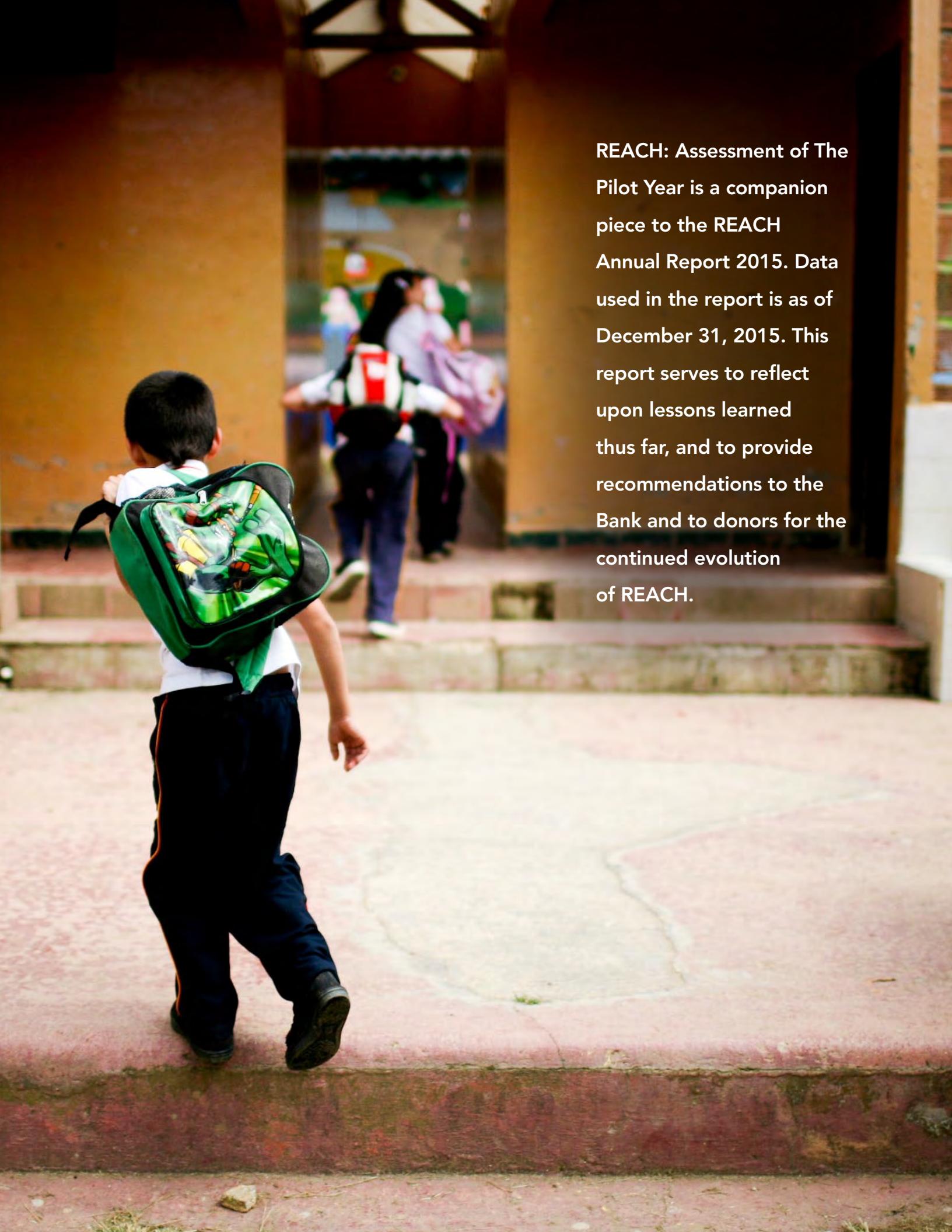




Results in Education for All Children (REACH)

Assessment of the Pilot Year



REACH: Assessment of The Pilot Year is a companion piece to the REACH Annual Report 2015. Data used in the report is as of December 31, 2015. This report serves to reflect upon lessons learned thus far, and to provide recommendations to the Bank and to donors for the continued evolution of REACH.

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REACH: Assessment of the Pilot Year

Introduction

Results-based financing (RBF) has the potential to transform how education systems operate, and the types of results they achieve for children the world over. As a financing instrument, RBF shows much promise for helping clients enroll the 121 million children still out of primary and lower secondary school, and teach the 250 million in school but still unable to read or write. Indeed, RBF has dramatically improved the delivery of health services in [over 30 countries to date](#). Although more nascent in the education sector, RBF programs can foster the right incentive structures in education systems, overcoming challenges that impede additional and better education services for the most excluded children and youth. Generally speaking, RBF programs do this by rewarding the delivery of education outcomes through financial incentives, upon verification that the agreed-upon result has been achieved, and do so in a manner that can be credibly sustained over time.

In 2015, the World Bank Group (WBG) launched [REACH](#), a multi-donor trust fund that strives to support country clients in this space, and accelerate the RBF agenda within the institution. With generous financial support from the Governments of Norway, the United States, and Germany, REACH has just completed its pilot year. Highlights of activities during that year include the allocation of a Country Program Grant (CPG) to Nepal (US\$4 M), and the approval of 19 Knowledge, Learning, and Innovation (KLI) Grants, in addition to training activities and knowledge and learning events with over 100 participants.

This assessment reflects on lessons learned in 2015, and estimates the demand for future RBF in education. The lessons have been distilled from the early experiences with the 20 REACH-funded grants, as well as from the just-in-time support provided to Bank teams and country clients across the globe (about 20 countries in total). The assessment concludes with recommendations for the continued evolution of REACH.



Serving Clients: Top Ten Things we Learned about RBF in 2015

Lesson 1. RBF means different things to different people.

Many international actors have developed a lexicon around RBF. A quick glance reveals a true alphabet soup, distinguishing between Results-Based Aid, Output-Based Aid, Results-Based Budgeting, and so much more. The differences in terminology are predicated on who is financing, who is receiving, what results are sought, and under what conditions.

