

## CHAPTER 5

### *Use of Microeconomic Surveys for Assessing Public Service Delivery Performance*

#### Introduction

The budget is an important link in the long route of accountability connecting clients to providers through politicians and policy makers. Every school system requires money and other resources to operate. However, as the empirical literature has shown, budget allocations tend to be a poor proxy for services actually reaching intended beneficiaries, especially in countries with weak accountability systems. The literature provides at least four interrelated explanations for the apparent disconnect between spending (meant to address efficiency and equity concerns) and actual transformation into education services. First, governments may spend on the wrong goods or the wrong people. A portion of public spending on education may be devoted to private goods and may crowd out private spending.<sup>31</sup> Furthermore, several studies have suggested that benefits accrue largely to the rich and middle class.<sup>32</sup> Second, even when governments spend on the right goods or the right people, the money may fail to reach the frontline service providers.<sup>33</sup> Third, even when the money reaches the school, the incentives to provide the service may be weak. Teachers are often poorly paid, hardly ever monitored, and given few incentives from the central government bureaucracy, which is often more concerned with inputs than outputs. The result can be a high teacher absenteeism rate. Fourth, even if the services are effectively provided, households may not take advantage of them. For economic and other reasons, parents may pull their children out of school. These demand-side failures often interact with supply-side failures to generate a low level of education services and education outcome, especially among the poor.

All four explanations, and in particular the last three, highlight a key motivation for undertaking microsurveys, namely that improving public services must involve an explicit treatment of incentives. This chapter discusses how microsurveys can be used to assess both the quality and quantity of education services and the complexities involved in transforming budgets into actual goods and services. The chapter focuses on two relatively new survey tools—the public expenditure tracking survey (PETS) and the quantitative service delivery survey (QSDS). It is organized in three main sections. It starts with presenting the key features of PETS and QSDS and explains how they differ from other survey-based research tools. It then reviews how these surveys have been applied to date to support education sector analysis and presents the main findings from the analysis. It next presents broad lessons on how to design and implement a PETS and QSDS, and ends with some conclusions.

#### Key Features of Public Expenditure Tracking Surveys and Quantitative Service Delivery Surveys

Apart from information on central government budgetary allocation, information on actual public spending is seldom available in many developing countries. The PETS was designed to provide such information, on a sample survey basis, from different tiers of government, including frontline service facilities, with the objective of identifying the location and extent of impediments to financial flows. Government resources, which are typically

<sup>31</sup> See J. Hammer, I. Nabi, and J. Cercone. 1995. "Distributional Effects of Social Sector Expenditures in Malaysia, 1974 to 1989." In *Public Spending on the Poor*, ed. D. Van de Walle and K. Nead. Published for the World Bank by Johns Hopkins University Press, Baltimore and London.

<sup>32</sup> See H. Davoodi, E. Tiongson, and S. Asawanuchit. 2003. "How Useful are Benefit Incidence Analyses of Public Education and Health Spending." IMF Working Paper 227. November; and D. Filmer. 2003. "The Incidence of Public Expenditures on Health and Education." Background note for *World Development Report 2004*. World Bank. May.

<sup>33</sup> See R. Reinikka and J. Svensson. 2001. "Explaining Leakage of Public Funds." Policy Research Working Paper 2709. World Bank.

earmarked for particular applications in the budget, upon release, and within a predefined legal, regulatory, and institutional framework, flow through the layers of government and via the banking system down to the schools, which are charged with the responsibility for the actual spending. A PETS tracks the flow of resources through these institutional strata to determine how much of the original resources reach each level (if they get there at all), and how long resources take to get there. It is therefore useful as a device for locating and quantifying leakage of funds and problems in deployment of resources.

