

Impact of Aadhaar in Welfare Programmes

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A little learning is a dangerous thing;
drink deep, or taste not the Pierian spring:
there shallow draughts intoxicate the brain,
and drinking largely sobers us again.

Alexander Pope (1709)

Pope aptly describes the origins and evolution of the Unique Identity (UID) project (widely known as “Aadhaar”), that was initiated to provide each resident of India a unique number linked to his or her biometrics. Among other things, it was meant to lead to greater inclusion into welfare programmes, reduce corruption in them and remove middlemen from the delivery mechanism.

Earlier work suggests that the government’s stated purpose of using Aadhaar in welfare programmes was unlikely to be fulfilled. Based on evidence of the *source* of corruption in programmes such as the National Rural Employment Guarantee Act (NREGA), Public Distribution System (PDS), Social Security Pensions (SSP) etc., and the proposed use of UID in them, Khera (2011) concludes that - *a priori* - there is a very limited role for Aadhaar in improving their implementation.

The government, however, continued to push for Aadhaar-integration in these programmes. This paper looks at the impact of this Aadhaar-integration primarily in NREGA, PDS and SSP. The case of the Liquefied Petroleum Gas (LPG) subsidy and the proposed application of Aadhaar in the Mid-Day Meal (MDM) scheme are also briefly discussed.

This paper relies on a variety of evidence: quantitative data from primary field studies, secondary data from government portals, figures obtained through queries made under the Right to Information (RTI) Act, and responses to questions in Parliament. Besides this, news reports are used to highlight emerging issues for which data is currently not available.

What emerges is as follows: one, the extent of corruption in these programmes varies, but even where it is high, there has been a decline predating Aadhaar-integration (e.g., NREGA and PDS). Two, Aadhaar-integration cannot solve the major forms of corruption that continue (primarily ‘quantity fraud’). Three, far from improving the implementation of these programmes, there are signs of Aadhaar-integration causing serious damage. Four, based on their own data, the government’s savings estimates due to Aadhaar-integration are highly questionable.

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In a nutshell, the gains are limited and tentative whereas the damage is certain and possibly substantial. Given this, the government's decision to make Aadhaar mandatory for a range of welfare programmes is cause for alarm. The 'right to privacy' challenge to the Aadhaar project has received a lot of attention, but the 'right to life' challenge to it has thus far not been adequately highlighted. This paper attempts to fill that gap.

Background

Lack of an ID¹

The proponents of the UID project claimed that a large number of Indians were denied welfare benefits because people did not have any identity documents. This assertion, not really supported with evidence, provided the initial justification for the project.² If, as the government claimed, the coverage of existing forms of ID was incomplete, then those existing databases should have been expanded to ensure wider coverage. This was rejected on the grounds that existing databases were seriously flawed.

The Unique Identification Authority of India (UIDAI) was set up to organize enrolment and generation of Aadhaar numbers. Apart from the National Population Register (NPR), there are two ways of enrolling for an Aadhaar number from the UIDAI directly. One, using a proof of ID and a proof of address from a list of options drawn up by the UIDAI.³ It includes passports, ration cards, voter IDs, etc. Two, using the 'introducer' system. This was set up keeping in mind people who were lacking in pre-existing IDs (Khera 2015).

According to a response to a Right to Information (RTI) query in 2016, only 0.03% of Aadhaar numbers were issued through the introducer system. The rest were issued to those who submitted two IDs or through the NPR, raising questions about their earliest assertions and the basic premise of the Aadhaar project.

Having rejected existing IDs as error-ridden, UIDAI used those very flawed IDs to enrol for Aadhaar. This circularity has gone largely unnoticed. It has serious implications for the reliability of the Aadhaar database.⁴ Independent of biometric data (fingerprint, photograph and iris scans), the accuracy of demographic data (e.g., name, date of birth etc.) in the Aadhaar database is especially important now as it is becoming the basis for claiming benefits. There has been no independent audit of the database, so we do not know to what extent there are errors, but media reports have routinely highlighted them.

¹ This section draws on Khera (2015) with minor updates.

² See Indian Express (2014), for instance. Low rates of birth registration would be mentioned in passing, but according to the Civil Registration System data (Government of India 2017e), in 2009 just over 80% of births of children under five were registered. According to National Family Health Survey data the corresponding figure for 2015-16 is 80% (Government of India 2017d).

³ The full list includes the documents that can be produced for children (Government of India, undated).

⁴ On 19 March, 2015, in Rajya Sabha it was stated that 'more than 9 crore enrolment packets have been rejected so far, that did not meet the quality and de-duplication criteria', due to suspected fraud, duplication etc. (Government of India 2015).

In addition to claiming that Indians lacked IDs, promoters of UID succeeded in creating the impression that Aadhaar would guarantee access to benefits, bringing an end to the 'mai-baap sarkar' culture and enabling people to assert their rights vis-à-vis state structures. Here again, the UIDAI was misinformed. Exclusion is largely the result of a weak 'targeting' mechanism (identification of the poor) and the imposition of stringent caps on coverage (arising from budgetary constraints).⁵ For instance, in the PDS, statewide central commitment was fixed at the poverty rate estimated using National Sample Survey (NSS) data from 1993-4 until the passage of the National Food Security Act (NFSA) in 2013. Caps were applied in several schemes (e.g., pensions, housing). The possession of an additional ID cannot solve the problem of exclusion, unless these caps are relaxed or identification methods improve. Instead, as shown below, Aadhaar is slowly becoming a tool of exclusion, the last hurdle after all the prior eligibility hurdles have been crossed. For some people, enrolling for Aadhaar has also not been an easy exercise (Caribou Digital 2017).