In the WBG's Education Global Practice, RBF is viewed as a systems-oriented financing approach that can transform how client governments achieve results in the education sector. This is a different perspective from viewing RBF more narrowly as a means for generating more value-for-money for donors, or as a primary strategy for making aid "smarter". While these may indeed be likely outcomes when donors embrace RBF approaches, they are not the main reason **why governments should shift**

away from input-based school financing policies.¹

As we have been learning "how to speak RBF", we have chosen to adopt a [Glossary of Terms](#) from the health sector (see table 1). In short, RBF is the umbrella term that we use for any program that rewards verifiable results. We believe that this provides the most useful frame for thinking about how our operations can help to strengthen country systems. The source of the financing (e.g. whether government or donors) interests us much less than what the financing seeks to achieve.

In order to speak clearly with our clients on this topic, and at the request of teams, we've developed a short set of "RBF FAQs" for clients.

¹ Using RBF to strengthen education systems is the theme of a forthcoming WBG approach paper on this topic.

TABLE 1. A Short Glossary of RBF Terms, based on Musgrove, 2011²

Term	Definition
Results-Based Financing, RBF	Any program that rewards the delivery of one or more outputs or outcomes by one or more incentives, financial or otherwise, upon verification that the agreed-upon result has actually been delivered. Incentives may be directed to service providers (supply side), program beneficiaries (demand side) or both. Payments or other rewards are not made unless and until results or performance are satisfactory. The definitions of results or objectives and rewards are embodied in contracts between one or more principals who provide the incentives and one or more agents who contract to deliver the specified results, outputs or outcomes.
Pay for Performance (P4P), Performance-based Payment and Performance-Based Incentives (PBI)	Can all be considered synonyms. Performance in these labels means the same thing as results, and payment means the same thing as financing. These terms do not introduce any additional distinctions.
Performance-Based Financing, PBF	Incentives are directed only to providers, not beneficiaries; awards in current programs are purely financial, although discussion in some countries contemplates provided non-financial rewards such as improved housing or transportation or the provision of schooling... Cash payment is by FFS for specified services; and payment depends explicitly on the degree to which services are of approved quality, as defined by protocols for processes or outcomes. Payments can be made to facilities or to individuals; "provider" includes both categories and can refer to any level of the health system, from community workers to hospitals. The relation between results and payments can be linear or non-linear.
Performance-Based Contracting, PBC	Setting a fixed price for a desired output and then adding a variable component that can reduce payment for poor performance or increase it for good performance compared to the standard defined in the basic contract (Loevinsohn). The variable share at risk is often small, of the order of five percent of the base price in either direction, but it can be much larger... These are otherwise classical contracts that do not involve FFS or other output-related payments. They are usually applied to NGOs; the fixed price component leaves it to the provider to allocate funds among inputs. One may describe PBC as "contracting out" to distinguish it from PBF, which is a form of "contracting in".
Output-Based Aid, OBA	A subset of RBF [...] includes only financial rewards. Output is used as a synonym for results and does not usually include results better classified as outcomes. The distinguishing feature is that the principal is an aid donor; the agent is therefore typically a recipient government or public agency, although it could be an NGO or private for-profit organization if external assistance is provided directly to such an entity rather than passing through a government.

² <http://www.rbfhealth.org/resource/rewards-good-performance-or-results-short-glossary-rbf-updated-march-2011>

TABLE 1: *Continued*

Term	Definition
COD, Cash on Delivery	Defined as “a new approach to foreign aid” it overlaps with OBA. However, delivery may refer to outcomes rather than just outputs. It is distinguished by the maximal degree of autonomy for the agent in deciding how to produce and deliver the results. Once the objectives and the payment are contracted, the principal does not dictate or supervise the agent’s decisions or methods. This difference from RBF or OBA programs in general is procedural rather than referring to the objectives, the verification mechanism or the manner of payment.
CCT, Conditional Cash Transfer	Describes demand-side programs where the incentives apply exclusively or primarily directly to the program beneficiaries rather than to the agent(s) delivering services. Results are defined by the enrollment of beneficiaries in the program and their compliance with required behaviors such as consuming specific services. Incentives to recruit and enroll beneficiaries or to provide them with services may also apply on the supply side in these programs, as in RBF generally. For the name CCT to apply there must be a financial payment to the beneficiaries for compliance. CCTs typically offer non-financial rewards, such as food packages, as well.

Lesson 2. Theories of change: a nudge instead of a lever.

There exists a view that external financing can provide governments with an incentive to undertake actions that they otherwise might not, actions which are more important to the financier than to the client. Based on the principal-agent model, this theory argues that external financing can serve as a lever to shift the agent (e.g. recipient government) toward the principal’s (e.g. donor’s) objective, creating an alignment of sorts (Clist and Verschoor, 2014). This presumes, however, that the agent does not inherently value the result, or at least not to the same extent as the principal. Our experience to date has been different: If there is no alignment in objectives at the

outset, between donor and country or within the country system itself, success is unlikely, especially in the long term.

In contrast, rather than shifting objectives, we believe that RBF serves more to shift the focus of attention and effort. By using results as the starting point, and by using financing to sustain that attention over time, successful RBF works more to clarify and organize existing objectives and send stronger signals about what matters. It therefore nudges program actors – financiers, recipient governments, service providers, beneficiaries – to put resources towards the activities most likely to achieve those results.

Lesson 3. Discretionary action is unlikely to drive solutions.

One idea associated with RBF is that it must include discretionary action for recipients in order to succeed. This means that funders give full autonomy to recipient governments, or

governments remain hands-off with schools or teachers. It also suggests that the recipients have the knowledge and capacity to resolve the problem at hand, whether increasing

learning, reducing dropouts, or getting the remaining out-of-school children into school.

In our experience, however, there are few instances where such discretionary action is the answer. This is true be it governments or schools. Rarely have we seen schools or teachers able to improve their students' learning simply by being left to their own devices, and given the autonomy to act as

they see fit. Rather, improvements require new tactics, such as pedagogic interventions that help [teachers teach at the level of students, training teachers in applying assessments](#), or other initiatives that usually imply external support to front-line actors. This is true for governments, too, that often seek and appreciate working together to identify the critical pathways toward achieving the desired results.

