

why fighting poverty is hard

ABHIJIT V. BANERJEE

One reason anti-poverty policy has not worked better than it has is because we went into it naively, without enough of an understanding of what makes it hard.¹ This essay addresses what I have learnt about this question from my own research, most of which, is based in India.

Finding the poor

Who are the poor?

Suppose someone wants to help the poor. How would he find them? A part of the problem is inevitable: "poor" is an invented category, like tall or beautiful. While we often have a sense of what we mean when we talk about the poor, getting to an operational definition of poverty requires making many rather arbitrary choices. For example, even if we were prepared to bite the bullet and say that people who are below a certain level ("the poverty line") are the poor and the rest are not, we would not know how to set that critical level. For one, the level of what? Income, consumption, and wealth are the obvious candidates, but one could no doubt think of others. Of these income might seem the most natural, till one starts worrying about the challenges of measuring incomes: after all, incomes vary a lot, especially for

the poor who tend not to have salaried jobs, and some of that day-to-day or month-to-month variation is expected or even deliberate (think of the vendor who takes a day off each week) and does not affect what they can buy or consume (because they spend out of their savings or borrow). In other words we run the danger of calling the vendor poor because we measured his income on his off day.

Averaging over longer periods of time obviously helps us here, but creates other problems. People are not very good at remembering what happened several weeks or months ago, especially if there is a lot of underlying variation. Moreover, it turns out people have a very hard time figuring out what their own incomes are (unless they are salary earners, and even then they may not know value of the benefits that come with the job). This is in part because they have both inflows and outflows (i.e. earnings as well as costs), and these do not happen at the same time (so you have to figure out how to make them comparable).

For these reasons many economists favor using measures of consumption, which clearly varies a lot less than income (reflecting people's inclination to avoid large swings in their consumption) and therefore is closely related to average income over the period. This comes with its own limitations: we systematically underestimate the well-being of those who are saving

¹
The case for this claim is made in Banerjee (2007).

a lot compared to those who do not save, even though the latter might have a better future facing them. Dealing with health spending poses yet another problem: should we exclude health expenditures when we calculate consumption on the grounds that this is a compulsion and not a choice, or include it because it shows that this family is able to deal with its health problems (whereas an even poorer family might have to resign itself to endure the ill-health).

Measuring consumption, though probably easier than measuring income (mainly because people tend to have relatively stable consumption patterns and therefore you get a reasonable idea by asking them how they spent money over the recent past) is also far from straightforward. For one it can be extremely time consuming: people have a hard time recalling what they consumed in the last week unless you prompt them by specifically going through the entire list of goods they could have consumed and asking them about each of them separately. Consumption decisions are also "gendered": Men usually know more about how much they spent on fixing up the house, while women are often much better informed about the price of onions. As a result you may need to poll more than one person in each household to get an accurate picture of its consumption spending.

The practice of identification

Given how time-consuming and painstaking one needs to be to do either income or consumption measurement right, it is perhaps no surprise that most governments in developing countries take a more rough and ready approach to the problem of identifying the poor. Instead of looking for direct measures of consumption or income, they typically use what are called proxy means tests. In a proxy means test, each family gets scored based on a relatively small number of what are believed to be good proxies for the family's standard of living. The identification of the BPL (Below Poverty Line) population in India, for example, is based on a scoring rule which puts some weight on measures of family wealth (ownership of land, kind of house, whether the house has indoor plumbing, etc.), some direct measures of well-being (such as whether you have two square meals a day), some measures of earning capacity (education of the adults, type of job they hold, etc.) and some indices as to what one might call behavioral responses to poverty (whether children are in school, working, etc.). Mexico's flagship welfare program, now called *Oportunidades*, uses a very similar index to identify potential beneficiaries: the index they use is a weighted mean of the number of people per room in a

household, the age of the household head, the dependency ratio, the level of schooling and occupation of the household head, the number of children ages 5–15 not attending school, the number of children under 12 years, and some simple binary variables characterizing the housing and asset holdings of the household. Indonesia's various targeted public assistance programs use a similar, though somewhat more sophisticated rule.

The advantage of a rule like this is that the necessary data could be collected in half an hour or less; the disadvantage is that it may not always get us where we would like to be. Using data from Indonesia, Nepal, and Pakistan that has information about both consumption and assets, Filmer and Pritchett (2001) show that between 60–65% of those in the bottom 40% of the distribution based on consumption were in the bottom 40% based on asset ownership. In other words, something like 35–40% of the poor might be misclassified but probably less, since there is no reason to assume that the consumption always gets it right.

There is however another concern. Using specific forms of wealth as markers has the advantage of being easy to measure but the disadvantage of being easy to manipulate: if I think that building another room in my house will reduce my chances of a hand-out from the government I might choose to put my savings into gold. This becomes an even bigger concern when we base the choice on whether your child goes to school. Parents who are already unconvinced of the benefits of education (more on that later) may not hesitate too much before withdrawing their child from school in order to secure their position on the public assistance list.