The QSDS goes beyond tracking funds to examining the efficacy of spending, as well as incentives, oversight, and the relationship between agents and principals. In the QSDS, the facility or frontline provider is typically the main unit of observation, in the same way that the firm is the unit of observation in enterprise surveys, and the household in household surveys. The QSDS can be applied to government, private profit, and private nonprofit service providers. It collects data on (i) characteristics of the facility/provider (size, ownership, access to infrastructure); (ii) inputs and costs (salary, textbooks); (iii) outputs (number of pupils attending schools); (iv) quality (student satisfaction, completion rate); (v) financing (sources, amounts, in-kind versus cash, reliability); (vi) management systems, oversight, and incentives (reporting and record-keeping practices, audits, staff absenteeism); (vii) community participation (parent-teacher association involvement), and so forth. The QSDS relies both on hard data collected from school records as well as interviews of managers and staff. In some case, beneficiaries are also surveyed. Triangulating the data collection in this way serves as a means of cross-validating information obtained separately from each source.

PETS and QSDS complement each other and can be conducted in parallel. This allows for a detailed evaluation of wider institutional and resource-flow problems on frontline service delivery. The facility-level analysis can also be linked upstream to the public administration and political processes (through public official surveys) and downstream to households (through household surveys) to combine the supply and demand for services. The novelty of the PETS and

QSDS approach lies not so much in the development of new methods of analysis per se, but the application of proven methods (microsurveys) to service providers and governments.

PETS and QSDS are distinct from other survey tools in various ways. First, they differ in that they define the service provider (and the incentives facing the provider) as the key unit of analysis (as opposed to, say, the firm or the household). It is not unusual for household surveys to include facility modules. The rationale for including such modules is usually to characterize the link between access and quality of services to key household welfare indicators. The perspective in these surveys, however, is that of the household rather than the service provider. As a consequence, these surveys pay little attention to the question of why quality is the way it is. This is reflected in the type of data collected, which is mainly on access indicators and the range of services provided. Such information is rarely detailed enough to form a basis for analysis of service delivery, such as operational efficiency, utilization, and other performance indicators.

Second, PETS and QSDS do not use budgeted costs as a basis for analysis. In benefit-incidence analysis household data on consumption of public goods are combined with information on budget allocations for public expenditure to determine a unit subsidy per person. Household usage of the service is then aggregated across key social groups to impute the pattern and distribution of service provision. By contrast, PETS and QSDS collect data on actual spending and services provided at the facility level.

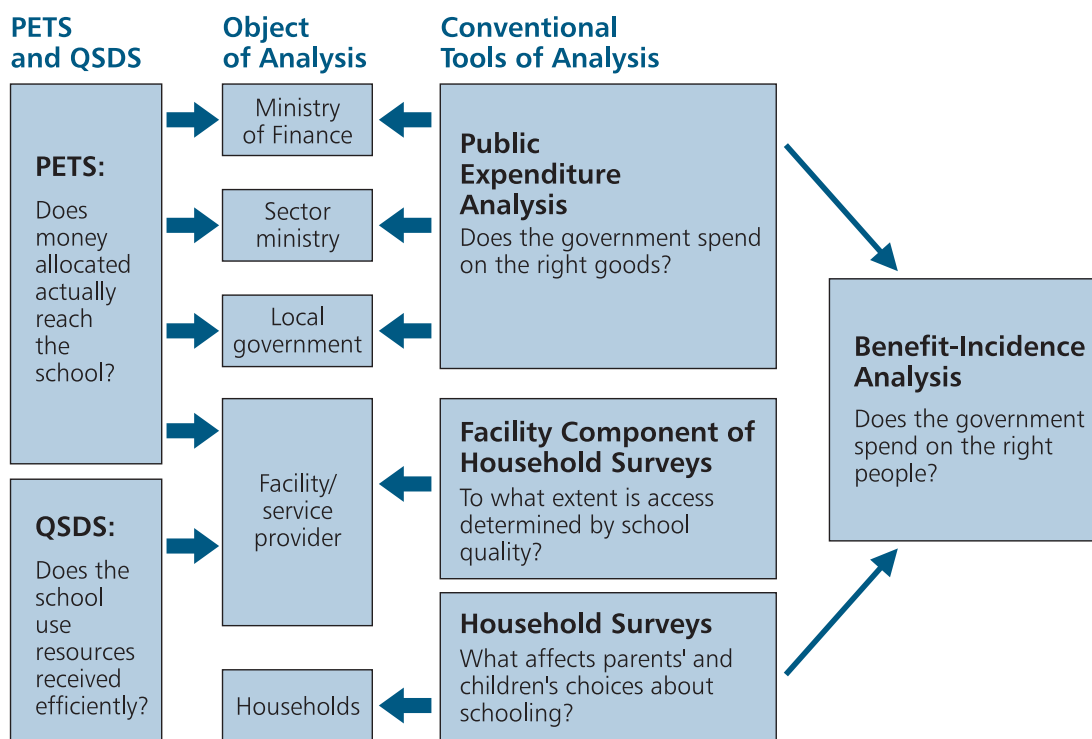
Finally, PETS and QSDS explicitly recognize that agents in the service delivery system may have strong incentives to misreport (or not report) key data. These incentives derive from the fact that information provided by, for example, a school, partly determines its entitlement to public funding. Likewise, if resources (like staff time) are used for other purposes, the agent involved in the activity will most likely not report it truthfully. PETS and QSDS deal with these data issues in two ways: (i) by using a “multi-angular” data collection strategy, that is, a combination of data from different sources; and (ii) by carefully considering which sources and respondents have incentives to misreport, and identifying the data (or their sources)