Lesson 4. But discretionary spending might.

A related idea is that discretionary spending – the freedom to choose when and how to spend the resources to achieve results – is a desirable feature of RBF. Here we would tend to agree. While external actors can add value in terms of technical support toward achieving results, there

is little reason to suggest that active supervision regarding budget execution adds the same kind of value. As such, teams are encouraged to design RBF with discretionary spending for recipients—whether governments, districts, firms or schools—embedded therein.

Lesson 5. RBF requires more than the usual level of client ownership.

For RBF to work, the signals need to be strong. This means not only clarifying incentives, but also following through with integral program parameters such as withholding financing. This is particularly important early on, such that the rules of the game are established at the start. Unlike the usual problems that arise in project implementation, such as debarring firms from competing for contracts, or working

to resolve bottlenecks in service delivery, withholding payments to firms, schools, or teachers requires a much greater degree of political will. When governments are recipients in RBF modalities, they also take on greater risk, since non-performance could translate into not receiving project proceeds in their entirety. As such, client ownership of an RBF scheme becomes an essential precondition for any RBF initiative.

Lesson 6. The relationship between incentives and performance is not linear.

Much of the RBF approach rests on an assumption that, properly applied, incentives will enhance performance. This is the theory underpinning teacher bonuses, for instance, and other funding mechanisms such as those that link school grants to student learning or test scores.

The theory posits that motivation is the binding constraint (rather than ability, or

availability of resources). If the incentive can accelerate the motivation, then the desired result will be achieved.

However, research by Dan Ariely and others reveals that such incentives work best when the tasks conducted are mechanical in nature, not cognitive ([Ariely, Gneezy, Loewenstein, and Mazar, 2005](#)). What's more, when the

stakes are high, [the incentives can actually backfire](#). For some complex tasks requiring high cognitive reasoning or creativity, the higher the bonus, the worse the performance.

RBF has had much success in health, increasing immunization rates and other coverage indicators (World Bank and Gavi Alliance, 2010³). This is likely because administering vaccines is relatively straightforward, regardless of the contextual conditions of the beneficiaries. Health

³ http://www.who.int/immunization/programmes_systems/financing/analyses/Brief_19_Results_Based_Financing.pdf

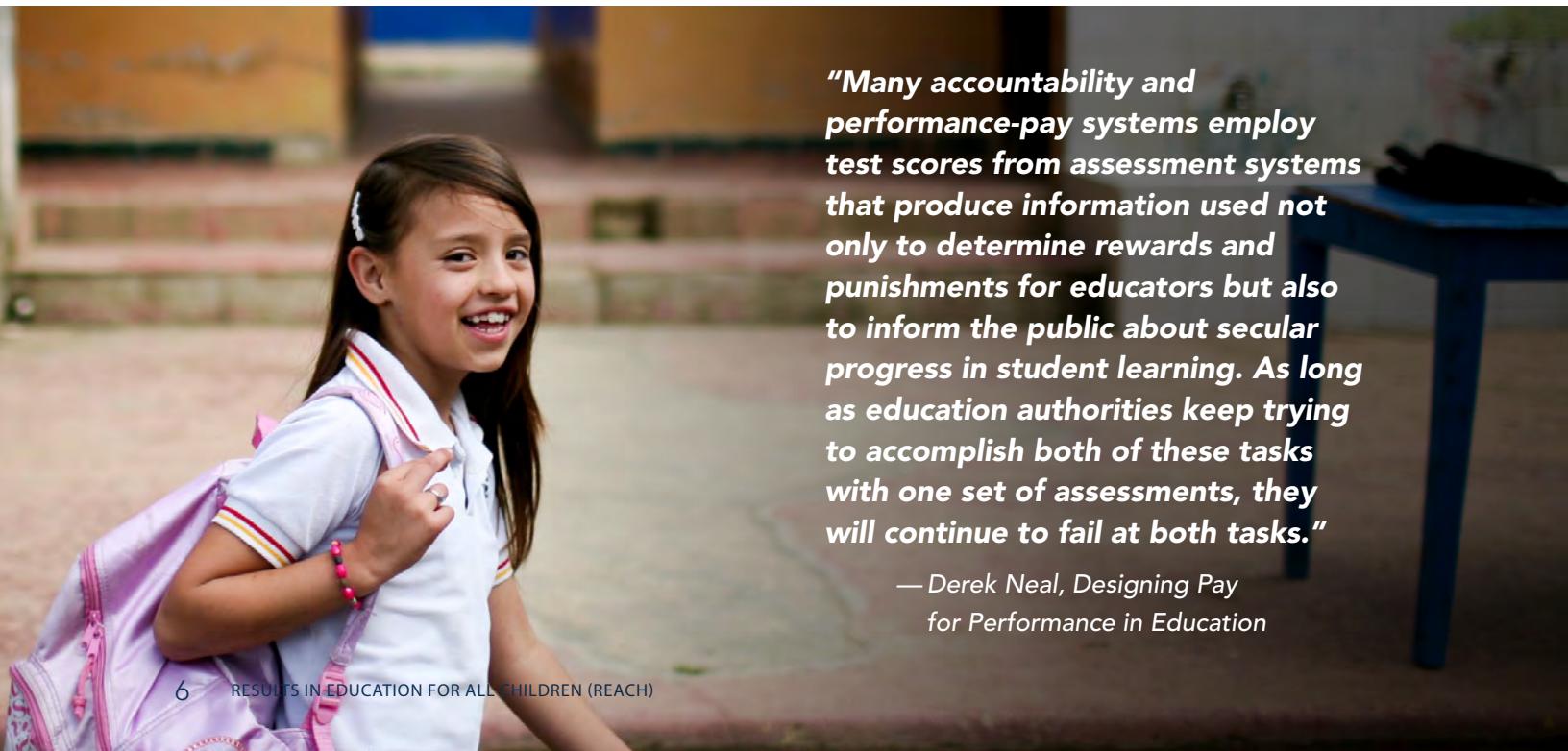
care workers are clear on how to achieve the result, and only require certain inputs (vaccines, needles, refrigeration, etc.) to do so. Incentives can therefore be motivating, and the discretion over how to spend the resources can lead to better results.