The implementation challenge

Any method for identifying the poor is of course only as good as the people using it will allow it to be. As we already noted identifying the poor is hard work, even with simplified criteria and it is not clear that those responsible have a strong reason to get it right. Indeed it is not hard to imagine that the person who decides whether you get to be on the public assistance list or not might want to charge something for that favor, and if you are really poor and cannot afford the price, he may prefer to hand your card to someone, less deserving, who can. There is also a natural tendency to be generous in interpreting the rules: why deprive somebody just because he fails to meet the criteria, when there is very little risk that anyone will complain if you do.

Consistent with this, a recent study in India that compares the number of poor people in the country with

the number of BPL cards issued concluded that there were 23 million extra BPL cardholders (NCAER 2007, reported in *Times of India* 12/22/07). Another study, conducted by the international NGO Transparency International in partnership with the Center for Media Studies in India focused more directly on mistargeting. They asked a random set of households both questions about their economic status and also whether they have a BPL card (TI-CMS 2007). The study concluded that about 2/3rds of households that were actually BPL had BPL cards, which is not too bad given that the measure of economic status they used was relatively crude and they still out-performed the Filmer-Pritchett study of targeting using wealth data, mentioned above. Of course there are also inclusion errors (the 23 million extra cards) but this could just reflect the fact that it is hard and perhaps pointless to make fine distinctions within a group that is generally poor.

However a more detailed study from Karnataka resists this more benign interpretation. In Atanassova, Bertrand, and Mullainathan (2007), the authors survey 21 households in each of 173 villages in the Raichur district in the state of Karnataka. In each of these households they collect the data used for the BPL classification by the government and based on that data they can construct their own BPL list. They find that while 57% of households in the control villages have a BPL card, only 22% of the households are actually eligible. Moreover, 48% of households are misclassified. The inclusion error, i.e. ineligible households who have a card, is 41% and the exclusion error, i.e. households who are eligible for BPL but don't have it, is close to 7%. This means that about one third of the eligible households don't have a BPL card, while about half of the ineligible households do have a BPL card. More worryingly, when they use income as a proxy for wealth, the poorest among all ineligible households are not the ones who have a BPL card. In particular those who are just above the eligibility cutoff for BPL, i.e. those with annual incomes between Rs. 12,000 and Rs. 20,000, are less likely to be included than those whose incomes are between Rs. 20,000 to Rs. 25,800 and 42% of the wealthiest people (with income above Rs. 38,000) have a BPL card. When they investigate the reasons for the inclusion of ineligible households, the fact of being socially connected to village officials turns out to be a good predictor.

A more participatory approach

The fact that the identification process can get captured by the village elite may be one reason why others have suggested a very different approach: why not make use of the fact that small communities

(like villages) can probably identify those among them that are really poor? And while individual villagers might have reason to slant their information in specific ways, this ought to be mitigated if we brought together a large enough group of them.

Bandhan, one of India's largest Micro Finance Institutions, made use of this approach to identify beneficiaries for their Ultra-poor program. Under this program, families that were identified as being too poor to be able to be brought under the microcredit umbrella were offered the "gift" of an asset (which could be a cow, a few goats, or a threshing machine) and some short term income assistance (for the period before the asset starts paying off) with the hope that this might permanently rescue them from dire poverty and put them in the mainstream of the village poor population. Following the methodology developed by the Bangladeshi NGO BRAC, which originally came up with this program, for identifying the ultra-poor, Bandhan carried out Participatory Rural Appraisals (PRAs) in the village.² In the PRA, a minimum of twelve villagers ideally drawn from various sections of village society sit together and come up with a map of the village where each household is assigned a location. Then they classify the households into six groups, from the poorest to the richest. Following the PRA, Bandhan selects about 30 households from the set of lowest ranked households.

Bandhan's process does not stop here. They then collect asset and other information about these 30 households and eventually 10 are picked to be part of the Ultra-poor program. We were however interested in the effectiveness of the PRA as a way to target the very poor and in some ways the results bear out the validity of this approach (Banerjee, Chattopadhyay, Duflo, and Shapiro 2008). Those who were assigned to the bottom two categories in the PRA have about 0.13 acres less land than the rest of the surveyed population which might not seem much until we consider the fact that the average land holding in this population is actually 0.11 acres. Similarly while 34% of the surveyed villagers report not always getting a square meal, that fraction is another 17 percentage points (i.e. 50%) higher among the poorest two groups in the PRA. Such households are also less likely to have much schooling and more likely to have a child out of school or a disabled family member.

The one place where the PRA does not help is in identifying those who are consumption poor, but then we also found that in these villages possession of a BPL card is uncorrelated with consumption. And unlike the BPL card, the PRA does predict being land scarce and not being able to get two square meals.

² Participatory Resource Appraisals (PRAs) are a standard technique for getting a group of villagers to map out their village together.

Villagers therefore do have information that they are able and willing to use in the public interest: in particular their information might make it possible to make distinctions within the population of the poor.

