



CENTRAL SQUARE
FOUNDATION

School Education In India 2021



About the organisation



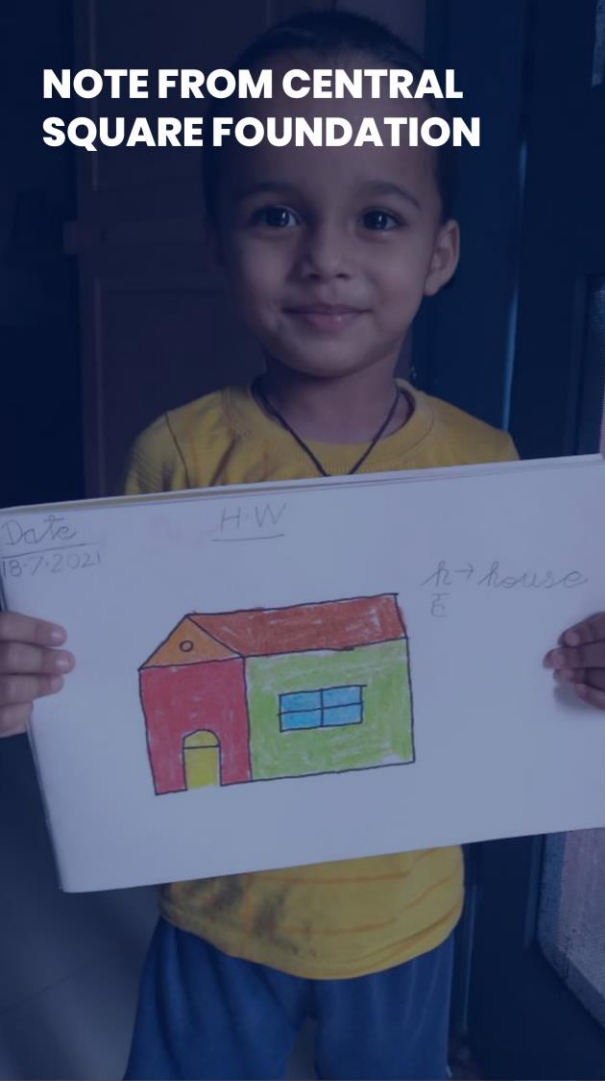
CENTRAL SQUARE
FOUNDATION

Central Square Foundation (CSF) is a non-profit organisation working towards ensuring quality school education for all children in India. Since 2012, CSF has partnered with the government, the private sector, non-profit organisations, and other ecosystem stakeholders to improve the learning outcomes of children, especially from low-income communities. CSF is driven by its mission to enable the school education system to adopt solutions that are scalable, sustainable and effective so that all children get equal access to opportunities needed for leading a better life.

To learn more, please visit <http://www.centralsquarefoundation.org/>

Disclaimer: We have made every effort to ensure that the information provided in this report is correct and complete as of 5th July, 2021. No part of this study should be considered an official position of the Government of India, respective state governments or their allied agencies and departments.

NOTE FROM CENTRAL SQUARE FOUNDATION



The Covid-19 pandemic disrupted school education in India by pushing as many as 250 million children out of classrooms. Evidence from past crises suggest that even short disruptions can lead to significant loss in learning. We imminently need to focus on effective remediation not only to reverse the learning losses due to the pandemic, but also to ensure that these losses don't affect children's chance at improving their life outcomes, and subsequently the nation's economy.

Through this year's School Education in India report, we document the scale and scope of the disruption in school education due to the pandemic; provide a framework for thinking about its short-term and long-term effects; analyse the ecosystem's education response to the crises; and discuss the way forward. Covid-induced school closures led to widespread adoption of at-home learning programmes which included EdTech solutions and doorstep delivery of workbooks among other things. Based on available data and evidence, the report draws upon challenges to at-home learning programmes and how they can be overcome. Going forward, it will be crucial to continue innovating and building on these programmes as India potentially looks at a system where schools open and close frequently to control the spread of the pandemic based on the local situation.

The report considers the risks and benefits of re-opening schools and discusses approaches for safe re-opening, including insights from other countries that re-opened during the pandemic. In addition, considerations for state governments as they plan to re-open schools are discussed. Priority should be given to opening schools for early grades given how critical foundational skills are for future learning. The recent launch of NIPUN Bharat comes at a very opportune time, and can very well be the beacon that guides the school education system on how to help children learn more meaningfully.



 **Ashish Dhawan**
Founder Chairman
Central Square Foundation

Contents



Introduction: Unprecedented Disruption of School Education



I. Ecosystem Response to Covid-19



II. Learning at Home



III. Re-opening of Schools

List of abbreviations

AAC: Alternative Academic Calendar

AIR: All India Radio

AI: Artificial Intelligence

ASER: Annual Status of Education Report

AY: Academic Year

BARC: Broadcast Audience Research Council

BE: Budget Estimate

BEPC: Bihar Education Project Council

BPL: Below Poverty Line

BRC: Block Resource Coordinator

CBSE: Central Board of Secondary Education

CMIE: Centre for Monitoring Indian Economy

CRC: Cluster Resource Coordinator

CRY: Child Rights and You

DCVTS: Delhi NCR Coronavirus Telephone Survey

DD: Doordarshan

DIET: District Institute of Education and Training

DIKSHA: Digital Infrastructure for Knowledge Sharing

EY: Ernst & Young LLP

FLN: Foundational Literacy and Numeracy

FLOW: Foundational Learning Over Whatsapp

GDP: Gross Domestic Product

GSMA: Global System for Mobile Communications Association

HH: Household

IAMAI: Internet & Mobile Association of India

ICE: India's Citizen Environment & Consumer Economy

ICT: Information and Communications Technology

IVRS: Interactive Voice Response System

JNV: Jawahar Navodaya Vidyalaya

KITE: Kerala Infrastructure and Technology for Education

KV: Kendriya Vidyalaya

LMIC: Low and Middle Income Countries

LO: Learning Outcomes

List of abbreviations

MDM: Mid-day Meals

MHRD: Ministry of Human Resource Development

MOE: Ministry of Education

MOHFW: Ministry of Health and Family Welfare

NCR: National Capital Region

NCAER: National Council of Applied Economic Research

NCERT: National Council of Educational Research and Training

NEP: National Education Policy

NGO: Non Governmental Organization

NHFS: National Family Health Survey

NIPUN: National Initiative for Proficiency in Reading with Understanding and Numeracy

NISHTHA: National Initiative for School Heads' and Teachers' Holistic Advancement

NSSO: National Sample Survey Office

NSW: New South Wales

NV: Navodaya Vidyalaya

OCBP: Online Capacity Building Programme

PISA: Programme for International Student Assessment

PISA-D: PISA for Development

PP: Percentage Points

SC: Scheduled Caste

SEED: State Education and Executive Development Programme

SOP: Statement of Purpose

SNP: Supplementary Nutrition Programme

SSA: Samagra Siksha Abhiyaan

ST: Scheduled Tribe

TNTP: Tamil Nadu Teachers Platform

TRAI: Telecom Regulatory Authority of India

U-DISE: Unified District Information System for Education

UNICEF: United Nations Children's Fund

UNESCO: United Nations Educational, Scientific and Cultural Organization

UT: Union Territory

WASH: Water, Sanitation and Hygiene



CENTRAL SQUARE
FOUNDATION

Introduction

Unprecedented Disruption of School Education



Covid-19 Vastly Affected School Education and Households in India



1.5 million schools, closed down to contain the pandemic, **have remained largely closed** since March 2020



250 million students affected by loss of learning and nutrition from school closures



84% of Indian households reported income loss during the lockdown in 2020 (According to CMIE)



92% and 82% of students in grades 2-6 lost at least one ability in language and mathematics, respectively, over previous year (Azim Premji University, 2021)



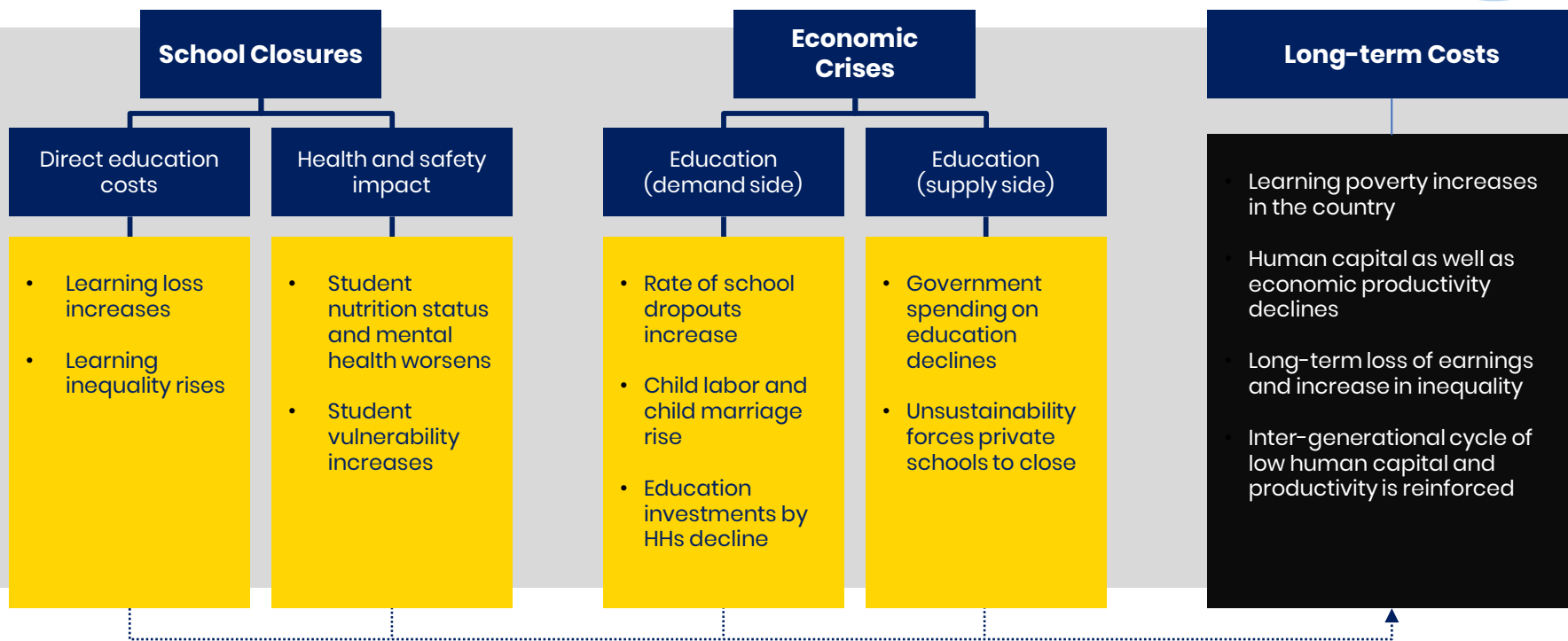
School closures impacted socio-emotional well-being of students; **33% of 5-13 year-olds** and **50% of 14-18 year-olds** reported poor or very poor mental health (UNICEF, 2021)



10 million girls in India likely to be pushed out of school by the pandemic (CRY, 2020)

Long-term and Short-term Costs of the Pandemic

School closures and economic shock likely to be crippling for India





Direct Education Costs

School closures are leading to immense learning loss



What children should have learnt during the academic year



What children have forgotten from what they already knew

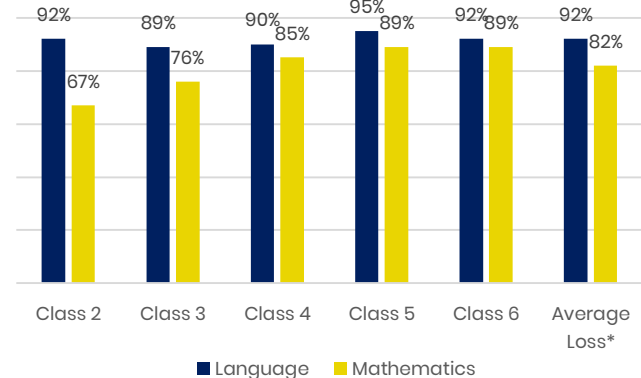
Learning loss due to school closures

Azim Premji Foundation conducted a study in January 2021 with 16,067 children from grades 2-6 in 44 districts across India to gauge the extent of learning loss, which found that:

- Over **82%** had forgotten foundational abilities in mathematics
- Over **92%** had forgotten foundational abilities in languages

Learning loss by grade level

Proportion of children who have lost at least one ability in language or mathematics



Health and Safety Impact

School closures affect child health in the short and long-term



» Immediate impact

- Reduction in coverage of essential health services (immunization, deworming)
- Disruption of school meal programmes – Supplementary Nutrition Programme (SNP) and Mid Day Meals (MDM) – could increase the prevalence of malnutrition
- Reduced socialization and socio-emotional learning could affect mental health of children

» Long-term impact

- Limited access to nutrition can lead to malnutrition, impairing a child's cognitive development, especially in early years
- Poor health can affect an individual's long-term productivity and income

State-level multimodal approaches to school feeding in India during Covid-19

(Innocenti Working Paper, UNICEF, 2021)

Home delivery of mid-day meals/ rations	Kerala, Karnataka, Haryana, Assam, Uttar Pradesh
Take-home rations	Chhattisgarh, Jammu & Kashmir, Andhra Pradesh, Odisha
Cash transfers	Bihar, Uttarakhand

Limitations of alternatives to school feeding in India

- Difficult to ensure that meals/ rations delivered at home are used solely for the child and not shared with family
- Amount of cash reaching the child through cash transfers likely to be insufficient for nutritious meals due to household resource allocation
- Without effective monitoring, it can't be ensured that cash transfer to household in lieu of mid-day meal is being used for healthy meals for children

Demand for Education

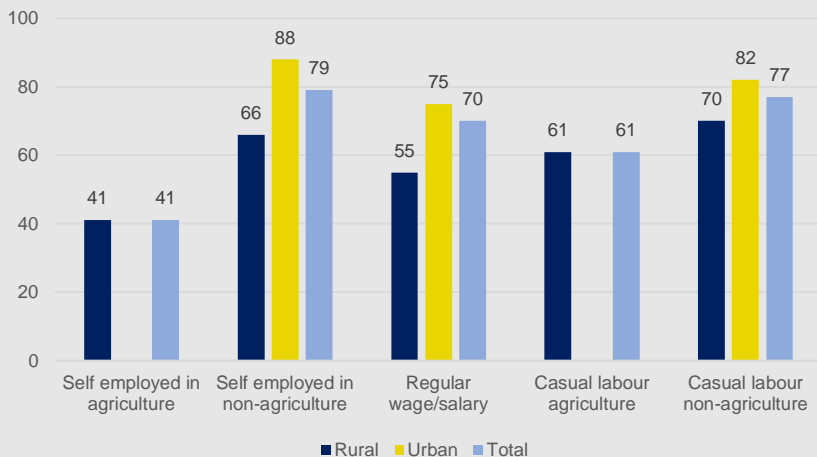
Pandemic induced economic shock impacted livelihoods and households



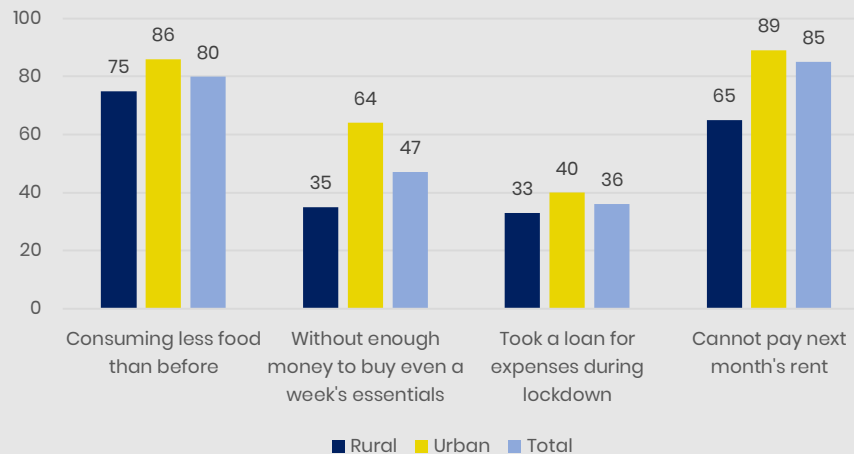
77%

Rapid phone-based surveys in Delhi suggest that the pandemic led to loss of livelihoods and wages. Casual laborers were especially affected. Daily earnings of those gainfully employed declined by 77%¹

Loss of livelihoods by region and economic activity (%)



Impact of lockdowns on households (%)



Demand for Education

Millions of migrant workers left cities due to the lockdown, affecting the education of accompanying children



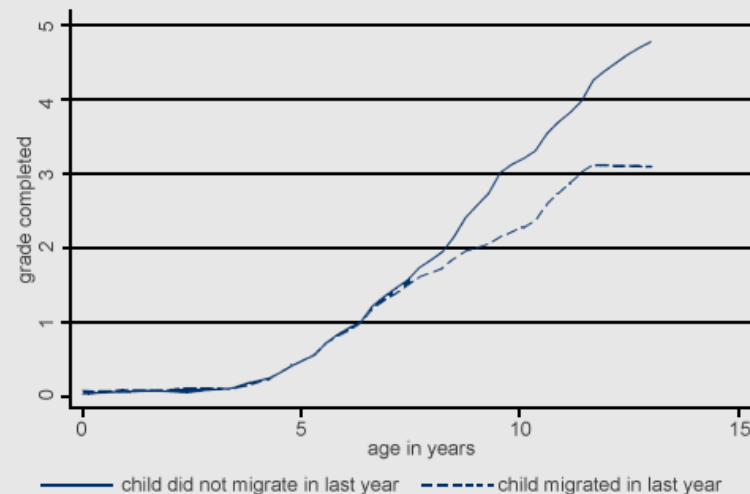
8.5%

Covid-19 shock

- The lockdown from March 2020 fuelled an unprecedented reverse migration of 11.4 million workers from India's densely populated cities to their home states ([Paliath, S., 2021](#))
- In Delhi alone, 166,000 students – about 8.5% of total school enrollments – fell off the map and schools cannot trace them ([Iftikhar, 2021](#))

Regular times

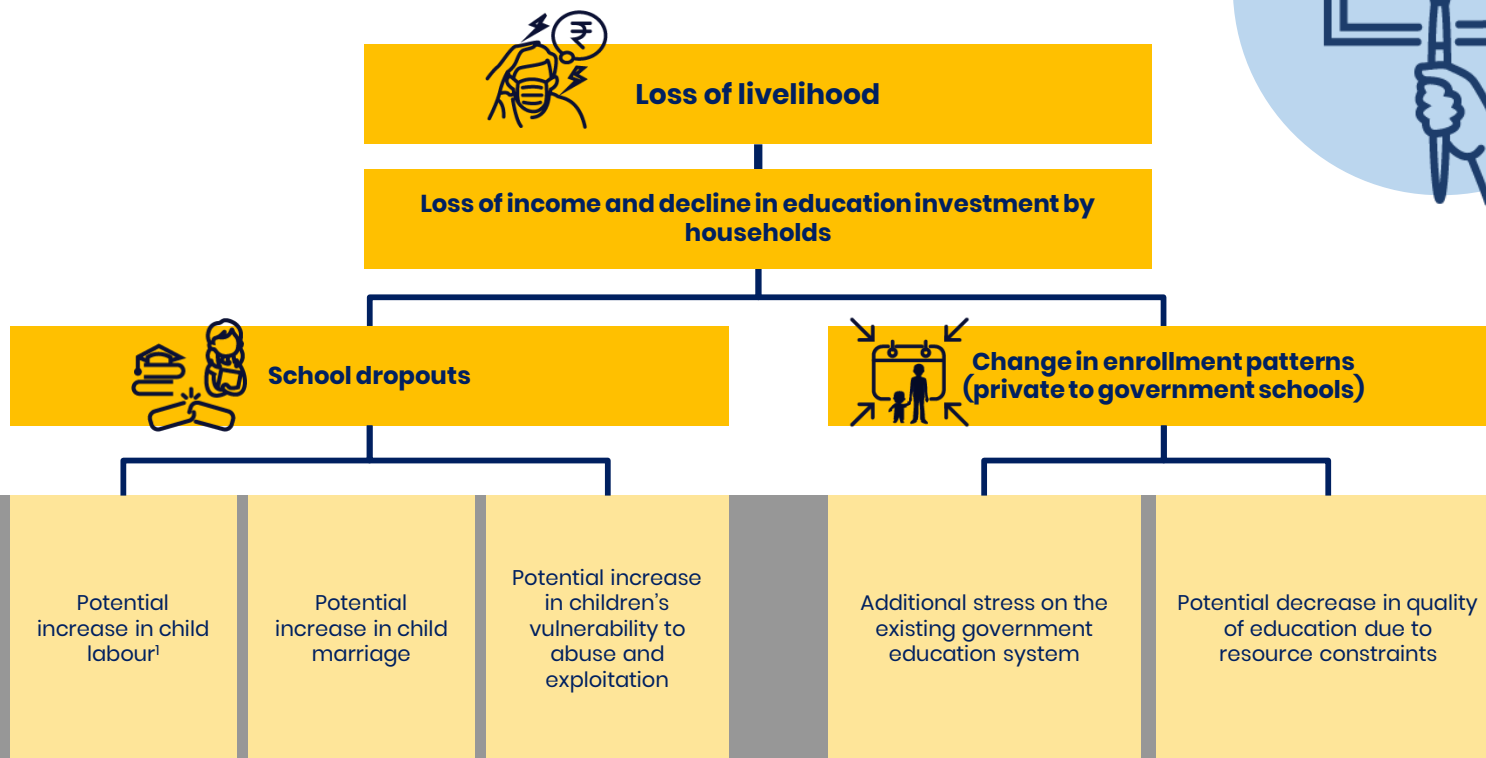
- Economic Survey (2016–17) estimates India to have ~9 million migrants
- Around 20–40% of school going age children may be accompanying migrant workers, or migrating for seasonal work ([Coffey et al., 2014](#))



Research shows that children who migrate with their parents get less education for each year of age than the group that does not migrate ([Coffey, D., 2013](#))

Demand for Education

Income shock from the pandemic affected HHs' demand for education

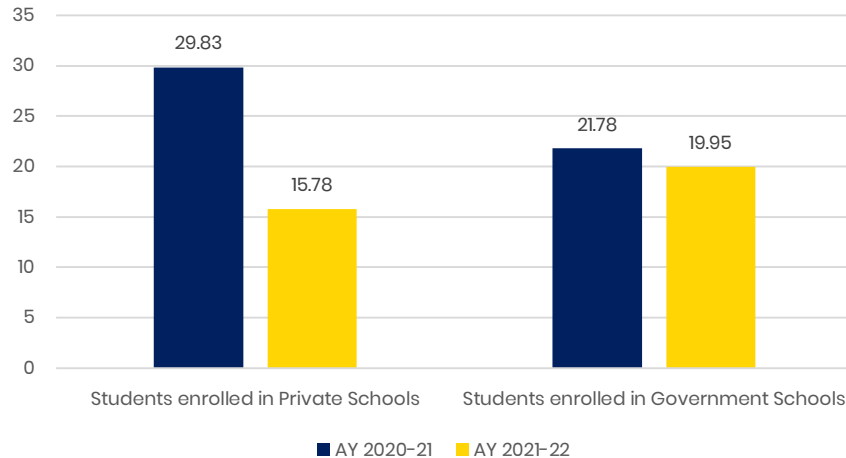


Demand for Education

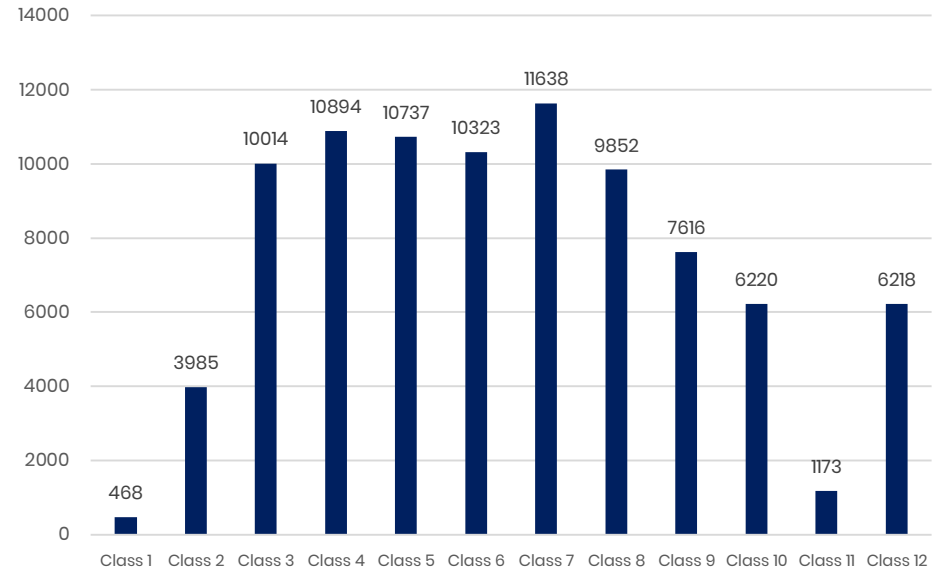
Data from Haryana suggests significant dropouts and student migration from private to government schools



Enrollment in Private and Government Schools in Haryana (in lakhs)



Number of students who migrated from private to government schools in AY 2021-22 by grade

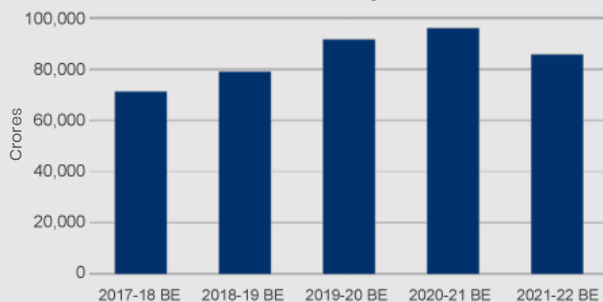


Supply of Education

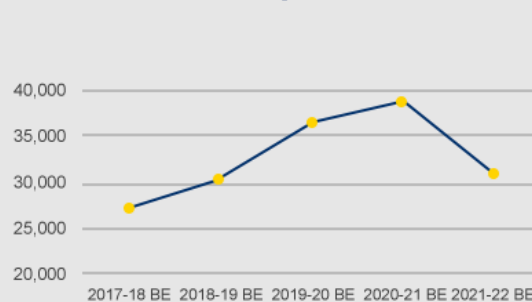
Union Budget allocations for children's welfare reduced by more than 10% for 2021-22



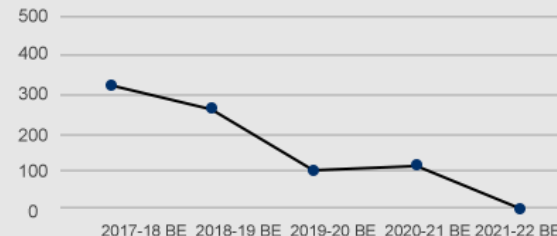
Trends in allocation for children in Union Budgets



Allocations for Samagra Shiksha Abhiyan



Allocations for National Scheme for Incentive to Girls for secondary education



- Total allocation for children¹ in the Union Budget (BE 2021-22) declined by 10.8% over 2020-21
- Allocations for Department of School Education and Literacy, Ministry of Education (MOE), declined from Rs. 59,368 crore (BE 2020-21) to Rs. 53,603.16 crore (BE 2021-22), a drop of ~10%
- Decline in budget allocations came when the education system was significantly stressed by the pandemic with shifts in enrolment and school operations, and roll out of changes based on NEP implementation
- Estimates for 2021-22 suggest that allocations for SSA reduced from Rs. 38,750 crores to Rs. 31,050 crores. Revised estimates for 2020-21 suggest that allocations for SSA reduced from Rs. 38,750 crore to Rs. 27,957 crore. Similarly, allocation for National Scheme for Incentive to Girls dropped from Rs. 110 crore to Rs. 1 crore

Long-term Costs

Recent research suggests Covid-19 learning shock can have significant long-term impact on India's human capital

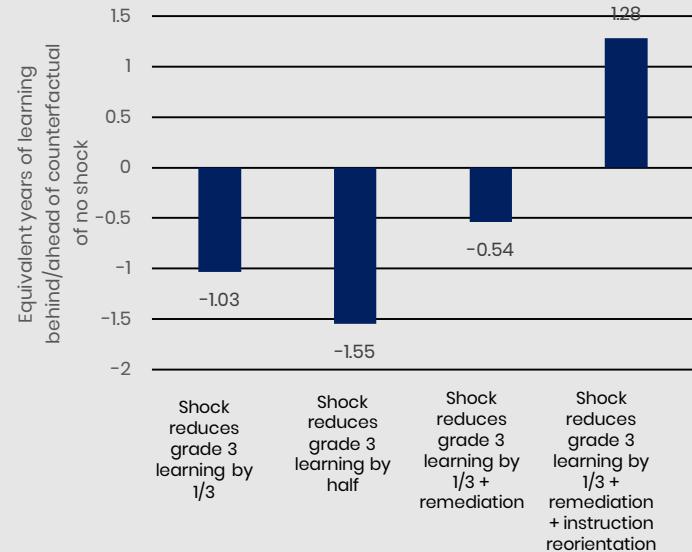


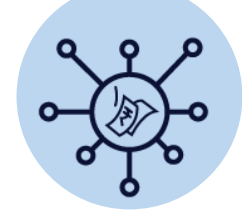
Long run impact of Covid-19 learning shock

[Kaffenberger \(2020\)](#) modelled the long-term impact of Covid-19 on learning, finding that:

- Learning losses from school closures could continue to accumulate even after children return to school
 - A 3-month school closure could reduce long-term learning by at least a full year's worth of learning
 - Remediation when children return to school reduces the long-term learning loss by half, but still leaves children more than half-a-year behind where they would have been
 - Remediation combined with long-term reorientation of instruction to align with children's learning levels fully mitigates the long-term learning loss
- The model introduces a learning shock for group of grade 3 students and models their learning trajectories and outcomes through grade 10
 - The model replicates average grade 10 learning in mathematics in seven low- and middle income countries who participated in the PISA for Development (PISA-D) assessment

Modelling estimates of long-term learning loss from Covid-19 shock and mitigation strategies





Long-term Costs

Low human capital development can lead to economic, social and distributional issues

Economic issues

- ▶ Learning loss has primarily two long-term economic costs:
 - At an individual level, children whose education are interrupted face a long-term income loss over their lifetime (*Hanushek & Woessmann, 2020*)
 - At an aggregate level, a less skilled workforce is less productive leading to low economic growth
- ▶ Inter-generational cycle of low human capital and productivity

