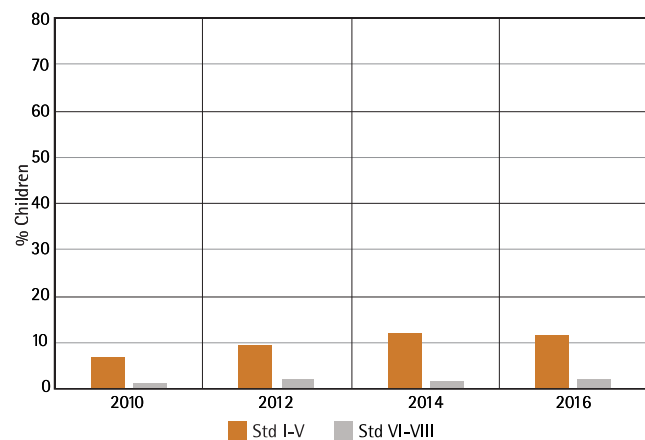
**Table 1: % Children enrolled in different types of schools by age group and gender 2016**

Age group	Govt.	Pvt.	Other	Not in school	Total
Age 6-14: All	86.0	9.3	2.3	2.4	100
Age 7-16: All	86.3	6.5	2.6	4.5	100
Age 7-10: All	83.0	13.3	2.0	1.8	100
Age 7-10: Boys	80.2	15.5	2.5	1.9	100
Age 7-10: Girls	86.4	10.9	1.1	1.7	100
Age 11-14: All	91.2	2.7	2.9	3.3	100
Age 11-14: Boys	89.0	3.2	2.9	4.9	100
Age 11-14: Girls	93.1	2.2	2.9	1.8	100
Age 15-16: All	83.1	1.5	3.2	12.3	100
Age 15-16: Boys	74.9	2.0	3.3	19.8	100
Age 15-16: Girls	89.8	1.2	3.0	6.0	100

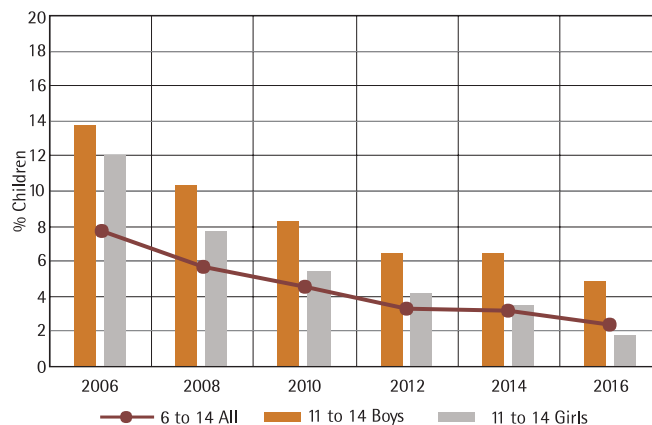
'Other' includes children going to Madarsa and EGS.

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

**Chart 2: Trends over time**  
% Children enrolled in private schools in Std I-V and Std VI-VIII 2010, 2012, 2014 and 2016



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



Bars show the proportion of boys and girls age 11-14 who were not enrolled in school in a given year. The line shows how the proportion of children age 6-14 who were not enrolled in school has changed over the period 2006-2016.

**Table 2: Age-grade distribution**  
% Children in each grade by age 2016

Std	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Age 15	Age 16	Total
I	20.7	37.5	31.6	8.3	2.0								100
II	3.0	7.7	27.6	43.0	14.0	4.8							100
III	0.7	6.8	27.1	45.3	15.6	4.6							100
IV	1.2	6.8	24.8	44.8	12.3	7.4	2.8						100
V	1.4	5.6	43.3	29.7	13.4	6.6						100	
VI	2.1	8.3	32.9	35.3	13.1	8.4						100	
VII	2.4	8.0	36.8	32.6	12.2	5.2	2.9					100	
VIII	2.3	13.6	37.3	30.4	11.0	5.4					100		

This table shows the age distribution for each grade. For example, in Std III, 27.1% children are 8 years old but there are also 6.8% who are 7, 45.3% who are 9, 15.6% who are 10, and 4.6% who are 11 or older.

## Young children in pre-school and school

**Table 3: % Children age 3-6 enrolled in different types of pre-school and school 2016**

Age	In balwadi or anganwadi	In LKG/UKG	In school			Out of school or pre-school	Total
			Govt.	Pvt.	Other		
Age 3	70.2	3.0				26.8	100
Age 4	69.7	13.4				16.9	100
Age 5	10.7	3.0	58.6	16.5	0.9	10.3	100
Age 6	1.8	3.6	68.0	20.4	0.7	5.5	100

For 3 and 4 year old children, only pre-school status is recorded.





Data is not presented where sample size is insufficient.

## Reading

ASER assessments are conducted in the household. 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 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	27.0	31.5	20.8	10.9	9.8	100
II	10.9	21.9	22.0	19.3	26.0	100
III	7.8	19.3	14.8	19.3	38.8	100
IV	7.9	15.5	18.7	20.8	37.1	100
V	4.0	12.2	16.4	17.3	50.2	100
VI	2.9	10.0	15.0	17.8	54.3	100
VII	2.2	6.5	13.0	13.0	65.4	100
VIII	1.2	5.1	9.1	12.6	72.1	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 7.8% cannot even read letters, 19.3% can read letters but not words or higher, 14.8% can read words but not Std I level text or higher, 19.3% can read Std I level text but not Std II level text, and 38.8% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

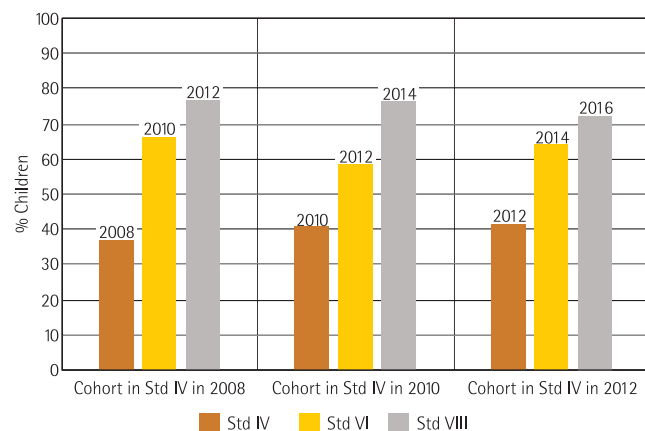
**Table 5: Trends over time**  
Reading in Std III by school type  
2010, 2012, 2014 and 2016

Year	% Children in Std III who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*
2010	24.6		25.8
2012	26.1		28.1
2014	32.9		36.3
2016	34.5		38.9

\* 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.

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



This graph shows the progress of three 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 Tool

Std II level text

তিথি বাড়ির 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 ভরে 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 I level text

আজ মাঠে মেলা বসেছে।  
রানা আর মালা মেলায় যাবে।  
সাথে যাবে মা আর বাবা।  
ওরা সবাই জিলিপি খাবে।

Letters

ন প ম  
চ স  
থ গ দ  
র ল

Words

বাঘ নোট  
নালা  
দিন চুন  
কোঁটা রানী  
দেশ  
ভোট বুড়ো

**Table 6: Trends over time**  
Reading in Std V and Std VIII by school type  
2010, 2012, 2014 and 2016

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.*
2010	54.2		54.2	83.1		83.1
2012	48.7		48.9	76.9		76.7
2014	51.8		53.1	76.3		76.3
2016	50.2		50.9	72.2		72.5

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



Data is not presented where sample size is insufficient.

## Arithmetic

ASER assessments are conducted in the household. 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 2016

Std	Not even 1-9	Recognize numbers		Subtract	Divide	Total
		1-9	10-99			
I	24.0	41.2	25.0	7.1	2.8	100
II	8.1	31.1	32.0	16.4	12.5	100
III	5.8	21.1	33.5	19.5	20.0	100
IV	6.7	18.4	33.4	18.7	22.8	100
V	3.2	13.0	36.0	18.8	29.0	100
VI	1.4	11.8	38.4	19.8	28.6	100
VII	1.4	8.6	41.5	18.2	30.3	100
VIII	0.6	7.1	39.5	21.2	31.7	100

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, 21.1% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 33.5% can recognize numbers up to 99 but cannot do subtraction, 19.5% can do subtraction but cannot do division, and 20% can do division. For each grade, the total of these exclusive categories is 100%.

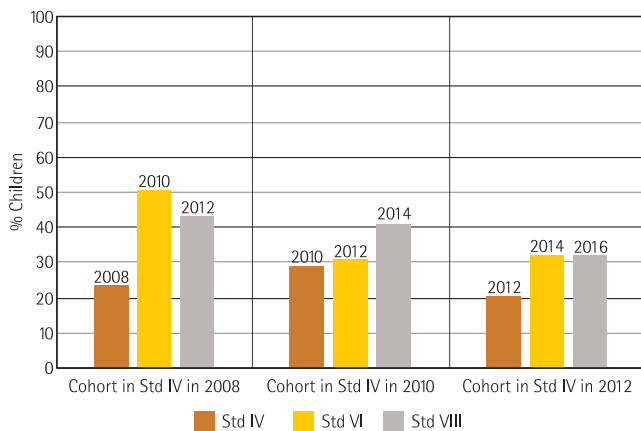
**Table 8: Trends over time**  
Arithmetic in Std III by school type 2010, 2012, 2014 and 2016

Year	% Children in Std III who can do at least subtraction		
	Govt.	Pvt.	Govt. & Pvt.*
2010	45.1		46.3
2012	25.1		28.2
2014	33.0		36.2
2016	35.4		40.0

\* 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.

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



This graph shows the progress of three 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.

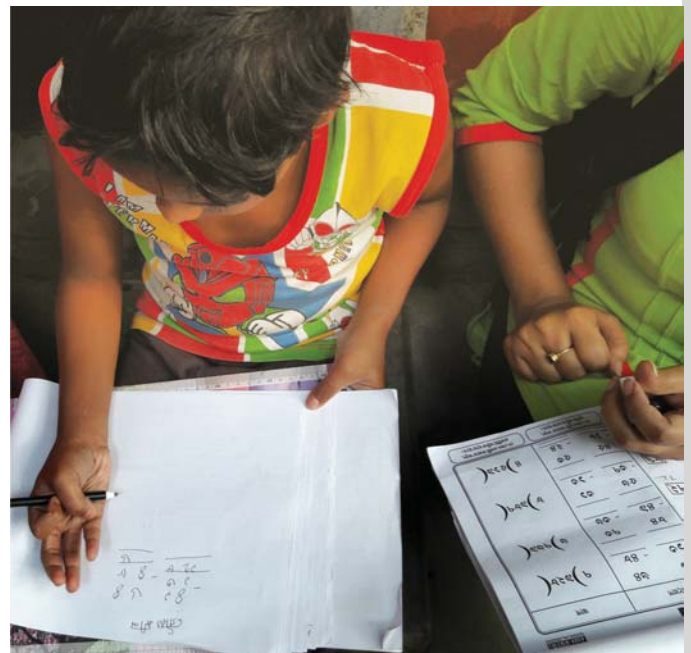
## Arithmetic Tool

সংখ্যা পরিচয় ১-৯	সংখ্যা পরিচয় ১০-৯৯	বিয়োগ	ভাগ
৫ ৭	৭৪ ২৩	৬৩ ৫১ - ৪৪ - ৩৫	৭)৮৯৮(
৮ ৪	৯১ ৮৬	৯২ ৭১ - ৪৮ - ৩৫	৪)৬৫৯(
২ ৯	২৪ ৭৯	৪৫ ৩৪ - ২৭ - ১৯	৮)৯৪৬(
৩ ১	৩৭ ৬১	৪৩ ৪৬ - ২৯ - ১৭	৬)৭৫৭(

**Table 9: Trends over time**  
Arithmetic in Std V and Std VIII by school type 2010, 2012, 2014 and 2016

Year	% Children in Std V who can do division			% Children in Std VIII who can do division		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2010	38.1		38.2	67.7		67.7
2012	28.7		29.2	43.0		43.5
2014	31.3		32.5	40.4		40.8
2016	28.5		29.5	32.1		32.2

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



Data is not presented where sample size is insufficient.

## Reading and comprehension in English

ASER assessments are conducted in the household. The type of school in which children are enrolled (government or private) is also recorded.

**Table 10: % Children by grade and reading level in English**  
 All children 2016

Std	Not even capital letters	Capital letters	Small letters	Simple words	Easy sentences	Total
I	38.2	18.2	24.7	15.2	3.7	100
II	17.5	16.7	30.1	24.1	11.6	100
III	17.7	14.5	22.6	26.6	18.7	100
IV	14.9	14.3	28.4	24.2	18.2	100
V	9.1	11.3	31.6	25.3	22.8	100
VI	7.6	11.1	30.2	25.6	25.5	100
VII	5.8	7.4	26.6	27.9	32.3	100
VIII	3.5	6.7	26.6	25.9	37.3	100

Each row shows the variation in children's reading levels in English within a given grade. For example, among children in Std III, 17.7% cannot even read capital letters, 14.5% can read capital letters but not small letters or higher, 22.6% can read small letters but not words or higher, 26.6% can read words but not sentences, and 18.7% can read sentences. For each grade, the total of these exclusive categories is 100%.

**Table 11: % Children by grade who can comprehend English**  
 All children 2016

Std	Of those who can read words, % children who can tell meanings of the words	Of those who can read sentences, % children who can tell meanings of the sentences
I	74.6	
II	69.0	
III	69.7	66.4
IV	66.6	63.7
V	61.8	54.6
VI	66.7	66.6
VII	62.5	75.5
VIII	70.4	74.3

### English Tool

बड़े अक्षर पढ़ना

**B H R**

**L V**

**M P F**

छोटे अक्षर पढ़ना

**z j o**

**w g**

**u s k**

शुद्ध

**cow wet**

**big**

**hat man**

**pen**

वाक्य

**Where is your house?**

**This is a long road.**

**I like to play.**

**She has a green kite.**



## Type of school and paid additional tuition classes

ASER records information about paid additional private tutoring by asking the following question: "Does the child take any paid tuition class currently?" Therefore the numbers given below do not include any unpaid supplemental help in learning that the child may have received.

**Table 12: Trends over time**  
 % Children in Std I-V and Std VI-VIII by school type and tuition 2010, 2012, 2014 and 2016

Std	Category	2010	2012	2014	2016
Std I-V	Govt. no tuition	31.7	30.2	29.2	28.1
	Govt. + Tuition	61.4	60.4	58.4	60.3
	Pvt. no tuition	2.4	2.9	3.8	2.9
	Pvt. + Tuition	4.6	6.5	8.6	8.8
	Total	100	100	100	100
Std VI-VIII	Govt. no tuition	20.1	18.3	22.1	20.1
	Govt. + Tuition	78.5	79.6	76.2	77.6
	Pvt. no tuition	0.4	0.7	0.6	0.6
	Pvt. + Tuition	1.0	1.4	1.1	1.7
	Total	100	100	100	100

**Table 13: Tuition expenditures by school type**  
 2016

Std	Type of school	% Children in different tuition expenditure categories (in Rupees per month)				
		Rs. 100 or less	Rs. 101-200	Rs. 201-300	Rs. 301 or more	Total
Std I-V	Govt.	42.1	39.1	9.5	9.3	100
Std I-V	Pvt.	10.5	33.3	21.1	35.1	100
Std VI-VIII	Govt.	13.2	45.2	16.9	24.8	100
Std VI-VIII	Pvt.					



## 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, 2012, 2014 and 2016**

Type of school	2010	2012	2014	2016
Primary schools (Std I-IV/V)	406	405	443	426
Upper primary schools (Std I-VII/VIII)	2	3	13	3
Total schools visited	408	408	456	429

**Table 15: Trends over time  
Student and teacher attendance on the day of visit  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Enrolled children present (Average)	68.5	59.8	55.8	59.8
% Teachers present (Average)	85.6	83.8	80.3	83.1

**Table 16: Trends over time  
Small schools and multigrade classes  
2010, 2012, 2014 and 2016**

All schools (Std I-IV/V and Std I-VII/VIII)	2010	2012	2014	2016
% Schools with total enrollment of 60 or less	10.1	15.7	23.3	22.0
% Schools where Std II children were observed sitting with one or more other classes	42.4	38.9	47.1	44.2
% Schools where Std IV children were observed sitting with one or more other classes	33.6	30.7	36.3	44.3

## School facilities

**Table 17: Trends over time  
% Schools with selected school facilities  
2010, 2012, 2014 and 2016**

% Schools with		2010	2012	2014	2016
Mid-day meal	Kitchen shed for cooking mid-day meal	86.3	90.2	95.4	93.4
	Mid-day meal served in school on day of visit	63.4	59.7	66.7	66.7
Drinking water	No facility for drinking water	19.3	16.9	13.9	10.5
	Facility but no drinking water available	13.5	11.2	7.7	10.1
	Drinking water available	67.2	71.9	78.4	79.4
	Total	100	100	100	100
Toilet	No toilet facility	7.6	6.9	2.2	0.7
	Facility but toilet not useable	40.3	34.3	27.0	20.3
	Toilet useable	52.1	58.8	70.8	79.0
	Total	100	100	100	100
Girls' toilet	No separate provision for girls' toilet	44.5	33.5	30.8	17.1
	Separate provision but locked	14.5	13.6	18.8	11.5
	Separate provision, unlocked but not useable	17.4	8.9	3.6	7.0
	Separate provision, unlocked and useable	23.7	44.0	46.9	64.3
	Total	100	100	100	100
Library	No library	50.5	35.3	33.7	40.5
	Library but no books being used by children on day of visit	17.8	24.0	22.7	11.9
	Library books being used by children on day of visit	31.8	40.7	43.6	47.5
	Total	100	100	100	100
Electricity	Electricity connection				96.0
	Of schools with electricity connection, % schools with electricity available on day of visit				89.1
Computer	No computer available for children to use	98.7	98.8	98.0	96.5
	Available but not being used by children on day of visit	0.8	1.0	0.4	3.1
	Computer being used by children on day of visit	0.5	0.3	1.5	0.5
	Total	100	100	100	100





Data is not presented where sample size is insufficient.

## School funds and activities

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 reporting receipt of SSA grants – Full financial year

Full financial year	Maintenance grant	Development grant	TLM grant
April 2010 to March 2011	72.1	62.4	77.8
April 2011 to March 2012	79.3	68.8	86.0
April 2013 to March 2014	78.4	49.4	35.3
April 2015 to March 2016	75.1	47.0	20.3

**Table 19: Trends over time**  
 % Schools reporting receipt of SSA grants – Half financial year

Half financial year	Maintenance grant	Development grant	TLM grant
April 2011 to date of survey (2011)	39.6	33.7	42.2
April 2012 to date of survey (2012)	47.3	38.9	53.5
April 2014 to date of survey (2014)	48.3	36.3	13.3
April 2016 to date of survey (2016)	32.3	21.7	10.7

Note for Tables 18 and 19: Grant information was not collected in ASER 2013.

**Table 20: % Schools carrying out different activities**

Type of activity		April 2013 to date of survey (2014)	April 2015 to date of survey (2016)
Construction	New classroom built	16.1	9.2
	White wash/plastering	40.5	33.8
Repair	Repair of drinking water facility	46.4	45.2
	Repair of toilet	37.3	42.1
Purchase	Mats, Tat patti etc.	29.6	29.4
	Charts, globes or other teaching material	48.9	39.9

**Table 21: School Management Committee (SMC) in schools**

	2014	2016
% Schools which reported having an SMC	33.2	50.4
Of the schools that have SMC, % schools that had the last SMC meeting		
Before July	33.9	16.0
Between July and September	65.4	74.9
After September	0.8	9.1

Every year schools in India receive three grants. These are the only funds over which schools have any expenditure discretion. Since 2009, ASER has been tracking whether and when this money reaches schools.

How much goes to each school?	For what purpose?
<b>School Maintenance Grant</b>	
(Rs. 5,000 - Rs. 7,500) per school per year if the school has upto 3 classrooms	Maintenance of school building, including whitewashing, bathrooms, hand pump repairs, building, boundary wall, playground etc.
(Rs. 7,500 - Rs. 10,000) per year if the school has more than 3 classrooms	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>School Development Grant/School Facility Grant</b>	
Rs. 5,000 per year per Primary School (Std I-IV/V)	School equipment, such as blackboards, mats etc. Also to buy chalk, dusters, registers, and other office equipment.
Rs. 7,000 per year per Upper Primary School (Std VI-VIII)	
Rs. 5,000 + Rs. 7,000 = Rs. 12,000 if the school is Std I-VII/VIII	
<i>Note: Primary and Upper Primary schools are treated as separate schools even if they are in the same premises.</i>	
<b>Teaching Learning Material (TLM) Grant</b>	
Rs. 500 per teacher per year for teachers in Primary and Upper Primary schools	To buy teaching aids, such as charts, posters, models etc.
<i>Note: In 2014-15 &amp; 2015-16, Government of India withdrew the TLM grant for most states. This was reinstated in 2016-17.</i>	



# Divisional estimates



# Divisional estimates of learning outcomes and schooling status: precision of ASER estimates

Wilima Wadhwa, Director, ASER Centre

Every year since 2005, ASER has presented estimates of learning and status of schooling at the state and district level. The survey design of ASER is based on the premise of generating estimates at the district level. Having estimates of learning levels at the district level 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> and, 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 around 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 household listing, which is expensive 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 according to

the learning outcome. In both cases, learning outcomes of children in grade III-V are relatively less precisely estimated.

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  $\sigma$  is 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. At the district level, however, since sample sizes in sub-populations of interest are much smaller than the total sample size, precision can be an issue. Increasing the sample size at the district level, for a national survey, however, 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.

<sup>1</sup> Villages are chosen from the Census Directory using PPS (Probability Proportional to Size) sampling.

<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>3</sup> Ramaswami, Bharat and Wadhwa, Wilima (2009), "Survey Design and Precision of ASER Estimates", mimeo.

<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.



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 ASER 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 2016 uses the new sampling frame of Census 2011. 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 these new districts. 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, starts a new series of divisional estimates; in subsequent years divisional trends will be added.

ASER 2016 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>7</sup> In addition, in Gujarat, divisions were formed using geographical regions commonly used in the state.<sup>8</sup>

Divisional estimates are provided for the following 6 variables:<sup>9</sup>

% children in the age group 6-14 years who are not enrolled in school

% children in the age group 6-14 years who are enrolled in private school

% children in Std III-V who can read at least Std I level text

% children in Std III-V who can do at least subtraction

% children in Std VI-VIII who can read Std II level text

% 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.

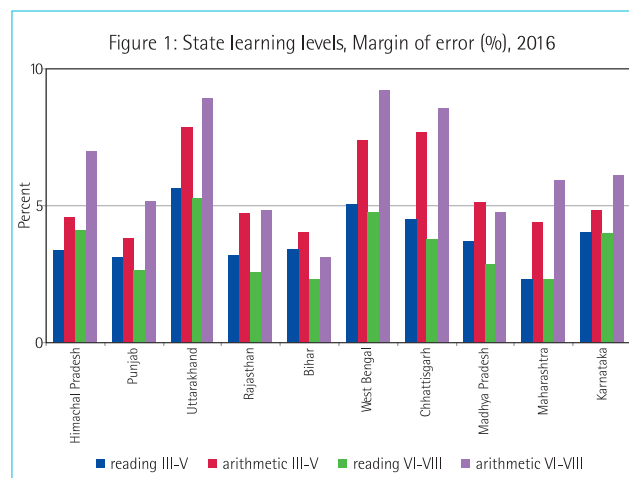


Figure 1 presents the margin of error for the four learning outcomes in selected states in 2016. As is clear from the figure, most of these are below 5%. Also, note that learning outcomes in arithmetic are less precisely estimated as compared to those in reading – that is, the margin of error for arithmetic 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. On average the margin of error is the highest for Std VI-VIII arithmetic levels. In reading there does not seem to be a clear trend across grades.

At the division level, margin of error is, understandably, higher because sample sizes are smaller. For instance, the average margin of error for reading in Std VI-VIII is 3.5% at the state level and 7.6% 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 14.1%. In discussing the division level estimates we concentrate on Std VI-VIII learning outcomes since they represent the bestcase (reading) and the worstcase (arithmetic) scenarios.

