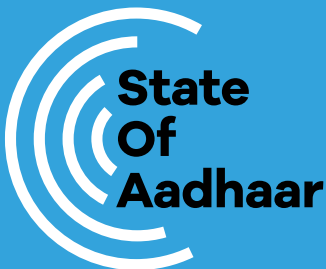


State of Aadhaar:

A People's Perspective

2019 EDITION



www.stateofaadhaar.in



State of Aadhaar 2019 | Top 10 Highlights

95%

of adults have Aadhaar

90%

of people incorrectly believe that providing Aadhaar is mandated by law for bank accounts

92%

of people are satisfied with Aadhaar

77%

77% of Aadhaar holders have never used features such as mAadhaar, QR code, virtual Aadhaar or masked Aadhaar

90%

of people trust their data is safe in the Aadhaar system

67%

of people who have been excluded from a service because of Aadhaar are still satisfied with it

80%

of recipients feel Aadhaar has made PDS rations, MGNREGS, or social pensions more reliable

33%

of people who tried to update said the process was difficult

49%

of residents used Aadhaar to access one or more services for the very first time

4%

of Aadhaar holders have an error on their card

Findings from a pulse survey with 147, 868 respondents across 28 Indian states and union territories, and an in-depth survey with 19,209 respondents in 16 states, and 1 union territory.

Credits

This report was written by Dalberg and funded by Omidyar Network India.

- From Dalberg, Swetha Totapally, Dr Petra Sonderegger, Dr Priti Rao, Jasper Gosselt and Gaurav Gupta authored this report.
- Adityendra Suman, Akanksha Agarwal, Devvart Poddar, Prerak Mehta, Sanchit Jain, Sanna Balsari Palsule, Shrestha Gattani, Shreya Chakravarty, and Zarah Udwadia contributed to the research, design, analysis and writing of this report.
- Paula Kiura, Simon Mbai, Denis Mwaniki, Lilian Nyasetia, and Kennedy Ochieng helped design, execute, and conduct data quality checks on the survey.
- Harshvardhan Gantha developed the design and visual identity for this work.
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- The photographs in this report, drawn from Dalberg's research for State of Aadhaar, are by Sayantoni Palchoudhuri and Prerak Mehta.

Centre for Monitoring Indian Economy Private Limited (CMIE) and Kantar Public India (specialist unit of Kantar IMRB) executed the data collection and field operations across the two national surveys at the core of this study.

For more information, comments or questions, please write to us at info@stateofaadhaar.in. We welcome your feedback.

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About Us



Dalberg is a leading social impact advisory group that brings together - strategy consulting, design thinking, big data analytics, and research to address complex social and environmental challenges. We work collaboratively with communities, institutions, governments, and corporations to develop solutions that create impact at scale.

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Omidyar Network India invests in bold entrepreneurs who help create a meaningful life for every Indian, especially the hundreds of millions of Indians in low-income and lower-middle-income populations, ranging from the poorest among us to the existing middle class. To drive empowerment and social impact at scale, we work with entrepreneurs in the private, non-profit and public sectors who are tackling India’s hardest and most chronic problems. We make equity investments in early stage enterprises and provide grants to non-profits in the areas of Digital Identity, Education, Emerging Tech, Financial Inclusion, Governance & Citizen Engagement, and Property Rights. Omidyar Network India is part of The Omidyar Group, a diverse collection of companies, organizations and initiatives, supported by philanthropists Pam and Pierre Omidyar, founder of eBay.

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Making of the State of Aadhaar 2019 Report

First and foremost, we are grateful to more than **167,000 residents in India** who participated in the surveys and human-centred design (HCD) research for sharing their experience of Aadhaar during interviews. This report would not have been possible without the valuable contributions of many experts and advisors.

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Dr Subhashis Banerjee
Professor, Computer Science and Engineering, Indian Institute of Technology Delhi



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Partner and Head of the TMT practice with Trilegal



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In preparation for this study, we consulted more than 30 **experts** and spoke with over 50 **residents** in 7 locations. We thank them for sharing their experiences to inform a holistic understanding of Aadhaar, offering views on what would make this report valuable to readers, reviewing initial versions of the questionnaire, helping us think through key analyses and supporting us with access to colleagues, research and field locations.

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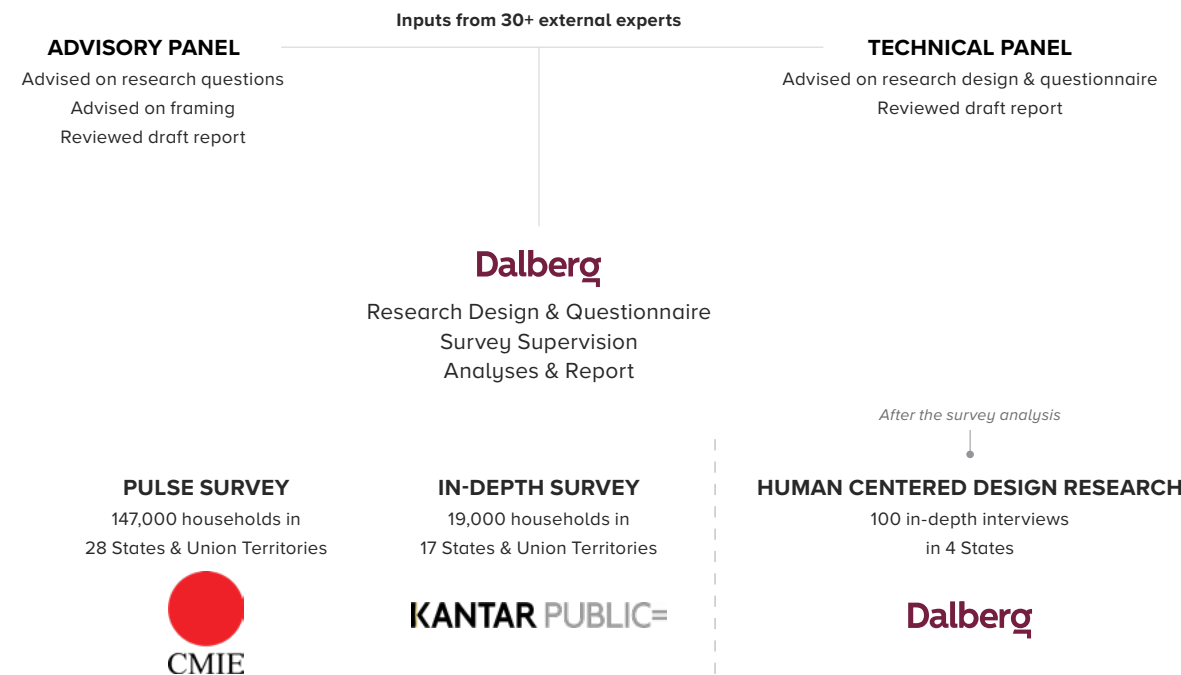
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Residents of Jawhar, Shirosli and Khured (Maharashtra), and Ranchi, Manika, Lahetar, and Rewat Khurd (Jharkhand)

The making of the State of Aadhaar report 2019



Foreword

This is the 10th year since the launch of Aadhaar.

Conceived as an ambitious project to provide universal identity to more than one billion Indians, Aadhaar is unparalleled in its reach and aspiration. An important objective of the project has been to improve the ability of the Indian state to provide efficient, transparent and targeted delivery of welfare services to a large number of residents who depend on it. In the years following Aadhaar's launch, its use has expanded to private service provision, including mobile communication and banking services, while raising questions around data privacy, security, and more broadly around what it means for residents of India to have a digital identity.

Debates around Aadhaar have tended to be polarised—yet national household data has been thin on what Aadhaar has done (and not done) for the residents of India.

In what ways has Aadhaar empowered or excluded them? To what extent do they trust and use the identification system? In which aspects is it serving them well or poorly—or not at all? Our study set out to answer some of these questions with data.

The primary purpose of this study was to give a broad cross-section of Indian residents a voice in the national discourse on Aadhaar.

This study distils insights drawn from two national household surveys on Aadhaar, conducted between May and September 2019, and subsequent human-centred design research. Capturing the experiences and perspectives of over 167,000 residents, together the surveys represent the largest primary dataset on the use of Aadhaar and, more broadly, digital ID anywhere in the world. We believe the success of Aadhaar will ultimately depend on how well the program can learn from the experiences and concerns of those who use (or are unable to use) Aadhaar across a wide range of circumstances in their daily lives. Taking residents' perspectives into account can help better design and implement Aadhaar.

Our aim was also to help identify which aspects of Aadhaar are working and are not working, to what extent and for whom.

The research is premised on the principle that the daily users of Aadhaar are best positioned to provide valuable feedback about their lived experience—and therefore practical adjustments needed to improve Aadhaar's functioning. We do not attempt to adjudicate the ultimate merits of Aadhaar as a project; the question of whether Aadhaar is good or bad for the people of India hinges on factors, analyses and value judgments beyond the scope of this study. We hope these findings can augment efforts to move towards a more effective digital identity for all residents of India who desire it.

Our ambition, too, was for this report to anchor data-driven discourse on Aadhaar.

We hope our efforts build a shared understanding of the facts. This report highlights the most significant findings and themes across the study as well as an overview of the methodology and its limitations. Following the publication of this report at the end of 2019, we intend to publish a three-part series to dig deeper into different aspects of people's experience, such as enrolments and updates, service-level experience, or people's sentiment and awareness. In the spirit of sparking greater discourse as well as further research on the topic, all primary data from the study is readily available on the State of Aadhaar website.

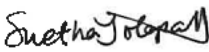
Our ultimate aspiration is that policymakers, researchers, service providers, and others use the data and findings from the study to inform decisions about the future of Aadhaar and, more broadly, digital identity.

We hope that researchers find this extensive collection of data useful in their own research efforts, that policymakers and implementers will walk away with a sense of what is working and where they can make further improvements to Aadhaar, and that leaders elsewhere in the world who are embarking on or are considering similar digital ID initiatives will learn from India's experience.

It has been a privilege to conduct this study. It would not have been possible without the help of the more than 40 individuals who served as our advisory panel, technical panel, expert advisors, and research partners. We are deeply grateful to these individuals for their subject expertise, guidance on methodology and validation of our surveys, analyses and findings. Most of all, we are grateful to the participants of our study for their time and perspectives. We have done our best to ensure that the content of this report is complete and accurate; any errors or shortcomings are our own.

Thank you for reading State of Aadhaar 2019. We look forward to hearing your reflections in the coming weeks and months.

Warmly on behalf of the State of Aadhaar team,



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State of Aadhaar 2019 | At a Glance

1. Aadhaar is becoming ubiquitous in India

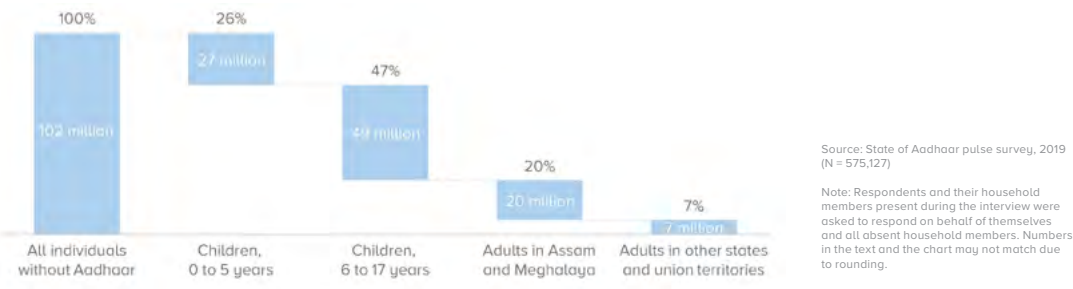
- 95% of adults have Aadhaar, and on average use it once a month
- 75% of children have Aadhaar

2. A notable minority still does not have Aadhaar

- 90% of residents in Assam and 61% of residents in Meghalaya do not have Aadhaar
- 30% of homeless and 27% of third-gender residents do not have Aadhaar
- 8% of people do not have Aadhaar – or an estimated 102 million people, 75 million of whom are children

Largest groups of people who do not have Aadhaar

% of respondents and their household members, and estimated number of people, who do not have Aadhaar



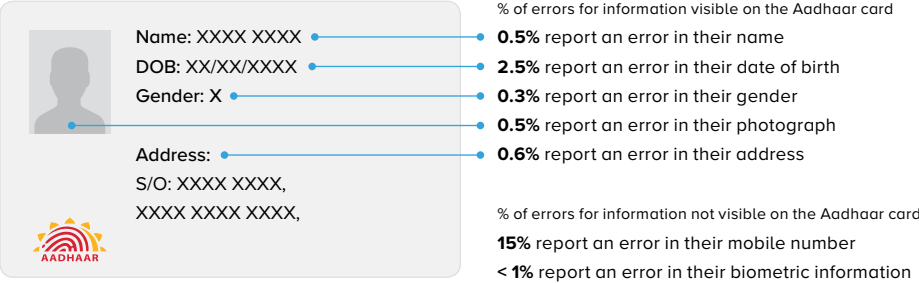
3. Updating is the hardest part of the Aadhaar process

- 33% of people who tried to update found the process difficult; one in five did not succeed
- 4% of people currently have errors in the information on their Aadhaar card
- 15% of people have an error in their linked mobile phone number; an additional 39% have not linked a number at all

Error rates by type of data

% of primary respondents and their household members over 15 years of age who have Aadhaar

4% report at least one error on their Aadhaar card

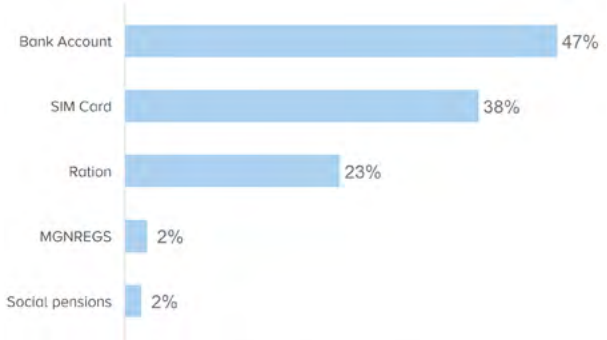


Source: State of Aadhaar pulse survey, 2019 (N = 479,099); Source for biometric errors: State of Aadhaar in-depth survey, 2019 (N = 16,201)

Note: Respondent and their household members present during the interview were asked to respond on behalf of themselves and all absent household members over 15 years of age.

4. Aadhaar has supported inclusion

- 49% of people used Aadhaar to access one or more services for the very first time (e.g., rations, MGNREGS, social pensions, SIM cards, and/or bank accounts)
- For 8% of people, Aadhaar was their first ID ever



Source: State of Aadhaar in-depth survey, 2019 (N = 2,480)

Note: Numbers in the text and the chart may not match due to rounding.