Social and distributional issues

- ▶ Career earning losses are likely to be higher for:
 - Children from disadvantaged households
 - Low-achieving students
 - Students from vulnerable and/or marginalized groups
- ▶ Inequities in learning and income inequality worsen
- ▶ Learning poverty worsens, especially for children without access to at-home learning resources

Long-run loss in GDP due to Covid-19 induced learning losses

Learning loss (school-year equivalents)	In % of discounted future GDP	In % of current GDP	GDP decrease in year 2100
0.25	1.1%	52%	1.9%
0.33	1.5%	69%	2.6%
0.50	2.2%	103%	3.8%
0.67	2.9%	136%	5.1%
1.00	4.3%	202%	7.5%

Overview

I. Ecosystem Response to Covid-19

Discusses the education response of the central and state governments, and non-government organizations to the pandemic

II. Learning at Home

Explores how the interplay between access and other household characteristics determines the effectiveness of at-home learning

III. Re-opening of Schools

Assesses the considerations and approaches in re-opening schools after prolonged school closures



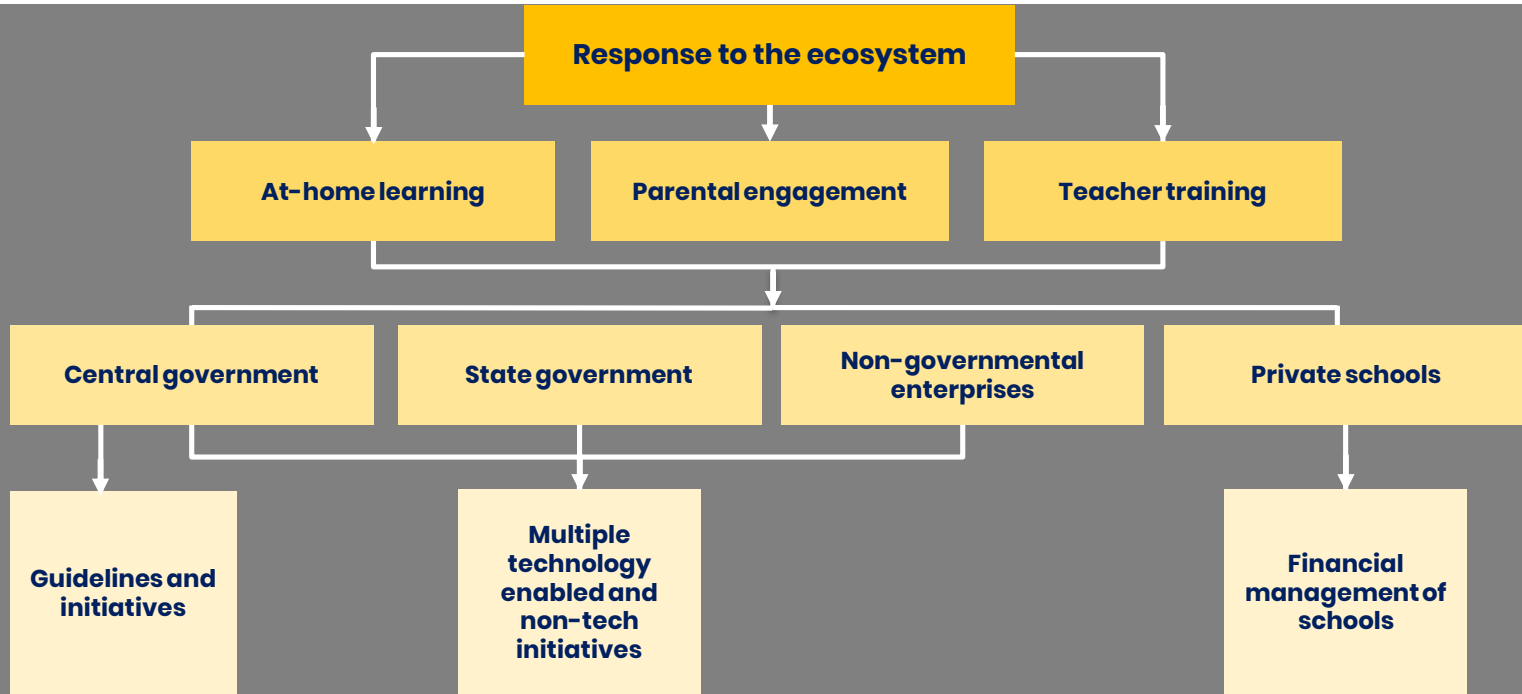
CENTRAL SQUARE
FOUNDATION

I: Ecosystem Response to Covid-19



Ecosystem Response

The ecosystem responded with range of measures to ensure continued learning during school closures



Central Government Response

Guidelines & Initiatives

Central Government Response

Guidelines for parents, teachers, students and school administrators were released to enable at-home learning



Central Government Guidelines (July–September 2020)

	Pragyata guidelines (MHRD, 2020)	Learning enhancement guidelines (NCERT, 2020)	Alternative academic calendar (AAC) (NCERT, 2020)
Launch date	July 2020	August 2020	September 2020
Content	Eight steps for digital and online education, i.e., P lan, R eview, A rrange, G uide, Y ak (talk), A ssign, T rack, A ppreciate	Continuous learning plans, models of learning enhancement for students without or with limited access to digital devices, roles of various stakeholders and how these will change in the post pandemic world	Under PM-e-Vidya, week-wise plans with curriculum related activities and challenges that teachers and parents can opt for
Stakeholders	Students, state officials, school heads, parents and teachers	School heads, state officials, parents and teachers	Students, parents and teachers

According to a survey conducted by CBSE, NVs and KVs, it was found that 59.9%, 61%, and 48.4% students of KVs, NVs, and CBSE, respectively, were aware of the AAC during the survey (NCERT, 2020)

Central Government Response

Various initiatives were launched to enable at-home learning and ensure learning continued during school closures



MoE launched SWAYAM PRABHA TV channels to telecast educational content for grades 1-12



Used 289 community radio stations and CBSE's Shiksha Vani podcast to deliver content for grades 9-12 and 1-12, respectively



Several kinds of home learning e-content were made available on online repositories, such as NROER (*National Repository of Open Educational Resources*), DIKSHA and NCERT's YouTube channel

Central Government Response

Online resources for continued professional development of teachers were provided



The response was primarily in areas of providing e-content for teachers on online platforms, and conducting trainings online. These trainings aimed to continue teacher professional development that was disrupted by the pandemic, with a renewed focus on training for facilitation of remote learning.



E-content

- CBSE developed term handbooks to aid teachers in aligning their classrooms with a competency framework (CBSE, 2020)
- Courses on several topics, such as experiential learning, were launched on DIKSHA to help teachers adapt to remote learning (MHRD, 2020, India Report Digital Education)



Online training

- NCERT shifted NISHTHA to an online mode by integrating teacher training, using the DIKSHA platform
- CBSE, KVs and JNVs undertook a large scale exercise to build online teaching capacities of their teachers as soon as the lockdown started, to ensure continuity of learning through online means, wherever possible (CBSE, 2020)

The MoE trained about 30 lakh elementary school teachers digitally during 2020–21 and plans to train around 56 lakh teachers across the country in 2021–22 (Indian Express, February 13, 2021)

State Government Response

At-home Learning

State Government Response

Various mediums for remote learning were adopted, each with its own advantages and limitations



Radio



TV



SMS/IVRS



Printed Books



Mobile Apps/ Web-based Portals

- Easily scalable, suited to reach low income households
- Does not require parental supervision to operate

- Widely available
- High recall value (audio + visual)
- Particularly suited for teaching subjects that need demonstration

- Allows easy interaction with community (teachers, students, parents)
- Two-way communication, can also be used for assessments

- Used to deliver content to remote households that do not have access to internet, radio, TV and smartphones

- Learning material can consist of advanced and adaptive learning software solutions
- Teacher-student interaction can be facilitated through “virtual classrooms”, including synchronous learning

- One-way communication, limited broadcasting hours
- Limited scope for tailoring content

- One-way communication, limited broadcasting hours

- Needs basic understanding of SMS and might require parental help to operate

- Difficult to ensure offline delivery during the pandemic
- Limited scope for innovative virtual learning

- Feature phones or smartphones are needed to access apps
- Needs internet access
- Might require parental supervision or support, especially for young children

Content Dissemination

Mediums with varying degrees of reach across different population segments in India



Radio

Home Stations: 420 stations; reaching nearly 92% of India and 99.19% of total population in 23 languages (*EY, 2019*)



TV

Households with TV: 210 million (BARC, 2021); with 80% penetration rate of paid cable and satellite TV (*Statista, 2020*)



SMS/IVRS

Urban Telephone Subscribers: 647.36 million, **Rural Telephone Subscribers:** 524.44 million
88% of Indian households have a mobile phone (*TRAI, 2020*) (*ice360, 2016*)



Mobile Apps

Internet: Overall: 40% | Urban India: 54% | Rural India: 32%
433 million (12+ years) and 71 million (5-11 years; on family devices) (*IAMAI, 2019*)



Web-based Portals

Broadband Subscribers: 734 million (*TRAI, 2021*)
11% of Indian households have access to a computer device (*TRAI, 2020*) (*NSSO, 2019*)

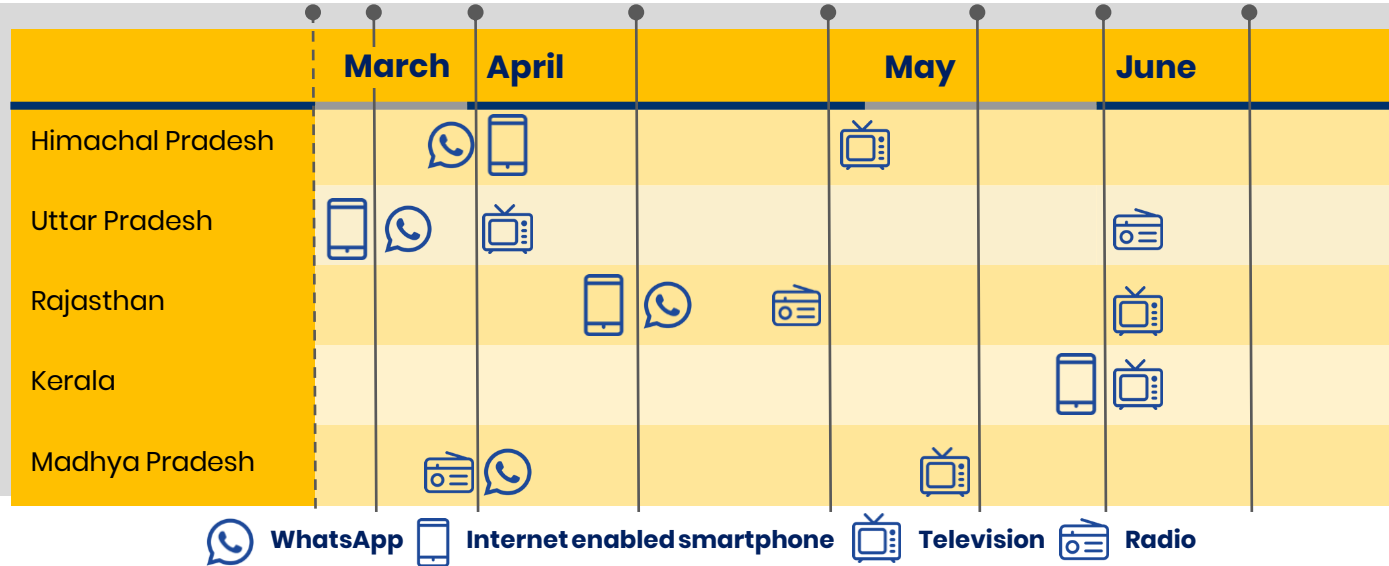


Printed Books

Textbooks distributed among 86.8% children/ parents (~96, 000 children) in rural India (*ASER, 2021*)

Rapid Education Response

States responded rapidly with multi-modal content dissemination programmes; many states designed and implemented them within 3 months of schools closing down in March 2020





Focus on Content Delivery

Education response* of states was multi-pronged with content delivery as primary focus



Content delivery



Monitoring and feedback



Assessments



Doubt resolution

	Mobile apps	Web-based portals	WhatsApp	IVRS	TV	Radio	Print/offline
Content delivery	HP, JH, MP, RJ	CHT, HP, HR, KR, MP, RJ, TN, UP	CHT, HP, HR, JH, MP, RJ, TN, UP	CHT, HR, MP	HP, HR, JH, KR, MP, RJ, TN, UP	HP, MP, RJ, UP	CHT, HP, JH, MP
Monitoring and feedback	HP, MP	HP	MP	HR, KR, MP			JH
Assessments	HP	CHT	MP, RJ				
Doubt resolution		CHT, RJ					

State abbreviations

CHT: Chhattisgarh
HP: Himachal Pradesh
HR: Haryana
JH: Jharkhand
KR: Kerala
MP: Madhya Pradesh
RJ: Rajasthan
TN: Tamil Nadu
UP: Uttar Pradesh

* The coverage of state responses is not exhaustive but limited to those states for which we were able to collect extensive and verified information

WhatsApp as New Age Teaching Tool

WhatsApp emerged as an important medium for at-home learning



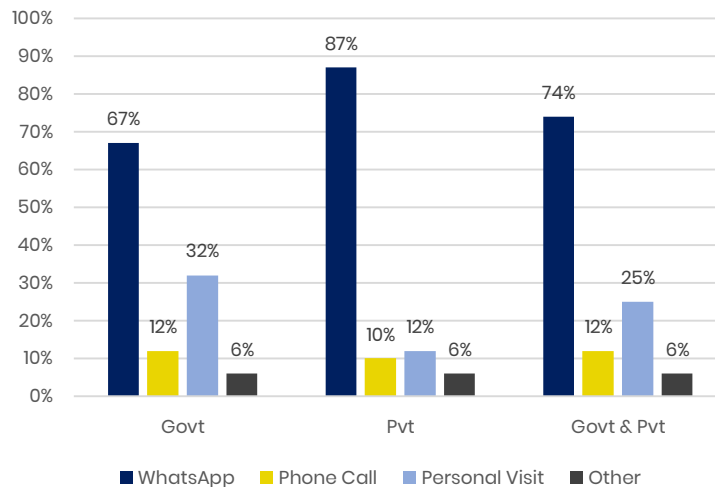
WhatsApp deployed across states

State	Initiative	Network
Gujarat	Study from Home	3,200 school groups, 35L+ students
Haryana	Ghar se Padhao	200+ school groups, 10L (50%) students
Jharkhand	Learning by WhatsApp	30,000 school groups, 10L students
Madhya Pradesh	DigiLEP	50,000+ school groups, 19L parents
Rajasthan	Project SMILE	9,226 school groups, 12.78L households
Uttar Pradesh	Mission Prerna	~1.4L school groups, 25L students

Source: MHRD, 2020, India Report Digital Education

WhatsApp is clear frontrunner for content delivery

% of children who received learning materials through different mediums



Source: [ASER_2021](#)

State Initiatives

At-home Learning*



Top 3 Dissemination Platforms

States primarily deployed three channels to facilitate at-home learning*



WhatsApp

Most states used WhatsApp to launch initiatives and cover a range of objectives, such as content delivery, assessments, monitoring and feedback, and doubt resolution

Examples & initiatives

Rajasthan: Aao Ghar mein Seekhein, Project SMILE

Chhattisgarh: Har Ghar School

Haryana: Ghar se Padhao

Himachal Pradesh: Har Ghar Pathshala

Web platforms & mobile apps

States launched platforms or apps easily used by students to synchronously and asynchronously access content, ask questions and resolve doubts

Examples & initiatives

DIKSHA, ConveGenius, Top Parent, Digi App, Learnytic, Sampark Didi, Shala Samvad, Gyan Pitara

Radio & TV

Several states utilized existing reach and dissemination lines of TV and radio to broadcast educational content

Examples & initiatives

Madhya Pradesh: DD, AIR

Tamil Nadu: KalviTholaikatchi




Kerala: VICTERS

Haryana: EDUSAT

Uttar Pradesh: English Seekho on AIR, DD




Rajasthan

Chhattisgarh

Radio	Shikshavani: content broadcasted at 11am daily				
TV	Channel: DD Rajasthan				
SMS/ IVRS/ Mobile phones				Audio bridge classrooms: Students used feature phones and landlines to connect to teachers without digital devices	
Mobile apps	<p>Bright Tutee</p> <p>Use: Provides digital learning content</p> <p>Target group: Grades 9-10 (Bweduction, April 2020)</p>	 <p>Use: Partnered with ConveGenius, which uses AI-based WhatsApp chatbots to offer personalized assessments, doubt learning services and content recommendations to students (Bweduction, October 2020)</p>	 <p>Use: Teachers provided material to children and resolved doubts with Aao Ghar mein Seekhein & Project SMILE initiatives. Video content was also available on YouTube & DIKSHA (Dainik Bhaskar, 2020) (ETGovernment, 2020, 15)</p>	 <p>Use: Delivered content and engaged parents with Har Ghar School campaign</p>	
Web-based portals	<p>DIKSHA Content: 2,500+ topics from 28 books</p> <p>Target group: Grades 1-10</p>	<p>Shala Samvad (Rajshaladarpan, 2020)</p> <p>Use: Other than e-learning content, special “talk to talk” interface allowed students to ask questions on the content, which were answered by a panel of experts.</p>	<p>E-platform under Padhaai Tunhar Duvaar (Cgschool, 2020)</p> <p>Use: Provides children with content, such as live classes, offline video lectures, worksheets and podcasts</p>	<p>Raise hand (ask question) section of platform</p> <p>Use: Allows students to post questions, which are answered within 24-48 hours</p>	<p>Gamefied assessment solutions of platform</p> <p>Use: Questions tagged to NCERT learning outcomes & rendered into small games (eg: online cricket) (Expresscomputer, May 2020)</p>
Printed books/ offline learning				Loudspeaker schools: Teachers collaborated with local community/ panchayat for loudspeakers to relay audio lessons in remote areas	

Tamil Nadu




Madhya Pradesh

Radio		<p>Radio School: Launched in collaboration with AIR Content: Stories and academic content broadcasted daily for 1 hour in the mornings and evenings Target group: Grades 1-8</p>	
TV	<p>Channel: Kalvi Tholaikatchi Content: Educational content broadcasted daily with fixed timetable (also available online with YouTube content) Target group: Grades 2-12</p>	<p>Channel: DD MP Content: Special educational programme, 'Classroom' aired twice a day, 5 days a week Target groups: Grades 9-12</p>	
SMS/ IVRS/ Mobile phones		<p>'Humara Ghar Humara Vidyalaya' campaign: Teachers visit student homes or phone them to track progress</p>	
Mobile apps	<p> Use: Teachers used groups to send content and assignments to students and resolve doubts</p>	<p> Use: Partnered with ConveGenius, which uses AI-based WhatsApp chatbots to offer personalized assessments, doubt learning services and content recommendations to students (Indiaeducationdiary, 2020)</p>	<p>Top Parent  Use: Delivers content & allows parents to track child's progress through continuous report cards Use: Delivery, curation, and monitoring of content under DigILEP scheme</p>
Web-based portals	<p>Tamil Nadu e-learn Platform Content: 10,000+ e-Learning content, 390 digital textbooks & 2,000+ aggregated YouTube videos</p> <p>TN DIKSHA Content: Energized textbooks that can be accessed via QR codes, 14,000+ resources Target group: Grades 1-12</p>	<p>Gyan Pitara Content: Online textbooks & videos Target group: Grades 3-8</p> <p>In collaboration with Room to Read, digitized flip books with stories were sent to students every Sunday to inculcate the habit of reading (Times of India, 2020)</p>	
Printed books/ offline learning		<p>Teachers distributed hard copies of weekly learning planners defining learning outcomes for students each day, based on their assessments and workbooks/ textbooks</p>	



Himachal Pradesh



Jharkhand

Radio	Content broadcast via AIR stations in the state					
TV	Channel: DD Himachal Target group: Grades 1-10		Channel: DD Jharkhand Content: Lessons streamed for 4 hours everyday under Hamara DoorDarshan Hamara Vidyalaya Target group: Grades 1-12			
SMS/ IVRS/ Mobile phones						
Mobile apps	Sampark Didi Use: Virtual classes and animated lectures at home Target group: Grades 1-8 (ETGovernment, April 22, 2020) (BusinessLine, April 16, 2020)	 Use- partnered with ConveGenius , which uses AI based WhatsApp chatbots to offer personalized assessments, doubt learning services, and content recommendations to students (The Logical Indian, 2021)	 Use: Used under ' Har Ghar Pathshala ' to deliver content to and evaluate students through worksheets	 Use: Delivered content for students and teachers as per structured calendar under digisATH	Digi App Use: Developed by Jharkhand Education Project Council to deliver content to students Target group: Grades 1-8 (Prabhat Khabar, 2020)	Learnytic Use: Developed by Jharkhand Education Project Council to deliver content to students Target group: Grades 9-12 (Prabhat Khabar, 2020)
Web-based portals	Samarth assessment dashboard Use: Managed & assessed learning profiles of students	Platform: Official website of the state Use: Hosts e-content including videos related to curriculum and worksheets for students				
Printed books/ offline learning	In certain remote areas (such as Kaza), text books and hard copies of worksheets were circulated among students		Mohala schools: For students without digital access, teachers in green zones initiated classes for 8-10 students with social distancing norms	Teachers go door to door to engage with students, get their feedback, and spread awareness about government initiatives		

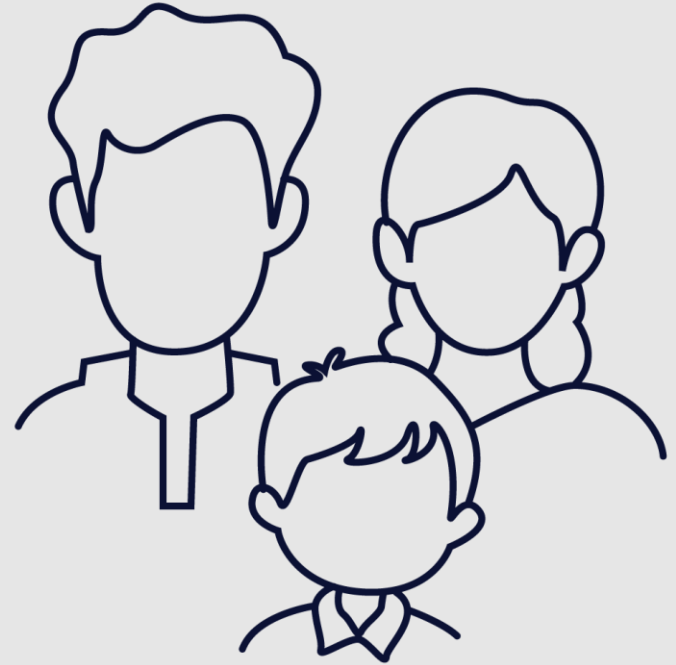
Haryana

Kerala

Uttar Pradesh

Radio			AIR and other channels used to broadcast audio-based learning programmes. English Seekho programmes were aired in partnership with UNICEF
TV	Channel: EDUSAT TV channels Target group: Grades 1-12	Channel: VICTERS educational channel Target group: Anganwadi to 12	Channel: Doordarshan UP
SMS/ IVRS/ Mobile phones	Ghar se Padhao Abhiyaan: Content sent via SMS Teachers review student work via follow up calls and messages: 1,800 mentors call 15 parents each for feedback every week	Teachers used phones to collect feedback from parents and resolve doubts of students. Authorities are informed of the feedback, based on which suitable solutions are developed.	
Mobile apps	 Use: Under the Ghar se Padhao WhatsApp campaign , class groups were used to share content, daily activities, homework, and keep track of student performances (Hindustan Times, 2020)		 Use: As part of Mission Prerna ki e-Pathshala, teacher-to-student WhatsApp groups exchanged content.
Web-based portals	Platform: Ghar se Padhao website Use: Hosts a variety of links to several kinds of home learning content	Platform: Samagra Use: KITE* created an online learning platform, which is a repository of academic and edutainment content. Content is also made available on YouTube and Facebook Target group: Grades 1-12	Platform: Website of Department of Education Use: hosts several e-resources (textbooks, activity charts, etc.) Platform: DIKSHA Use: To deliver content
Printed books/ offline learning			

State Government Response Parental Engagement



Tech-enabled Parental Engagement

States took several initiatives as part of their education response to Covid-19



- Engaging with parents is an important part of providing remote learning
- Several states used WhatsApp and IVRS to engage with parents
- Engagement included feedback on children's progress & other information to parents

Madhya Pradesh

- Launched '**Top Parent**' app as part of the DigiLEP – **Aapki Padhai Aapke Ghar** scheme
- Provided content through the app and WhatsApp groups, which allowed parents to get information on their children's progress through continuous report cards

Haryana

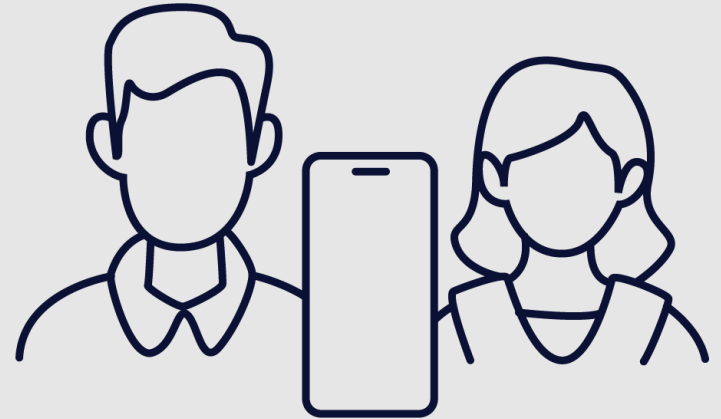
- **E-Mega PTM**
- Class teachers and school heads assigned to talk to parents
- ABRC/BRP/DIET faculties monitored at least 15 parents and 5 teachers/heads of their clusters

Uttar Pradesh

- Launched '**Top Parent**' app, which currently houses three high-quality EdTech apps for children – **Chimple, Maths Masti and Google Bolo**
- Families of students, without access to WhatsApp, were invited to school once a week to discuss study plans for students
- Collaborated with **Rocket Learning**, an NGO that uses WhatsApp and Facebook messenger, to send content to parents and mobilise communities of teachers and parents around Early Childhood Care and Education (*Millenniumpost, 2021*)

State Government Response

Teacher Capacity Building



Teacher Training

States collaborated with NGOs and content partners to roll out online teacher training modules



Web portals & online resources	Kerala <ul style="list-style-type: none"> Online state-level training conducted for primary teachers through VICTERS educational channel, webinars, web portals, and social media Specific ICT trainings provided online to 81,000 primary school teachers (MHRD, 2020, India Report Digital Education) 	Tamil Nadu <ul style="list-style-type: none"> TNTP* empowered teachers with training and support material, e-learning content, digital textbooks, interactive quizzes and aggregated YouTube videos Madhi launched SEED*, a programme that co-created capacity development with the state; 300 officials already signed up (Madhi, 2020, Covid Response) 	Gujarat <ul style="list-style-type: none"> Continuous Learning Programme for Professional Development of Teachers through TEACHER App Content for teachers is also available offline once downloaded and shared via SMS (MHRD, 2020, India Report Digital Education)
	Chhattisgarh <ul style="list-style-type: none"> Partnered with 22+ NGOs to train teachers** (MHRD, 2020, India Report Digital Education) 	Delhi <ul style="list-style-type: none"> Online Capacity Building Programme (OCBP)** provided pedagogical support to teachers. The content is provided via the Chalkit app (MHRD, 2020, India Report Digital Education) 	Himachal Pradesh <ul style="list-style-type: none"> Continuous Learning Programme for Professional Development of Teachers through TEACHER App Content for teachers is also available offline once downloaded and shared via SMS (MHRD, 2020, India Report Digital Education)
Mobile apps			
DIKSHA	Madhya Pradesh <ul style="list-style-type: none"> CM RISE Digital Teacher Training uses DIKSHA to provide courses for teachers covering core subject topics, FLN pedagogy skills and select non-subject related soft skills Reach: 2.5 lakh teachers have already completed two modules (MHRD, 2020, India Report Digital Education) 	Delhi <ul style="list-style-type: none"> Launched its own LEAD programme leveraging DIKSHA to ensure teacher training (India Today, 2020, July 4) 	Uttar Pradesh <ul style="list-style-type: none"> Launched initiative to shift all teacher training activities online via DIKSHA for 5.5 lakh teachers through 200+ courses (MHRD, 2020, India Report Digital Education)

NGO Response

Last Mile Delivery



Mix of Ed-tech & In-person Support

NGOs supported at-home learning through blend of ed-tech enabled and in-person initiatives



WhatsApp

Saarathi Education

- Implemented WhatsApp-based learning programme for nursery to grade 5 students in Delhi
- As of August 2020, worked with 8,000+ families across 10 communities. During lockdown, worked with **3,000 children**, with **90% daily response rate** and **2,700 parents**, who submitted work for grading every single day
- **85%** of students were able to meet their **learning targets** (Yehaindia, August 6, 2020)

Madhi

- **Foundational Learning Over WhatsApp (FLOW)**: Provides continuous foundational learning to students of grades 1-3 in low income households of Tamil Nadu. Designed to work with infrequent internet connectivity, in local languages, and for those unfamiliar with the technology used (Madhi, 2020, Covid Response)

Pratham

- Launched **Karona, Thodi Masti, Thodi Padhai**: Series of curated content, such as text, audio, and video, centred around music, art, theatre, as well as academics, is sent across WhatsApp and SMS. Content is available in 10 regional languages and English
- Collaborated with 11 state governments to create content leveraging WhatsApp and SMS for specific grades, content from prathamopenschool.org and the Pradigi App, radio and IVR

Mix of Ed-tech & In-person Support



IVRS	App and tech-based solutions	
<p data-bbox="316 285 413 312">Madhi</p> <ul data-bbox="102 358 629 945" style="list-style-type: none"><li data-bbox="102 358 629 596">• Launched Happy Learners in partnership with the Tamil Nadu government, this initiative uses a combination of IVRS calls, printed books and worksheets to deliver daily learning content to children with little or no access to internet and technology<li data-bbox="102 601 629 699">• A digital tracker has been designed for teachers to monitor the progress of their students on a weekly basis<li data-bbox="102 705 629 945">• Programme launched in Chennai and Tiruvannamalai districts, where over 9,500 children were provided with Happy Learners books, and over 450 teachers were inculcated into the programme <i>(Madhi, 2020, Covid Response)</i>	<p data-bbox="904 285 1020 312">iDream</p> <ul data-bbox="681 358 1248 492" style="list-style-type: none"><li data-bbox="681 358 1248 492">• Launched mobile-based learning app with digital content for grades 1-12, which is now used by 1.5 lakh local language students <i>(Digitallearning, April 24, 2020)</i>	<p data-bbox="1479 285 1673 312">ConveGenius</p> <ul data-bbox="1296 358 1856 738" style="list-style-type: none"><li data-bbox="1296 358 1856 459">• Launched expansive pan India campaign: #EdtechforNayaBharat <i>(Insightsuccess, 2020)</i><li data-bbox="1296 465 1856 596">• Social enterprise under the campaign aims to provide high-quality education and essential resources to 100 million underprivileged students<li data-bbox="1296 601 1856 738">• Innovated WhatsApp based AI chatbot solution for doubt solving of students, and partnered with several state governments to implement the solution
<p data-bbox="678 784 1827 880">Moreover, for profit edtech solution enterprises such as Byju's, Vedantu, Udemy, and Doubtnut made most of their content, including live tutorials, available for free once the pandemic struck, to further enable at-home learning for students.</p>		

