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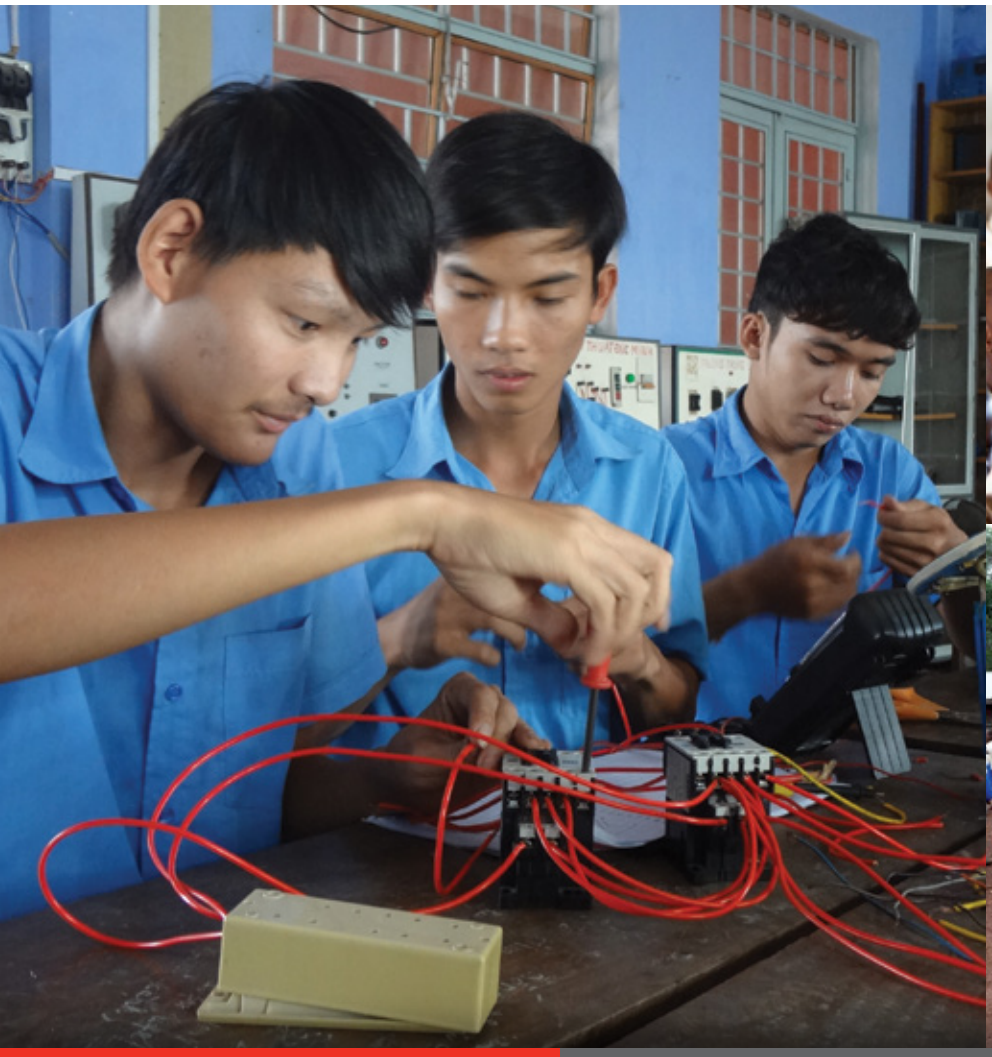

Paying for Performance: An Analysis of Output-Based Aid in Education

Results for Development Institute

February 2016

Commissioned by the Global Partnership on Output-Based Aid (GPOBA)

Results for Development Institute (R4D) is a nonprofit organization whose mission is to unlock solutions to tough development challenges that prevent people in low- and middle-income countries from realizing their full potential. Using varied approaches in multiple sectors, including global education, global health, governance, and market dynamics, R4D supports the discovery and implementation of new ideas for reducing poverty and improving lives around the world.

This report was authored by a team at R4D led by Tara Hill under the general direction of Nicholas Burnett and including Birger Fredriksen, Paul Isenman, Allison Rosenberg, and Shubha Jayaram. For more information, please contact Tara Hill at thill@r4d.org.

The Global Partnership on Output-Based Aid (GPOBA) is a global partnership program administered by the World Bank. It was established in 2003 to develop output-based aid (OBA) approaches across a variety of sectors — among them water, energy, health, and education. As of September 2015, through a portfolio of 44 projects with US$228 million in commitments for subsidy funding and ongoing technical assistance activities, GPOBA is demonstrating that OBA can deliver a diverse range of services and lasting results for the poor. The program's current donors are the United Kingdom's Department for International Development (DFID), International Finance Corporation (IFC), Directorate-General for International Cooperation of the Dutch Ministry of Foreign Affairs (DGIS), Australian Department of Foreign Affairs and Trade (DFAT), and Swedish International Development Cooperation Agency (Sida).

For more information about GPOBA, please visit www.gpoba.org.

Cover photos

Photo at left:
Students at an output-based aid professional upper secondary school in Vietnam, part of the GPOBA Upper Secondary Education Enhancement Project.

Photo credit: Chau Doan, World Bank.

Two photos on right:
Students at Cordaid output-based aid primary schools in the Democratic Republic of the Congo.

Photo credit: Cordaid.

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Acknowledgments

The authors would like to thank The Global Partnership on Output-Based Aid (GPOBA) for supporting this study, in particular Inga Afanasieva who led it on behalf of GPOBA and Catherine O'Farrell for ongoing engagement. The report also benefited from peer review provided by Marito Garcia, Peter Holland, Harry Patrinos, Wenna Price, Shwetlena Sabarwal, and Janssen Edelweiss Teixeira from the World Bank, and Oleh Khalayim and Leslie Villegas from GPOBA.

Representatives from several of the programs featured in this report contributed time and input to the study which the team would like to acknowledge. In addition, a number of sector experts were interviewed as part of the data collection process. The authors would like to thank Alan Gelb, Robin Horn, Arun Joshi, Ravi Kanbur, Elizabeth King, Simon Mizrahi, Rita Perakis, and Drew von Glahn.

Results for Development Institute (R4D) conducted the study and authored this report. The team was led by Tara Hill under the general direction of Nicholas Burnett and included Allison Rosenberg and Shubha Jayaram in addition to R4D experts Birger Fredriksen and Paul Isenman.

Executive Summary

In 2014-2015, Results for Development Institute (R4D) conducted a scoping study on the potential for output-based aid (OBA) in education for the Global Partnership on Output-Based Aid (GPOBA). This report provides the consolidated findings from the study which included (i) a literature review of results-based financing (RBF) schemes in education,[1] (ii) a landscaping and analysis of existing OBA projects in education, and (iii) recommendations for applying OBA in the education sector moving forward. The study defined OBA in education as *"a form of results-based financing in which service providers are contracted to improve education access and/or quality, especially for disadvantaged populations, whereby service providers assume some degree of performance risk for specific outputs or outcomes upon which payments are contingent."*

Over the last decade, growing attention has been paid to emerging mechanisms for RBF that seek to address the perceived shortcomings of traditional development aid and improve its effectiveness through placing an emphasis on *results*. This has occurred in an environment of swelling public and political pressure on budget allocations; an increasing perception that traditional aid remains inefficient and vulnerable to waste and corruption; a desire to focus on results and increase the accountability of aid and development financing; and the public and political attractiveness of tangible outcomes of aid expenditure.

Results-based financing (RBF) in the education sector has become an increasing focus of donors and governments in recent years. While the evidence base on the effectiveness of RBF approaches in education remains relatively weak, there is great enthusiasm for testing and applying RBF approaches in education, as seen by numerous nascent examples ranging from a Development Impact Bond in India to a Cash-on-Delivery application in Ethiopia. The World Bank itself announced at the 2015 World Education Forum that it will double results-based financing for education to US$5 billion over the next five years.[2]

OBA is a form of RBF that has gained traction over the past decade. The concept was formally introduced in 2003 in the World Bank Group, and GPOBA was launched as a World Bank-administered, donor-funded initiative to pilot the approach. While OBA has been applied extensively in other sectors such as energy, health, water and sanitation, infrastructure, and information and communications technology, its application to the education sector has been relatively limited to date. However, enough OBA projects in education now exist to merit a closer analysis of their characteristics and of lessons learned from their implementation. This report provides such an analysis.

Methodology

The study sought to answer three overarching questions, each of which was addressed by a separate but complementary component and methodology:

Key question	Component	Methodology
I. In what ways is the education sector distinctive for applications of OBA and how does OBA differ from other forms of RBF?	Literature review of RBF schemes in education	Desk review of literature and stakeholder interviews with sector experts
II. What common characteristics do OBA education programs share and what factors facilitate their uptake and success?	Landscape and analysis of existing OBA programs in education	Desk review of 24 OBA education programs and stakeholder interviews with program implementers
III. Which potential education sub-sectors, interventions, target populations, and country contexts may be ripe for further OBA testing?	Recommendations for applying OBA in the education sector	Analysis derived from landscape of OBA education programs and key stakeholder interviews

[1] This report contains a condensed version of the literature review. The full literature review can be accessed here.

[2] See press release dated May 18, 2015: "World Bank Group Doubles Results-Based Financing for Education to US$5 Billion over next 5 years."

I. In what ways is the education sector distinctive for applications of OBA and how does OBA differ from other forms of RBF?

The literature review identifies characteristics across six themes that make the education sector distinctive for applications of RBF generally, but particularly for OBA. These include:

The diversity of education sub-sectors to which RBF could be applied

There is a wide spectrum of education levels, types, and interventions to which RBF could be applicable. The key is to match the appropriate form of RBF to its most fitting education context and program.

Public and private sector engagement

Unlike other sectors such as health, where the private sector has become a dominant source of service provision, in education, in most countries, service delivery – at least for basic education – is overwhelmingly provided by the public sector. There are few examples of education programs that have scaled without the public sector. For RBF in education, given that some mechanisms more heavily rely on private sector delivery than others, it is important to understand the contexts in which public-private partnerships (PPPs) work best.

Costs (to users and providers)

Some RBF schemes provide upfront financing, others do not. Some schemes can be designed to offset user fees, indirect fees such as uniforms or supplies, or opportunity costs that reduce demand for education; while others channel funds directly to recipient governments and do not seek to specifically target demand-side barriers to education. This is important in the context of education where costs and fees can vary dramatically by level or by sector. Moreover, certain education sub-sectors or interventions face much greater upfront costs, such as tertiary education or school construction, which can influence the applicability of RBF if the specific RBF scheme in question does not provide pre-financing.

Results

The global education community is increasingly focused on education quality, and results indicators have shifted away from exclusive enrollment and attendance rates, to learning outcomes (most often measured by test scores). This debate has implications for any form of RBF in education. While attendance and enrollment rates are more easily quantifiable and measurable, they are further removed from the ultimate goal of improving learning outcomes. While access, learning, and relevance are ultimate outcomes, being able to achieve these still heavily relies on education outputs or intermediate outcomes, such as schools constructed, materials provided, teachers trained etc. There is therefore a role for RBF to play in incentivizing both types of education outputs and outcomes.

Innovation and evidence

The evidence base of "what works" in education is weaker relative to other sectors such as health. This is relevant to the use of RBF in education for two reasons. First, the relative lack of evidence in the education sector implies that a results rather than inputs orientation to financing may have considerable promise as it would allow for innovation and local development of knowledge to further build the evidence base of what works in improving access and learning outcomes. Second, and largely as a prerequisite to the first, it implies that rigorous evaluation of RBF interventions in education is strongly needed, and that there is an opportunity for pilot programs to build in strong evaluation components to fill current gaps in the evidence base.

Human resources and recurrent costs

Teachers are a pivotal component to any analysis involving RBF in the education sector, given that they dominate both education expenditures (the "financing" component of RBF), and play a significant role in influencing learning outcomes (the "results" component of RBF). Teacher salaries, which are a recurrent cost, dominate education spending. Education differs from other sectors such as infrastructure in that the **majority of costs are recurrent costs** as opposed to upfront capital costs. The sustainability and scalability of any education program therefore depends on the extent to which there is long-term funding for these recurrent costs. Often, only governments are able and willing to provide this type of long-term funding. As a result, sustainability often hinges on whether government will finance the project unless it has some form of revenue-generating model.

The literature review provides illustrative examples of inputs, outputs, and outcomes in education. It then provides an overview and cross-comparison of RBF schemes in education, highlighting key ways in which they differ from each other, and examples of their application ("Annex 1"). Finally, it synthesizes both the key takeaways and lessons from the literature on RBF, but also highlights their possible implications for OBA in education. The complete findings from the literature review can be found in the full-length literature review report.

II. What common characteristics do OBA education programs share and what factors facilitate their uptake and success?

Through an in-depth analysis of 24 projects that were identified as meeting the definition of OBA, this report describes and analyzes common characteristics across programs and highlights factors that have facilitated the uptake of OBA approaches in education. To the extent possible, given the relatively small data set and recent implementation of many of the projects, this analysis also seeks to identify a set of key determinants for the success and sustainability of OBA education schemes.

A detailed summary of the analysis is presented in "Summary Table 1" on page 5..

Key takeaways:

- **OBA is a versatile tool** that can be applied to address issues in education related to access, quality, and system inefficiencies.
- **Through a range of targeting mechanisms, OBA is well-placed to target those left behind:** poor and disadvantaged, girls, orphans and vulnerable children, disabled children or adults, indigenous populations/ ethnic minorities, adults lacking a complete education, etc.
- **Government support and buy-in for the project is often important to determining the project's likely sustainability.** Active engagement with government at the relevant decision-making level was seen to be a determinant for the success of several OBA education projects.
- **More projects should incorporate evaluations into their design and implementation, especially in education**, where the overall evidence base on the effectiveness and impact of results-based approaches remains relatively weak.
- **Very few OBA education projects have scaled and sustained financially.** It is important that projects are designed with future scaling and sustainability in mind and that potential pathways to scale are identified from inception.

III. Which potential education sub-sectors, interventions, target populations, and country contexts may be ripe for further OBA testing?

While there is insufficient experience and evidence to definitively point to education sub-sectors or contexts that are most suited to OBA, this report has shed light on certain characteristics of OBA that may theoretically lend the approach well to particular types of education sub-sectors, interventions, target populations, and country contexts.

OBA schemes in education typically provide one of two types of payments to service providers: (i) payments to cover the costs of delivery of education services (subsidies) or (ii) incentive payments. Several OBA schemes reviewed also provided stipends (to offset user-fees or as incentive payments) to targeted students. OBA schemes may therefore be particularly appropriate for education sub-sectors where the costs of providing education are high and/or where user fees or high opportunity costs to learners are present, and where the poor are therefore often excluded.

OBA in other sectors has typically involved contracting with private sector service providers or public-private partnerships. This study found that OBA may be most effective when applied to education service providers with greater levels of autonomy. Given that private sector providers may tend to have higher levels of autonomy, OBA may lend itself well to private sector providers or PPPs. Governments may be more willing to support the scale up of privately provided education services in sub-sectors that are not compulsory, where the government is unable to provide such services at scale for free, and where the poor are often excluded as a result (in many cases due to user fees or high opportunity costs, as noted above). These types of education services are typically already being delivered through private sector providers.

Finally, OBA proved to be an effective tool for encouraging service providers to target marginalized sub-groups of beneficiaries that they otherwise might not have, and for addressing issues of equity in education.

Based on these characteristics, our analysis suggests that **OBA may be a particularly promising approach in**:

- Early childhood development (very little application to date), vocational training (some application to date), and potentially higher education (no application to date) – with an emphasis on excluded and disadvantaged groups. These education sub-sectors typically have fees associated with them, are not guaranteed to be provided by the government, and often are provided by private sector providers.
- Application through existing PPP interventions, in country contexts characterized by a favorable environment for PPPs.
- De-centralized education systems, where service providers may be more likely to have higher degrees of autonomy.
- Contexts with high levels of inequity in education.

Moving forward, the **OBA education field could be strengthened by:**

- Further implementation and testing of OBA approaches in education to better understand contextual and design factors that lead to program success, particularly in education sub-sectors with fewer projects (e.g. early childhood education).
- More OBA education projects incorporating evaluations into their design and implementation. This is particularly important in the education sector, where the overall evidence base on the effectiveness and impact of results-based approaches remains relatively weak.
- Further research to determine factors that lead to scale and sustainability of OBA education projects, once more examples OBA education projects that have sustained and scaled over time exist.

Finally, this report has also shed light on a **number of outstanding questions which would benefit from further research**:

- Emerging evidence suggests that the autonomy of the service provider is more important than whether it is public or private. However, further research into the impact of service provider autonomy on the effectiveness of OBA education projects is needed.
- The ideal amount of upfront financing to provide in OBA education projects, which sufficiently motivates them to meet outcomes but does not compromise program quality, remains an open question.
- More explicit data gathering is required among OBA education projects to determine whether an OBA approach improves the level of innovation and efficiency of service providers.

Table 1: Executive Summary of Analysis	
Rationale	• OBA can be applied to address issues in education relating to access (e.g. low equity, high tuition costs or household education-related costs, inadequate access to skills training programs, inadequate supply of education inputs or services), quality, and system inefficiencies (e.g. excess costs, lack of autonomy of or competition between service providers). • Ways in which OBA can be applied to address these issues include: subsidies to cover the costs of schooling or skills training programs; support for the construction of new schools or service providers; support for the financing of programs that otherwise would not have been implemented; and payments to incentivize improvements in attendance (or enrollment, retention, or completion) rates, equity, learning outcomes, school inputs, or employment rates.
Context	• Active government support and buy-in for the project is often important in determining the likelihood of the project's sustainability. • Adequate country capacity and institutional development likely plays an important role in the implementation of successful, and in particular, sustainable, OBA education projects. • Other factors that appear to facilitate project success are past experience of the implementing agency in working in the selected project provinces and areas in which local communities have a history of engagement with education issues. • In a number of cases, OBA approaches were applied in contexts where there was strong private sector delivery of education services. This may be due in part to the public sector's own capacity constraints to deliver equitable and quality education and/or a predominance of private institutions, as well as an attempt to reach disadvantaged students through private providers. However, this is not a pre-requisite for the implementation of successful or sustainable OBA projects.
Institutional setup	• Donors may need to provide capacity building support, and should be sensitive to the local context to ensure project expectations are realistic and appropriate. • Early engagement of the government, especially at the decision-making level, is important for, though does not guarantee, future project sustainability. • The implementing agency should be well-known and trusted in the communities in which the project is operating. • More important than whether a service provider is public or private is the degree of autonomy it has, and by extension, its ability to implement changes required to achieve targets. Even if a provider has the autonomy to determine the optimal use of funds to make improvements, it still must have the ability and capacity to do so. In addition it is important that service providers understand how the OBA system works and trust that it will work well. • Community engagement, often facilitated by local organizations working under the implementing agency, is important for project success. • Given that OBA is a relatively new approach, convincing various stakeholders to buy into the idea of using OBA can be challenging. Common concerns include skepticism of the effectiveness of OBA and fear of perverse incentives. Clear communication with project stakeholders is important to mitigate these concerns.

Targeting mechanisms	• All OBA projects reviewed targeted poor students. Additional beneficiary groups targeted include girls, orphans and vulnerable children, disabled children or adults, indigenous populations/ethnic minorities, and adults lacking a complete education.
	• Projects reviewed used a range of targeting mechanisms to reach beneficiaries, including means-tested, geographic, self-selection, school-based, community-based, and random (as part of an RCT).
	• Service providers may be less willing to enroll certain populations such as the poor and disadvantaged, who may be harder to retain or less likely to meet performance targets. To counter this tendency, several projects made use of weighted subsidies and bonus awards to target particular sub-groups.
	• The appropriate targeting mechanism for an OBA education project is likely to depend on the context in which it is being applied, the available capacity for administering the targeting mechanism, and the project's ultimate objective.
	  • Means-tested targeting is more accurate than other targeting methods but also more costly and administratively burdensome to implement. It may be appropriate where there is a significant risk that without it, subsidies could end up benefiting non-poor students.
	  • Geographic targeting may be an appropriate option in contexts where certain areas are characterized by very low education outcomes, or where beneficiaries are grouped closely together.
	  • Self-selection targeting is relatively low-cost and administratively easy to implement; however, it is important to ensure that the education services subsidized will in fact target the intended beneficiaries.
	• In selecting schools to take part in the program, projects used criteria including sector (public or private), exam performance, student-teacher ratios, infrastructure availability, enthusiasm of faculty, and geography.

Table 1: Executive Summary of Analysis *(continued)*	
Performance risk	• Reviewed projects implemented or suggested a number of measures to encourage service providers to take on performance risk, and ensure that such levels of risk are not disproportionate to what service providers can reasonably bear. • A common method was the provision of some amount of upfront payment, as most schools or training providers are likely to lack access to pre-financing. However, the ideal amount of upfront financing that will both suit the needs of service providers while still motivating them to improve outcomes is yet to be determined and may vary by context and type of provider. • Other methods of mitigating performance risk included: (1) providing training and capacity building to school staff, including teachers, (2) active community engagement, (3) knowledge sharing and peer-learning, (4) improving student preparation, and (5) payment flexibility and pro-rating payments.
Innovation and efficiency	• Emerging evidence exists from one project demonstrating that, when providers were given autonomy, they invested more effort into improving student performance. • More explicit data gathering is required among OBA education projects to determine whether an OBA approach does generate a positive impact on the level of innovation and efficiency of service providers.
Outputs	• Projects used a range of indicators to set and measure progress towards targets, related to both access and quality of education. The most common indicators used were test scores and enrollment rates. • Indicators used related to increasing education access included enrollment, promotion rates, attendance, training completion, and exam participation. • Quality indicators used by projects reviewed can broadly be categorized into learning outcomes (e.g. test scores, GPA rates), labor market outcomes (e.g. salary, employment), and school inputs that can contribute to improved school outcomes (e.g. pedagogy, school management, teacher attendance, school management committee participation). • Several projects used intermediate indicators such as pedagogy, school management, teacher attendance, and school management committee participation. While these are not direct proxies for learning outcomes, they may be easier to improve in the short term and thus useful to include as indicators in addition to outcomes. • Some schemes used a single indicator, while others used multiple indicators. Using few indicators may reduce costs while using a greater number can help to ensure the achievement of a wider range of targets. • In tying payments to indicators, there is a risk of creating perverse incentives (e.g. motivation to cheat or teach to the test); it is important to design indicators to minimize the likelihood of perverse consequences. • When deciding upon indicators for a project, it is important to involve relevant stakeholders in the process, so that they understand and are in approval of the indicators used.
Subsidy calculation and delivery mechanisms	• Payment types for the OBA projects reviewed generally fell into two categories: payments to cover costs of delivery of education services (subsidies) or incentive payments. Subsidy payments were typically much larger than incentive payments. • The majority of projects reviewed provided payments on a per-student basis, but some projects provided payments in lump sums per institution. Payments often varied based on factors related to the types of students targeted, services provided, and type of institution. • While not technically OBA, teacher incentive payments are included as components of some OBA projects. Depending on how they are structured, teacher incentive payments may be politically controversial. • Payments may be calculated using different functions, including based on a step function (full amount released upon achievement of set targets), incremental function (payments are disbursed based on units of improvement), the provider's ranking (providers receive payment if they achieve a certain ranking in comparison with other service providers), or a combination of multiple functions. • It is important to consider what percentage of payments should be disbursed in a results-based way, so that payments both sufficiently motivate service providers and remain palatable enough to them that they seek to participate in the program. • Payment may need to be accompanied by other components, such as information sharing or support on how to improve practices in order to be effective.

Table 1: Executive Summary of Analysis *(continued)*	
Monitoring and verification	• Reviewed OBA projects used a range of methods for collecting and managing data to monitor the fulfillment of outputs. These included the use of: Education Management Information Systems (EMIS), independent data collection systems, school-generated reports, new certification/assessment systems, national exams, open source platforms, annual census data, and community surveys. • Common actors responsible for data collection included the implementing agency, regional M&E teams, and the Ministry of Education. • Independent verification of outputs was typically conducted by one or more of the following: government institutions or actors, independent survey/audit firms, international organizations, and community organizations. • Though use of EMIS may be ideal from a cost and sustainability standpoint, issues with data quality and access may create challenges that necessitate the use of other monitoring systems in addition to or instead of EMIS, and/or significant capacity building, to achieve the quality of data management required in OBA projects.
Evaluation	• Few OBA education programs reviewed have undergone an external impact assessment or cost-effectiveness analyses. Projects should incorporate evaluations into their design and implementation, especially in education, where the evidence base on the effectiveness and impact of results-based approaches remains relatively weak. The concurrent use of qualitative evaluation approaches can help provide clarity around specific pathways to achieving desired outcomes in education.
Sustainability	• Government uptake is the most common avenue pursued to achieve sustainability. For this to have a high chance of occurring, the program should be cost-effective and in line with the government's funding strategy. However, even if government take-up occurs, capacity building may still be necessary, and the program may be at risk of unpredictable financial flows if the government faces difficult times financially or as a result of government turnover. • Other possible routes pursued by projects to short- or long-term sustainability included additional donor funding (through the same or another donor) and an endowment that generates funds to support program costs into the future. • Strategies pursued by projects to increase the likelihood of project sustainability included (1) involving and building relationships with key stakeholders, particularly government, (2) improving the program's evidence base, (3) building a need for sustainability into the program design, (4) introducing changes gradually, (5) using government systems, and (6) communicating and disseminating results. • It is important that projects are designed with future scaling and sustainability in mind, and that potential pathways to scale are identified from inception.

Introduction and Context

Over the last decade, growing attention has been paid to emerging mechanisms for results-based financing (RBF) that seek to address the perceived shortcomings of traditional development aid and financing and improve its effectiveness through placing an emphasis on *results*. This has occurred in an environment of swelling public and political pressure on budget allocations (Pereira and Villota 2012), an increasing perception that traditional aid remains inefficient and vulnerable to waste and corruption (Birdsall and Savedoff 2010), a desire to focus on results and increase the accountability of aid and development financing (Pereira and Villota 2012), and the public and political attractiveness of tangible outcomes of aid expenditure (Pereira and Villota 2012).

Several key donors have moved towards a proactive policy on RBF and have experimented with the launch of new instruments. In 2003 the World Bank introduced the concept of output-based aid through the Global Partnership on Output-based Aid (GPOBA) that now includes a consortium of international multilateral and bilateral donors, and in 2012 the World Bank developed a new RBF tool known as Program-for-Results (PforR). While PforR remains relatively new, the World Bank has been incorporating elements of RBF into its programs since the late 1990s (World Bank 2011a), for example through disbursement linked indicators (DLIs) and SWAps (Sector Wide Approach). Specific to education, 2015 saw the launch of a new World Bank-managed multi-donor trust fund known as Results in Education for All Children (REACH), which funds RBF programs in education. The World Bank also announced at the 2015 World Education Forum that it will double RBF for education to US$5 billion over the next five years.