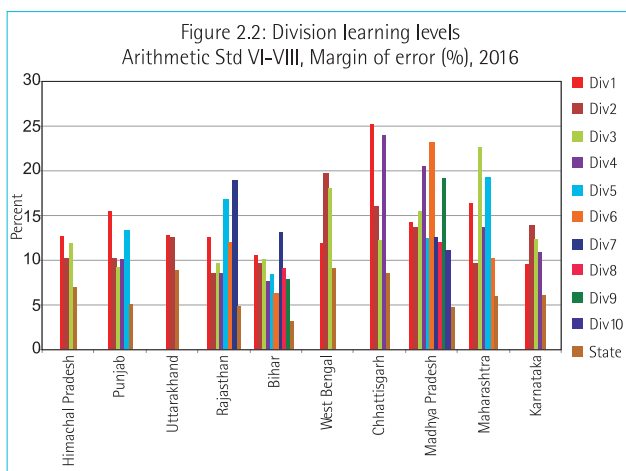
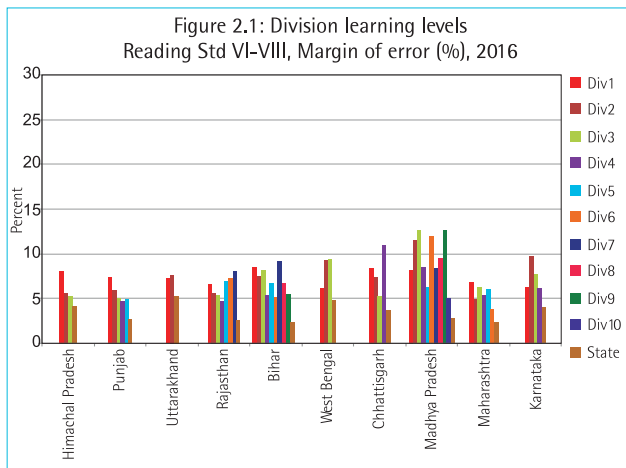
<sup>5</sup> For instance, NSS surveys are not representative at the district level. However, they are representative for NSS regions, which are formed using agro-climatic criteria.

<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>7</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>8</sup> See the section on Divisional Estimates in this report for the exact composition.

<sup>9</sup> As compared to ASER 2011-14, we have replaced learning levels in Std. 1-2 with those in Std. 6-8.



Figures 2.1 and 2.2 present the 2016 margins of error for reading and arithmetic in Std VI–VIII, across divisions of selected states. Reading learning outcomes in most states are estimated with margins of under or close to 10%. The exception is Madhya Pradesh. Across the board precision levels are lower for arithmetic learning outcomes. Most states now have margins of error within 10–15% and those for Chhattisgarh, Madhya Pradesh and Maharashtra are close to 20–25%.

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, given a sample size, the margin of error is inversely proportional to the incidence of the variable concerned. What that implies is 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 see 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 school instead of children not enrolled in school. If out of school children are 4% then in-school 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 smoothes 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 2016, proportion of Std III-V children who can read at least Std I level text is 62%. With 95% probability, the true population proportion lies within 4.24% points of the estimate, i.e., between 66.2% and 57.8%.

## Andhra Pradesh

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Coastal Andhra	2.1	37.1	62.0	61.4	69.3	44.7
	$\pm 0.62$	$\pm 2.90$	$\pm 4.24$	$\pm 3.94$	$\pm 3.58$	$\pm 4.06$
Rayalaseema	3.6	28.7	65.0	59.9	66.0	43.7
	$\pm 2.04$	$\pm 4.04$	$\pm 5.36$	$\pm 5.58$	$\pm 4.88$	$\pm 6.06$
Andhra Pradesh	2.6	34.2	63.1	60.8	68.3	44.4
	$\pm 0.82$	$\pm 2.38$	$\pm 3.32$	$\pm 3.24$	$\pm 2.90$	$\pm 3.38$

### List of districts under each division

Coastal Andhra	Rayalaseema
East Godavari	Anantapur
Guntur	Chittoor
Krishna	Kurnool
Prakasam	YS.R.
Sri Potti Sriramulu Nellore	
Srikakulam	
Visakhapatnam	
Vizianagaram	
West Godavari	

## Assam

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Barak Valley	2.8	18.7	48.7	35.2	49.8	23.2
	$\pm 1.24$	$\pm 3.78$	$\pm 5.74$	$\pm 6.12$	$\pm 6.48$	$\pm 5.30$
Central Assam	3.2	27.7	49.6	35.8	53.9	27.2
	$\pm 1.52$	$\pm 5.72$	$\pm 6.58$	$\pm 6.66$	$\pm 7.50$	$\pm 6.94$
Lower Assam	2.5	20.9	51.6	37.7	55.6	22.6
	$\pm 0.66$	$\pm 2.72$	$\pm 4.66$	$\pm 4.88$	$\pm 4.36$	$\pm 3.48$
North Assam	4.4	19.9	47.4	29.5	50.3	19.0
	$\pm 1.82$	$\pm 3.62$	$\pm 6.48$	$\pm 5.56$	$\pm 8.52$	$\pm 5.68$
Upper Assam	3.4	23.2	47.5	32.2	60.2	20.8
	$\pm 1.14$	$\pm 3.44$	$\pm 4.82$	$\pm 4.46$	$\pm 4.46$	$\pm 3.62$
Assam	3.1	22.0	49.5	34.9	54.7	22.7
	$\pm 0.50$	$\pm 1.68$	$\pm 2.50$	$\pm 2.52$	$\pm 2.60$	$\pm 2.14$

### List of districts under each division

Barak Valley	Kamrup
Cachar	Kamrup Metropolitan*
Hailakandi	Kokrajhar
Karimganj	Nalbari
Central Assam	North Assam
Dima Hasao	Darrang
Karbi Anglong	Sonitpur
Morigaon	Udalguri
Nagaon	Upper Assam
Lower Assam	Dhemaji
Baksa	Dibrugarh
Barpeta	Golaghat
Bongaigaon	Jorhat
Chirang	Lakhimpur
Dhubri	Sivasagar
Goalpara	Tinsukia

\* District not surveyed in ASER 2016.

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 2016, proportion of Std III-V children who can read at least Std I level text is 40.1%. With 95% probability, the true population proportion lies within 5.60% points of the estimate, i.e., between 45.7% and 34.5%.

## Bihar

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Bhagalpur	2.9	12.2	40.1	40.9	60.4	55.1
	±1.20	±3.42	±5.60	±5.32	±5.20	±5.84
Darbhanga	2.0	11.0	44.5	39.4	64.1	52.9
	±0.60	±2.60	±4.86	±5.16	±4.80	±5.12
Kosi	3.1	5.2	45.0	42.3	64.5	57.5
	±0.94	±1.50	±5.50	±5.18	±5.32	±5.84
Magadh	3.3	11.7	51.8	46.1	70.2	58.6
	±1.22	±2.24	±4.62	±4.48	±3.80	±4.52
Munger	2.1	11.6	43.7	43.4	65.0	56.0
	±0.60	±2.00	±3.94	±4.22	±4.36	±4.70
Patna	2.8	19.4	55.6	49.3	69.5	58.7
	±1.38	±2.76	±3.98	±4.02	±3.56	±3.72
Purnia	7.2	6.7	40.6	31.5	57.7	43.6
	±1.56	±1.70	±3.90	±4.16	±5.28	±5.72
Saran	0.9	20.5	46.9	41.9	70.9	52.6
	±0.40	±3.06	±5.06	±5.20	±4.74	±4.82
Tirhut	2.8	13.8	43.9	35.7	64.9	52.9
	±0.62	±2.44	±3.80	±4.08	±3.54	±4.22
Bihar	3.0	12.9	45.8	40.2	65.5	53.9
	±0.34	±0.90	±1.56	±1.62	±1.52	±1.68

### List of districts under each division

Bhagalpur	Patna
Banka	Bhojpur
Bhagalpur	Buxar
Darbhanga	Kaimur (Bhabua)
Darbhanga	Nalanda
Madhubani	Patna
Samastipur	Rohtas
Kosi	Purnia
Madhepura	Araria
Saharsa	Katihar
Supaul	Kishanganj
Magadh	Purnia
Arwal	Saran
Aurangabad	Gopalganj
Gaya	Saran
Jehanabad	Siwan
Nawada	Tirhut
Munger	Muzaffarpur
Begusarai	Pashchim Champaran
Jamui	Purba Champaran
Khagaria	Sheohar
Lakhisarai	Sitamarhi
Munger	Vaishali
Sheikhpura	



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 2016, proportion of Std III-V children who can read at least Std I level text is 56.2%. With 95% probability, the true population proportion lies within 7.06% points of the estimate, i.e., between 63.3% and 49.1%.

## Chhattisgarh

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Bastar	7.8	8.9	56.2	32.0	67.0	21.9
	±1.98	±3.18	±7.06	±6.78	±5.66	±5.54
Bilaspur	3.2	22.7	57.2	31.3	70.0	26.5
	±1.10	±3.82	±5.10	±4.90	±5.18	±4.28
Raipur	1.5	17.1	68.4	38.6	72.5	28.3
	±0.56	±3.06	±4.56	±3.94	±3.86	±3.46
Surguja	2.4	27.0	52.6	27.4	58.5	21.0
	±0.92	±5.18	±5.52	±6.48	±6.42	±5.04
Chhattisgarh	2.8	19.9	60.8	33.6	68.8	25.9
	±0.48	±2.00	±2.72	±2.58	±2.62	±2.22

### List of districts under each division

<b>Bastar</b>	Durg
Bastar	Kabeerdham
Bijapur*	Mahasamund
Dakshin Bastar	Raipur
Dantewada	Rajnandgaon
Narayanpur*	<b>Surguja</b>
Uttar Bastar Kanker	Jashpur
<b>Bilaspur</b>	Koriya
Bilaspur	Surguja
Janjgir-Champa	
Korba	
Raigarh	
<b>Raipur</b>	
Dhamtari	

\* District not surveyed in ASER 2016.

## Gujarat

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Central	1.7	12.5	57.6	27.7	63.0	22.9
	±0.76	±2.38	±5.64	±4.44	±4.56	±4.12
North	2.6	9.4	61.9	36.7	71.2	28.0
	±1.74	±2.38	±5.28	±5.18	±4.92	±4.46
Saurashtra	2.7	9.4	67.2	36.8	66.8	32.1
	±0.86	±2.18	±4.96	±4.98	±4.28	±4.04
South	2.6	8.2	58.8	28.4	68.7	25.1
	±1.02	±2.02	±5.64	±4.26	±4.90	±5.18
Gujarat	2.4	10.2	61.7	32.7	66.9	27.4
	±0.56	±1.18	±2.76	±2.46	±2.40	±2.22

### List of districts under each division

<b>Central</b>	<b>Saurashtra</b>
Ahmadabad	Amreli
Anand	Bhavnagar
Dohad	Jamnagar
Kheda	Junagadh
Narmada	Kachchh
Panch Mahals	Porbandar
Vadodara	Rajkot
<b>North</b>	Surendranagar
Banas Kantha	<b>South</b>
Gandhinagar	Bharuch
Mahesana	Navsari
Patan	Surat
Sabar Kantha	Tapi
	The Dangs
	Valsad

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 2016, proportion of Std III-V children who can read at least Std I level text is 73.9%. With 95% probability, the true population proportion lies within 4.40% points of the estimate, i.e., between 78.3% and 69.5%.

## Haryana

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Ambala	0.7	49.4	73.9	64.0	77.7	53.9
	±0.32	±4.26	±4.40	±4.80	±5.08	±4.90
Gurgaon	5.4	48.8	65.6	56.2	72.8	52.0
	±1.76	±3.82	±4.38	±4.70	±4.24	±4.56
Hisar	1.0	56.1	81.0	69.5	83.2	66.2
	±0.42	±4.04	±4.46	±4.68	±3.86	±4.74
Rohtak	0.4	67.8	86.0	75.9	85.6	65.6
	±0.30	±3.56	±3.02	±4.26	±2.80	±4.54
Haryana	2.0	55.7	76.9	66.6	80.2	60.2
	±0.50	±2.00	±2.12	±2.34	±2.02	±2.42

### List of districts under each division

Ambala	Hisar
Ambala	Bhiwani
Kaithal	Fatehabad
Kurukshetra	Hisar
Panchkula	Jind
Yamunanagar	Sirsa
Gurgaon	Rohtak
Faridabad	Jhajjar
Gurgaon	Karnal
Mahendragarh	Panipat
Mewat	Rohtak
Palwal	Sonapat
Rewari	

## Himachal Pradesh

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Kangra	0.3	41.2	78.1	61.9	80.0	53.4
	±0.30	±4.78	±5.16	±5.70	±6.48	±6.78
Mandi	0.1	37.7	85.9	76.4	83.0	57.1
	±0.10	±5.74	±4.24	±4.68	±4.64	±5.88
Shimla	0.3	35.2	83.1	68.2	84.6	53.0
	±0.26	±5.18	±4.22	±5.06	±4.48	±6.32
Himachal Pradesh	0.2	38.5	82.2	68.8	82.1	54.5
	±0.14	±3.04	±2.76	±3.14	±3.38	±3.82

### List of districts under each division

Kangra	Shimla
Chamba	Kinnaur
Kangra	Shimla
Una	Sirmaur
Mandi	Solan
Bilaspur	
Hamirpur	
Kullu	
Lahul & Spiti	
Mandi	

# Divisional estimates

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 Kolhan division of Jharkhand, in 2016, proportion of Std III-V children who can read at least Std I level text is 40.6%. With 95% probability, the true population proportion lies within 5.34% points of the estimate, i.e., between 45.9% and 35.3%.

## Jharkhand

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Kolhan	3.7	12.9	40.6	31.0	56.5	35.7
	±1.24	±3.40	±5.34	±4.56	±6.44	±6.52
North Chotanagpur	2.0	23.8	50.4	39.5	63.3	44.0
	±0.56	±2.98	±4.58	±3.90	±3.60	±3.80
Palamu	2.0	10.8	39.4	29.4	60.6	36.2
	±0.78	±2.52	±4.72	±4.68	±5.38	±6.60
Santhal Pargana	5.8	10.3	34.9	30.8	53.4	39.3
	±1.76	±2.42	±3.34	±3.52	±4.34	±3.54
South Chotanagpur	5.8	29.4	44.0	27.5	63.5	23.8
	±3.70	±4.72	±4.78	±5.56	±5.36	±4.22
Jharkhand	3.8	17.4	41.7	32.4	59.2	37.7
	±0.76	±1.42	±2.02	±1.96	±2.16	±2.18

### List of districts under each division

Kolhan	Santhal Pargana
Pashchimi Singhbhum	Deoghar
Purbi Singhbhum	Dumka
Saraikela-Kharsawan	Godda
North Chotanagpur	Jamtara
Bokaro	Pakur
Chatra	Sahibganj
Dhanbad	South Chotanagpur
Giridih	Gumla
Hazaribagh	Khunti
Kodarma	Lohardaga
Ramgarh	Ranchi
Palamu	Simdega
Garhwa	
Latehar	
Palamu	

## Karnataka

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Bangalore	0.9	32.6	50.7	45.6	60.1	36.2
	±0.32	±2.80	±3.54	±3.48	±3.80	±3.44
Belgaum	0.6	24.0	57.6	43.7	63.4	37.9
	±0.28	±4.78	±5.08	±4.96	±6.18	±5.28
Gulbarga	2.8	21.6	42.0	31.0	51.9	25.1
	±0.80	±2.62	±3.40	±3.14	±4.04	±3.08
Mysore	0.4	31.3	59.5	52.1	66.5	37.2
	±0.24	±3.52	±4.02	±4.08	±4.16	±4.06
Karnataka	1.1	27.4	52.8	43.2	60.9	34.6
	±0.22	±1.84	±2.12	±2.10	±2.42	±2.12

### List of districts under each division

Bangalore	Uttara Kannada
Bangalore	Gulbarga
Bangalore Rural	Bellary
Chikkaballapura	Bidar
Chitradurga	Gulbarga
Davanagere	Koppal
Kolar	Raichur
Ramanagara	Yadgir
Shimoga	Mysore
Tumkur	Chamarajanagar
Belgaum	Chikmagalur
Bagalkot	Dakshina Kannada
Belgaum	Hassan
Bijapur	Kodagu
Dharwad	Mandya
Gadag	Mysore
Haveri	Udupi

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 Central division of Kerala, in 2016, proportion of Std III-V children who can read at least Std I level text is 80.1%. With 95% probability, the true population proportion lies within 4.02% points of the estimate, i.e., between 84.1% and 76.1%.

## Kerala

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Central	0.1	60.3	80.1	59.6	80.4	53.3
	$\pm 0.10$	$\pm 5.46$	$\pm 4.02$	$\pm 6.32$	$\pm 4.88$	$\pm 5.46$
North	0.1	45.2	78.5	48.7	80.3	43.5
	$\pm 0.12$	$\pm 4.28$	$\pm 4.20$	$\pm 5.08$	$\pm 5.42$	$\pm 5.56$
South	0.1	62.4	79.7	64.9	83.7	64.3
	$\pm 0.20$	$\pm 6.00$	$\pm 5.60$	$\pm 6.84$	$\pm 4.70$	$\pm 5.94$
<b>Kerala</b>	0.1	54.8	79.4	56.7	81.2	52.3
	$\pm 0.08$	$\pm 3.00$	$\pm 2.60$	$\pm 3.50$	$\pm 3.00$	$\pm 3.34$

### List of districts under each division

<b>Central</b>	Malappuram
Ernakulam	Wayanad
Idukki	<b>South</b>
Palakkad	Alappuzha
Thrissur	Kollam
<b>North</b>	Kottayam
Kannur	Pathanamthitta*
Kasaragod	Thiruvananthapuram*
Kozhikode	

\* District not surveyed in ASER 2016.



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 Bhopal division of Madhya Pradesh, in 2016, proportion of Std III-V children who can read at least Std I level text is 44%. With 95% probability, the true population proportion lies within 4.92% points of the estimate, i.e., between 48.9% and 39.1%.

## Madhya Pradesh

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Bhopal	4.0	32.9	44.0	27.7	58.3	25.6
	±1.20	±3.96	±4.92	±4.08	±4.80	±3.64
Chambal	2.5	21.2	38.3	32.4	50.5	37.1
	±0.88	±4.54	±6.02	±5.44	±5.82	±5.08
Gwalior	5.8	17.2	36.9	24.0	44.5	29.0
	±1.50	±3.28	±5.92	±4.80	±5.64	±4.48
Indore	10.7	23.4	37.4	22.7	57.1	22.1
	±1.64	±2.70	±4.28	±3.52	±4.90	±4.54
Jabalpur	2.4	21.6	50.0	31.7	60.2	28.2
	±0.62	±2.96	±4.30	±3.94	±3.82	±3.50
Narmadapuram	4.1	23.1	50.5	30.5	57.0	25.0
	±1.32	±5.08	±6.14	±6.06	±6.80	±5.78
Rewa	2.2	27.8	43.6	26.7	56.9	32.4
	±0.74	±3.58	±5.32	±4.06	±4.78	±4.08
Sagar	3.0	17.5	40.2	22.3	50.4	28.2
	±0.74	±3.26	±4.78	±3.88	±4.80	±3.40
Shahdol	2.5	13.9	44.0	20.3	54.6	26.0
	±0.92	±4.08	±6.22	±4.56	±6.94	±4.98
Ujjain	2.7	41.4	55.6	28.6	68.9	32.4
	±0.64	±4.06	±4.40	±3.64	±3.48	±3.60
Madhya Pradesh	4.4	24.7	44.1	26.6	56.4	28.6
	±0.40	±1.16	±1.64	±1.36	±1.60	±1.36

### List of districts under each division

<b>Bhopal</b>	Mandla
Bhopal	Narsimhapur
Raisen	Seoni
Rajgarh	<b>Narmadapuram</b>
Sehore	Betul
Vidisha	Harda
<b>Chambal</b>	Hoshangabad
Bhind	<b>Rewa</b>
Morena	Rewa
Sheopur	Satna
<b>Gwalior</b>	Sidhi
Ashoknagar	Singrauli
Datia	<b>Sagar</b>
Guna	Chhatarpur
Gwalior	Damoh
Shivpuri	Panna
<b>Indore</b>	Sagar
Alirajpur	Tikamgarh
Barwani	<b>Shahdol</b>
Burhanpur	Anuppur
Dhar	Shahdol
Indore	Umaria
Jhabua	<b>Ujjain</b>
Khandwa (East Nimar)	Dewas
Khargone (West Nimar)	Mandsaur
<b>Jabalpur</b>	Neemuch
Balaghat	Ratlam
Chhindwara	Shajapur
Dindori	Ujjain
Jabalpur	
Katni	

# Divisional estimates

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 2016, proportion of Std III-V children who can read at least Std I level text is 65.7%. With 95% probability, the true population proportion lies within 5.22 percentage points of the estimate, i.e., between 70.9% and 60.5%.

## Maharashtra

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Amravati	0.5	40.9	65.7	29.9	67.1	26.3
	$\pm 0.38$	$\pm 4.52$	$\pm 5.22$	$\pm 4.08$	$\pm 4.60$	$\pm 4.30$
Aurangabad	0.9	36.0	67.5	35.1	67.3	30.8
	$\pm 0.38$	$\pm 3.64$	$\pm 3.44$	$\pm 3.22$	$\pm 3.30$	$\pm 2.96$
Konkan	1.6	26.0	74.7	43.5	78.5	32.5
	$\pm 1.10$	$\pm 5.12$	$\pm 5.32$	$\pm 6.04$	$\pm 5.00$	$\pm 7.38$
Nagpur	0.3	34.0	72.8	38.1	68.2	26.3
	$\pm 0.28$	$\pm 3.98$	$\pm 3.24$	$\pm 3.58$	$\pm 3.68$	$\pm 3.60$
Nashik	1.7	43.4	69.6	35.4	68.0	24.0
	$\pm 0.60$	$\pm 4.16$	$\pm 4.06$	$\pm 4.24$	$\pm 4.12$	$\pm 4.62$
Pune	0.5	42.4	87.3	55.9	84.2	38.8
	$\pm 0.42$	$\pm 4.36$	$\pm 2.88$	$\pm 4.84$	$\pm 3.22$	$\pm 3.98$
Maharashtra	0.9	38.3	72.5	39.1	71.6	29.7
	$\pm 0.22$	$\pm 1.76$	$\pm 1.66$	$\pm 1.72$	$\pm 1.66$	$\pm 1.76$

### List of districts under each division

<b>Amravati</b>	<b>Nagpur</b>
Akola	Bhandara
Amravati	Chandrapur
Buldana	Gadchiroli
Washim	Gondiya
Yavatmal	Nagpur
<b>Aurangabad</b>	Wardha
Aurangabad	<b>Nashik</b>
Bid	Ahmadnagar
Hingoli	Dhule
Jalna	Jalgaon
Latur	Nandurbar
Nanded	Nashik
Osmanabad	<b>Pune</b>
Parbhani	Kolhapur
<b>Konkan</b>	Pune
Raigarh	Sangli
Ratnagiri	Satara
Sindhudurg	Solapur
Thane	

## Odisha

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Central	0.8	11.7	72.2	63.4	73.8	48.9
	$\pm 0.34$	$\pm 1.54$	$\pm 3.36$	$\pm 3.12$	$\pm 3.82$	$\pm 3.48$
North	1.3	8.5	57.4	37.6	63.4	31.5
	$\pm 0.48$	$\pm 1.38$	$\pm 4.20$	$\pm 3.72$	$\pm 3.62$	$\pm 3.54$
South	4.9	5.6	47.5	26.5	54.8	22.5
	$\pm 1.00$	$\pm 1.20$	$\pm 3.44$	$\pm 3.58$	$\pm 3.86$	$\pm 3.36$
Odisha	2.2	8.9	60.4	44.7	65.3	36.2
	$\pm 0.36$	$\pm 0.82$	$\pm 2.14$	$\pm 2.14$	$\pm 2.22$	$\pm 2.12$

### List of districts under each division

<b>Central</b>	Dhenkanal
Baleswar	Jharsuguda
Bhadrak	Kendujhar
Cuttack	Sambalpur
Jagatsinghpur	Subarnapur
Jajapur	Sundargarh
Kendrapara	<b>South</b>
Khordha	Baudh
Mayurbhanj	Gajapati
Nayagarh	Ganjam
Puri	Kalahandi
<b>North</b>	Kandhamal
Anugul	Koraput
Balangir	Malkangiri
Bargarh	Nabarangapur
Debagarh	Nuapada
	Rayagada

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 2016, proportion of Std III-V children who can read at least Std I level text is 72.4%. With 95% probability, the true population proportion lies within 5.02% points of the estimate, i.e., between 77.4% and 67.4%.

