I. Background.

School systems in most developing countries largely fail to deliver quality primary education to poor children. Although considerable gains have been made in bringing children into school, there are still regions in the world where primary enrollments and retention remain low; currently an estimated 60 million primary school-age children are out of school. But the bigger problem may be that even when children are in school, they are learning very little. The results of international achievement tests consistently show that even children who do enroll attain such poor instruction that they are effectively functionally illiterate.

Until recently, efforts to improve education typically focused on providing inputs to schools—increasing spending along existing allocation patterns. But research now demonstrates that increased funding alone is not sufficient for improved learning outcomes. First, funds may be allocated to poorly designed inputs that have weak impacts on student learning, such as textbooks that are too difficult to comprehend. Second, if inputs given to schools are substitutes for inputs at home, increasing school inputs may decrease home inputs thus curtailing overall gains in learning (as has been demonstrated in India and Zambia). Third, teachers and other education personnel (who represent the bulk of education spending) may be poorly motivated to perform. Poorly prepared teachers, high levels of absenteeism, an environment of weak supervision, inadequate regulatory oversight and poorly designed incentives contribute to poor performance.

The 2004 World Development Report *Making Services Work for Poor People* argued that the underlying cause of such failures in basic service delivery in developing countries are weak accountability relationships between the state, service providers, and the citizens and clients they serve. In the education sector, efforts to strengthen these accountability relationships through system reforms have been numerous. However, designs have varied considerably and there has been little rigorous evaluation of impact until recently.

This impact evaluation cluster is promoting rigorous evaluations of accountability-promoting reforms in basic education (which includes here early childhood education, as well as primary and secondary schooling) in two directions, taking directly from Hirschman’s notion of voice and exit. Countries may decide to strengthen their public systems by increasing accountability in public schools; evaluations
from this aspect of the cluster will assess the reforms and changes that can produce the largest impact. Alternatively – or in tandem – some parts of educational provision may be left to the non-state sector (with or without financing from the public sector).

II. Description of cluster and ongoing research.

The Basic Education Service Delivery cluster, established through the previous Spanish Impact Evaluation Fund, focused on promoting rigorous evaluations of three of the most common types of accountability-promoting reforms in basic education: school-based management; information provision to empower school stakeholders; and teacher contracting and incentive reforms. As part of this, researchers followed school-based management reforms in Mexico that attempt to empower parents in rural schools and community-managed schools in Nepal; information for accountability projects in Liberia; and teacher contracting and pay for performance projects in Sao Paulo and Pernambuco, Brazil. Within this cluster, researchers also followed projects in India, Kenya and Pakistan. Overall, we were able to draw upon evidence from 22 rigorous evaluations in 11 developing countries. This work led to a book, *Making Schools Work*, which examines how strategies to strengthen accountability relationships in school systems have affected schooling outcomes. As a result the evidence based grew considerably in recent years.

In summary, information for accountability—on its own—is a potentially useful tool for improving learning outcomes but one whose success at leveraging change is sensitive to many factors. For information provision to be effective, service providers must have the capacity to change in response to the accountability pressures it can induce. If providers are circumscribed in their ability to take action (by finances, skills, authority etc.), it is unsurprising if information has no impact. Information is therefore critically linked to local decision-making authority and capacity to act. The impact of information is also likely to be higher if it is linked to performance rewards or sanctions. School-based management (SBM) can improve learning outcomes, though the results are mixed. It is likely that for school-based management to be effective, it must entail a real transfer of authority (that is, provide school committees and parents with real tasks) and the building of capacity to carry out those tasks.

Research on the use of contract teachers in a few cases has documented large efficiency gains in student learning outcomes, because of higher effort and lower absence rates among contract teachers despite their lower average salaries. However, there is inadequate evidence as yet on the sustainability of such approaches, besides the need to generate more evidence before anything systematic can be said about the efficacy of contract teachers. On pay-for-performance reforms the most recent and robust developing-country evidence suggests that bonus-pay incentives can improve learning outcomes.
Nevertheless, the cluster concludes that much more effort at linking such reforms is needed. Increased use of cross-over designs and experimentation with bonus size and other design features is encouraged in future research.

III. Outline for research agenda

Despite this effort at producing evidence from rigorous evaluations of education interventions the evidence base is still light on what combination of interventions works to improve learning outcomes for all. For example, a large and important set of evaluations in Sub-Saharan Africa that have not yet generated results are not yet reported on. Future work should be encouraged along at least three dimensions: replication; combinations with long-term follow-ups; and innovative models.

(i) **Replication**: Given a sound theoretical framework—that is, a logical chain for how an intervention might work to effect change—replication is an important tool for deepening our understanding of what works, where, and why. The number and range of evaluations to date do not support a satisfying synthesis. Replicating successful models in different contexts is necessary to quantify the extent to which programs work under varying circumstances. Replicating interventions that have been successful in small-scale settings at a regional or national level is necessary for confidence about what works.