Other multilateral donors have engaged in RBF with varying degrees of success. For instance, DFID is actively experimenting with RBF and has funded a number of such initiatives across multiple sectors, notably one of the first examples of Cash on Delivery Aid in education in Ethiopia (Pearson et al. 2010; Birdsall and Perakis 2012). As of 2014 it was funding four results-based aid programs, ten results-based financing programs, and will potentially fund four development impact bonds (DFID 2014). The Inter-American Development Bank (IDB), on the other hand, had mixed to negative experiences with RBF when it introduced performance-driven loans (PDLs) in 2003. As a result, the IDB's portfolio currently lacks an instrument that disburses against results (IDB 2013).

Some multilaterals are only recently looking to develop their strategies on RBF or introduce a results-based lending modality for programs. The Asian Development Bank published a policy paper in February 2013 advocating for the development of a RBF modality similar to the World Bank's PforR instrument (ADB 2013), and the Global Partnership for Education (GPE) announced in 2014 a new results-based funding model for its 2015 to 2018 funding cycle (GPE 2014).

Private sources of funding for development, including private foundations and investors, are also increasingly looking to finance results-based programs, as evidenced by the recent traction of social and development impact bonds (SIBs and DIBs), where pilot programs have been supported by foundations such as the UBS Optimus Foundation and the Children's Investment Fund Foundation (CIFF), as well as by for-profit investors such as Goldman Sachs (Instiglio 2013). It is clear that RBF has become a defining aspect of the current landscape of international aid and development financing.

Overview of results-based financing

Despite the excitement and interest in RBF approaches, definitions remain varied, and there is no definitive consensus on the use of terms in

[3] For example, several terms are used interchangeably with RBF: Pay for Performance (P4P), Performance-based Payment, and Performance-Based Incentives (PBI) can all be considered synonyms for RBF. "Performance" in these terms is equivalent to results, and "payment" is synonymous with financing (Musgrove 2011a).

theory or in practice (Perrin 2013).[3] That being said, the overarching goals of results-based approaches are largely the same, and a common feature across all of them is that disbursement of funds is made conditional upon verification of progress against pre-defined outcomes or outputs. RBF "is 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 can be directed to service providers (supply side), program beneficiaries (demand side) or both" (Musgrove 2011a).

Pearson et al. (2010) distinguish "results-based aid (RBA)" and "results-based financing (RBF)" primarily through their sources of funding and contractual partners. RBA is defined as "the delivery of aid directly to government through a contractual arrangement that specifies results to be achieved in return for payment to be made," and RBF as "the use of government resources, in a contractual arrangement between government and implementing agent (sub-national government or non-government) that specifies results to be achieved in return for payment to be made." While RBA therefore goes from funders to recipient governments, RBF can be either aid from funders, or internal government resources that go to service providers (DFID 2014a).[4] The literature review analyzes examples of both. It should also be noted that this distinction can set up a false dichotomy given that RBA can go to governments and subsequently to decentralized service providers, flowing first to governments which then use it to finance service providers. Similarly, what Pearson et al. (2010) term as RBF may use funding which originated from external sources of aid. Fundamentally, the two must be considered together, given that the long-term goal of any form of aid should ultimately be to change and improve recipient government practices, so that over time, the government itself may take over and finance these programs independently. In reviewing the literature on RBF for useful implications for future OBA in education, we find it beneficial to cast the net of results-contingent financing more broadly. Throughout the remainder of this report for consistency and simplicity's sake, the term RBF will be used when referring to all results-contingent financing.

Results-based financing in education

Experience with education RBF in development is limited to date, outside of conditional cash transfers (CCTs) that have been extensively applied in education (Fiszbein et al. 2009). There is growing interest in the applicability of results-based approaches to education – for example, the Center for Global Development used education as its primary theoretical example of Cash on Delivery's application (and a current pilot is underway in Ethiopia), and one of the first development impact bonds to be implemented in education is in India. The Norwegian aid agency, Norad, recently doubled its aid to education with a heavy emphasis on results (Norad website). The German Development Institute (DIE) published a paper assessing the quality of indicators used across a sample of results-based approaches in education (Holzapfel and Janus 2015). However, overall practical experience remains limited. This is in stark contrast to other social sectors such as health, where real-life applications of RBF are more widespread, the evidence base is stronger, and where the World Bank itself has had a strong track record of experience and leadership. For example, since 2007 the World Bank has managed a multi-donor platform called the Health Results Innovation Trust Fund (HRITF), supported by Norway and the UK, to test "pure" RBF projects with a focus on nutrition, child mortality, and maternal health (World Bank 2013). A similar trend is seen with output-based aid, which has been applied predominantly to infrastructure sectors such as roads, ICT, and water and sanitation, as well as the health sector, but where GPOBA has only funded one OBA project in education to date.

Additionally, the education sector generally receives less attention from donors than other sectors such as health. Aid to basic education has declined significantly over the past few years, and since 2010 decreased by 10% despite increasing steadily from 2002 to 2010. This reduction was much more considerable than the 1% overall reduction in aid during that period, reflecting a de-prioritization of education among donors (UNESCO 2014). In this context, the importance of more efficient and effective spending for education is of paramount importance.

[4] See Perakis and Savedoff (2015) for further discussion of distinction between RBA and RBF.

Theories of change for RBF in education

RBF approaches seek to resolve the principal-agent problem in external aid and financing, whereby the principal (the donor) and the agent (the recipient) may have different motivating incentives. By linking disbursement of funding to donors' desired outcomes, results-based financing seeks to better align incentives between the principal and the agent, to the extent that agents are motivated by financial gain (Eldridge and Palmer 2009). While some argue that the main goal of RBF is to increase the effectiveness of scarce public resources for the provision of basic services (Mumssen et al. 2010), others advocate that the key goal of RBF is to encourage innovation and enable autonomy for local implementers, to better enable them to find solutions to complex problems (Barder et al. 2014). Perakis and Savedoff (2015) note two additional methods through which RBF may lead to improved outcomes: through increased attention drawn to results and greater accountability measures put in place. However, they note that most results-based aid programs (RBF in which government is the recipient of funds) are actually designed assuming results occur due to an increase in attention to results.

Introduction to output-based aid

OBA is one form of RBF. The concept was formally introduced in 2003 in the World Bank Group, and the Global Partnership on Output-Based Aid (GPOBA) was launched as a World Bank-administered, donor-funded initiative to pilot the approach, the goal being to integrate and mainstream OBA within the International Development Association and other development partners (Mumssen et al. 2010). OBA has been used across various sectors to date; for GPOBA this has been primarily the water and sanitation sector, followed by energy. These two sectors account for around 80 percent of GPOBA projects and funding volume (GPOBA 2013). Other sectors funded by GPOBA include health (15%), solid waste management (3%), education (2%), and ICT (1%) (GPOBA 2013).

OBA, as generally defined across sectors, "ties the disbursement of public funding in the form of subsidies to the achievement of clearly specified results that directly support improved access to basic services" (Mumssen et al. 2010). Subsidies for the purposes of OBA are defined as "public funding used to fill the gap between the total cost of providing a service to a user and the user fee charged for that service" (Mumssen et al. 2010). With OBA, service delivery is typically contracted out by the entity providing the public funds to a service provider (e.g. a private enterprise, public utility, NGO, or community-based organization), and payments are linked to the achievement of pre-defined service performance or outputs (GPOBA). OBA, as conducted by GPOBA and by other actors, can take primarily two forms: either it buys down the capital costs of investment required to deliver particular service, or it covers the difference between an affordable user fee and a cost-recovery fee, by complementing user fees with carefully targeted subsidy payments (GPOBA; Brook and Smith 2001).[5] The contracting out of service provision to a third-party provider (often a private sector operator) is a key feature of OBA that distinguishes it from other forms of RBF, and OBA schemes are often a component of public private partnerships (PPPs) (IDA 2009). For the purpose of this report, we will refer to the private sector as inclusive of both for-profit private providers, as well as non-government organizations (NGOs) or civil society organizations (CSOs).

Mechanisms through which OBA may lead to improved results include: increased transparency (though explicitly linking subsidies to targets), increased accountability of service providers (as funds are disbursed only upon reaching targets), greater private sector engagement, greater opportunities for the service provider to be innovative and efficient (given autonomy provided to service providers), and improvements in monitoring systems used (Mumssen et al. 2010).

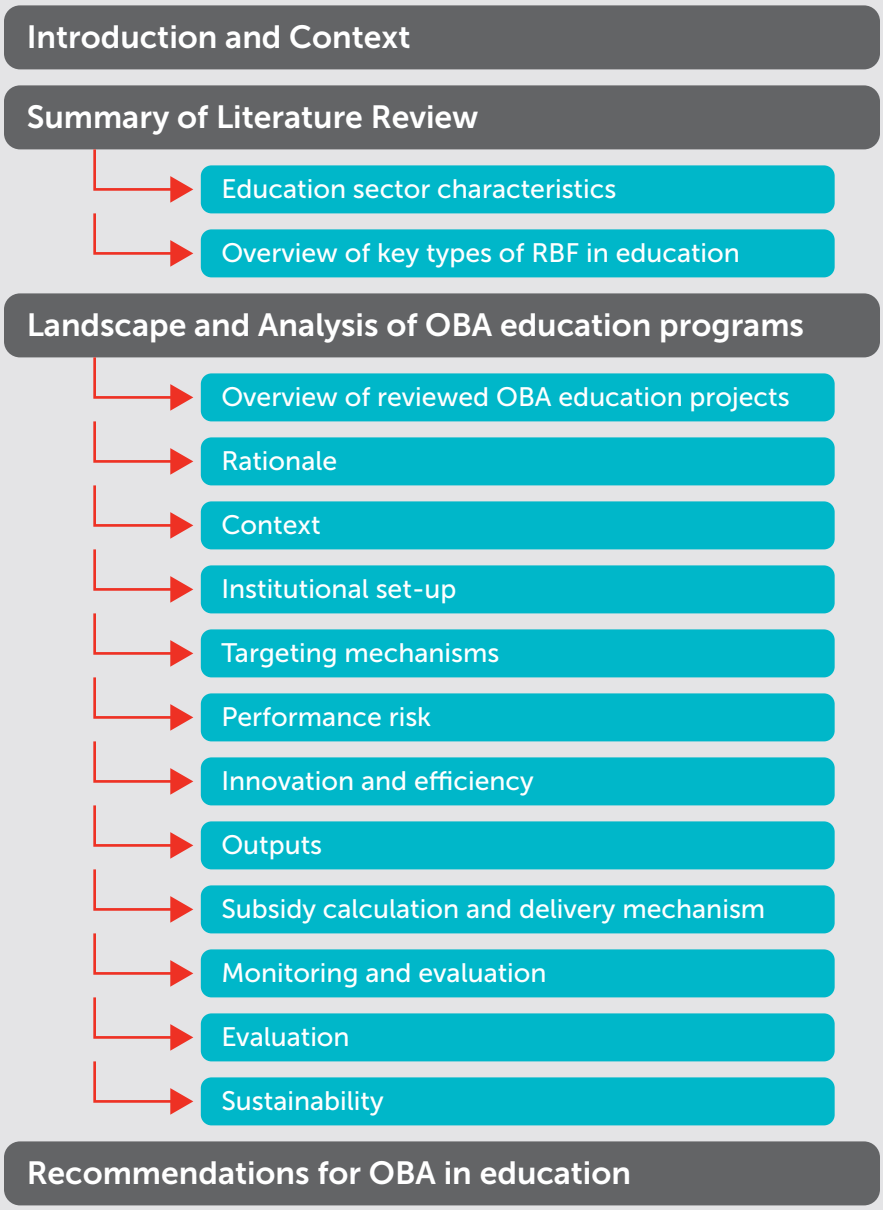
In 2014-2015, Results for Development Institute (R4D) conducted a scoping study on the potential for OBA in education for GPOBA. This report provides the consolidated findings from the study which included (i) a literature review of RBF schemes in education,[6] (ii) a landscaping and analysis of existing

[5] Note that OBA is often applied in contexts where there are explicit user fees, but is also applied in contexts without but where OBA is offsetting the cost of providing a service to underserved populations that otherwise would not be served.

[6] This report contains a condensed version of the literature review. The full literature review can be accessed here.

OBA projects in education, and (iii) recommendations for applying OBA in the education sector moving forward. A roadmap to the report is provided below (Figure 1).

Figure 1: Roadmap of this Report



Summary of Literature Review

The purpose of the literature review was to situate OBA in the broader context of RBF in education. It provides an overview of characteristics across six themes that make the education sector distinctive for applications of RBF generally, but particularly for OBA. It identifies ways in which OBA is similar to and different from other forms of RBF and how its application to education might differ as a result. This section provides a condensed version of the complete literature review, for which full findings can be found separately.

Education sector characteristics

The education sector has a number of defining characteristics that make it distinctive for RBF applications. This section introduces six key themes that are important with regard to RBF but that are also particularly important and distinct from other sectors when discussed in the context of education: (1) diversity of education sub-sectors to which RBF could be applied, (2) public and private sector engagement, (3) costs (to users and providers), (4) results, (5) innovation and evidence, and (6) human resources and recurrent costs. These themes were identified to be particularly relevant for OBA projects.

Diversity of education sub-sectors

When applying RBF to education, certain sub-sectors may inherently be more suited to or in need of RBF approaches than others. "Education" is a broad term that encompasses multiple facets of learning and a wide range of interventions, some that extend far beyond the traditional notion of basic education or schooling. In addition to an increased focus on quality of education, the relevance of education to employment has received greater attention in recent years. Rising youth unemployment rates have spurred a renewed interest in job creation and ensuring that youth are equipped with the appropriate skills they need for the workforce (Mourshed et al. 2012; R4D 2012). As a result, a number of innovative and in many cases non-government interventions have emerged seeking to train youth with the technical and soft-skills needed for employability (R4D 2013a). Simultaneously, there is also increasing interest in expanding early childhood development programs to provide foundational skills to support young children and facilitate their transition to primary schooling. However, there seems to be little global collective interest in programs to deliver adult literacy despite the stagnating and huge number of an estimated 800 million adult illiterates worldwide (UNESCO 2014). There is a wide spectrum of education levels, types, and interventions to which RBF could be applicable; the key is to match the appropriate form of RBF to its most fitting education context and program.

Public and private sector engagement

Unlike certain other sectors such as health, where the private sector has become a dominant source of service provision, in education, in most countries, service delivery – at least for basic education – is overwhelmingly provided by the public sector. There are few examples of education interventions or programs that have reached scale without having been adopted by the public sector. Moreover, the role of non-state education providers and the ways in which they should engage with the government is one of the most contentious areas of policy debate (Rose 2010).

Despite some strong reservations about private sector involvement, non-state providers in education in developing countries have proliferated in recent years. The private sector is increasingly being looked to as a key player in supporting education provision as a result of government capacity constraints and ever-increasing demand (LaRocque 2011, UNESCO 2009), as well as parents' increasing perception that private schools provide higher quality education than public schools (Tooley 2009). Public-private partnerships in education are similarly becoming more widespread in many developing country

contexts, for purposes including private management of public schools, government purchase of education services from private schools, voucher programs, adopt-a-school programs, capacity building initiatives, and school infrastructure partnerships (LaRocque 2008). For RBF in education, given that some mechanisms more heavily rely on private sector delivery than others, it is important to understand the contexts in which public-private partnerships work best (generally those where there are vibrant and dynamic private education sectors, legal recognition of non-state providers and a favorable regulatory environment, and where governments have the ability to monitor and regulate non-state activity etc.), as well as the sectors in which private providers or PPPs are most active or have the most potential for meeting unmet demand.[7]

Examples of education sub-sectors with increasing non-state delivery encompass early childhood development, including day care (ECD);[8] the rapidly growing low-cost private school industry;[9] many 21st century/vocational/entrepreneurship skills training programs (R4D 2013a); higher education and; by definition, in-service training in many sectors. In Kenya, for example, one fifth of all university students were enrolled in private universities in 2013, compared to almost none in 2000 (Waruru 2013). Another example is private, or "shadow" tutoring, in which students pay to receive additional educational instruction outside of school hours, which has reached significant scale in certain countries (e.g. 38 and 74 percent of surveyed students in Vietnam and Kenya, respectively), and results in sizable costs for participating students (Bray 2009).

Costs and user fees

With RBF, the costs of providing services, as well as the costs borne by users of those services (both in terms of direct user fees and indirect costs) are important factors when it comes to designing RBF programs or selecting the most appropriate type of RBF for a given context. While some RBF schemes provide upfront financing (such as social and development impact bonds), others do not (e.g. OBA and COD Aid). Some schemes can be designed to offset user fees through subsidies (such as OBA schemes that include tuition subsidies for students), indirect fees such as uniforms or supplies, and/or opportunity costs that reduce demand for education (such CCTs), while others channel funds directly to recipient governments and do not seek to specifically target demand-side barriers to education.

This is important in the context of education where costs and fees can vary dramatically by level or by sector. For example, secondary education costs significantly more per student to provide than primary education, and while primary education is free in many countries (though households often incur related costs like uniforms, books and supplies), few developing countries provide universal, free education at the secondary level (UIS 2013). The household costs families face in sending their children to secondary school, as well as the perceived opportunity cost of their children's time spent in school (as opposed to working) also tend to be higher at the secondary level than the primary level. One could therefore argue that subsidies or cash transfers at the secondary level stand to have greater value-add relative to at the primary level, in terms of incentivizing access to education. However the opposite argument could also hold true in that the marginal value and impact of the same amount of subsidy could be higher in contexts where costs are lower (e.g. primary education), where the percentage that the subsidy makes up of total costs would be higher. Certain education sub-sectors or interventions face much greater upfront costs, such as tertiary education or school construction, which can influence the applicability of RBF, if the specific RBF scheme in question does not provide pre-financing.

Results

The definition of "results" in education, and the types of results prioritized by the global education community have evolved significantly over the past few decades. Until recently, education goals centered primarily on *access* to education, and results were predominantly defined by attendance and enrollment rates. In recent years however,

[7] For additional literature on public-private partnerships in education, see Patrinos et al. (2009) and Baum et al. (2014).

[8] ECD services for very young children – those not old enough to enroll in pre-primary school – tend to be provided by the private sector in all regions of the world except Latin America (UNESCO 2007). Even formal pre-primary education has a higher share of private provision (serving 33% of all children enrolled in pre-primary education globally as of 2011) In the Arab States, 79% of preschool enrollment is in private preschools (UNESCO 2014).

[9] For literature on the low-cost private school movement, see *The Beautiful Tree: A Personal Journey Into How the World's Poorest People Are Educating Themselves*, by James Tooley (2009), and the DFID review of low cost private schools (Day Ashley et al. 2014).

attention has shifted beyond enrollment to the now largely accepted "global learning crisis" (UNESCO 2013; Brookings 2013) which has brought the issue of *quality* of education (or lack thereof) to the forefront. The global education community is increasingly focused on how to improve and measure education quality, and results indicators have shifted away from exclusive enrollment and attendance rates, to learning outcomes (most often measured by test scores). However, despite international efforts to measure student learning such as OECD's Programme for International Student Assessment (PISA) and the Brookings-led Learning Metrics Task Force[10], as well as civil society-led attempts to assess student learning (i.e. national household surveys such as the Annual Status of Education Report (ASER) in India or Uwezo in East Africa), measuring learning outcomes remains challenging and complex, and even the degree to which test scores accurately reflect true student learning remains debated (Wagner et al. 2012). One of the key factors that distinguishes education from other sectors is that it aims to foster learning – a phenomenon which is little understood and very difficult to measure. For example, it is much more straightforward to identify whether a road has been built on time and to meet requirements than it is to assess whether learning has occurred, and to what extent or standard. That said, a huge number of countries are now adopting national assessments if not taking part in international ones, reflecting the growing emphasis on measuring learning (UNESCO 2014). The Early Grade Reading Assessment (EGRA) and Early Grade Math Assessment (EGMA) framework developed by USAID and RTI has been applied in over 65 countries. *Relevance* of education in addition to quality has similarly moved up on the international agenda.

This debate has implications for any form of RBF in education. While attendance and enrollment rates are more easily quantifiable and measurable, they are further removed from the goal of improving learning outcomes. While access, learning, and relevance are the ultimate outcomes, being able to achieve these still heavily relies on education outputs or intermediate outcomes, such as schools constructed, materials provided, teachers trained etc. These outputs should therefore not be overlooked.

Understanding the results chain in education is important to understanding how different forms of RBF that disburse against different types of outputs or outcomes might best apply.

Innovation and evidence

The evidence base of "what works" in education is weaker relative to other sectors such as health. Numerous systematic reviews shed light on the diversity of education interventions, but very little is known definitively about which ones consistently have a positive impact on education outcomes. Moreover, where positive impacts are shown, effect sizes remain small (McEwan 2013; Krishnaratne et al. 2013; Petrosino et al. 2012; Kremer and Holla 2009).[11] A recent JPAL literature review has shown that this is particularly the case at the post-primary level, where evidence remains thin on what interventions are most effective at increasing access to and quality of education (Banerjee et al. 2013).

This is relevant to the use of RBF in education for two reasons. First, the relative lack of evidence in the education sector implies that a results rather than inputs orientation to financing may in fact have considerable promise as it would allow for innovation and local development of knowledge to further build the evidence base of what works in improving access and learning outcomes. Second, and largely as a prerequisite to the first, it implies that rigorous evaluation of RBF interventions in education is strongly needed, and that there is an opportunity for pilot programs to build in strong evaluation components to fill current gaps in the evidence base.

Human resources and recurrent costs

Teachers are a pivotal component to any analysis involving RBF in the education sector, given that they dominate both education expenditures (the "financing" component of RBF), and play a significant role in influencing learning outcomes (the "results" component of RBF). Teacher salaries, which are a recurrent cost, dominate education spending. Education differs from other sectors such as infrastructure in that the majority of costs are

[10] See Brookings Learning Metrics Task Force 2.0 for more detail.

[11] See Evans and Popova (2015) for an analysis of which types of education interventions reviewed in meta-analyses most consistently demonstrate improvements in learning.

recurrent costs as opposed to upfront capital costs. This differentiates the education sector from sectors such as WASH, roads, and ICT, where expenditure is not so closely tied to human resources, and where more costs are upfront than recurring. The sustainability and scalability of any education program therefore depends on the extent to which there is long-term funding for these recurrent costs. Often, only governments are able and willing to provide this type of long-term funding. As a result, sustainability often hinges on whether government will finance the project unless it has some form of revenue-generating model. There is also a strong possibility that individual teachers and/or teachers unions might object to the widespread scale up of RBF linked to them either indirectly by test scores, or directly by measures of teacher performance or attendance.[12]

Table 2 below provides an overview of how the education sector is divided by level and type, and characterizes each by their relative degree of private or public sector involvement, costs of provision, and user fees. Figure 2 provides an overview of inputs, outputs, and outcomes in the education sector. This analysis the education sector informs R4D's recommendations to GPOBA on what types of education programs (levels, sectors, interventions, etc.) OBA might be best suited to.

Table 2: Breakdown of the Education Landscape[13]

Education type/ level	Publicly or privately provided?	Upfront and recurring costs*	Likelihood, volume of user fees*
Early childhood development	To date government provision of ECD has been weak in many low and lower-middle income countries. The private sector has therefore played an important role, though governments are increasingly looking to scale up national ECD programs.	Relatively low upfront and recurring costs. Many examples exist of using low-cost, low-resource approaches to setting up ECD centers and delivering ECD care.[14]	Often, medium
Primary	Primary education is usually the focus of government-provided education. Recent years have seen a rapid growth in private sector low-cost private schools, mainly at the primary level.[15]	Medium upfront (construction of primary schools) and medium recurring costs.	Sometimes, medium-low
Secondary (lower and upper)	Mixed.	High upfront (secondary schools are more expensive to build due to need for specialized facilities, e.g. science labs), and high recurring costs (need subject specialist teachers).	Very often, high. Fees at upper secondary tend to be higher than at lower secondary.
Tertiary	Mixed, however tertiary education opportunities for poor students in many low and lower-middle income remain limited, with public universities often captured by the elite and the poor often forced to attend private institutions.	Very high upfront costs and recurring costs (the construction of universities is expensive and professor salaries tend to be higher). Growing opportunities for significant reduction in costs with emergence of technology, MOOCs etc.	Very often, highest

*Relative to the other types of education provision listed in the table

[12] For example, in East Africa, the results of children's learning levels assessed and disseminated by Uwezo, has been met with significant resistance from teachers in some cases.

[13] It is important to note that the above characterizations are based on typical lower and lower-middle income country contexts, and not high-income country contexts. It is also important to note that the education landscape inherently varies by country and by region, and that there are of course exceptions to the general landscape portrayed here. For instance, there are examples of service provision in every education type/level described here that are freely provided without user fees (the most obvious example being public primary education, though even some sub-sectors that charge user fees are also often provided freely by NGOs, for example).

[14] See the example of Pratham Balwadi ECD centers in India.

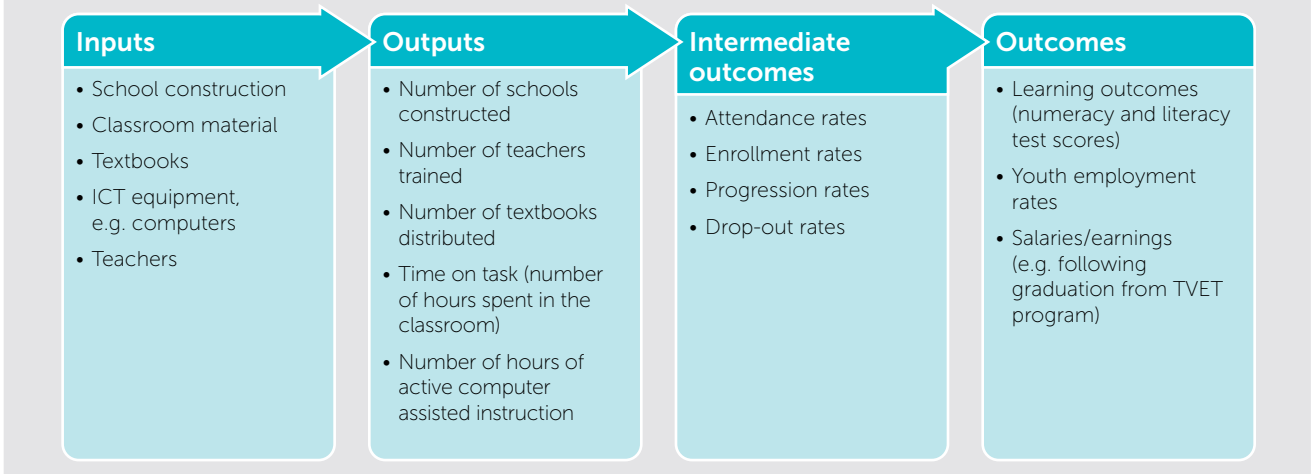
[15] India, Pakistan, Nigeria, and Ghana are examples of countries that have experienced rapid growth of LCPS (Day Ashley et al. 2014).