This has important applications to the education sector. For instance, perhaps enrolling previously out of school students is more mechanical than teaching kids to read, in which case, incentives that involve financial stakes might work better for increasing access than for improving learning.

Lesson 7. To achieve more learning, aim for conditions that are conducive to it.

It is difficult to improve learning without knowing which students are struggling, and in what areas of specific subjects. Hence the importance of good diagnostic testing, and communicating those results back to teachers and schools in a timely fashion. However, using these same tests to serve as accountability or incentive functions for teachers or schools risks rendering obsolete the primary function of the test: to improve learning. (For a more complete discussion, see [Neal, 2011](#)).

Instead, REACH has been exploring options for other results indicators against which financing can flow. What elements – reliably measurable – are highly correlated, or even predictive, of learning? How can performance targets be reliably and reasonably set, not too high nor too low? REACH support to teams in Cameroon, Colombia, Democratic Republic of Congo, Vietnam, and elsewhere are exploring this important question.



"Many accountability and performance-pay systems employ test scores from assessment systems that produce information used not only to determine rewards and punishments for educators but also to inform the public about secular progress in student learning. As long as education authorities keep trying to accomplish both of these tasks with one set of assessments, they will continue to fail at both tasks."

— Derek Neal, *Designing Pay for Performance in Education*

Lesson 8. RBF tools that work to increase access may not also buy learning.

When exploring the idea of using RBF to improve student outcomes such as learning, there is a natural tendency to look at instruments and tools that have shown success. To start to test this hypothesis, REACH did a deep dive on a good tool for access – school grants – to see the extent to which it is also a good instrument for improving learning. After reviewing the literature, visiting schools, discussing with teams, and [hosting a debate](#), we are inclined to say that school grants, on their own, [do not buy learning](#).

As governments seek to redouble their efforts toward improving learning, there is a temptation to use the same instrument

that has worked for previous objectives of [increasing access](#) and improving intermediate outcomes such as community involvement, which might eventually lead toward greater learning. Importantly, we're seeing many of these initiatives trying to guarantee learning outcomes by conditioning transfers to schools on improvements in student test scores. Given the evidence, we are skeptical this can work. Instead, we suggest teams consider binding on outcomes where there is evidence (e.g. increasing enrollment/attendance), or binding on conditions that are more fully within the discretion of school management teams (e.g. infrastructure conditions, proper and clean school sanitation, etc.).

Lesson 9. Invest in open data.

RBF needs good indicators. But good indicators do not appear overnight. Rather, they require a significant investment of time and resources in order to build up the requisite robust monitoring systems. Even then, this may not be sufficient. Making data publicly available, and having the data field tested by, among others, researchers, is a great way for governments to revise and refine their data collection methods and education management information

systems. In time, this will serve as the basis for a transparent RBF system that allows actors to align around the program objectives, and track progress. Such open data can then play a powerful role in shaping policy in the education sector. In the United States, for example, the [Open Education Data](#) initiative will render much of the administrative data in education accessible to parents and students, which is expected to have far reaching ramifications for the system.

Lesson 10. The WBG's support for RBF is a good way to introduce the concept to clients.

As will be outlined in a forthcoming approach paper, and as per the WBG's [Education Strategy 2020](#), the institution's promotion of RBF is as a mechanism to strengthen [systems](#). "Smarter aid" is expected to be a byproduct of this systems strengthening rather than a primary objective. That said, having WBG, GPE, or other international financing

flow to governments using results-based modalities is an effective way to introduce the RBF concept to clients. Building on this entry point, teams can then broaden the policy dialogue on how education systems, whether teacher policies, student assessments, quality assurance, and so on, can move away from input-based financing toward an RBF approach.

Bài giải
Công 18 phần bằng nhau là
 $7+8 = 15$ (phần)
(Giá trị của một phần là
 $30 : 15 = 6$
Bộ giá trị nhau là: $6 \times 7 = 42$.
Số thứ hai là: $6 \times 8 = 48$.
Đáp số: số thứ nhất: 42.
Số thứ hai: 48.

Bài giải
Khi 20 phần bằng nhau là:
 $8-5 = 3$ (phần)
Tổ thứ nhất:
 $53 : 3 = 17$
Tổ thứ hai là:
 $53 : 3 = 17$



Strengthening WBG capacity: Learning from early operations

In its role to strengthen WBG capacity to undertake RBF operations, REACH has begun to document the operational lessons to date. The two WBG RBF instruments most widely used are the Program-for-Results lending instrument, and Investment Project Financing (IPF) using Disbursement-Linked Indicators (DLIs).

a. Program-for-Results: Learning from Tanzania's Big Results Now⁴

The WBG's first experience using the [Program-for-Results](#) lending instrument in education is in Tanzania. As part of a REACH training session for staff in October, the Tanzania team presented some early lessons on the use of the instrument in education, and provided guidance to teams on how to advise clients (and manage internal processes) when using this instrument. Among the many takeaways from the Tanzania case are the following:

- Effective instrument for reform, as it generates political will, and helps address multiple bottlenecks;

- But requires clarity and specificity about desired reforms, especially discrete, actionable steps
- Main challenge: Not about capacity, but willingness:
 - for open data, and
 - to incentivize implementation level
- Teams should pay close attention to two things: Results chain, and the implementation level actors
- Teams should invest in three things: Open dialogue, open data, and open course-correction.

b. Early IPF DLIs: Testing hypotheses and debunking myths

To begin to document lessons for education project design using traditional Investment Project Financing, REACH visited Jamaica, where one of the Bank's first education projects using DLIs has been operating since 2008. The team participated in an implementation support mission, and conducted semi-structured interviews in the ministries of finance, planning, education, and health,

⁴ Adapted from Sabarwal, S. "Implementation Realities: PforR in Education". Presentation given at PforR training in October, 2015.

as well as within the commission that served as project implementation agency, in order to assess the gap between design and implementation, several years

out. Interviews were also conducted with task team leaders from each stage of the project. The highlights of the early lessons are as follows:

Myth 1: DLI operations result in undue pressure on teams to disburse, irrespective of results achieved.