that are influenced by these incentives. (For example, to document the extent of provider absenteeism, surprise visits to schools are needed to verify attendance—some QSDS have been modified to allow for this.)

Figure 7 illustrates how PETS and QSDS relate to more standard tools of analysis. Public expenditure analysis has been widely used to assess the efficiency of public spending in education. As discussed in Chapter 3, such an approach focuses on analyzing the composition of public spending across various inputs and subsectors. The primary issue that public expenditure analysis seeks to examine is whether the government spends on the right goods. Household education surveys are designed to provide information about the decisions that households make about how much and what kind of education

to invest in. These surveys are typically combined with more general household surveys and their depth of coverage is therefore limited. Nonetheless, from this type of data, the analyst will be able to derive a distributional profile of utilization of public schools which, combined with the government's budget data on subsidies to education, will permit some type of benefit-incidence analysis (to assess whether the government spends on the right people). Both types of analysis are based on budgetary allocations, using government data. PETS and QSDS provide a means to empirically test whether the accountability framework described in Chapter 3 is working properly. More specifically, PETS focuses on the transfer of funds issue (Do funds reach schools?) while QSDS examines how resources are used and actual service delivery at the school level (Does the school use funds efficiently?).

Figure 7: Ensuring the Link between Education Spending and Outcomes—Tools of Analysis



PETS = public expenditure tracking survey, QSDS = quantitative service delivery survey.

Source: ADB staff.

### Applications and Findings to Date

Several countries have implemented PETS and QSDS, including Ghana, Honduras, Papua New Guinea, Peru, Rwanda, United Republic of Tanzania, Uganda, and Zambia. Nearly all applications of the PETS and QSDS have so far concentrated on the health and education sectors. Appendix 3 provides an overview of the surveys undertaken.<sup>34</sup> This section summarizes how these tools have been applied and what key findings emerge, as they apply specifically to the education sector.

### *PETS and QSDS as Diagnostic Tools*

PETS and QSDS can be used in a number of ways. The majority of PETS and QSDS undertaken to date have been used as diagnostic tools, to empirically test whether the accountability framework described in Chapter 3 is working properly. As such, they are used to identify basic problems without necessarily exploring why they are occurring or how they can be solved. Two common problems that the studies have diagnosed are leakage of funds and provider absenteeism. Studying each problem involves the collection of a sufficient amount of data within a well-designed sample. However, the use to which these data is put is straightforward, for example, a single calculation of percentages, perhaps of funds leaked or of teachers absent.

With respect to leakage of funds, Uganda was the first country to conduct a PETS in 1996. The study was motivated by the observation that despite a substantial increase in public spending on education, several officially reported education outcomes and indicators remained stagnant. The most obvious disparity in outcome indicators was observed in primary school enrollments. The hypothesis was that actual service delivery, proxied by primary enrollment, was much worse than the budgetary allocations implied, because public funds were subject

to capture by local government officials and did not reach the intended facilities. To test this hypothesis, a PETS was conducted to compare budget allocations with actual spending through various tiers of governments, including frontline delivery points—in this instance, primary schools.<sup>35</sup> The survey results provided a stark picture of public funds on the front lines: on average, only 13% of the annual capitation grant per student from the central Government reached schools in 1991–1995. The average across schools masks significant differences among schools. Most schools received very little or nothing. The picture looks slightly better when limiting the sample to the last years of the sample period. Still, only 22% of the total capitation grant from the central Government reached the schools in 1995. The study also revealed that nonwage expenditure was much more prone to leakage than wage expenditure.