Corruption⁶

Another justification for the Aadhaar project was its purported role in reducing corruption in welfare programmes such as NREGA, PDS and pensions. Fraud in these programmes can be broadly categorized as 'eligibility fraud', 'identity fraud' and 'quantity fraud'.

'Eligibility fraud' refers to persons who do not meet the eligibility criteria managing to get themselves included, e.g., by presenting fudged supporting documents. 'Quantity fraud' takes the form of eligible persons receiving less than their entitlements, e.g. under-selling in the PDS (people are forced to sign off on more than what they actually get); in midday meals, it could refer to dilution of nutrition norms in the menu (e.g., not following the menu at all, or giving watery dal, etc.).

'Identity fraud' refers to cases where one person's benefits are claimed fraudulently by another. In the PDS, an official may defraud the system by getting a ration card in the name of a non-existent person or dead person ('ghosts'), or someone getting two cards made when they are entitled to only one ('duplicates'). In the midday meal (MDM) scheme, identity fraud can take the form of inflated attendance (where costs are booked for more children than are actually being served meals).

In programmes such as NREGA and SSP, which provide support in cash rather than kind, one big protection against identity fraud comes from using the banking system to transfer funds. This eliminates, by and large, the possibility of identity fraud so long as banking norms are observed.⁷

⁵ The issue of caps, and a move towards relaxation, has been discussed in Drèze and Khera (2017).

⁶ Khera (2011) has a detailed discussion of the types of fraud in various welfare programmes and to what extent Aadhaar-integration can help. The discussion here is summary of the issues discussed there.

⁷ This is not always the case – e.g., labourers may not always be given their passbooks, overburdened banks may rely on 'middlemen' (such as sarpanches or panchayat secretaries) to facilitate bulk withdrawals on behalf of workers, etc. These loopholes are discussed later.

Biometric technology, to the extent that is reliable, can help eliminate identity fraud, but has a very limited role, if any, in reducing quantity fraud or eligibility fraud. There is limited evidence on the magnitude of each type of fraud, but whatever evidence is available suggests that quantity fraud is the bigger problem (Khera 2011, 2015). Therefore, contrary to the government's understanding, Aadhaar can only play a marginal role in reducing corruption.

Aadhaar in Welfare

This section examines the evidence on Aadhaar-integration in four important welfare programmes: the Public Distribution System (PDS), the National Rural Employment Guarantee Act (NREGA), Social Security Pensions (SSP) and the Mid-Day Meal (MDM) scheme. For each scheme, three broad themes are examined: recent evidence on corruption, the government's claims about Aadhaar's contribution to improved implementation of these schemes, and the emerging evidence on disruption due to Aadhaar-integration.

Aadhaar-integration is planned in two ways. One, "Aadhaar-seeding" refers to adding an Aadhaar number field to the Management Information System (MIS) that is used to administer these programmes. This is supposed to be a one-off activity, yet it is not quite as simple as it sounds. For each scheme, each entitled person needs to be informed of what is needed, a range of supporting documents may be required, the number may not be correctly entered, etc. Further, in many cases, re-enrolment of biometrics has been necessary as fingerprints or iris scans become outdated. Aadhaar-seeding can help with eliminating identity fraud by weeding out 'bogus' beneficiaries (e.g., dead, non-existent persons etc.). Once 100% Aadhaar-seeding is achieved, beneficiaries in the MIS without Aadhaar numbers are deemed to be bogus and are deleted.

Two, Aadhaar-Based Biometric Authentication (ABBA) refers to the practice of installing a Point of Sale (POS) machine with a fingerprint reader and authenticating a person each time she accesses her entitlements. For instance, at the time of purchase of PDS grain each month, any one person listed on the ration card needs to authenticate themselves; similarly for pensions, elderly persons must go to the point of delivery (e.g., post office or Gram Panchayat office) to authenticate themselves. ABBA serves the role of signatures (in the earlier pre-Aadhaar days). ABBA on POS machines is currently a monthly activity, so each of its attendant technologies (correct Aadhaar-seeding, mobile connectivity, electricity, functional POS machines and UIDAI servers and fingerprint recognition) need to work for a person to get her entitlement.

Public Distribution System

The PDS provides subsidized ration (mainly wheat and rice) to entitled households through a network of PDS outlets. Corruption has been a serious problem, in the form of identity fraud (e.g., duplicates, ghosts, non-existent, etc.) and quantity fraud (i.e., under-selling). Eligibility fraud and exclusion errors have also plagued the PDS – according to one estimate, half of the poorest did not have a BPL ration card in the early 2000s (see Drèze and Khera 2010). There are other problems in the PDS too (e.g., over-charging, quality of grain) that are not as well documented.

The latest year for which estimates of corruption are available is 2011-12 (Drèze and Khera 2015a). These estimates are made by matching administrative data on offtake by states with PDS purchase by households reported in nationally representative surveys such as the National Sample Survey (NSS) and India Human Development Survey (IHDS). By 2011-12, a reduction in leakages was well established in a handful of states such as Chhattisgarh, Odisha, etc. For instance, in Chhattisgarh, leakages declined from 50% in 2004-5 to around 10% in 2011-12.⁸ In the same period, according to NSS data, all India leakages declined from 54% to 42%; and from 49% to 32%, according to IHDS data.