Unfortunately, at least in these villages, the PRA completely missed a quarter of those who showed up in our survey—their names never came up. And since our survey deliberately focused on the poor, it is not because these people were irrelevant to the question at hand. Basically it seems that even in a village of a few hundred people, “out of sight” might be “out of mind.” The PRA classifies those it finds relatively well, but what about those it leaves out?

Another concern with the PRA approach is that it might work better as a way to identify the ultra-poor, than as a way to identify the average poor person. Most people probably feel that they are superior to the ultra-poor, and therefore a certain *noblesse oblige* takes over when they are thinking in terms of helping those unfortunate people. When it is the average poor person who is being identified, most villagers probably feel that they are just as deserving as anybody else, which is likely to lead to disagreements and conflict.

Nonetheless the results from this very small pilot were promising enough to encourage us to investigate this issue further. Perhaps one should combine the two approaches: begin by coming up with a list of the potentially poor based on wealth (or other) data and then have the village community edit the list (to reduce the risk of people being forgotten) based on their superior information. One could imagine many other hybrids as well. In some ongoing research, Rema Hanna, Ben Olken, Julia Tobias, and myself from MIT’s Abdul Latif Jameel Poverty Action Lab, along with the Indonesian government and Vivi, Alatas and her team from the World Bank in Jakarta, have been designing experiments to rigorously compare the efficacy of the survey and PRA methodologies for identifying the poor, and to study some of these hybrids.

Self-targeting

The alternative to targeting is self-targeting. The idea of self-targeting is of course not new. The notorious Victorian poorhouses, which Scrooge commended and about which the compassionate gentleman in *A Christmas Carol* said “Many can’t go there; and many would rather die,” were exactly that: a place so miserable that only those who are so desperately poor that they had no recourse would want to go there. India’s recently introduced National Rural Employment Guarantee Scheme (NREGS), under which every rural household is entitled to 100 days of unskilled public employment at the minimum wage

on demand (i.e. within 15 days of asking for employment) in their village is probably the biggest single effort in this direction.

The theory behind such schemes is well-known: it does not need to be targeted, because only those who have no better alternatives would want the kind of work (digging ditches, carrying bricks) that it offers. The fact that it is work on demand also means that you don’t need anyone’s sanction to seek work. It also has the advantage of flexibility: a lot of extreme poverty is temporary and/or unpredictable. For example, when the income earner in your family is unexpectedly taken ill, it might take a long time to get your family reclassified as BPL, but the right to work is designed to be always there for the asking.

The disadvantages are also clear: what happens if there is no one in your family who is fit enough to do manual labor? Moreover, labor is a social resource: making people dig ditches in order to prove they are poor, is of course wasteful unless you want the ditch dug. If you never wanted the ditch and had some way of knowing who the poor were, you could have given them the money and let them do something productive with their time. A significant part of the original NREGS documents was therefore devoted to spelling out what the village needs to do to make sure that the labor is used to create useful (public) assets for the village.

Corruption is also a challenge. This is of course always an issue, but the fact that the NREGS is supposed to be driven and therefore there is no fixed budget, must make it particularly tempting to throw in a few extra names. This is the problem of fake muster rolls (a muster roll is where NREGS transactions are recorded) that critics of the program have talked about. For this reason, the program requires that all muster rolls be displayed in public and supporters of the program put a lot of emphasis on what are called social audits. During these audits, concerned volunteers try to find the people named in the muster rolls and ask them if they received the claim payments.

These audits do reveal a fair amount of corruption in the implementation of the NREGS. In the state of Jharkhand a social audit of five randomly chosen villages carried out by researchers from Allahabad University found that about one third of the money was lost (Dreze, Khera, and Siddhartha 2008). More frighteningly, one of the activists involved in a social audit somewhere in Jharkhand was murdered, and the presumption is it had something to do with what the audit had unearthed. On the other hand, in Chattisgarh an audit of nine randomly chosen projects

suggest that about 95% of the claimed wage payments were actually made.

While 5% seems good and one third less so, it is not clear what the benchmark ought to be. This is also the problem with the other criticism one hears; that the program is not doing enough. The Comptroller and Accounts General of India, a government organization charged with the oversight of public programs, reported that 3.2% of those who had registered themselves for the program had actually worked for the full allowed 100 days and that, on average, a registered family got less 20 days of employment. In response the Ministry of Rural Development, which runs the program, pointed out that among the families that actually participated in the program (i.e. those who actually worked) the average number of days of employment was closer to 40 and 10% worked for all 100 days.

But how does one tell whether 40 days (or 10%) is too many or too few? If no one actually ends up taking these jobs, but the presence of NREGA employment at minimum wages pushes up earnings in the private sector and everyone still continues to work there, we would presumably call the program a success. We would also think it a success if almost no one takes the jobs, but the assurance that a job would be available if need be makes the populace less worried and/or more willing to take profitable risks. By contrast, if everyone wants an NREGA job, but only 50% get employment for 100 days a year, we would presumably be quite disappointed. The CAG report mentioned above, suggests that there is at least some unmet demand, and blames the fact that the program is understaffed, but we do not know how much.