## Punjab

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Faridkot	0.7	47.0	72.4	65.5	81.9	49.6
	±0.48	±5.96	±5.02	±6.08	±6.00	±7.66
Firozpur	1.7	46.9	75.1	59.7	82.6	54.4
	±0.90	±5.48	±4.58	±6.06	±4.96	±5.56
Jalandhar	0.9	53.2	72.8	67.7	78.4	51.2
	±0.46	±3.52	±4.34	±3.94	±3.96	±4.74
Patiala	0.7	54.2	72.5	60.8	80.9	53.1
	±0.46	±4.54	±4.24	±5.10	±3.80	±5.36
Ropar	1.0	50.3	69.8	60.1	81.2	50.9
	±0.84	±5.66	±5.88	±6.72	±3.96	±6.80
Punjab	1.0	51.5	72.9	63.7	80.3	52.1
	±0.28	±2.18	±2.28	±2.44	±2.14	±2.68

### List of districts under each division

<b>Faridkot</b>	Kapurthala
Bathinda	Tarn Taran
Faridkot	<b>Patiala</b>
Mansa	Barnala
<b>Firozpur</b>	Fatehgarh Sahib
Firozpur	Ludhiana
Moga	Patiala
Muktsar	Sangrur
<b>Jalandhar</b>	<b>Ropar</b>
Amritsar	Rupnagar
Gurdaspur	Sahibzada Ajit Singh Nagar
Hoshiarpur	Shahid Bhagat Singh Nagar
Jalandhar	

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 Ajmer division of Rajasthan, in 2016, proportion of Std III-V children who can read at least Std I level text is 62.4%. With 95% probability, the true population proportion lies within 5% points of the estimate, i.e., between 67.4% and 57.4%.

## Rajasthan

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Ajmer	4.4	39.3	62.4	40.1	74.1	39.9
	±1.12	±4.08	±5.00	±4.84	±4.84	±5.02
Bharatpur	2.9	54.7	57.8	46.7	77.4	57.5
	±0.74	±5.02	±5.32	±5.64	±4.36	±4.88
Bikaner	3.4	45.5	66.6	50.1	78.7	53.8
	±0.94	±5.24	±4.48	±5.10	±4.24	±5.16
Jaipur	1.9	53.6	66.1	50.0	81.0	51.9
	±0.84	±4.20	±4.16	±4.56	±3.84	±4.42
Jodhpur	6.5	31.6	52.4	28.9	64.8	29.0
	±1.32	±3.90	±3.92	±3.46	±4.50	±4.88
Kota	3.8	35.1	57.7	34.7	70.5	38.3
	±1.26	±5.26	±6.54	±4.76	±5.10	±4.64
Udaipur	6.0	20.6	43.3	20.5	62.6	22.9
	±1.44	±3.18	±4.68	±3.74	±5.08	±4.32
Rajasthan	4.3	39.2	57.1	37.3	71.8	39.7
	±0.46	±1.66	±1.84	±1.76	±1.86	±1.92

### List of districts under each division

Ajmer	Jodhpur
Ajmer	Barmer
Bhilwara	Jaisalmer
Nagaur	Jalor
Tonk	Jodhpur
Bharatpur	Pali
Bharatpur	Sirohi
Dhaulpur	Kota
Karauli	Baran
Sawai Madhopur	Bundi
Bikaner	Jhalawar
Bikaner	Kota
Churu	Udaipur
Ganganagar	Banswara
Hanumangarh	Chittaurgarh
Jaipur	Dungarpur
Alwar	Pratapgarh
Dausa	Rajsamand
Jaipur	Udaipur
Jhunjhunun	
Sikar	



# Divisional estimates

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 Agra division of Uttar Pradesh, in 2016, proportion of Std III-V children who can read at least Std I level text is 49.6%. With 95% probability, the true population proportion lies within 4.62% points of the estimate, i.e., between 54.2% and 45.0%.

## Uttar Pradesh

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Agra	4.0	61.8	49.6	39.0	61.8	40.9
	±1.32	±3.34	±4.62	±4.68	±4.64	±5.02
Aligarh	5.9	59.2	50.7	36.3	57.7	38.5
	±1.44	±4.16	±4.58	±4.80	±5.22	±6.10
Allahabad	4.4	62.1	53.6	36.0	61.7	35.3
	±1.02	±3.94	±5.00	±4.58	±6.34	±5.54
Azamgarh	1.7	63.2	57.0	39.7	64.0	38.7
	±0.76	±4.14	±4.90	±5.62	±5.14	±5.54
Bareilly	12.2	42.0	34.5	20.6	51.3	22.3
	±2.06	±3.76	±4.98	±4.00	±5.42	±4.22
Basti	3.6	53.8	50.7	32.6	59.6	30.6
	±1.00	±5.12	±5.22	±3.86	±5.46	±4.92
Chitrakoot	5.6	37.2	42.1	28.8	63.0	34.9
	±1.12	±3.74	±4.22	±3.90	±4.40	±4.14
Devipatan	7.0	34.0	32.5	18.6	43.8	19.9
	±1.44	±3.70	±4.34	±3.90	±6.10	±4.80
Faizabad	4.0	53.7	51.5	34.3	58.6	27.9
	±1.08	±4.14	±4.04	±4.08	±4.76	±5.02
Gorakhpur	1.7	64.1	59.9	40.7	70.5	37.7
	±0.56	±3.24	±4.56	±4.14	±3.88	±4.96
Jhansi	2.7	35.2	46.5	36.8	58.3	41.3
	±0.86	±4.82	±5.26	±5.60	±4.70	±5.46
Kanpur	3.7	57.5	52.3	33.7	61.3	33.3
	±0.98	±3.70	±4.34	±3.98	±4.50	±4.06
Lucknow	8.2	41.7	41.4	24.2	54.4	21.9
	±1.36	±3.18	±4.58	±3.38	±4.36	±3.72
Meerut	5.4	60.5	61.5	41.4	69.1	44.8
	±1.68	±3.84	±4.08	±4.18	±4.82	±4.74
Mirzapur	3.9	44.7	46.6	28.4	56.3	28.7
	±1.44	±5.12	±4.90	±4.62	±5.18	±5.12
Moradabad	8.8	54.2	43.1	24.2	58.3	25.2
	±1.60	±3.98	±5.18	±4.04	±6.02	±4.78
Saharanpur	6.0	56.8	58.0	37.9	71.7	40.0
	±1.68	±6.44	±7.34	±6.26	±6.24	±8.10
Varanasi	1.2	54.0	60.6	41.7	70.0	40.8
	±0.48	±4.26	±4.80	±4.88	±4.20	±5.76
<b>Uttar Pradesh</b>	5.3	52.0	49.3	32.5	60.5	32.4
	±0.34	±0.98	±1.22	±1.10	±1.28	±1.28

### List of districts under each division

<b>Agra</b>	Gorakhpur
Agra	Kushinagar
Firozabad	Mahrajganj
Mainpuri	<b>Jhansi</b>
Mathura	Jalaun
<b>Aligarh</b>	Jhansi
Aligarh	Lalitpur
Etah	<b>Kanpur</b>
Kanshiram Nagar	Auraiya
Mahamaya Nagar	Etawah
<b>Allahabad</b>	Farrukhabad
Allahabad	Kannauj
Fatehpur	Kanpur Dehat
Kaushambi	Kanpur Nagar*
Pratapgarh	<b>Lucknow</b>
<b>Azamgarh</b>	Hardoi
Azamgarh	Kheri
Ballia	Lucknow
Mau	Rae Bareli
<b>Bareilly</b>	Sitapur
Bareilly	Unnao
Budaun	<b>Meerut</b>
Pilibhit	Baghpat
Shahjahanpur	Bulandshahr
<b>Basti</b>	Gautam Buddha Nagar
Basti	Ghaziabad
Sant Kabir Nagar	Meerut
Siddharthnagar	<b>Mirzapur</b>
<b>Chitrakoot</b>	Mirzapur
Banda	Sant Ravidas Nagar (Bhadohi)
Chitrakoot	Sonbhadra
Hamirpur	<b>Moradabad</b>
Mahoba	Bijnor
<b>Devipatan</b>	Jyotiba Phule Nagar
Bahraich	Moradabad
Balrampur	Rampur
Gonda	<b>Saharanpur</b>
Shrawasti	Muzaffarnagar
<b>Faizabad</b>	Saharanpur
Ambedkar Nagar	<b>Varanasi</b>
Bara Banki	Chandauli
Faizabad	Ghazipur
Sultanpur	Jaunpur
<b>Gorakhpur</b>	Varanasi
Deoria	

\* District not surveyed in ASER 2016.

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 2016, proportion of Std III-V children who can read at least Std I level text is 69%. With 95% probability, the true population proportion lies within 5.38% points of the estimate, i.e., between 74.4% and 63.6%.

## Uttarakhand

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Garhwal	1.2	42.3	69.0	48.0	74.3	38.5
	±0.56	±4.32	±5.38	±5.60	±5.38	±4.92
Kumaon	1.1	40.7	71.7	50.0	75.2	39.9
	±0.48	±4.82	±5.74	±4.96	±5.76	±5.00
Uttarakhand	1.2	41.6	70.2	48.9	74.8	39.2
	±0.38	±3.22	±3.96	±3.84	±3.94	±3.50

### List of districts under each division

Garhwal	Kumaon
Chamoli	Almora
Dehradun	Bageshwar
Garhwal	Champawat
Hardwar	Nainital
Rudraprayag	Pithoragarh
Tehri Garhwal	Udham Singh Nagar
Uttarkashi	

## West Bengal

Division/Region	School enrollment		Learning levels			
	% Children		% Children			
	age 6-14 not enrolled in school	age 6-14 enrolled in private school	in Std III-V who can read at least Std I level text	in Std III-V who can do at least subtraction	in Std VI-VIII who can read Std II level text	in Std VI-VIII who can do division
Burdwan	1.7	8.3	68.6	50.0	68.7	36.3
	±0.56	±2.28	±4.48	±5.32	±4.26	±4.32
Jalpaiguri	3.0	11.3	47.5	30.0	53.7	21.5
	±0.86	±2.18	±5.88	±4.74	±4.96	±4.26
Presidency	2.8	9.2	62.9	44.3	64.5	29.1
	±1.04	±1.86	±5.36	±5.48	±6.04	±5.24
West Bengal	2.4	9.3	61.6	43.3	63.6	30.2
	±0.48	±1.24	±3.10	±3.20	±3.02	±2.78

### List of districts under each division

Burdwan	Koch Bihar
Bankura	Maldah
Bardhaman	Uttar Dinajpur
Birbhum	<b>Presidency</b>
Hugli	Haora
Paschim Medinipur	Murshidabad
Purba Medinipur	Nadia
Puruliya	North Twenty Four
<b>Jalpaiguri</b>	Parganas
Dakshin Dinajpur	South Twenty Four
Darjiling*	Parganas
Jalpaiguri	

\* Data for the district is not included in this report.



ASER 2016 process documents





# Sample design of rural ASER 2016

**Wilima Wadhwa**, Director, ASER Centre

The purpose of ASER is twofold: (i) to obtain reliable estimates of the status of children's schooling and basic learning (reading and arithmetic 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, a set of new questions is 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 and asked questions on paid tuition. 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. Surveyors were asked to record whether the village visited had a pucca road leading to it, whether it had a bank, ration 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, retained the core questions on parents' education, household and village characteristics and introduced higher level testing tools for the first time. Questions on critical thinking were introduced - these were based on simple mathematical operations that appear in Std V textbooks. These were further refined and added to in ASER 2011. ASER 2012 repeated testing of reading and comprehension of English that was first introduced in 2007 and repeated in 2009. ASER 2013 added expenditure on private tuition to the household questionnaire.

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 information on grants). School observations have been reported in 2005, 2007, and every year since 2009. Beginning in 2010, information is also collected on schools' Right to Education (RTE) Act compliance.

ASER 2014 marked 10 years of ASER and brought together elements from various previous ASERs. The core questions on school status and basic reading and arithmetic remained the same, and children were also tested in English after a gap of one year. Information on parents' education, household and village characteristics continued to be recorded. Information on school attendance and facilities as well as grant information was also collected.

ASER 2016 starts a new series of ASER estimates after a break of one year.<sup>1</sup> Since the largest set of core questions was included

in ASER 2014, this year we continue with the same set of indicators.

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, phone recheck was used on a large scale during the survey. During the survey, Master Trainers were called from a state specific call centre to get feedback 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 2016 includes all the monitoring and recheck processes of previous years, including external 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>2</sup> ASER 2005-2014 used 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. Almost 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 per cent. An absolute precision of 5% along with a 95% confidence level implies that the estimates generated by the survey will be within 5 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.

<sup>1</sup> In 2015, ASER was done in only two states - Maharashtra and Punjab.

<sup>2</sup> No adjustments are made to the population as given in the Census.

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>3</sup> is 384.<sup>4</sup> This derivation assumes that the population proportion is normally distributed. On the other hand, a sample size of 384 would imply a relative precision of 10%. If we were to require a 5% relative precision, the sample size would increase to 1600.<sup>5</sup> 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>6</sup> At the state level and at the all India level the survey has many more observations lending estimates at much higher levels of precision.

Since ASER has a two-stage sample design,<sup>7</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>8</sup> In the second stage 20 households are randomly selected in each of the 30 selected villages in the first stage.<sup>9</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>10, 11</sup>

In each selected village, 20 households are surveyed. Ideally, a complete list of households 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 surveyors 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, surveyors are asked to start at a central location and pick every 5th household in a circular fashion till 5 households are selected. In each selected

<sup>3</sup> Stratification is discussed below.

<sup>4</sup> The sample size with absolute precision is given  $\frac{z^2 pq}{d^2}$  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).

<sup>5</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>6</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 three. However, note that a sample size of 600 households gives us approximately 1000-1200 children per district.

<sup>7</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 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

$$me = \frac{2\sigma}{p} = \frac{2\sqrt{\frac{d p(1-p)}{N-1}}}{p} \quad \text{where } d \text{ is the design effect, } p \text{ is the incidence in the population, } \sigma \text{ its standard error and } N \text{ the sample size.}$$

<sup>8</sup> As far as possible, villages are not replaced. However, since the sampling frame is not current, sometimes sampled villages need to be 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 drawn as an independent sample.

<sup>9</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 would 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>10</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 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+2SI; RS+3SI; .... The villages selected are those for which the cumulative population contains the numbers in the series.

<sup>11</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.

household, information on all 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 ASER surveys and cost considerations, a rotating panel of villages rather than children was adopted. 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 added.<sup>12</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 are using a new sampling frame – Census 2011. In subsequent years, we will adopt the same procedure to create a rotating panel of villages from the Census 2011 frame.

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 is that the sample is self-weighting at the district level. In other words, in each district the weight assigned to each 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 times the number of households in the sample. Since PPS sampling in the first stage and simple random 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>13</sup> Therefore, weighted estimates are exactly the same as the un-weighted 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 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 is 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 houselist of the village.

<sup>12</sup> The 10 new villages are drawn as an independent sample from the same sampling frame.

<sup>13</sup> The probability that household  $j$  gets selected in village  $i$  ( $p_{ij}$ ) is the product of the probability that village  $i$  gets selected ( $p_i$ ) and the probability that household  $j$  gets selected ( $p_{j|i}$ ). This is given by:

$$p_{ij} = p_i p_{j|i} = \frac{30 vpop_i}{dpop} \cdot \frac{20}{vpop_i} = \frac{600}{dpop} \quad \text{where } vpop_i \text{ is the household population of village } i \text{ and } dpop \text{ is the number of households in the district. Therefore, the}$$

weight associated with each sampled household within a district is the same and is the inverse of the probability of selection.



# ASER 2016 – 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, non governmental organisations, self help groups, youth clubs, government departments, District Institutes of Education and Training (DIET), 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.

ASER survey trainings follow a rigorous three-tier model that consists of:



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 the ASER survey begins with a 6-day national training. The main objective of the national training is to thoroughly train teams on all survey tools and processes. This year the national training brought together over 140 people - the core team, ASER state teams from across the country, participants from other countries, external guests, independent researchers, and others. The training was held in Lucknow, Uttar Pradesh from 30th August to 4th September, 2016. It comprised 4 days of classroom sessions and 2 days of field visits to nearby villages.

## Key features of the national training include:

- **Classroom sessions:** These are designed to provide a theoretical understanding of the survey process, quality

control processes, financial planning for the survey, etc. Instruction manuals, role plays, group work, energizers, and Power Point 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 ice-breakers 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.
- **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 support, close any gaps and ensure participants' complete understanding of the survey processes.
- **State planning:** The national workshop is also a time to finalize the 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

\* 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.

\*\* Rechecks are conducted in the surveyed villages to ensure that the survey was conducted properly.

is to prepare the Master Trainers as lead trainers so that they can successfully train the surveyors in their own districts. Approximately 830 Master Trainers participated in ASER 2016.

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 training are usually for 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 program in the state as well as members of the central ASER team.
- To support district level activities of ASER including district level training, in most states, a call centre is set up to monitor and support ASER teams. 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 for the ASER survey.

For a more detailed report on ASER 2016 training, please visit [www.asercentre.org](http://www.asercentre.org)



# ASER village process

The following process explanations are excerpts from the ASER 2016 instruction manual, used by our volunteers during trainings. The sections covered are: how to collect village information, how to make a map and make 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. In between these sections, sample English versions of the survey formats have been provided. These formats, along with the instruction manual, are translated into regional languages for the survey.

## How to collect village information?

**Purpose:** To understand the basic characteristics of the village you are going to survey.

You will be given the name of a village. Two surveyors will go to each village. You must go only to the assigned village.

Meet the Sarpanch, give him/her the 'Letter for Sarpanch' and explain what ASER is and its importance. If the Sarpanch is not present, meet a village representative, eg. Panchayat Secretary. After informing him/her and asking for his/her cooperation in doing the survey, start walking around the village to collect village information.

As you are walking around the village, look out for village infrastructural indicators. If you see them, tick the appropriate box on the Village Information Sheet (provided on page 260). If initially you are unable to observe, ask the people in the village but verify the information yourself.

Write the name of the state, district, block/taluk, village, surveyors and date and day of the survey on the Village Information Sheet.

## How to make a map and make sections?

**Purpose:** To enable you to divide the village into different sections and randomly select households. The map is also used later for the recheck process.

Information from 20 households randomly selected from the entire village will be collected.

**How to start making a map: Talk to the villagers while walking around the village.**

To get to know the village, walk around the whole village first before you start mapping.

**Talk to people:** Ask how many different hamlets/sections are there in the village? Where are they located? Ask the children to take you around the village. Tell people about ASER. This initial process of walking and talking may take more than an hour.

### MAP

**Rough map:** The purpose of a rough map is to understand the pattern of habitations in the village. Use the help of local people to show the main landmarks – temples, mosques, river, school, bus stop, panchayat bhavan, shop etc. Mark the main roads/streets/paths through the village prominently on the map.

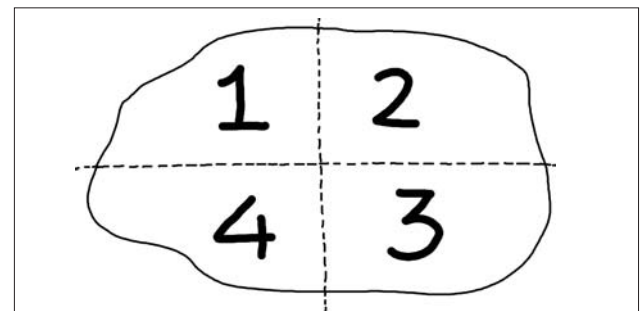
**Final map:** Once everyone agrees that the rough map is a good representation, and it matches with your experience of walking around the village, copy it on to the map sheet that has been given to you in the survey booklet (see page 259 for an example).

**Once the map is made, make sections on the map as follows:**

### ■ Continuous village

**If it is a village with continuous habitations:**

- 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 (the procedure for household selection is explained in the next section).



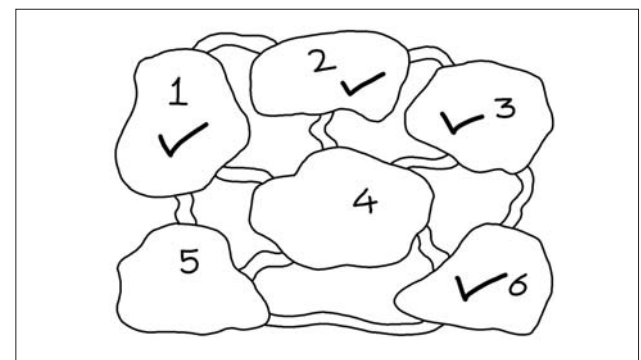
### ■ Village with hamlets/sections

**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 and take 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 hamlet/section. On the map, tick the hamlets/sections chosen for the survey (see the example given below).



## What to do in each hamlet/section?

**Purpose:** To randomly select 20 households from the village  
You need to pick 5 households from each of the 4 hamlets/sections that you have selected, using the following procedure:

- Go to each selected hamlet/section. Try to find the central point in that hamlet/section and start household selection from the left.
- Begin from the first household on your left. You must select every 5th household. After you have surveyed this 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 5 households are sampled, go around the same hamlet/section again using the 'every 5th household rule'. If a surveyed household gets selected again then go to the next/adjacent household. Continue till you have 5 households from the hamlet/section.
- If the hamlet/section has less than 5 households, then survey all the households and survey the remaining households from other hamlets/sections.
- Now move to the next selected hamlet/section.
- Follow the same process of selecting the households for the survey using the 'every 5th household rule'.
- If the village has less than 20 households, then survey all the households in the village.

**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.**

## 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 house proceed to the next 5th house counting from the next house 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. Take the information about the name of the head of the household, total number of members of the household, household assets, name of the respondent and mobile number of the household. Also, write the number of the hamlet/section from the map from which the house has been selected. In addition, ask if anyone in the household has passed Std. 12 and if anyone knows how to use a computer (see the sample household survey sheet on page 264). **Such a household will be counted as one of the 5 surveyed households in each hamlet/section but no information about mothers or fathers will be collected.**
- **Household locked:** If the selected house is closed or if there is nobody at home, note that down. **This household does not count as a surveyed household. Do not include this household in the survey sheet.** Move to the next/adjacent house. After the survey is over, note down total number of such cases on the cover page of the survey booklet under 'locked households'.
- **No response:** If a household refuses to participate, note that down. **This household also does not count as a surveyed household. Do not include this household in the survey sheet.** Move to the next/adjacent house. After the survey is over, note down total number of such cases on the cover page of the survey booklet under 'no response households'.

1. Respondent = An adult who is present in the household during the survey and is providing the information.



## How to sample households in a hamlet?



# Sample village map

## MAP OF THE VILLAGE

**INDEX**

- = Tower (B.S.N.L)
- = Field
- = Govt. Primary School
- = TEMPLE
- = Public Distribution System
- = Hand pump
- = Post office
- = Crade

**INSTRUCTIONS TO DRAW THE MAP**

- Show the different hamlets/sections of the surveyed village.
- Number each hamlet/section on the map.
- Show the main landmarks – schools, health centres, anganwadis, temples, mosques, river, road, bus stop, panchayat bhavan, shop etc.
- Verify all the information on the map with people in the village as you walk around.

Mark the main roads/streets/paths through the village prominently on the map.