Following this result in Uganda, several countries implemented PETS and QSDS. For primary education, these studies included Ghana, Madagascar, Peru, Tanzania, and Zambia. They confirmed that Uganda is not a special case. Leakage of nonwage funds was found to be a major issue in all cases. The survey findings are summarized in Table 5.

The study in Tanzania attempted to track all nonwage flows to primary schools. As in Uganda, funds were channeled to schools via district administrations. Although schools typically knew they were entitled to some funding, as resources reaching the schools were predominantly in kind, schools or communities seldom knew the value of the in-kind support that they received, or to what exactly they were entitled. The study found that in 1998, on average, 57% of all nonwage funds intended for primary schools were diverted and never reached the schools.<sup>36</sup> Similarly, the Ghana study tracked the flow of all nonwage expenditure to primary schools.<sup>37</sup> The Ghanaian education system is similar to that in

<sup>34</sup> The World Bank has taken the lead in the design/implementation of PETS and QSDS. However, a PETS/QSDS is to be implemented under the Bangladesh Second Primary Education Development Program. This would be the first such survey financed by ADB (in collaboration with other donors). The survey is scheduled to commence later this year.

<sup>35</sup> E. Ablo and R. Reinikka. 1998. "Do Budgets Really Matter? Evidence from Public Spending on Education and Health in Uganda." World Bank Policy Research Working Paper 1926; and R. Reinikka. 2001. "Recovery in Service Delivery: Evidence from Schools and Health Centers." In *Uganda's Recovery: The Role of Farms, Firms, and Government*, ed. R. Reinikka and Paul Collier. Regional and Sectoral Studies. World Bank.

<sup>36</sup> G. Sundet. 2004. "Public Expenditure and Service Delivery Monitoring in Tanzania: Some International Best Practices and a Discussion of Present and Planned Tanzanian Initiatives." USAID report.

<sup>37</sup> X. Ye and S. Canagarajah. 2002. "Efficiency of Public Expenditure Distribution and Beyond: A Report on Ghana's 2000 Public Expenditure Tracking Survey in the Sectors of Primary Health and Education." Africa Region Human Development Working Paper Series 31. World Bank. May.

**Table 5: Capture of Nonwage Funds in Primary Education: Evidence from Public Expenditure Tracking Surveys, Selected Developing Countries, 1995–2001**

Country	Year	Expenditure Program	Sample Size	Capture (%)
Ghana	1998	Nonwage Spending in Primary Education (multiple programs)	126	49
Peru	2001	Utilities	100	30
Tanzania, United Rep. of	1998	Nonwage Spending in Primary Education (multiple programs)	45	57
Uganda	1995	Per Student Capitation Grant	250	78
Zambia	2001	Fixed School Grant	182	10
Zambia	2001	Discretionary Nonwage Grant Program	182	76

*Note:* Sample size is the number of schools surveyed. Capture is the average share of entitled funds not reaching the schools.

*Sources:* Ghana: X. Ye and S. Canagarajah. 2002. "Efficiency of Public Expenditure Distribution and Beyond: A Report on Ghana's 2000 Public Expenditure Tracking Survey in the Sectors of Primary Health and Education." Africa Region Human Development Working Paper Series 31. World Bank. May; Peru: Instituto Apoyo, Lima. 2002. "Public Expenditure Tracking Survey: The Education Sector in Peru." Inter-American Development Bank and World Bank. 25 September. Unpublished; Tanzania: PriceWaterhouseCoopers. 1999. "Tanzania Public Expenditure Review: Health and Education Financial Tracking Study." 2 vols. Government of Tanzania and Department for International Development. March. Dar es Salaam; Uganda: R. Reinikka. 2001. "Recovery in Service Delivery: Evidence from Schools and Health Centers." In *Uganda's Recovery: The Role of Farms, Firms and Government*, ed. R. Reinikka and P. Collier. Regional and Sectoral Studies, World Bank, Washington, DC; Zambia: J. Das, S. Dercon, J. Habyarimana, and P. Krishnan. 2004. "Public and Private Funding of Basic Education in Zambia: Implications of Budgetary Allocations for Service Delivery." Africa Region Human Development Working Paper Series 62. World Bank. April.