In the survey mentioned above that we carried out in the West, we also found that at least in the villages that were part of our study the possession of a job card (which is what you get by registering for the program) does not predict being poor. Does that mean this program is seriously off-target, or is it that everyone wants to get a job card in order to be safe, but they actually plan to use it only if they run out of alternatives?

Most importantly, even if the targeting is reasonably good and the leakages are no worse than in other programs, how do we know that it was worth the hoops that people had to jump through in order to get the money? In other words, unless we are reasonably confident that the assets built by using program labor were worth the time and effort that went into them, how can we be sure that it made sense to go through all that to get better targeting?

Most of this could have been answered if the program had been subject to a rigorous evaluation

(combined with a detailed survey of the various groups that end up not participating in the NRGS), but the current decision to extend it to the whole country means that there will not be such evaluation in India.³ The question of whether self-targeting is worth the trouble remains an open question.

The performance of targeted programs

The government of India's largest targeted program is the Targeted Public Distribution Scheme under which BPL households are allowed to buy subsidized food-grains and other eatables from what is called a fair price shop in the village, which in turn gets supplies from the nearby government warehouse. This is the program that the government's own Finance Minister recently described in the following terms: "About 58 per cent of subsidized grains do not reach the target group, of which a little over 36 per cent is siphoned off the supply chain. I ask you, respectfully, do not the poor of India deserve a better PDS? How can we sit back and watch helplessly the poor being robbed of their meager entitlements?"

What is striking about the numbers he quotes (from the government's own Programme Evaluation Organization's recent report) is that the biggest source of leakage is not the mistargeting of BPL cards, discussed above; it is the direct theft of the grains along the way. Of this 36%, 20% is "lost" in transit, while the other 16% is distributed against "ghost" BPL cards (i.e. cards issued to people who don't exist).

The report also gives a measure of what it calls "exclusion error." According to its numbers only 57% of the BPL households are served by the TPDS. In other words, one cannot even argue that the massive leakages are the cost of reaching all the poor people.

While, as discussed above, targeting is problematic, it is hard to imagine that the government could not do more to prevent the theft if there was the political will. Indeed we do see that in at least two Indian states, Tamil Nadu and West Bengal, theft is less than 20%.

But if lack of political will is a big part of the problem and targeting is as inefficient as it seems to be, there may be a case for giving up on targeting. This would both eliminate exclusion error and bring the non-poor, with their greater influence on the political system, into the ambit of the program.

Helping them to help themselves

In the conventional view the government does this primarily by helping the children of the poor grow up with the health and education that would enable them

³ There is still value in trying to evaluate the impact of varying some of the program details before the whole thing gets etched in stone. Would there be more jobs created if, for example, instead of assuming that all program beneficiaries have to work for the community, some of them were sent off to work for private business, even though the government continues to back-stop their wage and make sure that no one earns less than the minimum wage? Would there be more energy in the program if the local elites start to feel that they too have something to gain from it? Or would it somehow encourage the elite to try to "capture" the program?

to be full participants in the economy. It might also provide healthcare for adults as a way to insure them against things that are largely out of their control.

Nutrition

India has, by a wide margin, the largest number of wasted and stunted children in the world. According to the recent National Family Health Survey (NFHS-3), 48% of children are stunted and 43% are wasted, which means that India, a much richer country, has roughly twice the stunting and wasting rates as sub-Saharan Africa.

However, while malnutrition is clearly a huge problem in India, it is not clear to what extent it is a matter of access to food rather than nutritional practices. The shocking levels of stunting and wasting rates we report above turn out to correspond to the average for the middle category among the five wealth categories reported in the NFHS. It is hard to imagine that this group cannot afford the levels of nutrition that children must be getting in an average family in an average country in sub-Saharan Africa.

Moreover, it is not obvious that the TPDS, as currently designed, does very much to fix problems of malnutrition. In part it is just an income transfer and most of the evidence suggests that extra money does not turn into very much extra nutrition (Strauss and Thomas 1998). The fact the extra income comes in the form of extra food might help, but only if the 20kg. of grain that a family gets from the TPDS is more than what it would have bought in any case, which, from all accounts, seems implausible.

Given this and the rather disastrous performance of the TPDS, it might make sense to entirely rethink the idea of providing food subsidies to people. Why not give people money rather than food and thereby avoid all the problems that come from the fair price shops? It is true that the price of food varies, but the amount of money could be tied to the consumer price index and in any case there is a strong suspicion that, under the current system, when the market price goes up relative to the TPDS price, leakages increase and the poor end up with less.

There is of course still the challenge of how to make sure the cash actually reaches those who it's meant for, but this is where information technology can help us. South Africa pioneered the technology of using ATM machines that can recognize fingerprints to deliver pensions and something similar might very well work in India. Certainly it seems worth an experiment or two.