With the passage of the National Food Security Act (NFSA) in 2013, the coverage of the PDS was to be expanded to 75% of the population in rural areas and 50% in urban areas. The Act also mandated the drawing up of a fresh list of entitled households. Two categories of households were created: “priority”, with a per capita entitlement of 5kg per person per month and “Antyodaya”, 35kg per household per month (Puri 2017).

Initial evidence from field surveys so far suggests that the rollout of the NFSA has led to a further reduction in leakages (see Puri 2017). In states like Madhya Pradesh and West Bengal, early evidence suggests that the gains from the rollout of the NFSA have been dramatic: entitled households now get more than 95% of their entitlements in these states (Drèze and Khera 2015b and Drèze et al 2016).

Close on the heels of the implementation of the NFSA, orders for Aadhaar-integration in the PDS were issued on 7 November 2014.⁹ Different states are at different stages of accomplishing this.¹⁰ A handful of states (Andhra Pradesh, Jharkhand, Rajasthan and Telengana) at least, have moved to a more or less 100 percent Aadhaar-integrated PDS, including the use of Point of Sale (POS) machines with Aadhaar-Based Biometric Authentication (ABBA) each month. The effects of Aadhaar-integration are perhaps best documented in the PDS.

Identity fraud

The extent of identity fraud before the rollout of the NFSA was not documented. In their analysis, the National Institute of Public Finance and Policy (NIPFP) cost benefit analysis also cites the lack of data on identity fraud as the reason for resorting to ad hoc assumptions on this (see Khera 2013a and Khera 2013b). The government relied, at best, on anecdotal evidence of ‘ghosts’ and ‘duplicates to make its case for aadhaar-integration.

After the rollout of the NFSA, the evidence suggests that there is hardly any identity fraud in those states that used the Socio-economic Caste Census (SECC) lists. In states like Bihar, Jharkhand and West Bengal, the preparation of new ration card lists was on the basis of the SECC (see e.g., Drèze, Khera and Pudussery 2015, Drèze and Maji 2016 and Puri 2017). The SECC itself, if anything, suffered from exclusion errors (e.g., some hamlets were not covered

⁸ The reduction in leakages in these states before the NFSA was largely driven by PDS reforms (see the literature cited in Drèze and Khera 2017).

⁹ See Government of India (2014).

¹⁰ According to Government of India (2017a), 73% Aadhaar seeding had been achieved in the PDS, but there are some questions about this as well (see Hindu Business Line 2016).

or individuals in households did not get enumerated). In other states, which did not use SECC we do not know the extent of identity fraud.

Aadhaar can help detect identity fraud by linking each person's Aadhaar numbers to their name in the PDS database. When 100% linking is achieved, those names or cards that are without an Aadhaar number, can be deemed 'ghosts', 'duplicates', etc. and deleted.

The government claimed that Rs. 14,000 crores have been saved in the PDS due to "deletion of 2.33 crore ration cards up to 2016-17) and better targeting of beneficiaries" (Government of India 2017c).¹¹

The evidence suggests that these claims are suspect. Questions answered in Parliament are the most credible source of information on deleted cards, where it is clear that the government is referring to is 'ineligible cards', i.e., 'eligibility fraud' (Government of India 2016c). As discussed earlier, digitization or Aadhaar-integration cannot eliminate eligibility fraud. Eligibility is determined by the criteria notified by states (e.g., living in a mud house, or caste status etc). Aadhaar does not provide this information.

The answer is worth quoting at length: "*The exercise of deletion of bogus/ineligible cards and inclusion of eligible families is a continuous process and State/UT Governments are to periodically carry out the same. As per the information received from State/UT Governments, as a result of the continuous exercise of reviewing the list of Ration Cards, a total of 2.33 crores ration cards have been deleted during the period 2013 to 2016 [upto 16-11-2016].*" (Emphasis added.)¹²

This suggests that *all* the deletions are due to ineligibility, where Aadhaar plays no role. The data refers to the period during which the NFSA was rolled out, which further strengthens the possibility that the deletions were due to new ration card lists being drawn up. To illustrate, let us look at the data for Karnataka. In 2014, the state deleted 40% of all ration cards, and in 2015, 7% of ration cards were deleted (Government of India 2016a). The total number of cards in the state, however, declined from 1.31 crores to 1.29 crores (i.e., only 2%). So, though a large number of cards were deleted in 2014, almost an equal number were also added. This is true for the all India numbers too. The overall reduction of cards in circulation is only 6.6%. By focussing on deleted cards, the government has sought to distract attention from the real issue.

There is another problem with these numbers – in all states except West Bengal, ration cards are issued for each *household*. In West Bengal, each *individual* in each household gets a ration card. Therefore the reporting unit is not the same. However, in government records, this difference in unit is not taken into account. This has the effect of inflating the number of cards deleted. Finally, the large number of the deletions pre-date Aadhaar-integration orders

¹¹ An earlier news report (after a government review in May 2016) claimed savings of Rs. 10,000 crores in the PDS from deletion of 1.6 crore bogus cards (Indian Express 2016).

¹² "Bogus" could either mean ineligible or refer to cards made in the names of 'non-existent' persons. If it is the latter, then we need to know the break-up of ineligible vs. non-existent. This data is not forthcoming from the government.

