Delivery of Public Services: Models, Experiments, & Policy*

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1 Introduction

Effective provision of public goods is a key determinant of quality of life. Conventional approaches to poverty measurement look only at private goods, but this view is too narrow. Access to safe drinking water, sanitation, transport, medical care, and schools is essential both as a direct component of well-being as well as an input into productive capability. The rich have the option to seek private alternatives, lobby for better services, or, if need be, move to a different area. The poor frequently do not. This accentuates deprivation that is measured on a more conventional private consumption basis. Households that appear to enjoy very similar levels of private consumption may in reality enjoy have very different standards of living once public goods are taken into account. Mechanisms for effective delivery of public goods and services are therefore central to any credible poverty reduction strategy. This is increasingly recognized by development policy makers. For example, the U.N. Human Development Index, published since 1990, is an attempt to take a broader perspective by including indicators such as life expectancy and literacy. The World Bank's World Development Report of 2004 was devoted to the topic of improving public service delivery to the poor.

These goods and services have important benefits not captured in market returns. They are either subject to externalities (e.g., preventive care in the case of epidemics), peer effects (e.g., children are more likely to go to school if

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their peers do), or a society may have equity or minimum-service objectives (in terms of health, education, welfare). Given these features, it is well known that the market under-provides them as market allocation is based on willingness to pay and the price system does not internalize externalities. The standard view in economics was that the private sector provides private goods efficiently, and the public sector steps in to provide public goods and services and uses taxes/subsidies to correct externalities. The traditional focus of theoretical public economics has typically been on setting taxes and public expenditure levels and has not paid a lot of attention to the mechanism of public service delivery. This view has become increasingly unsatisfactory for several reasons.

First, evidence on government failure mounts. The World Bank's 2004 World Development Report points out that governments in developing countries spend on average only one-third of their budget on health and education. Moreover, very little reaches the poor because of leakage (administrative costs, passive waste, as well as corruption). On top of this, there is rampant absenteeism and poor quality service on the part of teachers and health workers. A recent study on India (Chaudhury et al, 2006) found using a nationally representative sample that on a typical working day 25% teachers and 40% health providers were absent. Since salaries account for over 90% of the non-plan budget in education, nearly half the resources allocated to education are being wasted.

Second, there is increasing recognition that government intervention should not be equated with direct provision by government. Several organizational alternatives, such as public-private partnerships, contracting-out have come up.

Third, there is increasing recognition that there is a large space between the market and the government which is occupied by voluntary non-profit organizations (often called NGOs in the context of developing countries) and community organizations like self-help groups, which play an important role to fill up the vacuum created by the twin problems of government and market failure.

Despite the overwhelming evidence that a large fraction of government expenditure in developing countries on the provision of public goods does not reach the intended beneficiaries, public policy debates often continue to revolve around "how much" (i.e., how much money) is spent by the government on some particular public good. Clearly, the question to ask is *how* to design effective mechanisms for the delivery of public goods) and what are

the outcomes in terms of welfare.

In this essay I explore this theme, drawing lessons from recent theoretical and empirical research. I argue that giving citizens more information and choice about their schools and hospitals, and taking steps to improve the incentives of suppliers of these services are necessary steps toward improving public service delivery. I argue that demand-side interventions that will enable clients to exercise greater choice and supply side interventions that improve the incentives of providers, highlighting the complementarity between the two. The general message is that competition and choice are ideas that are far too important to be left to champions of unregulated markets - they can and should be used to empower the poor. However, they should not be applied blindly: with a poor regulatory environment and uninformed and uneducated clients, these are not panaceas. At the same time, pessimism about the overall political environment, such as the commitment of the elite to the poor, or systemic corruption, or insufficient decentralization, should not be an excuse to dismiss theories and experiments that focus on improvements in the mechanisms of public service delivery as tinkering on the margins. The existing evidence, based largely on randomized field experiments, gives lots of reasons for optimism. More broadly, change often starts in small and unexpected ways, as evidenced by the spread of microfinance, or the rapid expansion of mobile phones that are directly improving the livelihoods of many of India's poor citizens to a far greater degree than any government programme.

The plan of this essay is as follows. In the next section I discuss some facts outlining the state of public service provision in India and in other parts of the world. I will then lay down a general conceptual framework. Next I discuss the broader context of public service delivery. We then discuss the role of three main actors in the sphere of delivery: politicians, bureaucrats and private delivery through NGOs. Next we discuss how the incentives of these actors for delivery and provide criterion for their optimal use. In section three, we cover several background issues that arise from the non-market nature of the relationships between these actors and the beneficiaries of services: accountability, mission design, the role of competition and evaluation. Section seven concludes.

2 The Scale of the Problem: Some Facts

In 2006, nearly 100 million children of primary school age worldwide (15% of the worldwide total) were not in school, and of these 42 million were in Sub-Saharan Africa, and 37 million were in South Asia (UNESCO, 2006). Household data from the NSS (1999-2000) reveal that 30% of children in India between the ages of 12 and 15 have not completed primary school. This of course hides considerable state-level heterogeneity, with Kerala the corresponding figure being 3% and in Bihar, 41%. In 2005-10 the infant mortality rates per 1,000 births was 47 for the world, 55 for India, and 6.3 for the US. In contrast, in 1950-55 the corresponding numbers were 164 for India, 152 for the world as a whole, and 28 for the US (United Nations Website, 2010).

In a well known study, Banerjee and Duflo (2007) look at household level survey data from 13 countries, including India (listed in Table 1), and describe the patterns of consumption and income generation of the extremely poor (defined to be those who are currently living under \$1 a day per person measured at the 1985 purchasing power parity exchange rate), as well as their access to markets and public goods. This is based on the Living Standard Measurement Surveys (LSMS) of the World Bank, the Family Life Surveys by the Rand Corporation, and in the case of India, two surveys carried out by the authors in Udaipur, a district in Rajasthan and in the slums of Hyderabad. This is in addition to the LSMS data on parts of India (Bihar and UP). While the surveys are not exhaustive or representative by any stretch, it is still a novel attempt to use household level data across countries to get a glimpse into the economic lives of the poor that remain hidden behind dry aggregate statistics such as what percentage of the population lives below the poverty line.

From the evidence presented by this study (Table 1) it appears that there is enormous inter-country variation in access to infrastructure (for example, roads, electricity, water and sanitation). For example, in Tanzania electricity is available to only 1.1% households in the sample, whereas in Mexico it is 99%. Also, the parts of India covered in this study do not look particularly impressive given all the economic growth and constant comparisons with China. What is also clear is that there is variation within each country in terms of access to different types of infrastructure. For example, in Indonesia 96.9% households in the sample have access to electricity, and yet only 30.5% have access to toilets/latrines. This poses a challenge to economists to come

up with better measures of poverty that puts weight on deprivation in these dimensions. This also should give a moment of pause to those who have full faith on trickle-down economics: economic growth will not automatically take care of these problems. Similarly Tables 2 and 3 show various dimensions of health and educational status among the very poor in the countries covered by this survey. It is clear that they are significantly worse off than the average: for example, infant mortality in India-Udaipur was 100 per 1000 (55 is the figure for India as a whole), and the percentage of females and males in school in the age group 13-18 was 13 and 24 respectively.

While the factors driving these statistics regarding public goods and services are complex, recent research has focused a lot on absenteeism among service providers. I have already mentioned the study by Chaudhury et al (2006) who look at teacher and health worker absence in developing countries (in particular, Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda). Their study is based on random inspection by survey team (as opposed to attendance records at the facility). They find an average absence 19% for teachers and 35% for health workers (Table 4).

Despite 25% absence rate of teachers for India, few teachers fired and only less than 1% head-teachers transferred. In fact, in this respect private schools have an advantage because they often hire teachers on a contract basis, as opposed to the guaranteed employment norms of the public sector. For example, 35 out of 600 private schools had a teacher dismissed for tardiness, as opposed to one in 3000 for public schools.

3 A Conceptual Framework

What are the sources of problems in terms of delivering public goods and services to the poor? Think of an individual who is making a decision about a public good or a service: for example, whether to send his/her child to school or which school to send them to (say, a free public school or fee charging private school), or, whether to participate in an immunization or de-worming programme, or to use an insecticide treated nets (ITNs) that prevent malaria with or without a user charge. Also, suppose that society puts an additional value on this individual obtaining this service over and above the benefit that this individual receives. We can classify the problems relating to public service delivery in terms of: a) factors that make the individuals less willing or able than is socially optimal to obtain the public service; b) factors that

make the suppliers of this service less willing or able to provide the service at a satisfactory level of quality; and c) factors that cause the social valuation of this individual obtaining this service not being reflected in the level and quality of resources that end up being effectively used for that purpose.

This corresponds to the simple but useful conceptual scheme proposed by The World Development Report (2004) that identifies the three sets of actors and their inter-relationships in the context of public service delivery, namely, clients, providers (bureaucrats, non-profis, for-profits), and the state. We can also introduce civil society as an additional actor, including advocacy-NGOs, community organizations, political movements, and the media. For the most part, we will focus on the first three sets of actors.

For most private goods, the key relationship is between the first and second actors, with the third actor only playing a regulatory role in addition to providing physical and legal infrastructure that supports and facilitates private transactions. However, in the presence of market failures, externalities, and social objectives concerning equity and welfare, the state would want to intervene. As we mentioned, this intervention can take many forms, from direct provision to subsidies, and more recently, to delegation to private providers and restricting itself to a financing and regulatory role. The various problems in public service delivery can be classified in terms of problems with these actors and their inter-relationships. For example, we will focus a lot on the incentive problems on the part of providers due to imperfect monitoring and quality being difficult to measure. In addition, the clients themselves may not be well informed or always act in the best interest of themselves or their family members. Also, corruption leads to leakage of societal funds targeted to the poor or pro-elite bias of policymakers may lead to insufficient weights being placed on the welfare of the poor.