Table 2: Breakdown of the Education Landscape *(continued)*			
Education type/ level	**Publicly or privately provided?**	**Upfront and recurring costs***	**Likelihood, volume of user fees***
Vocational/ technical	Mixed. Many private vocational training programs are at the post-secondary level instead of secondary.	Vary considerably.	Sometimes, varies considerably
Remedial education/ accelerated learning	Private, often provided by NGOs.	Generally low upfront and recurring costs. Tends to be delivered using simple resources in non-formal settings (in some cases drawing on community resources or less-trained teachers, thereby also reducing costs).	Sometimes, generally free or minimal
Private tutoring	Overwhelmingly private. In many developing countries, the "shadow tutoring" system whereby teachers charge for individual or group tutoring sessions outside of regular school hours accounts for a significant share or "hidden cost" of household education spending.	Low upfront and recurring. Teachers typically conduct private tutoring sessions in their homes (no infrastructure required), and do so informally (no additional certifications or training required).	Almost always (private tutoring is a for-profit endeavor), medium-high
Soft skills/ 21st century skills and/or entrepreneurship training	Private, often by NGOs or social enterprises.	Vary.	Often, medium-high
Adult learning/ literacy courses	Private, often provided by NGOs and not a focus of the public sector.	Low upfront and low recurring.	Sometimes, medium-low

*Relative to the other types of education provision listed in the table

While most education interventions ultimately seek to improve access and quality outcomes in the long-term, education is not a sector in which a given intervention directly and rapidly translates to desired long-term outcomes; rather, there are also many intermediate outputs and outcomes that are important steps in the process. As a result, many education interventions also have quantifiable outputs that are important to achieving long-term education outcomes. The graphic below provides illustrative examples of indicators along an "inputs to outputs to outcomes" spectrum in education (note that not all of these would be suitable indicators for tying financing to in RBF programs).

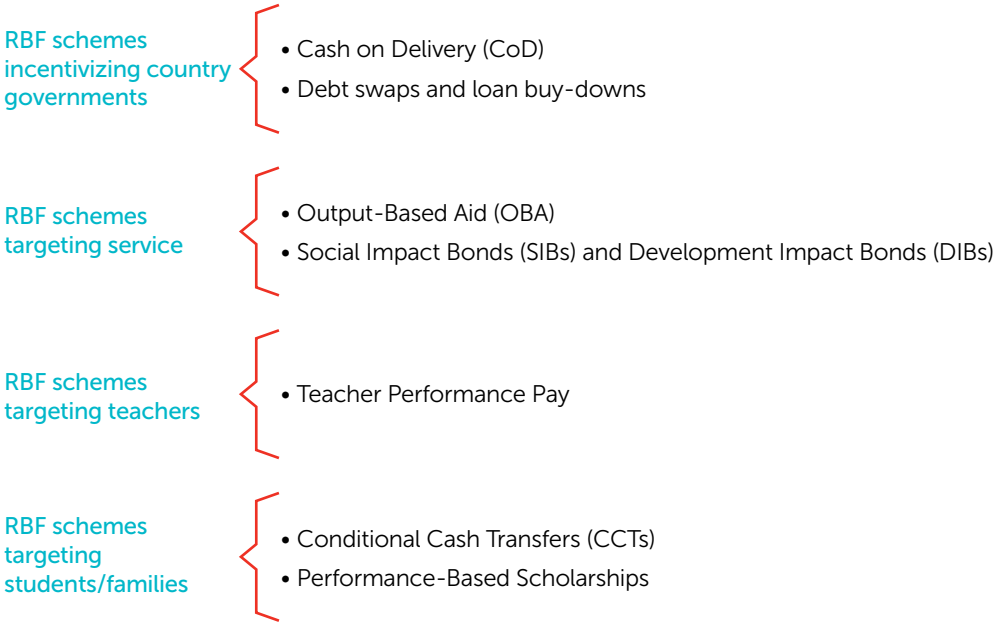
Figure 2: Examples of indicators along the "inputs to outputs to outcomes" spectrum in education



Overview of key types of results-based financing in education

An overview of the general landscape of RBF schemes in education is illustrated below. It is important to note that while broadly categorized in this way, the incentives to governments and to service providers (and even to teachers or users such as families or students) can – and often should – be combined in the same approach. A results-based approach could, of course, include all four.

The seven schemes are described in detail in Annex 1. In addition, Annex 2 provides an overview of recent developments in RBF both within the World Bank and related to the World Bank, including: (i) the launch of a specific RBF instrument within the World Bank known as Program for Results, (ii) the inclusion of RBF in the Global Partnership for Education (GPE)'s new financing modality, and (iii) the launch of a new World Bank-managed multi-donor trust fund for RBF in education known as Results in Education for All Children (REACH).



Landscape and Analysis of OBA Education Programs

As part of this study, R4D completed a landscaping of OBA projects in education for GPOBA. The definition of OBA in education, as determined by R4D through an analysis of existing practice, is as follows:

> *"A form of results-based financing in which service providers are contracted to improve education access and/or quality, especially for disadvantaged populations, whereby service providers assume some degree of performance risk for specific outputs/outcomes upon which payments are contingent."*

24 projects were identified as standalone OBA projects or as having components that met the definition of OBA.[16] These projects were profiled, with a diverse range of available qualitative and quantitative information gathered on each project. This information is available in the database of OBA education projects compiled by R4D.

This section of the report describes the range of approaches used by OBA education projects, analyzes common characteristics and themes that emerge among them, and highlights relevant components of specific project examples. The analysis covers OBA projects at all stages of development, including those that are now completed, those currently under implementation (both pilot and more mature projects), and projects that have been scaled-up. The goal of this analysis was to identify the factors that appear to be necessary for both effective, and ultimately, sustainable OBA projects in education.

The analysis covers the following overarching areas: rationale, context, institutional set-up, targeting mechanisms, performance risk, innovation and efficiency, outputs, subsidy calculation and delivery mechanisms, monitoring and verification, and sustainability. The methodology for conducting the analysis consisted of a two-pronged approach: (1) an in-depth desk review of available project documentation, and (2) phone interviews with a selection of program implementers. The list of resources used in the document review is provided at the end of the report.

[16] Landscaping was conducted in December 2014.

Overview of reviewed OBA education projects

Table 3 summarizes key characteristics of the OBA education projects reviewed in this report:

Table 3: Overview of OBA Education Projects[17] Reviewed

Full name of Project	Country	Abbreviated name[18]	Education subsector	Summary of OBA component	External Funder	Implementation status and year launched	Service provider status	Evaluation[19] conducted?
Bangladesh Education Development Programme (BEDP)	Bangladesh	Bangladesh BEDP	Primary	Output-based contract agreement used with private implementers.	DFID	Implementation, 2011	Public, Private	Planned
Female Secondary School Assistance Project I	Bangladesh	Bangladesh FSSAP I	Lower secondary, Upper sec.	Financial incentive bonus awards for good and improved school performance.	World Bank	Closed, 1994-2001	Public, Private	Yes+
Female Secondary School Assistance Project II	Bangladesh	Bangladesh FSSAP II	Lower secondary, Upper sec.	Financial incentive bonus awards for good and improved school performance.	World Bank	Closed, 2002-2008	Public, Private	Yes
Secondary Education Quality and Access Improvement	Bangladesh	Bangladesh Secondary Education Improvement	Lower secondary, Upper sec.	Financial incentives to schools for reaching and maintaining target exam pass rates, as well as student and teacher awards for exam performance.	World Bank	Implementation, 2008	Private	Planned
Secondary Education Finance Reform	Belize	Belize Finance Reform	Lower secondary, Upper sec.	Performance-based bonuses to incentivize improvements in education quality and efficiency.	None	Implementation, 2011	Public, Private	Not specified
Improving the Quality of Education in Bubanza	Burundi	Burundi Education in Bubanza	Primary	Performance contracts with schools	Cordaid, Dutch Ministry of Foreign Affairs	Implementation, 2014	Public, Private	No
Education and Care for Children	Central African Republic (CAR)	CAR Education for children	Primary	Performance contracts with schools and quality bonus based on achievement of targets	Cordaid, Dutch Ministry of Foreign Affairs	Implementation, 2013	Public, Private	Not specified
Chile Lifelong Learning and Training Project*	Chile	Chile LLT Project	Second chance	Payments based on exam pass rates	World Bank	Closed, 2002 (closed 2009)	Public, Private	Yes+

[17] Projects listed are either standalone OBA projects or larger projects that contain an OBA component.

[18] Project names have been abbreviated as follows throughout the remainder of the report.

[19] "Evaluation" as used here and throughout the report, refers to impact assessments.

Table 3: Overview of OBA Education Projects[17] Reviewed *(continued)*

Full name of Project	Country	Abbreviated name[18]	Education subsector	Summary of OBA component	External Funder	Implementation status and year launched	Service provider status	Evaluation[19] conducted?
Bogota Concession Schools Program	Colombia	Colombia Concession Schools	Primary, Lower secondary, Upper sec.	Contracts with private school contingent on meeting exam performance and enrollment targets	None	Implementation/ Closed, 1999 (supposed to end in 2014)	Private	Yes+
Stimulating School Performance*	Democratic Republic of the Congo (DRC)	DRC School Performance	Primary, Lower secondary, Upper sec.	Performance-based contracts based on enrollment, with additional subsidies based on quality indicators	Cordaid, Dutch Ministry of Foreign Affairs	Implementation, 2012	Public, Private	Not specified
Pilot of Results-Based Aid (RBA) in Education in Ethiopia	Ethiopia	Ethiopia RBA pilot	Lower secondary	One region to allocate funds to schools based on exam performance, within broader COD model	DFID	Implementation, 2012	Not specified	Yes
Contracting Primary Schools for Performance*	Malawi	Malawi Contracting Schools	Early childhood education, Primary	Performance contracts with schools based on access and quality indicators	Cordaid, Dutch Ministry of Foreign Affairs, Stop Aids Now!	Implementation, 2014	Public, Private	No
Girls' Education Challenge Fund (GEC)*	Global	GEC	Early childhood education, Primary, Lower secondary, Upper sec.	10% of project funds tied to results	DFID	Implementation, 2011	Private	Planned
Employment Fund Nepal	Nepal	Nepal Employment Fund	Vocational	Funding to providers based on earnings of program graduates	DFID	Not specified, 2010	Private	No
Enhanced Vocational Education and Training Project	Nepal	Nepal Vocational Education and Training	Vocational	Provider subsidies tied to student graduation and employment; in some cases, students provided with vouchers as well	World Bank	Implementation, 2011	Public, Private	No
Skills Development Project*	Nepal	Nepal Skills Development	Vocational	Performance-based contracts with private providers, in part dependent on employment outcomes	ADB	Implementation, 2013	Public, Private	No
Skills for Employment Project	Nepal	Nepal Skills for Employment	Vocational	Performance-based contracts with private providers	ADB	Closed, 2006	Public, Private	Yes

Table 3: Overview of OBA Education Projects[17] Reviewed *(continued)*

Full name of Project	Country	Abbreviated name[18]	Education subsector	Summary of OBA component	External Funder	Implementation status and year launched	Service provider status	Evaluation[19] conducted?
Lagos Eko Secondary Education Support Project*	Nigeria	Nigeria Lagos Eko	Lower secondary, Upper sec., Vocational	Performance awards based on exam scores	World Bank	Implementation, 2009	Public	Planned
Balochistan Education Support Project	Pakistan	Pakistan Balochistan Education Support	Primary	Per-student subsidies based on student enrollment and attendance	World Bank	Closed, 2006	Private	Not specified
Punjab Education Foundation – Foundation Assisted Schools Program (FAS)*	Pakistan	Pakistan FAS	Primary, Lower secondary, Upper sec.	Per-student subsidies to schools conditional upon meeting quality standards and providing free tuition	World Bank, DFID, CIDA	Implementation, 2005	Private	Yes+
Social Protection Development Project*#	Pakistan	Pakistan Social Protection Development	Vocational	Performance allocation to implementing agency based in part on performance targets, e.g. employment rates and enrollment	ADB	Planned, 2014	Public, Private	No
Big Results Now in Education (BRNEd)*	Tanzania	Tanzania BRNEd	Primary, Lower secondary	Incentive grants to schools based on exam performance	World Bank	Implementation, 2014	Not specified	Planned
KiuFunza – Thirst to Learn*	Tanzania	Tanzania KiuFunza	Primary	Performance-based payments to teachers and schools	None	Implementation, 2013	Public	Yes
Upper Secondary Education Enhancement Project*	Vietnam	Vietnam Upper Secondary Project	Upper secondary	Tuition subsidies provided to schools based on student attendance and GPA	GPOBA	Closed, 2010 - 2013	Public, Semi-public	Yes+

+Evaluation is publicly available.

*Programs for which interviews were conducted.

#The component of this program highlighted is not strictly OBA, as performance-based payments are made to the Benazir Income Support Program rather than to service providers, as in other examples listed above. However, outputs remain under the control of the service providers, hence the inclusion of the project in this table

Project Location

The most common location for projects is South Asia, where around half (11) of projects were implemented (Figure 3). Sub-Saharan Africa was the next most frequent location of OBA education projects, with 8 projects implemented in the region. The large number of projects in South Asia is due to a few countries in the region being home to multiple projects, namely Nepal (4 projects), Bangladesh (4), and Pakistan (3).

Education Subsector

The projects are approximately even in their address of primary, lower secondary, upper secondary, and vocational education, with 6-9 projects focusing on each (Figure 4). In projects that focus on primary or secondary education, most focus on multiple levels (i.e. primary and lower secondary, lower and upper secondary, or all three, which accounts for why the total number exceeds that of the 24 projects). Basic education (early childhood, primary, lower secondary) represents over half of the projects (24), and post-basic education accounts for the remainder. Early childhood and second chance education are minimally represented, with one project addressing each category.

Service Providers

The breakdown of project use of public and private service providers is approximately even (Figure 5). This may differ from the heavy predominance of private sector service providers in other sectors implementing OBA, given that a greater number of education providers (both schools and vocational/ technical training institutions) are public than providers of services in other sectors like ICT and roads.

Figure 3: Project location by region

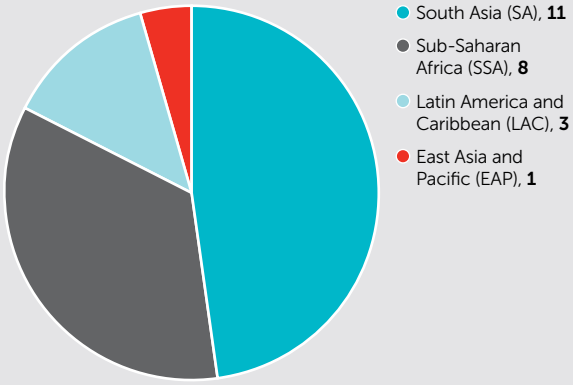


Figure 4: Projects by subsector

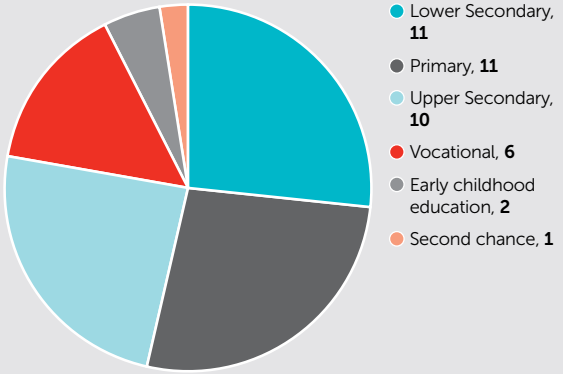


Figure 5: Projects by service provider type

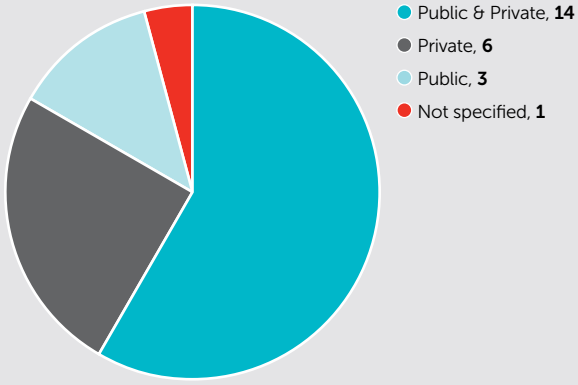
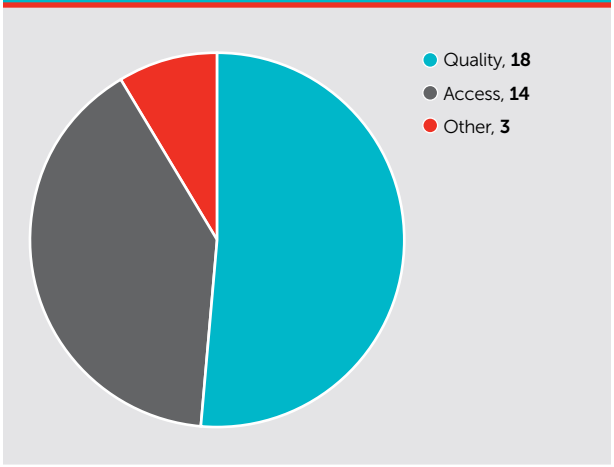


Figure 6: Projects by payment-linked indicators used



Target Outcomes (payment-linked indicators)

Surveyed projects used a range of indicators to set and measure progress towards objectives, generally related to access to education and/or the quality of the education provided (Figure 6). Across the projects reviewed, indicators used were divided fairly evenly into access and quality categories, with the most common indicators used being test scores and enrollment.

Project Funders

Projects are funded both by mulitlaterals/bilaterals as well as by country governments, with one additional funder being Cordaid, a Dutch NGO. Projects were often funded by both an external donor and the government of the country in which the project operated. The breakdown of projects by funders is on the right, with the donor-funded projects on the top and projects that were partly or wholly funded by the government on the bottom.

Tables 4 and 5: Breakdown of projects by funder (donor and government)

Donors	
ADB	3
CIDA	1
Cordaid/Dutch Ministry of Foreign Affairs	4
DFID	5
GPOBA	1
World Bank	9
N/A - Government	3
Total	**26**

Governments	
Government of Bangladesh	3
Government of Belize	1
Government of Chile	1
Government of Colombia	1
Government of Nepal	2
Government of Pakistan	1
Government of Punjab	1
Government of Tanzania	1
Total	**11**

The World Bank was the most common donor project funder, funding nine projects (in addition to one funded by GPOBA). Only three projects in the database did not receive donor funding at all.

Project Launch Date and Status

The majority of projects in the database were started within the past five years (2010-2014), with eight started from 2010-12, seven from 2013-14, and four in 2014 alone. This pattern is likely due to the fact that RBF is a relatively new funding mechanism, particularly in the education sector. These numbers have important implications for any analysis regarding scaling and sustainability, however, in that the overall number of projects that have scaled and sustained remains relatively small. While preliminary lessons can be learned from early-stage projects, they are not yet advanced enough to be able to predict their sustainability or likelihood to scale up in the future.

Figure 7: Projects by implementation status

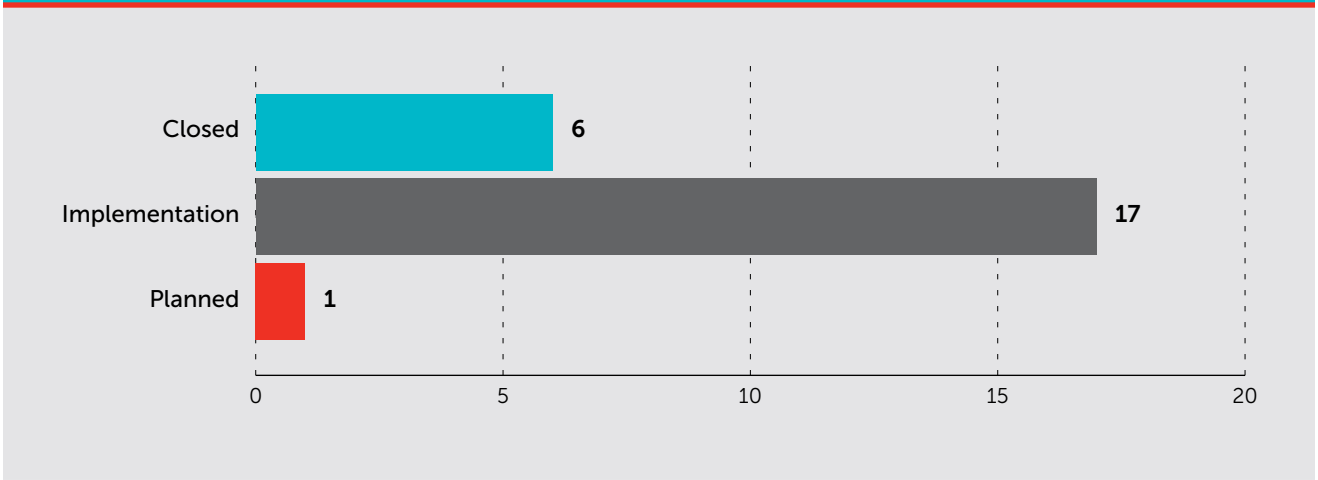


Figure 7 illustrates the breakdown of project implementation status. Given that many projects began in the past five years, it is not surprising that most projects are still under implementation. Similarly, only six of the projects have been officially completed, and only two have demonstrated sustainability beyond project funding.

The following sections describe the approaches used by OBA education projects, common themes that emerge among them, and highlights relevant components of specific project examples.

Rationale

Illustrating the versatility of OBA, the relatively small set of projects reviewed address a wide set of issues, including the needs of a particular group left behind, demand-side factors that constrain enrollment and attendance by reducing direct or indirect education costs for certain groups, a particular aspect of the education system not functioning well (often manifested in persistent poor learning outcomes, low internal efficiency, etc.), low levels of accountability of education service providers to deliver certain outputs, and inefficient spending. This section provides an overview of the many different issues in education that OBA can address, followed by an overview of how OBA has been applied.

Table 6: Summary of OBA target issues and application

	Issues OBA can address	Ways OBA is applied
Access	• Low equity (enrollment/access) • High tuition costs at secondary level, or high household costs of education at the primary education level which are prohibitive for poor families and generate a need for subsidies • Inadequate access to skills training programs • Inadequate supply of education services (classrooms, infrastructure, etc.)	• Tuition support to subsidize fees associated with schooling. • Subsidies to cover the costs of skills training programs. • Incentivize schools to enroll target group beneficiaries. • Support the construction of new schools or service providers. • Support the financing of programs that otherwise would not have been implemented. • Incentivize improvements in retention and completion rates.
Quality	• Low learning outcomes, need for improved quality • Gap between education and the labor market, high unemployment rates	• Payments to incentivize improvements in learning outcomes. • Payments to incentivize improvements in school inputs. • Payments to incentivize improvements in employment rates.
System-level	• System inefficiencies, excess costs • Lack of autonomy of or competition between service providers	*Inherent to OBA approach which emphasizes increased efficiency and autonomy through a focus on results*

The majority of projects were implemented in countries where access to education remains inequitable. For example, the *Nigeria Lagos Eko* project was implemented in an environment where approximately half of children from the poorest families do not attend secondary school, and where out-of-school youth remain a significant challenge; in Lagos, where the project is implemented, low access of poor students to junior and senior secondary education is a persistent hurdle. The *Vietnam Upper Secondary Project* specifically targeted students from poor families and from ethnic minority groups, as while overall access to education in Vietnam is high, attendance rates at the secondary level for students from the lowest economic quintile are lower than the national average and children from ethnic minorities have lower attendance levels at all schooling levels.

Several OBA projects were implemented in contexts where rising enrollment rates reflected recent improvements in access to education but learning outcomes and quality of education remained low. For example, in Bangladesh, due to the success of *FSSAP I* and *FSSAP II*, enrollment rates improved dramatically at the secondary level, but the same improvement was not seen in terms of quality. This was largely the rationale behind the *Secondary Education Improvement project*, which sought to focus more explicitly on improving learning outcomes at the secondary level. In Burundi, as a result of primary education becoming free in 2006, primary enrollment rates have been rising steadily; however, many problems remain related to quality. For example, teaching materials are limited and there is a relatively low level of pedagogical supervision. These quality-related factors were the impetus behind Cordaid's output-based aid project, *Burundi Education in Bubanza*.

One of the key barriers to education access that several OBA projects sought to address was tuition fees or high household costs of education that proved prohibitive for poor families. In particular, high secondary level fees were present across a number of contexts, and led to the need for OBA subsidies. In Vietnam, the higher fees associated with semi-private and private secondary schools were a significant obstacle to enabling poor and disadvantaged students to access secondary education. This was the impetus for the *Vietnam Upper Secondary Project*, which provided tuition subsidies to allow students to attend such institutions. At the primary level, while *tuition* fees often did not pose as much of a constraint as at the secondary level, household costs of education in some cases posed difficulties to parents and similarly led to the need for an OBA approach. In the Democratic Republic of the Congo (DRC), for example, schools depend heavily on parental contributions to finance basic education, despite the fact that basic education is in theory, free. These fees and additional school expenses often pose a significant barrier to school participation, and was one of the key reasons why DRC was seen as an appropriate context for OBA in education.

Several OBA education projects were applied in contexts characterized by inefficiencies at the system level, where there was room for an OBA approach to generate efficiency improvements within the education system. For example, in Malawi, the *Contracting Schools project* was initiated where the internal efficiency of the education system was seen to be weak; around 65% of public resources are wasted in paying for repeated grades or schooling for children who drop out before completing their schooling cycle. Part of the objective of the OBA project was therefore to reduce dropout and increase completion rates to address the level of inefficiency in public expenditure. In some cases, system inefficiencies were due to a lack of accountability within the system. In Tanzania, these included a lack of accountability and incentive mechanisms for teachers and administrators, poor working conditions for school staff, lack of teacher capacity and support, inequity in resource distribution between districts, and limited school-level monitoring data. The *BRNEd project* was designed to address some of these system-level challenges, though it is important to note that this project is a broader results-based financing project, not a standalone OBA project.