(November 2014); by April 2016, only half of all ration cards had been aadhaar-linked, further raising questions about Aadhaar's role in detecting these 'bogus/ineligible' cards.

Quantity fraud

Quantity fraud in the PDS refers primarily to under-selling. In the manual system, cardholders were told to sign off ('authenticate') on full purchase even though they may be given less (e.g., 32kg instead of 35kg). With the introduction of the Point of Sale (POS) machine with Aadhaar-Based Biometric Authentication (ABBA), the register has been replaced with the POS, but underselling continues more or less as before. Several field studies in Delhi (Shagun and Priya 2016, Nayak and Nehra 2017), Gujarat (Yadav 2016d), Rajasthan (Yadav 2016 and Khera 2017a) and Jharkhand (Drèze 2017a and Drèze, Khalid, Khera and Somanchi forthcoming) corroborate this.

One form of quantity fraud that ABBA can help with is the 'skipping' of months. In some states (e.g., Bihar and Jharkhand), apart from taking a cut each month, dealers also siphon off entire months' worth of rations. Similarly, in many states, dealers could divert 'leftover' rations to the open market.¹³ The introduction of ABBA can put to an end to skipping and leftovers.¹⁴ Skipping used to be rampant in several north Indian states, but there is evidence of a decline in recent years pre-Aadhaar (Drèze, Pudussery and Khera 2015).

Exclusion, Denial and Higher Transaction Costs

In a handful of states, ABBA is mandatory each month at a POS machine installed at the ration shop. As discussed earlier, ABBA has no role in stopping identity fraud (that only requires 100% Aadhaar-seeding), and can do little to stop quantity fraud.

ABBA is contributing to exclusion from the PDS in a number of ways. One, families or individuals without Aadhaar numbers cannot register, so they cannot get the rations to which they are legally entitled. In Delhi, for instance, if the aadhaar number is not given names are not included on the NFSA card (see Shagun and Priya 2016, Nayak and Nehra 2017). Central government directive requires that as long as any one member's Aadhaar number is linked, everyone listed on the ration card will get grain. While Jharkhand follows this rule, in Delhi, Andhra Pradesh and Rajasthan, the quantity of ration provided is according to the number of Aadhaar numbers that are linked to the ration card (see Somanchi et al 2017, Bhattacharjee 2017, Khera 2017a and Hossain 2017). Missing Aadhaar numbers mean ration is cut.

Two, outright exclusion can also be because no member of the family is "POS-able", (a POS-able person is one who is Aadhaar-linked and whose fingerprints are recognized by the POS machine). Biometric failures have been recorded in states using Aadhaar (Hindustan Times

¹³ Leftover rations refer to that part of the stock that remains unsold at the end of the month because cardholders did not claim it. In many states, there is a 'carryover' facility – i.e., beneficiaries could claim missed rations in subsequent months, so quite likely the share of leftovers was quite small.

¹⁴ However, the Jharkhand experience suggests that because of the way in which it was rolled out, it is the ration card beneficiaries who are paying the price, not the dealers.

2015, Bhatnagar 2016, Yadav 2016c, Yadav 2016e) as well as non-Aadhaar biometrics (e.g., in Gujarat).

Apart from these field studies, questions in Parliament also corroborate some of these issues: e.g., the government stated that in Rajasthan, in February 2017, “78% of NFSA beneficiaries have been provided wheat through POS transactions” and it is claimed there that there were alternate arrangements (e.g., One-Time Password, OTP) for the others (Government of India 2017b).¹⁵ The government admitted that “the disruption in the Aadhaar authentication services in Rajasthan...were on account of “inadequate server capacity of the Rajasthan Government”, “insufficient lease line capacity”, “poor mobile signal at POS devices”, “incorrect seeding of Aadhaar numbers in PDS database”, etc. (Government of India 2016b).

Official data from Rajasthan shows that, from July 2016 to June 2017, between 25-30% of one crore cardholders in the state (accounting for 12-35% of allotted grain), do not buy grain from PDS outlets (see Figure 1). Khalid (forthcoming) reports similar results using the Jharkhand food data portal. Earlier studies show that demand for PDS grain is high, and that eligible households would not purchase PDS grain only under very compelling circumstances (e.g., entire family being out in a particular month). The state food portal does not show whether of those who did not buy in any particular month, any of them tried at all.¹⁶

Apart from outright exclusion, ABBA is leading to sporadic denial of ration and higher transaction costs. E.g., only those members whose Aadhaar number is seeded in the PDS database can withdraw rations (Maji 2017). Technology failures (e.g., connectivity, failure of fingerprint authentication, server issues etc.) also contribute to these problems (Drèze 2016a).

A recent survey of 900 households in Jharkhand corroborates the findings that when ABBA works for entitled households, it comes with higher transaction costs and little protection against quantity fraud. Those who are excluded by ABBA tend to be the most vulnerable – elderly who cannot walk, widow with young children, etc. (Drèze and Khera forthcoming).

[National Rural Employment Guarantee Act](#)

The NREGA was passed in 2005, and guarantees 100 days of work (per household) to any adult willing to work. As per the Act, at least 60% of total expenditure is on wages and the rest on material. Corruption is observed in both wage and material expenditure.

