

Response to ‘A Cost-Benefit Analysis of UID’

SUMATHI CHANDRASHEKARAN, SHEKHAR H KUMAR, SMRITI PARSHEERA,
ILA PATNAIK, MADHAVI PUNDIT, SUYASH RAI, AJAY SHAH

A debate on the study “A Cost-Benefit Analysis of Aadhaar” conducted by the National Institute of Public Finance and Policy which was discussed in the EPW of 2 February 2013.

This is in response to Khera (2013) (“the comment”), which criticises a cost-benefit analysis of Aadhaar (NIPFP 2012) (“the study”) conducted by the National Institute of Public Finance and Policy (NIPFP).

The comment repeatedly takes qualifying statements from the study that were explicitly presented as limitations to the research and offers them to its reader as failings of the study. To a person reading only the comment and not the study, it would appear as though the authors of the study were either unaware of these impediments, or were trying to hide them.

The comment’s central theme is to fault the study for being based on “unrealistic” assumptions. The study is elaborately careful in pointing out its limitations. For instance, it acknowledges that a “full-fledged cost benefit analysis of Aadhaar” is difficult for two reasons: first, many gains from Aadhaar are difficult to quantify because they are intangible; and second, even if in specific schemes there may be tangible benefits, the information available on those schemes does not permit a precise quantification of those benefits. The comment’s charge of the “conclusions of this study [having] a fragile basis” chooses to expressly ignore what is already stated in the study, and misleads a reader into believing that the basis of the study was deliberately misrepresented.

Faced with limitations in the existing statistical system and research literature, our strategy was to obtain a conservative result through two elements. First, many elements of the benefits which are not presently quantifiable are set to zero. Second, assumptions are shaded downwards when compared with the values seen in published studies,

in acknowledgement of the weaknesses of the existing published studies.

1 Specific Points

We now turn to some specific points raised in the comment. The comment raises doubts about the manner in which integration with Aadhaar can help curb corruption in the delivery of benefits under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). For NREGA to work effectively, two elements need to be addressed: there should be a mechanism to identify actual workers and a way to make accurate wage payments to them. Automating the maintenance of muster rolls, and carrying out authentication through Aadhaar, will help deal with corruption arising from embezzlement of funds on account of fake names and inflated days of work. This, coupled with use of Aadhaar-enabled bank accounts, will ensure that the wages are paid directly to the bank account of the worker whose presence is recorded in the muster rolls.

The comment identifies three forms of wage corruption in NREGA – collusion, extortion and deception – and concludes that Aadhaar can help with only the last category, where a workers account is operated without her or his knowledge. However, this overlooks the benefits that may emerge from real-time monitoring of NREGA through Aadhaar. The study envisages that Aadhaar can be used not just to monitor the number of workers engaged in a project but also to sanction and track the materials used for the work. By comparing actual project performance with the number of workers and work days required, and the quantity of materials needed, the government will be better positioned to check the problem of collusion (i.e., wage payments should correspond with the actual completion of work).

The comment also suggests that the assumptions in the study are not “conservative”. The comment points to a social audit in Andhra Pradesh¹ that suggests 2% leakage, but critiques the study for assuming a national leakage of 7%. The study has steered away from relying

Email: ajayshah@mayin.org

exclusively on analyses of isolated and small sample sets. Doing so would have come with the obvious risk of failing to take into account the differences in the level of development, government policies and use of technology within and across states in India.

The comment has similar concerns with the study's assumption of an aggregate benefit of 12.5% through a reduction in leakages in the public distribution system (PDS) due to the use of Aadhaar. In this regard, the comment points to a report that argues that leakages from PDS were relatively lower in Tamil Nadu (4%) and Chhattisgarh (10%). Here, the comment once again selectively represents information to its reader. It is well documented in Indian public policy literature that Tamil Nadu and Chhattisgarh have performed relatively better than other states in the implementation of PDS. For instance, the commentator herself (Khera 2012) points out that Tamil Nadu and Chhattisgarh have achieved significant reduction in leakages through the use of computerised databases, but then goes on to conclude that the overall diversion rate in the PDS remains at 41%.

Here, too, the study assumed an average value for leakages on a national basis, reflecting a middle ground between states that might display considerable extremes in service delivery performance. The comment is unreasonable in suggesting that the study's assumption of 12.5% benefit from introducing Aadhaar in PDS is off the mark.

The comment criticises the study for having relied on "outdated data",² failing to recognise two issues in this regard: first, the study could not have relied on contemporary data for some of the assumptions, as leakage studies that are nationally representative do not exist. Second, the study was entirely aware of the age of some of the data, and as well as the positive changes that may have occurred since then, and had correspondingly discounted the estimated leakage in certain schemes (NREGA and PDS) downwards by a quarter from the estimates in the literature.

The comment argues that the study has failed to account for "alternative technologies that could achieve the

same or similar savings". In doing so, the comment fails to appreciate the primary objective of the study: its central question was to ask whether the expected benefits of Aadhaar outweighed its total expected costs. Such a question methodologically leads to a cost-benefit analysis, and not a cost-effectiveness analysis, where the former calculates and compares the costs and benefits of a single (policy) intervention, and the latter calculates and compares the costs and benefits of two or more interventions. The study explicitly aspired to being a cost-benefit analysis, and should not be criticised for not conducting a study of the relative benefits of different forms of service delivery.