Below we discuss the roles of these three sets of actors.

3.1 Politicians: The Funding Side

Broad issues of policy and finance typically lie in the domain of politics. Thus appropriate levels of financing and effective delivery depend on effectively functioning political institutions. Debates about these institutions often focus on two issues of representation and accountability. These reflect the two broad conflicts of interest that politics resolves. Issues of representation refer to conflicts of interests that arise between different groups of citizens while accountability concerns conflicts of interest between governors

and governed (the principal-agent problem). The modern political economy literature looks at the way in which political institutions affect how these two dimensions of political conflict.

The conflict between different groups of citizens is particularly hard to resolve in ethnically fragmented societies. Easterly and Levine (1997) show in a cross country study of African states that ethnic diversity is negatively correlated with public service delivery of roads, electricity and education. This conflict is often not effectively resolved by the set of political institutions in place (see Easterly (2001) for an analysis and cross country comparison).

How important politician selection is for targeting of services is high-lighted by recent research conducted on constitutional changes in India (See Besley at al, 2004a,b and Pande, 2003). In 1993 the Indian constitution instituted a three-tier structure of local government by introducing the entity of a 'Gram Panchayat' which typically constitute between 1-5 villages. A certain fraction of seats on the council of the Gram Panchayat were reserved for women and low caste groups. Reservations affected the targeting of public resources across caste groups significantly. On top of this reservation effect, Besley et al (2004a) find evidence of targeting policy activism towards the villages of elected officials. While gender reservation did not matter in the Indian sample, Chattopadhyay and Duflo (2004) find evidence for an effect women's reservation on policy in the context of West Bengal.

The issue of representation is similarly complex. Political representation is enforced through electoral sanction in democracies. A politician is typically not contractually obliged to do very much – promises during electoral campaigns are not binding ex post. The only way to guarantee that politicians behave well is either to select good politicians – those who are sufficiently publicly spirited - or else to use sanctions against them if they under-perform. Legal sanctions are only viable in quite extreme circumstances – for example if a politician is tried for grand corruption. The main mechanism for enforcing good performance is holding frequent elections. How important this effect is for growth, is shown by a recent study of electoral competition in the US (see Besley and Persson, 2005).

An important issue concerning both representation and accountability in public service delivery is the choice between centralized and decentralized provision¹. There are a number of theoretical reasons why provision may differ in centralized and decentralized systems of finance and provision. Chief

¹See Treisman (2002) for a general discussion.

among these is the possibility of tailoring policies more effectively to heterogeneous populations and improving accountability. However, decentralized government may be less able to reap scale economies and internalize spillovers across government. Also, they are more vulnerable to elite capture. Whether decentralization is a good idea from a theoretical point of view will depend upon the nature of the service. There is a emerging body of empirical research on decentralized government. However, there are good reasons to be very cautious in the application of general theoretical and empirical findings concerning decentralization to the context of a developing country (see Bardhan, 2002).

3.2 Clients: The Demand Side

Even if there we no supply side problems - namely, the quality of schools and health care facilities were excellent and these facilities were widely available - the mere fact of poverty would imply that demand side interventions are needed, in terms of enabling the poor to afford these, the simplest form of which would be unconditional cash-transfers. In effect, it expands the budget set of an individual and lets him/her decide how to spend it. There are several problems with it. First of all, like with any form of redistributive schemes, targeting is a big problem and one can the see the incentives of those who are not poor to try to capture some of these transfers via fake documents or bribery. Second, even if the above problem is avoided, e.g., by the proposed UID scheme in India, the poor may not be act in their long-run self-interest or the interests of their children and suffer from too much present-bias or from imperfect information. Third, there are important intra-household allocation issues and often the male head of the family may not fully take into account the welfare of the rest of his family. Fourth, to the extent there are externalities (e.g., preventive health care such as immunization, keeping the neighborhood clean), unconditional cash transfer programmes will lead to suboptimal outcomes, as in the standard economic model - they will under or over-spend on decisions that have positive or negative social externalities respectively. This creates a rationale for other more complicated forms of transfers.

These could be in the form of in-kind transfers, vouchers (e.g., food stamps), subsidies, or conditional cash transfers (e.g., cash transfers made to poor families in exchange for regular school attendance by children along with health clinic visits, and nutritional support such as the well known

Progressa programme in Mexico - now called Oportunidades).

The key issues driving the choice among these would be: (a) finding mechanisms for delivering it to the intended beneficiaries (to prevent leakage and corruption, to make sure the non-poor don't capture it, for example, make working a condition for receiving transfers, as in the National Employment Guarantee Scheme of India); (b) the extent to which individuals are not fully rational actors, and may sometimes act against their long-run self-interest or the interests of their children (as in the behavioural economics literature); (c) to the extent there are peer or social network effects, which are particularly important for certain types of public goods and services where there are externalities (e.g., Kremer and Holla, 2008 discuss how the aggregate response to prices exceed individual responses in the context of user fees).

Some of the problems here would apply even for private goods. For example, let us consider the ongoing discussion in India about food-stamps replacing the public distribution system.² India vanguished food shortages during the 1960s with the Green Revolution, which introduced high-yield grains and fertilizers and expanded irrigation, and the country has had one of the world's fastest-growing economies during the past decade. But its poverty and hunger indexes remain dismal, with roughly 42 percent of all Indian children under the age of 5 being underweight. The food system that has existed for more than half a century has become riddled with corruption and inefficiency. Studies show that 70 percent of a roughly \$12 billion budget is wasted, stolen or absorbed by bureaucratic and transportation costs. Food stamps would enable greater choice and access to the recipients and lower illegal diversions. It will get rid of the supply side problems by not relying on special "fair price shops" where government subsidized grains arrives and is meant to be distributed but is often illegally diverted to the open market. In effect it is a policy of redistribution in kind through augmenting the purchasing power of the poor. However, this demand-side intervention is subject to several problems. For example, one issue is that of identifying and targeting the BPL families. Another issue is the problem of voluntary diversion: food coupons are akin to cash and, therefore, can be diverted for conspicuous consumption resulting in defeating the main purpose of ensuring a minimum calorie intake for all the members of a BPL family. Here biometric or electronic forms of identification will help.³ Also, at worst it will not

²The discussion below draws from "India Asks, Should Food Be a Right for the Poor?" by Jim Yardley, New York Times, August 8, 2010.

³For example, the United States which passed a legislation on food stamps in 1977

make the poor any worse off than the current system and prevent tax-payer money intended for the poor being pocketed by unscrupulous traders and government officials.

The question is: can equivalent schemes work for public goods and services, in the form of vouchers for medical services or school fees? For any scheme that is proposed there will some form of potential abuse and corruption and often the discourse therefore wants to throw the baby out with the bathwater. A recent study on educational vouchers in Colombia provides encouraging results (Angrist et al, 2002). Colombia used lotteries to distribute vouchers which partially covered the cost of private secondary school for students who maintained satisfactory academic progress. Three years after the lotteries, winners were about 10 percentage points more likely to have finished 8th grade, primarily because they were less likely to repeat grades, and scored 0.2 standard deviations higher on achievement tests. The study concludes that benefits to participants likely exceeded the \$24 per winner additional cost to the government of supplying vouchers instead of publics school places.

3.3 Providers: The Supply Side

Turning to the supply side the key issues are incentives (e.g., should teachers be paid a bonus based on student performance), and organizational choice (for-profits, non-profits or public sector organizations), market structure (competition vs. monopoly). For private goods (no externalities) competitive markets and for-profit firms deliver efficient outcomes. They are often equitable, but that can be addressed by direct redistributive policies. For public goods, the first key issue is that of externalities, and second key issue is that of measurement of quality. If the second issue was absent, taxes and subsidies would work to achieve any social objective (e.g., a combination of equity and efficiency). However, there is increasing awareness that the kind of performance measures that apply to private goods do not often apply to public goods, where quality is harder to measure and is often realized a long time after the intervention (e.g., preventive health care, education). This is not to deny that even private goods can have quality measurement

and caters to over 35 million people every month, has a system of direct transfers through electronic debit and ATM card system accepted at most grocery stores where the card gets topped with cash subsidy at the beginning of every month which can be used for making payments

issues and requires various contractual mechanisms, reputational concerns, the pressure of market competition, and government regulation to solve it, as the recent financial crisis has amply demonstrated.

3.4 Bureaucrats

The case of service providers in bureaucracies is quite different from that of politicians. These individuals can be held to account using more formal contracts and standard methods used in the private sector. This, in principle, means that contracts can be detailed with use of incentive pay as a carrot and performance targets as the basis of job retention. There has been much more interest recently in the potential for such formalized incentive arrangements to improve the quality of public service delivery. For example, a number of countries have experimented with incentive pay for teachers conditioned on test scores or attendance. One of the big policy issues right now is how far such initiatives work and should be extended more broadly into all areas of the public sector. This is a controversial topic and needs sound arguments and evidence to be resolved.