(ii) **Crossover Designs and Follow-ups**: The research discussed here points to the potential benefits of interventions that combine information, school management, and teacher incentive reforms. There will be a high payoff to research designs that test various combinations and extensions of these approaches. Some studies have solid crossover designs, and these have played an outsized role in advancing our understanding. In addition, the studies that were successfully completed in the past would benefit enormously from long-term follow-ups that will allow researchers to track intervention beneficiaries into their working lives. This will allow us to investigate the medium-term returns in terms of employment, wages, health and family structure.

(iii) **Innovative Models that Reach the Poor**: Within this cluster, we also wish to promote research on innovative models of education delivery that focus on serving disadvantaged students. As described below, there is a particular interest in evaluating programs and policies that leverage non-state providers (ranging from for-profit private schools to NGO operated schools) to serve low income populations. This might include examples of where
the private sector is encouraged through the use of public finance (direct public finance or vouchers), or where other sources of finance are leveraged to support private provision.

IV. Research cluster aims, questions and outcomes

The overall aim of this research cluster is to contribute to the knowledge base on interventions and combinations of interventions that improve student learning and retention. It will be important in the cluster to tease out how different contextual factors affect the impact of interventions. For example, does the base level of financial and human resources affect the impact of interventions?

The priority areas to be addressed within the cluster are: (i) accountability in public education and (ii) the non-state sector in basic education service delivery.

I) Accountability in public education: This area will expand on previous research and deepen our understanding of the impact of core strategies for making public education systems more accountable for results: information for accountability, school-based management and teacher incentives. Topics may include the impact on learning outcomes of different types of information provision, different models of school-based management and/or parent involvement in schools, and different levels of bonus pay and/or alternative performance measures. Building systematic evidence on how interventions in these areas with different design features (such as the level of grants received by school committees, or the type of school performance information disseminated to parents) operate in different country contexts is a key goal. Research on the impact of combining various accountability reforms, using cross-over designs, is particularly encouraged, as the ultimate goal is to generate information on the relative cost-effectiveness of these strategies and their complementarities when used in tandem.

Within the area of accountability, there is a particular interest in teacher incentives. The cluster will solicit research proposals aimed at generating evidence on under what circumstances incentives can be used to support more effective teaching and learning. How do the design features of alternative bonus pay programs (size of the bonus, group vs. individual teacher rewards, the specific performance measures used to award the bonus) affect their impact in different contexts? What is the impact of incentives (both financial and non-financial) to attract more talented and motivated individuals into teaching? How can countries change the career path to reward performance (how many pay grades, how big an increase)? What is the role of higher competency standards at entry? What is the role of teacher performance evaluation? How do incentives affect teachers’ take-up of in-
service training? How do incentives change teachers’ performance in the classroom and how does this affect student learning?

(ii) The non-state sector in basic education service delivery: Evidence on how and under what circumstances the non-state sector can contribute to more accountable and efficient education service delivery particularly in low-income settings – remains thin. Alternative strategies for combining public financing with privately-managed service delivery support take different forms, but two of the most common are contracting out public services to private for-profit, non-profit, or community-run providers in a charter-school model, or channeling public financing to private providers through the demand-side in a voucher-type model. Independent private schools are also increasingly serving low income populations. Key research questions include: How does the cost-effectiveness of private for-profit, private non-profit (NGO or community-run) and public schools serving low-income populations compare to education provision in public schools? Does non-state provision help in reaching the poor with quality services or merely displace state provision? What are the advantages and disadvantages of different approaches to using public finance to leverage the non-state sector involvement in different contexts – public contracting or voucher/choice models? Are there models for increasing access to finance among private schools in a pure micro-finance environment? How much impact does information on school performance have on parental choice? Does the existence of a private-subsidized segment of the schooling market generate competitive pressures that improve the performance of public schools and thus overall system outcomes?

Outcomes. With respect to outcomes, in most cases the appropriate outcomes to consider are student learning gains and we would expect to see measures of student learning in all proposals. However, in countries that lack student assessment systems and have to yet to achieve universal enrollment or completion, indicators of student attendance, enrollment and completion will also be considered. Intermediate indicators are also encouraged – such as classroom observations of teacher practice, teacher absence rates, parent attendance at school council meetings. Measures of the equity of schooling access and learning outcomes are also important. Finally, SIEF also welcomes proposals that include crossover designs, as described above.

Gender and Cost data. Key to equity of outcomes in many countries is gender differences; all proposals will be expected to at least examine female-male differences in participation and outcomes, along with efforts to examine heterogeneous effects. All studies should demonstrate strong efforts at collecting
detailed cost information so that cluster can build systematic evidence on the cost-effectiveness of evaluated reforms.

REFERENCES