WhatsApp used in multiple ways by all stakeholders in the ecosystem

Communication channels: Several states used the app to interact with students, parents and teachers, and establish communication groups between BRCs, CRCs, school heads, teachers and all stakeholders

Assessments: Used by stakeholders to conduct assessments and resolve doubts

Content delivery: Used by teachers and officials to deliver content to parents and students; by state officials to deliver content to teachers; and by other system officials for training

Feedback: Teachers used the app to interact with parents and elicit information on student performances

Rocket Learning: Case Study on How NGOs Used WhatsApp

- Launched in March 2020, brought e-learning materials to **more than one lakh children** in Chandigarh, Maharashtra (Aurangabad, Mumbai) and UP (Lucknow, Varanasi, Mahoba, Agra, Barabanki) by reinforcing learning through digital content sent to parents
- Uses custom built tech to create and mobilise communities of parents and teachers around Early Childhood Care and Education, with the help of AI and automation.
- Content available in Hindi and Marathi
- Content delivered through WhatsApp and Facebook messenger (*Millenniumpost, 2021*)

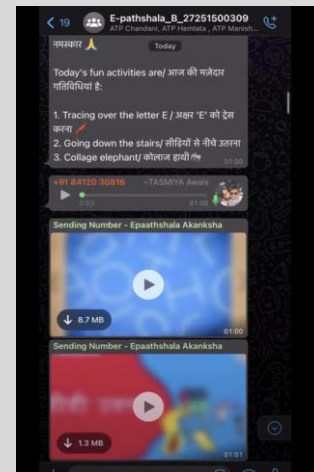


Photo Source: Rocket Learning

Awareness and Effectiveness of Ecosystem Initiatives



Learning Tools Dissemination Challenges

Despite various at-home learning initiatives, many students did not receive learning material during school closures



ASER¹, which surveyed 52,227 rural households in September 2020, found that reach of at-home learning materials were limited in government as well as private schools:

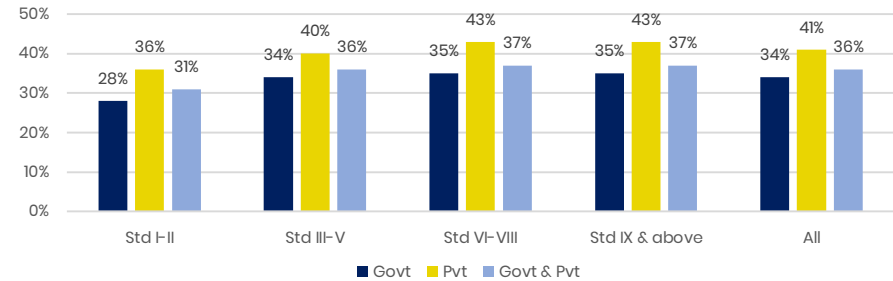
- Proportion of enrolled children who received learning material was higher in higher grades than in lower ones; and higher among students in private schools than in government ones
- Among households that reported not having received any learning materials, most said that the school had not sent

Delhi NCR Covid-19 Telephone Survey (NCAER, 2020)

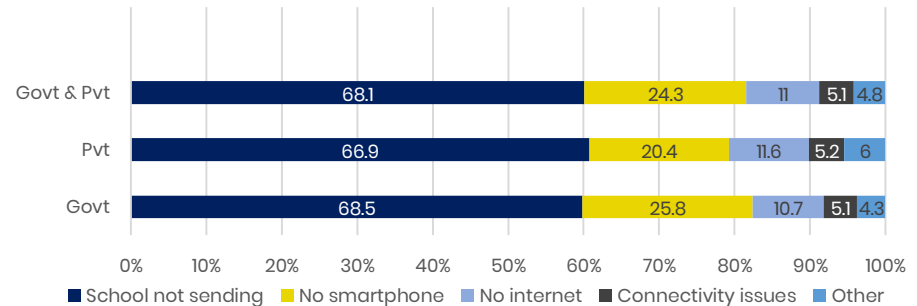
The DCVTS Round 4 was conducted from 23 December 2020 and 4 January 2021 and interviewed 3,168 rural and urban households in Delhi NCR

- Nearly 25% of children were neither offered online classes nor given any recorded lessons from school when remote learning was the norm
- About 32% of children did not receive any learning material from school and 27% were not given any homework or assignment

Enrolled children who received learning materials



Reason given by parents for not receiving learning materials



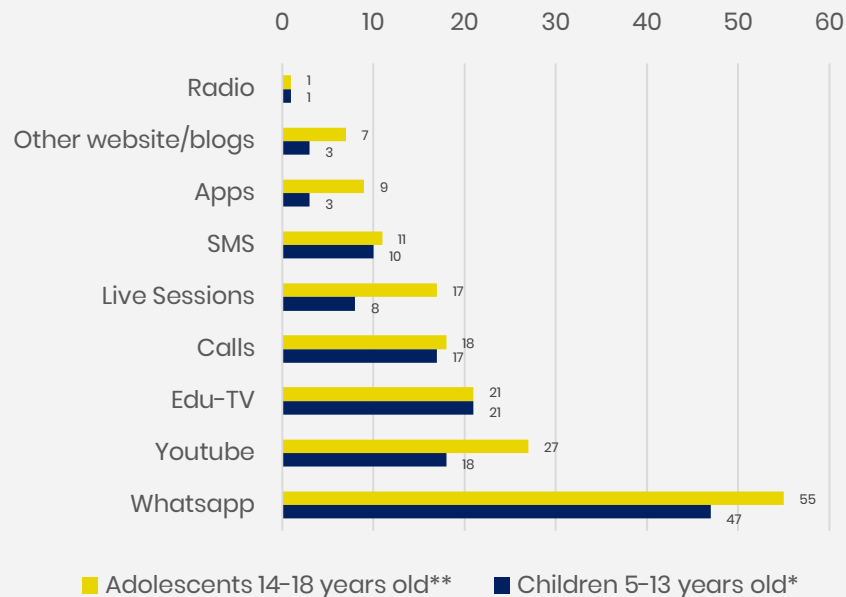
Source: ASER 2021

WhatsApp & Textbooks Key Mediums

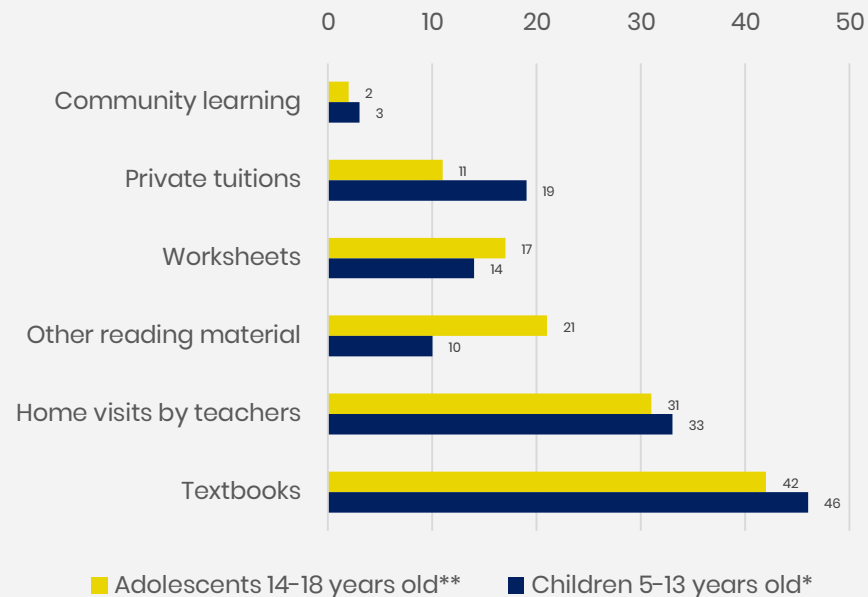
Content shared over WhatsApp and textbooks were primary materials used by children learning at home



Tech-based tools for studying & learning



Traditional mediums for studying & learning



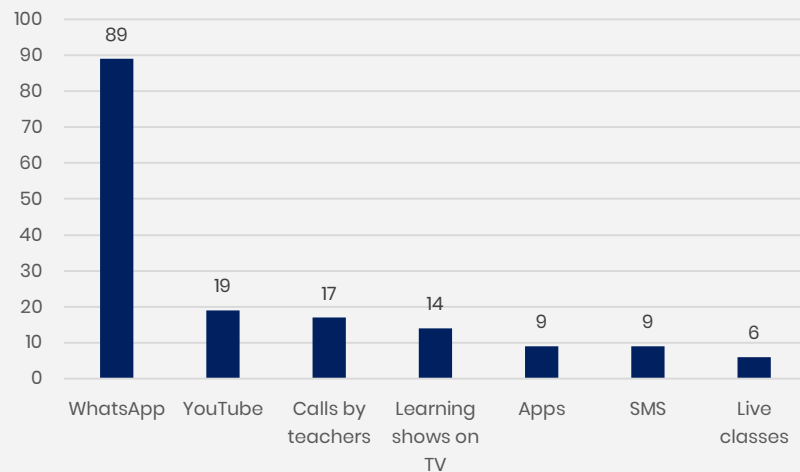
*n= 1862 **n= 1537

Teachers Favoured WhatsApp

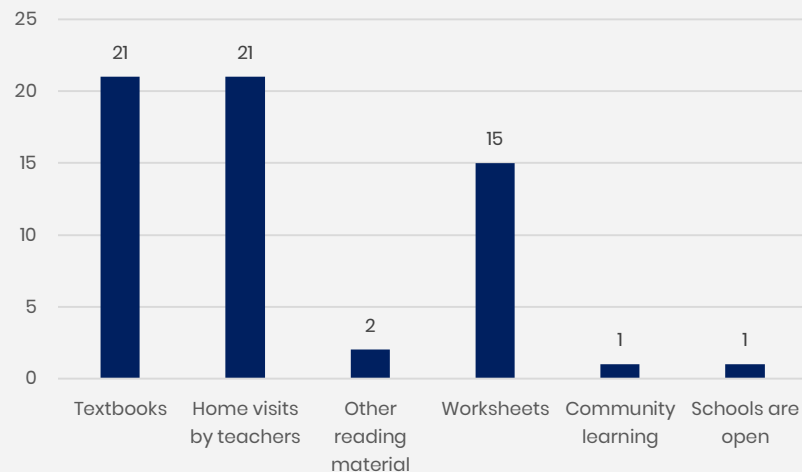
Teachers overwhelmingly used WhatsApp to provide at-home learning



Technology based tools used for teaching



Traditional means used for teaching

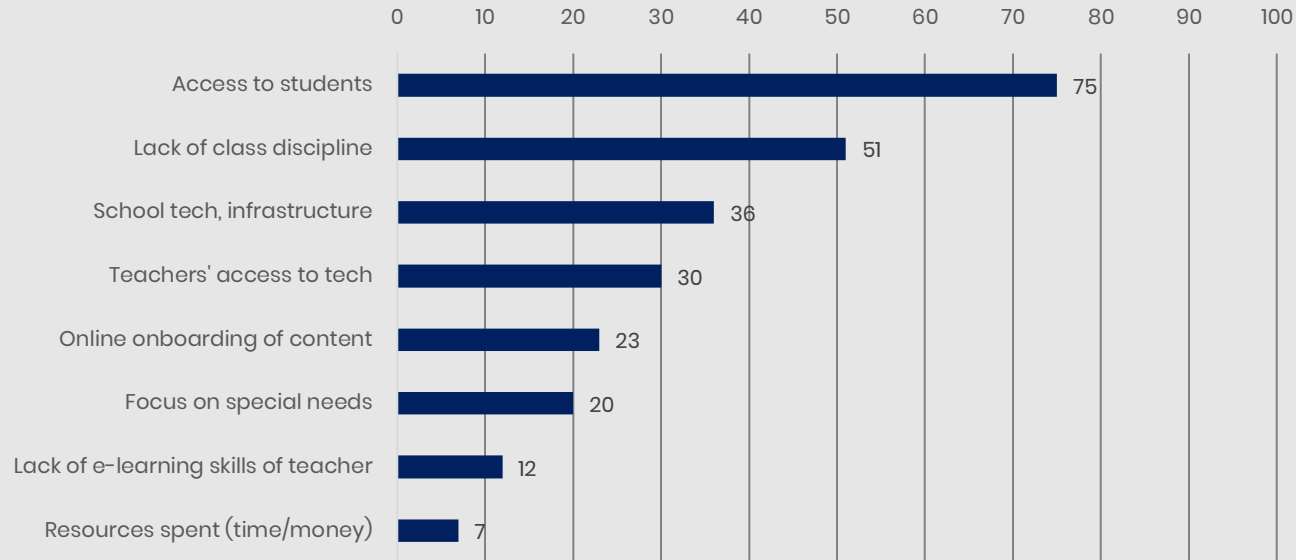


Reaching Students Biggest Challenge

Teachers faced a host of challenges in teaching during remote learning, accessing their students being the biggest hurdle



Challenges faced by teachers to conduct online classes

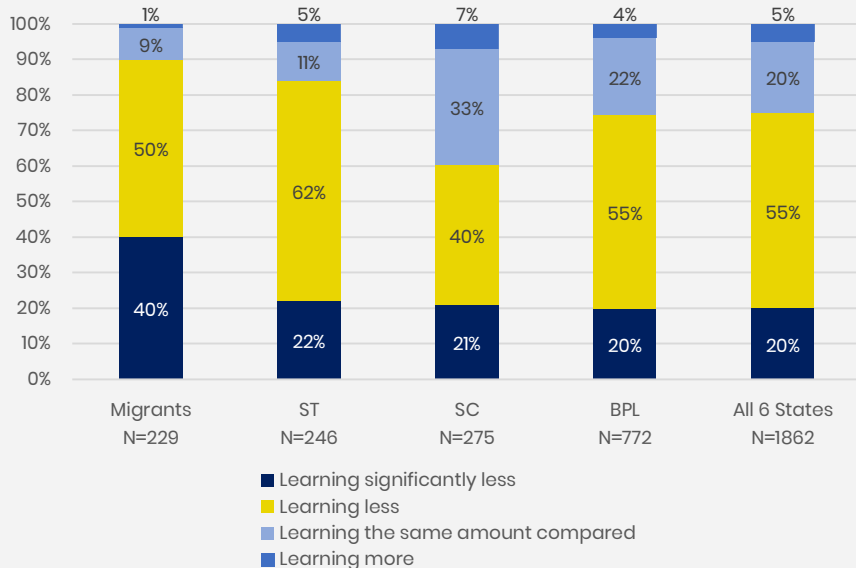


Parents Unsure of Value of At-Home Learning

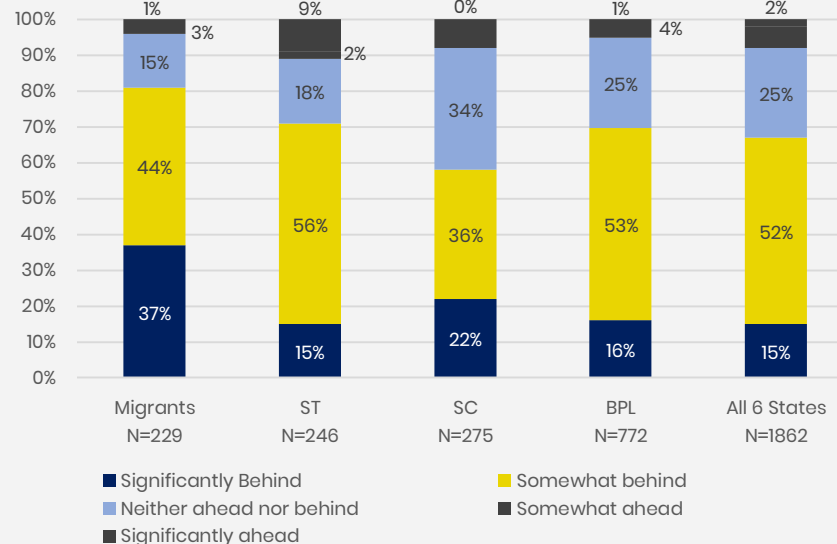
Parents perceive children's learning at-home to be lower than learning in-school



Parents' perception of how children are learning now

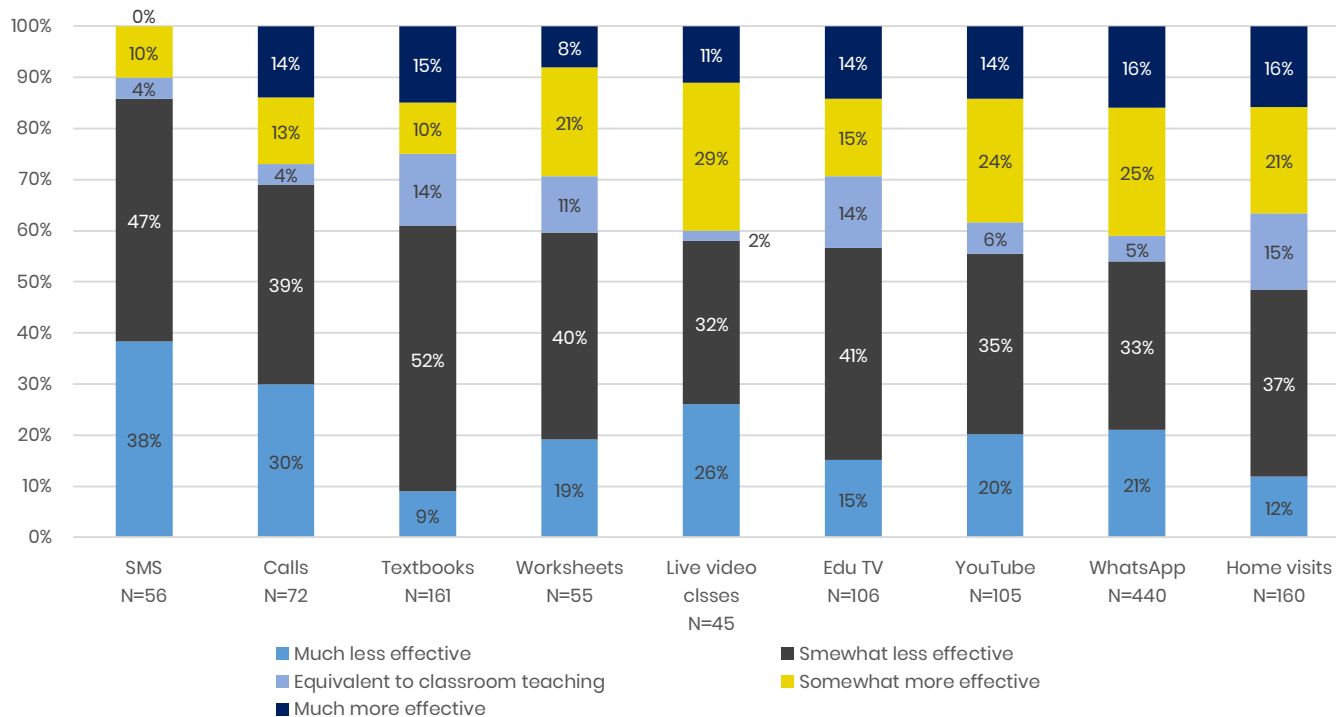


Perceptions of overall learning progress



Remote Learning Tools Seen as Less Effective

Teachers perceived all remote learning tools to be less effective than in-person classroom teaching



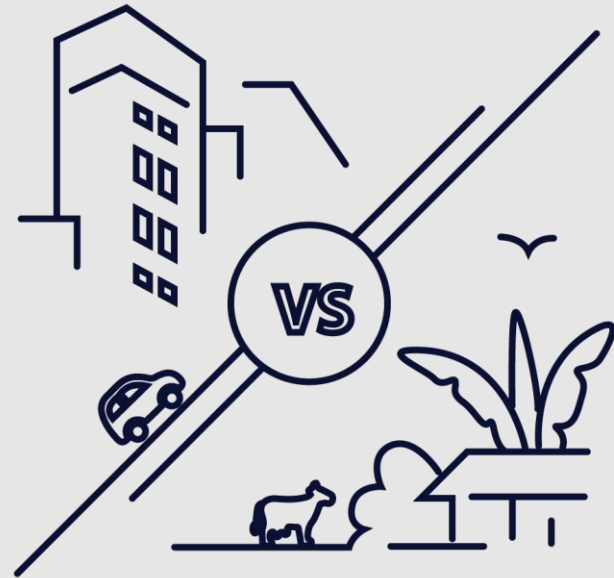


CENTRAL SQUARE
FOUNDATION

II: Learning at Home

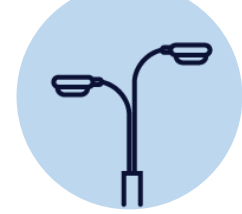


Access Characteristics



Challenge of Sustained Power Supply across India

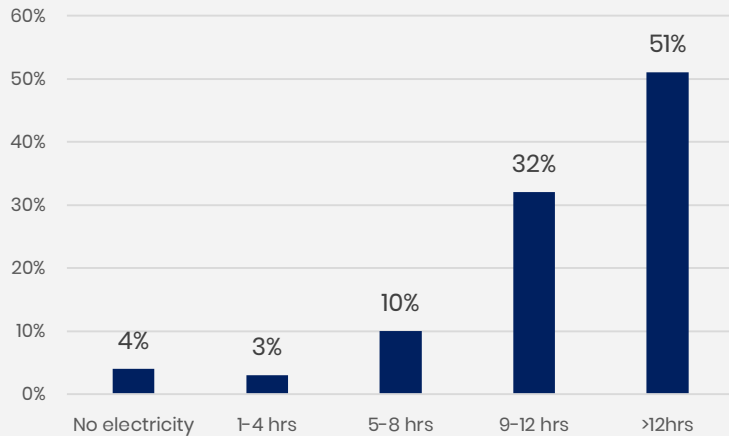
India has near universal electricity connections, but sustained electricity supply varies significantly across the country



- Almost 99.9% of homes in India have a power connection (Government of India, 2017)
- Geographic advantage: Metros get 7 hours more power on average than underserved rural areas

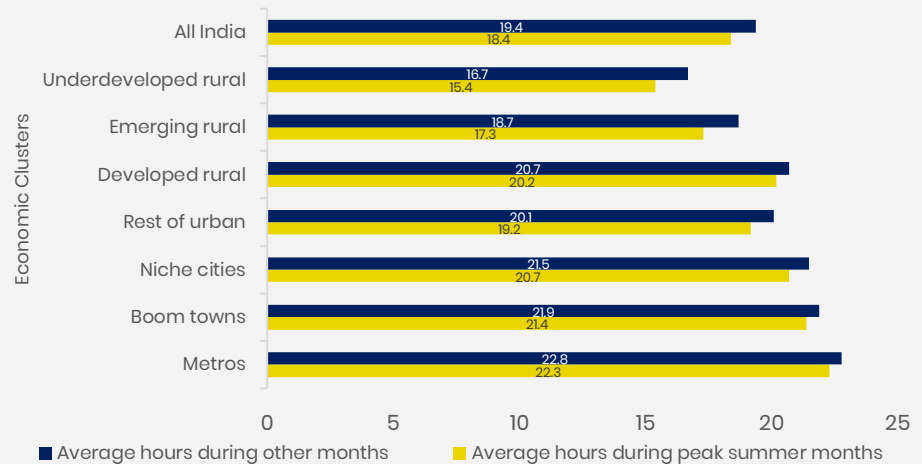
Power Supply

Less than 50% of households have access to electricity for more than 12 hours



Power Cuts

Metros get seven hours more power on average than under-developed rural areas



Source: [Ministry of Rural Development, Mission Antyodaya, 2019](#)

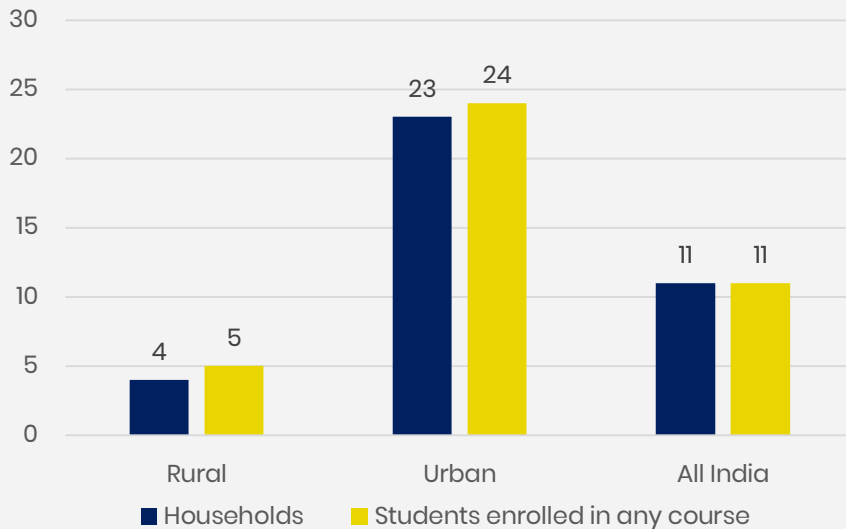
Source: ICE 360 Survey, 2016, from People Research on India's Consumer Economy (PRICE)

Lack of Digital Devices at Home

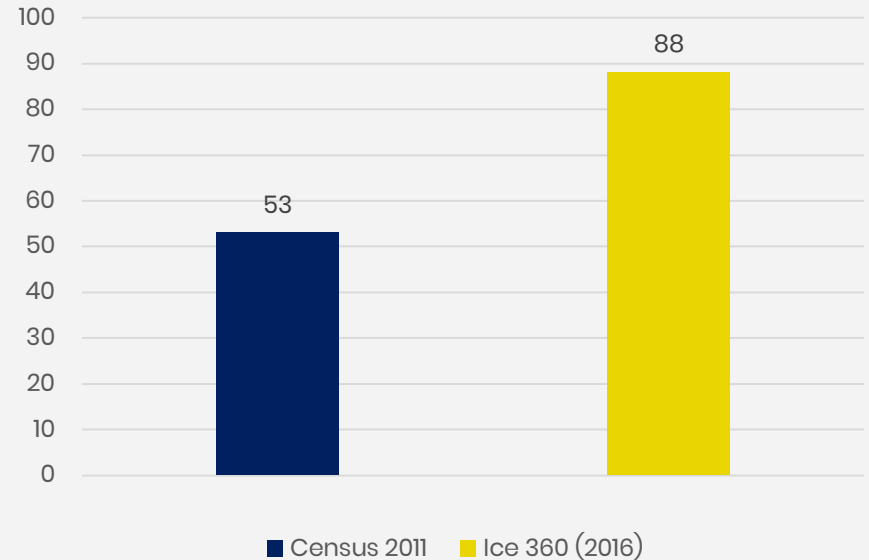
Device ownership at HH level is varied; while only 11% HH have access to computers, ~88% own a mobile phone



Households with access to computers (%)



Households with mobile phone (%)



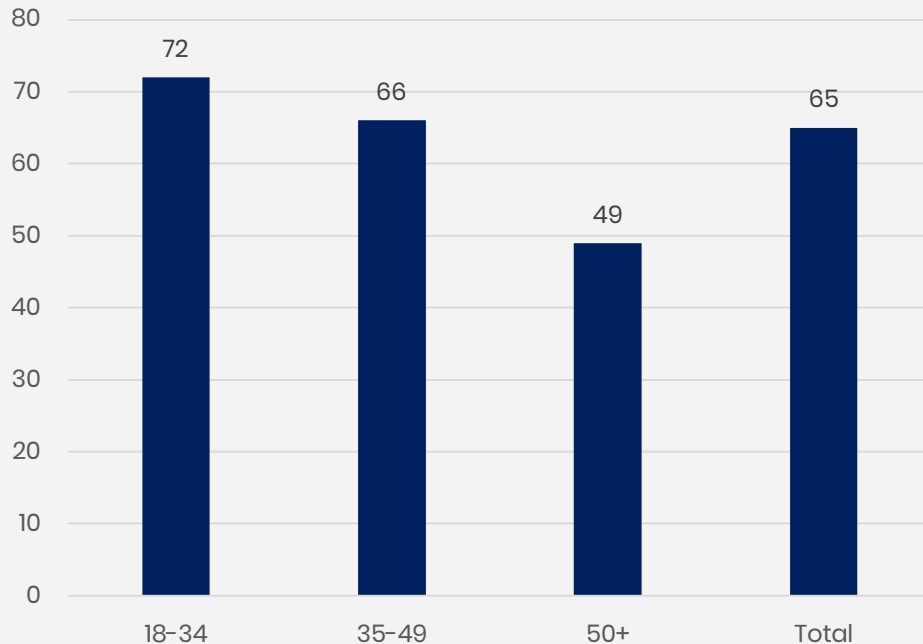
Source: NSS 75th Round, 2019

Varied Mobile Phone Ownership

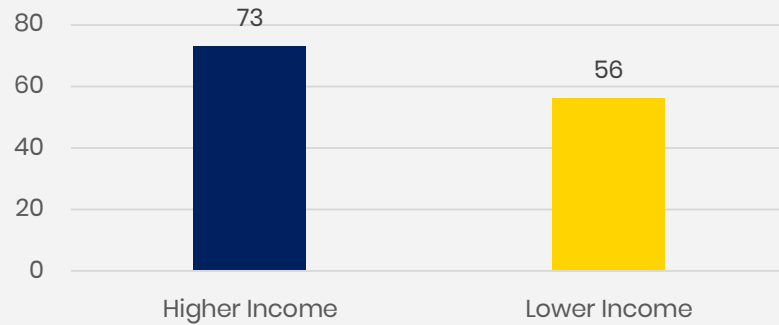
While mobile ownership is increasing, it varies significantly by age, income and gender



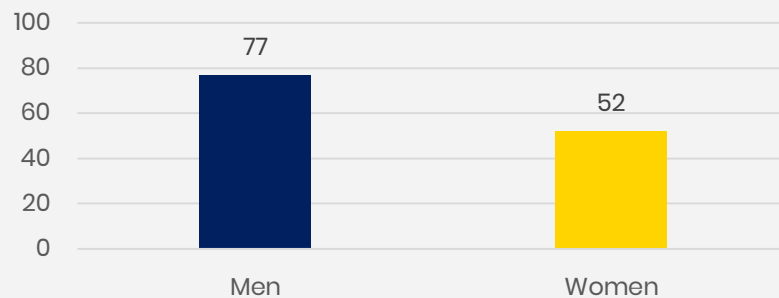
Mobile phone ownership by age-group (%)