Whether provided in state or private organizations, individuals needed to be motivated to provide goods that achieve collective benefits. There is plenty of evidence that some individuals are motivated to contribute to the collective good. There are a number of different explanations for this. Individuals could be altruistic caring about the benefits that they achieve for others. This could also be ideological, with individuals believing that their private actions fulfil some wider objective (religious or political). Outside of economics, this is given the general label of "public service motivation" (Francois, 2000). Behavioral economists have urged going beyond the narrow conception of a self-interested economic agent, and emphasized the importance of the motive to reciprocate and the desire for social approval (Fehr and Falk, 2002). The role of incentives is to harness these feelings and to put them to the social good in an efficient manner.

The traditional model of state provision assumes away incentive problems, assuming that the government can stipulate and enforce a level of provision. It implicitly assumes that individuals who work in the public sector needed little direct motivation to pursue the social good. Rewards depended little on performance. The implicit assumption was that teachers, health care professionals and bureaucrats are publicly spirited and that this was enough (see Legrand, 2003).

Under the billing of the "New Public Management", there is now much more attention paid to incentives in the public sector. The two central propositions are: (i) that beneficiaries need to be given more say in the provision of public goods and services and (ii) incentives for public servants needed to be more high powered – explicitly linking outputs and inputs. At some level, this is compelling. After all, it seems to mirror the model that prevails in the private sector. Beneficiaries or consumers have the right to choose among different providers, and workers and managers receive bonuses for generating higher profits.

Elements of this philosophy of incentives and targets now affect debates in all parts of the world. But before embracing this new paradigm, it is important to remember where it came from. It was born out of efforts, most notably in the U.K. under Margaret Thatcher, to decrease the size of the public finances going to public goods and services while preserving service levels. The prevailing view was that the public sector was getting rents which could be extracted and converted to better service levels.

But if the aim is efficiency in delivery it is important to note that the fundamental problems of providing public services have nothing to do with who owns or operates the organization that provides the service, public, private for-profit, or non-profit. Instead they stem from important differences between public and private goods which imply that incentive issues are somewhat different and a mechanical application of what is efficient in the private sector is likely to be misleading.

First, in many cases the goods are complex and as a result the objectives of the relevant organizations are somewhat imprecise. For example, the objective of a school is to provide "good education", but this is much harder to define compared to say, production of rice or provision of banking services or even some public services such as garbage removal or power supply. This means that in these cases it would be hard to find good performance measures.

Second, the reason why such goods are complex is because they involve several dimensions. For example, good education involves students being able to achieve high scores in standardized tests, but also encouraging a spirit of creativity, curiosity and inculcation of good values. The former is easy to measure but if teachers are rewarded just on the basis of the performance of students in tests, this might lead to an excessive focus on test-taking skills at the expense of the other components of a good education. This makes provision of incentives hard when employees have to perform multiple tasks

(Holmstrom and Milgrom, 1991). Similarly, if hospitals are given incentives to cut costs, they are going to sacrifice quality by refusing to treat certain types of illnesses or being excessively selective in using expensive medical procedures.

Third, there may be many competing views on the right way to provide public goods – not just on the optimal level of provision, but crucial aspects of project design. For example, should a school run by a non-profit be allowed to teach religious material or just science and mathematics? This affects the extent to which agents working together to produce public goods and the beneficiaries have congruent objectives.

What do these considerations imply about how agents providing public goods should be rewarded?

In terms of standard incentive theory, it is well-known (see, for example, Dixit, 2002) that in these environments, low powered incentives are likely to be optimal. If performance measures are noisy, then making rewards very sensitive to performance does not give effective incentives, and imposes unnecessary risk on the employee. If the employee has to do several tasks, and some of these have good performance measures and not others, then making her pay sensitive to the good performance measures will cause her to substitute effort away from the other tasks, and could result in a loss of efficiency.

The fact that providers may be intrinsically motivated is also very important. This may reinforce the tendency towards low powered incentives. If the employee receives a non-monetary reward from doing her job well, then clearly she can be paid both a lower wage and her pay does not have to be made very sensitive to her performance. Of course, the incentive structures offered for providing public goods may affect who chooses to work within the public goods producing sector. Lower wages may act as a screening device: attracting only those workers who have a desire to achieve the social good. A higher wage or more incentive pay may then erode the notion of public service careers as a calling and therefore change the selection of individuals into bureaucracy.

However, there are important caveats to this strategy. First, there may a trade-off if individuals differ also in their abilities. With lower wages and low-powered incentives, the public sector may end up being a haven for well-meaning but incompetent individuals. There may also be an adverse selection problem if there are some dishonest individuals who will use the public sector to pursue private ends. Besley and McLaren (1993) refer to the strategy of

paying ultra-low wages since these agents are expected to take bribes as "capitulation wages". Under this strategy the public sector may end up being a haven for dishonest individuals.

3.5 NGOs

There are two main kinds of formal institutions for provision of public goods: governments and non-governmental organizations (NGOs). Above we discussed the issue of incentives and organization design in the context of bureaucracies. NGOs are private organizations funded by private donors and governments that are typically run on a non-profit basis. Whether provision is public or private, incentive problems abound in formal provision of public goods. These are concerning how projects are selected and employees are motivated to provide goods with wider social benefits. These issues have received only limited attention in existing analyses. But recognizing this may go to the heart of what form of provision is optimal

The above discussion gives some insights into the possible success of NGOs in developing countries as an alternative to state provision (Besley and Ghatak, 2001). In the last two decades NGOs have been increasingly involved in the provision of relief and welfare, social services, and various development projects (e.g., agricultural extension, micro lending) in less developed countries.⁴

What explains the relative success of NGOs?

First, NGOs may find it easier to screen on motivation than the government. For example, the German NGO scene is entirely captured by faith/church driven NGO's who are very successfully implementing all kinds of projects in the developing world - especially Africa.

Second, NGOs may also foster public service motivation by providing a better match between the ends of the organization and its workers. A government that is buffeted around by electoral concerns may result in some

⁴According to the UNDP (1993), there are more than 50,000 NGOs working at the grass-roots level in developing countries whose activities have affected the lives of 250 million individuals. A major source of NGO funding worldwide is increasingly coming from funds borrowed by governments from the World Bank and a number of multilateral and bilateral agencies which are then channelled through NGOs. In addition, governments channel considerable sums of domestically-mobilized revenues through NGOs. In 1973 only 6% of World Bank projects had some degree of involvement of NGOs, whereas in 1993 this share has risen to 30%. See Besley and Ghatak (2001) for a detailed discussion, and references to the literature.

public servants having to carry out policies which they are do not believe in. This undermines public service motivation.

The enthusiasm for NGOs in the developing world is manifest. However, some words of caution are warranted. The prevailing view of public goods provision by NGOs has transferred the traditional model of the public sector as staffed by highly motivated staff to the private sector. Just as public sector workers were thought to be "beyond incentives" so now it is the NGO worker. The bumbling or corrupt bureaucrat looks bad indeed compared to the young and the idealistic NGO activist. However, one has to be careful about the possibility of opportunistic behavior by NGOs.

In countries with high unemployment and bad job prospects in the private sector, NGOs often become an instrument for rent-seeking activity at the expense of donors. Also, NGOs with strong ideological views may not improve the welfare of the poor (unless they share the ideology). For example, some religious NGOs do not provide the latest medical treatment or even really rudimentary pain management, but concentrate instead on doctrinaire concepts like "nobility of suffering".

The weak accountability structures of NGOs become apparent in this context. Unless there are many NGOs operating in the area, the beneficiaries are not in a position to vote with their feet. The same is true of government provision. But NGOs do not have to worry about getting elected. This can be a good thing in some respects, but it also means they are not accountable to the electorate.

It seems that the time is ripe to insist on greater transparency in NGOs which would include a much greater use of evaluation studies of their actions. While this is beginning and NGOs have sometimes been on the frontier in promoting evaluation of interventions, there are cases that are shrouded in mystery with myth triumphing over measurement. A glaring example of this is micro-credit provision by NGOs which is crying out for randomized evaluation.

One recent reaction of NGO's to these problems has been the adoption of best-practice codes for great transparency. Amnesty International, Greenpeace and Oxfam are three among 11 other non-governmental organizations signed a voluntary 'accountability charter' in June 2006. Signatories "recognize that transparency and accountability are essential to good governance, whether by governments, businesses or non-profit organizations", the charter draft says. In addition, the organizations must provide transparent bookkeeping, and regular assessments of the organization's environmental impact

and its ethical fund-raising standards. Mechanisms are required enabling internal 'whistle-blowers' to report malpractice within organizations.⁵

Finally, a few words about contracting out public services to for-profit firms as opposed to leaving the provision to NGOs or the government. It is a simple fact of government or NGO provision that no one is a residual claimant. This leads to incentives for the manager being less sharp than in the case of a for-profit firm. A downside of this is that managers have lower incentives for doing good things (e.g., supplying effort). But it also means lower incentives for doing bad things (e.g., cutting costs at the expense of quality) and under some circumstances this could have a net efficiency advantage (Hart, Shleifer and Vishny, 1997). The owner of a for-profit firm can appropriate the benefit of quality-cutting in the form of larger profits, but for the manager of a non-profit or a government agency it takes the form of perks which are of lower value than the money equivalent (Glaeser and Shleifer, 2001).

The general point here is that a system of organization and remuneration for the provision for public goods will have to take into account not only how on-the-job incentives affect how those in the sector work, but also who is attracted to work there. In this context, an important thing to note is that even if individuals are value-driven, whether they choose to exert extra effort might depend on, among other things, whether the organization is run by a for-profit firm or is non-profit (Francois, 2000).