A commonly perceived risk of RBF operations is that of teams coming under pressure, whether internally or by clients, to disburse resources regardless of whether the indicators have been met. Rather than withhold payment, the perception is that financiers will have to re-calibrate the indicators/targets, or otherwise take a more “flexible” approach that would facilitate disbursement.

In the case of Jamaica, the DLIs were largely met on time. In the few instances when they slipped into future years, they were offset by other DLIs that were met ahead of schedule. The WBG team had never been pressured to disburse. What’s more, the DLIs provided a strong incentive in the crucial early stages of strategy implementation, and achieving them created momentum.

Myth 2: Too many DLIs are always a bad thing.

Constructing indicator frameworks is among the most important tasks during project preparation, especially for RBF operations. WBG teams have tried to be careful not to overload the results framework, to limit the key outcome indicators to 5, and the total number of indicators to 15.

However, it seems that an abundance of indicators (45!) may be appropriate depending on the context. In addition to having 45 DLIs, the Jamaica project had an additional 30 monitoring indicators.

On the surface, this seems excessive. However, given the numerous stakeholders involved, and the need for a holistic cross-sectoral view of what needed to be done when and by whom, this complete monitoring table was universally appreciated. The original 45 indicators meant roughly 9 targets per year for 5 years; 12 more indicators were added in 2014, as part of an additional financing. The spacing of these indicators was also appreciated, as it ensured that momentum in implementation never let up.

Myth 3: DLIs need to be “heavy” (that is, highly valued in US\$) to have their intended effect.

There is a view that one of the theories of change behind RBF relates to [the size of the incentive to shift government priorities](#). In this case, however, the DLIs weighed in at a modest US\$180,000 each. As such, the money per se did not represent the incentive.

It was the increased attention to the desired results and the imposition of a unifying results framework that made all actors focus on what actually mattered.

This echoes other findings that it is not really the money that matters (see Lesson 2 on page 4).

c. Process Evaluation

In addition to exploring the early lessons from WBG-wide RBF initiatives, REACH has also reflected on opportunities for improving its performance, and the overall impact of the trust fund.

Some examples of adjustments made to KLI calls:

- **Casting the net wider.** To ensure that we support the best/most worthwhile initiatives regardless of their affiliation (NGO, recipient government, academics, WBG teams, or other), we opened the second call to agencies with no WBG affiliation.
- **Involving WBG teams upstream.** In the case of outside agencies (e.g. Cordaid) being shortlisted, we have been reaching out to operational teams working in those countries to review the proposals and participate in the interview panel. We have also sought management support for these projects upstream. This has led to better collaboration, more productive discussions and stronger working relationships.
- **Promising ideas, but not ready for full funding: conditional tranches and seed money.** Grants of US\$200,000 are not always appropriate, especially when the activity is highly innovative, or being implemented in an unpredictable environment (such as during an election year). We increased flexibility in our funding for high-risk, high-reward activities to encourage

innovation while mitigating financial and reputational risk by creating conditional tranches, or providing small one-time grants for teams to further refine their proposals.

- **Being careful not to exceed our capacity for providing just-in-time support.** The REACH core team adopted a first come, first served approach to taking on just-in-time support requests. This has worked well, as it has allowed REACH to serve teams most ready for support, and has encouraged regional managers to prioritize operations to work with REACH. However, demand is much higher than REACH capacity, and so a more formal prioritization/selection of teams will need to be introduced in 2016.
- **Intentionally supporting diverse activities.** As REACH works with teams interested in applying for financing, we have been encouraging teams to explore new areas for RBF, such as performance-based contracting with teacher training agencies in China.
- **Being explicit about the F in RBF.** We have [noted that](#), while teams are very comfortable discussing how they or their clients need to become more "results-based", the "F" part – financing – is not always present. Unleashing the full potential of RBF means more discussion about how donors, and governments, are going to pay, or not pay, based on previously agreed upon and independently verifiable outputs and outcomes.

Estimation of Expected Financing Gap

Demand from clients for lending (including IDA grants) that use RBF modalities has been growing quickly. This section undertakes an analysis of the education portfolio, identifying trends since 2010, by region. Working from the trends, the analysis projects what expected demand might look like in the coming years. Note that these numbers do not reflect actual demand as expressed by clients.

Global trends: RBF as a proportion of the portfolio

As shown in figure 1, in 2010, only 1 of the 36 new education projects approved by the WBG Board used RBF elements. By 2015, this had grown to 9 (out of 38), representing an increase in proportion of the portfolio from less than 3 percent to more than 20 percent

in 6 years. Whether in terms of number of projects, or whether we consider the dollar value of the portfolio, the trends are similar.

Regional trends

Since the beginning, South Asia has been leading the way for the WBG's RBF work, whether in project terms (figure 2) or (especially) in absolute dollar terms. This is a reflection of the degree to which large clients such as India and Pakistan recognize the value of focusing more on results sought, and not merely on the processes and fiduciary aspects for how to acquire the requisite inputs. It is also worth highlighting that in recent years Sub-Saharan Africa has witnessed a rapid increase in demand in this area. With the projected direction of the GPE, this number is expected to continue to increase.