In a few cases, OBA projects were applied in contexts where there was a need for an increased supply of education services and/or physical infrastructure. In Burundi, some of the key challenges that *Education in Bubanza* sought to address included overcrowded classrooms and insufficient school infrastructure. In Malawi, supply-side constraints include a shortage of classrooms similarly resulting in overcrowding, inadequate supply of learning materials, and a lack of teachers, all of which the *Contracting Schools project* seeks to address.

A handful of the OBA projects reviewed were initiated in contexts where there was a greater need for autonomy and entrepreneurship at the service provider level, and in some cases a need for greater competition between service providers. For example in Malawi, the current education system does not provide much autonomy for school managers to allocate resources optimally with the goal of improving results; the *Contracting Schools project* in part seeks to increase the degree of agency school managers have in making resource allocation decisions that may lead to improved results. However in some cases, such an OBA approach might prove most effective in contexts where service providers or local governments *already* have a significant degree autonomy, and thus are able to implement the institutional changes necessary to achieve the outputs laid out by the project. In Colombia, the *Concession Schools* project, in which public schools contracted with the private sector, proved particularly effective. This may in part have been due to the fact that the contracting of public education services in Colombia is decentralized, and regional and local governments are responsible for contracts. In the case of the *Pakistan Social Protection Development Project*, the main rationale for implementing a performance allocation among service providers was to increase the degree of competition between them.

OBA was also used as an approach to address several types of issues with regard to skills training. One was the existence of barriers to access for vocational training programs. This was particularly the case in Nepal, where three OBA skills training projects have been implemented. Government-sponsored technical and vocational training programs do exist in Nepal, but to access them students must have graduated 10th grade and passed a final exam, and only 16% of students do so. As a result, a significant number of youth are unable to access formal vocational training. Moreover, demand is often greater than supply, programs are often located disproportionately in urban areas, and disadvantaged groups often face high barriers to entry due to both financial and opportunity costs associated. These factors motivated the implementation of the three skills training projects in Nepal that used an OBA approach – the *Employment Fund*, *Skills Development*, and the *Skills for Employment* projects.

OBA also addressed the disconnect between the education system and the labor market. This was the case for the three projects in Nepal mentioned above – according to project documents the technical education and vocational training (TEVT) sector is underfunded and institutionally weak, which results in a disconnect between skills training programs and the labor market. In Chile, this was similarly identified as one of the key rationales for the *Chile LLT Project*. High unemployment and underemployment rates were a key motivating factor for the skills projects in Nepal; and in Chile, a significant number of adults lacked complete basic secondary education (which was the driving factor behind the *Chile LLT Project*).

How is OBA applied?

OBA education subsidies are provided to address specific needs or gaps within an education context, as outlined above. Broadly speaking, these needs often fall into the two categories of **access** (low enrollment and completion rates, high dropout rates) often caused by prohibitive fees, opportunity costs associated with attending school, or a lack of available services; and **quality** (poor quality teaching, physical infrastructure, materials; lack of school management). OBA can be used as a mechanism with which to address such needs, as analyzed further below.

How can an OBA approach be used to improve access to education?

- **Tuition support to subsidize fees associated with schooling:** In the case of several projects, subsidies were designed to offset the cost of tuition incurred by students for attending school. For example, in the *Vietnam Upper Secondary Project*, students benefited from tuition subsidies to offset the fees associated with private and semi-public upper secondary and professional schools. In the *Pakistan FAS* project, the project provided per-student subsidies to allow disadvantaged students to attend low cost private schools, conditional upon schools meeting quality standards and providing free tuition to students. In both cases, subsidies were paid directly to schools to subsidize students' tuition (in contrast to conditional cash transfers, for example, where families are direct recipients of the funding).

- **Subsidies to cover the costs of skills training programs:** Some projects provided subsidies to offset the costs incurred by students to attend skills training programs. For example, the *Nepal Vocational Education and Training* project subsidized selected training institutions to cover the cost of students' training, and institutions were reimbursed in installments at the time of the trainee's graduation and over a period of time afterwards if the trainee was employed.
- **Incentivize schools to enroll target group beneficiaries:** Even in cases where there are no fees associated with attending school, some OBA projects provided subsidies or incentive payments to schools for enrolling particular target groups, such as girls or disabled children that they otherwise might not have actively sought to enroll. Such was the case in the *DRC School Performance* project. In this case, the subsidy seeks to offset the household costs of education (or non-tuition expenses).
- **Support the construction of new schools or service providers:** In certain cases, OBA projects led to the establishment of new schools, which were subsequently funded using an OBA approach. This was the case in Colombia, where *Concession Schools* were purposefully built in areas that (1) were very poor, and (2) had higher demand for primary and secondary education than there were spots in public schools. In one notable instance, an OBA approach was actually used to incentivize the establishment of new service provider facilities – the *Malawi Contracting Schools* project established output-based aid contracts with selected primary schools to incentivize the set-up pre-school facilities within those schools.
- **Support the financing of programs that otherwise would not have been implemented:** For example, the *Chile LLT Project* sought to fund more opportunities for basic and secondary education for adults, including creating learning assessment and certification systems, a need which otherwise may not have been met.
- **Incentivize improvements in retention and completion rates**: Several projects tied payments to service providers to improvements in retention (*Bangladesh Secondary Education Improvement* project), and completion (measured in several cases by the number of students sitting for final exams).

How can an OBA approach be used to improve the quality of education?

- **Payments to directly incentivize improvements in learning outcomes:** In the case of many projects reviewed, payments were tied to learning indicators such as test scores and GPA. For example, *FSSAP II* provided incentive payments based on the number of students passing the Secondary School completion exam.
- **Payments to incentivize improvements in employment rates:** Some projects tied payments to the employment outcomes of students graduating from skills training programs (e.g. whether the student was employed and his or her salary). One example of this setup is seen in *Nepal Employment Fund*, which disbursed payments based on the number of trainees earning at least US $46 per month six months after the training was completed.
- **Payments to incentivize necessary inputs for improved performance:** Some projects tied payments to factors such as teacher attendance, pedagogy, school management, and quality of materials, which contribute to improved academic performance. For example, one indicator used in *Nigeria Lagos Eko* was the organization and participation of the school management committee.

Context

The presence of certain factors at the national and sub-national level may indicate that certain environments are more suited to the implementation of OBA projects than others. This analysis has identified a number of factors that may be linked to success in OBA projects, outlined below.

Country support for the project, including from the government, was present among many of the projects reviewed. While this was not present in every project example, this factor is often important in determining the likelihood of an education OBA project's sustainability.

In a few cases the government demonstrated active buy-in to the project from the beginning. At the national level, for example, in the case of the *Bangladesh Secondary Education Improvement* project, the Government of Bangladesh approached

the World Bank to request further support for improving education outcomes following the success of the previous *FSSAP* projects. At the local level, strong commitment from the local government to improving the quality of education facilitated the uptake of OBA education projects. For example, the Lagos state government had demonstrated explicit commitment to developing the education sector in their Education Sector Plan, which as a result created room for the *Nigeria Lagos Eko* project. The *Pakistan Balochistan Education Support* project was implemented in an environment where the government of Balochistan had expressed support for the project's approach as well as willingness to test different models to improve the delivery of education.

Country capacity and the level of institutional development in some cases played a role in facilitating the uptake of an OBA project. For example, one of the determining factors for the *Ethiopia RBA Pilot* being implemented in Ethiopia was as a result of the national government having appropriate and adequate data collection systems in place that were needed for the implementation of the project.[20] Adequate country capacity and institutional development likely plays an important role in the implementation of successful, and in particular, sustainable, OBA education projects.

On the other hand, countries or regions in which institutions are too weak – particularly in areas that have seen conflict and political instability – may pose difficulties to implementing OBA approaches. For instance, with the *DRC School Performance* project, Cordaid found it difficult to operate in the DRC due to the remoteness, extreme poverty, and politically instability of the project area. While it is true that project implementation in general is challenging in areas of conflict and instability, OBA can be even more challenging to implement in such contexts given the more onerous requirements for data collection, verification, and demonstration of results. In another one of Cordaid's projects, *CAR Education for Children*, violence and instability due to the conflict in CAR resulted in the project being forced to halt its RBF activities entirely to focus instead on the immediate short-term needs of the education system rather than longer-term structural change supported by the RBF project components.

Past experience of the implementing agency in working in the selected project provinces also appears to have facilitated the successful uptake and implementation of OBA education projects. For example, one of the reasons why Cordaid initially chose to implement an education performance-based financing project in Nana-Mambere in CAR was because they were already implementing a health project in that locality and therefore had experience working in that area. Similarly, in the case of the *Vietnam Upper Secondary Project*, the implementing agency East Meets West Foundation had previously implemented projects in a large number of the provinces selected for the education project.

Project success may be more likely in environments where local communities have a history of engagement with education issues. Provinces and localities selected for the same project in Vietnam were selected in part based on which ones had histories of strong community engagement in education.

While not a pre-requisite for the implementation of successful or sustainable OBA projects, **several OBA approaches were applied in contexts where there was strong private sector delivery of education services**. In Pakistan, the government identified low-cost private schools as one way of reaching low-income students and as a result, the *Pakistan FAS* project worked exclusively through low-cost private school providers. Other examples include *Bangladesh FSSAP I and II*, which worked primarily with private secondary schools given that secondary education is predominantly privately-provided in Bangladesh. In Chile, where the *LLT Project* was implemented, the private sector is heavily engaged in education and training provision. From the projects reviewed, it appears that the application of OBA to the private sector in part was motivated by the public sector's own capacity constraints to deliver equitable and quality education and/or a predominance of private delivery, as well as by an attempt in some cases to reach disadvantaged students through private providers.

[20] However, it should be noted that this is a broader RBF project with a discrete OBA component, and thus the need for country capacity might be higher than in the case of a standalone OBA project that might be externally funded and implemented by an NGO.

The following table summarizes factors that may indicate greater suitability for the development and implementation of OBA projects, as detailed above.

Table 7: Summary of positive contextual factors for OBA projects in education

- Government demonstration of active buy-in to the project
- Sufficient country capacity and level of institutional development
- Past experience of the implementing agency in region
- Engaged local communities
- Strong private sector delivery of education services

Institutional set-up

This section provides an overview of the key actors present among the majority of the OBA education projects reviewed, their roles and responsibilities, and an analysis of relevant lessons learned to date.

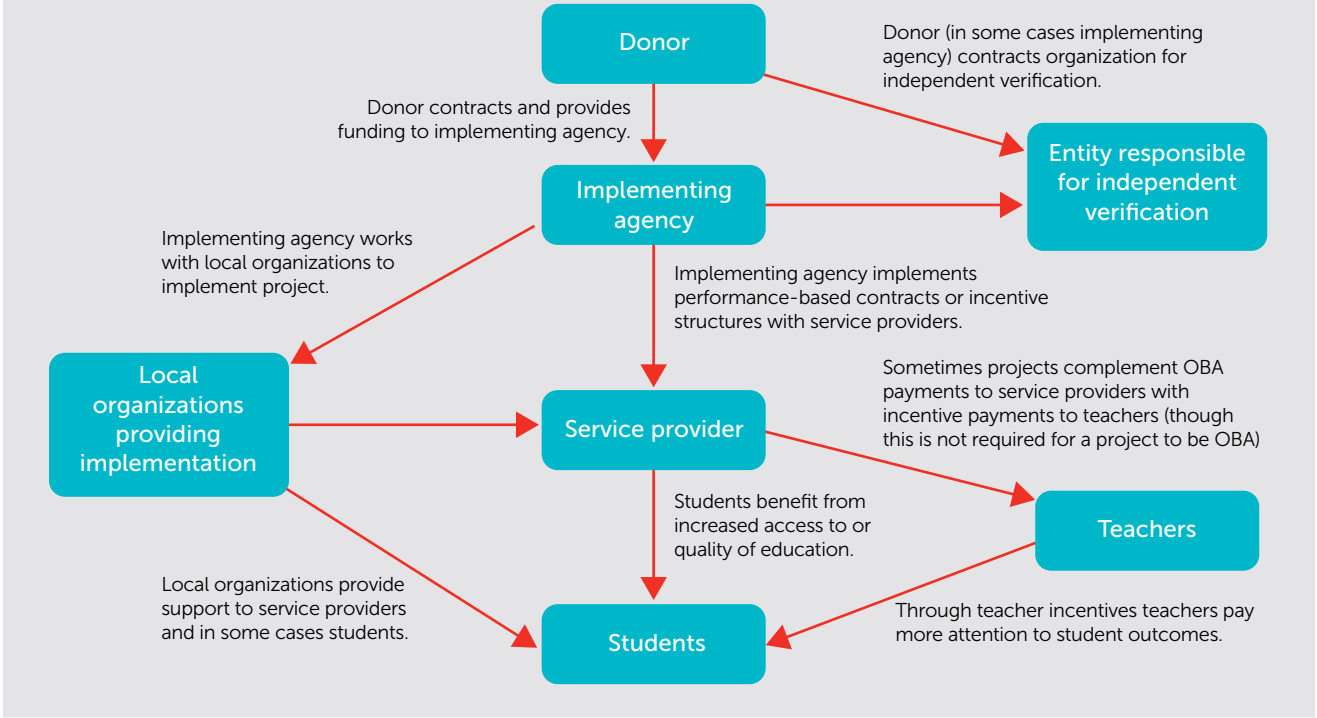
Overview of key actors and their roles

The figure below provides a visual representation of common institutional arrangements between actors within OBA education projects reviewed. This arrangement may vary by project. An overview of each actor is subsequently provided.

Donor

Donors provide overall project funding, often contract directly with an implementing agency in the project country, and sometimes directly contract the entity responsible for conducting independent verification. Donors often provide capacity building support as part of the project. Though in theory, donors using results-based approaches are supposed to take a relatively "hands-off" approach to how recipients go about meeting targets, this sometimes proves challenging (even when donors begin with this intention). For example, in the case of the *Ethiopia RBA Pilot*, the Government of Ethiopia has shown less involvement in the project than anticipated, and as a result of this lack of action, DFID has had to be more pro-actively involved in making payment allocation determinations.

Figure 8: Overview of common institutional arrangements in OBA projects (adapted from East Meets West 2013)



Donors are responsible for approving disbursement to the implementing agency based on the verification of results. However, it is important that the donor be sensitive to local context in order to ensure its expectations for the project are realistic and appropriate. For example, *Pakistan FAS* had initially been making gradual progress towards targets, as in line with government strategy; however, recently, donors have started placing pressure on the Punjab Education Foundation to meet targets more quickly, which has forced the Foundation to make compromises on program quality.

Government

The 24 OBA projects reviewed demonstrated varying degrees of government involvement. In some cases, government entities also served as the implementing agencies and were therefore actively involved and committed to the project. In other cases, even when implementing agencies were private NGOs, the government was still strongly engaged throughout the project as a result of active engagement strategies. For example, in the *Malawi Contracting Schools* program, the implementing agency provided a 2-week RBF training to three government representatives, and involved their departments heavily in the planning phase of the pilot project from the beginning. This training was followed by a 2-day national workshop on RBF for the social sector, which brought together government, NGOs, community-based organizations, and donors. In some cases, government participation in project implementation activities were limited, as was the case in the *Vietnam Upper Secondary Project,* particularly at the central government level.

Early engagement and ongoing involvement of the government, especially at the central decision-making level, is important for, though does not guarantee, future project sustainability (if the project hopes to sustained through government funding). For example, the *Pakistan FAS* program, which is currently primarily government-funded, started in 2005 with strong government involvement and continues to be government-managed. The *Ethiopia RBA pilot*, however, while it began with a large level of support from the government, has seen less government engagement than originally anticipated. Without initial and continuous government involvement, it may be difficult to generate enough enthusiasm to enable government uptake, as seen in the experience of the *Vietnam Upper Secondary Project*, in which the national government was not heavily involved and did not sustain the project.

Implementing agency

Implementing agencies across the reviewed projects took various forms. In a number of instances, they were government units or departments. For example, the implementing agency for the *Nepal Skills Development* project is a Project Implementation Unity within the Council for Technical Education and Vocational Training (CTVET). A project steering committee also coordinates between ministries and oversee implementation.[21]

In other cases, the implementing agency for the project was a private sector NGO. For example in the *Burundi Improving Education in Bubanza* project, the implementing agency is the Cordaid office in Burundi in partnership with a local Bubanza NGO named ADIS. *Tanzania Kiufunza* is implemented by Twaweza, a civil-society organization focused on transparency and governance. The *Vietnam Upper Secondary Project* was implemented by the East Meets West Foundation (EMWF), an NGO in Vietnam. In a few cases the implementing agency took the form of a public-private partnership, as in the *Pakistan FAS* project, which is a PPP funded by government of Punjab and run by the Punjab Education Foundation.

Responsibilities of implementing agencies were fairly uniform across projects. In general, these included:

- Signing and managing contracts with service providers
- Providing support to service providers (organizing training, providing capacity building workshops)
- Communicating roles and responsibilities of project participants
- Communicating about the project and its approach to project stakeholders, including the government
- Collecting and monitoring data on performance of service providers. In some cases this involved conducting random spot checks/ verification of outputs or whether eligibility criteria of beneficiaries were being appropriately implemented

[21] Another example is FSSAP I, which was implemented by the Project Implementation Unit, a government department overseen by the Director General of Higher and Secondary Education. For FSSAP II, the implementing agency was The Directorate of Secondary and Higher Education, which sits within the Ministry of Education.

- Overall supervision of project implementation
- Communicating the project's progress to donors

In some cases, disbursement of funds to service providers was the responsibility of the implementing agency (e.g. *Vietnam Upper Secondary Project*); in other cases this was conducted by banking partners (e.g. *Bangladesh Secondary Education Improvement* project partnered with Agrani Bank, a longstanding banking partner from the FSSAP programs to disburse payments).

It is important that the implementing agency is well-known and trusted in the communities in which the project is operating, particularly at the local level. In *Tanzania KiuFunza*, suboptimal results during the first year of implementation were thought to be due to a lack of trust by schools and teachers in the implementing agency that it would actually provide money upon demonstration of achieving targets (project lead interview).

Service providers

Service providers in most cases were schools, or in the case of skills training programs, training centers. Reviewed projects worked with both public and private sector providers in fairly equal proportions. Private sector schools included low-cost private schools (e.g. *Pakistan Balochistan Education Support* project, *Pakistan FAS*), community-run schools (e.g. *CAR Education for Children*), religious schools (e.g. *DRC School Performance, Malawi Contracting Schools*), NGOs providing alternative education for hard to reach children (*Bangladesh BEDP*), and government-subsidized private schools (*Belize Finance Reform*). For skills training programs, examples of service providers included private sector training and employment providers (*Nepal Employment Fund*), as well as public and community institutions (*Nepal Enhanced Vocational Education project*).

Service providers are responsible for implementing performance contracts with the implementing agency and meeting desired targets for disbursement. In addition, they are responsible for collecting and reporting data on progress against outputs. In some cases, providers had dedicated teams to coordinate project implementation. For example, in the *Nigeria Lagos Eko* project, the project is overseen at the school level by a project implementation committee, made up of school leadership, teachers, and community representatives, that is responsible for preparing an improvement plan, supporting data collection and M&E, and managing grant procurement and implementation. In some cases the lack of a project implementation committee at the school level resulted in an onerous administrative burden for headmasters and/or teachers which they were required to take on without added compensation (e.g. *Vietnam Upper Secondary Project*).

Perhaps more important than whether a service provider is public or private is the degree of autonomy it has, and by extension, its ability to implement changes required to achieve targets. One project, the *Pakistan FAS* program, demonstrated that providers given autonomy invested additional effort into improving student performance. In the program, low-cost private schools were required to meet minimum standards to enter the program (e.g. adequate infrastructure and student-teacher ratios) and meet exam performance targets to stay in the program, but were free to decide how they spent the funding received. Providing schools with the ability to adapt to the specific context of their school was acknowledged as a key factor in the success of the program. Teachers gave additional homework and extra lessons, and spent more time on test preparation, even though the teachers did not have formal teacher training of public school teachers. At the school level, program schools improved their management of the school and of teachers, and placed greater emphasis on involving parents. These improvements were attributed largely to the degree of autonomy granted to the schools under the program. Though the program has not attempted to impose regulations on private schools, such as requiring a minimum salary for teachers, it is seen as likely that doing so would cause schools to drop from the program, reducing the program's effectiveness (project lead interview).

Private providers, given their relative independence from government decision-making, should likely have this autonomy, though public providers, for which many decisions are made by government authorities, may not. A few projects noted that public providers had at least some autonomy. For example, in the *DRC School Performance* project, participating schools (both public and private) were required to meet certain standards but had the autonomy to determine the use of subsidies provided. In the *Belize Finance Reform* project, while schools did not have the ability to determine usage of financial resources (as those decisions were centralized), most had at

least some autonomy over other aspects such as the curriculum. On the other end of the spectrum, the *Malawi Contracting Schools* project noted that public schools do not have the ability to use school funding to improve results under the current system and the project is thus trying to increase the amount of autonomy schools have. Outside of these projects mentioned, though, most other projects involving public providers did not make note of the level of autonomy enjoyed by these actors. The level of autonomy necessary for success in OBA projects remains to be determined; more data gathering on the degree to which the autonomy of schools or training centers impacts their ability to meet performance targets would be a valuable contribution to the RBF sector in education.

Even if schools have the autonomy to determine optimal use of funds to make improvements, they still must have the ability and capacity to do so. A few projects voiced concerns around the capacity of school management or staff to make improvements; for instance, the *Tanzania BRNEd* project noted that local administrators have no guidance on how to improve achievement, teachers often lack the skills to teach the subjects required, and heads of schools lack the skills to improve school management or learning. In order for OBA projects to be successful in cases like these, additional support may be necessary to allow autonomous providers to make the necessary changes to meet targets. Many projects reviewed did include capacity building components to support schools in their efforts achieve set targets.

In addition, given that results-based financing is still a relatively uncommon approach, it is important that service providers understand how the system works and trust that it will work well (i.e. which targets will lead to payments; and if they do achieve the intended targets, that they will actually be paid). As mentioned previously, the *Tanzania KiuFunza* initially observed less positive results than expected, possibly due to a lack of trust by schools and teachers that they would actually receive the money promised if they were successful in achieving targets.

Teachers

A few projects complement their OBA component by directly incentivizing teachers, though providing teachers with incentive payments based on the performance of their students. For example, in *Tanzania KiuFunza* teachers receive up to 15,000 Tanzanian shillings per student based on their student's pass rates on English, Math, and Kiswahili exams. The project has found teachers to be generally very enthusiastic about this approach.

Students

Students are the ultimate beneficiaries of OBA education projects, and the "Targeting Mechanisms" section provides further analysis of the beneficiary groups most often targeted by OBA schemes. Across the 24 projects reviewed, students benefited from subsidized tuition fees or other household education expenses, and in theory, improved quality of education. Several projects pre-financed students' fees or costs so that the students were not required to pay anything upfront.

Independent verification

A range of actors were responsible for conducting independent verification of outputs. In some cases these were contracted by the donor, in others by the implementing agency. Examples of entities that conducted independent verification include national government institutions (*Bangladesh Secondary Education Improvement project*), local government agencies (*CAR Education for Children*), independent survey firms (*Tanzania BRNEd*), local community organizations (*DRC School Performance*), and more. Many projects include capacity building components for supporting improvements in monitoring (through improving systems or training). More detailed analysis on the range of actors is provided in the "Monitoring and Verification" section.

Local organizations providing implementation support

Several projects worked with local organizations or actors at the grassroots level that supported project implementation, service providers, and beneficiaries. These often included local partner NGOs; community organizations; or in the case of government-implemented programs, local government units or representatives. For example, in the *Vietnam Upper Secondary Project*, the implementing agency collaborated with Study Promotion Associations – government community-based organizations who provided support to

schools and students. Their involvement was cited as a key factor contributing to the project's success.[22] Involving these groups in the project can also build capacity for long-term sustainability, as such NGOs or CSOs could eventually play a role maintaining the program and/or conducing community-led independent verification. More generally, community engagement, often facilitated by local organizations working under the implementing agency, was seen as key to project success in a number of cases.

Building support for OBA among stakeholders

Given that OBA is a relatively new approach, convincing various stakeholders to buy into the idea of using OBA can be challenging. Twaweza, for example, found many stakeholders to be unfamiliar with idea of COD/OBA and initially react in a defensive manner. In starting with OBA work in health, Cordaid had faced challenges in convincing the Ministry of Health to use the approach as the Ministry was adverse to the idea of giving up control; however, it was more willing to participate once it saw that the system was working. Because of this previous experience in health, it was easier to convince the Ministry of Education to come on board when Cordaid decided to expand into education. On the donor side, Cordaid also faced some resistance, particularly around skepticism of the effectiveness of OBA in (1) producing improvements in learning outcomes and (2) operating at scale, given lack of hard evidence (project lead interview). Another major challenge noted regarding persuading stakeholders of the merits of OBA was around the fear of perverse incentives. In initial conversations about the project, *BRNEd* noted that the largest concern of stakeholders was in regards safeguards around cheating, especially at the service provider level (see "Outputs" section for a discussion of ways projects mitigated risks of cheating). Being aware of common concerns around OBA can be helpful in the initial stages of garnering support for an OBA project (and strategies for building government support are elaborated upon in the Sustainability section). Clear outward communication with relevant stakeholders regarding project progress and results is also likely to build support.

Targeting mechanisms

A key feature of many OBA projects across all sectors is the use of explicit methods for targeting particular categories of beneficiaries, often built directly into the project's design. This section provides an overview of the different types of targeting mechanisms used among the education OBA projects reviewed.

Who is targeted?

In most cases, subsidies are paid directly to schools or service providers for the purpose of improving overall quality of or access to schooling. However, OBA education projects typically have particular categories of ultimate beneficiaries in mind. Below is an overview of some of the key categories of beneficiaries targeted by the education OBA projects analyzed:

Table 8: Beneficiary groups targeted through education OBA projects

Beneficiary Group	Projects
Socio-economically disadvantaged students	All projects included in the database target the poor
Girls	Some projects target girls exclusively (e.g. Bangladesh FSSAP I), and other offer premiums or added incentives for targeting girls (e.g. DRC School Performance, Ethiopia RBA Pilot)
Orphans and vulnerable children	Two Cordaid projects, DRC School Performance and Malawi Contracting Schools explicitly target this group
Disabled children or adults	Malawi Contracting Schools, Nepal Vocational Education and Training
Indigenous populations/ ethnic minorities	Chile LLT Project, Vietnam Upper Secondary Project
Adults without complete primary or secondary education	Chile LLT Project

[22] Similarly in the *Bangladesh Secondary Education Improvement* project, local secondary education officers played a key role in implementation at the local level – responsible for assuring the timely and accurate processing of payments and working with SMCs, school management, and PTAs to implement the quality, outreach, and school management activities.