However it is not clear that a cash transfer program, however well implemented, will do much

for the problem of malnutrition. As pointed by recently by Deaton and Dreze (2008), the substantial increase in the incomes of the poor between 1983 and 2004 did not lead to a sharp increase in calorie or protein consumption, even in the group that lives on a low 1,600 calories a day. Both calorie and protein consumption went down for all the other (less-poor) groups.

This raises the concern that the poor may be under-investing in nutrition, either because they do not recognize its value or because they do not want to be left out entirely from the consumer paradise that middle-class India is becoming.⁴ In either case, it suggests that informing and influencing people's consumption choices may be an important part of nutrition policy. This is reinforced by other evidence. For example, exclusive breastfeeding till the age of six months is one simple and widely recommended way to fight malnutrition and many childhood diseases. According to the NFHS, the average duration of exclusive breast-feeding is only two months. It is also recommended that breastfeeding be started right after childbirth, so that the child does not miss out on the colostrum, which contains many valuable nutrients. Only a quarter of the mothers in NFHS say that they started breastfeeding within an hour of child birth.

The challenge here is to change behavior, including behaviors that may be deeply embedded in tradition. The Government of India's current idea is that this will be the responsibility of a ASHA *Sahayogini*, a local woman with some schooling who will given 23 days of training and a stipend of about \$25 a month. It is not entirely clear that the kind of people who will take this job will have the energy, the knowhow, or the charisma to the point of being able to persuade other women to change age-old practices. A credible evaluation of the impact of this program is however not on the horizon as far as we know.

Education

The poor performance of the Indian primary education sector has been in the news in recent years thanks to the Annual Survey of Education Reports brought out by the prominent educational NGO Pratham. The basic finding from these reports is well-known: 42% of fifth graders in India cannot read at second grade level, and 68% cannot do subtractions involving two digit numbers.

Yet while there are examples of schools where more than hundred children crowd into a single classroom, the Indian education sector is not underfunded by the standards of comparable countries. India spent 3.7% of its GDP on education in 2005, which is somewhat

4

These are not the only possible explanations—Deaton and Dreze (2008) suggest that it may reflect that there is less demand for hard physical labor.

below the average for lower middle income countries (4.3%) but higher than the average for East Asia and the Pacific (2.9%) (World Bank 2007). According to a recent paper by Murgai and Pritchett (2007), government teachers in India are paid more than other people with similar qualifications. Student to teacher ratios are high but below 40, the cut off that is used in Israel (a much richer country) for the maximum acceptable class size.

The problem, at least in part, seems to lie in the quality of teaching. According to the World Absenteeism Survey (Chaudhury et al. 2003), which sent surveyors to schools at random times to measure teacher presence, 25% of teachers are missing on any given day. Moreover, conditional on being present, they spend only 45% of their supposed teaching time in the classroom.⁵

However what is less emphasized, but equally striking, are child absence rates, which are comparable or higher than teacher absence rates. Given this, one might wonder if the teachers are not simply responding to the general climate of indifference they find among their pupils. Perhaps, at the margin, a few more days of attendance by teachers will not do much for child performance. A recent randomized experiment reported in Duflo, Hanna, and Ryan (2007) tests this hypothesis. Seva Mandir, a prominent NGO in the state of Rajasthan, was facing teacher absence rates of 40% in the single-teacher schools it ran in some of the more remote corners of the state. Under encouragement from Duflo they started monitoring the teacher's presence using a camera and paid the teacher based on the number of days present. It was introduced in a random set of schools, so that the impact could be evaluated.

Many people in the Seva Mandir community felt that while this might make teachers come to school more, it will not affect learning. In fact it raised test scores by a not inconsiderable 0.17 standard deviations, proving that if teachers put in more effort children do benefit.

The fact that better incentives for teachers can lead to better student results was also the conclusion of Muralidharan and Sundararaman (2006). They studied an experiment in Andhra Pradesh where government school teachers were promised a reward based on the improvement in the performance of their students and found a significant impact on test scores, including fields where the results did not count towards the incentive.

However the affect of incentives was, once again, not huge—0.15 standard deviation. Clearly a lot more would be needed to transform India's faltering

education sector. How are we to generate the incentives needed for that to happen?

One answer, which was at the heart of Indian government's last major attempt to reform primary education—the *Sarva Shiksha Aviyan* (or SSA)—is that the community has to play a much more active role in demanding education from the system. However in a survey of 280 villages in Jaunpur district in the Indian state of UP, revealed that at least four years after the launching of the SSA 92% of parents did not seem to know about Village Education Committees, which is the main channel through which they can get involved in improving the local school and access SSA funds, while only 2% could name its members (Banerjee et al. 2006). At that time we had speculated that this could be because no one had taken the trouble to inform them about the VEC or the SSA. We therefore carried out a field experiment in the district aimed at informing and mobilizing parents around the state of education in their village and the possibilities opened up by SSA.⁶ In this experiment volunteers from Pratham spent a day and a half in each village, holding numerous small and large meetings where they informed parents about their rights, including the right to complain about teachers who do not attend and the right to hire extra teaching assistants (*shikshakarmis*) for their overcrowded schools. They also told them about the (poor) performance of the children in the village and taught them how to test their child's reading skills.