Tanzania: funds to schools were channeled through district offices, most of the resources reaching the schools were in kind, and schools had little knowledge of the monetary value of what they were actually receiving. The Ghana study found that, on average, 49% of the nonwage funds were captured.

In Zambia, there are two grant programs in primary education: a rule-based grant program where each school is entitled to a fixed grant, and a program that disburses at the discretion of district offices. The Zambia study tracked both.<sup>38</sup> It found that most of the rule-based grants reached the schools, but only about one fourth of the discretionary funds did. The survey in Peru examined the use of funds for utilities and found that 30% of schools for which the government district office claimed to pay utilities did not receive such payments.

The studies therefore confirm that local capture is a serious problem, and that nonwage expenditure seems to be more prone to leakage. This is not entirely

surprising given that failure to pay teachers would probably attract much more attention, as teachers know how much they are owed and have an incentive to make sure they receive it. The various studies also demonstrate that the sources of leakage can result from different tiers of government. For example, in Tanzania and Uganda, the most serious leakage arose in local government, while in Ghana it occurred before the resources reached that level. In the countries concerned, the identification of problem spots prepared the way for specific and targeted interventions.

While earlier studies established that leakage is a less critical factor in wage expenditure, there are other issues related to staff behavior and incentives that can have similar adverse effects on service delivery. The Honduras PETS and QSDS explored and diagnosed moral hazard, with respect to frontline health and education staff. The hypothesis for the PETS was that the central payroll office in Honduras had no means of ensuring that public employees really existed (ghost workers). Another concern was that employees were not putting in full hours of work (absenteeism). Yet another question was whether workers were working where they were supposed to be working (migration of posts). The last element was a major problem because the Honduran system of staffing does not assign a post to individual schools, but to the central ministry. Given that the ministry has discretion over the geographic distribution of posts, the system provides an incentive for frontline staff to lobby the ministry to have their posts transferred to more attractive locations, most often to urban areas.

<sup>38</sup> J. Das, S. Dercon, J. Habyarimana, and P. Krishnan. 2004. "Public and Private Funding of Basic Education in Zambia: Implications of Budgetary Allocations for Service Delivery." Africa Region Human Development Working Paper Series 62. World Bank. April.

The PETS and QSDS set out to quantify the incongruity between budgetary and real assignments and to determine the degree of attendance at work. In education, the study found that 3% of staff on the payroll did not exist (ghost workers), while 5% of primary school teachers were unknown at their place of work (migration of posts). Staff migration was highest among nonteaching staff and secondary teachers. Absenteeism was less of a problem than in the health sector, with an average attendance rate of 86% across all categories of staff (compared with 73% in health). Fifteen percent of all absences were unaccounted for. Multiple jobs in education were twice as prevalent as in health, with 23% of all teachers having two or more jobs.

The findings of the Honduras PETS have generated further interest in the issue of service provider absenteeism. In 2003, the World Bank and partner organizations carried out a coordinated survey of thousands of primary schools and primary health centers in eight countries: Bangladesh, Ecuador, India, Indonesia, Papua New Guinea, Peru, Uganda, and Zambia. Results are reported in Table 6. One major goal of the initiative was to provide good

estimates of the extent of provider absence. The project did this by making unannounced visits to those facilities and recording, in a sample survey, whether personnel were present at their assigned posts. National average teacher absence rates in primary schools ranged from 11% in Peru to 27% in Uganda. These estimates are likely to be conservative for several reasons. First, providers are counted as present if they are found anywhere in the school or clinic (even if they are not delivering services). In India, enumerators found that fewer than half of the teachers were actually teaching at the time of the teacher observations. Second, there is some evidence that a survey-observation effect could have reduced measured absence rates during the second visit to each school.