In 2008, the central government made it mandatory for wages to be paid into bank and post office accounts. The move from cash payments to bank payments led to a sharp reduction in corruption. NSS data suggests that between 2007-8 and 2011-12 wage corruption declined from 44-58% to 22-32% (Imbert and Papp 2015). Using IHDS data for 2011-12, Drèze (2014) finds that the decline is even more impressive. Less than 5% of NREGA work in government

¹⁵ This, however, contradicts field reports and subsequently, a Government of Rajasthan circular dated 24 March, withdrew the OTP facility (Thomas 2017).

¹⁶ Aadhaar-integration was supposed to bring greater transparency and provide real time access to data, but this promise has not been fulfilled in any meaningful manner (more on this below).

records was not confirmed by respondents. As with the PDS, the decline in wage corruption pre-dates Aadhaar-integration.

This suggests that, contrary to government rhetoric, there are other methods of reducing corruption in these programmes. In NREGA, the dramatic reduction in wage corruption is because of separation of the implementing agency (e.g., the Panchayat) and the payment agency (banks and post offices) (see Adhikari and Bhatia 2010, Drèze and Khera 2008). Even with payments into accounts, wage corruption can continue (Adhikari and Bhatia 2010). It can take three forms: extortion (forcibly taking wages once labourers have withdrawn it from their account), collusion (workers allow corrupt functionaries ‘use’ their job card and account to inflate work on muster rolls and sharing embezzled funds with them) and deception (operating the workers account without his/her knowledge).

Extortion and collusion can be characterized as ‘quantity fraud’, so ABBA cannot help. Deception is a form of identity fraud where ABBA can help. Two caveats: one, we do not know the size of deception in total wage corruption. Two, once wage corruption through deception is blocked, those who were using it may resort to extortion and collusion.

Savings

In the NREGA Rs. 7633 crores are assessed to have been saved upto 31 December 2016 due to Aadhaar-integration (Government of India 2017c).

In a news report the Secretary, Rural Development was cited saying that “With the use of IT, Aadhar, leakages have come down”. An RTI query enquired about the methodology used to “arrive at the assessment (qualitative and quantitative) on decrease in leakages” (Chitravanshi 2016). The response stated that “Mahatma Gandhi NREGA has been covered under Direct Benefit Transfer (DBT) and savings are in terms of increasing the efficiency and reducing the delay in payments etc.” (Sabhikhi 2017). In other words, there was no *estimate* of savings, as initially reported.

In April 2017, Chatterji (2017) reported that in 2016-17, 94 lakh ‘fake’ job cards (approximately 8 per cent of total job cards) were deleted. An RTI reply (5 May 2017) revealed that out all deleted job cards, only 12.6% were classified as ‘fake’ or ‘duplicate’ (see Table 1). The rest were deleted for other reasons, such as change of address, surrender of job card, etc. Nearly 60% were deleted due to “other” reasons. This could include, though that information is not provided in the RTI response, those who did not submit their Aadhaar numbers.¹⁷ Thus, there as yet no credible evidence of a reduction in leakages due to Aadhaar in NREGA.

Disruption

While the gains from Aadhaar-integration are dubious, it has led to several new problems in the implementation of NREGA. Work can only be registered through the MIS, and the MIS requires the Aadhaar number of an applicant to proceed. Further, for payments to be

¹⁷ There was tremendous pressure to achieve 100% Aadhaar-seeding in the NREGA MIS. In order to meet these targets, anecdotal evidence suggests that field level functionaries simply deleted job cards of those who failed to give Aadhaar numbers (Khera 2016a and Aggarwal 2016).

processed, correct Aadhaar-seeding in the MIS and at banks is required. This has led to hardship, especially for those who are unaware of these requirements. It has been nobody's business to inform NREGA workers of what is required of them. The administrative arrangements for this are inadequate (e.g., the task of seeding as well as routine NREGA work falls on the same person), so ultimately the whole programme has suffered from a slowdown.

In some cases, the re-engineering of NREGA to make it Aadhaar compliant has meant that workers job cards are deleted (Khera 2016a). In others, wrong seeding has led to delays in payment (even non-payment) of wages. Adding to the confusion, due to multiple waves of enthusiasm over 'financial inclusion' over the years, workers have ended up with several accounts. The bank account in the NREGA MIS may be different from the one that is Aadhaar-seeded. For these reasons, wages are either seriously delayed, rejected or, even 'lost'. The MIS shows that the worker has been paid, but when workers enquire at the bank, their account has not been credited.¹⁸

Social Security Pensions

The National Social Assistance Programme (NSAP) provides social security pensions (SSP) for the elderly, for single-women and disabled persons. The central government contributes Rs. 200 per month and most states top-up this pension with a state contribution. The pension payment mechanism varies from state to state – e.g., in Odisha, pensions are paid in cash at the Gram Panchayat each month whereas other states use money orders, post office accounts, bank accounts, etc. (Drèze and Khera 2017). Corruption appears to be less of a problem in pensions (Bhattacharya et al 2015).

An administrative problem that opens the door to identity fraud is that states do not have a system for keeping lists updated (additions due to births and marriage, deletion due to death or migration). This means that in states where payments are made through bank accounts, the pension keeps getting credited, but not withdrawn, until family members try to close the account. In such cases, the extra credits (based on the date of death in the death certificate), cannot be encashed by family members, and are supposed to be reversed.