The comment also refers to the lack of author names in the study but the study can hardly be accused of having been brought out in anonymity. NIPFP is a prominent think tank, which regularly conducts and publishes influential research on public finance and policy, as does the Macro/Finance group within the institute. The group's ownership of the study was prominently displayed on the top-right corner of the title page of the study. The group website, where a copy of the study can be downloaded, also lists the names and designations of all the members of the team, the authors of this reply being some of them.³ The absence of individual names does not take away from the stated ownership of the study, and is in line with the practice followed by top research institutions worldwide.

The commentator's last note is well taken, and a disclosure of the group's research affiliations with the Unique Identification Authority of India (UIDAI) should preferably have been made in the study itself. At the same time, the group's affiliations are public knowledge on its website.

2 Conclusions

In an ideal world, it would be possible to precisely quantify the costs and benefits of building Aadhaar. In the world that we live in, such precise quantification is not possible owing to weaknesses of information and research. This problem is not unique to Aadhaar: most important questions in public policy in India are hard to analyse owing to the low quality

of the statistical system and available economic research.

This leaves two alternatives. One strategy that was undertaken by our group is that of doing careful analysis that is mindful of difficulties in available research and makes conservative assumptions every step of the way. The other strategy is that of adopting policy positions without analysis.

The path to rational policy analysis lies in the former. The decision to build Aadhaar must necessarily be studied to the best extent possible, in order to better evaluate the trade-offs. Parliament has rightly asked for a cost-benefit analysis of Aadhaar (Standing Committee on Finance 2011-12, p 23). Similar calculations should be undertaken for all spending decisions of the Indian state. The study attempts to make the best use of reliable available data, and clearly acknowledges the need to improve the analysis as more knowledge becomes available.

In the debate on the Aadhaar project, there are strong views on both sides. When our group embarked on the cost-benefit analysis of Aadhaar, we were keen to make a break with the existing discourse, to carry the debate forward towards more rational analysis. The centrepiece of the study is a spreadsheet, which implements the entire analysis, which has been released in the public domain.

In this spreadsheet, all the calculations and assumptions are laid bare. It is possible for readers and critics to modify the key assumptions, particularly as and when fresh knowledge and information is generated, to study the change in results. The title page of the study has the following note: "the spreadsheet for the cost-benefit analysis, with the details of the assumptions and calculations has been released on the web at <http://goo.gl/JzwaV>. This will assist other researchers

Style Sheet for Authors

While preparing their articles for submission, contributors are requested to follow EPW's style sheet.

The style sheet is posted on EPW's web site at <http://www.epw.in/terms-policy/style-sheet.html>

It will help immensely for faster processing and error-free editing if writers follow the guidelines in the style sheet, especially with regard to citation and preparation of references.

and policy analysts to modify key assumptions and explore alternative outcomes”.⁴

For substantive policy analysis and debate about the cost-benefit analysis of Aadhaar, careful work at the level of this spreadsheet is required. The group would be delighted if those interested in public policy would delve into the spreadsheet, modifies assumptions based on new research and information that has come out, and write new policy papers using it.

NOTES

- 1 The comment refers to “an estimate of fraud in six pension schemes ... made by the Society of Social Audit Accountability and Transparency (Department of Rural Development, Government of Andhra Pradesh) for July-October 2012.” A citation for this estimate would have been

helpful. However, the estimate may not have been suitable for the study mainly because it would not be considered a representative estimate for the cost-benefit analysis. It is also useful to note that the study was published in November 2012, and research for the study would have concluded well before information about the estimate became available (the estimate tracks fraud from July to October 2012).

- 2 In particular, the comment refers to a 2005 study by the Planning Commission on PDS (Government of India 2005).
- 3 See <http://macrofinance.nipfp.org.in/people.html>
- 4 The comment was concerned that only one worksheet in the spreadsheet attached to the study could be edited. This was the objective: to focus the analysis on the key assumptions and explore how they could be modified.

REFERENCES

Government of India (2005): “Performance Evaluation of Targeted Public Distribution System”, Programme Evaluation Organisation, Planning

Commission, Government of India, URL: http://planningcommission.nic.in/reports/peoreport/peo/peo_tpd.pdf, date of access: 6 February 2013.

Khera, R (2012): “One Step Forward, One Step Back?” in “Ending Hunger: A Symposium on the Proposed National Food Security Bill”, *Seminar*, 634, URL: http://www.india-seminar.com/2012/634/634_reetika_khera.htm, date of access: 5 February 2013.

– (2013): “A Cost-Benefit Analysis of UID”, *Economic & Political Weekly*, XLVIII(5): 13-15, URL: http://www.epw.in/system/files/pdf/2013_48/05/A_CostBenefit_Analysis_of_UID.pdf, date of access: 5 February 2013.

NIPFP (2012): “A Cost-Benefit Analysis of Aadhaar”, online, URL: http://macrofinance.nipfp.org.in/releases/uid_cba.html, date of access: 5 February 2013.

Standing Committee on Finance (2011-12): “The National Identification Authority of India Bill, 2010”, Standing Committee Report Forty-Second Report, Fifteenth Lok Sabha, URL: <http://164.100.47.134/lssccommittee/Finance/42%20Report.pdf>, date of access: 5 February 2013.