## Sample village information sheet

VILLAGE INFORMATION SHEET			
		Annual Status of Education Report <b>असर ASER 2016</b> Facilitated by PRATHAM	
Name of state:	CHHATTISGARH	Name of block:	MOHLA
Name of district:	RAJNANDGAON	Name of village:	BANJARI
Surveyors' names:		1. AJIT SAHOO	
		2. PRIYANKA CHELAK	
Date of survey:	24/09/16	Day of survey:	SATURDAY
Please tick (✓) the relevant box		Did you see the following facilities/services in the village yourself? (Tick Yes/No based on your own observation)	
BASIC SERVICES	Pucca road leading to the village?	YES ✓	NO
	Electricity connection in the village?	YES ✓	NO
	Post office in the village?	YES	NO ✓
	Bank (any type) in the village?	YES	NO ✓
	Govt. Ration/PDS shop in the village?	YES ✓	NO
	Govt. Primary/Sub Health Centre in the village?	YES	NO ✓
	Private health clinic in the village?	YES	NO ✓
	Computer centre/internet café in the village?	YES	NO ✓
	Equipment/facility using solar energy (private/public) in the village?	YES ✓	NO
SCHOOLS	Govt. Primary School (Std. 1 to 4/5) in the village?	YES ✓	NO
	Govt. Upper-primary School (Std. 1 to 7/8) in the village?	YES	NO ✓
	Govt. Secondary School (Std. 1 to 10) in the village?	YES	NO ✓
	Govt. School (Std. 6 to 8/10/12) in the village?	YES ✓	NO
	Private school in the village?	YES	NO ✓
	Pre-school (Anganwadi/Balwadi/LKG/UKG/Nursery) in the village?	YES ✓	NO



## What to do in each household?

**Purpose:** To collect information about the selected households.

### GENERAL INFORMATION

**Refer to the Household Survey Sheet given on page 264.**

Fill in the general information about the household in the top block of the household survey sheet:

- **HH No.:** Write down the household number in every sheet. Write '1' for the first household surveyed, '2' for the second household surveyed and so on till the 20<sup>th</sup> 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 down 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 down the following:**
  - 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) and/or name of hamlet/section 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 same 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

- **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'. 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.
- **Children who are not at home during the time of the survey:** Often children are busy in the household or in the field. If the child is somewhere nearby, but not at home, take down information about the child, like name, age, and schooling status. Ask 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. But if there are children out of the village on the day of the survey who do regularly live in the household, for e.g. a child has gone to visit her relatives, write their information even if you cannot test them. **For all such cases record the reason for not testing the child on the back of the household survey sheet.**

- **Children who are relatives but 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.
- **Children not living in the household on a regular basis:** DO NOT INCLUDE children of this family who do not regularly live in the household, for e.g. children who are studying in another village or children who got married and are living elsewhere.
- **Visiting children:** DO NOT INCLUDE children who have come to visit their relatives or friends in the sampled household 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 noted down ONLY for children living in the 20 households that have been randomly selected.*

**Mother's background information:** At the beginning of the entry for each child, ask for the name of the child's mother. Note down 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 down the mother's age and schooling information in the box 'Mother's Background Information'.

**Children:** Now that we have identified which children to survey, let us understand what information is to be collected about each child. Remember, one row of the household survey sheet will be used for each child.

- Child's name, age, sex: The child's name, completed age and sex should be filled for all children selected for the survey. For female children write 'F' and for male children write 'M'.
- **Children aged 3-6 years:** The first block, 'Pre-school children (Age 3-6)', is to be asked only for children aged 3 to 6 years. On the household survey sheet, note down whether they are attending Anganwadi (ICDS)/ Balwadi, or nursery/ LKG/UKG, etc. If the child is not going to any Anganwadi/ pre-school, etc., put a tick under 'Not going' under section of 'Pre-school children (Age 3-6)'.



- **Children aged 5–16 years:** The remaining blocks of information are ONLY to be filled for children aged 5–16 years.

**For children currently enrolled in school: The child's current schooling status and Std. should be noted. The following terms should be written under 'Std.', if the child is in pre-school:**

**'NUR' for nursery; 'LKG' for LKG; 'UKG' for UKG; 'AW' for Anganwadi; 'BW' for Balwadi.**

**For children who are currently not enrolled in school:**

- If the child has never been enrolled in school, then put a tick under 'Never enrolled'.
- 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. E.g. if the child dropped out in 2012 write '2012'. Similarly if the child dropped out in the last few months, write '2016'.

**For all children (aged 5–16 years):**

- Ask the respondent if the child aged 5–16 takes any tuition, meaning paid classes outside school. If they do 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.**

- Also ask children if they attend the specific government school which you have/will be surveying. Do not ask this question to children who are not currently enrolled in school.
- **All children in this age group will be tested in basic reading, arithmetic and English. (We know that younger children will not be able to read much or solve arithmetic problems but still follow the same process for all children so as to keep the process uniform).**

**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.

## HOUSEHOLD INDICATORS

All information on household indicators is to be recorded, based as much as possible, on observation. However, if for some reason you cannot observe note down what is reported by 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 that this information is being collected in order to link education status of the child with the household's economic conditions.

- **Type of house the child lives in:** Types of houses 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.

- **Kutch 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.

- **Semi-Kutch 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.

- **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 had electricity any time on the day of your visit, 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.

- **Cable TV:** If there is a TV in the household, ask whether there is cable TV. This includes any cable facility which is paid for by the household (include Direct To Home (DTH) facility). Mark 'yes' if there is cable. If not, mark 'no'.
- **Reading material:**
  - **Newspaper:** Mark 'yes' if the household gets a newspaper everyday. If not mark 'no'.
  - **Other reading material:** This includes story books, magazines, religious books, comics etc. but does not include calendars and 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.
  - If the household has a mobile phone, mark 'yes' and note the mobile number in the next column. The mobile number will solely be used for the recheck process and not for any other purpose. Please tell household members that this is the reason for recording the mobile number.

**If you do not get an answer for a question in the household survey sheet, leave the appropriate column blank.**

*Often a lot of people gather around and want to know what is going on. Be polite. Explain what you are doing and why. Tell them about ASER. Remember to thank people after you have finished surveying the household.*

### What to do with children?

**What will be tested:** Children's ability to read simple texts in their first language and ability to do basic arithmetic will be assessed. Their ability to read and understand basic English will also be assessed. **Therefore, 3 tests will be administered in this order: basic reading in first language, arithmetic and English.**

**Who will be tested:** Every child in the age group of 5-16 years who lives in the sampled household regularly will be administered the 3 testing tools - reading, arithmetic and English.

**How will we test:** It is very important to be in the right frame of mind when assessing children. We are not going to the village to test the children or as evaluators. We want to find out what children can do comfortably in terms of reading, arithmetic and English. **Our objective is to find out the highest level that the child can do comfortably.**

Therefore, it is important that you 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. You should tell the child that the assessments are just activities you would like them to participate in and that it is not an exam.
- **No pressure on the child from others:** Often family members and neighbours gather together to watch how the child is performing. This can make the child nervous. The surveyors should 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 improve 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.
- **Recording the language in which the child was tested:** Note down the language in which the child has been tested in the appropriate column in the household survey sheet.
- **Recording the sample number used to test the child:** Record the sample number of the testing tool used to test the child on the household survey sheet. **Please ensure that you use the same sample for basic reading, arithmetic and English for a child.**
- **Different samples for different children:** Each tool has 4 samples. In order to ensure that the children are not copying from each other, please use different sample of the tools for children in the same household. **Also make sure you use all 4 samples equally during the entire survey in the village.**
- **English testing:** If the child's first language is English, give the child the reading tool in English. Then give her arithmetic and then the basic English tool. **Regardless of the language in which the child's first language test is done in, the basic English tool should be administered to her.**

For a step by step explanation of the testing process, please refer to the About ASER section of this report.

# Sample household survey sheet

## HOUSEHOLD SURVEY SHEET

State: CHHATTISGARH District: RAJNANDGAON Block: MOHLA Village: BANSARI

Respondent name: VINITA

Surveyor's names:  
1. ASIT SAHOO  
2. PRIYANKA CHELAK

Date of survey: 25/09/16  
Day of survey: SUNDAY  
Start time of survey: 2:45 PM



Full name of family head: RAM KUMAR SAHOO

Total number of members in the HH who eat from the same kitchen: 6

Serial no.	Child information (for age 3-16)		For age 3-6			For age 5-16				For age 5-16 (Test ALL children between the ages of 5-16 only)				Father's background information				
	Mother's name (Children age 3-16 regularly living in the household)	Name of child (Children age 3-16 regularly living in the household)	Age	Sex (M/F)	In school children (Age 5-16)			Out of school children (Age 5-16)		Tuition		Language in which the child is taught in school		Language in which the child is tested in reading?		Has the father ever attended school?	Age	
					Currently enrolled in school (Age 5-16)	Private	Government	Slid.	Drop out	Drop out	Drop out	Drop out	Drop out	Drop out	Drop out			Drop out
1	VINITA	GUNJAN	4	F	Angwad/Balwad													
2	VINITA	ANANA	14	F	Slid.	8	✓											
3	VINITA	MUKESH	10	M	Slid.	5	✓											
4																		
5																		
6																		
7																		
8																		
		<b>Total</b>																

MOTHER'S BACKGROUND INFORMATION		HOUSEHOLD INDICATORS (Tick the appropriate column)												Does anyone in the HH know how to use a computer?				
Sl. no.	Mother's name	Has the mother ever attended school, then attended school, then completed?	Age	Type of house	Motorsised 4-wheeler (Car, jeep etc.)	Electricity in household	Electricity connection (look for wires and fittings)	TV in the household	Toilet in the household	If TV in household, is there cable TV? (paid facility)	Reading material (other than school textbooks)	Gets newspaper daily (Ash books etc.)	Other (Books, magazine, religious books etc.)	Yes	No	Yes	No	
1	VINITA	✓	32	Pucca (with walls and roof of brick and cement)	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
2																		
3																		
4																		

Does anyone in the household have a mobile phone?  Yes  No

If yes, what is the mobile number? 981762XXXX

End time of survey: 3:20 PM

## What to do in a school?

**Purpose:** To record information about children's enrollment and attendance, teachers' appointment and attendance, school facilities, grants etc.

**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 enrollment in Std. 1 to 4/5. Do not visit a government school if it has no classes from 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 (provided on pages 268-269), tick according to the school type.

- Meet the Head Master (HM). If the HM is not present, meet the senior most teacher. He/ she will be the 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.
- Note the time of entry, date and day of visit to the school.
- Ask the HM for the enrollment register or any official document for the enrollment figures in that school.

### CHILDREN'S ENROLLMENT AND ATTENDANCE

- Ask for the enrollment registers of all the standards and fill in the enrollment from them. If a standard /class has many sections, then take total enrollment.
- Then move around to the classes/areas where children are seated and take down 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 a case, ask children from each Std. 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 down 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 respondent and note down 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 down 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 classes may be seated together.

#### Observe the following and fill accordingly:

- Seating arrangement of children: Are two/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, board games 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 mid-day 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 any of these is present.
- Observe if there is a playground. A playground is an area within the school premises with a level playing field and/or school playing equipment eg: slide, swings etc.
- 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 handpump/tap. If yes, check whether you could drink water from it. If there is no handpump/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 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 did you see children using computers?

## 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 or 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 better condition.

## CONTINUOUS AND COMPREHENSIVE EVALUATION (CCE)

- Ask the respondent if he/she has heard about CCE.
- If he/she has heard about CCE, ask how many teachers have received a CCE manual/format.
- If manual or format was received, ask the respondent to show you the CCE manual/format and tick accordingly.

## 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.

## SCHOOL DEVELOPMENT PLAN (SDP)

- Irrespective of the answers to the SMC question, ask whether a School Development Plan (SDP) was made for the school in 2015-16. Do not include the DISE format as SDP.
- If yes, ask the respondent to show you the SDP and tick accordingly.

## SCHOOL GRANT INFORMATION (SSA)

Assure the HM and others that the name of the school will not be shared with anybody.

- The information for this section should be taken from the HM. In the absence of the HM, ask the senior most teacher present. Tick the designation of the person being asked for grants information (HM/Regular teacher/Para-teacher).

## SSA ANNUAL SCHOOL GRANT

Ask the respondent this section about the grants very politely. If the person refuses to answer or is hesitant to answer this section, do not force the person and move on to Section 12B.

**If the school has two or more SSA passbooks, information in this section should be taken only for the primary section (Std. 1 to 4/5).**

We will ask for information about four SSA grants – School Maintenance Grant (SMG), School Grant or School Development Grant (SDG), Teacher Grant or Teacher Learning Material (TLM) Grant and New Classroom Grant. For each grant, we want information for two separate time periods: Financial Year 2015-16 (1st April 2015 to 31st March 2016) and Financial Year 2016-17 (1st April 2016 till date of survey).

- For each grant, first ask if the school received the grant for 2015-16 (April 2015 to March 2016). Mark the appropriate column (Yes/No/Don't know).
- If yes (the school received the grant), then ask if the full amount was spent, and answer as follows:
  - Mark 'Yes' only if the full amount was spent.
  - Mark 'No' if nothing was spent or if less than the full amount was spent.
  - Mark 'Don't know' if the respondent is not aware whether the full amount was spent or not.
  - Now ask the same questions for the remaining three grants.

Once you have asked about all four grants for Financial Year 2015-16, repeat this entire process for the period 1<sup>st</sup> April 2016 till the date of the survey.

### ACTIVITIES CARRIED OUT IN SCHOOL (SINCE APRIL 2015)

In this section, we want to know whether certain activities have taken place in the school. The activities are categorised into: construction, repair and purchase.

Ask if each of the activities listed has been done since April 2015 (construction of new classroom(s), white wash/plastering, repair of drinking water facility, repair of toilet, etc) and tick the appropriate box (Yes/No/Don't know).



# Sample school observation sheet

## SCHOOL OBSERVATION SHEET



State: CHHATTISGARH District: RAJNANDGAON Block: MOHLA  
 Name of the village: BANJARI Name of the school: BANJARI PRIMARY SCHOOL

**INSTRUCTIONS:** 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 enrollment in Std. 1 to 4/5. Do not visit a government school if it has no classes from 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. Meet the Head Master of the school. In the absence of the HM, meet the senior most teacher. Documents required from the school: Register with enrollment details of children.

Arrival time in school	School from which Std. to which Std.? (tick any one)	Respondent's information	Date of survey	Day of survey	Surveyors' names
11:00 AM	<input checked="" type="checkbox"/> Std. 1 to 4/5 <input type="checkbox"/> Std. 1 to 6/7/8 <input type="checkbox"/> Others	Name: <u>SHWETA RAI</u> Designation (Tick): <input checked="" type="checkbox"/> HM <input type="checkbox"/> Teacher Phone number: <u>984684XXXX</u>	24/08/16	SATURDAY	1. ASIT SAHOO 2. PRIYANKA CHELAK

1. CHILDREN'S ENROLLMENT AND ATTENDANCE		Std. 1	Std. 2	Std. 3	Std. 4	Std. 5	Std. 6	Std. 7	Std. 8	Number present (Observe)
Children's enrollment (Take from register yourself). If more than 1 section, write the total.		6	11	14	8	2				
Children's attendance today*		5	8	8	3	2				1

\*Note: Take headcount of children present. If more than one class is seated together, ask the children of each class to raise their hands separately and then count accordingly. If more than 1 section, do headcount in all sections and write the total.

4. CLASSROOM OBSERVATIONS		Std. 2		Std. 4	
Tick the relevant box		Yes	No	Yes	No
<b>Observe (If more than 1 section, choose any 1)</b>					
Are the children of this Std. sitting with children from any other Std.?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there a blackboard for this class? If yes, could you easily write on the blackboard?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Apart from textbooks, did you see any other TLM (e.g. other books, charts on the wall, board games etc.) in the room?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Where is the class seated? (tick one)		Classroom		Classroom	
		Veranda		Veranda	
		Outside		Outside	

5. MID-DAY MEAL		Yes	No
Tick the relevant box			
Was mid-day meal served in the school today? (Ask)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there a kitchen/shed for cooking mid-day meal? (Observe)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you see food being cooked in the school? (Observe)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you see any evidence of the meal being served to the children today (Look for evidence like dirty utensils or meal brought from outside etc.)? (Observe)		<input type="checkbox"/>	<input checked="" type="checkbox"/>

6. FACILITIES OBSERVATION		Yes	No
Total number of pucca rooms in the school excluding toilets (count yourself and write)			4
Total number of rooms being used for teaching today (count yourself and write)			2
Tick the relevant box			
Did you see an office/store/office-cum store?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you see a playground?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you see library books in the school? If yes, did you see library books being used/read by children?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you see a handpump/tap?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If there is a handpump/tap, could you use it to drink water? If there is no handpump/tap or it is not usable, did you see drinking water available?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you see a complete boundary wall or fencing?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there electricity connection in the school? (Look for wires & fitting)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, was there electricity in the school today? (Observe/ask)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you see computers to be used by children in the school? If yes, did you see children using computers?		<input checked="" type="checkbox"/>	<input type="checkbox"/>



**11. SCHOOL GRANT INFORMATION (SSA)** (Ask the HM. If the HM is absent, then ask the senior most teacher)

Who gave the information about grants? (tick anyone)

HM  Regular teacher  Para-teacher

12A. SSA ANNUAL SCHOOL GRANT Note: If there are 2 separate HMs with separate SSA bank accounts, please take the information for Std. 1 to 4/5	April 2015 to March 2016			April 2016 to Date of Survey		
	Did you get the grant?			Did you get the grant?		
	Yes	No	Don't know	Yes	No	Don't know
School Maintenance Grant (SMG)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
School Development Grant (SDG)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Teacher Grant (TLM) (for all teachers)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
New Classroom Grant	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		

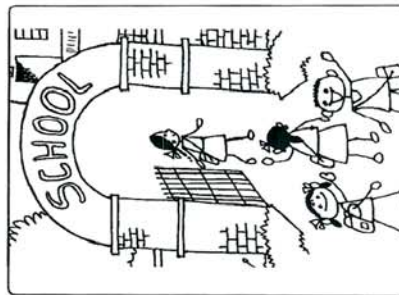
Note: If there are 2 separate HMs with separate SSA bank accounts, please take the information for Std. 1 to 4/5

School Maintenance Grant (SMG)

School Development Grant (SDG)

Teacher Grant (TLM) (for all teachers)

New Classroom Grant



**12B. ACTIVITIES CARRIED OUT IN SCHOOL**  
Which of the following activities were undertaken since April 2015? (Tick the relevant box)

	Yes	No	Don't know
<b>Construction</b>			
Construction of new classroom(s)	<input checked="" type="checkbox"/>		
White wash/plastering	<input checked="" type="checkbox"/>		
<b>Repair</b>			
Repair of drinking water facility	<input checked="" type="checkbox"/>		
Repair of toilet	<input checked="" type="checkbox"/>		
<b>Purchase</b>			
Purchase of sitting mats/Tat Pathi	<input checked="" type="checkbox"/>		
Purchase of charts, globes or other teaching material	<input checked="" type="checkbox"/>		

Departure time from school 12:15 PM

**7. TOILETS (by observation)**

Toilets*	Is there a toilet?		If there is a toilet, was it locked?		If unlocked, was it in a usable condition?	
	Yes	No	Locked	Unlocked	Yes	No
Girl	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Boy	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Common						
Teacher	<input checked="" type="checkbox"/>					

\*Note: If there is more than 1 toilet of a particular type, then take information of the toilet in better condition.

**8. CONTINUOUS AND COMPREHENSIVE EVALUATION (CCE)**

Have you heard about Continuous and Comprehensive Evaluation/CCE? (Ask)

If Yes,  No

If many teachers in this school have received a Continuous and Comprehensive Evaluation manual or format? (Ask)

All  Some  None  Don't know

If manual or format was received, ask the respondent to show it

Could you see a Continuous and Comprehensive Evaluation manual or format in the school? (Ask and observe)

Yes  No

**9. SCHOOL MANAGEMENT COMMITTEE (SMC)**

Currently is there a School Management Committee (SMC) for this school? (Ask)

Yes  No

If yes, then when was the last meeting of the School Management Committee (SMC) held? (Ask)

04/06/2016 (dd/mm/yyyy)

**10. SCHOOL DEVELOPMENT PLAN (SDP)**

Was a School Development Plan (SDP) made for your school in 2015-16? (Ask) (Do not include DISE format as SDP)

Yes  No

If School Development Plan (SDP) was made, ask the respondent to show it

Could you see the School Development Plan yourself? (Ask and observe)

Yes  No



# ASER 2016 – Quality control

Quality control processes for ASER 2016 can broadly be 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.

The monitoring-recheck process in ASER 2016 comprised three kinds of activities:

- **Call centre monitoring:** 12 states had a 'call centre' which made phone calls to all districts at every stage of the survey process - before and during district level trainings, during the survey and during the recheck period. Information regarding the progress of these survey activities was collected during the calls. This helped to identify domains or locations requiring immediate corrective action or additional support from the ASER state teams.
- **Field monitoring:** The ASER survey in each district was led by two Master Trainers who underwent training at the state level. Their responsibility included monitoring survey teams who required additional support during the actual field survey. Master Trainers monitored between 4 and 8 villages out of the 30 surveyed in each district.
- **Recheck:** Information collected during the ASER survey was verified at various levels.

The following recheck activities were conducted in ASER 2016:

- **Desk and phone recheck by Master Trainers:** On the completion of the survey in a district, the Master Trainers conducted desk rechecks of the survey booklets received for all the surveyed villages. 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. These villages were then rechecked in person by the Master Trainers.
- **Field recheck by Master Trainers:** Based on the information collected from the desk and phone rechecks, villages were identified for field recheck. 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.
- **Field recheck by others:** Senior staff from NGO partners, professors from college partners and other Pratham and ASER staff conducted additional field rechecks where required.
- **Field recheck by ASER state teams:** Based on the performance of Master Trainers and surveyors, ASER state teams also rechecked 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 process of the recheck was the same as the Master Trainer field recheck.

## DATA ENTRY

Data for the survey was recorded in hard copy survey booklets by surveyors. 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. For example, the age group for the survey is 3 to 16 years - the data entry operators could not enter values outside this range.

Once the software was ready, data entry centres were selected across the country. Due to the scale and speed 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. In ASER 2016, there were 10 data entry centres across the country.

Once the entry centres were selected, their staff were trained on how to enter ASER data. These trainings took place telephonically or in person, depending on whether the centre was selected for data entry in previous years.

After entry was completed, data was cross-checked. Every 5th household was cross-checked 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 compilation sheet with compiled data. If there was more than a 2% difference between the 2 data sets, then the entire district's data was cross-checked.

## EXTERNAL RECHECK

The external recheck process is conducted periodically to provide objective feedback regarding the quality of the survey. In 2016 external rechecks were conducted in Rajasthan and Haryana.

4 organizations conducted external field rechecks in randomly selected districts and villages that had been surveyed. Villages with poor survey quality were either resurveyed or dropped from the data set.

**In all, approximately 55% of villages surveyed in ASER 2016 were either field monitored or field rechecked by Master Trainers, ASER state teams and others.**

For a more detailed report on the quality control framework of ASER, please visit [www.asercentre.org](http://www.asercentre.org).

# Annexures

# Sample description 2016

State*	Total districts (Census 2001)	Surveyed districts (ASER 2014)	Total districts (Census 2011)	ASER 2016										
				Surveyed districts	Surveyed villages	Surveyed households	Surveyed children				Tested children (Age 5-16)			
							Age 3-16	Age 3-5	Age 6-14	Age 15-16	Reading	Arithmetic	English	
Andhra Pradesh**	13	13	13	13	390	7791	7333	1620	4898	815	5266	5266	5266	5248
Arunachal Pradesh	13	9	16	10	292	5753	8527	1604	5971	952	6677	6677	6672	6650
Assam	23	23	27	26	771	15364	22758	4349	15731	2678	16521	16521	16482	16410
Bihar	38	38	38	38	1140	22796	53510	10798	37089	5623	37013	37013	37000	36704
Chhattisgarh	16	15	18	16	480	9613	14084	2820	9232	2032	9639	9639	9634	9613
Dadra and Nagar Haveli	1	1	1	1	27	600	895	167	595	133	615	615	616	616
Daman and Diu	2	2	2	2	16	909	989	166	681	142	544	544	544	544
Goa	2	2	2	2										
Gujarat	26	26	26	26	779	15557	19267	3282	13728	2257	12923	12923	12889	12839
Haryana	20	20	21	21	624	12515	19868	4101	13326	2441	14370	14370	14336	14302
Himachal Pradesh	12	12	12	12	357	7024	9557	1755	6594	1208	7273	7273	7263	7257
Jammu and Kashmir***	14	13	22	9	266	5262	9896	2097	6605	1194	7413	7413	7409	7388
Jharkhand	23	23	24	24	716	14314	28810	5778	19862	3170	17743	17743	17724	17641
Karnataka	27	27	30	30	897	17935	25999	4520	18525	2954	20689	20689	20661	20630
Kerala	14	12	14	12	358	7199	7637	1411	5109	1117	5774	5774	5750	5711
Madhya Pradesh	45	45	50	50	1497	29967	52540	9882	35539	7119	33459	33459	33430	33399
Maharashtra	33	33	33	33	973	19430	26393	4995	18021	3377	19594	19594	19566	19556
Manipur	9	9	9	9	261	5094	8121	1947	5477	697	5909	5909	5908	5895
Meghalaya	7	7	7	7	208	4024	7847	1699	5164	984	5388	5388	5382	5355
Mizoram	8	8	8	8	218	4796	7710	1493	5455	762	6491	6491	6485	6477
Nagaland	11	11	11	11	314	6555	11719	2604	8245	870	9537	9537	9532	9513
Odisha	30	30	30	30	899	17889	25595	4792	17681	3122	17925	17925	17918	17844
Puducherry	2	2	2	2	52	1200	1268	241	850	177	946	946	942	942
Punjab	19	19	20	20	594	11857	12447	2371	8441	1635	9374	9374	9352	9320
Rajasthan	32	32	33	33	985	19645	36904	6922	24796	5186	24882	24882	24842	24768
Sikkim	4	4	4	2	59	1188	1292	206	912	174	1082	1082	1081	1081
Tamil Nadu	29	29	31	31	917	18560	23075	3675	16257	3143	18321	18321	18298	18290
Telangana**			9	9	270	5400	5963	1293	3944	726	4262	4262	4265	4257
Tripura	4	4	4	4	117	2327	3022	644	1960	418	2328	2328	2327	2319
Uttar Pradesh	69	69	71	70	2100	41987	86054	16651	58206	11197	61455	61455	61405	61162
Uttarakhand	13	13	13	13	388	7528	11255	2025	7656	1574	8313	8313	8299	8269
West Bengal	17	17	18	17	508	10153	11970	2408	7788	1774	8133	8133	8130	8106
<b>All India</b>	<b>585</b>	<b>577</b>	<b>619</b>	<b>589</b>	<b>17473</b>	<b>350232</b>	<b>562305</b>	<b>108316</b>	<b>384338</b>	<b>69651</b>	<b>399859</b>	<b>399859</b>	<b>399408</b>	<b>398106</b>

\*State/UT pages for Dadra and Nagar Haveli, Daman and Diu, Puducherry and Sikkim have not been presented in this report due to insufficient sample size.

