

Fulfilling the promise of One Nation One Ration Card

A frontline perspective from
5 Indian states

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SUPPORTED BY

Dalberg

UN OMIDYAR
NETWORK
INDIA

About this Study

This study is one of the first comprehensive studies on One Nation One Ration Card (ONORC), launched in 2019¹, and aimed at delivering rations to beneficiaries seamlessly, anywhere in India, as part of the Public Distribution System (PDS). The study focuses on:

- The experiences of beneficiaries and frontline dealers across the five states of Rajasthan, Jharkhand, Andhra Pradesh, Uttar Pradesh, and Karnataka, which were amongst the early adopters.
- Who has benefitted from ONORC, to what extent, and who is getting left behind?
- How are the early adopter states performing across awareness, uptake, delivery etc.?

Ultimately, the study aims to help policymakers improve the design and execution of ONORC and ensure food security for millions in the country. Using a mixed- methods, data-driven approach, the results from the study have been informed by a survey of nearly 6,700 low income households and 1500 PDS dealers across the 5 states. While many of the insights are specifically centered around ONORC, they can equally help inform the broader PDS agenda across the country. The study was led by Dalberg in partnership with Kantar, and with support from Omidyar Network India.

1 Press Information Bureau of India, "One Nation - One Ration Card Scheme", 26 Jul 2019

Top 10 Highlights



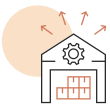
RATION CARD HOLDERS' EXPERIENCE IN THE 5 STUDY STATES

12% of households with a ration card tried to use PDS portability recently; **20%** of migrant households with a ration card tried to use PDS portability recently.^{2,3}

6% of all ration card holders who had not used PDS portability would like to do so in the future; at least one-fifth of them had not used it, because they were unaware of ration portability.

12% of households that tried availing rations using portability experienced a transaction failure compared to **9%** of households overall who experienced failures (for portability and non-portability transactions combined) when trying to collect their rations.

4% of households that tried to access rations under portability could not do so, as compared to **1%** of households using PDS overall.



PDS DEALERS' EXPERIENCE

97% of PDS dealers knew that ration portability was possible; **73%** knew that inter-state ration portability was allowed.

66% of PDS dealers reported receiving ration card holders not registered to their FPS; **28%** of these PDS dealers were unable to serve at least some portability customers, primarily due to technology failures or because they feared running out of stocks.^{4,5}

10% of PDS dealers ran out of stock at least once in the three months preceding the survey, often due to demand fluctuation under portability.

32% of PDS dealers felt that portability would make their business model unviable, at least some of the time.

52% of PDS dealers did not use exception handling methods when ePoS-based transactions failed due to biometric authentication or connectivity failure.^{6,7,8}

-
- 2 We classify households where any one member visited an FPS shop other than the one where their ration card was registered to avail rations as having tried to use portability.
 - 3 Respondents were asked to respond to whether they tried using portability and their experience of availing rations under it in the month preceding the date of the survey. The survey was conducted between 20 August and 20 September 2021.
 - 4 We define technology failure as failure to issue rations due to one of the following: poor internet connectivity, ePoS malfunction, or biometric authentication failure.
 - 5 PDS dealers were asked to respond to whether they received and were unable to serve any ration card holders not registered to their shop in the month preceding the survey.
 - 6 PDS dealers use ePoS (electronic Point of Sale machines) to conduct biometric authentication of beneficiaries and execute transactions online.
 - 7 Exception handling mechanisms are any alternate mechanisms or process steps that a PDS dealer should undertake to issue rations if a transaction fails. Most state governments include these provisions - including mechanisms such as using Aadhaar-based OTP as well as offline steps - in their guidelines to issue rations if an online transaction cannot be successfully executed.
 - 8 Reasons for PDS dealers not using exception handling mechanisms when transactions failed are covered in detail in section 3.5.

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ONORC | An Overview

1.

An Overview

The One Nation One Ration Card (ONORC) initiative launched in 2019 is one of the major reforms to India's Public Distribution Scheme (PDS), which currently guarantees food security to nearly 237 million low-income households with ration cards.⁹ Prior to the launch of ONORC, ration card holders could secure their entitlement only at a Fair Price Shop (FPS) where they were registered. ONORC lets them access their food entitlement at any FPS in the country, a feature described as "portability". It was designed specially to benefit migrant households (both inter-state and intra-state), numbering nearly 67 million so that they could access their ration on the move.¹⁰ Further, while 'better service' or 'empowerment' were not primary goals, for the first time it offered beneficiaries a choice in availing their rations, whether they were migrating or at home.¹¹

Simultaneously, it introduced competition amongst PDS dealers for the first time, as ration card holders could get their ration at any FPS in the country. This in turn made it harder for PDS dealers to gauge and fulfill new demand.

9 National Food Security Portal, Department of Food and Public Distribution, Government of India; accessed 18th October 2021.

10 Estimate based on migration data sourced from NSSO 2007-08 and number of ration cards issued under National Food Security Act (NFSA) sourced from National Food Security Portal.

11 Pradhan, Mamata and Devesh Roy, One Nation One Ration Card can transform lives in India, IFPR, 2019.

Figure 1:
Key segments impacted by ONORC



| MIGRANT HOUSEHOLDS ~67 million | OTHER PDS HOUSEHOLDS ~170 million | PDS DEALERS ~500,000 |
|---|---|--|
| <p>Who they are</p> <ul style="list-style-type: none"> Household with at least one member who has moved away from their usual place of residence– within or outside the state, for short or long periods of time It is common to find split households some household members have moved for employment but other members stay behind Typical household size: 4-5 members Average monthly household income: INR 10,500 | <p>Who they are</p> <ul style="list-style-type: none"> Any household with a ration card, without migrant members They can avail rations at the shop where they are registered, but may have to contend with poor service (e.g., shop closures, distance from the shop, etc.) Typical household size: 5 members Average monthly household income: INR 9,200 | <p>Who they are</p> <ul style="list-style-type: none"> Usually an individual licensee, but can also be the appointee or nominee of an SHG, co-operative or Gram Panchayat Average number of customers per month: 400 - 500 Average monthly income from ration sales: INR 4,000 – INR 8,000 |
| <p>How they can benefit: Rations “travel” with migrants</p> <ul style="list-style-type: none"> Migrants can now avail their rations at any FPS across the country Split households can avail their rations in different locations based on Aadhaar authentication without need to obtain new or separate ration cards | <p>How they can be affected: Choice</p> <ul style="list-style-type: none"> Ration card holders have greater agency and can avail their rations where they receive better service or more convenient to access their rations. (Not all households currently have physical access to more than one FPS.) | <p>How they can be affected: Change in customer base</p> <ul style="list-style-type: none"> Overall transaction may increase given more migrants are able to avail rations PDS dealers may gain or lose customers Demand for rations may fluctuate month-to-month |

Note: Estimate for number of migrant households and other PDS households is defined based on the number of NFSA ration cards issued nationally and the proportion of households that contributed to migration in India as reported by NSSO.

Source: National Food Security Portal, Department of Food and Public Distribution; National Sample Survey Office, Ministry of Statistics and Program Implementation. Migration in India. 2007-08.

An Aadhaar based authentication is essential to access ONORC benefits. However, the extent of Aadhaar seeding of ration cards varies across states; the eastern and north-eastern ones being furthest behind.¹²

Figure 2:
How portability works - A journey map



Source: Department of Food and Public Distribution, Government of India

By August 2021, ONORC had been rolled out in 34 States and Union Territories, but with varying levels of uptake.^{13,14} Uptake has largely been for intra-state portability and driven by five states – Bihar, Rajasthan, Andhra Pradesh, Telangana, and Uttar Pradesh that account for 60% of all portability-linked transactions.^{15,16} The majority of states that had adopted portability (22 out of 34) were integrated during the Covid-19 pandemic which may have impacted the uptake in those states.