3.6 Private For-Profit Firms

Some public services are provided through private for-profit firms. From the economic point of view, the key trade off here is being cost and quality. Private for-profit firms will minimize costs or maximize profits and to the extent quality measurement is not a major problem, they can be an attractive alternative. Indeed, in India private health care providers and educational institutions constitute a thriving sector. However, to the extent quality is hard to measure and/or the regulatory environement is slack for-profits will sacrifice quality for profits. Consider the study by Das and Hammer (2005) on health care providers in Delhi. They found that the overall knowledge of medical practitioners was very low, and the provider was more likely to do harm than good. The study finds that there is some justice to the standard

⁵Financial Times, 12 June 2006

view that private sector doctors are often quacks, while public sector clinics are staffed by less competent doctors. The study also reveals that what doctors knew often had very little to do with what they actually did. The problem in public sector was undersupply of effort, and the problem in the private sector was oversupply of wrong kinds of efforts, e.g., overmedication and poly-pharmacy. This fits with the standard incentive model of the cost-quality trade off – with low incentives individual undersupply "good" as well as "bad" efforts, whereas with sharp incentives and bad measurement, individuals oversupply "bad" efforts. The study also finds a huge amount of segregation by income: richer areas are served by better doctors (mostly private). However, for goods and services for which the public component is small and/or quality is observable, there is no a priori reason not to involve private for-profits (e.g., garbage collection, mobile toilets).

4 Some Organizational Issues in Service Delivery

A main concern in public service provision is how the obligations of the different parties is defined and enforced. This may differ quite a lot by type of service and provider. The role of formal contracts is often quite limited in public service delivery when compared to the market. If an individual buys a service, say to build a house, then there is frequently an effort to specify formal contractual terms and to have this enforced by the law. In the case of public services, such contracts are typically entirely absent. For example, parents have almost not formal contractual relationships with teachers and patients have similar standing with respect to doctors. This raises several issues that are discussed in this section.

4.1 Missions

The absence of formal contractual relationships makes a typical incentive pay hard to establish. At the same time work in organizations that try and achieve the "greater good" is linked to some degree of satisfaction not reflected in the wage payment. Building on this simple fact we propose what we call the "three Ms" approach regarding the design of public organizations: mission design, matching and motivation (see Besley and Ghatak (2005)). Below we sketch the key ideas with some examples.

Public service provision often takes place in mission-oriented firms. The mission of the organization, displaces the conventional notion of profit maximization used in the case of private sector organizations. The idea that missions are important in public organizations is not a new idea. It is a central plank of James Q. Wilson's celebrated study of public bureaucracies (Wilson, 1989). He defines a mission as a culture "that is widely shared and warmly endorsed by operators and managers alike." (page 95). The notion that the missions of organizations is also an important is a frequent theme in the literature on non-profit organization (see, for example, Sheehan, 1998). It is the nature of the activities in question and not whether the service is provided public or privately that unites mission-oriented organizations.

While the notion of mission is somewhat vague compared to more tangible notions like profit, we believe that it is an important departure when thinking about what organizations that are not directly responsive to market forces behave.⁶ In so far as principal and agents share a view of the mission, it is likely that an effective mission will economize on monetary incentives.

Some indirect evidence on the importance of missions for incentives comes from Nagin et al. (2002). Their data suggests that a significant part of the employees of a telephone marketing firm do not follow a "rational cheating model" - they do not shirk more when faced with a reduction in monitoring. Employees who follow the model and respond to reductions in monitoring tend to be those who perceive the employer as being unfair and uncaring. The data gathered on employees suggests that this pattern of behavior seems to stem from variations in the "disutility of opportunism" rather than variations in outside options. If this is true, missions can reinforce this disutility and therefore replace harder incentives.

We assume that the mission of the organization is determined by the principals in the organization. This can be a heterogeneous group with overlapping responsibilities. For example, in the case of a school, they are the parents, the government and the head teacher. Preferences over missions can be heterogeneous. For example, some parents may value high levels of discipline. There could also be disagreement on the right curriculum choices such as the weight to be attached to music teaching or languages. An important role of the management in a mission-oriented organization is to foster a

⁶Missions can also be important in more standard private sector occupations. Firms frequently profess that their goal is to serve customers rather than to make their shareholders as rich as possible. However, it is unclear whether these are genuine missions, or just a veil for some other underlying self-interested behavior.

congruent outlook. Thus as Miller (2002) argues in the context of her case studies of twelve non-profit organizations, "Non-profit board members do not expect conflict between the executive director and the purpose for which the organization was created. The board believes that the executive management will not act opportunistically and that what management actually does is ensure good alignment and convergence in its relationship with principals." (pages 446-7).

Changing the mission of an organization in a way that is not favored by the agents can reduce the efficiency of the organization. In that sense, the approach shows why mission oriented organizations are conservative and slow moving since there is a rigidity built in from the types of agents who are attracted to the organizations. Organizations without mission-oriented agents, such as private firms, are likely to be more flexible and adaptable.

A key assumption is that the provision of public services benefits from the effort put in by these agents and that high quality public services require a high intensity of effort. It also depends on the abilities of the service providers and the quality of the capital inputs that they use. We assume that this effort is costly and that the agents in question have to be motivated to put in effort. But rewards to putting in effort are not purely pecuniary – agents could be motivated to provide high quality services because they care about the output being produced. However, the non-pecuniary rewards depend on the way in which the organization is structured. For example, teachers may care about teaching to a curriculum that they think is most conducive to learning. Thus, the mission of the organization can affect the degree to which agents are willing to commit costly effort.

When goods are produced with external benefits, then individuals who work in the production of these goods may factor the value of the output that they produce in their decision to work in that sector and into the amount of effort that they put in. This is the labour market equivalent of the idea that individuals engage in private supply of public goods and those with the highest valuation of public goods may have the greatest interest in contributing. The model could also be one in which individuals are "altruistically" motivated or that they get a "warm glow" from doing social good. In the former case, the level of the good being produced matters to

⁷These ideas are also related to the strong professional ethics that govern the behavior of workers in the production of collective goods. Such ethical codes de-emphasise narrow self-interest.

the individual, but not who provides it. This can lead to free-riding. In the latter case, its not the level of the good, but how much the individual himself/herself contributes to it matters. It is clear that on either of these views the value of what they do should be attached to the job that they do and not the sector in which they do it. Thus, if a nurse believes that nursing is an important social service with external benefits, then it should not matter whether she is employed by the public or private sector except in so far as this affects the amount of the benefit that she can generate.

But the existence of intrinsically motivated agents could have important implication for organizational design. Not only could monetary incentives be made abundant by intrinsic motivation but they could actually harm the aims of the organization. Francois (2000) for example has shown that the fact that government bureaucrats are not residual claimants implies that they can commit to a "hands-off" policy which elicits greater effort from workers who have "public service motivation". Running a firm for-profit might then demotivate the workers.

The existence of missions and their motivating effect raises another important point. A system of organization and remuneration for the provision for public goods will have to take into account not only how on-the-job incentives affect how those in the sector work, but also who is attracted to work there. If individuals differ in terms of how motivated they are, and have heterogeneous mission-preferences, it is important to examine the process by which agents are matched to an organization, a topic which we turn to now.

Matching is the process by principals and agents come together to create an organization. This could be governed by choice as when a parent picks a school for their child or by government policy. Matching serves an allocative role in bringing consumers to providers ("product market matching") and of workers to providers ("labour market matching").

If consumers care about the missions adopted in public organizations, then allowing them to choose between public-service providers with different missions is a potentially important source of welfare improvements. There is no reason why a consumer could not exercise choice between two competing hospitals or schools in much the same way that they choose a TV or a car. It is true that it may be more costly to acquire information about health care services. Also relationship-specific investments may be important for health and education, making switching more costly. But these are differences in degree, not in kind. Moreover, complex choices such as provision for old age are routinely left to private decision making. This application of

private good choice to public services underpins the standard argument for voucher provision of public services. The state provides the citizens with a voucher that entitles the individual to a particular service (or it could be a monetary amount) and they then choose where to spend that voucher. This is, effectively, the kind of system in place for eye tests for low income individuals in the U.K..

Principals and agents can match with one another on the basis of the perceived mission of the organization. This is a natural consequence of organizations being mission oriented. This matching increases efficiency in the operation of public service organizations since the returns from putting in effort are higher when agents share the same goals as those espoused by the organization.

4.2 Accountability

Accountability is one of the buzz words in service delivery. The main idea is that service providers should have better incentives to respond to the needs of beneficiaries either through a political, bureaucratic or market process. Accountability applies in both the political, bureaucratic and market sphere.

Broadly speaking the problem of accountability rests on information, incentives, and selection. The first refers to making information available to citizens that allow them to evaluate the performance of a provider. The second refers to a system of punishment and reward consequent on actions taken by agents. The third refers to the process of putting place specific individuals to make decisions.

We have already discussed the fact elections are the central device for achieving accountability in democratic settings. Their role in achieving accountability rests crucially on how information is processed and used in the context of political competition. One of the largest sources of entrenchment in politics is control of key information providers such as the media. Repression of the media is associated with low levels of political turnover and high levels of corruption (Besley and Prat, 2006).

As well as benefitting from transparency in government, political accountability requires that poorly performing politicians are replaced. This requires an open entry process and a high level of political competition. In situations where a politician has a large personal vote or belongs to an unassailable political coalition, the electoral sanction may not create effective performance incentives.

Another important step stone for political accountability is the separation of powers between executive and legislative bodies (see Persson et al, 1997). It helps prevent the abuse of power by creating a conflict of interests between the executive and the legislature, yet requiring both bodies to agree on public policy. As a result, the two bodies ensure accountability at the voters' advantage. However, this positive effect of checks and balances is endangered if transparency is not insured and the possibility for illegal collusion grows.

