

## National findings

Findings based on 26 rural districts across 24 states, 23,868 households and 28,323 youth age 14-18.

In ASER 2017, information was collected for four domains - activity, ability, awareness and aspirations.

### ACTIVITY

Overall, 86% of youth in the 14-18 age group are still within the formal education system, either in school or in college.

- More than half of all youth in this age group are enrolled in Std X or below (54%). Another 25% are either in Std XI or XII, and 6% are enrolled in undergraduate or other degree courses. Only 14% are not currently enrolled in any form of formal education.
- The enrollment gap between males and females in the formal education system increases with age. There is hardly any difference between boys' and girls' enrollment at age 14; but at age 18, 32% females are not enrolled as compared to 28% males.
- The proportion of youth not enrolled in school or college increases with age. At age 14, the percentage of youth not enrolled is 5%. By age 18, this figure increases to 30%.

Overall, about 5% of youth are taking some type of vocational training or other courses. This includes those who are enrolled in school or college as well as those who are not currently enrolled.

- Youth who take vocational courses tend to take short duration courses of 6 months or less. Of those who are doing vocational courses, the highest percentage of youth (34%) are enrolled in courses which are 3 months or shorter, and another 25% are enrolled in courses between 4 and 6 months in duration.

A substantial proportion of youth in the 14-18 age group are working (42%), regardless of whether they are enrolled in formal education or not. Of those who work, 79% work in agriculture - almost all on their own family's farm. Also, more than three quarters of all youth do household chores daily - 77 % of males and 89% of females.

## ABILITY

For the past twelve years, ASER findings have consistently pointed to the fact that many children in elementary school need urgent support for acquiring foundational skills like reading and basic arithmetic. With this year's focus on an older age group, it is important to understand the level of basic skills among youth as well as their preparedness for tasks that go "Beyond Basics".

### Foundational skills

First, let us look at the current status of foundational skills for youth in the age group 14-18.

- About 25% of this age group still cannot read basic text fluently in their own language.
- More than half struggle with division (3 digit by 1 digit) problems. Only 43% are able to do such problems correctly. The ability to do division - a task that is usually done in ASER, can be thought of as a proxy for the ability to do basic arithmetic operations.
- 53% of all 14 year-olds in the sample can read English sentences. For 18 year-old youth, this figure is closer to 60%. Of those who can read English sentences, 79% can say the meaning of the sentence.

Std II level text

विमला और अजय मेला देखने गए। उन्हें मेले में तरह-तरह की दुकानें दिखी। मेले में बहुत झूले थे। वहाँ गरम-गरम हलवा और जलेबियाँ भी बिक रही थी। जलेबी देखकर दोनों के मुँह में पानी आने लगा। उन्हें जलेबी खाने का मन करने लगा। विमला ने जलेबी खरीदी। दोनों ने मिलकर जलेबी खाई। शाम को दोनों घर लौट आए।

Division

$$\begin{array}{r} 4 \overline{) 591} \\ 7 \overline{) 872} \\ 6 \overline{) 759} \\ 8 \overline{) 986} \end{array}$$

Sentence

**What is the time?**

**This is a large house.**

**I like to read.**

**She has many books.**

- Even among youth in this age group who have completed eight years of schooling, a significant proportion still lack foundational skills like reading and arithmetic.