12 For many of these states such as Assam, the extent of Aadhaar adoption also continues to be low.

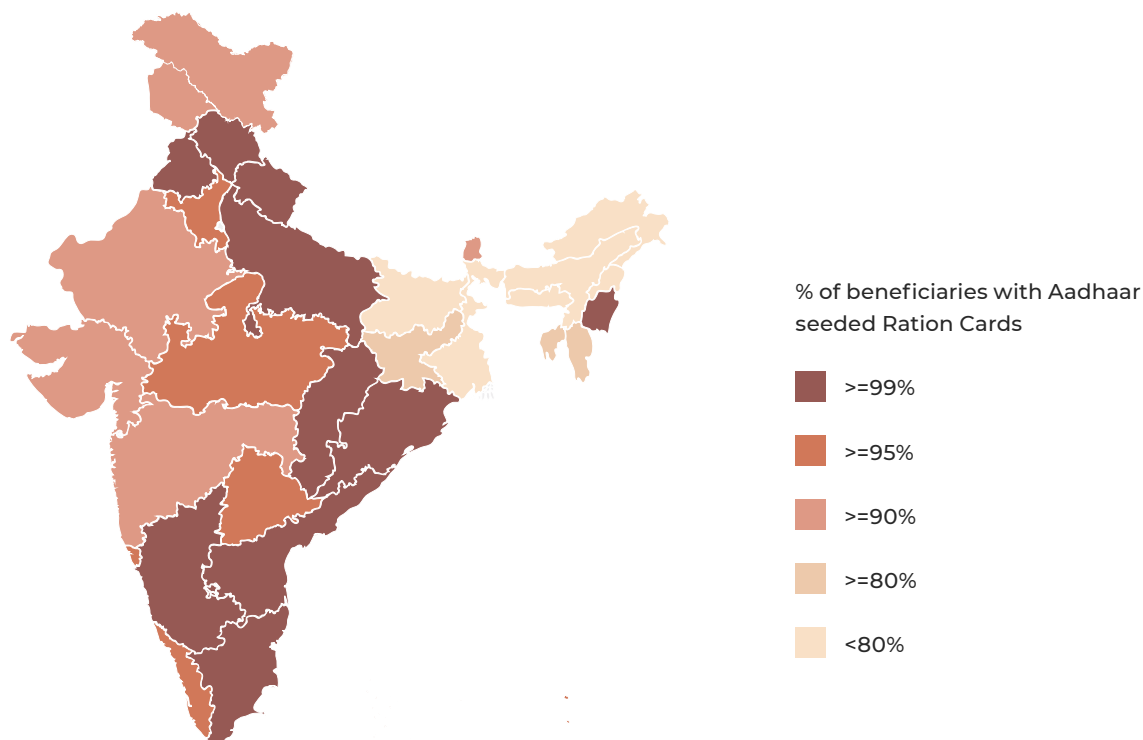
13 Press Information Bureau of India, "ONORC mission gathers further momentum as Delhi and West Bengal also operationalize the scheme", 28 Aug 2021.

14 Analysis based on PDS transactions data publicly available on the National Food Security Portal maintained by DFPD.

15 According to data available on Annavitran and IMPDS portals maintained by the Department of Food and Public Distribution, fewer than 100,000 inter-state portability transactions were recorded in August 2021 compared to more than 15 million intra-state portability transactions.

16 This includes three of our five study states. Refer to the section on methodology for details.

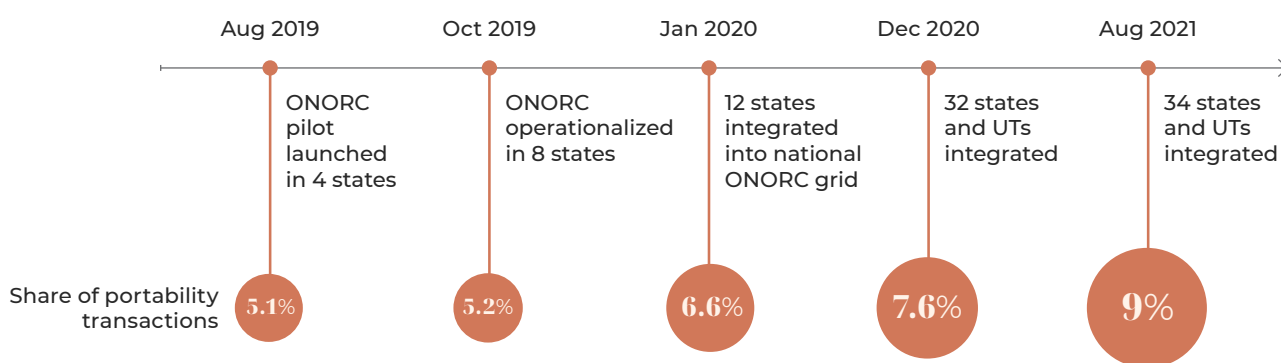
Figure 3:
State-wise ration card seeding with Aadhaar as of 18 October 2021¹⁷



Note: Data on seeding is not separately available for the union territories of Jammu and Kashmir and Ladakh; combined data for the two territories has been reported

Source: National Food Security Portal, Department of Food and Public Distribution

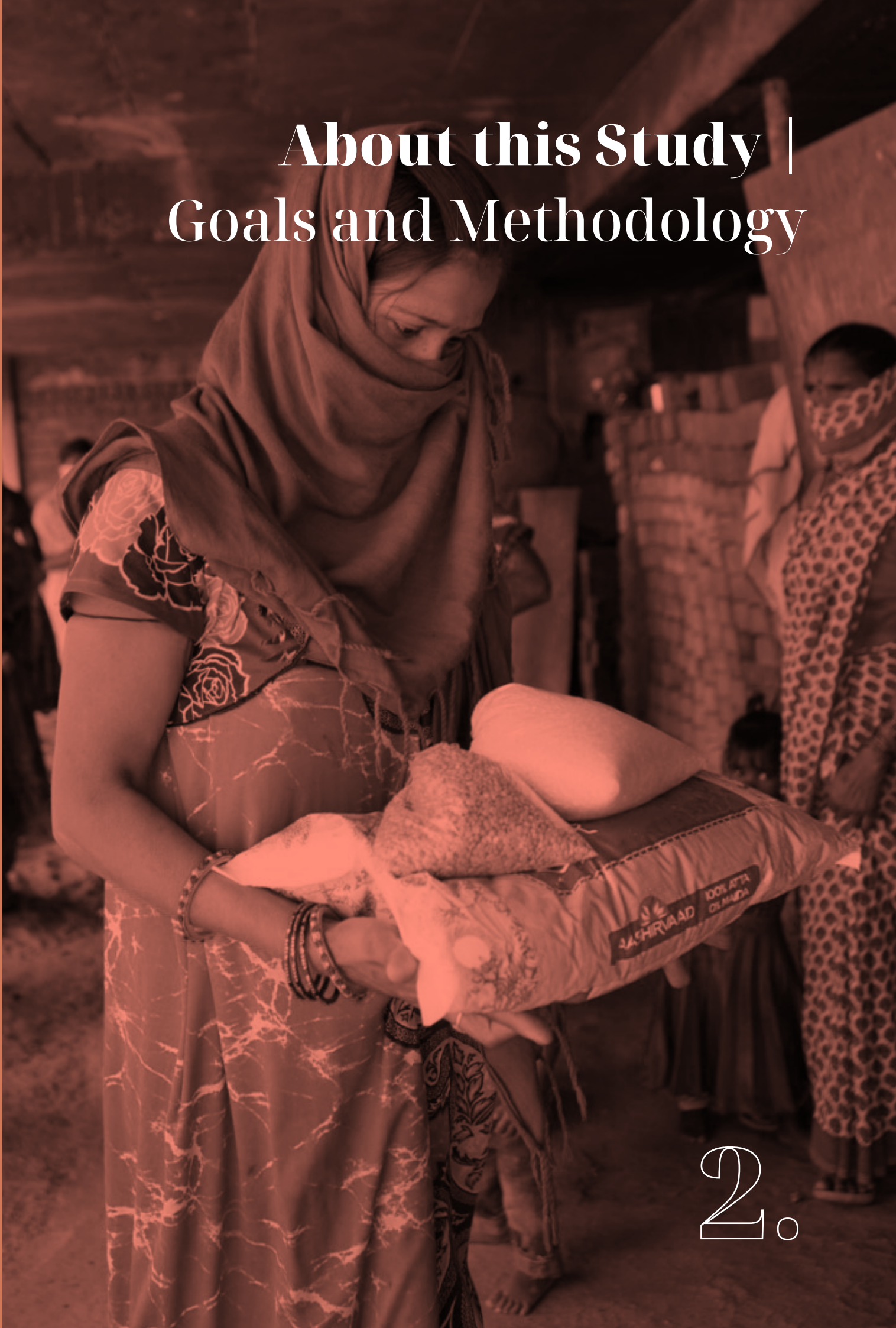
Figure 4:
Timeline of the ONORC Rollout



Source: Press Information Bureau of India, "ONORC mission gathers further momentum as Delhi and West Bengal also operationalize the scheme", 28 Aug 2021; Annvirtan Portal, department of Food and Public Distribution; IM-PDS portal, Department of Food and Public Distribution

¹⁷ National Food Security Portal, Department of Food and Public Distribution; accessed 18th October 2021.

About this Study | Goals and Methodology



2.