One example for this control at the grass roots level are village meetings. In their study on south Indian villages Besley et al (2005) find that village meetings (Gram Sabhas) which review resource, especially targeting of benefits to "needy" households lead to a significant decrease of political opportunism. However, the effect of these direct measures is not guaranteed. Citizens have to be motivated to spend time and effort to attend and follow meetings and punish misconduct. If direct control is too costly, free riding can cripple its positive effect (Olken (2005), for example, finds little effect of village meetings on corruption.) In addition, direct control hinges critically on the ability of citizens. Formal control rights have no bite without empowering factors like education (see Besley at al (2004b) for evidence in the Indian context).

Turning now to the bureaucratic sphere, a key issue concerns to whom they are accountable. The traditional model is one in which it is politicians who control the bureaucracy. However, there is increasing focus on the possibility of more direct forms of accountability to service beneficiaries. Information is key here, too since one way to ensure accountability is through making sure that beneficiaries are informed about resource flows – see for example Reinekka and Svensson (2004, 2005, 2008).

Several recent studies show that giving access to greater information to citizens allow them to monitor providers better. In a randomized experiment in Uganda, Reinekka and Svensson (2008) local NGOs worked with communities to encourage them to be more involved with the state of health provision and improve their capacity to hold local health providers accountable for their performance. The results are encouraging, in contrast to the Olken (2005) study mentioned before. The reasons could be corruption is harder to monitor than basic facts about health care provision, and also, the meetings were organized to ensure wide participation in order to avoid elite capture. In the Indian context, Here the recent institutional reforms in the form of the Freedom of Information Act, technological innovations such as mobile phones, and infrastructural innovations in the form of the proposed

Unique Identification Number scheme hold great promise. These need to be complemented by reforms that enable greater participation of citizens in the monitoring of service providers.

As we have already discussed, the issue of accountability in NGOs is unclear and will depend on a wide range of factors. At the very least, such relationships are vague and complex involving many players such as donors and, in some instances, beneficiaries.

It is important to keep in mind that accountability does not have to be governed by formal relationships. In many parts of the developing world, social sanctions and enforcement play a decisive role for accountability. But while these mechanisms work well in many instances they are fragile and break down across networks. One example of this fragility has been studied by Gugerty and Miguel (2005) who analyze the effect of ethnic fragmentation on the provision of finance for primary schools and well maintenance in Kenya. They show that ethnic fragmentation has adverse effects on public service provision because the possibility of sanctions breaks down in ethnically diverse areas.

4.3 Ownership

Debates on public service reform often find that ownership issues have high salience, e.g. the debate over privatization. The importance of ownership issues can often be exaggerated. Ownership is about legal property rights, but does necessarily directly reflect how those assets are used. Clearly, in the context of private goods, ownership creates residual control rights, and this is good for investment incentives. In the context of public goods or services, the ownership question takes various forms, such as privatization, contracting-in and contracting-out. The important contracting problem in these environments is considered to be incentives to undertake investments that will improve quality and/or reduce costs. The basic trade-off between public ownership and private ownership is under the former, there might be insufficient incentives for both, since no one is a residual claimant. However, under the latter, there might be an incentive to cut costs at the expense of quality, to the extent quality is hard to measure or contract on. This cost-quality trade off determines optimal ownership: for garbage collection private ownership or contracting out might be better, but for health or social service delivery, that could lead to undesirable cuts in quality (Hart, Shleifer, and Vishny, 1997).

Non-profits present an interesting alternative. Given their ability to attract motivated workers, they may be preferred in terms of quality even though in terms of efficiency they may be dominated by for-profit firms or even the public sector with more resources in its disposal. In contrast, for the management of infrastructure for- profit contractors (e.g., road maintenance, water supply) may be preferred as cost-efficiency is more important.

Starting in 1999, Cambodia tried an alternative approach in which the government tendered management of government health services for contract in certain districts to private bidders, and increased public health expenditure to pay for these bids. Contractors were required to provide all preventive, promotional, and simple curative health care services mandated for a district by the Ministry of Health. They were responsible for services at district hospitals, subdistrict health centers, and more remote health posts. International NGOs, private firms, and universities submitted bids. All the winners were international NGOs, which is not surprising as there were almost no local NGOs working in the health sector. In an evaluation carried out by Michael Kremer and his colleagues (Bloom et al 2005), the contracting program caused large increases in the service outcomes targeted by it. It also improved the management of government health centers, particularly in the availability of 24-hour service, the actual presence of staff scheduled to be there, supervisory visits, and the presence of supplies and equipment.

4.4 Competition

The well known effect of competition in the context of private goods is to retain existing consumers or attract new ones, an organization has to either cut costs or improve quality. To the extent cutting costs or increasing quality is at the expense of monopoly rents, consumers are better off, even though individual members of the organization can be worse off because they lose "a quiet life", one of the most attractive perks of a monopolist according to Hicks. Cutting costs can be at the expense of quality. Competition works best when consumers are well-informed. If this is not the case poor quality organizations can survive for long periods even with competition. To the extent being informed is correlated with being educated or affluent, this may lead to both inefficient and inequitable outcomes. This calls for appropriate regulatory institutions, and legal protection.

Can these arguments in favour of competition for the provision of private goods borrowed in the context of public goods? According to some advo-

cates of school competition and vouchers, such as Caroline Minter Hoxby, the answer is yes. Competition from private organizations can induce public organizations to get their act together to hold on to funding and to their clientele – competition is a "rising tide that raises all boats". Hoxby draws the parallel between this and the effect of entry of Federal Express and DHL into the package-delivery market in the US, which forced the US Postal Service to improve quality, cut costs and offer new products such as Express Mail. Opponents argue that competition will lead to cream-skimming. New schools will attract students from higher income and education groups. As these students leave, taking with them the per-capita government funding, poorer students in old schools will be strictly worse off. However, this is not an argument against competition per se. It merely calls for "smart" vouchers whose value depend on the socioeconomic background of the student, so as to make them attractive to new schools.

Also, competition in the context of public goods can take interesting forms. For example, Besley and Ghatak (2005) argue that schools can be viewed as competing by picking different kinds of curriculum and attracting teachers who are most motivated to teach according to that curriculum. One element of the curriculum could, for example, be whether religious instruction is included. Well matched schools can forego incentive pay and rely exclusively on agents' motivation. This explains why some schools (such as Catholic schools) can be more productive by attracting teachers whose mission-preferences are closely aligned with those of the school management. More generally, a decentralized schooling system where missions are developed at the school level will tend to be more productive (as measured in our model by equilibrium effort) than a centralized one in which a uniform curriculum (mission) is imposed on schools by government.

This approach is distinct from existing theoretical links competition and productivity in the context of schools. For example, yardstick competition has been used extensively in the U.K. which has pioneered the use of league tables to compare school performance. Whether such competition is welfare improving in the context of schools is most since the theoretical case for yardstick comparisons is suspect when the incentives in organizations are vague or implicit as in the case of schools (see, for example, Dewatripont, Jewitt and Tirole, 1999).

⁸See Hoxby (2001).

4.5 Evaluation

There are some areas of economic policy where there is a fair degree of consensus on what constitutes good policy. For example, in macro policy, there is broad consensus that very large budget deficits, overvalued exchange rates and very high inflation rates are undesirable. Even then, the means to achieving this remains open to debate. For example, whether central banks should be independent is still debated. In the area of public service delivery, there is broad consensus of the main policy objectives — to have a well educated and healthy population. Again, the question is what is the best way of delivering this end. Consider the case of primary education. Here there are debates about the best way to incentivize teachers, whether to prioritize availability of textbooks etc. For this to be debated, it is necessary to have some persuasive evidence on the costs and benefits of particular intervention strategies.

An important theme of recent research of public service delivery is the need to spend resources on evaluating policies. Policy evaluation is a crucial part of effective public service provision where missions are too weak or not aligned and front line actors cannot be made directly accountable by the beneficiaries.

One important method of evaluation is the use of randomized interventions. This is particularly important in health and education. These can be used to study the impact of policy interventions. We illustrate this discussing some recent studies concerning incentives to improve teacher attendance and performance.

Some of the results of these experiments are quite surprising from the point of view of challenging conventional wisdom. For example, several studies show that improving access to textbooks or halving the teacher-student ratio does not affect average test scores significantly (Glewwe, Kremer, Moulin, 2009). On the other hand, de-worming can reduce absenteeism significantly because of externalities (Kremer and Miguel, 2004).

Also, many studies show that user fees are not a great idea from the point of view of improving participation. Randomized trials consistently show that reducing the out of pocket costs of education or instituting subsidies through school meals, free uniforms, or conditional cash transfer programmes increase school participation dramatically. These results suggest that the standard human capital model needs to be augmented to taken into account peer effects as well as possible time-inconsistent behaviour. For example,

deferring conditional cash transfers to a time when school fees are due has a large impact on enrollment compared to evenly distributed ones, which is not consistent with a borrowing-constraints model but is consistent with present-biased preferences.

Turning to incentivizing teachers, one well known study considers incentives based on impersonal method of recording absence. Seva Mandir is an NGO that runs non-formal single-teacher primary education centers in tribal villages in the rural Udaipur district. They did an experiment using an impersonal method of recording absence, and then to base rewards or penalties on that data. The program was evaluated by Duflo and Hanna (2005). At the baseline of this study in August 2003, the absence rate was 44 percent. Seva Mandir selected 120 schools to participate in the study. In 60 randomly selected schools the organization gave the teacher a camera, instructed him/her to take a picture of himself or herself and the students every day at opening time and at closing time. The cameras had a tamperproof date and time function. Teachers received a bonus as a function of the number of "valid" days they actually attended. A "valid" day was defined as a day where the opening and closing pictures were separated by at least five hours and a minimum number of children were present in both pictures. The absence rate of teachers was cut by half in the treatment schools, dropping from an average of 36 percent in the comparison schools to 18 percent in the treatment schools. Also, interestingly, grades improved. One problem with this approach is that an impersonal monitoring makes no allowances for the circumstances of the absence.