\*\*Andhra Pradesh was bifurcated into Telangana and Andhra Pradesh in 2014. As a result, the sample frames of Census 2001 and Census 2011 do not have the new state divisions. Of the 22 districts in undivided Andhra Pradesh, 9 rural districts are located in Telangana and the remaining 13 districts are located in Andhra Pradesh. ASER estimates for the two states are based on this separation of districts.

\*\*\*Due to security concerns, ASER 2016 was unable to reach 10 districts in Kashmir Valley and 3 districts in Jammu and Kashmir for 2016.

# Age-grade distribution in sample 2016

## All India

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	85.7	74.2	30.8	9.4	3.2	6.3	5.4	8.5	7.8	7.0	15.0
II	11.0	20.6	48.7	30.8	9.3						13.3
III	3.3	5.3	14.9	39.9	32.9	10.3	8.5	7.8	7.0	12.9	
IV			13.7	39.8	29.0	8.5				12.4	
V	3.3	5.3	5.5	6.1	11.1	38.6	32.0	11.0	7.9	12.9	
VI					11.6	39.6	31.2	10.6		12.0	
VII	3.3	5.3	5.5	6.1	3.6	4.3	11.7	36.4	35.1	21.4	11.3
VIII							2.7	12.8	46.5	63.7	10.1
Total	100	100	100	100	100	100	100	100	100	100	100

## Andhra Pradesh

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	92.7	79.1	24.4	7.1	2.2	0.6	5.5	1.5	3.7	1.9	13.4
II	7.3	18.5	52.9	22.7	6.9						11.9
III	0.0	2.5	4.1	2.7	18.7	51.2	22.2	8.7	8.0	8.9	13.0
IV					16.3	52.4	24.9	12.9			
V	0.0	2.5	4.1	2.7	14.5	51.7	24.0	8.0	8.0	8.9	13.2
VI					12.3	52.9	28.4	8.9			13.1
VII	0.0	2.5	4.1	2.7	1.7	1.9	15.5	48.1	32.6	30.2	12.5
VIII							2.0	14.0	54.7	62.9	10.0
Total	100	100	100	100	100	100	100	100	100	100	100

## Arunachal Pradesh

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	52.9	56.9	36.5	14.2	8.3	3.4	5.5	8.1	4.2	5.5	15.5
II	45.6	37.1	40.5	33.9	18.8	6.8					18.0
III	1.5	5.9	15.7	33.6	32.3	15.4	8.5	9.6	5.4	11.1	13.2
IV			5.4	13.5	25.8	30.0	18.5				12.7
V	1.5	5.9	1.9	4.9	11.0	27.9	30.6	18.5	11.9	11.1	12.7
VI					13.7	24.7	28.0	21.1	16.3	11.4	
VII	1.5	5.9	1.9	4.9	3.8	2.7	9.1	25.6	31.9	28.9	9.6
VIII							3.1	10.2	25.5	38.3	6.8
Total	100	100	100	100	100	100	100	100	100	100	100

## Assam

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	88.2	77.0	38.1	12.9	4.1	5.5	6.3	2.8	3.5	7.4	18.1
II	10.7	19.6	45.4	32.6	13.4						13.9
III	1.1	3.4	5.0	2.9	11.5	39.4	33.1	11.4	5.2	5.5	12.2
IV					12.1	37.9	35.8	11.5			12.8
V	1.1	3.4	5.0	2.9	9.4	36.9	36.9	13.8	5.5	8.2	12.3
VI					8.1	35.6	35.8	16.3	11.4		
VII	1.1	3.4	5.0	2.9	2.0	2.3	8.3	33.6	34.0	21.8	10.0
VIII							1.4	8.8	40.6	62.6	9.2
Total	100	100	100	100	100	100	100	100	100	100	100

## Bihar

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	88.0	73.4	30.0	10.9	4.4	2.4	2.7	5.2	4.4	7.2	15.0
II	8.6	21.0	47.9	35.3	11.5	6.2					14.0
III	3.3	5.6	14.4	33.1	40.4	12.3	5.2	6.8	7.0	9.0	13.1
IV			5.8	14.2	29.6	35.1	11.4				13.3
V	3.3	5.6	1.7	6.5	9.7	27.8	40.8	14.6	7.0	9.0	13.0
VI					11.5	27.2	33.5	12.9	11.5		
VII	3.3	5.6	1.7	6.5	4.5	4.7	9.6	28.0	39.4	21.2	10.6
VIII							3.0	12.0	36.3	62.6	9.4
Total	100	100	100	100	100	100	100	100	100	100	100

## Chhattisgarh

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	90.4	79.5	21.2	4.3	3.2	1.5	4.5	2.0	2.2	7.4	13.5
II	8.4	18.2	60.7	27.4							12.3
III	1.2	2.3	4.3	3.7	13.8	50.3	34.8	5.4	5.7	6.1	12.4
IV					14.2	46.5	33.6	11.8			
V	1.2	2.3	4.3	3.7	13.2	47.0	33.4	5.7	6.1	7.4	12.7
VI					10.7	45.8	37.5	12.8			
VII	1.2	2.3	4.3	3.7	2.2	1.8	14.8	42.5	39.4	14.5	12.7
VIII							1.6	12.3	52.5	78.1	11.7
Total	100	100	100	100	100	100	100	100	100	100	100



## Gujarat

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	94.8	84.2	13.6	1.3	3.1	2.7	4.8	4.2	6.7	7.0	11.9
II	5.3	13.8	68.5	17.0							11.3
III		2.1	15.2	66.5	16.9	11.9					
IV	13.4			68.3	16.6		12.0				
V	2.7	1.7	9.5	67.3	18.7	13.1					
VI				11.6	61.7		24.4	13.6			
VII	2.2	1.7	12.1	59.6	23.1	28.5	13.6				
VIII				2.8	11.7	70.3	64.5	12.7			
Total	100	100	100	100	100	100	100	100	100	100	100

## Haryana

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	83.8	61.4	25.1	7.1	3.3	2.3	3.0	4.5	4.1	3.5	13.9
II	13.9	30.3	44.3	24.0	7.8						12.7
III	2.4	1.4	6.8	23.6	39.9	22.7	7.0	12.1			
IV			5.6	22.4	40.9	22.6	7.5		12.3		
V	1.4	1.4	6.6	19.8	40.8	24.6	9.4	12.6			
VI					22.0	42.1	25.3		11.6	6.1	13.1
VII	5.4	5.2	19.1	35.9	33.2	21.5	11.6				
VIII				3.8	24.8	51.1	69.0	11.6			
Total	100	100	100	100	100	100	100	100	100	100	100

## Himachal Pradesh

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	95.9	62.8	17.5	0.6	2.5	2.7	2.1	2.9	3.2	1.3	12.1
II	4.2	34.4	54.8	13.2							11.8
III		2.8	25.2	55.3	13.7	11.9					
IV	28.4			54.6	14.5		12.0				
V	2.5	2.6	25.3	48.9	14.6	12.1					
VI				30.3	51.1		14.1	13.3			
VII	3.8	3.7	28.3	49.6	23.4	15.7	13.3				
VIII				4.0	33.5	73.4	82.9	13.6			
Total	100	100	100	100	100	100	100	100	100	100	100

## Jammu, Kargil and Leh

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	80.9	69.0	30.9	7.0	3.2	3.3	4.1	7.2	5.2	12.3	13.5
II	13.7	25.7	47.5	30.2	10.4						13.5
III	5.4	5.3	15.9	39.7	33.3	13.7	11.1	12.6			
IV				16.0	35.9	33.6			11.1	13.4	
V	5.6	7.1	13.8	34.2	36.8	16.6	12.2				
VI				11.6	35.2	34.4		15.5	10.8		
VII	3.6	3.6	10.8	28.6	37.9	22.0	10.8				
VIII				2.0	13.0	41.4	65.7	10.7			
Total	100	100	100	100	100	100	100	100	100	100	100

## Jharkhand

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	81.7	68.2	29.7	11.1	4.6	2.8	8.5	5.6	5.6	8.2	16.2
II	13.0	23.7	44.5	30.7	11.5	6.5					14.4
III	5.3	5.4	16.9	33.1	33.5	12.9	12.7	8.1	7.2	12.7	
IV			6.6	16.1	31.2	28.3					12.7
V	2.7	2.3	6.1	13.1	29.0	36.0	14.6	9.6	11.7		
VI				14.0	29.4	30.7	16.4			11.7	
VII	2.9	6.0	6.5	11.1	27.8	33.2	24.4	10.1			
VIII					2.3	13.1	37.6	57.7	8.8		
Total	100	100	100	100	100	100	100	100	100	100	100

## Karnataka

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	91.0	92.3	41.0	2.6	4.1	0.8	5.3	1.2	1.3	2.6	13.2
II	6.5	51.2	52.1	5.0							13.2
III					5.5	36.4	59.3	5.0	12.8		
IV	9.0	1.2	7.1	31.0	53.6	13.3					
V				33.5	58.0		6.0	12.5			
VI	2.3	1.8	5.5	5.7	28.8	56.4	5.9	12.2			
VII					6.8	30.1	58.5	13.1	12.2		
VIII	1.4	1.1	6.4	34.5	84.2	10.4					
Total	100	100	100	100	100	100	100	100	100	100	100

## Kerala

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	95.4	83.1	22.5	2.1	2.0	1.5	1.8	2.7	2.2	5.9	12.8
II	4.6	16.3	65.7	24.2							12.6
III		0.6	11.5	62.0	23.9	1.2	0.9	13.3	59.9	20.8	8.4
IV	9.7			63.3	21.1				0.3	16.2	76.9
V	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VI											31.8
VII	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VIII											5.3
Total	100	100	100	100	100	100	100	100	100	100	100

## Madhya Pradesh

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	86.5	68.3	22.6	6.9	1.6	2.6	2.8	4.1	4.8	4.4	13.8
II	10.3	24.7	50.8	22.4	5.9						12.0
III	3.3	1.5	7.2	2.5	4.9	5.2	15.9	41.6	31.0	19.7	12.1
IV											18.1
V	0.8	3.2	2.1	2	1.9	1.9	6.7	20.5	31.3	29.3	8.3
VI											6.3
VII	2.3	3.3	5.8	4.1	2.3	3.0	7.4	20.4	40.4	16.3	7.6
VIII											14.9
Total	100	100	100	100	100	100	100	100	100	100	100

## Maharashtra

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	88.1	90.8	43.9	3.4	0.4	5.1	5.3	1.8	1.3	2.5	13.4
II	9.6	7.8	47.8	53.1	5.1						12.7
III	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
IV											34.6
V	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VI											31.8
VII	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VIII											5.3
Total	100	100	100	100	100	100	100	100	100	100	100

## Manipur

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	31.7	62.8	41.8	22.9	6.4	2.5	5	0.9	6	2.2	15.9
II	67.5	34.1	50.5	37.4	21.9	9.9					21.2
III	0.8	3.2	2.1	2	1.9	1.9	6.7	20.5	31.3	29.3	8.3
IV											9.7
V	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VI											7.4
VII	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VIII											8.7
Total	100	100	100	100	100	100	100	100	100	100	100

## Meghalaya

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	43.3	67.0	55.6	34.0	15.1	11.7	5.4	3.1	6.6	2.6	21.0
II	50.9	29.3	38.0	39.1	27.9	17.1	8.1	9.0			20.6
III	5.8	3.7	6.4	2.5	4.5	5.5	2.9	11.1	21.9	24.5	6.4
IV											17.9
V	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VI											6.4
VII	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VIII											16.0
Total	100	100	100	100	100	100	100	100	100	100	100

## Mizoram

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	72.8	79.6	29.0	9.1	2.8	1.0	3.2	7.4	6.2	4.3	18.3
II	25.0	17.1	52.7	36.7	14.4	5.2					17.0
III	2.3	3.3	5.8	4.1	2.3	3.0	7.4	20.4	40.4	16.3	7.6
IV											12.5
V	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VI											12.0
VII	2.3	1.3	1.4	5.5	4.6	1.1	0.8	5.2	39.4	84.5	11.4
VIII											7.9
Total	100	100	100	100	100	100	100	100	100	100	100

## Nagaland

Age	5	6	7	8	9	10	11	12	13	14	Total		
Std	%	%	%	%	%	%	%	%	%	%	%		
I	24.7	68.9	33.3	8.8	3.8	6.2	6.0	4.4	6.3	4.8	15.8		
II	73.7	28.2	54.7	35.9	13.5						22.5		
III	1.7	2.8	9.8	45.6	33.7	11.2	6.6	39.5	46.3	18.3	9.3	5.1	12.7
IV			8.4	41.3	36.9	18.2							8.3
V	1.7	2.8	2.2	1.2	6.6	39.5	46.3	18.3	9.3	5.1	12.7		
VI					5.8	26.6	36.8	22.4	12.2	9.3			
VII	1.7	2.8	2.2	1.2	1.0	0.2	2.9	28.0	34.5	33.1	7.6		
VIII					4.2	27.5	44.8	5.0					
Total	100	100	100	100	100	100	100	100	100	100	100		

## Odisha

Age	5	6	7	8	9	10	11	12	13	14	Total		
Std	%	%	%	%	%	%	%	%	%	%	%		
I	90.1	82.4	18.1	3.0	3.4	5.1	4.8	6.7	6.6	4.5	12.0		
II	7.5	13.4	67.7	18.8							11.9		
III	2.4	4.2	3.2	11.2	63.6	18.4	7.9	67.2	20.7	6.5	12.8		
IV				10.7	67.9	15.1					12.2		
V	2.4	4.2	3.2	3.8	8.5	69.2	18.5	2.6	7.9	63.4	22.9	20.3	13.3
VI					7.9	67.2	20.7						14.0
VII	2.4	4.2	3.2	3.8	1.7	2.6	1.6	9.3	70.4	68.7	11.0		
VIII							1.6	9.3	70.4	68.7	11.0		
Total	100	100	100	100	100	100	100	100	100	100	100		

## Punjab

Age	5	6	7	8	9	10	11	12	13	14	Total			
Std	%	%	%	%	%	%	%	%	%	%	%			
I	77.7	58.7	30.8	6.4	1.6	1.7	2.4	3.7	5.5	2.3	11.6			
II	19.4	33.3	42.6	29.5	9.1						12.8			
III	3.0	2.5	5.6	5.5	20.9	38.6	29.5	10.1	18.7	38.1	28.9	11.1	12.8	
IV				18.7	38.1	28.9	11.1	13.1						
V	3.0	2.5	5.6	5.0	17.8	37.8	25.3	9.8	10.8	21.0	32.2	21.2	11.2	12.6
VI				18.7	36.8	29.7	10.1	5.3						12.6
VII	3.0	2.5	5.6	1.8	4.1	2.8	20.5	39.0	36.4	20.3	12.7			
VIII							3.8	17.7	48.0	72.1	11.9			
Total	100	100	100	100	100	100	100	100	100	100	100			

## Rajasthan

Age	5	6	7	8	9	10	11	12	13	14	Total			
Std	%	%	%	%	%	%	%	%	%	%	%			
I	76.5	53.7	21.8	7.6	2.9	5.7	4.6	3.3	2.9	7.5	13.6			
II	18.5	34.8	41.3	23.2	9.5						13.8			
III	4.9	2.9	3.5	8.6	25.3	33.0	22.4	10.7	10.8	21.0	32.2	21.2	11.2	12.6
IV				8.2	21.5	33.2	18.5	9.1						5.1
V	4.9	2.9	3.5	4.0	7.6	21.3	35.7	22.9	12.1	7.4	12.3			
VI					9.0	21.7	34.9	32.9	26.0	12.5				
VII	4.9	2.9	3.5	4.0	3.5	2.6	7.6	22.7	46.5	59.0	10.9			
VIII						2.6	7.6	22.7	46.5	59.0	10.9			
Total	100	100	100	100	100	100	100	100	100	100	100			

## Tamil Nadu

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	95.8	75.1	7.7	0.4	1.0	0.9	1.4	1.6	2.3	4.1	12.0
II	23.2	69.8	9.6	11.7							
III	4.2	1.7	2.5	20.0	67.2	11.3	13.7	78.5	11.8	19.2	12.6
IV				20.2	73.5	10.0					12.8
V	4.2	1.7	2.5	2.8	13.7	78.5	11.8	9.6	72.6	19.2	13.6
VI					9.6	72.6	19.2				12.8
VII	4.2	1.7	2.5	2.8	0.5	1.0	13.2	66.0	20.1	16.0	12.6
VIII							1.1	13.3	77.6	79.9	12.0
Total	100	100	100	100	100	100	100	100	100	100	100

## Telangana

Age	5	6	7	8	9	10	11	12	13	14	Total			
Std	%	%	%	%	%	%	%	%	%	%	%			
I	87.1	72.4	37.5	13.5	3.5	3.1	3.8	5.0	4.8	1.7	16.0			
II	10.4	22.4	44.2	31.6	12.0						13.8			
III	2.5	5.2	4.1	14.2	36.1	26.8	11.9	15.1	46.2	31.2	15.0	12.1		
IV				15.1	46.2	31.2	15.0					14.3		
V	2.5	5.2	4.1	3.7	8.1	40.8	26.8	13.4	11.7	36.6	32.9	9.4	9.4	11.8
VI					11.7	36.6	32.9	9.4						9.4
VII	2.5	5.2	4.1	3.7	3.4	1.3	16.5	35.7	42.3	24.7	11.7			
VIII							1.3	13.0	43.6	64.2	9.0			
Total	100	100	100	100	100	100	100	100	100	100	100			

## Tripura

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	75.2	91.6	64.3	7.6	0.0	1.0	0.0	2.1	1.6	2.2	13.0
II	7.3	5.7	33.6	62.7	13.2						12.5
III	7.3	2.6	2.1	25.5	63.4	6.8	11.3	10.0	17.4	80.4	12.6
IV	0.0			20.4	68.0	10.8					13.6
V	10.3	4.3	3.0	1.5	2.3	22.7	65.3	11.3	16.7	68.9	13.4
VI	0.0					21.5	67.8	10.0			13.0
VII		0.0	2.6	2.1	4.3	3.0	1.5	2.3	2.2	19.5	80.4
VIII	2.2										
Total	100	100	100	100	100	100	100	100	100	100	100

## Uttar Pradesh

Age	5	6	7	8	9	10	11	12	13	14	Total		
Std	%	%	%	%	%	%	%	%	%	%	%		
I	84.7	67.6	35.7	17.2	8.2	4.5	6.0	4.3	8.8	7.6	17.5		
II	10.7	23.9	41.4	28.6	15.6	9.9					14.7		
III	4.5	5.7	15.4	32.2	27.6	16.8	8.2	5.4	16.6	13.9	13.9		
IV		5.3	13.0	31.0	23.9	14.4	9.2	12.5					
V	2.8	2.4	2.7	4.9	5.5	6.3	12.6	28.4	27.0	16.9	9.0	7.8	12.9
VI						11.0	30.2	25.5	16.6	13.9	11.1		
VII	0.0	2.6	2.1	4.3	3.0	1.5	2.3	2.2	19.5	80.4	10.5		
VIII											3.8	12.1	36.4
Total	100	100	100	100	100	100	100	100	100	100	100		

## Uttarakhand

Age	5	6	7	8	9	10	11	12	13	14	Total
Std	%	%	%	%	%	%	%	%	%	%	%
I	93.2	72.0	33.4	11.6	4.2	5.8	5.6	7.0	7.5	4.7	15.1
II	6.8	22.4	45.1	29.7	13.8						12.9
III		5.6	4.5	17.0	40.4	30.3	14.4	11.2	13.1	36.0	27.4
IV	12.8			37.4	27.8	11.2	12.4				
V	4.5	5.5	2.4	2.8	11.9	36.7	30.4	13.1	13.7	8.8	13.0
VI					12.5	37.2	28.3	13.7			8.8
VII	0.0	2.6	2.1	4.3	3.0	1.5	2.3	2.2	19.5	80.4	11.6
VIII											2.6
Total	100	100	100	100	100	100	100	100	100	100	100

## West Bengal

Age	5	6	7	8	9	10	11	12	13	14	Total	
Std	%	%	%	%	%	%	%	%	%	%	%	
I	90.3	87.0	58.9	14.9	1.8	4.4	3.6	1.6	1.6	4.8	20.2	
II	8.3	11.4	32.8	49.3	17.1						12.8	
III	1.4	1.6	1.1	2.4	2.6	1.6	9.6	35.1	37.8	25.7	11.6	
IV											7.2	28.0
V	1.1	1.6	1.1	2.4	2.6	1.6	6.9	41.7	35.8	12.8	5.7	12.6
VI							8.0	39.4	33.6	15.2	10.4	12.3
VII	0.0	2.6	2.1	4.3	3.0	1.5	2.3	2.2	19.5	80.4	11.7	
VIII											1.2	11.9
Total	100	100	100	100	100	100	100	100	100	100	100	

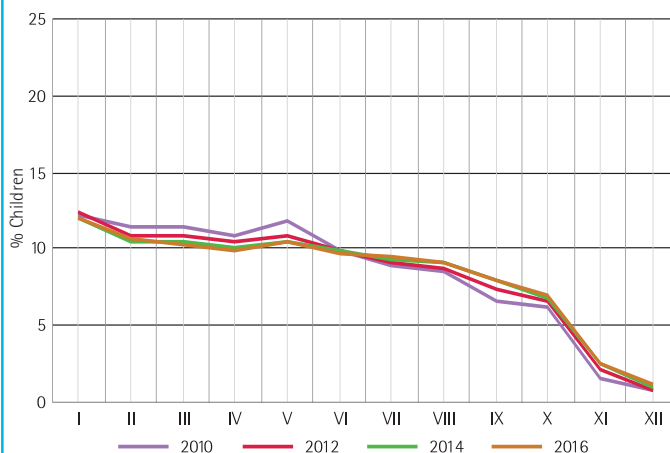


# Grade-wise distribution of children in sample over time

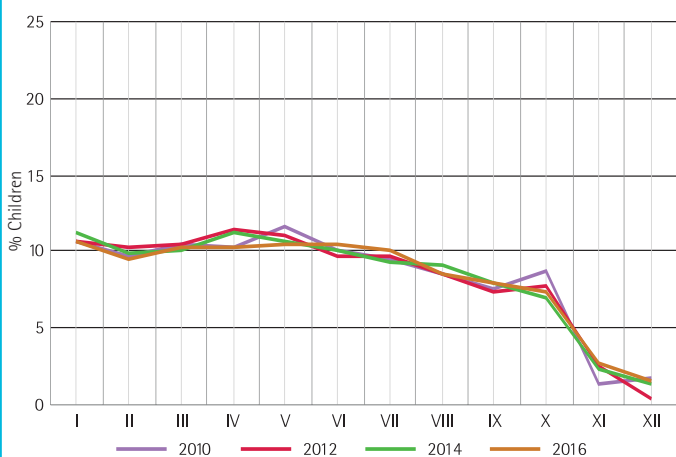
Because ASER samples households and not children, there is no control on the number of children from each grade who are surveyed each year. However, given the sampling methodology and the sample size, it is reasonable to expect that at the state level, similar proportions of children in each grade will be covered each year.