Where pensions are given in cash, anecdotal evidence suggests that the disbursing functionary may continue the pension for a few extra months on sympathy grounds (e.g., to help the family tide over death ceremony expenses), or may siphon off the money for some months, or may honestly strike off the name to accommodate someone on the pension waitlist.

As with other schemes, evidence on identity fraud in pensions is hard to come by. The PEEP Survey conducted in ten states verified pension lists covering 3789 pensioners and found only one case of duplication (Drèze and Khera 2017).

¹⁸ On these issues in the payment system, see Aggarwal, 2016 and 2017, Dhorajiwala and Narayanan 2016, Dhorajiwala, Narayanan, and Paikra 2017, Sabhikhi 2017 and Sen 2017b.

Savings or Exclusion?

The government claimed that Aadhaar-integration saved Rs. 399 crores upto 31 December 2016 (Government of India 2017c).¹⁹

At a given level of benefits, a reduction in government expenditure in any particular transfer scheme can be on two counts — removal of ghosts and duplicates ('efficiency'); and a fall in the number of genuine beneficiaries ('shrinkage'), for instance, if they do not link their Aadhaar numbers when required.

Across schemes, the government has been treating *any* reduction in expenditure as 'savings', even when it comes from shrinkage. This is true for SSP as well. For instance, in Rajasthan, when pensioners were 'mistakenly' recorded as dead, expenditure fell and this was presented as Aadhaar-enabled savings (Yadav 2016f).

In Jharkhand too, pensioners names have been deleted because they did not complete Aadhaar-seeding formalities or pensions stopped due to seeding errors (Sen 2017a). Studying 100 pensioners, selected from ten randomly-selected villages from five Blocks of Ranchi district in February 2017, Biswas (2017) finds that 84% of her respondents receive pensions but irregularity in payments was a big issue. The remaining 16% were not receiving it due to Aadhaar related issues.

Hardship

Paikra (2017) documents ABBA-related exclusion, disruption and hardship in a village of Surguja District (Chhattisgarh). Apart from seven elderly whose pension had stopped due to biometric and other technical failures, all pensioners have to travel 9km to collect their pension, the nearest point with connectivity.

Mid-Day Meals

The MDM scheme is one of India's most successful social policies, with far-reaching benefits in terms of school attendance, child nutrition, and learning achievements, among others (see the literature cited in Drèze and Khera 2017). The most pressing problems in the implementation of the MDM - improving menus, providing safe storage and cooking spaces, timely release of funds - cannot be resolved by Aadhaar-integration.

According to a notification issued by the Ministry of Human Resource Development, if a child has not enrolled for Aadhaar he/she is required to produce her enrolment slip as well as two other types of documentation (an undertaking from the parent or guardian that the child is not enrolled in any other school and another ID document out of seven options provided) in order to remain eligible for school meals (Government of India 2017f).

Inflated attendance as identity fraud

The rationale for the notification was widely questioned (see Bhatta and Sinha 2017, Drèze 2017b, Khera 2017b, 2017c). The only possible justification for using ABBA in the midday meal scheme is to check 'inflated attendance', a form of 'identity fraud'. If attendance inflation

¹⁹ At Rs. 200 per month, this comes to 16.65 lakh names being struck off.

exists, it could be for two reasons: to make up the shortfall in allocations to be able to provide food according to the menu; or to siphon off funds. In such cases, administrators who fudge records should be punished, not children. Moreover, there are better options to prevent attendance inflation. For instance, teachers can be instructed to SMS the number of children each day, and the Block office can make surprise checks to a handful of schools to verify this.

What is the evidence on inflated attendance in the MDM scheme? Monika Yadav (2017) matched the number of children that are recorded in the government database with those reporting having MDM in the IHDS in 2011-12. Government records report that out of 143 million children enrolled in school, 105 million had been served school meals. Using IHDS data, Yadav (2017) finds that between 100-107 million children report enjoying school meals. This means that the number of children for whom expenditure is being claimed (roughly) matches the number of children who actually enjoy school meals.

A Glimpse of future disruption

Currently, the government only wants to ensure that children enrol for Aadhaar by making it compulsory for midday meals. Even the push towards enrolment is likely to be hugely disruptive – it will likely derail not just the mid-day meal programme, but also educational activities in schools. Teachers and (over-stretched) school administration will be forced to make arrangements for Aadhaar enrolment. Once that is done, Aadhaar-seeding will waste their time (Khera 2017b).

ABBA in schools has not yet been fully operationalized. If the government proposes to move towards daily ABBA before serving meals in the future, the move will cause further damage. The technology failures discussed earlier (connectivity, authentication failures) can arise here too resulting in a waste of time as well as exclusion.

Some glimpses of what lies ahead were visible in a residential school for tribal children in Jharkhand, where ABBA had started. Out of 232 enrolled children, 190 were Aadhaar-linked. Out of these though, while the online real-time portal was showing that only 132 students were present, in fact, a headcount at the school resulted in about 230 children being counted. Thus, out of the 190 who were registered, not all were being recognized by the machine. Similar numbers came up at other residential schools in the area. In yet others, due to lack of electricity the machine was not being used, teachers complained of time wasted due to the slowness of the system etc. (Khera 2017e).

Other Aadhaar-related claims

There are several other claims that do not stand up to scrutiny. Some of these are briefly discussed below.