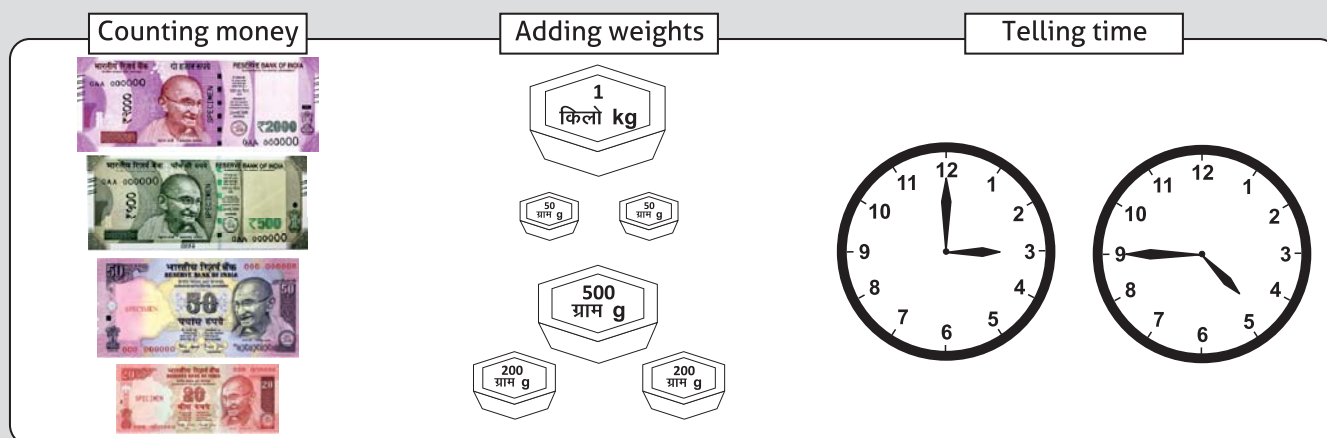
Interestingly, although reading ability in regional languages and in English seems to improve slightly with age (more 18 year-olds can read than 14 year-olds), the same does not seem to apply to arithmetic. The proportion of youth who have not acquired basic arithmetic skills by age 14 is the same as that of 18 year olds. Learning deficits seen in elementary school in previous years seem to carry forward as young people go from being adolescents to young adults.

## Applying basic literacy and numeracy skills to everyday tasks

People are expected to do many tasks requiring literacy and numeracy every day. Many young people of this age group are the first in their families ever to complete eight years of schooling. So, their ability to do basic calculations and make correct decisions is important not just for themselves but for the whole family.

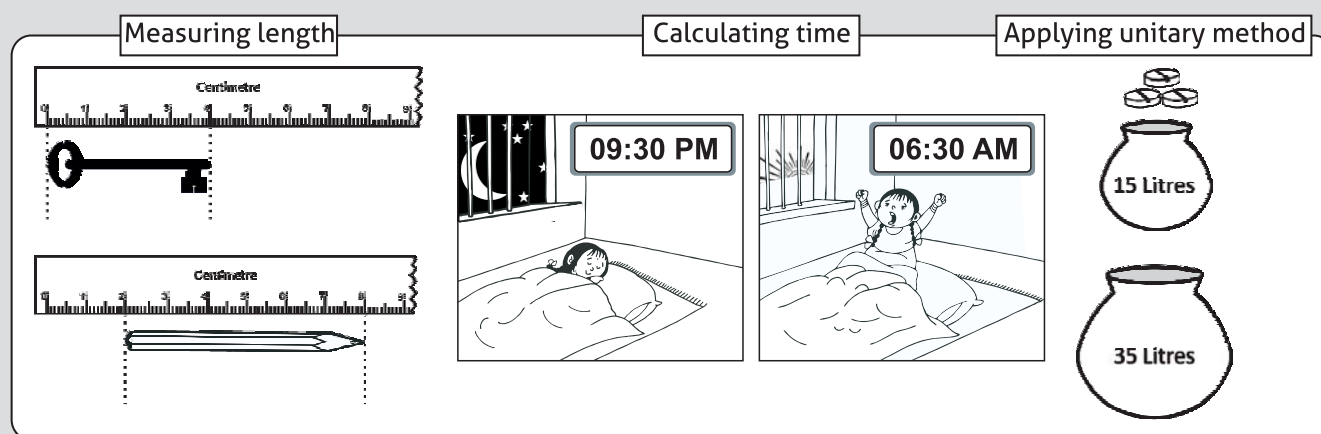
ASER 2017 explored a variety of such tasks with young people in the age group 14-18. In terms of daily tasks, we picked some simple activities like counting money, adding weights and telling time:

- How much money is this? 76% of surveyed youth could count money correctly. For those who have basic arithmetic skills, the figure was close to 90%. (This task involves simple addition.)
- 56% could add weights correctly in kilograms. For those who have basic arithmetic skills, the figure is 76%. (This task involves addition and conversion from grams to kilograms.)
- Telling time is a common daily activity. For the easy task (hour), 83% got it correct. But for the slightly harder task (hour and minutes) a little less than 60% got it right.