Mechanisms for targeting beneficiaries

The table below provides a breakdown of the types of targeting mechanisms used by projects (for which this information was available). These categories are not mutually exclusive, as some projects used a combination of targeting mechanisms.

The most common mechanisms used for targeting project beneficiaries are means-tested, in which a person's income is used to determine their suitability for the intervention (6 projects) and geographic, in which beneficiaries are identified based on their location (4 projects). Means-tested targeting is used to ensure that beneficiaries receiving support do in fact come from poor and disadvantaged backgrounds, and is often used in order to ensure that the project does not inadvertently subsidize wealthier students who can afford school fees. Geographic targeting can be used to target particular provinces or communities known to be characterized by low socio-economic indicators, as was the case with the *Vietnam Upper Secondary Project*, for example.[23]

Self-selection targeting, in which services are designed so that they are more likely to be used by the target group, is used by two projects (*Chile LLT Project* and *Pakistan Balochistan Education Support*). For example, in Balochistan, the project specifically targeted low-cost private schools as previous experience had shown that low-cost private schools were successful at attracting low-income students.

School-based targeting involves selecting beneficiaries based on the schools they attend (examples provided in the section on "School Selection" below), and community-based targeting involves relying on community members to identify beneficiaries who meet project eligibility criteria. Random targeting was used only in one of the projects reviewed, whereby the selection of schools and districts was done randomly given that the project is part of a randomized control trial.

Often a combination of targeting mechanisms is thought to be more effective than using only one indicator. Five projects use a combination of targeting mechanisms, three of which combine both means-tested and geographic targeting (*Bangladesh FSSAP II, Colombia Concession Schools*, and *Vietnam Upper Secondary Project*).

Table 9: Overview of targeting mechanisms used by OBA education projects

Type of targeting mechanism	Number of projects	List of projects employing targeting mechanism
Means-tested	6	• Bangladesh FSSAP II • Bangladesh Secondary Education Improvement • Belize Finance Reform • Colombia Concession Schools • Nepal Vocational Education and Training • Vietnam Upper Secondary Project
Geographic	4	• Bangladesh FSSAP I • Bangladesh FSSAP II • Colombia Concession Schools • Vietnam Upper Secondary Project
Self-selection	2	• Chile LLT Project • Pakistan Balochistan Education Support
School-based	2	• Nigeria Lagos Eko • Vietnam Upper Secondary Project
Community-based	1	• Vietnam Upper Secondary Project
Random	1	• Tanzania KiuFunza (designed as an RCT)

[23] An important caveat to inferring too deeply from this breakdown is the fact that 9 projects do not specify the targeting mechanisms used and 4 projects do target specific populations (e.g. girls) but do not use a method outlined in the table.

Service providers may be less willing to enroll certain populations such as the poor and disadvantaged due to their inability to pay or concern that they may be less likely to achieve required results. When program payments are tied to results, some programs may preferentially enroll students who they believe are more likely to meet performance targets. For instance, *GEC* noted that one program focusing on girls had considered turning away girls with disabilities for that reason (project lead interview). To counter this tendency, some projects provide weighted subsidies or bonus awards to the service provider for enrolling (or teaching, training, etc.) members of particular target groups, such as girls, children with disabilities, or orphans and vulnerable children (OVC). For example, two of the Cordaid-implemented projects, *DRC School Performance* and *Malawi Contracting Schools*, pay higher subsidies to schools for the enrollment of girls than boys, as well as for OVC. At the adult education level, the *Nepal Vocational Education and Training* project uses an incentive structure which encourages vocational training providers to target women and disadvantaged (including disabled) populations, by stratifying the percentage of training cost covered by type of beneficiary.[24]

How to select the appropriate targeting mechanism for a particular education project?

The appropriate targeting mechanism for an OBA education project is likely to depend on the context in which it is being applied, the available capacity for administering the targeting mechanism, and the project's ultimate objective. While means-tested targeting can be one of the more effective mechanisms, it is also one of the more complex and administratively burdensome as it requires sufficient capacity to collect and verify data on beneficiaries' income status. In some cases it can result in the opposite of the intended effect: if government-issued or formal poverty certificates are not accurate or reflective of real poverty levels, beneficiaries who should otherwise qualify for the program may be excluded (this occurred in the first year of the *Vietnam Upper Secondary Project*). In the context of education, means-tested targeting may be appropriate where there is a significant risk that without it, subsidies could end up benefiting non-poor students (for example, when projects subsidize students to attend private schools or training centers).

Geographic targeting is less complex, but not as accurate as means-tested targeting. Geographic targeting may be an appropriate option in contexts where certain areas (regions, provinces, districts, cities, etc.) are characterized by very low education outcomes; or where beneficiaries are grouped closely together, and where the goal of the project is to improve education outcomes for those particular areas and groups.

Self-selection targeting is less complex and costly; however, it is important to ensure that the education services subsidized (e.g. low cost private schools) will in fact target the intended beneficiaries. For example, the *Pakistan FAS* project specifically provided subsidies to low-cost private schools, as they were seen as an avenue by the government to reach poor students. However, rather than enrolling out-of-school students, as the project had intended, supported schools mainly tended to attract students who were previously enrolled in nearby public schools and had decided to switch to private schools (project lead interview).

In instances where OBA education projects seek to target particular sub-groups of beneficiaries in contexts where large disparities may exist, the use of weighted subsidies may be advisable to ensure incentives are in place for service providers to enroll students within said sub-groups. However, a few potential challenges with this approach should be kept in mind. First, in certain types of programs, such as skills training programs, it may be more difficult to involve female or disadvantaged students. Both the *Nepal Employment Fund* and the *Nepal Skills for Employment* projects faced difficulties enrolling women, relating to the challenge of attracting women to male-dominated industries as well as responsibilities of women to take care of their children. In addition, even though a stipend was provided to cover the cost of training, poor individuals were often not able to move from rural to urban locations to take advantage of the training. Second, providers must be willing to accept disadvantaged beneficiaries (or incentivized through

[24] 100% of the training cost is covered to train poor, lowest-caste beneficiaries, disabled beneficiaries, and other special groups; 80% of the training costs are covered for poor men from low-castes and disadvantaged regions and poor women of all other castes; and 60% of training costs are covered for poor men from all other castes.

payments enough to do so), who may be harder to retain or less likely to meet performance targets. For instance, in ADB's *Nepal Skills Development* project, providers are incentivized through bonus payments to train and find employment for women and disadvantaged groups; however, given that these groups are more difficult to employ than men or non-disadvantaged trainees, ADB is waiting to see whether implementers will be motivated enough by the bonus payments to meet demographic targets (project lead interview).

Methods for school selection

For the majority of the projects, school selection plays an important role in the targeting of specific groups. In some cases, schools are selected based on whether they were public or private, in an effort to target poorer students. The *Vietnam Upper Secondary Project*, for example, specifically targeted private and semi-public schools, as in Vietnam, poor and disadvantaged students often fail to pass the competitive exams required to gain acceptance to public secondary schools, and as a result often are required to attend private secondary schools where tuition fees are higher. The *Nigeria Lagos Eko project* only targets public secondary schools, as poor and disadvantaged students were concentrated in public schools, and dropout rates from primary to secondary school were very high among this group.

In some cases, schools were constructed specifically for the project in poor areas with limited access to existing schools. This was the case for the *Colombia Concession Schools* program in Bogota, where public schools operated by private providers were built in extremely poor areas of the city, and where demand for primary and secondary education was outstripped by the supply offered by city public schools. In other cases, existing schools were selected based on pre-defined criteria. For example, the *Vietnam Upper Secondary Project* required participating schools to have good infrastructure (classrooms, a library with textbooks, lab equipment, IT rooms), enthusiastic faculty with an awareness of innovative teaching methods, and school managers that were highly committed to the project; the *Pakistan FAS* program required schools to meet specific criteria (including exam performance targets, student-teacher ratios, and infrastructure availability) and noted strict adherence to this method of school selection to be a key factor in the project's success.[25] Finally, some projects attempted to select all schools within a particular district, to avoid jealousy between schools and shifting of students between schools in one district (*DRC School Performance* project).

Performance risk

In withholding payments until results are demonstrated, OBA requires service providers to take on a certain amount of performance risk – the transfer of some degree of risk from funders to service providers is a core element of an OBA approach. However, the transfer of *all* or even high amounts of risk often places service providers at a disproportionate level of risk for performance outcomes that are not entirely under their control alone. It also can prove unappealing and/or infeasible for service providers from a financial perspective; if all funding is provided only after the demonstration of results, service providers may lack the working capital needed to bring about the results in the first place. This section details methods employed or suggested by projects reviewed to incentivize service providers to bear more risk, ensure that such levels of risk are both reasonable and realistic, and reduce the likelihood that providers will fail to receive funding for factors outside of their control.

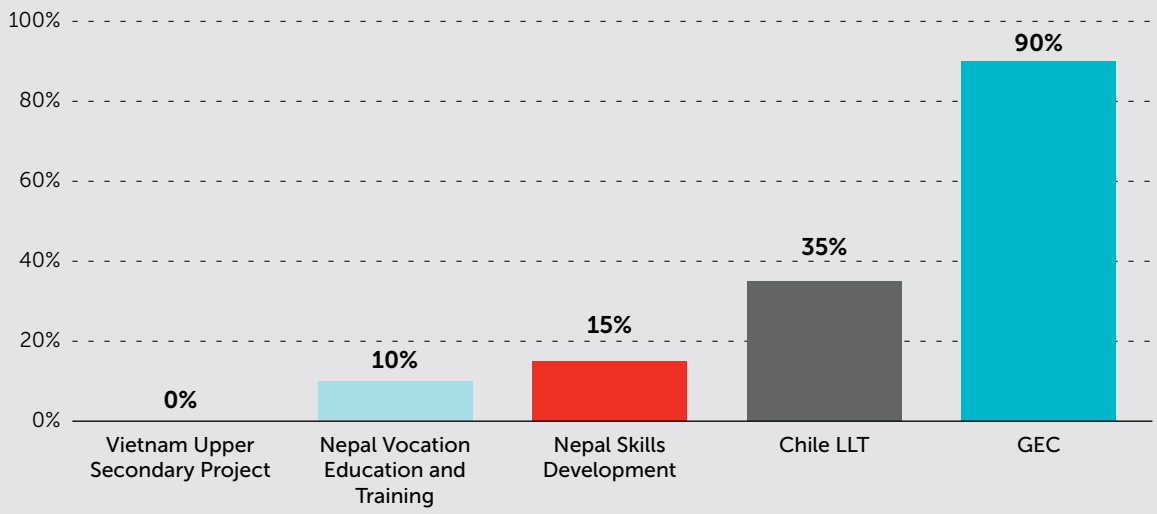
Overview of mitigation measures

Upfront payments

The most straightforward method of mitigating disproportionate levels of performance risk is to provide a portion of the payment up front, so that not all of the payment is tied to the achievement of targets. This approach can also serve to motivate service providers to participate in an OBA project that they otherwise might not if it meant relying on results-based payments alone. This method was noted in a number of the projects reviewed. For example, in the World Bank's *Nepal Vocational Education and Training* project, 10% of payment to vocational training providers is provided up front,

[25] Other examples include the Secondary Education Improvement project in Bangladesh, for which the main requirement for schools to become eligible for participation is the formation and functioning of a School Management Committee (SMC) and a Parent-Teacher Association (PTA), and the Pakistan Balochistan Education Support project, which while it did not employ strict criteria for school selection, did give preference to schools working to increase female enrollment.

Figure 9: Amount of up-front funding provided in projects with available information



while the rest of the payment is disbursed upon demonstrating achievement of specific targets (i.e. training completion, graduate employment). In the *Chile LLT Project*, adult education providers received 35% of payment up front, with the remaining 65% disbursed after students received certification for completing education modules.[26] Of the five projects providing information regarding funding amounts disbursed over the course of the project, four provided at least some upfront financing. The amounts provided by each of these five projects are illustrated in the figure below.

While in other profit-generating sectors in which OBA operates, providers may have or be able to access funds that can be used for pre-financing, it is less likely that schools or training providers will have substantial assets available or access to loans locally from which they could draw pre-financing. Schools in the *Vietnam Upper Secondary Project* had a difficult time finding financing for the first semester of the project, and the implementing agency EWMF therefore provided a loan to support schools for this first semester. This raises two questions that could benefit from further investigation. First, though the experience of the *Vietnam Upper Secondary Project* seems to indicate that providing at least some upfront financing is necessary for success of OBA education projects, it remains to be determined whether project design should *always* include some upfront financial support. Second, if this is the case, the ideal amount of upfront financing that will both suit the needs of service providers while still motivating them to improve outcomes is yet to be determined, and may vary by context and type of provider.

An outlier to the other four projects in the chart above, *GEC* generally provided only around 10% of funding to projects in a results-based manner. It found its program grantees to be typically unwilling to take on more than that amount as OBA, due to a concern that anything greater than a 10-20% reduction in ongoing funding flows would harm program implementation. However, a concern raised about this setup, and applicable to other projects with higher proportions of input-based funding, is that tying funding to inputs may prevent programs from exhibiting the flexible and innovative behavior that RBF is supposed to encourage (project lead interview).

Training and capacity building

Providing training to school staff and community members can help to ensure that students and schools are able to meet specified targets. The *Bangladesh Secondary Education Improvement* project provides orientations to school management committee and parent-teacher association members

[26] The results-based component of payment to providers was initially planned to be 75%, but was lowered to 65% in order to make the conditions more attractive for providers.

to enable them to play an effective role at increasing the accountability of and focus on learning at schools. On the school side, Tanzania's *BRNEd* plans to provide capacity building and training to teachers and school staff. The *Malawi Contracting Schools* project similarly provides capacity building for schools and teachers, including on governance and accounting for school management and parent-teacher committees, as well as on child-friendly pedagogy and 21st century skills for teachers. Cordaid works with head-teachers to create annual plans for how the head-teachers will improve the schools' performance.

Community engagement

As family and community support is often important to a student's success, programs that foster community engagement can help create an environment in which students are able and motivated to excel at school; this was found to be especially important in rural and poor areas. For example, in the *Colombia Concession Schools* program, some schools provided psychological counseling and family visits for selected students, as well as an additional food program more nutritious than the publicly provided lunch program, to address familial and nutritional issues seen in low-income communities. Some *Concession Schools* also encouraged community engagement and participation through parent-teacher meetings, adult education, and community programs. Similarly, the *Vietnam Upper Secondary Project* sought to involve families and community-based Study Promotion Associations to support students in meeting the GPA and attendance requirements needed to stay in the program. They found this family and community support, particularly through the Study Promotion Associations, to be key to project success; even with the subsidy students still needed strong support from their community to deal with other school-related expenses and succeed in school.

Knowledge sharing

A strategy taken by one project to improve the likelihood of greater program success was institutionalizing learning from other similar programs. As part of the *Malawi Contracting Schools* program, Cordaid plans to establish a network of RBF experts and practitioners in Malawi with links to other Cordaid-managed RBF programs in Africa to facilitate peer-learning and possible linkages.

Improving student preparation

While this approach was not taken by any of the projects reviewed, the *Vietnam Upper Secondary Project* noted that the poor quality of education students received at lower secondary schools prior to entering the program reduced their abilities to perform well in upper secondary schools under the program. A possible method of reducing risks associated with this issue is providing preparation to students, or increasing the quality of education provided, prior to the student's entrance into the program so that the student is capable of meeting desired targets.

Payment flexibility and pro-rating payments

Allowing a degree of flexibility in payment disbursement amounts can provide service providers with latitude to better equip them for success in meeting targets. For example, the *Vietnam Upper Secondary Project* enabled schools to receive disbursement on a pro-rated basis, adjusted slightly up from the number of students meeting output criteria (e.g., if 95% of students met criteria, 97% of the funding was disbursed). Disbursing on a pro-rated basis (lower payments for lower outcomes/higher payments for higher outcomes) as opposed to on an all or nothing basis (i.e. if a certain threshold is not met, no funding is disbursed), can also mitigate performance risk for the service provider. The former approach may better incentivize service providers to support all students to succeed, as opposed to an all or nothing approach which may incentivize providers to focus only on students most likely to meet the criteria to begin with.

While service providers must take on some amount of performance risk as per the definition of OBA, ensuring that this risk is at a reasonable level (while still maintaining the integrity of OBA) should increase the probability of project success. In designing OBA projects, it is likely ideal to use as many of the relevant risk mitigation measures outlined above as possible.

Innovation and efficiency

In theory, one key benefit of RBF mechanisms is that a focus on results, through providing autonomy to the recipient to determine how funding is used, encourages the recipient to find cost-effective and

innovative approaches to achieve desired results. Following this logic, OBA should be among one of the RBF mechanisms that most enables service providers to pursue efficient and innovative approaches, given that in its pure form it involves direct contracts with service providers and avoids much of the government bureaucracy that may hinder change or experimentation. However, this theory has not yet been supported or refuted by substantial practical evidence, and critics argue that a focus on results may in fact reduce the likelihood that providers will innovate, given the pressure they face in achieving targets. Similarly, a focus on keeping costs low (e.g., if providers are in competition with one another for selection or funds), may risk incentivizing providers to value efficiency at the expense of program quality, as it is very difficult to pursue innovative approaches when keeping costs low is the primary concern (project lead interview). There is not enough evidence from projects reviewed to conclude whether an OBA approach improved levels of innovation or efficiency, though one project (*Pakistan FAS*) did demonstrate that providers given autonomy invested additional effort into improving student performance.

More explicit data gathering is therefore required of OBA education projects to determine whether an OBA approach does generate a positive impact on the level of innovation and efficiency of service providers. While promising early anecdotal evidence exists, this remains an area where further evidence building would be a value-add to the sector as a whole.

Definitions of outputs and their classification

Payment-linked indicators are a critical part of OBA projects. In designing OBA projects, it is important to ensure that (1) the intended objectives (e.g. improved access or quality) can be met by incentivizing improvements along certain indicators, and (2) that the chosen indicators will in fact lead to the ultimate objectives.

Surveyed projects used a range of indicators to set and measure progress towards objectives, related to both access to education and the quality of the education provided. Across the projects reviewed, indicators used were divided fairly evenly into access and quality categories, with 14 schemes using access indicators and 18 schemes using quality indicators. The most common indicators are test scores and enrollment (used in 10 and 5 cases, respectively). While less common, a few projects also used indicators outside of these two categories, such as infrastructure and student behavior requirements. Indicators highlighted in this section are generally those that were tied to disbursements, though a project lead noted that it was important to use additional indicators not necessarily tied to payments to track project progress and collect data that can be used for future project improvement (project lead interview).

Access indicators

Indicators related to access of students to education included those relating to enrollment, promotion rates, attendance, training completion, and exam participation. Among these, enrollment rates were the most commonly used indicator. The way in which these indicators were used varied slightly among projects; in some, schools were rewarded for meeting a target number of enrolled (or attending) students, while in others, schools were paid per student enrolled or in attendance. The *Colombia Concession Schools* program recommended disbursing against attendance rates as opposed to enrollment rates as a more accurate indicator of whether target beneficiaries are actually attending school.

Concerns raised around using attendance as an indicator, as noted by *GEC*, included that the quality of attendance records may be poor and easy to falsify, thus a poor reflection of actual progress. If this is the case, tying payments to attendance may reduce the incentive of projects to improve the quality of attendance records as improvements to the accuracy of records may result in a drop in recorded attendance (project lead interview). Because of these concerns, *GEC* decided not to link output-based payments to attendance, and rather linked them only to quality indicators, such as those mentioned in the following section. In projects using attendance as an indicator, it is important to ensure high quality monitoring and verification systems to mitigate the risk of inaccurate reporting of attendance data (see "Monitoring and Verification" section for more information).

Quality indicators

Many projects used quality indicators instead of or in addition to access indicators. The quality indicators described above can broadly be categorized into learning outcomes (e.g. test scores, GPA rates),

labor market outcomes (e.g. salary, employment rates), and school inputs that can contribute to improved learning outcomes (e.g. pedagogy, school management, teacher attendance, school management committee participation).

The indicator of choice for most projects was test scores (used in 10 out of the 24 projects reviewed). Some projects tied payments to performance on existing national exams; in other cases, where national exams were not sufficient to meet project requirements (for reasons such as quality, scheduling, or data management), projects adapted or created their own exams (e.g., *GEC* uses standard EGRA and EGMA,[27] adapted to be culturally appropriate).[28] However, adapting or creating an independent exam requires time and resources on the part of the implementing agency; in the case of the *Pakistan FAS* program, there is a separate team dedicated to overseeing exam design and implementation (project lead interview).

While often a logical choice, there is potential for exam-based indicators to create perverse incentives. One issue is that tying payment to exam performance creates an increased incentive to cheat. To reduce the likelihood of cheating, some projects implement safety precautions. For instance, the *Pakistan FAS* program prepares multiple versions of the Quality Assurance Test, and varies the version administered and grade tested by school, with schools being notified of what grade will be tested only on the day of the exam. Another issue is that an increased focus on testing incentivizes teaching to the test, which may lead to exclusion of other beneficial material. In an attempt to reduce harm caused by exam-based indicators, *DFID's Ethiopia RBA Pilot* tied payment to the number of students sitting for an exam in addition to the number of students passing the exam.

The specific metrics associated with this indicator typically focus on whether or not students achieved a passing grade on an exam, with payments tied to the number of students passing (or the improvement in this number), or disbursed if the project met the target of a certain number of passes. However, in creating a binary indicator for student achievement (pass or fail), this approach may discourage providers from supporting students who would have passed the exam anyway. Another approach, currently being tested by the *Tanzania KiuFunza* project, is to tie payments to improvement in individual student exam scores, so that providers are incentivized to support improved performance in all students.[29]

Another category of quality indicators to note includes those related to pedagogy, as employed by Cordaid's *DRC School Performance* and *Malawi Contracting Schools* projects. Examples of pedagogy targets used in the *DRC School Performance* project include incentivizing teacher peer review, strengthening the role of school inspectors, and ensuring that sexual reproductive health is taught in the school. Unlike most indicators employed by other projects, these were qualitative assessments and were conducted during inspector-led classroom visits.

Table 10: Summary of access and quality indicators used in projects reviewed

Access indicators	Quality indicators
• Enrollment • Attendance • Transition/promotion rates • Completion of training • Exam participation	• Test scores • GPA • Pedagogy techniques • Salary of trainees post-training • Employment following training • School management • Teacher attendance • School management committee participation

[27] EGRA and EGMA are the "Early Grade Reading Assessment" and "Early Grade Mathematics Assessment" respectively. They were developed by USAID and RTI (EGRA was also jointly developed by the World Bank), and are designed to orally assess children's acquisition of basic literacy and mathematics skills in developing countries (ACER).

[28] Other examples the include *Pakistan FAS* program's Quality Assurance Test and *Tanzania KiuFunza's* Uwezo exams. Further detail is provided in the "Monitoring and Verification" section.

[29] In the second phase of the *KiuFunza* project, Twaweza is conducting an RCT to compare programs tying payment to overall student pass rates to those tying payment to improvements in individual performance (project lead interview).

Additional indicators

Some projects used indicators not related to access or quality but rather meant to encourage effective project implementation. For example, in addition to tracking exam performance and attendance, *GEC* used additional indicators relating to (1) whether the organization provided matching funds to get the project off the ground, and (2) whether the project had mechanisms in place to ensure sustainability (though as mentioned above, only performance indicators were tied to payments). These indicators can be helpful in ensuring project effectiveness and success.

Defining and choosing indicators

While many schemes used a single indicator, some used multiple indicators. A benefit to using fewer indicators is simplicity, as a simple model may reduce associated costs (e.g. monitoring and evaluation), as well make the project make more attractive for future sustainability or scaling (project lead interview). On the other hand, using multiple factors can ensure that providers meet targets relating to both access and quality, both of which are important in providing education services (as well as along other dimensions, if desired).

A unique approach to this issue is taken by Cordaid, which uses a large array of indicators including those related to both access and quality to assess projects. While complex, this ensures a nuanced and flexible approach to setting outputs for schools, and allows Cordaid to track the evolution of indicators over time (for example, whether schools are meeting certain outputs more easily than others, which indicators are leading to the best results, etc.).

Defining strong indicators suitable to be tied to payments in a particular context, however, can be difficult and time-intensive (especially when many indicators are involved).[30] To remedy this issue, Cordaid has created a list of 200+ indicators from which they can draw from to use in their education projects (project lead interview), saving time during the project development phase.

When deciding upon indicators for a project, it is important to involve relevant stakeholders in the process, so that they understand and are in approval of the factors used (project lead interview). This process is exemplified by *BRNEd*, which involved an intensive, six-week work session involving relevant government representatives to discuss and design the components of the project and plan for project implementation.

Subsidy calculation and delivery mechanism

A key component to any OBA project is the method through which payments are calculated and disbursed. Determining payment amounts can be particularly challenging in the education sector given the relative lack of precedent in setting payment amounts within education RBF projects. Achieving the results or outputs prescribed by education RBF and OBA projects (such as improvements in attendance, teacher quality, etc.) require substantial behavior changes, and as a result, payment amounts must be significant enough to motivate such changes.[31] On the other hand, payments which are set too high risk creating high-stakes situations in which the likelihood of gaming and distortion may increase. This section provides an overview of the payment types used in the OBA education projects reviewed, as well as of payment calculation methods, frequency of payments made, and disbursement methods.

Payment types

Payment types in the reviewed projects can be grouped into the following two categories:

- **Payments for delivery of education services (subsidies)**, which are intended to cover the costs of or provide significant support to the provision of specific education or training services to students. Per-student payments in this category may cover, for example, a student's tuition fee or the cost of training a student in a particular subject area.

[30] Cordaid has found the process of choosing indicators, as well as setting up other components of the RBF/OBA system (e.g. prices, procedures, monitoring and payment systems) to take about one year (project lead interview).

[31] Other factors may also influence behavior changes (such as non-monetary recognition or feedback given to teachers on their performance). It is important to note that the causal link between increased payment and improved performance is not fully defined, and that other motivating factors may also be at play.

- **Incentive payments**, which are meant to supplement existing program funding in order to motivate behavior change. These are typically smaller than payments intended for program funding.