An alternative scheme is someone in the institutional hierarchy (like the headmaster of a school), is given the task of keeping an eye on the teacher and penalizing absences. The problem with a person doing the monitoring is that he/she may either be too lazy to monitor, or might collude with workers. A program implemented by a non-government organization called ICS Africa in Kenya suggests that when headmasters implement incentives, the incentives might lose their power. ICS Africa introduced an incentive program for pre-primary school teachers in which the headmaster was entrusted with monitoring the presence of the pre-primary school teacher. At the end of the term, a prize (a bicycle) was offered to teachers with a good attendance record. If the teacher did not have a good attendance record, the money would remain with the school, and could be used on whatever the headmaster and the school committee preferred. Kremer and Chen (2001) report on the results of this experiment. In all treatment schools, the headmasters marked

the preschool teachers present a sufficient number of times for the teacher to receive the prize (and they therefore all received it). However, when the research team independently verified absence through unannounced visits in both treatment and comparison schools, they found that the absence rate was actually exactly at the same high level in treatment and in comparison schools. Either to avoid the unpleasantness of a personal confrontation, or out of compassion for the preschool teachers, headmasters had apparently cheated to make sure that preschool teachers could get the prize. This finding points to a more general problem in evaluation. It fails if the evaluator does not have a strong interest in revealing failure. While prominent examples in the business world show that this is a general phenomenon, it is even more relevant to organizations working in public service deliver.

Several studies find that linking teacher pay to students' test scores increases preparation sessions for examinations but not teacher attendance. There is mixed evidence on whether it promotes student learning. In contrast, empowering local school committees to hire teachers on short–term contracts outside the civil service system leads to dramatic improvements in teacher attendance and also, student learning even though they are paid much less than public school teachers. The key feature here seems to be that the renewal of their contract depends on satisfactory performance, highlighting the important role of incentives. While it is an interesting finding, at one level it is not very surprising. What it does is to point at the general problem of unconditional job security in the public sector, and given its predictable effect on incentives, anything that relaxes it is likely to improve efficiency.

An important issue in the context of providing incentives to service providers is the complementarity between demand and supply side interventions. Even with the best possible supply side incentives, if clients are not aware enough or don't value the service enough (for reasons of present-bias or lack of information), the resulting outcomes are going to be poor. Similarly, if clients value the service a lot and yet the supply side is ridden with frictions, the resulting outcome is going to be poor. Therefore, an interesting research agenda is to study twin interventions on demand and supply. For example, are teacher incentive schemes more effective when school attendance and other measures of demand for education are boosted by vouchers or conditional transfers?

5 Some Concluding Thoughts

Sometimes the vocabulary of public service reform focuses too narrowly on issues of corruption. While this is a very real problem in many areas of public service delivery, and the main problem in some, it is essential to realize that combatting corruption is no panacea. Many important issues of service delivery remain in a world where corruption has been expunged. Also, an important lesson of project failures in various developing countries is that one has to pay close attention to the existing informal institutions before one starts to think about implementing new ones. Each region has its own system of enforcement mechanisms and unwritten rules that can hinder or further public service provision.

How an organization performs, depends on its internal design, the competitive environment it faces, the regulatory environment in that sector, and the overall institutional environment of the economy (flow of information, efficiency of dispute resolution and contract enforcement, etc.). These elements are all important. If the regulatory environment is slack, then competition is no guarantor of success. However, the case for government monopoly is not particularly strong.

If a strict regulatory regime enforcing quality and safety standards is present, then it is fairly uncontroversial to say that greater choice and greater competition are good. However, the ground reality of developing countries is that regulatory bodies do not do what they are supposed to do, and do everything that they are not supposed to do (e.g., demand bribes, harass firms as well as workers and consumers). However, even in this environment competition in other forms can act as a disciplinary device. A competitive media will expose regulatory lapses. A competitive polity will punish underperforming administrations. Competition and choice are ideas that are far too important to be left to champions of unregulated markets. They can and should be used to empower the poor.

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Table 1: Economics environment of the poor: Basic infrastructure (Banerjee-Duflo, 2007)