Goals & Methodology

This study is among the first comprehensive studies that brings to light both demand- and supply-side perspectives on ONORC. While ONORC was launched nearly two years ago, few studies have collected primary data to understand its implementation and impact. Past studies have explored supply-side challenges in making portability work, and end users' understanding of the scheme, but often qualitatively.¹⁸ A robust quantitative understanding of the frontline experience - of both beneficiary households and PDS dealers - has been missing. This study seeks to identify for whom ONORC is working or not working, and why these gaps exist. In particular, we focused on the following research questions:

- How aware were PDS beneficiaries and dealers about ONORC and ration portability in general? What is the current awareness of ONORC and ration portability among beneficiary households and PDS dealers?
- What was the uptake of ration portability? How many households wanted to avail rations under portability?
- What were the key barriers to using portability, especially for vulnerable groups? What challenges did households face in accessing rations under portability?
- How has the introduction of portability affected PDS dealers? What were the key challenges that PDS dealers faced or foresaw in the implementation of ONORC?

The timing of our study is opportune. We can learn from states that are further ahead in ONORC rollout and use insights and best practices to inform others that are more early in the process.

We selected five states with different ONORC pathways for our study. We chose states that were at different points in their ONORC roll out with a bias towards early adopters, so that we could draw lessons learned. Since migrants were an important target group for ration portability, we selected states with significant inter and intra state migrant populations. However, we did not limit the study to migrants alone since we wanted to understand the uptake and impact of ration portability more broadly, i.e., whether non-migrant beneficiaries were also exercising the choice now being offered.

¹⁸ Microsave conducted a study to understand supply side challenges related to portability implementation in Andhra Pradesh following ONORC's launch. Another study conducted by International Food Policy Research Institute explored portability awareness and willingness to avail rations under ONORC in select districts of Bihar, Odisha and Eastern Uttar Pradesh. Work done by Gram Vaani and others, including media outlets, covers qualitatively the experience of beneficiaries trying to avail rations under portability. Please refer to the bibliography for the details of these studies.

Table 1:
Important characteristics of five study states

| State | Portability transactions | Migration pattern | ePoS penetration among FPS ¹⁹ |
|-------------------------------|--|--|--|
| Andhra Pradesh | Among Top 5 states in number of monthly portability transactions (>16 L) | High intra-state migration | 99% |
| Karnataka | Among Top 5 states in number of monthly portability transactions (~8 lakh) | High number of intra state migrants as well as in-migrants from other states | 99% |
| Rajasthan | Among Top 5 states in number of portability transactions (~30 lakh) | High number of intra state migrants | 95% |
| Uttar Pradesh | Among Top 5 states in number of portability transactions (~11 lakh) | Large source of out migrants; high intra state migration | 99% |
| Jharkhand²⁰ | Less than 5 lakh portability transactions | Large source of out migrants; high intra state migration | 99% |

Importantly, two key prerequisites for rolling out ONORC were largely fulfilled in our five study states: more than 98% of beneficiaries' ration cards in each of our study states was seeded with Aadhaar (for biometric authentication),²¹ and 95% of Fair Price Shops had an electronic point of sale machine (ePoS, for authenticating and recording transactions).

We used a robust, mixed-methods approach.

Our core instruments were two surveys - one each for PDS beneficiaries and dealers. These were supported by a range of other research tools that allowed us to refine our survey instruments and triangulate our results.

Figure 5:
We deployed the following



Our respondents were randomly sampled. We interviewed both users and non-users of portability, including migrants and vulnerable populations. Our sample included 25% migrants (N = 1703) who we expected to be the most impacted by ONORC. In addition, our sample included 6% marginalized women (N = 377) who were widowed, divorced, or separated to understand if they faced any specific challenges.²²

19 Data for all states except Andhra Pradesh is sourced from the National Food Security Portal maintained by DFPD; data for Andhra Pradesh is sourced from the AePDS dashboard maintained by the Government of Andhra Pradesh.

20 To ensure geographic diversity, we had initially selected Tripura from among the North-Eastern states. However, the political climate in the region prevented us from completing our study. Consequently, we selected Jharkhand as the fifth study state.

21 Refer to Figure 3.

22 We conducted the survey telephonically with all beneficiaries except women who were widowed, divorced or separated; for them, we conducted the survey in person because we believed that they would be difficult to reach or may be uncomfortable responding by phone. Interviews with PDS dealers were also conducted in person.

Limitations

While our survey is not free from inherent biases, we have worked to eliminate as many of these as possible through our sampling methodology, careful design and pre-testing of our questionnaires, as well as through interviewer training and supervision. The following limitations remain:

- The beneficiary survey was conducted telephonically and thus excluded segments of the population who lacked access to a phone or telephone connectivity or who did not wish to speak on the phone.
- The beneficiary respondents were drawn from a phone database maintained by our partner Kantar Public, not from a comprehensive list of the population. Thus, we were not able to draw a strictly stratified random sample; our sample may not be representative.
- The data collected from both surveys (beneficiaries and PDS dealers) is self-reported and therefore limited by respondents' willingness and ability to answer.
- The survey was conducted in the local language most widely spoken in the state where the respondent was located. While we ensured that our survey instruments were translated by qualified professionals, the questions may have been interpreted differently based on linguistic differences, and this may have affected our overall results.
- Our respondents were individuals, but many of our questions concerned the household experience. The results may therefore be biased by individual perspectives or any limitations in knowledge of their households' experience with PDS.

Finally, a few notes on the migrant population in our sample:

- While we were able to include a sufficiently large number of migrant respondents for our analysis, our sample did not capture an adequate number of responses from inter-state migrants.²³ Our findings are therefore mainly reflective of the experience of intra-state migrants. Results may differ significantly for inter-state migrants and the 'ration portability' experience of migrants may be much more nuanced than captured in our study.
- Migrant respondents in our sample were engaged in different professions (homemakers - 35%, private sector employees - 19%, construction workers - 10%, agricultural or other casual labour - 13%, etc.). As such our findings speak to the general portability related experience of migrant households but not of specific categories of migrant workers.
- We have used migration data from NSSO 64th Round (published 2008) to apply survey weights.^{24, 25} Given the time gap and the disruption of migration during Covid, the accuracy of the findings is subject to the extent to which that data represents the true picture of migration today.

23 While 25% of respondents in our sample were migrants, less than 1% of all migrant respondents were inter-state migrants.

24 National Sample Survey Office, Ministry of Statistics and Program Implementation. Migration in India. NSS 64th Round. 2008.

25 We selected this dataset because it contained data on the number of households that report out-migrants and to better account for short term migrants.



Key Findings

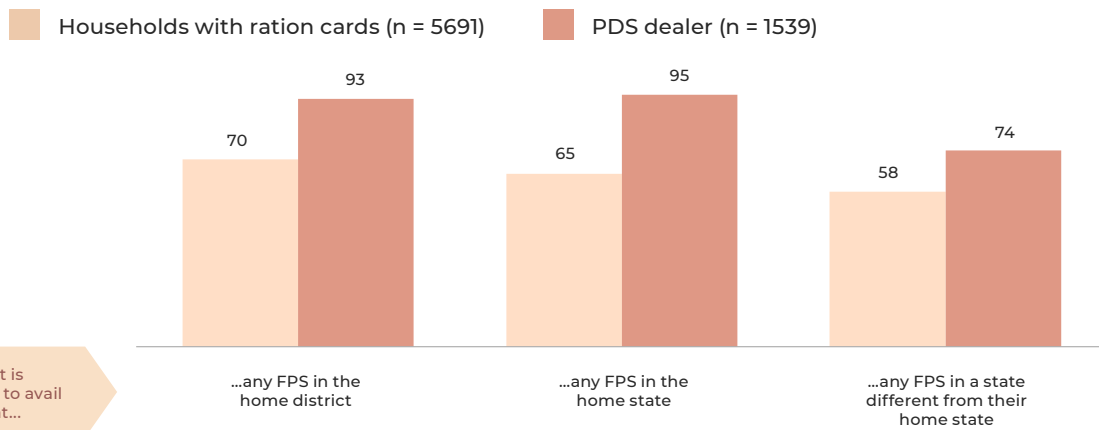
3.1 | Awareness of ONORC

A majority of households with ration cards were aware of portability, however some beneficiaries who wanted the benefits of portability did not know it existed.

- 48% ration card holding households were fully aware of portability;²⁶ an additional 31% were partially aware.²⁷
- At least 20% of households who had not used portability, but wanted to, *did not know* that they could.^{28,29}

Figure 6:
Awareness of portability among households and PDS dealers

Where ration card holders and PDS dealers believed rations can be availed^{a, b}
 % of households with ration cards and % of PDS dealers | August 2021



Note: (a) We tested for ration card holders' and PDS dealers' understanding of where they can avail rations for each of three portability scenarios – intra-district, intra-state, and inter-state – separately through a series of true and false questions. Therefore, the percentages may add up to be more than 100; (b) Respondents who said they 'don't know' if they (PDS dealers were asked about ration card holders in general) can avail rations from another FPS have been counted as those who believed it was not possible to avail rations at another FPS.