Some projects contained multiple schemes, sometimes falling into different categories. Methods of calculating payment amounts disbursed under each type of scheme are described below.

Payment calculation

Given the different objectives of subsidies and incentive payments, the payment calculation for each is fundamentally different. In both categories, payment has to be substantial enough to motivate service providers to achieve the intended goal; however, for subsidies, payment must be great enough to enable the service provider to provide services that may not have been provided otherwise.

For some projects providing significant subsidies, payment amounts were determined so that they would cover the entire or majority of the cost of tuition or training. For example, in the *Vietnam Upper Secondary Project*, payments provided per student were equivalent to tuition fees.[32] In the World Bank's *Nepal Vocational Education and Training* project, payments to training providers cover the cost of training and also include a bonus for placing graduates into employment. Amount determinations for incentive payments use a different calculus. In the *Tanzania KiuFunza* project, considerations in calculating the amount disbursed per subject per student (5000 Tanzanian shillings, about US $2.80) included the desire for a round number, to have an amount that would be significant enough to attract attention from teachers and schools, and to maintain affordability even if students did exceptionally well and the project scaled up. In the *Bangladesh FSSAP I*, awards schools received amounted to one month's tuition payment (approximately US $0.25) per beneficiary.

Unsurprisingly, per-student incentive payments tend to be significantly smaller than per-student program funding/subsidies. In three projects providing incentive payments and information on payment amounts (*Bangladesh FSSAP I, Ethiopia RBA Pilot*, and *Tanzania Kiufunza*), payments were under $10 USD per student annually.[33] On the other hand, subsidy payments in six projects with available information ranged from $20 to $520 USD per student year, with four falling in the $20-50 range. The remaining projects approached or exceeded $100 disbursals per student (with the *Colombia Concession Schools* program providing $490-520 per student, and the *Vietnam Upper Secondary Project* paying $90-160 per student).

While a greater number of projects reviewed provided payments on a per-student basis, some projects provided payments in lump sums per institution. For example, *Tanzania's BRNEd* project plans to award 1-10m Tanzanian shillings (approximately US $600-6,000) to primary and secondary schools showing the greatest improvement in pass rates on exams. Of projects reviewed and providing information regarding the amount disbursed, lump payments ranged from 256-13,000 USD per school annually.

Within projects, payments per student or institution often varied based on factors related to the types of students targeted, services provided, and institutions. Some projects offered higher payments for providing services to female students/trainees or members of disadvantaged groups. In other projects, payments varied by the type of provider (e.g., the *Vietnam Upper Secondary Project* disbursed greater per-student payments to professional secondary schools than upper secondary schools to reflect differing costs of tuition), or the education level or type of training provided (e.g., the *Chile LLT Project* provided larger payments for the first levels of primary education and smaller payments for upper primary grades).

Teacher incentives

While providing payment directly to teachers is not technically considered OBA, some OBA projects include teacher incentive payments. However, a few concerns were raised around providing payments to teachers. First, providing teacher incentives may be politically controversial; *BRNEd* found that in

[32] However, over the course of the program, tuition fees rose due to inflation but the subsidy amount did not change, causing challenges for participating students who were forced to cover part of their tuition fees.

[33] Payment amounts mentioned in this section are approximate. Amounts have been converted to USD using current exchange rates.

Tanzania, while providing grants to schools based on performance was politically acceptable, providing incentive grants to individual teachers faced resistance due to Tanzania's socialist history (project lead interview). Second, certain ways of providing teacher incentives may be more politically acceptable than others, for example providing additional bonus payments as opposed to taking away some of their salaries for failing to meet targets (project lead interview). Third, care should be taken in providing teacher incentive payments to make sure that these payments can be sustained over the long term, and do not become an unstainable fiscal burden (if being paid by the government). Similarly, a reduction in salaries may cause discontent among teachers and be politically unfavorable (project lead interview).

Disbursement and delivery of payments

Payment function

Projects reviewed employed a variety of methods to determine if targets were met (and thus if payment should be disbursed – i.e. "payment functions"). Payment functions used included the following:[34]

- **Step function:** Full amount released upon achievement of set targets (e.g., if x% of students achieve passing exam grades)
- **Incremental (i.e. continuous) function:** Payments are disbursed based on units of improvement (e.g. $x for every x% improvement in test scores)
- **Ranking:** Providers receive payment if they achieve a certain ranking in comparison with other service providers (e.g., top 10)

Projects can use a combination of these functions (for instance, an all-or-nothing approach with extra payments released for improvements over a certain target amount).

Payment schedules

The majority of projects reviewed disbursed payments annually, while a few disbursed on a monthly basis and one biannually. One payment schedule of note, used in the *Nepal Skills Development* project, aligned payments with students' training and employment in a four-stage disbursement process, at the beginning, end, and three and six months after training. This was done to incentivize service providers to support students in finding employment (in addition to providing training), a service that was often lacking in existing training institutions.

In the *Pakistan FAS* program, unlike other many other programs reviewed, schools lost the ability to receive payments for failing to meet targets (retroactively) rather than being provided with payments upon demonstrating achievement of targets (proactively). The threat of this loss was effective in motivating schools to improve their performance so as to meet the targets and stay in the program. However, while schools did meet the targets, they improved by just enough to do so, in other words were not incentivized to go beyond the minimum required (project lead interview).

Delivery mechanisms

Delivery mechanisms mentioned by projects included the transfer of funds directly into school bank accounts (e.g. in the *Bangladesh Secondary Education Improvement* project and *Nigeria Lagos Eko* project), as well as to teachers via mobile money. It is important to ensure that payments are made in a timely and reliable fashion. In the first year of the *Vietnam Upper Secondary Project*, this proved to be a challenge, with schools experiencing a lag-time of several months between the verification of outputs and when they received payment, which posed liquidity issues to some participating schools.

Additional considerations

Payment may need to be accompanied by other components, such as information sharing or support on how to improve practices (as noted in the "Institutional Arrangements" section) in order to be effective. Multiple programs (*Tanzania KiuFunza* and *Pakistan FAS*) noted that providing information to teachers (e.g. around areas to focus on or what they can do to improve student performance) as part of a feedback loop is critical to program success and as important as providing the financial incentives (project lead interviews).

[34] The first two terms are aligned with definitions provided by Perakis and Savedoff (2015), while the third term is defined by the authors.

Monitoring and verification

Methods for collecting data to monitor the fulfillment of outputs

A key pre-condition to any successful RBF project is the ability to collect reliable and timely data to track the fulfilment of results or outputs to which funding is tied. This can be particularly challenging in the context of education, where government systems for collecting information on education outcomes are often slow and in some cases provide unreliable data, and identifying third-parties to rigorously and reliably collect data can prove challenging and expensive. The range of approaches used by reviewed OBA education projects to monitor progress against outputs is illustrated below.

Education Management Information System (EMIS)

In several projects, EMIS data is used to gather data as part of the verification process for tracking progress on outputs (often in cases when the OBA component is part of a broader RBF project with the government). For example, in Ethiopia, data on grade 10 performance is collected through Ethiopia's EMIS for the Ethiopia RBA Pilot. In Tanzania, a national EMIS managed by the Ministry of Education and Vocational Training contains data collected through an annual school census including enrollment, expenditures, and infrastructure, and is used by the BRNEd project to verify progress.

Creation of new certification or assessment systems

In several cases, new certification and/or assessment systems for collecting data on performance and monitoring progress were created as part of the project itself. The Chile LLT Project established a certification system for adult students in basic and secondary education programs, and funding to providers was subsequently based on the number of students passing the certification. The Nigeria Lagos Eko project developed a standardized testing system as part of the project, which allowed for data collection on and assessment of student learning. Finally, the Tanzania BRNEd project has also established its own monitoring system, which includes math, reading, and writing (3R) assessments of grade 2 students.

School-generated reports

Another approach to gathering data for verifying the fulfilment of outputs is through collecting school-generated reports. For example, in the case of the Vietnam Upper Secondary Project, participating schools submitted term reports on students' academic performance and attendance to the implementing agency, East Meets West Foundation (EMWF) at the end of each term and academic year, and EMFW would submit these bi-annually to the donor (GPOBA). These reports were used to approve tuition disbursements.

Independent data collection

The Tanzania KiuFunza project collects its own data through three surveys: (1) A baseline survey with limited scale student testing, (2) monitoring of teacher and pupil behavior, attendance, pedagogy changes; school visits, and (3) an "end-line" survey, including testing of full Grades 1, 2, and 3. This case is somewhat unique in that it combines an RBF intervention with an RCT, however is a good example of what rigorous data collection could look like for a pilot OBA/RBF education project with a built-in evaluation component. In addition to the quantitative data collected by the RCT, the project also conducts qualitative/process studies to ensure that results can be explained in the local context, and to shed light on why certain effects did or did not occur.

Combined approach to data collection

Some projects collect data from a combination of sources, and use them to triangulate against each other. For example, the Bangladesh BEDP used both regular national household surveys in addition to EMIS data. The Nigeria Lagos Eko project collects data from the EMIS as well as from school surveys, school assessments, progress reports, and exam results data.

National exams

Certain projects use results from national exams to track performance and use as indicators for disbursing payments. For example, Bangladesh FSSAP II used results from the Secondary School Certificate exam along with other examination results to determine the payment of performance incentive awards. In Tanzania, the BRNEd project uses results of primary and secondary school leaving exams which is collected by the National Examinations Council of Tanzania.

Annual census data

Annual census data is used by the Bangladesh BEDP project as part of the data sources it uses for verification.

Open source platform

Cordaid's projects use an open source platform, OpenRBF, to manage monitor and manage data. OpenRBF is run by the IT company BlueSquare, which began as a spinoff from Cordaid projects. OpenRBF provides data management, data visualization, and payment processing tailored specifically for RBF/OBA projects.

Community surveys

Several projects mentioned the use of community survey data as a means of tracking communities' satisfaction with the project throughout the project's implementation (not only at the end). For example, in CAR, the Education for Children project administered quarterly community surveys to determine the level of community satisfaction with the intervention. The BRNEd project in Tanzania also seeks to supplement its quantitative data collection with feedback from beneficiaries, with the objective of not only obtaining insights into program implementation and how it could be improved, but also to pre-empt any potential for gaming performance incentives related to the exam pass rates and 3R assessment results.

Data collection

Actors responsible for data collection include:

Implementing agency

In several instances, the implementing agency was responsible for collecting data on performance. For example, in the *DRC School Performance* project, The Agence D'Achat de Performance of South Kivu (AAP) and the Cordaid office in Bukavu are responsible for monitoring the performance of schools as well as ministry actors and district and provincial school inspection against their performance-based contracts. The Project Secretariat is responsible in the case of the *Nepal Vocational Education and Training* project for data collection, reporting, and analysis; including routine monitoring, regular reviews, a midterm review, a completion review and evaluation, and an impact evaluation.

Regional M&E teams

In a handful of cases, projects deployed regional M&E teams (made up of project staff, in some cases supported by external experts) to collect data for monitoring and evaluation. In the *Nepal Skills Development* project, regional M&E teams were established to monitor training provision and employment outcomes of beneficiaries. The *Nepal Skills for Employment* project used a similar model, in which five regional M&E teams were established and supported by independent M&E experts.

Ministry of Education

In some instances, generally when the OBA component formed part of a broader RBF initiative within the government, M&E is overseen by the Ministry of Education. For example, the Lagos Ministry of Education, specifically the Project Support Unit in the Commissioner for Education's office, is responsible for M&E for the *Nigeria Lagos Eko* project. Zonal project administrators are assigned to help schools collect and maintain data (as well as provide broader implementation support). M&E officers at the district level collect school data and provide district-level reports, which are then consolidated at the state level.

Using EMIS

Ideally, OBA projects would depend only on national education management information systems (EMIS) or other forms of country-generated data, as opposed to conducting and using their own data collection and management systems. This would promote country ownership of the project, cut unnecessary costs, and enable easier scaling and sustainability. In reality, the state of national EMIS typically presents challenges that necessitate the use of other monitoring systems in addition to or instead of EMIS, and/or significant capacity building, in order to achieve the quality of data management required in OBA projects. Cordaid has found the quality of data contained in EMIS in countries in which it works to be unreliable, and therefore does not depend on national EMIS (project lead interview).[35] *GEC* projects have had a variety of

[35] Cordaid, however, does feed information it collects as part of the Stimulating School Performance project back into DRC's EMIS system, as the government is interested in improving the quality of its data. They are also working on a project with UNESCO around assisting the DRC in transitioning to a digital EMIS system, and intend to begin a pilot project for this.

experiences with EMIS systems (from a total absence of EMIS systems to positive experiences), though GEC has also noted that EMIS data tends to be unreliable, and that projects that collect their own data have been found to have greater data accuracy (project lead interview). *Tanzania BRNEd* noted that while Tanzania's EMIS contains relatively high-quality data, it does not contain up-to-date information and could be improved by linking to other national databases containing education information (i.e. NECTA and school mapping data). The project does depend on EMIS but is providing capacity building to government agencies to strengthen it and other national monitoring systems (project lead interview). *Tanzania KiuFunza*, on the other hand, does not depend on EMIS but rather maintains its own monitoring system. Regarding the use of EMIS, it has noted issues relating to (1) the difficulty of obtaining data online, (2) the lack of school-level data (as opposed to district-level aggregate data), and (3) the lack of some pieces of information needed (e.g. school bank account information) (project lead interview).

Costs of monitoring in OBA

The results-oriented monitoring systems that OBA projects require can become complicated and may lead to high costs. For example, in the *Vietnam Upper Secondary Project*, high up-front costs were incurred in the establishment of a trustworthy monitoring system, including the creation of reporting templates as well as training project stakeholders in reporting practices. The non-financial costs associated with monitoring OBA projects can also run high. For example, *GEC* programs receiving funding did not all initially realize the complexity and amount of effort that would be required to implement the necessary M&E components required of the RBF approach (project lead interview).

Methods used for verification

The nature of OBA in education and in other sectors is such that in addition to the mechanisms used for collecting data related to project outputs analyzed above, projects are also required to conduct some form of verification (generally independent verification) of the data collected. Below is an overview of the most common approaches to independent verification noted in the projects reviewed.

Government body

Several projects make use of government institutions or actors to conduct verification. For example, the *Bangladesh Secondary Education Improvement* project, whose OBA component is part of a broader initiative, supplements its own internal monitoring mechanisms with independent monitoring provided by the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) on the inputs, processes, and outputs of project components. In Tanzania, the *BRNEd* project intends to use government systems for verification as much as possible, partly as a means of strengthening these systems. In Lagos, zonal project administrators (senior government education officers at the district level) are responsible for verifying the data collected for the Nigeria Lagos Eko project.

Community organizations

One interesting approach is the use of community organizations for verifying data, often in combination with some other more formal approach to verification. In DRC, a community organization is responsible for conducting independent verification of the *School Performance* project's indicators. A sample of teachers and classrooms are verified for each school to assess whether they are meeting the pre-defined outputs, and interviews are conducted with students and parents. This approach, while likely to require a fair amount of capacity building, is commendable in that it builds ownership over the process within the community, which is important for long-term sustainability.

International organizations

For a handful of projects, external independent verification is conducted by an international organization. For example, Coffey International has been brought on as an independent verifier to assess the accuracy of the data collected through the *Ethiopia RBA Pilot* project. While some donors see such form of verification as the most robust, it is also very costly and does not contribute to building capacity to conduct verification in-country, which may be detrimental to the project's long-term sustainability.

Independent survey/audit firms

A number of projects engaged independent survey or audit firms for the purpose of conducting independent verification. In the case of the *Bangladesh Secondary Education Improvement* project, independent survey firms carry out an in-depth baseline survey in households and schools and conduct mid-point follow up surveys. In Colombia, the monitoring and verification of outputs in the *Concession Schools* program was conducted by an independent audit firm hired by the city. The firm visited providers at least three times per year, verified the number of students in attendance, and evaluated school infrastructure and performance. *The BRNEd* project in Tanzania intends to hire an independent firm to verify project indicators.

Certain projects conduct verification through a combination of approaches. The *Malawi Contracting Schools* project conducts verification through three means. First, community organizations collect data on the quality and satisfaction of the educational services delivered by the contracted schools. Second, verification is also conducted by a third-party contracted verification agency, and third, by the Ministry of Education's local inspection teams, thereby building the capacity of local actors to conduct verification at various levels.

Some projects conduct additional qualitative stakeholder surveys to gain additional input on program results and effects, both intended and unintended. For example, *Tanzania KiuFunza* sends an ethnographic research team into schools to interview teachers and record video clips. The *Vietnam Upper Secondary Project* commissioned a beneficiary assessment to provide information on the perspectives of students, parents, teachers, headmasters, and government education officials involved in the project.

Choosing a method of verification depends in part on the options available as well as cost-effectiveness (for example, conducting random spot-checks, if sufficiently rigorous for the proposed project, was considered by one interviewed implementer to be the most cost-effective) (project lead interview). Using local actors (e.g. government or community organizations) to conduct verification, as opposed to an external verification agency, may promote capacity building, decrease costs, and enhance the likelihood of sustainability. However, possible trade-offs in terms of verification quality should also be considered, and care should be taken to ensure that the system is not structured such that verifying actors would be incentivized to misreport figures for their own benefit (project lead interview).

Evaluation

Evaluation approaches

Given that many of the programs landscaped are currently under implementation, a relatively small number have undergone a formal impact assessment.[36] Five evaluations are publicly available, and an additional nine projects cite plans for conducting an evaluation in project documents.

Projects with publicly available evaluations are listed below:

- Bangladesh, Female Secondary School Assistance Project I
- Chile, Lifelong Learning and Training Project
- Colombia, Concession Schools
- Punjab Education Foundation – Foundation Assisted Schools Program
- Vietnam, Upper Secondary Project

One project (*Nepal Skills for Employment*) cited the use of tracer studies as a form of evaluation used to determine the employment outcomes of graduates. Another project (*DRC School Performance*) has conducted an internal evaluation, though not an impact assessment.

GEC has taken a dedicated and rigorous approach to evaluation. *GEC* requires its programs to undergo a quasi-experimental evaluation (with a control group) and subcontract an external evaluator. Some projects contract domestic organizations, while others who have found it more difficult to find qualified domestic organizations work with an international evaluator (who collaborates with local data collectors).[37] There is a large emphasis on building capacity around evaluation, which *GEC* aims to achieve though empowering

[36] The discussion on evaluation in this section focuses on impact assessment, as this was the most common evaluation design applied to the projects reviewed, though it is also important to note the importance and value of other forms of evaluation for building the evidence base on OBA in education.

[37] GEC has found that the quality of evaluations has varied (project lead interview).

its grantees to build the capacity of their evaluators themselves. To do this, *GEC* conducts trainings including workshops, Skype calls, and in-country visits, and each program has an M&E contact point within *GEC* to provide assistance (project lead interview). *GEC* seeks to make a significant contribution to the evidence base on what types of interventions lead to improvements in learning outcomes for girls, and the extent to which OBA can play a supportive role.

Several challenges relating to conducting evaluations were noted by *GEC* and others:

- Not all contexts are appropriate for quasi-experimental evaluation designs, and in such cases alternative forms of evaluation should be considered. For example, *GEC* had wanted a grantee in Afghanistan to conduct a randomized control trial evaluation; however, the organization had difficulty setting up a control group[38] and was not able to conduct the evaluation. As a result, *GEC* did not provide output-based funding to this program (project lead interview).
- Setting up an evaluation framework can be complex and time-intensive. Because of all of the components involved in the evaluation framework (e.g. theory of change, selection of treatment and control areas, household survey methods, etc.), *GEC* recommends allocating an extra six months for OBA/RBF projects.
- Attributing results to the project intervention itself, and in particular to the OBA approach, can be challenging. This challenge is common to RBF approaches in general, and is often due to the lack of a counter-factual. For example, in the case of the *Chile LLT Project*, it proved difficult to attribute the decline in percentage of adults lacking basic and/or secondary education seen over the course of the project's implementation directly to the project's intervention.

The limited data available on the approaches taken to evaluating OBA education projects suggests two takeaways. First, more projects should incorporate evaluations into their design and implementation. This is particularly important in the context of education, where the overall evidence base on the impact of results-based approaches remains relatively weak. Second, more projects should incorporate *qualitative* evaluation techniques into their design. While impact evaluations and quantitative data are important, equally as important is qualitative evidence to understand the contexts in which OBA approaches are most effective and the factors that influence this. The project lead for *BRNEd* noted that a key priority of the project beyond measuring outputs was to capture pathways to change, or the ways in which greater teacher effort was manifested. The project chose to capture teacher classroom behavior qualitatively as a way of building evidence around the specific actions that led to the change in results (e.g. increased teacher attendance, a shift in the way teachers engaged with students, etc.). These qualitative techniques can provide clarity around specific pathways to achieving desired outcomes in education (i.e. what factors, in what causal order, lead to improved learning), which remain largely unknown.

In addition, it is important for evaluations to collect information on cost and cost-effectiveness, as these factors can determine the sustainability of the program. Unfortunately, information regarding the cost-effectiveness of programs is not always provided, including by most of the projects reviewed for this report; evaluations of OBA programs should be sure to collect and publicize this important information.

Sustainability

While donor-funded OBA projects play a valuable role in building the evidence base and demonstrating proof of concept, the ultimate goal for many OBA projects is long-term sustainability, either through government uptake, long-term support from additional donors, or other forms of long-term support or self-sufficiency. This section analyzes the potential avenues for sustainability for education OBA projects from a funding perspective, factors that influence the likelihood of projects' sustainability, and an analysis of the sustainability strategies employed by OBA education projects to date.[39]

[38] The organization did not have strong relationships with communities outside those in which it worked, and as a result of the unstable environment in the region, approaching external communities could have posed security threats to the implementers. This raises the question as to whether quasi-experimental evaluation designs of OBA projects are feasible in such fragile-state contexts.

[39] It should be noted that there may be routes to sustaining the program's impacts outside of continued funding. As with all development programs, the goal of OBA is to ultimately incentivize behavior change such that the program is no longer necessary. It is possible that OBA programs may influence behavior such that the impacts of the program (e.g. enrollment or achievement of underserved students) remain while the program no longer is in existence. However, given the paucity of evidence around OBA in education, it is difficult to say whether this claim can be supported; further research would be needed to investigate (1) the causal mechanisms by which OBA functions and (2) the long-term effects of OBA programs.

Funding sources

Ultimately, the success of an OBA education project depends on its ability to be sustained over the long term. Unlike in many other sectors, in which substantial progress can be made through one-off projects, improvement in education quality or access is often dependent on providing recurring funding needed to pay for continuing education services (e.g. teacher salaries and school operation). Maintaining funding at the level necessary for delivering quality education is often challenging for country governments and should be kept in mind when planning for project sustainability.

Below are three different methods used or planned by projects reviewed to cover future costs after the program ends.

Government funding

The most commonly planned method for achieving sustainability, government incorporation of the program into its policy and budget, is one way of ensuring the continued existence of the program. While it is difficult to ensure that this will occur following the end of the program, a number of factors are likely to increase the chances of government uptake of OBA education projects.

- **The program should be cost-effective.** This provides justification for the government to take money from elsewhere in its education budget to support the program. However, costs of donor-supported programs, as compared to pre-existing public or private programs, may run high. One such example reviewed was *GPOBA's Vietnam Upper Secondary Project*, for which overhead costs totaled $81 per student (34% of the amount of tuition subsidies provided); this project has not been taken up by the government, possibly in part due to these high program costs. ADB's *Nepal Skills Development* project also had high program costs, with costs reaching up to twice as much as other training courses because of extra requirements that service providers support students in finding and keeping jobs. Because of the price difference, it is likely that should the government support the project, it would fund only the training component (for which costs are comparable to existing training programs) and drop the employment support component, even though this latter component is a critical part of the project design. On the other hand, the *Pakistan FAS* program, which is run by the government with additional support from the World Bank, was found to be one of the most cost-effective programs in developing countries for improving enrollment rates (Barrera-Osorio and Raju 2011), and continues to be funded by the government. Thus, as demonstrated by this program, one way to increase the likelihood of cost-effectiveness may be to support government programs already using an OBA approach.
- **The program must be in line with the government's funding strategy.** Even if the program is cost-effective, ultimately the government must be willing to support it. One area where this may be of particular concern is for programs involving private schools, as governments may be less willing to provide financial support to private schools than public schools. For example, the *Nigeria Lagos Eko* project focused on public schools, even though there are many private schools in Lagos state, because the government was not supportive of giving public money to private schools. In the *Vietnam Upper Secondary Project*, even though the project was successful in semi-private and private schools, the government has not shown interest in scaling it up, in part because they historically are much less involved with private schools than public schools.

Even if the program is adopted by the government, however, there are a few potential challenges that should be kept in mind, as detailed below.

- **Continued need for capacity building.** After government adoption, dependent on the capacity of the public or private systems in place, capacity building may be necessary to enable the program to run effectively. For example, *Bangladesh FSSAP II* noted that, even while certain aspects of the program were adopted by Bangladesh's Ministry of Education, capacity building at the sub-district level, as well as better coordination among relevant country systems, was needed in order for project benefits to be sustained.
- **Risk of unpredictable government funding.** In many countries, government funding flows for the program may not be predictable. When the government faces financial hardship, any program supplementing basic education (particularly those involving private schools) may be more likely to receive budget cuts. This was a challenge

faced by the *Pakistan FAS* program: whenever the government was in a financial crunch, the program, in which many schools depend wholly on government subsidies, received total or partial funding cuts as public schools took priority in receiving government education funding. The World Bank stepped in and provided support to cover funding gaps during these periods (project lead interview). However, without the assurance of continued funding, many schools may be unwilling to get or stay involved in the program. Government turnover and shifting priorities can pose a similar challenge.

Funding from other donors

Another possible route to interim sustainability is to enable the program to receive ongoing donor support, through a continuation of the project or though funding from another donor. While this is a temporary option, this may provide programs for which the government is not willing or able to take on the program with extra time to make improvements to the project (e.g. cost-effectiveness, system capacity) or conduct increased advocacy and communication activities that may increase the likelihood of government uptake in the future.

One project that falls into this category is ADB's *Nepal Skills Development* project. There are a number of donors active in the skills training sector in Nepal; for instance, this study has reviewed four skills programs in Nepal by ADB, the World Bank, and DFID, and additional donors such as Switzerland and the EU have or are planning to set up skills training programs. Because of such wide involvement, it is likely that donor money to fund the program will be available for at least the next few years. However, of concern is the ability of the government to take up the program when donor funding is no longer available. If program costs remain significantly higher than other existing training programs (as mentioned above), this transition may be unlikely or difficult.