Share of people who used Aadhaar to gain first-time access to a service

% of respondents for whom Aadhaar is the first ID

5. For many residents Aadhaar has improved service delivery

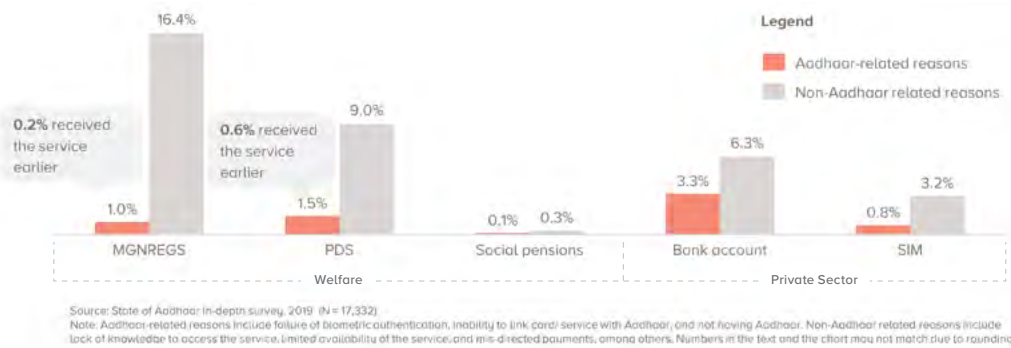
- 80% of recipients feel Aadhaar has made PDS rations, MGNREGS and social pensions more reliable
- Using Aadhaar, residents were 40% more likely to obtain a new SIM card within one day, compared to using other forms of ID.

6. Problems with Aadhaar can lead to denial of welfare services, and at times exclusion

- 0.8% of people experienced exclusion due to Aadhaar-related reasons from a key welfare service (PDS, MGNREGS, social pensions) which they had earlier received. (Our survey also found that 3.3% of people experienced exclusion because of non-Aadhaar related reasons from a key welfare service which they had earlier received)
- 1% of MGNREGS job card holders did not get work the last time they tried due to Aadhaar-related reasons (compared to 31% due to non-Aadhaar related reasons)
- 0.5% of social pension beneficiaries did not receive their pension the last time they expected it due to problems with Aadhaar (compared to 5.7% who did not receive it due to non-Aadhaar related reasons and many more who could not identify a reason)
- 1.5% of PDS users experienced a biometric authentication failure and did not receive rations in their last attempt. However, 3.2% PDS users received their ration despite biometric authentication failure.

Share of people who have been excluded from services

% of respondents

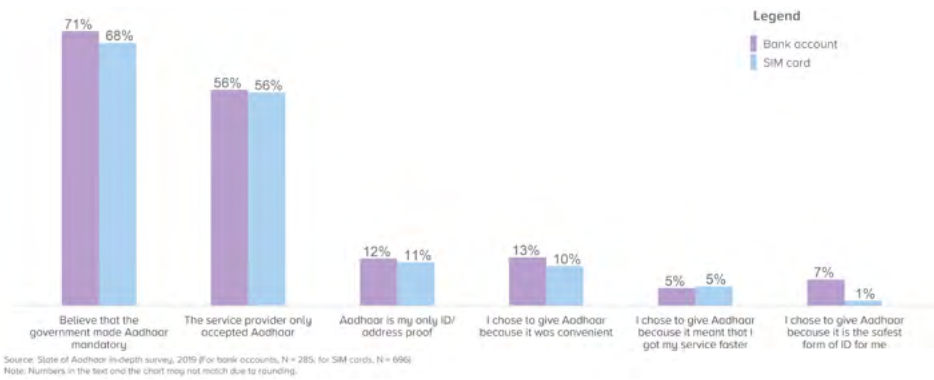


7. Despite the Supreme Court ruling, many people find that Aadhaar is *de facto* mandatory for bank accounts, SIM cards, and school enrolment

- **More than half** of all people who produced Aadhaar to get a SIM card or bank account, said their provider accepted only Aadhaar, even after the Supreme Court ruling
- **3.3%** of people were denied bank accounts, and **0.8%** of people were denied SIM cards due to Aadhaar-related problems
- **0.5%** of 6 to 14 year olds were not able to enrol in school due to Aadhaar-related reasons
- **65%** of people mistakenly believe that providing Aadhaar is mandatory by law for bank accounts, SIM cards, and school enrolment

Reasons why people provide Aadhaar to access private-sector services

% of respondents who used Aadhaar to access the service

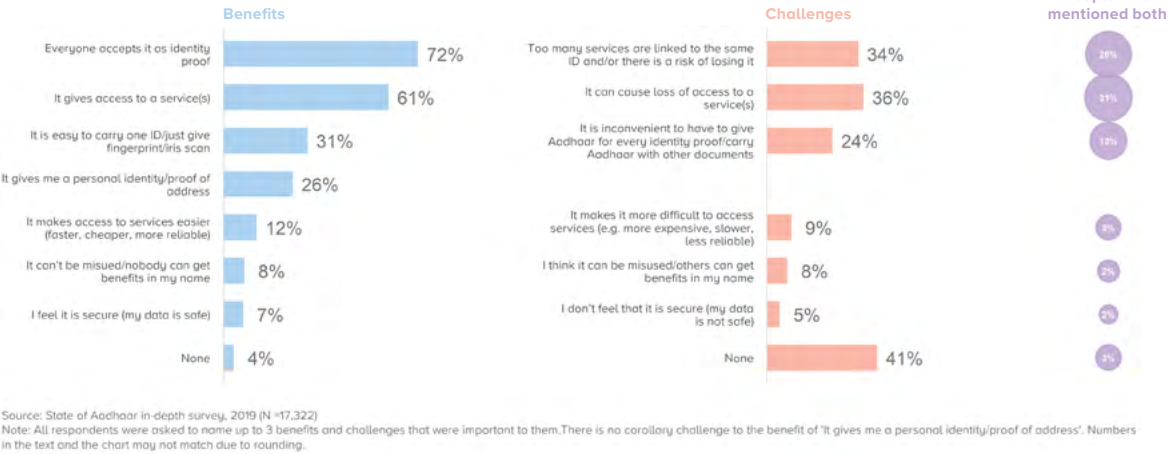


8. Most people appreciate Aadhaar’s universal acceptance; some have concerns

- **72%** of residents appreciate the convenience of Aadhaar as a universal ID, but almost **half** of these same people worry about the risks of linking it to too many services
- **92%** of people are very satisfied or somewhat satisfied with Aadhaar
- **67%** of people who have been excluded from a service due to problems with Aadhaar still say they are satisfied

Share of people who see Aadhaar’s universality as both a benefit and a concern

% of respondents

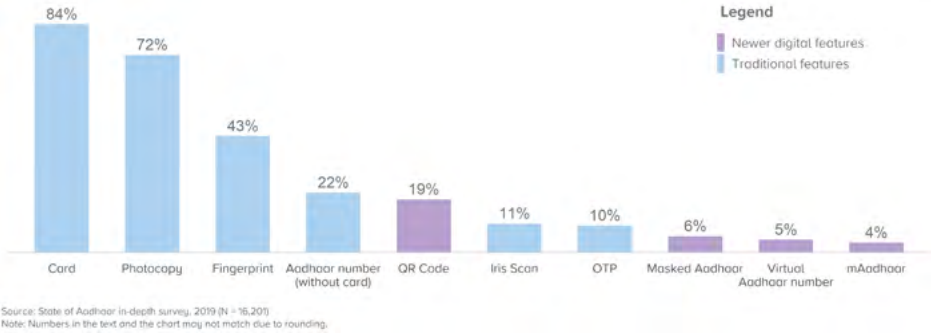


9. The newer digital features of Aadhaar are yet to be embraced

- **77%** of people have never used a newer digital feature of Aadhaar (such as the mAadhaar app, QR code scanning, virtual Aadhaar number, or masked Aadhaar)
- Only **39%** have linked a correct mobile phone number to their Aadhaar

Use of different forms and features of Aadhaar

% of respondents who have Aadhaar



10. Most people trust the Aadhaar system

- **90%** of people trust that their data are safe in the Aadhaar system
- **61%** of welfare beneficiaries trust that Aadhaar prevents others from accessing their benefits
- **8%** worry about the misuse of their Aadhaar, and **2%** have experienced fraud that they believe was related to Aadhaar

Findings from a pulse survey with 147,868 respondents across 28 Indian states and union territories, and an in-depth survey with 19,209 respondents in 16 states and, 1 union territory.

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1. Introduction

Why we conducted this study

The residents' view is under-represented in today's discourse around Aadhaar, the world's largest digital ID system. The State of Aadhaar initiative aims to understand what aspects of Aadhaar are working and what aspects are not for those who interact with Aadhaar in their

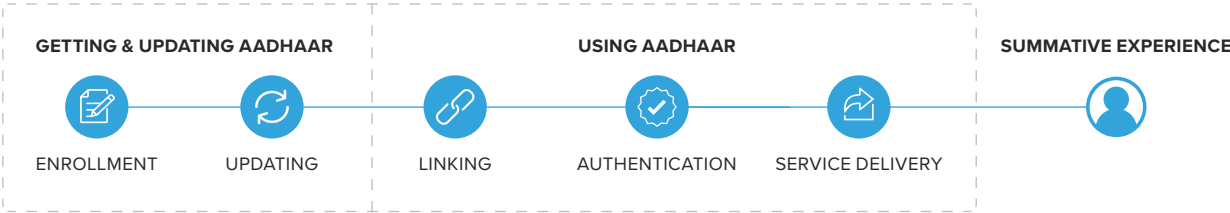
everyday lives. This 2019 edition provides a pan-India view of residents' experience by drawing on the largest dataset on the use of Aadhaar to date. Our ambition is that this study will inform data-driven discourse and decision-making.

What we studied

In this study, we sought to understand people's journey with Aadhaar (see Figure 1). People begin their journey by enrolling in Aadhaar. They may later need to update demographic, biometric, or contact information. Over time, they may use Aadhaar to access a range of services, provided by both the government and the private sector.

These experiences inform their overall sentiment towards and trust of Aadhaar. Along the journey, they may face inclusion or exclusion; they may experience benefits or challenges; and their daily activities may become easier or more difficult.

Figure 1: The Aadhaar journey



Our key research questions covered:

Aadhaar enrolment

- How many are enrolled? Who is not yet enrolled—and why?

Aadhaar updates

- How many updates are needed, i.e., how common are errors?
- Do errors get corrected? What is the update experience?
- And how easy or difficult is the process?

Using Aadhaar to access services

- How widely and how frequently is Aadhaar used?
- What is the experience of using Aadhaar for key services (PDS, MNREGS, social pensions, SIM cards, and bank accounts)?
- If residents face problems with Aadhaar, how does that affect their access to services?

Across the journey

- What benefits and challenges do they see?
- How satisfied are people with Aadhaar overall?
- Do they trust the system?

How we conducted the study

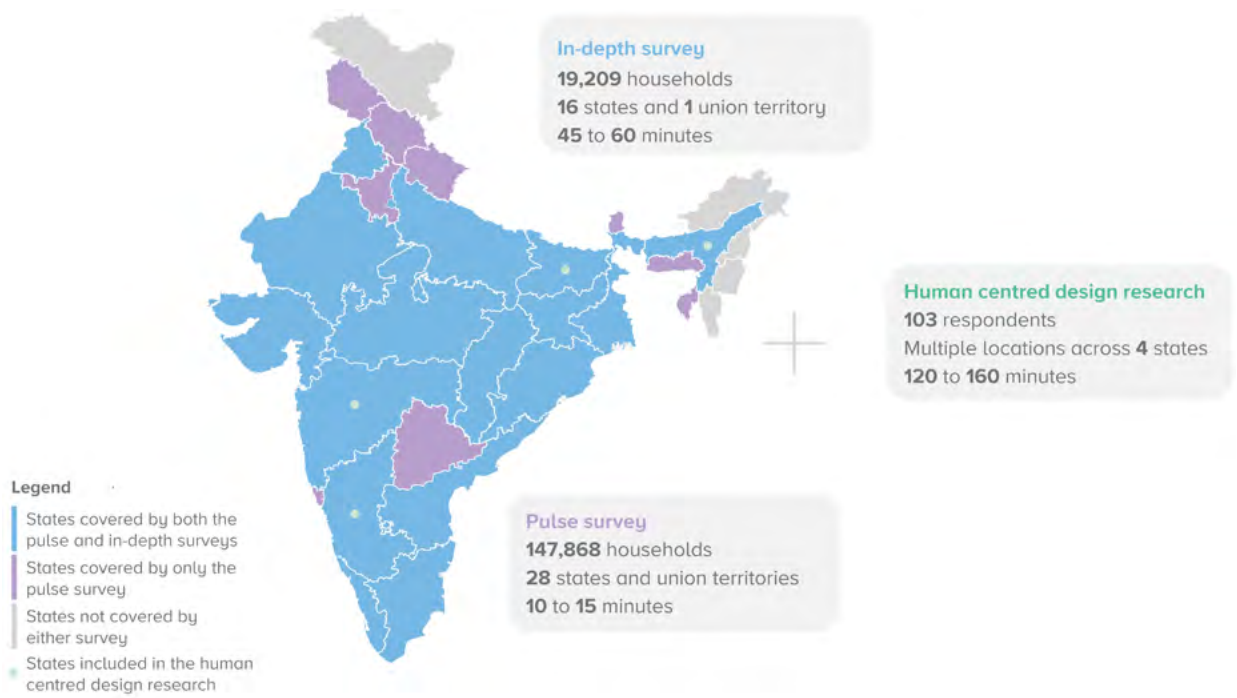
This study is based on findings from two national surveys on Aadhaar that gathered the experiences and perspectives of over 167,000 residents in India—representing the largest primary dataset on the use of digital ID in the world. We conducted a 10-minute pulse survey with 147,868 respondents across 28 states and union territories and a 45-minute in-depth survey with 19,209 respondents across 16 states and 1 union territory.¹ After the survey analysis, we conducted in-depth interviews using human-centred design (HCD) research with 103 people in 4 states (see Figure 2). All data collection took place from

May to September 2019. The survey output is a public dataset that allows anyone to conduct their own analyses - to add nuance to the findings reported here or to create their own.

In preparation for the study, we received inputs from more than 30 experts and from over 50 residents in 7 locations across Maharashtra and Jharkhand. Throughout our study, we received guidance on research and survey design as well as analysis from nine technical and subject matter experts on our Technical and Advisory Panels.

1. In our findings, we report numbers from the larger dataset (pulse survey) whenever possible. Most findings, however, are from the in-depth survey since this covered far more questions. From the pulse survey we projected India-wide population estimates. From the in-depth survey we only projected population estimates for the states and union territories covered in that survey.

Figure 2: Coverage of the research



Limitations of the study

Given the limitations of survey methodologies, we focused only on questions that residents were able to answer credibly through a survey format. There are many valuable questions, related to the experience of both people and providers that our study cannot answer—among them, the following:

- To what extent can perceived benefits and challenges be attributed to Aadhaar?
- What are residents' worries about privacy and surveillance with respect to Aadhaar?
- To what extent has Aadhaar benefitted government?
- To what extent has Aadhaar benefitted private-sector actors?

Surveys are also inherently limited by the framing, sequence, translation, communication, and interpretation of questions. We have tried to minimise biases arising from these limitations through a rigorous review process and extensive enumerator training, but some will inevitably remain.

Structure of the report

As we present our findings in the pages below, readers will follow people's Aadhaar journey from obtaining Aadhaar (enrolling and updating) to using it in their daily lives. We then share people's perceptions and levels of satisfaction with a range of aspects of Aadhaar, and discuss cross-cutting themes that affect the entire user journey. Finally, we conclude with questions for further research.