26 Refers to respondents from households who knew that intra-district, inter-district and inter-state ration portability is possible.
 27 Refers to respondents from households who believed that at least one, but not all, of the provisions of intra-district, inter-district and inter-state ration portability are possible.
 28 Refers to those households who were unaware that intra-district, inter-district and inter-state portability is possible.
 29 For respondents who did not know about portability, our enumerators briefly explained what portability is to respondents before seeking their response to whether their household would be interested in availing their rations under portability.

3.2 | Prerequisites for using ONORC: Correct ration cards, seeded with Aadhaar

Aadhaar seeding of ration cards was near universal; a small seeding gap remained.

- 2% of beneficiaries were yet to seed their ration card with Aadhaar.
 - ▷ Half of them (51%) had tried seeding but failed – mostly due to mismatches in ID -related documentation.³⁰
 - ▷ Over 95% of unseeded beneficiaries in the five study states were concentrated in Jharkhand and Rajasthan alone; 50% of these unseeded beneficiaries were concentrated in 15 districts (out of 57 total) across the two states.

Updating ration cards was tedious.

- 24% of households wanted to update their ration card (e.g., to add new members or correct important details) in order to avail the rightful quantity of rations and complete authentication.³¹
 - ▷ More than half of these households (55%) had not yet applied for the update, primarily because they felt overwhelmed or unable to compile all necessary documents.

³⁰ E.g., differences between information on the ration card and the Aadhaar card.

³¹ Not being able to update personal details or mobile numbers on a ration card can prevent a household from availing their rations, such as when using Aadhaar based OTP to authenticate a transaction at an FPS. For PHH ration card holders, the quantity of rations issued is dependent on the number of household members listed on the ration card.

3.3 | Portability Uptake

Ration portability has already been used by many.

- In the month before the survey, 12% of households with ration cards went to a fair price shop to which they were not registered;³² they averaged 2 visits per month.
 - ▷ 58% of these households reported having a good experience when attempting to avail rations under portability.
 - ▷ Most (56%) of the households who tried portability were non-migrant households, exercising their ability to choose across Fair Price Shops.



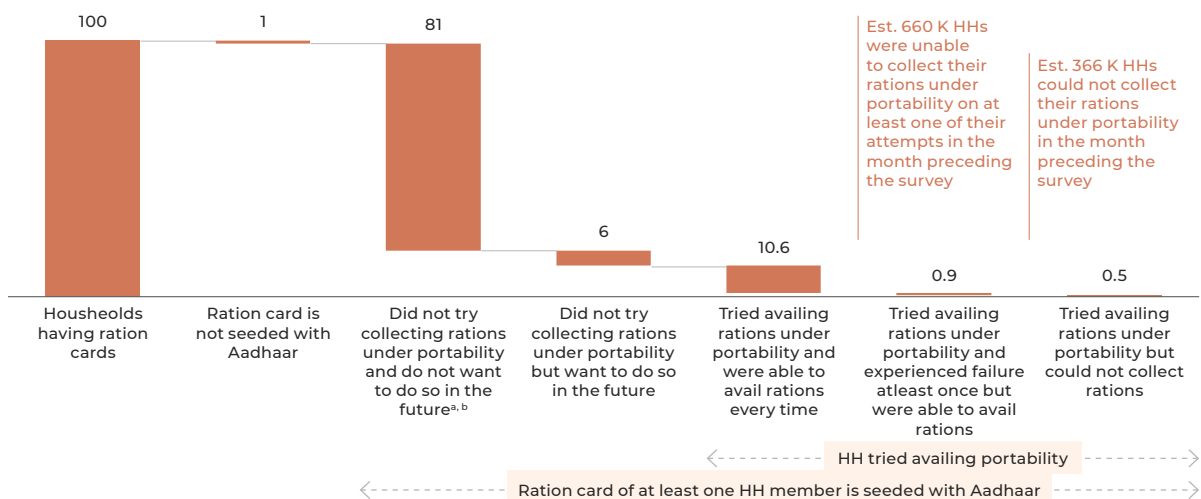
For the last 2 years, I have been collecting rations from a different FPS than where I was registered. My previous FPS was far from my home, and I had to take a day off work to go collect rations. The FPS I now go to is on my way back from work and I can collect rations easily – it has been immensely helpful.

- Male Hospitality Worker, 52, Non-migrant beneficiary, Rajasthan

- 14% of households with ration cards wanted to use portability in the future.³³
 - ▷ 6% were households that had not tried using portability in the month preceding the survey, but wanted to do so in the future. The remainder (8%) were households that had tried using portability recently, and wanted to do so again in the future.

Figure 7:
Overview of households' success and failure in collecting rations under portability

Drop-offs in ability to collect rations under portability in the last month
N = 5691 | % of households having ration cards | August 2021



Note: (a) Includes those respondents who did not know how many times they or a member of their household had visited an FPS other than the one registered to in the month preceding the survey; (b) Includes those respondents who had not availed of portability and were unsure if they wanted to do so in the future

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

32 Refers to households who reported visiting a Fair Price Shop other than the one to which they were registered at least once in the month preceding the survey.

33 Since many households had not yet experienced portability or were not aware of it, the potential for adoption of portability may be higher than 14%.

3.4 | Success and Failure Rates

Most households that tried availing rations under portability were successful.

- 88% of those households that tried to use portability recently succeeded in collecting their rations every time.³⁴

Households that tried availing rations under portability experienced 1.3x as many transaction failures and 4x as many denials as others.

- 12% of households that tried to collect rations using portability experienced a transaction failure at least once in the month preceding the survey (compared to 9% of households who tried to collect their rations under PDS in general).
- 4% of households that tried to collect rations using portability could not get their food at all under portability that month³⁵ (compared to 1% of households that availed rations under PDS in general).

Technology problems, such as poor connectivity or challenges in biometric authentication, and PDS dealers' concerns about running out of stocks were the main reasons why households experienced transaction failures under portability.³⁶

- 66% of PDS dealers reported receiving portability customers in the month preceding the survey.
- 18% of PDS dealers (i.e., 28% of those who received portability customers) reported they were unable to serve one or more portability customers in the month preceding the survey. We asked them why:
 - ▷ 59% of them cited biometric authentication or device failure and 57% cited poor connectivity as the reason for turning away portability customers. (Overall, 76% of dealers who could not serve portability customers counted technology failures among the reasons).^{37,38}
 - ▷ 32% of them said they ran out of stocks or feared that they would run out.



If the fingerprint does not work, there is no other way to issue rations...it often happens with aged people. While not everyone had their phone number registered, previously OTP used to be an option. But for the past 3-4 months the option has stopped appearing in the ePoS device altogether. This is the case for all other dealers I spoke to.

- PDS Dealer, Uttar Pradesh

³⁴ Refers to collection attempts made in the month preceding the survey.

³⁵ In the month preceding the survey. The survey was conducted between 20 August 2021 and 20 September 2021.

³⁶ The National Food Security Act (NFSA) guarantees that rations cannot be denied in case of technology or biometric authentication-related failures and includes provisions for issuing rations offline in such cases. This also extends to ONORC. However, no clear guidelines have been instituted yet for providing rations to portability customers when Aadhaar enabled authentication cannot be completed. Ali, Sana. Indian government's food security programme will have the same problems as Aadhaar, IndiaSpend, 2019.

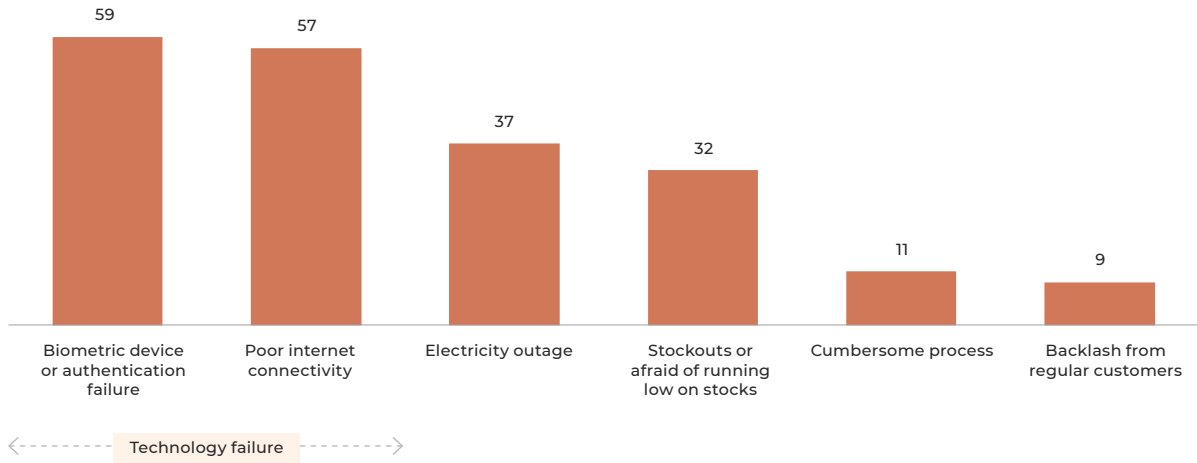
³⁷ Biometric authentication failure includes failure of Aadhaar based authentication as well as failure due to ePoS malfunction.