### *PETS and QSDS as Analytical Tools*

Diagnostic surveys can identify problems, but it is also important to understand their underlying causes so that these factors may be changed. PETS and QSDS can also be used as analytical tools. For example, a starting place for analysis may be the observation that the capture of funds varies across schools and perhaps across districts; or it may be widely different attendance behavior among teachers. The task that falls to the analyst is to determine why this should be so. To do this, analysts typically look for other factors that are correlated with the variables of interest, formulate and test a hypothesis, and try to discern any causal relationships. If causes are discovered, they often give a clue to the appropriate policy intervention.

Reinikka and Svensson<sup>39</sup> used statistical analysis to explain why some schools receive more funds than others, using data from the Uganda PETS. The study results show that schools in better-off communities experience a lower degree of leakage. Also, larger schools appear to receive a greater share of the intended public funds per student, and schools with a higher degree of unqualified teachers experience more leakage. These findings suggest that schools use their

Table 6: Provider Absence Rates by Country and Sector, Selected Developing Countries (%)

	Absence Rates	
	Primary Schools	Primary Health Centers
Bangladesh	16	35
Ecuador	14	—
India <sup>a</sup>	25	40
Indonesia	19	40
Papua New Guinea	15	—
Peru	11	23
Uganda	27	37
Zambia	17	—

— = data not available. <sup>a</sup> Average for 19 states.

Source: N. Chaudhury, J. Hammer, M. Kremer, K. Muralidharan, and F. Halsey Rogers. 2004. "Provider Absence in Schools and Health Clinics." Available: [http://www.hec.ca/neudc2004/fp/rogers\\_h\\_sept\\_30.pdf](http://www.hec.ca/neudc2004/fp/rogers_h_sept_30.pdf).

<sup>39</sup> R. Reinikka and J. Svensson. 2001. "Explaining Leakage of Public Funds." Policy Research Working Paper 2709. World Bank; and R. Reinikka and J. Svensson. 2004. "Local Capture: Evidence from Central Government Transfer Program in Uganda." *Quarterly Journal of Economics*, 119 (2).

bargaining power vis-à-vis local governments to secure a greater share of funding. If this is indeed the case, local capture may have obvious equity implications. Specifically, poor students may suffer disproportionately because their schools receive even less funding than others. If local capture is related to users' socioeconomic status, this has an implication for benefit-incidence analysis as well, since if resources are not being allocated following government budget decisions, such analysis (which is based on budgetary allocations) may seriously distort or underestimate the potential pro-rich bias of public expenditure on education.

Chaudhury et al.<sup>40</sup> examine provider absenteeism in schools and health clinics. Using survey data collected in eight countries, the authors describe basic correlation and trends in absenteeism of teachers and medical personnel. Their results show that rates are generally higher in poorer countries and states, with an additional \$1,000 in per capita income (at purchasing power parity) reducing predicted absenteeism by 2.7 percentage points. Absenteeism appears to be spread out over most providers, rather than among a small number of people frequently absent, suggesting a general culture of tolerance for it. The authors then focus specifically on teacher absenteeism and use regression analysis to identify correlates at the individual, school, and district levels. Their results show that teacher absenteeism is positively correlated with poor school infrastructure (which suggests that working conditions matter) and with distance from the nearest ministry of education office (which suggests that administrative monitoring may also be important). By contrast, proxies for intrinsic motivation,<sup>41</sup> community monitoring, and salary levels did not turn out to be robust predictors of absenteeism.

### ***Using PETS and QSDS Data for Impact Evaluation***

Another reason to conduct PETS and QSDS is to examine the impact of a policy intervention that has already been made. A good occasion to use a PETS or QSDS for impact evaluation is after an earlier round, so that results can be compared. This was done in Uganda. Following the findings of the 1996 Uganda PETS (which revealed that for every dollar spent by the central Government, the schools received approximately only 20 cents on average), the central Government enacted a series of policy changes. Specifically, it began to publish data on monthly transfers of capitation grants to the districts in newspapers.