Mobile phone ownership by income group (%)



Mobile phone ownership by gender (%)

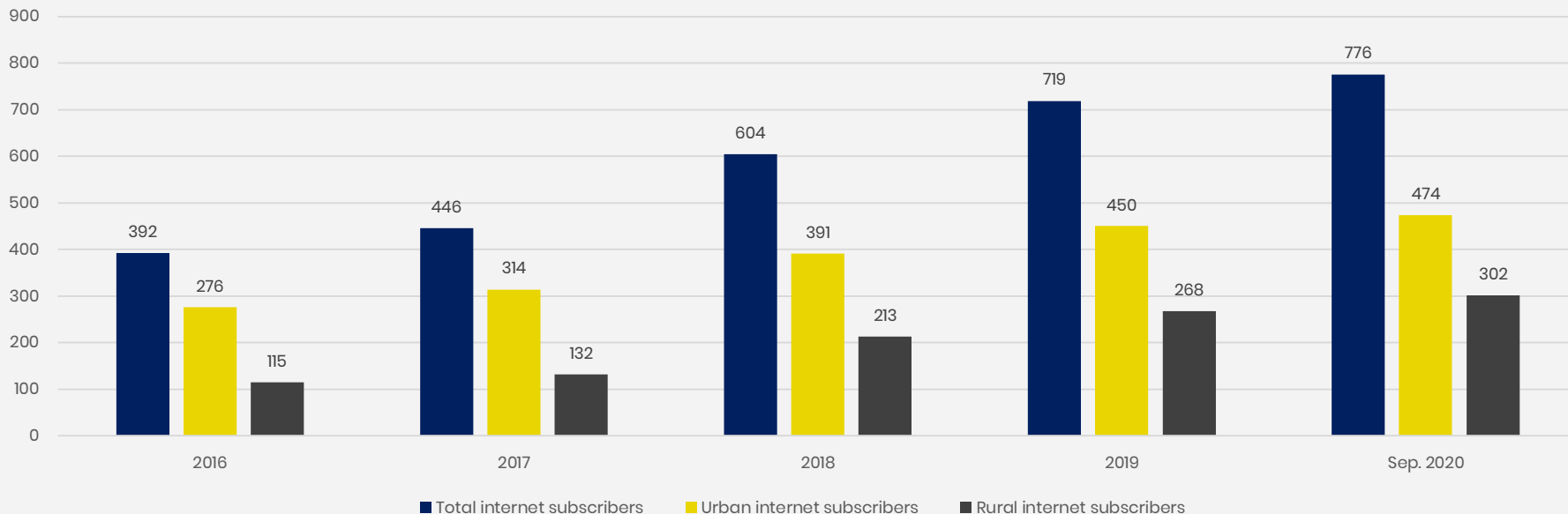


Urban Internet Subscribers outpace Rural Subscribers

Internet subscribers in India have been growing steadily with urban internet subscribers outpacing rural subscribers



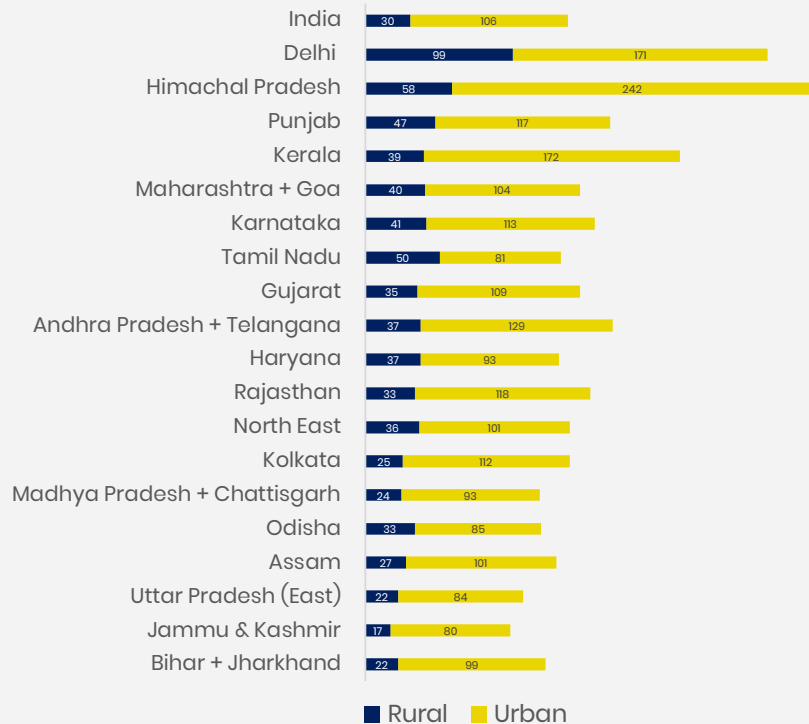
Internet subscribers in India (mn)



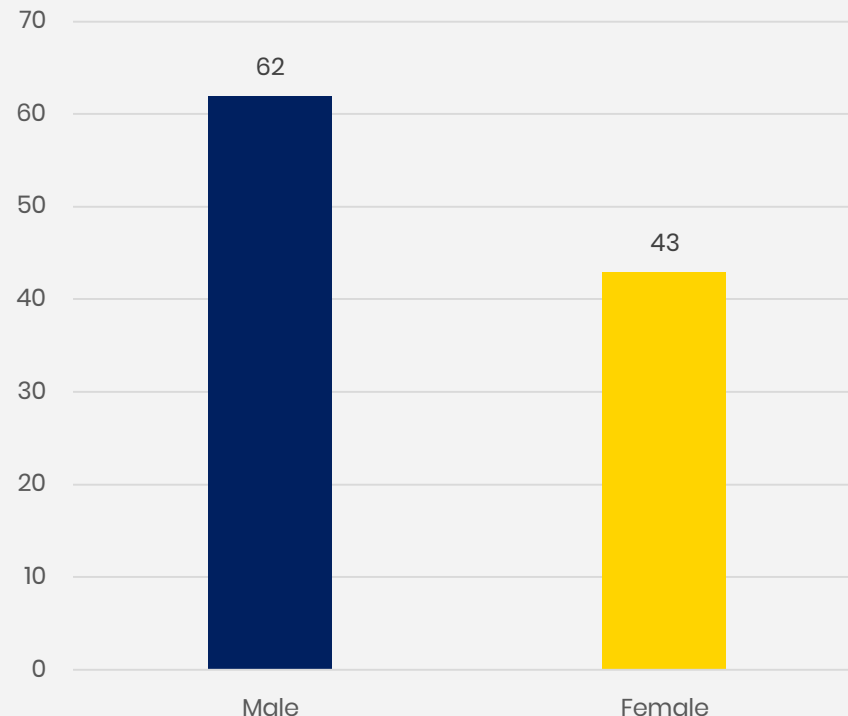
According to TRAI, as of September 2020, **96.78%** of all internet subscribers in India were mobile wireless subscribers

Disparities in Internet Access & Usage by Geography & Gender

Rural-urban gap in internet access



Internet usage by gender (%)



Source: TRAI (as on December 2019)

Note: Data not given for three circles – Mumbai, Uttar Pradesh (West) and West Bengal (including Sikkim)

Source: National Family Health Survey 5, 2019-20

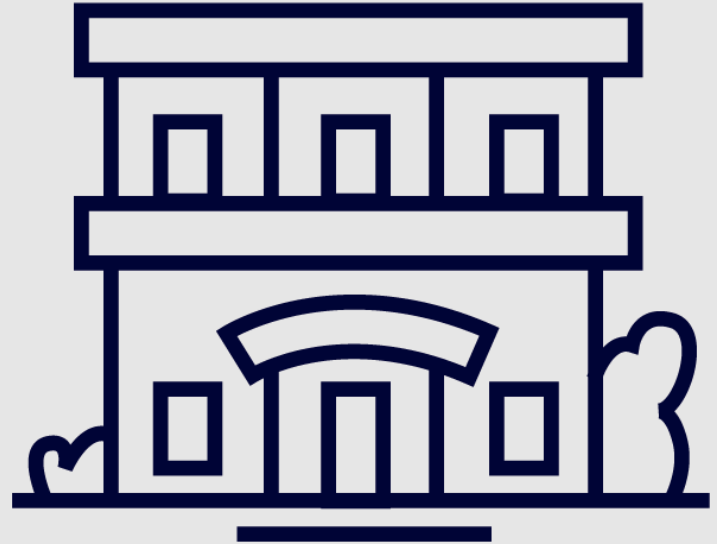
Varied Access to Internet at Home

At the household level, access to internet varies from 10–24% depending on definition and data source



Name	Year	Definition	Sample Size	Estimate
ICE 360 Survey, 2016	2016	1. Access to internet at home 2. Access to internet (not restricted to home)	61,000 households	- 10% (27 million) households reported having internet connection at their home - 22% (62 million) of Indian households have at least one member accessing the internet (either at work or home or elsewhere, and either through a computer or mobile)
NSSO 75th Round	2017–2018	Access to the internet is defined as a household possessing any device, such as computer, tablet, smart phone, etc, through which internet facility is available, whether or not it has been used	1,13,757 households	- 24% have internet facility - 15% in rural, 42% in urban areas
NFHS-5	2019–2020	Men/ Women who have ever used the internet	610,000 households	42.6% of women ever used the Internet as against 62.16% of men Urban : 56.81% women in urban India ever used the Internet compared to 73.76 % among the men Rural : 33.94 % women in rural India ever used the Internet as against 55.6 % among men
ICUBE Digital Adoption and Usage Trends	2020	Active internet users	75,000 households	574 million active internet user

Household Characteristics

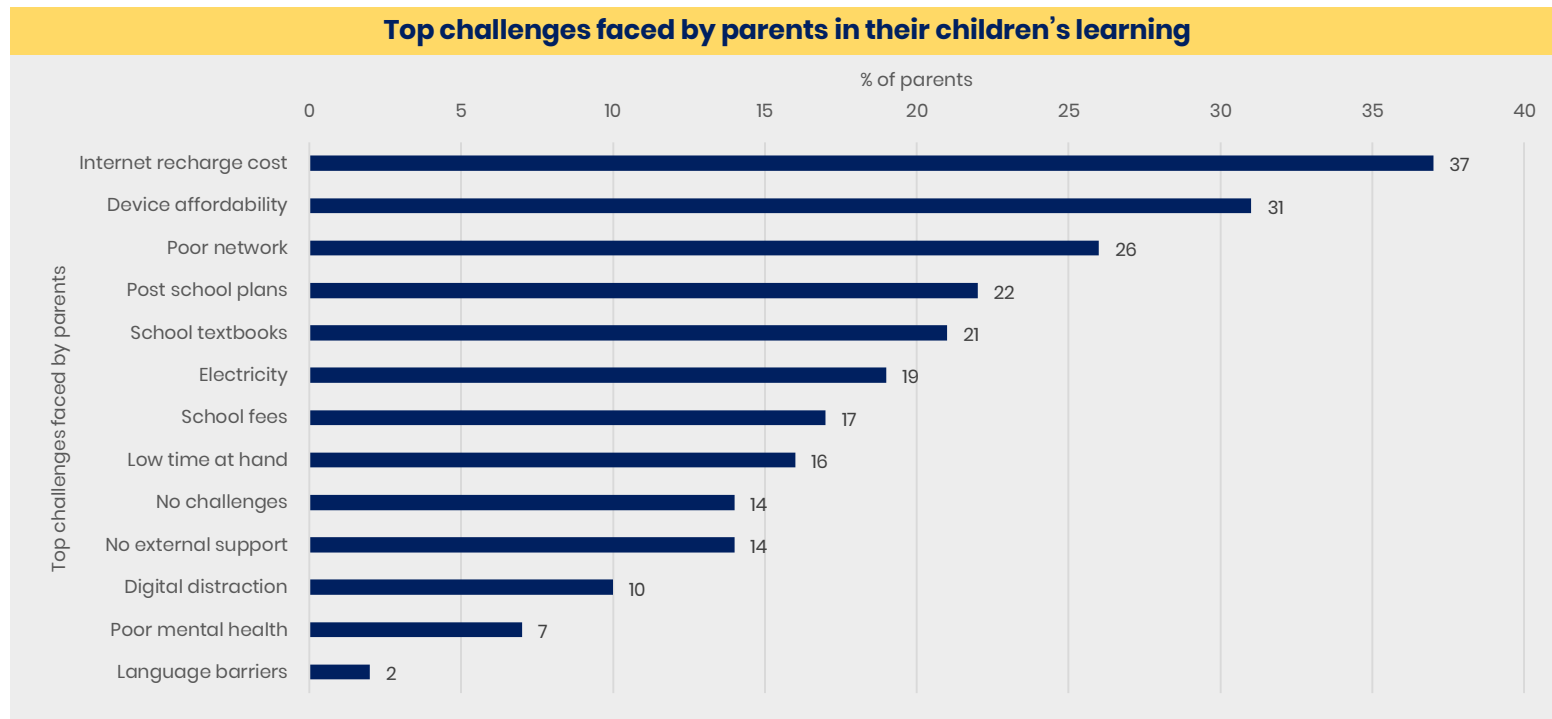


At-home Learning Challenges for Households

Parents faced a host of challenges in meaningfully engaging with their child's learning at home



Top challenges faced by parents in their children's learning



Device Affordability Challenge

Affordability of phones is a key constraint to household access to at-home learning



For a large segment of India's population a smartphone could still cost 3-16% of their daily income (GSMA-Dalberg, 2017)

Daily income range	Proportion of population	Cost of smartphone as proportion of income	Cost of cheapest internet-enabled phone as proportion of income
<\$2	19.80%	16%	9%
\$2-10	76.90%	3-16%	1-5%
\$10-20	2.60%	2-3%	0.5-1%

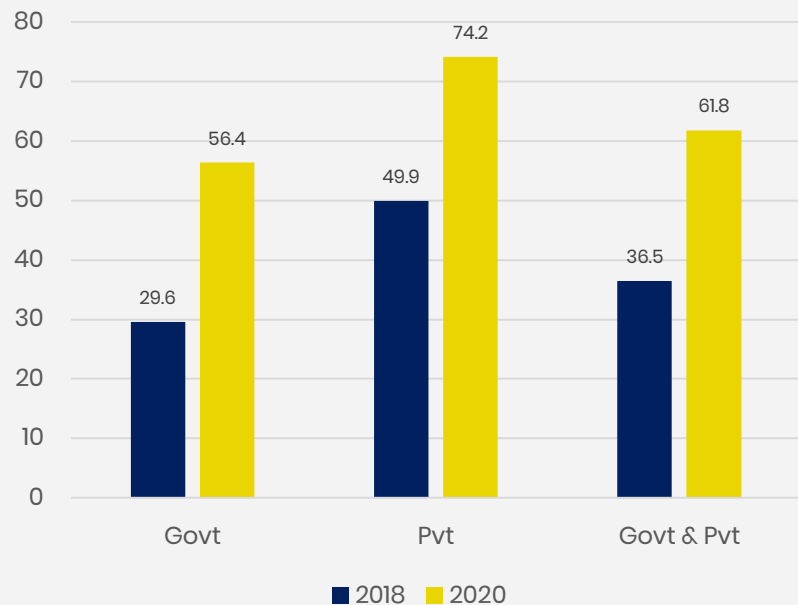
According to a recent UNICEF study, parents report that data costs (37%), device affordability (31%), and poor network connectivity (27%) as key constraints to remote learning for their children

Smartphones Topped as Learning Tool in Rural India

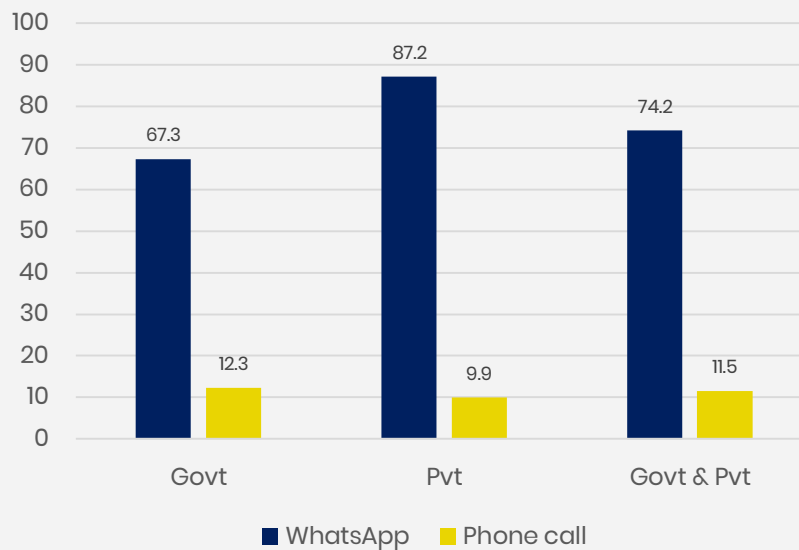
Despite constraints of phone availability, affordability & access, data from rural India shows that 62% of children could access a smartphone for at-home learning



Do children have a smartohne at home?



Phone based mediums of sharing learning content

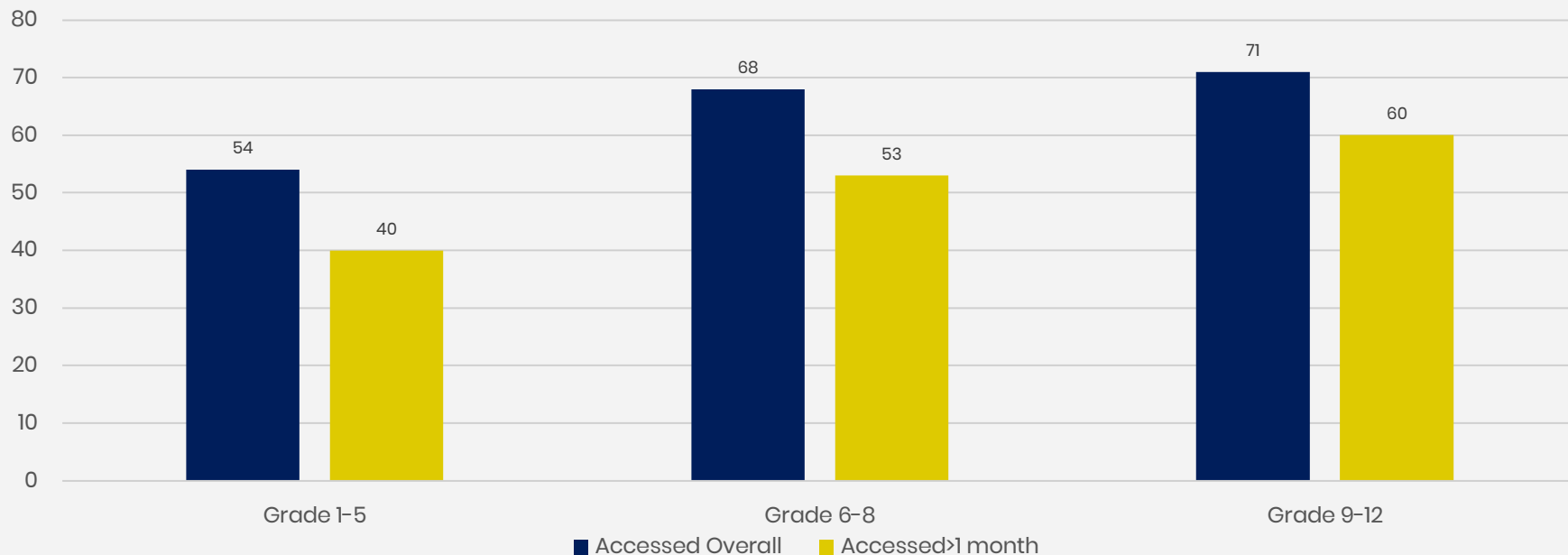


Younger Children Struggled with Access

Younger children, however, are less likely to access relevant learning content than older children



Accessing learning content by grade (% of children between 5-13 & 14-18 years of age)

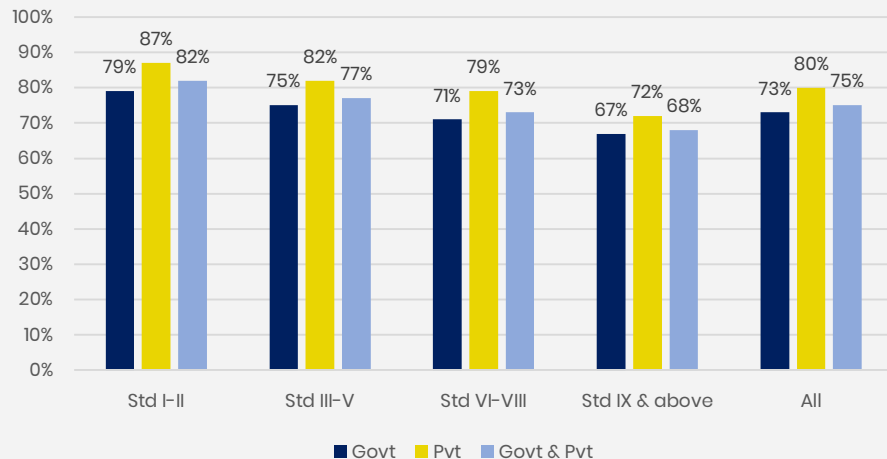




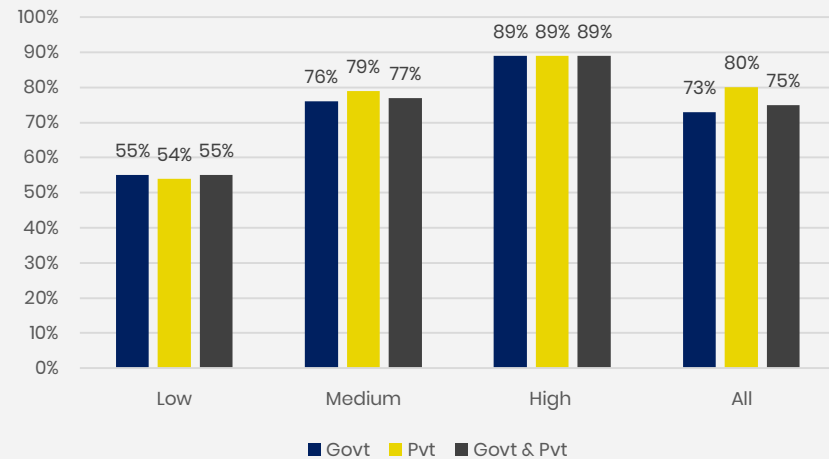
Parental Engagement Deemed Crucial

The engagement of parents, therefore, is crucial for effective at-home learning of their children

% of children who receive from family members while studying at home



% of enrolled children who receive family support for learning - by parent education



During school closures, children relied on getting help from family members for at-home learning

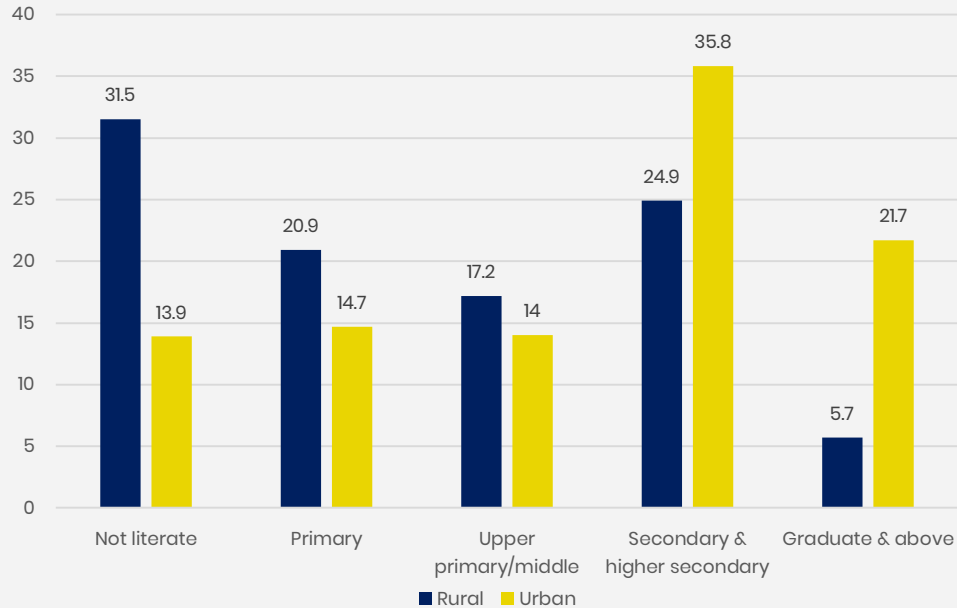
Parents with greater level of education provided more support to children for at-home learning

Urban Parents More Responsive to Remote Learning

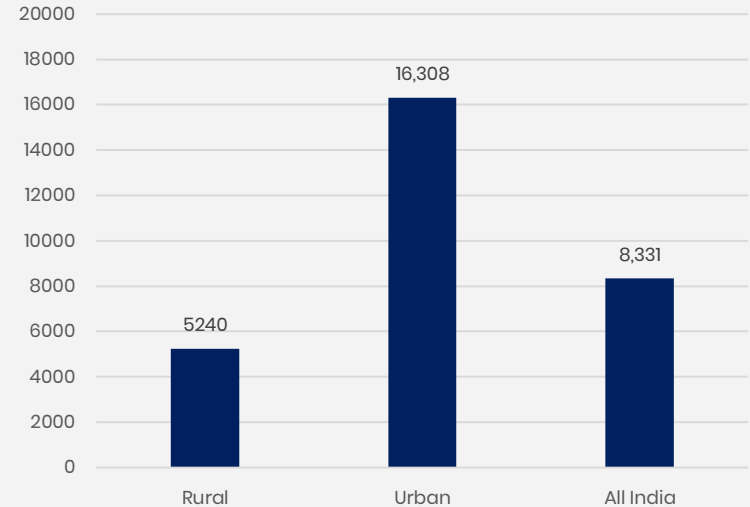
Parents in urban areas are more likely to engage with their children's education, given their higher education levels & spend on education, than those in rural India



Education levels



Household spending on education per student for all grades

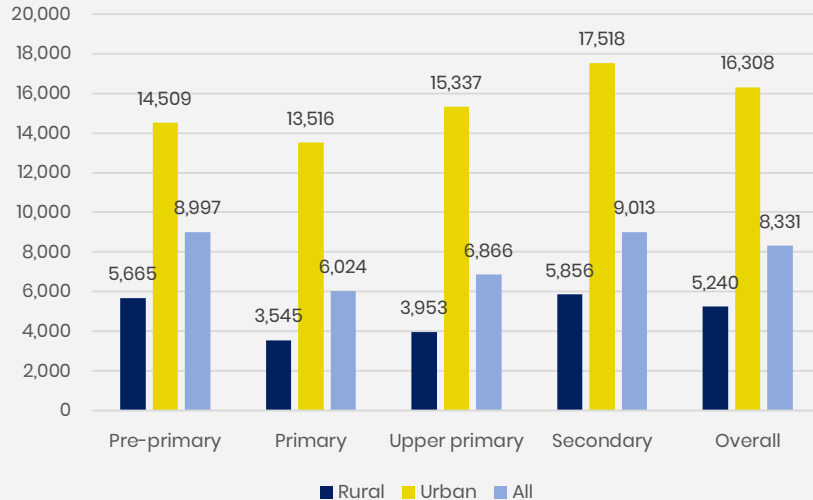


Education in a Post Pandemic World

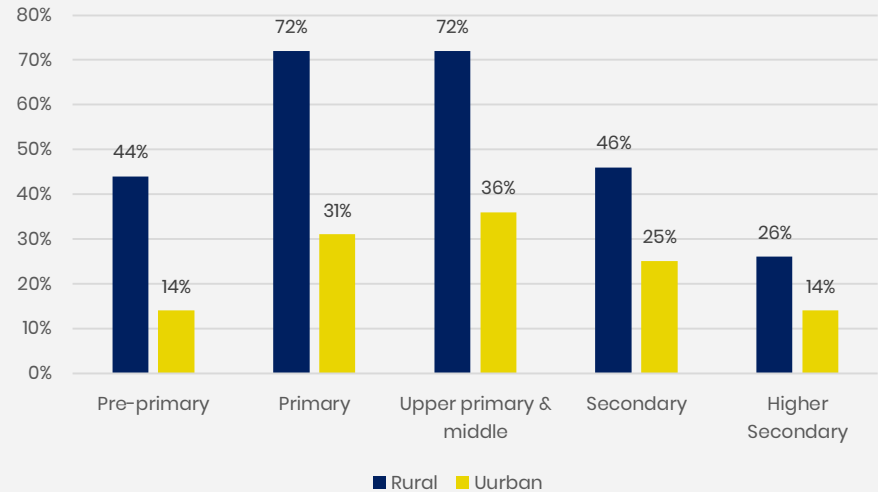
Urban households have historically spent more than rural households on education with a preference for private schools. This may change, as the pandemic has affected lives and livelihoods...



Household spending on education per student



Proportion of students accessing free education (NSS 75th Round)





CENTRAL SQUARE
FOUNDATION

III. Re-opening of Schools

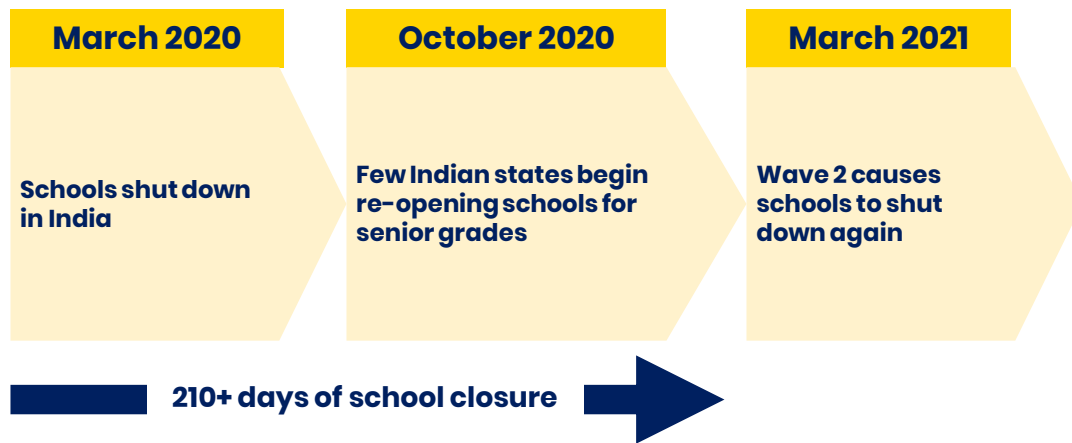
Topic- हलीम चला चाँद पर
Ab- 10
Total=40



School Closures in India One of the Longest Globally



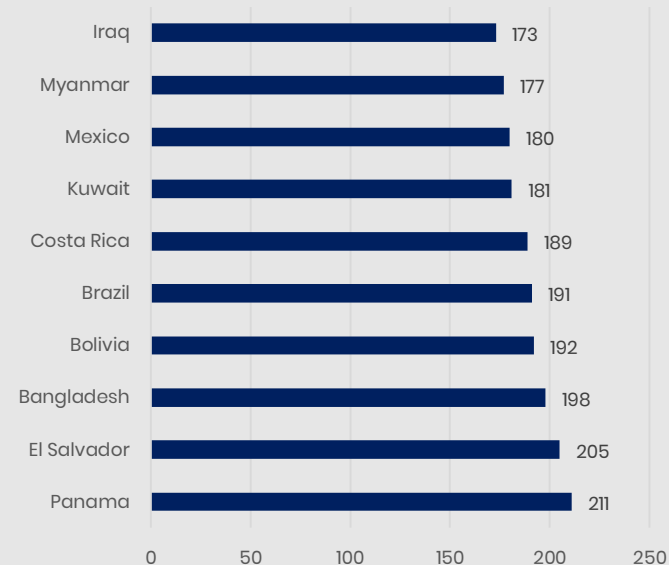
Schools across most states shut for 400+ days*



Evidence suggests that learning loss from crises can be long-term (*RISE, 2020*). Moreover, learning loss is likely to be higher in children from early grades (*UNESCO, 2020*).