2. People's Experience with Aadhaar

2.1 Aadhaar in Context



ID

1.2 billion people²
have Aadhaar



Food³

39% of people
(an estimated 330 million) give their Aadhaar-linked biometrics regularly to receive rations

29% of households
(an estimated 80 million) depend on these rations for more than half of their monthly supplies



Energy

50% of households
have given their Aadhaar at least once for LPG subsidy

11% of households
(an estimated 32 million) have given their Aadhaar at least once for kerosene subsidy



Livelihood

9 million people older than 65 years
verified their Aadhaar to continue drawing social pensions, which for most is their only source of income⁴

90% of farmers
(an estimated 96 million) have given their Aadhaar at least once for their fertilizer subsidy⁵

102 million MGNREGS workers
have given their Aadhaar at least once in order to receive MGNREGS wages⁶



Finance

72% of adults
(an estimated 609 million) have linked their bank accounts to Aadhaar; 87% of all bank accounts are linked⁷

29% of household
transactions are completed via the Aadhaar-enabled Payment System (AePS)⁸



Education

47% of children
(an estimated 125 million) enrolled in school using their own or their parent's Aadhaar



Communication

41% of adults
(an estimated 345 million) gave their Aadhaar for a SIM connection

2. UIDAI, 2019
3. Unless otherwise mentioned, statistics in the context section have been reported from the State of Aadhaar 2019 in-depth survey. Estimated population or household numbers are for the 16 states and 1 union territory covered in the survey.
4. National Social Assistance Program. State level dashboards
5. MicroSave. Niti Aayog. Assessment of AeFDS (Aadhaar enabled Fertilizer Distribution System) Pilot, 2019
6. Ministry of Finance. The Economic Survey of India 2018-19
7. UIDAI. 20th August 2018
8. The Reserve Bank of India. Statistics: Retail Electronic Payment Systems Data', accessed in October 2019

2.2 Getting Aadhaar: Enrolment and Updates

Aadhaar is India’s most ubiquitous form of ID today, used by over 90% of residents nationwide. Some states have achieved enrolment levels higher than 99%. Assam and Meghalaya are exceptions with enrolment levels under 50%. In most states, rural and urban areas have similar enrolment levels, suggesting that efforts to reach beyond large population centres are succeeding.

However, a sizable minority of adults and children still do not have Aadhaar. Within this group, most adults want the ID and are unable to obtain it. People who do not have Aadhaar are not a random cross-section of the population—rather, highly marginalized people (e.g., third-gender and homeless populations) have much lower enrolment levels.

Some of those enrolled in Aadhaar have errors in their ID; they often face difficulties in attempting to update their Aadhaar, or else they do not try to correct their ID because they perceive the process to be too hard.

Aadhaar is now India’s most ubiquitous ID with high enrolment levels across most states

More than 90% of residents in India (or an estimated 1.2 billion people) had Aadhaar, including almost all adults (95%) and most children (75%).⁹ Enrolment levels were higher for Aadhaar than for voter ID, which was the second-most common ID.¹⁰ Aadhaar was ubiquitous in nearly every state—15 out of 28 states and union territories we studied had achieved enrolment levels greater than 95%, and six states had near-complete enrolment (greater than 99%; see Figure 3).¹¹ A few Northeastern states—Assam and Meghalaya, with enrolment levels of 10% and 39% respectively—served as exceptions.¹²

Still, a sizable minority does not yet have Aadhaar; most adults who do not have Aadhaar want to enrol

Some people (8% of the population, or an estimated 103 million people), still did not have Aadhaar.¹³ The majority of these (73% or an estimated 75 million) were children, of which one-third were under the age of five.¹⁴ However, this number also included 3% of all adults (an estimated 28 million).¹⁵ Around three-quarters of adults without Aadhaar lived in Assam and Meghalaya; the remaining one-quarter lived in other states (see Figure 4).¹⁶

Figure 3: Share of residents enrolled in Aadhaar, by state
% of primary respondents and their household members

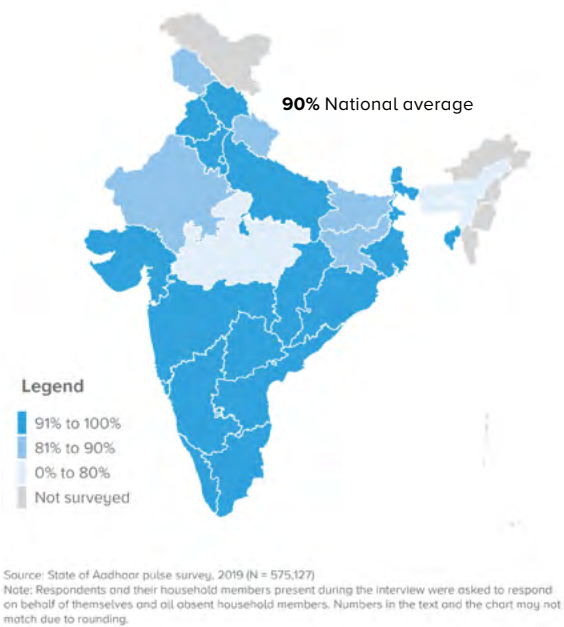
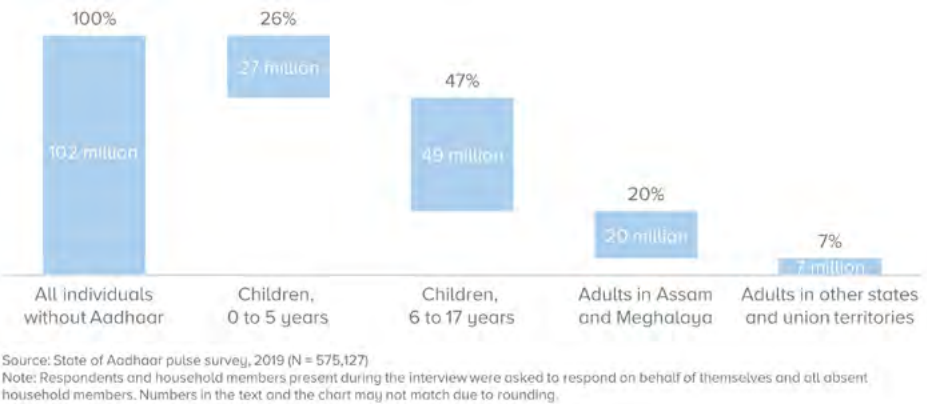
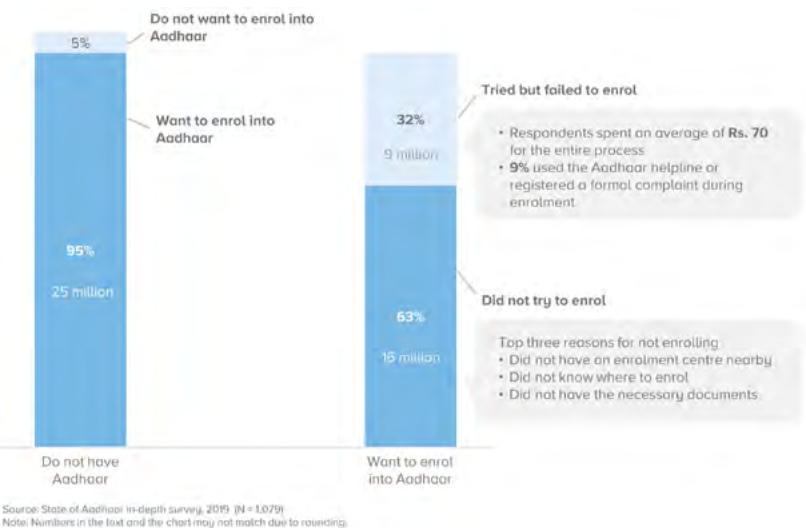


Figure 4: Largest groups of people who do not have Aadhaar
% of respondents and estimated number of people who do not have Aadhaar



By and large, lack of Aadhaar did not appear to be a matter of personal preference. Almost all adults (95%) without Aadhaar said that they want the ID. The majority of these people had not tried to apply—mostly because there were no local enrolment centres or the centre was closed (37%), people did not know where to enrol (21%), or they lacked the necessary documents (9%).¹⁷ Many people (one-third of people who wanted Aadhaar) tried but failed to enrol, often despite making multiple trips to enrolment centres.¹⁸ Few people (5% of those without Aadhaar) said that they did not enrol in Aadhaar by choice (see Figure 5).

Figure 5: Reasons given for not having Aadhaar
% and estimated total of adult respondents who do not have Aadhaar



9. SoA pulse survey 2019. State-level enrolment levels were consistent with UIDAI saturation data (August 2019); we see differences of less than ten percentage points in 25 out of 28 states. Outliers were Madhya Pradesh, Meghalaya, and Uttarakhand. The state-level correlation between UIDAI saturation data and enrolment levels in our surveys was 0.93 for the SoA pulse survey and 0.94 for the SoA in-depth survey.

10. This and all further findings without a data citation are from the SoA in-depth survey 2019. Children do not have voter IDs. More people had Aadhaar than voter ID in 16 out of 17 states studied.

11. SoA pulse survey 2019.

12. SoA pulse survey 2019. In these states, concerns about legal residency superseded the push to roll out Aadhaar (Press Trust of India, 2019). Our survey did not establish legal residency status of respondents.

13. SoA pulse survey 2019. For 1.9% of respondents and their household members, we received either no response or a response of “don’t know”.

14. SoA pulse survey 2019. Unless otherwise specified, data in this report refers to adult residents; all data on children are based on responses given by a household member and are reported separately.

15. SoA pulse survey 2019.

16. SoA pulse survey 2019.

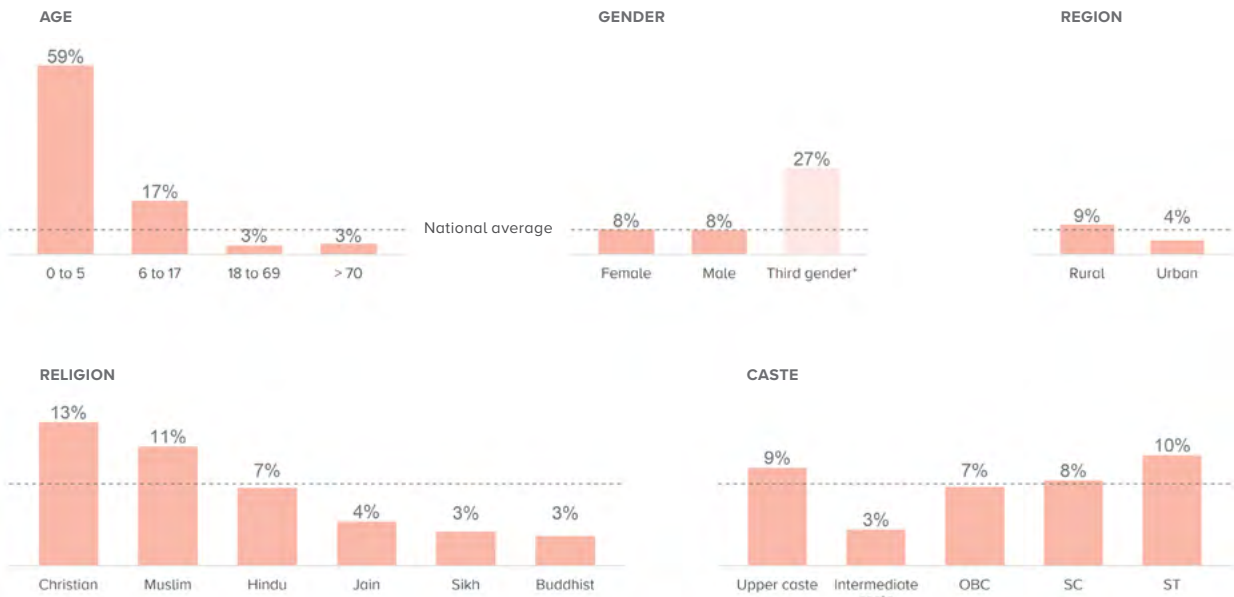
17. Respondents also cited other reasons but we report only those cited by 5% or more of respondents.

18. Respondents who tried but failed to obtain Aadhaar made an average of 2.3 round trips to reach an enrolment centre.

Lack of Aadhaar is more prevalent among marginalized groups

Where differences between demographic groups exist, enrolment was almost always lower for the group that is commonly perceived as socio-economically less well off: some minority religions (Muslim, Christian) have lower enrolment levels than the national average; scheduled tribes have lower levels than OBC or intermediate castes.¹⁹ There were almost no enrolment differences between men and women,²⁰ but people who identified as third gender were markedly less likely to be enrolled (see Figure 6).²¹ Rural areas had lower enrolment levels than urban areas, but these differences were mostly due to higher enrolment in a few states that have large urban populations.²²

Figure 6: Share of people who do not have Aadhaar, by demographic group
% of primary respondents and their household members



Source: State of Aadhaar pulse survey, 2019 (N = 575,127); *Source: State of Aadhaar in-depth survey, 2019 (individuals who identify as third gender, N = 399)
Note: Respondents and their household members present during the interview were asked to respond on behalf of themselves and all absent household members. For 1.9% of respondents and their household members, we received either no response or a response of 'don't know'. * Individuals who identify as third gender were over-sampled in the State of Aadhaar in-depth survey 2019; results are less representative than for a random sample. Numbers in the text and the chart may not match due to rounding.

However, the differences between individual demographic groups do not convey the full picture. We analysed some of the most marginalised populations and found that they had lower Aadhaar enrolment levels than others.

Homeless and third-gender people had particularly low enrolment. About one-third (30%) of all homeless and about one-quarter (27%) of third-gender people did not have Aadhaar. The majority of them (84% of homeless and 85% of third-gender people without Aadhaar) wanted the ID but were unable to acquire it, often despite multiple attempts.²³ The reasons for their low rates of enrolment were often symptomatic of their particular status. For homeless people, a lack of documents was a major obstacle.²⁴ For people of third gender, problems could arise when the gender on their existing ID did not match their gender identity and appearance; compared to others, they were four times more likely to have an error in the gender data on their Aadhaar card.

19. SoA pulse survey 2019. Upper castes form an exception to this pattern: they have lower enrolment rates than all other caste groups except scheduled tribes.
20. SoA pulse survey 2019.
21. Due to the difficulties in statistically representing homeless or third-gender populations in a household survey, we over-sampled them to ensure adequate coverage in the survey. Results from these groups are reported separately.
22. SoA pulse survey 2019. For example, Delhi (98% urban population) and Tamil Nadu (48% urban population), both large and relatively urban states, have achieved a high (97%) Aadhaar enrolment level.
23. Two-thirds (67%) of homeless people without Aadhaar have made multiple attempts to get the ID.
24. Two-thirds (67%) of all homeless people without Aadhaar do not have any other ID.

STORIES BEHIND THE DATA

“With an Aadhaar card, I will be able to say that I am also a human being.”

Ankita, Unemployed, Karnataka

Ankita is a 40-year-old trans woman living with a community of Mangalmukhis (third gender) in Bangalore. She consistently failed to secure job opportunities and earned her living by begging. When Ankita, along with a group of others from the Mangalmukhi community, went to the Aadhaar enrolment centre, they were not allowed to enter. “We don't give it to you people,” they were told. “You have a voter ID, that is enough.” She made four attempts over four years, and even participated in a protest rally, but each time, she was met with refusal. Still, Ankita remained hopeful about the value that an Aadhaar card could bring—something to show the police when they arbitrarily threatened to arrest her, or to show train conductors and landlords if they troubled her.