Endowment

A third option, currently being looked into by DFID in the case of one of its projects, is bestowing the implementing agency with an endowment that will enable the project to generate funds to sustain itself into the future. The *Punjab Education Foundation* has an endowment for this purpose; however, the Foundation is not putting enough effort into making sure that it will be able to sustain the program in the future, and is still highly dependent on government funding (project lead interview). An endowment structure could be an ideal solution for sustaining OBA programs, as it would not require government to contribute limited funds to a new program or for the providers to risk losing government funds should funding flows fluctuate. However, the implementing agency would need to have the ability and capacity to manage an endowment.

Scaling

Of projects reviewed, only two have scaled: the *Chile LLT Project* and *Pakistan FAS*.[40] The *Chile LLT Project* began as a pilot in 2002 with 41,000 adults enrolled in, and 4,000 completing, primary or secondary education; by 2009, it had expanded to support 150,000 adults in completing primary and/or secondary education. *Pakistan FAS* was piloted in 54 schools in 7 districts in 2005, and by 2010, had scaled up to reach 1,779 schools in 29 of 36 districts in Punjab. These are also the only two projects reviewed that have been sustained financially.

Of the remaining projects (as outlined in Table 11), four are in the process of scaling, or have laid out clear plans to scale (for instance, the *Bangladesh Secondary Education Improvement* project has been implemented in 125 sub-districts and plans to expand to an additional 90). Seven are currently being implemented as pilots (which may or may not be scaled), and another four were implemented as pilots but had not been scaled at the conclusion of the project. Four projects were implemented at scale immediately rather than on a pilot basis first (for example, the *Nigeria Lakos Eko* project, which is being implemented in all 637 public secondary schools in Lagos State). It remains to be seen whether these projects, as well as those currently in the pilot phase, will be sustained.

[40] The *FSSAP* projects were also scaled up, but it is unclear from project documents whether the incentive component was included in the scale-up.

Table 11: Overview of current scale of OBA education projects		
Scaling status	**Number of projects**	**List of projects**
Scaled (from a pilot)	2	• Chile LLT Project • Pakistan FAS
Scaling or planning to scale	4	• Bangladesh Secondary Education Improvement • Stimulating School Performance • Nepal Skills Development • Nepal Social Protection
Implemented at scale from outset	4	• Bangladesh BEDP • Belize Finance Reform • Nigeria Lagos Eko • Tanzania BRNEd (certain components)
Pilot – implementation	7	• Burundi Education in Bubanza • CAR Education for Children • Ethiopia RBA pilot • Malawi Contracting Schools • Employment Fund Nepal • Nepal Vocational Education and Training • Tanzania KiuFunza • Tanzania BRNEd (certain components)
Pilot – closed (not scaled)	4	• Colombia Concession Schools • Nepal Skills for Employment • Pakistan Balochistan Education Support • Vietnam Upper Secondary Project

When planning for scale, is important that certain requirements be met:

- **Sufficient student demand.** For programs operating outside of existing school infrastructure, the number of students interested in enrolling in programs offered must be large enough to support scaling the program up. For example, the amount that ADB's *Nepal Skills Development* project will be able to scale is dependent on the unmet demand for skills training, which is not currently known (project lead interview). This concern is not applicable to programs incentivizing better performance in existing institutions, e.g. exam performance targets for public secondary schools.
- **Sufficient number of high-quality, known and credible service providers/partners.** There must be an adequate number of service providers and/or local partners to implement the program at the scale intended. This can be an issue if service providers must meet certain requirements to participate in the program, or if there is hesitancy on the part of providers to be part of the program. In the case of the Colombia *Concession Schools* program, the low number of high-quality private schools in the country was a limiting factor in the program's expansion, given that there was a limited number of high-quality private schools in Colombia both in general and that were willing to participate in the program (Barrera-Osorio 2006). Similarly, KiuFunza, which works with Twaweza (a credible local organization whose founder is respected in the Tanzanian education sector), noted that finding similarly well-respected local organizations may be a challenge if they scale (project lead interview).

Strategies for sustainability

Projects pursued a range of strategies to encourage project sustainability. One strategy consisted of working with stakeholders within the education system though involving them in the project or lobbying, in order to build support for the project approach with the aim that it will eventually be taken on by government. For example, as part of

the *Tanzania KiuFunza* project, Twaweza is trying to involve a range of stakeholders (national and local government, the teachers' union, civil society, think tanks, researchers, and donors) in the process and obtain their buy-in, as well as recognize Members of Parliament from project districts from the outset.[41]

It was generally acknowledged by projects reviewed that building support in government, in particular, is critical. *GEC*, for example, found that government approval for the project was crucial for program success (project lead interview). In the *Vietnam Upper Secondary Project*, one reason put forward for why the government has not scaled-up the project is due to their lack of awareness/familiarity with OBA (project lead interview). In setting up and implementing the *Tanzania KiuFunza* project, Twaweza found that many stakeholders are not familiar with idea of COD/OBA and typically somewhat defensive; Twaweza has identified communication as an area in which they will need to improve going forward if they want their projects to be eventually taken up by government (project lead interview). The importance of active communication and advocacy to raise awareness of OBA and build government support must therefore not be underestimated. Several interesting techniques employed by projects to build this support include sharing M&E data with governments (as seen in *GEC*), and building a model project school for research and demonstration purposes, as done by Twaweza in Dar-es-Salaam, to be able to show and explain the approach in a tangible way to ministers and high level civil servants (project lead interviews). Not only is active communication about OBA itself important, but similarly communication regarding project results. The *Vietnam Upper Secondary Project* noted that more active dissemination and communication regarding the project's results and impact could potentially have increased government engagement and the chances of the project's sustainability.

Another approach taken to increase the likelihood of sustainability was improving the evidence base around the program. Cordaid's *Malawi Contracting Schools* is a pilot project that seeks to collect rigorous data to generate a strong proof of concept for a RBF model in education in Malawi. Similarly, one of the goals of *GEC* is to broaden the evidence base more generally on the sustainability of programs in which donors support and scale up non-state providers.

One notable strategy consisted of building sustainability into program design. In the *Pakistan Balochistan Education Support* project, private schools were set up with the expectation that they would fund themselves after the end of the project (with possible intermittent support from the Balochistan Education Foundation if they were expanding). The *Nigeria Lagos Eko* project, through funding all 637 public secondary schools in Lagos State, placed pressure on the government to continue funding even after donor support ended, or else face significant backlash from a public used to widely expanded education support.

Other approaches included introducing changes gradually to allow for financial sustainability by avoiding having standalone large expenditures (*Belize Finance Reform*), using government systems of monitoring and verification whenever possible (*Tanzania BRNEd*), and communicating and disseminating results of the intervention to bring the intervention into public consciousness (*Tanzania KiuFunza*).

As has been raised several times throughout this report, the use of government systems to the extent possible for project functions such as monitoring and verification, may also decrease overhead costs and increase the chances of a project's long term sustainability. For example, the high overhead costs related to the *Vietnam Upper Secondary Project* were seen as a constraining factor to the project's sustainability.

While not a feature of any of the projects reviewed, one potential strategy for sustainability could involve cross-subsidization within the system or project, for example, charging higher fees to wealthier families that could be used to subsidize OBA payments for disadvantaged students. While certain education NGOs have begun doing this for non-RBF education projects,[42] this could be an avenue to explore for future OBA education projects.

[41] In the *Malawi Contracting Schools* and *Burundi Improving Education* in Bubanza projects, Cordaid is taking a similar approach, through building relationships with key stakeholders and lobbying government to adopt the approach.

[42] aeioTU for example, is a Colombian social enterprise offering ECD services to disadvantaged families through a cross-subsidization scheme. It runs centers that charge higher fees for high-income families to offset the costs of ECD centers targeting disadvantaged families that are free of charge. Other education projects utilizing a cross-subsidization model include Dandelion Village Library Program in China, the 3R's Program in South Africa, and the Baalabalaga School and Encompass programs both located in India. For more details, see the Center for Education Innovations (educationinnovations.org).

Whatever strategy used, early evidence suggests the critical importance of designing projects with future scaling and sustainability in mind, and of identifying potential pathways to scale from the project's inception.

Table 12: Summary of strategies to increase the likelihood of project sustainability

Strategies for sustainability	
• Involving and building relationships with key stakeholders, particularly in government • Advocacy and awareness raising about OBA with government stakeholders • Communicating and disseminating results	• Improving evidence base • Building sustainability into program design • Introducing changes gradually • Using government systems

Case studies of sustainable OBA education projects

The number of OBA education projects reviewed that have demonstrated sustainability over time are limited, however, below two such examples are highlighted:

Case Study 1: Foundation Assisted Schools Program

The Pakistan Foundation Assisted Schools (FAS) program, run by the government-supported Punjab Education Foundation, provides monthly subsidies to support low-cost private schools in the region conditional upon them meeting specified target pass rates on standardized exams. FAS was started by the government in 2005 and remains primarily government-funded, with additional support from the World Bank. The government plans to continue funding the program. Key factors highlighted by the World Bank that have contributed to the program's sustainability and success include:

- The World Bank's method of working with the government, where it supports the government's own program, even if improvements are made slowly
- High quality research into the region and context in which they planned to operate
- Strict program entrance requirements for participating schools
- Strict adherence to the RBF model, under which the threat to schools of losing the subsidy for failing to meet targets is real
- Cost-effectiveness of the program

In addition, while not currently realized, there is the possibility that the program could be self-sustaining through the use of its endowment to generate funds for program continuation.

Case Study 2: Chile Lifelong Learning and Training Project

In the Chile Lifelong Learning and Training Project, basic and secondary education opportunities for adults were offered through public and private institutions, which received payment upon demonstrating student completion of learning modules. The World Bank-funded program took place from 2002-2009, and as of 2012, the government of Chile was continuing to fund the program. Similarly to the Foundation Assisted Schools program, the program was primarily government-funded from the beginning, with a small funding contribution from the World Bank (project lead interview). Substantial government involvement likely contributed to the sustainability of the project: government actors at both national and local levels were critically involved in project oversight and implementation, the government contributed significantly to program costs and increased its commitment over the course of the project, and there was a strong sense of government ownership. Additional success factors included the close incorporation of stakeholders into designing the program, a balance between the empowerment of central and regional governments, and that the provision of adult education services was demand-driven.

Recommendations for OBA in education

Given the relatively limited number of OBA education projects, there is insufficient experience and evidence to definitively point to education sub-sectors or contexts that are most suited to OBA. That being said, the literature review and analysis of OBA projects, as well as interviews with RBF and education experts, have shed light on certain characteristics of OBA that may theoretically lend the approach well to particular types of education sub-sectors, interventions, target populations, and country contexts. These characteristics and their implication for potentially promising areas for OBA in education are described below.

Potential sub-sectors

Characteristic 1: OBA schemes in education typically provide one of two types of payments to service providers: (i) payments to cover the costs of delivery of education services (subsidies) or (ii) incentive payments. Several OBA schemes reviewed also provided stipends (to offset user-fees or as incentive payments) to targeted students.

Characteristic 2: OBA in other sectors has typically involved contracting with private sector service providers or public-private partnerships. This study found that the majority of OBA schemes in education have not been applied through private sector providers, rather projects broke down evenly between public and private sector. Nonetheless, our analysis found that OBA may be most effective when applied to education service providers with greater levels of autonomy.

Implication: OBA schemes may be particularly appropriate for education sub-sectors where the costs of providing education are high and/or where user fees or high opportunity costs to learners are present, and where the poor are often excluded as a result.

Given OBA's extensive application to private providers in other sectors, there is arguably scope for further testing OBA with private sector providers in education, particularly as these may have greater autonomy than public sector providers. However, a key finding from the scoping study is that government ownership and roll-out is often a pre-requisite to scaling education programs nationally. Governments may be less willing to finance the scale up of privately-provided education in sub-sectors where such education is compulsory and intended to be universally provided by the government for free (for example, primary and in some cases lower-secondary education). Supporting OBA projects through private sector providers at those levels therefore may not lead to the greatest chance of government scale up, as seen in several of the OBA projects reviewed.

Governments may be more willing to support the scale up of privately provided education services in sub-sectors that are not compulsory, where the government is unable to provide such services at scale for free, and where the poor are often excluded as a result (in many cases due to user fees or high opportunity costs, as noted above). These types of education services are typically already being delivered through private sector providers, which may have greater degrees of autonomy.

These factors combined suggest that the following sub-sectors may be particularly promising for further OBA testing and application:

- **Vocational training (formal)**
- **Skills training (informal, e.g. apprenticeships)**
- **Upper secondary education**
- **Early childhood education**
- **Higher education**

These sub-sectors typically have fees associated with them and are not guaranteed to be provided by the government. Many of these sub-sectors have seen a rapid expansion in private sector provision in recent years.

One foreseeable challenge to government-supported scale up of projects in these sectors is a lack of government funding for non-basic education.

In such contexts, OBA could potentially be applied through a cross-subsidization approach (as discussed earlier in the report), whereby high-income learners would be charged fees to offset those for disadvantaged learners.

Potential education interventions

Characteristic: OBA has been used as a tool to improve access to and quality of education, as well as to improve education system efficiency, provided there are specific indicators that can be monitored reliably.

Implication: OBA may be best suited to education interventions where the outputs being incentivized are measurable and verifiable, and where outputs are both closely tied to desired outcomes and under the reasonable control of the service provider. Illustrative examples of potential education interventions may therefore include (but are not limited to):

- **Tuition subsidies or bonus payments to offset the costs of education to students**: A common type of OBA application in education, these interventions reduce the financial barriers to education faced by disadvantaged students by subsidizing schools to enroll target beneficiaries and to meet certain pre-defined outputs. Outputs are defined and include measurable indicators such as enrollment, attendance, and retention, and in some cases learning outcomes.
- **Provision of context-appropriate learning materials** (e.g. textbooks, reading materials in mother tongue): Developers of learning materials (private or public) are often not incentivized to create culturally and linguistically relevant learning materials, and may not be incentivized to ensure these reach the most disadvantaged or inaccessible schools. OBA could be used as a tool to address this.
- **Teacher training and/or training materials:** Teacher training or access to training materials in poor and/or rural schools is often lacking. OBA could be tested as a tool to subsidize teacher training and training materials for teachers serving students in these contexts.
- **Demand-driven skills training programs for the formal sector:** Skills training programs are often not demand-driven or sufficiently linked to the labor market. OBA could encourage training providers to work more closely with potential employers in designing training curricula by tying subsidy or bonus payments in part to trainees' subsequent employment rates.
- **Demand-driven skills training programs for the informal sector:** Many countries in sub-Saharan Africa and elsewhere are facing a growing youth bulge and an insufficiently developed labor market to absorb youth into the formal employment sector. There will be an increasing need to improve access to employment and training opportunities in the informal sector. Training programs for the informal sector to date have been delivered primarily through traditional forms of apprenticeships. OBA could be used as a mechanism to incentivize the upgrading of skills training programs for the informal sector and to offset the high opportunity costs youth often face for participating in such programs.

Implication: OBA could prove particularly promising as an instrument to be applied to existing forms of public-private partnerships (PPPs) in education.[43] Applying OBA to PPP programs might also increase

Characteristic: Private-sector providers with a higher degree of autonomy may be well-suited for OBA in education.

the likelihood of the government being willing to co-finance the project if it is already supporting private sector providers within an existing PPP framework.

Examples include:

- **Private management of public schools:** Whereby education authorities contract directly with private providers to operate public schools or certain aspects of public school operations. Schools are privately managed but remain publicly owned and funded. Requiring private providers to meet specific outputs in return for payments or contract renewals would render this approach OBA.
- **Professional services:** Whereby governments buy specific support services for schools, for example teacher training, curriculum design, textbook delivery, quality assurance, and supplemental

[43] See LaRocque 2008 and Patrinos et al. 2009 for in-depth reviews of public-private partnerships in education.

services. OBA could be used to incentivize providers to target disadvantaged schools and meet certain quality-related outputs.

- **School infrastructure construction and maintenance**: School access remains a significant challenge, particularly in parts of sub-Saharan Africa. OBA could be used to incentivize private-sector school construction and maintenance in remote areas.
- **Contracting educational services:** Whereby governments contract private schools to enroll students where there is a shortage of places in public schools. This has been done in Uganda, Cote d'Ivoire, and the Philippines. OBA could be used to subsidize private-sector enrollment of students unable to be absorbed by the public sector (as was done in GPOBA's *Vietnam Upper Secondary* pilot); in the long-term these subsidy payments could be taken over by the government.

Further research would need to be done to explore the feasibility of applying an OBA approach to these archetypes of PPPs in education.

Potential target populations

Characteristic: All OBA projects reviewed targeted poor students. OBA proved to be an effective tool for encouraging service providers to target marginalized sub-groups of beneficiaries that they otherwise might not have, to improve their access to education and learning outcomes.

Implication: OBA may be particularly promising as an approach for reaching the most disadvantaged where there are challenges translating broad inclusion policies into effective action. This could be due to a lack of political commitment by elites at the local level or of public sector implementation capacity. Examples include integrating OBA approaches into education programs specifically targeting marginalized sub-groups such as the following:

- Disabled students
- Ethnic, linguistic, or other minority students
- Girls
- Children of nomadic families
- Illiterate adults, particularly women (second-chance education programs)

Potential country characteristics

Characteristic: Emerging evidence suggests that OBA may be more effective with service providers that have a greater degree of autonomy and agency over their management and implementation decisions. Given that private sector providers may tend to have higher levels of autonomy, OBA may lend itself well to private sector providers or PPPs, as mentioned above.

Implication: OBA in education may be better suited to **decentralized education systems**, where service providers may be more likely to have greater amounts of autonomy. Further research and testing around this issue is needed. OBA in education may also be more effective in environments that are favorable to PPPs or private sector activity in education, for example from a regulatory and funding perspective.

Characteristic: OBA is well suited to targeting disadvantaged groups and to promoting equity in education.

Implication: OBA may be particularly impactful in **contexts characterized by high levels of inequity in education** (disparities between groups with regard to access, learning outcomes, employment opportunities, etc.).

Summary: Based on the characteristics above, OBA may be a particularly promising approach to test in early childhood development (very little application to date), vocational training (some application to date), and potentially higher education (no application to date) – with an emphasis on excluded and disadvantaged groups. Moreover, OBA may be a promising approach to apply through existing PPP interventions and in country contexts characterized by a favorable environment for PPPs, de-centralized education systems, or high levels of inequity in education.

Strengthening the field moving forward

Moving forward, the **OBA education field could be strengthened by:**

Further implementation and testing of OBA approaches in education to better understand contextual and design factors that lead to program success, particularly in education sub-sectors with fewer projects (e.g. early childhood education).

More OBA education projects incorporating evaluations into their design and implementation. This is particularly important in the education sector, where the overall evidence base on the effectiveness and impact of results-based approaches remains relatively weak.

Further research to determine factors that lead to scale and sustainability of OBA education projects, once more examples OBA education projects that have sustained and scaled over time exist.

Finally, this report has also shed light on a **number of outstanding questions which would benefit from further research**:

- Emerging evidence suggests that the autonomy of the service provider is more important than whether it is public or private. However, further research into the impact of service provider autonomy on the effectiveness of OBA education projects is needed.
- The ideal amount of upfront financing to provide in OBA education projects, which sufficiently motivates them to meet outcomes but does not compromise program quality, remains an open question.
- More explicit data gathering is required among OBA education projects to determine whether an OBA approach does generate a positive impact on the level of innovation and efficiency of service providers.

RESULTS FOR DEVELOPMENT

Annexes

Linked Annexes: Portfolio of related resources

Complete Literature Review

R4D completed a literature review to situate OBA in the broader context of RBF in education. It seeks to identify ways in which OBA is similar to and different from other forms of RBF and how its application to education might differ as a result, as well as to draw out implications from the general literature on RBF for OBA in education. This was important for the scoping study's ultimate goal of understanding how the impact of OBA can be maximized in the education sector. While a summary version was included in this report, the complete literature review authored by R4D as a part of this study can be found separately here.

Database of OBA education projects

As part of its analysis of the potential for OBA in the education R4D developed a database of **24 OBA education projects.** These projects formed the basis of the analysis in this report. Full profiles for each project can be found separately here.

Annexes

Annex 1: Results-based financing schemes in education

Cash on Delivery (COD) Aid	
Definition and overview	Cash on Delivery Aid (COD), proposed by the Center for Global Development (CGD) in 2010, is a form of RBF that emphasizes country ownership. Payment is disbursed to the highest level of the recipient country government, contingent upon the demonstration of results, with funders taking a "hands-off" approach to program implementation to allow the government flexibility. According to CGD, the five key principles of COD Aid are: (1) Payment for outcomes, not outputs, (2) Hands-off implementation, (3) Independent verification of progress, (4) Transparency through Public Dissemination, and (5) Complementarity with other aid programs (Birdsall et al. 2010).
Differentiating characteristics from other forms of RBF	COD is distinct from other types of RBF in three key ways (Birdsall and Perakis 2012): • *Central government as primary actor:* Funds are disbursed to, and responsibility for demonstrating results linked with, the highest level of government possible, ideally the central government. A more realistic application of COD may be between donors and specific government ministries (e.g. the Ministry of Education) (expert interview). • *An emphasis on "hands-off" implementation:* Funders cannot design or demand any particular intervention or investment, affirming recipients' responsibility and authority to implement development programs in their country. This is intended to provide governments with the flexibility to design and implement their own programs and policies, builds local capacity, and promote country ownership. • *Transparency through public dissemination:* The content of the COD contract, the program's progress, and payments are transparently and publicly disseminated, the theory of change being that this will enable civil society to hold the government accountable for quality and quantity of its services. COD differs from OBA in that it does not address a specific funding gap (in the way that OBA subsidies seek to do), but rather it is an incentive payment to a government for a specific output (Mumssen et al. 2010).
Major advantages and risks	The primary advantage of COD aid, according to proponents, is its potential to support systems strengthening through country ownership. Since payments are not tied to specific inputs, recipients are free to address constraints in any sector. The recipient government can implement locally appropriate solutions and be responsive to local changes. Technical assistance is provided only upon the recipient government's request, rather than assistance needs being determined by the donor. Removing funder involvement in program implementation provides an additional advantage through reducing administrative costs (Birdsall and Savedoff 2010). A real risk of COD is that it may be difficult to convince donors to take a fully "hands-off approach" (expert interview); CGD has already faced challenges in this regard (expert interview). Similarly, countries may not be willing to take on the sizeable risk inherent in reforming systems (de Renzio and Woods 2008). Disbursing funds to high levels of government produces additional risk, as funds may not end up with the agencies or providers for whom they would be most effective (Boissiere 2008). COD (as with other forms of RBF) also runs the risk of creating incentives for cheating and distortions in systems and objectives. In the case of COD, given that the source of funding is from external donors, there is a risk of donor domination of objectives (as opposed to donor intervention in instruments and processes).
Illustrative example in education	A current DFID-funded pilot of COD in Ethiopia focuses on secondary school education, with DFID issuing payments to the Ministry of Education for the number of students above the national baseline that take or pass the 10th grade examination. Payments will be higher for girls and students from disadvantaged areas. A maximum of 10 million pounds will be disbursed each year from 2012 to 2014; funds will be additional to existing support in the education sector (Birdsall and Perakis 2012).
Applications to date	The Ethiopia program is the only COD project across all sectors that has been implemented to date.

Debt-swaps and loan buy-downs for education	
Definition and overview	In a debt buy-down, a third party (e.g. a multilateral aid institution) buys down all or part of a loan between a country and a creditor, possibly contingent upon using the released funds for domestic development reforms or programs (R4D 2013b). In a debt swap, a creditor forgives a country's debt conditional on the debtor making funding available for specified development projects (UNESCO 2011).
Differentiating characteristics from other forms of RBF	Debt swaps and buy-downs are differentiated from other RBF as follows: • Unlike other RBF mechanisms mentioned, the financing tool used is not loans or grants but rather debt forgiveness. • Payment is not necessarily conditional upon demonstrating results; tying payments to specific outcomes or "triggers" is optional (R4D 2013b).
Major advantages and risks	Debt swaps provide additional sources of aid funding, which may supplement aid programs rather than replacing one program for another. Additionally, the structure may allow for spending more resources on education in large countries by circumventing the spending limit, which GPE has set at $100m (R4D 2013b). Neither debt swaps nor buy-downs have a mandatory focus on results (the use of triggers is optional), and a number of questions about buy-downs in education still need to be answered, including country, donor, and lender interest and effectiveness of triggers (R4D 2013b). These mechanisms therefore, based on how they are designed, may have less of a results-orientation than others reviewed in this section.
Illustrative example in education	A debt swap was conducted between France and Cameroon from 2007-2011, with France releasing 1.17 billion euros of Cameroon's debt, part of which was agreed to be used to support Cameroon's Education Sector Strategy. The strategy focused on increasing the number of contract teachers and building schools. The program was able to hire the target number of teachers, with success being due to strong government and donor support. However, high administrative costs were seen, largely due to a complex system of requirements utilized to ensure funds were spent properly (UNESCO 2011).
Applications to date	Debt buy-downs have been limited in number, with most in the health sector and only one in education between DFID and China in 2003. Debt swaps have a longer history, with the first debt swaps occurring in the 1980s. Education-focused swaps have been implemented by countries including Spain, Italy, and Germany (UNESCO 2011).