Reinikka and Svensson<sup>42</sup> used a repeat PETS and QSDS to study the effects of increased public access to information as a tool to reduce capture and corruption. The PETS visited the same schools in 2001 that had participated in the 1996 survey. The new survey found a significant improvement since the mid-1990s. Leakage had fallen from 78% to 18%. However, this did not prove that the information campaign had been successful, as the reduction in leakage could have occurred for other reasons. To test for the effect of the information campaign itself, the authors included questions in the questionnaire about the schools' access to sources of information, particularly newspapers. The authors controlled for a broad range of school-specific factors such as household income, teacher education, school size, and degree of supervision, and took into account the fact that district personnel might not know whether schools had newspapers or not. The study results suggest that the information campaign accounted for three quarters of the improvement.

Few data have so far appeared on the use of PETS and QSDS for impact evaluation. The Uganda case is the best example so far, as most surveys elsewhere

<sup>40</sup> N. Chaudhury, J. Hammer, M. Kremer, K. Muralidharan, and F. Halsey Rogers. 2004. "Provider Absence in Schools and Health Clinics." Paper presented at Northeast Universities Development Consortium Conference in Montreal, October. Available: [http://www.hec.ca/neudc2004/fp/rogers\\_h\\_sept\\_30.pdf](http://www.hec.ca/neudc2004/fp/rogers_h_sept_30.pdf).

<sup>41</sup> Measured by whether or not an individual received a degree in education or some sort of teacher training, whether an individual was locally recruited, and whether an individual received some sort of in-service training.

<sup>42</sup> R. Reinikka and J. Svensson. 2003. "The Power of Information: Evidence from a Newspaper Campaign to Reduce Capture." Working Paper 3239. World Bank, Washington, DC.

are too recent to have allowed for a follow-up. It is important to note, however, that the use of microsurveys for impact evaluation is not novel. For example, the use of randomized evaluation methods has long been advocated for measuring program impact (particularly in the social sectors).<sup>43</sup>

### Designing and Implementing a PETS and QSDS: Lessons Learned

Like other micro-level surveys, PETS and QSDS require careful design and implementation. This section draws on Dehn et al.<sup>44</sup> and briefly outlines broad steps involved in successful design and implementation of PETS and QSDS. More detailed information on survey design, sampling techniques, implementation as well as sample questionnaires are available at [www.publicspending.org](http://www.publicspending.org) (subtopic surveys).

In the first step, the survey team needs to have a good idea of why they are doing the study. When a new analytical tool is developed, there is a temptation to use the tool, regardless of whether the situation on the ground warrants its application. Even if the study is sponsored by donors (rather than a developing country government), it is important to involve the government in the process of deciding the study's motivation and purpose. This will help ensure the cooperation of public officials. Furthermore, it will build up the government's sense of ownership of the study, making it more likely that the study's recommendations will be translated into policy.

As a second step, the survey team should agree on the scope of the study. A survey requires considerable effort, so it is advisable to limit the number of sectors to one or two. Until now, PETS and QSDS have mostly been carried out in the "transition-intensive" health and education sectors with clearly defined frontline service

delivery points (clinics and schools) but there is no reason to limit them to these two sectors. Criteria for choosing the unit of analysis are likely to vary with context. It could be a sector receiving the largest amount of public funds, service units most directly connected to the poor, or service units plagued with high volumes of anecdotal complaints from users.

The third step is to identify key issues and problems involved in service delivery in the chosen sector. Every data collection strategy should be designed with one or more questions in mind. It is also useful to develop a hypothesis of what the answer to the question might be. This is helpful in determining what kind of data will be the most valuable.

Next, the survey team needs to determine the structure of government resource flows and rules for resource allocation to schools. A detailed blueprint of how the government and its resource flows are designed is a prerequisite for tracking expenditure to determine whether the system is working properly. Before designing their strategy, researchers must therefore assess how the education hierarchy is structured and how funds are supposed to be allocated and disseminated.