What about common calculations that people often have to do? For ASER 2017, we picked a few such activities like measuring length with a ruler, calculating time, and applying the unitary method (e.g. deciding how many chlorine tablets to use for purifying water).

- 86% of youth could calculate the length of an object if it was placed at the '0' mark on the ruler. But when the object was placed elsewhere on the ruler, only 40% could give the right answer.
- How many hours has this girl slept? Less than 40% of all sampled youth could calculate the right answer. Of those who could at least do division, about 55% could answer correctly.
- How many tablets are needed to purify water in the big pot? Again about 50% of youth got this right. For those who could do division, the number is 70%.



A variety of tasks in daily life require reading and understanding written instructions. For example, for prevention of dehydration especially in the case of diarrhoea, oral rehydration measures are recommended. O.R.S. packages are available widely in rural and urban areas.

Packages come with easy to use instructions that are quite straightforward. To assess whether youth are able to read and understand simple instructions, we asked them some questions based on this text. For example: how many packets of O.R.S. should be mixed with 2 litres of water? Within how many hours should the prepared mixture be consumed? How many litres of O.R.S. solution can be given to a 21 year-old within a span of 24 hours? Can this packet be used in December 2018?

- In our sample, more than 75% of youth can read a Std II level text fluently. But only a little over half (54%) could answer at least 3 out of 4 questions based on the written instructions on this O.R.S. packet.
- Of those who have currently completed 8 years of schooling or are currently enrolled in school or college, about 58% can read and understand instructions. But only 22% of those who are currently not enrolled can do so.

Reading and understanding written instructions

The graphic shows a packet of O.R.S. (Life Saving Solution) with the following text in Hindi:

**O.R.S.**  
(Life Saving Solution)

**Method of preparation of O.R.S.**

- In a clean utensil, boil 1 litre of water and let it cool.
- In the cool water add 1 full packet of O.R.S.
- Mix it well.
- Make the child drink the solution

The dosage of O.R.S. should depend on age and severity of dehydration.  
 Child: 1-2 litres of solution to be consumed within 24 hours  
 Youth: 2-4 litres of solution to be consumed within 24 hours  
 Continue the treatment till dehydration persists

**Attention:**

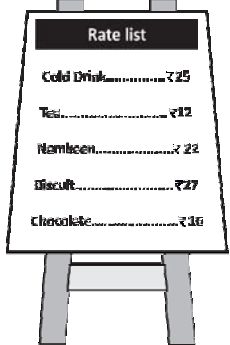
- The prepared solution must be kept covered and consumed within 24 hours
- Throw away the leftover solution

This packet should be stored in a cool and dry place.  
 Price: 19 Rupees  
 Date of Manufacturing: March 2015  
 Date of Expiry: March 2018

What are some ordinary, commonplace financial calculations? ASER 2017 included four examples:

- Managing a budget: You have Rs. 50 and you are looking at a rate list for snacks. Which three different items can you buy so that fifty rupees is completely spent?
- Taking purchase decisions: In the second task, you need to buy a set of five books. Two different prices are being offered in two different shops. Which shop will you go to if you want to spend the least amount of money possible? And, how much will you spend?

Managing a budget



Taking a purchase decision

Shop 1

Rate list	
Name of book	Price
Science	₹ 50
Math	₹ 80
Hindi	₹ 30
English	₹ 70
History	₹ 40


Shop 2

Rate list	
Name of book	Price
Science	<b>Special Offer!!</b> Set of 5 books for <span style="font-size: 2em; font-weight: bold;">₹ 299</span> Only
Math	
Hindi	
English	
History	

For both the tasks described above, less than two thirds of youth age 14-18 can correctly do the calculations (64%). This figure roughly corresponds to all those who can at least do subtraction in our sample.