None of this had any effect on any parent outcome except that a statistically significant but minuscule 2.6% more parents now knew about the VEC: there was no increase in the number of complaints, no additional visits to the school, no extra effort put into hiring teaching assistants. And not surprisingly, given that, it had absolutely no effect on test scores.

What we cannot yet tell is whether this indifference stems from a belief that the educational route to prosperity does not work for people like them (India, after all, has a long history of believing education is only for certain elite castes). Or is it that they believe that teachers are beyond their reach, politically and socially, and therefore are convinced that trying to make them change their ways is not really an option for people like them. However there is some recent evidence suggesting that it might be a bit of both: Jensen (2007) carried out an experiment in the Dominican Republic where he told poor parents about the returns of education, and found that their children do work harder in school when this happens. On the other hand, the only successful intervention—our UP study—was the one where trainers from Pratham

⁵ This put India among the worst performers in the survey (only Uganda at 27% teacher absence rates did worse).

⁶ For the experiment see Banerjee, Banerji, Duflo, Glennerster, and Khemani (2008).

trained village volunteers how to teach. One or more classes were started in every treatment village, children came and test scores increased substantially. The success of this experiment and the failure of the other interventions (the ones requiring some degree of social action) suggest that parents do care about education but shy away from confronting the teacher.

In either case it is hard to be confident that parental activism is going to solve the lack of incentives, at least in the near future. The alternative is to rely on market solutions, i.e. some kind of a program where parents are given publicly financed vouchers that will pay private school fees for their children. The usual arguments against vouchers seem relatively unconvincing in the Indian context: will it generate more segregation and inequality in the kinds of education children get? Perhaps, but given that the rural elite has already exited the public system in many areas, it is at least as plausible that it would reduce inequality, at least as long as the vouchers are set up in such a way that they cannot be used to subsidize sending children to really elite schools. Should one be concerned about parents colluding with school management to cash in their vouchers instead of sending their children to school? Unlikely, we think, now that parents care enough about education to reach nearly 100% school participation rates.

Moreover the veritable explosion of private schooling among relatively poor families in rural India in the last few years means that in many villages there are multiple private schools competing for students. According to ASER (2007) 19.3% of all children age 6–14 in rural India go to private school. Muralidharan (2006) reports on a nationally representative survey of rural private primary schools in India and observes that 50% of the schools in the 2003 survey were founded in the previous five years.

Muralidharan also observes that these schools are cheap (the median monthly fee is less than \$2 at current exchange rates) despite the fact that the teachers in these schools are more likely to have college degrees and that they have a student-teacher ratio that is slightly more than half that found in public schools. This is because private school teachers are paid between 10–20% of what public teachers are paid. Andrabi, Khwaja, and Das (2003) who studied a very similar phenomenon in the province of Punjab in Pakistan, argue that the gap in performance between private and public schools is too large to be explained by plausible selection arguments: i.e. private schools are simply cheaper and better.

However we clearly need much more compelling evidence before such a radical shift would be

warranted. Karthik Muralidharan and Michael Kremer are currently carrying out a randomized evaluation of school vouchers in the state of Andhra Pradesh; hopefully a number of other upcoming voucher programs in other states will also be evaluated. The challenge for all these evaluations is how to deal with the fact that supply of private schools will need to adjust to the expansion of demand that will happen when vouchers are universalized, but does not happen under experimental conditions. The fear is that fees will go up sharply as schools compete for teachers. In order to be able to answer this question, Muralidharan and Kremer, randomize both across and within villages. If the village is the relevant market for teachers, then the village level experiment will tell us about the impact on school fees and the supply of schools. If however teachers are willing to change villages in order to find work, as seems likely, this will not give us the complete answer and further research would be needed.⁷ In the meanwhile, the education sector is clearly drifting.

Healthcare

Any problem that the education sector has, the healthcare sector shares in abundance. The 40% absentee rates for the Auxiliary Nurse Midwives (ANMs), the lowest level health practitioner in India's multi-tiered healthcare system, are substantially higher than that of teachers (Chaudhury et al. 2003). When a number of health sub-centers (where these nurses are based) were randomly chosen for a program of incentives based on attendance, the nurses and their immediate bosses colluded to completely undermine the incentives: nurse attendance after the experiment was actually lower than before (Banerjee, Duflo, and Glennerster 2008).

Even more worrying, though perhaps unsurprising given the absentee rates, is the fact that even very poor people have mostly stopped making use of these nurses. In the rural Udaipur district, where per capita daily expenditure for the average person is no more than a dollar a day, Banerjee, Deaton, and Duflo (2004) found that less than a quarter of visits to healthcare providers were to government facilities. Nearly 60% of all visits were to private practitioners and the rest were to traditional healers. This is despite the fact that private "doctors" are further away, more expensive, and less likely to have any medical qualifications.