FIGURE 1. Relative Share of RBF, # Projects

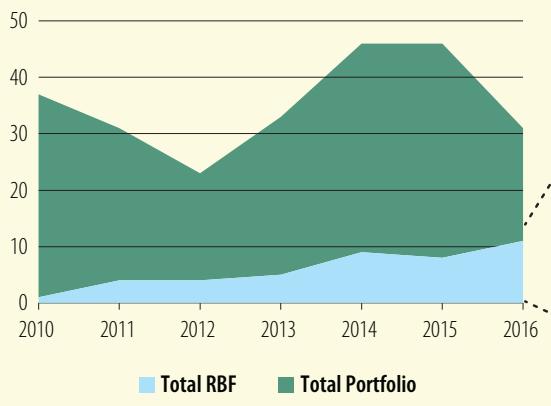
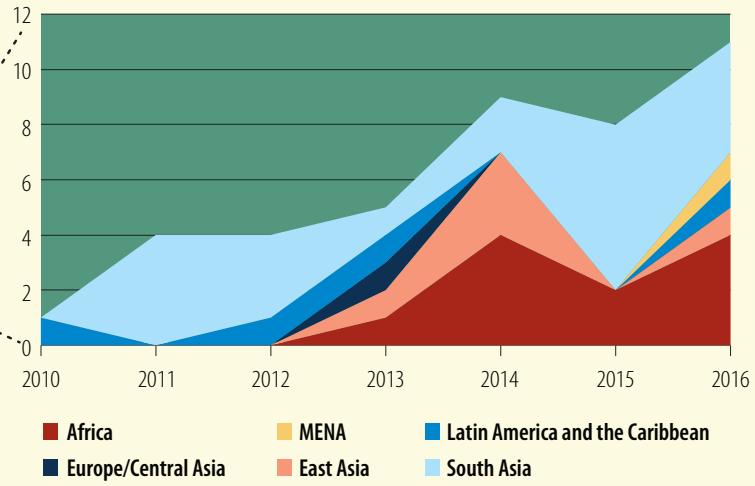


FIGURE 2. Number of Projects, by Region



Projected future investments

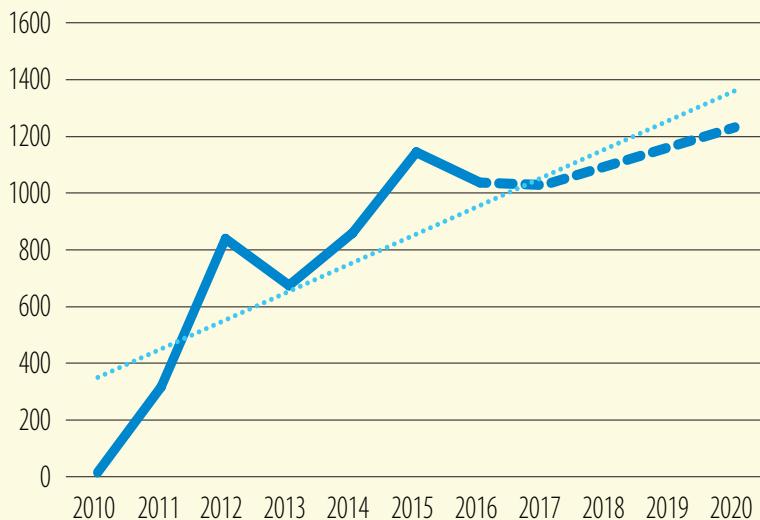
Looking forward, as clients become more familiar with the advantages of RBF, and as teams learn lessons from the first generation of projects, it is expected that demand will continue to rise.

Figure 3 estimates what demand for WBG financing (including GPE) in this area will look like. These rough projections are not a reflection of the actual pipeline, but rather a simple projection of trend lines, based on the recent past.

The total amount of projected demand for 2016-2020 is US\$5.59 billion, or US\$590

million above the WBG's commitment at the World Education Forum in Incheon, Republic of Korea in May 2015 to double its support for RBF by 2020.

FIGURE 3. Projected Demand 2017-2020 (US\$)



Recommendations

As the REACH trust fund wraps up its pilot year, it is important to reflect on progress made to ensure that lessons learned are incorporated into future activities and to make course correction where warranted. Working from a variety of sources and using different methods, this preliminary assessment serves to inform future technical, financial, and operational directions in the short term. The concluding recommendations are as follows:

Support more Country Programs that are ready for scale-up. Due to limited financing, REACH's pilot year has only supported one Country Program Grant: Nepal. Yet many countries are demonstrating both a willingness and a readiness to move toward RBF. The KLLs Grants⁵ are serving to conduct the groundwork for large-scale country programs in future rounds of support. Larger programmatic support will be instrumental in bringing about more systemic change and shifting culture to focus on results.

Use REACH to leverage funds. In the coming years, we expect a significant increase in demand from clients for RBF (US\$5.59 billion). The WBG has made a pledge to support such increase in demand (US\$5 billion). Targeted REACH grants and technical assistance can be instrumental to "crowd in" RBF resources to IDA countries, where the needs are greatest.

Strengthen global partnerships. For 2016, REACH will be increasing its engagement with partners through initiatives such as the Global Book Fund. Similarly, REACH will formalize the collaboration with GPE, to ensure that country teams are best positioned to advise clients on how to take advantage of the GPE variable financing component. The Global Partnership for Output-Based Aid represents another opportunity for closer partnership.

Plan ahead for REACH staffing needs. The REACH team is already close to capacity. Looking ahead, the team will continue to need a mix of in-house skill sets. This includes program management, technical advisory skills, operational advisory skills, and economic analysis/impact evaluation skills. The coming year will likely bring more demands on the core REACH team in all of these areas, especially with the launch of REACH for Reading, and the expected increase in demand for just-in-time support and learning events, given the success of such activities in 2015. The REACH core team should continue to hone its technical skills, and continue to draw on the operational experience from regional teams wherever possible.

These recommendations, along with the lessons presented in this Assessment, will guide the continued evolution of REACH. Looking ahead, as activities financed by REACH come to fruition, it will be important to conduct a thorough external evaluation of the results achieved, to maximize REACH's reach over the long term.

⁵ 19 Knowledge, Learning, and Innovation Grants were awarded in 2015. Read about them at <http://www.worldbank.org/en/programs/reach/brief/reach-grantees-2015>

For more details on the REACH work program for 2016, please see the REACH annual report.