The graphs in this section show the distribution of the ASER sample in each state by grade of sampled children, in 2010, 2012, 2014 and 2016. 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.

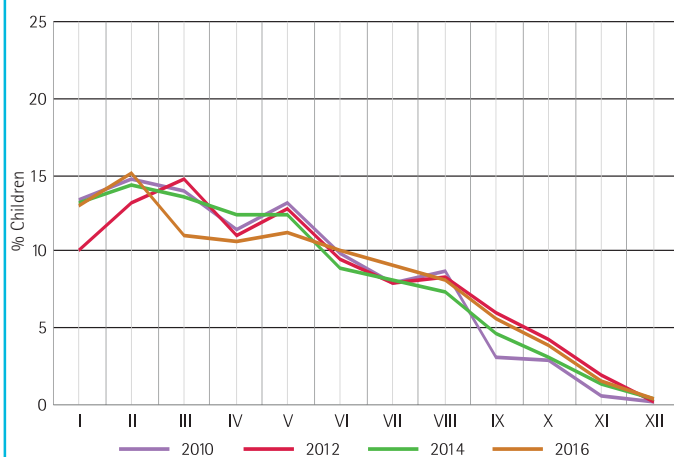
## All India



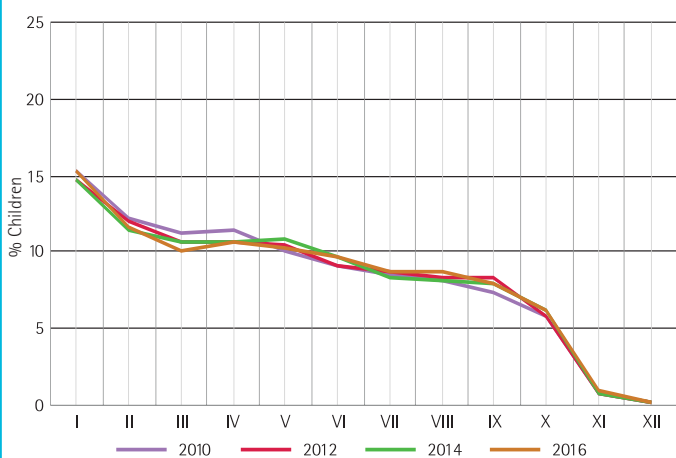
## Andhra Pradesh



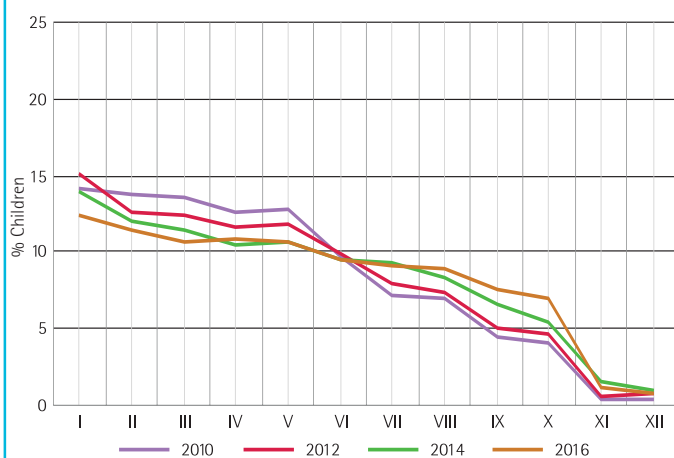
## Arunachal Pradesh



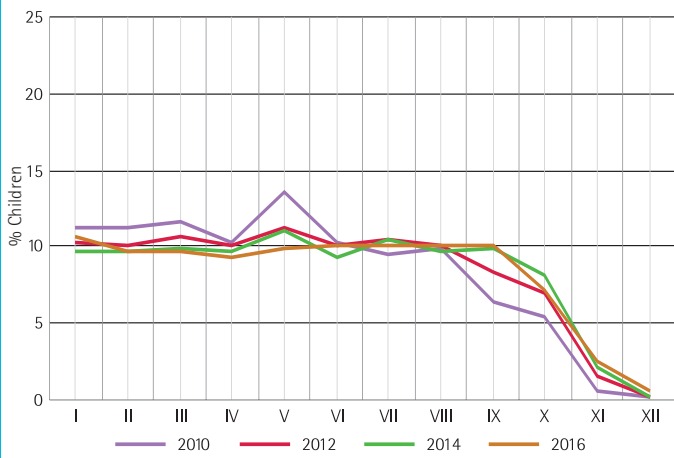
## Assam



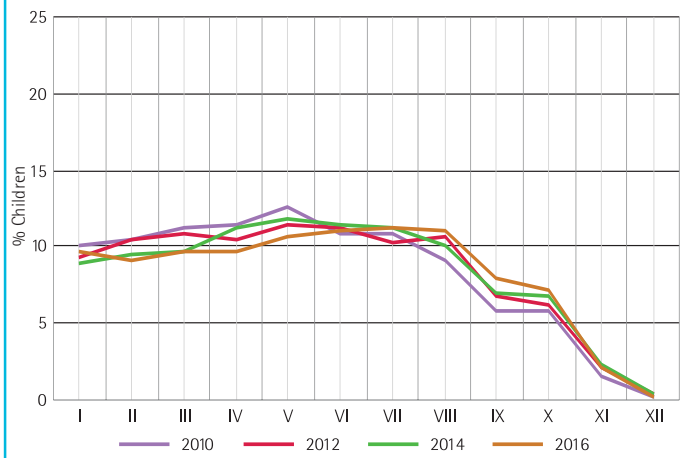
## Bihar



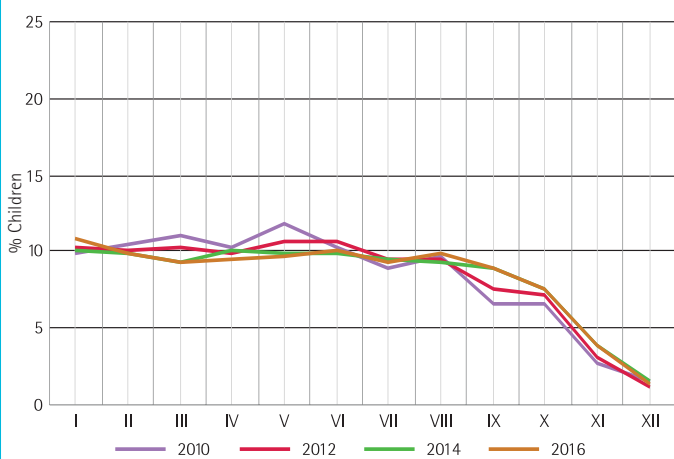
### Chhattisgarh



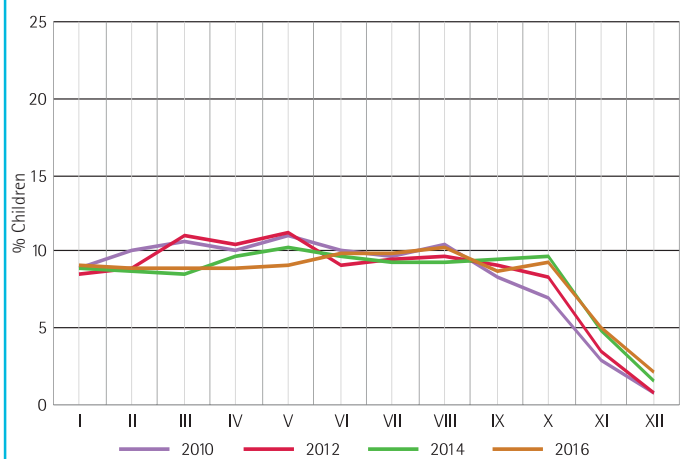
### Gujarat



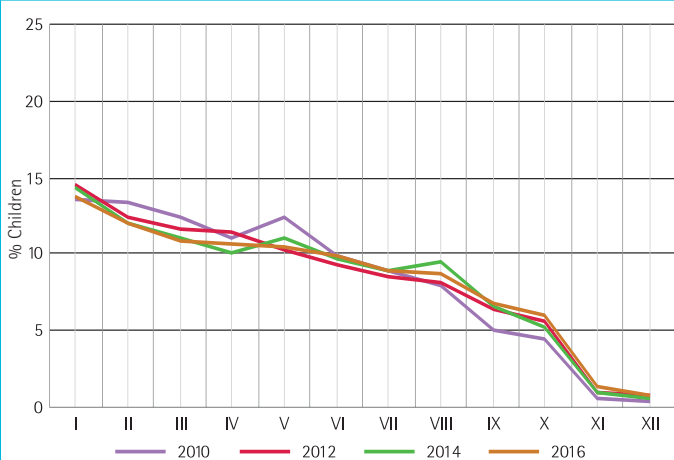
### Haryana



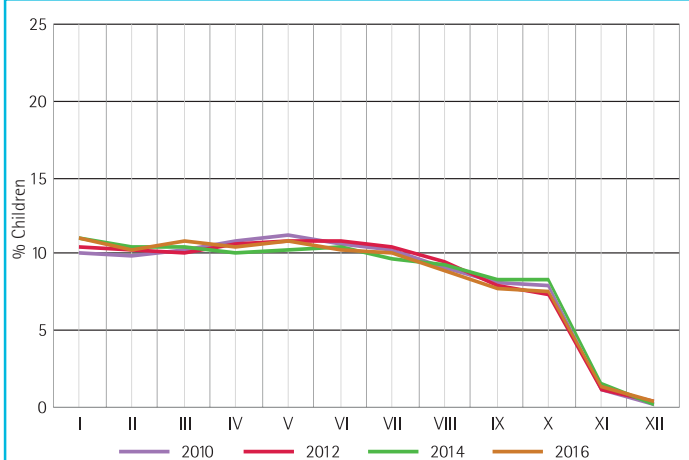
### Himachal Pradesh



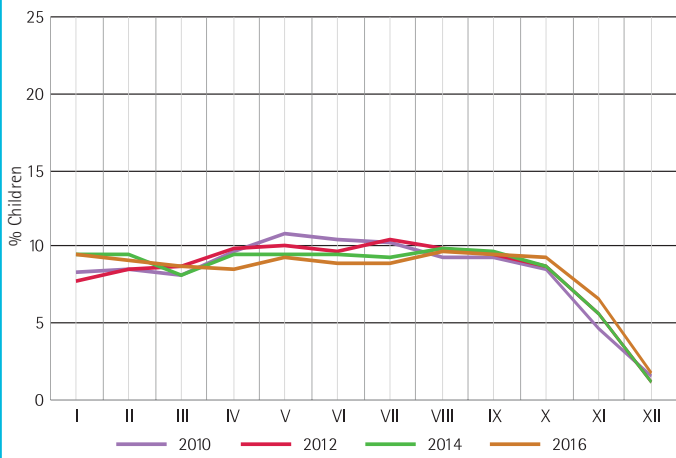
### Jharkhand



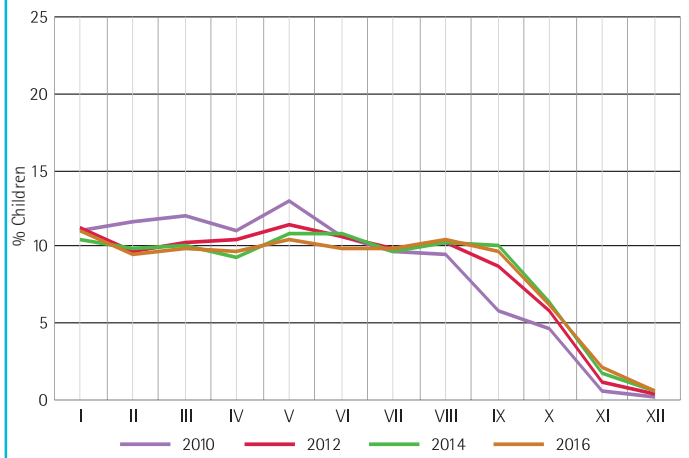
### Karnataka



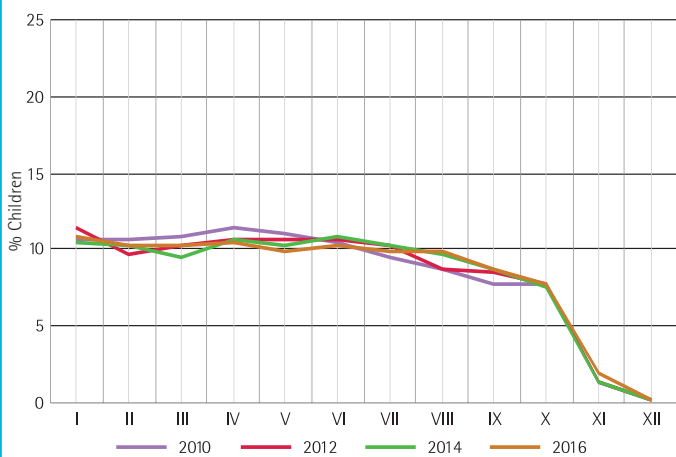
### Kerala



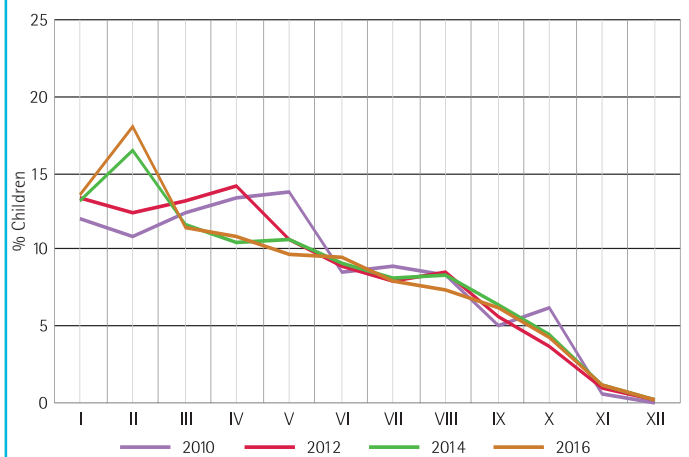
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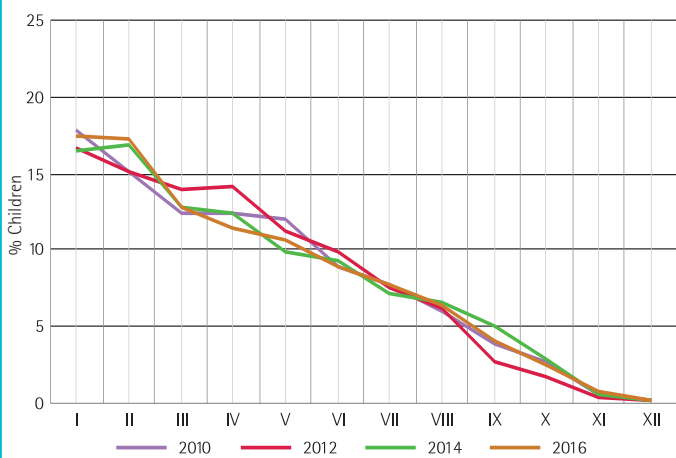
### Maharashtra