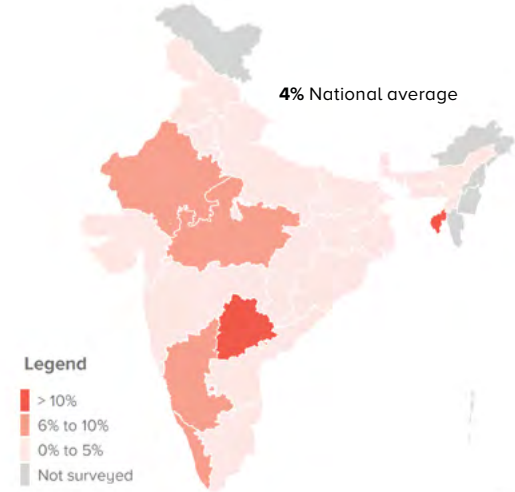


Source: SoA Human Centred Design Research 2019

Residents have errors on their Aadhaar cards, limiting the effectiveness of the ID

Four percent of people over 15 years of age reported errors in the information printed on their Aadhaar card.²⁵ Error rates varied by level of education, gender, and the state (see Figure 7). Among children, error rates were similar: 4% for 0-5 year-olds and 3% for 6-17 year-olds. People with a lower level of education and third-gender people had more errors on their cards.²⁶

Figure 7: Share of people with Aadhaar who report an error on their Aadhaar card, by state
% of primary respondents and household members over 15 years of age who have Aadhaar



Source: State of Aadhaar pulse survey, 2019 (N = 479,099)
Note: Respondent and their household members present during the interview were asked to respond on behalf of themselves and all absent household members over 15 years of age; UIDAI recommends that children update their data at age 5 and 15, since biometric information tends to change until that age. After age 15, however, updates are required only in case of error or change in circumstance. Therefore, we focus on error rates for individuals older than 15. Numbers in the text and the chart may not match due to rounding.

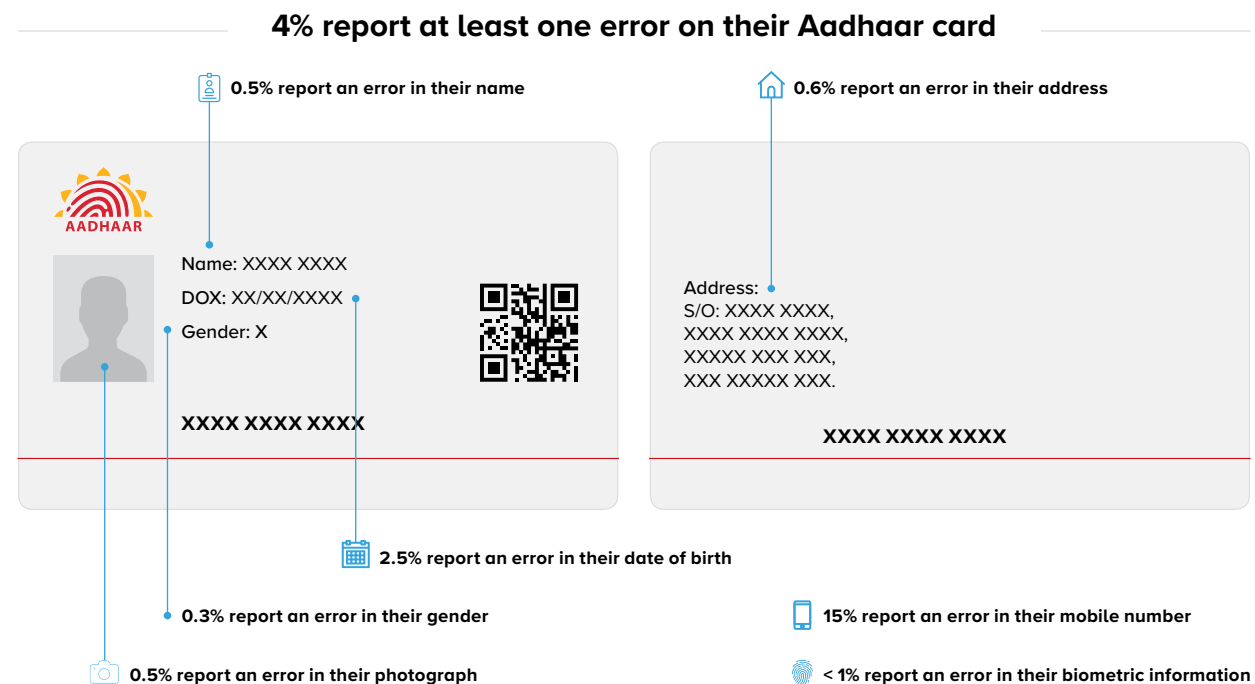
25. SoA pulse survey 2019. (i) We collected this data for every member in the respondent's household. All errors were self-reported by respondents. (ii) Error rates were calculated for individuals older than 15 years to establish a need for updates. UIDAI recommends that children under age 15 update the biometrics regularly, since they tend to evolve over time. (iii) The Aadhaar card has five data fields: name, date of birth, gender, address, and photograph. Additional information that is captured but not printed is: fingerprint/iris biometrics, mobile number, and email address. Any of these fields can also have errors, but people can less easily identify these errors. (iv) Error rates for the printed fields on Aadhaar were lower than the error rates on voter ID cards (self-reported) in 9 out of 17 states.
26. (i) SoA pulse survey 2019. Error rate by level of education: Completed Std I (5.5%), Std III (5.4%), Std X (4.6%), Std XII (4.7%), graduate degree (3.0%). (ii) SoA in-depth survey 2019. 9% of third-gender people had an error on their card.

The most common error for information visible on the Aadhaar card was an incorrect date of birth.²⁷ Error rates were lower than 1% for other fields like name, gender, address, and photographs (see Figure 8).²⁸

The error rate for mobile phone numbers (not visible on the Aadhaar card) is the highest, affecting 15% of Aadhaar holders above age 15.²⁹ Many (39%) Aadhaar holders had not given a number at all, and some (7%) did not know whether they had linked a number. As a result, less than half (39%) of all adult Aadhaar holders had a correct number linked to their ID. While the impact of mobile phone number inaccuracy may currently be low, it will grow in the future: new Aadhaar features are increasingly based on mobile phone access.

Figure 8: Error rates by type of data

% of primary respondents and their household members over 15 years of age who have Aadhaar

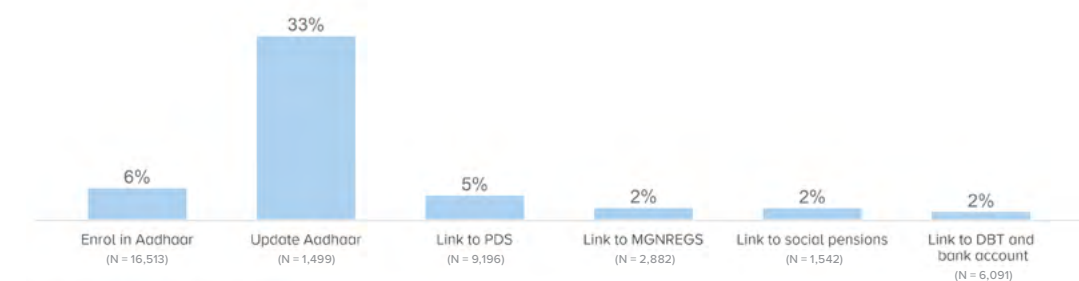


Source: State of Aadhaar pulse survey, 2019 (N = 479,099); Source for biometric errors: State of Aadhaar in-depth survey, 2019 (N = 16,201)

Residents are trying to correct errors; many succeed but they find the process difficult

Many (40%) of those who had an error in their Aadhaar information had tried to update it—one in five failed. Residents reported that updating was the most difficult of all Aadhaar-related processes (see Figure 9).³⁰

Figure 9: Share of people who describe specific Aadhaar-related processes as difficult
% of respondents who attempted the process



Source: State of Aadhaar in-depth survey, 2019

Note: The relevant number of respondents is noted in parentheses; not all people who have Aadhaar have engaged in all processes. Numbers in the text and the chart may not match due to rounding.

Despite efforts to improve the update process (such as online updates and self-service centres), it does not appear to have become easier over time.³¹ Meanwhile the number of updates has been increasing: 24% of people who updated last did so in 2019.

Errors primarily arise from two situations: a mistake made while recording information during enrolment or a change in people's circumstances that is not updated in their Aadhaar information (e.g., a name change after marriage or a change of address or mobile phone number). Ten per cent of adults report that their Aadhaar was incorrect at the time of issuance. Even if all future cards are issued correctly, updates will continue to be necessary: since enrolling in Aadhaar, 12% of people have experienced life changes that affected their Aadhaar data.³²

STORIES BEHIND THE DATA

"When I started my job at the factory, they told me I would not get my provident fund because the date of birth on my Aadhaar was wrong. If I go to the update centre in the city, I have to miss work for the day. But I've lost out on two months' worth of provident fund already, so I finally did the update."

Palanethra, Factory Worker, Karnataka

Often people were initially unaware of errors in their Aadhaar information, and only discovered them when they were trying to access a service, such as rations or a scholarship benefit for their children. This resulted in rushed attempts to update Aadhaar cards in order to prevent losing the service.

Source: SoA Human Centred Design Research 2019



27. SoA pulse survey 2019.

28. SoA pulse survey 2019.

29. SoA pulse survey 2019. People cannot always know whether their biometric data are correct. Nevertheless, <1% of people reported biometric errors, and more than half of those have felt the need to update their biometrics.

30. There may be some recall bias in the comparison between enrolments and updates -- events that lie further in the past (enrolment) may be remembered less vividly than more recent ones (updates).

31. The share of people who found updating to be difficult held steady at 35%-37% from 2016 to 2019. UIDAI introduced a Self Service Update Portal (SSUP) in 2016 - an online facility to update Aadhaar information through the use of a registered mobile phone number.

32. The most commonly cited change was a change in mobile phone number (not printed on the card).

STORIES BEHIND THE DATA

“Going to the bank for update is hard with children. Banks are in the city and only service 15-20 people a day, so we have to go early in the morning and wait to get a token, but the kids have school in the village.”

Pavithra S, Provision & Xerox Store Owner, Karnataka



While she was busy working at her store, Pavithra would send her children to get rations. However, recurring issues with their biometrics at the ration shop required Pavithra to take them to the nearest town to update their biometrics, which meant closing her shop while she was away.

Aadhaar update facilities in the villages we visited were scarce, which meant that people in rural areas, like Pavithra, had to spend time and sometimes sacrifice their daily wage in order to update. Private agents added to the cost, but some felt it was worth paying for the ease and convenience that they provided.

Source: SoA Human Centred Design Research 2019

KEY FACTS

1. 95% of adults in India have Aadhaar
2. 95% of adults who do not have Aadhaar say they want the ID
3. The largest groups of people who do not yet have Aadhaar are children, and people in Assam and Meghalaya
4. The most marginalised populations are less likely to have Aadhaar and more likely to have errors in their Aadhaar information (e.g., people who are homeless or identify as third-gender)
5. 4% of people have an error on their Aadhaar card. 15% of people report an error in their mobile number
6. 33% of people who tried to update found the process difficult; one in five did not succeed

2.3 Using Aadhaar

Aadhaar is becoming India’s default ID. Those who have Aadhaar use it regularly and across multiple services; this is true whether or not Aadhaar is mandatory for the service, and whether the service is provided by the government or the private sector.

Residents primarily use Aadhaar in analogue form—by providing the card or a photocopy. Very few people use newer digital Aadhaar features; however, people across India have been slow to adopt other digital services as well.

Overall, residents say that using Aadhaar is quite easy and has improved the delivery of some welfare benefits and private sector services. Still, some people face challenges and experience exclusion or denial of services as a result of difficulties with Aadhaar. Marginalized groups, such as homeless and third-gender people, are disproportionately represented among those who face Aadhaar-related exclusion from services.

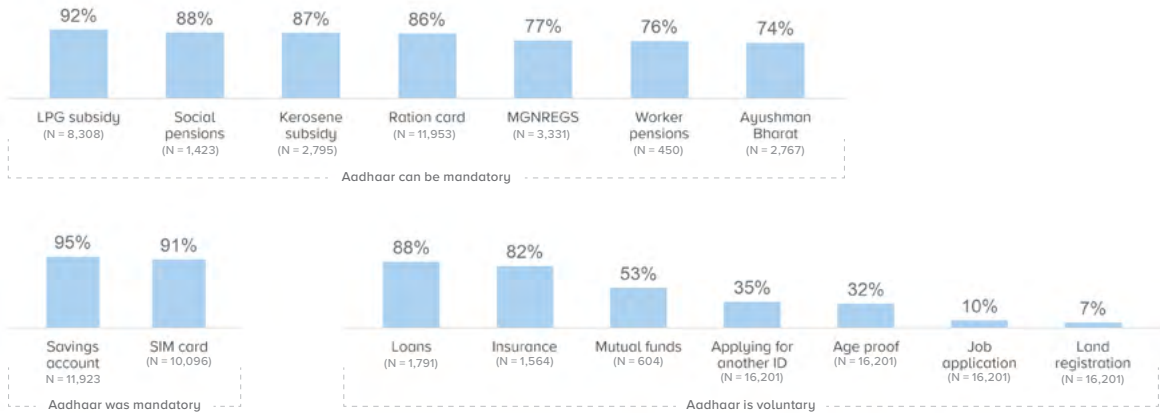
Residents use Aadhaar regularly and across a wide range of welfare and non-welfare services

Across all states, people were using Aadhaar regularly. The majority of people who had Aadhaar (68%) used it at least once in the past three months and the average Aadhaar holder used it around once per month.³³ Residents used Aadhaar for a range of both welfare and non-welfare services. The most common use cases were bank account (94% of Aadhaar holders), LPG subsidy (86%), PDS rations (82%), and SIM card (55%).³⁴ 35% of Aadhaar holders used it to obtain another ID.

For some services, almost all users of the service had provided identification through Aadhaar at least once. These included not only major welfare programmes (LPG subsidy, PDS rations) for which providing Aadhaar was mandatory, but also SIM cards, and financial services, such as bank accounts, for which an Aadhaar mandate was briefly in place, but then removed (see Figure 10).³⁵

Individuals with Aadhaar were more likely to have direct benefit transfers (DBT) for welfare and subsidies (47%, compared to 20% amongst those without Aadhaar).

Figure 10: Share of service users who have provided Aadhaar
% of respondents who receive the service and have Aadhaar



Source: State of Aadhaar in-depth survey, 2019
Note: The relevant number of respondents is noted in parentheses; not all people use all services. Requirements for providing Aadhaar for welfare schemes are not uniformly implemented across states and union territories. We define mandatory according to our understanding of the 2018 Supreme Court ruling on Aadhaar: Aadhaar can be made mandatory for targeted government welfare benefits and can no longer be made mandatory for private-sector service delivery. We understand that state-wise implementation varies: some states have not implemented mandates for linking with Aadhaar for certain services, and/or they have made efforts to reduce Aadhaar-related exclusion from welfare services. We discuss de facto mandates for non-welfare benefits in a later chapter. For simplicity, our definition hinges on whether providing Aadhaar can be made mandatory in principle. Numbers in the text and the chart may not match due to rounding.