³⁸ PDS dealers could choose multiple reasons why they were unable to issue rations to beneficiaries under portability. 76% is the aggregate percentage of those dealers who cited one of the reasons for technology failure (poor connectivity, ePoS malfunction or authentication failure) at least once.

Figure 8: Reasons for denial of service

Reasons cited by PDS dealers for not serving portability customers^{a, b}

N = 252 | % of PDS dealers unable to serve some or all portability customers who visited their FPS | August 2021



Note: (a) Respondents could provide more than one response and therefore the percentages may add up to be more than 100; (b) Additionally, 6% of the PDS dealers who were unable to serve ration card holders who visited their FPS to avail rations under portability said they believed that portability was "not allowed"

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

3.5 | Vulnerable Segments

A key aim for ONORC was to facilitate easier access to food for vulnerable groups. It was intended to let migrants and other vulnerable groups avail their rations when they couldn't do so previously. Evidence suggests that these objectives have been met partially thus far.

3.5.1 | Migrants

Portability uptake among migrant households was 2x that of non-migrant households.

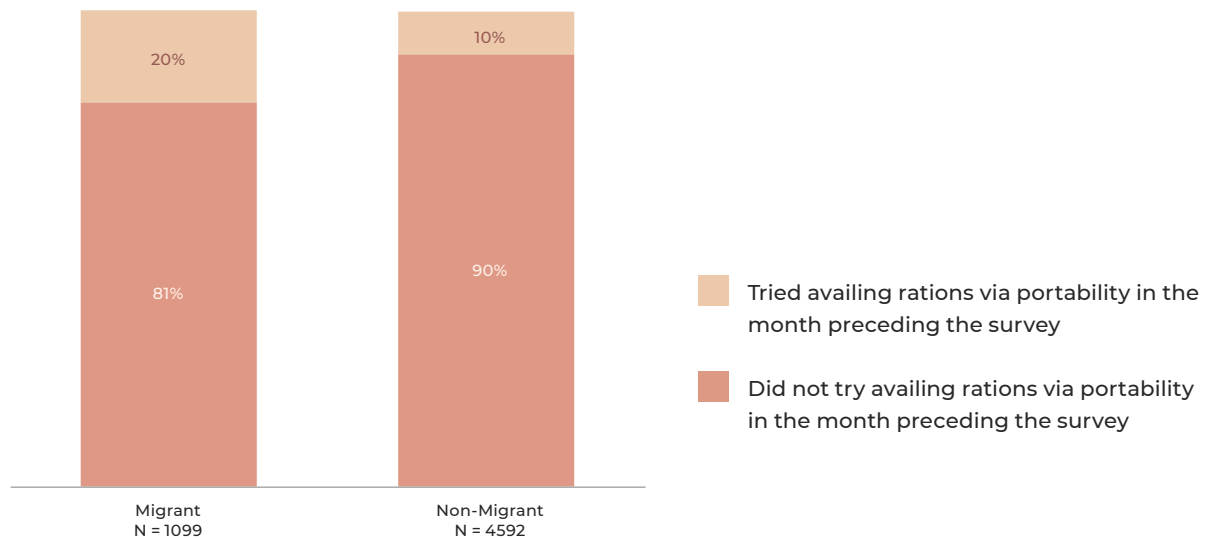
- 20% of migrant households with ration cards tried using portability to access their rations in the month preceding the survey (compared to 9% for non-migrant households).
 - ▷ 70% of these migrant households reported having a good experience. Another 22% reported their experience was neither good nor bad.

Figure 9:

Portability uptake among migrant and non-migrant households

Uptake of portability^a

N = 5691 | % of households having ration cards | August 2021



Note: (a): Percentages have been rounded; the sum may not add up to 100

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

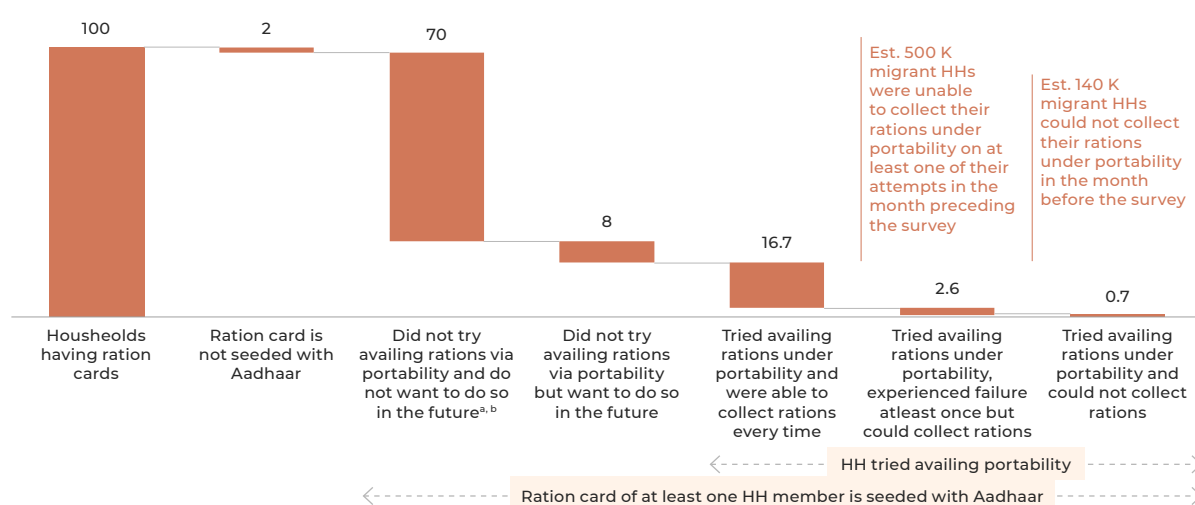
- 24% of migrant households with ration cards said they want to use portability in the future.
- The majority (72%) of migrant households who had tried using portability recently wanted to use it again.

Migrant households who used portability experienced denials at a rate similar to that for portability users overall.

- 17% of migrant households with ration cards who attempted to collect rations via portability in the month preceding the survey experienced transaction failures.
- 3% of all migrant households that tried to use it were unable to collect their rations under portability that month.

Figure 10:
Overview of migrant households' success and failure in Collecting rations under portability

Drop-offs in ability to collect rations under portability in the last month
 N = 1099 | % of migrant households having ration cards | August 2021



Note: (a) Includes respondents who did not know how many times they or a member of their household had visited an FPS other than the one registered to in the month preceding the survey; (b) Includes respondents who had not availed of portability and were unsure if they wanted to do so in the future

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

3.5.2 | Other Marginalised and Vulnerable Groups

While we did not find significant differences in the experience of using portability by gender overall or by major social category, our study indicates marginalized women faced steeper barriers when trying to avail rations in PDS, especially via portability.³⁹

Marginalized women were particularly affected by the difficulties in getting and updating ration cards.

- 13% of marginalized women said they or a member of their household wanted to obtain a new ration card. For recently separated or divorced women, getting a new ration card was crucial as they constituted a new household. However, they found it difficult to provide the required documentation (e.g., proof of separation from husband).⁴⁰ This puts them at a higher risk of exclusion from PDS.

³⁹ We define marginalized women based on marital status. Women who were widowed, divorced or separated at the time of the survey were included in this category.

⁴⁰ The New Indian Express. Single women now 'family' in TN, to avail ration cards, 27th Oct 2021.

- Fewer marginalized women indicated that they or their household wanted to make modifications to their ration card compared to other respondents (15% compared to 24%). However, when they do need to modify their ration cards, marginalized women face greater difficulties in updating ration cards due to complex documentation requirements.⁴¹

A greater share of households with marginalized women wanted to use portability compared to other households; many did not know that they could.