Guatemala 37,7% 50.5% 29.9% 10.00% 10.00% 8.3% 10.00% 10.			In-House	Toilet/	
Rural			Tap Water	Latrine	Electricity
Cote d'Ivoire 11.8% 27.1% 45.1% Guatemala 37.7% 50.5% 29.9% India - Ulajapur 0.0% 0.0% 5.4% 8.7% 1.9% 5.4% 8.7% 1.0% 5.4% 5.9% 6.9% Mexico 99.0% 1.64% 7.2%	Living on l	less than \$1 a day			
Guatemala 37,7% 50,5% 29,9% 1ndia - Udaipur 00% 0.0% 8.3% 1ndia - Ul'Bihar 1.9% 3.4% 8.7% 1ndonesia 5.6% 30.5% 96.9% 48.5% 96.9% 48.5% 95.9% 16.4% 94.8% 55.6% 55.9% 16.4% 94.8% 16.5% 55.9% 16.4% 94.8% 16.5% 16.5% 16.4% 16.5% 16.5% 16.5% 16.4% 16.5% 16.	Rural				
India - Urbinar 1.9% 3.4% 8.75 Indonesia 5.6% 30.5% 96.9% Mexico 99.0% 16.4% Pakistan 9.9% 28.5% 55.5% Panama 37.7% 0.0% Papan New Guinea 1.7% 91.6% 1.13% Timor Leste 2.3% 31.3% 8.8% Urban Cote d'Ivoire 1.6% 11.3% 94.2% Papan New Guinea 28.7% 95.2% 30.2% Peru 73.8% 53.6% 30.2% Peru 73.8% 53.6% 30.2% Peru 73.8% 50.5% 14.2% Timor Leste 9.1% 44.2% 60.5% 15.1% Timor Leste 9.1% 42.8% 46.9% Peru 73.8% 51.1% 59.2% Timor Leste 9.1% 42.8% 46.9% Peru 73.8% 50.5% 14.2% Timor Leste 9.1% 42.8% 46.9% Living on less than \$2 a day Rural Cote d'Ivoire 1.6% 31.3% 8.8% Peru 73.8% 50.5% 15.1% Tanzania 12.1% 96.7% 14.2% Timor Leste 9.1% 42.8% 46.9% Living on less than \$2 a day Rural Cote d'Ivoire 15.7% 31.6% 68.1% Guatermala 36.3% 51.1% 29.2% India - Ur Bihar 1.0% 92.8% 1.8% Peru 26.1% 63.9% 27.3% Papan New Guinea 1.0% 92.8% 1.8% Peru 26.1% 63.9% 67.5% 10.07% Indonesia 8.5% 40.1% 89.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Papan New Guinea 1.0% 92.8% 1.8% Peru 26.1% 63.9% 63.9% 1.9% Timor Leste 93.9% 1.5% India - Ur Bihar 1.0% 92.8% 1.8% Peru 26.1% 63.9% 63.9% 1.9% Timor Leste 5.4% 92.8% 1.3% Timor Leste 5.4%		Cote d'Ivoire		27.1%	45.1%
India - LiPBihar					29.9%
Indonesia 5.6% 30.5% 96.9% Mexico 99.0% 16.4%					8.3%
Mexico 99,0% Nicaragua 12,3% 59,0% 16,4% Pakistan 9,9% 28,5% 55,5% Panama 37,7% 0,0% Peru 29,7% 12,2% South Africa 4,4% 58,9% 5,6% Tanzania 0,7% 91,6% 1,1% Timor Leste 2,3% 31,3% 8,8% Urban 16,6% 11,3% 9,1% Indonesia 15,7% 34,7% 100,0% Mexico 95,5% 30,2% Nicaragua 29,3% 67,5% 30,2% Pakistan 50,4% 82,7% 95,2% Panama 28,7% 95,2% Panama 28,7% 53,6% 28,7% Paru 73,8% 53,6% 28,7% Paru 73,8% 60,5% 15,1% Tanzania 12,1% 96,7% 14,2% Tanzania 12,1% 96,7% 14,2% Timor Leste					8.7%
Nicaragua 12.3% 59.0% 16.4% Pakistan 9.9% 28.5% 55.5% 55.5% Panama 37.7% 0.0% 28.5% 52.5% 2.0% Peru 29.7% 12.2% South Africa 4.4% 58.9% 5.6% 1.1% Timor Leste 2.3% 31.3% 8.8% Urban Timor Leste 1.6% 11.3% 9.1% 1.1% 1.00.0% 1.0% 1.1% 1.00.0% 1.0% 1.1% 1.00.0% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0% 1.1% 1.0%			5.6%	30.5%	96.9%
Pakistan 9.9% 28.5% 55.5% Pamam 37.7% 0.0% Pamama 37.7% 0.0% Peru 29.7% 29.7% 12.2% South Africa 4.4% 58.9% 15.6% 15.6% 11.1% Tanzania 0.7% 91.6% 11.1% 11.1% 11.3% 9.1% 11.0% 11.3% 9.1% 11.0% 11.3% 9.1% 10.0% 10.0% 10.0% 10.0% 10.0% 10.0% 10.5% 15.1% 10.0% 10.0% 10.0% 10.5% 10.1% 10.0% 10.0% 10.0% 10.0% 10.5% 10.1% 10.0% 1					
Panama					16.4%
Papua New Guinea 1.7% 95.2% 2.0% Peru 29.7% 12.2			9.9%		55.5%
Peru 29.7% 52.9% 52.9% 5.2%					
South Africa 4.4% 58.9% 5.6% Tanzania 0.7% 91.6% 1.1% Tanzania 0.7% 91.6% 1.1% Timor Leste 2.3% 31.3% 8.8% S.8% Urban				95.2%	
Tanzania 0.7% 91.6% 1.1% 71mor Leste 2.3% 31.3% 8.88% Urban Cote d'Ivoire 1.6% 11.3% 9.1% 100.0% Mexico 95.5% 67.5% 30.2% 92.3% 67.5% 30.2% 92.5% 92.					12.2%
Timor Leste 2.3% 31.3% 8.8% Urban		South Africa	4.4%	58.9%	5.6%
Urban Cote d'Toire 1.6% 11.3% 9.1% Indonesia 15.7% 34.7% 100.0% Mexico 95.5% 30.2% Pakistan 50.4% 82.7% 95.2% Panama Papua New Guinea 28.7% 53.6% 28.7% Peru 73.8% 50.5% 11.1% Tanzania 12.1% 96.7% 14.2% Timor Leste 9.1% 42.8% 46.9% Living on less than \$2 a day Rural Cote d'Toire 15.7% 31.6% 68.1% Guatemala 36.3% 51.1% 29.2% India - Udaipur 0.0% 15.7% 10.7% India - Udaipur 17.3% 63.9% 27.3% Indonesia 8.5% 40.1% 89.0% Mexico Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Papana 54.2% 10.1% Papana 1.0% 92.8% 10.5% Tanzania 1.5% 92.8% 10.1% Papana 1.0% 92.8% 10.5% Tanzania 1.5% 86.2% 99.3% Urban Peru 67.5% 7.9% 9.1% Papa New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2%			0.7%		1.1%
Cote d'Ivoire 1.6% 11.3% 9.1% Indonesia 15.7% 34.7% 100.0% Mexico 95.5% 30.2% Pakistan 50.4% 82.7% 95.2% Panama Papua New Guinea 28.7% 53.6% 28.7% Peru 73.8% 59.5% 15.1% Tanzania 12.1% 96.7% 14.2% Timor Leste 9.1% 42.8% 46.9% Living on less than \$2 a day Rural Cote d'Ivoire 15.7% 31.6% 68.1% India - UP/Bihar 2.0% 5.7% 10.7% Indonesia 8.5% 40.1% 89.0% Mexico Nicaragua 17.3% 63.9% 27.3% Peru 26.1% 59.9% 10.5% Tanzania 12.0% 33.1% 61.1% Papua New Guinea 1.0% 92.8% 1.3% Peru 26.1% 59.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Peru 26.1% 57.9% 99.1% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Papua New Guinea 1.0% 92.8% 1.3% Parama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Peru 26.1% 57.9% 99.1% Mexico 96.6% 88.4% 70.6% Pakistan 55.4% 86.2% 99.5% Pakistan 55.4% 86.2% 99.5% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 70.4% 59.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 70.4% 59.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 70.4% 59.2% South Africa 59.1% 69.8% 34.2% Papua Tanzania 21.2% 97.3% 23.2% Papua Tanzania		Timor Leste	2.3%	31.3%	8.8%
Indonesia	Urban				
Mexico 95.5% 30.2% 67.5% 30.2% 67.5% 30.2% 67.5% 30.2% 67.5% 30.2% 67.5% 30.2% 67.5% 30.2% 67.5% 67.5% 95.2% 67.5% 67.5% 67.5% 95.2% 67.5% 67.		Cote d'Ivoire	1.6%	11.3%	9.1%
Nicaragua 29.3% 67.5% 30.2% Pakistan 50.4% 82.7% 95.2% Panama		Indonesia	15.7%	34.7%	100.0%
Pakistan 50.4% 82.7% 95.2% Panama Papua New Guinea 28.7% 53.6% 28.7% Peru 73.8% 59.5% 59.5% 50.00th Africa 44.2% 60.5% 15.1% Tanzania 12.1% 96.7% 14.2% 71.00th Ests than \$2 a day Rural Cote d'Ivoire 15.7% 31.6% 68.1% 15.2% 10.7% 10.6% 15.2% 10.7		Mexico			95.5%
Panama		Nicaragua	29.3%	67.5%	30.2%
Papua New Guinea 28.7% 53.6% 28.7% Peru 73.8% 59.5% 59.5% South Africa 44.2% 60.5% 15.1% Tanzania 12.1% 96.7% 14.2% 14.2% 46.9% 14.2% 46.9% 14.2% 46.9% 14.2% 46.9% 14.2% 15.7% 16.3% 15.1% 16.2%		Pakistan	50.4%	82.7%	95.2%
Peru 73.8% 59.5%		Panama			
South Africa 44.2% 60.5% 15.1% Tanzania 12.1% 96.7% 14.2% 42.8% 46.9% 46.9% 46		Papua New Guinea	28.7%	53.6%	28.7%
Tanzania 12.1% 96.7% 14.2% 46.9% 16.9% Timor Leste 9.1% 42.8% 46.9% 46.9% 14.2% 46.9% 14.2% 46.9% 14.2		Peru	73.8%		59.5%
Timor Leste 9.1% 42.8% 46.9% Living on less than \$2 a day Rural Cote d'Ivoire 15.7% 31.6% 68.1% Guatemala 36.3% 51.1% 29.2% India - Udaipur 0.0% 0.5% 15.2% India - Ul/Bihar 2.0% 5.7% 10.7% Indonesia 8.5% 40.1% 89.0% Mexico 99.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Peru 26.1% 54.2% 10.1% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 13.% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 70.4% 16.0% Peru 67.5% 50.1% 69.8% 34.2% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		South Africa	44.2%	60.5%	15.1%
Cote d'Ivoire 15.7% 31.6% 68.1% 69.2% 10.1% 63.9% 15.2% 10.1% 63.9% 15.2% 10.1% 63.9% 15.2% 10.1% 63.9% 15.2% 10.1% 63.9% 10.1% 63.9% 63.9% 27.3% 23.2		Tanzania	12.1%	96.7%	14.2%
Cote d'Ivoire 15.7% 31.6% 68.1% 69.2% 15.2% 10.1% 29.2% 10.1% 29.2% 10.1% 29.2% 10.1% 20.0% 5.7% 10.7% 10.0%		Timor Leste	9.1%	42.8%	46.9%
Cote d'Ivoire 15.7% 31.6% 68.1% Guatemala 36.3% 51.1% 29.2% India - Udaipur 0.0% 0.5% 15.2% India - UP/Bihar 2.0% 5.7% 10.7% Indonesia 8.5% 40.1% 89.0% Mexico 99.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 5.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papapa New Guinea 16.0% 70.4% 16.0%	Living on les	ss than \$2 a day			
Guatemala 36.3% 51.1% 29.2% India - Udaipur 0.0% 0.5% 15.2% India - UP/Bihar 2.0% 5.7% 10.7% Indonesia 8.5% 40.1% 89.0% Mexico 99.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Panama 54.2% 10.1% Peru 26.1% 28.8% 1.8% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1%	Rural				
India - Udaipur 0.0% 0.5% 15.2% India - UP/Bihar 2.0% 5.7% 10.7% Indonesia 8.5% 40.1% 89.0% Mexico 99.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 5.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Variant 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% 14.6% 18.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16		Cote d'Ivoire	15.7%	31.6%	68.1%
India - UP/Bihar 2.0% 5.7% 10.7% Indonesia 8.5% 40.1% 89.0% Mexico 99.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 70.4%		Guatemala	36.3%	51.1%	29.2%
Indonesia 8.5% 40.1% 89.0% Mexico 99.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 70.4% 16.0% Peru 67.5% 99.8% 34.2% Tanzania 21.2% 97.3% 23.2%		•	0.0%	0.5%	15.2%
Mexico 99.0% Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		India - UP/Bihar	2.0%	5.7%	10.7%
Nicaragua 17.3% 63.9% 27.3% Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban		Indonesia	8.5%	40.1%	89.0%
Pakistan 12.6% 33.1% 61.1% Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Peru 67.5% 70.4% 16.0% Peru 67.5% 70.4% 16.0% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Mexico			99.0%
Panama 54.2% 10.1% Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Nicaragua	17.3%	63.9%	27.3%
Papua New Guinea 1.0% 92.8% 1.8% Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Pakistan	12.6%	33.1%	61.1%
Peru 26.1% 16.3% South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Panama		54.2%	10.1%
South Africa 7.0% 65.9% 10.5% Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Papua New Guinea	1.0%	92.8%	1.8%
Tanzania 1.5% 92.8% 1.3% Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Peru	26.1%		16.3%
Timor Leste 5.4% 29.3% 11.0% Urban Cote d'Ivoire 4.6% 14.6% 18.6		South Africa	7.0%	65.9%	10.5%
Urban Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Tanzania	1.5%	92.8%	1.3%
Cote d'Ivoire 4.6% 14.6% 18.6% Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Timor Leste	5.4%	29.3%	11.0%
Indonesia 20.5% 57.9% 99.1% Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%	Urban				
Mexico 96.6% Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Cote d'Ivoire	4.6%	14.6%	18.6%
Nicaragua 66.2% 88.4% 70.6% Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Indonesia	20.5%	57.9%	99.1%
Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		Mexico			96.6%
Pakistan 55.4% 86.2% 95.2% Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%			66.2%	88.4%	70.6%
Panama 89.1% 81.1% Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		-			95.2%
Papua New Guinea 16.0% 70.4% 16.0% Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%					81.1%
Peru 67.5% 72.4% South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%			16.0%		16.0%
South Africa 59.1% 69.8% 34.2% Tanzania 21.2% 97.3% 23.2%		-		, ,	
Tanzania 21.2% 97.3% 23.2%				69.8%	
					69.1%