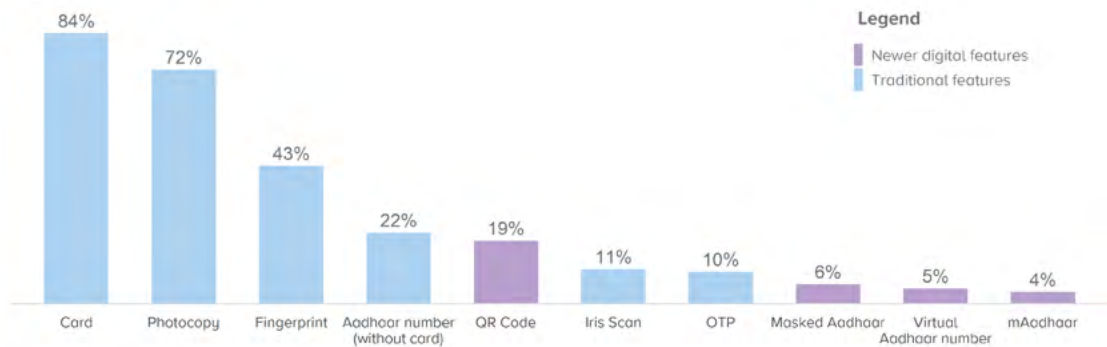
33. Estimate based on the average of minimum and maximum possible frequencies of using different features of Aadhaar.
34. SoA pulse survey 2019. Accessing rations typically requires repeated (typically monthly) use of Aadhaar authentication, whereas bank accounts, LPG subsidies or SIM cards require limited (typically one-time) usage of Aadhaar.

35. SoA pulse survey 2019. We define mandatory according to our understanding of the 2018 Supreme Court ruling on Aadhaar: Aadhaar can be made mandatory for targeted government welfare benefits and can no longer be made mandatory for private-sector service delivery. We understand that state-wise implementation varies: some states have not implemented mandates for linking with Aadhaar for certain services, and/or they have made efforts to reduce Aadhaar-related exclusion from welfare services. We discuss de facto mandates for non-welfare benefits in a later chapter. For simplicity, this definition hinges on whether providing Aadhaar can be made mandatory in principle.

Residents primarily use Aadhaar by providing the card or a photocopy. Only a minority has ever used newer digital Aadhaar features—as is common for digital services in India

Most people had only used Aadhaar’s analogue form, i.e., the card (84%) or a photocopy (72%), and almost half had used fingerprint authentication (43%, see Figure 11). Comparatively few people had used newer digital features, such as QR codes or masked Aadhaar: 77% had never used a newer digital feature.³⁶ Our survey did not reveal why a large majority of people have not yet adopted digital features, but awareness and incorrect or missing phone numbers are likely to be important factors: less than half (39%) of all Aadhaar holders had linked a correct mobile phone number (required for using most new digital features) to their Aadhaar.

Figure 11: Use of different forms and features of Aadhaar
% of respondents who have Aadhaar



Source: State of Aadhaar in-depth survey, 2019 (N = 16,201)
Note: Numbers in the text and the chart may not match due to rounding.

Low digital adoption is unsurprising: people across India have not yet adopted digital services in general.³⁷ We hope these data serve as a baseline for understanding how adoption evolves going forward.

STORIES BEHIND THE DATA

“I know it can be done online, but I don't know how. I'm not comfortable using the computer, so I prefer to do it in person.”

Prashant, Driver, Karnataka

Even those who were aware of Aadhaar’s digital features often did not use them because they required digital access and literacy. For instance, official SMSes were often in English. Few knew that in some cases one could update Aadhaar online. Others, even when literate, were more comfortable seeking local, in-person solutions over digital ones, as they did not want to navigate the complexity of an online process, and preferred turning to trusted sources like family members, friends and Panchayat heads.



Source: SoA Human Centred Design Research 2019

36. Newer digital features include the mAadhaar app, masked Aadhaar, virtual Aadhaar numbers, and Aadhaar QR code. People with a lower level of education were less likely to have used digital features.
37. For example, in 2017, only 12% of banking users participated in online banking (BCG and Facebook. 2017).

Most people find it easy to use Aadhaar to access key services; however, a minority face problems that lead to exclusion or denial of service.

The majority of welfare recipients reported that it was easy to link their Aadhaar to key welfare services, such as PDS, MGNREGS, or social pensions.³⁸ On average, they made 1.7 trips to do so.

Similarly, using biometric authentication was straightforward, but not frictionless: 27% of people who relied on biometric authentication in their most recent use of Aadhaar were unsuccessful on the first attempt. On average, people needed to make 1.4 authentication attempts (1.2 attempts for SIM cards, 1.4 attempts for rations, 1.6 attempts for social pensions).³⁹ However, some people faced greater difficulties: 16% reported that their fingerprints did not go through at all. About two-thirds of people whose fingerprint authentication failed for rations or social pension were not able to authenticate by other means.

The overall perception of ease belies the difficulties that some people faced around Aadhaar and access to services.

Some people (2.5% of all respondents) experienced exclusion from a key welfare service—they could not access it at all—because of problems with Aadhaar (see Figure 12).⁴⁰ One-third of them (0.8%) previously had accessed the service. Non-Aadhaar related reasons contributed to exclusion from services for several times as many people (22% experienced exclusion for non-Aadhaar related reasons; 3.5% experienced exclusion for non-Aadhaar related reasons from a service they had earlier received).

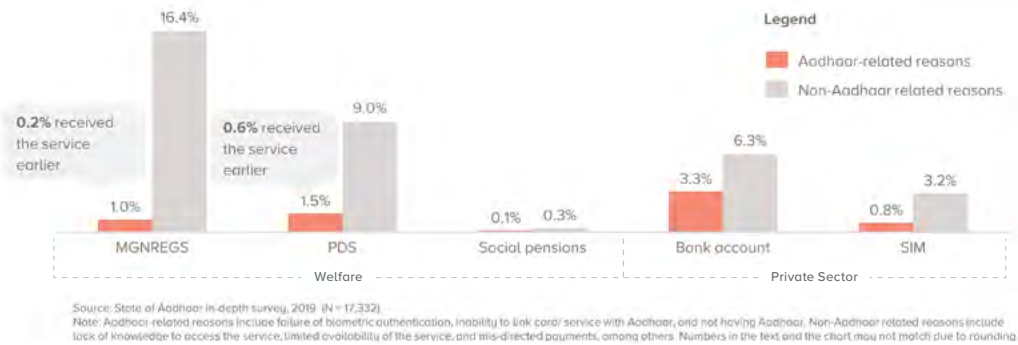
Not having Aadhaar was a key driver of exclusion. Among the minority of people who did not have Aadhaar, 15% (an estimated 4 million people) experienced exclusion from at least one service due to Aadhaar-related reasons.⁴¹ Adults who belonged to marginalized groups—such as homeless and third-gender people—disproportionately faced Aadhaar-related exclusion from welfare services. This contributed to a situation wherein homeless and third-gender people were nearly one-third as likely to have access to PDS rations without Aadhaar than with Aadhaar.⁴²

Some people, while not excluded, experienced denial of one or more services due to Aadhaar-related reasons. 10% of people missed out on a service while enrolling, and 14% missed out while updating. When residents used Aadhaar to access welfare, they encountered some scheme-specific issues and denials.⁴³

- **MGNREGS**
Few (1%) job card holders did not get work the last time they tried because of Aadhaar-related reasons. Many more (31%) did not get work for non-Aadhaar related reasons. Some MGNREGS workers (6%) who worked did not get wages—0.2% for reasons they ascribed to Aadhaar and 4.1% for non-Aadhaar related reasons; however, many who did not get wages could not identify the reason.⁴⁴
- **Social pensions**
Some (19%) social pension beneficiaries did not receive their pension the last time they expected it. Few (0.5%) did not receive pension due to problems with Aadhaar; more beneficiaries (5.7%) did not receive it due to non-Aadhaar related reasons; most, however, could not identify a reason.
- **PDS**
Biometric authentication failed for 5% of PDS users the last time they tried to get rations. One-third of those who experienced such an authentication failure did not get their rations. (By comparison 22% of all PDS users did not get their rations the last time they tried.)

38. Most welfare recipients found linking easy: 64% for PDS, 62% for MGNREGS, and 81% for social pensions.
39. Until the Supreme Court ruling in 2018, private-sector service providers, such as banks and telecommunication providers, used biometric Aadhaar authentication. We asked about biometric authentication attempts for PDS, MGNREGA, social pensions, SIM cards and bank accounts.
40. PDS, MGNREGS, or social pension. We define exclusion as inability to get a ration card, job card, or pension—or cancellation of a ration card, job card or pension—despite being eligible for it, as reported by the respondent. Our study design does not allow us to determine whether or not people who reported exclusion were indeed eligible for the service.
41. Aadhaar linking is now mandatory for PDS; however, at the time our fieldwork ended, it was still possible in some states to get rations without linking Aadhaar.
42. For homeless respondents: among those who had Aadhaar, 40% had a ration card, but among those who did not have Aadhaar, only 10% had a ration card. For third-gender respondents: 32% of those who had Aadhaar, had a ration card; 12% of those who did not have Aadhaar, had a ration card.
43. We define denial of service as one or more instances of not receiving a service that should be delivered (as reported by the respondents). We asked whether respondents received specific services (PDS rations, MGNREGS and social pension) when they last attempted to access/expected to receive it.
44. Non-Aadhaar related reasons for denials include lack of knowledge to access MGNREGS, slow processing of wages, and “siphoned by middlemen” among others. Accurately identifying the reasons for non-payment of MGNREGS wages is extremely difficult, even for experts (Ankita Aggarwal. 2017).

Figure 12: Share of people who have been excluded from services
% of respondents



Residents believe that Aadhaar has helped to improve the delivery of welfare benefits & private-sector services

Residents felt that Aadhaar is helping to improve service delivery in terms of ease and reliability.

- The majority of recipients felt that they received **welfare benefits** more easily with Aadhaar. For example, a majority (85%) of people who had Aadhaar and used PDS rations said that using the service has become easier since the introduction of Aadhaar.⁴⁵ Over a quarter of PDS users who had Aadhaar (28%) had taken advantage of PDS portability, i.e., accessed more than one PDS shop.⁴⁶

Ease of DBT-bank account linking was greater with Aadhaar than without: 87% of people who had Aadhaar found it easy to link their bank account with DBT, compared to 61% of people without Aadhaar. A majority (80%) of social pension recipients, PDS recipients, and MGNREGS job card-holders also said that they received benefits more reliably with Aadhaar.⁴⁷
- **For private sector services**, residents saw Aadhaar as increasing first-time access: 40% of all Aadhaar holders who did not previously have SIM cards or bank accounts used Aadhaar to access these services.⁴⁸ Ease of access was somewhat greater with Aadhaar: more people who used Aadhaar to access these services found the process easy than did people who used other IDs.⁴⁹ Speed of access was greater for those who used Aadhaar to purchase a SIM card: using Aadhaar, residents were 1.4 times more likely to obtain a new SIM card within one day, compared to using other forms of ID.⁵⁰

However, even as most residents saw improved service delivery, a minority (7%) said that Aadhaar has made it more difficult for them to access welfare and non-welfare services.

45. SoA pulse survey 2019. By comparison, 4% report more difficult access. Only a minority to people without formal education shared this view. Many other changes were made to the PDS system concurrently with Aadhaar.
46. Biometric Aadhaar authentication enables PDS portability: people can get rations from a PDS shop of their choice even if the paper records that prove their eligibility, are held by a different shop. In theory, this provides more power to beneficiaries, and creates more competition among shops to improve service levels. A user survey cannot capture all of these effects; more research is needed to understand how PDS portability and the role of Aadhaar play out in practice.
47. Eighty-three per cent of social pension recipients, 80% of PDS recipients and 74% of MGNREGS job card holders receive their benefits (and wages in case of MGNREGS) more reliably with Aadhaar.

STORIES BEHIND THE DATA

“Linking Aadhaar with my bank account has some advantages as well, it has helped me get things done faster at the bank by just providing my Aadhaar number and biometrics.”
Sona, Homemaker, Maharashtra

Source: SoA Human Centred Design Research 2019



KEY FACTS

1. On average, people use Aadhaar about once per month. Bank accounts, SIM cards, LPG subsidy and PDS rations are the most common uses across India
2. Adoption of newer digital features (QR code, mAadhaar app, virtual Aadhaar, masked Aadhaar) is low at 4% - 19%
3. Using Aadhaar, residents were 40% more likely to obtain a new SIM card within one day, compared to using other forms of ID
4. 80% of recipients feel Aadhaar has made PDS rations, MGNREGS, or social pensions more reliable
5. 0.8% of people experienced exclusion from welfare services, which they previously received, because of Aadhaar-related reasons. But more (3.5%) experienced exclusion due to non-Aadhaar related reasons from a service they earlier received

48. Twenty-two per cent of Aadhaar holders used Aadhaar to get their first SIM card; 31% used it to open their first bank account.
49. Eighty-seven per cent of people who used Aadhaar to get a SIM card found the process easy compared to 74% of people who used another ID. Eighty-five per cent of people who used Aadhaar to open a bank account found the process easy compared to 79% of people who used another ID.
50. Seventy-six per cent of people who used Aadhaar to get a SIM card received it within one day compared to 53% of people who used another ID. Applying for bank accounts took a similar amount of time, whether or not Aadhaar was used: 27% of people who used Aadhaar to get a bank account could open it in one day compared to 30% of people who used another ID.

2.4 Perceptions, Satisfaction, and Trust

A majority of residents say they benefit from Aadhaar. For a minority, Aadhaar has given them first-time access to identification—and subsequently to services such as bank accounts, SIM cards or PDS rations. For most residents, the fact that Aadhaar is universally accepted makes their lives easier. However, Aadhaar’s most widely perceived benefit is also its greatest challenge: the same residents who appreciate Aadhaar’s universality worry about the risks that come with linking all services to a single ID.

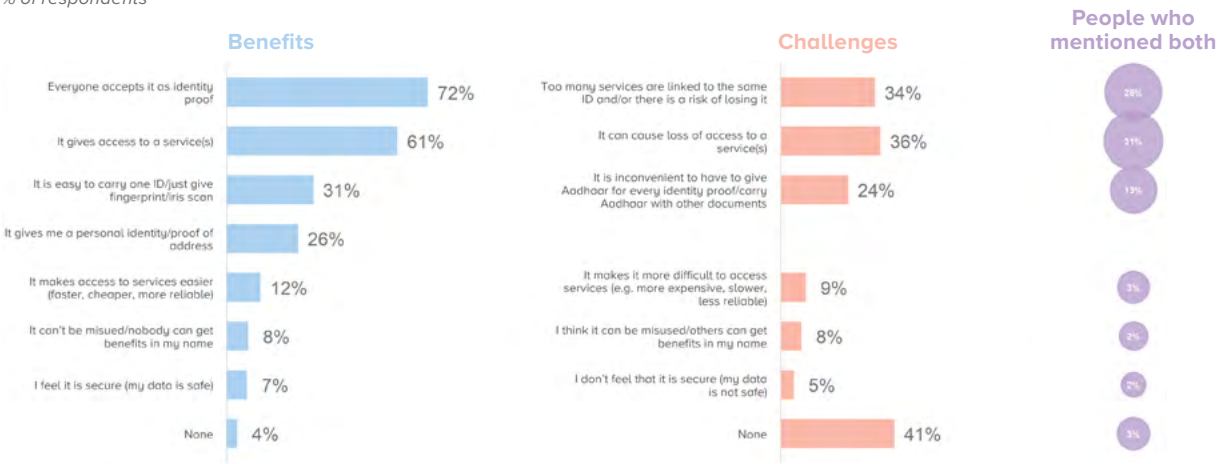
Most people trust the Aadhaar system to protect their data and their welfare benefits. However, a minority worries about the potential misuse of their Aadhaar, and 2% of people have experienced fraud that they see as being related to Aadhaar, diminishing their trust.