*As of June 2021

No. of days schools remained closed around the world**



Source: Unicef, 2021

** Between March 2020 and February 2021

School Closures Caused Significant Learning Loss

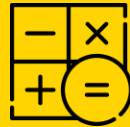


- ▶ At the global level, Covid-19 could result in a learning loss between 0.3 and 0.9 years of schooling, adjusted for quality. (World Bank, 2020)



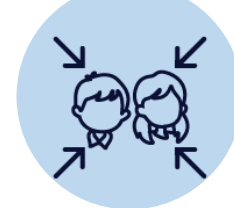
- ▶ 92% of children in grade 2, 89% in grade 3, 90% in grade 4, 95% in grade 5, and 93% in grade 6 have lost at least one specific ability in language (reading, writing, oral communication) from the previous year.

- ▶ In India, school closures have impacted around 250 million elementary and secondary school students. Among other impacts, this entails a huge loss in foundational learning. (Unicef Press Release, 2021)



- ▶ 67% of children in grade 2, 76% in grade 3, 85% in grade 4, 89% in grade 5, and 89% in grade 6 have lost at least one specific ability in mathematics (arithmetic operations, data interpretation, understanding 2D/3D visuals, etc.) from the previous year.

Prolonged School Closures May Affect Children Beyond Learning Loss



School Closures Disrupted Teaching Time

School closures lead to disruption in instructional time, which can have the following effects:

- Severely impacts child's ability to learn
- Potential increase in school dropouts as past evidence suggests that short term disruption in schooling often leads to permanent dropouts, especially among the disadvantaged (*Reddy and Sinha, 2010*)
- Disruption of school-based services like immunization
- Disruption of school meal programmes affects nutritional status of students (*The Hindu, 2020*)
- School closures can lead to mental health issues arising from stress and anxiety due to loss of peer interaction
- Potential increase in child labour (*Bhardwaj et al, 2019*) and early marriage of girls (*IndiaSpend, 2020*)

Vulnerable groups might be disproportionately affected by school closures

- Girls, as they are likely to be left out of household resource allocation (*Prakash et al. 2017*)
- Migrant children
- Children with disabilities
- Children affected with trauma/mental health issues



Re-opening Schools: Decision to be Made under Imperfect Information

School re-opening is a balancing act between stemming and reversing learning loss due to school closures and mitigating the health risks of re-opening them during a pandemic

Risks

- Primary risk of children contracting Covid-19 in school and transmitting it further to their families or community
- Schools may not have physical resources (e.g. enough classrooms) and capacity (e.g. enough teachers and school staff) to re-open safely

Benefits

Mitigates the impact of school closure on:

- Child's learning
- Child's nutrition
- Mental and physical well-being of students, parents, and teachers
- Marginalised and vulnerable students
- Students with disabilities

Factors to consider when deciding to re-open schools

- Transmission intensity of Covid-19 in the school neighbourhoods
- Capacity of school(s) to operate safely
- Effectiveness of remote learning strategies
- Public health measures implemented outside and inside the school
- Transportation to and from school

Central Guidance on School Re-opening



Ministry of Education's Guidelines for School Re-opening

Part I: SOPs for Health, Hygiene & Safety

- SOP and Safety protocols:
- Before opening schools
 - After opening schools
 - For serving mid-day meals

Part II: Learning with Physical/Social Distancing

- Redefining teaching, learning & assessments with focus on learning outcomes
- Transition from home-based schooling during lockdown(s) to classrooms
- Emotional well-being of students & teachers
- Roles & responsibilities of State/UT Education Department
- Checklist for safe school environment
- Capacity building of stakeholders

Salient Features of Centre's Guidelines for School Re-opening

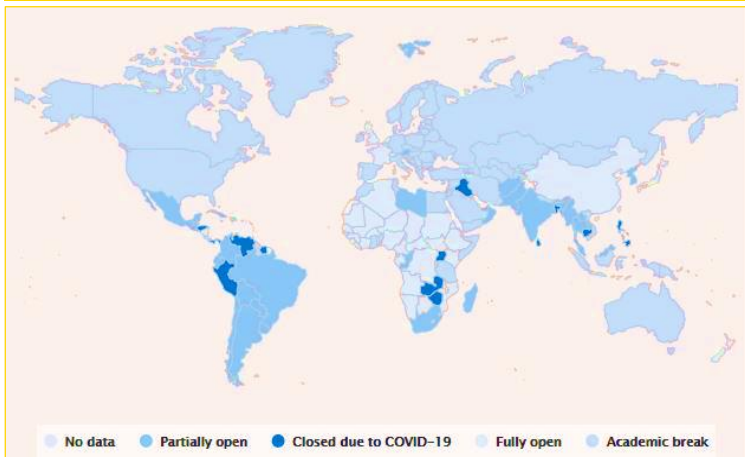
- States hold autonomy over timing and manner of re-opening schools, depending upon local Covid-19 situation
- When schools re-open, attendance will not be enforced & will depend entirely on parental consent
- Suggestion to realign academic calendar with emerging situation
- Emphasis on making syllabus learning outcome-based rather than theme-based
- Focus on formative assessment to ensure achievement of learning goals. However, pen & paper tests are discouraged
- Suggestion to build capacity of all stakeholders – DIET faculty, school heads, teachers & parents – before re-opening schools



Learnings from around the Globe

Many countries have re-opened schools by adopting measures to prevent the spread of Covid-19

Status of school closures as of July 1, 2021



Source: Global Monitoring of School Closures, UNESCO

Children younger than 10 years are less likely than adults to transmit the virus, while older children may transmit it at levels similar to adults (Park et al, 2020)

Salient Features of Centre's Guidelines for School Re-opening

- Data shows closing schools may have negligible effect on limiting the spread of Covid-19
- While re-opening schools, some countries like Belgium, Norway & Switzerland have focused on younger children, as they cannot learn autonomously and need in-person support
- Evidence from countries suggests that the most important factor to successful re-opening is a low baseline rate of community transmission
- Physical distancing is a common feature of school re-opening programmes across countries. Some countries, like the UK, have also experimented with innovative approaches like 'bubbles'
- Many countries have reduced class sizes by as much as 50% through staggered schedules or alternating classes, prioritizing the education sector in their recovery plans

Measures adopted by countries to prevent spread of Covid-19 while re-opening schools

- Mandatory masks & regular temperature check
- Prioritizing vulnerable students
- Social distancing
- Decreasing capacity of classrooms
- Holding classes outdoors
- Covid-19 testing
- Hybrid model of classroom and remote learning



Health Risks of Re-opening Schools

School re-opening involves mitigating health risks; Low and Middle Income Countries (LMICs) face a different set of challenges for mitigating these risks

Evidence from developed countries on Covid-19 health risks from re-opening schools

- Data from previous virus outbreaks suggests school children might play negligible role in transmitting virus (*Viner et al, 2020*)
- Children may have Covid-19 viral load similar to adults, but are half as susceptible to developing severe acute respiratory syndrome (*Jones et al, 2020; Davies et al, 2020*)
- Data on transmission through children is limited, but data from population-based contact tracing in Australian schools found almost no transmission (*NSW Government, 2020*)
- Research from Spain found no evidence of either the increase in Covid-19 cases in the region after schools re-opened or a spike in cases that coincided with school re-opening (*Alvarez et al, 2020*)

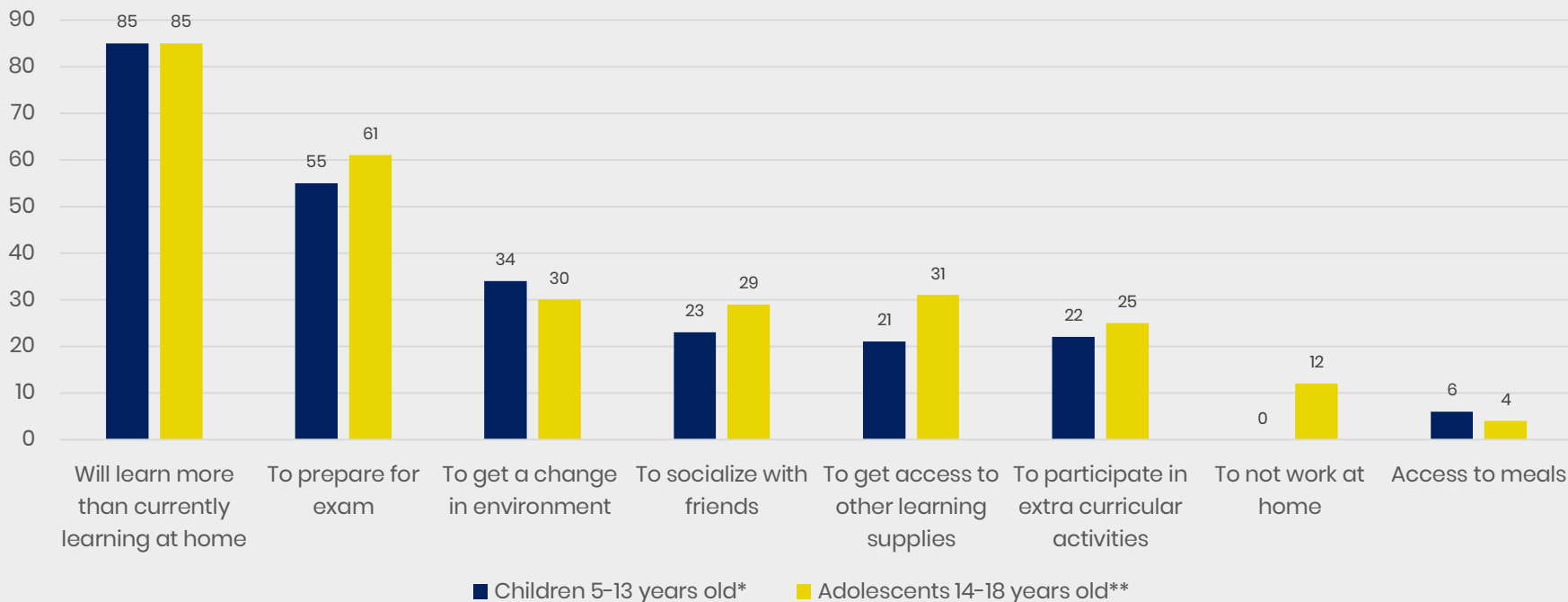
Considerations for LMICs

Despite the evidence from developed countries, LMICs face a different set of challenges for mitigating health risks:

- LMICs have much higher proportions of children in their population, smaller proportions of the elderly, and high number of intergenerational families. Thus, school related transmission risks can be significant
- Impacts of school closures on virus transmission depend on effectiveness of approaches to social distancing while children are at home:
 - However, observing Covid-19 precautions, especially social distancing, is difficult in LMICs due to population density
 - People have to leave homes for livelihoods and necessities, increasing potential exposure of children to Covid-19

Children Want to Return to Schools

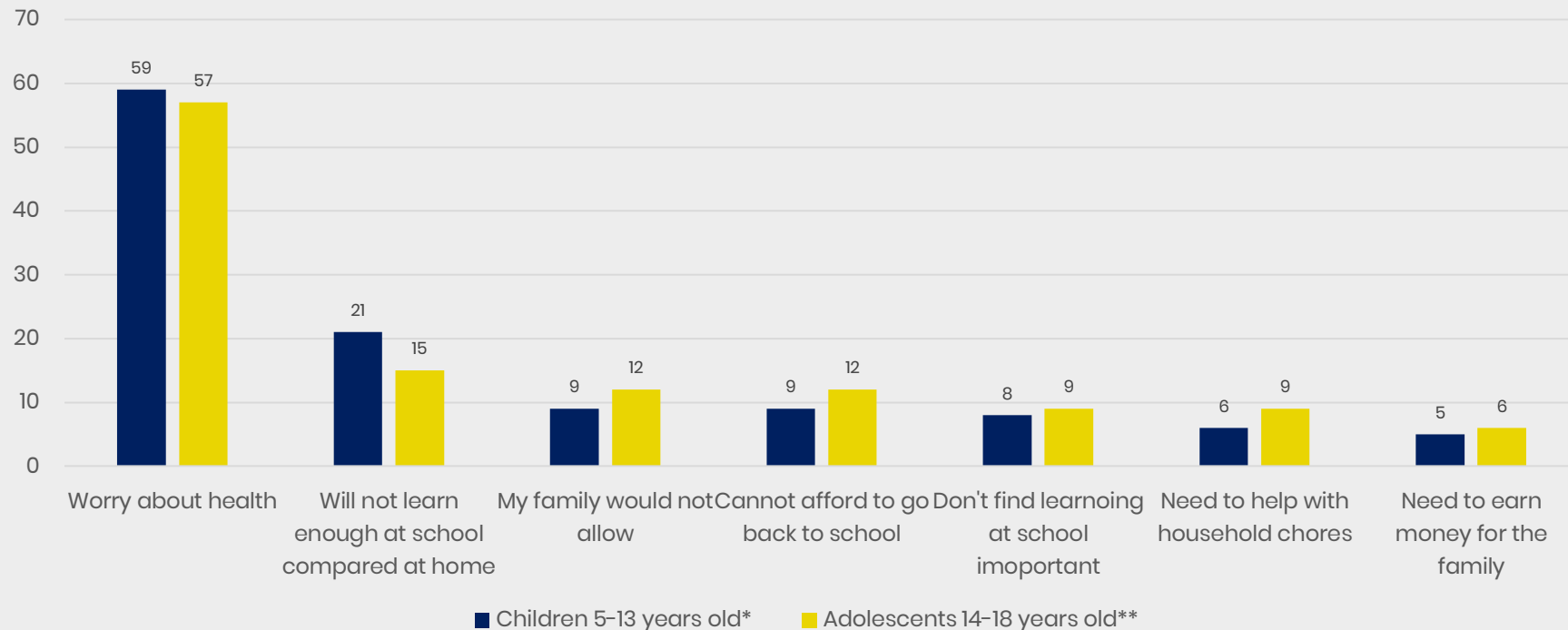
Students want their schools to re-open as they'll learn better in schools than at home



*N= 2774 **N=2003

Health Risks Remain Top Concern

But students also worry about the health risks associated with re-opening of schools



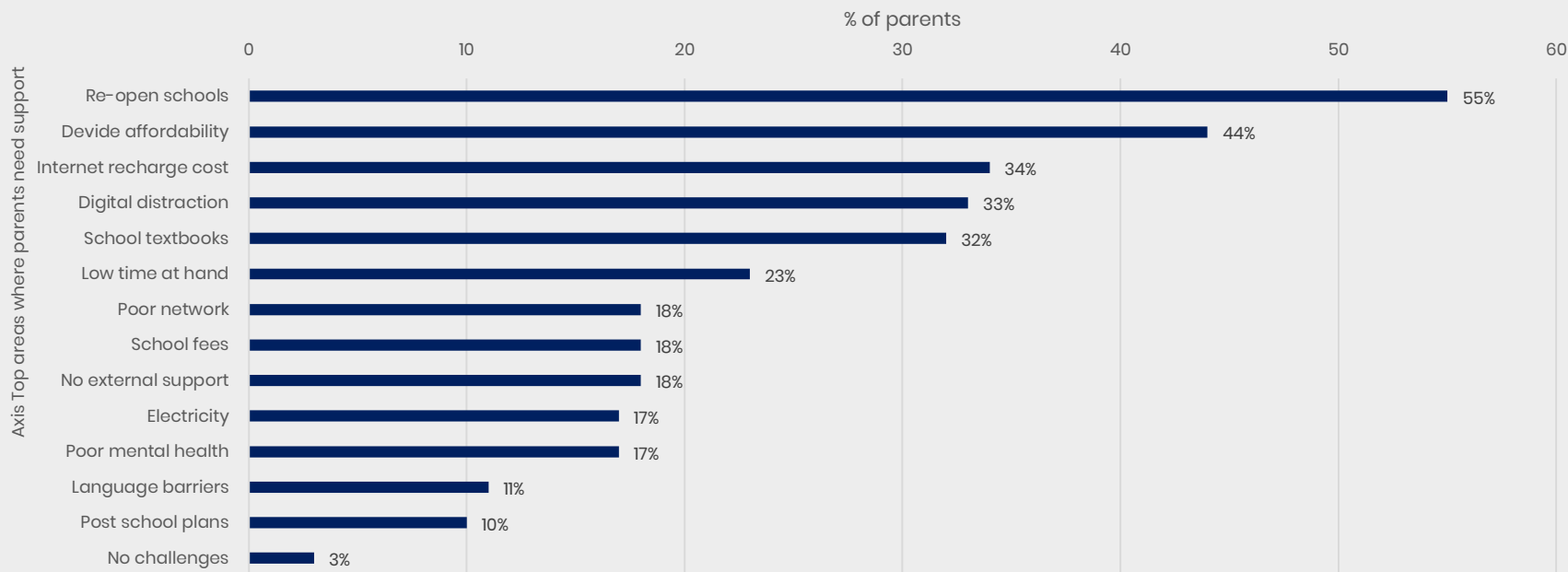
*N= 2774 **N=2003

Households Vote for Schools Re-opening

Most parents consider re-opening schools as important for the continued education of their children



Axis Top areas where parents need support

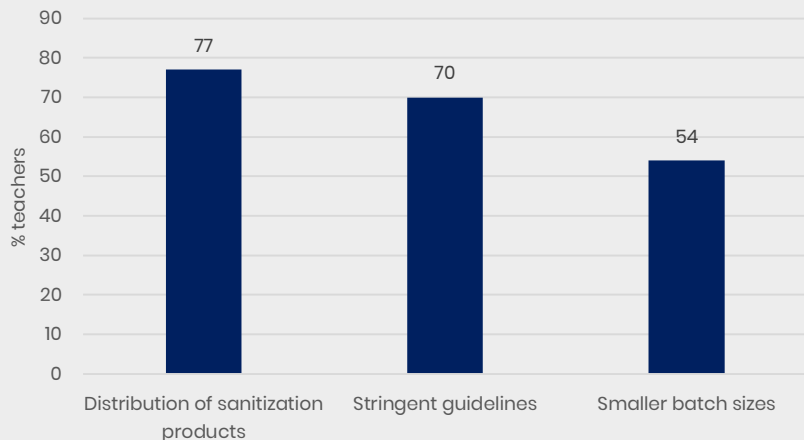


Support for Teachers Crucial after Schools Re-open

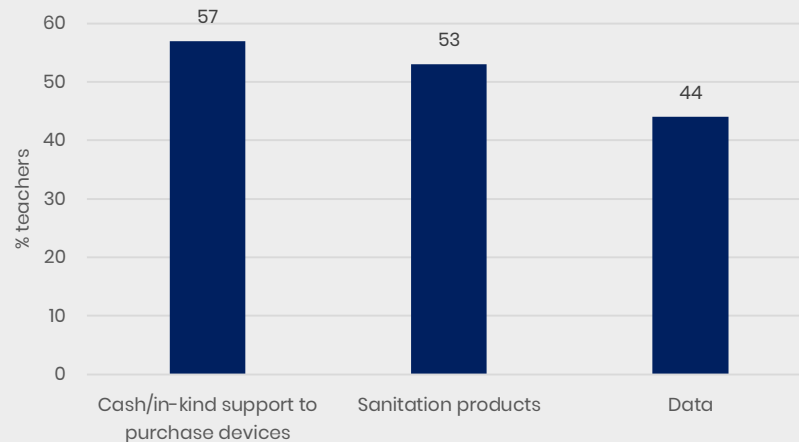
Recent data suggests that teachers will require significant support to continue remote learning, as well as when schools re-open



Support required by teachers when schools re-open

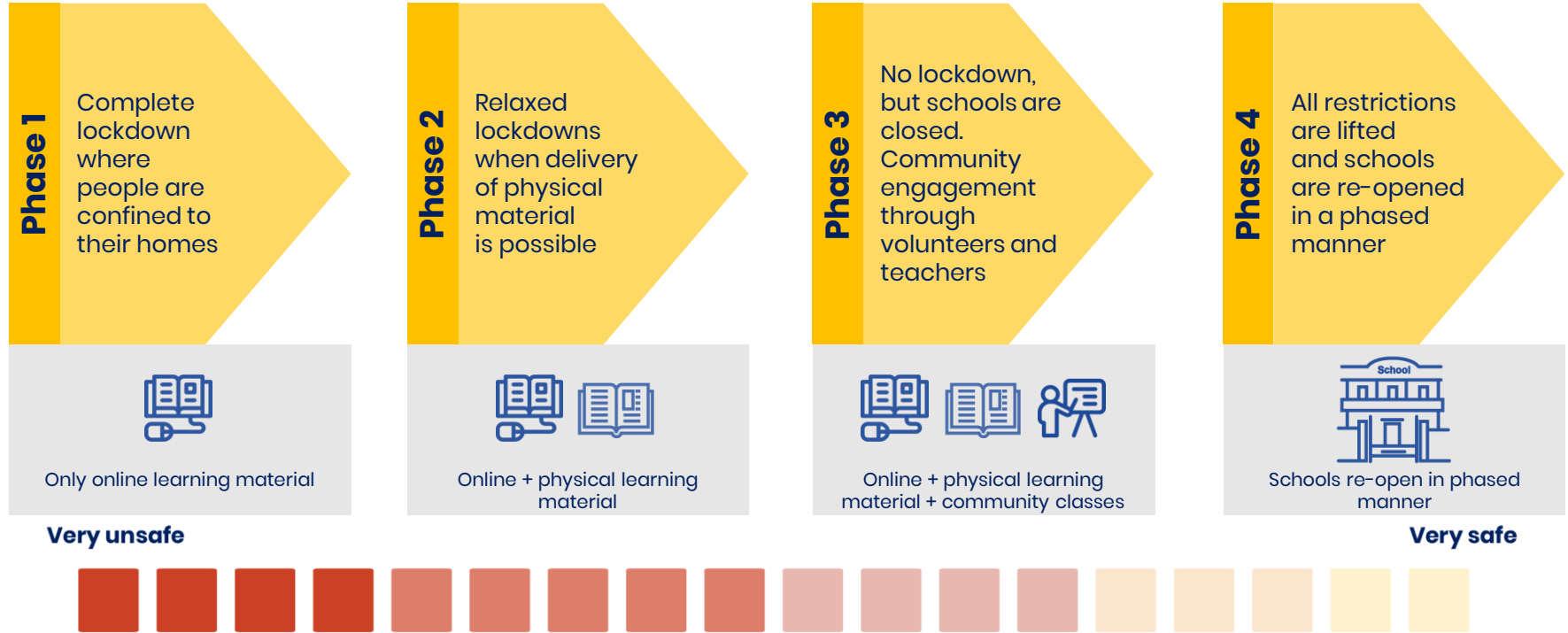


Support required by teachers to continue remote learning

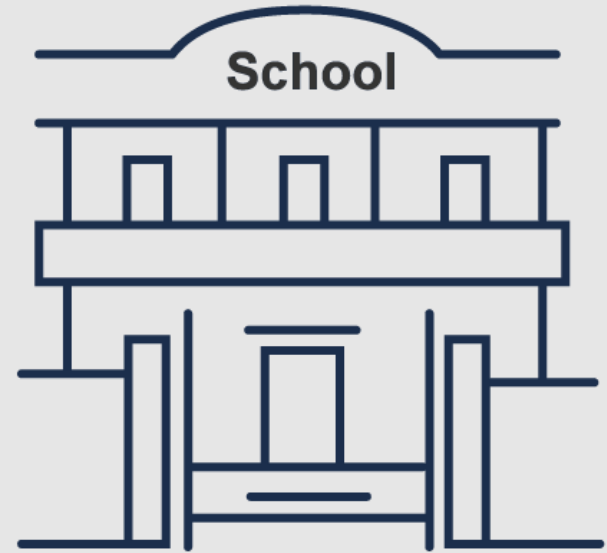


Importance of Multi-modal Home Learning Programme

Following the second wave of Covid-19, a phased, multi-modal home learning programme for all children irrespective of access is critical to ensure learning continuity



Considerations for States Re-opening Schools



Schools Need Infrastructure & Capacity to Re-open Safely

As states prepare to re-open schools, their infrastructure and capacity to implement socially distanced classes and blended models of learning would be crucial

▶ Classrooms

Out of the total 15.1 lakh schools in India:

- 55,226 or 3.7% schools are single classroom schools.
- In nearly 1.2 lakh or 7.4% of total schools more than 50 students sit in one classroom. (U-DISE, 2018)

▶ WASH facilities

Drinking water, functional toilets, and hand wash facilities will be essential as schools re-open safely. Only 52% of schools in India have overall WASH facilities.

(U-DISE, 2018)

Logistics of conducting classes as per safety protocols

▶ Vaccination

Vaccination of students, teachers, and staff is critical for the schools to re-open safely. While children are not yet eligible, As of 21st July, 2021, India has fully vaccinated approximately 8.5 crore adults, and 32.5 crore with the first dose. India has a total of 92 lakh teachers (62 lakh above 55 years) and 62 lakh support staff members.

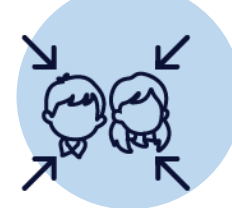
(MOHFW, 2021, May 22), (U-DISE, 2018)

▶ Capacity for blended learning

- Teachers' capacity to adopt innovative teaching-learning practices
- Curriculum that is adapted to address children's learning loss during school closures and learning needs going forward

Importance of Re-enrollment Strategies

Developing re-enrollment strategies will be key to bring back drop-outs



Bringing back drop-outs



Several students, who are now breadwinners for their families, have migrated to different cities, or cannot afford to return to school and are estimated to have dropped out



Globally, 24 million students are estimated to have dropped out of schools because of the pandemic in 2020 (UNESCO, 2020)



Girls are at risk of early marriages, or required to help with domestic chores. In India, 10 million girls are at risk of dropping out of schools. (Frontline, The Hindu, 2020)

Re-enrollment strategies adopted internationally

USA (Virginia)

- Online pre-learning offered to encourage students to come back
- **Jump start & end-of-year packets:** Programmes to welcome students with a glimpse of 2021 expectations and to help teachers review needs of students, respectively

Canada (British Columbia)

Announcement of guidelines of re-opening schools accompanied by sessions to answer questions and reassure parents of the safety of returning to schools

The Philippines

Flexibility: Enrolment allowed even after school re-opening, enrolment forms available online and at local kiosks near schools, along with extension of deadlines for submitting necessary documents
Nationwide media campaign: To increase awareness about re-opening schools

Sub-Saharan Africa

In 13 countries, UNICEF, in partnership with Airtel Africa, used mobile technology to transfer cash and encourage re-enrolment and online learning among families



Focus on FLN Skills Critical

Against a backdrop of huge learning losses, remediation will be essential as schools plan to re-open

Why is remediation necessary?

School closures in 2020 caused significant learning loss

Disruption caused by wave 2



Further school closures and learning loss

Loss of two years of education

92% and 82% of students of grades 2-6 have lost at least one specific ability in language and mathematics, respectively, from the previous year.