Appendix A. Annotated Bibliography or Reviews of RBF in Education: Our Top Ten

There are a number of important reviews and other influential papers in the realm of results-based financing. Below we've included some that have us talking and thinking about how best to advise clients and design operations that help to move education financing away from traditional input-based models to those that are more likely to generate results. The ideas expressed herein generally provide the conceptual basis for RBF in education, and try to collate available evidence. Some provide important words of caution.

Although this literature dates back to 1975 (and earlier), in many ways it is still nascent, as is the evidence-base that provides the analytical underpinnings for RBF. From our myriad experience with client governments, what is still as yet unexplored is how RBF can play a transformational role in education systems. By aligning actors, activities, objectives, and financing around the ultimate results that we seek, we can strengthen the performance of the various pieces that, taken as a whole, constitute education systems. The forthcoming approach paper for RBF in education will explore this topic.

1. Eric Hanushek: The Failure of Input-Based School Finance Policies

[http://onlinelibrary.wiley.com/
doi/10.1111/1468-0297.00099/pdf](http://onlinelibrary.wiley.com/doi/10.1111/1468-0297.00099/pdf)

In an effort to improve the quality of schools, governments around the world have dramatically increased the resources devoted to them. By concentrating on inputs and ignoring the incentives within schools, the resources have yielded little in the way of general improvement in student

achievement. This paper provides a review of the US and international evidence on the effectiveness of such input policies. It then contrasts the impact of resources with that of variations in teacher quality that are not systematically related to school resources. Finally, alternative performance incentive policies are described.

2. Steven Kerr: On the Folly or Rewarding A, and Hoping for B

<http://www.ou.edu/russell/UGcomp/Kerr.pdf>

Whether dealing with monkeys, rats, or human beings, it is hardly controversial to state that most organisms seek information concerning what activities are rewarded, and then seek to do (or at least pretend to do) those things, often to the virtual exclusion of activities not rewarded. The extent to which this occurs of course will depend on the perceived attractiveness of the rewards offered, but neither operant nor expectancy theorists would quarrel with the essence of this notion. Nevertheless, numerous examples exist of reward systems that are fouled up in that the types of behavior rewarded are those which the rewarder is trying to discourage, while the behavior desired is not being rewarded at all.

3. Derek Neal: Pay for Performance in Education

<http://www.nber.org/papers/w16710.pdf>

This chapter analyzes the design of incentive schemes in education while reviewing empirical studies that evaluate performance pay programs for educators. Several themes emerge. First, it is difficult to use one assessment system to create both educator performance metrics and measures of student

achievement. To mitigate incentives for coaching, incentive systems should employ assessments that vary in both format and item content. Separate no-stakes assessments provide more reliable information about student achievement because they create no incentives for educators to take hidden actions that contaminate student test scores. Second, relative performance schemes are rare in education even though they are more difficult to manipulate than systems built around psychometric or subjective performance standards. Third, assessment-based incentive schemes are mechanisms that complement rather than substitute for systems that promote parental choice, e.g. vouchers and charter schools.

4. Clist and Verschoor: The Conceptual Basis of Payment by Results

http://r4d.dfid.gov.uk/pdf/outputs/misc_infocomm/61214-The_Conceptual_Basis_of_Payment_by_Results_FinalReport_P1.pdf

Two economic models are used to examine the costs and benefits of Payment by Results, relative to other forms of aid. First, the principal agent model provides a framework to consider the most important factors, with a focus on linking the agent's payoff to an outcome which the principal is concerned with. Much of the promised benefit of Payment by Results is related to the efficiency improvement that comes by linking an agent's payment to an outcome of the principal's interest. Second, the multitask model draws attention to the requisite characteristics of a good measure: it is not enough to be correlated with the desired outcome. The actions needed to improve a performance measure should be similar to those needed to improve the actual outcome that motivates the principal.

The two models, and various second order effects, are summarised by a single question:

do the benefits of the performance based contract outweigh the costs, relative to other forms of aid? Six headings are used to group factors which will affect the likely costs and benefits. This provides a viable framework to consider the appropriateness of a results-based contract in any given setting, underpinned by the relevant conceptual and theoretical research. Several examples are given of how the framework could be implemented, and three main research gaps are identified.

5. DFID's report on Payment by Results

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213938/payment-results-current-approaches-future-needs.pdf

With a very few exceptions, almost all research and evaluation studies of PBR have been in the health sector. Almost all the studies are of Results-Based Finance (RBF) initiatives (incentives to service provider organisations and individuals) rather than of Results-Based Aid (RBA) to governments. The importance of an outcome (or results) orientation, focusing on the actual benefits arising rather than on inputs and services provided, is largely uncontested. Nevertheless, the evidence regarding the potential of incentives to change professional practice is weak. Perhaps the most optimistic conclusion that can be drawn from available evidence is that contracting out may increase access and use of health services in the short term rather than broader health outcomes. Unintended effects are quite possible, and there is limited evidence to date to date that PBR approaches offer value-added compared to other modalities. Actual implementation of PBR approaches has encountered significant challenges and difficulties. There has been limited attention to some basic questions about PBR approaches, including the mechanisms by which incentives may work or not, cost effectiveness, comparison

with other potential approaches, impact on equity, and sustainability. What does emerge strongly from the evidence base is that PBR needs to be implemented as part of a package that includes other forms of supports and services. The underlying complexity of each intervention presents a serious challenge to implementation and evaluation, inhibiting meaningful generalisation without identification of the specific mechanisms at play.

6. USAID's Incentives and Accountability in Education: A Review

<https://www.eddataglobal.org/reading/index.cfm?fuseaction=pubDetail&ID=722>

The experience to date shows that some incentives work and some do not, and success is highly specific to the school environment. Monetary incentives seemed to work well when teachers and learning inputs were aligned, but the magnitude of the results varied greatly. Some interventions had positive effects on attendance and retention, and others positively affected learning outcomes. However, for incentives to be scaled up beyond the level of randomized controlled trials, the following general issues must be taken into account: i) Align all the stakeholders with power; ii) Be aware that some stakeholders may extract benefits from the education system; iii) Fix as much as possible the deficiencies in the school support infrastructure; iv) Fix the misalignment between policy and politics; v) Make sure that performance measures are sustainable.