LPG subsidy

The government's boldest claims with respect to savings due to Aadhaar relate to the LPG subsidy. In 2013-14, the government initiated a "Direct Benefit Transfer" (DBT) pilot in 300 districts, whereby the subsidy would be credited into a person's Aadhaar-seeded bank account. Barnwal (2015) uses data from this pilot to estimate *potential* savings, using per unit subsidy and the reduction in LPG purchase that followed the DBT. He admits that the

reduction might be due not only to lower leakages but also to ‘shrinkage’: i.e., low UID penetration and poor access to banks which ends up “completely excluding genuine beneficiaries” (p. 19). Taking his work further, George and Subramanian (2015) claim that USD 2 million, i.e. approximately Rs. 14,000 crores had been saved due to Aadhaar-integration.²⁰

According to Clarke (2016), however, George and Subramanian (2015) mis-attribute savings to Aadhaar: the period under study saw three major policy initiatives in LPG and a ‘connection regularization initiative’ was the main reason for removal of invalid connections, not Aadhaar-seeding. Similarly, LPG savings after 2014 result from other government initiatives (including PAHAL, GiveltUp, etc.) and a reduction in international oil prices (CAG 2016).

There are two further questions about the reliability of these estimates. First, Cabinet Secretariat minutes for November 2015 record a savings of merely Rs. 91 crores due to Aadhaar-integration. Two, after questions were raised by Misra (2015), Sethi (2016) and Zhong (2016), George and Subramanian (2016) *themselves* clarified that what they were referring to was ‘potential’ savings rather than ‘actual’ savings.²¹ In short, there is absolutely no evidence that actual Aadhaar-enabled savings in the LPG subsidy are anywhere near the initial projections, still routinely quoted by government sources.

Biometrics and Uniqueness

A crucial premise of the Aadhaar project was that the use biometrics would ensure that each person was issued a unique number. This assumes that biometrics can work for such a large population, that the inherently probabilistic nature of biometric technology would not impede the programme in any way and that enrolment procedures would not be violated ensuring the sanctity of the database. There is no systematic data on this, but there is enough to raise questions about this claim. In 2012, when 2.29 crore Aadhaar numbers had been generated, 3.84 lakh had to be cancelled as they were ‘fake’ (see Chauhan 2012 and Government of India (2013)). This appears to have been due to violation of due process while enrolment. Abraham et al (2017) analyse fingerprint and iris authentication data from Andhra Pradesh and Telengana for two schemes (SSP and NREGA) for 2015-2017. Failure rates are very high among pensioners (14.4% and 17.4% for iris and fingerprints respectively in Andhra Pradesh). Among NREGA workers in Telengana the failure rates are 7% and 7.8% respectively.

Elimination of middlemen

Among the early stated aims of the UID project was also to eliminate ‘middlemen’ who were seen as the main source of corruption. For instance, this referred to ration dealers in the case of the PDS, or the post man who delivered money orders to pensioners. As noted earlier, the corruption of the middleman in these schemes is being dealt with by other means (e.g., by bringing greater accountability in the system).

²⁰ This figure is also in Government of India 2017c.

²¹ Alternate estimates are more conservative: only 3% reduction, compared with the government’s claim of 24% (Clarke 2016, Lahoti 2016 and Venkatanarayanan 2017). Interestingly, when government estimates were challenged in the Supreme Court (in Shantha Sinha petition), the government chose to ignore these questions.

Meanwhile, the Aadhaar project has spawned its own new army of middlepersons, some of whom are also corrupt. This includes enrolment agents, seeding agents, persons managing kiosks (such as E-Mitra in Rajasthan, Pragma Kendras in Jharkhand), data entry operators in government offices and so on.

Concluding remarks

The Aadhaar project began without much understanding of the problem that it was expected to solve. In spite of early warnings about the possible damage it might cause, the project has been scaled up and in the official narrative, it is a great success ('shallow draughts intoxicate the brain'). This paper is an attempt to 'drink deep' and sober us again.

Despite clear evidence to the contrary, the impression that Aadhaar is helping the poor persists. The solution of this puzzle lies in the fact that the Aadhaar project has relied - very heavily - on propaganda. From the very beginning, perception management through advertisements, branding, etc. has been a part of the project's strategy (Government of India 2010d, 2010e).

Available evidence does not substantiate any significant gains from Aadhaar-integration in welfare programmes. On the contrary, it has inflicted considerable pain. Apart from (supposedly) one-time costs of enrolment and Aadhaar-seeding, people are now faced with higher transactions costs on a monthly basis (e.g., in pensions and the PDS), and in a significant minority of cases, also face exclusion and denial. In the process, people are also suffering from considerable indignities.

Aadhaar-integration has also facilitated over-centralization of administrative controls. If a person does not get authenticated, there is no easy or accessible redress available. Even with the best of intentions, POS machine operators may not be able to ascertain the meaning of a particular error message (there are over fifty error codes!) and guide affected persons on what to do. An error in the system (e.g., wrongly entered entitlements) can only be corrected at far-off servers. In this and other ways, Aadhaar-integration has reduced transparency and accountability in the system and added to a sense of disempowerment.

Another damage is the 'displacement' effect. Privileging Aadhaar over all other technologies, which have a proven record of improving administration, displaces efforts to scale up those technologies. For instance, in Bihar, the uploading of NFSA ration card lists (very important to enhance transparency and reduce the arbitrary power of PDS dealers) was delayed. Under pressure from the central government, the short-staffed food department had to focus on Aadhaar seeding rather than uploading NFSA lists. The use of smart cards, in lieu of ABBA, for last-mile authentication is another example.