An overwhelming majority are satisfied with Aadhaar - even if they have had a difficult experience.

Most people have experienced clear benefits from Aadhaar. For the majority, the main benefit is the convenience of having a single, universally accepted ID.

Most people said they were benefiting directly from Aadhaar: 75% of people felt it had improved their lives. People especially appreciated that Aadhaar is universally accepted as proof of identity and/or address—a single ID that covers everything (72% of people considered this one of Aadhaar’s top benefits; see Figure 13).

Figure 13: Benefits and challenges of Aadhaar that are perceived as most important
% of respondents⁵¹



Source: State of Aadhaar in-depth survey, 2019 (N =17,322)
Note: All respondents were asked to name up to 3 benefits and challenges that were important to them. There is no corollary challenge to the benefit of 'it gives me a personal identity/proof of address'. Numbers in the text and the chart may not match due to rounding.

However, many people recognize the ways in which Aadhaar’s universality is both a benefit and a risk—and some people find Aadhaar inconvenient

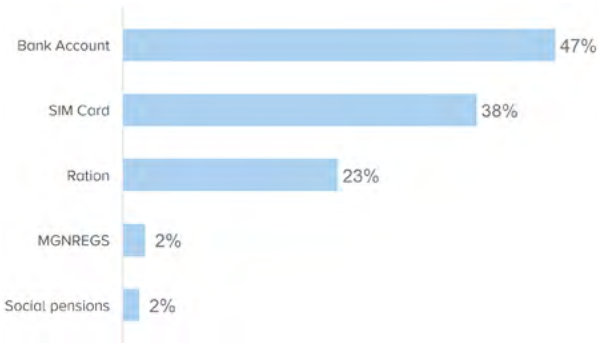
Residents’ views were nuanced. One-fourth (28%) of residents considered Aadhaar’s ubiquity to be both a benefit and a concern. One-third (31%) worried about tying many services to one ID—and the potential of losing access to all at once—even as they appreciated that Aadhaar provides access to services (see figure 13).

Not everyone saw Aadhaar as convenient: some (24%) saw Aadhaar as one more document to provide—another bureaucratic hurdle in addition to the other documentation required to access their services.

For a minority, Aadhaar has provided first-time access to identification and services

Broad acceptance of Aadhaar is all the more important for people who got Aadhaar as their first form of ID, especially third-gender residents (Aadhaar is the first ID for 14%), homeless people (15%), and women (9%).⁵² Many of them went on to access services such as bank accounts, SIM cards or PDS rations for the first time (see Figure 14).⁵³

Figure 14: Share of people who used Aadhaar to gain first-time access to a service
% of respondents for whom Aadhaar is the first ID



Source: State of Aadhaar in-depth survey, 2019 (N = 2,480)
Note: Numbers in the text and the chart may not match due to rounding.

STORIES BEHIND THE DATA

"I carry my Aadhaar card everywhere, so that I can show it if someone stops me at night."
Shahid, Plumber, Maharashtra

"Aadhaar is like a heart. It should keep working for as long as we are alive. With it we can access all services and without it none."
Chandrakala, Tailor, Karnataka

For the people we spoke to who were marginalised in terms of religion, gender identity (e.g. third gender), or socio-economic status, having an Aadhaar card provided a psychological sense of security and comfort. This perception held true both for individuals who had an Aadhaar card, like Shahid, but also for those who had not been able to get one. For those who experienced failed attempts to enrol, the status of Aadhaar as a safeguard motivated them to continue attempts at enrolment and to secure their future benefits, like rations and subsidies.

Source: SoA Human Centred Design Research 2019



51. We asked respondents two questions: (1) What are the benefits with Aadhaar that matter most to you? Please list up to three. (2) What are the challenges with Aadhaar that matter most to you? Please list up to three.
52. By comparison, Aadhaar was the first ID for 6% of men.
53. It is not possible to know whether people who used Aadhaar to get first-time access to a service would

STORIES BEHIND THE DATA

“Because of the Aadhaar link, no one can cheat us. Before, illiterate people were easily cheated and made to sign anywhere. Now, both the Aadhaar number and thumbprint is needed to verify everything.”

Pavithra S, Provision & Xerox Store Owner, Karnataka

Source: SoA Human Centred Design Research 2019



Most people trust that the Aadhaar system protects their data and their welfare benefits, although some continue to worry about misuse of the ID

Almost everyone (90%) felt that their data were well protected in the Aadhaar system.⁵⁴ And most welfare recipients (61%) also saw Aadhaar as protecting access to their benefits: they believed that Aadhaar prevents other people from accessing PDS rations, MGNREGS jobs, and social pensions in their name.

Not everyone had equally high levels of trust. People who did not have Aadhaar were more ambivalent. Many (24%) of them said they did not know whether or not data were well protected and some (9%) did not believe that data were well protected in the Aadhaar system.⁵⁵

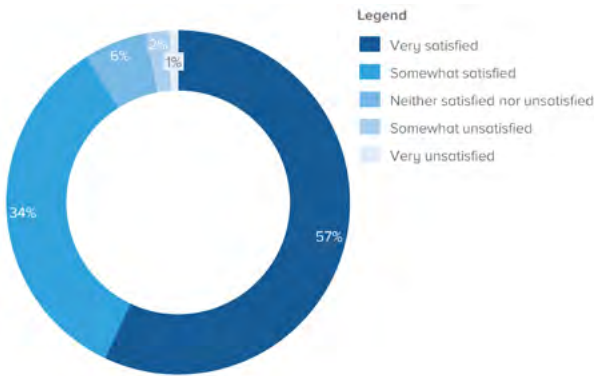
Almost equal numbers of people considered the protection that Aadhaar offers as one of its greatest benefits (8%), and the risk of Aadhaar being misused to be one of their most important concerns with Aadhaar (8%). Some people (2%) had experienced fraud, which they believed was related to Aadhaar; they were less likely to believe that their personal information was well protected in the Aadhaar system.⁵⁶

Overall, the vast majority of residents are satisfied with Aadhaar, including many who face Aadhaar-related difficulties

Overall, the vast majority (92%) said they were very satisfied or somewhat satisfied with Aadhaar (see Figure 15).⁵⁷ Across the country, more people reported satisfaction with Aadhaar than dissatisfaction: in all but one state covered in our survey, Aadhaar received a net positive satisfaction score (see Figure 16).⁵⁸ While there were variations in the exact levels of satisfaction between states, there were few differences among demographic groups.⁵⁹

Eighty-one per cent of Aadhaar holders said they would provide Aadhaar when given a choice of which ID to use.

Figure 15: Satisfaction with Aadhaar
% of respondents



Source: State of Aadhaar pulse survey, 2019 (N = 147,868)
Note: Numbers in the text and the chart may not match due to rounding.

have been able to access that service without Aadhaar. For people who had no other ID, it is reasonable to assume that they might not have been able to avail a service which requires identification without Aadhaar.

54. By comparison, 5% felt it was not well protected.

55. Among those who had Aadhaar, 91% said data were well protected, 5% said they did not know, and 5% said data were not well protected. Among those who did not have Aadhaar, only 67% said data were well protected, 24% said they did not know, and 9% said data were not well protected. Since 95% of people who did not have Aadhaar said they want it, we should not conclude that lower levels of trust lead people to deliberately choose to forgo Aadhaar.

56. Fourteen per cent of those who experienced such fraud felt their data were not well protected, com-

pared to 4% of those who had not experienced any fraud.

57. SoA pulse survey 2019. Numbers do not sum because of rounding.

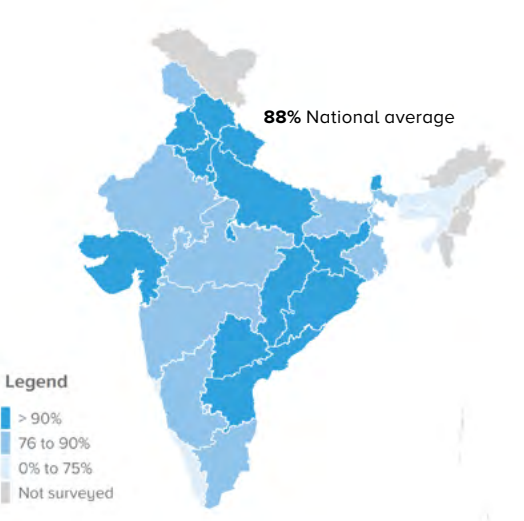
58. SoA pulse survey 2019. In order to gain an overview of satisfaction levels, we created a net satisfaction score by summing the share of people who were “very satisfied” and “somewhat satisfied” and subtracting the share of people who were “very unsatisfied” and “somewhat unsatisfied”. Meghalaya is an exception: net satisfaction was slightly negative (it rounds to 0%); almost equal numbers of people expressed satisfaction and dissatisfaction.

59. SoA pulse survey 2019. For example, satisfaction levels (somewhat or very satisfied) were relatively similar across age [adults less than 71 (91.7%), elderly 71 and above (89.0%)], gender [male (91.4%),

A majority of people who experienced difficulties with Aadhaar were still satisfied with the ID: there was no significant difference in satisfaction between people who had or had not experienced a recent denial of service; most people (81%) who had errors in their Aadhaar information were satisfied, and a majority (67%) of people said they were satisfied if they were excluded from a service due to Aadhaar-related problems.

Northeastern states with low enrolment levels reported lower satisfaction levels.⁶⁰ In general, people without Aadhaar were far less likely to be satisfied with it, marginalized groups (homeless and third-gender people) also reported lower satisfaction.⁶¹

Figure 16: Net satisfaction with Aadhaar, by state
% of respondents



Source: State of Aadhaar pulse survey, 2019 (N = 147,868)
Note: Net satisfaction is defined as % of respondents somewhat or very satisfied with Aadhaar minus % of respondents very or somewhat unsatisfied. Meghalaya has a negative net satisfaction, but rounds to zero (0). Numbers in the text and the chart may not match due to rounding.

STORIES BEHIND THE DATA

“Many of my friends have faced problems with biometrics and ration, but they don’t take it too seriously. These things happen. We can’t fight over every small thing.”

Prashant, Driver, Karnataka

Prashant lives in Bangalore, with his wife and young child. When he first moved to the city, he missed two months’ worth of rations on account of a delay in linking his Aadhaar and household ration card. Every four or five months, his monthly rations were late or missed entirely due to a problem with the biometric process at the ration store. As far as he was concerned, ‘the common man depends on the government,’ and Prashant did not see the hiccups he faced as worth complaining about.

This was a common sentiment expressed by many who had experienced delays in getting a service due to difficulties in linking their Aadhaar, or navigating parts of the service process like biometrics. Even those who missed a welfare service for months did not perceive it as ‘denial’, as long as they got the service in the end. Many people we spoke to held the belief that Aadhaar was created by the government with good intentions, and therefore, any problems resulting from it would eventually be resolved.

Source: SoA Human Centred Design Research 2019

KEY FACTS

1. 28% of people say that Aadhaar’s main perceived benefit—that it is universally accepted—also represents its largest challenge: they worry about the risks of linking everything to one ID
2. For 8% of people, Aadhaar has provided first-time access to ID; many of them have subsequently gained first-time access to services, such as SIM card, bank accounts, PDS, MGNREGS or social pensions
3. 90% of people trust that the Aadhaar system protects their data; 61% of welfare recipients trust that Aadhaar prevents others from accessing their benefits
4. 92% of people say they are very satisfied or somewhat satisfied with Aadhaar; among people who experienced exclusion from a service due to Aadhaar, 67% still say they are satisfied

female (91.7%)], caste [OBC (90.9%), SC (91.7%), ST (93.3%), intermediate caste (91.8%), upper caste (93.0%)], and to a lesser extent, religion [Buddhist (91.0%), Christian (80.2%), Hindu (92.0%), Muslim

(89.4%), Sikh (94.1%)].

60. SoA pulse survey 2019. This is mostly because a larger share of people in the Northeastern states said

2.5 The Aadhaar Experience for Different Population Groups

PEOPLE WITH LITTLE OR NO EDUCATION

People with little or no education⁶² encountered Aadhaar-related problems more often than others did: more of them had errors or faced difficulties accessing services. Someone who only passed 1st standard had a 20% higher likelihood of having an error on their card as someone who passed 10th standard; the difference was more stark for errors in mobile phone numbers.⁶³ Similarly, in terms of accessing services with Aadhaar, 3.6% of people with a 1st standard education who had Aadhaar (compared to 1.9% of people with a 10th standard education), said they could not access PDS rations, MGNREGS, or social pension due to Aadhaar-related reasons.⁶⁴

3.6% of people with a 1st standard education, said they could not access a key welfare service due to Aadhaar-related reasons

Overall, welfare recipients reported that accessing PDS rations, MGNREGS, and social pension became easier with Aadhaar. However, recipients who had not completed any formal education were nearly half as likely to experience this increase in ease.⁶⁵

ELDERLY PEOPLE

Elderly people⁶⁶ were almost as likely to have Aadhaar as everyone else. Aadhaar is mandatory for social pensions in some states—and elderly residents mostly saw their access positively affected by Aadhaar. Sixteen percent of elderly people used Aadhaar to obtain first-time access to social pensions. Of those who received a social pension, many felt that they received it more reliably (74%) and that providing proof of life was easier (79%) with Aadhaar.

16% of elderly people used Aadhaar to get first-time access to social pensions.

that they are “neither satisfied nor dissatisfied” than in other states.
61. SoA pulse survey 2019. 40% of people without Aadhaar were satisfied with it. 42% of homeless and 49% of third-gender people were satisfied with Aadhaar.
62. We found similar results for illiterate people as for those with no or only one year of formal schooling.
63. SoA pulse survey 2019.
64. SoA pulse survey 2019. Aadhaar-related reasons in the pulse survey refer to biometric authentication failure and failure to link Aadhaar to the service.
65. SoA pulse survey 2019. Overall, welfare recipients found it easier to access rations (66%), MGNREGS

WOMEN

Women’s experience with Aadhaar was similar to men’s in the sense that they had the same enrolment levels and found the processes of getting and updating Aadhaar equally easy or difficult. Aadhaar appeared to be supporting increased independence for some: for 9% it was their first ID. In addition, many (40%) felt they had more control over their money with Aadhaar.

40% of women felt they had more control over their money with Aadhaar.

HOMELESS PEOPLE

Homeless populations had low enrolment (30% did not have Aadhaar) and were twice as likely as others to find the process difficult—in particular, they found it difficult to provide the necessary documents. Their use of Aadhaar’s newer digital features was lower than for other groups (6% had ever used one). Some (14%) homeless people were excluded from a service due to Aadhaar-related reasons (although more faced exclusion because of other reasons). Less than half (42%) of homeless people were satisfied with Aadhaar.

However, getting Aadhaar did improve access to ID and services for some homeless people. For 15%, Aadhaar was their first ID, and homeless people who had Aadhaar used it for as wide a range of welfare services (e.g., PDS and Ayushman Bharat) and non-welfare services (e.g., SIM card and bank account) as did the rest of the population—although less frequently.

15% of homeless people said that Aadhaar was their first ID.

THIRD GENDER

People of third gender had a similar experience with Aadhaar to that of homeless people. They also had low enrolment: 27% did not have Aadhaar. They were twice as likely to find the enrolment process more difficult than others, partly due to problems with documentation. Aadhaar recognizes third gender as a category, but people who identified as third gender still had errors in their gender data four times as often as others did. People of third gender were more than twice as likely as others to experience exclusion for Aadhaar-related reasons. Only half (49%) said they were satisfied with Aadhaar.