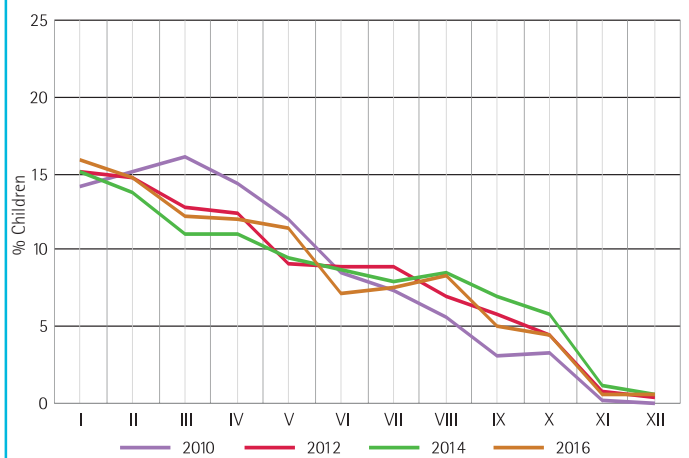
### Manipur



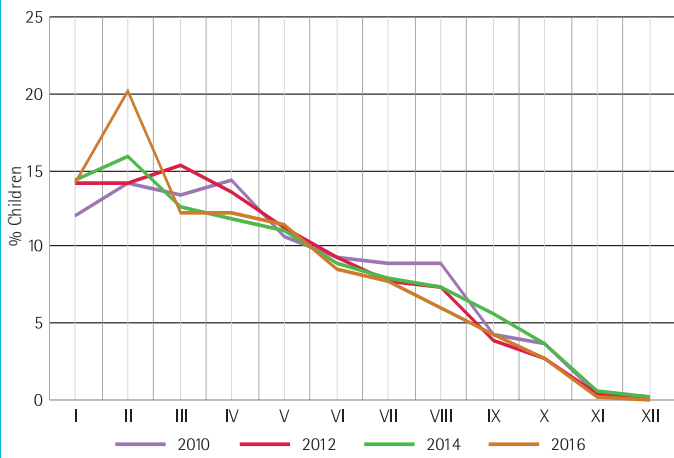
### Meghalaya



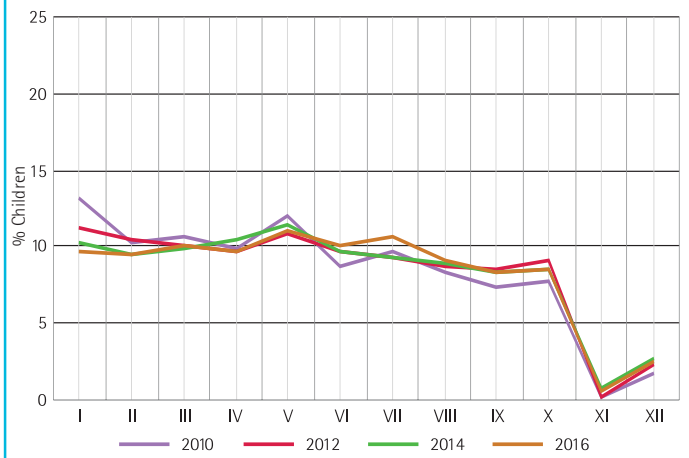
### Mizoram



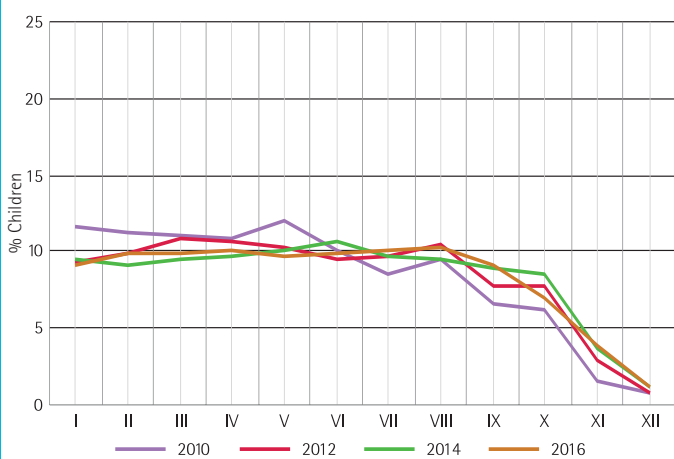
### Nagaland



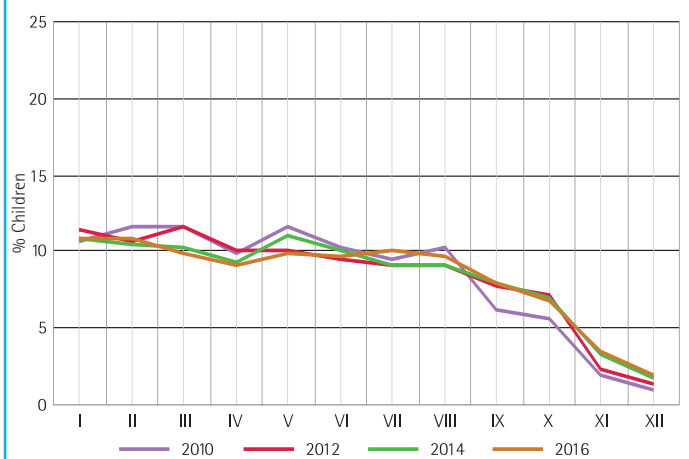
### Odisha



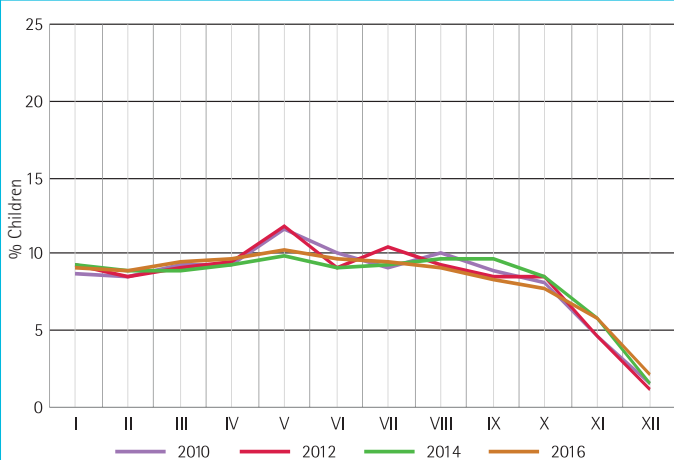
### Punjab



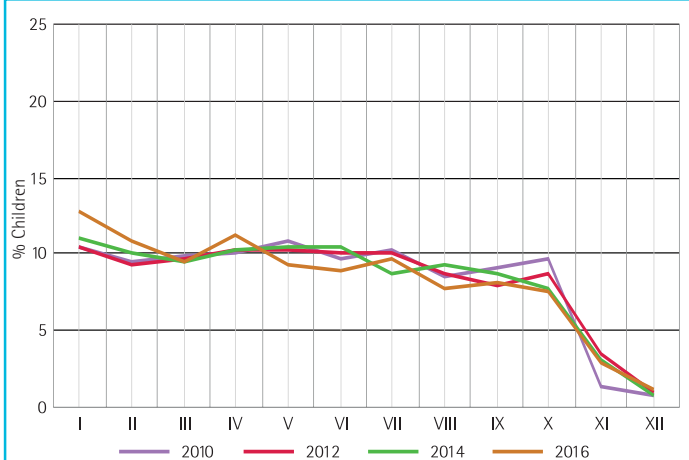
### Rajasthan



### Tamil Nadu

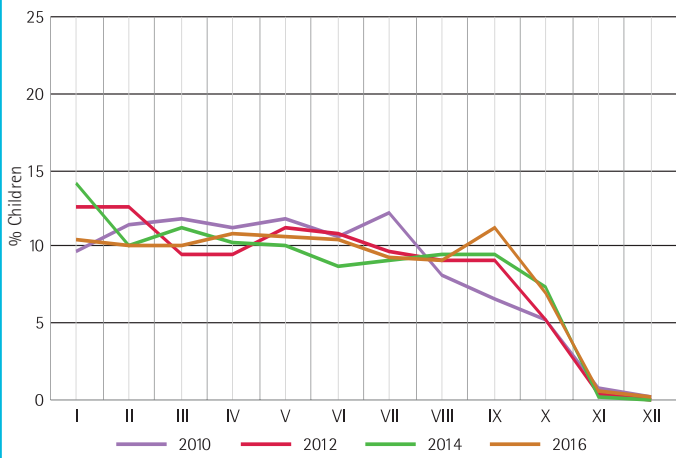


### Telangana

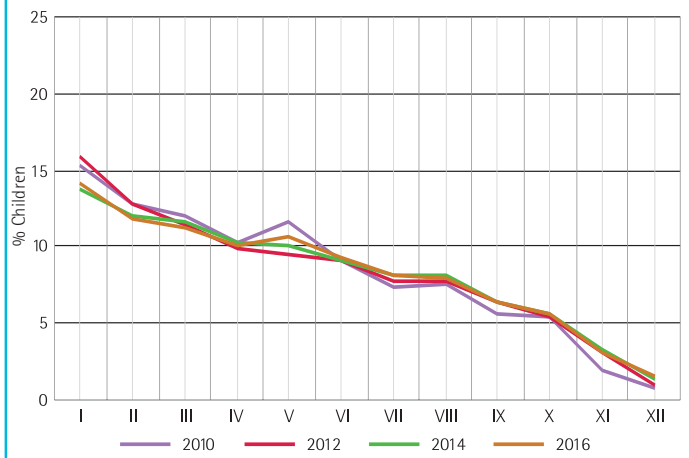




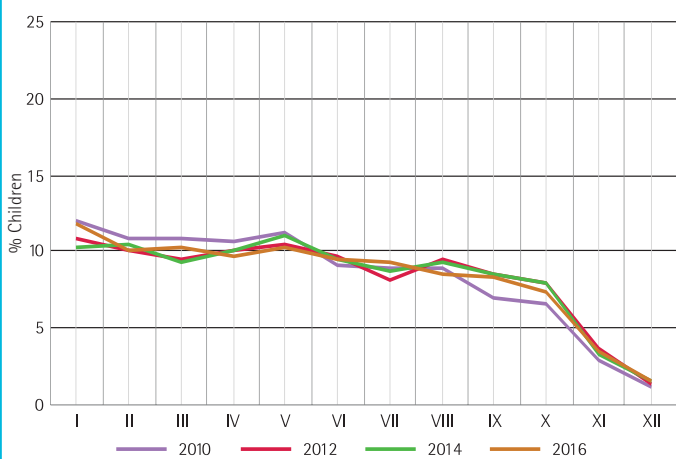
### Tripura



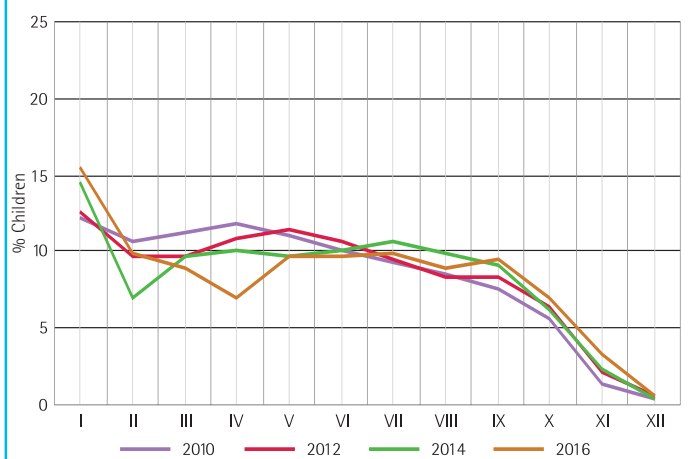
### Uttar Pradesh



### Uttarakhand



### West Bengal



# Household characteristics over time

State	% households which have a pucca house			% households which have an electric connection			Of households with electric connection, % households with electricity available on day of visit			% households which have a toilet			% households which have a television			% households which have a mobile phone			% households which have other reading material*										
	2010	2012	2014	2010	2012	2014	2010	2012	2014	2010	2012	2014	2010	2012	2014	2010	2012	2014	2010	2012	2014	2010	2012	2014	2010	2012	2014	2010	2012
Andhra Pradesh	61.3	59.8	66.7	71.1	96.6	96.5	97.3	98.1	84.7	76.0	94.6	96.1	54.7	53.7	53.7	64.1	74.1	79.0	82.6	84.3	72.8	74.6	78.1	81.1	8.6	8.5	13.4	13.3	
Arunachal Pradesh	9.6	11.7	9.1	13.8	79.3	80.2	91.3	90.3	64.7	82.3	86.3	93.1	69.0	69.8	72.3	82.7	55.8	61.2	62.2	65.6	50.1	33.6	48.7	55.6	26.7	34.0	38.4	44.8	
Assam	13.5	15.8	20.8	22.0	48.7	65.6	74.5	76.3	45.2	83.7	82.7	88.8	47.1	59.0	67.6	64.5	34.2	39.1	42.3	43.1	59.5	57.1	63.3	69.7	10.9	14.5	21.7	19.1	
Bihar	22.7	27.6	39.1	43.2	38.2	39.9	49.8	69.4	23.5	55.2	73.8	83.3	22.1	20.1	26.5	33.3	18.3	13.8	18.3	22.8	48.1	61.2	78.0	84.7	12.0	19.9	28.3	15.8	
Chhattisgarh	10.7	14.1	19.2	25.8	82.4	87.4	92.6	93.6	81.2	93.4	87.0	85.1	24.7	24.2	26.8	53.6	44.1	51.6	59.2	62.8	41.2	40.4	60.9	71.6	9.3	16.7	21.8	18.0	
Gujarat	34.6	35.3	41.2	43.0	93.7	94.1	96.1	95.8	90.0	88.6	93.9	94.9	44.9	46.9	54.4	68.7	53.1	61.2	69.0	75.1	65.1	62.1	73.6	72.4	17.6	21.4	31.1	34.9	
Haryana	58.4	68.3	75.3	75.2	90.4	93.2	95.1	96.4	63.4	75.3	78.8	77.3	75.3	76.6	85.3	90.9	74.9	77.9	83.9	85.0	82.5	85.8	87.9	89.8	24.3	25.4	22.5	17.6	
Himachal Pradesh	50.5	61.4	66.7	72.2	99.1	97.9	99.0	99.2	96.0	98.5	96.3	98.2	77.3	81.1	84.1	89.1	87.6	85.8	90.8	92.6	90.4	85.1	89.9	93.2	24.6	33.2	28.9	26.8	
Jharkhand	13.4	16.7	18.7	20.4	56.4	65.5	70.9	71.0	42.8	62.2	67.3	78.5	15.0	10.6	9.7	21.7	25.5	21.7	24.8	26.0	36.2	51.3	56.8	63.9	10.2	17.0	16.9	16.4	
Karnataka	34.8	35.9	36.1	39.8	94.3	93.7	95.3	96.4	75.7	74.0	90.0	90.0	35.0	38.6	44.9	56.8	64.5	71.0	77.3	82.0	73.5	65.4	78.5	86.5	3.7	4.7	3.8	4.8	
Kerala	57.2	78.3	90.4	83.8	96.9	97.2	98.7	97.8	95.1	97.4	98.1	98.6	96.0	97.0	97.8	97.8	87.3	92.0	92.5	89.5	84.9	91.6	94.4	96.0	24.7	23.1	29.2	39.6	
Madhya Pradesh	15.2	17.1	22.7	25.1	77.7	74.2	85.2	83.9	42.3	64.7	83.9	80.8	32.4	22.8	28.5	45.7	45.6	35.9	43.9	47.6	62.7	45.1	64.9	71.5	19.7	15.3	22.8	24.2	
Maharashtra	38.9	38.7	51.0	48.8	88.5	89.9	92.5	93.1	76.8	82.8	89.5	90.7	48.7	47.0	52.6	62.2	60.6	64.6	69.7	74.8	67.5	66.1	80.4	84.8	22.2	23.0	24.5	24.0	
Manipur	9.8	7.3	7.1	13.6	90.4	84.6	84.9	94.2	47.9	60.1	81.4	83.8	86.0	90.1	96.5	96.8	68.7	55.8	61.7	62.3	77.0	63.7	75.8	80.6	31.2	39.2	47.9	42.3	
Meghalaya	13.4	13.4	15.8	14.9	77.2	73.9	88.4	83.4	67.7	85.3	72.2	82.2	63.3	60.0	76.3	79.7	47.6	43.4	49.8	44.7	55.6	47.4	53.0	52.3	45.1	58.5	69.8	70.8	
Mizoram	6.7	4.9	5.9	5.4	91.3	91.4	95.5	96.1	78.7	85.7	87.6	92.5	63.5	79.8	91.9	86.5	53.5	68.1	80.7	75.8	67.6	59.4	70.0	68.6	62.3	72.5	82.7	87.0	
Nagaland	11.0	11.0	12.1	7.4	97.1	97.5	96.6	96.2	82.4	86.0	88.3	87.2	76.3	82.4	94.9	91.6	49.6	49.3	55.6	52.8	63.9	51.2	53.8	69.1	53.6	79.2	87.0	77.3	
Odisha	21.7	24.2	28.6	29.9	57.0	70.6	79.9	80.9	53.7	84.8	89.1	91.8	22.7	17.9	21.0	37.9	35.0	36.1	45.1	48.7	44.0	46.9	60.4	63.8	19.1	21.0	20.8	20.3	
Punjab	53.1	56.9	74.5	76.2	96.0	98.4	99.2	99.3	93.3	96.1	94.4	98.3	81.2	88.0	90.8	93.4	87.0	92.8	92.9	94.7	82.8	85.3	87.3	90.6	20.4	16.9	18.4	15.3	
Rajasthan	49.0	53.1	60.1	65.0	74.2	77.9	84.8	84.8	61.4	81.7	90.3	90.2	35.7	31.8	36.8	54.4	46.3	44.9	51.9	52.3	77.5	76.1	85.5	82.8	19.2	19.6	23.1	19.7	
Tamil Nadu	61.5	77.4	83.3	84.6	96.9	96.5	97.4	97.9	92.1	76.4	93.6	96.8	33.2	36.6	41.2	53.2	93.0	92.7	93.0	93.6	77.7	74.8	83.1	86.3	6.7	6.1	8.4	7.1	
Telangana	46.9	48.7	48.9	69.0	96.8	96.5	95.7	97.9	85.5	74.2	88.0	94.5	54.1	55.0	50.0	61.9	71.1	76.9	75.4	81.2	76.6	66.6	83.9	84.8	85.9	4.4	10.1	6.2	8.6
Tripura	2.4	2.0	6.9	12.9	82.8	85.0	90.2	91.9	80.6	88.3	96.0	94.4	88.0	85.1	85.6	90.6	62.1	60.5	67.6	69.6	60.8	54.2	66.3	78.3	16.7	19.4	43.3	35.3	
Uttar Pradesh	18.5	34.1	55.8	57.4	41.5	48.3	52.4	56.9	30.7	61.5	63.8	77.2	25.9	27.5	34.2	34.6	30.4	29.9	34.7	34.2	69.7	71.2	75.0	79.9	18.2	31.5	29.3	26.8	
Uttarakhand	63.3	59.3	72.6	73.0	90.6	89.1	93.3	94.1	82.4	83.9	89.2	95.1	67.9	68.7	74.5	81.9	71.3	69.0	75.8	76.6	76.7	77.3	76.1	82.7	19.7	24.1	26.5	21.9	
West Bengal	21.1	24.5	33.0	30.8	60.5	79.7	90.0	91.9	57.9	91.5	92.7	91.6	56.1	53.6	60.9	65.9	39.1	44.4	54.4	54.5	54.9	63.3	71.1	76.6	16.7	23.0	26.4	23.9	
All India	31.8	38.2	47.3	49.2	70.6	75.4	80.5	83.5	61.3	78.6	86.0	88.8	40.9	40.4	45.4	53.5	49.5	50.9	55.8	57.7	64.8	66.1	75.6	79.8	15.9	20.5	23.3	20.5	

\*Includes magazines, books other than school textbooks, etc.

# Mothers' schooling over time

State	2010				2012				2014				2016			
	% mothers with:				% mothers with:				% mothers with:				% mothers with:			
	No schooling	Std I-V	Std VI-X	Above Std X	No schooling	Std I-V	Std VI-X	Above Std X	No schooling	Std I-V	Std VI-X	Above Std X	No schooling	Std I-V	Std VI-X	Above Std X
Andhra Pradesh	47.2	20.0	27.5	5.3	43.1	18.3	32.0	6.6	39.8	17.6	34.9	7.7	37.4	17.2	35.1	10.4
Arunachal Pradesh	50.0	20.9	24.7	4.4	45.3	12.6	32.7	9.4	67.6	11.4	18.1	3.0	51.4	15.2	27.2	6.2
Assam	41.5	17.4	35.6	5.6	37.6	18.3	37.5	6.6	35.9	19.2	37.7	7.2	38.2	13.7	40.0	8.1
Bihar	59.9	18.1	18.9	3.1	64.9	13.1	17.9	4.0	62.7	12.4	19.2	5.6	58.8	13.7	20.8	6.8
Chhattisgarh	52.2	22.0	22.9	3.0	51.6	21.3	23.6	3.5	47.4	20.3	27.2	5.1	43.6	21.4	29.2	5.9
Gujarat	44.7	19.0	30.4	5.9	43.5	18.3	31.8	6.4	42.9	16.8	32.1	8.2	36.2	17.2	37.1	9.5
Haryana	40.3	18.0	32.8	8.9	39.5	15.8	34.3	10.4	33.2	15.2	36.6	15.0	31.6	14.9	37.7	15.8
Himachal Pradesh	16.6	20.2	46.0	17.3	19.3	16.3	44.7	19.7	12.9	15.4	46.5	25.2	10.7	13.0	45.7	30.7
Jharkhand	63.1	18.2	16.7	1.9	64.3	14.0	18.8	2.9	64.0	13.6	19.4	3.0	59.2	13.7	22.9	4.2
Karnataka	41.6	17.5	34.7	6.1	39.4	15.3	38.6	6.8	39.0	14.1	39.0	7.9	33.1	13.5	43.2	10.2
Kerala	1.0	5.3	61.2	32.5	1.4	5.0	57.5	36.1	0.9	3.4	53.0	42.7	1.3	3.7	54.7	40.3
Madhya Pradesh	53.6	23.6	19.4	3.3	60.0	18.9	18.1	3.0	58.7	18.0	20.2	3.2	56.1	18.1	22.2	3.6
Maharashtra	27.9	18.7	43.4	10.0	26.6	17.6	44.4	11.4	24.9	15.9	46.5	12.7	20.5	13.7	50.2	15.7
Manipur	19.2	13.4	49.8	17.7	31.0	11.0	42.7	15.3	26.9	14.0	42.4	16.8	29.7	11.8	40.6	17.9
Meghalaya	39.8	26.7	27.4	6.1	40.8	27.9	26.1	5.2	37.4	26.3	30.6	5.7	38.3	26.8	28.8	6.1
Mizoram	17.9	21.4	47.3	13.4	14.4	30.1	49.9	5.6	12.0	27.6	53.8	6.7	15.0	28.7	48.2	8.1
Nagaland	17.5	22.5	51.4	8.7	27.4	16.8	48.3	7.4	30.4	17.4	44.7	7.5	26.1	17.0	49.3	7.6
Odisha	44.3	22.9	28.4	4.4	44.5	20.2	30.0	5.3	40.5	17.8	35.0	6.8	38.2	18.2	36.7	7.0
Punjab	32.8	18.7	37.6	10.9	27.4	16.5	42.2	13.9	26.5	13.8	41.6	18.1	23.3	14.0	42.0	20.8
Rajasthan	68.9	15.7	12.9	2.5	71.2	13.1	13.2	2.5	69.7	12.6	14.5	3.2	68.0	13.3	15.3	3.4
Tamil Nadu	28.6	22.4	39.7	9.3	23.1	21.5	43.3	12.2	23.7	17.4	44.4	14.4	18.7	15.2	48.7	17.4
Telangana	61.3	12.1	22.3	4.4	58.1	11.1	24.4	6.4	56.6	8.7	26.9	7.8	50.3	10.1	29.0	10.6
Tripura	27.8	24.6	41.6	6.1	22.0	28.4	42.4	7.3	18.0	25.4	50.9	5.7	18.2	21.2	52.5	8.1
Uttar Pradesh	66.7	14.0	15.3	3.9	68.0	11.8	15.1	5.2	62.7	11.5	18.0	7.8	63.5	10.5	18.0	8.0
Uttarakhand	39.1	20.4	29.8	10.7	38.6	18.5	29.3	13.5	34.4	16.0	32.9	16.7	32.9	15.3	33.7	18.2
West Bengal	40.3	23.9	32.4	3.5	37.2	22.2	36.8	3.9	25.1	28.4	40.7	5.7	30.8	21.2	41.7	6.3
<b>All India</b>	<b>49.2</b>	<b>18.1</b>	<b>26.7</b>	<b>6.0</b>	<b>50.4</b>	<b>15.6</b>	<b>27.1</b>	<b>6.9</b>	<b>47.9</b>	<b>15.0</b>	<b>28.6</b>	<b>8.4</b>	<b>46.7</b>	<b>14.4</b>	<b>29.9</b>	<b>9.1</b>

# Fathers' schooling over time

State	2010					2012					2014					2016								
	% fathers with:					% fathers with:					% fathers with:					% fathers with:								
	No schooling	Std I-V	Std VI-X	Above Std X		No schooling	Std I-V	Std VI-X	Above Std X		No schooling	Std I-V	Std VI-X	Above Std X		No schooling	Std I-V	Std VI-X	Above Std X		No schooling	Std I-V	Std VI-X	Above Std X
Andhra Pradesh	36.6	17.9	31.3	14.3		35.5	15.6	33.3	15.6		32.1	14.4	38.1	15.4		31.2	15.6	36.2	17.0		30.0	15.3	39.2	15.5
Arunachal Pradesh	38.5	18.5	30.3	12.7		36.7	11.0	35.4	16.8		51.1	13.3	26.6	9.0		32.1	18.2	36.6	13.1		32.1	18.2	36.6	13.1
Assam	28.9	17.7	39.8	13.7		25.8	19.3	40.6	14.3		26.5	19.3	39.0	15.3		30.0	15.3	39.2	15.5		30.0	15.3	39.2	15.5
Bihar	38.6	13.6	35.4	12.5		36.6	14.0	35.4	14.1		34.9	12.9	34.9	17.3		32.2	13.1	37.1	17.7		32.2	13.1	37.1	17.7
Chhattisgarh	29.2	23.7	32.0	15.1		24.4	24.2	36.1	15.3		23.6	21.5	37.0	17.8		23.8	20.3	38.8	17.1		23.8	20.3	38.8	17.1
Gujarat	20.1	17.6	45.2	17.1		18.7	17.8	45.9	17.6		18.3	15.5	46.0	20.2		18.6	13.8	47.3	20.4		18.6	13.8	47.3	20.4
Haryana	16.8	10.8	46.3	26.2		16.5	10.1	45.6	27.8		13.1	8.6	45.2	33.0		13.1	8.9	44.3	33.7		4.2	8.3	49.1	38.5
Himachal Pradesh	5.0	12.0	53.7	29.3		7.3	11.4	51.0	30.3		5.7	9.4	50.4	34.6		4.2	8.3	49.1	38.5		4.2	8.3	49.1	38.5
Jharkhand	38.4	16.7	35.8	9.1		34.3	17.2	37.6	10.9		37.4	14.9	36.9	10.9		33.8	13.8	39.9	12.5		33.8	13.8	39.9	12.5
Karnataka	36.1	15.2	34.8	14.0		31.0	15.6	37.0	16.4		31.7	14.7	37.1	16.5		30.0	13.7	38.2	18.1		30.0	13.7	38.2	18.1
Kerala	0.4	10.2	68.0	21.4		1.3	8.9	63.9	25.9		1.1	6.9	62.1	29.9		1.6	6.9	62.7	28.9		1.6	6.9	62.7	28.9
Madhya Pradesh	28.4	19.5	36.3	15.8		30.2	19.4	36.6	13.8		31.5	17.9	36.9	13.8		31.0	16.7	38.3	14.1		31.0	16.7	38.3	14.1
Maharashtra	14.7	16.7	45.2	23.4		14.0	17.2	44.3	24.5		14.2	14.7	44.5	26.6		11.7	14.2	45.8	28.2		11.7	14.2	45.8	28.2
Manipur	10.7	5.6	47.9	35.8		16.7	7.7	46.8	28.8		12.5	10.1	48.2	29.2		15.1	8.9	47.3	28.7		15.1	8.9	47.3	28.7
Meghalaya	42.0	17.9	29.1	11.0		41.1	21.4	28.2	9.3		39.4	19.9	31.2	9.6		41.2	19.1	31.7	8.0		41.2	19.1	31.7	8.0
Mizoram	13.7	15.8	49.4	21.2		8.8	23.7	54.6	12.9		6.1	21.1	60.1	12.8		9.1	24.2	50.8	15.9		9.1	24.2	50.8	15.9
Nagaland	12.6	15.7	53.9	17.8		20.0	13.7	52.3	14.1		22.0	13.1	49.5	15.4		20.4	13.7	51.0	14.9		20.4	13.7	51.0	14.9
Odisha	23.7	24.1	39.5	12.7		26.5	23.8	37.6	12.0		24.6	19.1	41.5	14.9		25.2	18.0	41.9	15.0		25.2	18.0	41.9	15.0
Punjab	21.0	12.2	47.9	18.9		18.5	10.4	49.3	21.8		18.0	9.0	48.6	24.4		15.5	10.0	47.1	27.4		15.5	10.0	47.1	27.4
Rajasthan	30.1	17.1	37.6	15.2		29.9	14.9	39.1	16.1		29.2	13.8	38.9	18.1		29.4	13.9	40.2	16.6		29.4	13.9	40.2	16.6
TamilNadu	22.0	19.6	44.2	14.2		18.5	18.2	46.2	17.2		17.4	16.7	48.1	17.8		16.4	14.5	50.4	18.7		16.4	14.5	50.4	18.7
Telangana	41.2	11.7	31.8	15.3		38.7	12.0	32.7	16.6		42.4	10.7	31.0	15.9		35.7	11.1	35.0	18.2		35.7	11.1	35.0	18.2
Tripura	20.6	23.4	42.6	13.4		17.8	27.6	41.8	12.8		16.1	25.4	46.5	12.0		12.9	22.3	50.5	14.2		12.9	22.3	50.5	14.2
Uttar Pradesh	30.6	14.0	37.5	17.9		29.4	13.7	38.7	18.2		27.0	11.2	39.6	22.2		30.7	11.5	38.3	19.5		30.7	11.5	38.3	19.5
Uttarakhand	10.9	12.4	45.7	31.1		12.4	10.6	48.1	28.9		13.0	8.9	45.3	32.8		13.9	9.0	44.5	32.6		13.9	9.0	44.5	32.6
West Bengal	29.1	24.5	36.5	9.9		28.4	23.2	37.8	10.6		20.5	28.2	38.5	12.8		26.6	21.9	39.7	11.8		26.6	21.9	39.7	11.8
<b>All India</b>	<b>27.1</b>	<b>16.8</b>	<b>39.9</b>	<b>16.2</b>		<b>26.2</b>	<b>16.3</b>	<b>40.5</b>	<b>17.0</b>		<b>24.9</b>	<b>15.1</b>	<b>40.8</b>	<b>19.2</b>		<b>26.0</b>	<b>14.4</b>	<b>41.0</b>	<b>18.7</b>		<b>26.0</b>	<b>14.4</b>	<b>41.0</b>	<b>18.7</b>



# 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 Achievement 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. Why wasn't ASER conducted in 2015?

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. One big reason for restarting ASER after a year's break in 2015 is that learning levels remain low and ASER remains the only source of annually available data on learning in the public domain.

### 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 2016 ASER was conducted by students from the District Institutes of Education and Training (DIETs), the government teacher training colleges, in about 30% 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. Where can I find the results of the survey?

ASER publishes a 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](http://www.asercentre.org)). The website also has a query facility where you can quickly obtain estimates of some key indicators for specific years or over time.

## 9. 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. \$1.50).

## 10. 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

### 11. 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. 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 fairly standard for large scale surveys.

### 12. 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  $30 \times 20 = 600$  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 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 2016 surveyed 17,473 villages with 20 households per village.

### 13. Why does ASER select 30 villages per district and 20 households per village? How are villages selected?

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. In 2016, 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 is the first year of a new series of ASER reports that will 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.

#### **14. What happens if a village no longer exists, or has become an urban area?**

Every year ASER Centre generates the ASER village list from the Census village directory. This village list is final. This is to maintain randomness of the sample, which is important in order to obtain reliable estimates. 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.

#### **15. 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.

#### **16. Is ASER data representative? At what levels?**

ASER data is representative at district, state and national levels.

#### **17. 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.

#### **18. 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).

#### **19. 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.

#### **20. ASER 2016 sampled villages from the 2011 Census village directory, whereas ASER 2005–2014 used the 2001 Census. Is 2016 data 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 does 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 2016 we present divisional estimates only for 2016 rather than trends over time.