7. Ariely and others: Large Stakes and Big Mistakes

<https://www.bostonfed.org/economic/wp/wp2005/wp0511.pdf>

Most upper-management and sales force personnel, as well as workers in many other jobs, are paid based on performance, which is widely perceived as motivating

effort and enhancing productivity relative to non-contingent pay schemes. However, psychological research suggests that excessive rewards can in some cases produce supra-optimal motivation, resulting in a decline in performance. To test whether very high monetary rewards can decrease performance, we conducted a set of experiments at MIT, the University of Chicago, and rural India. Subjects in our experiment worked on different tasks and received performance-contingent payments that varied in amount from small to large relative to their typical levels of pay. With some important exceptions, we observed that high reward levels can have detrimental effects on performance.

8. German Development Institute's Improving Education Outcomes by Linking Payments to Results

https://www.die-gdi.de/uploads/media/DP_2.2015.pdf

In results-based approaches, funding is linked to pre-agreed results that are defined in the form of indicators. Disbursements only take place once progress toward the indicators has been verified. This places high requirements on the quality of indicators used. Different development actors have started implementing results-based approaches, yet little attention has been paid to potential advantages and disadvantages of the specific indicators that are used. The paper addresses this gap by first conceptualizing a typology of indicators and devising criteria for assessing the quality of indicators. The typology and criteria are then applied to five results-based pilot programmes in the education sector in developing countries (Ethiopia, Rwanda, Sri Lanka, Tanzania). A comparison of the indicators used across these programmes provides insights into how indicators for results-based approaches can be selected in a more informed manner in the future.

9. Center for Global Development's Cash on Delivery Program as it relates to education

<http://www.cgdev.org/page/application-education>

CGD developed a proposal in which donors could commit to pay US\$200 for each additional assessed completer, that is, each additional child who takes a standardized competency test in the final year of primary school. Defining the target as the number of assessed completers, rather than as the achievement of certain test scores, minimizes incentives progress to misreport progress. The country would report the number of additional assessed completers each year and the donor would pay for retesting in a random sample of schools to verify the numbers, after which the COD Aid payment would be made. The country could choose to use the new funds for any purpose: to build schools, train teachers, partner with the private sector on education, pay for conditional cash transfers, or for that matter build roads or implement early nutrition programs. This innovative approach would place full decision-making about the use of funds in the hands of developing country governments, letting them determine the best way to achieve the outcome that recipient and donor both want: a quality education for all.

10. World Bank Education Sector Strategy: Learning for All

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:22474207~menuPK:282402~pagePK:210058~piPK:210062~theSitePK:282386,00.html>

Improving education systems means moving beyond simply providing inputs. There is no question that providing adequate levels of schooling inputs—whether these are school buildings, trained teachers, or textbooks—is crucial to a nation's educational progress. Indeed, the increase in inputs in recent years has made it possible to enroll millions more children in school; this effort must continue wherever levels of inputs remain inadequate. But improving systems also requires ensuring that inputs are used more effectively to accelerate learning. While past strategies have recognized this goal, the new strategy gives it more emphasis, setting it in a context of education system assessment and reform.

Appendix B. Results Framework

	Indicator	Baseline	2015	2016 Planned	2017 Planned	2018 Planned	2019 Planned
Outcomes	Result 1. Children benefiting from REACH^a	0	12,000	72,000	72,000	60,000	
	1.1 Increase in the number of girls and boys who have access to education		12,000	36,000	36,000	20,000	
	1.1a Boys/Girls		50%/50%	50%/50%	50%/50%	50%/50%	
	1.2 Increase in the number of girls and boys who complete education		0	18,000	18,000	20,000	
	1.2a Boys/Girls		50%/50%	50%/50%	50%/50%	50%/50%	
	1.3 Increase in number of children who pass national tests in primary and lower secondary school, or who pass equivalent tests in informal education programmes (gender disaggregated)		0	18,000	18,000	20,000	
	1.3a Boys/Girls		50%/50%	50%/50%	50%/50%	50%/50%	
	Result 2. Country systems and capacity for RBF strengthened	0	14	19	11	17	18
	2.1 Sustained support to Country Programs and Pilots		1	6	6	6	6
	2.2 Financial support to activities for Knowledge, Learning, and Innovation		19	15	5	9	9
Outputs/Process	2.3 Just-in-time support to WBG program teams ^b		4	5	6	7	8
	Result 3. Global evidence base for RBF is developed and made publicly available						
	3.1 Number of policy notes on RBF approaches prepared and disseminated	0	0	19	15	5	
	3.2 Number of impact evaluations approved	6	6	2	3	3	
	3.3 External REACH website designed and operating	1	1	1	1	1	
	Result 4. WBG RBF agenda strengthened						
	4.1 WBG operations incorporating RBF approaches	8	8	11	14	12	14
	4.2 WBG staff certified through Program-for-Results training	2	40	40	40	40	40
	4.3 WBG staff mentored and participating in RBF learning events	0	70	110	110	110	110
	4.4 WBG strategic document on RBF approved and implemented	0	1	1	1	1	1

a This indicator is primarily for reporting purposes and will change over time as a function of the nature of projects supported. The indicator is calculated by dividing the total REACH investment, assumed at US\$40m in 2016, by the average government expenditure per primary student (US\$) of countries benefitting from REACH (if that country has reported data as part of the World Development Indicators - WDI database). Given that average expenditure is US\$297 but REACH CPGs (the largest investment of REACH) are only open to IDA countries where average expenditure is US\$97, US\$200 is used. Data as of Jan 7, 2016 comes from the 2012 WDI, which was the year that had the largest number of countries reporting data. The US\$40m investment is assumed to be additional to existing commitments, where US\$36m is allocated to 6 CPGs in equal amounts and US\$4m to KLI grants between 2018 and 2019. In the future, CPG grants will be required to choose from a menu of indicators that will be aligned with global IDA indicators. Actuals will be added as data become available.

b Countries that are not receiving CPG or KLI Grants

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