- 18% of marginalized women said that their household wanted to use portability (compared to 14% of households overall).⁴²
 - ▷ However, 31% of these women who had not availed of portability in the month preceding the survey, were not aware that they could already do so (compared to 19% among other respondents).⁴³

3.5.3 | Low-income Households without Ration Cards

- 77% of low-income households that didn't have a ration card wanted to enroll in PDS.⁴⁴ Many of them were unable to apply for a ration card and remained excluded from the scheme for multiple reasons:
 - ▷ 36% of them reported that they did not have the necessary documents.
 - ▷ 25% of them had problems with their Aadhaar authentication.

41 Ibid

42 Only households with ration cards were included in the analysis.

43 This finding is reported at the individual level and not at the level of the household. Findings pertaining to awareness included earlier in the report are for the household.

44 NFSA coverage is based on the socio-economic caste census of 2011. Low-income households that are not included on the list are not covered by NFSA. Dreze et al estimates the number of beneficiaries not covered by the scheme to be 100 million nationwide (refer bibliography for details of the study).

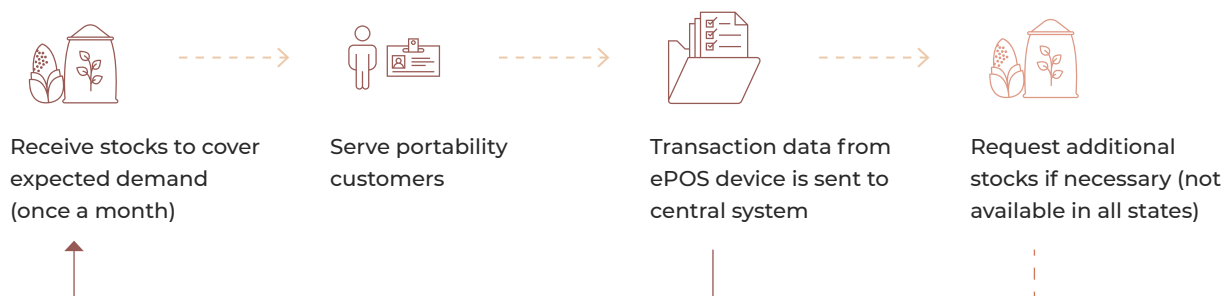
3.6 | Understanding the Experience of PDS dealers with ONORC

Prior to ONORC's launch, Fair Price Shops served a fixed base of ration card holders. Under ONORC, ration card holders can choose where to avail their rations, which creates competition and fluctuations in demand for PDS dealers. These were new phenomena for PDS dealers, and we wanted to understand their experience of issuing rations under ONORC as well as the broader impact on their business model.

Figure 11:

Overview of stock reconciliation for fluctuating demand under portability for a PDS dealer⁴⁵

Managing fluctuating demand for portability transactions: PDS dealer point of view



Source: Department of Food and Public Distribution, Government of India

PDS dealers were largely aware of portability, but many thought interstate portability was not allowed.

- 97% of PDS dealers knew of portability, i.e., they believed that portability in at least one of the following scenarios was possible - within the home district, within the home state, or outside the home state.
- 94% of PDS dealers knew that beneficiaries could withdraw rations at any FPS in their home state.
- Fewer (73%) of PDS dealers knew that beneficiaries could withdraw rations outside their home state.

When transactions failed, about half of PDS dealers did not use exception handling mechanisms, often because of information gaps.⁴⁶

- 52% of PDS dealers did not apply alternative methods when biometric authentication could not be completed successfully.
- Among those who used exception handling, the most commonly used mechanism was generating a one-time password (OTP) on the beneficiary's mobile phone (74% of PDS dealers who used exception handling).

⁴⁵ Public documents available on the Department of Food and Public Distribution website. <https://dfpd.gov.in/>.

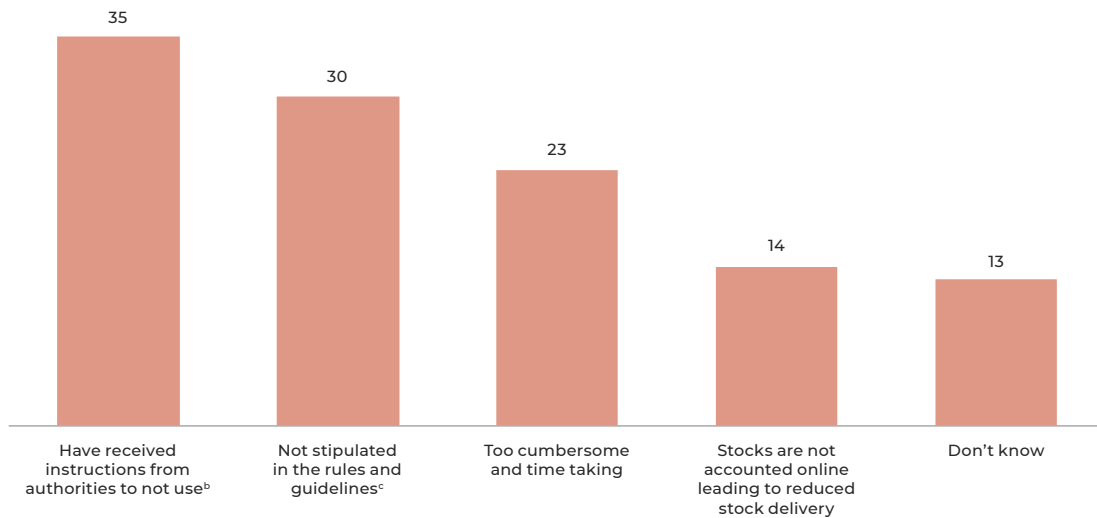
⁴⁶ For portability transactions, only one-time passwords (OTPs) which require Aadhaar linkage are available for exception handling; most states are yet to define clear rules and guidelines for dealers to follow if authentication fails during portability transactions. For non-portability transactions, other options - including offline mechanisms - may also be available in other states.

Figure 12:

Barriers to adoption of exception handling mechanisms by dealers

Reasons cited by PDS dealers for not using exception handling^a

N = 770 | % of PDS dealers who do not use an exception handling mechanism | August 2021



Note: (a) Respondents could provide more than one response and therefore the percentages may add up to be more than 100; (b) No official communication from state governments to not use exception handling have been issued. It is possible that government thrust to use ePoS-based authentication was misinterpreted by dealers; (c) Some states might have issued rules and guidelines for exception handling, however, dealers do not have adequate information about them

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.



There is no bypass or manual entry process to issue rations if there is no online authentication. If the customer's fingerprint fails three times, I try OTP, and if that also does not work or the customer doesn't have their phone or SIM card, as often happens with elderly, I am unable to issue their rations.

- PDS Dealer, Rajasthan

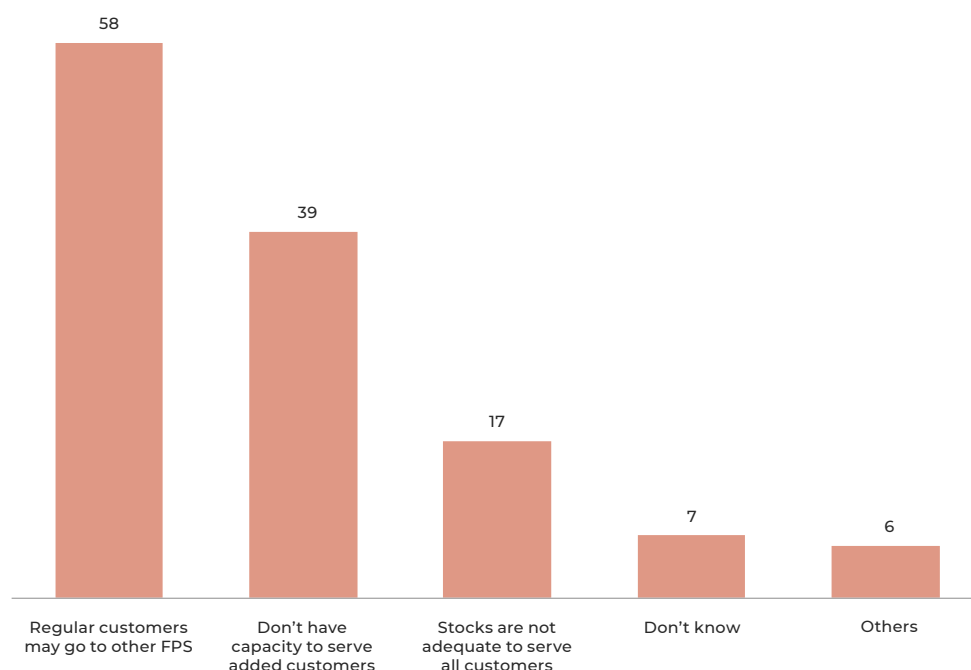
Many PDS dealers struggled with fluctuating demand because stock availability did not keep up.