(Azim Premji University, 2021)

Some remediation programmes in the Indian context

- The Bihar Education Project Council (BEPC) designed a framework to conduct 3 months of catch up classes for students of grades 2-10 starting April 2021. (Hindustan Times, 2021)
- In 2020, under Mission Prerna, the Uttar Pradesh government announced 40 minute remedial classes daily for students in grades 1-8. (Hindustan Times, 2020, July)
- The government of Odisha promoted students in grade 1 to 8 to the next grade without examination and announced remedial classes for the first 2 to 3 months in the new academic session (NDTV, April, 2021)

Remediation Approaches and Challenges of Implementation

States and other stakeholders can take three broad approaches to remediation, but are likely to face significant implementation challenges



More time

Increase the amount of instructional time to ensure appropriate learning through weekend school, extended school day, or summer school



Dedicated attention

Promote better attention to the learning material through tutoring, peer-to-peer learning, and break-out groups to improve quality of learning



Compressed content

Reduce or revise curriculum to focus on fundamental concepts within the same period

UNESCO, UNICEF and World Bank conducted a survey on National Education Responses to Covid-19 School Closures in June–July 2020. Of the 117 education systems that participated; 22% planned to increase class time when schools re-opened; 62% planned to introduce a dedicated remedial programme; and 60% planned to restructure the curriculum



Challenges in implementing remediation programmes

- The need for remediation is not uniform and differs across geographies, between and within schools, and between students
- Extensive remediation programmes may require significant investment of resources
- Effective remediation would require a robust monitoring and learning system to be adaptive, which is likely to cause additional strain on schools
- Given the length of school closures, remediation programmes have to be designed to mitigate the learning loss due to Covid-19, while keeping in mind the need to cover new material



Examples from around the World

Some examples of how countries have approached remediation & key features of their re-learning programmes

Global approaches towards remediation*

USA (Maryland)	<ul style="list-style-type: none">• Extended school days: Early morning, afternoon, Saturday school, night classes, summer programmes, etc.• Hybrid programmes: Only one working day, one day dedicated to remediation	Key features of remediation responses of other countries <ul style="list-style-type: none">• Assessment of learning loss• Targeted instruction and accordingly redesigning curricula for the current and next academic years• Hiring more teachers to provide concentrated instruction for students
Mozambique	<ul style="list-style-type: none">• Increased recruitment of teachers: Especially at the primary level to reduce average number of students per teacher and allow dedicated attention	
France	<ul style="list-style-type: none">• Administration decided to measure learning loss of students via parental engagement and remote assessments• Extra support offered via extension of school year to the summer, Saturday school, on-demand self-learning platforms, summer camps, etc.	
The Philippines	<ul style="list-style-type: none">• Remedial classes for 6 weeks for students with grades lesser than 75%• Government allowed schools to be exempted from this plan and independently structure remedial classes over the next academic year, provided schools had implementation plans in place	

Prioritize Opening Schools for Early Grades

As States and UTs consider re-opening schools, priority should be given to opening schools for early grades



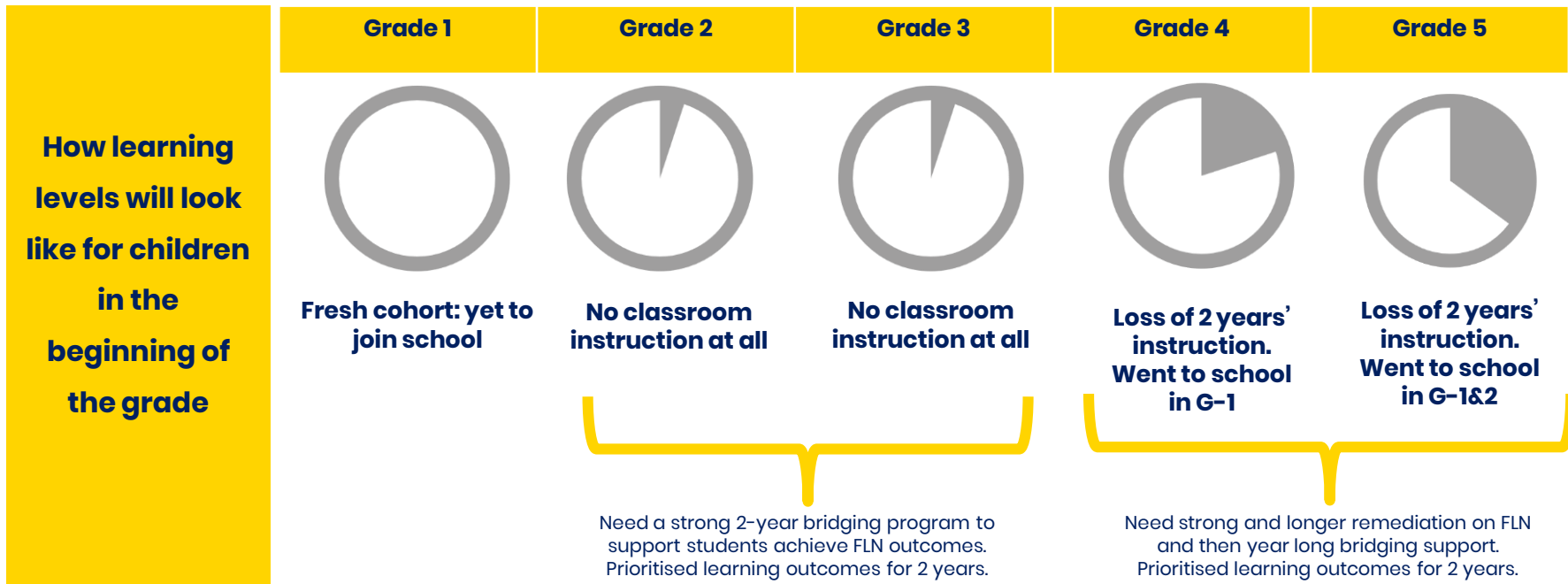
Rationale for re-opening schools for early grades on priority

- ▶ Younger children (<9 years) are less susceptible to Covid-19 than 10-14 year olds (*Goldstein et al, 2020*)
- ▶ Younger children are less likely to learn or retain what they have learnt through remote learning compared to adult learners (*Kim, 2020*)
- ▶ Foundational learning in early grades form the basis of all learning and is crucial for development of human capital
- ▶ To ensure universal FLN skills in primary schools by 2025 as envisaged in the NEP 2020



Remediation & Support to Reverse Learning Loss

FLN cohorts have been differentially impacted by the pandemic induced school closures and would require grade-specific remediation and bridging support to reverse learning loss



Restructuring Curriculum across Grades

When schools re-open after prolonged closure of almost 2 academic years, multi-year restructuring of curriculum would be required for achieving learning goals



Suggestive cohort based multi-year restructured curriculum for Grade 1-3

Cohort (as per 2022-23)	Academic Year	AY 20-21	AY 21-22	AY 22-23	AY 23-24	AY 24-25				
Grade 1 cohort	Actual grade	-	-	Grade 1	Grade 2	Grade 3				
	Skills of grade			Grade 1	Grade 2	Grade 3				
	Key outcomes	-	-	Grade 1 skills	Grade 2 skills	Grade 3 skills				
Grade 2 cohort	Actual grade	-	Grade 1	Grade 2	Grade 3	Grade 4				
	Skills of grade			Grade 1	Grade 2	Grade 2	Grade 3	Grade 4		
	Key outcomes	-	No effective learning	Accelerated grade 1 + mid grade 2 skills	Revision, accelerated grade 2 + grade 3 skills	Revision of grade 3 + grade 4 skills				
Grade 3 cohort	Actual grade	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5				
	Skills of grade			Grade 1	Grade 1 & 2	Grade 2	Grade 2	Grade 3	Grade 3 & 4	Grade 4 & 5
	Key outcomes	No instruction	No effective learning	Higher accelerated grade 1 + mid grade 2 skills	Revision, accelerated integrated grade 2 and 3 and early grade 4 skills	Revision of grade 3 + key skills of grade 4+ grade 5 skills				

Implementing the NIPUN Bharat Programme

States and schools will have to prepare for the implementation of the national FLN mission, NIPUN Bharat



“...create an enabling environment to ensure universal acquisition of foundational literacy and numeracy, so that by 2026–27 every child achieves the desired learning competencies in reading, writing and numeracy at the end of Grade III and not later than Grade V” – NIPUN Bharat Vision

NIPUN Bharat Programme

Academic approaches

- ▶ LO divided into 3 development goals: Goal 1-HW (Health and Wellbeing), Goal 2-EC (Effective Communicators), Goal 3-IL (Involved Learners)
- ▶ Lakshya or Targets for Foundational Literacy and Numeracy
- ▶ Learning Assessments (School Based, and Large-scale standardised assessment)
- ▶ Pedagogy for creating inclusive classroom
- ▶ Empowering teachers through FLN specific training via NISHTHA
- ▶ Expanding the scope and use of DIKSHA for FLN
- ▶ 3 month play-based school preparation module

Administrative approaches

- ▶ Five-tier implementation mechanism for FLN Mission to be set up at the National-State-District-Block-School level
- ▶ Monitoring and information technology framework (Annual Monitoring Surveys and Concurrent Monitoring)
- ▶ Clear articulation of the role and responsibilities of States in achieving the FLN Mission goals
- ▶ Emphasises on the need for active involvement of Teachers, Parents, Community, and Local Bodies to achieve FLN Mission objectives



CENTRAL SQUARE
FOUNDATION

References



References

- ASER. (2021). Annual Status of Education Report (Rural) 2020 Wave 1. http://img.asercentre.org/docs/ASER%202021/ASER%202020%20wave%201%20-%20v2/aser2020wave1report_feb1.pdf
- Azim Premji University. (2020). Covid19 Livelihoods Phone Survey. <https://cse.azimpremjiuniversity.edu.in/cse-surveys/covid19-livelihoods-phone-survey/#About-Round-2>
- Azim Premji University. (2021). Loss of Learning during the Pandemic. <https://apfstatic.s3.ap-south-1.amazonaws.com/s3fs-public/Field%20Studies%20-%20Loss%20of%20Learning%20during%20the%20Pandemic.pdf?o79JoTJTD1k6J2ax0go0unMO4vp.gJZN>
- Azim Premji University. (2021, May). State of Working India. https://cse.azimpremjiuniversity.edu.in/wp-content/uploads/2021/06/SWI2021_FullReport_1June.pdf
- Bertrand, Krishnan, & Schofield. (2020). University of Chicago. How Are Indian Households Coping under Lockdown? <https://www.chicagobooth.edu/research/rustandy/blog/2020/how-are-indian-households-coping-under-the-covid19-lockdown>
- BusinessLine. (2020, April 16). Sampark Foundation rolls out Baithak to 'bring school to children'. <https://www.thehindubusinessline.com/info-tech/sampark-foundation-rolls-out-baithak-to-bring-school-to-children/article31352684.ece>
- Bweducation. (2020, April). Brihat Tutee Collaborates With Rajasthan Government. Launches Free Digital Learning App. <http://bweducation.businessworld.in/article/Brihat-Tutee-Collaborates-With-Rajasthan-Government-Launches-Free-Digital-Learning-App/01-04-2020-187880/>
- Bweducation. (2020, October). ConveGenius Partners With Rajasthan Government And Aavas Foundation To Strengthen Home Learning Initiatives In Rajasthan. <http://bweducation.businessworld.in/article/ConveGenius-Partners-With-Rajasthan-Government-And-Aavas-Foundation-To-Strengthen-Home-Learning-Initiatives-In-Rajasthan/08-10-2020-329224/>
- Cashman. (2019). Parental perceptions, family economic status and parental involvement in children's learning and schooling in rural India. [https://www.educ.cam.ac.uk/centres/real/researchthemes/teachingandlearning/accountability/Cashman thesis %20Parental perceptions f amily economic%20status and parental involvement_in_children%27 s_learning_and_schooling_in_rural_india.pdf](https://www.educ.cam.ac.uk/centres/real/researchthemes/teachingandlearning/accountability/Cashman%20thesis%20Parental%20perceptions%20family%20economic%20status%20and%20parental%20involvement%20in%20children%20s%20learning%20and%20schooling%20in%20rural%20india.pdf)
- CBSE. (2020). Teacher Enriched Resource Manuals (TERM). <http://cbseacademic.nic.in/term.html>
- CBSE. (2020). Teacher training on Augmented Reality (AR). http://cbseacademic.nic.in/web_material/Circulars/2020/46_Circular_2020.pdf

References

- Cgschool. (2020). <http://www.cgschool.in/>
- CRY. (2020). Impact of Covid-19 on School Education in India: What are the Budaetary Implications?.<https://www.cbaaindia.org/wp-content/uploads/2020/09/Impact-of-Covid-19-on-School-Education-in-India.pdf>
- Dainik Bhaskar. (2020). 'Come learn at home' program starts every day at 9 am, teachers provide teaching material to children on social media. <https://www.bhaskar.com/local/rajasthan/nagaur/news/come-learn-at-home-program-starts-every-day-at-9-am-teachers-provide-teaching-material-to-children-on-social-media-127922978.html>
- Digitallearnina. (2020. April 24). iDream Education launches learnina App for 1st to 12th classes. <https://dialtalllearnina.eletsonline.com/2020/04/idream-education-launches-learning-app-for-1st-to-12th-classes/>
- ETGovernment. (2020. April 15). Dialect Learning: Rajasthan Govt launches 'SMILE' for e-learnina at school. <https://aovernment.economictimes.indiatimes.com/news/diaital-india/diaital-learning-rajasthan-govt-launches-smile-for-e-learning-at-school/75161364>
- ETGovernment. (2020. April 22). Dialect Learnina: Uttarakhand government using 'Sampark Didi' app to impart virtual classes. <https://aovernment.economictimes.indiatimes.com/news/diaital-india/diaital-learnina-uttarakhand-aovernment-using-sampark-didi-app-to-impart-virtual-classes/75286632>
- EY. (2019). A billion screens of opportunity. <http://www.ioaa.co.in/images/EY-a-billion-screens-of-opportunity.pdf>
- Expresscomputer. (2020. May 26). NIC's Cricket as an Assessment Tool makes e-learnina fun every day. <https://www.expresscomputer.in/artificial-intelligence-ai/nics-cricket-as-an-assessment-tool-makes-e-learning-fun-every-day/56712/>
- Financial Express. (2021). New Education Policy: Solidifying the Foundation for Learning. <https://www.financialexpress.com/education-2/new-education-policy-solidifying-the-foundation-for-learning/2262100/>
- Frontline-The Hindu. (2020). 10 million girls at risk of dropping out of school because of the Covid-19 pandemic: RTE Forum. <https://frontline.thehindu.com/dispatches/10-million-girls-at-risk-of-dropping-out-of-school-because-of-the-covid-19-pandemic-says-rte-forum-policy-brief/article33662229.ece>
- Government of India. (2017). Saubhagya Dashboard. <https://saubhagya.gov.in/>
- GSMA-Dalberg. (2017). Accelerating Affordable Smartphone Ownership in Emerging Markets. https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2018/08/Accelerating-affordable-smartphone-ownership-in-emerging-markets-2017_we.pdf

References

Hindustan Times. (2020). Harvana unlocks school at home campaign for students amid Covid-19 lockdown. <https://www.hindustantimes.com/cities/haryana-unlocks-school-at-home-campaign-for-students-amid-covid-19-lockdown/story-sbFD2pfJkKCFmPEGmhsX6H.html>

Hindustan Times. (2020, July). 40-minute 'remedial class' daily in all UP govt primary schools. <https://www.hindustantimes.com/education/40-minute-remedial-class-daily-in-all-up-govt-primary-schools/story-7smhmnvCCP5bq5xmNYpC5N.html>

Hindustan Times. (2021). Bihar: Students to learn regional languages, environment during catch-up classes. <https://www.hindustantimes.com/education/news/bihar-students-to-learn-regional-languages-environment-during-catch-up-classes-101616133555592.html>

IAMAI. (2019). Digital in India <https://cms.iamai.in/Content/ResearchPapers/2286f4d7-424f-4bde-be88-6415fe5021d5.pdf>

ice360. (2016). <http://www.ice360.in/en/projects/homepagesurvey/88-of-households-in-india-have-a-mobile-phone>

Iftikhar, F. (2021, February 3). 166k students in Delhi fell off grid as schools moved online. Hindustan Times. <https://www.hindustantimes.com/cities/delhi-news/166k-students-in-delhi-fell-off-grid-as-schools-moved-online-101612385072733.html>

Indiaeducationdiary. (2020, September). ConveGenius Launches Assessment Bots In Madhya Pradesh For Data-Driven Learning; Reaches Out To 15 Lakh Students In The First Month. <https://indiaeducationdiary.in/convegenius-launches-assessment-bots-in-madhya-pradesh-for-data-driven-learning-reaches-out-to-15-lakh-students-in-the-first-month/>

India Today. (2020, July 4). Delhi Govt launches LEAD portal to make online learning easy. <https://www.indiatoday.in/education-today/news/story/delhi-government-launches-lead-portal-to-make-online-learning-easy-1697020-2020-07-04>

India Today. (2020, November). How pandemic devoured poor children's superfood. <https://www.indiatoday.in/india/story/how-coronavirus-pandemic-devoured-poor-children-s-superfood-mid-day-meal-1741607-2020-11-17>

Indian Express. (2020, October 13). Gujarat: Govt asks teachers to be corona warriors, undergo online home learning training. <https://indianexpress.com/article/cities/ahmedabad/gujarat-corona-warriors-training-6723729/>

Indian Express. (2021, February 13). Over 56 lakh school teachers to be trained through NISHTHA in 2021-2022. <https://indianexpress.com/article/education/over-56-lakh-school-teachers-to-be-trained-through-nishtha-in-2021-2022-7186791/>

References

Insightsuccess. (2020). ConveGenius launches #EdtechforNayaBharat. <https://www.insightssuccess.in/convegenius-launches-edtechfornayabharat-a-campaign-to-empower-education-for-a-rising-digital-india/>

Madhi. (2020). Covid Response. <https://www.madhifoundation.org/our-projects/#covid-response>

MHRD. (2020). India Report Digital Education. https://www.education.gov.in/sites/upload_files/mhrd/files/India_Report_Digital_Education_0.pdf

MHRD. (2020). Pragyata guidelines. https://www.education.gov.in/sites/upload_files/mhrd/files/pragyata-guidelines_0.pdf

Millenniumpost. (2021). Rocket Learninga. <http://www.millenniumpost.in/opinion/rocket-learning-431507>

MOHFW. (2021, May 22). Cumulative Coverage of Covid Vaccination. <https://www.mohfw.gov.in/pdf/CumulativeCovidVaccinationCoverageReport21stMay2021.pdf>

Ministry of Rural Development. (2019). Mission Antyodaya. <https://missionantyodaya.nic.in/ma2019/preloginStateRuralElectricityReports2019.html>NCAER. (2020). Delhi NCR Coronavirus Telephone Survey (DCVTS-4). https://www.ncaer.org/event_details.php?EID=310

NCERT. (2020). Alternative academic calendar. <https://ncert.nic.in/alternative-academic-calendar.php>

NCERT. (2020). Learning enhancement guidelines. https://ncert.nic.in/pdf/announcement/Learning_%20Enhancement_Guidelines.pdf

NSSO. (2019). Key Indicators of Household Social Consumption on Education in India. http://mospi.nic.in/sites/default/files/publication_reports/KI_Education_75th_Final.pdf

Oxfam. (2020). Status Report- Government and private schools during Covid-19. <https://www.oxfamindia.org/sites/default/files/2020-09/Status%20report%20Government%20and%20private%20schools%20during%20Covid%20-%2019.pdf>

Prabhat Khabar. (2020). In Jharkhand, students of class 1 to 12 will have to study sitting at home, CM Hemant Soren will launch this app today. <https://www.prabhatkhabar.com/state/jharkhand/ranchi/jharkhand-students-from-class-one-to-12th-easy-to-study-home-cm-hemant-soren-launch-jharkhand-education-project-council-larnetics-app-digi-school-learning-material-whatsappdigital-content-online-study-coronavirus-grj>

References

- Pew Research Center. (2019). Smartphone Ownership Is Growing Rapidly Around the World, but Not Always Equally. <https://www.pewresearch.org/global/2019/02/05/smartphone-ownership-is-growing-rapidly-around-the-world-but-not-always-equally/>
- Rajshaladarpan. (2020). <https://rajshaladarpan.nic.in/shalagamvaad/Home/Homepage.aspx>
- Statista. (2019). Television market in India- statistics & facts. <https://www.statista.com/topics/4852/television-market-in-india/#dossierSummary>
- Tárraga García, V., García Fernández, B., & Ruiz-Gallardo, J. R. (2017). Home-based family involvement and academic achievement: a case study in primary education. *Educational Studies*, 44(3), 361–375. <https://doi.org/10.1080/03055698.2017.1373636>
- The Hindu. (2021). Average dropout rate of girls recorded at 17.3% at secondary level in 2018-19: WCD Ministry. <https://www.thehindu.com/news/national/average-dropout-rate-of-girls-recorded-at-17-3-at-secondary-level-in-2018-19-wcd-ministry/article33761098.ece>
- The Logical Indian. (2021, March). This EdTech Platform Is Using AI To Teach Students From Underprivileged Background. <https://thelogicalindian.com/smb-stories/convegenius-using-ai-to-teach-kids-27213>
- TRAI. (2020). Highlights of telecom subscription. https://www.trai.gov.in/sites/default/files/PR_No.101of2020.pdf
- U-DISE. (2018). Flash Statistics. http://udise.in/Downloads/Publications/Documents/Flash_Statistics_on_School_Education-2017-18_Provisional.pdf
- UNESCO (2020). Covid-19 Response- Re-enrollment. <https://en.unesco.org/sites/default/files/unesco-covid-19-response-toolkit-re-enrolment.pdf>
- UNESCO & McKinsey. (2020). Covid-19 Response- Remediation. https://www.mckinsey.com/~media/McKinsey/About%20Us/Covid%20Response%20Center/Overview/Covid-19%20Education%20Response%20Toolkit/202010_UNESCO-McKinsey%20Response%20Toolkit_Remediation_VF.pdf

References

- UNICEF. (2021, January). Covid-19: Missing More Than a Classroom The impact of school closures on children's nutrition. https://www.unicef-irc.org/publications/pdf/Covid-19_Missing_More_Than_a_Classroom_The_impact_of_school_closures_on_childrens_nutrition.pdf
- UNICEF. (2021, March). Covid-19 and School Closures. <https://data.unicef.org/wp-content/uploads/2021/03/Covid19-and-school-closures-report.pdf>
- UNICEF. (2021, May). Rapid assessment of learning during school closures in the context of covid. <https://www.unicef.org/india/reports/rapid-assessment-learning-during-school-closures-context-covid-19>
- World Bank. (2020). Simulating the Potential Impacts of Covid-19 School Closures on Schooling and Learning Outcomes. <https://openknowledge.worldbank.org/bitstream/handle/10986/33945/Simulating-the-Potential-Impacts-of-Covid-19-School-Closures-on-Schooling-and-Learning-Outcomes-A-Set-of-Global-Estimates.pdf?sequence=1&isAllowed=y>
- World Bank. (2020, October). Human Capital Index. https://databank.worldbank.org/data/download/hci/HCI_2pager_IND.pdf?cid=GGH_e_hcpexternal_en_ext
- Yehaindia. (2020, August 6). Saarthi Education- A step towards inclusive education. <https://yehaindia.com/saarthi-education-a-step-towards-inclusive-education/>



CENTRAL SQUARE
FOUNDATION

Annexure





With over **15 lakh schools, 92 lakh teachers and 25 crore student** enrollments, India is home to the largest and most complex education system globally. This section provides a data backed insight into this system along the following lines:



Trends in number of schools, students and teachers



Share of management types and rural-urban variation



Learning outcomes



Budget expenditure



The intent is to provide a ready reference to data enthusiasts in the school education sector. Reference period of data analysis ranges between 2013 and 2018, data sources on the next slide.

Data Sources and Reports

- ▶ UDISE¹ 2013 to 2018
- ▶ Education Statistics at a Glance 2005-06, 2015-16
- ▶ Economic Survey of India
- ▶ NAS 2017
- ▶ ASER 2018
- ▶ Union Budget 2013-14 to 2019-20



Contents



Introduction



Rural v/s Urban



Private v/s Government



Learning Outcomes



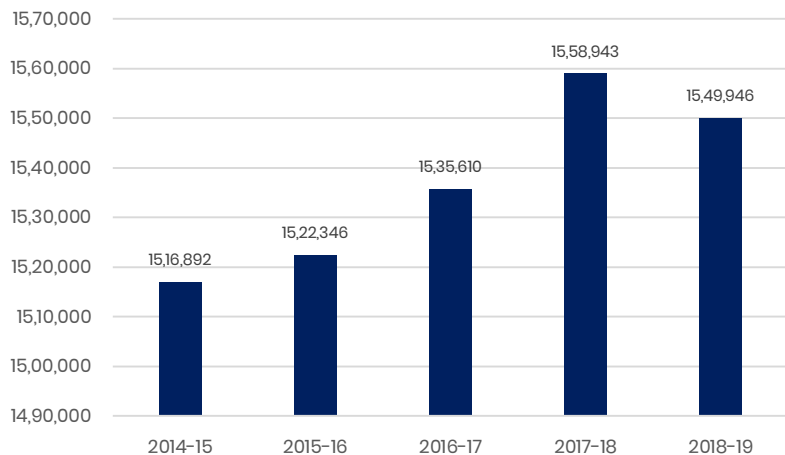
Budgets



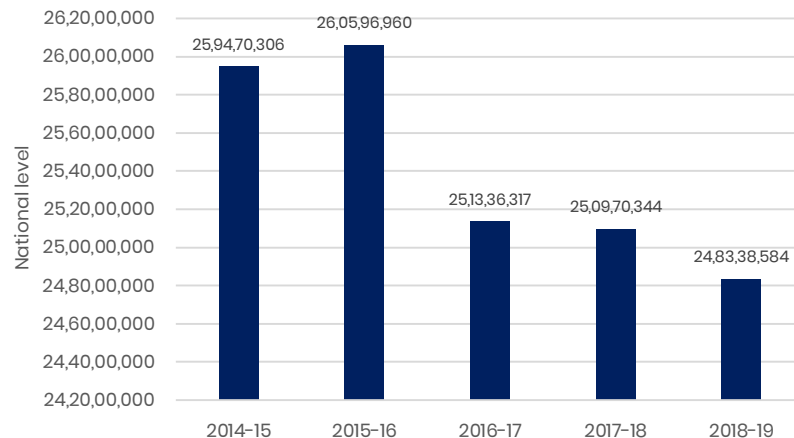
India has the largest school education system in the world: ~25 crore children enrolled across ~15 lakh schools

This figure has remained fairly consistent between 2013 and 2018

Number of schools



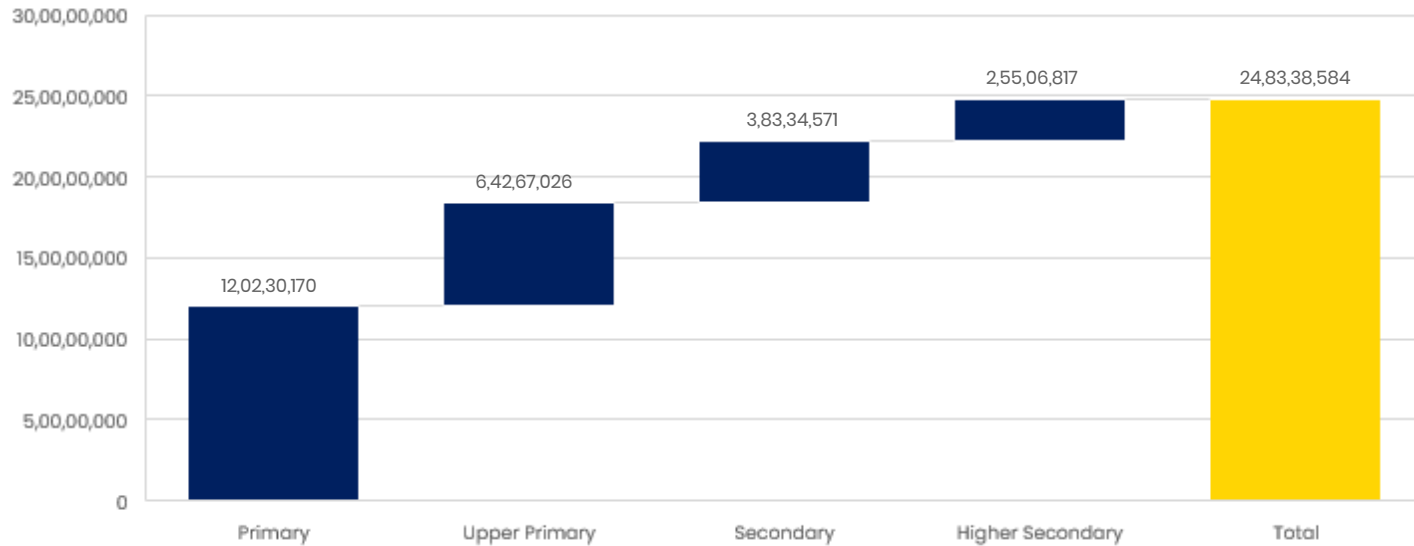
School enrolment



Nearly 50% of these ~25 crore children attend primary grades...



Enrolment by level of education (2018-19)

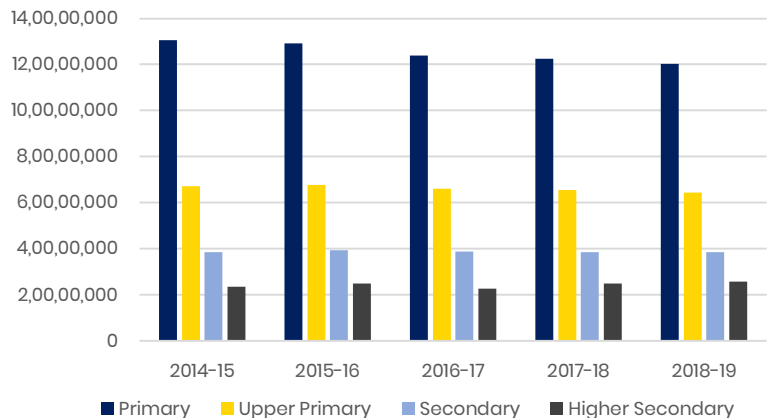




...however enrolment in primary grades steadily declined between 2013 and 2018

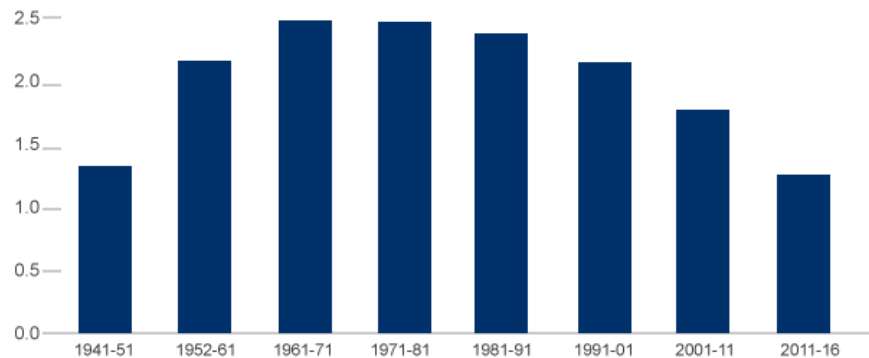
- This observation is in line with the Economic Survey of India 2018–19
- The survey notes that India is set to witness a sharp slowdown in population growth in the next two decades. The population in the 0–19 age bracket has already peaked due to sharp declines in total fertility rates (TFR) across the country
- The southern states, Himachal Pradesh, Punjab, West Bengal and Maharashtra now have fertility rates well below the replacement rate

Enrolment by level of education



Source: DISE

Annual population growth rate in India (per cent)



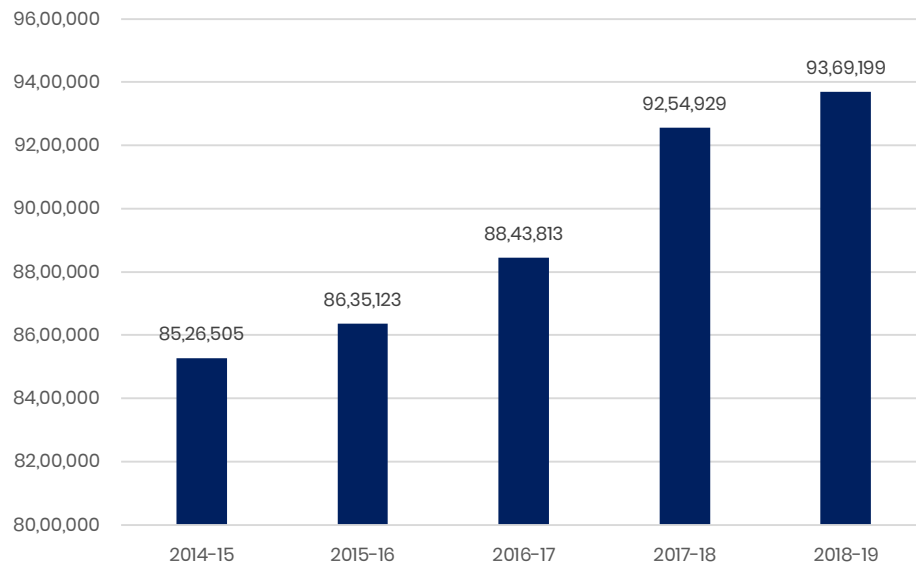
Source: [Economic Survey 2018–19](#)



While the number of schools and students remained fairly constant between 2013 and 2018, the number of teachers saw a consistent rise...