The researchers also need to obtain a good understanding of the institutional setting with respect to the relationship between government and private (both profit and nonprofit) providers. Most developing countries have a mixture of private, public, religious, and community schools. As mentioned above, an often sizable share of education takes place outside the public system. Private schools may cater mainly to the wealthy so that the burden of reaching out to the poor and disadvantaged rests mostly on the public sector. In other cases, private, religious, and community schools may be important to the poor. It is useful to understand the different kinds of schools operating

<sup>43</sup> See for example: J. Newman, L. Rawlings, and P. Gertler. 1994. "Using Randomized Control Designs in Evaluating Social Sector Programs in Developing Countries." *The World Bank Research Observer*. July; E. Duflo and M. Kremer. 2003. "Use of Randomization in the Evaluation of Development Effectiveness." Paper prepared for the World Bank Operations Evaluation Department. July; and M. Ravallion. 2003. "Assessing the Poverty Impact of an Assigned Program." In *Evaluating the Poverty and Distributional Impact of Economic Policies (Techniques and Tools)*, ed. F. Bourguignon and L.A. Pereira da Silva. Washington, DC: World Bank. September.

<sup>44</sup> J. Dehn, R. Reinikka, and J. Svensson. 2003. "Survey Tools for Assessing Performance in Service Delivery." In *Evaluating the Poverty and Distributional Impact of Economic Policies (Techniques and Tools)*, ed. F. Bourguignon and L.A. Pereira da Silva. Washington, DC: World Bank.

in a country and what roles they play. The PETS and QSDS can then be used to test various hypotheses, such as, for example, assessing whether education outcomes are better in public than private schools.

A rapid data assessment is also recommended early in the process to determine the availability of records at various layers of government as well as in the private sector, particularly at the school level. It is important to do this early on, even if this entails a delay and extra upfront costs. Necessary data to conduct a full QSDS may not be available in all sectors and in all countries at the facility level. A preliminary assessment is therefore needed to check whether a QSDS is feasible.

The survey team should also assess available local capacity to carry out the survey and engage in data analysis and research. Conducting a PETS or QSDS requires a variety of staff, ranging from enumerators and data-entry agents to statistical analysts. Using local consultants is likely to be more cost effective than using international resources, as well as being beneficial for capacity building. In-country consultants also have an advantage over their international counterparts regarding knowledge of local institutions (yet they may be more prone to local pressures).

In the final step, the survey must decide on the appropriate survey tool. This will depend on data availability, the purpose of the study, and the main problems that the study seeks to address. For example, if one of the main problems is funds capture before they reach the service facility, a PETS may be more appropriate; if it is that facilities are not performing as they should on the basis of received resources, a QSDS may be more appropriate. In many cases, the survey will be a combination of the two.

### Summary

Until recently, analysis of public service delivery focused almost exclusively on the issue of public

financing—highlighting whether the government spends its money on the right goods and the right people—using budgetary allocations. Little was known of actual spending and little attention was paid to the issue of whether the resources allocated by the government actually reached the schools. Provision, particularly issues related to institutions, incentives, and provider behavior, also received little attention. Helping address this deficit are the promising new microeconomic tools of PETS and QSDS. This chapter's brief review shows that these surveys can indeed be useful instruments to diagnose problems in the service delivery chain quantitatively, to understand the underlying causes of these problems, and to design more effective interventions.

The PETS and QSDS conducted so far have shown that translation of new funds and resources into improved education outcomes cannot be taken for granted. They have revealed some of the reasons why service failures may occur. Two common problems are leakage of funds and provider absenteeism. A general lesson is that, in order to ensure that education resources are effectively transformed into education outcomes, it is necessary to identify the weak links in the accountability system and make them the focus of reforms. As diagnostic tools, PETS and QSDS can help achieve this. The studies carried out to date suggest new ways to improve public sector performance. First, interventions can be targeted far better at vulnerable types of expenditure, such as nonwage recurrent spending, and at weak tiers in the public sector hierarchy. Second, efforts to improve public service delivery should consider not just resource flows, but also the institutional framework and incentives. Adequate resources are inadequate to guarantee performance if these resources migrate from where they were originally intended for use. Third, some studies have suggested (for example, Uganda) that information dissemination may be a way to mitigate problems arising from the information asymmetries that characterize most public sectors.