- 32% of PDS dealers believed their business model was not consistently viable under portability, mostly because they feared losing customers or didn't have the capacity to handle demand surges.⁴⁷

⁴⁷ 13% of PDS dealers said that their business model under portability is unviable. Another 19% suggested that their business model is not always viable, and it varies month-to-month under portability.

Figure 13:
PDS dealers' concerns about serving portability customers

Reasons cited by PDS dealers for business model being unviable under portability^a
 N = 534 | % of PDS dealers who feel their business model is unviable | August 2021

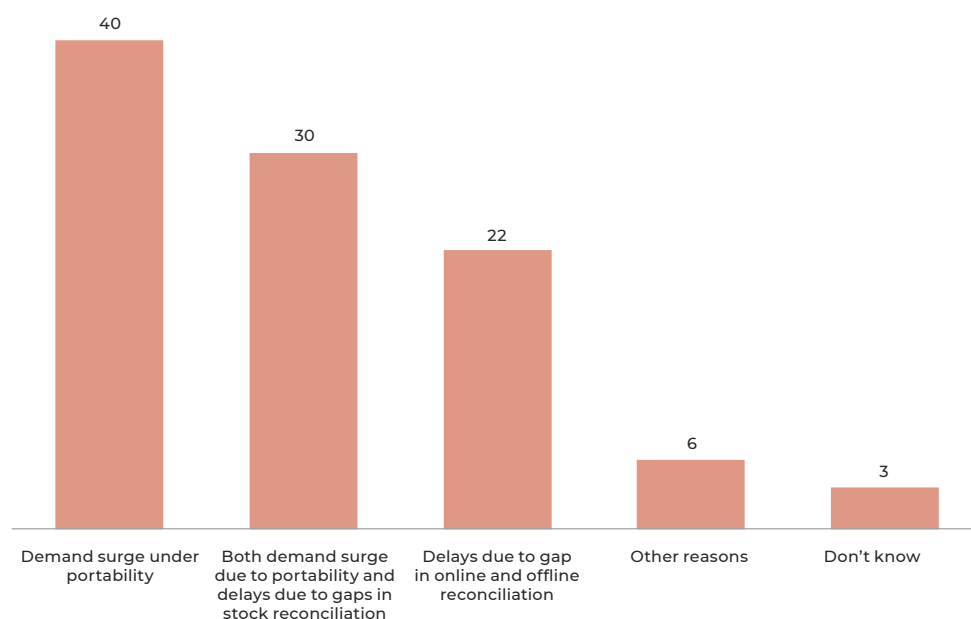


Note: (a) Respondents could provide more than one response and therefore the percentages may add up to be more than 100
 Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

- 10% of PDS dealers ran out of stocks at least once in the last three months, and 3% ran out in all 3 months; most cited issues related to portability.

Figure 14:
Reasons reported by dealers for running out of stocks

PDS dealers reporting on reasons why they ran out of stocks^a
 N = 179 | % of PDS dealers who reported stockouts in the past 3 months | August 2021



Note: (a) Percentages have been rounded; the sum may not add up to 100
 Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.



Portability is a good thing since I can earn more commission with more customers. The system is not bad...but if a portability customer comes before my regular customers, I may not have enough rations to serve my regular customers. I receive stocks once in three months and since I cannot request additional stocks, there is no benefit since I cannot serve all customers.

- PDS Dealer, Rajasthan

Figure 15:
Key barriers to accessing portability

Key touchpoints



Comparison of ONORC Rollout Among Study States

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4 | Comparison of ONORC Rollout among Study States

The experience of availing rations under portability – awareness, uptake, as well as failure – varied significantly within and across the study states. While sampling limitations did not allow us to understand the drivers of these variations in depth at the individual state level, below we highlight key state level differences.

Andhra Pradesh launched ONORC early and has seen higher uptake relative to other study states, however, failure rates remained high.

- 19% of households with ration cards in Andhra Pradesh went to a fair price shop they were not registered to recently (highest across the study states).
- 26% of households with ration cards that tried to avail rations under portability experienced a transaction failure at least once (highest among our study states). 6.6% of households that tried to collect rations using portability could not get their food at all under portability in the month preceding the survey.

For Jharkhand, poor awareness limited the uptake of portability.

- 29% of households with ration cards in Jharkhand did not know that they could avail rations at any FPS in the country (highest among the study states).
- Only 1% of households with ration cards went to a fair price shop they were not registered to (lowest among the study states).
- Jharkhand had the highest proportion of households with ration cards that had not tried portability but wanted to avail of it (15%).

Karnataka had the highest number of PDS dealers who reported receiving a ration card holder wanting to use portability. Its failure rate is similar to that of other states.

- 81% PDS dealers in Karnataka reported receiving a ration card holder trying to avail rations under portability.
- 12% of households with ration cards in Karnataka went to a fair price shop they were not registered to recently.
- 11% of households that tried to avail rations under portability experienced failure at least once. 4% of households that tried to collect rations using portability could not get their food at all under portability in the month preceding the survey.

Rajasthan had relatively low uptake of portability but experienced a high failure rate. More dealers in Rajasthan were aware of portability than in other states.

- 7% of households with ration cards in Rajasthan went to a fair price shop they were not registered to recently.
- 14% of households that tried to avail rations under portability experienced failure at least once. 7% of households that tried to collect rations using portability could not get their food at all under portability in the month preceding the survey.

- 89% of PDS dealers were completely aware of portability (highest among study states).⁴⁸

Uttar Pradesh had the lowest rate of failure for attempts to collect rations under portability, but accounted for the largest number of households unable to collect rations.

- 8% of households with ration cards in Uttar Pradesh that tried to avail rations under portability experienced failure at least once. 3% of households (an estimated 170, 000 households) that tried to collect rations using portability could not get their food at all under portability in the month preceding the survey.

Table 2:
State wise variation in uptake of portability and success rates

| Description | AP | JH | KA | RJ | UP |
|---|----|-----|----|----|----|
| Awareness | | | | | |
| % of households with ration cards who were partially or completely aware of portability | 92 | 71 | 81 | 71 | 78 |
| Usage of portability | | | | | |
| % of households with ration cards who tried availing rations using portability in the last month ^a | 19 | 1 | 12 | 7 | 14 |
| Failure to avail rations under portability | | | | | |
| % of households that tried using portability who experienced failure at least once ^b | 26 | NA* | 11 | 14 | 8 |
| % of households that tried using portability who were altogether unable to collect their rations under portability ^b | 7 | NA* | 4 | 7 | 3 |

Note:

* The sample size was too small to report.

(a) The month preceding the conduction of the survey. The survey was conducted between 20 August 2021 and 20 September 2021.

(b) Refers to households with ration cards who were unable to collect their rations under portability on at least one of their visits to an FPS other than the one where their ration card was registered in the month preceding that of the survey

(c) Refers to households with ration cards who were unable to collect their rations under portability during any of their visits to an FPS other than the one where their ration card was registered in the month preceding that of the survey.

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

48 Completely aware refers to dealers or beneficiaries who believed that households with ration cards can avail their rations at any FPS where they are not registered in their home district, in a different district within their home state, as well as outside their home state. Partially aware refers to respondents from households who believed that at least one, but not all, of the provisions of intra-district, inter-district and inter-state ration portability are possible.

Table 3:

State wise variation in uptake and denial of service for non portability transactions

| Description | AP | JH | KA | RJ | UP |
|---|----|----|----|----------------|----|
| Usage of PDS | | | | | |
| % of households who visited an FPS to avail rations in the last month | 99 | 98 | 98 | 88 | 99 |
| Failure to avail rations (PDS overall) | | | | | |
| % of households who experienced failure at least once in the last month ^a | 15 | 10 | 13 | 9 | 4 |
| % of households who experienced failure and were unable to collect rations at all in the last month | 1 | 1 | 1 | 4 ^b | 0 |

Note:

(a) Includes households that were able to obtain rations in the month despite experiencing failure. (b) Higher than average share of households experiencing failure in Rajasthan (58%) cited dealer denying them service as the reason for being unsuccessful. Sampling limitations did not allow us to investigate this further.