- Applying discounts: The third task consists of a picture of a T-shirt which is on sale with a 10% discount. The task is to figure out how much to pay after the discount. 38% of youth can do this computation correctly.
- Calculating repayment: The fourth task is to decide which bank to take a loan from after comparing interest rates being offered by 3 banks and then computing what would be the repayment amount after a year. 71% youth chose the bank correctly but only 22% could calculate the correct repayment amount.

Applying a discount



Calculating repayment

Rates of Interest offered by Banks	
Name of Bank	Interest Rate on loan
Laxmi Bank	11% per year
Lena Bank	12% per year
Rashi Bank	13% per year

Loan Amount = Rs. 20,000

What about maps and general knowledge? A map of India was shown to each young person who was surveyed. They were asked a series of questions:

- "This is a map of which country?" 86% answered India.
- "What is the name of the capital of the country?" 64% answered correctly.
- "Which state do you live in?" 79% answered correctly.
- "Can you point to your state on the map?" 42% could do so.



The overall patterns indicate that having basic foundational skills like reading and arithmetic are very helpful even for daily tasks and common calculations. However, not everyone who has these foundational skills can correctly complete these everyday tasks. Similarly, although having completed at least 8 years of schooling is an advantage, not all youth who have done so can do these tasks. Females perform worse than males on almost all tasks. These data show that substantial numbers of young people who have completed 8 years of schooling have difficulty applying their literacy and numeracy skills to real world situations.

## AWARENESS AND ASPIRATIONS

Each sampled youth was asked a series of questions to understand their access to media, financial institutions and the digital world.

As expected, mobile phone usage is widespread in the 14-18 age group. 73% of the young people had used a mobile phone within the last week.

- However, significant gender differences are visible. While only 12% of males had never used a mobile phone, this number for females is much higher at 22%.
- Mobile usage rises significantly with age. Among 14 year-olds, 64% had used a mobile phone in the last week. That figure for 18 year-olds is 82%.

But for these young people, the use of internet and computers was much lower. 28% had used the internet and 26% had used computers in the last week, while 59% had never used a computer and 64% had never used internet.

- For those who are currently enrolled in the education system, access to internet and computers is higher than those who are not currently enrolled. However mobile usage is high regardless of whether they are enrolled or not.
- Girls and young women have far lower access to computer and internet as compared to boys. While 49% of males have never used the internet, close to 76% of females have never done so.

As expected, almost every young person (85%) had watched television in the last week. 58% had read a newspaper and a little under half (46%) had listened to the radio in the previous seven days. Gender differences in access to traditional media is seen to be far lower than the differences in access to the digital world.

With respect to participation in financial processes and institutions, close to 75% youth have their own bank account. Interestingly, a slightly higher percentage of females have bank accounts than males in this age group. 51% have deposited or withdrawn money from the bank. 16% have used an ATM or debit card, but only 5% have ever done any transaction using a payment app or mobile banking.

ASER 2017 also asked youth about their study and professional aspirations. About 60% youth in the age group 14 to 18 years wanted to study beyond Std XII. This percentage is almost half (35%) among youth who could not read a Std II level text fluently.

Professional aspirations are clearly gendered, with males aiming to join the army or police or becoming engineers and females showing preference for teaching or nursing careers. Almost a third of the youth who were currently not enrolled in an educational institution did not have a specific occupation that they aspired to. Finally, 40% youth did not have any role models for the profession they aspired to.

### Concluding thoughts

Unless we ensure that our young people reach adulthood with the knowledge, skills, and opportunities they need to help themselves, their families, and their communities move forward, India's much awaited 'demographic dividend' will not materialize. Our interactions with youth in this age group suggest that as a country we urgently need to attend to their needs. ASER 2017 is an attempt to shine a spotlight on this situation and hopefully start a nation-wide discussion about the way forward.