Number of teachers grew from 82 lakh to 92 lakh during this period

Number of teachers (5-year trend)

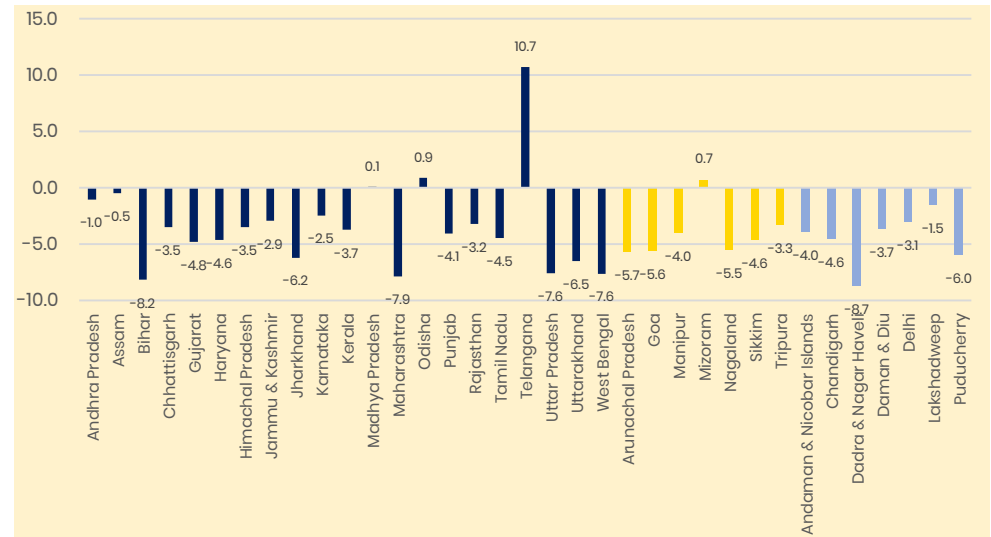
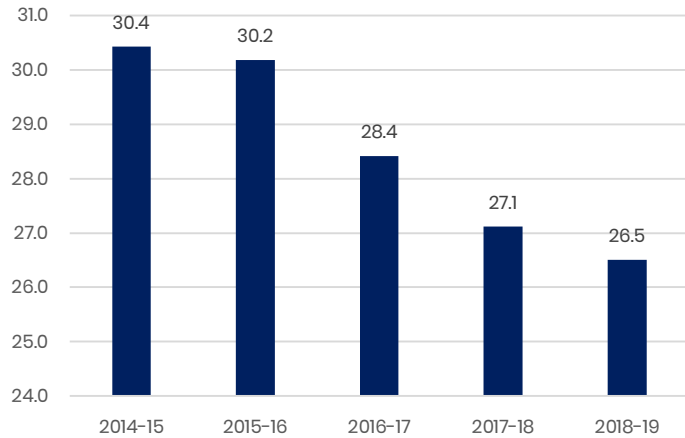


...resulting in the pupil-teacher ratio (PTR) declining from ~31 to ~27 pupils per teacher



- For most states, the PTR was well below or close to the ideal PTR (30:1) as stated by the Right to Education Act
- Bihar, Uttar Pradesh and Jharkhand were the three states that saw the steepest decline in their PTRs over the years. These states saw a rise in number of teachers as well as a decline in student enrolment during this period
- Karnataka was the only state whose PTR increased (by 1.3) during this 5-year period

Pupil-teacher ratio (5-year trend)

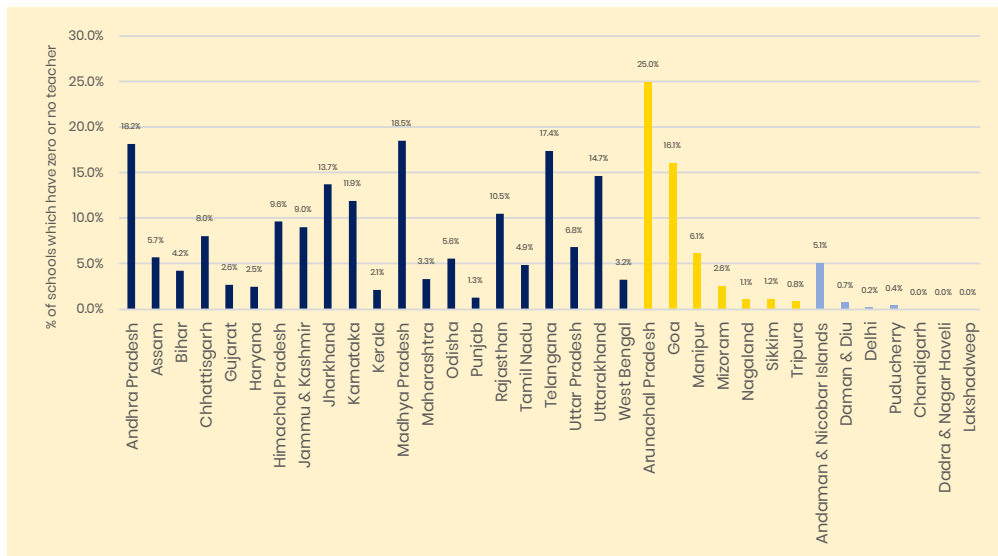
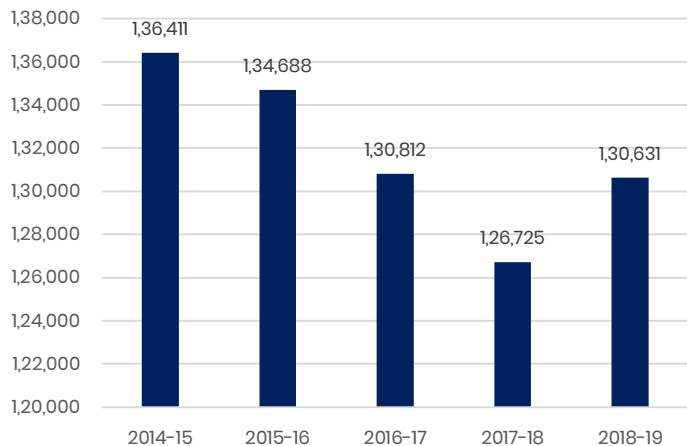




Number of schools with zero or one teacher also saw a decline

- Among large states, Andhra Pradesh, Jharkhand and Madhya Pradesh had the highest proportion of zero or one teacher in schools
- 25% of schools in Arunachal Pradesh had zero or one teacher
- Chandigarh, Dadra & Nagar Haveli, Lakshadweep and Puducherry were the only states where no school had less than two teachers

Number of schools with zero or one teacher



Contents



Introduction



Rural v/s Urban



Private v/s Government



Learning Outcomes



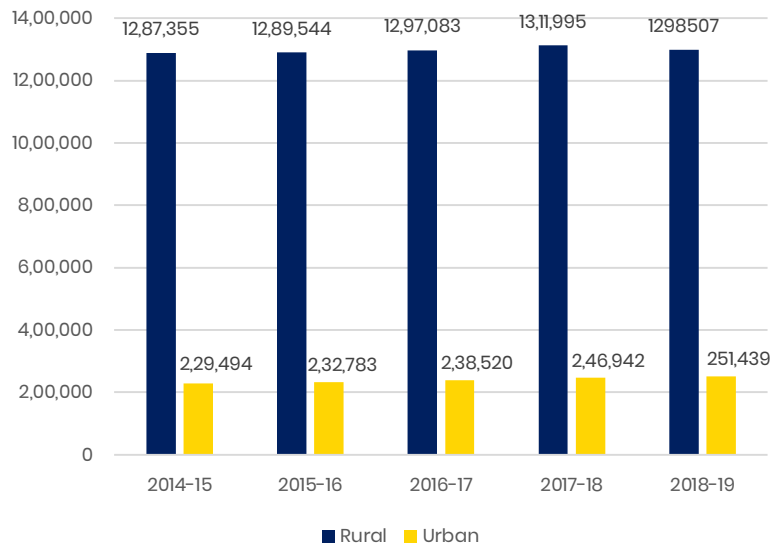
Budgets



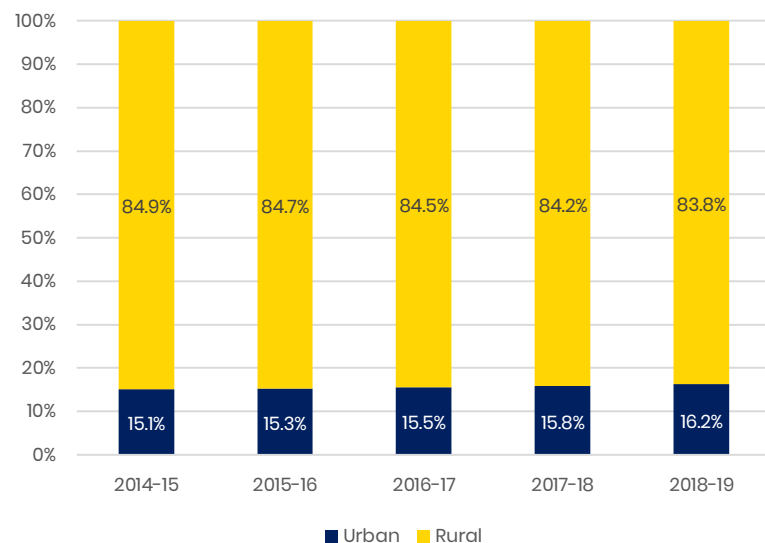
Most of India's 15 lakh schools are in rural areas, accounting for 85% of all schools

Percentage share of rural (85%) and urban (15%) schools remained consistent between 2013 and 2018

Number of schools (rural/urban)



Number of schools (rural/urban)

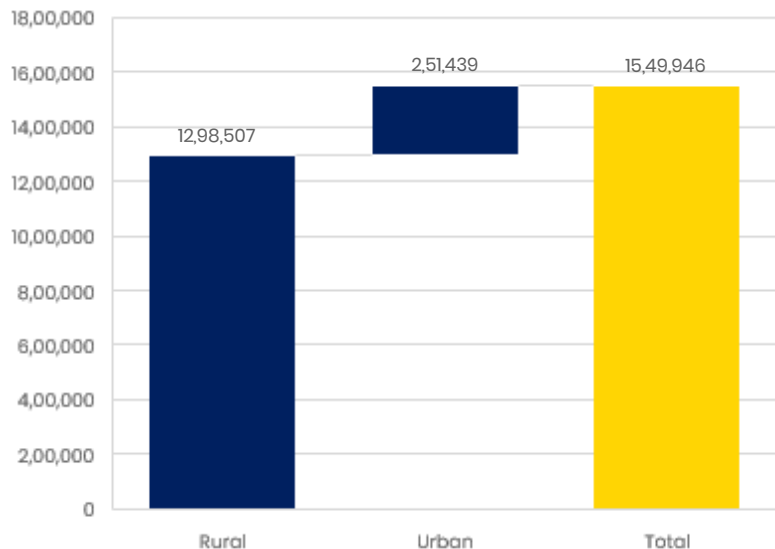




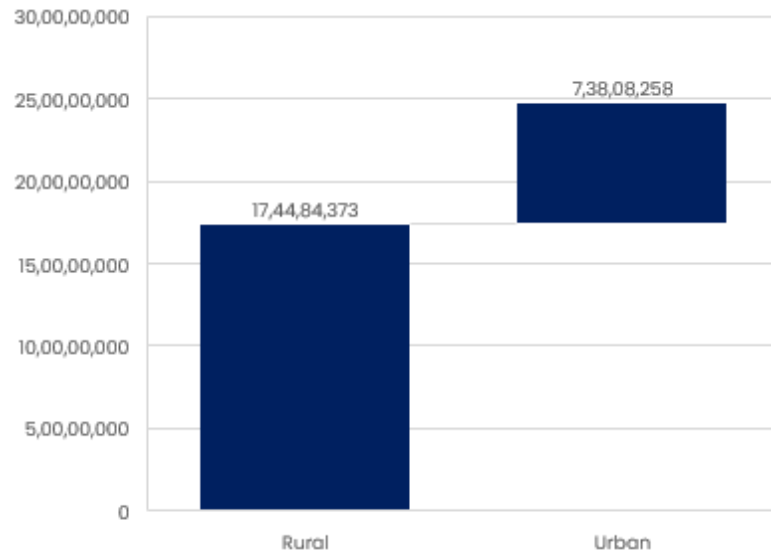
These 85% of schools in rural India had a student enrolment rate of ~71%

Rural locations constitute 85% of schools and 71% of enrolment in the country

Number of schools by location (2018-19)



Number of students by location (2018-19)



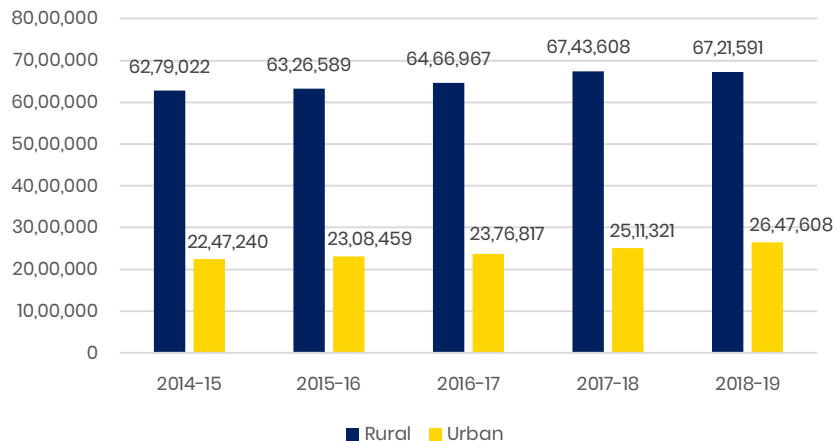
*Source: DISE



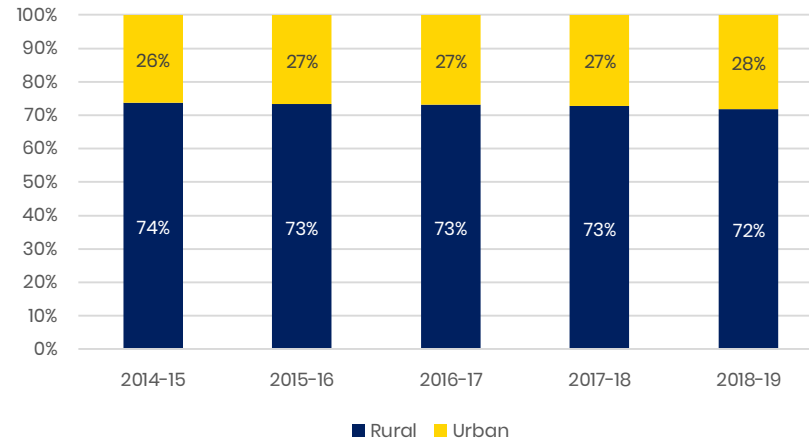
Commensurately, three quarters of all teachers were from rural India

- Number of teachers saw growth in both rural and urban locations
- In urban India, number of teachers grew from 21 lakh to 25 lakh between 2013 and 2018
- During the same time, number of teachers in rural India grew from 61 lakh to 67 lakh

Number of teachers (rural/urban)



Number of teachers (rural/urban)



Contents



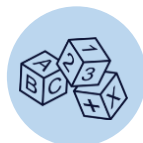
Introduction



Rural v/s Urban



Private v/s Government



Learning Outcomes



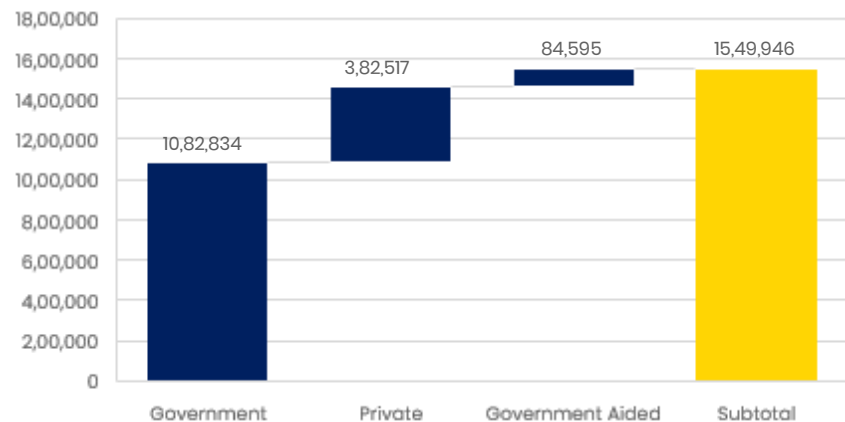
Budgets



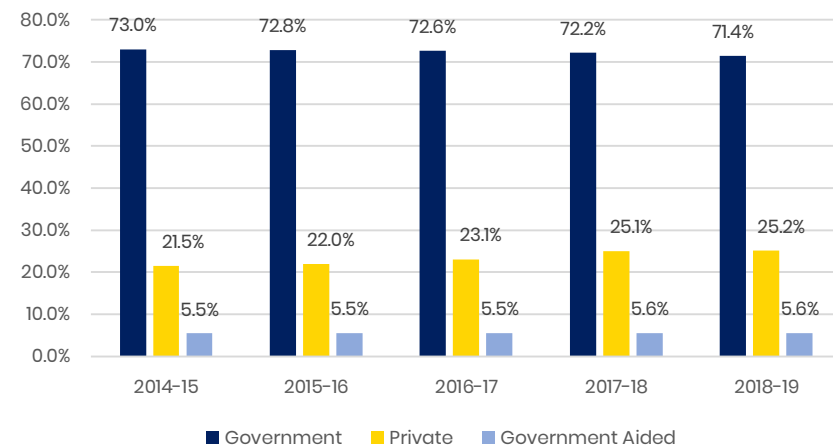
Of India's total schools, ~70% or ~11 lakh were government schools, whose share, however, was declining...

- The share of private schools increased by ~5 percentage points (pp) between 2013 and 2018
- Although government schools did not see any significant change in numbers, their share decreased by ~2pp

Schools by management type (2018-19)



Number of schools by management type (2018-19)

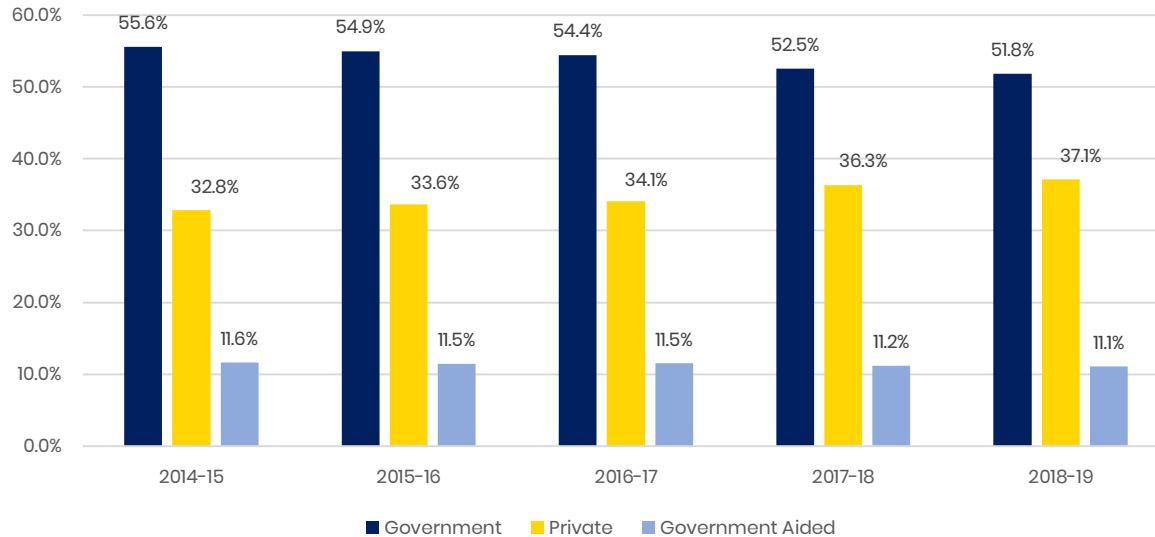


Student enrolment in private schools increased



- Total private school enrolment as well as percentage share of private schools saw a steady increase since 2013-14
- During the same time, government enrolment increased briefly in 2014-15, declining thereafter
- This growth in private school enrolment was seen across states during this 5-year period

Enrolment by management type

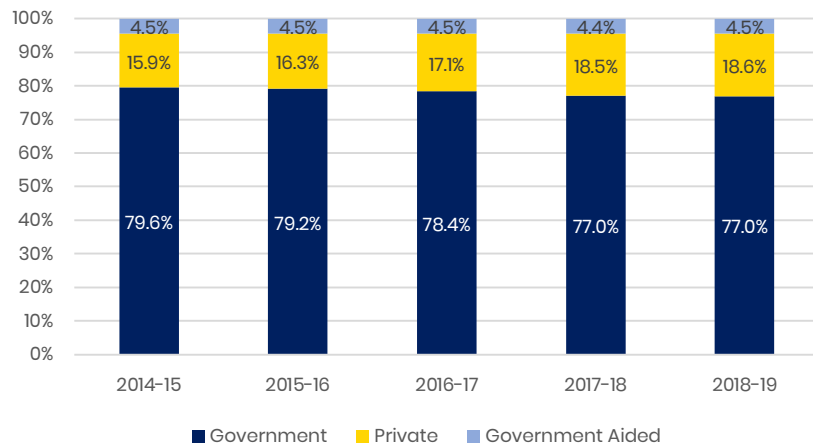




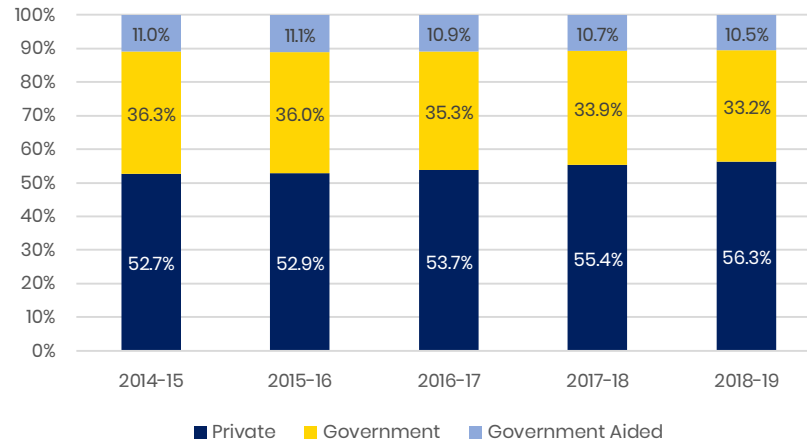
While there were more government schools (77%) in rural India, private schools (55%) were more prevalent in urban areas

- There was a slight decline in the share of government schools in both rural and urban India
- Private schools saw an overall increase of 5pp in India; they grew by 7pp in urban areas and by 4.5pp in rural areas

Percentage share of schools by management type (rural)



Percentage share of schools by management type (urban)

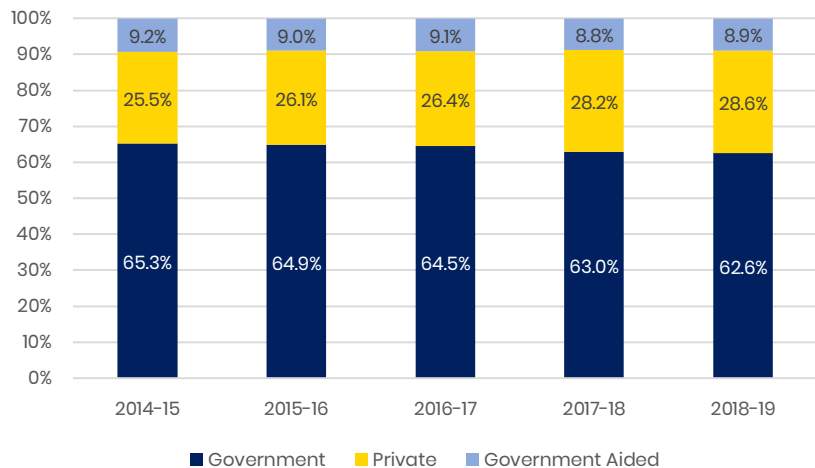




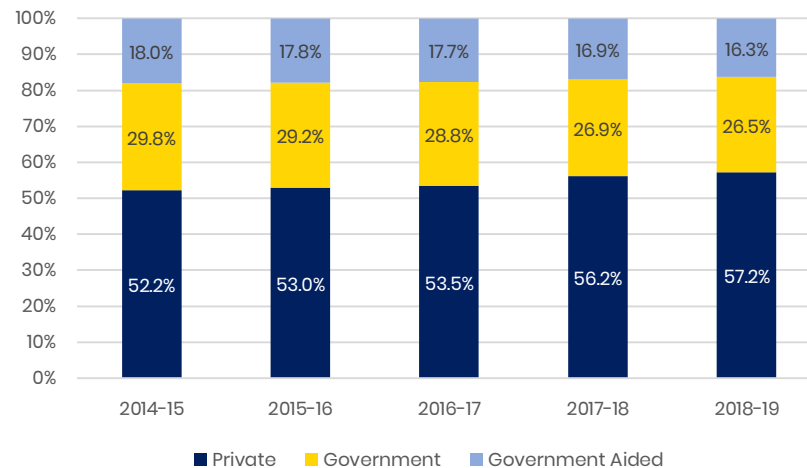
Commensurately, more students in rural India enrol in government schools, while students in urban India attend private schools

- Enrolment share of private schools grew in both rural (6.48pp) and urban (~8pp) locations

Enrolment by management type (rural)



Enrolment by management type (urban)

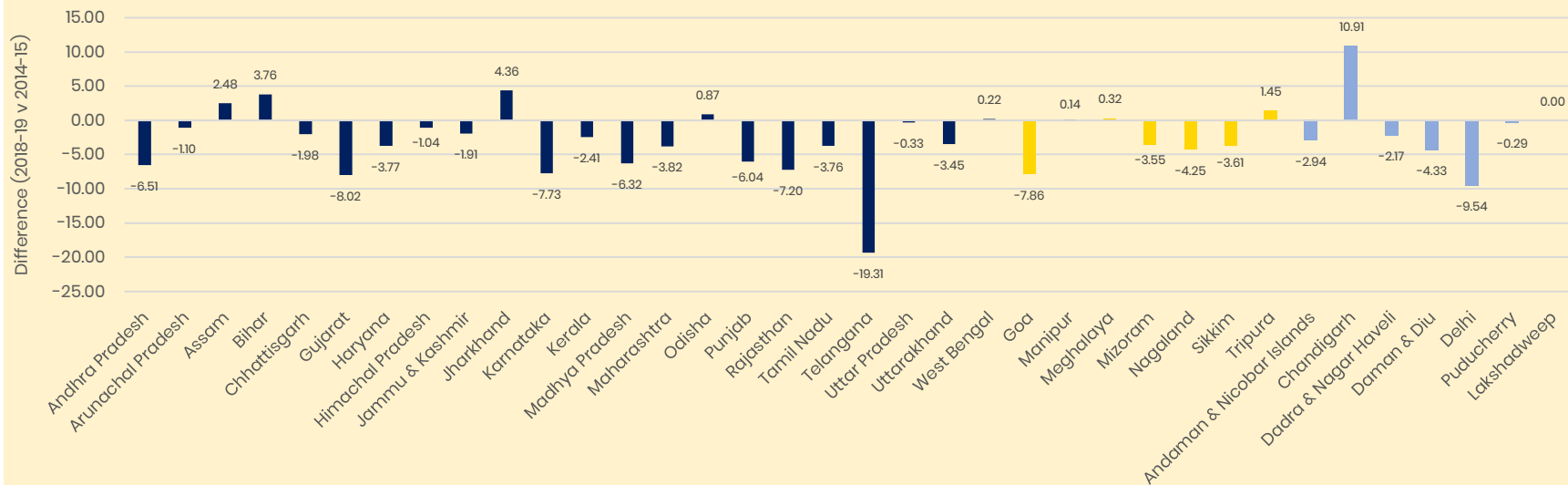




Uttar Pradesh, Mizoram and Uttarakhand saw the biggest shift towards private schools

- Most states saw an increase in the share of private schools
- In contrast, private school share declined in Tripura, Telangana, and the Andaman and Nicobar Islands

Enrolment by management type

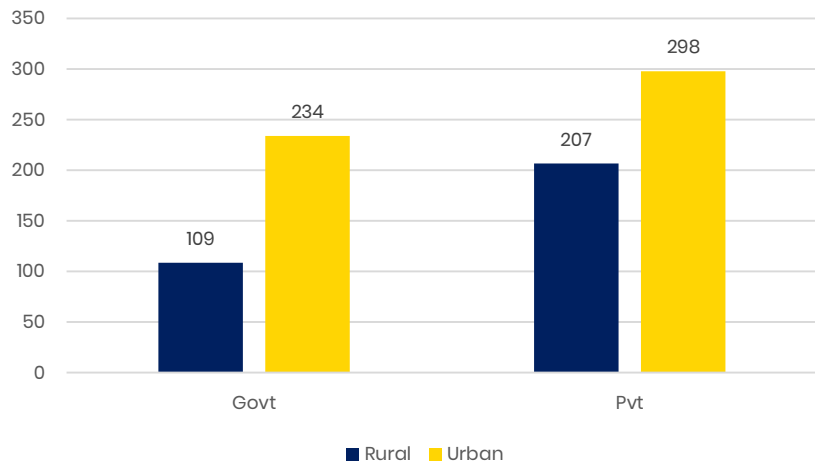


In both rural and urban India, private schools had more students per school than government schools