### **About design**

#### **21. 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 other kinds) 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.

## **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 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, a limited amount of 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 may need more time, training and expertise than ASER surveyors have. 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, ASER may not be the appropriate vehicle to collect it.

## **About tools and testing**

### **28. Why does ASER only assess 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. Later in addition, when ASER started 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 math 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 *akshar* (letter) level, recognition of only simple *akshars* is assessed. At

<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.

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 *akshars*, secondary representations of *akshars*, and conjoint *akshars* 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 type-token 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. *akshar* 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 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 large scale 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.

<sup>2</sup> Assamese, Bangla, Bodo, Garo, Gujarati, Kannada, Khasi, Hindi, Malayalam, Manipuri, Marathi, Mizo, Nepali, Odiya, Punjabi, Tamil, Telugu, Urdu

<sup>3</sup> Technical analyses comparing ASER and EGRA have been carried out. See

[http://img.asercentre.org/docs/Asere%20survey%20Tools%20validating\\_the\\_aser\\_testing\\_tools\\_\\_oct\\_2012\\_\\_2.pdf](http://img.asercentre.org/docs/Asere%20survey%20Tools%20validating_the_aser_testing_tools__oct_2012__2.pdf)

**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 purports 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 (J-PAL). In this evaluation, the measurement of children's learning outcomes included several literacy and arithmetic assessments including the 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 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.

**37. 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**

**38. 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.

**39. 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.

**40. Are the volunteers capable and well trained to do the survey?**

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.

**41. 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.

#### **42. How do you ensure data quality?**

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.

### **About ASER results**

#### **43. 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.

#### **44. 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 grades 1 and 2.

#### **45. What if the data I am looking for is not in the published report?**

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.

#### **46. 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 analyses. 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**

#### **47. 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. Many state governments are now implementing their own learning assessments, 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.

#### **48. 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.

#### **49. Has ASER had an impact in other countries as well?**

Yes, it has. The ASER model is increasingly being recognized on global education platforms. In the lead up to the establishment of the post 2015 Millennium Development Goals, members of the extended ASER network in many countries have 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 and the Learning Metrics Task Force (coordinated by Brookings Institution and UNESCO Institute of Statistics). And the importance of large scale community based assessment carried out by citizens is beginning to be recognized in international policy and advocacy circles as a viable alternative to other existing assessment models.

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 and Mozambique joined the network in 2016.

#### **About resources**

##### **50. 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.

##### **51. 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.

##### **What can I do? 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](mailto:contact@asercentre.org). Depending on your location, your interests, and your availability, we can figure out how best you can join in this effort.

# Annual Status of Education Report (ASER) and National Achievement Surveys (NAS): a comparison

## Overview

Two large scale nationwide learning assessments are currently conducted in India at the elementary stage. Pratham/ASER Centre's Annual Status of Education Report (ASER) has been brought out annually since 2005, with the exception of 2015.<sup>1</sup> The National Council of Educational Research and Training (NCERT) has conducted National Achievement Surveys (NAS) periodically since 2001 for grades III, V and VIII.<sup>2</sup> These two sources are frequently cited in discussions on learning outcomes in India.

Although both ASER and NAS are large scale assessments of learning, they are not designed for the same purpose. As a result, they are different in terms of sampling, test design and content, methodology and time frame of assessment. Results of ASER and NAS are computed, reported, and disseminated very differently.

Since estimates generated by ASER and NAS surveys neither cover the same populations nor assess the same content, their results are not comparable. **However, it is worth highlighting one significant common finding: both ASER and NAS data indicate a trend of declining learning levels in language and mathematics among children in Std V.**<sup>3</sup>

This note summarizes major differences between ASER and NAS. It is based on ASER 2005–2016<sup>4</sup> and a set of NAS documents<sup>5</sup> pertaining to elementary education.<sup>6</sup>

## Institutions

**ASER** is facilitated by Pratham, a non-governmental organisation (NGO), and carried out by partner institutions in almost all rural districts of the country. These partner institutions may be colleges, universities, District Institutes of Education and Training (DIETs) and other teacher training institutes, NGOs or other types of formal or informal organisations. 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 bodies.

**NAS** is carried out by the Educational Survey Division (ESD) of the NCERT under the mandate of the Government of India's flagship programme for elementary education, Sarva Shiksha Abhiyan (SSA). The survey is coordinated at the state level by bodies such as State Councils of Educational Research and Training (SCERTs) and State Institutes of Education (SIEs), and is implemented on the field by field investigators, mostly comprising DIET faculty. External technical assistance has been provided by a team of experts known as Technical Services Agency (TSA).<sup>7</sup>

## 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, and estimates of

**NAS** is conducted to "monitor improvement in children's learning levels and to periodically assess the health of the government education system as a whole".<sup>8</sup> The purpose of the NAS surveys is to "obtain an overall picture of what students in specific classes know and can do and to use these findings to

<sup>1</sup> In 2015, ASER was conducted in two states - Maharashtra and Punjab.

See <http://www.asercentre.org/Keywords/p/276.html>

<sup>2</sup> The timeline of NAS assessments conducted so far is as follows:

(Source: NAS (Cycle3) Class III : Achievement Highlights, NCERT, 2014)

Cycle/Class	Class III	Class V	Class VIII
Cycle 1	2003-04	2001-02	2002-03
Cycle 2	2007-08	2005-06	2007-08
Cycle 3	2012-13	2009-11	2010-13
Cycle 4		2014	

<sup>3</sup> Based on comparison of results of NAS (Cycle 3) Class V and NAS (Cycle 4) Class V surveys, 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 mathematics. 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 & Nicobar and Puducherry.

<sup>4</sup> See [www.asercentre.org](http://www.asercentre.org) for ASER reports from 2005 to 2016 and ASER process documentation.

<sup>5</sup> These include documents available on the NCERT, MHRD and RMSA websites, such as final reports, summary reports, technical papers etc. Website of SSA was not functional throughout October–December, 2016.

<sup>6</sup> Cycle 1 of NAS Class X was conducted under the aegis of RMSA during 2014–15. However, this survey has not been considered for this note, as it does not pertain to elementary education.

<sup>7</sup> Technical Services Agency (TSA) is a team of experts enlisted for medium-term technical assistance. The team is funded by DFID-UK and coordinated by Cambridge Education.

<sup>8</sup> NAS (Cycle 3) Class III: Achievement Highlights 2014 (p.1).

basic ability in reading and arithmetic for all children aged 5-16.

ASER is therefore designed as a household based survey so as to include all children: those enrolled in government schools, private schools and other types of schools, as well as those not enrolled in school.

## 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>9</sup> directory using Probability Proportional to Size (PPS). In the second stage, 20 households are randomly selected in each village. Surveyors are provided with standardised instructions on sampling of households from various sections/hamlets within a village. All children aged 3-16 who regularly reside in the sampled households are surveyed. Of these, all children aged 5-16 are assessed.<sup>10</sup>

ASER 2016 reached 350,232 households in 589 rural districts. 562,305 children aged 3-16 were surveyed, of which 399,859 children aged 5-16 were assessed using the ASER reading tool and 399,408 children were assessed using the ASER arithmetic tool.

ASER also collects background information on parents, households and village characteristics. One government school with primary classes in each sampled village is also visited to collect information about school characteristics such as infrastructure and facilities, student and teacher attendance and finances. 15,630 government schools were visited during ASER 2016.

## Tools and testing

**ASER** assesses basic reading and arithmetic ability, which are foundational skills<sup>17</sup> for language comprehension and mathematics. Basic reading ability implies the acquisition of letter knowledge, ability to decode common everyday high frequency words and fluently read short, simple passages. Similarly, basic arithmetic ability implies ability to recognise numbers and perform basic operations such as subtraction and division. Assessment tasks are based on analysis of state textbooks and curriculum framework documents.

identify gaps and diagnose areas that need improvement".

NAS is therefore designed as a school-based survey of students enrolled in Classes III, V and VIII in government and government-aided schools. It is a grade level assessment, intended to assess students' learning outcomes relative to the curriculum for their grade.

**NAS** aims to cover all 36 states and union territories.<sup>11</sup> In its recent rounds (Cycle 3 and Cycle 4), NAS has employed a three-stage clustered sample design. At the first stage, districts within each state are selected using PPS.<sup>12</sup> At the second stage, the requisite number of schools is chosen within sampled districts, again using PPS. DISE data<sup>13</sup> is used as the sample frame for this stage of sampling. In the third stage, students are randomly selected<sup>14</sup> within sampled schools. Although the issue of children's attendance is not explicitly addressed in NAS documents, the sampling procedure at the school level<sup>15</sup> seems to imply that only children present in school on the day of the assessment were included. NAS reports also list the exceptions to the above process in various states.

NAS (Cycle 3) Class III survey was implemented in 34 states/union territories. It covered 104,374 students from 7,046 schools. NAS (Cycle 4) Class V survey was implemented in 34 states/union territories. It covered 150,101 students from 8,266 schools. NAS (Cycle 3) Class VIII survey was implemented in 33 states/union territories. It covered 188,647 students from 6,722 schools.<sup>16</sup>

**NAS** assesses grade-level competencies. Therefore, children are administered grade-specific tests. The test forms in various subjects for each class are based on common core content and competencies identified from an analysis of state textbooks. For each subject, a set of competencies/skills are framed, and items are designed and distributed such that they test these specific competencies/skills. In order to calibrate various items, NAS surveys (Cycle 3 and Cycle 4) applied Item Response Theory (IRT) to establish a link between student ability, item difficulty,

<sup>9</sup> Census 2001 frame was used for ASER surveys 2005-14 and Census 2011 frame was used for ASER 2016.

<sup>10</sup> For more details on the ASER sampling methodology, see detailed sampling note on page 251.

<sup>11</sup> Actual coverage varies with each grade and cycle.

<sup>12</sup> With the condition that at least 40% of all districts in a state must be sampled.

<sup>13</sup> NAS (Cycle 3) Class V report notes significant discrepancies between DISE data and actual school enrollments. NAS (Cycle 3) Class VIII survey used both DISE and AISES as sample frame.

<sup>14</sup> A maximum of 36-45 students (depending on the grade and cycle) are sampled in each school.

<sup>15</sup> NAS (Cycle 3) Class V report states that within each school, children were selected from class registers using simple random sampling, implemented via a lottery (p.177).

<sup>16</sup> All numbers are extracted from relevant NAS reports (listed in the references section).

<sup>17</sup> Additionally, ASER has periodically included elements of assessment relating to time, money, measurement, problem solving, listening comprehension, and English reading and comprehension.



All children aged 5-16 are administered the same tests, regardless of schooling status, age or grade. ASER tools are designed to assess mastery of these foundational skills and are not intended to differentiate within each mastery level. 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 problem, usually taught in Std III or IV.

### Test administration

**ASER** is a household survey. Children are tested at home. ASER reading and arithmetic assessments are administered individually, one on one. All children aged 5-16 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. Children are graded at their highest level of proficiency in reading and arithmetic.

and a student's chance of success in each item.<sup>18</sup>

NAS (Cycle 3) Class III survey assessed two subjects - language and mathematics. NAS (Cycle 3 and Cycle 4) Class V surveys assessed three subjects - language, mathematics and environmental studies. The NAS (Cycle 3) Class VIII survey assessed four subjects - language, mathematics, science and social science.<sup>19</sup>

**NAS** is conducted in school (government and government aided schools). Children of different classes are given grade-specific tests. Students are required to choose a correct answer from a set of options and record their response in an Optical Mark Recognition (OMR) sheet. While NAS (Cycle 3 and Cycle 4) Class V and NAS (Cycle 3) Class VIII were pen and paper tests administered to a group of students in school, NAS (Cycle 3) Class III had listening comprehension items in addition to the pen and paper test.<sup>20</sup>

### Process implementation and monitoring

The ASER implementation process usually begins with a national training attended by full time team members of the ASER central team and state teams. Subsequently, state level trainings are held in each state wherein the state ASER leadership team trains Master Trainers from each district. The Master Trainers in turn conduct district level training for surveyors from local partner organisations such as colleges, universities, teacher training institutes, DIETs, NGOs and others. Surveyors 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 of two and tasked with surveying the allocated villages. After conducting the survey, surveyors submit the survey booklets to Master Trainers. Data entry is outsourced to external agencies selected usually based on past performance and a stringent quality criteria.

NAS is coordinated by NCERT with the support of agencies such as SCERTs and SIEs in the states and union territories. Coordinators at state and district level are given training on field data collection. A guideline-cum-training manual is developed by Education Survey Department (ESD) of NCERT. In each selected district, 10-12 teams of two field investigators each are briefed by the district coordinators on 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 part of the training of field investigators. After data collection, OMR sheets, questionnaires and field notes are verified at the district level for correctness of numbers, codes and other information, and then sent to the state coordinators. The response sheets in OMR format are dispatched by the state coordinators to NCERT for scanning and analysis. A third-party agency selected based on competitive tender is tasked with data entry of questionnaires. Documentation is done by NCERT, in consultation with experts from TSA.<sup>22</sup>

ASER devotes considerable time and effort to ensuring 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>21</sup> A multi-layered system of field monitoring, desk review and field recheck has been established wherein Master Trainers as well as staff from state and central teams travel to surveyed villages in order to check for adherence to process and protocol. Computer recheck is also done 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. About 55% of all surveyed villages were monitored/rechecked in ASER 2016.

Monitoring guidelines are laid out by NCERT. Monitoring at all levels is expected from coordinators. For example, the NAS (Cycle 3) Class V report states that 10-15 schools in each states are required to be monitored randomly by SCERT faculty and 5-10 schools in each district are required to be monitored by DIET faculty. The same report states "NCERT team reflected that there was no monitoring done from their end while the survey was

<sup>18</sup> Based on NAS (Cycle 3) Class V report and NAS (Cycle 3) Class VIII report.

<sup>19</sup> All details are extracted from relevant NAS reports (listed in the references section).

<sup>20</sup> Based on NAS (Cycle 3) Class V report and NAS (Cycle 3) Class VIII report.

<sup>21</sup> Refer to p.270 of this report.

<sup>22</sup> Based on NAS (Cycle 3) Class V report and NAS (Cycle 3) Class VIII report.

being conducted and they relied too heavily on the state and district coordinators to carry out the monitoring tasks" (p.16). NAS (Cycle 3) Class VIII report states that monitoring was done by NCERT personnel during the survey.

### Precision of estimates

**ASER** estimates are self-weighting at the district level. At the state and national levels, estimates are weighted by the appropriate population weights. ASER does not report standard errors and margins of error for its state and national estimates. 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.<sup>23</sup> Where the number of observations in the sample is found to be insufficient, estimates are not presented in the report. Since 2011 ASER reports also present estimates at divisional level, along with the associated confidence intervals.

**NAS** assigns weights as per the student response data. Student responses were equally weighted within their state/union territory and each state/union territory carried equal weight as a reporting unit.<sup>24</sup> NAS (Cycle 3) Class V report states that systematic sampling techniques and matrix sampling methods were adopted to improve cost-effectiveness and reduce the burden on students of responding to a long test. In order to quantify the resultant uncertainty, the survey estimated standard errors for all reported statistics. For the key statistical indicators, a replication procedure (jack-knife method) was used to estimate standard errors.

### Availability of tools and results

**ASER** findings are made available in the same school year that 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, testing procedures and findings are available in the public domain.<sup>25</sup> All ASER data sets are available to researchers and research institutions upon request.

**NAS** (Cycle 3) Class III survey was conducted during 2012-13 and the final report was released in 2014. NAS (Cycle 3) Class V survey was conducted during 2010-11 and the final report was released in 2012<sup>26</sup>. NAS (Cycle 3) Class VIII survey was conducted during 2012-13 and the final report was released in 2014. These reports are available on the NCERT website.

NCERT has published a "Data Sharing and Accessibility Policy" to facilitate public access to NAS data through a web-based portal. Timeline for implementation of this policy has not been specified in the document.

### 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>27</sup> indicates substantial reliability of decisions across repeated measurements (test-retest) as well as satisfactory inter-rater reliability. The validity of the ASER Hindi reading tool (that is, whether the test actually measures the constructs it is intended

From Cycle 3 onwards, **NAS** shifted from Classical Test Theory (CTT) model to Item Response Theory (IRT) model for analysis of data. Reliability of the test score scales was estimated from the IRT scaling done using specialist software such as BILOG-MG. NAS (Cycle 3) Class V report mentions marginal reliability coefficients as follows: 0.83 for language, 0.89 for Mathematics and 0.89 for EVS. (p.183)

<sup>23</sup> See Ramaswami, B. Et Wadhwa, W. (2010). Available at:

[http://img.asercentre.org/docs/Aser%20survey/Technical%20Papers/precisionofaserestimates\\_ramaswami\\_wadhwa.pdf](http://img.asercentre.org/docs/Aser%20survey/Technical%20Papers/precisionofaserestimates_ramaswami_wadhwa.pdf)

<sup>24</sup> According to NAS (Cycle 3) Class V and NAS (Cycle 3) Class VIII reports, this was due to discrepancies in the DISE and AISES data, limitations in the sampling method, and loss of information at the sampling and administration stages of the survey, which made it impossible to estimate ideal sample weights.

<sup>25</sup> In ASER 2016, the reading test was conducted in 19 languages across India.

<sup>26</sup> NAS (Cycle 4) Class V survey was conducted in 2014 and a summary report based on unweighted data was released in September, 2015. Final report for NAS (Cycle 4) Class V has not been published on the NCERT website at the time of writing this note.

<sup>27</sup> See papers by Shaher Banu Vagh (2009 and 2013), available at <http://www.asercentre.org/sampling/precision/reliability/validity/p/180.html>

to measure) was examined using the Fluency Battery<sup>28</sup> test. The ASER reading assessment is strongly associated with the Fluency Battery with magnitude of the correlation coefficients ranging from 0.90 to 0.94.<sup>29</sup>

## Comparisons over time

**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 framework has not changed since 2007. Therefore all estimates generated since 2007 are comparable.

From Cycle 3 onwards, **NAS** reports have used item response theory (IRT) to analyse the data, unlike earlier two cycles of the survey which used classical test theory (CTT). Thus, results of NAS are comparable across cycles 3 and 4, but not directly comparable with earlier rounds.<sup>30</sup>

## Conclusions

Several conclusions may be drawn on the basis of differences and similarities in design and methodology of the two assessment models.

**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, which are a prerequisite for mastery of skills such as reading comprehension and higher mathematical operations.

**On sampling design:** ASER has been criticised for not following a school based survey design. However, the greatest limitation of the NAS 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, while being limited by its design in depth and scope of assessment, is more inclusive in coverage. Additionally, it has to be simple, understandable and rapid, which ASER has consistently strived to maintain.

**On representation:** NAS provides information relating to government educational systems at the national and state levels. There are no estimates at the district level. ASER provides comprehensive learning level estimates of the entire geography - representative of rural population at the national, state and district levels. In many districts of India, ASER is perhaps the only data source on learning levels, thus serving as a vital input for district-level educational planning.

**On implementation:** NAS is implemented with the help of state machinery - SIEs, SCERTs, DIETs etc. ASER is a citizen-led participatory exercise, with the involvement of local partners and surveyors from diverse backgrounds. In addition to collection of field data, there is an organic element of engaging ordinary citizens and a wide range of stakeholders in a debate around the issue of quality of education in our schools.

**On reporting:** NAS findings are reported with academic and technical rigour, and student performance is represented mainly in the form of scale scores. While appreciable efforts have been made to demystify the technical language, it remains largely a report by experts for experts. On the other hand, ASER attempts to simplify the process of understanding learning assessments by displaying snapshots of the actual tool alongside distribution of children across various levels of ability. Notwithstanding criticism for its simplicity, ASER's findings serve as actionable evidence for policy, as they are easy to understand for policy-makers, educationists, teachers, parents, and indeed children themselves.

<sup>28</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>29</sup> A correlation coefficient of 1 indexes a perfect and positive association between two measures.

<sup>30</sup> Oza, J. & Bethell, G. (2013).

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# Heaven on Earth

From the ASER 2016 blog\*

A few days ago, our ASER colleagues from Kashmir travelled to Ladakh to conduct and monitor the ASER survey. It was a challenging task as they drove through the world's highest motorable pass - Khardung La. The road unfolded like a dangerous serpent with harsh winds blowing across. As they persevered and finally reached the highest point, 18,380 ft. above sea level, they raised the ASER flag. Within minutes they were back to work, completing their monitoring and rechecking task in adjoining villages.

Yet another milestone was achieved by ASER as we reached "new heights".



Riding through treacherous roads to conduct the ASER 2016 survey



ASER Associates reach the world's highest motorable pass, Khardung La, on their way to complete survey monitoring in adjoining villages



Villagers look on as the survey progresses



Exploring the village for map making



Testing children in the village

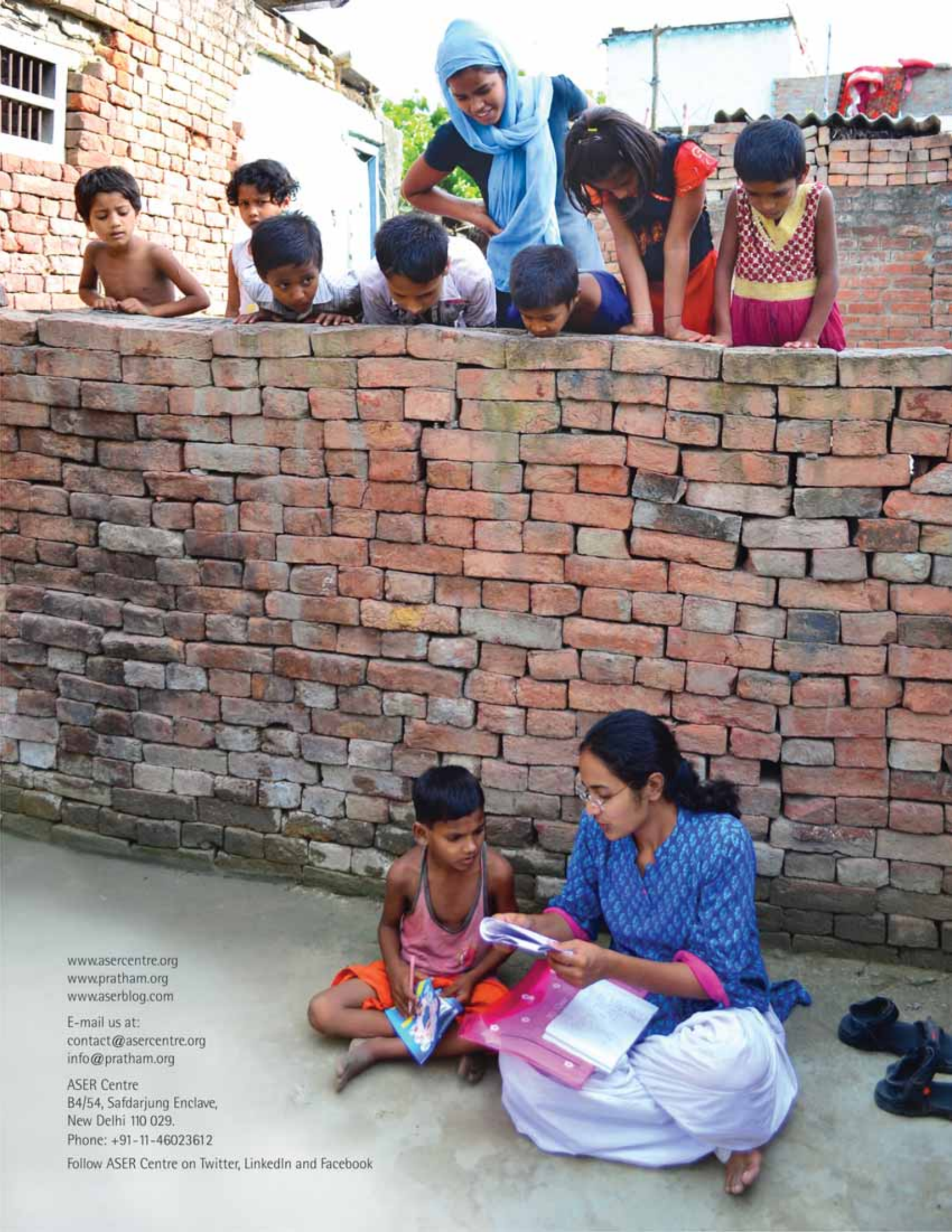


Testing children in the village

\*www.aserblog.com







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