When we asked potential patients why this is so, they cited quality of treatment. We know that this quality is often poor. We already talked about the very high rates of absenteeism. Das and Hammer (2007),

⁷ The answer may also depend on whether the scaled up voucher program will be accompanied by shutting down a large number of public schools, in which case a lot of teachers would be available to be hired.

based on a survey of public and private doctors in urban Delhi, make the point that public doctors who deal with poorer patients more often than not prescribe medicine without ever touching the patient. But a part of what patients call quality is also what the government providers complain about—they say that private providers overuse injections, in particular injected antibiotics and steroids, and this is seen by the populace as good treatment. Our data does provide some support for this view. A remarkable 60% of all visits to private practitioners involve an injection being given, though we do not have the data to say whether these are actually dangerous for the patients. The consensus view among experts is that there is substantial over-medication.

A related concern is that the movement towards private healthcare means that people are no longer talking to people whose job it is to educate them in public health practices (rather than sell them a treatment). For example, in rural Udaipur district less than 5% of children are fully immunized according to our data (Banerjee et al. 2008) and it is not clear that any of the private health providers are going to do anything about it.

More generally, what makes healthcare for the poor particularly hard is that the market solutions are not necessarily particularly attractive, precisely because of the tendency to underestimate the cheap but valuable preventive aspects of medicine, relative to expensive and potentially harmful curative procedures. Subsidized health insurance is the equivalent of vouchers for the case of healthcare, and there are a number of on-going experiments in India including one that we are evaluating. However almost all of these insurance policies only pay for inpatient services for the simple reason that they are much easier to verify. This means that check-ups, tests, and all other forms of preventive medicine are expenses carried by the individual and that the insurance system actually discourages.

At this point there are some doubts about whether even this very simple product can be made economically viable. A product that covers more outpatient services is likely to be much more costly because the utilization of these services is far harder to monitor, and the government may have to get involved. One advantage of a subsidized program is that it could be used as hook to get people more involved in early detection and prevention, as in order to get the insurance at a subsidized rate the individual would need to meet certain requirements.

That such incentives can work well is demonstrated by a recent experimental study where women were offered a kilo of lentils whenever they

got their children immunized. This more than doubled the number of children who are fully immunized (Banerjee et al. 2008).

In some ways government policy in India is moving in this direction. There is now a scheme that gives financial incentives for women who give birth in hospital and as part of the scheme the woman is required to make a certain number of antenatal and postnatal visits to the clinic. While enforcement of these new rules seems relatively lax at this point, it has the potential to make a substantial contribution.

The way forward

The current trend in anti-poverty policy is a rather different approach to the idea that the poor need to take charge of their lives. Instead of thinking of the poor as workers who need to have the requisite skills, it thinks of them as potential entrepreneurs who need capital and property rights and the protection of the law: hence the emphasis, for example, on microcredit. It is not that investment in human capital is unimportant; it is more that the sponsors of this view are skeptical of the government's ability to deliver human capital and would rather see the poor earn extra income to pay for the human capital they want for their children.

The fact that it is not easy to get the government to deliver is, of course, entirely consistent with the argument we are making. The question is whether we can be confident that where the government will not deliver, the poor will; that they can and will pull themselves up by their bootstraps, with a little help from micro-credit organizations.

As we have argued elsewhere at length (Banerjee and Duflo 2007, 2008) there is no empirical warrant for this view. The basic point is that the poor neither have the skills, nor the knowledge of markets, nor the understanding of technology, to compete effectively in the marketplace. They are also, even after they get their microcredit loans, limited by their capital to the most primitive technologies and most crowded occupations, and hugely vulnerable to all the risks of entrepreneurship. The businesses that they actually run bear the imprint of all these constraints. They are tiny (the median firm owned by the poor has no employee) and heavily concentrated in the few industries that can be entered with minimal specialized skills.

What is more, the poor themselves do not expect their businesses to transform their lives. If they did they would put more effort into growing these businesses.

We argue that many could easily expand their businesses, make more money, and thereby slowly climb the ladder out of poverty; but they choose not to.

None of this is to deny that the poor are not resourceful or energetic; it is just that the playing field is so slanted entreat the point of entry that only those few with enormous resolve and/or talent can make it past the starting line. Nor is it to question that microcredit has probably made the lives of the poor more bearable and therefore deserves our support.

But in the end, the government must remain at the center of anti-poverty policy, because without some help and resources from the outside the poor face an utterly unfair challenge. It does not need to do all the things it currently does (badly) and it should certainly focus more on paying for things rather than making them. Income support and strategically targeted subsidies to key delivery agents (NGOs, Microfinance

Institutions, private firms) can go a long way in making the lives of the poor better, without involving the government in delivery. But we should not forget that a very important part of what the government does are things that the market will not—behavior change, preventive healthcare, education for those who live in areas where there are no private schools, emergency relief, etc. Even in these cases, the government can work with implementing partners outside the government, as the example of BRAC in Bangladesh has shown, but realistically, the government will continue to be a major delivery agent in the economy. The challenge for those of us who are in what might be called the ideas sector is therefore to think of ways of redesigning what the government does to make it work better, both in terms of choosing between what it does and what it delegates, and in improving its effectiveness in what it must do.