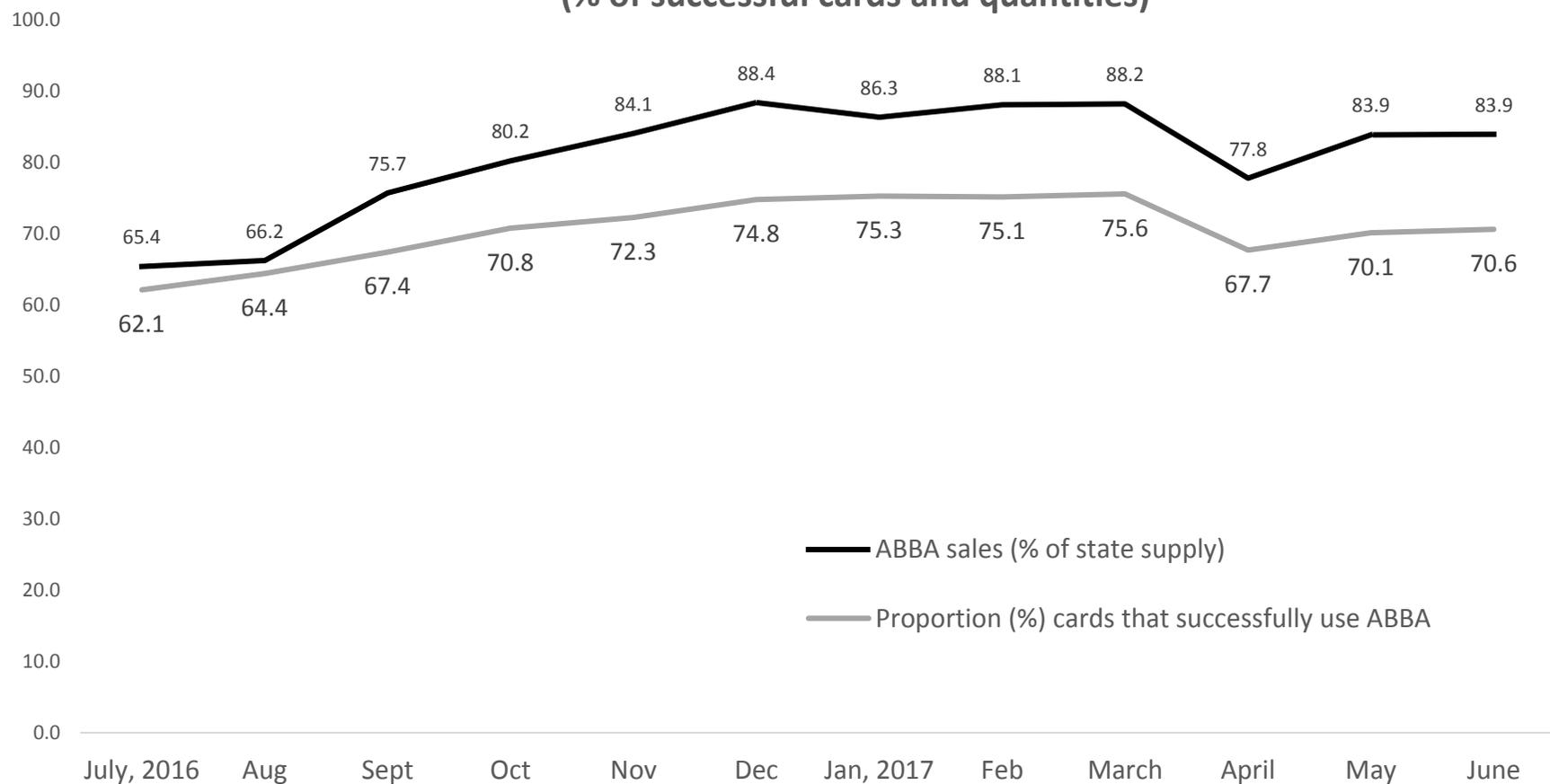
The use of Aadhaar is an admission of 'governance' failure. The government has failed to hold to account the minority who indulged in corrupt practices. Instead, by deploying untested and fragile technology, the victims of corruption are paying the price.

Table 1: Cards deleted in 2016-17, by reason for deletion

Reason for deletion	Number of cards deleted	% of all deleted cards
Duplicate Job Card	8,11,014	8.6
Fake job card	3,95,363	4
Family has been shifted	8,58,550	9.1
Incorrect Job Card	32,526	0.3
Non-existent in Panchayat	3,75,821	3.9
Wants to surrender Job Card	10,44,801	11.1
Other	58,91,373	62.6
Total	94,09,448	100

Source: Compiled from response received on 5 May, 2017 to RTI query filed on 15 April, 2017 by Jean Drèze.

**Figure 1: Wheat Transactions Through ABBA
(% of successful cards and quantities)**



Source: State NFSA portal for ABBA sales (http://food.raj.nic.in/DistrictWise_Allotment_Distribution_Details.aspx), state supply (http://food.raj.nic.in/District_Allotment.aspx), number of successful cards (<http://food.raj.nic.in/DistrictWisePOSDetails.aspx>) and total NFSA cards (http://food.raj.nic.in/NFSASummaryDistrictWise_eMitra_NFSAYES.aspx).

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