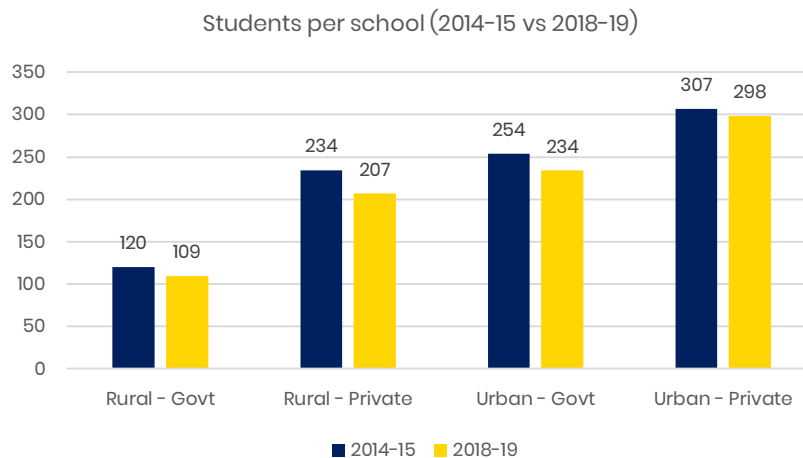


- Government schools had 111 and 234 students per school in rural and urban areas, respectively. In comparison, private schools had 207 and 299 students per school in rural and urban areas, respectively
- Between 2013 and 2018 students per school saw a declining trend; although this appeared more pronounced for private schools

Students per school (2018-19)



Students per school (2014-15 vs 2018-19)

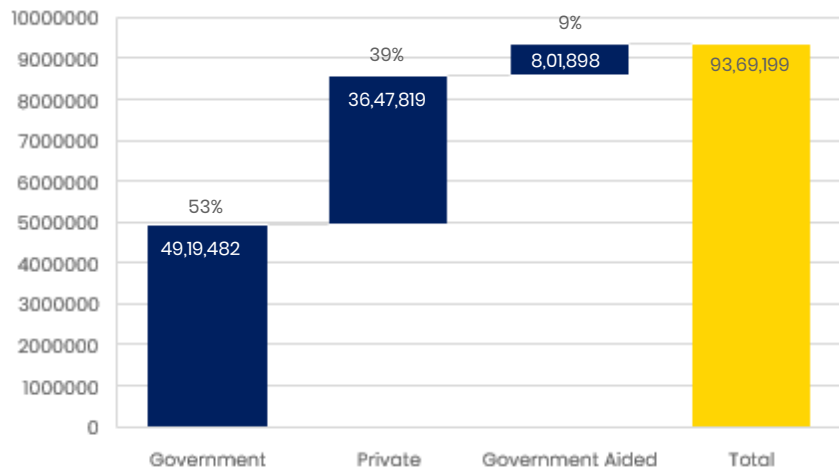




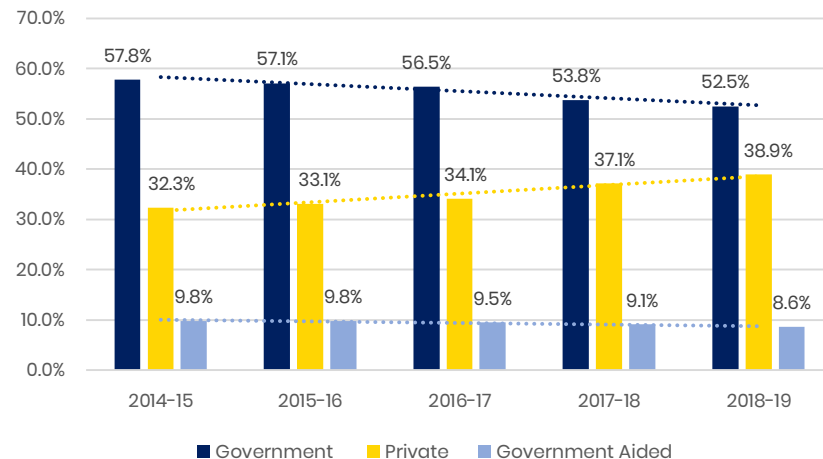
Although most of India's teachers taught in government schools, their percentage share saw a decline

- Share of teachers in government schools declined from 56% to 53.8% between 2013 and 2018
- During the same period, the number of private school teachers saw a 8pp increase from 29.4% to 37%

Number of teachers by management type (2018-19)



Percentage share of teachers by management type

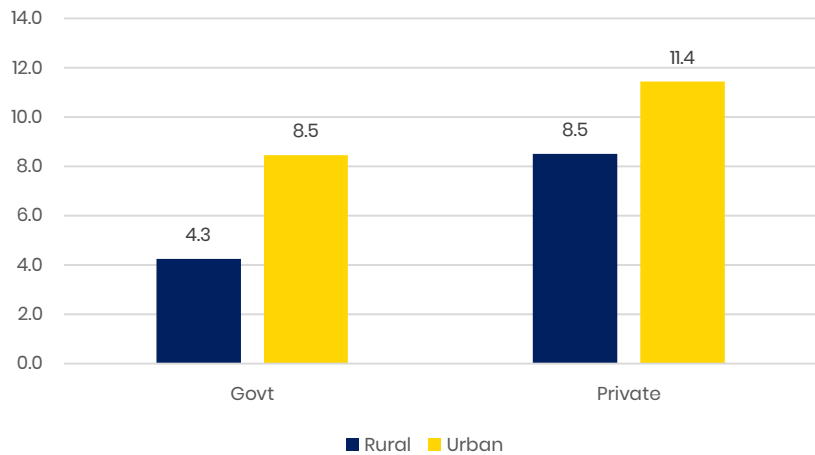




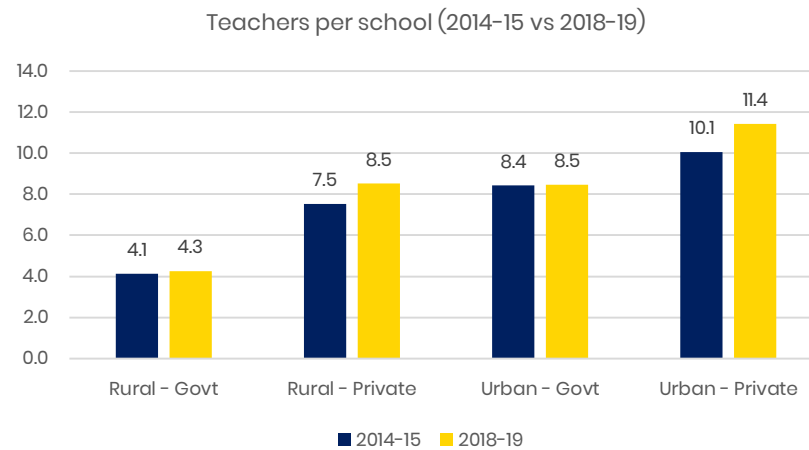
Like students per school, private schools also had more teachers per school than their government counterparts

- Government schools in urban areas (8) had double the number of teachers (per school) than those in rural (4) areas
- Between 2013 and 2018, teachers per school saw an upward trend across private and government schools, in both rural and urban India

Teachers per school (2018-19)



Teachers per school (2014-15 vs 2018-19)



Contents



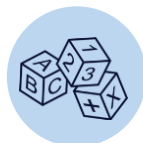
Introduction



Rural v/s Urban



Private v/s Government



Learning Outcomes



Budgets

Learning outcomes remained consistently low



Learning outcomes in India's primary education sector remained consistently low. Even though children were moving up from one grade to the next, few actually mastered the grade-level competencies expected of them



ASER, based on a sample of schools in rural districts, showed that ~72% of Grade V children from rural India could not do simple division problems. The percentage of students who could correctly do a three digit to one digit division problem reduced from 68% in 2010 to 43% in 2018



NAS cycle 3 and 4 for Grade V showed that 19 out of 31 states/union territories who participated in both cycles revealed a decline in language and math outcomes in government schools



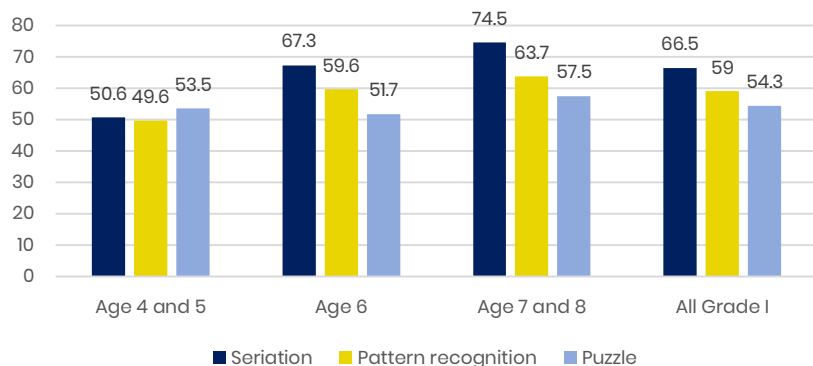
The outcomes were low across all categories of schools, although the problem was particularly acute in government schools, with affordable private schools performing slightly better on an average. High fee paying private schools achieved significantly better outcomes than both school types, but lower than international averages*



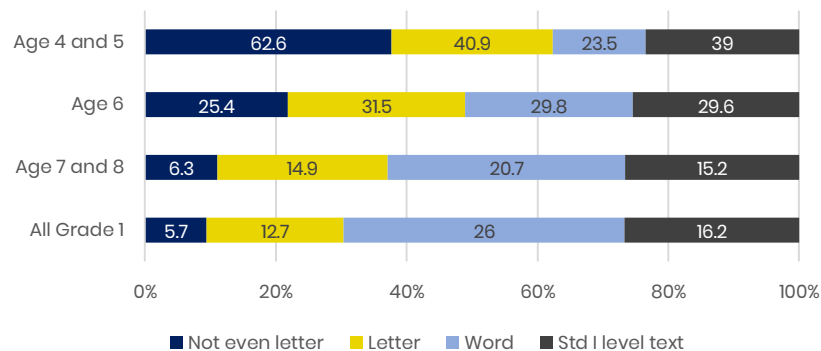
Grade I : Disaggregating performance by age – older children were found do to better than younger children

- Many 4 and 5-year old children were able to comfortably do several of the cognitive activities
- Performance of Grade I children on cognitive early language and early numeracy was strongly related to their age. Older children did better at all tasks
- For example, within the Grade I cohort almost no children age and can read Grade I level text (5.7%). This proportion increased steadily with age, with 12.7% of 6-year-olds and 26% of 7 and 8 year-olds in Grade table to do

Children in Grade I who can correctly do cognitive tasks by age



Distribution of children's reading ability in Grade I by age (2019)

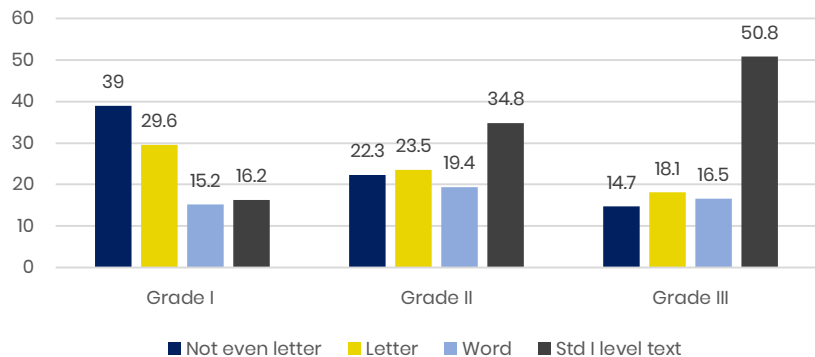




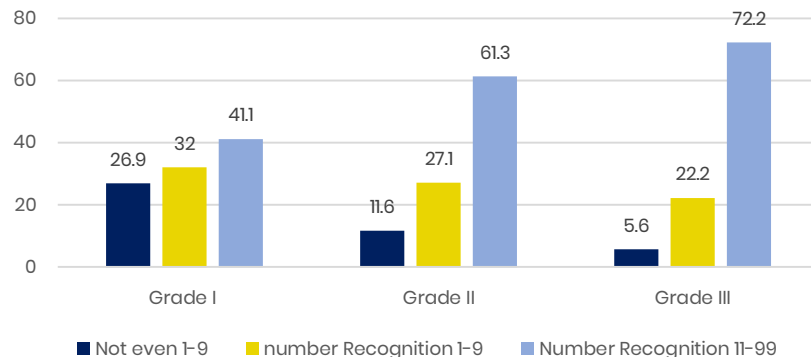
Grade I to III: Yet 50% of Grade III students could not meet expectations of Grade I level reading abilities

- Children's foundational skills improve with each subsequent grade. But even by Grade III, a substantial percentage of students were well behind where they were expected to be by end of Grade I
- For e.g., children's ability to read Grade I level text improved from 34.8% of children in Grade II to 50.8% in Grade III, This meant that half of the children in Grade III were already at least two years behind where the curriculum expected them to reach
- Similarly, 41.1% of students in Grade I could recognize 2-digit numbers, while 72.2% in Grade III could do so

Distribution of children's reading ability within each grade



Distribution of children's ability to recognize numbers within each grade

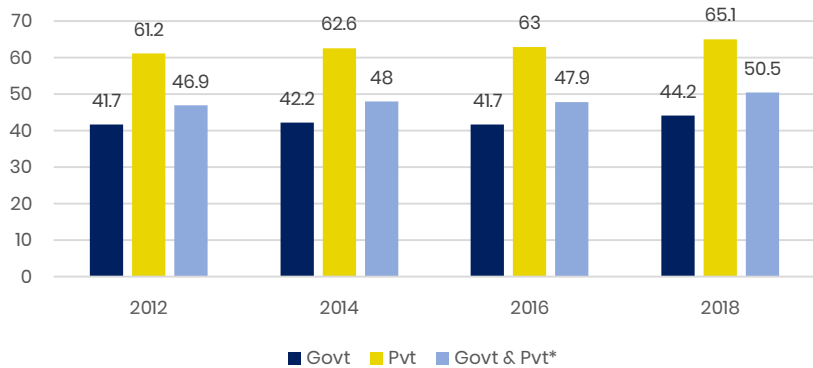




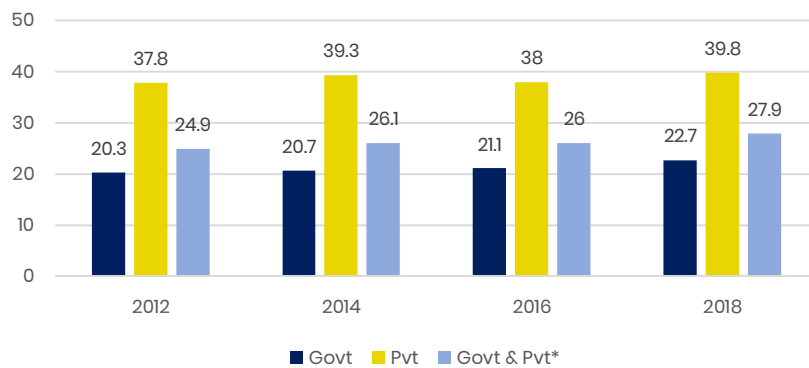
By Grade V: 51% could read a Grade II level text and 28% could do division

- Private schools score 20.9pp higher than government schools in reading and 17pp higher in math
- Slightly more than half of the children enrolled in Grade V can read at least a Grade II level text. This figure had inched up from 47.9% in 2016 to 50.5% in 2018
- Percentage of Grade V students across India who could do division increased from 24.9% to 27.9% between 2012 and 2018. This rise was seen in both private and government schools

Children who can read Grade II level text in Grade V (%)



Children who can do division in Grade V (%)

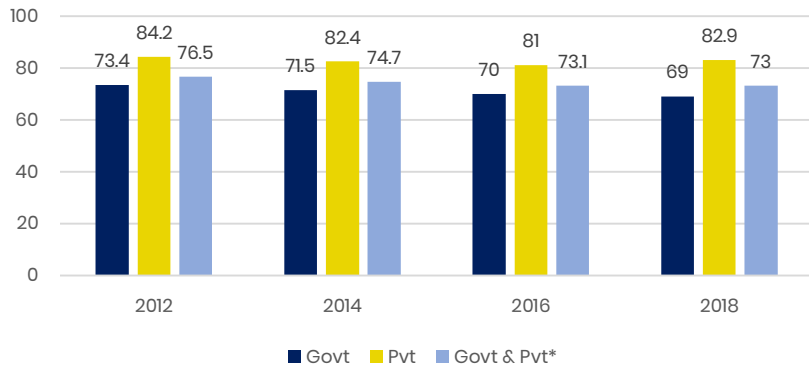




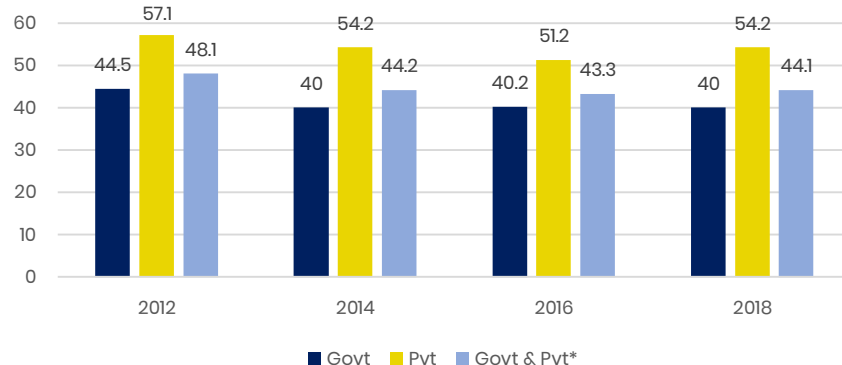
By Grade VIII: 73% could read a Grade II level text and 44% could do division

- The gap between private and government schools is smaller in Grade VIII than in Grade V. Private schools scored 14pp higher in both reading and math
- Proportion of Grade VIII students in India who could read at least a Grade II level text declined from 76.5% in 2012 to 73% in 2018. The decline was seen across private and government schools
- Currently, about 44% of Grade VIII students can solve a 3-digit by 1-digit division problem correctly. This too saw a decline across private and government schools since 2012

Children who could read Grade II level text in Grade VIII (%)



Children who could do division in Grade VIII (%)

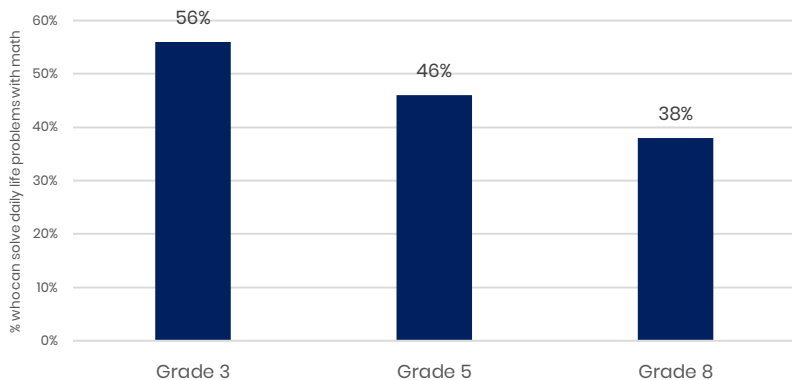




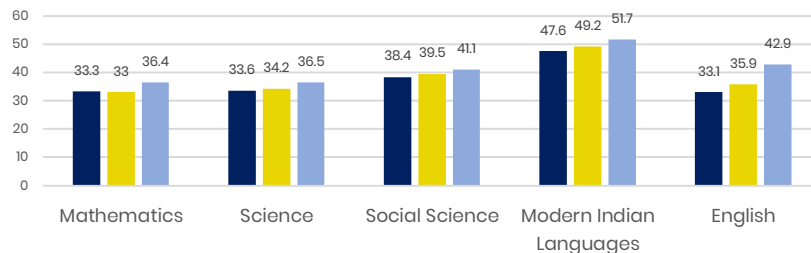
Tested at their level, 62% of Grade VIII students could not solve daily life problems using math

- 67% of Grade III students could read small texts with comprehension; number decreased to 54% by Grade VIII
- 56% of Grade III students could use basic math to solve daily life problems; number decreased to 38% by Grade VIII
- Grade X students performed best in languages and poorly in math and science

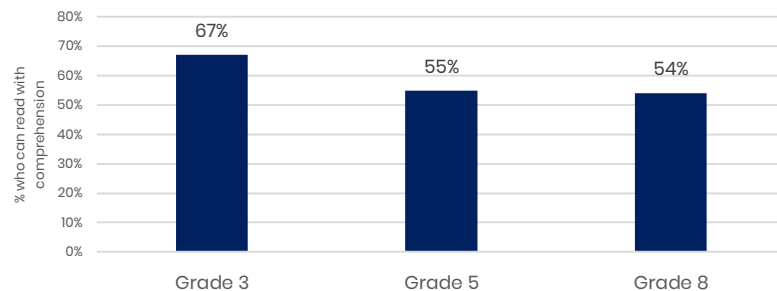
Students who can solve daily life problems using math (%)



Average performance of students (Grade X)



Students who can read with comprehension (%)



Contents



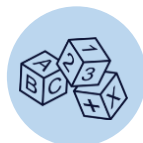
Introduction



Rural v/s Urban



Private v/s Government



Learning Outcomes



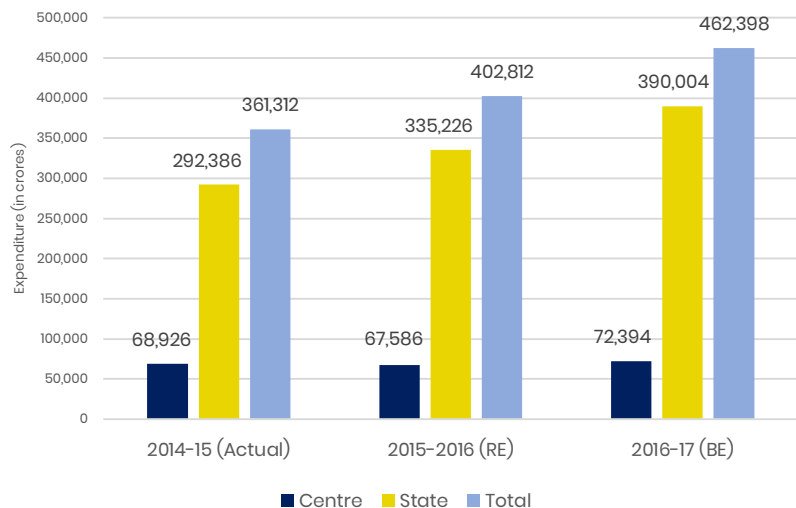
Budgets



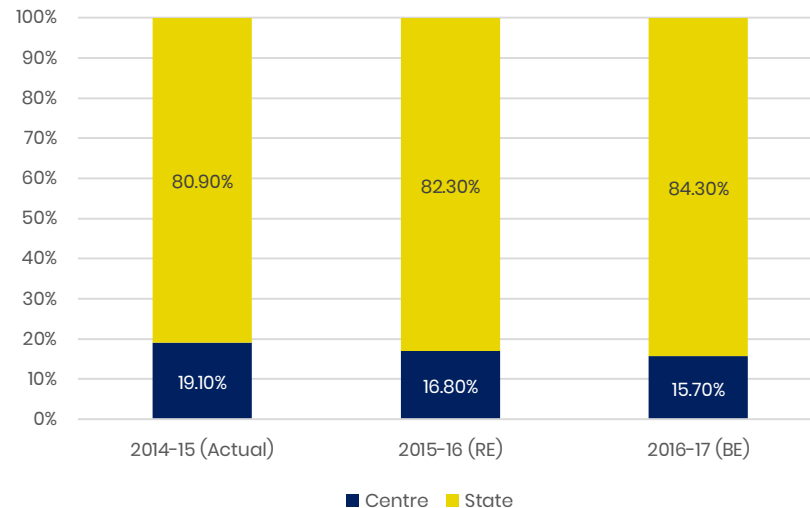
Budgeted expenditure on education saw steady increase between 2014 and 2017

- Budgeted expenditure on education increased from INR 3.6 lakh crore in 2014-15 to INR 4.6 lakh crore in 2016-17
- States drove ~80% of budgeted expenditure towards education

Budgeted expenditure



Percentage contribution to budgeted expenditure (center vs state)

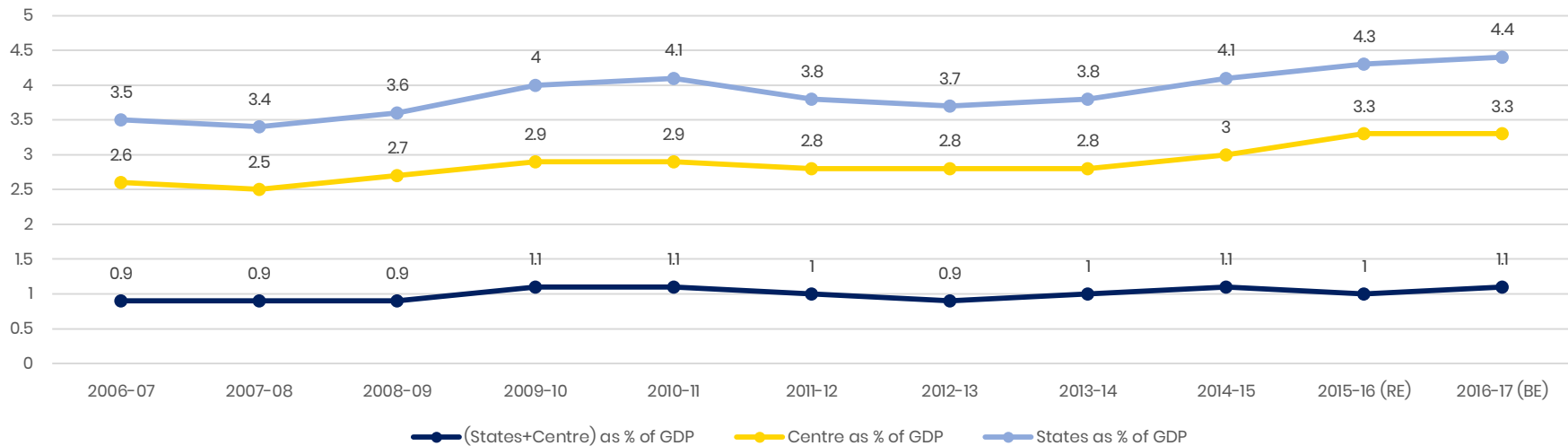




Total expenditure (center + state) as a percentage of GDP saw an upward trend during the 2006–2016 decade

- Center's expenditure as a percentage of GDP remained consistent
- State expenditure, as a percentage of GDP, increased steadily during the same period

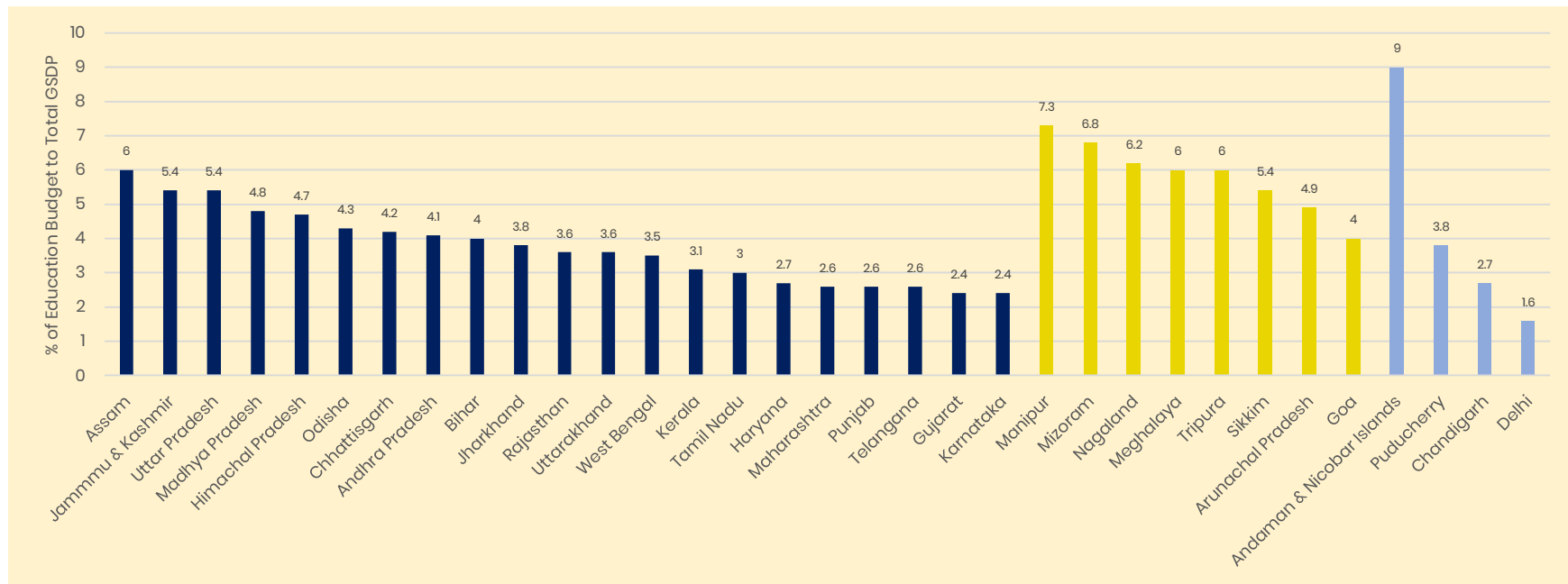
Expenditure on education as %age of GDP





Among large states, Assam had the highest education expenditure as percentage of GSDP

- Among large states, Uttar Pradesh, Jammu and Kashmir, and Uttarakhand spent greater than 5% of their GSDP on education
- Among small states, Manipur, Mizoram and Nagaland had the highest education expenditure as a percentage of their GSDP





**CENTRAL SQUARE
FOUNDATION**

Contributors:

Mayank Bhushan

Pranathi Iyer*

Pratibha Joshi

Shubhra Mittal

Niharika Ohri

Sudhanshu Sharma

Acknowledgements:

We are grateful to colleagues at the Central Square Foundation for many insightful discussions. We would especially like to thank Bikkrama Daulet Singh, Shaveta Sharma Kukreja, Dr Jayshree Oza, and Praveen Khanghta for their advice and support since the inception of this report. Special thanks to Noopur Abhishek, Atul Bhargava, Saurabh Bains, Pritika Bathija, Garima Duggal, Shruti Gogia, and Rhea Handa for connecting us with partner organisations that were integral to the education response to the COVID-19 pandemic. We are grateful to Madhi Foundation, Language and Learning Foundation, Leadership for Equity, Top Parent, Rocket Learning, Chimple, Humana People to People India, iDream Education, eVidyaloka, TagHive, Nalanda Project, and 321 Education Foundation for detailed responses to our questions. We are indebted to our technical and state partners for invaluable information, advice, and insights. This report would not have been possible without the advice and inputs from Tania Goklany. We would also like to thank Nandita Sengupta, Saon Bhattacharya, and Sammak Dutta from Yellow Brickroad Media for designing the report. All errors are our own.

**Pranathi Iyer was an intern at the Research, Monitoring, Evaluation, and Learning team at CSF*

For any queries, suggestions, comments or corrections, please write to us at csf.research@centralsquarefoundation.org