Bibliography

- Andrabi, Tahir, A. Khwaja and J. Das. "Learning and Achievement in Pakistani Education." Education Sector Feasibility Report. World Bank, 2003.
- Annual Status of Education Report (ASER). "Rural." Pratham Resource Center, 2007. <<http://www.pratham.org/aser07/ASER07.pdf>>
- Atanassova, Antonia, Marriane Bertrand and Sendhil Mullainathan. "Misclassification in targeted Programs: A Study of the Targeted Public Distribution System in Karnataka, India." Unpublished Harvard University mimeo.
- Banerjee, Abhijit. *Making Aid Work*. Cambridge, Massachusetts: MIT Press, 2007.
- Banerjee, Abhijit and Esther Duflo. "The Economic Lives of the Poor." *Journal of Economic Perspectives*, vol. 21(1), 2007, 141–167.
- , "What is Middle Class about the Middle Classes Around the World?" *Journal of Economic Perspectives*, vol. 22(2), 2008, 3–28.
- Banerjee, Abhijit, Angus Deaton, and Esther Duflo. "Health Care Delivery in Rural Rajasthan." *Economic and Political Weekly*, vol. 39(9), 2004, 944–949.
- Banerjee, Abhijit, Esther Duflo, and Rachel Glennerster. "Putting a Band-Aid on a Corpse: Incentives for Nurses in the Indian Public Health Care System." *European Economic Association*, vol. 6(2–3), 2008, 487–500.
- Banerjee, Abhijit, Esther Duflo, Rachel Glennerster, and Dhruva Kothri. "Improving Immunization Cover in Rural India: A Clustered Randomized Controlled Evaluation of Immunization Campaigns with and without Incentives." mimeo, Massachusetts Institute of Technology, 2008.
- Banerjee, Abhijit, Raghavendra Chattopadhyay, Esther DUFLO, and Jeremy SHAPIRO. "Targeting Efficiency: How well can we identify the poor?" Unpublished Massachusetts Institute of Technology mimeo.
- Banerjee, Abhijit, Rukmini Banerji, Esther Duflo, Rachel Glennerster, and Stuti Khemani. "Can Information Campaigns Spark Local Participation and Improve Outcomes? A Study of Primary Education in Uttar Pradesh, India." *World Bank Policy Research Working Paper*, no. 3967, 2006.
- , "Pitfalls of Participatory Programs: Evidence from a Randomized Evaluation in Education in India." *World Bank Policy Research Working Paper*, no. 4584, Impact Evaluation Series no. 21, 2008.
- Chaudhury, Nazmul, Jeffrey Hammer, Michael Kremer, Kartik Muralidharan, and Halsey Rogers. "Teachers and Health care providers Absenteeism: A multi-country study," mimeo, Development Research Group. World Bank, 2003.
- Deaton, Angus and Jean Dreze. "Nutrition in India: facts and interpretations." Unpublished Princeton mimeo, 2008.
- Dreze, Jean, Reetika Khera, and Siddhartha. "Corruption in NREGA: Myths and Reality." *The Hindu*, Jan 22, 2008 <<http://www.hindu.com/2008/01/22/stories/2008012254901000.htm>>
- Duflo, Esther, Rema Hanna, and Stephan Ryan. "Monitoring Works: Getting Teachers to Come to Work." *Poverty Action Lab paper*, 2007.
- Filmer, Deon, and Lant Pritchett. "Estimating Wealth Effects without Expenditure Data or Tears: An Application to Enrollments in States of India." *Demography*, vol. 38.1, 2001, 115–132.
- Jensen, Robert. "The Perceived Return to Education and the Demand for Schooling." Unpublished Brown University, mimeo, 2007.
- Leonard, Kenneth, Jeffrey Hammer and Jishnu Das. "The quality of medical advice in low-income countries." *World Bank Policy Research Working Paper*. Series 4501, 2008.
- Muralidharan, Karthik. "Public-Private Partnerships for Quality Education in India." Unpublished draft, 2006.
- Muralidharan, Karthik, and Venkatesh Sundararaman. "Teacher Incentives in Developing Countries: Experimental Evidence from India." *Job Market Paper*. Harvard University, 2006.
- Pritchett, Lant, and Rinku Murgai. "Teacher Compensation: Can Decentralization to Local Bodies Take India From Perfect Storm Through Troubled Waters to Clear Sailing?" India Policy Forum, 2006/07.
- Strauss, John, and Duncan Thomas. "Health, Nutrition and Economic Development." *Journal of Economic Literature*, vol. 36, no. 2, 1998, 766–817.
- World Bank. "World Development Indicators, 2007: Table 2.9, Education Inputs." 2007. <http://siteresources.worldbank.org/DATASTATISTICS/Resources/table2_9.pdf>.