Aadhaar was the first form of ID for 14% of people of third gender. They used Aadhaar less often and across fewer services than did the population as a whole, and were three times more likely to be excluded from a service due to Aadhaar-related reasons.

27% of third-gender people did not have Aadhaar



3. Focus Themes

3.1 Awareness

Many people believe they understand Aadhaar-related processes well—until they encounter problems. But, without deeper awareness, people do not know—and therefore cannot exercise—their rights and / or use features or services that could help alleviate some of the challenges the face.

Just over half of all people report that they understand Aadhaar-related processes and find them easy to use

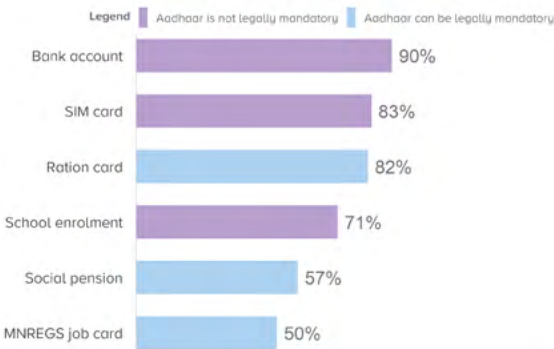
Over half of all respondents who tried to enrol believed that they fully or mostly understood the processes around Aadhaar enrolment (53%); and among people who tried to update, a slightly larger share felt they understood the relevant processes (65%). However, people who were elderly, homeless or third-gender felt less confident in their understanding.

Irrespective of religion, caste and whether they were male or female, the majority of people (65%) found all processes (from enrolment to updates to linking) easy. A small group (2%) found all processes difficult. However, ease varied greatly by state: people in Assam found it most difficult to enrol in Aadhaar; people in West Bengal found it easiest.⁶⁷

Digging deeper, gaps emerge: foremost, the majority of people do not know when Aadhaar is legally mandated and when it is not

Most people could not differentiate between circumstances in which providing Aadhaar is mandated by law and those in which it is not. For example, according to the Supreme Court ruling in 2018, Aadhaar cannot be made mandatory for private-sector services.⁶⁸ The Supreme Court also ruled that Aadhaar should not infringe on the right to education (RTE).⁶⁹ Yet most people incorrectly believed that providing Aadhaar is mandatory for private-sector services, such as SIM cards (83%) and bank accounts (90%), as well as for school enrolment (71%; see Figure 17). Only 6% of Aadhaar holders had ever refused to provide the ID when asked.

Figure 17: Share of people who mistakenly believe providing Aadhaar is mandated by law, by service % of respondents



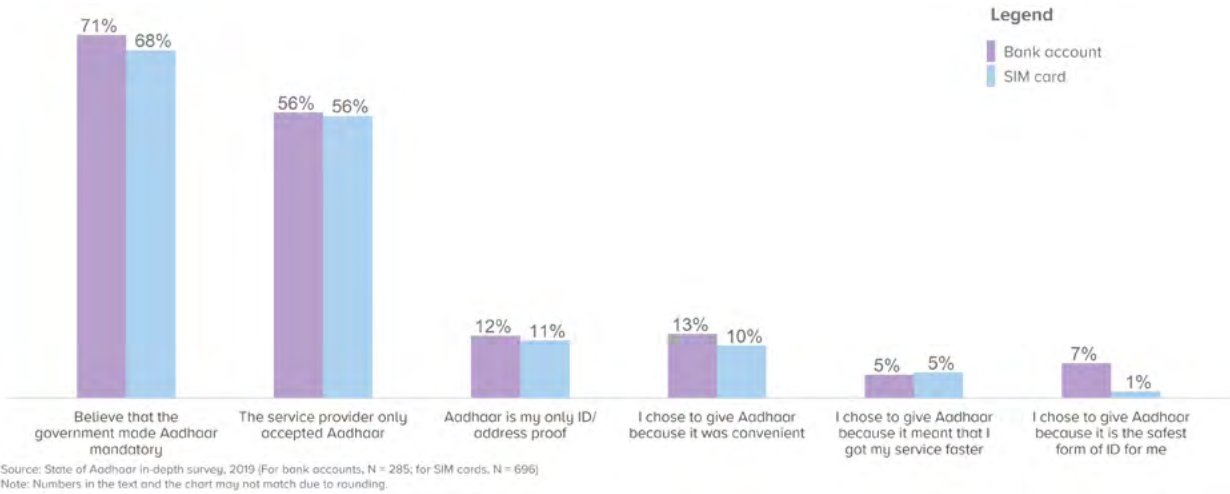
Source: State of Aadhaar in-depth survey, 2019 (N =17,322)
Note: We define mandatory according to our understanding of the 2018 Supreme Court ruling on Aadhaar: Aadhaar can be made mandatory for targeted government welfare benefits and can no longer be made mandatory for private-sector service delivery. We understand that state-wise implementation varies: some states have not implemented mandates for linking with Aadhaar for certain services, and/or they have made efforts to reduce Aadhaar-related exclusion from welfare services. For simplicity, this definition hinges on whether providing Aadhaar can be made mandatory in principle. Numbers in the text and the chart may not match due to rounding.

(55%), and social pension (67%) with Aadhaar. Fewer people without formal education reported easier access to PDS (41%), MGNREGS (27%), or social pensions (36%).
66. We defined elderly as above 70 years of age.
67. Forty-two per cent of respondents in Assam found it easy to enrol in Aadhaar, compared to 93% in West Bengal.
68. Supreme Court of India. Judgment no. 35071/ 2012, 26 Sep 2018.
69. Article 21A of the Constitution guarantees the right to education and makes it a fundamental right of

Many people find that Aadhaar is de facto mandatory for bank accounts and SIM cards

Despite the Supreme Court ruling, some banks and telecom providers continue to make Aadhaar de facto mandatory ID for savings accounts and SIM cards. Most people did not have a true choice of which ID to provide when signing up: a majority of those who provided Aadhaar believed and/or were told that they must provide Aadhaar in order to access the service (see Figure 18).⁷⁰

Figure 18: Reasons why people provide Aadhaar to access private-sector services % of respondents who used Aadhaar to access the service



Awareness of exception handling and grievance redressal mechanisms is low

Even if people were aware of their rights, they did not have a clear understanding of how to enforce them. Awareness of redressal mechanisms was low, or else people do not feel empowered to use them.

UIDAI has implemented an Aadhaar helpline and a formal complaints process. However, among people who faced problems with enrolling in or updating Aadhaar, only a small share (13%) knew about central or regional Aadhaar helplines, and even fewer (1%) used them.⁷¹ Formal complaints were similarly rare: only 4% of people who faced problems while applying or updating filed a formal complaint.

STORIES BEHIND THE DATA

"Helpline is of little help. We put 'server down' on our WhatsApp group to inform people about the ration store."
Ration Store Provider, Maharashtra

The ration store providers we spoke to found it hard to get technical support and official explanations when they faced issues. When the server was down, they were unable to use the biometric machine, and could not distribute rations to customers. They relied on informal channels to spread word about the delays.

Source: SoA Human Centred Design Research 2019



children between 6 and 14 years of age. The Supreme Court ruled that such a right cannot be taken away by imposing upon children the requirement of holding an Aadhaar card (SCI, Judgment no. 35071/ 2012, page 393).

In terms of using Aadhaar to access services, there was a similar pattern: some new exception handling processes have been introduced, but few people were aware of them or successfully used them. Most (84%) PDS users knew about at least one alternative in case fingerprint authentication failed; however, that alternative was predominantly to use the traditional register or to ask a different household member to authenticate. Few people knew about digital alternatives, such as OTP authentication (5% of PDS users).⁷² Similarly, most (79%) DBT recipients understood that a bank form they had filled out determined into which account their payments would go, but 9% of beneficiaries still experienced misdirected payments.

In general, residents were not yet using newer digital features of Aadhaar, which could improve their experience (see Figure 11). Many newer features and troubleshooting tools use technology beyond biometric scanning, e.g., QR code scanning in case of failure or unavailability of biometric authentication or biometric locking on the mAadhaar app. Such features will become more important and necessary as the government’s digital transformation accelerates. If awareness remains low, Aadhaar holders will miss out on using them.

STORIES BEHIND THE DATA

“The public shouts at us, they ask us why the update is not working, but how do we know? The rules keep changing, they are not advertised properly, and the website has old information.”

Aadhaar enrolment and update centre employee, Karnataka

Source: SoA Human Centred Design Research 2019



70. The Supreme Court (2018) ruled that Aadhaar cannot be mandatory for private-sector services like opening a bank account or obtaining a SIM card.

3.2 Children's Access to Education and Welfare

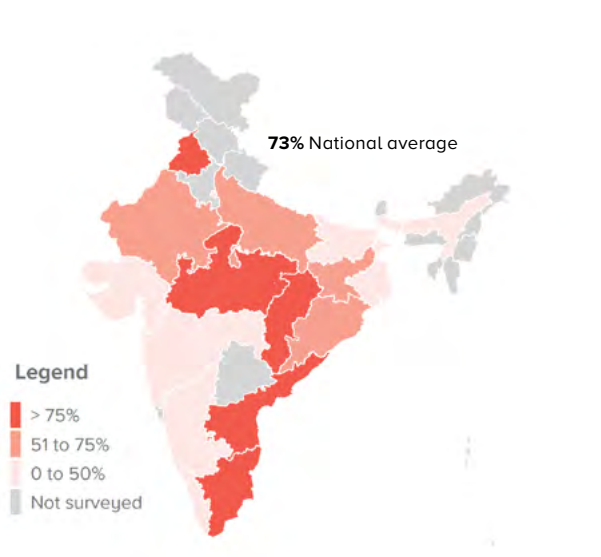
Children’s access to education and welfare is legally protected. Nevertheless, a family member’s Aadhaar is required for most school enrolments, and families report that children miss out on welfare benefits for Aadhaar-related reasons.

Even after the 2018 Supreme Court ruling, many families still need to provide Aadhaar for children's school enrolment

In many states, families found that providing Aadhaar was mandatory for school enrolment even after the Supreme Court held that Aadhaar should not infringe on the right to education.⁷³ After the ruling, the majority of school-age children⁷⁴ (73%), were still required to provide Aadhaar for school enrolment.⁷⁵ In five states, providing Aadhaar during enrolment was mandatory for more than 75% of children

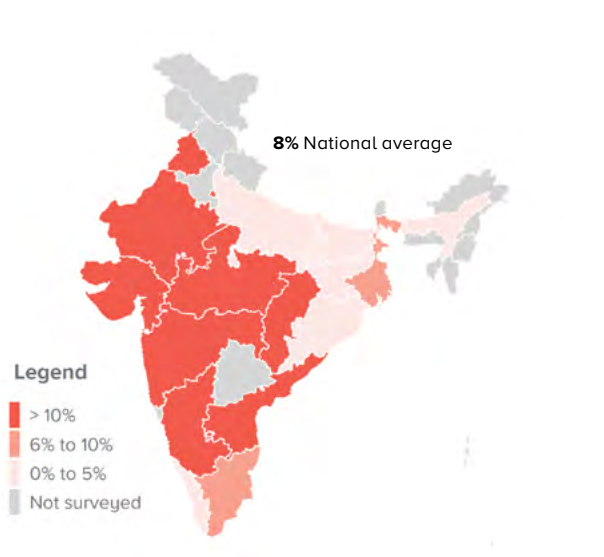
(see Figure 19).⁷⁶ Thirteen per cent of school-age children experienced a delay in school enrolment that was related to providing Aadhaar. In addition, 0.5% of school-age children could not enrol in school due to Aadhaar related reasons—an estimated 1 million children, or one-fourth of all unenrolled children whose parents wished to enrol them.

Figure 19: Share of children for whom providing Aadhaar for school enrolment was mandatory after the Supreme Court judgement
% of children across respondents' households



Source: State of Aadhaar in-depth survey, 2019 (N = 1,742 children in 1,304 households)
Note: Respondents answered on behalf of all school-aged children in their households. Numbers in the text and the chart may not match due to rounding.

Figure 20: Share of children who have ever missed a meal under the Mid-Day Meal Scheme due to an Aadhaar-related reason⁷⁷
% of children across respondents' households



Source: State of Aadhaar in-depth survey, 2019 (N = 10,859 children in 6,666 households)
Note: Respondents answered on behalf of all school-aged children in their households. Numbers in the text and the chart may not match due to rounding.

71. We defined facing problems as the respondent requiring more than one attempt to enrol or update.
72. This may partly be explained by different state policies and implementation plans. Not all states use all exception handling mechanisms.
73. Supreme Court of India. Judgment no. 35071/ 2012, 26 Sep 2018.
74. We define school-age as 6 to 14 years of age - in line with age group covered by RTE.

Children miss out on mid-day meals and other welfare benefits without Aadhaar

In some cases, Aadhaar affected children's access to welfare.⁷⁷ Some children (8% or an estimated 15 million children) missed out on one or more mid-day meals because of difficulties with Aadhaar (see Figure 20).⁷⁸ Households could also lose out on other welfare benefits when children did not have Aadhaar. For example, in many states, all household members were required to provide Aadhaar to receive their full allotment of PDS rations.⁷⁹

STORIES BEHIND THE DATA

“The school gave my children admission on the condition that I provide an Aadhaar. I have to get it done soon.”

Sneha, Daily wage labourer, Bihar

Sneha lives in Patna with her husband and two young children. She tried to enrol her children in Aadhaar. She used an agent for the enrolment process, and was charged Rs. 120. Later, she was told that her children's fingerprint verification had failed, and when she tried to enrol for the second time, the agent asked her to pay once again. Sneha earned Rs. 300 for a day's work, and could not afford to try again. While the children's school granted them admission without an Aadhaar card, Sneha worried about what would happen the next time they asked for it.



Source: SoA Human Centred Design Research 2019

75. Rules vary: in some cases, the child's Aadhaar was required; in others, a parent's Aadhaar could substitute for the child's.
76. In most states there was little change in Aadhaar requirements for enrolment after the Supreme Court judgement.
77. The Supreme Court ruling is less clear on questions of children's access to welfare than on RTE. However, the spirit of the ruling and the wording of the new Aadhaar legislation can be interpreted as

protecting children's welfare benefits, whether or not they have Aadhaar (UIDAI. 2018).
78. Despite UIDAI's directive against the use of Aadhaar for mid-day meals, residents reported that some schools continue to ask for children's Aadhaar and, in some cases, even conduct regular biometric authentication.
79. The process of Aadhaar and ration card linking differs across states. While some states require only one or two members listed on the household's ration card to link their Aadhaar, others require all listed

3.3 Variation of User Experience Across States

Location is one of the most significant variables in people's experience with Aadhaar

Aadhaar usage varied across states by both frequency of use and number of services for which it is used. Enrolment levels, error rates, ease of use, number of denials of service and satisfaction also varied across states. There were no overall “leaders” or “laggards”—states performed better on some metrics and worse on others (see Figure 21). Performance is bound to be influenced by factors that relate to both Aadhaar implementation (e.g., number of enrolment centres) and local infrastructure (e.g., mobile data connectivity). In addition, recent, highly state-specific activities may play a role, e.g., reactions to experiments with Aadhaar-linked DBT models for PDS. More research is needed to understand the drivers and implications of state-level differences.