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

Table 4:

State wise variation in supply side readiness and perspectives on portability

| Description | AP | JH | KA | RJ | UP |
|---|----|----|----|----|----|
| % of PDS dealers at least partially aware of portability ^a | 74 | 65 | 70 | 89 | 62 |
| % of PDS dealers who received ration card holders trying to avail rations under portability | 74 | 21 | 81 | 69 | 73 |
| % of PDS dealers who were unable to serve at least one of the ration card holders trying to avail portability | 24 | 11 | 23 | 17 | 17 |
| % of these dealers who cited biometric authentication failure for being unable to serve some ration card holders under portability | 74 | 35 | 59 | 23 | 65 |
| % of these dealers who cited poor internet connectivity for being unable to serve some ration card holders under portability | 45 | 48 | 44 | 24 | 81 |
| % of these dealers who cited fear of stockouts or fear of stockouts for being unable to serve some ration card holder under portability | 36 | 50 | 35 | 63 | 14 |
| % of PDS dealers who said their business model is unviable under portability | 43 | 23 | 25 | 47 | 26 |

Note: (a) Data for all states except Andhra Pradesh is sourced from the National Food Security Portal maintained by DFPD; data for Andhra Pradesh is sourced from the AePDS dashboard maintained by the Government of Andhra Pradesh; (2) Refers to those dealers who reported believing that intra-district, inter-district and inter-state portability is possible

Source: Dalberg analysis of survey results from the study of 6,750 low-income households and 1,540 PDS dealers across 5 states in India. The data was collected between 20 August 2021 and 20 September 2021.

Key Recommendations

5.

5 | Key Recommendations

5.1 Increase awareness of portability

- Inform beneficiaries about the availability of portability through their preferred channels: PDS dealers and news media.
- Support general efforts with focused awareness campaigns for high-priority groups, such as migrant construction workers and marginalized women.
- An estimated 880,000 households expressed a desire to use portability but did not know they could access it. Raising awareness could unlock benefits for them.
- In addition: clearly inform PDS dealers about the possibility of inter-state portability.

5.2 Improve portability for beneficiaries

Improve connectivity for FPS

- Upgrade technology in FPS to ensure better connectivity. E.g., ensure that all ePoS devices are 4G-enabled or extend high-speed connectivity to FPS.
- This could help up to 210,000 households per month who experience transaction failures due to poor connectivity when attempting to collect rations under portability. It could support 1.3 million households per month that experience poor connectivity under PDS in general.

Implement exception handling for portability transactions when biometric authentication doesn't work

- State governments could consider developing and notifying clear rules for providing rations to portability customers when poor connectivity or authentication errors lead to failed attempts to collect rations. The Union government could provide support by developing model rules.
- Once the rules are notified, raise awareness of PDS dealers and beneficiaries to ensure that all parties know how exception handling works.
- This could help up to 240,000 households per month who could not access their rations at all using portability. It could support 650,000 households per month that could not get their food at all when availing rations under PDS overall.⁴⁹

Ensure that ration cards are issued, updated and seeded, especially for vulnerable groups

- Close the remaining seeding gap through seeding camps and targeted seeding drives at FPS, focused on districts with the largest gaps.
- Simplify procedures to update or correct ration cards.
- Prioritize issuing ration cards for vulnerable women; simplify procedures and reduce the documentation burden for them.

⁴⁹ This includes households that visited their registered FPS as well as those who used portability.

5.3 Improve portability for PDS dealers

Allow flexible stock requisition for PDS dealers

- Implement a system to let PDS dealers requisition additional stocks when they run low, so that they can meet fluctuating demand. Andhra Pradesh has implemented such a model, which can offer learnings for other states.
- Improve demand planning by using data analytics to detect patterns and shifts in portability uptake and to predict demand more accurately. This could help better manage procurement, allocation, storage, and distribution of rations.
- Together, these measures could improve availability of rations and reduce PDS dealers' fear of stockouts, which is currently an important deterrent to serving portability customers.

In Conclusion

ONORC has the potential to offer several benefits for ration card holders. By offering the choice to access rations from any FPS in the country, this initiative can solve critical food security challenges for migrants who are often deprived of their rations. It can further empower everyday PDS users, i.e. non-migrants, by providing a choice of FPS, so that they may avoid stockouts or discrimination in availing rations from their registered FPS. On the supply side, ONORC can unlock efficiencies, such as through digitization of supply chains that can transform PDS overall.

While the potential is big, critical gaps remain to be addressed. These include the lack of beneficiary and dealer awareness on how ONORC works, biometric authentication failures, lack of clear offline exception handling guidelines, and inadequate backend systems to manage the dynamic demand introduced by portability. Bridging these gaps can bring food security for millions in the country and help ONORC deliver on its ambitious promise.

While our study is one of the first comprehensive, large-scale studies on ONORC since its launch two years ago, further research is necessary to study its impact more broadly. Below are some areas that could benefit from further research:

- Unpacking the experience of availing rations under ONORC and PDS in general for inter-state migrants along key migration corridors (e.g., Bihar-Delhi), in source as well as destination states.
- Tracking the uptake of ONORC over time in urban and rural areas, especially those close to migration hotspots.
- State-specific drivers of transaction failures under portability (and broader PDS).
- Experiences of vulnerable groups (e.g., people who are homeless or identify as third gender) or specific categories of migrant workers (e.g., those who belong to split households) and how their food security is impacted by ONORC.
- FPS dealers' incentives and behavior around implementation of ONORC and exception handling mechanisms.
- Widening the scope of ONORC to better tackle intersectional issues such as those around health and nutrition, choice of food palette across states to make it even more transformative.
- Lessons ONORC can offer to other social protection schemes in the country.

Abbreviations and Glossary

| Abbreviations | |
|---------------|----------------------------|
| AP | Andhra Pradesh |
| ePoS | Electronic Point of Sale |
| FPS | Fair Price Shop |
| HH | Household |
| JH | Jharkhand |
| KA | Karnataka |
| NFSA | National Food Security Act |
| ONORC | One Nation One Ration Card |
| PDS | Public Distribution System |
| RJ | Rajasthan |
| UP | Uttar Pradesh |

| Glossary of Terms | |
|---------------------------------|---|
| Aadhaar seeding | Linking of a beneficiary's Aadhaar card details with their ration card. |
| Beneficiary | An individual belonging to a household that possessed a valid ration card. |
| Beneficiary households | Households who possessed a valid ration card. |
| Biometric authentication | Mode of verifying a beneficiary that requires matching their biometrics (fingerprints or iris scan) captured at the Fair Price Shop with their biometric records linked to their Aadhaar card and stored by Unique Identification Authority of India (UIDAI). |
| Denial of rations | Household was unable to collect their food entitlement during any of their visits to the ration shop in the month preceding the survey. In other words, the household did not receive their rations in the month. |
| Exception handling | Alternate mechanisms or processes that allow a PDS dealer to issue rations to a beneficiary if a transaction cannot be executed through default biometric authentication (i.e., fingerprint and/ or iris scan). This includes online mechanisms such as using Aadhaar based OTP to issue rations, as well as offline steps that might be developed and notified by the state governments. |

Glossary of Terms

| | |
|---------------------------------|---|
| Failure to avail rations | Household was unable to collect their rations in at least one of their visits to a ration shop in the month preceding the survey, but might have made subsequent visits (to the same or different FPS) to avail their rations. They may or may not have succeeded in availing their rations during subsequent visits. |
| Fair Price Shop | A Fair Price Shop (FPS) is an outlet licensed to distribute essential commodities to ration card holders under the Public Distribution System. |
| Low-income household | Households with a monthly income less than INR 30,000. This is different from the criteria established to issue ration cards under NFSA since we wanted to be sure to include non-beneficiary households that might have a need for PDS rations in our study. |
| Marginalized women | For the purpose of this study, we have defined marginalized women as women from low income households who are either divorced, widowed, or separated. |
| Migrant | <p>Individuals who had lived for a period exceeding 1 month away from their place of permanent residence in at least one of the following years: 2021, 2020 or 2019. This differs from definitions used by previous pan India surveys (different surveys such as NSSO 2007-08 and Census 2011 have used different definitions).</p> <p>We adopted this definition to account for households that might benefit from portability even in the short term (e.g., seasonal workers), and also respondents who might have returned home during the Covid pandemic but might still benefit from the scheme.</p> |
| Migrant household | A household in which at least one member is a migrant (see above). ⁵⁰ |
| PDS dealer | A PDS dealer is an individual licensed to distribute essential commodities through a Fair Price Shop under the Public Distribution System or the representative of such a licensee (e.g., a co-operative) who operates the shop. |
| Portability | Under nationwide portability of ration, households covered under NFSA can avail subsidized food grains from any fair price shop (FPS) of their choice in the country if their ration card is seeded with Aadhaar details of at least one member of the household. |
| Ration card | A ration card is the official document issued by the respective state governments that enables eligible households to buy food grains at subsidized rates under the Public Distribution Scheme. The document also serves as a common form of identification for many individuals. |
| Ration card holder | Any individual who is part of a household that has a valid ration card and is listed on that ration card. |
| Transaction failure | Same as 'Failure to avail rations' defined above. The terms have been used interchangeably. |

50 89% of migrant households under our broad definition had at least one member living away from their permanent residence at the time of our survey.

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