Table 2: Health in the Household (Banerjee-Duflo, 2007)

			Table 2: H	ealth in the Ho	usehold (Baner	jee-Duflo, 2007
		In Last Month A Household's Percent of Households that met				
		Percent of HH	A riouschold's Average # of	At Least Once w		Infant
		Members Sick	Consultations	Public	Private	Mortality
-	s than \$1 a day					
Rural	G to time to	21.40/	1.20	40.70/	2.20/	6.20/
	Cote d'Ivoire Guatemala	21.4%	1.28	49.7%	3.2%	6.2% 6.2%
	India - Hyderabad					0.270
	India - Udaipur	46.1%	0.11	20.1%	58.1%	10.0%
	India - UP/Bihar	12.5%	0.81	13.9%	47.3%	7.7%
	Indonesia	24.2%	0.77	20.7%	27.3%	3.4%
	Mexico	46.3%	1.11	47.7%	0.0%	6.9%
	Nicaragua	34.9%	0.15	46.0%	5.0%	4 5 70 /
	Pakistan Panama	28.0% 15.2%	0.45 0.10	24.0% 23.8%	48.8% 0.0%	16.7%
	Papua New Guinea	13.270	0.10	23.870	0.0%	
	Peru Peru	11.1%	0.10	20.9%	8.5%	
	South Africa	12.5%	0.12	16.4%	6.9%	8.6%
	Tanzania	13.2%	0.07	23.2%	14.0%	8.7%
	Timor Leste	11.7%	0.21	30.2%	0.5%	
Urban						
	Cote d'Ivoire	27.8%	0.68	32.6%	2.6%	9.5%
	Guatemala					
	India - Hyderabad India - Udaipur					
	India - UP/Bihar					
	Indonesia	27.6%	0.88	23.5%	34.4%	2.8%
	Mexico	50.1%	0.95	46.1%	0.0%	2.5%
	Nicaragua	31.7%	0.14	50.7%	4.8%	
	Pakistan	24.4%	0.37	21.3%	43.3%	11.8%
	Panama					
	Papua New Guinea	12.50/	0.10	24.00/	16.50/	
	Peru South Africa	13.5% 11.3%	0.19 0.11	34.8% 17.7%	16.5% 2.2%	9.2%
	Tanzania	14.4%	0.11	26.5%	15.2%	7.3%
	Timor Leste	12.4%	0.26	38.1%	4.5%	7.570
Living on les	s than \$2 a day					
Rural						
	Cote d'Ivoire	21.9%	1.33	55.1%	11.8%	7.2%
	Guatemala					5.4%
	India - Hyderabad India - Udaipur	46.4%	0.15	20.3%	60.8%	10.50/
	India - UP/Bihar	13.3%	0.13	15.9%	48.8%	10.5% 7.8%
	Indonesia	22.8%	0.77	19.6%	24.7%	4.1%
	Mexico	47.8%	1.29	55.1%	0.0%	3.2%
	Nicaragua	34.2%	0.16	46.6%	6.6%	
	Pakistan	28.5%	0.42	24.5%	45.4%	16.7%
	Panama	13.8%	0.23	42.4%	4.4%	
	Papua New Guinea	12 40/	0.12	25.00/	11 20/	
	Peru South Africa	12.4% 13.9%	0.12 0.14	25.0% 17.6%	11.3% 11.9%	8.3%
	Tanzania	14.6%	0.14	25.1%	16.1%	9.2%
	Timor Leste	11.3%	0.27	24.6%	2.8%	7.270
Urban						
	Cote d'Ivoire	27.3%	0.79	34.1%	2.1%	11.8%
	Guatemala					
	India - Hyderabad					
	India - UP/Bihar					
	India - Udaipur Indonesia	29.3%	1.06	28.3%	28.9%	2.6%
	Mexico	47.7%	1.06	28.3% 51.2%	0.0%	2.8%
	Nicaragua	29.9%	0.15	48.4%	8.0%	2.070
	Pakistan	26.6%	0.32	21.4%	39.2%	13.1%
	Panama	16.5%	0.27	61.3%	14.5%	
	Papua New Guinea					
	Peru	10.3%	0.13	33.2%	14.8%	
	South Africa	13.5%	0.14	19.3%	12.0%	6.9%
	Tanzania Timor Leste	15.6% 12.4%	0.11 0.28	28.9% 32.6%	21.7% 10.4%	7.7%
	illioi Leste	12.470	0.28	34.070	10.4%	

Table 3: Education (Banerjee-Duflo, 2007)

		Percent of Children in School			,	
		Female, Age:		Male, Age:		
		7-12	13-18	7-12	13-18	
Living on less than \$1 a day						
Rural						
	Cote d'Ivoire	32.3%	22.8%	45.5%	21.1%	
	India - Udaipur	60.7%	13.0%	82.6%	24.7%	
	India - UP/Bihar	51.4%	20.2%	72.1%	51.2%	
	Indonesia	93.4%	45.9%	82.4%	39.3%	
	Mexico	94.5%	56.5%	93.5%	38.6%	
	Nicaragua	67.5%	38.0%	65.4%	27.5%	
	Pakistan Panama	30.7% 79.0%	9.2% 14.6%	64.1% 85.1%	41.3% 27.0%	
	Papua New Guinea	53.0%	33.5%	71.4%	70.9%	
	Peru Peru	94.2%	64.7%	93.3%	73.7%	
	South Africa	83.6%	87.5%	80.5%	76.9%	
	Tanzania	51.2%	53.3%	47.2%	61.4%	
	Timor Leste	76.6%	89.7%	80.0%	86.8%	
Urban	Timor Leste	70.070	07.770	00.070	00.070	
	Cote d'Ivoire	20.5%	10.7%	39.8%	27.7%	
	India - Hyderabad	88.7%	42.6%	88.1%	47.3%	
	Indonesia	85.3%	39.1%	100.0%	36.5%	
	Mexico	97.1%	47.7%	95.9%	55.8%	
	Nicaragua	80.0%	52.0%	60.8%	32.2%	
	Pakistan	65.8%	29.2%	75.7%	40.7%	
	Papua New Guinea	60.8%	56.7%	62.2%	60.2%	
	Peru	93.0%	73.0%	95.1%	97.3%	
	South Africa	91.2%	87.0%	89.1%	96.2%	
	Tanzania	66.4%	51.8%	54.4%	65.3%	
	Timor Leste	84.9%	90.2%	91.4%	97.1%	
Living on less than \$2 a day						
Rural	~ ""			50 7 0 /		
	Cote d'Ivoire	50.1%	34.4%	60.5%	41.4%	
	India - Udaipur	62.9%	16.1%	85.9%	30.1%	
	India - UP/Bihar	54.3%	23.1%	73.5%	54.7%	
	Indonesia	92.7%	45.9%	91.1%	47.4%	
	Mexico	95.1% 78.3%	54.5% 48.3%	97.0% 74.3%	51.0% 37.4%	
	Nicaragua Pakistan	37.5%	16.5%	69.7%	46.8%	
	Panama	90.4%	30.9%	90.7%	34.0%	
	Papua New Guinea	60.7%	42.8%	64.8%	62.0%	
	Peru Peru	95.5%	62.6%	94.1%	74.8%	
	South Africa	87.8%	85.4%	82.5%	81.9%	
	Tanzania	53.0%	57.2%	50.1%	63.1%	
	Timor Leste	79.6%	94.4%	83.5%	92.4%	
Urban						
	Cote d'Ivoire	40.0%	19.0%	54.2%	37.0%	
	Guatemala					
	India - Hyderabad	88.6%	48.6%	89.9%	57.6%	
	Indonesia	97.2%	54.6%	95.7%	57.6%	
	Mexico	97.5%	54.5%	97.1%	61.1%	
	Nicaragua	87.7%	72.3%	87.4%	57.8%	
	Pakistan	69.8%	35.8%	77.4%	49.3%	
	Panama	55.2%	20.9%	44.9%	75.8%	
	Papua New Guinea	66.6%	37.2%	67.4%	42.6%	
	Peru	95.9%	72.6%	98.7%	81.1%	
	South Africa	91.4%	91.9%	87.2%	89.7%	
	Tanzania	64.8%	59.6%	55.2%	67.4%	
	Timor Leste	89.2%	92.8%	90.3%	95.3%	

Table 4 (Chaudhury et al, 2006) Provider Absence Rates by Country and Sector

	Absence rates (%) in:		
	Primary schools	Primary health centers	
From this project:		_	
Bangladesh	16	35	
Ecuador	14		
India	25	40	
Indonesia	19	40	
Peru	11	25	
Uganda	27	37	
Unweighted average	19	35	

Notes: (1) Providers were counted as absent if they could not be found in the facility for any reason at the time of a random unannounced spot check (see text for further detail). (2) In Uganda, the sampled districts were divided into sub-counties, and schools in sub-counties with level III health centers comprise the school sampling frame. This sampling strategy may have had the effect of understating slightly the national absence rate there, given that schools in more rural areas appear to have higher absence rates.