Figure 21: State indices on Aadhaar user experience⁸⁰

State/Union territory	Aadhaar enrolment	Aadhaar accuracy	Ease of getting Aadhaar	Aadhaar-related exclusion from services	Net satisfaction with Aadhaar
Andhra Pradesh	100%	99%	83%	2.7%	98%
Assam	10%	95%	42%	1.7%	69%
Bihar	89%	95%	88%	6.0%	89%
Chandigarh	99%	96%	NA	NA	95%
Chhattisgarh	99%	99%	75%	2.0%	96%
Delhi	97%	98%	77%	7.5%	99%
Goa	96%	98%	NA	NA	50%
Gujarat	97%	99%	58%	3.1%	100%
Haryana	94%	96%	NA	NA	99%
Himachal Pradesh	100%	99%	NA	NA	100%
Jammu and Kashmir	83%	96%	NA	NA	84%
Jharkhand	87%	98%	78%	5.9%	97%
Karnataka	94%	91%	58%	20.8%	83%
Kerala	97%	94%	45%	2.2%	61%
Madhya Pradesh	78%	94%	71%	17.7%	84%
Maharashtra	97%	98%	86%	5.1%	89%
Meghalaya	39%	99%	NA	NA	0%
Odisha	96%	95%	87%	3.1%	99%
Puducherry	99%	99%	NA	NA	75%
Punjab	97%	97%	63%	21.0%	94%
Rajasthan	83%	94%	60%	4.4%	85%
Sikkim	92%	98%	NA	NA	98%
Tamil Nadu	97%	99%	80%	2.8%	76%
Telangana	100%	87%	NA	NA	96%
Tripura	98%	35%	NA	NA	65%
Uttar Pradesh	91%	97%	89%	3.1%	91%
Uttarakhand	85%	99%	NA	NA	98%
West Bengal	93%	97%	93%	2.1%	89%
All India average	90%	95%	79%	6.1%	89%

Note: States are coloured in blue for the highest performance and red for the lowest. Aadhaar enrolment: share of people who have Aadhaar (SoA pulse survey 2019). Aadhaar accuracy: share of people with no error on their Aadhaar card (SoA pulse survey 2019). Ease of getting Aadhaar: share of people who attempted the process and said that enrolment and/or updates were easy (SoA pulse in-depth survey 2019). Aadhaar-related exclusion from services: share of people who have experienced exclusion from PDS, MGNREGS, Social pensions, SIM card or a bank account due to Aadhaar-related reasons (SoA in-depth survey 2019). Net satisfaction with Aadhaar: share of people who were satisfied minus share of people who were dissatisfied with Aadhaar (SoA pulse survey 2019).

KEY FACTS

1.

65% of people mistakenly believe that providing Aadhaar is mandatory by law for bank accounts, SIM cards, and school enrolment
2.

More than half of those who used Aadhaar to get a SIM card or bank account said that the service provider accepted only Aadhaar for identification purposes.
3.

0.5% of 6 to 14 year olds were unable to enrol in school due to Aadhaar-related reasons
4.

The Aadhaar user experience varies greatly between states

members to undergo the linking. The repercussions in case of linking failure also vary by state: while some states reduce the amount of rations provided (discounting for those who failed to link), others do not penalize the household if some members have failed to link their Aadhaar.
80. Aadhaar enrolment: share of people who have Aadhaar (SoA pulse survey 2019). Aadhaar accuracy: share of people with no error on their Aadhaar card (SoA pulse survey 2019). Ease of getting Aadhaar:



4. Conclusion & Further Research

4. Conclusion & Further Research

Residents expressed satisfaction with Aadhaar and trust in the system, despite ongoing difficulties, but emerging concerns need to be addressed. With Aadhaar, some residents gained first-time access to ID, and many have seen improvements in the reliability of welfare service and access to private-sector services. People appreciate the convenience of a single card that is universally accepted and trust that the Aadhaar system protects their data as well as access to their benefits. Almost everyone is satisfied with Aadhaar, including a majority of people who face difficulties. Nevertheless, many people who appreciate Aadhaar’s benefits also worry about the challenges and risks of linking too many services with a single ID. To maintain or improve people’s experience and perceptions, it will be important to make sure that everyone who wants and needs Aadhaar can obtain it and correct it when necessary, and that using Aadhaar for services is streamlined.

Individuals who do not have Aadhaar or who face difficulties in using it are often those most in need of government support. Aadhaar is deeply embedded in Indian life and works for most people most of the time. However, when it does not work, it most affects those who are already vulnerable. Marginalized groups, such as people who are homeless or third gender, have lower enrolment rates; people with lower levels of education have more errors. Since Aadhaar is mandatory for many services that are intended to support the most vulnerable members of society, it is all the more critical to ensure that Aadhaar reaches and works for these people.

Making Aadhaar mandatory can lead to exclusion from welfare and other services—and place an additional burden on residents. Such mandates should therefore be carefully considered. Some residents face service exclusion or denial because they don’t have (correct) Aadhaar or because of problems using it. Fingerprint authentication fails for a significant share of transactions. System and technology failures can be exacerbated when providing Aadhaar is mandatory (since there are few alternatives). This can place an additional burden on residents, who are otherwise legitimate beneficiaries of the service. Every decision to make Aadhaar mandatory for service provision should therefore be carefully considered—along with readily available fall back options when processes or technology fail—so that Aadhaar’s promise to its holders can be upheld.

Improvements in on-the-ground processes related to Aadhaar can significantly enhance the lives of many residents in India. The social safety net could be appreciably strengthened for the nation’s most vulnerable groups—such as people who have low levels of education, are homeless, or identify as third gender—by offering additional support to those who need Aadhaar but cannot acquire it. Streamlining the Aadhaar updating process can prevent some service denials and save time that residents can put to better use. As more services are linked to Aadhaar, easy access as well as seamless updating and authentication will become only more critical. While digital troubleshooting options can sometimes help, their effectiveness is limited because a substantial share of the population has low digital awareness, access, and literacy.

Variations in how states implement Aadhaar represent an opportunity to innovate and learn from each other’s successful practices. Although Aadhaar is a centrally administered national ID, the user experience is local: different states implement Aadhaar in very distinct ways. There is merit to this practice, given that the capacity and readiness for digital transformation vary greatly across states—from both an administrative and a resident point of view. Different approaches to implementation present an opportunity to innovate on a smaller scale. There is also potential for Aadhaar to support greater interstate integration and portability of welfare and other services. This journey has already started; for example, PDS portability (enabled by Aadhaar authentication) is being implemented across state boundaries. As innovation and integration progress, states and union territories will have the opportunity to learn and adopt best practices from each other.

While our surveys answered important questions about the user experience, they also raised new and additional questions that will require further research.

Our research methodology focused on residents’ perceptions and experiences. Our findings can represent only what people know and feel, whereas much of what affects the functioning of Aadhaar relies on the actors and systems in the background—from the design and security of the biometric database to internet connectivity at a ration shop or a bank branch manager’s understanding of mapping accounts to Aadhaar for DBT payments. In some cases, deliberate misuse of infrastructure and information has been reported, e.g., when a ration shop owner incorrectly claims that biometric authentication failed.⁸² In other cases, implementers on the ground may be struggling due to lack of information or resources. None of these processes (or systemic shortcomings) are necessarily visible to our respondents, and understanding them requires a different methodology.

While our surveys gave us great reach across a large number of households in most Indian states, a questionnaire-based interview is limited in the nuance it can achieve. Facts and perceptions can be drawn out, but closed-ended questions are rarely able to uncover underlying assumptions, drivers and motivations; at this scale, one cannot stop an interview to ask “Why?” Thus, many questions remain unanswered—and some new ones have emerged from our data.

We used our human centred design research to investigate where the greatest opportunities for improvement lie and to gather initial inspiration for how those challenges might be alleviated.

The following are some of the questions we explored through this process:

- Why has Aadhaar become the default ID even where it is not mandatory?
- What is the human impact of exclusion?
- Why are almost all people satisfied with Aadhaar even if their experience is not always positive?
- How much does low awareness matter for residents?
- What, if any, Aadhaar-related challenges are residents experiencing but not able to attribute to Aadhaar?

The HCD research also brought some new questions to light:

- What does Aadhaar mean for people’s identity? How does it affect the ways in which they view their place in society?
- What are people’s expectations of Aadhaar? What does it mean to be satisfied with Aadhaar?

Beyond these questions, many others remain open for future research. Among them are:

- What drives state-level and service-level differences in experience?
- How well do back-end Aadhaar processes function? What is the experience of those who administer Aadhaar and Aadhaar-linked services?
- How could residents become more empowered to understand and assert their Aadhaar-related rights?
- How will awareness and usage of Aadhaar’s newer digital features develop?
- To what extent can perceived benefits and challenges be attributed to Aadhaar?
- What are residents’ worries about privacy and surveillance with respect to Aadhaar?
- To what extent has Aadhaar benefitted government?
- To what extent has Aadhaar benefitted private-sector actors?

share of people who attempted the process and said that enrolment and/or updates were easy. Aadhaar-related exclusion from services: share of people who have experienced exclusion from a service due to Aadhaar. Net satisfaction with Aadhaar: share of people who were satisfied minus share of people who were dissatisfied with Aadhaar (SoA pulse survey 2019).

81. Source: Anumeha Yadav, Can biometrics stop the theft of food rations? No, shows Gujarat (published on Scroll.in), 17th December 2016



5. Annex

Methodology Note

OBJECTIVES OF THE STUDY

The State of Aadhaar 2019 report is the third entry in the State of Aadhaar series that launched in 2016.

The objective of the 2019 edition is to generate datasets on people’s experiences with Aadhaar across India and promote a data-driven discourse on Aadhaar.

To that end, this edition aims to answer the following key research questions from the point of view of residents:

- **Aadhaar enrolment**
How many are enrolled? Who is not yet enrolled—and why?
- **Aadhaar updates:**
How many updates are needed, i.e., how common are errors? Do errors get corrected? What is the update experience? And why do people find it easy or difficult?
- **Using Aadhaar to access services:**
How widely and how frequently is Aadhaar used? What is the experience of using Aadhaar for key services (PDS, MGNREGS, social pensions, SIM cards, and bank accounts)? And if residents face problems with Aadhaar, how does that affect their access to services?
- **Across the journey:**
We also sought to understand how satisfied people are with Aadhaar overall— what benefits and challenges do they see? Do they trust the system?

A user journey framework guided our enquiry along these research questions.

The study followed people’s journey with Aadhaar from the enrolment stage to updating their information to using Aadhaar for various services. The study also followed those who dropped off at various points along this journey for reasons including but not limited to lack of Aadhaar, failure to link Aadhaar to service IDs and authentication failure.

RESEARCH INSTRUMENTS

This report relies on two nationwide surveys conceptualized, designed, managed, and analyzed by the Dalberg team with support for data collection from specialist organisations. These are:

1. **A pulse survey of a panel of 147,868 households in 28 states and union territories**
State of Aadhaar added a 10-minute questionnaire to the triannual CHPS household panel survey conducted by the Centre for Monitoring Indian Economy (CMIE). These questions captured critical metrics on the adoption of Aadhaar and people’s experience around it. For part of this questionnaire (Aadhaar enrolment status, errors and some usage questions), we captured data for all household members, a total of 575,127 people. This survey was conducted between May and August 2019.

2. **An in-depth 45-minute survey of 19,209 households across 16 states and 1 union territory**
State of Aadhaar conducted a separate deep-dive survey to uncover the nuances of people’s experience with Aadhaar. It included a wide range of questions on enrolment, updates and use of Aadhaar for services— particularly three welfare services (PDS, MGNREGS and social pensions) and two non-welfare services (telecom and banking). Considering the Supreme Court ruling of 2018, the survey also included some questions on schools to test on-ground implementation of the court’s orders. This survey employed stratified random sampling across the country and oversampled populations who are typically not covered by household surveys.

Dalberg created the research design and questionnaire. Kantar Public conducted the survey between July and September 2019, with close day-to-day oversight from Dalberg. The raw data were exclusively accessed and analyzed by Dalberg.

The surveys and report leaned on guidance and inputs from subject matter experts as well as the general public.

The report incorporated inputs from more than 30 experts including government officials and policymakers, legal advisors, technologists, researchers and others. Additionally, nine experts were involved as technical and advisory panel-lists to provide ongoing guidance as the study evolved. In preparation for the study we also conducted field visits in seven locations across Maharashtra and Jharkhand, where we spoke to residents about their experience with Aadhaar. These exploratory discussions, together with the survey pilots, conducted with 10,253 people in 28 states, helped us formulate questions and refine our survey instruments.

After completing data collection and preliminary analyses for the surveys, we followed up with Human Centred Design (HCD) research.
This helped us probe deeper into the survey findings and uncover the why and how behind some of the most interesting trends displayed by the data. We interviewed over 100 people in their homes, communities and workplaces using a range of HCD research methods, such as 1:1 in-depth interviews, intercepts, small-group discussions, activity-led sessions, and observational walk-throughs. This research took place in the states of Maharashtra, Karnataka, Assam and Bihar. These efforts enabled us to better understand the human stories behind the data and uncover further areas for research.

In the interest of encouraging a data-driven discourse, raw datasets from both surveys and a data dashboard are publicly accessible on the State of Aadhaar website.
This report distils the key findings from the research, but far more data are available. The State of Aadhaar website www.stateofaadhaar.in hosts both the full, raw dataset and a data dashboard that allows anyone to explore key variables by states and demographics. We encourage policymakers, researchers, and industry actors to engage with the dataset and use it for their own research and decision making.

Reader’s note
In our findings, we report numbers from the larger dataset (pulse survey) whenever possible. Most findings, however, are from the in-depth survey since this covered far more questions.

From this pulse survey we projected India-wide population estimates. From the in-depth survey we only projected population estimates for the states and union territories covered in that survey.

The 2019 State of Aadhaar surveys are not comparable to the 2018 State of Aadhaar survey because the latter was conducted only in rural areas of three states. The methodology for the 2019 study has also been updated to reflect feedback from the previous year’s survey.

Numbers in graphs may not match those reported in the text or they may not sum to 100% because of rounding, non-responses, or responses of “don’t know.”

Abbreviations and Acronyms

ABBREVIATION	EXPANSION
CMIE	Center for Monitoring India Economy
DBT	Direct benefit transfer
HCD	Human-centred design
ID	Identification (card)
LPG	Liquid petroleum gas (subsidy)
mAadhaar	Mobile Aadhaar
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
KPI	Key performance indicator
OBC	Other Backward Classes
OTP	One-time password
NSAP	National Social Assistance Programme (social pensions)
PDS	Public Distribution System
QR code	Quick-response code
SoA	State of Aadhaar
SC	Scheduled Caste(s)
ST	Scheduled Tribe(s)
UIDAI	Unique Identification Authority of India
UT	Union territory

Glossary of Terms

TERM	DEFINITION
Denial of service	We define denial of service as not receiving a service (as reported by the respondents) at the time of expected service delivery (such as collection of rations).
Error rate	The incidence of error in people's Aadhaar information. We report error rates for data printed on the card (name, date of birth, sex, address, photograph) and for some data that is captured but not printed on the card (mobile phone, biometrics). Error rates are self-reported.
Exclusion	We define exclusion from a service as lack of access to the service because of inability to enrol or cancellation of existing enrolment
Net satisfaction	Share of people who are satisfied minus share of people who are dissatisfied
Resident	Any person living in India. Our study cannot establish legal residence status

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