Output-Based Aid (OBA)	
Definition and overview	OBA is a type of RBF pioneered by the World Bank. OBA "ties the disbursement of public funding in the form of subsidies to the achievement of clearly specified results that directly support improved access to basic services" (Mumssen et al. 2010). Specifically, OBA takes two main forms: (1) funding to buy down the capital costs of investment required to deliver a particular service, or (2) funding in the form of a subsidy to close the gap between what beneficiaries can pay for a social service and the costs incurred by the service provider. It should be noted that OBA can take different forms in different sectors. For a program to be classified as OBA, it must involve contracts with service providers that transfer risk to service providers by linking output/outcome delivery to subsidy disbursements or capitation payments.
Differentiating characteristics from other forms of RBF	OBA is primarily differentiated from other forms of RBF in several respects: • The focus of OBA is on *service provision* (access and quality). The service provider, typically private, is the primary actor: funds are distributed to the provider, who is responsible for demonstrating results. Funds typically either flow through the government or through an intermediary implementing agency. • *The service provider bears performance risk.* This differentiates OBA from CCTs, for example, in which funding goes to households. • Funding is provided in the form of *targeted subsidies* for service provision – intended to create opportunities for service providers to offer a service that otherwise may not have been financially attractive. In particular, one goal of OBA is to incentivize private-sector providers to focus explicitly on the poor. • Explicit focus on *increasing the engagement of private sector capital and expertise* (Mumssen et al. 2010). Other than SIBs and DIBs, no other RBF scheme reviewed has an explicit focus on leveraging the private sector. OBA contracts typically specify one or very few outcomes, which may contrast to other RBF schemes in education such as COD that specify much broader outcomes (Pearson et al. 2010).
Major advantages and risks	Through working directly with third-party private providers, OBA may be best suited to encourage innovation and experimentation at the level of the service provider relative to other forms of RBF. Unhampered by government bureaucracy, private actors are often able to improve their methods of service provision faster than public sector providers, using a focus on results as incentive to identify provision methods that are cost-effective and efficient (Mumssen et al. 2010). As they are generally faster to adapt, private providers may also be more willing to accept results-based contracts than public providers. These types of contracts involve modifying not only possibly their service delivery methods but also operational functions to be able to pre-finance activities as funding is received ex-post as opposed to ex-ante, as well as creating or modifying data collection methods to suit the OBA contract requirements. OBA approaches that work *entirely* outside of the public sector risk weakening government systems by circumventing public systems, which has been identified as poor aid practice, and risk not obtaining government buy-in from the start, which can limit projects' potential for scale up. Many OBA projects work in close partnership with government, and OBA was originally set up as a public-private partnership mechanism (Mumssen et al. 2013). In education, there is significant scope for governments to contract out some education services to the private sector (either for-profit or NGOs). Additionally, OBA requires the service provider to pre-finance its activities, which it may find more difficult to do so than a government agency, who may be able to pre-finance programs with other forms of input-based aid. Within the education sector, OBA approaches that focus on private providers may face difficulties reaching scale, given that education remains overwhelmingly delivered through the public sector.
Illustrative example in education	An example of a "pure" OBA project in education is the Vietnam Upper Secondary Education Enhancement Project, funded by GPOBA and launched in 2010 in partnership with East Meets West Foundation, which aimed to increase access to secondary education for poor and disadvantaged students. Targeted students in selected districts received tuition reimbursements to attend a private or semi-private secondary school conditional upon maintaining a set GPA, attendance record, and behavior standards. Schools took on performance risk by making upfront tuition payments and receiving reimbursement from GPOBA after student performance indicators were verified. The project ran from 2010-2013 (East Meets West Foundation 2014). The current GPOBA database contains other examples of education projects that have been classified as OBA. Often such projects do not meet the "pure" definition of OBA (which is reflected in the Vietnam example above), but rather include specific and discrete components that are OBA-based. For example, The Bangladesh Female Secondary School Assistance Project (FSSAP) funded by the World Bank and running from 1994 to 2001 has been classified as an example of a project in education that employs an OBA component by the World Bank (Mumssen et al. 2010) and the GPOBA database. The project as a whole is more akin to a CCT (and is included as such in the literature on CCTs, see Fiszbein et al. 2009), in that it aimed to increase the number and performance of female students attending secondary school, by providing stipends and tuition for female students who attended school for at least 75 percent of the year and who received a score of at least 45 percent on annual exams. The specific OBA component of this project (and the reason for which it is classified as OBA) is due to the fact that "performance-bonuses to schools are linked to female enrollment, among other indicators" (GPOBA database). In identifying other applications of OBA in education, we therefore acknowledge that the number of "pure" examples may be limited, and that instead programs may have specific components that use OBA.
Applications to date	Since 2002, there have been nearly 200 OBA projects implemented worldwide, approximately two-thirds by the World Bank. Projects are relatively evenly distributed across the sectors of transport, water and sanitation, energy, health, and ICT, with a small number of education projects, though total subsidy volumes by sector vary significantly (Mumssen et al. 2010). This study identified 24 OBA projects in education.

Social Impact Bonds (SIBs) and Development Impact Bonds (DIBs)	
Definition and overview	SIBs and DIBs involve cooperation between public, private, and nonprofit sectors. Investors provide funding to implement programs through service providers, managed by an intermediary, which also collects data and monitors progress. If progress is shown, government (in SIBs) and/or public funders (in DIBs) pay investors pay back with returns dependent on the level of success (Development Impact Bond Working Group 2013).
Differentiating characteristics from other forms of RBF	The primary differentiating factor in SIBs/DIBs is that investors provide funds to allow the service provider to pre-finance the program. This is the only mechanism that addresses this issue directly (expert interview).
Major advantages and risks	The provision of pre-financing through investor involvement is a clear advantage for service providers, which may have difficulty securing pre-financing otherwise. In addition, SIB funding is generally additional to what otherwise would be available from donors, CSOs, and private philanthropies. Finally, through heavy private sector involvement, SIBs/DIBs tend to adopt a "private sector mentality," resulting in a greater focus on rigorous measurement and efficiency (expert interview). However, due to the large number of actors involved in SIBs/DIBs (including an intermediary), SIBs/DIBs can be very complex, time-consuming, and costly to set up and run (Bellinger and Fletcher 2014). In addition, to the extent the project achieves its objectives, an entity is required to pay back the SIB investor. This means that the commitment of donors, CSOs, and private philanthropies is therefore a prerequisite to SIBs. Furthermore, as with OBA, there is the risk that if the project is not designed with sufficient buy-in from government, its chances of being replicated even if it succeeds may be low.
Illustrative example in education	In June 2014, a DIB was launched focusing on education in Rajasthan, India. Educate Girls will run programs with the goal of increasing student academic performance as well as increasing attendance of female students. Upfront investment is provided by the UBS Optimus Foundation, and if Educate Girls demonstrates success, the Children's Investment Fund Foundation will repay investors, with repayment rates higher the greater the success. The setup is being managed by an intermediary, Instiglio (Perakis 2014).
Applications to date	Besides the Rajasthan DIB mentioned above, 13 education-related SIBs have been implemented in the US and UK, 12 of which focus on vocational education. Ten have been implemented by the Department of Work and Pensions in the UK to reduce unemployment among young people, and one each has been implemented in Massachusetts and New York to improve employment outcomes among those who have been formerly incarcerated. The final education SIB focuses on improving preschool education in Utah (Bloomgarden et al. 2014).

Teacher Performance Pay	
Definition and overview	In a performance-based payment model, teachers receive payments based on their performance along certain metrics. Payments are most commonly based upon outcomes (e.g. student performance on assessments), but can also be based upon outputs or intermediate outcomes (e.g. attendance). Performance payment can take place at the individual level (in which one teacher receives payments based on his/her performance) or at the group level (where all teachers at a school receive payments based on the overall performance of the school) (Bruns et al. 2011).
Differentiating characteristics from other forms of RBF	Unlike any of the other forms of RBF reviewed, performance pay is targeted at teachers, rather than the school or provider level, like OBA, or at the student level, as in CCTs.
Major advantages and risks	In theory, linking teacher pay to student performance should improve outcomes by aligning teacher incentives. Evidence is mixed: there is some evidence that performance pay is effective in improving student test scores in India, Israel, and Kenya, though no effect was found in multiple studies conducted in the US (Loyalka 2015). Tying pay to teacher performance risks creating perverse incentives, such as incentivizing teaching to the test, focusing only on students around the target performance threshold, and cheating. These risks point to the importance of having a payment setup that is well-designed (Muralidharan 2011; Lavy 2007). Lavy (2007) emphasizes that the system must "align performance with ultimate outcomes and must be monitored closely to discourage gaming if not outright fraud in measured output. Goals should be attainable. Incentives should balance individual rewards with school incentives, fostering a cooperative culture but not at the expense of free riding. All teachers should be eligible for the incentive offered, but only a subset of teachers should be rewarded in practice. If too many teachers are rewarded, teachers may not need to exert much extra effort to benefit."

Illustrative example in education	A study conducted by Muralidharan and Sundararaman (2011) in India examined the effects of group and individual teacher bonuses tied to student exam performance. Both types of incentives were found to be effective in improving test scores through motivating more effective teaching, and incentives were found to be more cost-effective than providing school inputs. Another study in Kenya (Glewwe et al. 2010), looked at the impact of a performance pay program conducted by a Dutch NGO in Kenya. Teachers and headmasters were provided with non-cash prizes based on student performance. The program resulted in increased scores as well as increases in test preparation and student test taking.
Applications to date	The idea of tying teacher pay to performance has grown in political popularity, with a number of countries having implemented or attempted to implement performance pay (including the US, Australia, Brazil, Chile, Israel, and the UK) (Muralidharan 2011). Evaluations of performance pay programs have occurred in countries including India, Israel, Kenya, Brazil, and Chile (Bruns et al. 2011).

Conditional Cash Transfers (CCTs)	
Definition and overview	Conditional cash transfers (CCTs) provide regular cash payments to individuals or families conditional on some behavior, such as a child enrolling in school and attending regularly, sometimes with a performance requirement. CCTs vary significantly in scope. Some programs are nationwide, some are niche programs that serve a narrow target population, and others are small-scale pilot efforts. Some programs require that households receiving transfers comply only with schooling conditions; others, especially programs in Latin America and the Caribbean, combine both schooling and health conditions (Fiszbein et al. 2009).
Differentiating characteristics from other forms of RBF	CCTs differ from other forms of RBF in a few important ways: • *Demand-side only:* CCTs are transferred to individual households and/or students, and the incentives are designed to influence behavior at that level (as opposed to at the level of the service provider or government). This is the main reason why CCTs do not meet the definition of OBA, because they "do not involve contracts with service providers and do not transfer risk to service providers by linking output delivery to subsidy disbursements." (Mumssen et al. 2010). Thus while OBA involves a supply-side subsidy to providers to incentivize service delivery, CCTs focus on demand-side subsidies to incentivize individuals/families to use those services. • *Explicit targeting:* Given that CCTs directly target poor households and families, the targeting mechanisms used tend to be more precise and narrow than in other schemes. Most use a combination of geographic and household targeting (mainly via proxy means testing) (Fiszbein et al. 2009).
Major advantages and risks	A key advantage of CCTs is the stronger evidence behind their effectiveness. While evidence remains weak and practical examples limited for a number of RBF schemes, there is a large body of evidence related to CCTs and factors that contribute to their success (summarized in systematic reviews such as those by Fiszbein et al. 2009; Banerjee et al. 2013; Krishnaratne et al. 2013; DFID 2011; Kabeer et al. 2012). CCTs pioneered in Latin American countries built in best-practice monitoring and evaluation (DFID 2011), which set a strong precedent for CCTs to follow. Nonetheless, less is known about the impact of CCTs in certain regions (for example in sub-Saharan Africa) (DFID 2011). One off the advantages of CCTs is that they have been the impetus for developing poverty maps or household targeting systems in their countries, or for upgrades to them (particularly in Latin America): "it would not be an exaggeration to say that CCTs have moved forward the state of the art and standards for targeted programs generally" (Fiszbein et al. 2009). CCTs also have several disadvantages. For one, the evidence behind their impact on improving learning outcomes is less established. One reason for this may be that even if CCTs stimulate demand, the quality of education provided may be so low, that increased access does not lead to significant benefits (Fiszbein et al. 2009). This is one advantage that OBA has over CCTs, including in education, in that it can combine incentives that are both supply-side (by placing performance risk on providers) and demand-side (in some cases by providing tuition subsidies or stipends to students). Finally, some studies have shown that CCTs can have negative effects on siblings of children receiving the subsidies, who as a result may have to work more or whose schooling is deprioritized (Barrera-Osorio et al. 2008; Parker et al. 2006).
Illustrative example in education	PROGRESA in Mexico (later renamed *Oportunidades*), one of the first CCTs in education, launched in the mid-1990s and provided up to three years of monthly cash transfers to poor mothers whose children maintained an attendance rate of 85% or higher. The initiative led to a 3.5% increase in enrollment rates for students in grades in 1 through 8. Offering a premium on attendance for older children and girls, the initiative also increased transitions from elementary to junior secondary school by 11.1% and girls' enrollment by 14.8% (Schultz 2004). In addition to generating improvements in enrollment, recent evaluations are showing that CCTs can also have significant positive effects on learning outcomes (Trevino 2015).

Applications to date	CCTs have been applied extensively in education and health. In education, CCTs have been implemented primarily in Latin America and Asia. From the encouraging results shown by the Oportunidades CCT in Mexico, similar CCT programs emerged in over 25 other countries (e.g. Bolsa Familia in Brazil, Familias en Accion in Colombia). Given the costs associated with verification in the CCT model, examples of unconditional cash transfers (UCTs) have emerged as an attempt to increase cost-effectiveness. The evidence shows that these have had largely successful results. Bono de Desarrollo Humano (BDH) in Ecuador raised enrollment rates by 10% by creating the impression that conditionality existed through advertising and emphasizing the importance of schooling upon registering participants, without ever enforcing or monitoring enrollment or attendance (Schady et al. 2006). A "labeled" cash transfer in Morocco, in which there was no conditionality, but where transfers were explicitly labeled as an education support program, led to strong increases in school participation (Benhassine et. al 2013). Though innovative and in some cases impactful, UCTs overall have been found by Baird (et al. 2013) to not be as effective as CCTs that monitor compliance and penalize non-compliance.

Performance-based Scholarships	
Definition and overview	Performance-based scholarships are similar to CCTs in that they involve a cash transfer to individual students, but while CCTs are most often conditional on student enrollment and attendance rates, performance-based scholarships involve cash transfers tied to student academic performance. A number of programs target female students specifically (Petrosino et al. 2012).
Differentiating characteristics from other forms of RBF	Like CCTs, performance-based scholarships are targeted at the level of the individual student rather than the government or service provider. Unlike CCTs, they are exclusively merit-based (i.e. based on academic performance).
Major advantages and risks	Merit-based scholarship programs have been found to lead to improved test scores, enrollment and attendance (Krishnaratne et al. 2013, Petrosino et al. 2012), likely through motivating students to work harder in order to qualify for the scholarships (Kremer and Holla 2009). A risk of performance-based scholarships is that they risk more often going to students from wealthier families who are already more likely to attend school, and so may not increase the chance of students attending school or target students in need of support (Krishnaratne et al. 2013).
Illustrative example in education	In the Girls' Scholarship Program in Kenya, female students in grade six who scored in the top 15% on the district exam received a two-year award covering school fees and supplies for the remaining two years of primary school (Kremer and Holla 2009). The Female Stipend Program (FSP) in Bangladesh also involved a performance-based scholarship element (the precursor of the FSSAP discussed above). Created in 1982, the scheme sought to increase the enrollment and retention of girls in secondary schools. In addition to providing payments to students conditional upon attendance, it also required that girls obtain at least a 45% in annual school exams (Raynor et al. 2006).
Applications to date	There are only a few studies that have looked at the impact of financial incentives conditional on academic performance in developing countries. Existing evidence, however, suggests an important and encouraging role for financial incentives in improving academic performance, though further research and experimentation is necessary "to shed light on the efficacy of the various forms of performance incentives, their longer term impact, whether their impact varies across different sub-groups of students, and whether there is any evidence that these incentives lead to crowd-out of intrinsic effort" (Banerjee et al. 2013).

Annex 2: World Bank activity in results-based financing

The World Bank has actively engaged with RBF both in general and specifically in education over the past few years. This annex provides an overview of recent developments in RBF both within the World Bank and related to the World Bank, including: (i) the launch of a specific RBF instrument within the World Bank known as Program for Results, (ii) the inclusion of RBF in the Global Partnership for Education (GPE)'s new financing modality, and (iii) the launch of a new World Bank-managed multi-donor trust fund for RBF in education known as Results in Education for All Children (REACH).

Program for Results (PforR)

Program for Results (PforR) (with a discussion of Disbursement Linked Indicators (DLIs) and Sector-Wide Approaches (SWAps))	
Definition and overview	PforR is a loan instrument approved by the World Bank in 2012 to address projects not covered by the Bank's two main investment instruments: investment loans best suited to finance large capital *projects* (ILs), and development policy loans (DPLs) designed to encourage *policy* reforms (Gelb and Hashmi 2014). PforR is intended to bridge the gap between project side and policy side lending by financing service delivery programs and improving systems as well as outcomes, using disbursement-linked indicators (DLIs), which can be system-level improvements as well as project-level outputs or outcomes to issue payments (Gelb and Hashmi 2014). While PforR formalizes the use of DLIs, these have been in use by the World Bank in the education sector for many years (though these programs were not known as PforR). PforR projects differ from DLI projects in that they are exempt from Bank safeguard requirements (although PforR still requires the review and approval of recipient governments' corresponding systems, which can be time consuming and onerous). DLI's can include input financing as well as DLI financing in the same operation (and can disburse against recurrent costs), whereas PforR projects cannot. In the early days of their use, DLIs would not necessarily have to be directly linked to increasing learning outcomes, but rather were developed on a case by case basis to identify outcomes considered instrumental to achieving effective education systems in a particular context and linking the disbursement of financing to them (expert interview). Many of the seminal projects that the World Bank financed using DLIs in education were in Latin America and South Asia. Similarly, while PforR seeks to find a middle way between project-level and policy-level financing within the Bank, the notion that aid should be aligned and harmonized both among donors, and with recipient governments' strategies as a whole is not new. Sector Wide Approaches (SWAps), while not a financial modality in itself, nor inherently results-based, is an approach that was developed in the second half of the 1990s as an attempt to both achieve greater coherence among development agencies' approaches to providing development assistance, and to shift towards general budget support within a particular sector, in contrast to the practice up until that point which had been largely to finance individual and specific projects (Ridell 2007). This distinguishes SWAps from DLIs and PforR in that they were limited to providing general budget support for overall programs (or project support for specific aspects of overall programs) and not for outcomes or outputs of those programs. SWAps led to a focus on sector-specific issues and some degree of results, mainly around measures of policy change (expert interview). SWAps have also been applied in the education sector, though a review of the literature on education SWAps yields inconclusive evidence on their effectiveness in improving education outcomes (Skolnik et al. 2010).
Differentiating characteristics from other forms of RBF	Three key differentiating factors of PforR are as follows: • *Relevant governing ministry or branch is primary actor,* responsible for accepting funds and demonstrating results. For example, for an education project, this would be the Ministry of Education or another government body within the education sector (expert interview). However, coordinating ministries such as Finance Ministries are still required to sign off. • *Donor involvement in system improvement, while still focused on results/outputs.* Unlike COD, donors take an active role in agreeing with governments on steps they need to take to improve national systems, by setting DLIs to link payments to desired changes and process steps (Gelb and Hashmi 2014; expert interview). However, unlike OBA which tends to focus specifically on the outcomes of a particular service delivery program, PforR can incentivize both program outcomes and systems outcomes. • *Intended for large-scale use.* Though it is currently capped at 5% of World Bank lending, the Bank is open to the possibility that PforR will become a major lending modality. This contrasts with other types of RBF that are implemented as part of larger input-based aid programs (expert interview).

Major advantages and risks	Like COD proponents, PforR proponents argue that PforR can incentivize specific project-level outputs or outcomes. But PforR also has the flexibility of being able to create effective system-level improvements. While PforR can still include system or policy-level DLI's, unlike DPL's it does not require macro analysis or conditionality, and is limited to a particular expenditure program (expert interview). Moreover, PforR are longer term operations (usually 6-8 years), whereas DPL's are shorter term, which can lead to challenges in maintaining a long-term focus (expert interview). Additionally, targeting government sub-sectors rather than central governments or macro-level actors (as in COD or other forms of WB lending focused on the macro level such as Sector Wide Approaches (SWAps) or General Budget Support (GBS)), may allow for greater consistency of donor funding, as donors will be less likely to pull out after adverse events involving the central government, and allows the control over operations to remain in the hands of sector level actors (expert interview). One potential drawback to PforR of concern to some is its lack of independent social, environmental, and fiduciary safeguards, as included in other Bank lending modalities. Instead, PforR utilizes existing country safeguards. Because of this concern, the Bank has limited use of PforR to projects that do not pose significant financial, social, or environmental risk; however, this has raised questions about the widespread applicability of PforR. This is a particular concern if PforR becomes a significant portion of Bank lending (Gelb and Hashmi 2014; expert interview). However, this could also be seen as an advantage of PforR, in that it shifts the relationship between the Bank and the recipient away from a "parent-child" compliance relationship, to one more akin to management consulting, where country safeguard systems stand to be strengthened (expert interview).
Illustrative example in education	Big Results Now in Education (BRNEd) is an initiative launched by the president of Tanzania in 2013 and, in 2014, became the first education project approved by the World Bank to receive support through a PforR mechanism. The program aims to increase learning outcomes of students in primary and lower secondary schools country-wide through initiatives including school rankings, school assessments, school incentive grants, and teacher training. Progress is measured through performance of grade two students on reading and numeracy assessments, teacher attendance, and teacher knowledge in math and languages. DLIs are tied to process, output, and outcome indicators such as improved results monitoring, effective implementation of BRNEd interventions, and incentivizing improved student performance (World Bank 2014a).
Applications to date	Besides BRNEd, 11 PforR programs have been approved by the Bank, four of which are currently in the implementation phase. Another 17 are under preparation. Of these projects, 7% of funding is devoted to the education sector (Gelb and Hashmi 2014; World Bank 2014). Seminal examples of the World Bank's use of DLI's in the education prior to the introduction of PforR include the Punjab Education Project in Pakistan, and the Sindh Education Project in Pakistan.[44] These were the first results-based education sector operations in IDA countries, with disbursements tied to pre-specified annual implementation progress and performance targets (DLIs). The DLIs captured intermediate results, central to the medium-term achievement of the project development objectives. Education SWAps have been applied in a number of countries, including Uganda, Nepal, and Brazil.[45]

[44] For more information on these two projects, see relevant Implementation Completion and Results Reports for Sindh Education Sector Project (SEP) and Punjab Education Sector Project (PESP).

[45] See Skolnik et al. (2010) p. 14 for a review of some key education SWAps, as well as the World Bank-funded Recife Education and Public Management Project for Brazil.

New Global Partnership for Education Financing Model

The announcement made by the Global Partnership for Education (GPE) in 2014 that it plans to introduce a results-based component to its 2015-2018 funding cycle is likely to alter the landscape of education RBF in the coming years. GPE is the only multilateral partnership focused exclusively on education, and is comprised of close to 60 developing countries, donor governments, international organizations, the private sector, teachers, and civil society/NGO groups. The new financing model seeks to more directly support the achievement of results at the country level, through (1) expanded eligibility criteria, (2) a needs-based allocation formula, and importantly for this analysis, (3) a **new results-based approach**. This new results-based approach will have two key components:

GPE therefore plans to become a key player in the RBF sector in education, focusing explicitly on incentivizing results in basic education at the country level. Given that the World Bank serves as the supervising entity for 75% of GPE projects, any initiative that implicates GPE in RBF automatically does so for the World Bank too, and leads to the need to build World Bank capacity in this area. This has led to the launch of a new trust fund, described further below.

Overview of GPE RBF funding modality

New performance requirements: *In order to receive the first 70% of its financing allocation, each member country supported by its partners must achieve the following performance benchmarks:*

- Produce a credible, costed, evidence-based and workable Education Sector Plan that international and domestic partners have endorsed and committed to implementing,
- Commit to implementing an education sector analysis and strengthening data collection and the management and information system, and
- Commit to raising its own domestic spending on education (up to at least 20 percent of the national budget) and to tapping additional external financing.

Performance Incentives: *In order to receive the remaining 30% of its financing allocation, developing countries must demonstrate significant performance results in three primary categories that align with the Global Partnership's strategic goals:*

- Equity (e.g. girls, disabilities)
- Efficiency (e.g. more effective, equitable and efficient education sector financing)
- Learning outcomes.

This last part of the funding model is explicitly results-based. The performance standards will vary depending on the development situation in each country: some countries will be able to measure progress in the number of children attending school and learning, while others need intermediate milestones such as adopting stronger policies and strategies or implementing key actions to move towards improved results. (Source: GPE 2014).

[46] See REACH website for more information: http://www.worldbank.org/en/programs/reach

Results in Education for All Children (REACH)

Within the World Bank, a new multi-donor trust fund was launched in 2015 called *Results in Education for All Children* (REACH), a fund whose goal is to support RBF in education (expert interview).[46] For GPE to be able to link 30% of countries' financing to results, recipient countries first need to have the preconditions in place to be able to finance activities at the country-level in a results-based way (e.g. appropriate systems, teacher incentives, policies, etc.) (expert interview). The result is the launch of REACH, currently funded by the Norwegian Agency for Development Cooperation (Norad) and the United States Agency for International Development (USAID) to support the establishment of these preconditions. REACH also seeks to build an evidence base on what works in RBF by testing RBF interventions in education.

Closely modeled on an existing and similar fund in the health sector – the Health Results in Innovation Trust Fund (HRITF), REACH has two main financing streams. The first is Country Program Grants, limited to IDA countries for co-financing country programs. The majority will be implemented by recipient governments (recipient-executed), but some will be implemented by the World Bank (World Bank-executed) for preparation, supervision, and impact evaluation. The second stream is Knowledge, Learning, and Innovation (KLI) grants. The core of REACH centers on strengthening country systems for RBF, and on improving relationships between service providers and country governments to increase the potential for successful and effective RBF (expert interview). In terms of sector and strategic focus, REACH is closely aligned with the current **World Bank Education Sector Strategy** (World Bank 2011b), that emphasizes **strengthening and reforming country systems and moving away from financing inputs**. Given the focus on IDA countries, REACH is likely to emphasize pre-school, primary, and secondary level education, with less of an emphasis on adult or second-chance learning (expert interview). To date two Country Program Grants have been approved, along with eight Knowledge, Learning, and Innovation grants (expert interview).

Annex 3: Interviewed stakeholders

The following sector experts were interviewed as part of this study:

- **Alan Gelb**, Center for Global Development
- **Arun Joshi,** World Bank
- **Beth King**, Former World Bank
- **Drew von Glahn,** World Bank
- **Peter Anthony Holland**, World Bank
- **Ravi Kanbur**, Cornell University
- **Rita Perakis**, Center for Global Development
- **Robin Horn**, Children's Investment Fund Foundation
- **Simon Mizrahi,** African Development Bank

Representatives from the following OBA education projects were interviewed in the preparation of this report:

- Big Results Now in Education (BRNEd)
- Chile Lifelong Learning and Training Project
- Cordaid (all projects)
- Girl's Education Challenge (GEC)
- KiuFunza – Thirst to Learn
- Lagos Eko Secondary Education Support Project
- Punjab Education Foundation - Foundation Assisted Schools Program (FAS)
- Skills Development Project
- Social Protection Development Project
- Vietnam Upper Secondary Education Enhancement Project[47]

[47] Interviewed in the context of a beneficiary assessment of the project conducted by R4D.

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